Full wwPDB EM Validation Report ⓘ

Mar 12, 2026 – 02:52 PM UTC

PDB ID	:	4V6Q / pdb_00004v6q
EMDB ID	:	EMD-5363
Title	:	Structural characterization of mRNA-tRNA translocation intermediates (class 5 of the six classes)
Authors	:	Agirrezabala, X.; Liao, H.; Schreiner, E.; Fu, J.; Ortiz-Meoz, R.F.; Schulten, K.; Green, R.; Frank, J.
Deposited on	:	2011-12-08
Resolution	:	11.50 Å(reported)
Based on initial model	:	2I2U

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references ⓘ) were used in the production of this report:

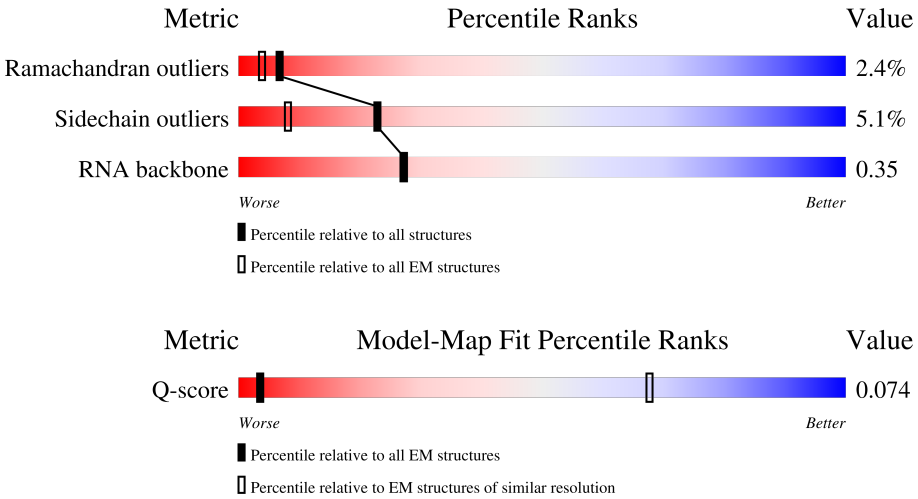
EMDB validation analysis	:	0.0.1.dev132
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13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

1 Overall quality at a glance

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

The reported resolution of this entry is 11.50 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	117 (11.00 - 12.00)

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

Mol	Chain	Length	Quality of chain
1	AA	1542	7% 37% 45% 11%
2	AB	76	7% 38% 37% 18%
3	AC	47	9% 6% 28% 36% 30%
4	AD	77	· 44% 42% 10%

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Mol	Chain	Length	Quality of chain
5	AE	240	5% 55% 39% 6%
6	AF	232	59% 39%
7	AG	205	57% 40%
8	AH	166	59% 39%
9	AI	135	56% 40%
10	AJ	178	55% 38% 7%
11	AK	129	50% 47%
12	AL	129	47% 50%
13	AM	103	55% 40% 5%
14	AN	128	56% 43%
15	AO	123	51% 41% 7%
16	AP	117	56% 43%
17	AQ	100	52% 45%
18	AR	88	56% 41%
19	AS	82	57% 40%
20	AT	83	49% 51%
21	AU	74	54% 38% 8%
22	AV	91	55% 38% 7%
23	AW	86	53% 47%
24	AX	70	40% 54% 6%
25	BA	120	7% 43% 39% 11%
26	BB	2904	7% 38% 44% 11%
27	BC	234	57% 40%
28	BD	272	51% 45%
29	BE	209	51% 43% 6%

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Mol	Chain	Length	Quality of chain
30	BF	201	55% 40% 5%
31	BG	178	51% 39% 10%
32	BH	176	54% 41% 5%
33	BI	149	12% 62% 34%
34	BJ	164	9% 62% 37%
35	BK	141	67% 31%
36	BL	142	52% 44%
37	BM	123	59% 33% 8%
38	BN	144	53% 44%
39	BO	136	60% 39%
40	BP	127	49% 48%
41	BQ	117	55% 43%
42	BR	114	58% 39%
43	BS	117	47% 47% 6%
44	BT	103	51% 45%
45	BU	110	48% 47% 5%
46	BV	100	55% 41%
47	BW	103	46% 52%
48	BX	94	57% 40%
49	BY	84	62% 31% 7%
50	BZ	77	51% 48%
51	B0	63	48% 48% 5%
52	B1	58	64% 33%
53	B2	70	54% 39% 7%
54	B3	56	55% 39% 5%

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Mol	Chain	Length	Quality of chain
55	B4	54	
56	B5	46	
57	B6	64	
58	B7	38	

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 152351 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 site tRNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	N	O	P	S		
2	AB	76	1627	731	287	532	75	2	0	0

- Molecule 3 is a RNA chain called mRNA.

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

- Molecule 4 is a RNA chain called P site tRNA.

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AG	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	AH	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	AI	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	AJ	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	AK	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	AL	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	AM	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	AN	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	AO	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	AP	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	AQ	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	AR	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	AS	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	AT	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	AU	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	AV	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	AW	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	AX	70	Total	C	N	O	S	0	0
			590	366	125	98	1		

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

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 23S ribosomal RNA.

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 L10.

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

- Molecule 35 is a protein called 50S ribosomal protein L11.

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

- Molecule 36 is a protein called 50S ribosomal protein L13.

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

- Molecule 37 is a protein called 50S ribosomal protein L14.

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

- Molecule 38 is a protein called 50S ribosomal protein L15.

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

- Molecule 39 is a protein called 50S ribosomal protein L16.

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

- Molecule 40 is a protein called 50S ribosomal protein L17.

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

- Molecule 41 is a protein called 50S ribosomal protein L18.

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

- Molecule 42 is a protein called 50S ribosomal protein L19.

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

- Molecule 43 is a protein called 50S ribosomal protein L20.

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

- Molecule 44 is a protein called 50S ribosomal protein L21.

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

- Molecule 45 is a protein called 50S ribosomal protein L22.

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

- Molecule 46 is a protein called 50S ribosomal protein L23.

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

- Molecule 47 is a protein called 50S ribosomal protein L24.

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

- Molecule 48 is a protein called 50S ribosomal protein L25.

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

- Molecule 49 is a protein called 50S ribosomal protein L27.

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

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

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

- Molecule 51 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	B0	63	Total	C	N	O	S	0	0
			509	313	99	95	2		

- Molecule 52 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	B1	58	Total	C	N	O	S	0	0
			449	281	87	79	2		

- Molecule 53 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	B2	70	Total	C	N	O	S	0	0
			549	339	104	100	6		

- Molecule 54 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	B3	56	Total	C	N	O	S	0	0
			444	269	94	80	1		

- Molecule 55 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				AltConf	Trace
55	B4	54	Total	C	N	O	0	0
			441	284	81	76		

- Molecule 56 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	B5	46	Total	C	N	O	S	0	0
			377	228	90	57	2		

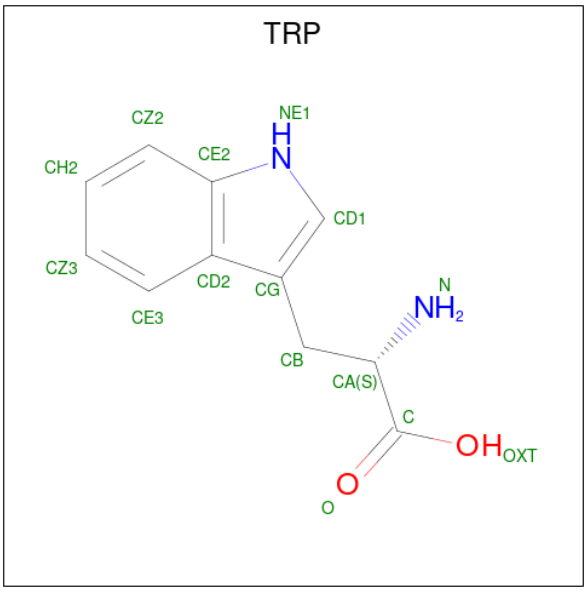
- Molecule 57 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	B6	64	Total	C	N	O	S	0	0
			504	323	105	74	2		

- Molecule 58 is a protein called 50S ribosomal protein L36.

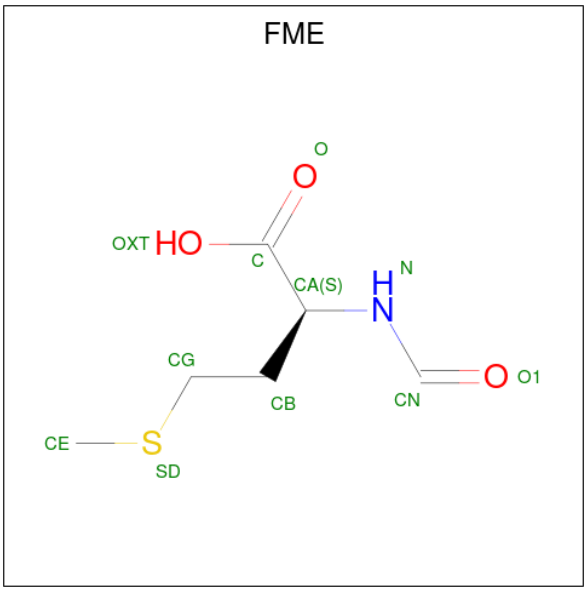
Mol	Chain	Residues	Atoms					AltConf	Trace
58	B7	38	Total	C	N	O	S	0	0
			302	185	65	48	4		

- Molecule 59 is TRYPTOPHAN (CCD ID: TRP) (formula: $C_{11}H_{12}N_2O_2$).



Mol	Chain	Residues	Atoms				AltConf
59	AB	1	Total	C	N	O	0
			14	11	2	1	

- Molecule 60 is N-FORMYLMETHIONINE (CCD ID: FME) (formula: $C_6H_{11}NO_3S$).



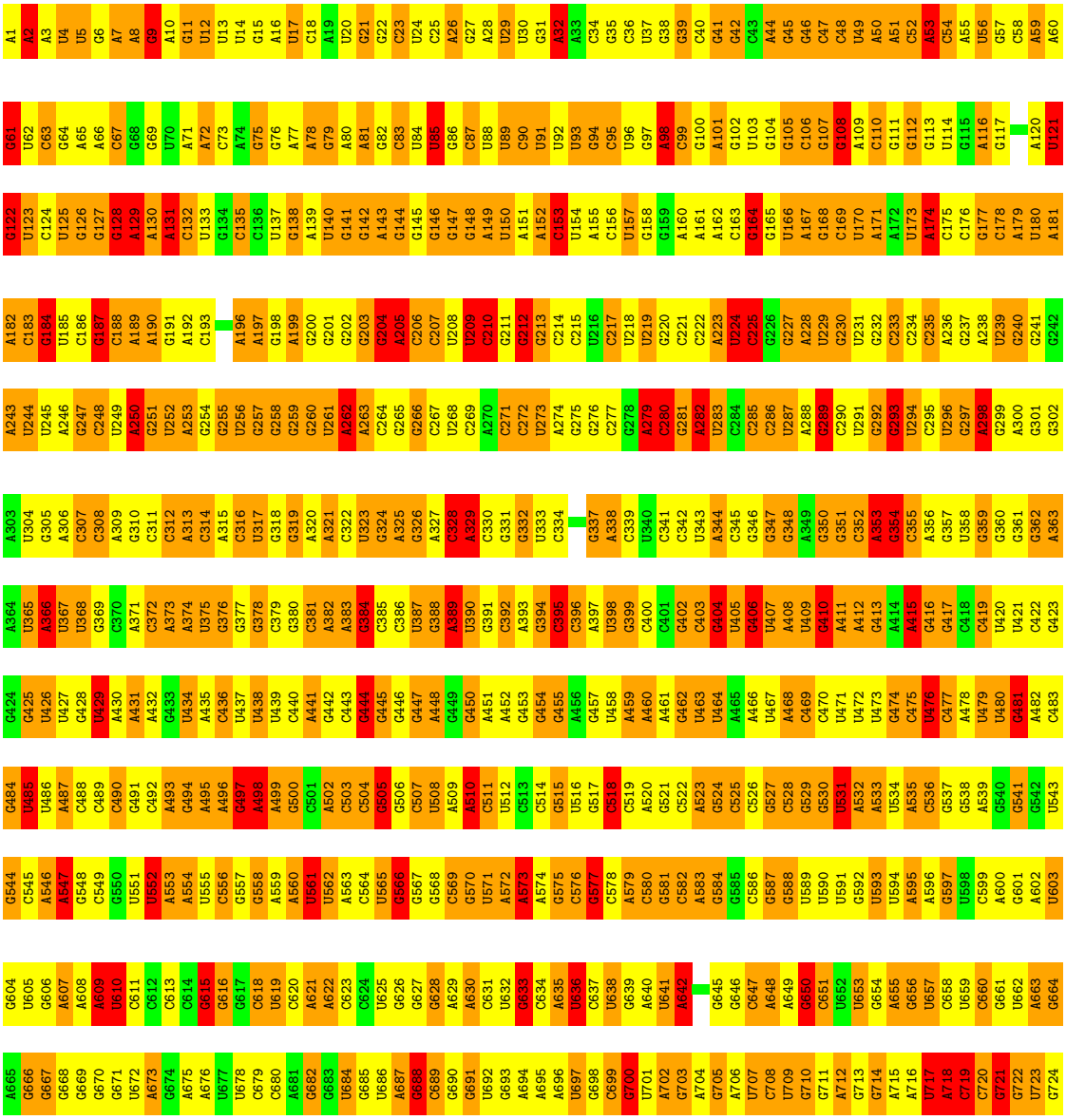
Mol	Chain	Residues	Atoms					AltConf
60	BB	1	Total	C	N	O	S	0
			10	6	1	2	1	

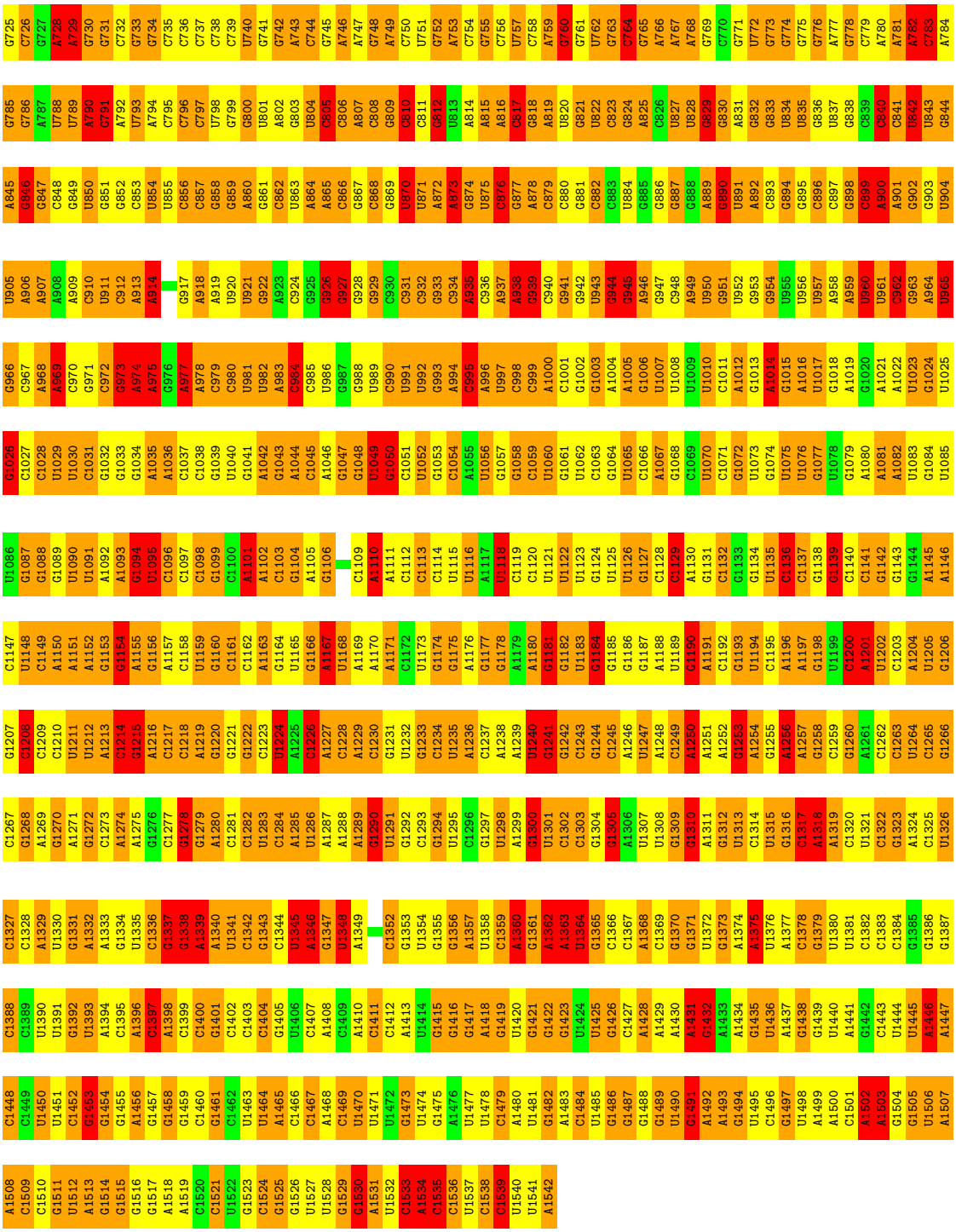
3 Residue-property plots (i)

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

- Molecule 1: 16S ribosomal RNA

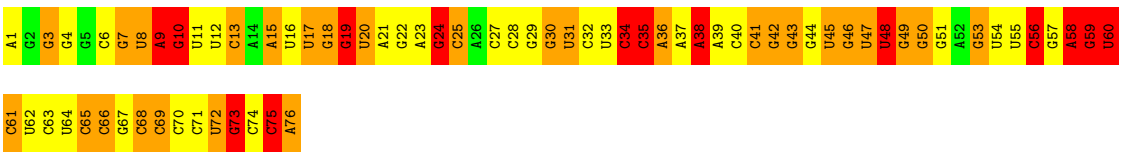
Chain AA: 7% 37% 45% 11%





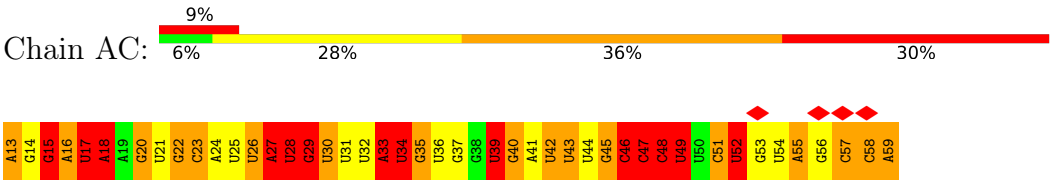
• Molecule 2: A site tRNA

Chain AB: 7% 38% 37% 18%



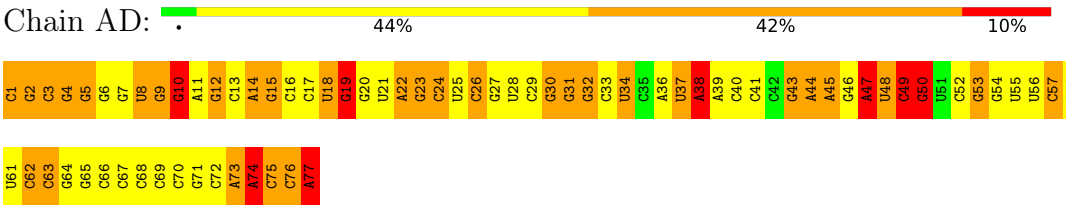
• Molecule 3: mRNA

Chain AC:



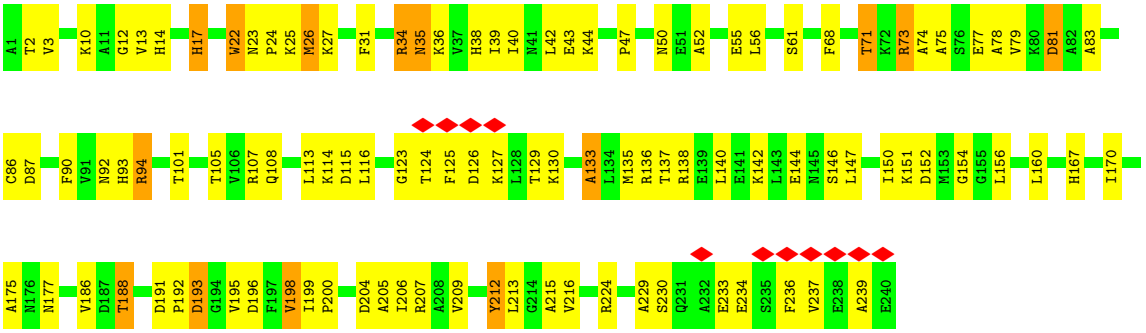
• Molecule 4: P site tRNA

Chain AD:



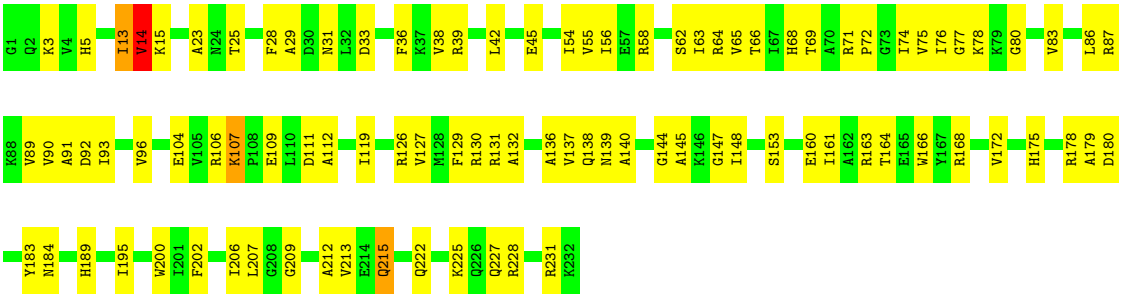
• Molecule 5: 30S ribosomal protein S2

Chain AE:



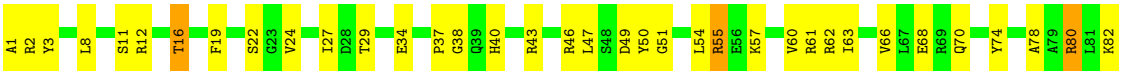
• Molecule 6: 30S ribosomal protein S3

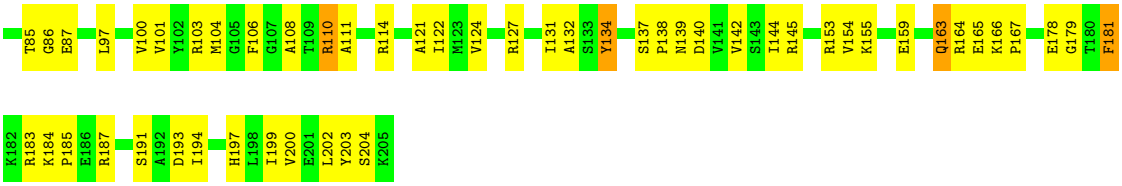
Chain AF:



• Molecule 7: 30S ribosomal protein S4

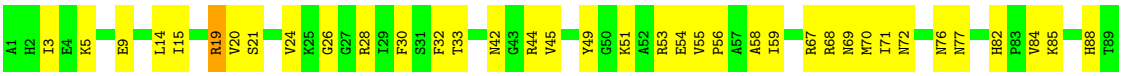
Chain AG:





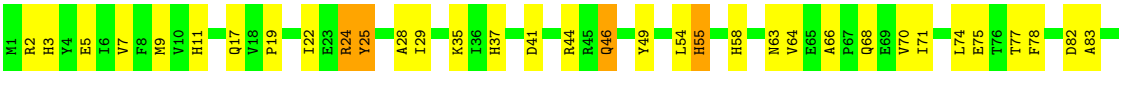
• Molecule 8: 30S ribosomal protein S5

Chain AH:



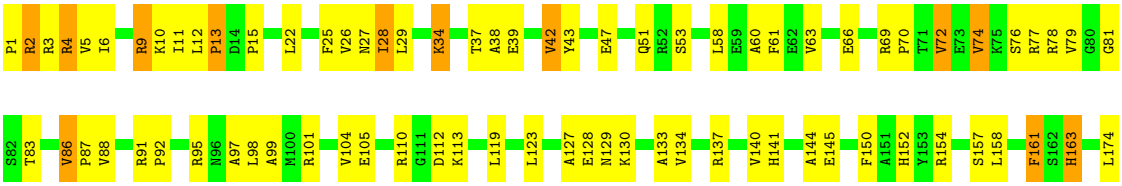
• Molecule 9: 30S ribosomal protein S6

Chain AI:



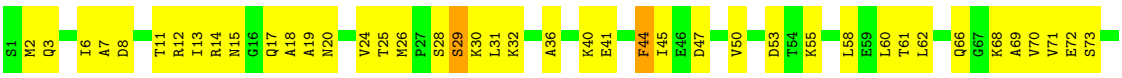
• Molecule 10: 30S ribosomal protein S7

Chain AJ:



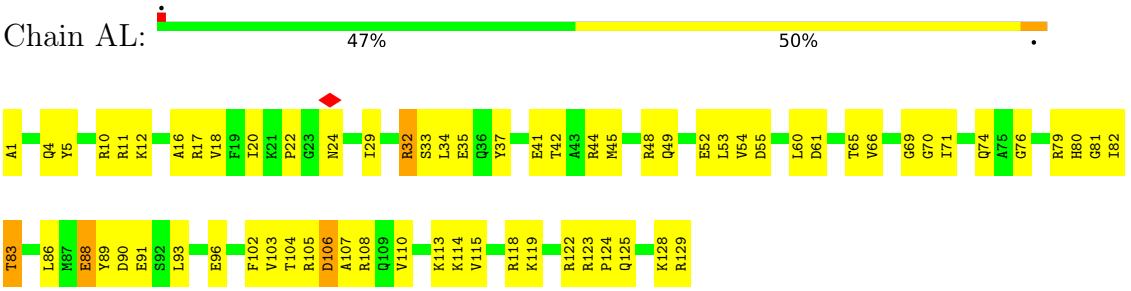
• Molecule 11: 30S ribosomal protein S8

Chain AK:



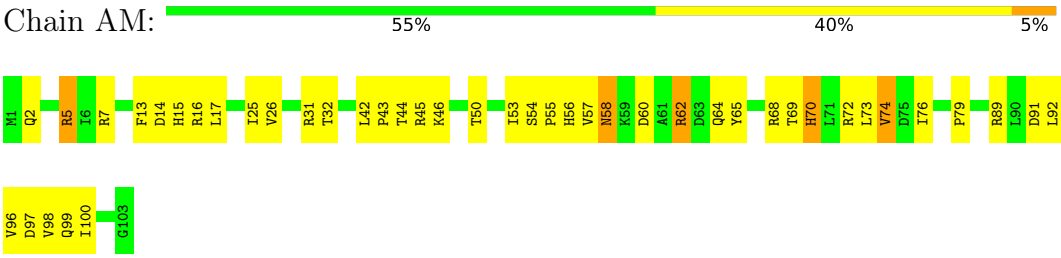
• Molecule 12: 30S ribosomal protein S9

Chain AL:



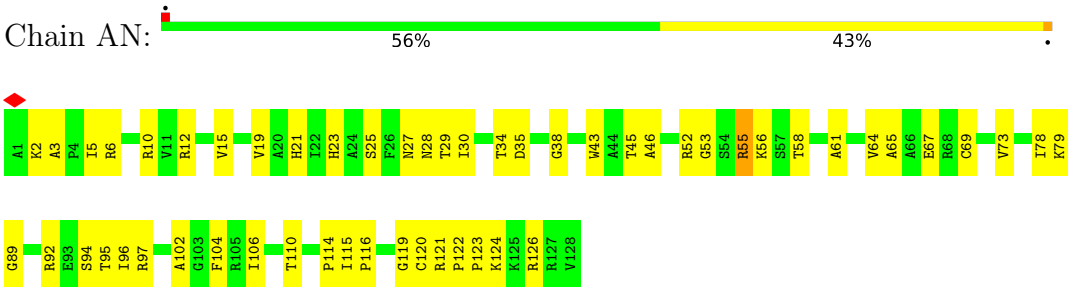
• Molecule 13: 30S ribosomal protein S10

Chain AM:



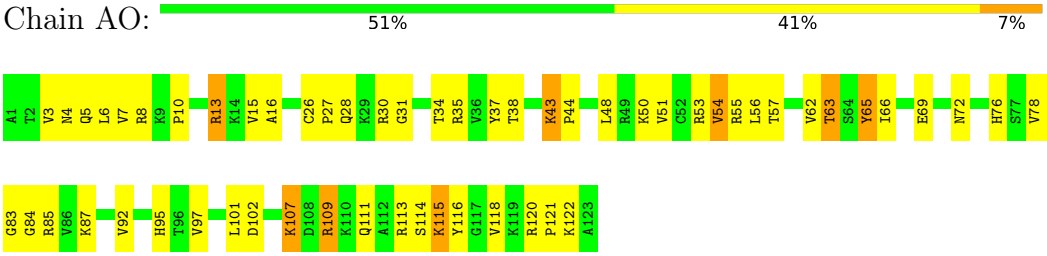
• Molecule 14: 30S ribosomal protein S11

Chain AN:



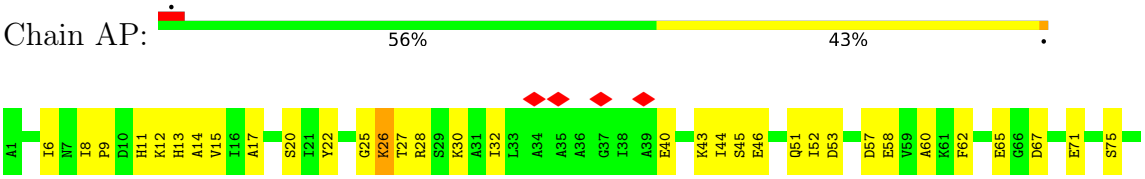
• Molecule 15: 30S ribosomal protein S12

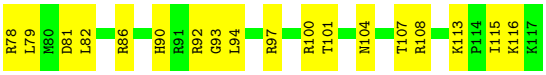
Chain AO:



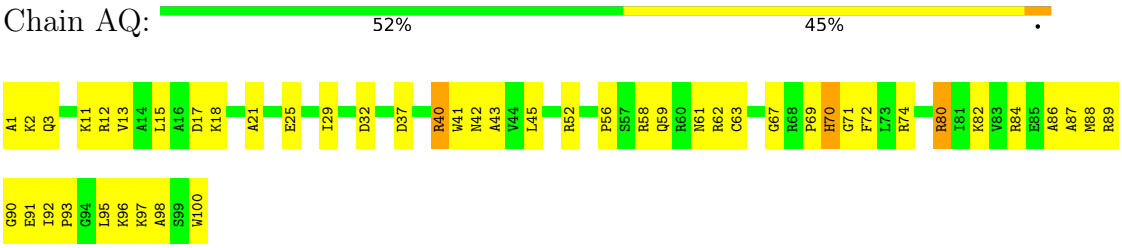
• Molecule 16: 30S ribosomal protein S13

Chain AP:

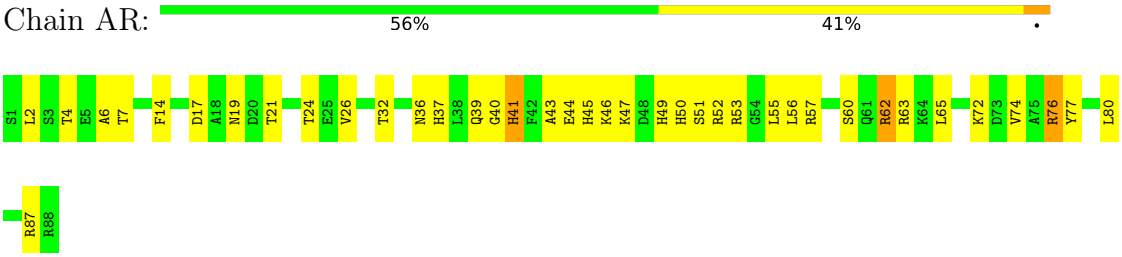




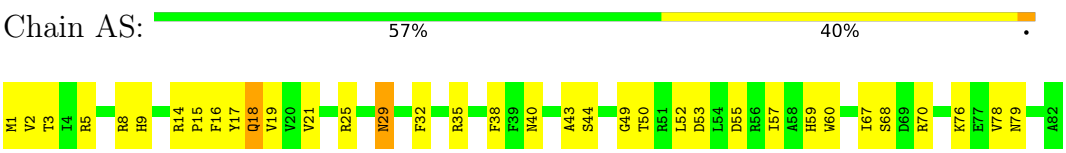
• Molecule 17: 30S ribosomal protein S14



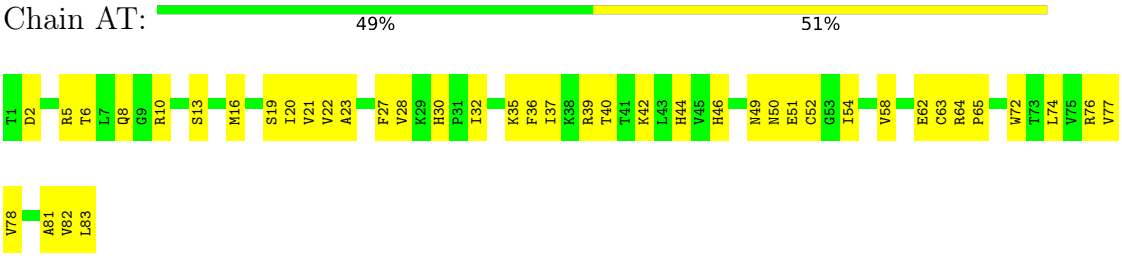
• Molecule 18: 30S ribosomal protein S15



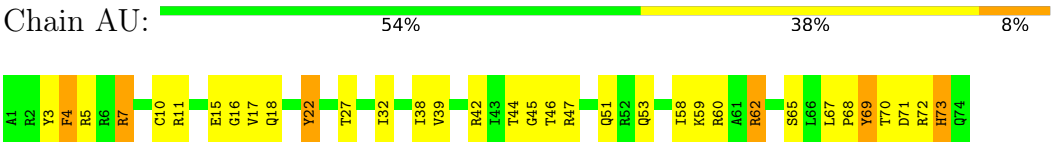
• Molecule 19: 30S ribosomal protein S16



• Molecule 20: 30S ribosomal protein S17

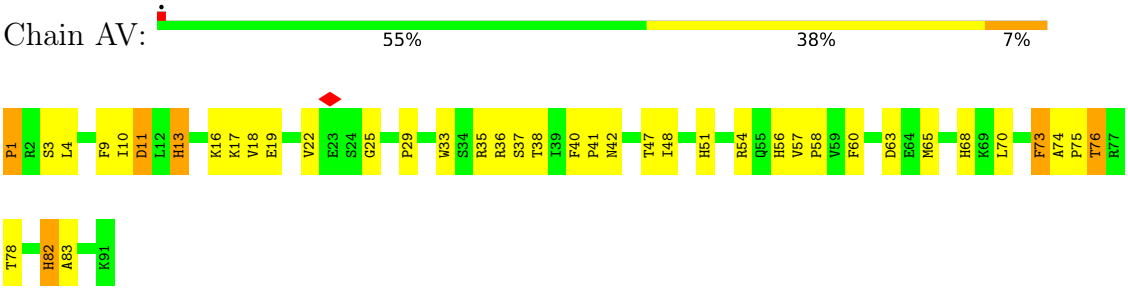


• Molecule 21: 30S ribosomal protein S18



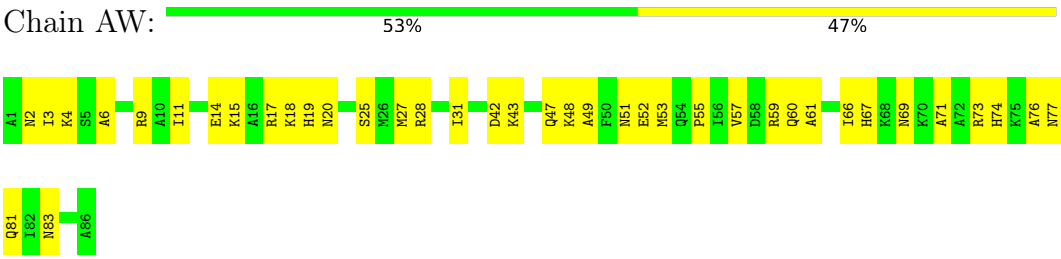
• Molecule 22: 30S ribosomal protein S19

Chain AV:



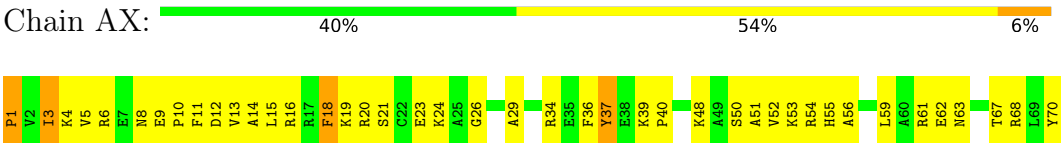
• Molecule 23: 30S ribosomal protein S20

Chain AW:



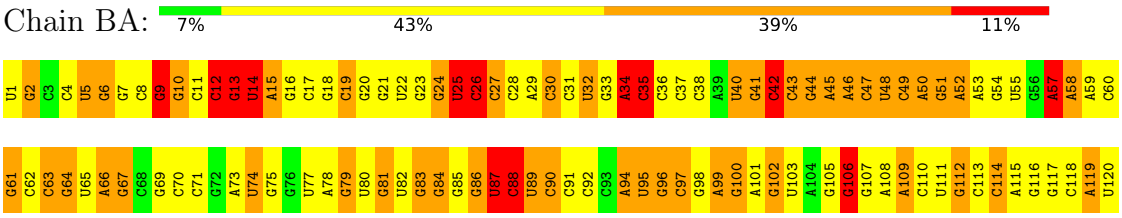
• Molecule 24: 30S ribosomal protein S21

Chain AX:



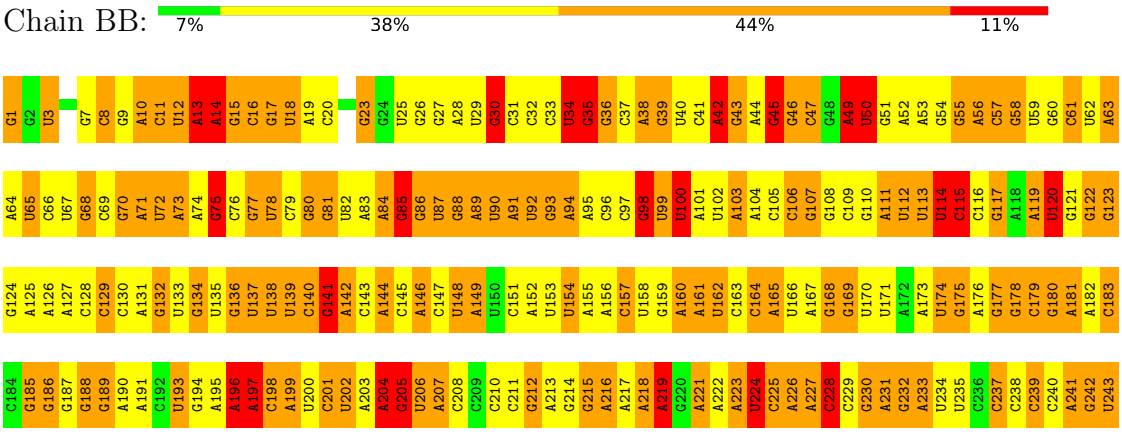
• Molecule 25: 5S ribosomal RNA

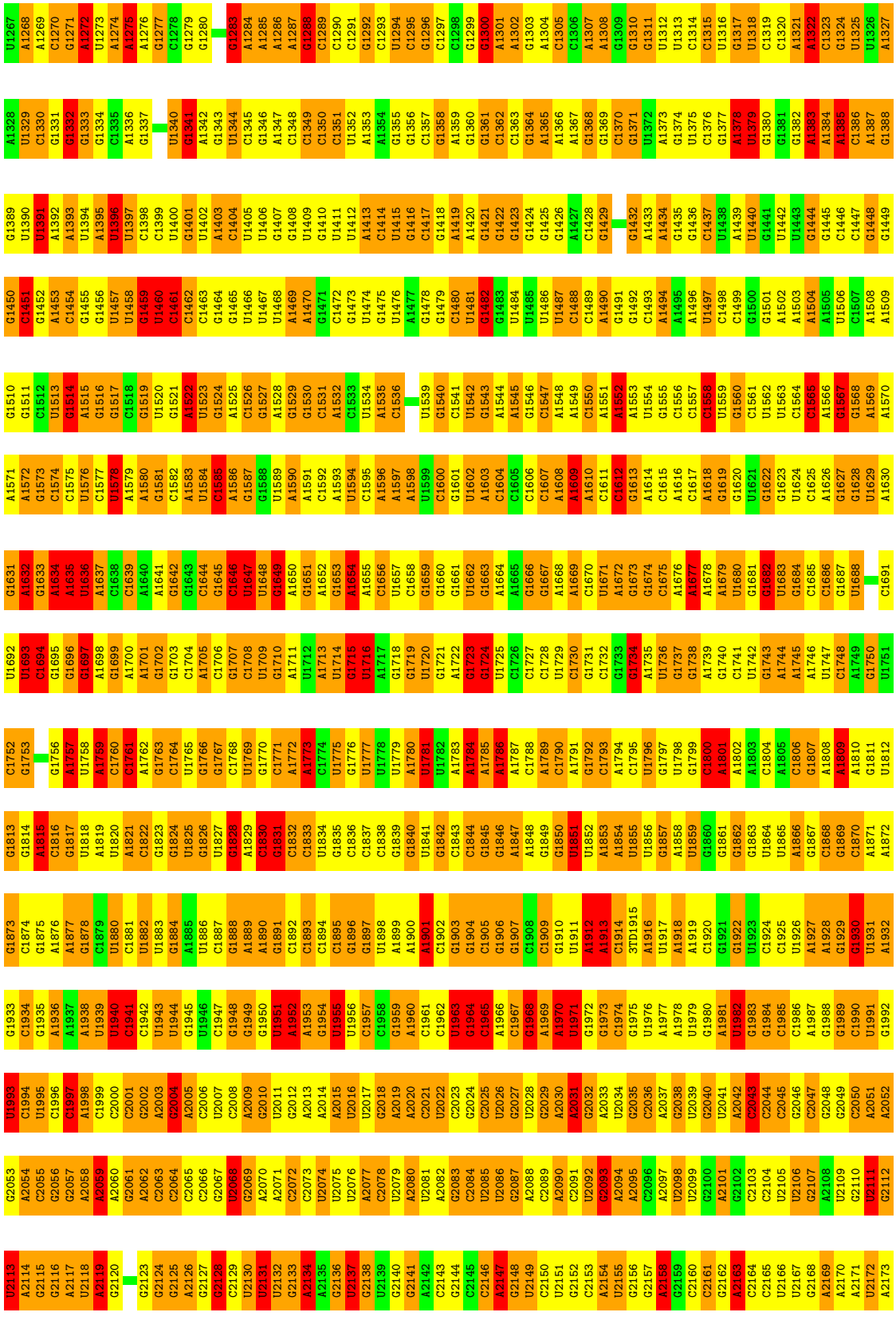
Chain BA:

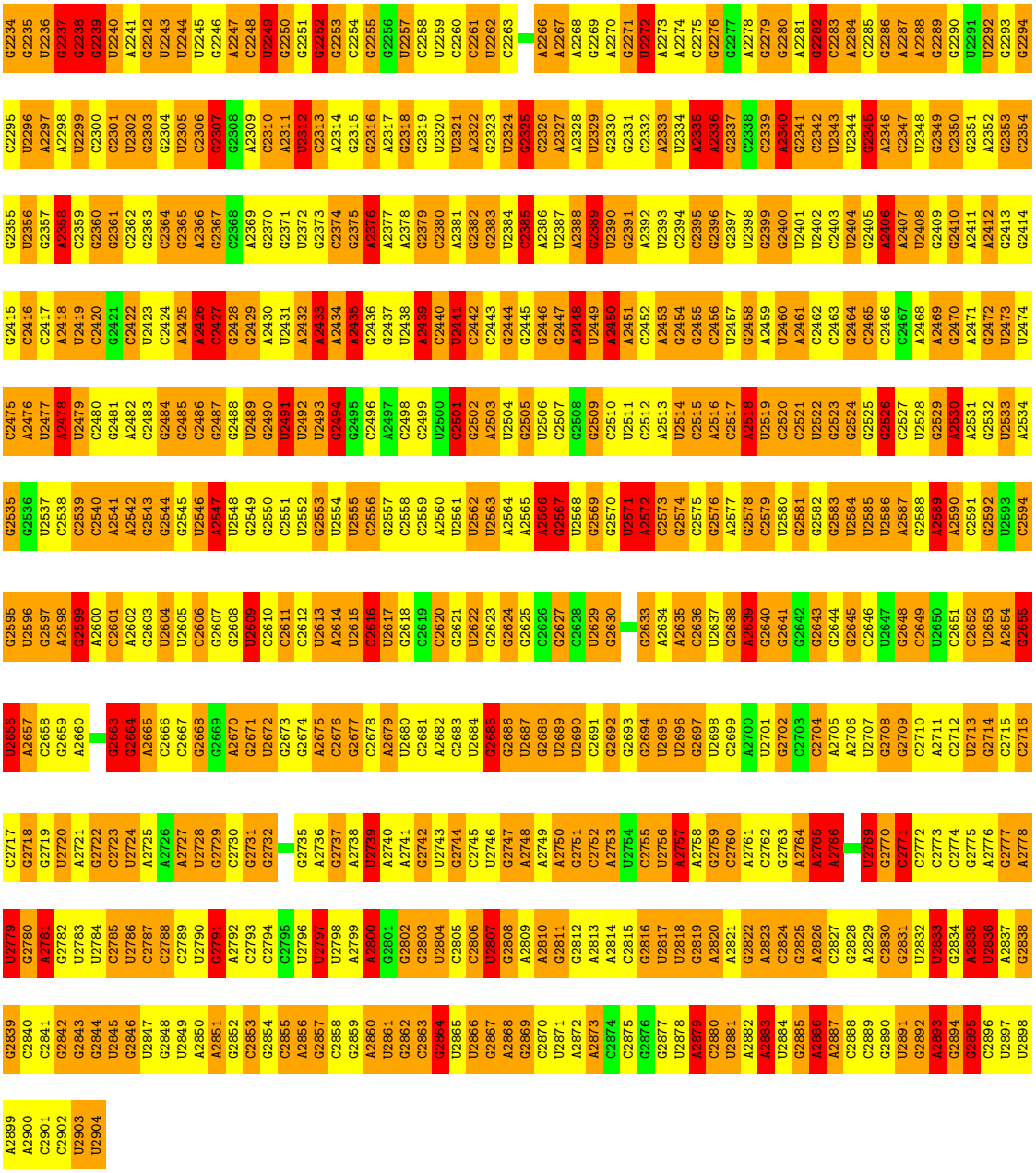


• Molecule 26: 23S ribosomal RNA

Chain BB:

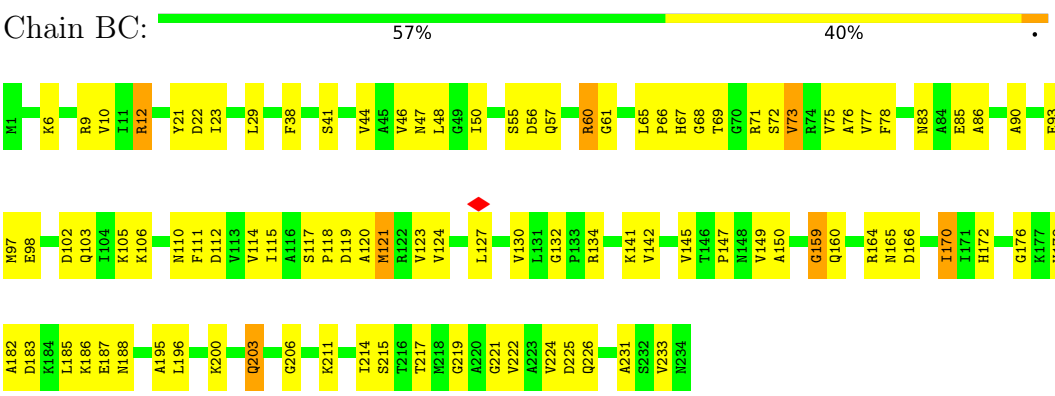






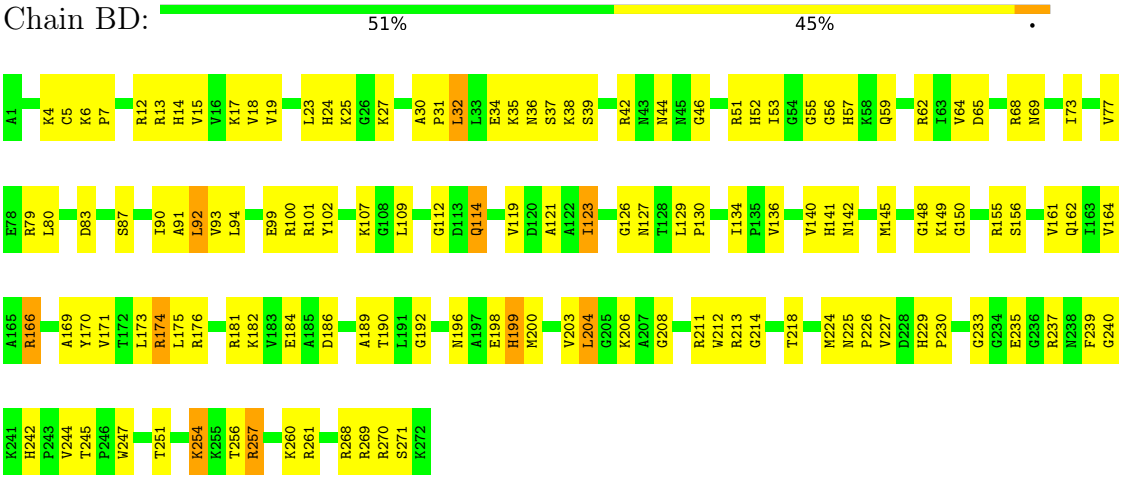
• Molecule 27: 50S ribosomal protein L1

Chain BC:



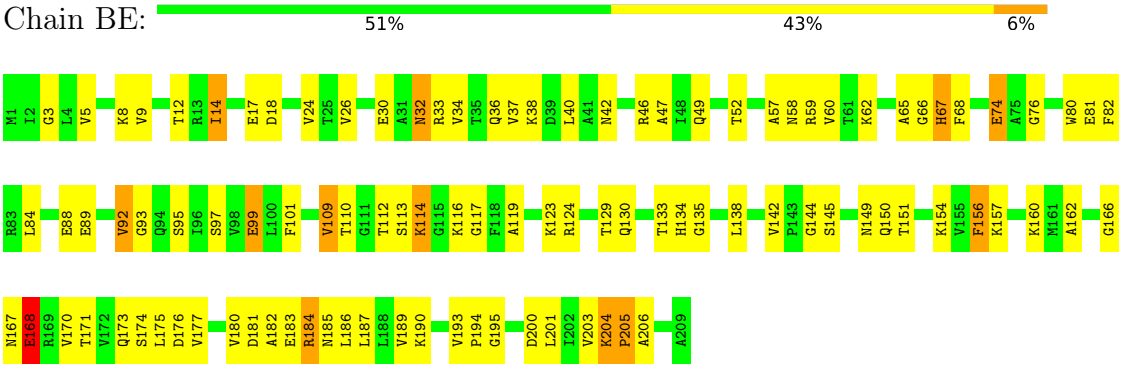
• Molecule 28: 50S ribosomal protein L2

Chain BD:



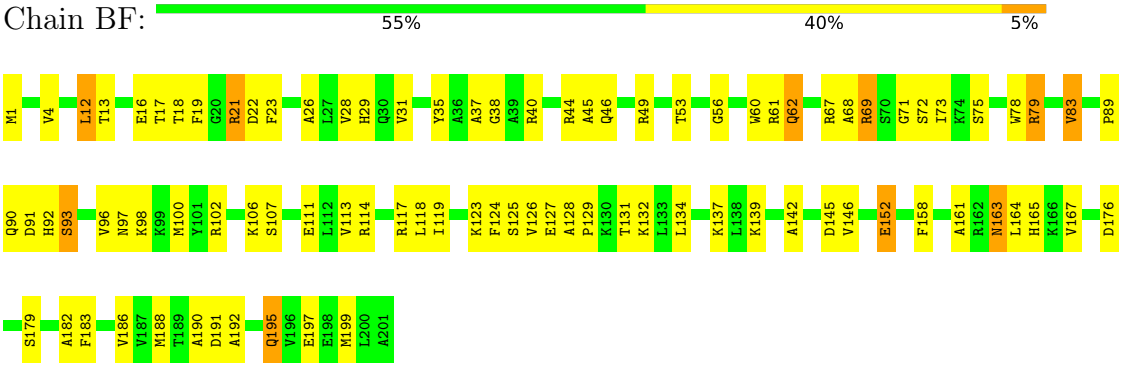
• Molecule 29: 50S ribosomal protein L3

Chain BE:



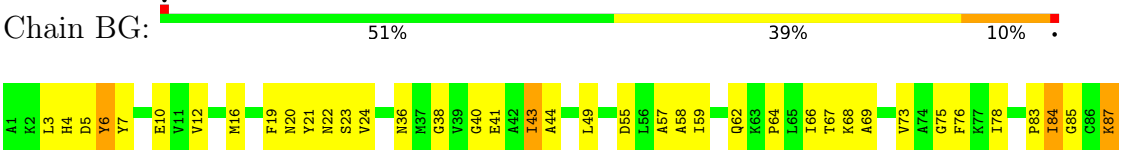
• Molecule 30: 50S ribosomal protein L4

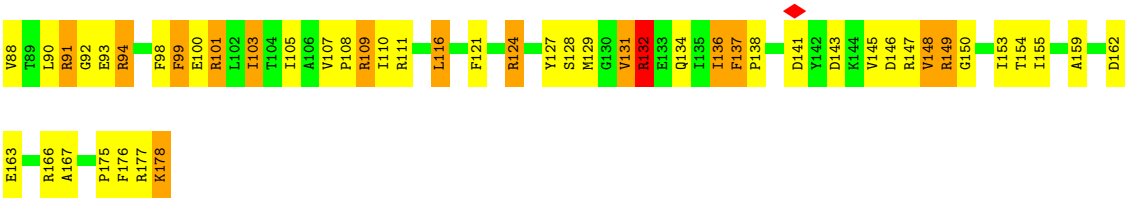
Chain BF:



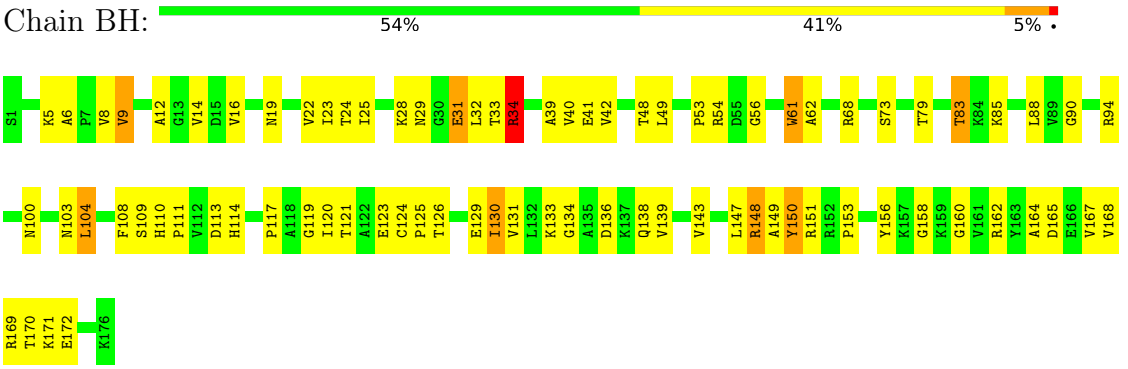
• Molecule 31: 50S ribosomal protein L5

Chain BG:

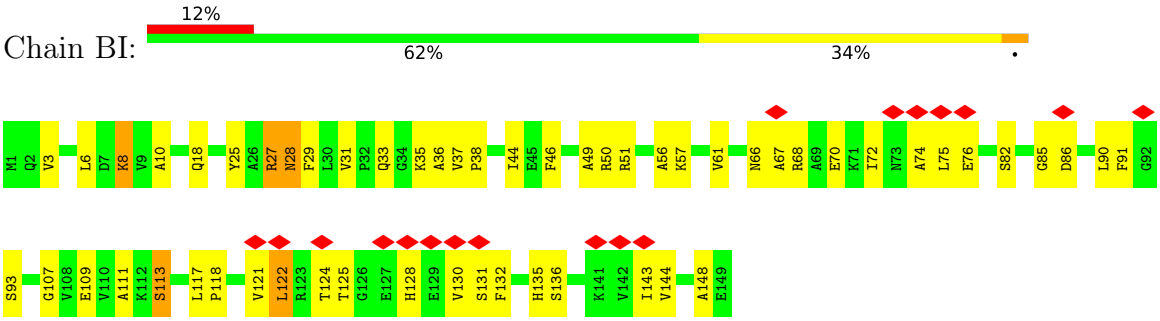




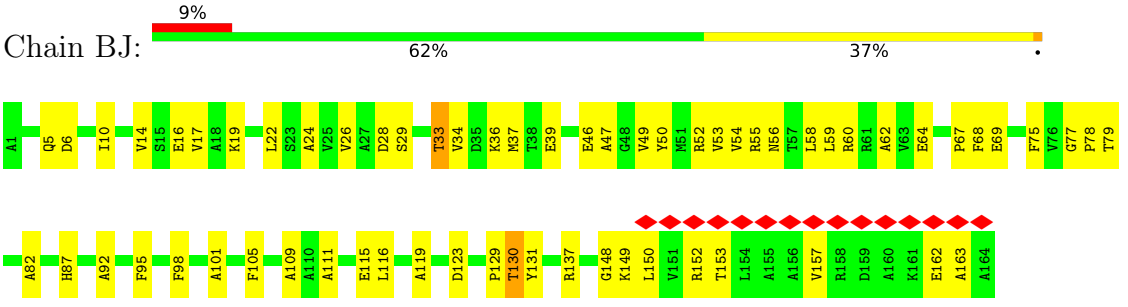
• Molecule 32: 50S ribosomal protein L6



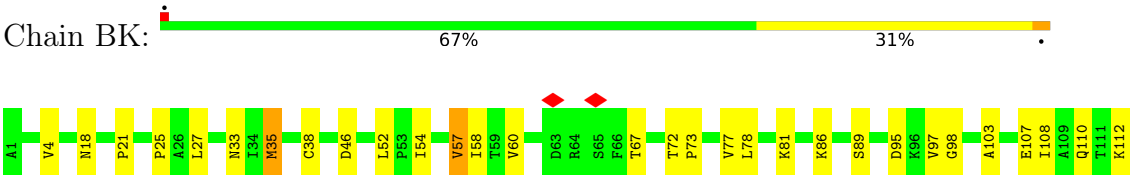
• Molecule 33: 50S ribosomal protein L9



• Molecule 34: 50S ribosomal protein L10

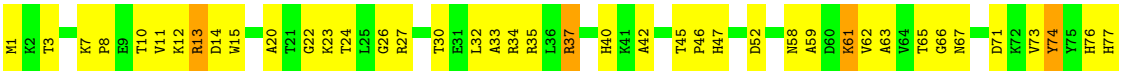


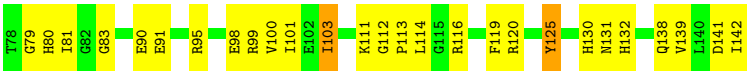
• Molecule 35: 50S ribosomal protein L11



• Molecule 36: 50S ribosomal protein L13

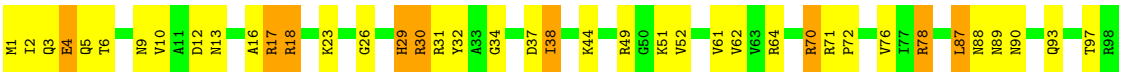
Chain BL:

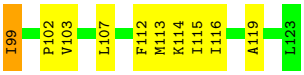




• Molecule 37: 50S ribosomal protein L14

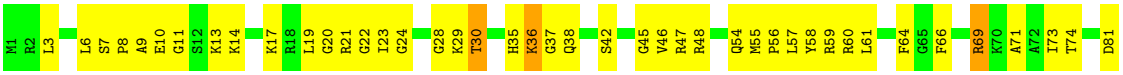
Chain BM:





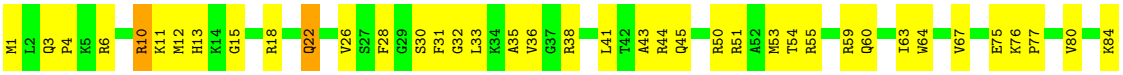
• Molecule 38: 50S ribosomal protein L15

Chain BN:



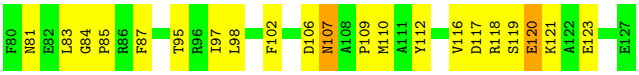
• Molecule 39: 50S ribosomal protein L16

Chain BO:



• Molecule 40: 50S ribosomal protein L17

Chain BP:

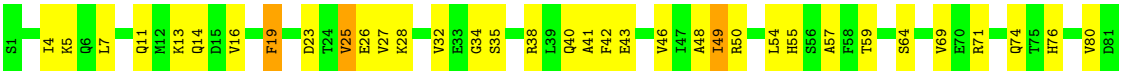


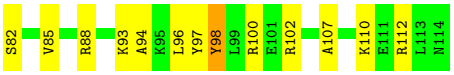
• Molecule 41: 50S ribosomal protein L18

Chain BQ:

• Molecule 42: 50S ribosomal protein L19

Chain BR:



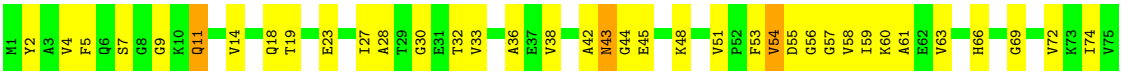


• Molecule 43: 50S ribosomal protein L20

Chain BS:

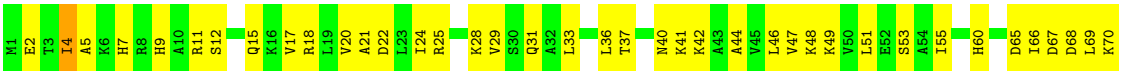
• Molecule 44: 50S ribosomal protein L21

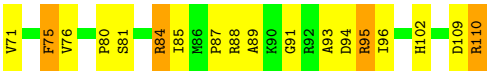
Chain BT:



• Molecule 45: 50S ribosomal protein L22

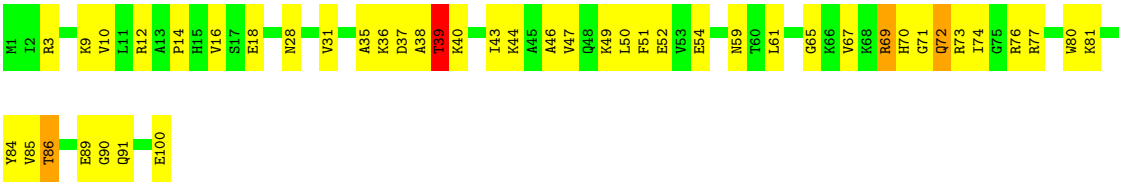
Chain BU:





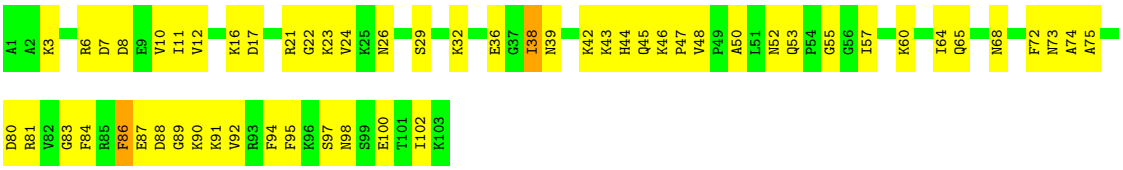
• Molecule 46: 50S ribosomal protein L23

Chain BV:



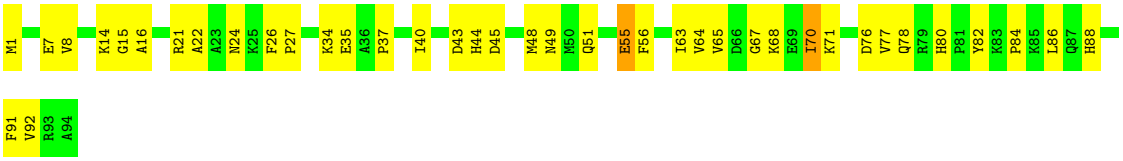
• Molecule 47: 50S ribosomal protein L24

Chain BW:



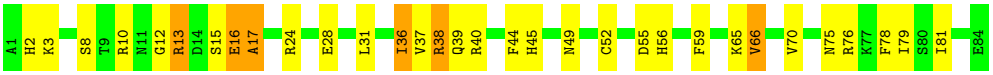
• Molecule 48: 50S ribosomal protein L25

Chain BX:



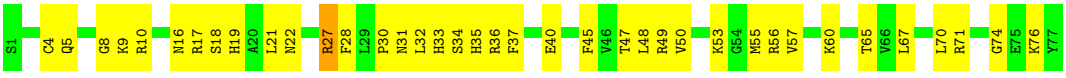
• Molecule 49: 50S ribosomal protein L27

Chain BY:



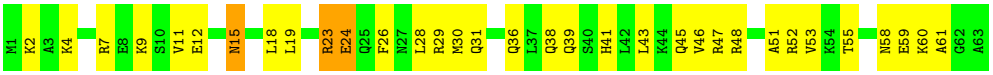
• Molecule 50: 50S ribosomal protein L28

Chain BZ:



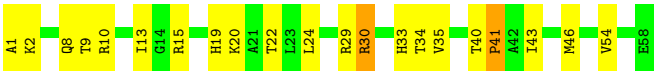
• Molecule 51: 50S ribosomal protein L29

Chain B0:



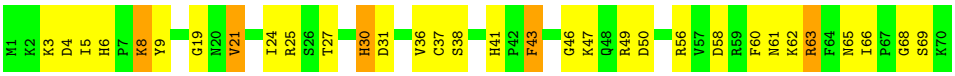
• Molecule 52: 50S ribosomal protein L30

Chain B1:



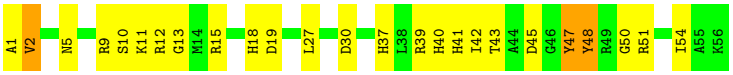
• Molecule 53: 50S ribosomal protein L31

Chain B2:



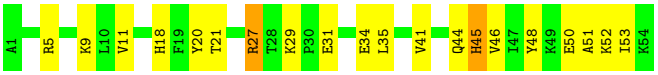
• Molecule 54: 50S ribosomal protein L32

Chain B3:



• Molecule 55: 50S ribosomal protein L33

Chain B4:



• Molecule 56: 50S ribosomal protein L34

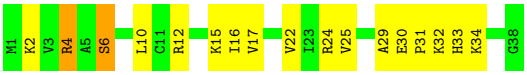
Chain B5:

• Molecule 57: 50S ribosomal protein L35

Chain B6:

• Molecule 58: 50S ribosomal protein L36

Chain B7:


M1
K2
V3
R4
A5
S6
L10
C11
R12
K15
I16
V17
V22
I23
R24
V25
A29
E30
P31
K32
H33
K34
G38

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	40000	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Volumes were CTF-corrected in defocus groups	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	25	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	58269	Depositor
Image detector	TVIPS TEMCAM-F415 (4k x 4k)	Depositor
Maximum map value	1.481	Depositor
Minimum map value	-0.504	Depositor
Average map value	0.029	Depositor
Map value standard deviation	0.201	Depositor
Recommended contour level	0.1	Depositor
Map size (Å)	375.0, 375.0, 375.0	wwPDB
Map dimensions	250, 250, 250	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.5, 1.5, 1.5	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

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	1.89	578/36769 (1.6%)	2.00	1955/57354 (3.4%)
2	AB	1.94	31/1600 (1.9%)	2.08	106/2492 (4.3%)
3	AC	1.91	15/1108 (1.4%)	2.07	63/1724 (3.7%)
4	AD	1.89	38/1721 (2.2%)	1.98	89/2683 (3.3%)
5	AE	1.99	37/1904 (1.9%)	2.43	113/2565 (4.4%)
6	AF	1.97	28/1852 (1.5%)	2.36	98/2490 (3.9%)
7	AG	1.99	33/1665 (2.0%)	2.39	91/2227 (4.1%)
8	AH	2.04	27/1239 (2.2%)	2.39	62/1664 (3.7%)
9	AI	2.01	20/1121 (1.8%)	2.51	67/1509 (4.4%)
10	AJ	2.00	30/1422 (2.1%)	2.40	76/1908 (4.0%)
11	AK	2.02	22/989 (2.2%)	2.39	56/1326 (4.2%)
12	AL	2.03	31/1048 (3.0%)	2.41	64/1394 (4.6%)
13	AM	2.03	20/835 (2.4%)	2.32	40/1127 (3.5%)
14	AN	2.06	29/982 (3.0%)	2.44	54/1323 (4.1%)
15	AO	2.11	30/969 (3.1%)	2.32	45/1300 (3.5%)
16	AP	1.98	18/919 (2.0%)	2.34	54/1226 (4.4%)
17	AQ	2.01	13/817 (1.6%)	2.42	51/1088 (4.7%)
18	AR	2.11	19/724 (2.6%)	2.43	35/966 (3.6%)
19	AS	2.02	11/659 (1.7%)	2.44	44/884 (5.0%)
20	AT	2.08	25/681 (3.7%)	2.35	35/913 (3.8%)
21	AU	1.89	9/637 (1.4%)	2.46	42/851 (4.9%)
22	AV	1.98	12/744 (1.6%)	2.50	56/995 (5.6%)
23	AW	2.05	14/676 (2.1%)	2.55	56/895 (6.3%)
24	AX	2.01	11/598 (1.8%)	2.42	37/792 (4.7%)
25	BA	1.91	49/2869 (1.7%)	2.00	155/4474 (3.5%)
26	BB	1.90	1161/69257 (1.7%)	1.98	3536/108040 (3.3%)
27	BC	1.95	31/1748 (1.8%)	2.45	112/2355 (4.8%)
28	BD	2.14	63/2131 (3.0%)	2.39	114/2863 (4.0%)
29	BE	2.04	38/1586 (2.4%)	2.42	101/2134 (4.7%)
30	BF	1.95	32/1571 (2.0%)	2.50	100/2113 (4.7%)
31	BG	1.97	29/1444 (2.0%)	2.43	89/1937 (4.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
32	BH	2.04	35/1343 (2.6%)	2.38	69/1816 (3.8%)
33	BI	1.92	13/1122 (1.2%)	2.44	69/1515 (4.6%)
34	BJ	1.94	17/1247 (1.4%)	2.35	71/1679 (4.2%)
35	BK	2.09	25/1046 (2.4%)	2.33	47/1410 (3.3%)
36	BL	2.02	24/1152 (2.1%)	2.39	65/1551 (4.2%)
37	BM	1.94	15/956 (1.6%)	2.31	46/1279 (3.6%)
38	BN	2.13	29/1062 (2.7%)	2.40	60/1413 (4.2%)
39	BO	2.05	24/1093 (2.2%)	2.42	60/1460 (4.1%)
40	BP	2.03	18/1021 (1.8%)	2.39	73/1364 (5.4%)
41	BQ	1.98	17/910 (1.9%)	2.40	50/1219 (4.1%)
42	BR	1.97	18/929 (1.9%)	2.36	36/1242 (2.9%)
43	BS	2.00	21/960 (2.2%)	2.46	68/1278 (5.3%)
44	BT	1.99	19/829 (2.3%)	2.26	42/1107 (3.8%)
45	BU	2.05	21/864 (2.4%)	2.40	52/1156 (4.5%)
46	BV	1.96	12/794 (1.5%)	2.30	45/1060 (4.2%)
47	BW	1.95	15/797 (1.9%)	2.43	54/1062 (5.1%)
48	BX	1.97	12/766 (1.6%)	2.34	39/1025 (3.8%)
49	BY	1.93	9/642 (1.4%)	2.37	31/848 (3.7%)
50	BZ	2.00	13/635 (2.0%)	2.40	38/848 (4.5%)
51	B0	2.04	12/510 (2.4%)	2.57	47/677 (6.9%)
52	B1	2.09	12/453 (2.6%)	2.38	25/605 (4.1%)
53	B2	1.99	9/559 (1.6%)	2.58	47/745 (6.3%)
54	B3	2.05	14/450 (3.1%)	2.40	24/599 (4.0%)
55	B4	1.95	6/448 (1.3%)	2.26	19/594 (3.2%)
56	B5	1.98	7/380 (1.8%)	2.49	25/498 (5.0%)
57	B6	2.06	10/513 (1.9%)	2.49	37/676 (5.5%)
58	B7	1.93	6/303 (2.0%)	2.46	16/397 (4.0%)
All	All	1.94	2937/164069 (1.8%)	2.11	8851/244735 (3.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	907
2	AB	0	36
3	AC	0	31
4	AD	0	44
5	AE	0	5
6	AF	0	2
7	AG	0	7

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Mol	Chain	#Chirality outliers	#Planarity outliers
8	AH	0	6
9	AI	0	5
10	AJ	0	5
11	AK	0	2
12	AL	0	6
13	AM	0	1
14	AN	0	1
15	AO	0	7
16	AP	0	1
17	AQ	0	3
18	AR	0	5
19	AS	0	2
21	AU	0	5
22	AV	0	3
23	AW	0	1
24	AX	0	3
25	BA	0	66
26	BB	0	1683
27	BC	0	3
28	BD	0	10
29	BE	0	5
30	BF	0	3
31	BG	0	9
32	BH	0	4
33	BI	0	2
34	BJ	0	5
35	BK	0	1
36	BL	0	9
37	BM	0	7
38	BN	0	5
39	BO	0	2
40	BP	0	3
41	BQ	0	4
42	BR	0	2
43	BS	0	2
44	BT	0	2
45	BU	0	4
46	BV	0	2
47	BW	0	2
48	BX	0	1
49	BY	0	7
50	BZ	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
52	B1	0	1
53	B2	0	4
54	B3	0	2
55	B4	0	2
56	B5	0	1
57	B6	0	1
58	B7	0	1
All	All	0	2945

All (2937) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1498	UR3	O3'-P	16.25	1.72	1.56
53	B2	66	ILE	CA-CB	12.85	1.61	1.54
35	BK	21	PRO	CA-C	11.87	1.63	1.52
27	BC	67	HIS	ND1-CE1	10.32	1.42	1.32
26	BB	1872	A	O3'-P	10.07	1.76	1.61
4	AD	8	4SU	O3'-P	10.04	1.66	1.56
26	BB	896	A	P-O5'	9.79	1.74	1.59
26	BB	111	A	P-O5'	9.72	1.74	1.59
1	AA	1017	U	O3'-P	9.67	1.75	1.61
35	BK	97	VAL	N-CA	9.64	1.55	1.46
32	BH	29	ASN	CA-CB	9.62	1.67	1.53
26	BB	403	U	P-O5'	9.58	1.74	1.59
26	BB	600	G	O3'-P	9.56	1.75	1.61
36	BL	11	VAL	CA-C	9.46	1.64	1.52
6	AF	140	ALA	N-CA	9.42	1.57	1.46
36	BL	34	ARG	CA-C	9.31	1.64	1.52
2	AB	8	4SU	O3'-P	9.26	1.65	1.56
1	AA	1109	C	P-O5'	9.24	1.73	1.59
26	BB	1634	A	C4'-O4'	-9.23	1.31	1.45
6	AF	58	ARG	CA-C	9.22	1.62	1.52
26	BB	2903	U	C4'-O4'	-9.19	1.31	1.45
26	BB	2804	U	C5'-C4'	9.16	1.65	1.51
1	AA	1173	U	O3'-P	9.11	1.74	1.61
26	BB	2896	C	C5'-C4'	9.07	1.64	1.51
39	BO	63	ILE	CA-C	9.02	1.63	1.52
26	BB	1484	U	P-O5'	8.92	1.73	1.59
26	BB	2480	C	P-O5'	8.90	1.73	1.59
57	B6	44	ARG	C-N	8.85	1.44	1.33
10	AJ	110	ARG	NE-CZ	8.82	1.42	1.33
26	BB	1119	U	P-O5'	8.81	1.73	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2486	C	O5'-C5'	8.79	1.55	1.42
26	BB	528	A	C3'-C2'	8.77	1.66	1.52
26	BB	2896	C	P-O5'	8.74	1.72	1.59
26	BB	2296	U	O3'-P	-8.66	1.48	1.61
3	AC	36	U	P-O5'	8.62	1.72	1.59
18	AR	49	HIS	CG-ND1	8.58	1.47	1.38
10	AJ	99	ALA	N-CA	-8.57	1.36	1.46
15	AO	97	VAL	CA-CB	8.56	1.62	1.53
2	AB	47	U	C4'-O4'	-8.56	1.32	1.45
6	AF	87	ARG	NE-CZ	8.56	1.42	1.33
1	AA	1154	G	P-O5'	8.54	1.72	1.59
1	AA	1330	U	O3'-P	8.51	1.74	1.61
57	B6	44	ARG	NE-CZ	8.49	1.42	1.33
31	BG	85	GLY	N-CA	8.44	1.54	1.45
26	BB	2058	A	O4'-C1'	8.43	1.54	1.41
1	AA	867	G	P-O5'	8.43	1.72	1.59
30	BF	56	GLY	C-O	-8.40	1.16	1.24
26	BB	2787	C	P-O5'	8.39	1.72	1.59
48	BX	80	HIS	CD2-NE2	8.37	1.47	1.37
8	AH	71	ILE	CA-CB	8.36	1.62	1.54
1	AA	626	G	O3'-P	8.34	1.73	1.61
39	BO	53	MET	C-O	-8.31	1.14	1.24
9	AI	102	MET	CA-C	8.31	1.64	1.52
26	BB	1305	C	O4'-C1'	8.30	1.54	1.41
54	B3	13	GLY	CA-C	8.31	1.62	1.51
1	AA	1530	G	O3'-P	8.30	1.73	1.61
8	AH	55	VAL	CA-C	8.29	1.59	1.52
13	AM	53	ILE	CA-C	8.28	1.60	1.52
26	BB	1916	A	P-O5'	8.28	1.72	1.59
1	AA	468	A	O3'-P	8.27	1.73	1.61
26	BB	1293	C	C5'-C4'	8.27	1.63	1.51
1	AA	705	G	P-O5'	8.24	1.72	1.59
26	BB	1261	C	P-O5'	8.24	1.72	1.59
47	BW	48	VAL	CA-C	8.24	1.61	1.52
29	BE	135	GLY	N-CA	8.23	1.57	1.45
30	BF	127	GLU	CA-C	8.22	1.64	1.52
31	BG	131	VAL	CA-CB	-8.17	1.45	1.54
26	BB	884	U	P-O5'	8.16	1.72	1.59
49	BY	2	HIS	ND1-CE1	8.16	1.40	1.32
40	BP	2	ARG	N-CA	8.15	1.56	1.46
26	BB	2463	C	O3'-P	8.13	1.73	1.61
26	BB	1825	U	P-O5'	8.12	1.72	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BH	131	VAL	CA-CB	8.11	1.64	1.53
9	AI	3	HIS	ND1-CE1	8.10	1.40	1.32
26	BB	237	C	O3'-P	8.10	1.73	1.61
38	BN	139	GLY	CA-C	8.10	1.62	1.51
40	BP	74	GLU	N-CA	-8.09	1.36	1.46
20	AT	46	HIS	ND1-CE1	8.07	1.40	1.32
26	BB	154	U	P-O5'	8.07	1.71	1.59
1	AA	444	G	C5'-C4'	8.07	1.63	1.51
11	AK	26	MET	N-CA	8.05	1.54	1.46
50	BZ	10	ARG	CA-C	8.05	1.60	1.52
28	BD	247	TRP	N-CA	-8.04	1.36	1.46
26	BB	2210	U	P-O5'	8.03	1.71	1.59
26	BB	152	A	O5'-C5'	7.99	1.54	1.42
26	BB	2470	G	P-O5'	7.97	1.71	1.59
26	BB	773	U	C5'-C4'	7.94	1.63	1.51
1	AA	891	U	P-O5'	7.94	1.71	1.59
29	BE	129	THR	CA-CB	7.92	1.64	1.53
26	BB	1800	C	C4'-O4'	-7.91	1.33	1.45
1	AA	1050	G	C4'-O4'	-7.91	1.33	1.45
36	BL	40	HIS	ND1-CE1	7.91	1.40	1.32
23	AW	19	HIS	C-O	-7.89	1.14	1.24
26	BB	89	A	C5'-C4'	7.88	1.63	1.51
52	B1	13	ILE	CA-C	-7.87	1.43	1.52
26	BB	1830	C	C4'-O4'	-7.87	1.33	1.45
1	AA	1511	G	C5'-C4'	7.86	1.63	1.51
26	BB	2515	C	P-O5'	7.86	1.71	1.59
26	BB	2825	G	C4'-O4'	-7.86	1.33	1.45
26	BB	1830	C	P-O5'	7.85	1.71	1.59
26	BB	1570	A	C4'-C3'	7.84	1.64	1.52
26	BB	528	A	P-O5'	7.82	1.71	1.59
1	AA	1147	C	C4'-O4'	-7.82	1.33	1.45
26	BB	1001	A	O3'-P	7.80	1.72	1.61
1	AA	1507	A	P-O5'	7.78	1.71	1.59
26	BB	1048	A	C5'-C4'	7.77	1.62	1.51
1	AA	1067	A	C4'-O4'	-7.77	1.34	1.45
29	BE	80	TRP	N-CA	7.75	1.55	1.46
26	BB	1482	G	P-O5'	7.75	1.71	1.59
50	BZ	19	HIS	ND1-CE1	7.75	1.40	1.32
26	BB	793	A	O5'-C5'	-7.75	1.31	1.42
45	BU	29	VAL	N-CA	7.74	1.55	1.46
26	BB	1358	G	P-O5'	7.73	1.71	1.59
18	AR	41	HIS	CG-ND1	7.73	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	299	G	C5'-C4'	7.73	1.62	1.51
26	BB	2073	C	O5'-C5'	-7.73	1.30	1.42
1	AA	426	U	P-O5'	7.71	1.71	1.59
26	BB	91	A	C4'-O4'	-7.71	1.34	1.45
47	BW	102	ILE	CA-C	7.71	1.62	1.52
26	BB	558	U	O3'-P	7.71	1.72	1.61
26	BB	2563	U	P-O5'	7.71	1.71	1.59
36	BL	132	HIS	CE1-NE2	7.71	1.40	1.32
7	AG	131	ILE	CA-C	7.71	1.62	1.52
26	BB	1098	A	C5'-C4'	7.70	1.62	1.51
42	BR	26	GLU	N-CA	7.70	1.55	1.46
26	BB	1396	U	O3'-P	7.70	1.72	1.61
1	AA	1348	U	P-O5'	7.69	1.71	1.59
28	BD	166	ARG	CZ-NH2	7.68	1.43	1.33
34	BJ	87	HIS	CA-C	7.68	1.62	1.52
29	BE	124	ARG	NE-CZ	7.68	1.41	1.33
26	BB	1947	C	O3'-P	7.68	1.72	1.61
26	BB	1773	A	P-O5'	7.67	1.71	1.59
19	AS	59	HIS	CB-CG	7.67	1.60	1.50
1	AA	801	U	C4'-O4'	-7.65	1.34	1.45
26	BB	343	C	P-O5'	7.64	1.71	1.59
39	BO	35	ALA	N-CA	7.64	1.56	1.46
15	AO	118	VAL	CA-C	7.63	1.62	1.52
29	BE	145	SER	CA-C	7.62	1.62	1.52
26	BB	71	A	P-O5'	7.62	1.71	1.59
39	BO	18	ARG	CA-C	7.61	1.63	1.52
32	BH	164	ALA	C-O	7.60	1.33	1.24
1	AA	1192	C	O3'-P	7.59	1.72	1.61
27	BC	187	GLU	CA-C	7.59	1.62	1.52
26	BB	46	G	C4'-O4'	-7.58	1.34	1.45
10	AJ	34	LYS	CA-CB	7.58	1.62	1.52
26	BB	865	C	C2'-C1'	-7.57	1.41	1.53
4	AD	48	U	P-O5'	7.56	1.71	1.59
36	BL	45	THR	CA-C	7.56	1.60	1.52
26	BB	1674	G	P-O5'	7.55	1.71	1.59
53	B2	36	VAL	CA-C	7.55	1.61	1.52
26	BB	2644	G	O3'-P	7.54	1.72	1.61
26	BB	434	U	C3'-O3'	7.54	1.54	1.43
19	AS	40	ASN	CA-C	7.53	1.60	1.52
26	BB	1981	A	P-O5'	7.52	1.71	1.59
53	B2	62	LYS	CA-C	7.52	1.61	1.52
2	AB	40	C	C5'-C4'	7.51	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	113	G	C5'-C4'	7.51	1.62	1.51
25	BA	107	G	P-O5'	7.50	1.71	1.59
15	AO	101	LEU	CA-C	7.50	1.60	1.53
26	BB	972	A	P-O5'	7.50	1.71	1.59
26	BB	1841	U	O3'-P	7.50	1.72	1.61
26	BB	1458	U	C4'-O4'	-7.50	1.34	1.45
1	AA	593	U	P-O5'	7.49	1.71	1.59
2	AB	19	G	C4'-O4'	-7.49	1.34	1.45
15	AO	13	ARG	NE-CZ	7.49	1.41	1.33
26	BB	2063	C	C2'-C1'	7.49	1.64	1.53
29	BE	168	GLU	CA-C	7.49	1.62	1.52
1	AA	762	U	O3'-P	7.48	1.72	1.61
1	AA	1244	G	O5'-C5'	-7.48	1.31	1.42
24	AX	67	THR	N-CA	7.47	1.56	1.46
26	BB	821	A	P-O5'	7.47	1.71	1.59
1	AA	295	C	C5'-C4'	7.47	1.62	1.51
28	BD	7	PRO	CA-C	7.45	1.59	1.52
25	BA	107	G	C4'-C3'	7.45	1.63	1.52
26	BB	1829	A	C1'-N9	7.45	1.59	1.48
32	BH	79	THR	N-CA	7.45	1.54	1.46
26	BB	892	A	C5'-C4'	7.44	1.62	1.51
26	BB	2117	A	C5'-C4'	7.43	1.62	1.51
26	BB	1456	G	C4'-O4'	-7.42	1.34	1.45
45	BU	48	LYS	N-CA	-7.42	1.37	1.46
28	BD	226	PRO	CA-CB	-7.41	1.42	1.53
1	AA	639	G	P-O5'	7.41	1.70	1.59
1	AA	1109	C	C5'-C4'	7.41	1.62	1.51
48	BX	86	LEU	CA-CB	7.41	1.62	1.53
26	BB	1978	A	O4'-C1'	7.40	1.52	1.41
27	BC	114	VAL	CA-C	7.40	1.61	1.52
2	AB	60	U	C4'-O4'	-7.40	1.34	1.45
1	AA	1075	U	C4'-O4'	-7.40	1.34	1.45
26	BB	1227	G	O3'-P	7.39	1.72	1.61
26	BB	2275	C	O3'-P	7.39	1.72	1.61
52	B1	8	GLN	N-CA	-7.38	1.37	1.46
1	AA	198	G	P-O5'	7.38	1.70	1.59
26	BB	1811	G	P-O5'	7.38	1.70	1.59
1	AA	757	U	O3'-P	7.37	1.72	1.61
26	BB	316	C	O3'-P	7.37	1.72	1.61
26	BB	2893	A	C5'-C4'	7.37	1.62	1.51
28	BD	226	PRO	N-CD	-7.37	1.37	1.47
26	BB	1647	U	C5'-C4'	7.37	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	109	A	P-O5'	7.37	1.70	1.59
33	BI	6	LEU	CA-C	7.37	1.62	1.52
5	AE	150	ILE	CA-C	7.36	1.62	1.52
26	BB	914	G	O3'-P	7.35	1.72	1.61
29	BE	82	PHE	N-CA	7.33	1.55	1.46
17	AQ	80	ARG	NE-CZ	7.33	1.41	1.33
26	BB	1799	G	C4'-C3'	7.33	1.64	1.53
1	AA	397	A	P-O5'	7.32	1.70	1.59
26	BB	1200	C	O3'-P	7.32	1.72	1.61
26	BB	56	A	C4'-O4'	-7.32	1.34	1.45
33	BI	56	ALA	CA-C	7.31	1.62	1.52
27	BC	221	GLY	CA-C	7.30	1.58	1.52
26	BB	1310	G	O3'-P	7.30	1.72	1.61
26	BB	1150	C	O3'-P	7.29	1.72	1.61
35	BK	58	ILE	CA-C	7.29	1.61	1.52
1	AA	1401	G	C1'-N9	7.28	1.58	1.48
14	AN	56	LYS	CA-C	7.28	1.62	1.52
36	BL	76	HIS	CB-CG	7.28	1.60	1.50
52	B1	2	LYS	CA-CB	7.27	1.64	1.53
38	BN	73	ILE	CA-CB	7.27	1.62	1.54
26	BB	303	G	O3'-P	-7.27	1.50	1.61
42	BR	23	ASP	CA-C	7.26	1.62	1.52
7	AG	122	ILE	N-CA	-7.26	1.37	1.46
26	BB	1679	A	C5'-C4'	7.26	1.62	1.51
3	AC	59	A	P-O5'	7.25	1.70	1.59
11	AK	124	ILE	CA-CB	7.25	1.61	1.53
32	BH	16	VAL	CA-C	7.25	1.60	1.52
26	BB	1218	G	O5'-C5'	-7.25	1.31	1.42
1	AA	1492	A	C5'-C4'	7.23	1.62	1.51
1	AA	1132	C	O5'-C5'	-7.23	1.31	1.42
26	BB	1900	A	O3'-P	7.23	1.72	1.61
26	BB	2678	C	O3'-P	7.22	1.72	1.61
26	BB	550	C	C3'-C2'	7.21	1.63	1.52
5	AE	93	HIS	CE1-NE2	7.21	1.39	1.32
43	BS	105	PHE	N-CA	7.21	1.55	1.46
44	BT	45	GLU	CA-C	-7.21	1.43	1.52
10	AJ	86	VAL	CA-C	7.21	1.60	1.52
15	AO	16	ALA	N-CA	7.21	1.55	1.45
57	B6	47	ALA	CA-C	7.21	1.61	1.52
11	AK	68	LYS	CA-C	7.20	1.61	1.52
20	AT	13	SER	N-CA	7.20	1.54	1.46
16	AP	13	HIS	CD2-NE2	7.20	1.45	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	BF	92	HIS	CG-CD2	7.19	1.43	1.35
28	BD	269	ARG	CA-C	7.19	1.61	1.52
26	BB	1611	C	O4'-C1'	7.18	1.52	1.41
25	BA	86	G	C5'-C4'	7.18	1.62	1.51
45	BU	96	ILE	N-CA	-7.17	1.37	1.46
1	AA	1099	G	C4'-O4'	-7.17	1.34	1.45
26	BB	2566	A	C4'-O4'	-7.16	1.35	1.45
26	BB	2061	G	C5'-C4'	7.16	1.62	1.51
26	BB	1147	A	P-O5'	7.14	1.70	1.59
1	AA	125	U	C5'-C4'	7.14	1.61	1.51
1	AA	11	G	C5'-C4'	7.13	1.61	1.51
26	BB	549	G	C4'-C3'	7.13	1.63	1.53
26	BB	2364	C	C5'-C4'	7.13	1.61	1.51
31	BG	155	ILE	CA-C	-7.13	1.44	1.52
30	BF	107	SER	CA-C	7.13	1.61	1.52
14	AN	58	THR	CA-C	-7.12	1.45	1.52
26	BB	2189	U	P-O5'	7.12	1.70	1.59
8	AH	120	HIS	ND1-CE1	7.12	1.39	1.32
26	BB	2513	A	P-O5'	7.12	1.70	1.59
26	BB	1853	A	O3'-P	7.11	1.71	1.61
26	BB	1039	A	O3'-P	7.11	1.71	1.61
29	BE	151	THR	CB-OG1	-7.10	1.32	1.43
1	AA	622	A	P-O5'	7.09	1.70	1.59
15	AO	72	ASN	CA-CB	7.09	1.65	1.53
23	AW	3	ILE	CA-C	7.09	1.60	1.52
1	AA	844	G	P-O5'	7.09	1.70	1.59
26	BB	1545	A	C5'-C4'	7.09	1.61	1.51
26	BB	1329	U	C2'-C1'	7.08	1.63	1.53
25	BA	60	C	C4'-O4'	-7.07	1.34	1.45
1	AA	384	G	P-O5'	7.07	1.70	1.59
32	BH	68	ARG	NE-CZ	7.06	1.40	1.33
18	AR	37	HIS	CD2-NE2	-7.06	1.30	1.37
32	BH	6	ALA	C-N	7.06	1.40	1.33
26	BB	2093	G	O3'-P	7.05	1.71	1.61
25	BA	37	C	C4'-O4'	-7.04	1.34	1.45
1	AA	363	A	C5'-C4'	7.04	1.61	1.51
26	BB	2846	G	C5'-C4'	7.04	1.61	1.51
26	BB	323	C	C5'-C4'	7.03	1.61	1.51
26	BB	1052	C	O3'-P	7.03	1.71	1.61
26	BB	39	G	C4'-O4'	-7.03	1.35	1.45
1	AA	316	C	C5'-C4'	7.03	1.61	1.51
23	AW	27	MET	N-CA	7.03	1.54	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1497	U	C5'-C4'	7.03	1.61	1.51
1	AA	282	A	P-O5'	7.02	1.70	1.59
1	AA	855	U	C5'-C4'	7.01	1.61	1.51
25	BA	48	U	O4'-C1'	7.01	1.52	1.41
14	AN	21	HIS	CE1-NE2	7.01	1.39	1.32
1	AA	992	U	C4'-O4'	-7.00	1.35	1.45
1	AA	1509	C	C2'-C1'	7.00	1.63	1.53
3	AC	57	C	O3'-P	6.99	1.71	1.61
5	AE	200	PRO	CA-C	6.99	1.60	1.52
21	AU	42	ARG	CZ-NH1	6.99	1.42	1.32
26	BB	1999	C	P-O5'	6.98	1.70	1.59
50	BZ	4	CYS	N-CA	-6.98	1.37	1.46
15	AO	10	PRO	CA-C	6.97	1.60	1.52
26	BB	1312	U	C4'-O4'	-6.97	1.35	1.45
26	BB	2437	G	C5'-C4'	6.97	1.61	1.51
45	BU	87	PRO	CA-C	6.97	1.61	1.52
29	BE	157	LYS	CA-C	6.96	1.61	1.52
1	AA	1130	A	C4'-O4'	-6.96	1.35	1.45
1	AA	819	A	P-O5'	6.95	1.70	1.59
26	BB	1815	A	C4'-O4'	-6.95	1.35	1.45
26	BB	17	G	C4'-O4'	-6.95	1.35	1.45
40	BP	3	HIS	CA-C	6.95	1.61	1.52
26	BB	723	C	C4'-O4'	-6.94	1.35	1.45
26	BB	2547	A	O3'-P	6.94	1.71	1.61
28	BD	218	THR	N-CA	6.94	1.54	1.46
26	BB	2066	C	P-O5'	6.94	1.70	1.59
26	BB	2666	C	C4'-C3'	6.93	1.62	1.52
26	BB	752	A	O3'-P	6.93	1.71	1.61
26	BB	1647	U	O3'-P	6.93	1.71	1.61
46	BV	61	LEU	CA-C	6.93	1.61	1.52
1	AA	580	C	O3'-P	6.92	1.71	1.61
52	B1	1	ALA	C-N	6.92	1.42	1.33
26	BB	1308	A	C1'-N9	6.92	1.58	1.48
26	BB	1901	A	P-O5'	6.92	1.70	1.59
38	BN	48	ARG	NE-CZ	6.91	1.40	1.33
26	BB	888	C	P-O5'	6.91	1.70	1.59
26	BB	1401	G	C4'-C3'	6.91	1.62	1.52
26	BB	1469	A	O3'-P	6.91	1.71	1.61
26	BB	670	A	C5'-C4'	6.91	1.61	1.51
1	AA	16	A	P-O5'	6.91	1.70	1.59
26	BB	1421	G	C4'-O4'	-6.89	1.35	1.45
26	BB	2618	G	C5'-C4'	6.88	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
50	BZ	9	LYS	N-CA	6.88	1.54	1.45
28	BD	57	HIS	CE1-NE2	6.88	1.39	1.32
26	BB	1661	G	C5'-C4'	6.88	1.61	1.51
26	BB	830	G	C4'-O4'	-6.88	1.35	1.45
44	BT	19	THR	CB-OG1	-6.87	1.32	1.43
26	BB	1781	U	C5'-C4'	6.87	1.61	1.51
31	BG	94	ARG	NE-CZ	6.87	1.40	1.33
28	BD	51	ARG	CD-NE	-6.87	1.36	1.46
26	BB	569	U	C5'-C4'	6.86	1.61	1.51
26	BB	931	U	C4'-O4'	-6.86	1.35	1.45
2	AB	18	G	C2'-C1'	6.85	1.63	1.53
26	BB	2812	G	O3'-P	6.85	1.71	1.61
1	AA	96	U	P-O5'	6.85	1.70	1.59
1	AA	837	U	C4'-O4'	-6.85	1.35	1.45
26	BB	2130	U	C4'-O4'	-6.84	1.35	1.45
52	B1	10	ARG	NE-CZ	6.84	1.40	1.33
14	AN	23	HIS	ND1-CE1	6.84	1.39	1.32
1	AA	934	C	P-O5'	6.83	1.70	1.59
42	BR	49	ILE	C-N	6.83	1.38	1.33
26	BB	499	U	O3'-P	6.83	1.71	1.61
38	BN	17	LYS	CA-C	6.83	1.61	1.52
8	AH	98	ALA	CA-C	6.83	1.61	1.52
1	AA	623	C	O4'-C1'	6.82	1.51	1.41
26	BB	157	C	O3'-P	6.82	1.71	1.61
26	BB	1817	G	C5'-C4'	6.82	1.61	1.51
26	BB	2835	A	O3'-P	6.82	1.71	1.61
57	B6	42	HIS	CE1-NE2	6.81	1.39	1.32
26	BB	292	U	C4'-O4'	-6.81	1.35	1.45
44	BT	85	LYS	N-CA	-6.81	1.37	1.46
26	BB	1003	G	C5'-C4'	6.80	1.61	1.51
26	BB	249	C	O3'-P	6.80	1.71	1.61
26	BB	1736	U	C4'-O4'	-6.80	1.35	1.45
49	BY	3	LYS	N-CA	6.80	1.54	1.46
27	BC	86	ALA	N-CA	-6.79	1.38	1.46
40	BP	31	HIS	CD2-NE2	6.79	1.45	1.37
26	BB	1967	C	C5'-C4'	6.79	1.61	1.51
1	AA	1536	C	C4'-O4'	-6.79	1.35	1.45
26	BB	903	C	C5'-C4'	6.78	1.61	1.51
8	AH	70	MET	C-O	6.78	1.31	1.24
18	AR	36	ASN	N-CA	6.78	1.54	1.46
44	BT	32	THR	CA-C	-6.78	1.44	1.52
26	BB	757	G	P-O5'	6.77	1.70	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	BD	257	ARG	CA-C	6.77	1.61	1.52
51	B0	53	VAL	CA-C	6.77	1.61	1.52
1	AA	943	U	O5'-C5'	-6.76	1.32	1.42
31	BG	83	PRO	N-CD	-6.76	1.38	1.47
7	AG	114	ARG	CD-NE	6.76	1.55	1.46
1	AA	132	C	C1'-N1	6.76	1.58	1.48
10	AJ	72	VAL	CA-C	6.76	1.60	1.52
13	AM	73	LEU	CA-C	6.76	1.61	1.52
26	BB	73	A	C5'-C4'	6.76	1.61	1.51
26	BB	2078	C	O5'-C5'	-6.75	1.32	1.42
1	AA	28	A	O3'-P	6.75	1.71	1.61
26	BB	2799	A	C5'-C4'	6.75	1.61	1.51
28	BD	141	HIS	CA-C	6.75	1.60	1.52
26	BB	11	C	C4'-O4'	-6.74	1.35	1.45
26	BB	1742	U	C5'-C4'	6.74	1.61	1.51
26	BB	1340	U	C2'-O2'	-6.74	1.32	1.42
26	BB	2779	U	P-O5'	6.74	1.69	1.59
47	BW	44	HIS	CD2-NE2	6.74	1.45	1.37
1	AA	64	G	C1'-N9	6.73	1.57	1.47
32	BH	162	ARG	C-N	6.73	1.42	1.33
1	AA	235	C	C5'-C4'	6.73	1.61	1.51
5	AE	133	ALA	CA-C	6.73	1.61	1.52
1	AA	1156	G	C4'-O4'	-6.73	1.35	1.45
26	BB	611	C	C3'-O3'	6.72	1.52	1.42
26	BB	794	A	P-O5'	6.72	1.69	1.59
26	BB	1714	U	P-O5'	6.72	1.69	1.59
18	AR	45	HIS	ND1-CE1	6.72	1.39	1.32
4	AD	38	A	O3'-P	6.72	1.71	1.61
46	BV	67	VAL	N-CA	6.71	1.54	1.46
26	BB	1353	A	C5'-C4'	6.71	1.61	1.51
14	AN	43	TRP	NE1-CE2	6.71	1.44	1.37
26	BB	2301	C	C5'-C4'	6.71	1.61	1.51
26	BB	2050	C	C5'-C4'	6.70	1.61	1.51
26	BB	364	C	O3'-P	6.70	1.71	1.61
45	BU	60	HIS	ND1-CE1	6.70	1.39	1.32
26	BB	230	G	O3'-P	6.69	1.71	1.61
26	BB	1197	G	C3'-O3'	6.69	1.52	1.42
28	BD	129	LEU	CA-C	6.69	1.59	1.52
26	BB	277	G	C4'-O4'	-6.69	1.35	1.45
5	AE	108	GLN	CA-CB	6.69	1.63	1.53
1	AA	1054	C	O5'-C5'	-6.68	1.32	1.42
26	BB	1711	A	C4'-O4'	-6.68	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	B2	69	SER	N-CA	-6.68	1.37	1.45
26	BB	281	C	O3'-P	6.68	1.71	1.61
16	AP	46	GLU	CA-C	6.68	1.61	1.52
26	BB	30	G	C4'-O4'	-6.68	1.35	1.45
26	BB	2444	G	C1'-N9	6.68	1.57	1.48
26	BB	2853	C	O5'-C5'	6.68	1.52	1.42
35	BK	129	GLU	N-CA	6.68	1.54	1.46
26	BB	206	U	O3'-P	6.67	1.71	1.61
1	AA	1090	U	P-O5'	6.67	1.69	1.59
22	AV	78	THR	CA-C	6.67	1.60	1.52
5	AE	114	LYS	N-CA	6.67	1.55	1.46
32	BH	164	ALA	N-CA	6.67	1.54	1.46
26	BB	2778	A	P-O5'	6.66	1.69	1.59
26	BB	1929	G	C3'-O3'	-6.66	1.33	1.43
1	AA	920	U	P-O5'	6.66	1.69	1.59
6	AF	166	TRP	CA-C	6.66	1.60	1.52
26	BB	559	G	O3'-P	6.66	1.71	1.61
26	BB	552	U	P-O5'	6.65	1.69	1.59
26	BB	1199	U	P-O5'	6.65	1.69	1.59
26	BB	10	A	C5'-C4'	6.65	1.61	1.51
26	BB	1525	A	C4'-O4'	-6.64	1.35	1.45
1	AA	1458	G	P-O5'	-6.64	1.49	1.59
8	AH	144	GLU	N-CA	6.64	1.54	1.46
26	BB	1807	G	C4'-O4'	-6.64	1.35	1.45
26	BB	720	U	P-O5'	6.64	1.69	1.59
55	B4	53	ILE	CA-C	6.64	1.61	1.52
38	BN	14	LYS	CA-C	6.63	1.61	1.52
26	BB	2381	A	C4'-O4'	-6.63	1.35	1.45
51	B0	31	GLN	N-CA	6.63	1.54	1.46
1	AA	864	A	C4'-O4'	-6.63	1.35	1.45
17	AQ	58	ARG	CZ-NH2	6.63	1.42	1.33
47	BW	36	GLU	CA-C	6.63	1.61	1.52
26	BB	1752	C	O3'-P	6.62	1.71	1.61
26	BB	1684	G	O4'-C1'	6.62	1.51	1.41
26	BB	1945	G	C4'-C3'	6.62	1.62	1.52
39	BO	75	GLU	CA-C	6.62	1.60	1.52
1	AA	334	C	P-O5'	6.61	1.69	1.59
4	AD	60	A	C5'-C4'	6.61	1.61	1.51
26	BB	1850	G	C5'-C4'	6.61	1.61	1.51
45	BU	67	ASP	N-CA	6.61	1.54	1.46
21	AU	38	ILE	CA-CB	6.60	1.61	1.54
1	AA	1228	C	C4'-O4'	-6.60	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2087	G	P-O5'	6.60	1.69	1.59
26	BB	2587	A	C3'-C2'	-6.60	1.42	1.52
26	BB	1044	C	C4'-O4'	-6.60	1.35	1.45
26	BB	103	A	C4'-O4'	-6.59	1.35	1.45
26	BB	121	G	C4'-O4'	-6.59	1.35	1.45
26	BB	1031	G	O3'-P	6.59	1.71	1.61
48	BX	64	VAL	CA-CB	6.59	1.62	1.54
10	AJ	70	PRO	N-CA	-6.59	1.39	1.47
29	BE	62	LYS	CA-C	6.59	1.61	1.52
26	BB	2678	C	C3'-C2'	6.58	1.62	1.52
35	BK	54	ILE	CA-C	6.58	1.58	1.53
26	BB	1215	G	P-O5'	6.58	1.69	1.59
26	BB	131	A	O4'-C1'	6.57	1.51	1.41
26	BB	1976	U	P-O5'	6.57	1.69	1.59
5	AE	27	LYS	CA-CB	6.57	1.62	1.53
26	BB	1536	C	P-O5'	6.57	1.69	1.59
26	BB	2188	U	C5'-C4'	-6.57	1.41	1.51
26	BB	2641	G	C4'-O4'	-6.57	1.35	1.45
6	AF	131	ARG	CZ-NH1	6.57	1.42	1.32
44	BT	74	ILE	N-CA	-6.57	1.38	1.46
26	BB	1437	C	C5'-C4'	6.56	1.61	1.51
1	AA	205	A	C5'-C4'	6.56	1.61	1.51
1	AA	1491	G	C2'-O2'	-6.56	1.32	1.42
26	BB	12	U	C2'-O2'	-6.56	1.32	1.42
26	BB	638	G	C5'-C4'	6.56	1.61	1.51
26	BB	2177	C	C5'-C4'	6.56	1.61	1.51
1	AA	155	A	C1'-N9	6.56	1.57	1.48
12	AL	53	LEU	N-CA	6.56	1.54	1.46
26	BB	453	A	C5'-C4'	6.56	1.61	1.51
26	BB	954	G	P-O5'	6.56	1.69	1.59
26	BB	1855	U	O3'-P	6.56	1.71	1.61
26	BB	1531	C	P-O5'	6.56	1.69	1.59
26	BB	2623	G	O3'-P	6.56	1.71	1.61
13	AM	7	ARG	C-O	-6.55	1.16	1.24
26	BB	1351	C	O3'-P	6.55	1.71	1.61
26	BB	1713	A	C4'-O4'	-6.55	1.36	1.45
39	BO	43	ALA	CA-C	6.55	1.61	1.52
12	AL	129	ARG	CD-NE	6.55	1.55	1.46
3	AC	40	G	C4'-O4'	-6.54	1.35	1.45
25	BA	22	U	O3'-P	6.54	1.71	1.61
1	AA	609	A	O3'-P	6.54	1.71	1.61
26	BB	1499	C	C4'-O4'	-6.54	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BQ	102	ARG	N-CA	-6.54	1.38	1.46
1	AA	1237	C	P-O5'	6.54	1.69	1.59
5	AE	138	ARG	CA-C	6.53	1.61	1.52
26	BB	197	A	C1'-N9	6.53	1.57	1.48
26	BB	744	U	P-O5'	-6.53	1.50	1.59
15	AO	48	LEU	N-CA	6.53	1.54	1.46
11	AK	113	ARG	NE-CZ	6.53	1.40	1.33
26	BB	455	C	O5'-C5'	-6.53	1.32	1.42
10	AJ	10	LYS	CA-C	6.52	1.60	1.52
20	AT	76	ARG	CD-NE	6.52	1.55	1.46
1	AA	38	G	O4'-C1'	6.52	1.51	1.41
1	AA	700	G	C5'-C4'	6.52	1.61	1.51
12	AL	113	LYS	CA-C	6.52	1.61	1.52
7	AG	127	ARG	CD-NE	6.51	1.55	1.46
26	BB	2130	U	C4'-C3'	6.51	1.62	1.52
1	AA	1456	A	C3'-C2'	6.51	1.62	1.52
1	AA	618	C	O3'-P	6.51	1.71	1.61
28	BD	46	GLY	CA-C	6.51	1.60	1.51
26	BB	713	G	C5'-C4'	6.50	1.61	1.51
27	BC	170	ILE	CA-C	6.50	1.60	1.52
41	BQ	38	GLN	N-CA	6.50	1.54	1.46
44	BT	97	LYS	C-N	6.50	1.41	1.33
34	BJ	78	PRO	N-CD	-6.50	1.38	1.47
13	AM	60	ASP	CA-CB	6.50	1.63	1.53
26	BB	1373	A	P-O5'	6.50	1.69	1.59
1	AA	721	G	C4'-O4'	-6.49	1.36	1.45
51	B0	19	LEU	CA-C	6.49	1.61	1.52
39	BO	31	PHE	CA-C	6.49	1.60	1.52
26	BB	1851	U	O3'-P	6.49	1.70	1.61
56	B5	31	LEU	CA-C	6.48	1.61	1.52
1	AA	822	U	O5'-C5'	-6.48	1.32	1.42
26	BB	2072	C	O3'-P	6.48	1.70	1.61
26	BB	76	C	P-O5'	6.48	1.69	1.59
26	BB	283	G	C2'-C1'	6.48	1.63	1.53
26	BB	2029	G	P-O5'	6.48	1.69	1.59
43	BS	70	GLN	CA-C	6.48	1.61	1.52
6	AF	168	ARG	CZ-NH1	6.47	1.41	1.32
5	AE	160	LEU	C-O	-6.47	1.16	1.24
26	BB	1567	G	P-O5'	6.47	1.69	1.59
1	AA	963	G	P-O5'	6.47	1.69	1.59
13	AM	43	PRO	N-CD	-6.47	1.38	1.47
25	BA	41	G	C4'-C3'	6.47	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	33	C	P-O5'	6.47	1.69	1.59
1	AA	667	G	C1'-N9	6.47	1.57	1.48
26	BB	2772	C	C4'-O4'	-6.46	1.35	1.45
32	BH	24	THR	CA-CB	6.46	1.63	1.53
26	BB	1115	G	C4'-O4'	-6.46	1.35	1.45
26	BB	1133	A	C1'-N9	6.46	1.56	1.47
26	BB	14	A	O4'-C1'	6.45	1.51	1.41
26	BB	57	C	C4'-O4'	-6.45	1.35	1.45
26	BB	399	U	C5'-C4'	6.45	1.60	1.51
26	BB	1963	U	C4'-O4'	-6.45	1.35	1.45
26	BB	2891	U	C5'-C4'	6.45	1.60	1.51
14	AN	126	ARG	CA-C	6.45	1.60	1.52
1	AA	451	A	C5'-C4'	6.45	1.61	1.51
26	BB	17	G	P-O5'	6.45	1.69	1.59
23	AW	77	ASN	N-CA	6.45	1.54	1.46
1	AA	321	A	P-O5'	6.44	1.69	1.59
8	AH	21	SER	N-CA	6.44	1.53	1.46
23	AW	49	ALA	N-CA	-6.44	1.38	1.46
22	AV	82	HIS	ND1-CE1	6.44	1.39	1.32
43	BS	110	GLU	CA-CB	6.44	1.63	1.53
1	AA	1035	A	O3'-P	6.44	1.70	1.61
1	AA	79	G	C3'-O3'	6.43	1.51	1.42
1	AA	151	A	P-O5'	6.43	1.69	1.59
26	BB	363	G	C4'-O4'	-6.43	1.35	1.45
26	BB	1669	A	C4'-O4'	-6.43	1.35	1.45
26	BB	1903	G	P-O5'	6.43	1.69	1.59
26	BB	2645	G	C4'-O4'	-6.43	1.36	1.45
1	AA	763	G	C4'-O4'	-6.43	1.35	1.45
21	AU	27	THR	CA-C	6.43	1.61	1.52
28	BD	52	HIS	CA-C	6.43	1.61	1.53
32	BH	32	LEU	CA-C	6.43	1.61	1.53
46	BV	18	GLU	CA-C	6.43	1.61	1.52
26	BB	2870	C	P-O5'	6.42	1.69	1.59
13	AM	13	PHE	N-CA	-6.42	1.38	1.46
1	AA	1428	A	C4'-O4'	-6.42	1.35	1.45
26	BB	2594	C	C4'-O4'	-6.42	1.35	1.45
1	AA	765	G	C5'-C4'	6.42	1.60	1.51
26	BB	299	A	C5'-C4'	6.42	1.60	1.51
26	BB	371	A	O5'-C5'	6.42	1.52	1.42
7	AG	178	GLU	N-CA	6.41	1.53	1.46
30	BF	83	VAL	CA-C	6.41	1.60	1.52
1	AA	1531	A	C4'-O4'	-6.41	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2064	C	C4'-O4'	-6.41	1.35	1.45
28	BD	32	LEU	CA-C	6.41	1.61	1.52
4	AD	2	G	C4'-O4'	-6.40	1.35	1.45
12	AL	115	VAL	CA-CB	6.40	1.60	1.54
35	BK	18	ASN	CA-C	6.40	1.60	1.52
39	BO	96	ILE	C-N	6.40	1.40	1.33
26	BB	471	A	O3'-P	6.40	1.70	1.61
26	BB	1201	U	C4'-O4'	-6.40	1.35	1.45
25	BA	83	G	O3'-P	6.40	1.70	1.61
1	AA	1325	C	C4'-O4'	-6.39	1.35	1.45
27	BC	65	LEU	CA-C	6.39	1.59	1.53
31	BG	6	TYR	CA-C	6.39	1.61	1.52
32	BH	85	LYS	CA-C	6.39	1.61	1.52
4	AD	14	A	C3'-O3'	6.39	1.51	1.42
9	AI	11	HIS	ND1-CE1	6.39	1.39	1.32
26	BB	2620	C	C4'-O4'	-6.39	1.35	1.45
1	AA	601	G	P-O5'	6.39	1.69	1.59
15	AO	78	VAL	CA-CB	6.39	1.61	1.54
21	AU	72	ARG	CD-NE	6.39	1.55	1.46
26	BB	2039	U	O3'-P	6.39	1.70	1.61
40	BP	22	ARG	C-O	6.39	1.31	1.24
26	BB	2718	G	O3'-P	6.39	1.70	1.61
1	AA	104	G	P-O5'	6.38	1.69	1.59
10	AJ	53	SER	CA-C	6.38	1.59	1.52
1	AA	296	U	O4'-C1'	6.38	1.51	1.41
26	BB	2321	U	O3'-P	6.38	1.70	1.61
10	AJ	154	ARG	NE-CZ	6.38	1.40	1.33
37	BM	119	ALA	CA-C	6.37	1.60	1.52
26	BB	1224	U	C1'-N1	6.37	1.58	1.48
1	AA	439	U	O5'-C5'	-6.37	1.32	1.42
26	BB	1941	C	C4'-O4'	-6.37	1.35	1.45
28	BD	34	GLU	CA-CB	6.37	1.61	1.53
36	BL	139	VAL	CA-CB	6.37	1.60	1.54
21	AU	69	TYR	CA-C	6.37	1.61	1.52
7	AG	197	HIS	CG-CD2	6.36	1.42	1.35
26	BB	2746	U	C4'-O4'	-6.36	1.36	1.45
33	BI	57	LYS	CA-C	6.36	1.60	1.52
45	BU	47	VAL	CA-C	6.36	1.62	1.52
26	BB	2192	U	C2'-O2'	-6.36	1.32	1.42
26	BB	1536	C	C5'-C4'	6.36	1.60	1.51
28	BD	189	ALA	CA-C	6.36	1.60	1.52
19	AS	50	THR	CA-C	6.36	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	BX	37	PRO	CA-CB	-6.36	1.45	1.53
26	BB	426	C	O3'-P	6.35	1.70	1.61
26	BB	171	U	P-O5'	6.34	1.69	1.59
20	AT	82	VAL	C-O	-6.34	1.17	1.24
26	BB	1454	C	P-O5'	6.34	1.69	1.59
1	AA	746	A	C4'-O4'	-6.34	1.36	1.45
26	BB	944	C	C5'-C4'	6.34	1.60	1.51
52	B1	24	LEU	C-N	6.34	1.42	1.33
43	BS	93	ILE	CA-CB	6.34	1.61	1.54
1	AA	229	U	C5'-C4'	6.34	1.60	1.51
2	AB	24	G	O3'-P	6.34	1.70	1.61
24	AX	11	PHE	N-CA	6.34	1.54	1.45
26	BB	1845	G	C4'-O4'	-6.33	1.36	1.45
25	BA	120	U	C1'-N1	6.33	1.57	1.48
20	AT	58	VAL	CA-C	6.33	1.60	1.52
1	AA	56	U	C4'-O4'	-6.33	1.36	1.45
26	BB	466	A	O3'-P	6.33	1.70	1.61
1	AA	924	C	P-O5'	-6.33	1.50	1.59
15	AO	76	HIS	CG-ND1	6.33	1.45	1.38
26	BB	2639	A	C2'-C1'	6.33	1.62	1.53
26	BB	1088	A	C4'-O4'	-6.33	1.36	1.45
26	BB	2681	C	P-O5'	6.33	1.69	1.59
44	BT	99	THR	CA-C	6.33	1.60	1.52
1	AA	164	G	O3'-P	6.32	1.70	1.61
30	BF	152	GLU	C-N	6.32	1.41	1.33
41	BQ	21	LEU	C-N	6.32	1.40	1.33
1	AA	1032	G	C4'-O4'	-6.32	1.36	1.45
26	BB	2215	C	O4'-C1'	6.32	1.51	1.41
26	BB	2721	A	C4'-O4'	-6.32	1.36	1.45
28	BD	52	HIS	CE1-NE2	6.32	1.38	1.32
29	BE	60	VAL	CA-CB	6.32	1.61	1.54
30	BF	37	ALA	CA-C	6.32	1.61	1.52
50	BZ	74	GLY	CA-C	6.32	1.60	1.51
26	BB	531	C	C1'-N1	6.32	1.56	1.47
55	B4	29	LYS	CA-CB	6.32	1.60	1.53
26	BB	872	U	C4'-O4'	-6.32	1.36	1.45
7	AG	166	LYS	CA-C	6.31	1.57	1.52
27	BC	200	LYS	C-O	6.31	1.32	1.24
48	BX	76	ASP	C-N	6.31	1.42	1.33
1	AA	320	A	C4'-O4'	-6.31	1.36	1.45
31	BG	87	LYS	CA-C	6.31	1.58	1.52
26	BB	2242	G	C1'-N9	6.31	1.57	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	AU	73	HIS	CE1-NE2	6.31	1.38	1.32
1	AA	417	G	C5'-C4'	6.30	1.60	1.51
26	BB	2829	A	C4'-O4'	-6.30	1.36	1.45
1	AA	1002	G	O3'-P	6.30	1.70	1.61
35	BK	46	ASP	C-O	-6.30	1.16	1.24
26	BB	767	U	C5'-C4'	6.30	1.60	1.51
26	BB	1829	A	C4'-O4'	-6.30	1.36	1.45
30	BF	18	THR	CB-OG1	-6.30	1.33	1.43
26	BB	1852	U	C1'-N1	6.29	1.57	1.48
42	BR	64	SER	CA-C	6.29	1.60	1.52
1	AA	127	G	O3'-P	6.29	1.70	1.61
26	BB	998	C	O3'-P	6.29	1.70	1.61
1	AA	406	G	C4'-O4'	-6.29	1.36	1.45
26	BB	241	A	C5'-C4'	6.29	1.60	1.51
26	BB	432	A	P-O5'	6.29	1.69	1.59
1	AA	12	U	C5'-C4'	6.29	1.60	1.51
26	BB	337	C	C4'-O4'	-6.29	1.36	1.45
25	BA	40	U	O3'-P	6.29	1.70	1.61
1	AA	1087	G	O5'-C5'	-6.29	1.33	1.42
7	AG	34	GLU	N-CA	-6.29	1.37	1.46
35	BK	27	LEU	N-CA	6.28	1.53	1.46
37	BM	90	ASN	N-CA	-6.28	1.39	1.46
1	AA	85	U	O3'-P	6.28	1.70	1.61
7	AG	183	ARG	C-O	-6.28	1.15	1.23
26	BB	2299	U	O3'-P	6.28	1.70	1.61
26	BB	170	U	C5'-C4'	6.28	1.60	1.51
7	AG	106	PHE	N-CA	6.27	1.54	1.46
26	BB	2837	A	P-O5'	6.27	1.69	1.59
26	BB	1880	U	C1'-N1	6.27	1.57	1.48
39	BO	6	ARG	NE-CZ	6.27	1.40	1.33
1	AA	1236	A	C3'-O3'	-6.27	1.32	1.42
4	AD	23	G	C3'-O3'	6.27	1.51	1.42
4	AD	34	U	C2'-O2'	6.27	1.51	1.42
26	BB	455	C	C1'-N1	6.27	1.57	1.48
45	BU	11	ARG	CA-CB	6.27	1.60	1.52
8	AH	51	LYS	C-N	6.26	1.41	1.33
26	BB	917	A	C4'-O4'	-6.26	1.36	1.45
26	BB	2307	G	P-O5'	6.26	1.69	1.59
1	AA	507	C	C5'-C4'	6.26	1.60	1.51
12	AL	66	VAL	CA-C	6.26	1.60	1.52
26	BB	2600	A	C3'-O3'	-6.26	1.32	1.42
26	BB	2664	G	C4'-O4'	-6.26	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	368	A	C1'-N9	6.26	1.57	1.48
26	BB	1131	G	P-O5'	6.26	1.69	1.59
26	BB	2487	G	C4'-O4'	-6.26	1.36	1.45
28	BD	175	LEU	CA-C	6.26	1.60	1.52
26	BB	1447	C	C5'-C4'	6.25	1.60	1.51
26	BB	2813	A	P-O5'	6.25	1.69	1.59
11	AK	116	ARG	CA-C	6.25	1.61	1.52
1	AA	566	G	C4'-O4'	-6.25	1.36	1.45
26	BB	1393	A	P-O5'	6.25	1.69	1.59
43	BS	88	GLU	CA-C	6.25	1.61	1.52
1	AA	481	G	C4'-O4'	-6.25	1.36	1.45
26	BB	1336	A	P-O5'	6.25	1.69	1.59
26	BB	1188	U	C4'-C3'	-6.24	1.43	1.52
26	BB	2410	G	C1'-N9	6.24	1.57	1.48
1	AA	360	G	O5'-C5'	-6.24	1.33	1.42
26	BB	1546	G	C2'-C1'	-6.24	1.44	1.53
11	AK	95	MET	CA-C	6.24	1.61	1.53
9	AI	2	ARG	CD-NE	6.23	1.54	1.46
14	AN	45	THR	C-O	-6.23	1.16	1.23
25	BA	15	A	C5'-C4'	6.23	1.60	1.51
26	BB	1186	G	C5'-C4'	6.23	1.60	1.51
26	BB	1682	G	O3'-P	6.23	1.70	1.61
1	AA	1452	C	C4'-O4'	-6.23	1.36	1.45
26	BB	68	G	C5'-C4'	6.23	1.60	1.51
29	BE	46	ARG	CZ-NH1	6.23	1.41	1.32
1	AA	14	U	C4'-C3'	-6.23	1.43	1.52
1	AA	225	C	C1'-N1	6.23	1.57	1.48
26	BB	1350	C	P-O5'	6.23	1.69	1.59
1	AA	126	G	P-O5'	6.22	1.69	1.59
26	BB	2784	U	C5'-C4'	6.22	1.60	1.51
26	BB	645	C	C4'-O4'	-6.22	1.36	1.45
26	BB	2690	U	P-O5'	6.22	1.69	1.59
26	BB	979	A	O3'-P	6.22	1.70	1.61
26	BB	1750	G	C2'-C1'	6.21	1.62	1.53
26	BB	2080	A	O3'-P	6.21	1.70	1.61
36	BL	59	ALA	N-CA	6.21	1.53	1.46
26	BB	1043	C	C2'-C1'	6.21	1.62	1.53
25	BA	80	U	C1'-N1	6.21	1.57	1.48
26	BB	1853	A	C5'-C4'	6.21	1.60	1.51
37	BM	88	ASN	CA-C	-6.21	1.44	1.52
8	AH	56	PRO	N-CA	-6.21	1.39	1.47
26	BB	2688	G	O3'-P	-6.21	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	BS	63	ARG	NE-CZ	6.21	1.39	1.33
1	AA	901	A	C2'-C1'	-6.21	1.44	1.53
15	AO	76	HIS	CA-C	6.21	1.60	1.52
26	BB	1679	A	C4'-O4'	-6.21	1.36	1.45
1	AA	333	U	C5'-C4'	6.21	1.60	1.51
26	BB	1892	C	C3'-O3'	6.20	1.51	1.42
26	BB	2106	U	C4'-O4'	-6.20	1.36	1.45
34	BJ	17	VAL	N-CA	6.20	1.53	1.46
1	AA	210	C	O3'-P	6.20	1.70	1.61
26	BB	1909	C	C5'-C4'	6.20	1.60	1.51
26	BB	2364	C	C4'-O4'	-6.20	1.36	1.45
26	BB	1465	G	C2'-C1'	-6.20	1.44	1.53
1	AA	477	C	P-O5'	6.19	1.69	1.59
4	AD	75	C	C4'-O4'	-6.19	1.36	1.45
26	BB	738	G	C3'-C2'	6.19	1.62	1.52
26	BB	2281	A	C5'-C4'	6.19	1.60	1.51
43	BS	6	GLY	CA-C	6.19	1.60	1.51
4	AD	77	A	C5'-C4'	6.19	1.60	1.51
25	BA	7	G	P-O5'	6.19	1.69	1.59
3	AC	47	C	C2'-C1'	-6.19	1.43	1.53
1	AA	1487	G	O3'-P	6.18	1.70	1.61
15	AO	76	HIS	ND1-CE1	6.18	1.38	1.32
28	BD	203	VAL	CA-CB	6.18	1.62	1.54
1	AA	744	C	C5'-C4'	6.18	1.60	1.51
26	BB	2571	U	P-O5'	6.18	1.69	1.59
54	B3	39	ARG	CZ-NH1	6.18	1.41	1.32
26	BB	1517	G	P-O5'	6.18	1.69	1.59
10	AJ	77	ARG	CA-CB	6.18	1.61	1.52
15	AO	31	GLY	C-N	6.18	1.42	1.33
1	AA	511	C	C3'-O3'	-6.18	1.33	1.43
37	BM	115	ILE	CA-CB	6.18	1.62	1.54
9	AI	82	ASP	CA-C	6.17	1.60	1.52
26	BB	2172	U	C1'-N1	6.17	1.56	1.47
1	AA	495	A	C5'-C4'	6.17	1.60	1.51
26	BB	2002	G	C4'-C3'	6.17	1.61	1.52
1	AA	12	U	O3'-P	-6.17	1.51	1.61
26	BB	1130	U	P-O5'	6.17	1.69	1.59
26	BB	2765	A	C4'-O4'	-6.17	1.36	1.45
1	AA	1186	G	P-O5'	6.17	1.69	1.59
26	BB	23	G	C4'-C3'	6.17	1.61	1.52
26	BB	1134	A	P-O5'	6.16	1.69	1.59
26	BB	1357	C	O4'-C1'	6.16	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1952	A	C1'-N9	6.16	1.56	1.47
26	BB	2335	A	O3'-P	-6.16	1.51	1.61
26	BB	72	U	C2'-C1'	6.16	1.62	1.53
26	BB	2699	C	C5'-C4'	6.16	1.60	1.51
1	AA	472	U	C4'-O4'	-6.15	1.36	1.45
1	AA	890	G	C3'-O3'	-6.15	1.33	1.43
26	BB	346	A	O5'-C5'	6.15	1.51	1.42
26	BB	698	C	P-O5'	6.15	1.69	1.59
26	BB	1054	A	C5'-C4'	6.15	1.60	1.51
1	AA	298	A	O3'-P	6.14	1.70	1.61
1	AA	386	C	P-O5'	6.14	1.69	1.59
26	BB	522	A	O3'-P	6.14	1.70	1.61
35	BK	128	ILE	C-N	6.14	1.41	1.33
7	AG	124	VAL	CA-CB	6.14	1.62	1.54
26	BB	1355	G	O4'-C1'	6.14	1.50	1.41
26	BB	2364	C	P-O5'	6.14	1.69	1.59
26	BB	2671	G	P-O5'	6.14	1.69	1.59
1	AA	529	G	C3'-O3'	-6.13	1.32	1.42
5	AE	195	VAL	N-CA	-6.13	1.39	1.46
44	BT	59	ILE	CA-CB	6.13	1.61	1.53
1	AA	1451	U	C4'-O4'	-6.13	1.36	1.45
20	AT	63	CYS	N-CA	6.13	1.51	1.46
14	AN	15	VAL	C-N	6.13	1.42	1.33
26	BB	653	U	C2'-O2'	6.13	1.51	1.42
57	B6	61	LEU	N-CA	6.13	1.53	1.46
16	AP	20	SER	N-CA	6.12	1.54	1.45
9	AI	103	VAL	CA-C	6.12	1.60	1.52
26	BB	1029	A	C5'-C4'	6.12	1.60	1.51
1	AA	898	G	C4'-O4'	-6.12	1.36	1.45
26	BB	216	A	O4'-C1'	6.12	1.50	1.41
36	BL	20	ALA	CA-C	6.12	1.60	1.52
26	BB	199	A	C3'-C2'	6.12	1.62	1.52
30	BF	46	GLN	C-N	6.12	1.42	1.33
26	BB	2864	G	O3'-P	6.11	1.70	1.61
1	AA	865	A	C4'-O4'	-6.11	1.36	1.45
2	AB	7	G	P-O5'	6.11	1.69	1.59
20	AT	44	HIS	ND1-CE1	6.11	1.38	1.32
26	BB	1241	A	C5'-C4'	6.11	1.60	1.51
26	BB	1369	G	P-O5'	6.11	1.69	1.59
49	BY	24	ARG	CD-NE	6.11	1.54	1.46
26	BB	111	A	C5'-C4'	6.11	1.60	1.51
26	BB	2073	C	C5'-C4'	6.11	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BL	7	LYS	CA-C	6.11	1.58	1.52
1	AA	523	A	P-O5'	6.11	1.69	1.59
8	AH	134	ASN	CA-C	6.11	1.60	1.52
12	AL	12	LYS	N-CA	6.11	1.55	1.46
26	BB	1948	G	P-O5'	6.11	1.69	1.59
1	AA	672	U	P-O5'	6.10	1.69	1.59
1	AA	1432	G	C5'-C4'	6.10	1.60	1.51
14	AN	73	VAL	CA-C	6.10	1.60	1.52
1	AA	178	C	C4'-O4'	-6.10	1.36	1.45
26	BB	67	U	C4'-O4'	-6.10	1.36	1.45
26	BB	682	G	O3'-P	6.10	1.70	1.61
26	BB	217	A	P-O5'	6.10	1.69	1.59
26	BB	2685	G	P-O5'	6.10	1.69	1.59
1	AA	362	G	O3'-P	6.10	1.70	1.61
1	AA	1251	A	C3'-C2'	-6.10	1.43	1.52
8	AH	102	THR	N-CA	6.10	1.54	1.46
1	AA	99	C	C5'-C4'	6.10	1.60	1.51
40	BP	95	THR	CB-OG1	-6.10	1.33	1.43
1	AA	5	U	C2'-C1'	6.09	1.62	1.53
25	BA	30	C	C4'-C3'	6.09	1.61	1.52
26	BB	1594	U	P-O5'	6.09	1.68	1.59
1	AA	1183	U	O5'-C5'	-6.09	1.33	1.42
4	AD	9	G	C5'-C4'	6.09	1.60	1.51
26	BB	289	G	C5'-C4'	6.09	1.60	1.51
1	AA	1525	G	O3'-P	6.09	1.70	1.61
7	AG	43	ARG	NE-CZ	6.09	1.39	1.33
58	B7	4	ARG	CD-NE	6.09	1.54	1.46
26	BB	1399	C	O3'-P	6.09	1.70	1.61
1	AA	114	U	C4'-O4'	-6.09	1.36	1.45
1	AA	796	C	O5'-C5'	6.09	1.51	1.42
26	BB	2365	G	O3'-P	6.09	1.70	1.61
26	BB	2485	G	O3'-P	6.09	1.70	1.61
26	BB	2793	C	C5'-C4'	6.08	1.60	1.51
1	AA	122	G	P-O5'	6.08	1.68	1.59
1	AA	715	A	P-O5'	6.08	1.68	1.59
26	BB	189	G	P-O5'	6.08	1.68	1.59
1	AA	546	A	O4'-C1'	6.08	1.50	1.41
51	B0	46	VAL	CA-CB	6.08	1.62	1.54
26	BB	464	U	C1'-N1	6.08	1.57	1.48
1	AA	662	U	O3'-P	6.08	1.70	1.61
1	AA	1431	A	C3'-O3'	6.08	1.51	1.42
25	BA	58	A	C4'-O4'	-6.08	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	97	C	C1'-N1	6.08	1.57	1.48
26	BB	1869	G	C3'-C2'	-6.08	1.43	1.52
1	AA	707	U	C3'-O3'	-6.08	1.33	1.42
26	BB	285	G	C4'-C3'	6.08	1.61	1.52
26	BB	839	U	O3'-P	-6.08	1.52	1.61
26	BB	1625	C	C4'-C3'	6.08	1.61	1.52
36	BL	111	LYS	CA-C	6.08	1.60	1.52
26	BB	2681	C	C4'-C3'	6.07	1.62	1.53
2	AB	3	G	O3'-P	6.07	1.70	1.61
4	AD	75	C	C2'-C1'	-6.07	1.44	1.53
26	BB	1076	C	P-O5'	6.07	1.68	1.59
26	BB	1142	A	C4'-O4'	-6.07	1.36	1.45
1	AA	570	G	P-O5'	6.07	1.68	1.59
1	AA	716	A	P-O5'	6.07	1.68	1.59
26	BB	1770	G	C3'-O3'	-6.07	1.33	1.42
26	BB	968	C	O3'-P	6.06	1.70	1.61
1	AA	1342	C	C3'-C2'	6.06	1.61	1.52
26	BB	1002	G	C3'-C2'	-6.06	1.43	1.52
25	BA	95	U	C4'-C3'	6.06	1.61	1.52
27	BC	222	VAL	CA-C	6.06	1.60	1.52
51	B0	30	MET	N-CA	-6.06	1.38	1.46
5	AE	73	ARG	NE-CZ	6.06	1.39	1.33
12	AL	35	GLU	CA-C	6.06	1.60	1.52
26	BB	522	A	C5'-C4'	6.06	1.60	1.51
26	BB	709	U	C4'-O4'	-6.06	1.36	1.45
42	BR	76	HIS	CG-CD2	6.06	1.42	1.35
26	BB	2885	G	C3'-O3'	6.06	1.51	1.42
1	AA	472	U	O3'-P	6.05	1.70	1.61
6	AF	74	ILE	CA-C	6.05	1.60	1.52
6	AF	126	ARG	NE-CZ	6.05	1.39	1.33
40	BP	54	LEU	CA-CB	6.05	1.62	1.53
57	B6	48	MET	N-CA	6.05	1.53	1.45
23	AW	77	ASN	C-O	-6.05	1.17	1.24
53	B2	6	HIS	CE1-NE2	6.05	1.38	1.32
6	AF	77	GLY	CA-C	6.05	1.60	1.51
4	AD	10	G	C4'-C3'	6.05	1.61	1.52
7	AG	101	VAL	CA-C	6.05	1.61	1.52
26	BB	2764	A	C5'-C4'	6.05	1.60	1.51
38	BN	99	ASN	N-CA	-6.05	1.38	1.46
47	BW	29	SER	CA-C	6.05	1.60	1.52
26	BB	2022	U	C3'-O3'	-6.04	1.34	1.43
14	AN	58	THR	CA-CB	6.04	1.62	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1907	G	P-O5'	6.04	1.68	1.59
26	BB	2173	A	O4'-C1'	-6.04	1.32	1.41
38	BN	143	GLU	CA-CB	6.04	1.61	1.53
26	BB	1043	C	C4'-O4'	-6.04	1.36	1.45
12	AL	44	ARG	CZ-NH1	6.04	1.41	1.32
1	AA	1445	U	P-O5'	6.04	1.68	1.59
19	AS	59	HIS	CA-CB	6.04	1.62	1.53
1	AA	64	G	O3'-P	6.03	1.70	1.61
26	BB	1319	C	P-O5'	6.03	1.68	1.59
1	AA	1422	G	C4'-O4'	-6.03	1.36	1.45
26	BB	2058	A	C2'-O2'	-6.03	1.33	1.42
26	BB	1662	U	C3'-O3'	6.03	1.51	1.42
26	BB	1757	A	C4'-O4'	-6.03	1.36	1.45
1	AA	337	G	C4'-O4'	-6.03	1.36	1.45
7	AG	199	ILE	CA-C	6.03	1.62	1.52
26	BB	1848	A	P-O5'	6.03	1.68	1.59
1	AA	207	C	C1'-N1	6.03	1.57	1.48
1	AA	1397	C	C4'-C3'	6.03	1.61	1.52
4	AD	14	A	O5'-C5'	-6.03	1.33	1.42
18	AR	74	VAL	C-O	-6.03	1.16	1.24
26	BB	1207	C	C2'-O2'	-6.03	1.33	1.42
1	AA	840	C	C4'-O4'	-6.02	1.36	1.45
9	AI	37	HIS	ND1-CE1	6.02	1.38	1.32
26	BB	1499	C	C5'-C4'	6.02	1.60	1.51
26	BB	2071	A	C4'-O4'	-6.02	1.36	1.45
28	BD	99	GLU	CA-C	6.02	1.60	1.52
26	BB	388	G	C5'-C4'	6.02	1.60	1.51
26	BB	396	G	C3'-C2'	-6.02	1.43	1.52
26	BB	643	A	P-O5'	6.02	1.68	1.59
26	BB	1708	C	O5'-C5'	6.02	1.51	1.42
1	AA	1045	C	P-O5'	6.02	1.68	1.59
20	AT	5	ARG	NE-CZ	6.02	1.39	1.33
20	AT	46	HIS	CB-CG	6.02	1.58	1.50
26	BB	1288	G	C3'-C2'	-6.02	1.44	1.52
26	BB	2630	G	P-O5'	6.02	1.68	1.59
1	AA	1426	G	O3'-P	-6.02	1.52	1.61
5	AE	42	LEU	CA-C	6.02	1.60	1.52
26	BB	503	A	C1'-N9	6.02	1.56	1.48
26	BB	841	G	C3'-O3'	6.02	1.51	1.42
12	AL	54	VAL	CA-C	6.01	1.60	1.52
13	AM	69	THR	CA-CB	6.01	1.63	1.53
26	BB	34	U	C4'-O4'	-6.01	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	440	C	O5'-C5'	-6.01	1.33	1.42
1	AA	520	A	C5'-C4'	6.01	1.60	1.51
25	BA	32	U	C4'-O4'	-6.01	1.36	1.45
26	BB	2025	C	C5'-C4'	6.01	1.60	1.51
26	BB	2640	G	P-O5'	6.01	1.68	1.59
31	BG	153	ILE	CA-C	6.01	1.59	1.53
26	BB	894	U	C3'-C2'	6.01	1.61	1.52
26	BB	10	A	C2'-C1'	-6.01	1.44	1.53
26	BB	2009	A	C4'-C3'	6.01	1.61	1.52
26	BB	2229	U	C4'-O4'	-6.01	1.36	1.45
1	AA	1413	A	O3'-P	6.00	1.70	1.61
1	AA	676	A	C5'-C4'	6.00	1.60	1.51
1	AA	1017	U	C3'-C2'	-6.00	1.43	1.52
5	AE	56	LEU	CA-C	6.00	1.60	1.52
26	BB	1812	U	C4'-O4'	-6.00	1.36	1.45
43	BS	91	ARG	CD-NE	6.00	1.54	1.46
11	AK	69	ALA	CA-C	6.00	1.60	1.52
26	BB	1308	A	P-O5'	6.00	1.68	1.59
26	BB	1877	A	O3'-P	6.00	1.70	1.61
1	AA	241	G	P-O5'	6.00	1.68	1.59
1	AA	537	G	C4'-O4'	-6.00	1.36	1.45
26	BB	740	C	P-O5'	6.00	1.68	1.59
26	BB	1020	A	C5'-C4'	6.00	1.60	1.51
1	AA	274	A	P-O5'	6.00	1.68	1.59
3	AC	24	A	C4'-O4'	-6.00	1.36	1.45
14	AN	45	THR	CA-C	6.00	1.60	1.52
26	BB	2720	U	C3'-O3'	6.00	1.51	1.42
43	BS	29	ARG	N-CA	5.99	1.53	1.46
44	BT	84	ARG	NE-CZ	5.99	1.39	1.33
30	BF	98	LYS	CA-C	5.99	1.60	1.52
21	AU	51	GLN	CA-C	5.99	1.60	1.52
39	BO	84	LYS	CA-C	5.99	1.60	1.52
26	BB	2343	U	C2'-C1'	5.98	1.62	1.53
1	AA	919	A	C4'-O4'	-5.98	1.36	1.45
1	AA	1334	G	C4'-O4'	-5.98	1.36	1.45
10	AJ	113	LYS	CA-C	5.98	1.62	1.52
26	BB	346	A	O3'-P	5.98	1.70	1.61
26	BB	1654	A	P-O5'	5.98	1.68	1.59
3	AC	46	C	P-O5'	5.98	1.68	1.59
7	AG	46	ARG	C-O	-5.98	1.17	1.24
14	AN	106	ILE	CA-C	5.98	1.60	1.52
26	BB	2611	C	C4'-O4'	-5.98	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2823	A	C5'-C4'	5.98	1.60	1.51
54	B3	47	TYR	N-CA	-5.98	1.38	1.46
12	AL	65	THR	CA-C	5.98	1.59	1.52
1	AA	1147	C	P-O5'	5.97	1.68	1.59
4	AD	53	G	C5'-C4'	5.97	1.60	1.51
26	BB	1635	A	C4'-O4'	-5.97	1.36	1.45
36	BL	90	GLU	C-N	5.97	1.41	1.33
17	AQ	84	ARG	CD-NE	5.97	1.54	1.46
26	BB	672	C	O3'-P	5.97	1.70	1.61
26	BB	1631	G	C2'-O2'	5.97	1.51	1.42
26	BB	2206	C	C1'-N1	5.97	1.57	1.48
13	AM	70	HIS	N-CA	-5.97	1.38	1.46
26	BB	2622	U	C3'-O3'	5.97	1.51	1.42
26	BB	2781	A	C4'-O4'	-5.97	1.36	1.45
42	BR	112	ARG	CA-C	5.97	1.60	1.52
26	BB	843	G	O4'-C1'	5.97	1.50	1.41
1	AA	255	G	C1'-N9	5.97	1.56	1.48
13	AM	93	ALA	N-CA	5.97	1.53	1.45
11	AK	71	VAL	C-O	5.96	1.31	1.24
26	BB	2786	U	C5'-C4'	5.96	1.60	1.51
32	BH	48	THR	CA-CB	5.96	1.60	1.52
52	B1	41	PRO	N-CD	-5.96	1.39	1.47
16	AP	27	THR	CA-C	5.96	1.60	1.52
26	BB	2489	U	C4'-O4'	-5.96	1.36	1.45
17	AQ	93	PRO	CA-C	5.96	1.59	1.52
26	BB	1465	G	O3'-P	5.96	1.70	1.61
38	BN	10	GLU	CA-C	5.96	1.60	1.52
26	BB	2113	U	C5'-C4'	5.96	1.60	1.51
28	BD	268	ARG	NE-CZ	5.96	1.39	1.33
11	AK	79	ARG	CA-C	5.96	1.58	1.52
26	BB	54	G	C4'-O4'	-5.96	1.36	1.45
26	BB	1344	U	C1'-N1	5.96	1.56	1.47
26	BB	1960	A	C5'-C4'	5.96	1.60	1.51
26	BB	2324	U	O4'-C1'	5.96	1.50	1.42
30	BF	61	ARG	CA-CB	5.96	1.62	1.53
44	BT	27	ILE	N-CA	5.96	1.53	1.46
1	AA	77	A	C4'-O4'	-5.96	1.36	1.45
1	AA	1161	C	C1'-N1	5.96	1.57	1.48
26	BB	1944	U	P-O5'	5.96	1.68	1.59
26	BB	2695	U	C5'-C4'	5.96	1.60	1.51
1	AA	511	C	O3'-P	-5.96	1.52	1.61
15	AO	113	ARG	N-CA	5.96	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	323	U	C5'-C4'	5.95	1.60	1.51
26	BB	275	C	C3'-O3'	-5.95	1.33	1.42
44	BT	55	ASP	C-N	5.95	1.42	1.33
1	AA	1028	C	O4'-C1'	5.95	1.50	1.41
4	AD	10	G	P-O5'	5.95	1.68	1.59
25	BA	43	C	C1'-N1	5.95	1.57	1.48
26	BB	15	G	O3'-P	5.95	1.70	1.61
26	BB	1004	U	P-O5'	5.95	1.68	1.59
26	BB	1549	A	C4'-C3'	5.95	1.61	1.52
1	AA	420	U	O3'-P	5.95	1.70	1.61
26	BB	447	A	C4'-O4'	-5.95	1.36	1.45
26	BB	2526	G	O4'-C1'	5.95	1.50	1.41
26	BB	1094	U	P-O5'	5.94	1.68	1.59
26	BB	2169	A	C4'-O4'	-5.94	1.36	1.45
26	BB	2602	A	O5'-C5'	-5.94	1.33	1.42
29	BE	112	THR	CA-CB	5.94	1.61	1.53
6	AF	78	LYS	N-CA	5.94	1.53	1.46
26	BB	986	C	P-O5'	5.94	1.68	1.59
38	BN	61	LEU	N-CA	5.94	1.52	1.45
1	AA	1028	C	O3'-P	5.94	1.70	1.61
37	BM	10	VAL	CA-C	5.94	1.60	1.52
46	BV	51	PHE	N-CA	5.94	1.53	1.46
6	AF	107	LYS	CA-C	5.93	1.60	1.52
26	BB	2546	U	P-O5'	5.93	1.68	1.59
1	AA	396	C	P-O5'	5.93	1.68	1.59
1	AA	546	A	P-O5'	5.93	1.68	1.59
44	BT	79	ARG	CD-NE	5.93	1.54	1.46
24	AX	16	ARG	CA-C	5.93	1.60	1.52
1	AA	181	A	C4'-O4'	-5.93	1.36	1.45
26	BB	28	A	C5'-C4'	5.93	1.60	1.51
26	BB	2612	C	C4'-O4'	-5.93	1.36	1.45
6	AF	136	ALA	CA-C	5.93	1.60	1.52
26	BB	1529	G	P-O5'	5.93	1.68	1.59
1	AA	845	A	C4'-O4'	-5.92	1.36	1.45
26	BB	797	G	C4'-O4'	-5.92	1.36	1.45
1	AA	1397	C	C5'-C4'	5.92	1.60	1.51
7	AG	134	TYR	CA-C	-5.92	1.45	1.52
26	BB	77	G	O4'-C1'	-5.92	1.32	1.41
26	BB	1237	A	O3'-P	5.92	1.70	1.61
26	BB	1899	A	O3'-P	5.92	1.70	1.61
1	AA	731	G	P-O5'	5.92	1.68	1.59
26	BB	2389	G	C5'-C4'	5.92	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	AO	34	THR	CA-C	5.92	1.58	1.52
9	AI	58	HIS	CB-CG	5.92	1.58	1.50
19	AS	38	PHE	CA-C	-5.92	1.45	1.52
26	BB	716	A	O3'-P	5.92	1.70	1.61
38	BN	71	ALA	CA-C	5.92	1.60	1.52
4	AD	60	A	C1'-N9	5.92	1.56	1.48
28	BD	270	ARG	CA-CB	5.92	1.63	1.53
49	BY	49	ASN	CA-C	5.92	1.58	1.53
53	B2	37	CYS	CA-C	5.92	1.60	1.52
55	B4	18	HIS	CG-ND1	5.92	1.44	1.38
13	AM	5	ARG	CZ-NH2	5.92	1.41	1.33
26	BB	777	G	C5'-C4'	5.92	1.60	1.51
1	AA	1024	G	C4'-O4'	-5.91	1.36	1.45
25	BA	33	G	C4'-C3'	5.91	1.61	1.52
26	BB	1622	G	O3'-P	5.91	1.70	1.61
26	BB	2804	U	C4'-O4'	-5.91	1.36	1.45
8	AH	88	HIS	CG-CD2	5.91	1.42	1.35
16	AP	32	ILE	N-CA	5.91	1.53	1.46
29	BE	133	THR	CA-CB	5.91	1.62	1.53
26	BB	45	G	C5'-C4'	5.91	1.60	1.51
26	BB	868	U	C1'-N1	5.91	1.57	1.48
26	BB	1290	C	C5'-C4'	5.91	1.60	1.51
31	BG	105	ILE	CA-C	5.91	1.59	1.52
43	BS	50	ARG	CA-CB	5.91	1.62	1.53
23	AW	74	HIS	C-N	5.91	1.41	1.33
26	BB	1457	U	C4'-O4'	-5.91	1.36	1.45
29	BE	84	LEU	CA-C	5.91	1.59	1.52
33	BI	51	ARG	CA-CB	5.91	1.63	1.53
1	AA	122	G	C2'-C1'	-5.91	1.44	1.53
26	BB	2324	U	O3'-P	5.91	1.70	1.61
26	BB	2838	G	C1'-N9	5.91	1.56	1.48
22	AV	75	PRO	N-CD	-5.91	1.39	1.47
26	BB	2107	G	C5'-C4'	5.91	1.60	1.51
31	BG	23	SER	CA-C	5.91	1.59	1.52
26	BB	1819	A	O3'-P	5.90	1.70	1.61
4	AD	61	U	P-O5'	5.90	1.68	1.59
22	AV	38	THR	CA-CB	5.90	1.62	1.53
1	AA	1048	G	P-O5'	5.90	1.68	1.59
54	B3	40	HIS	CG-CD2	5.90	1.42	1.35
26	BB	683	U	P-O5'	5.90	1.68	1.59
26	BB	743	A	C4'-O4'	-5.90	1.36	1.45
1	AA	167	A	C5'-C4'	5.90	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1642	G	P-O5'	5.90	1.68	1.59
1	AA	920	U	C5'-C4'	5.89	1.60	1.51
26	BB	2088	A	P-O5'	5.89	1.68	1.59
1	AA	807	A	C5'-C4'	5.89	1.60	1.51
26	BB	2764	A	P-O5'	5.89	1.68	1.59
1	AA	1483	A	C3'-O3'	5.89	1.50	1.42
12	AL	80	HIS	N-CA	-5.89	1.38	1.46
26	BB	630	G	C2'-O2'	-5.89	1.33	1.42
26	BB	2082	A	C3'-C2'	5.89	1.61	1.52
26	BB	2885	G	P-O5'	5.89	1.68	1.59
1	AA	1447	A	C5'-C4'	5.89	1.60	1.51
26	BB	585	G	O3'-P	5.89	1.70	1.61
1	AA	907	A	O3'-P	5.89	1.70	1.61
4	AD	29	C	O3'-P	5.88	1.70	1.61
8	AH	15	ILE	CA-C	-5.88	1.45	1.52
25	BA	82	U	P-O5'	5.88	1.68	1.59
26	BB	2111	U	O5'-C5'	-5.88	1.34	1.42
14	AN	55	ARG	CA-C	5.88	1.60	1.52
26	BB	491	G	O3'-P	5.88	1.70	1.61
42	BR	57	ALA	CA-C	5.88	1.59	1.52
1	AA	964	A	O3'-P	-5.88	1.52	1.61
1	AA	1200	C	C3'-O3'	5.88	1.51	1.43
1	AA	1257	A	O3'-P	5.88	1.70	1.61
5	AE	68	PHE	N-CA	5.88	1.53	1.46
5	AE	107	ARG	CA-C	5.88	1.60	1.52
26	BB	1877	A	C4'-O4'	-5.88	1.36	1.45
1	AA	302	G	C2'-O2'	-5.88	1.33	1.42
1	AA	616	G	P-O5'	5.88	1.68	1.59
1	AA	570	G	C4'-O4'	-5.88	1.36	1.45
27	BC	61	GLY	CA-C	5.88	1.59	1.52
26	BB	886	A	C4'-O4'	-5.88	1.36	1.45
39	BO	133	LYS	CA-C	5.88	1.60	1.52
12	AL	52	GLU	C-N	5.87	1.41	1.33
27	BC	38	PHE	N-CA	5.87	1.53	1.46
1	AA	1284	C	P-O5'	5.87	1.68	1.59
14	AN	6	ARG	NE-CZ	5.87	1.39	1.33
26	BB	1634	A	C5'-C4'	5.87	1.60	1.51
28	BD	19	VAL	N-CA	-5.87	1.39	1.46
4	AD	15	G	C5'-C4'	5.87	1.60	1.51
26	BB	1934	C	P-O5'	5.87	1.68	1.59
29	BE	12	THR	C-N	5.87	1.41	1.33
1	AA	584	G	O3'-P	5.87	1.70	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	AG	80	ARG	C-O	5.87	1.31	1.24
20	AT	78	VAL	C-O	-5.87	1.17	1.24
26	BB	345	A	C4'-O4'	-5.86	1.37	1.45
26	BB	369	U	C2'-C1'	5.86	1.62	1.53
26	BB	1506	U	C2'-O2'	-5.86	1.33	1.42
42	BR	42	PHE	CA-C	-5.86	1.45	1.52
1	AA	729	A	C5'-C4'	5.86	1.60	1.51
1	AA	608	A	P-O5'	5.86	1.68	1.59
26	BB	2000	C	C4'-O4'	-5.86	1.36	1.45
1	AA	721	G	C5'-C4'	5.86	1.60	1.51
1	AA	1293	C	C5'-C4'	5.86	1.60	1.51
23	AW	60	GLN	N-CA	-5.86	1.39	1.46
42	BR	16	VAL	N-CA	5.86	1.52	1.46
25	BA	81	G	C3'-C2'	5.85	1.61	1.52
26	BB	959	A	C5'-C4'	5.85	1.60	1.51
42	BR	13	LYS	N-CA	5.85	1.53	1.45
1	AA	950	U	O3'-P	5.85	1.70	1.61
26	BB	921	C	P-O5'	5.85	1.68	1.59
1	AA	483	C	C4'-O4'	-5.85	1.36	1.45
20	AT	64	ARG	CD-NE	5.85	1.54	1.46
37	BM	87	LEU	CA-C	5.85	1.61	1.53
1	AA	289	G	P-O5'	5.85	1.68	1.59
1	AA	823	C	O3'-P	5.85	1.70	1.61
9	AI	113	ARG	C-N	5.85	1.41	1.33
17	AQ	58	ARG	NE-CZ	5.85	1.39	1.33
1	AA	104	G	C4'-O4'	-5.85	1.36	1.45
26	BB	432	A	C4'-C3'	5.85	1.61	1.52
26	BB	646	U	C3'-O3'	-5.84	1.33	1.42
26	BB	2300	C	C2'-C1'	5.84	1.62	1.53
1	AA	1285	A	C5'-C4'	5.84	1.60	1.51
1	AA	407	U	P-O5'	5.84	1.68	1.59
9	AI	108	GLU	N-CA	5.84	1.53	1.46
33	BI	72	ILE	N-CA	5.84	1.53	1.46
1	AA	304	U	O5'-C5'	-5.84	1.33	1.42
1	AA	1016	A	O3'-P	5.84	1.70	1.61
26	BB	590	A	C2'-O2'	-5.84	1.33	1.42
26	BB	2431	U	C5'-C4'	5.84	1.60	1.51
26	BB	2333	A	P-O5'	-5.84	1.50	1.59
26	BB	279	A	P-O5'	5.84	1.68	1.59
26	BB	1149	G	C4'-C3'	5.84	1.61	1.52
26	BB	2059	A	O3'-P	5.84	1.70	1.61
27	BC	68	GLY	CA-C	5.83	1.57	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	AE	175	ALA	CA-C	5.83	1.60	1.52
1	AA	1268	G	C4'-O4'	-5.83	1.36	1.45
25	BA	71	C	C5'-C4'	5.83	1.59	1.51
26	BB	1994	C	P-O5'	5.83	1.68	1.59
1	AA	615	G	P-O5'	5.83	1.68	1.59
26	BB	52	A	C5'-C4'	5.83	1.59	1.51
37	BM	78	ARG	CD-NE	5.83	1.54	1.46
1	AA	638	U	P-O5'	5.83	1.68	1.59
1	AA	423	G	P-O5'	5.82	1.68	1.59
20	AT	2	ASP	N-CA	-5.82	1.38	1.46
26	BB	351	C	C1'-N1	5.82	1.57	1.48
26	BB	1940	U	C2'-C1'	5.82	1.61	1.53
38	BN	35	HIS	CA-CB	5.82	1.61	1.53
12	AL	76	GLY	C-O	-5.82	1.16	1.23
38	BN	108	ALA	CA-C	5.82	1.59	1.52
26	BB	1776	G	C4'-O4'	-5.82	1.36	1.45
1	AA	169	C	C5'-C4'	5.82	1.59	1.51
13	AM	62	ARG	CD-NE	5.82	1.54	1.46
26	BB	1724	G	C4'-O4'	-5.82	1.36	1.45
32	BH	150	TYR	N-CA	-5.82	1.37	1.45
40	BP	49	GLU	C-O	-5.82	1.19	1.24
1	AA	1376	U	P-O5'	5.82	1.68	1.59
46	BV	43	ILE	CA-C	5.82	1.60	1.52
4	AD	49	C	C5'-C4'	5.81	1.60	1.51
38	BN	69	ARG	CZ-NH2	5.81	1.41	1.33
38	BN	81	ASP	C-N	5.81	1.41	1.33
1	AA	1426	G	P-O5'	5.81	1.68	1.59
35	BK	108	ILE	CA-CB	-5.81	1.47	1.54
26	BB	704	G	C5'-C4'	5.81	1.59	1.51
26	BB	1685	C	P-O5'	5.81	1.68	1.59
1	AA	394	G	P-O5'	5.81	1.68	1.59
1	AA	1317	C	C1'-N1	5.81	1.57	1.48
1	AA	609	A	C3'-O3'	5.81	1.50	1.42
25	BA	71	C	C4'-C3'	-5.81	1.43	1.52
26	BB	934	U	C4'-O4'	-5.81	1.36	1.45
5	AE	167	HIS	ND1-CE1	5.80	1.38	1.32
26	BB	1480	C	O4'-C1'	5.80	1.50	1.41
26	BB	2554	U	O4'-C1'	5.80	1.50	1.41
34	BJ	79	THR	CA-C	5.80	1.59	1.52
54	B3	15	ARG	NE-CZ	5.80	1.39	1.33
26	BB	906	U	C5'-C4'	5.80	1.59	1.51
26	BB	1088	A	C5'-C4'	5.80	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	BC	147	PRO	N-CD	-5.80	1.39	1.47
23	AW	19	HIS	C-N	5.80	1.41	1.33
26	BB	2395	C	O5'-C5'	-5.80	1.33	1.42
38	BN	42	SER	C-N	5.80	1.38	1.33
26	BB	611	C	P-O5'	5.80	1.68	1.59
26	BB	1635	A	C3'-O3'	5.80	1.50	1.42
39	BO	4	PRO	CA-C	5.80	1.59	1.52
47	BW	52	ASN	CA-C	5.80	1.59	1.53
18	AR	4	THR	N-CA	5.79	1.53	1.46
26	BB	2425	A	O3'-P	5.79	1.69	1.61
26	BB	2847	U	C2'-C1'	5.79	1.62	1.53
26	BB	1786	A	C4'-C3'	5.79	1.61	1.53
26	BB	1969	A	P-O5'	5.79	1.68	1.59
26	BB	2279	G	O3'-P	5.79	1.69	1.61
42	BR	107	ALA	CA-C	5.79	1.60	1.52
26	BB	2232	C	O5'-C5'	5.79	1.51	1.42
1	AA	927	G	C3'-C2'	-5.79	1.44	1.52
26	BB	135	U	C4'-O4'	-5.79	1.36	1.45
26	BB	1859	U	P-O5'	5.79	1.68	1.59
37	BM	30	ARG	N-CA	-5.79	1.39	1.46
2	AB	12	U	C4'-O4'	-5.79	1.36	1.45
1	AA	1237	C	C4'-O4'	-5.78	1.36	1.45
20	AT	30	HIS	CE1-NE2	5.78	1.38	1.32
26	BB	1437	C	O3'-P	5.78	1.69	1.61
51	B0	41	HIS	CD2-NE2	5.78	1.44	1.37
28	BD	229	HIS	ND1-CE1	5.78	1.38	1.32
26	BB	2780	G	C5'-C4'	5.78	1.60	1.51
45	BU	69	LEU	C-O	-5.78	1.17	1.23
26	BB	341	C	C4'-O4'	-5.78	1.36	1.45
26	BB	1980	G	C1'-N9	5.78	1.55	1.47
26	BB	2178	C	O3'-P	5.78	1.69	1.61
26	BB	1437	C	C4'-O4'	-5.77	1.36	1.45
26	BB	2763	G	C5'-C4'	5.77	1.59	1.51
26	BB	2525	G	C4'-O4'	-5.77	1.36	1.45
14	AN	10	ARG	CA-C	5.77	1.60	1.52
26	BB	1977	A	O3'-P	5.77	1.69	1.61
47	BW	42	LYS	N-CA	-5.77	1.39	1.46
26	BB	649	G	C4'-C3'	5.76	1.61	1.52
29	BE	166	GLY	C-N	5.76	1.41	1.33
26	BB	334	C	C4'-O4'	-5.76	1.36	1.45
1	AA	140	U	C3'-C2'	-5.76	1.44	1.52
22	AV	16	LYS	CA-C	5.76	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	820	A	C1'-N9	5.76	1.56	1.48
26	BB	1258	U	P-O5'	5.76	1.68	1.59
29	BE	89	GLU	C-N	5.76	1.41	1.33
52	B1	2	LYS	N-CA	5.76	1.53	1.45
33	BI	49	ALA	N-CA	5.76	1.53	1.46
5	AE	234	GLU	C-O	-5.76	1.17	1.24
26	BB	202	U	C4'-O4'	-5.76	1.36	1.45
26	BB	2230	G	P-O5'	5.76	1.68	1.59
26	BB	2848	G	C5'-C4'	5.76	1.59	1.51
31	BG	55	ASP	CA-C	-5.76	1.45	1.52
26	BB	886	A	C4'-C3'	5.75	1.61	1.52
26	BB	2318	G	P-O5'	5.75	1.68	1.59
48	BX	70	ILE	N-CA	5.75	1.53	1.46
2	AB	70	C	O3'-P	5.75	1.69	1.61
17	AQ	21	ALA	CA-CB	5.75	1.62	1.53
26	BB	2118	U	C4'-O4'	-5.75	1.37	1.45
30	BF	161	ALA	CA-C	5.75	1.61	1.52
57	B6	46	LYS	CA-C	5.75	1.60	1.52
1	AA	1251	A	P-O5'	5.75	1.68	1.59
19	AS	21	VAL	CA-C	5.75	1.59	1.52
26	BB	741	U	C4'-C3'	-5.75	1.44	1.52
29	BE	186	LEU	N-CA	-5.75	1.38	1.46
32	BH	125	PRO	N-CA	-5.75	1.40	1.47
35	BK	112	LYS	CA-C	5.75	1.60	1.52
1	AA	131	A	C4'-O4'	-5.74	1.36	1.45
28	BD	173	LEU	CA-C	5.74	1.59	1.52
1	AA	867	G	C4'-O4'	-5.74	1.36	1.45
1	AA	1297	G	P-O5'	5.74	1.68	1.59
1	AA	1468	A	O3'-P	5.74	1.69	1.61
28	BD	224	MET	N-CA	-5.74	1.38	1.45
35	BK	4	VAL	CA-CB	5.74	1.61	1.54
1	AA	356	A	P-O5'	5.74	1.68	1.59
26	BB	651	G	P-O5'	5.74	1.68	1.59
26	BB	2639	A	P-O5'	5.74	1.68	1.59
29	BE	3	GLY	N-CA	5.74	1.50	1.44
36	BL	66	GLY	CA-C	5.74	1.59	1.52
48	BX	91	PHE	N-CA	5.74	1.53	1.45
1	AA	351	G	C4'-O4'	-5.74	1.37	1.45
1	AA	948	C	O3'-P	5.74	1.69	1.61
1	AA	1523	G	O3'-P	5.74	1.69	1.61
8	AH	93	VAL	N-CA	5.74	1.52	1.46
16	AP	92	ARG	NE-CZ	5.74	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	AT	8	GLN	N-CA	-5.74	1.39	1.46
26	BB	1716	U	C2'-O2'	-5.74	1.33	1.42
22	AV	22	VAL	N-CA	-5.73	1.39	1.46
26	BB	1414	C	C2'-C1'	-5.73	1.44	1.53
26	BB	316	C	C3'-O3'	-5.73	1.33	1.42
26	BB	2305	U	P-O5'	5.73	1.68	1.59
39	BO	13	HIS	CD2-NE2	5.73	1.44	1.37
27	BC	69	THR	CB-OG1	5.73	1.52	1.43
30	BF	31	VAL	CA-CB	-5.73	1.47	1.54
40	BP	59	SER	N-CA	5.73	1.53	1.46
6	AF	175	HIS	CG-ND1	5.73	1.44	1.38
1	AA	898	G	C5'-C4'	5.73	1.59	1.51
1	AA	1187	G	P-O5'	5.73	1.68	1.59
26	BB	1182	G	P-O5'	5.73	1.68	1.59
26	BB	1924	C	O3'-P	5.72	1.69	1.61
32	BH	104	LEU	CA-CB	5.72	1.64	1.53
1	AA	1215	G	C5'-C4'	5.72	1.59	1.51
26	BB	1532	A	C5'-C4'	5.72	1.59	1.51
31	BG	73	VAL	CA-C	-5.72	1.45	1.52
28	BD	134	ILE	N-CA	-5.72	1.40	1.46
26	BB	1950	G	C5'-C4'	5.72	1.59	1.51
26	BB	1104	C	C3'-C2'	5.72	1.61	1.52
26	BB	1230	A	C2'-C1'	-5.72	1.44	1.53
1	AA	586	C	C4'-O4'	-5.72	1.36	1.45
16	AP	97	ARG	NE-CZ	5.72	1.39	1.33
29	BE	129	THR	CA-C	5.72	1.59	1.52
36	BL	130	HIS	CA-CB	5.72	1.62	1.53
1	AA	429	U	P-O5'	5.71	1.68	1.59
26	BB	1418	G	C4'-O4'	-5.71	1.36	1.45
26	BB	806	C	C4'-C3'	5.71	1.61	1.52
26	BB	2219	U	O3'-P	5.71	1.69	1.61
41	BQ	112	GLU	CA-C	5.71	1.60	1.52
9	AI	129	SER	N-CA	-5.71	1.38	1.46
26	BB	1633	G	O5'-C5'	-5.71	1.33	1.42
30	BF	192	ALA	CA-C	5.71	1.60	1.52
32	BH	133	LYS	C-N	5.71	1.39	1.32
12	AL	44	ARG	CA-C	5.71	1.60	1.52
21	AU	47	ARG	CD-NE	5.71	1.54	1.46
26	BB	2584	U	C2'-C1'	5.71	1.61	1.53
46	BV	70	HIS	CB-CG	5.71	1.58	1.50
1	AA	325	A	P-O5'	5.71	1.68	1.59
1	AA	757	U	C1'-N1	5.70	1.57	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1168	G	C1'-N9	5.70	1.56	1.48
30	BF	62	GLN	N-CA	5.70	1.53	1.46
35	BK	38	CYS	CA-C	5.70	1.60	1.52
35	BK	60	VAL	CA-C	5.70	1.59	1.52
41	BQ	1	MET	SD-CE	5.70	1.93	1.79
20	AT	74	LEU	CA-CB	5.70	1.62	1.53
26	BB	94	A	O4'-C1'	5.70	1.50	1.41
1	AA	27	G	P-O5'	5.70	1.68	1.59
26	BB	1737	G	C3'-C2'	5.70	1.61	1.52
26	BB	786	C	O3'-P	5.70	1.69	1.61
35	BK	126	ARG	N-CA	5.70	1.53	1.46
38	BN	109	LYS	CA-C	5.70	1.59	1.52
26	BB	1285	A	O3'-P	5.70	1.69	1.61
38	BN	38	GLN	C-N	5.70	1.42	1.33
16	AP	107	THR	CA-C	5.69	1.60	1.52
26	BB	1837	C	O3'-P	-5.69	1.52	1.61
26	BB	2316	G	C5'-C4'	5.69	1.59	1.51
1	AA	1160	G	C4'-O4'	-5.69	1.37	1.45
28	BD	170	TYR	N-CA	5.69	1.53	1.45
1	AA	983	A	P-O5'	5.69	1.68	1.59
26	BB	2724	U	P-O5'	5.69	1.68	1.59
1	AA	1447	A	C4'-C3'	5.69	1.61	1.53
58	B7	33	HIS	CG-ND1	-5.69	1.31	1.38
1	AA	969	A	C3'-C2'	5.68	1.61	1.52
26	BB	1579	A	C4'-O4'	-5.68	1.37	1.45
26	BB	2244	U	C3'-O3'	-5.68	1.33	1.42
35	BK	52	LEU	CA-C	5.68	1.59	1.52
39	BO	121	ALA	CA-C	5.68	1.60	1.52
1	AA	1366	C	C5'-C4'	5.68	1.59	1.51
20	AT	23	ALA	N-CA	-5.68	1.38	1.46
1	AA	522	C	O5'-C5'	-5.68	1.33	1.42
1	AA	1298	U	C2'-O2'	5.68	1.50	1.41
26	BB	2704	C	C5'-C4'	5.68	1.59	1.51
30	BF	197	GLU	CA-C	5.68	1.60	1.52
18	AR	14	PHE	N-CA	5.68	1.52	1.45
26	BB	489	G	P-O5'	5.68	1.68	1.59
26	BB	1953	A	C5'-C4'	5.68	1.59	1.51
42	BR	40	GLN	CA-CB	5.68	1.63	1.53
1	AA	892	A	P-O5'	5.67	1.68	1.59
45	BU	2	GLU	N-CA	5.67	1.52	1.45
26	BB	543	G	C4'-O4'	-5.67	1.37	1.45
26	BB	816	C	P-O5'	5.67	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2179	C	P-O5'	5.67	1.68	1.59
26	BB	2236	U	C4'-O4'	-5.67	1.37	1.45
1	AA	1175	G	P-O5'	5.67	1.68	1.59
1	AA	1234	C	O3'-P	5.67	1.69	1.61
26	BB	1736	U	C5'-C4'	5.67	1.59	1.51
37	BM	52	VAL	CA-C	5.67	1.58	1.52
1	AA	93	U	C1'-N1	5.67	1.56	1.48
15	AO	7	VAL	N-CA	5.67	1.53	1.46
20	AT	40	THR	CA-CB	5.67	1.62	1.53
26	BB	468	G	C4'-O4'	-5.67	1.37	1.45
26	BB	946	C	P-O5'	5.67	1.68	1.59
26	BB	2243	U	P-O5'	5.67	1.68	1.59
29	BE	171	THR	N-CA	5.67	1.53	1.46
31	BG	103	ILE	N-CA	-5.67	1.39	1.46
33	BI	35	LYS	CA-C	5.67	1.60	1.52
1	AA	722	G	C4'-O4'	-5.67	1.37	1.45
14	AN	96	ILE	CA-C	5.67	1.59	1.52
54	B3	37	HIS	C-O	5.67	1.31	1.23
38	BN	47	ARG	NE-CZ	5.67	1.39	1.33
1	AA	783	C	C2'-C1'	5.66	1.61	1.53
26	BB	623	C	C4'-O4'	-5.66	1.37	1.45
26	BB	1121	C	C1'-N1	5.66	1.56	1.48
26	BB	1651	G	O3'-P	5.66	1.69	1.61
15	AO	38	THR	C-O	-5.66	1.17	1.23
26	BB	2589	A	O3'-P	5.66	1.69	1.61
41	BQ	78	VAL	CA-C	5.66	1.60	1.52
1	AA	1423	G	C4'-O4'	-5.66	1.37	1.45
5	AE	144	GLU	C-O	-5.66	1.17	1.24
17	AQ	11	LYS	CA-C	5.66	1.60	1.52
26	BB	1543	G	C3'-O3'	-5.66	1.33	1.42
26	BB	1909	C	O3'-P	5.66	1.69	1.61
15	AO	57	THR	CA-C	5.66	1.60	1.52
29	BE	93	GLY	CA-C	5.66	1.59	1.51
15	AO	83	GLY	N-CA	5.66	1.52	1.45
26	BB	1117	C	P-O5'	5.66	1.68	1.59
26	BB	1214	A	P-O5'	5.66	1.68	1.59
29	BE	88	GLU	C-O	-5.66	1.17	1.23
26	BB	562	U	C2'-C1'	5.65	1.61	1.53
26	BB	1490	A	C4'-O4'	-5.65	1.37	1.45
2	AB	9	A	C4'-C3'	5.65	1.61	1.52
26	BB	1176	U	P-O5'	5.65	1.68	1.59
26	BB	2483	C	C4'-C3'	5.65	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	BD	136	VAL	CA-C	5.65	1.60	1.52
39	BO	11	LYS	C-N	5.65	1.41	1.33
1	AA	755	G	P-O5'	5.65	1.68	1.59
26	BB	1944	U	C4'-C3'	5.65	1.61	1.53
34	BJ	54	VAL	CA-C	5.65	1.59	1.52
1	AA	235	C	C4'-O4'	-5.65	1.37	1.45
1	AA	1150	A	C5'-C4'	5.65	1.59	1.51
26	BB	131	A	C1'-N9	5.65	1.56	1.48
41	BQ	76	LYS	C-O	-5.65	1.17	1.24
2	AB	73	G	P-O5'	5.64	1.68	1.59
4	AD	63	C	C2'-C1'	5.64	1.61	1.53
10	AJ	97	ALA	C-O	-5.64	1.17	1.24
19	AS	15	PRO	C-O	-5.64	1.17	1.23
26	BB	707	G	C1'-N9	5.64	1.56	1.48
26	BB	2406	A	C4'-O4'	-5.64	1.37	1.45
1	AA	1080	A	P-O5'	5.64	1.68	1.59
1	AA	707	U	P-O5'	5.64	1.68	1.59
27	BC	66	PRO	CA-C	5.64	1.60	1.52
1	AA	143	A	C3'-O3'	-5.64	1.33	1.42
26	BB	2125	G	O3'-P	5.64	1.69	1.61
26	BB	2583	G	O3'-P	5.64	1.69	1.61
44	BT	18	GLN	N-CA	5.64	1.53	1.46
1	AA	762	U	C4'-O4'	-5.63	1.37	1.45
7	AG	63	ILE	C-N	5.63	1.42	1.33
54	B3	42	ILE	CB-CG1	5.63	1.64	1.53
18	AR	50	HIS	CD2-NE2	5.63	1.44	1.37
26	BB	2361	G	C4'-O4'	-5.63	1.37	1.45
40	BP	106	ASP	CA-CB	5.63	1.62	1.53
45	BU	53	SER	C-N	5.63	1.40	1.33
1	AA	870	U	C2'-C1'	5.63	1.61	1.53
1	AA	1455	G	C4'-O4'	-5.63	1.37	1.45
3	AC	33	A	O4'-C1'	5.63	1.50	1.41
1	AA	904	U	O3'-P	5.62	1.69	1.61
42	BR	54	LEU	CA-C	5.62	1.60	1.52
8	AH	58	ALA	C-O	5.62	1.30	1.24
1	AA	1174	G	C4'-O4'	-5.62	1.37	1.45
10	AJ	119	LEU	C-N	5.62	1.41	1.34
26	BB	579	G	O4'-C1'	-5.62	1.33	1.41
26	BB	2356	U	P-O5'	5.62	1.68	1.59
26	BB	2341	G	P-O5'	5.62	1.68	1.59
4	AD	30	G	C1'-N9	5.62	1.56	1.48
7	AG	153	ARG	C-N	5.62	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2724	U	C4'-O4'	-5.62	1.37	1.45
26	BB	2855	C	C2'-O2'	-5.62	1.34	1.42
1	AA	688	G	P-O5'	5.62	1.68	1.59
6	AF	147	GLY	CA-C	5.62	1.59	1.51
25	BA	114	C	C1'-N1	5.62	1.56	1.48
26	BB	221	A	C5'-C4'	5.62	1.59	1.51
26	BB	813	U	O3'-P	5.62	1.69	1.61
26	BB	2687	U	O3'-P	5.62	1.69	1.61
1	AA	717	U	O3'-P	5.61	1.69	1.61
1	AA	1005	A	O5'-C5'	5.61	1.50	1.42
12	AL	88	GLU	CA-CB	5.61	1.63	1.54
21	AU	67	LEU	CA-CB	5.61	1.61	1.53
31	BG	131	VAL	CA-C	5.61	1.58	1.52
47	BW	3	LYS	C-N	5.61	1.41	1.33
56	B5	9	VAL	N-CA	5.61	1.53	1.46
26	BB	256	A	C4'-O4'	-5.61	1.37	1.45
26	BB	1205	A	C4'-O4'	-5.61	1.37	1.45
26	BB	1993	U	C5'-C4'	5.61	1.59	1.51
26	BB	2544	G	C4'-O4'	-5.61	1.37	1.45
26	BB	2750	A	C1'-N9	5.61	1.55	1.47
39	BO	67	VAL	CA-C	5.61	1.59	1.52
1	AA	566	G	P-O5'	5.61	1.68	1.59
39	BO	41	LEU	CA-C	5.61	1.59	1.52
1	AA	1182	G	C4'-C3'	5.61	1.61	1.53
51	B0	58	ASN	CA-C	5.61	1.60	1.52
1	AA	40	C	C5'-C4'	5.61	1.59	1.51
26	BB	376	G	P-O5'	5.61	1.68	1.59
26	BB	948	C	C3'-O3'	-5.61	1.33	1.42
26	BB	1890	A	C5'-C4'	5.61	1.59	1.51
26	BB	2400	G	C4'-O4'	-5.61	1.37	1.45
30	BF	190	ALA	N-CA	5.61	1.53	1.46
7	AG	82	LYS	CA-C	5.60	1.60	1.52
25	BA	66	A	C2'-C1'	5.60	1.61	1.53
26	BB	879	G	C4'-C3'	5.60	1.60	1.52
26	BB	1007	C	C4'-C3'	5.60	1.60	1.52
30	BF	131	THR	N-CA	5.60	1.53	1.46
46	BV	31	VAL	C-N	5.60	1.40	1.33
15	AO	15	VAL	CA-CB	5.60	1.60	1.54
31	BG	10	GLU	CA-C	5.60	1.58	1.52
1	AA	768	A	C4'-O4'	-5.60	1.37	1.45
1	AA	1211	U	C4'-C3'	5.60	1.60	1.52
4	AD	74	A	P-O5'	5.60	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	580	C	P-O5'	-5.60	1.51	1.59
11	AK	13	ILE	C-N	5.60	1.40	1.33
26	BB	2302	U	C5'-C4'	5.60	1.59	1.51
31	BG	4	HIS	CG-ND1	5.60	1.44	1.38
1	AA	1418	A	C4'-O4'	5.59	1.53	1.45
10	AJ	25	PHE	CA-C	5.59	1.59	1.52
26	BB	1061	U	C4'-O4'	-5.59	1.37	1.45
1	AA	1127	G	C4'-O4'	-5.59	1.37	1.45
1	AA	1327	C	C4'-O4'	-5.59	1.37	1.45
26	BB	2115	G	C2'-O2'	5.59	1.50	1.42
26	BB	67	U	C5'-C4'	5.59	1.59	1.51
26	BB	2764	A	C4'-O4'	-5.59	1.37	1.45
15	AO	82	ARG	CZ-NH1	5.59	1.40	1.32
38	BN	60	ARG	NE-CZ	5.59	1.39	1.33
14	AN	92	ARG	N-CA	5.59	1.53	1.46
26	BB	1451	C	C2'-O2'	5.59	1.50	1.41
26	BB	2781	A	O3'-P	5.59	1.69	1.61
8	AH	55	VAL	C-N	5.59	1.41	1.34
26	BB	2585	U	C3'-C2'	5.59	1.61	1.52
30	BF	90	GLN	C-O	-5.59	1.17	1.24
47	BW	38	ILE	CA-CB	5.59	1.62	1.54
1	AA	586	C	O3'-P	5.58	1.69	1.61
26	BB	42	A	C4'-O4'	-5.58	1.37	1.45
26	BB	78	U	C4'-O4'	-5.58	1.37	1.45
28	BD	149	LYS	CA-C	5.58	1.60	1.52
2	AB	63	C	C4'-O4'	-5.58	1.37	1.45
26	BB	2197	U	C4'-O4'	-5.58	1.37	1.45
43	BS	116	LEU	N-CA	-5.58	1.39	1.46
4	AD	3	C	C4'-O4'	-5.58	1.37	1.45
26	BB	2439	A	C4'-C3'	5.58	1.60	1.52
1	AA	146	G	P-O5'	5.58	1.68	1.59
1	AA	693	G	C4'-C3'	5.58	1.60	1.52
1	AA	24	U	C5'-C4'	5.58	1.59	1.51
54	B3	10	SER	C-O	-5.58	1.17	1.24
1	AA	589	U	C5'-C4'	5.57	1.59	1.51
26	BB	26	G	O3'-P	5.57	1.69	1.61
26	BB	1793	C	C3'-O3'	5.57	1.50	1.42
26	BB	2710	C	C1'-N1	5.57	1.56	1.48
32	BH	167	VAL	N-CA	5.57	1.53	1.46
57	B6	33	THR	CA-C	5.57	1.60	1.52
4	AD	24	C	C5'-C4'	5.57	1.59	1.51
26	BB	986	C	C3'-O3'	5.57	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2509	G	C5'-C4'	5.57	1.59	1.51
1	AA	473	U	P-O5'	5.57	1.68	1.59
26	BB	1367	A	P-O5'	-5.57	1.51	1.59
1	AA	1535	C	C5'-C4'	5.57	1.59	1.51
26	BB	1913	A	C2'-O2'	-5.57	1.34	1.42
26	BB	2610	C	C4'-C3'	5.57	1.61	1.53
43	BS	54	ARG	NE-CZ	5.57	1.39	1.33
1	AA	164	G	P-O5'	5.57	1.68	1.59
26	BB	645	C	O3'-P	5.57	1.69	1.61
26	BB	2288	A	C5'-C4'	5.57	1.59	1.51
26	BB	2609	U	P-O5'	5.57	1.68	1.59
28	BD	79	ARG	CZ-NH1	5.57	1.40	1.32
26	BB	1824	G	C5'-C4'	5.57	1.59	1.51
1	AA	514	C	C4'-O4'	-5.56	1.37	1.45
26	BB	2654	A	P-O5'	5.56	1.68	1.59
26	BB	2732	G	C4'-C3'	5.56	1.60	1.52
11	AK	118	ALA	C-N	5.56	1.39	1.33
17	AQ	12	ARG	CA-C	5.56	1.60	1.52
26	BB	391	A	P-O5'	5.56	1.68	1.59
26	BB	488	G	P-O5'	5.56	1.68	1.59
26	BB	1781	U	O4'-C1'	5.56	1.50	1.41
26	BB	2585	U	C4'-O4'	-5.56	1.37	1.45
1	AA	359	G	O5'-C5'	5.56	1.50	1.42
4	AD	64	G	O3'-P	5.56	1.69	1.61
26	BB	1113	U	O4'-C1'	5.56	1.50	1.41
46	BV	70	HIS	CA-C	5.55	1.60	1.52
54	B3	2	VAL	CA-C	5.55	1.59	1.52
44	BT	58	VAL	CA-C	5.55	1.59	1.52
1	AA	86	G	P-O5'	5.55	1.68	1.59
5	AE	216	VAL	CA-C	5.55	1.59	1.52
27	BC	10	VAL	N-CA	-5.55	1.40	1.46
31	BG	109	ARG	N-CA	-5.55	1.39	1.46
1	AA	193	C	P-O5'	5.55	1.68	1.59
29	BE	9	VAL	N-CA	5.55	1.53	1.46
1	AA	1187	G	O3'-P	-5.55	1.52	1.61
26	BB	1743	G	C4'-O4'	-5.55	1.37	1.45
1	AA	1127	G	C2'-O2'	-5.55	1.34	1.42
26	BB	1551	A	O3'-P	-5.55	1.52	1.61
26	BB	2360	G	P-O5'	5.55	1.68	1.59
35	BK	67	THR	N-CA	5.55	1.52	1.45
26	BB	1293	C	O3'-P	5.54	1.69	1.61
1	AA	1044	A	C4'-O4'	-5.54	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	53	G	C5'-C4'	5.54	1.59	1.51
25	BA	100	G	C2'-O2'	-5.54	1.34	1.42
26	BB	2727	A	P-O5'	5.54	1.68	1.59
26	BB	2799	A	C4'-O4'	-5.54	1.37	1.45
1	AA	493	A	C4'-O4'	-5.54	1.37	1.45
1	AA	1438	G	C4'-C3'	5.54	1.60	1.52
26	BB	1051	G	O3'-P	5.54	1.69	1.61
26	BB	2266	A	C5'-C4'	5.54	1.59	1.51
1	AA	943	U	O4'-C1'	5.54	1.50	1.41
2	AB	4	G	O3'-P	-5.54	1.52	1.61
35	BK	98	GLY	N-CA	5.54	1.52	1.45
58	B7	29	ALA	CA-C	5.54	1.58	1.53
27	BC	102	ASP	N-CA	-5.53	1.39	1.46
30	BF	29	HIS	CA-C	5.53	1.60	1.52
5	AE	86	CYS	N-CA	5.53	1.53	1.46
6	AF	184	ASN	N-CA	-5.53	1.39	1.46
14	AN	123	PRO	CA-C	5.53	1.59	1.52
26	BB	270	A	P-O5'	5.53	1.68	1.59
26	BB	1023	U	C1'-N1	5.53	1.56	1.48
26	BB	2138	G	P-O5'	5.53	1.68	1.59
1	AA	1138	G	P-O5'	5.53	1.68	1.59
26	BB	1697	G	O5'-C5'	5.53	1.50	1.42
29	BE	81	GLU	N-CA	5.53	1.52	1.45
26	BB	879	G	P-O5'	5.53	1.68	1.59
26	BB	1362	C	C5'-C4'	5.53	1.59	1.51
26	BB	2788	C	C4'-O4'	-5.53	1.37	1.45
1	AA	662	U	P-O5'	5.53	1.68	1.59
1	AA	1016	A	P-O5'	5.53	1.68	1.59
5	AE	136	ARG	CA-C	-5.53	1.45	1.52
26	BB	1064	C	P-O5'	5.53	1.68	1.59
26	BB	2313	C	C4'-O4'	-5.53	1.37	1.45
1	AA	137	U	O5'-C5'	-5.52	1.34	1.42
8	AH	126	ALA	CA-C	5.52	1.60	1.53
26	BB	472	A	C2'-O2'	-5.52	1.34	1.42
7	AG	54	LEU	CA-C	-5.52	1.45	1.52
1	AA	810	C	C5'-C4'	5.52	1.59	1.51
20	AT	77	VAL	CA-C	5.52	1.59	1.52
26	BB	961	C	P-O5'	5.52	1.68	1.59
1	AA	327	A	C1'-N9	5.52	1.55	1.47
14	AN	81	LEU	CA-C	5.52	1.59	1.52
26	BB	533	G	C4'-O4'	-5.52	1.37	1.45
26	BB	2341	G	C5'-C4'	5.52	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2694	G	O5'-C5'	-5.52	1.34	1.42
1	AA	35	G	O4'-C1'	5.52	1.50	1.41
26	BB	920	A	O4'-C1'	5.52	1.50	1.41
26	BB	2786	U	C1'-N1	5.52	1.56	1.48
1	AA	292	G	P-O5'	5.51	1.68	1.59
10	AJ	69	ARG	NE-CZ	-5.51	1.26	1.33
15	AO	114	SER	N-CA	5.51	1.53	1.46
26	BB	1051	G	C5'-C4'	5.51	1.59	1.51
58	B7	17	VAL	CA-C	5.51	1.59	1.52
7	AG	40	HIS	CD2-NE2	-5.51	1.31	1.37
26	BB	2097	A	O3'-P	-5.51	1.52	1.61
30	BF	40	ARG	NE-CZ	5.51	1.39	1.33
8	AH	116	VAL	N-CA	-5.51	1.39	1.46
26	BB	641	U	C5'-C4'	5.51	1.59	1.51
7	AG	110	ARG	NE-CZ	5.51	1.39	1.33
16	AP	25	GLY	C-O	-5.51	1.18	1.23
26	BB	1154	G	C1'-N9	5.51	1.56	1.48
26	BB	2860	A	P-O5'	5.51	1.68	1.59
51	B0	45	GLN	C-N	5.51	1.41	1.33
1	AA	85	U	O4'-C1'	-5.51	1.33	1.42
12	AL	42	THR	CA-CB	5.51	1.63	1.53
26	BB	439	A	C4'-C3'	5.51	1.60	1.52
41	BQ	14	ALA	C-N	5.51	1.41	1.33
26	BB	1601	G	O4'-C1'	5.50	1.50	1.41
26	BB	2061	G	O3'-P	5.50	1.69	1.61
28	BD	126	GLY	CA-C	5.50	1.59	1.51
1	AA	272	C	C1'-N1	5.50	1.56	1.48
4	AD	59	A	C1'-N9	5.50	1.55	1.47
26	BB	1929	G	P-O5'	5.50	1.68	1.59
26	BB	2800	A	C4'-O4'	-5.50	1.37	1.45
35	BK	81	LYS	CA-C	5.50	1.59	1.52
2	AB	28	C	O4'-C1'	5.50	1.50	1.41
12	AL	125	GLN	CA-CB	5.50	1.60	1.53
1	AA	355	C	C5'-C4'	5.50	1.59	1.51
26	BB	2624	G	C2'-C1'	5.50	1.61	1.53
26	BB	2866	U	C5'-C4'	5.50	1.59	1.51
36	BL	30	THR	CB-OG1	-5.50	1.34	1.43
1	AA	280	C	O3'-P	-5.50	1.52	1.61
1	AA	482	A	P-O5'	5.50	1.68	1.59
1	AA	971	G	P-O5'	5.50	1.68	1.59
26	BB	1403	A	C5'-C4'	5.50	1.59	1.51
47	BW	47	PRO	CA-C	5.50	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	68	G	O3'-P	5.50	1.69	1.61
26	BB	1104	C	O3'-P	-5.50	1.52	1.61
1	AA	754	C	P-O5'	5.49	1.68	1.59
1	AA	1136	C	P-O5'	5.49	1.68	1.59
26	BB	944	C	C4'-C3'	5.49	1.60	1.52
26	BB	1949	G	C3'-O3'	5.49	1.50	1.42
32	BH	34	ARG	CA-C	5.49	1.59	1.52
26	BB	827	U	C1'-N1	5.49	1.55	1.47
26	BB	2282	G	O3'-P	5.49	1.69	1.61
26	BB	2718	G	C4'-O4'	-5.49	1.37	1.45
1	AA	1216	A	O3'-P	5.49	1.69	1.61
25	BA	8	C	C1'-N1	5.49	1.56	1.48
1	AA	1478	U	P-O5'	5.49	1.68	1.59
5	AE	216	VAL	CA-CB	5.49	1.60	1.54
26	BB	1673	G	O3'-P	5.49	1.69	1.61
38	BN	59	ARG	CA-C	5.49	1.60	1.52
1	AA	985	C	C3'-O3'	-5.48	1.33	1.42
50	BZ	57	VAL	N-CA	5.48	1.52	1.46
1	AA	1495	U	C5'-C4'	5.48	1.59	1.51
26	BB	652	U	C4'-O4'	-5.48	1.37	1.45
26	BB	1589	U	C2'-O2'	-5.48	1.34	1.42
39	BO	99	GLY	N-CA	5.48	1.52	1.45
51	B0	61	ALA	CA-C	5.48	1.59	1.52
2	AB	62	U	C1'-N1	5.48	1.56	1.48
2	AB	34	C	O3'-P	-5.48	1.52	1.61
26	BB	81	G	C4'-O4'	-5.48	1.37	1.45
1	AA	41	G	C5'-C4'	5.48	1.59	1.51
1	AA	1050	G	P-O5'	5.48	1.68	1.59
26	BB	1413	A	C5'-C4'	5.48	1.59	1.51
26	BB	1965	C	C5'-C4'	5.48	1.59	1.51
26	BB	2217	G	C2-N3	5.48	1.43	1.32
26	BB	2474	U	C4'-O4'	-5.48	1.37	1.45
37	BM	5	GLN	CA-C	5.48	1.60	1.52
37	BM	102	PRO	CA-C	5.48	1.59	1.52
1	AA	707	U	O3'-P	5.48	1.69	1.61
41	BQ	109	ALA	CA-C	5.48	1.60	1.52
1	AA	1059	C	C2'-C1'	5.47	1.61	1.53
1	AA	1122	U	C5'-C4'	5.47	1.59	1.51
26	BB	434	U	C5'-C4'	5.47	1.59	1.51
35	BK	110	GLN	CA-C	5.47	1.60	1.52
49	BY	76	ARG	CZ-NH1	5.47	1.40	1.32
10	AJ	141	HIS	ND1-CE1	5.47	1.38	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	313	G	O3'-P	5.47	1.69	1.61
26	BB	1279	G	O4'-C1'	5.47	1.49	1.41
26	BB	1938	A	C5'-C4'	5.47	1.59	1.51
16	AP	40	GLU	CA-C	5.47	1.59	1.52
20	AT	51	GLU	N-CA	-5.47	1.39	1.46
26	BB	90	U	O3'-P	5.47	1.69	1.61
26	BB	1043	C	C5'-C4'	5.47	1.59	1.51
26	BB	1549	A	P-O5'	5.47	1.68	1.59
26	BB	1667	G	O3'-P	-5.47	1.52	1.61
29	BE	205	PRO	N-CA	-5.47	1.40	1.47
1	AA	205	A	C4'-O4'	-5.47	1.37	1.45
8	AH	67	ARG	CZ-NH1	5.47	1.40	1.32
26	BB	827	U	C4'-O4'	-5.47	1.37	1.45
26	BB	1607	C	O3'-P	5.47	1.69	1.61
26	BB	2003	A	C4'-C3'	5.47	1.60	1.52
14	AN	102	ALA	CA-C	5.47	1.62	1.52
26	BB	2604	U	C2'-C1'	5.47	1.61	1.53
30	BF	53	THR	CA-CB	5.47	1.61	1.53
1	AA	1150	A	C2'-C1'	5.46	1.61	1.53
26	BB	1154	G	C4'-O4'	-5.46	1.37	1.45
26	BB	2902	C	C4'-C3'	5.46	1.60	1.52
1	AA	35	G	C4'-O4'	-5.46	1.37	1.45
1	AA	1180	A	C5'-C4'	5.46	1.59	1.51
16	AP	12	LYS	N-CA	-5.46	1.39	1.45
26	BB	1553	A	P-O5'	5.46	1.68	1.59
26	BB	2101	A	C1'-N9	5.46	1.56	1.48
34	BJ	105	PHE	N-CA	5.46	1.53	1.46
41	BQ	40	ILE	CA-C	5.46	1.59	1.52
47	BW	81	ARG	CA-C	5.46	1.59	1.52
54	B3	41	HIS	CD2-NE2	5.46	1.43	1.37
1	AA	832	G	C4'-O4'	-5.46	1.37	1.45
3	AC	35	G	P-O5'	5.46	1.68	1.59
26	BB	497	A	C4'-O4'	-5.46	1.37	1.45
26	BB	2215	C	O3'-P	5.46	1.69	1.61
26	BB	2253	G	O3'-P	5.46	1.69	1.61
26	BB	2425	A	C4'-O4'	-5.46	1.37	1.45
1	AA	1260	G	C5'-C4'	5.46	1.59	1.51
12	AL	124	PRO	CA-C	5.46	1.59	1.52
15	AO	120	ARG	CZ-NH2	5.46	1.40	1.33
26	BB	1777	U	O4'-C1'	5.46	1.49	1.41
56	B5	39	ARG	NE-CZ	5.46	1.39	1.33
1	AA	153	C	C2'-C1'	5.45	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	AE	239	ALA	CA-C	5.45	1.60	1.52
26	BB	1786	A	O3'-P	5.45	1.69	1.61
26	BB	2336	A	C5'-C4'	5.45	1.59	1.51
26	BB	2557	G	C1'-N9	-5.45	1.39	1.48
32	BH	79	THR	CA-CB	5.45	1.60	1.53
34	BJ	150	LEU	N-CA	-5.45	1.39	1.46
26	BB	1148	U	C4'-C3'	5.45	1.60	1.52
31	BG	138	PRO	CA-C	5.45	1.58	1.52
1	AA	744	C	C4'-O4'	-5.45	1.37	1.45
26	BB	187	G	O3'-P	5.45	1.69	1.61
26	BB	1764	C	P-O5'	5.45	1.68	1.59
41	BQ	111	ARG	CZ-NH1	5.45	1.40	1.32
1	AA	766	A	C4'-O4'	-5.45	1.37	1.45
1	AA	1275	A	P-O5'	5.45	1.68	1.59
26	BB	715	A	C5'-C4'	5.45	1.59	1.51
26	BB	994	C	C4'-O4'	-5.45	1.37	1.45
45	BU	21	ALA	N-CA	5.45	1.52	1.46
26	BB	109	C	O5'-C5'	5.45	1.50	1.42
29	BE	97	SER	CA-C	5.45	1.60	1.52
49	BY	56	HIS	CG-ND1	5.45	1.44	1.38
1	AA	281	G	P-O5'	5.45	1.68	1.59
4	AD	7	G	P-O5'	5.45	1.68	1.59
26	BB	59	U	C4'-O4'	-5.45	1.37	1.45
43	BS	11	ALA	CA-C	5.45	1.60	1.52
26	BB	390	U	C5'-C4'	5.44	1.59	1.51
1	AA	587	G	C4'-C3'	5.44	1.61	1.53
1	AA	1374	A	O3'-P	5.44	1.69	1.61
20	AT	10	ARG	NE-CZ	5.44	1.39	1.33
26	BB	652	U	C5'-C4'	5.44	1.59	1.51
1	AA	571	U	C4'-C3'	5.44	1.60	1.52
2	AB	49	G	O5'-C5'	5.44	1.50	1.42
23	AW	18	LYS	C-O	-5.44	1.17	1.24
26	BB	285	G	C2'-O2'	5.44	1.50	1.42
39	BO	32	GLY	N-CA	-5.44	1.39	1.45
44	BT	57	GLY	CA-C	5.44	1.56	1.51
26	BB	1295	C	P-O5'	5.44	1.68	1.59
1	AA	1271	A	C4'-O4'	-5.44	1.37	1.45
23	AW	47	GLN	C-N	5.44	1.41	1.33
26	BB	553	G	O3'-P	5.44	1.69	1.61
26	BB	1496	A	C6-N6	-5.44	1.23	1.33
26	BB	1806	C	O4'-C1'	5.44	1.49	1.41
26	BB	1828	G	C5'-C4'	5.44	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1932	A	C5'-C4'	5.44	1.59	1.51
28	BD	233	GLY	N-CA	5.44	1.49	1.44
1	AA	1168	U	C4'-O4'	-5.44	1.37	1.45
1	AA	196	A	C2'-O2'	-5.43	1.34	1.42
9	AI	29	ILE	N-CA	5.43	1.52	1.46
12	AL	76	GLY	CA-C	5.43	1.58	1.52
25	BA	53	A	C4'-C3'	5.43	1.60	1.52
25	BA	69	G	C5'-C4'	5.43	1.59	1.51
26	BB	1530	G	O4'-C1'	5.43	1.49	1.41
26	BB	1983	G	C5'-C4'	5.43	1.59	1.51
26	BB	2014	A	C3'-C2'	5.43	1.60	1.52
40	BP	67	PHE	CA-C	5.43	1.60	1.52
1	AA	207	C	P-O5'	5.43	1.67	1.59
1	AA	691	G	O4'-C1'	5.43	1.49	1.41
1	AA	789	U	C5'-C4'	5.43	1.59	1.51
1	AA	1368	A	C1'-N9	5.43	1.56	1.48
18	AR	65	LEU	CA-C	5.43	1.60	1.52
25	BA	119	A	O5'-C5'	5.43	1.50	1.42
26	BB	1177	G	C1'-N9	5.43	1.56	1.48
26	BB	2186	G	P-O5'	5.43	1.67	1.59
43	BS	49	ARG	NE-CZ	5.43	1.39	1.33
50	BZ	27	ARG	N-CA	5.43	1.53	1.46
26	BB	680	C	C1'-N1	5.43	1.56	1.48
9	AI	22	ILE	CA-C	5.42	1.59	1.52
26	BB	1004	U	O3'-P	5.42	1.69	1.61
26	BB	245	G	C4'-C3'	5.42	1.60	1.52
26	BB	1440	U	N1-C2	5.42	1.49	1.38
26	BB	2188	U	P-O5'	5.42	1.67	1.59
26	BB	2333	A	C2'-C1'	5.42	1.61	1.53
1	AA	899	C	C4'-O4'	-5.42	1.37	1.45
26	BB	864	G	O3'-P	5.42	1.69	1.61
26	BB	2403	C	O4'-C1'	5.42	1.49	1.41
30	BF	31	VAL	CA-C	5.42	1.59	1.52
33	BI	51	ARG	CD-NE	5.42	1.53	1.46
52	B1	19	HIS	CD2-NE2	5.42	1.43	1.37
1	AA	11	G	C4'-O4'	-5.42	1.37	1.45
26	BB	1322	A	C4'-O4'	-5.42	1.37	1.45
26	BB	2007	U	C5'-C4'	5.42	1.59	1.51
52	B1	35	VAL	N-CA	5.42	1.52	1.46
54	B3	18	HIS	CA-C	5.42	1.60	1.52
1	AA	786	G	C4'-O4'	-5.42	1.37	1.45
1	AA	853	C	P-O5'	5.42	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1360	A	P-O5'	5.42	1.67	1.59
9	AI	128	ASP	N-CA	5.42	1.53	1.46
25	BA	52	A	C5'-C4'	5.42	1.59	1.51
26	BB	1557	C	C4'-C3'	5.42	1.60	1.52
26	BB	1897	G	O3'-P	5.42	1.69	1.61
26	BB	1978	A	P-O5'	5.42	1.67	1.59
28	BD	230	PRO	N-CA	5.42	1.54	1.47
1	AA	196	A	O3'-P	5.42	1.69	1.61
1	AA	1284	C	O3'-P	5.42	1.69	1.61
22	AV	56	HIS	CD2-NE2	5.42	1.43	1.37
43	BS	80	ASN	N-CA	5.42	1.53	1.46
1	AA	519	C	C4'-C3'	5.42	1.60	1.52
5	AE	124	THR	CA-C	5.41	1.60	1.52
26	BB	1974	C	P-O5'	5.41	1.67	1.59
33	BI	144	VAL	CA-C	-5.41	1.45	1.52
26	BB	699	A	C2'-C1'	-5.41	1.45	1.53
26	BB	2592	G	C5'-C4'	5.41	1.59	1.51
1	AA	596	A	O3'-P	-5.41	1.53	1.61
26	BB	57	C	C5'-C4'	5.41	1.59	1.51
26	BB	680	C	O3'-P	5.41	1.69	1.61
26	BB	2802	G	C4'-O4'	-5.41	1.37	1.45
36	BL	95	ARG	CZ-NH1	5.41	1.40	1.32
1	AA	1367	C	C4'-O4'	-5.41	1.37	1.45
16	AP	30	LYS	C-O	5.41	1.30	1.24
26	BB	432	A	C4'-O4'	-5.41	1.37	1.45
57	B6	23	HIS	CG-ND1	5.41	1.44	1.38
1	AA	834	U	O4'-C1'	-5.41	1.33	1.41
26	BB	1176	U	C2'-C1'	5.41	1.61	1.53
32	BH	108	PHE	N-CA	5.41	1.52	1.45
53	B2	6	HIS	CD2-NE2	-5.41	1.31	1.37
26	BB	216	A	O5'-C5'	-5.41	1.34	1.42
26	BB	1293	C	C4'-O4'	-5.41	1.37	1.45
1	AA	492	C	C1'-N1	5.40	1.56	1.48
2	AB	3	G	C1'-N9	5.40	1.56	1.48
15	AO	27	PRO	N-CA	-5.40	1.40	1.47
1	AA	1469	C	C5'-C4'	5.40	1.59	1.51
26	BB	743	A	O5'-C5'	-5.40	1.34	1.42
1	AA	113	G	P-O5'	5.40	1.67	1.59
1	AA	507	C	C4'-C3'	5.40	1.60	1.52
1	AA	725	G	P-O5'	5.40	1.67	1.59
15	AO	92	VAL	C-N	5.40	1.41	1.33
45	BU	76	VAL	N-CA	-5.40	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	878	A	C4'-O4'	-5.40	1.37	1.45
1	AA	1458	G	C4'-O4'	-5.40	1.37	1.45
13	AM	92	LEU	N-CA	5.40	1.53	1.46
26	BB	2830	C	O3'-P	5.40	1.69	1.61
32	BH	53	PRO	CA-C	5.40	1.59	1.52
1	AA	581	G	P-O5'	5.39	1.67	1.59
1	AA	954	G	O3'-P	5.39	1.69	1.61
26	BB	2051	A	C2'-C1'	-5.39	1.45	1.53
1	AA	455	G	C4'-O4'	-5.39	1.37	1.45
1	AA	1243	C	C4'-O4'	-5.39	1.37	1.45
2	AB	30	G	O3'-P	5.39	1.69	1.61
26	BB	2484	G	O3'-P	5.39	1.69	1.61
29	BE	26	VAL	CA-C	5.39	1.59	1.52
43	BS	35	PHE	CA-C	5.39	1.59	1.52
1	AA	1310	G	P-O5'	5.39	1.67	1.59
1	AA	1539	C	C1'-N1	5.39	1.56	1.48
36	BL	77	HIS	ND1-CE1	5.39	1.38	1.32
41	BQ	15	ARG	C-N	5.39	1.41	1.33
1	AA	1019	A	O3'-P	5.39	1.69	1.61
15	AO	16	ALA	CA-C	-5.39	1.45	1.53
1	AA	749	A	C1'-N9	-5.39	1.39	1.48
1	AA	1328	C	O4'-C1'	5.39	1.49	1.41
41	BQ	53	THR	CB-OG1	-5.39	1.35	1.43
1	AA	697	U	C4'-O4'	-5.39	1.37	1.45
1	AA	741	G	C2'-O2'	-5.39	1.34	1.42
1	AA	979	C	C4'-O4'	-5.39	1.37	1.45
2	AB	9	A	P-O5'	5.39	1.67	1.59
24	AX	36	PHE	CG-CD1	5.39	1.50	1.38
26	BB	972	A	C4'-O4'	-5.39	1.37	1.45
26	BB	2828	G	P-OP1	-5.39	1.38	1.49
1	AA	709	U	C4'-O4'	-5.38	1.37	1.45
1	AA	882	C	C4'-O4'	-5.38	1.37	1.45
26	BB	2252	G	C2'-C1'	-5.38	1.45	1.53
26	BB	2819	G	C4'-O4'	-5.38	1.37	1.45
55	B4	53	ILE	C-N	5.38	1.40	1.33
1	AA	800	G	C2'-O2'	5.38	1.50	1.42
1	AA	1223	C	C4'-O4'	-5.38	1.37	1.45
6	AF	228	ARG	CZ-NH2	5.38	1.40	1.33
12	AL	104	THR	C-N	5.38	1.40	1.33
26	BB	815	C	C5'-C4'	5.38	1.59	1.51
26	BB	1223	G	C5'-C4'	5.38	1.59	1.51
1	AA	1249	C	C4'-O4'	-5.38	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	AQ	13	VAL	CA-CB	5.38	1.61	1.54
24	AX	53	LYS	CA-C	5.38	1.60	1.52
42	BR	28	LYS	CA-C	5.38	1.59	1.52
1	AA	10	A	C5'-C4'	5.38	1.59	1.51
1	AA	521	G	C2'-O2'	-5.38	1.34	1.42
1	AA	659	U	P-O5'	5.38	1.67	1.59
1	AA	680	C	C3'-C2'	5.38	1.60	1.52
1	AA	709	U	O3'-P	5.38	1.69	1.61
1	AA	902	G	C2'-O2'	5.38	1.50	1.42
1	AA	1027	C	P-O5'	5.38	1.67	1.59
8	AH	90	GLY	CA-C	5.38	1.59	1.51
26	BB	740	C	C5'-C4'	5.38	1.59	1.51
26	BB	1296	G	C1'-N9	5.38	1.56	1.48
1	AA	703	G	O3'-P	5.38	1.69	1.61
8	AH	5	LYS	C-N	5.38	1.40	1.33
17	AQ	70	HIS	CB-CG	5.38	1.57	1.50
26	BB	875	G	C3'-C2'	5.38	1.60	1.52
26	BB	1422	G	O3'-P	5.38	1.69	1.61
26	BB	2494	G	C1'-N9	-5.38	1.39	1.48
28	BD	62	ARG	CA-C	-5.38	1.46	1.52
51	B0	29	ARG	CA-C	5.38	1.59	1.52
7	AG	197	HIS	CE1-NE2	5.38	1.38	1.32
1	AA	840	C	O3'-P	5.37	1.69	1.61
26	BB	1188	U	C2'-O2'	-5.37	1.34	1.42
26	BB	1209	U	O3'-P	5.37	1.69	1.61
1	AA	954	G	O4'-C1'	5.37	1.49	1.41
7	AG	139	ASN	CA-CB	5.37	1.61	1.53
13	AM	72	ARG	NE-CZ	5.37	1.39	1.33
26	BB	102	U	C5'-C4'	5.37	1.59	1.51
49	BY	12	GLY	CA-C	-5.37	1.46	1.52
26	BB	100	U	C3'-C2'	5.37	1.60	1.52
26	BB	168	G	C4'-O4'	-5.37	1.37	1.45
26	BB	487	C	O4'-C1'	5.37	1.49	1.41
26	BB	2512	C	C5'-C4'	5.37	1.59	1.51
28	BD	148	GLY	C-N	5.37	1.42	1.33
10	AJ	91	ARG	C-O	-5.37	1.17	1.23
26	BB	324	A	C4'-C3'	5.37	1.60	1.52
1	AA	130	A	O3'-P	-5.37	1.53	1.61
1	AA	753	A	C2'-O2'	-5.37	1.33	1.41
1	AA	1375	A	O3'-P	5.37	1.69	1.61
26	BB	1	G	C5'-C4'	5.37	1.59	1.51
26	BB	2345	G	C5'-C4'	5.37	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	584	G	C1'-N9	5.36	1.55	1.48
1	AA	1393	U	C4'-O4'	-5.36	1.37	1.45
5	AE	73	ARG	CA-C	5.36	1.59	1.52
10	AJ	63	VAL	CA-C	5.36	1.60	1.52
26	BB	1926	U	P-O5'	5.36	1.67	1.59
37	BM	37	ASP	CA-C	5.36	1.59	1.52
26	BB	701	G	O3'-P	5.36	1.69	1.61
1	AA	621	A	C4'-O4'	5.36	1.53	1.45
1	AA	1152	A	C3'-O3'	5.36	1.50	1.42
39	BO	4	PRO	N-CD	-5.36	1.40	1.47
13	AM	79	PRO	N-CA	-5.36	1.40	1.47
26	BB	1047	G	C4'-O4'	-5.36	1.37	1.45
1	AA	699	C	C4'-C3'	5.36	1.60	1.52
13	AM	2	GLN	C-N	5.36	1.40	1.33
25	BA	92	C	C4'-O4'	-5.36	1.37	1.45
26	BB	2466	C	P-O5'	5.36	1.67	1.59
26	BB	2824	C	C3'-C2'	5.36	1.60	1.52
1	AA	86	G	C1'-N9	5.36	1.54	1.47
26	BB	947	A	C2'-C1'	5.36	1.61	1.53
26	BB	2168	G	C4'-O4'	-5.36	1.37	1.45
12	AL	60	LEU	CA-C	5.35	1.59	1.52
26	BB	2193	G	O5'-C5'	-5.35	1.34	1.42
28	BD	5	CYS	CA-C	5.35	1.59	1.52
45	BU	44	ALA	N-CA	5.35	1.53	1.46
1	AA	179	A	O3'-P	5.35	1.69	1.61
9	AI	58	HIS	CE1-NE2	5.35	1.37	1.32
26	BB	1636	U	P-O5'	5.35	1.67	1.59
34	BJ	77	GLY	C-N	5.35	1.40	1.33
40	BP	95	THR	CA-C	5.35	1.59	1.52
26	BB	360	U	O5'-C5'	5.35	1.50	1.42
26	BB	380	G	O5'-C5'	-5.35	1.34	1.42
26	BB	795	C	P-O5'	5.35	1.67	1.59
26	BB	1384	A	C3'-O3'	5.35	1.50	1.42
26	BB	2153	C	C4'-O4'	-5.35	1.37	1.45
26	BB	2434	A	C4'-O4'	-5.35	1.37	1.45
32	BH	119	GLY	N-CA	5.35	1.52	1.45
25	BA	9	G	C4'-C3'	5.35	1.60	1.52
26	BB	1740	G	C4'-O4'	-5.35	1.37	1.45
26	BB	2512	C	C4'-O4'	-5.35	1.37	1.45
26	BB	2702	G	C2'-O2'	-5.35	1.34	1.42
26	BB	142	A	C5'-C4'	5.34	1.59	1.51
26	BB	1340	U	O4'-C1'	5.34	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	BD	190	THR	N-CA	5.34	1.52	1.45
6	AF	63	ILE	CA-CB	5.34	1.60	1.54
26	BB	2584	U	C1'-N1	5.34	1.56	1.48
26	BB	2679	A	P-O5'	5.34	1.67	1.59
1	AA	684	U	C5'-C4'	5.34	1.59	1.51
26	BB	2131	U	C2'-C1'	5.34	1.61	1.53
39	BO	13	HIS	C-O	-5.34	1.17	1.23
26	BB	210	C	P-O5'	5.34	1.67	1.59
26	BB	2570	G	O3'-P	5.34	1.69	1.61
29	BE	95	SER	N-CA	5.34	1.54	1.46
34	BJ	163	ALA	N-CA	-5.34	1.39	1.45
1	AA	79	G	C5'-C4'	5.34	1.59	1.51
1	AA	648	A	O3'-P	5.34	1.69	1.61
26	BB	1067	A	P-O5'	5.34	1.67	1.59
26	BB	2484	G	C4'-O4'	-5.34	1.37	1.45
1	AA	783	C	P-O5'	5.33	1.67	1.59
7	AG	55	ARG	NE-CZ	5.33	1.39	1.33
26	BB	181	A	P-O5'	5.33	1.67	1.59
26	BB	2183	A	C2'-C1'	-5.33	1.45	1.53
26	BB	2350	C	P-O5'	5.33	1.67	1.59
26	BB	2370	G	P-O5'	5.33	1.67	1.59
1	AA	1387	G	C4'-O4'	-5.33	1.37	1.45
26	BB	50	U	C4'-O4'	-5.33	1.37	1.45
26	BB	2822	G	O3'-P	5.33	1.69	1.61
30	BF	12	LEU	N-CA	-5.33	1.40	1.46
26	BB	344	A	C5'-C4'	5.33	1.59	1.51
26	BB	653	U	C4'-O4'	-5.33	1.37	1.45
26	BB	1610	A	C4'-O4'	-5.33	1.37	1.45
26	BB	1990	C	C4'-O4'	-5.33	1.37	1.45
1	AA	49	U	C5'-C4'	5.33	1.59	1.51
1	AA	1318	A	C3'-O3'	5.33	1.50	1.42
26	BB	2540	C	P-O5'	5.33	1.67	1.59
45	BU	110	ARG	CZ-NH1	5.33	1.40	1.32
7	AG	167	PRO	CA-CB	5.33	1.61	1.53
11	AK	102	VAL	CA-CB	5.33	1.60	1.54
18	AR	45	HIS	CG-CD2	5.33	1.41	1.35
24	AX	19	LYS	N-CA	-5.33	1.39	1.46
24	AX	61	ARG	CA-C	5.33	1.59	1.52
26	BB	1045	C	C4'-O4'	-5.33	1.37	1.45
26	BB	1091	G	P-O5'	5.33	1.67	1.59
26	BB	1103	A	P-O5'	5.33	1.67	1.59
1	AA	1376	U	C2'-O2'	-5.33	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1487	U	C2'-C1'	5.33	1.61	1.53
1	AA	1509	C	C5'-C4'	5.33	1.59	1.51
5	AE	230	SER	CA-C	5.33	1.59	1.52
26	BB	920	A	C3'-O3'	5.33	1.50	1.42
26	BB	1658	C	O3'-P	-5.33	1.53	1.61
26	BB	2124	G	O3'-P	-5.33	1.53	1.61
30	BF	158	PHE	N-CA	-5.33	1.39	1.46
58	B7	6	SER	CA-CB	5.32	1.62	1.53
26	BB	1242	U	C2'-C1'	-5.32	1.45	1.53
11	AK	15	ASN	N-CA	5.32	1.53	1.46
26	BB	339	U	O4'-C1'	5.32	1.49	1.41
26	BB	2569	G	C5'-C4'	-5.32	1.43	1.51
25	BA	103	U	C5'-C4'	5.32	1.59	1.51
2	AB	49	G	C4'-O4'	-5.32	1.37	1.45
26	BB	1459	G	C4'-O4'	-5.32	1.37	1.45
26	BB	2516	A	C4'-O4'	-5.32	1.37	1.45
26	BB	2584	U	C3'-C2'	5.32	1.60	1.52
38	BN	123	ARG	C-N	5.32	1.41	1.33
26	BB	2084	C	C4'-C3'	-5.32	1.44	1.52
1	AA	1140	C	P-O5'	5.31	1.67	1.59
26	BB	349	U	C4'-O4'	-5.31	1.37	1.45
19	AS	70	ARG	NE-CZ	5.31	1.38	1.33
26	BB	786	C	P-O5'	5.31	1.67	1.59
26	BB	1289	C	C2'-C1'	5.31	1.61	1.53
26	BB	1729	U	C1'-N1	5.31	1.56	1.48
26	BB	2562	U	P-O5'	5.31	1.67	1.59
1	AA	307	C	C2'-O2'	5.31	1.49	1.41
1	AA	1419	G	C1'-N9	5.31	1.55	1.48
26	BB	1744	A	P-O5'	5.31	1.67	1.59
1	AA	266	G	O4'-C1'	5.31	1.49	1.41
1	AA	499	A	C2'-C1'	-5.31	1.45	1.53
1	AA	912	C	C3'-O3'	-5.31	1.34	1.42
26	BB	951	C	C2'-O2'	-5.31	1.34	1.42
28	BD	123	ILE	CA-CB	5.31	1.61	1.54
26	BB	575	A	O5'-C5'	-5.31	1.34	1.42
1	AA	1421	G	C5'-C4'	5.30	1.59	1.51
26	BB	367	G	C4'-O4'	-5.30	1.37	1.45
28	BD	6	LYS	CA-C	5.30	1.59	1.53
49	BY	38	ARG	CA-CB	5.30	1.61	1.53
26	BB	2543	G	C3'-C2'	5.30	1.60	1.52
6	AF	206	ILE	CA-C	5.30	1.59	1.52
26	BB	2458	G	C2-N3	5.30	1.43	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	BC	149	VAL	CA-CB	5.30	1.61	1.54
1	AA	318	G	P-O5'	5.30	1.67	1.59
8	AH	76	ASN	N-CA	5.30	1.53	1.46
26	BB	2353	G	C2'-C1'	5.30	1.61	1.53
35	BK	103	ALA	N-CA	5.30	1.52	1.46
5	AE	61	SER	CB-OG	-5.30	1.31	1.42
26	BB	1943	U	O5'-C5'	5.30	1.50	1.42
26	BB	2630	G	C5'-C4'	5.30	1.59	1.51
1	AA	1071	C	C1'-N1	5.29	1.56	1.48
1	AA	1178	G	C4'-O4'	-5.29	1.37	1.45
19	AS	8	ARG	CZ-NH1	5.29	1.40	1.32
30	BF	179	SER	CA-C	5.29	1.59	1.52
26	BB	694	U	C4'-O4'	-5.29	1.37	1.45
26	BB	926	G	C1'-N9	5.29	1.55	1.48
26	BB	2684	U	O3'-P	5.29	1.69	1.61
28	BD	192	GLY	C-O	-5.29	1.16	1.23
34	BJ	82	ALA	C-N	5.29	1.40	1.33
1	AA	1014	A	O3'-P	5.29	1.69	1.61
8	AH	136	VAL	CA-CB	5.29	1.61	1.54
26	BB	866	A	O4'-C1'	5.29	1.49	1.41
26	BB	1033	U	C5'-C4'	5.29	1.59	1.51
26	BB	1600	C	C4'-O4'	-5.29	1.37	1.45
28	BD	15	VAL	CA-CB	5.29	1.60	1.54
48	BX	56	PHE	C-O	-5.29	1.18	1.24
1	AA	1507	A	C4'-O4'	-5.29	1.37	1.45
4	AD	43	G	C5'-C4'	5.29	1.59	1.51
10	AJ	79	VAL	CA-CB	5.29	1.61	1.54
26	BB	449	A	P-O5'	5.29	1.67	1.59
26	BB	1314	C	O3'-P	5.29	1.69	1.61
27	BC	134	ARG	CZ-NH2	-5.29	1.26	1.33
14	AN	104	PHE	CA-C	5.29	1.59	1.52
28	BD	129	LEU	C-N	5.29	1.40	1.33
1	AA	1021	A	C4'-O4'	-5.28	1.37	1.45
26	BB	374	A	C3'-C2'	5.28	1.60	1.52
26	BB	1022	G	C4'-O4'	-5.28	1.38	1.45
26	BB	1344	U	C3'-O3'	-5.28	1.35	1.43
1	AA	255	G	C4'-O4'	-5.28	1.37	1.45
26	BB	140	C	C1'-N1	5.28	1.55	1.47
26	BB	1435	G	C2'-C1'	5.28	1.61	1.53
1	AA	212	G	C5'-C4'	5.28	1.59	1.51
15	AO	66	ILE	CA-CB	5.28	1.59	1.53
26	BB	1219	U	C5'-C4'	5.28	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	BD	129	LEU	CA-CB	5.28	1.62	1.54
38	BN	54	GLN	CA-C	5.28	1.59	1.52
26	BB	1977	A	C5'-C4'	5.28	1.59	1.51
1	AA	350	G	C4'-O4'	-5.28	1.37	1.45
1	AA	372	C	P-O5'	5.28	1.67	1.59
1	AA	1232	U	P-O5'	-5.28	1.51	1.59
10	AJ	1	PRO	N-CA	5.28	1.54	1.47
1	AA	1279	G	C3'-C2'	5.28	1.60	1.52
18	AR	37	HIS	CG-ND1	5.28	1.44	1.38
24	AX	26	GLY	CA-C	5.28	1.58	1.52
25	BA	45	A	O3'-P	5.28	1.69	1.61
25	BA	119	A	P-O5'	5.28	1.67	1.59
26	BB	614	A	O5'-C5'	5.28	1.50	1.42
26	BB	2214	C	C3'-C2'	5.28	1.60	1.52
26	BB	2714	G	P-O5'	5.28	1.67	1.59
28	BD	150	GLY	C-N	5.28	1.41	1.33
34	BJ	101	ALA	CA-C	5.28	1.59	1.52
35	BK	137	LEU	CA-CB	5.28	1.60	1.53
1	AA	1090	U	C4'-C3'	5.27	1.60	1.52
26	BB	606	U	P-O5'	5.27	1.67	1.59
1	AA	830	G	C3'-O3'	5.27	1.50	1.42
1	AA	1177	G	C5'-C4'	5.27	1.59	1.51
14	AN	116	PRO	N-CD	-5.27	1.40	1.47
26	BB	775	G	C4'-O4'	-5.27	1.38	1.45
26	BB	1396	U	C4'-O4'	-5.27	1.38	1.45
26	BB	1548	A	C4'-O4'	-5.27	1.37	1.45
50	BZ	8	GLY	CA-C	5.27	1.59	1.51
1	AA	666	G	O3'-P	5.27	1.69	1.61
20	AT	78	VAL	CA-CB	5.27	1.60	1.54
26	BB	663	G	C5'-C4'	5.27	1.59	1.51
31	BG	136	ILE	CA-C	5.27	1.59	1.52
25	BA	114	C	C5'-C4'	5.27	1.59	1.51
26	BB	535	G	C2'-C1'	5.27	1.61	1.53
26	BB	1215	G	C5'-C4'	5.27	1.59	1.51
26	BB	2297	A	N3-C4	5.27	1.45	1.34
4	AD	70	C	O3'-P	5.27	1.69	1.61
46	BV	69	ARG	NE-CZ	5.27	1.38	1.33
26	BB	349	U	O4'-C1'	5.27	1.49	1.41
26	BB	2865	U	P-O5'	5.27	1.67	1.59
10	AJ	28	ILE	CA-C	5.26	1.59	1.52
18	AR	46	LYS	CA-C	5.26	1.59	1.52
1	AA	46	G	C4'-O4'	-5.26	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1031	G	C5'-C4'	5.26	1.59	1.51
26	BB	1215	G	C2'-O2'	5.26	1.50	1.42
29	BE	116	LYS	N-CA	5.26	1.52	1.46
1	AA	21	G	P-O5'	5.26	1.67	1.59
1	AA	72	A	P-O5'	5.26	1.67	1.59
20	AT	22	VAL	CA-CB	5.26	1.60	1.54
26	BB	250	G	O5'-C5'	-5.26	1.34	1.42
26	BB	374	A	C4'-O4'	-5.26	1.37	1.45
26	BB	2512	C	P-O5'	5.26	1.67	1.59
26	BB	1084	A	C5'-C4'	5.26	1.59	1.51
26	BB	2084	C	C1'-N1	5.26	1.56	1.48
27	BC	12	ARG	CZ-NH2	5.26	1.40	1.33
41	BQ	9	ARG	C-O	-5.26	1.18	1.24
56	B5	44	VAL	CA-C	5.26	1.59	1.52
1	AA	1043	G	O5'-C5'	-5.26	1.34	1.42
1	AA	1485	U	P-O5'	5.26	1.67	1.59
6	AF	127	VAL	CA-CB	5.26	1.61	1.54
26	BB	1000	A	C5'-C4'	5.26	1.59	1.51
2	AB	38	A	C4'-O4'	-5.26	1.37	1.45
22	AV	74	ALA	C-O	5.26	1.30	1.24
26	BB	1349	C	P-O5'	5.26	1.67	1.59
26	BB	2315	G	C5'-C4'	5.26	1.59	1.51
26	BB	2465	C	C3'-C2'	5.26	1.60	1.52
26	BB	2573	C	C3'-C2'	5.26	1.60	1.52
50	BZ	71	ARG	CA-CB	5.26	1.61	1.53
55	B4	9	LYS	N-CA	-5.26	1.39	1.46
1	AA	804	U	C3'-O3'	-5.25	1.34	1.42
7	AG	185	PRO	CA-C	5.25	1.59	1.52
1	AA	205	A	C4'-C3'	-5.25	1.44	1.52
26	BB	1015	U	P-O5'	5.25	1.67	1.59
28	BD	92	LEU	C-N	5.25	1.40	1.33
38	BN	74	THR	CA-C	5.25	1.59	1.52
1	AA	1394	A	C4'-O4'	-5.25	1.38	1.45
26	BB	338	G	O3'-P	5.25	1.69	1.61
1	AA	200	G	C5'-C4'	5.25	1.59	1.51
6	AF	14	VAL	CA-C	5.25	1.59	1.52
24	AX	40	PRO	CA-C	5.25	1.60	1.52
26	BB	63	A	C2'-O2'	-5.25	1.34	1.42
26	BB	1044	C	O4'-C1'	5.25	1.49	1.41
26	BB	1893	C	O3'-P	5.25	1.69	1.61
1	AA	696	A	O3'-P	5.25	1.69	1.61
10	AJ	22	LEU	CA-C	5.25	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1012	U	C1'-N1	5.25	1.55	1.47
26	BB	2674	G	C4'-C3'	5.25	1.60	1.52
26	BB	2844	G	C1'-N9	5.25	1.55	1.48
1	AA	139	A	C2'-C1'	5.24	1.61	1.53
1	AA	459	A	C4'-C3'	-5.24	1.44	1.52
15	AO	79	ILE	N-CA	-5.24	1.40	1.46
19	AS	5	ARG	C-N	5.24	1.40	1.33
1	AA	1052	U	C4'-C3'	5.24	1.60	1.52
7	AG	104	MET	CA-C	5.24	1.59	1.52
26	BB	1383	A	C3'-C2'	5.24	1.60	1.52
26	BB	1823	G	P-O5'	5.24	1.67	1.59
50	BZ	34	SER	N-CA	5.24	1.53	1.46
26	BB	319	G	C4'-O4'	-5.24	1.37	1.45
26	BB	675	A	C4'-O4'	-5.24	1.37	1.45
26	BB	2735	G	C1'-N9	5.24	1.55	1.48
26	BB	2751	G	C4'-O4'	-5.24	1.38	1.45
42	BR	5	LYS	CA-C	5.24	1.59	1.52
26	BB	1513	U	P-O5'	5.24	1.67	1.59
4	AD	31	G	C4'-O4'	-5.24	1.37	1.45
26	BB	1277	G	P-O5'	5.24	1.67	1.59
26	BB	2404	U	C5'-C4'	5.24	1.59	1.51
7	AG	181	PHE	N-CA	5.23	1.53	1.46
26	BB	674	G	O5'-C5'	-5.23	1.34	1.42
26	BB	2326	C	C5'-C4'	5.23	1.59	1.51
1	AA	1410	A	O5'-C5'	5.23	1.50	1.42
13	AM	46	LYS	CA-C	5.23	1.58	1.52
23	AW	67	HIS	CA-C	5.23	1.59	1.52
26	BB	604	G	C5'-C4'	-5.23	1.43	1.51
26	BB	1603	A	O3'-P	5.23	1.69	1.61
26	BB	1913	A	C4'-O4'	-5.23	1.37	1.45
28	BD	162	GLN	C-O	-5.23	1.17	1.23
1	AA	1212	U	C3'-O3'	-5.23	1.35	1.43
26	BB	289	G	C4'-O4'	-5.23	1.37	1.45
26	BB	1144	A	O3'-P	5.23	1.69	1.61
26	BB	2652	C	O4'-C1'	5.23	1.49	1.41
26	BB	2653	U	O5'-C5'	-5.23	1.34	1.42
1	AA	1082	A	C4'-O4'	-5.23	1.37	1.45
26	BB	183	C	C5'-C4'	-5.23	1.43	1.51
26	BB	285	G	O4'-C1'	5.23	1.49	1.41
26	BB	1172	C	O5'-C5'	5.23	1.50	1.42
1	AA	224	U	P-O5'	5.22	1.67	1.59
1	AA	1041	G	P-O5'	5.22	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1412	C	C5'-C4'	5.22	1.59	1.51
6	AF	202	PHE	N-CA	5.22	1.52	1.46
26	BB	862	G	O5'-C5'	-5.22	1.34	1.42
26	BB	2300	C	P-O5'	5.22	1.67	1.59
26	BB	2554	U	C4'-C3'	5.22	1.60	1.52
26	BB	2713	U	P-O5'	5.22	1.67	1.59
28	BD	109	LEU	C-N	5.22	1.40	1.33
1	AA	1494	G	O5'-C5'	-5.22	1.34	1.42
26	BB	784	G	C4'-O4'	-5.22	1.37	1.45
26	BB	1318	U	C1'-N1	5.22	1.56	1.48
26	BB	2234	G	O3'-P	5.22	1.69	1.61
31	BG	12	VAL	C-N	5.22	1.40	1.33
46	BV	37	ASP	CA-C	5.22	1.59	1.52
44	BT	76	LYS	C-O	-5.22	1.17	1.24
10	AJ	145	GLU	CA-C	5.22	1.59	1.52
26	BB	2065	C	C4'-O4'	-5.22	1.37	1.45
35	BK	33	ASN	C-N	5.22	1.40	1.33
23	AW	2	ASN	CA-C	5.22	1.59	1.52
24	AX	6	ARG	NE-CZ	5.22	1.38	1.33
26	BB	925	A	C5'-C4'	5.22	1.59	1.51
26	BB	2863	C	C1'-N1	5.22	1.56	1.48
44	BT	98	ILE	CA-CB	5.22	1.60	1.54
26	BB	120	U	C3'-C2'	-5.21	1.45	1.52
26	BB	648	G	C5'-C4'	5.21	1.59	1.51
26	BB	1697	G	C3'-C2'	5.21	1.60	1.52
26	BB	2369	A	P-O5'	5.21	1.67	1.59
27	BC	56	ASP	CA-CB	5.21	1.61	1.53
31	BG	163	GLU	CA-C	5.21	1.59	1.52
32	BH	114	HIS	CA-CB	5.21	1.60	1.53
4	AD	52	C	C1'-N1	5.21	1.56	1.48
26	BB	862	G	P-O5'	5.21	1.67	1.59
26	BB	1543	G	O4'-C1'	5.21	1.49	1.41
26	BB	1680	U	C2'-O2'	-5.21	1.34	1.42
26	BB	2242	G	C4'-O4'	-5.21	1.37	1.45
26	BB	385	C	O4'-C1'	-5.21	1.33	1.41
26	BB	393	C	C4'-O4'	-5.21	1.37	1.45
26	BB	1796	U	P-O5'	5.21	1.67	1.59
1	AA	395	C	C4'-C3'	5.21	1.60	1.52
1	AA	705	G	N1-C2	5.21	1.48	1.37
1	AA	1151	A	C4'-O4'	-5.21	1.38	1.45
1	AA	1334	G	C1'-N9	5.21	1.55	1.48
9	AI	111	GLU	CA-CB	5.21	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	AT	37	ILE	CA-CB	5.21	1.62	1.54
26	BB	428	A	C4'-O4'	-5.21	1.38	1.45
26	BB	717	C	C2'-C1'	-5.21	1.45	1.53
26	BB	1454	C	O3'-P	5.21	1.69	1.61
26	BB	2838	G	C5'-C4'	5.21	1.59	1.51
36	BL	22	GLY	C-N	5.21	1.40	1.33
40	BP	13	ASN	N-CA	-5.21	1.39	1.46
47	BW	21	ARG	CD-NE	5.21	1.53	1.46
1	AA	1286	U	C1'-N1	5.21	1.56	1.48
1	AA	1307	U	P-O5'	5.21	1.67	1.59
26	BB	1174	U	C3'-O3'	-5.21	1.34	1.42
26	BB	2475	C	P-O5'	5.21	1.67	1.59
26	BB	2881	U	C4'-C3'	5.21	1.60	1.52
1	AA	712	A	C5'-C4'	5.21	1.59	1.51
26	BB	207	A	C3'-O3'	-5.21	1.34	1.42
26	BB	620	G	C4'-C3'	-5.21	1.45	1.53
26	BB	2856	A	C3'-C2'	5.21	1.60	1.52
26	BB	2093	G	C2'-O2'	5.20	1.50	1.42
28	BD	119	VAL	CA-C	5.20	1.59	1.52
26	BB	1419	A	O5'-C5'	5.20	1.50	1.42
1	AA	1361	G	O4'-C1'	-5.20	1.33	1.41
9	AI	55	HIS	CA-C	5.20	1.60	1.52
26	BB	450	G	P-O5'	5.20	1.67	1.59
26	BB	712	G	C4'-C3'	5.20	1.60	1.52
46	BV	40	LYS	N-CA	5.20	1.52	1.46
55	B4	18	HIS	N-CA	5.20	1.52	1.45
5	AE	93	HIS	N-CA	5.20	1.52	1.46
45	BU	17	VAL	CA-CB	-5.20	1.47	1.54
1	AA	1153	G	C4'-C3'	5.20	1.60	1.52
2	AB	72	U	C4'-O4'	-5.20	1.38	1.45
17	AQ	63	CYS	C-O	5.20	1.29	1.23
20	AT	36	PHE	N-CA	5.20	1.52	1.46
26	BB	774	G	O5'-C5'	-5.20	1.35	1.42
26	BB	2155	U	O4'-C1'	-5.20	1.33	1.41
41	BQ	94	ARG	NE-CZ	5.20	1.38	1.33
43	BS	88	GLU	C-O	5.20	1.30	1.24
27	BC	142	VAL	CA-C	5.19	1.59	1.52
37	BM	23	LYS	CA-C	5.19	1.58	1.52
52	B1	22	THR	CB-OG1	-5.19	1.35	1.43
1	AA	692	U	C4'-C3'	5.19	1.60	1.52
19	AS	59	HIS	ND1-CE1	5.19	1.37	1.32
26	BB	137	U	O5'-C5'	5.19	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1748	C	O5'-C5'	-5.19	1.34	1.42
42	BR	34	GLY	CA-C	5.19	1.58	1.51
11	AK	28	SER	CA-C	-5.19	1.46	1.52
25	BA	74	U	C2'-C1'	5.19	1.61	1.53
26	BB	1904	G	O4'-C1'	5.19	1.49	1.41
26	BB	2698	U	C5'-C4'	5.19	1.59	1.51
51	B0	53	VAL	N-CA	5.19	1.52	1.46
3	AC	51	C	P-O5'	5.19	1.67	1.59
26	BB	2138	G	C4'-O4'	-5.19	1.37	1.45
18	AR	62	ARG	CD-NE	5.19	1.53	1.46
22	AV	56	HIS	C-N	-5.19	1.29	1.33
26	BB	219	A	O5'-C5'	-5.19	1.34	1.42
26	BB	2404	U	P-O5'	5.19	1.67	1.59
37	BM	116	ILE	CA-C	5.19	1.60	1.52
18	AR	57	ARG	NE-CZ	5.19	1.38	1.33
6	AF	89	VAL	CA-CB	5.18	1.60	1.54
16	AP	8	ILE	C-N	5.18	1.39	1.33
32	BH	22	VAL	C-O	-5.18	1.18	1.24
38	BN	11	GLY	C-N	5.18	1.41	1.34
1	AA	90	C	C4'-O4'	5.18	1.53	1.45
26	BB	1770	G	C3'-C2'	-5.18	1.45	1.52
26	BB	2644	G	C4'-O4'	-5.18	1.37	1.45
27	BC	98	GLU	C-O	-5.18	1.18	1.24
26	BB	2519	U	C4'-O4'	-5.18	1.38	1.45
32	BH	8	VAL	C-N	5.18	1.40	1.33
6	AF	23	ALA	N-CA	5.18	1.53	1.45
26	BB	1610	A	C3'-O3'	-5.18	1.35	1.43
32	BH	121	THR	CA-C	5.18	1.59	1.52
38	BN	60	ARG	CD-NE	5.18	1.53	1.46
39	BO	6	ARG	N-CA	5.18	1.52	1.45
1	AA	853	C	C3'-O3'	5.18	1.50	1.42
1	AA	951	G	C4'-C3'	5.18	1.60	1.52
26	BB	1581	G	N9-C4	5.18	1.48	1.38
26	BB	1766	G	C4'-O4'	-5.18	1.37	1.45
1	AA	1126	U	C2'-C1'	5.18	1.60	1.53
4	AD	32	G	O4'-C1'	5.18	1.49	1.41
26	BB	2541	A	C4'-O4'	-5.18	1.37	1.45
51	B0	47	ARG	CA-C	5.18	1.59	1.52
1	AA	778	G	C4'-O4'	-5.17	1.37	1.45
26	BB	682	G	P-O5'	5.17	1.67	1.59
26	BB	919	U	P-O5'	5.17	1.67	1.59
26	BB	2528	U	C5'-C4'	5.17	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2735	G	C5'-C4'	5.17	1.59	1.51
32	BH	117	PRO	CA-C	5.17	1.58	1.52
1	AA	175	C	C3'-O3'	5.17	1.50	1.42
1	AA	212	G	P-O5'	5.17	1.67	1.59
7	AG	159	GLU	CA-C	5.17	1.59	1.52
26	BB	283	G	C5'-C4'	5.17	1.59	1.51
36	BL	95	ARG	CD-NE	-5.17	1.39	1.46
5	AE	44	LYS	N-CA	5.17	1.53	1.46
12	AL	24	ASN	N-CA	5.17	1.52	1.46
32	BH	5	LYS	CA-C	5.17	1.59	1.52
25	BA	62	C	C3'-O3'	5.17	1.50	1.42
26	BB	1186	G	C6-N1	5.17	1.49	1.39
16	AP	17	ALA	CA-CB	-5.17	1.44	1.53
26	BB	136	G	O5'-C5'	5.17	1.50	1.42
26	BB	846	U	P-O5'	5.17	1.67	1.59
26	BB	1015	U	C4'-O4'	-5.17	1.37	1.45
26	BB	2035	G	O4'-C1'	5.17	1.49	1.42
26	BB	2456	C	O4'-C1'	5.17	1.49	1.41
26	BB	2459	A	C5'-C4'	5.17	1.59	1.51
29	BE	74	GLU	CA-CB	5.17	1.60	1.53
26	BB	906	U	C1'-N1	5.17	1.56	1.48
26	BB	1744	A	O4'-C1'	5.17	1.49	1.41
31	BG	111	ARG	NE-CZ	5.17	1.38	1.33
26	BB	1269	A	C4'-O4'	-5.17	1.37	1.45
26	BB	2248	C	C3'-C2'	5.17	1.60	1.52
1	AA	850	U	O4'-C1'	-5.16	1.33	1.41
22	AV	36	ARG	NE-CZ	-5.16	1.27	1.33
26	BB	2620	C	P-O5'	5.16	1.67	1.59
26	BB	2753	A	P-O5'	5.16	1.67	1.59
43	BS	26	ALA	N-CA	-5.16	1.39	1.46
46	BV	54	GLU	N-CA	5.16	1.52	1.46
52	B1	15	ARG	CZ-NH2	5.16	1.40	1.33
14	AN	114	PRO	CA-C	5.16	1.58	1.52
1	AA	694	A	P-O5'	5.16	1.67	1.59
1	AA	812	G	C3'-C2'	5.16	1.60	1.52
12	AL	82	ILE	CB-CG1	5.16	1.63	1.53
26	BB	1243	C	C5'-C4'	5.16	1.58	1.51
26	BB	2063	C	C1'-N1	5.16	1.56	1.48
26	BB	2241	A	P-O5'	5.16	1.67	1.59
28	BD	42	ARG	NE-CZ	5.16	1.38	1.33
1	AA	977	A	C4'-O4'	-5.16	1.37	1.45
1	AA	1364	U	C2'-O2'	-5.16	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	264	C	P-O5'	5.16	1.67	1.59
26	BB	2200	C	P-O5'	5.16	1.67	1.59
26	BB	2220	U	C4'-O4'	-5.16	1.37	1.45
27	BC	114	VAL	CA-CB	-5.16	1.48	1.54
44	BT	11	GLN	CA-C	5.16	1.58	1.52
45	BU	93	ALA	C-N	5.16	1.40	1.33
56	B5	28	ARG	CA-CB	5.16	1.61	1.53
6	AF	213	VAL	CA-CB	5.16	1.59	1.54
12	AL	16	ALA	C-O	-5.16	1.17	1.24
14	AN	65	ALA	N-CA	5.16	1.52	1.46
26	BB	1884	G	P-O5'	5.16	1.67	1.59
50	BZ	76	LYS	CA-CB	5.16	1.61	1.53
25	BA	7	G	C3'-C2'	5.16	1.60	1.52
25	BA	35	C	O3'-P	-5.16	1.53	1.61
26	BB	1393	A	C4'-O4'	-5.16	1.37	1.45
26	BB	2610	C	P-O5'	5.16	1.67	1.59
26	BB	2807	U	C4'-O4'	-5.16	1.37	1.45
49	BY	81	ILE	CA-C	5.16	1.59	1.52
1	AA	1036	A	C5'-C4'	5.15	1.58	1.51
1	AA	213	G	C2'-O2'	-5.15	1.34	1.42
1	AA	1398	A	O3'-P	5.15	1.68	1.61
26	BB	634	C	O3'-P	5.15	1.68	1.61
27	BC	22	ASP	N-CA	5.15	1.52	1.46
54	B3	19	ASP	CA-CB	-5.15	1.44	1.53
1	AA	860	A	C3'-C2'	-5.15	1.45	1.52
26	BB	771	G	P-O5'	5.15	1.67	1.59
26	BB	1117	C	C3'-O3'	5.15	1.49	1.42
26	BB	1489	C	O3'-P	5.15	1.68	1.61
26	BB	1672	A	C4'-C3'	5.15	1.60	1.52
29	BE	124	ARG	N-CA	5.15	1.52	1.46
33	BI	82	SER	CA-C	5.15	1.58	1.52
23	AW	71	ALA	C-O	-5.15	1.18	1.24
26	BB	143	C	C2'-O2'	-5.15	1.34	1.42
1	AA	233	C	P-O5'	5.15	1.67	1.59
1	AA	1098	C	C3'-O3'	-5.15	1.34	1.42
1	AA	1146	A	C4'-O4'	-5.15	1.37	1.45
16	AP	25	GLY	CA-C	5.15	1.59	1.52
26	BB	434	U	C3'-C2'	5.15	1.60	1.52
26	BB	695	G	C4'-C3'	5.15	1.60	1.52
26	BB	833	A	P-O5'	5.15	1.67	1.59
26	BB	2028	U	P-O5'	5.15	1.67	1.59
1	AA	1505	G	O4'-C1'	5.15	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2123	G	C3'-O3'	-5.14	1.34	1.42
29	BE	177	VAL	N-CA	5.14	1.52	1.46
1	AA	853	C	C4'-O4'	-5.14	1.37	1.45
1	AA	1373	G	C1'-N9	5.14	1.55	1.48
14	AN	79	LYS	N-CA	5.14	1.53	1.46
26	BB	1255	U	C3'-O3'	5.14	1.49	1.42
28	BD	211	ARG	CA-C	5.14	1.59	1.52
1	AA	856	C	C5'-C4'	5.14	1.58	1.51
26	BB	57	C	O4'-C1'	5.14	1.49	1.41
26	BB	1160	G	C5'-C4'	5.14	1.58	1.51
26	BB	2331	G	C4'-O4'	-5.14	1.37	1.45
41	BQ	87	ILE	CA-C	5.14	1.58	1.52
26	BB	784	G	C5'-C4'	5.14	1.58	1.51
26	BB	2437	G	C2'-C1'	-5.14	1.45	1.53
53	B2	4	ASP	CA-C	5.14	1.59	1.52
6	AF	132	ALA	C-O	-5.14	1.18	1.24
26	BB	860	U	C4'-O4'	-5.14	1.37	1.45
26	BB	1980	G	P-O5'	5.14	1.67	1.59
26	BB	2715	C	C3'-C2'	5.14	1.60	1.52
29	BE	110	THR	C-N	-5.14	1.27	1.33
57	B6	3	ILE	CA-C	5.14	1.59	1.52
1	AA	521	G	C3'-C2'	-5.13	1.45	1.52
1	AA	957	U	C5'-C4'	5.13	1.58	1.51
1	AA	1204	A	C4'-C3'	5.13	1.60	1.52
26	BB	925	A	O3'-P	5.13	1.68	1.61
26	BB	1224	U	P-O5'	5.13	1.67	1.59
26	BB	1816	C	O5'-C5'	-5.13	1.35	1.42
1	AA	1029	U	C2'-C1'	5.13	1.61	1.53
3	AC	51	C	C4'-O4'	-5.13	1.38	1.45
26	BB	2570	G	P-O5'	5.13	1.67	1.59
30	BF	28	VAL	N-CA	-5.13	1.40	1.46
31	BG	5	ASP	CA-C	5.13	1.59	1.52
1	AA	210	C	P-O5'	5.13	1.67	1.59
1	AA	1113	C	O4'-C1'	5.13	1.49	1.41
1	AA	1493	A	P-O5'	5.13	1.67	1.59
26	BB	364	C	C2'-O2'	-5.13	1.34	1.42
26	BB	1404	C	O3'-P	5.13	1.68	1.61
29	BE	206	ALA	C-O	-5.13	1.17	1.23
1	AA	479	U	C3'-O3'	5.13	1.49	1.42
1	AA	1421	G	C4'-O4'	-5.13	1.37	1.45
36	BL	67	ASN	CA-C	-5.13	1.45	1.52
50	BZ	55	MET	C-O	-5.13	1.18	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	416	G	C5'-C4'	5.13	1.58	1.51
5	AE	204	ASP	CA-C	5.13	1.60	1.53
26	BB	2131	U	O3'-P	5.13	1.68	1.61
25	BA	7	G	O3'-P	5.12	1.68	1.61
28	BD	14	HIS	N-CA	-5.12	1.40	1.46
28	BD	73	ILE	CA-C	5.12	1.57	1.53
1	AA	691	G	C4'-O4'	-5.12	1.37	1.45
5	AE	10	LYS	CA-C	-5.12	1.45	1.52
12	AL	11	ARG	N-CA	5.12	1.52	1.46
12	AL	33	SER	CA-C	5.12	1.60	1.53
26	BB	386	G	C2'-C1'	5.12	1.60	1.53
26	BB	638	G	P-O5'	5.12	1.67	1.59
26	BB	1251	C	O4'-C1'	-5.12	1.34	1.42
26	BB	2505	G	C2-N3	5.12	1.43	1.32
35	BK	127	SER	N-CA	5.12	1.52	1.46
48	BX	26	PHE	CA-C	5.12	1.57	1.52
26	BB	106	C	C5'-C4'	5.12	1.58	1.51
1	AA	170	U	O5'-C5'	5.12	1.50	1.42
26	BB	1247	A	O3'-P	5.12	1.68	1.61
26	BB	1934	C	C5'-C4'	5.12	1.58	1.51
30	BF	182	ALA	N-CA	5.12	1.52	1.46
38	BN	134	ALA	C-N	5.12	1.40	1.33
43	BS	86	SER	CA-C	5.12	1.59	1.52
18	AR	77	TYR	C-N	5.12	1.40	1.34
26	BB	763	G	C2'-C1'	5.12	1.61	1.53
26	BB	1008	A	C3'-C2'	5.12	1.60	1.52
26	BB	2433	A	C2'-O2'	-5.12	1.34	1.42
31	BG	128	SER	N-CA	-5.12	1.40	1.46
31	BG	148	VAL	N-CA	5.12	1.52	1.46
34	BJ	131	TYR	N-CA	5.12	1.52	1.46
1	AA	821	G	C5'-C4'	5.12	1.58	1.51
18	AR	21	THR	CA-C	5.12	1.59	1.52
32	BH	160	GLY	CA-C	5.12	1.56	1.51
1	AA	201	G	C2'-O2'	5.12	1.50	1.42
3	AC	45	G	P-O5'	5.12	1.67	1.59
26	BB	58	G	C4'-O4'	-5.12	1.37	1.45
36	BL	74	TYR	CA-CB	5.12	1.61	1.53
1	AA	565	U	C3'-C2'	5.11	1.60	1.52
1	AA	660	C	C5'-C4'	5.11	1.58	1.51
10	AJ	145	GLU	N-CA	5.11	1.52	1.46
13	AM	65	TYR	CA-C	5.11	1.58	1.52
26	BB	1157	G	C5'-C4'	5.11	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1204	A	C4'-O4'	-5.11	1.38	1.45
26	BB	2226	C	O4'-C1'	5.11	1.49	1.41
11	AK	120	LEU	C-N	5.11	1.39	1.33
26	BB	1231	U	C3'-C2'	5.11	1.60	1.52
43	BS	64	ILE	CA-C	5.11	1.59	1.52
1	AA	909	A	C1'-N9	5.11	1.55	1.48
6	AF	112	ALA	N-CA	5.11	1.52	1.46
27	BC	195	ALA	N-CA	5.11	1.52	1.46
32	BH	120	ILE	N-CA	5.11	1.51	1.46
45	BU	87	PRO	C-N	5.11	1.39	1.33
1	AA	391	G	O3'-P	5.11	1.68	1.61
1	AA	1521	C	C5'-C4'	5.11	1.58	1.51
22	AV	74	ALA	CA-C	5.11	1.58	1.52
26	BB	2353	G	C4'-C3'	5.11	1.60	1.52
27	BC	178	VAL	N-CA	5.11	1.52	1.46
30	BF	92	HIS	CG-ND1	-5.11	1.32	1.38
40	BP	109	PRO	C-O	5.11	1.29	1.23
1	AA	432	A	C4'-O4'	-5.11	1.37	1.45
1	AA	1316	G	C4'-O4'	-5.11	1.37	1.45
9	AI	130	GLU	C-O	-5.11	1.17	1.23
26	BB	1304	A	C3'-C2'	5.11	1.60	1.52
26	BB	2310	C	C1'-N1	5.11	1.56	1.48
28	BD	161	VAL	CA-CB	5.11	1.61	1.54
29	BE	189	VAL	N-CA	5.11	1.52	1.46
32	BH	110	HIS	CD2-NE2	5.11	1.43	1.37
36	BL	103	ILE	CA-CB	5.11	1.61	1.54
1	AA	191	G	C2-N3	5.10	1.43	1.32
10	AJ	101	ARG	CZ-NH1	5.10	1.39	1.32
26	BB	355	U	O5'-C5'	5.10	1.50	1.42
32	BH	110	HIS	CG-CD2	5.10	1.41	1.35
40	BP	38	LEU	CA-C	5.10	1.58	1.52
1	AA	719	C	P-O5'	5.10	1.67	1.59
1	AA	1290	G	O4'-C1'	-5.10	1.33	1.41
8	AH	32	PHE	N-CA	5.10	1.52	1.45
26	BB	180	G	C5'-C4'	5.10	1.58	1.51
48	BX	21	ARG	C-O	-5.10	1.17	1.24
1	AA	912	C	P-O5'	5.10	1.67	1.59
26	BB	3	U	O3'-P	5.10	1.68	1.61
26	BB	2814	A	C5'-C4'	5.10	1.58	1.51
27	BC	130	VAL	CA-C	5.10	1.59	1.52
1	AA	35	G	C3'-C2'	5.10	1.60	1.52
25	BA	90	C	O3'-P	5.10	1.68	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	477	A	P-O5'	5.10	1.67	1.59
26	BB	2781	A	P-O5'	5.10	1.67	1.59
26	BB	2820	A	C1'-N9	5.10	1.55	1.48
30	BF	35	TYR	C-O	5.10	1.30	1.24
47	BW	50	ALA	CA-CB	5.10	1.61	1.53
1	AA	450	G	O3'-P	-5.10	1.53	1.61
9	AI	22	ILE	CB-CG1	5.10	1.63	1.53
17	AQ	3	GLN	CA-C	5.10	1.59	1.52
26	BB	304	U	P-O5'	5.10	1.67	1.59
26	BB	352	A	P-O5'	5.10	1.67	1.59
26	BB	693	A	O3'-P	5.10	1.68	1.61
26	BB	1288	G	C1'-N9	5.10	1.54	1.47
41	BQ	34	HIS	CE1-NE2	5.10	1.37	1.32
56	B5	25	LYS	N-CA	5.10	1.52	1.46
1	AA	1049	U	C2'-C1'	-5.10	1.45	1.53
26	BB	316	C	P-O5'	5.10	1.67	1.59
26	BB	487	C	O3'-P	5.10	1.68	1.61
26	BB	1253	A	O4'-C1'	-5.10	1.34	1.42
32	BH	120	ILE	C-O	5.10	1.29	1.23
1	AA	690	G	C4'-C3'	5.09	1.60	1.52
4	AD	9	G	C2-N3	5.09	1.43	1.32
9	AI	77	THR	N-CA	5.09	1.52	1.46
10	AJ	60	ALA	N-CA	5.09	1.52	1.46
13	AM	45	ARG	CA-CB	5.09	1.61	1.53
26	BB	1603	A	P-O5'	5.09	1.67	1.59
26	BB	1769	U	C5'-C4'	-5.09	1.43	1.51
26	BB	2658	C	C2'-C1'	5.09	1.60	1.53
26	BB	2880	C	O3'-P	5.09	1.68	1.61
43	BS	27	ARG	CA-C	-5.09	1.45	1.52
11	AK	40	LYS	N-CA	5.09	1.52	1.46
12	AL	86	LEU	CA-C	-5.09	1.46	1.52
12	AL	48	ARG	CZ-NH1	5.09	1.39	1.32
26	BB	1117	C	C5'-C4'	5.09	1.58	1.51
37	BM	23	LYS	N-CA	5.09	1.52	1.46
1	AA	998	C	O3'-P	5.09	1.68	1.61
10	AJ	76	SER	C-N	5.09	1.40	1.34
11	AK	53	ASP	N-CA	5.09	1.52	1.46
26	BB	279	A	C4'-O4'	-5.09	1.38	1.45
26	BB	1165	A	P-O5'	5.09	1.67	1.59
27	BC	90	ALA	CA-C	5.09	1.59	1.52
31	BG	84	ILE	CA-CB	5.09	1.61	1.54
34	BJ	116	LEU	CA-CB	5.09	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1217	U	P-O5'	5.09	1.67	1.59
26	BB	1927	A	C5'-C4'	5.09	1.58	1.51
1	AA	789	U	C3'-O3'	5.09	1.50	1.43
1	AA	1186	G	C2'-C1'	5.09	1.60	1.53
26	BB	701	G	C5'-C4'	5.09	1.58	1.51
26	BB	1553	A	C1'-N9	5.09	1.55	1.48
26	BB	2324	U	C4'-O4'	-5.09	1.38	1.45
26	BB	2883	A	C1'-N9	5.09	1.55	1.48
1	AA	1062	U	O5'-C5'	5.08	1.50	1.42
2	AB	59	G	C2'-C1'	-5.08	1.45	1.53
15	AO	81	ILE	CA-CB	-5.08	1.46	1.54
1	AA	602	A	C2'-O2'	5.08	1.50	1.42
1	AA	1153	G	C5'-C4'	5.08	1.58	1.51
2	AB	69	C	C2'-C1'	5.08	1.60	1.53
11	AK	117	GLN	CA-CB	5.08	1.61	1.53
26	BB	40	U	C2'-C1'	5.08	1.60	1.53
34	BJ	130	THR	CA-C	5.08	1.59	1.53
1	AA	445	G	C4'-O4'	-5.08	1.38	1.45
1	AA	723	U	P-O5'	5.08	1.67	1.59
8	AH	120	HIS	CD2-NE2	5.08	1.43	1.37
25	BA	49	C	C4'-O4'	-5.08	1.38	1.45
26	BB	2424	C	C4'-O4'	-5.08	1.38	1.45
33	BI	124	THR	CA-C	5.08	1.58	1.52
11	AK	68	LYS	C-N	5.08	1.40	1.33
16	AP	60	ALA	CA-C	5.08	1.59	1.52
47	BW	11	ILE	CB-CG1	5.08	1.63	1.53
4	AD	5	G	P-O5'	5.08	1.67	1.59
12	AL	123	ARG	CA-C	-5.08	1.46	1.53
26	BB	85	G	O5'-C5'	5.08	1.50	1.42
26	BB	188	G	O4'-C1'	5.08	1.49	1.41
34	BJ	75	PHE	N-CA	5.08	1.52	1.46
5	AE	75	ALA	CA-C	5.08	1.59	1.52
26	BB	144	A	C3'-C2'	5.08	1.60	1.52
32	BH	103	ASN	CA-C	5.08	1.59	1.52
26	BB	1173	U	C4'-O4'	-5.08	1.38	1.45
26	BB	2887	A	C5'-C4'	5.08	1.58	1.51
28	BD	256	THR	C-N	5.08	1.40	1.33
15	AO	95	HIS	CB-CG	5.07	1.57	1.50
20	AT	62	GLU	N-CA	5.07	1.52	1.46
25	BA	30	C	P-O5'	5.07	1.67	1.59
26	BB	1161	C	P-O5'	5.07	1.67	1.59
28	BD	102	TYR	C-N	5.07	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BK	78	LEU	CA-C	5.07	1.59	1.52
42	BR	27	VAL	CA-C	-5.07	1.46	1.52
28	BD	23	LEU	CA-CB	5.07	1.61	1.53
26	BB	1737	G	C4'-O4'	-5.07	1.38	1.45
26	BB	2464	G	C2'-C1'	-5.07	1.45	1.53
26	BB	182	A	P-O5'	5.07	1.67	1.59
1	AA	1308	U	C3'-C2'	5.07	1.60	1.52
18	AR	43	ALA	C-O	5.07	1.30	1.24
26	BB	55	G	C5'-C4'	5.07	1.58	1.51
26	BB	191	A	C5'-C4'	5.07	1.58	1.51
26	BB	1842	G	C5'-C4'	5.07	1.58	1.51
26	BB	1965	C	C3'-O3'	-5.07	1.34	1.42
26	BB	2578	G	C2'-C1'	5.07	1.60	1.53
38	BN	20	GLY	CA-C	5.07	1.57	1.51
11	AK	2	MET	C-O	5.07	1.30	1.23
25	BA	9	G	C5'-C4'	5.07	1.58	1.51
26	BB	544	C	C4'-O4'	-5.07	1.38	1.45
26	BB	1903	G	C1'-N9	5.07	1.55	1.48
33	BI	148	ALA	C-N	5.07	1.40	1.33
1	AA	818	G	O3'-P	5.06	1.68	1.61
1	AA	137	U	P-O5'	5.06	1.67	1.59
18	AR	32	THR	N-CA	-5.06	1.40	1.46
26	BB	1812	U	C5'-C4'	5.06	1.58	1.51
26	BB	2227	A	O4'-C1'	5.06	1.49	1.41
27	BC	46	VAL	C-O	-5.06	1.18	1.24
45	BU	18	ARG	CA-CB	5.06	1.61	1.53
1	AA	1525	G	O5'-C5'	5.06	1.50	1.42
2	AB	18	G	C4'-O4'	-5.06	1.38	1.45
34	BJ	67	PRO	N-CA	5.06	1.53	1.47
1	AA	877	G	P-O5'	5.06	1.67	1.59
5	AE	92	ASN	N-CA	5.06	1.53	1.46
22	AV	13	HIS	N-CA	-5.06	1.40	1.46
26	BB	1336	A	O3'-P	5.06	1.68	1.61
26	BB	1906	G	C5'-C4'	5.06	1.58	1.51
26	BB	2033	A	O3'-P	5.06	1.68	1.61
26	BB	2114	A	C1'-N9	5.06	1.55	1.48
3	AC	34	U	C5'-C4'	5.06	1.58	1.51
26	BB	164	C	C4'-O4'	-5.06	1.38	1.45
26	BB	814	C	O4'-C1'	5.06	1.49	1.41
26	BB	890	C	C3'-C2'	5.06	1.60	1.52
26	BB	1514	G	O5'-C5'	5.06	1.50	1.42
26	BB	2316	G	C3'-C2'	5.06	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	BG	41	GLU	CA-C	5.06	1.59	1.52
1	AA	110	C	O5'-C5'	5.06	1.50	1.42
1	AA	1346	A	P-O5'	5.06	1.67	1.59
26	BB	1150	C	C4'-O4'	-5.06	1.38	1.45
1	AA	222	C	C2'-C1'	5.05	1.60	1.53
1	AA	347	G	P-O5'	5.05	1.67	1.59
8	AH	105	ILE	CA-CB	5.05	1.60	1.54
10	AJ	112	ASP	CB-CG	5.05	1.64	1.52
26	BB	783	A	O3'-P	5.05	1.68	1.61
26	BB	1315	C	C5-C6	5.05	1.44	1.34
26	BB	2288	A	C6-N1	-5.05	1.25	1.35
26	BB	2839	G	C4'-O4'	-5.05	1.38	1.45
1	AA	672	U	C2'-C1'	5.05	1.60	1.53
28	BD	112	GLY	C-N	5.05	1.40	1.33
8	AH	82	HIS	C-O	5.05	1.29	1.24
13	AM	32	THR	N-CA	5.05	1.52	1.46
36	BL	100	VAL	CA-C	5.05	1.59	1.52
47	BW	6	ARG	NE-CZ	5.05	1.38	1.33
48	BX	27	PRO	N-CD	-5.05	1.40	1.47
16	AP	108	ARG	CA-CB	-5.05	1.45	1.53
26	BB	1662	U	C1'-N1	5.05	1.56	1.48
26	BB	2093	G	C2'-C1'	5.05	1.60	1.53
28	BD	169	ALA	CA-C	5.05	1.59	1.52
30	BF	4	VAL	C-N	5.05	1.40	1.33
44	BT	30	GLY	CA-C	5.05	1.59	1.51
1	AA	799	G	C4'-O4'	-5.05	1.38	1.45
26	BB	1215	G	C2-N3	5.05	1.42	1.32
26	BB	1383	A	O4'-C1'	5.05	1.49	1.41
54	B3	43	THR	CA-C	5.05	1.60	1.53
1	AA	1231	G	C1'-N9	5.05	1.55	1.48
6	AF	225	LYS	CA-C	5.05	1.58	1.52
13	AM	70	HIS	CA-C	5.05	1.58	1.52
16	AP	82	LEU	CA-C	5.05	1.59	1.52
26	BB	1146	C	C1'-N1	5.05	1.56	1.48
31	BG	67	THR	CA-C	5.05	1.59	1.52
39	BO	80	VAL	C-O	-5.05	1.18	1.24
48	BX	65	VAL	CA-CB	5.05	1.61	1.54
58	B7	33	HIS	CB-CG	5.05	1.57	1.50
26	BB	354	A	C5'-C4'	5.04	1.58	1.51
26	BB	420	C	C4'-O4'	-5.04	1.38	1.45
26	BB	1331	G	C5'-C4'	5.04	1.58	1.51
26	BB	1522	A	C4'-O4'	-5.04	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1979	U	N1-C6	-5.04	1.27	1.38
38	BN	47	ARG	N-CA	5.04	1.52	1.46
1	AA	39	G	P-O5'	5.04	1.67	1.59
1	AA	346	G	O4'-C1'	5.04	1.49	1.41
10	AJ	91	ARG	CD-NE	-5.04	1.39	1.46
26	BB	293	U	O3'-P	5.04	1.68	1.61
26	BB	2212	A	C1'-N9	5.04	1.54	1.47
27	BC	172	HIS	CE1-NE2	5.04	1.37	1.32
36	BL	7	LYS	CA-CB	-5.04	1.47	1.54
1	AA	1029	U	C4'-C3'	5.04	1.60	1.52
26	BB	1764	C	O3'-P	5.04	1.68	1.61
26	BB	2036	C	C5'-C4'	5.04	1.58	1.51
26	BB	2336	A	C3'-C2'	5.04	1.60	1.52
1	AA	1131	G	C2'-C1'	5.04	1.60	1.53
26	BB	96	C	N3-C4	5.04	1.44	1.33
26	BB	939	G	O5'-C5'	-5.04	1.34	1.42
40	BP	121	LYS	N-CA	5.04	1.52	1.46
54	B3	27	LEU	CA-C	5.04	1.59	1.52
5	AE	78	ALA	CA-CB	5.04	1.61	1.53
26	BB	690	G	O5'-C5'	-5.04	1.34	1.42
26	BB	814	C	P-O5'	5.04	1.67	1.59
1	AA	779	C	C4'-O4'	-5.04	1.38	1.45
1	AA	791	G	P-O5'	5.04	1.67	1.59
4	AD	43	G	O3'-P	5.04	1.68	1.61
6	AF	106	ARG	CZ-NH1	5.04	1.39	1.32
26	BB	2728	U	P-O5'	5.04	1.67	1.59
53	B2	27	THR	N-CA	-5.04	1.39	1.45
1	AA	355	C	C4'-O4'	-5.03	1.38	1.45
1	AA	1305	G	C1'-N9	-5.03	1.40	1.48
26	BB	2524	G	C5'-C4'	5.03	1.58	1.51
26	BB	2781	A	C4'-C3'	5.03	1.60	1.52
31	BG	166	ARG	NE-CZ	5.03	1.38	1.33
39	BO	54	THR	N-CA	5.03	1.52	1.46
1	AA	802	A	O5'-C5'	-5.03	1.34	1.42
11	AK	76	ARG	NE-CZ	5.03	1.38	1.33
26	BB	2635	A	C2'-O2'	-5.03	1.34	1.42
26	BB	2705	A	P-O5'	5.03	1.67	1.59
1	AA	548	G	C2'-C1'	5.03	1.60	1.53
1	AA	1094	G	C5'-C4'	5.03	1.58	1.51
2	AB	75	C	C4'-O4'	-5.03	1.38	1.45
3	AC	16	A	C1'-N9	5.03	1.54	1.47
14	AN	81	LEU	N-CA	-5.03	1.39	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	AX	3	ILE	CB-CG1	5.03	1.63	1.53
25	BA	43	C	C3'-O3'	5.03	1.49	1.42
26	BB	65	U	C4'-O4'	-5.03	1.38	1.45
26	BB	600	G	C5'-C4'	5.03	1.58	1.51
26	BB	2255	G	C5'-C4'	5.03	1.58	1.51
1	AA	348	G	C1'-N9	5.03	1.55	1.48
45	BU	9	HIS	CE1-NE2	5.03	1.37	1.32
1	AA	722	G	O3'-P	5.03	1.68	1.61
1	AA	990	C	C4'-O4'	-5.03	1.38	1.45
1	AA	1277	C	C4'-O4'	-5.03	1.38	1.45
26	BB	2031	A	C2'-O2'	5.03	1.49	1.41
5	AE	75	ALA	N-CA	5.03	1.52	1.45
14	AN	38	GLY	C-N	5.03	1.40	1.33
26	BB	1020	A	P-O5'	5.03	1.67	1.59
26	BB	2509	G	C4'-C3'	5.03	1.60	1.52
1	AA	351	G	C1'-N9	5.02	1.54	1.47
26	BB	2676	C	C2'-C1'	-5.02	1.45	1.53
40	BP	70	THR	CB-OG1	-5.02	1.35	1.43
1	AA	526	C	P-O5'	5.02	1.67	1.59
2	AB	70	C	P-O5'	5.02	1.67	1.59
4	AD	2	G	C3'-C2'	5.02	1.60	1.52
26	BB	570	G	C3'-C2'	5.02	1.60	1.52
42	BR	80	VAL	CA-CB	5.02	1.59	1.53
1	AA	522	C	C4'-O4'	-5.02	1.38	1.45
1	AA	711	G	O4'-C1'	5.02	1.49	1.41
1	AA	812	G	O4'-C1'	5.02	1.49	1.41
26	BB	2574	G	C2'-C1'	5.02	1.60	1.53
34	BJ	34	VAL	CA-CB	5.02	1.60	1.54
56	B5	41	ARG	CA-CB	5.02	1.59	1.53
1	AA	253	A	C4'-O4'	-5.02	1.38	1.45
1	AA	625	U	C3'-C2'	5.02	1.60	1.52
7	AG	97	LEU	C-N	5.02	1.40	1.33
12	AL	102	PHE	CA-C	5.02	1.59	1.52
26	BB	162	U	C4'-O4'	-5.02	1.38	1.45
26	BB	998	C	P-O5'	5.02	1.67	1.59
26	BB	1170	C	C2'-O2'	-5.02	1.34	1.42
26	BB	1176	U	C3'-C2'	-5.02	1.45	1.52
38	BN	126	ARG	CD-NE	5.02	1.53	1.46
40	BP	79	LEU	CA-C	5.02	1.59	1.52
50	BZ	56	ARG	CA-CB	5.02	1.61	1.53
1	AA	1137	C	C3'-O3'	-5.02	1.35	1.43
12	AL	42	THR	CB-OG1	-5.02	1.35	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1349	C	C2'-C1'	5.02	1.60	1.53
26	BB	2892	G	C4'-O4'	-5.02	1.38	1.45
1	AA	169	C	O3'-P	5.02	1.68	1.61
7	AG	49	ASP	CA-C	5.02	1.59	1.52
26	BB	602	A	C2'-C1'	-5.02	1.45	1.53
26	BB	1035	U	C4'-O4'	-5.02	1.38	1.45
26	BB	860	U	C4'-C3'	5.01	1.60	1.52
26	BB	1118	C	C4'-C3'	5.01	1.60	1.52
26	BB	1716	U	C4'-O4'	-5.01	1.38	1.45
26	BB	1832	C	P-O5'	5.01	1.67	1.59
26	BB	1964	G	C4'-O4'	-5.01	1.38	1.45
26	BB	2312	U	O4'-C1'	-5.01	1.34	1.41
28	BD	52	HIS	CB-CG	5.01	1.57	1.50
1	AA	93	U	C4'-O4'	-5.01	1.38	1.45
1	AA	1037	C	O5'-C5'	5.01	1.50	1.42
10	AJ	58	LEU	CA-C	5.01	1.59	1.52
11	AK	12	ARG	CA-CB	5.01	1.61	1.53
26	BB	2717	C	C5'-C4'	5.01	1.58	1.51
1	AA	636	U	C2'-O2'	-5.01	1.34	1.42
1	AA	1467	C	O3'-P	5.01	1.68	1.61
17	AQ	71	GLY	N-CA	-5.01	1.38	1.45
26	BB	117	G	C1'-N9	5.01	1.55	1.48
26	BB	122	G	O5'-C5'	-5.01	1.34	1.42
26	BB	1448	G	O3'-P	5.01	1.68	1.61
26	BB	1555	G	P-O5'	5.01	1.67	1.59
26	BB	1936	A	P-O5'	5.01	1.67	1.59
26	BB	2181	U	C4'-O4'	-5.01	1.38	1.45
28	BD	261	ARG	NE-CZ	5.01	1.38	1.33
1	AA	51	A	C4'-O4'	-5.01	1.38	1.45
1	AA	368	U	C4'-O4'	-5.01	1.38	1.45
1	AA	737	C	O3'-P	5.01	1.68	1.61
14	AN	67	GLU	CA-C	5.01	1.59	1.52
28	BD	174	ARG	CZ-NH2	5.01	1.40	1.33
33	BI	46	PHE	C-N	5.01	1.40	1.33
26	BB	1389	G	C3'-C2'	5.01	1.60	1.52
1	AA	281	G	O3'-P	5.01	1.68	1.61
26	BB	1389	G	C5'-C4'	5.01	1.58	1.51
29	BE	30	GLU	C-O	-5.01	1.18	1.23
26	BB	2037	A	C4'-O4'	-5.00	1.38	1.45
1	AA	1002	G	C4'-C3'	5.00	1.60	1.52
26	BB	232	G	C4'-C3'	-5.00	1.45	1.53
1	AA	1031	C	C3'-C2'	-5.00	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AC	41	A	O3'-P	5.00	1.68	1.61
5	AE	93	HIS	CB-CG	5.00	1.57	1.50
14	AN	123	PRO	N-CA	5.00	1.52	1.47
26	BB	148	U	O3'-P	5.00	1.68	1.61
26	BB	1486	U	O5'-C5'	-5.00	1.34	1.42
26	BB	2321	U	C5-C6	5.00	1.44	1.34
26	BB	2663	G	C2'-C1'	-5.00	1.45	1.53
30	BF	38	GLY	CA-C	5.00	1.58	1.51
45	BU	88	ARG	CA-CB	5.00	1.62	1.53

All (8851) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	AI	100	SER	CA-C-N	15.48	135.35	119.56
9	AI	100	SER	C-N-CA	15.48	135.35	119.56
22	AV	57	VAL	CA-C-O	-14.44	110.56	119.51
1	AA	746	A	O4'-C4'-C3'	13.36	117.36	104.00
29	BE	181	ASP	CA-CB-CG	13.25	125.85	112.60
26	BB	703	U	C4'-C3'-C2'	12.09	114.69	102.60
20	AT	65	PRO	N-CA-CB	12.00	114.50	103.34
12	AL	119	LYS	CA-C-N	11.65	135.88	120.28
12	AL	119	LYS	C-N-CA	11.65	135.88	120.28
1	AA	1011	C	C4'-C3'-C2'	-11.57	91.03	102.60
7	AG	193	ASP	CA-CB-CG	11.50	124.10	112.60
27	BC	60	ARG	NE-CZ-NH2	11.48	129.53	119.20
26	BB	2133	G	C3'-C2'-C1'	11.41	112.71	101.30
8	AH	120	HIS	CA-CB-CG	11.31	125.11	113.80
26	BB	106	C	C5'-C4'-C3'	-11.27	99.09	116.00
7	AG	166	LYS	CA-C-N	11.24	131.35	119.78
7	AG	166	LYS	C-N-CA	11.24	131.35	119.78
1	AA	28	A	O4'-C1'-N9	11.15	125.23	108.50
32	BH	111	PRO	N-CA-CB	11.11	113.27	103.27
1	AA	141	G	C4'-C3'-C2'	-11.10	91.50	102.60
1	AA	746	A	C4'-C3'-C2'	-11.03	91.57	102.60
26	BB	2178	C	O4'-C1'-C2'	-11.02	96.58	107.60
26	BB	378	C	O4'-C1'-C2'	-10.99	96.61	107.60
26	BB	1547	C	C4'-C3'-C2'	-10.99	91.61	102.60
26	BB	231	A	C2'-C3'-O3'	10.93	130.09	113.70
26	BB	2041	U	O4'-C1'-N1	10.91	124.87	108.50
26	BB	514	A	C4'-C3'-C2'	-10.84	91.77	102.60
26	BB	1632	A	C3'-C2'-C1'	10.84	112.14	101.30
26	BB	2471	A	C2'-C3'-O3'	10.81	125.72	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
47	BW	26	ASN	CA-CB-CG	10.79	123.39	112.60
26	BB	81	G	C2'-C3'-O3'	-10.74	97.59	113.70
1	AA	1438	G	C4'-C3'-C2'	-10.71	91.89	102.60
26	BB	2451	A	C4'-C3'-C2'	-10.69	91.91	102.60
25	BA	91	C	C1'-O4'-C4'	10.67	120.57	109.90
1	AA	331	G	O4'-C4'-C3'	10.64	114.64	104.00
26	BB	782	A	O4'-C1'-C2'	-10.60	95.20	105.80
1	AA	1272	G	C4'-C3'-C2'	-10.56	92.04	102.60
1	AA	968	A	C2'-C3'-O3'	10.51	125.26	109.50
28	BD	164	VAL	N-CA-C	-10.50	103.74	113.71
26	BB	551	G	C3'-C2'-C1'	-10.49	90.81	101.30
21	AU	15	GLU	CA-C-N	10.48	130.42	120.98
21	AU	15	GLU	C-N-CA	10.48	130.42	120.98
26	BB	669	G	C4'-C3'-C2'	-10.48	92.11	102.60
26	BB	575	A	C1'-O4'-C4'	-10.48	99.42	109.90
26	BB	2589	A	O4'-C1'-C2'	-10.47	97.13	107.60
16	AP	90	HIS	CA-CB-CG	10.41	124.21	113.80
26	BB	1604	C	C4'-C3'-C2'	-10.40	92.20	102.60
26	BB	2496	C	O4'-C4'-C3'	10.39	114.39	104.00
1	AA	1338	G	C4'-C3'-C2'	-10.36	92.24	102.60
26	BB	2477	U	C5'-C4'-O4'	10.32	125.27	109.80
26	BB	1762	A	O4'-C4'-C3'	10.31	114.31	104.00
26	BB	2010	G	O4'-C4'-C3'	10.30	114.30	104.00
22	AV	63	ASP	CA-CB-CG	10.26	122.86	112.60
26	BB	1023	U	C4'-C3'-C2'	-10.24	92.36	102.60
26	BB	125	A	C3'-C2'-C1'	10.24	111.74	101.50
31	BG	138	PRO	N-CA-CB	10.23	112.36	103.36
44	BT	82	HIS	CB-CA-C	10.19	125.51	111.86
26	BB	1385	A	O4'-C1'-N9	10.16	123.45	108.20
26	BB	1657	U	C4'-C3'-C2'	-10.15	92.44	102.60
1	AA	177	G	O4'-C1'-C2'	-10.15	97.45	107.60
26	BB	875	G	C4'-C3'-C2'	-10.15	92.45	102.60
1	AA	376	G	O4'-C4'-C3'	10.14	114.14	104.00
26	BB	279	A	O4'-C4'-C3'	10.13	114.14	104.00
22	AV	36	ARG	NE-CZ-NH2	-10.11	110.10	119.20
26	BB	2118	U	C1'-O4'-C4'	-10.11	99.59	109.70
26	BB	2357	G	C4'-C3'-C2'	-10.10	92.50	102.60
21	AU	67	LEU	CA-C-N	10.08	130.88	119.99
21	AU	67	LEU	C-N-CA	10.08	130.88	119.99
1	AA	1375	A	C4'-C3'-C2'	-10.07	92.53	102.60
10	AJ	2	ARG	CA-C-N	10.04	133.49	120.44
10	AJ	2	ARG	C-N-CA	10.04	133.49	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	120	A	O4'-C4'-C3'	10.03	114.03	104.00
26	BB	102	U	O3'-P-O5'	-10.01	88.98	104.00
26	BB	2787	C	O4'-C1'-N1	10.00	123.50	108.50
26	BB	2820	A	O4'-C1'-C2'	-10.00	97.60	107.60
1	AA	1060	U	C4'-C3'-C2'	-10.00	92.60	102.60
5	AE	114	LYS	N-CA-C	-9.99	100.35	112.54
53	B2	47	LYS	CA-C-N	9.98	134.66	120.28
53	B2	47	LYS	C-N-CA	9.98	134.66	120.28
1	AA	61	G	C5'-C4'-C3'	9.98	130.97	116.00
1	AA	187	G	C3'-C2'-O2'	9.98	125.67	110.70
26	BB	1576	U	O4'-C1'-N1	9.97	123.46	108.50
26	BB	1657	U	C1'-O4'-C4'	-9.97	99.93	109.90
48	BX	91	PHE	CA-CB-CG	9.97	123.77	113.80
26	BB	2548	U	C1'-O4'-C4'	-9.96	99.94	109.90
27	BC	180	PHE	CA-CB-CG	9.96	123.77	113.80
1	AA	86	G	O3'-P-O5'	-9.96	89.06	104.00
19	AS	53	ASP	CA-CB-CG	9.95	122.55	112.60
8	AH	30	PHE	CA-CB-CG	9.95	123.75	113.80
26	BB	335	C	C5'-C4'-C3'	-9.93	101.11	116.00
26	BB	1654	A	C5'-C4'-C3'	-9.93	101.11	116.00
26	BB	1555	G	C4'-C3'-C2'	-9.92	92.68	102.60
26	BB	2092	U	C3'-C2'-C1'	9.92	111.42	101.50
4	AD	32	G	O4'-C1'-N9	9.91	123.36	108.50
31	BG	132	ARG	NE-CZ-NH2	9.90	128.11	119.20
1	AA	376	G	C4'-C3'-C2'	-9.90	92.70	102.60
26	BB	710	U	C5'-C4'-C3'	9.90	130.85	116.00
1	AA	1231	G	C4'-C3'-C2'	-9.87	92.73	102.60
31	BG	175	PRO	N-CA-CB	9.86	109.35	102.35
28	BD	13	ARG	NE-CZ-NH2	9.85	128.06	119.20
26	BB	2125	G	C3'-C2'-C1'	-9.85	91.45	101.30
26	BB	2755	C	O4'-C4'-C3'	9.82	113.82	104.00
39	BO	10	ARG	NE-CZ-NH2	9.82	128.04	119.20
1	AA	452	A	C2'-C3'-O3'	-9.81	98.99	113.70
25	BA	24	G	C1'-O4'-C4'	9.80	119.50	109.70
29	BE	150	GLN	OE1-CD-NE2	-9.79	112.81	122.60
42	BR	100	ARG	NE-CZ-NH2	9.79	128.01	119.20
26	BB	1135	C	C1'-O4'-C4'	-9.75	100.15	109.90
26	BB	1675	C	C1'-C2'-O2'	9.73	126.40	111.80
1	AA	187	G	C4'-C3'-C2'	-9.72	92.88	102.60
5	AE	137	THR	CA-C-O	-9.72	110.25	120.55
31	BG	98	PHE	CA-CB-CG	9.72	123.52	113.80
26	BB	1428	C	O3'-P-O5'	-9.71	89.44	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1386	C	C4'-C3'-C2'	-9.69	92.91	102.60
26	BB	578	G	O3'-P-O5'	-9.68	89.48	104.00
1	AA	1167	A	O4'-C4'-C3'	9.66	113.66	104.00
26	BB	389	G	C4'-C3'-C2'	-9.65	92.95	102.60
25	BA	44	G	C2'-C3'-O3'	9.65	123.97	109.50
37	BM	13	ASN	N-CA-C	-9.64	101.68	113.15
1	AA	4	U	O4'-C1'-C2'	-9.63	97.97	107.60
1	AA	174	A	O4'-C1'-N9	9.63	122.94	108.50
1	AA	69	G	C3'-C2'-C1'	9.62	110.92	101.30
1	AA	1156	G	O4'-C4'-C3'	9.60	113.60	104.00
1	AA	1059	C	O4'-C4'-C3'	9.59	113.58	104.00
35	BK	21	PRO	N-CA-C	9.58	122.39	110.70
37	BM	62	VAL	CA-CB-CG1	9.57	126.67	110.40
26	BB	1251	C	C4'-C3'-C2'	-9.57	93.03	102.60
1	AA	1237	C	C4'-C3'-C2'	-9.55	93.05	102.60
2	AB	48	U	O4'-C4'-C3'	9.55	113.55	104.00
1	AA	522	C	C5'-C4'-C3'	-9.51	101.73	116.00
1	AA	1052	U	C4'-C3'-C2'	-9.50	93.10	102.60
26	BB	196	A	C1'-O4'-C4'	-9.49	100.21	109.70
4	AD	22	A	C2'-C3'-O3'	9.49	123.73	109.50
4	AD	28	U	O4'-C1'-C2'	-9.46	98.14	107.60
26	BB	503	A	O4'-C4'-C3'	9.46	113.46	104.00
53	B2	6	HIS	ND1-CG-CD2	9.46	115.56	106.10
26	BB	193	U	C4'-C3'-C2'	-9.44	93.16	102.60
26	BB	489	G	C4'-C3'-O3'	9.44	123.56	109.40
34	BJ	68	PHE	CA-CB-CG	9.44	123.24	113.80
25	BA	19	C	O4'-C1'-N1	9.43	122.64	108.50
33	BI	135	HIS	CA-CB-CG	-9.42	104.38	113.80
26	BB	1041	G	C4'-C3'-O3'	9.41	127.12	113.00
27	BC	83	ASN	CA-C-N	9.41	132.68	120.44
27	BC	83	ASN	C-N-CA	9.41	132.68	120.44
25	BA	91	C	O4'-C1'-C2'	-9.40	98.19	107.60
25	BA	108	A	O4'-C4'-C3'	9.37	113.37	104.00
26	BB	2678	C	C4'-C3'-C2'	-9.37	93.23	102.60
30	BF	79	ARG	NE-CZ-NH2	-9.37	110.77	119.20
26	BB	1143	A	O3'-P-O5'	-9.36	89.97	104.00
26	BB	1389	G	O4'-C1'-N9	9.35	122.52	108.50
3	AC	40	G	O4'-C4'-C3'	9.34	113.34	104.00
36	BL	40	HIS	ND1-CG-CD2	9.33	115.43	106.10
53	B2	63	ARG	NE-CZ-NH1	9.32	130.82	121.50
26	BB	2385	C	O4'-C4'-C3'	-9.31	94.69	104.00
26	BB	1401	G	C4'-C3'-C2'	-9.31	93.29	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	B3	37	HIS	ND1-CE1-NE2	9.31	117.71	108.40
26	BB	2757	A	C4'-C3'-C2'	-9.30	93.30	102.60
1	AA	331	G	C1'-O4'-C4'	-9.29	100.61	109.90
44	BT	89	HIS	CA-CB-CG	9.29	123.09	113.80
26	BB	2059	A	O4'-C4'-C3'	9.29	113.29	104.00
17	AQ	93	PRO	N-CA-CB	9.28	111.62	103.27
1	AA	816	A	O4'-C1'-C2'	-9.27	96.53	105.80
1	AA	331	G	C4'-C3'-C2'	-9.27	93.33	102.60
1	AA	304	U	C5'-C4'-C3'	-9.27	102.10	116.00
26	BB	798	G	C5'-C4'-C3'	-9.26	102.12	116.00
26	BB	914	G	C4'-C3'-C2'	-9.26	93.34	102.60
35	BK	108	ILE	CB-CA-C	9.26	123.82	111.97
26	BB	990	A	C5'-C4'-C3'	-9.25	102.12	116.00
27	BC	71	ARG	NE-CZ-NH2	9.25	127.53	119.20
1	AA	1222	G	C5'-C4'-C3'	9.25	129.87	116.00
1	AA	1201	A	C2'-C3'-O3'	9.24	123.36	109.50
1	AA	384	G	C1'-C2'-O2'	9.23	122.24	108.40
10	AJ	161	PHE	CA-CB-CG	9.22	123.02	113.80
1	AA	183	C	O4'-C1'-C2'	-9.22	98.38	107.60
26	BB	1576	U	C1'-O4'-C4'	9.21	119.11	109.90
26	BB	93	G	C5'-C4'-C3'	9.20	129.80	116.00
26	BB	2199	A	C5'-C4'-C3'	-9.18	102.24	116.00
26	BB	421	C	O3'-P-O5'	-9.17	90.25	104.00
3	AC	22	G	P-O3'-C3'	9.15	133.93	120.20
47	BW	98	ASN	OD1-CG-ND2	-9.14	113.46	122.60
26	BB	2816	G	O3'-P-O5'	9.14	117.71	104.00
1	AA	1214	C	C4'-C3'-O3'	9.14	123.11	109.40
26	BB	451	U	C4'-C3'-O3'	9.13	123.10	109.40
26	BB	2464	G	O4'-C4'-C3'	-9.13	94.87	104.00
25	BA	91	C	O4'-C1'-N1	9.12	122.19	108.50
9	AI	41	ASP	CA-CB-CG	9.12	121.72	112.60
40	BP	21	PHE	CA-CB-CG	9.12	122.92	113.80
42	BR	102	ARG	NE-CZ-NH2	9.12	127.41	119.20
26	BB	540	C	C4'-C3'-C2'	-9.12	93.48	102.60
1	AA	1448	C	O4'-C4'-C3'	9.11	113.11	104.00
1	AA	1430	A	O5'-C5'-C4'	9.10	125.16	111.50
3	AC	27	A	O4'-C1'-N9	9.10	122.15	108.50
26	BB	1016	G	O4'-C4'-C3'	9.09	113.09	104.00
1	AA	1037	C	C4'-C3'-C2'	-9.09	93.51	102.60
10	AJ	12	LEU	CA-C-N	9.08	131.19	119.84
10	AJ	12	LEU	C-N-CA	9.08	131.19	119.84
24	AX	1	PRO	CA-N-CD	-9.08	99.29	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	383	A	C3'-C2'-C1'	-9.08	92.22	101.30
26	BB	1924	C	C4'-C3'-C2'	-9.08	93.52	102.60
26	BB	2875	C	C4'-C3'-C2'	-9.08	93.52	102.60
1	AA	1156	G	C4'-C3'-C2'	-9.08	93.52	102.60
1	AA	1412	C	O4'-C4'-C3'	9.06	113.06	104.00
3	AC	46	C	O4'-C1'-C2'	9.06	114.86	105.80
10	AJ	38	ALA	CA-C-N	9.06	133.38	120.79
10	AJ	38	ALA	C-N-CA	9.06	133.38	120.79
1	AA	507	C	C4'-C3'-C2'	-9.05	93.55	102.60
1	AA	1272	G	C3'-C2'-C1'	9.03	110.33	101.30
1	AA	13	U	O5'-C5'-C4'	9.02	125.23	111.70
57	B6	31	ILE	CB-CA-C	9.01	126.07	111.29
26	BB	1462	C	O4'-C1'-C2'	9.01	116.61	107.60
1	AA	1473	G	C3'-C2'-O2'	9.00	124.20	110.70
1	AA	396	C	O4'-C1'-N1	9.00	121.99	108.50
30	BF	16	GLU	CA-C-N	8.99	132.32	120.28
30	BF	16	GLU	C-N-CA	8.99	132.32	120.28
1	AA	289	G	O4'-C4'-C3'	8.98	112.98	104.00
1	AA	1057	G	C4'-C3'-C2'	-8.98	93.62	102.60
26	BB	269	C	O4'-C1'-N1	8.97	121.96	108.50
26	BB	2335	A	C3'-C2'-C1'	8.97	110.27	101.30
1	AA	272	C	C5'-C4'-O4'	8.96	123.23	109.80
1	AA	472	U	O4'-C4'-C3'	8.96	112.95	104.00
1	AA	949	A	O4'-C1'-N9	8.96	121.94	108.50
26	BB	1085	A	C4'-C3'-C2'	-8.96	93.64	102.60
26	BB	226	A	O4'-C4'-C3'	8.95	112.94	104.00
57	B6	25	HIS	CE1-NE2-CD2	-8.94	100.06	109.00
1	AA	764	C	P-O3'-C3'	8.93	133.59	120.20
26	BB	378	C	C1'-O4'-C4'	8.93	118.83	109.90
26	BB	129	C	O4'-C1'-C2'	-8.93	98.67	107.60
26	BB	2282	G	O4'-C4'-C3'	8.93	115.03	106.10
26	BB	2688	G	C5'-C4'-C3'	-8.93	102.61	116.00
25	BA	47	C	O4'-C1'-N1	8.91	121.87	108.50
1	AA	466	A	C4'-C3'-C2'	-8.91	93.69	102.60
1	AA	1349	A	C5'-C4'-C3'	-8.91	102.64	116.00
1	AA	213	G	C4'-C3'-O3'	8.90	126.35	113.00
26	BB	2223	G	P-O3'-C3'	8.90	133.55	120.20
42	BR	50	ARG	CA-C-O	8.90	123.10	117.94
31	BG	137	PHE	CA-CB-CG	8.90	122.70	113.80
48	BX	70	ILE	CA-CB-CG1	8.89	125.51	110.40
1	AA	663	A	C5'-C4'-C3'	-8.88	102.67	116.00
26	BB	734	A	C5'-C4'-C3'	-8.88	102.67	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	BN	81	ASP	CA-CB-CG	8.88	121.48	112.60
1	AA	702	A	C3'-C2'-C1'	8.87	110.37	101.50
26	BB	408	G	C4'-C3'-C2'	-8.87	93.73	102.60
1	AA	251	G	O4'-C1'-C2'	-8.87	96.93	105.80
1	AA	1269	A	C1'-O4'-C4'	-8.87	101.03	109.90
26	BB	181	A	C4'-C3'-C2'	-8.86	93.74	102.60
4	AD	28	U	C5'-C4'-O4'	8.85	123.08	109.80
26	BB	1839	G	C3'-C2'-C1'	8.84	110.14	101.30
1	AA	1240	U	N1-C1'-C2'	8.84	127.26	114.00
26	BB	1156	A	C3'-C2'-C1'	8.83	110.33	101.50
1	AA	546	A	C1'-O4'-C4'	8.83	118.73	109.90
1	AA	1491	G	O3'-P-O5'	-8.82	90.77	104.00
30	BF	29	HIS	ND1-CE1-NE2	8.82	117.22	108.40
57	B6	61	LEU	CA-C-N	8.82	128.55	119.56
57	B6	61	LEU	C-N-CA	8.82	128.55	119.56
51	B0	24	GLU	CA-C-O	-8.81	111.62	120.70
1	AA	375	U	C4'-C3'-C2'	-8.81	93.79	102.60
34	BJ	157	VAL	CA-CB-CG2	8.80	125.36	110.40
26	BB	967	U	C4'-C3'-C2'	-8.80	93.80	102.60
1	AA	1412	C	C4'-C3'-C2'	-8.79	93.81	102.60
1	AA	1072	G	C2'-C3'-O3'	-8.79	100.52	113.70
26	BB	2836	U	C4'-C3'-C2'	8.79	111.39	102.60
28	BD	44	ASN	CA-CB-CG	8.79	121.39	112.60
27	BC	71	ARG	CA-C-N	8.79	132.77	120.29
27	BC	71	ARG	C-N-CA	8.79	132.77	120.29
31	BG	40	GLY	CA-C-O	-8.78	115.58	122.52
1	AA	1210	C	C4'-C3'-C2'	-8.78	93.82	102.60
26	BB	478	A	O4'-C4'-C3'	8.78	112.78	104.00
1	AA	657	U	C4'-C3'-C2'	-8.77	93.83	102.60
4	AD	2	G	O4'-C4'-C3'	8.77	112.77	104.00
26	BB	2276	G	O4'-C4'-C3'	8.77	112.77	104.00
1	AA	199	A	O4'-C4'-C3'	8.76	112.76	104.00
26	BB	803	U	O4'-C1'-C2'	-8.76	98.84	107.60
18	AR	53	ARG	CA-C-N	8.75	129.63	120.00
18	AR	53	ARG	C-N-CA	8.75	129.63	120.00
26	BB	1547	C	C3'-C2'-C1'	8.74	110.04	101.30
1	AA	1226	C	C2'-C3'-O3'	8.74	122.61	109.50
26	BB	2180	U	O4'-C4'-C3'	8.74	112.74	104.00
1	AA	1412	C	C1'-O4'-C4'	-8.73	101.17	109.90
3	AC	55	A	C3'-C2'-C1'	8.72	110.22	101.50
26	BB	1544	A	C5'-C4'-C3'	-8.72	102.91	116.00
1	AA	1000	A	C3'-C2'-C1'	-8.72	92.58	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	860	U	C4'-C3'-C2'	-8.72	93.88	102.60
7	AG	85	THR	CA-C-O	-8.72	111.31	120.55
21	AU	60	ARG	NE-CZ-NH2	-8.72	111.36	119.20
26	BB	1565	C	O4'-C1'-C2'	-8.72	97.08	105.80
26	BB	1893	C	O4'-C1'-N1	8.71	121.57	108.50
2	AB	18	G	C3'-C2'-O2'	8.71	123.77	110.70
32	BH	169	ARG	NE-CZ-NH1	-8.71	112.79	121.50
41	BQ	41	ALA	CA-C-O	-8.71	110.73	121.01
26	BB	946	C	C5'-C4'-C3'	-8.71	102.94	116.00
26	BB	1980	G	O4'-C4'-C3'	8.71	114.81	106.10
26	BB	2746	U	O4'-C4'-C3'	8.71	112.71	104.00
6	AF	119	ILE	N-CA-C	8.71	119.51	110.72
23	AW	43	LYS	CA-C-N	8.70	131.94	120.28
23	AW	43	LYS	C-N-CA	8.70	131.94	120.28
26	BB	2530	A	O4'-C4'-C3'	-8.70	95.30	104.00
26	BB	1059	G	C4'-C3'-C2'	-8.69	93.91	102.60
51	B0	47	ARG	NE-CZ-NH2	8.68	127.01	119.20
35	BK	136	GLY	CA-C-N	8.68	134.69	122.72
35	BK	136	GLY	C-N-CA	8.68	134.69	122.72
1	AA	1538	C	C3'-C2'-C1'	8.68	109.98	101.30
39	BO	45	GLN	CA-C-O	-8.68	111.22	120.42
26	BB	1913	A	O3'-P-O5'	8.67	117.01	104.00
1	AA	212	G	C5'-C4'-C3'	-8.67	103.00	116.00
1	AA	196	A	O4'-C4'-C3'	8.66	112.67	104.00
10	AJ	97	ALA	N-CA-C	8.66	120.72	111.28
26	BB	1572	A	C4'-C3'-C2'	-8.66	93.94	102.60
26	BB	669	G	O4'-C4'-C3'	8.66	112.66	104.00
24	AX	54	ARG	CA-C-N	8.65	132.20	120.44
24	AX	54	ARG	C-N-CA	8.65	132.20	120.44
26	BB	2514	U	O3'-P-O5'	8.65	116.97	104.00
26	BB	1820	U	O4'-C1'-C2'	-8.63	97.17	105.80
1	AA	779	C	O4'-C4'-C3'	8.62	112.62	104.00
1	AA	1193	G	O4'-C1'-N9	8.62	121.43	108.50
24	AX	8	ASN	CA-CB-CG	8.61	121.21	112.60
26	BB	2618	G	C1'-C2'-O2'	8.62	121.32	108.40
1	AA	381	C	O4'-C1'-N1	8.61	121.42	108.50
9	AI	70	VAL	CA-C-O	-8.61	111.20	121.18
25	BA	1	U	O4'-C1'-N1	8.60	121.41	108.50
14	AN	53	GLY	CA-C-N	8.59	132.65	120.28
14	AN	53	GLY	C-N-CA	8.59	132.65	120.28
26	BB	1498	C	O4'-C1'-C2'	-8.59	99.01	107.60
28	BD	261	ARG	N-CA-C	-8.59	104.83	114.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	680	C	C4'-C3'-C2'	-8.59	94.01	102.60
26	BB	134	G	C3'-C2'-C1'	8.58	109.88	101.30
1	AA	476	U	O4'-C1'-N1	8.57	121.35	108.50
48	BX	21	ARG	NE-CZ-NH2	-8.57	111.49	119.20
36	BL	120	ARG	NE-CZ-NH2	8.56	126.91	119.20
1	AA	289	G	C4'-C3'-C2'	-8.56	94.04	102.60
26	BB	2390	U	C4'-C3'-C2'	8.56	111.16	102.60
13	AM	14	ASP	CA-CB-CG	8.56	121.16	112.60
26	BB	1237	A	C1'-C2'-O2'	8.56	124.64	111.80
26	BB	1943	U	O4'-C1'-N1	8.56	121.04	108.20
1	AA	312	C	O5'-C5'-C4'	8.55	124.33	111.50
27	BC	178	VAL	CA-C-N	8.56	132.60	120.28
27	BC	178	VAL	C-N-CA	8.56	132.60	120.28
1	AA	38	G	O4'-C1'-C2'	-8.55	99.05	107.60
30	BF	128	ALA	N-CA-CB	-8.54	102.13	111.10
5	AE	52	ALA	CA-C-O	-8.54	111.86	120.82
53	B2	43	PHE	CA-CB-CG	8.54	122.34	113.80
26	BB	2320	U	O4'-C1'-C2'	-8.54	99.06	107.60
10	AJ	61	PHE	CA-CB-CG	8.53	122.33	113.80
26	BB	2036	C	C3'-C2'-C1'	8.53	109.83	101.30
1	AA	199	A	C4'-C3'-C2'	-8.52	94.08	102.60
1	AA	657	U	C3'-C2'-C1'	8.52	109.82	101.30
15	AO	4	ASN	CA-CB-CG	-8.52	104.08	112.60
26	BB	2378	A	O4'-C4'-C3'	8.52	112.52	104.00
33	BI	70	GLU	CB-CG-CD	-8.52	98.12	112.60
26	BB	2847	U	O4'-C4'-C3'	8.51	112.51	104.00
31	BG	167	ALA	CA-C-N	8.51	132.96	120.87
31	BG	167	ALA	C-N-CA	8.51	132.96	120.87
1	AA	745	G	C4'-C3'-O3'	-8.51	100.23	113.00
1	AA	846	G	O4'-C1'-C2'	-8.51	99.09	107.60
26	BB	242	G	P-O3'-C3'	8.51	132.96	120.20
53	B2	6	HIS	CA-CB-CG	8.51	122.31	113.80
20	AT	10	ARG	NE-CZ-NH2	-8.50	111.55	119.20
18	AR	53	ARG	CA-C-O	-8.49	111.46	120.63
26	BB	1850	G	C5'-C4'-C3'	-8.49	103.26	116.00
26	BB	1693	U	O4'-C4'-C3'	8.49	114.59	106.10
18	AR	50	HIS	ND1-CG-CD2	8.49	114.59	106.10
26	BB	1918	A	C3'-C2'-C1'	8.49	109.99	101.50
26	BB	1487	U	O4'-C4'-C3'	8.49	112.49	104.00
1	AA	1319	A	C5'-C4'-O4'	8.48	121.82	109.10
39	BO	38	ARG	NE-CZ-NH1	8.48	129.98	121.50
26	BB	1098	A	C5'-C4'-C3'	-8.48	103.29	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1594	U	O4'-C1'-N1	8.48	121.22	108.50
26	BB	2468	A	O3'-P-O5'	-8.47	91.30	104.00
26	BB	1054	A	C4'-C3'-C2'	-8.46	94.14	102.60
26	BB	2698	U	C2'-C3'-O3'	-8.46	101.01	113.70
13	AM	56	HIS	CA-CB-CG	8.46	122.26	113.80
26	BB	2522	U	C3'-C2'-O2'	8.45	123.38	110.70
26	BB	872	U	O4'-C4'-C3'	8.45	112.45	104.00
16	AP	113	LYS	CA-C-N	8.44	128.20	119.76
16	AP	113	LYS	C-N-CA	8.44	128.20	119.76
26	BB	564	C	C4'-C3'-C2'	-8.43	94.17	102.60
26	BB	1197	G	O4'-C4'-C3'	8.43	112.43	104.00
26	BB	2752	C	C1'-O4'-C4'	-8.43	101.47	109.90
25	BA	27	C	C5'-C4'-C3'	-8.42	103.37	116.00
26	BB	2396	G	C4'-C3'-C2'	-8.42	94.18	102.60
52	B1	34	THR	CA-C-N	8.41	131.78	120.50
52	B1	34	THR	C-N-CA	8.41	131.78	120.50
1	AA	130	A	O4'-C1'-C2'	8.41	114.21	105.80
26	BB	2081	U	O4'-C4'-C3'	8.41	112.41	104.00
1	AA	547	A	O4'-C1'-C2'	-8.40	97.39	105.80
1	AA	1542	A	O4'-C4'-C3'	8.40	112.40	104.00
26	BB	119	A	C4'-C3'-C2'	-8.40	94.20	102.60
26	BB	944	C	C4'-C3'-C2'	-8.40	94.20	102.60
26	BB	2133	G	O4'-C1'-C2'	-8.40	99.20	107.60
40	BP	12	ARG	CA-C-N	8.40	137.58	121.54
40	BP	12	ARG	C-N-CA	8.40	137.58	121.54
26	BB	1085	A	C3'-C2'-C1'	8.39	109.69	101.30
26	BB	2537	U	C4'-C3'-C2'	-8.39	94.21	102.60
26	BB	489	G	C3'-C2'-C1'	8.39	109.89	101.50
26	BB	1858	A	C5'-C4'-O4'	8.39	122.38	109.80
26	BB	1124	G	C4'-C3'-C2'	-8.38	94.22	102.60
26	BB	2253	G	C4'-C3'-C2'	-8.38	94.22	102.60
26	BB	1022	G	C3'-C2'-C1'	-8.37	93.13	101.50
28	BD	239	PHE	CA-CB-CG	8.37	122.17	113.80
1	AA	228	A	C3'-C2'-C1'	8.37	109.67	101.30
1	AA	1241	G	O3'-P-O5'	-8.37	91.45	104.00
37	BM	29	HIS	CA-CB-CG	8.37	122.17	113.80
1	AA	1000	A	C5'-C4'-C3'	-8.37	103.45	116.00
26	BB	1035	U	C3'-C2'-C1'	-8.37	92.94	101.30
26	BB	2161	C	C3'-C2'-C1'	-8.37	92.93	101.30
31	BG	44	ALA	CA-C-N	8.37	132.17	120.29
31	BG	44	ALA	C-N-CA	8.37	132.17	120.29
1	AA	497	G	C4'-C3'-O3'	8.36	125.54	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BG	93	GLU	CA-C-O	-8.36	111.69	120.55
26	BB	1106	G	O4'-C1'-N9	8.35	121.03	108.50
19	AS	59	HIS	CB-CG-CD2	-8.35	120.35	131.20
26	BB	510	C	C4'-C3'-C2'	-8.35	94.25	102.60
1	AA	791	G	O5'-C5'-C4'	-8.34	99.19	111.70
2	AB	3	G	O4'-C1'-C2'	-8.34	99.27	107.60
1	AA	1152	A	C1'-O4'-C4'	-8.33	101.57	109.90
5	AE	81	ASP	N-CA-C	8.33	122.73	112.23
26	BB	311	A	O3'-P-O5'	-8.33	91.50	104.00
26	BB	2823	A	C3'-C2'-C1'	8.32	109.62	101.30
1	AA	1257	A	O3'-P-O5'	-8.32	91.52	104.00
26	BB	453	A	C3'-C2'-O2'	8.32	123.18	110.70
33	BI	31	VAL	CA-C-O	-8.32	108.80	119.95
4	AD	19	G	C3'-C2'-C1'	8.31	109.81	101.50
26	BB	1521	G	O4'-C1'-C2'	-8.31	99.29	107.60
5	AE	154	GLY	N-CA-C	8.31	123.81	114.67
20	AT	22	VAL	CA-C-N	8.31	133.91	122.19
20	AT	22	VAL	C-N-CA	8.31	133.91	122.19
26	BB	1289	C	O4'-C4'-C3'	8.31	112.31	104.00
1	AA	373	A	C4'-C3'-O3'	-8.30	100.54	113.00
4	AD	77	A	O4'-C1'-C2'	-8.30	97.50	105.80
26	BB	1462	C	C3'-C2'-C1'	-8.30	93.00	101.30
1	AA	491	G	O4'-C4'-C3'	8.29	112.29	104.00
26	BB	879	G	C4'-C3'-C2'	-8.29	94.31	102.60
26	BB	1421	G	C4'-C3'-C2'	-8.29	94.31	102.60
30	BF	97	ASN	CA-CB-CG	8.29	120.89	112.60
26	BB	183	C	O4'-C4'-C3'	8.28	112.28	104.00
26	BB	1957	C	O4'-C1'-N1	8.28	120.92	108.50
17	AQ	67	GLY	CA-C-O	-8.28	109.73	119.00
1	AA	455	G	O4'-C4'-C3'	8.27	112.27	104.00
1	AA	546	A	O4'-C1'-C2'	-8.27	99.33	107.60
26	BB	821	A	C4'-C3'-C2'	-8.27	94.33	102.60
26	BB	1676	A	C3'-C2'-C1'	-8.27	93.03	101.30
26	BB	2153	C	O4'-C4'-C3'	8.27	114.37	106.10
26	BB	2282	G	P-O3'-C3'	8.27	132.60	120.20
26	BB	2078	C	C5'-C4'-O4'	8.26	122.20	109.80
48	BX	48	MET	O-C-N	8.26	130.88	122.12
26	BB	2499	C	O3'-P-O5'	-8.26	91.61	104.00
26	BB	2300	C	C5'-C4'-C3'	-8.26	103.61	116.00
1	AA	382	A	O4'-C1'-C2'	-8.26	99.34	107.60
1	AA	936	C	O4'-C4'-C3'	8.25	112.25	104.00
22	AV	60	PHE	CA-CB-CG	8.25	122.05	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AP	11	HIS	CB-CG-CD2	-8.25	120.48	131.20
25	BA	120	U	O4'-C1'-N1	8.25	120.87	108.50
26	BB	1	G	O4'-C4'-C3'	8.25	112.25	104.00
26	BB	2552	OMU	P-O3'-C3'	8.25	129.60	119.70
1	AA	1302	C	O4'-C1'-C2'	-8.25	99.35	107.60
9	AI	126	ALA	CA-C-N	8.24	132.25	122.19
9	AI	126	ALA	C-N-CA	8.24	132.25	122.19
18	AR	50	HIS	CB-CG-CD2	-8.24	120.49	131.20
26	BB	235	U	O4'-C4'-C3'	8.23	112.23	104.00
26	BB	2433	A	O4'-C4'-C3'	8.23	112.23	104.00
1	AA	1156	G	C1'-O4'-C4'	-8.23	101.67	109.90
26	BB	550	C	O4'-C1'-C2'	-8.23	99.37	107.60
1	AA	1435	G	C3'-C2'-C1'	8.22	109.52	101.30
26	BB	1924	C	O4'-C4'-C3'	8.22	112.22	104.00
1	AA	1102	A	C1'-O4'-C4'	-8.22	101.68	109.90
1	AA	1195	C	O4'-C4'-C3'	8.22	112.22	104.00
9	AI	37	HIS	ND1-CG-CD2	8.22	114.32	106.10
1	AA	243	A	C2'-C3'-O3'	8.21	121.82	109.50
26	BB	1124	G	C3'-C2'-C1'	8.21	109.52	101.30
42	BR	55	HIS	CA-CB-CG	-8.21	105.59	113.80
1	AA	87	C	C3'-C2'-C1'	8.21	109.51	101.30
1	AA	1070	U	C5'-C4'-C3'	-8.21	103.69	116.00
1	AA	1397	C	C2'-C3'-O3'	-8.20	101.39	113.70
26	BB	639	U	O4'-C4'-C3'	8.21	112.20	104.00
26	BB	1813	G	C1'-O4'-C4'	8.21	118.11	109.90
26	BB	1883	U	O4'-C4'-C3'	8.20	112.20	104.00
26	BB	1780	A	O4'-C4'-C3'	8.20	114.30	106.10
26	BB	2268	A	C5'-C4'-O4'	8.20	122.10	109.80
26	BB	2756	U	C2'-C3'-O3'	8.20	121.79	109.50
26	BB	2238	G	C3'-C2'-C1'	8.19	109.69	101.50
26	BB	84	A	O4'-C1'-C2'	-8.19	97.61	105.80
26	BB	673	C	O4'-C4'-C3'	-8.19	95.81	104.00
26	BB	2432	A	C2'-C3'-O3'	8.18	125.98	113.70
1	AA	382	A	C1'-O4'-C4'	8.18	118.08	109.90
1	AA	969	A	O5'-C5'-C4'	-8.18	99.43	111.70
1	AA	1098	C	C3'-C2'-O2'	8.18	122.97	110.70
36	BL	120	ARG	NE-CZ-NH1	-8.18	113.32	121.50
26	BB	1596	A	C1'-O4'-C4'	8.17	118.07	109.90
26	BB	1383	A	O4'-C1'-C2'	-8.17	99.43	107.60
33	BI	28	ASN	CA-CB-CG	8.17	120.77	112.60
1	AA	1000	A	C4'-C3'-C2'	8.17	110.77	102.60
31	BG	21	TYR	N-CA-C	8.16	121.12	110.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1431	A	O5'-C5'-C4'	8.16	123.74	111.50
26	BB	2794	C	O4'-C4'-C3'	-8.16	95.84	104.00
26	BB	2617	U	O4'-C1'-C2'	-8.16	99.44	107.60
26	BB	2695	U	C4'-C3'-C2'	-8.16	94.44	102.60
1	AA	786	G	O4'-C1'-N9	8.15	120.73	108.50
26	BB	2169	A	C1'-O4'-C4'	8.15	118.05	109.90
28	BD	173	LEU	O-C-N	8.15	133.26	123.24
1	AA	519	C	O4'-C1'-C2'	8.14	115.75	107.60
1	AA	1524	C	C4'-C3'-C2'	-8.14	94.45	102.60
19	AS	78	VAL	CA-C-N	8.14	133.93	122.36
19	AS	78	VAL	C-N-CA	8.14	133.93	122.36
26	BB	1128	G	O3'-P-O5'	-8.14	91.78	104.00
1	AA	1535	C	O4'-C1'-C2'	-8.14	99.46	107.60
26	BB	114	U	C2'-C3'-O3'	8.14	125.91	113.70
26	BB	923	G	C3'-C2'-O2'	8.14	122.91	110.70
26	BB	2769	U	O4'-C4'-C3'	8.14	112.14	104.00
41	BQ	65	THR	O-C-N	8.13	132.89	123.29
26	BB	999	U	O4'-C1'-N1	8.13	120.69	108.50
26	BB	2762	C	C4'-C3'-C2'	-8.13	94.47	102.60
1	AA	472	U	C4'-C3'-O3'	8.13	125.19	113.00
26	BB	1859	U	C3'-C2'-O2'	8.13	122.89	110.70
54	B3	11	LYS	CA-C-O	-8.13	112.29	120.82
26	BB	241	A	C4'-C3'-O3'	8.12	121.59	109.40
31	BG	132	ARG	NE-CZ-NH1	-8.12	113.38	121.50
1	AA	87	C	C4'-C3'-C2'	-8.12	94.48	102.60
1	AA	765	G	C1'-O4'-C4'	-8.12	101.58	109.70
1	AA	1317	C	O4'-C1'-C2'	-8.12	99.48	107.60
3	AC	58	C	C4'-C3'-C2'	-8.12	94.48	102.60
26	BB	89	A	C5'-C4'-C3'	-8.12	103.82	116.00
26	BB	1336	A	O4'-C1'-N9	8.12	120.68	108.50
26	BB	1545	A	O4'-C1'-N9	8.12	120.68	108.50
1	AA	579	A	O4'-C4'-C3'	8.11	112.11	104.00
26	BB	1608	A	O3'-P-O5'	-8.11	91.83	104.00
15	AO	26	CYS	O-C-N	8.11	128.77	121.80
26	BB	786	C	O4'-C1'-N1	8.11	120.67	108.50
19	AS	53	ASP	CA-C-O	-8.11	112.60	122.41
26	BB	1670	C	C3'-C2'-C1'	8.11	109.41	101.30
1	AA	991	U	O4'-C1'-N1	8.10	120.35	108.20
24	AX	14	ALA	CA-C-N	8.10	134.03	122.05
24	AX	14	ALA	C-N-CA	8.10	134.03	122.05
26	BB	1714	U	O4'-C4'-C3'	8.10	112.10	104.00
1	AA	223	A	C4'-C3'-C2'	-8.10	94.50	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	902	G	C4'-C3'-C2'	8.10	110.69	102.60
1	AA	1150	A	O4'-C4'-C3'	8.10	112.09	104.00
27	BC	77	VAL	CA-C-N	8.09	133.19	122.42
27	BC	77	VAL	C-N-CA	8.09	133.19	122.42
40	BP	78	LYS	N-CA-C	8.09	119.88	111.14
26	BB	200	U	C4'-C3'-C2'	-8.09	94.51	102.60
17	AQ	97	LYS	O-C-N	-8.09	113.11	122.97
26	BB	1677	A	C2'-C3'-O3'	8.09	121.63	109.50
55	B4	5	ARG	NE-CZ-NH1	8.09	129.59	121.50
26	BB	385	C	C4'-C3'-C2'	-8.08	94.52	102.60
26	BB	1763	G	C4'-C3'-C2'	-8.08	94.52	102.60
1	AA	1473	G	C4'-C3'-C2'	-8.08	94.52	102.60
1	AA	1285	A	O3'-P-O5'	-8.07	91.89	104.00
38	BN	57	LEU	CA-C-O	8.07	129.26	119.49
26	BB	2267	A	N9-C1'-C2'	8.07	124.10	112.00
1	AA	1050	G	C1'-C2'-O2'	-8.06	96.31	108.40
1	AA	1298	U	C4'-C3'-O3'	8.06	121.50	109.40
3	AC	26	U	O3'-P-O5'	-8.06	91.91	104.00
26	BB	1556	C	C4'-C3'-O3'	8.06	125.09	113.00
1	AA	1256	A	C5'-C4'-C3'	-8.06	103.11	115.20
26	BB	1095	A	C3'-C2'-C1'	8.05	109.35	101.30
21	AU	73	HIS	CB-CG-CD2	-8.05	120.73	131.20
26	BB	2757	A	C5'-C4'-C3'	-8.05	103.92	116.00
1	AA	844	G	O4'-C1'-C2'	-8.04	99.56	107.60
36	BL	58	ASN	CA-CB-CG	8.04	120.64	112.60
43	BS	46	TYR	N-CA-C	8.05	120.13	111.36
47	BW	7	ASP	CA-CB-CG	8.05	120.65	112.60
46	BV	52	GLU	CB-CA-C	8.04	122.57	111.63
1	AA	381	C	C3'-C2'-C1'	8.04	109.34	101.30
1	AA	1157	A	C3'-C2'-C1'	8.04	109.54	101.50
6	AF	90	VAL	CA-C-N	8.04	131.05	120.28
6	AF	90	VAL	C-N-CA	8.04	131.05	120.28
1	AA	1491	G	O4'-C4'-C3'	8.04	112.04	104.00
26	BB	328	U	O4'-C4'-C3'	8.03	112.03	104.00
26	BB	498	G	C4'-C3'-C2'	-8.03	94.57	102.60
26	BB	71	A	O4'-C1'-N9	8.03	120.25	108.20
26	BB	2892	G	O4'-C1'-N9	8.03	120.55	108.50
27	BC	120	ALA	CA-C-N	8.03	131.04	120.28
27	BC	120	ALA	C-N-CA	8.03	131.04	120.28
1	AA	886	G	O4'-C4'-C3'	8.03	112.03	104.00
55	B4	5	ARG	NE-CZ-NH2	-8.03	111.98	119.20
26	BB	1989	G	O4'-C1'-C2'	8.02	115.62	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1992	G	C1'-O4'-C4'	8.02	117.72	109.70
49	BY	17	ALA	CA-C-N	8.02	131.35	120.44
49	BY	17	ALA	C-N-CA	8.02	131.35	120.44
1	AA	972	C	O5'-C5'-C4'	-8.02	99.47	111.50
8	AH	44	ARG	NE-CZ-NH2	8.02	126.42	119.20
26	BB	458	G	C5'-C4'-C3'	-8.02	103.17	115.20
26	BB	2440	C	C3'-C2'-O2'	8.02	122.73	110.70
26	BB	566	U	C3'-C2'-C1'	8.02	109.31	101.30
26	BB	514	A	C3'-C2'-C1'	8.01	109.31	101.30
26	BB	611	C	C1'-O4'-C4'	-8.01	101.89	109.90
26	BB	1055	G	C4'-C3'-O3'	8.01	125.01	113.00
26	BB	2068	U	O4'-C1'-C2'	8.01	113.81	105.80
26	BB	1285	A	O3'-P-O5'	8.01	116.01	104.00
26	BB	1919	A	O3'-P-O5'	-8.01	91.99	104.00
18	AR	51	SER	CA-C-N	8.00	131.00	120.28
18	AR	51	SER	C-N-CA	8.00	131.00	120.28
31	BG	57	ALA	CA-C-O	-8.00	112.06	120.55
26	BB	1658	C	O4'-C1'-C2'	-8.00	99.60	107.60
1	AA	379	C	C4'-C3'-C2'	-8.00	94.60	102.60
26	BB	2115	G	C4'-C3'-C2'	-8.00	94.60	102.60
26	BB	2149	U	C3'-C2'-C1'	-8.00	93.30	101.30
15	AO	3	VAL	CA-CB-CG2	7.99	123.99	110.40
26	BB	572	A	O3'-P-O5'	7.99	115.98	104.00
26	BB	2068	U	C2'-C3'-O3'	7.99	121.48	109.50
1	AA	330	C	C4'-C3'-C2'	-7.99	94.61	102.60
26	BB	1902	C	O3'-P-O5'	-7.99	92.02	104.00
28	BD	271	SER	N-CA-C	7.99	121.61	109.23
26	BB	233	A	O4'-C4'-C3'	7.99	111.98	104.00
26	BB	810	U	O4'-C1'-N1	7.99	120.48	108.50
26	BB	2485	G	C4'-C3'-C2'	-7.99	94.61	102.60
28	BD	226	PRO	N-CA-CB	7.99	112.36	103.26
26	BB	682	G	O4'-C4'-C3'	7.98	111.98	104.00
26	BB	2028	U	C3'-C2'-O2'	7.98	122.67	110.70
52	B1	24	LEU	CA-C-N	7.98	128.84	119.98
52	B1	24	LEU	C-N-CA	7.98	128.84	119.98
26	BB	2519	U	O3'-P-O5'	-7.98	92.03	104.00
26	BB	763	G	C3'-C2'-C1'	-7.97	93.33	101.30
26	BB	1649	G	C3'-C2'-O2'	7.97	122.66	110.70
1	AA	634	C	O4'-C1'-N1	7.97	120.46	108.50
26	BB	1583	A	C3'-C2'-C1'	-7.97	93.53	101.50
26	BB	2602	A	O4'-C4'-C3'	7.97	111.97	104.00
56	B5	33	ARG	NE-CZ-NH2	7.97	126.37	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AK	26	MET	CA-C-N	7.96	128.02	119.90
11	AK	26	MET	C-N-CA	7.96	128.02	119.90
26	BB	1072	C	C4'-C3'-C2'	-7.96	94.64	102.60
26	BB	2380	C	O4'-C1'-C2'	-7.96	99.64	107.60
53	B2	6	HIS	CB-CG-CD2	-7.96	120.86	131.20
2	AB	56	C	C4'-C3'-C2'	-7.96	94.64	102.60
1	AA	307	C	N1-C1'-C2'	-7.95	102.07	114.00
26	BB	531	C	C3'-C2'-C1'	-7.95	93.55	101.50
11	AK	108	GLY	N-CA-C	7.95	121.87	111.70
26	BB	719	C	O4'-C1'-C2'	-7.95	99.65	107.60
2	AB	34	C	C5'-C4'-C3'	-7.95	104.08	116.00
2	AB	65	C	O4'-C1'-N1	7.94	120.42	108.50
13	AM	44	THR	CA-CB-CG2	7.94	124.00	110.50
26	BB	432	A	C4'-C3'-C2'	-7.94	94.66	102.60
26	BB	2077	A	C3'-C2'-O2'	7.94	122.61	110.70
26	BB	2302	U	C4'-C3'-C2'	-7.94	94.66	102.60
27	BC	181	ASP	CA-C-N	7.94	130.76	120.44
27	BC	181	ASP	C-N-CA	7.94	130.76	120.44
26	BB	1027	A	C4'-C3'-C2'	-7.93	94.67	102.60
1	AA	900	A	O4'-C4'-C3'	7.93	111.93	104.00
2	AB	75	C	O5'-C5'-C4'	-7.93	99.60	111.50
26	BB	243	U	O4'-C4'-C3'	7.93	111.93	104.00
26	BB	1959	G	C3'-C2'-O2'	7.93	122.60	110.70
32	BH	164	ALA	CA-C-N	7.93	132.13	120.87
32	BH	164	ALA	C-N-CA	7.93	132.13	120.87
33	BI	51	ARG	CA-C-O	-7.93	110.85	119.97
26	BB	680	C	C5'-C4'-O4'	7.93	121.69	109.80
40	BP	85	PRO	CA-C-N	7.93	130.75	120.44
40	BP	85	PRO	C-N-CA	7.93	130.75	120.44
1	AA	1416	G	O4'-C4'-C3'	7.92	111.92	104.00
26	BB	189	G	O3'-P-O5'	7.92	115.88	104.00
1	AA	1538	C	C4'-C3'-C2'	-7.92	94.68	102.60
26	BB	2140	G	N9-C1'-C2'	-7.92	100.13	112.00
26	BB	2885	G	C3'-C2'-O2'	7.92	122.57	110.70
1	AA	253	A	O4'-C1'-C2'	7.91	115.51	107.60
26	BB	2623	G	O5'-C5'-C4'	7.91	123.37	111.50
7	AG	103	ARG	N-CA-C	7.91	120.81	111.71
1	AA	1374	A	C4'-C3'-C2'	-7.91	94.69	102.60
12	AL	102	PHE	CA-CB-CG	7.91	121.71	113.80
1	AA	723	U	C4'-C3'-C2'	7.90	110.50	102.60
10	AJ	137	ARG	O-C-N	7.90	130.21	122.07
26	BB	1016	G	C4'-C3'-C2'	-7.90	94.70	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	401	A	C1'-O4'-C4'	-7.90	102.00	109.90
1	AA	1491	G	C4'-C3'-C2'	-7.89	94.70	102.60
26	BB	550	C	C5'-C4'-C3'	7.89	127.84	116.00
26	BB	703	U	C4'-C3'-O3'	-7.89	101.16	113.00
19	AS	29	ASN	CA-CB-CG	7.89	120.49	112.60
14	AN	89	GLY	CA-C-N	7.89	127.84	120.03
14	AN	89	GLY	C-N-CA	7.89	127.84	120.03
26	BB	309	A	C5'-C4'-C3'	-7.88	104.17	116.00
2	AB	53	G	C5'-C4'-O4'	7.88	121.62	109.80
47	BW	75	ALA	CA-C-O	-7.88	112.54	120.82
1	AA	31	G	O4'-C4'-C3'	7.88	113.98	106.10
26	BB	1670	C	C4'-C3'-C2'	-7.88	94.72	102.60
49	BY	38	ARG	NE-CZ-NH2	-7.88	112.11	119.20
26	BB	1205	A	C3'-C2'-C1'	-7.87	93.63	101.50
30	BF	31	VAL	N-CA-CB	-7.87	101.34	110.55
26	BB	2433	A	C4'-C3'-C2'	-7.87	94.73	102.60
9	AI	122	ASP	CA-C-N	7.86	134.03	120.58
9	AI	122	ASP	C-N-CA	7.86	134.03	120.58
17	AQ	72	PHE	CA-CB-CG	7.86	121.66	113.80
37	BM	49	ARG	NE-CZ-NH1	-7.86	113.64	121.50
14	AN	35	ASP	CA-CB-CG	7.86	120.46	112.60
1	AA	733	G	O3'-P-O5'	-7.86	92.21	104.00
1	AA	1354	U	O4'-C4'-C3'	7.86	111.86	104.00
2	AB	47	U	O3'-P-O5'	-7.85	92.22	104.00
1	AA	26	A	C1'-O4'-C4'	-7.85	102.05	109.90
1	AA	1381	U	C3'-C2'-O2'	7.85	122.48	110.70
26	BB	2665	A	C1'-O4'-C4'	-7.85	101.85	109.70
1	AA	374	A	C3'-C2'-O2'	7.85	122.48	110.70
26	BB	217	A	C4'-C3'-C2'	-7.85	94.75	102.60
33	BI	113	SER	CA-C-N	7.85	132.01	120.87
33	BI	113	SER	C-N-CA	7.85	132.01	120.87
1	AA	867	G	O4'-C1'-C2'	-7.84	99.75	107.60
30	BF	79	ARG	NE-CZ-NH1	7.84	129.34	121.50
26	BB	558	U	O4'-C1'-N1	7.84	120.26	108.50
26	BB	2045	C	O5'-C5'-C4'	7.84	123.26	111.50
26	BB	2743	U	C3'-C2'-O2'	7.84	122.46	110.70
45	BU	102	HIS	CB-CG-CD2	-7.84	121.01	131.20
58	B7	30	GLU	CA-C-N	7.84	127.55	119.56
58	B7	30	GLU	C-N-CA	7.84	127.55	119.56
1	AA	1346	A	O4'-C1'-N9	7.83	119.95	108.20
7	AG	194	ILE	CA-CB-CG1	7.83	123.71	110.40
26	BB	2548	U	O4'-C4'-C3'	7.83	111.83	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	BD	87	SER	O-C-N	-7.83	113.82	122.12
1	AA	421	U	C3'-C2'-C1'	7.83	109.33	101.50
26	BB	224	U	C5'-C4'-C3'	-7.83	104.26	116.00
26	BB	2038	G	N9-C1'-C2'	-7.83	100.26	112.00
27	BC	160	GLN	CA-C-O	-7.82	111.70	120.70
53	B2	5	ILE	CA-C-N	7.82	131.15	120.67
53	B2	5	ILE	C-N-CA	7.82	131.15	120.67
26	BB	2118	U	O4'-C1'-N1	7.82	119.93	108.20
26	BB	570	G	O4'-C4'-C3'	7.82	113.92	106.10
58	B7	2	LYS	CA-C-N	7.82	130.41	120.56
58	B7	2	LYS	C-N-CA	7.82	130.41	120.56
2	AB	34	C	O4'-C1'-C2'	-7.82	99.78	107.60
26	BB	2749	A	C4'-C3'-C2'	-7.82	94.78	102.60
1	AA	1081	A	O5'-C5'-C4'	-7.82	99.78	111.50
26	BB	2391	G	O5'-C5'-C4'	-7.82	99.98	111.70
26	BB	2586	U	O4'-C1'-C2'	-7.81	99.79	107.60
1	AA	537	G	C3'-C2'-C1'	-7.81	93.49	101.30
26	BB	82	U	C5'-C4'-C3'	-7.81	104.29	116.00
45	BU	55	ILE	O-C-N	7.81	129.44	121.87
1	AA	1229	A	O3'-P-O5'	-7.81	92.29	104.00
26	BB	2236	U	C4'-C3'-C2'	-7.80	94.80	102.60
31	BG	162	ASP	CA-C-N	7.80	131.37	120.29
31	BG	162	ASP	C-N-CA	7.80	131.37	120.29
47	BW	95	PHE	CA-CB-CG	7.80	121.60	113.80
26	BB	372	G	O4'-C1'-C2'	-7.80	98.00	105.80
26	BB	1404	C	C4'-C3'-C2'	-7.80	94.80	102.60
26	BB	35	G	O4'-C4'-C3'	-7.80	96.20	104.00
26	BB	2068	U	C1'-O4'-C4'	-7.79	101.91	109.70
1	AA	694	A	C4'-C3'-C2'	-7.79	94.81	102.60
1	AA	985	C	C4'-C3'-C2'	-7.79	94.81	102.60
1	AA	1206	G	C5'-C4'-C3'	-7.79	104.32	116.00
26	BB	455	C	N1-C1'-C2'	7.79	123.68	112.00
26	BB	1259	G	O4'-C1'-C2'	-7.78	99.82	107.60
53	B2	58	ASP	CA-CB-CG	7.78	120.38	112.60
1	AA	391	G	C3'-C2'-O2'	7.78	122.37	110.70
26	BB	464	U	O4'-C4'-C3'	7.78	111.78	104.00
56	B5	6	GLN	O-C-N	-7.78	116.41	121.85
7	AG	11	SER	N-CA-C	-7.78	102.80	111.82
26	BB	1658	C	C4'-C3'-C2'	-7.78	94.82	102.60
28	BD	87	SER	CA-C-O	7.78	128.79	120.55
39	BO	10	ARG	NE-CZ-NH1	-7.77	113.73	121.50
26	BB	2843	G	C4'-C3'-C2'	-7.77	94.83	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1270	G	C4'-C3'-C2'	-7.77	94.83	102.60
2	AB	65	C	C1'-O4'-C4'	-7.77	102.13	109.90
1	AA	1103	C	C5'-C4'-C3'	-7.76	104.35	116.00
26	BB	1010	A	C4'-C3'-C2'	7.76	110.36	102.60
26	BB	2655	G	C1'-O4'-C4'	-7.76	101.94	109.70
26	BB	2903	U	O4'-C1'-C2'	-7.76	99.84	107.60
1	AA	1272	G	N9-C1'-C2'	-7.75	100.37	112.00
1	AA	640	A	C3'-C2'-O2'	7.75	122.33	110.70
1	AA	398	U	C4'-C3'-C2'	-7.75	94.85	102.60
1	AA	606	G	O5'-C5'-C4'	7.75	123.12	111.50
1	AA	1364	U	O4'-C1'-C2'	-7.75	99.85	107.60
25	BA	10	G	C5'-C4'-C3'	-7.75	104.38	116.00
26	BB	910	A	O4'-C1'-C2'	-7.75	99.85	107.60
29	BE	14	ILE	CA-C-N	7.75	134.25	121.39
29	BE	14	ILE	C-N-CA	7.75	134.25	121.39
26	BB	1707	G	C5'-C4'-C3'	-7.74	104.38	116.00
27	BC	60	ARG	CD-NE-CZ	7.74	135.24	124.40
9	AI	75	GLU	CA-C-O	-7.74	112.22	120.42
26	BB	2529	G	C1'-O4'-C4'	7.74	117.64	109.90
31	BG	153	ILE	CB-CA-C	7.74	122.05	112.45
43	BS	58	GLN	CA-C-N	7.74	130.65	120.28
43	BS	58	GLN	C-N-CA	7.74	130.65	120.28
5	AE	196	ASP	O-C-N	-7.74	112.17	122.23
7	AG	19	PHE	CA-CB-CG	7.74	121.53	113.80
48	BX	16	ALA	CA-C-O	-7.74	112.70	120.82
26	BB	1905	C	P-O3'-C3'	7.73	131.80	120.20
28	BD	27	LYS	CA-C-N	7.73	128.19	119.92
28	BD	27	LYS	C-N-CA	7.73	128.19	119.92
6	AF	38	VAL	CA-CB-CG1	7.73	123.54	110.40
53	B2	25	ARG	NE-CZ-NH1	7.73	129.23	121.50
9	AI	108	GLU	N-CA-C	7.73	119.34	111.07
26	BB	750	A	O4'-C4'-C3'	7.73	111.73	104.00
26	BB	2743	U	C4'-C3'-O3'	7.73	124.59	113.00
1	AA	1193	G	N9-C1'-C2'	-7.72	100.42	112.00
26	BB	46	G	O4'-C1'-N9	7.72	120.08	108.50
26	BB	181	A	O4'-C4'-C3'	7.72	111.72	104.00
1	AA	1451	U	O4'-C1'-N1	7.72	120.08	108.50
26	BB	1361	G	O4'-C4'-C3'	7.72	111.72	104.00
19	AS	29	ASN	N-CA-CB	-7.72	98.96	110.61
26	BB	2008	C	O4'-C1'-C2'	-7.72	99.88	107.60
6	AF	25	THR	CA-CB-OG1	7.71	121.17	109.60
42	BR	48	ALA	CA-C-N	7.71	130.84	120.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	BR	48	ALA	C-N-CA	7.71	130.84	120.50
26	BB	1888	G	O4'-C1'-N9	7.71	120.07	108.50
26	BB	2811	G	C4'-C3'-C2'	-7.71	94.89	102.60
1	AA	7	A	O4'-C4'-C3'	7.71	111.71	104.00
1	AA	556	C	C5'-C4'-C3'	7.71	127.56	116.00
26	BB	685	A	C2'-C3'-O3'	7.71	121.06	109.50
1	AA	279	A	O4'-C4'-C3'	7.71	111.70	104.00
26	BB	278	A	O4'-C4'-C3'	7.71	111.70	104.00
36	BL	114	LEU	CA-C-O	-7.71	112.25	120.42
1	AA	1335	U	C1'-O4'-C4'	-7.70	102.20	109.90
9	AI	68	GLN	N-CA-C	7.70	119.68	111.28
26	BB	17	G	C4'-C3'-O3'	-7.70	101.45	113.00
26	BB	1992	G	C4'-C3'-O3'	7.70	120.95	109.40
1	AA	1171	A	C4'-C3'-C2'	7.70	110.30	102.60
26	BB	604	G	O3'-P-O5'	-7.70	92.45	104.00
1	AA	183	C	O4'-C1'-N1	7.70	120.05	108.50
26	BB	149	A	P-O3'-C3'	7.70	131.74	120.20
26	BB	1699	G	O4'-C1'-N9	7.69	119.74	108.20
26	BB	1916	A	P-O5'-C5'	7.69	132.44	120.90
1	AA	1118	U	C1'-O4'-C4'	7.69	117.59	109.90
26	BB	195	A	O4'-C4'-C3'	7.69	111.69	104.00
26	BB	1228	G	O4'-C4'-C3'	7.69	111.69	104.00
41	BQ	55	GLU	CA-C-N	7.69	131.35	120.28
41	BQ	55	GLU	C-N-CA	7.69	131.35	120.28
26	BB	872	U	C4'-C3'-C2'	-7.69	94.91	102.60
32	BH	54	ARG	NE-CZ-NH1	-7.69	113.81	121.50
1	AA	740	U	C4'-C3'-C2'	-7.69	94.91	102.60
26	BB	206	U	C4'-C3'-C2'	-7.68	94.92	102.60
26	BB	1651	G	O4'-C1'-C2'	-7.68	99.92	107.60
25	BA	33	G	C1'-C2'-O2'	-7.68	96.88	108.40
28	BD	127	ASN	CA-CB-CG	7.68	120.28	112.60
1	AA	526	C	C4'-C3'-C2'	-7.68	94.92	102.60
1	AA	817	C	C3'-C2'-C1'	-7.68	93.82	101.50
26	BB	940	G	C4'-C3'-C2'	-7.68	94.92	102.60
1	AA	846	G	C1'-O4'-C4'	7.68	117.58	109.90
25	BA	48	U	C5'-C4'-C3'	-7.68	104.48	116.00
6	AF	137	VAL	CA-C-O	-7.68	112.97	120.95
9	AI	35	LYS	CA-C-N	7.68	132.99	122.93
9	AI	35	LYS	C-N-CA	7.68	132.99	122.93
25	BA	34	A	C4'-C3'-O3'	7.68	120.91	109.40
26	BB	826	U	C4'-C3'-O3'	-7.68	101.48	113.00
1	AA	173	U	P-O3'-C3'	7.67	131.71	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	9	A	C4'-C3'-O3'	7.67	124.51	113.00
14	AN	120	CYS	CA-C-N	7.67	131.09	120.65
14	AN	120	CYS	C-N-CA	7.67	131.09	120.65
27	BC	233	VAL	N-CA-C	7.67	120.64	111.05
1	AA	307	C	O4'-C1'-N1	7.67	119.71	108.20
16	AP	86	ARG	CA-C-N	7.67	128.44	120.00
16	AP	86	ARG	C-N-CA	7.67	128.44	120.00
11	AK	29	SER	CA-C-N	7.67	130.55	120.28
11	AK	29	SER	C-N-CA	7.67	130.55	120.28
26	BB	1647	U	N1-C1'-C2'	7.67	123.50	112.00
26	BB	2243	U	O4'-C1'-N1	7.67	120.00	108.50
26	BB	2358	A	C4'-C3'-C2'	-7.67	94.93	102.60
30	BF	199	MET	CA-C-O	-7.66	111.16	119.97
1	AA	862	C	C4'-C3'-C2'	-7.66	94.94	102.60
5	AE	90	PHE	CA-C-N	7.66	133.18	123.14
5	AE	90	PHE	C-N-CA	7.66	133.18	123.14
26	BB	2314	A	C4'-C3'-C2'	-7.66	94.94	102.60
14	AN	94	SER	CA-C-N	7.66	131.16	120.29
14	AN	94	SER	C-N-CA	7.66	131.16	120.29
11	AK	32	LYS	CA-C-N	7.65	130.47	120.60
11	AK	32	LYS	C-N-CA	7.65	130.47	120.60
1	AA	1367	C	O4'-C1'-N1	7.65	119.98	108.50
6	AF	107	LYS	CA-C-N	7.65	127.37	119.56
6	AF	107	LYS	C-N-CA	7.65	127.37	119.56
43	BS	53	LYS	CA-C-O	-7.65	112.31	120.42
26	BB	2151	U	O4'-C1'-N1	7.65	119.98	108.50
26	BB	2208	C	C3'-C2'-C1'	7.65	108.95	101.30
26	BB	890	C	O4'-C1'-C2'	-7.65	99.95	107.60
30	BF	49	ARG	NE-CZ-NH2	7.65	126.08	119.20
26	BB	404	A	O4'-C4'-C3'	-7.65	98.45	106.10
26	BB	369	U	O4'-C1'-N1	7.64	119.96	108.50
26	BB	1646	C	O4'-C4'-C3'	7.64	111.64	104.00
1	AA	750	C	C5'-C4'-O4'	7.64	121.26	109.80
10	AJ	11	ILE	CB-CA-C	7.64	122.19	111.34
25	BA	65	U	C4'-C3'-C2'	-7.64	94.96	102.60
26	BB	268	C	C1'-O4'-C4'	-7.64	102.26	109.90
43	BS	55	GLN	CA-C-N	7.64	130.52	120.28
43	BS	55	GLN	C-N-CA	7.64	130.52	120.28
26	BB	311	A	O4'-C4'-C3'	-7.64	98.46	106.10
26	BB	2455	G	O4'-C1'-C2'	-7.64	99.96	107.60
26	BB	2492	U	O4'-C1'-N1	7.64	119.66	108.20
1	AA	1266	G	O4'-C1'-C2'	-7.63	99.97	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B0	9	LYS	CA-C-N	7.63	133.47	120.72
51	B0	9	LYS	C-N-CA	7.63	133.47	120.72
1	AA	105	G	C4'-C3'-C2'	-7.63	94.97	102.60
26	BB	2438	U	O4'-C4'-C3'	7.63	111.63	104.00
26	BB	1989	G	C3'-C2'-C1'	-7.63	93.67	101.30
26	BB	615	U	O4'-C1'-C2'	7.63	113.43	105.80
26	BB	2289	G	C4'-C3'-C2'	-7.63	94.97	102.60
26	BB	171	U	C4'-C3'-C2'	-7.63	94.97	102.60
20	AT	32	ILE	CA-C-O	-7.63	113.40	120.34
26	BB	2537	U	O4'-C4'-C3'	7.63	111.63	104.00
26	BB	1201	U	O5'-C5'-C4'	7.62	122.94	111.50
26	BB	2539	C	O4'-C4'-C3'	7.62	111.62	104.00
1	AA	330	C	O3'-P-O5'	7.62	115.43	104.00
9	AI	116	PHE	CA-CB-CG	7.62	121.42	113.80
26	BB	890	C	C1'-O4'-C4'	7.62	117.52	109.90
45	BU	68	ASP	CA-CB-CG	7.62	120.22	112.60
1	AA	947	G	O4'-C4'-C3'	7.62	111.62	104.00
45	BU	5	ALA	O-C-N	7.62	132.28	123.29
26	BB	20	C	O4'-C1'-N1	7.61	119.92	108.50
50	BZ	65	THR	CA-C-N	7.61	130.15	120.56
50	BZ	65	THR	C-N-CA	7.61	130.15	120.56
1	AA	1006	G	C1'-C2'-O2'	7.61	119.82	108.40
1	AA	1103	C	C5'-C4'-O4'	7.61	121.22	109.80
1	AA	1460	C	O4'-C1'-N1	7.61	119.92	108.50
26	BB	100	U	C4'-C3'-O3'	-7.61	101.58	113.00
26	BB	666	A	C3'-C2'-O2'	7.61	122.12	110.70
2	AB	47	U	C3'-C2'-O2'	7.61	122.11	110.70
1	AA	333	U	P-O3'-C3'	7.61	131.61	120.20
26	BB	708	G	O4'-C1'-C2'	-7.61	99.99	107.60
1	AA	703	G	C5'-C4'-O4'	7.61	120.51	109.10
1	AA	931	C	C1'-O4'-C4'	-7.60	102.30	109.90
2	AB	73	G	O4'-C4'-C3'	7.60	111.60	104.00
26	BB	80	G	C4'-C3'-C2'	-7.60	95.00	102.60
26	BB	1971	U	C3'-C2'-C1'	7.60	108.90	101.30
26	BB	2086	U	C1'-O4'-C4'	-7.60	102.30	109.90
31	BG	20	ASN	CA-C-O	-7.60	112.72	121.54
26	BB	1239	G	C5'-C4'-O4'	7.60	121.20	109.80
26	BB	2781	A	C5'-C4'-C3'	-7.60	104.60	116.00
33	BI	91	PHE	CA-C-N	7.60	128.41	119.98
33	BI	91	PHE	C-N-CA	7.60	128.41	119.98
40	BP	35	LYS	CA-C-O	-7.60	112.49	120.70
1	AA	319	G	C5'-C4'-O4'	7.60	121.20	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2358	A	C3'-C2'-C1'	7.60	108.90	101.30
1	AA	175	C	O4'-C1'-N1	7.59	119.89	108.50
1	AA	1289	A	O4'-C1'-C2'	-7.59	100.00	107.60
26	BB	1073	A	O4'-C4'-C3'	7.59	111.59	104.00
1	AA	1352	C	O4'-C1'-N1	7.59	119.89	108.50
26	BB	815	C	C4'-C3'-C2'	-7.59	95.01	102.60
26	BB	1632	A	O4'-C4'-C3'	7.59	111.59	104.00
1	AA	825	A	C4'-C3'-C2'	-7.59	95.01	102.60
26	BB	1980	G	C4'-C3'-C2'	-7.59	95.01	102.60
26	BB	2339	C	C3'-C2'-C1'	7.59	108.89	101.30
26	BB	2862	G	C4'-C3'-C2'	-7.59	95.01	102.60
1	AA	253	A	C3'-C2'-C1'	-7.58	93.72	101.30
26	BB	98	G	O4'-C4'-C3'	-7.58	96.42	104.00
26	BB	1210	G	C4'-C3'-O3'	7.58	120.78	109.40
32	BH	9	VAL	CA-CB-CG1	7.58	123.29	110.40
26	BB	134	G	O4'-C1'-C2'	-7.58	100.02	107.60
27	BC	60	ARG	NE-CZ-NH1	-7.58	113.92	121.50
26	BB	1010	A	O5'-C5'-C4'	-7.58	100.13	111.50
26	BB	2180	U	C4'-C3'-C2'	-7.58	95.02	102.60
26	BB	2404	U	O4'-C1'-C2'	-7.58	100.02	107.60
1	AA	382	A	C5'-C4'-C3'	7.58	127.36	116.00
10	AJ	9	ARG	CA-C-O	-7.58	113.54	121.87
26	BB	2839	G	C5'-C4'-O4'	7.58	121.16	109.80
2	AB	32	OMC	O3'-P-O5'	-7.57	92.64	104.00
26	BB	1083	U	C2'-C3'-O3'	-7.57	102.34	113.70
26	BB	467	G	O4'-C1'-N9	7.57	119.86	108.50
26	BB	179	C	C3'-C2'-O2'	7.57	122.06	110.70
26	BB	1394	U	O4'-C4'-C3'	-7.57	96.43	104.00
37	BM	89	ASN	OD1-CG-ND2	7.57	130.17	122.60
26	BB	408	G	O4'-C4'-C3'	7.57	111.57	104.00
30	BF	124	PHE	CA-CB-CG	7.57	121.37	113.80
26	BB	297	G	O4'-C4'-C3'	7.56	111.56	104.00
26	BB	1649	G	C1'-C2'-O2'	-7.56	97.06	108.40
1	AA	1029	U	C1'-O4'-C4'	7.56	117.46	109.90
26	BB	428	A	C2'-C3'-O3'	7.56	120.84	109.50
26	BB	235	U	C4'-C3'-C2'	-7.56	95.04	102.60
37	BM	37	ASP	N-CA-C	7.56	121.66	110.48
26	BB	2136	G	C5'-C4'-O4'	7.55	121.13	109.80
1	AA	187	G	O4'-C4'-C3'	7.55	111.55	104.00
1	AA	1359	C	C4'-C3'-O3'	-7.55	101.67	113.00
26	BB	1457	U	O5'-C5'-C4'	-7.55	100.17	111.50
47	BW	72	PHE	CA-CB-CG	7.55	121.35	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	251	G	C5'-C4'-C3'	7.54	126.51	115.20
12	AL	103	VAL	CA-C-N	7.54	132.18	121.02
12	AL	103	VAL	C-N-CA	7.54	132.18	121.02
40	BP	22	ARG	NE-CZ-NH1	-7.54	113.96	121.50
1	AA	308	C	O4'-C1'-C2'	-7.54	100.06	107.60
26	BB	835	C	C1'-O4'-C4'	-7.54	102.36	109.90
2	AB	41	C	O4'-C1'-C2'	-7.53	100.07	107.60
53	B2	60	PHE	CA-CB-CG	-7.53	106.27	113.80
1	AA	89	U	C4'-C3'-C2'	-7.53	95.07	102.60
1	AA	215	C	O4'-C1'-N1	7.53	119.80	108.50
1	AA	1234	C	C3'-C2'-C1'	7.53	108.83	101.30
26	BB	650	C	O4'-C1'-N1	7.53	119.80	108.50
1	AA	1068	G	O4'-C4'-C3'	7.53	111.53	104.00
26	BB	2639	A	C5'-C4'-C3'	-7.53	104.71	116.00
1	AA	1391	U	C2'-C3'-O3'	-7.53	102.41	113.70
26	BB	98	G	C4'-C3'-C2'	-7.53	95.07	102.60
26	BB	1555	G	C5'-C4'-C3'	-7.53	104.71	116.00
26	BB	392	U	O4'-C4'-C3'	-7.52	96.48	104.00
29	BE	33	ARG	NE-CZ-NH2	7.52	125.97	119.20
26	BB	1225	G	O5'-C5'-C4'	-7.52	100.22	111.50
1	AA	1500	A	O5'-C5'-C4'	-7.52	100.22	111.50
1	AA	522	C	C3'-C2'-O2'	7.52	121.98	110.70
1	AA	712	A	C1'-O4'-C4'	7.52	117.42	109.90
1	AA	1387	G	C1'-O4'-C4'	-7.52	102.38	109.90
26	BB	1348	C	O4'-C1'-N1	7.52	119.78	108.50
26	BB	1801	A	C4'-C3'-O3'	7.52	120.67	109.40
26	BB	1696	G	C5'-C4'-C3'	-7.51	104.73	116.00
26	BB	2394	C	C4'-C3'-C2'	-7.51	95.09	102.60
1	AA	42	G	C4'-C3'-C2'	-7.51	95.09	102.60
26	BB	370	G	C1'-C2'-O2'	7.51	123.07	111.80
26	BB	1577	C	C4'-C3'-C2'	-7.51	95.09	102.60
1	AA	886	G	C4'-C3'-C2'	-7.51	95.09	102.60
1	AA	1417	G	O4'-C4'-C3'	7.50	111.50	104.00
26	BB	287	G	C4'-C3'-C2'	-7.50	95.10	102.60
29	BE	58	ASN	CA-C-O	-7.50	110.49	119.27
26	BB	2164	C	O4'-C4'-C3'	-7.50	96.50	104.00
6	AF	130	ARG	NE-CZ-NH1	7.50	129.00	121.50
41	BQ	74	VAL	CA-C-O	-7.50	112.90	120.85
1	AA	365	U	C4'-C3'-O3'	-7.50	101.75	113.00
1	AA	1230	C	O4'-C1'-N1	7.50	119.75	108.50
25	BA	41	G	N9-C1'-C2'	-7.50	102.76	114.00
26	BB	1573	G	O4'-C1'-N9	7.50	119.74	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	BJ	62	ALA	O-C-N	7.50	130.70	122.15
13	AM	26	VAL	N-CA-C	-7.50	103.22	110.42
26	BB	573	U	C3'-C2'-C1'	7.50	108.80	101.30
5	AE	170	ILE	CA-C-O	-7.49	113.23	121.17
4	AD	10	G	C5'-C4'-C3'	-7.49	104.77	116.00
26	BB	762	U	C3'-C2'-C1'	7.49	108.99	101.50
26	BB	2045	C	C4'-C3'-C2'	-7.49	95.11	102.60
26	BB	2207	C	C5'-C4'-O4'	7.49	121.03	109.80
23	AW	74	HIS	CB-CG-CD2	-7.49	121.47	131.20
26	BB	900	A	P-O3'-C3'	7.49	131.43	120.20
1	AA	561	U	C4'-C3'-C2'	-7.48	95.12	102.60
26	BB	2796	U	C5'-C4'-C3'	-7.48	104.78	116.00
26	BB	35	G	C3'-C2'-C1'	-7.48	93.82	101.30
26	BB	785	G	O4'-C1'-C2'	-7.48	100.12	107.60
26	BB	2776	A	C4'-C3'-C2'	-7.48	95.12	102.60
26	BB	67	U	O4'-C1'-N1	7.47	119.71	108.50
39	BO	117	PHE	CA-CB-CG	7.47	121.27	113.80
26	BB	1439	A	C2'-C3'-O3'	-7.47	102.50	113.70
3	AC	20	G	O4'-C1'-C2'	-7.46	100.14	107.60
26	BB	2287	A	C2'-C3'-O3'	7.46	120.70	109.50
4	AD	7	G	C5'-C4'-C3'	-7.46	104.00	115.20
26	BB	1056	G	C2'-C3'-O3'	-7.46	102.51	113.70
26	BB	1949	G	C3'-C2'-C1'	-7.46	93.84	101.30
26	BB	1979	U	C5'-C4'-C3'	-7.46	104.81	116.00
26	BB	2211	A	C4'-C3'-C2'	-7.46	95.14	102.60
51	B0	28	LEU	O-C-N	7.46	130.03	122.12
2	AB	56	C	C3'-C2'-C1'	7.46	108.76	101.30
26	BB	1743	G	O3'-P-O5'	-7.46	92.81	104.00
1	AA	571	U	C2'-C3'-O3'	-7.46	102.51	113.70
26	BB	1822	C	N1-C1'-C2'	-7.46	100.81	112.00
38	BN	8	PRO	N-CA-CB	7.46	109.58	103.32
6	AF	96	VAL	N-CA-C	7.46	117.40	108.45
14	AN	64	VAL	CA-CB-CG2	7.46	123.08	110.40
26	BB	1891	G	C5'-C4'-C3'	-7.46	104.82	116.00
1	AA	169	C	O4'-C1'-N1	7.46	119.68	108.50
26	BB	268	C	C4'-C3'-C2'	-7.46	95.14	102.60
26	BB	1104	C	C4'-C3'-C2'	-7.45	95.15	102.60
25	BA	2	G	O4'-C4'-C3'	7.45	111.45	104.00
1	AA	345	C	O4'-C4'-C3'	7.45	113.55	106.10
26	BB	887	U	C4'-C3'-C2'	-7.45	95.15	102.60
1	AA	774	G	O4'-C1'-C2'	-7.45	100.15	107.60
14	AN	97	ARG	NE-CZ-NH2	7.45	125.90	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	112	U	O4'-C1'-C2'	7.45	115.05	107.60
26	BB	835	C	C4'-C3'-C2'	-7.45	95.16	102.60
1	AA	204	G	C2'-C3'-O3'	7.44	124.87	113.70
5	AE	199	ILE	N-CA-C	-7.44	100.18	107.55
26	BB	179	C	O4'-C1'-N1	7.44	119.67	108.50
1	AA	1014	A	C2'-C3'-O3'	7.44	124.86	113.70
6	AF	164	THR	CA-C-N	7.44	134.62	121.75
6	AF	164	THR	C-N-CA	7.44	134.62	121.75
40	BP	11	ASN	N-CA-C	7.44	123.39	113.72
1	AA	425	G	C5'-C4'-O4'	7.44	120.96	109.80
1	AA	1397	C	C5'-C4'-C3'	-7.44	104.84	116.00
26	BB	2613	U	O4'-C1'-N1	7.44	119.36	108.20
3	AC	40	G	C3'-C2'-O2'	7.44	121.86	110.70
26	BB	1614	A	O4'-C4'-C3'	7.44	111.44	104.00
1	AA	50	A	C3'-C2'-C1'	7.43	108.93	101.50
1	AA	221	C	O4'-C1'-N1	7.43	119.64	108.50
6	AF	29	ALA	N-CA-CB	-7.43	99.16	110.16
26	BB	2461	A	O4'-C4'-C3'	7.43	111.43	104.00
1	AA	472	U	C4'-C3'-C2'	-7.43	95.17	102.60
1	AA	1140	C	O4'-C1'-C2'	-7.43	100.17	107.60
26	BB	265	A	C2'-C3'-O3'	7.43	124.84	113.70
26	BB	1499	C	O5'-C5'-C4'	-7.43	100.36	111.50
5	AE	101	THR	O-C-N	7.42	131.40	122.27
31	BG	101	ARG	NE-CZ-NH1	-7.42	114.08	121.50
18	AR	19	ASN	CB-CA-C	7.42	121.72	111.63
26	BB	367	G	C3'-C2'-C1'	-7.42	93.88	101.30
26	BB	2750	A	O4'-C4'-C3'	7.42	113.52	106.10
26	BB	1859	U	C3'-C2'-C1'	-7.42	93.88	101.30
55	B4	18	HIS	CA-C-O	-7.42	112.94	121.47
25	BA	44	G	O3'-P-O5'	-7.42	92.87	104.00
26	BB	129	C	C3'-C2'-C1'	7.42	108.72	101.30
10	AJ	157	SER	CA-C-N	7.42	131.58	120.31
10	AJ	157	SER	C-N-CA	7.42	131.58	120.31
1	AA	720	C	C5'-C4'-C3'	-7.41	104.08	115.20
28	BD	68	ARG	CB-CA-C	7.41	123.22	111.51
30	BF	102	ARG	O-C-N	7.41	131.39	122.27
26	BB	2599	G	C1'-C2'-O2'	-7.41	97.28	108.40
26	BB	2716	C	O4'-C4'-C3'	-7.41	96.59	104.00
50	BZ	10	ARG	NE-CZ-NH2	7.41	125.87	119.20
26	BB	1141	U	C1'-O4'-C4'	-7.41	102.29	109.70
3	AC	30	U	C5'-C4'-O4'	7.41	120.21	109.10
24	AX	52	VAL	N-CA-C	7.41	118.17	110.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1762	A	C3'-C2'-C1'	7.41	108.71	101.30
26	BB	1791	A	C1'-C2'-O2'	7.41	119.51	108.40
3	AC	48	C	C4'-C3'-O3'	-7.40	98.29	109.40
1	AA	708	C	C1'-O4'-C4'	-7.40	102.50	109.90
43	BS	19	GLN	OE1-CD-NE2	-7.40	115.20	122.60
4	AD	52	C	O5'-C5'-C4'	7.40	122.60	111.50
2	AB	74	C	O3'-P-O5'	7.40	115.10	104.00
4	AD	25	U	C3'-C2'-O2'	7.40	121.80	110.70
8	AH	19	ARG	NE-CZ-NH2	7.40	125.86	119.20
26	BB	147	C	O4'-C4'-C3'	7.40	111.40	104.00
33	BI	111	ALA	CA-C-N	7.40	130.19	120.28
33	BI	111	ALA	C-N-CA	7.40	130.19	120.28
1	AA	1374	A	N9-C1'-C2'	-7.39	100.91	112.00
26	BB	158	U	O4'-C1'-C2'	-7.39	100.20	107.60
41	BQ	81	ARG	NE-CZ-NH2	7.39	125.86	119.20
43	BS	84	LYS	CA-C-O	7.39	128.26	120.42
26	BB	1929	G	O5'-C5'-C4'	7.39	122.79	111.70
1	AA	395	C	C5'-C4'-C3'	-7.39	104.92	116.00
1	AA	1093	A	C1'-C2'-O2'	-7.39	97.31	108.40
26	BB	495	G	O4'-C1'-C2'	-7.39	100.21	107.60
26	BB	1651	G	C3'-C2'-C1'	7.39	108.69	101.30
1	AA	726	C	O4'-C1'-N1	7.38	119.58	108.50
39	BO	51	ARG	CA-C-N	7.38	130.04	120.44
39	BO	51	ARG	C-N-CA	7.38	130.04	120.44
1	AA	519	C	C5'-C4'-C3'	-7.38	104.93	116.00
1	AA	190	A	O4'-C1'-C2'	-7.38	100.22	107.60
41	BQ	100	HIS	CB-CG-CD2	-7.38	121.61	131.20
1	AA	1368	A	C3'-C2'-C1'	7.37	108.67	101.30
26	BB	49	A	P-O3'-C3'	7.37	131.26	120.20
1	AA	1057	G	O4'-C4'-C3'	7.37	111.37	104.00
1	AA	1180	A	C4'-C3'-C2'	-7.37	95.23	102.60
26	BB	428	A	O4'-C1'-N9	7.37	119.26	108.20
31	BG	93	GLU	N-CA-C	-7.37	103.25	111.28
19	AS	59	HIS	ND1-CE1-NE2	7.37	115.77	108.40
1	AA	812	G	C5'-C4'-C3'	-7.37	104.95	116.00
26	BB	1008	A	C1'-O4'-C4'	7.37	117.07	109.70
10	AJ	74	VAL	CB-CA-C	7.37	121.80	110.83
26	BB	760	G	O4'-C4'-C3'	7.37	111.37	104.00
26	BB	2543	G	C5'-C4'-O4'	7.36	120.84	109.80
26	BB	729	G	O5'-C5'-C4'	-7.36	100.46	111.50
1	AA	283	U	C4'-C3'-C2'	-7.36	95.24	102.60
11	AK	91	LEU	CA-C-N	7.36	127.81	120.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AK	91	LEU	C-N-CA	7.36	127.81	120.52
26	BB	2744	G	C3'-C2'-C1'	7.36	108.66	101.30
9	AI	37	HIS	CB-CG-CD2	-7.36	121.64	131.20
20	AT	51	GLU	CA-C-O	-7.36	112.62	120.42
26	BB	2829	A	N9-C1'-C2'	-7.35	100.97	112.00
1	AA	713	G	C2'-C3'-O3'	-7.35	102.67	113.70
1	AA	81	A	O4'-C4'-C3'	7.35	111.35	104.00
51	B0	24	GLU	O-C-N	7.35	130.03	122.09
6	AF	172	VAL	CA-C-N	7.35	127.27	119.85
6	AF	172	VAL	C-N-CA	7.35	127.27	119.85
26	BB	1637	A	C4'-C3'-O3'	-7.35	101.98	113.00
26	BB	2357	G	C3'-C2'-O2'	7.34	121.72	110.70
1	AA	358	U	C2'-C3'-O3'	7.34	124.71	113.70
26	BB	2357	G	O4'-C4'-C3'	7.34	111.34	104.00
2	AB	3	G	O4'-C1'-N9	7.34	119.51	108.50
10	AJ	34	LYS	O-C-N	-7.34	113.53	122.71
26	BB	2836	U	O4'-C1'-C2'	7.34	114.94	107.60
35	BK	124	MET	CA-C-N	7.34	130.43	120.38
35	BK	124	MET	C-N-CA	7.34	130.43	120.38
26	BB	455	C	C4'-C3'-O3'	-7.34	101.99	113.00
26	BB	2147	A	C1'-O4'-C4'	-7.33	102.37	109.70
47	BW	43	LYS	CB-CA-C	7.33	121.83	109.80
28	BD	173	LEU	CA-C-O	-7.33	112.53	121.11
1	AA	253	A	C1'-O4'-C4'	-7.33	102.57	109.90
1	AA	330	C	C3'-C2'-C1'	7.33	108.63	101.30
1	AA	408	A	O5'-C5'-C4'	7.33	122.49	111.50
26	BB	782	A	C1'-O4'-C4'	7.33	117.03	109.70
1	AA	889	A	O4'-C1'-C2'	-7.32	98.48	105.80
26	BB	1191	G	C1'-C2'-O2'	7.32	119.38	108.40
37	BM	18	ARG	CA-CB-CG	7.32	128.74	114.10
26	BB	308	G	N9-C1'-C2'	7.32	122.98	112.00
24	AX	54	ARG	NE-CZ-NH2	-7.32	112.61	119.20
26	BB	2777	G	C2'-C3'-O3'	-7.32	102.72	113.70
27	BC	56	ASP	CA-C-N	7.32	134.51	122.73
27	BC	56	ASP	C-N-CA	7.32	134.51	122.73
28	BD	24	HIS	CB-CG-CD2	-7.32	121.69	131.20
1	AA	1368	A	C4'-C3'-C2'	-7.32	95.28	102.60
28	BD	36	ASN	CA-CB-CG	-7.32	105.28	112.60
23	AW	57	VAL	CA-C-N	7.31	131.43	120.31
23	AW	57	VAL	C-N-CA	7.31	131.43	120.31
39	BO	26	VAL	N-CA-CB	-7.31	102.56	110.53
34	BJ	148	GLY	CA-C-O	-7.31	112.91	120.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	47	A	C4'-C3'-C2'	-7.31	95.29	102.60
1	AA	773	G	O4'-C1'-N9	7.31	119.47	108.50
26	BB	2213	U	P-O3'-C3'	7.31	131.16	120.20
26	BB	2747	G	C5'-C4'-C3'	-7.31	105.04	116.00
26	BB	2850	A	C4'-C3'-O3'	-7.31	102.03	113.00
43	BS	63	ARG	NE-CZ-NH2	-7.31	112.62	119.20
17	AQ	100	TRP	CE2-CD2-CE3	-7.31	111.49	118.80
29	BE	89	GLU	CA-C-N	7.31	132.31	121.72
29	BE	89	GLU	C-N-CA	7.31	132.31	121.72
26	BB	1762	A	C4'-C3'-C2'	-7.30	95.30	102.60
47	BW	80	ASP	CA-C-N	7.30	131.24	120.87
47	BW	80	ASP	C-N-CA	7.30	131.24	120.87
26	BB	2629	U	C5'-C4'-C3'	-7.30	104.25	115.20
1	AA	1190	G	C3'-C2'-C1'	-7.30	94.20	101.50
3	AC	48	C	O4'-C1'-N1	7.30	119.15	108.20
26	BB	1268	A	C5'-C4'-C3'	-7.30	105.05	116.00
36	BL	130	HIS	CB-CG-CD2	-7.30	121.71	131.20
1	AA	1240	U	C3'-C2'-C1'	7.30	108.80	101.50
1	AA	616	G	C4'-C3'-C2'	-7.30	95.30	102.60
26	BB	2595	G	C3'-C2'-C1'	7.30	108.60	101.30
1	AA	1324	A	C4'-C3'-O3'	-7.29	102.06	113.00
26	BB	1029	A	C5'-C4'-O4'	7.29	120.74	109.80
26	BB	1297	C	O4'-C1'-C2'	-7.29	100.31	107.60
41	BQ	31	THR	CA-C-O	7.29	126.83	119.76
26	BB	1270	C	C4'-C3'-O3'	7.29	120.34	109.40
26	BB	1651	G	C4'-C3'-C2'	-7.29	95.31	102.60
35	BK	27	LEU	CA-C-N	7.29	128.20	120.03
35	BK	27	LEU	C-N-CA	7.29	128.20	120.03
1	AA	1492	A	N9-C1'-C2'	7.29	122.93	112.00
1	AA	1538	C	O4'-C1'-C2'	-7.29	100.31	107.60
26	BB	1239	G	C4'-C3'-C2'	-7.29	95.31	102.60
5	AE	233	GLU	CA-C-N	7.28	130.04	120.28
5	AE	233	GLU	C-N-CA	7.28	130.04	120.28
54	B3	19	ASP	CA-CB-CG	7.28	119.88	112.60
1	AA	109	A	O4'-C1'-N9	7.28	119.12	108.20
1	AA	1037	C	C3'-C2'-C1'	7.28	108.58	101.30
26	BB	1388	G	O4'-C4'-C3'	7.28	111.28	104.00
26	BB	2224	G	O3'-P-O5'	7.28	114.92	104.00
28	BD	90	ILE	CB-CA-C	7.28	120.25	110.42
1	AA	269	C	C4'-C3'-C2'	-7.28	95.33	102.60
45	BU	37	THR	CA-CB-OG1	7.28	120.51	109.60
26	BB	883	G	O4'-C1'-N9	7.27	119.41	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	B2	49	ARG	NE-CZ-NH2	-7.27	112.65	119.20
2	AB	35	C	N1-C1'-C2'	7.27	122.91	112.00
11	AK	87	ARG	NE-CZ-NH2	7.27	125.75	119.20
25	BA	103	U	C4'-C3'-C2'	-7.27	95.33	102.60
26	BB	803	U	C1'-O4'-C4'	7.27	117.17	109.90
26	BB	1459	G	C4'-C3'-C2'	-7.27	95.33	102.60
26	BB	431	U	C4'-C3'-C2'	-7.27	95.33	102.60
26	BB	1775	U	C1'-C2'-O2'	7.27	119.30	108.40
1	AA	330	C	O4'-C1'-C2'	-7.26	100.33	107.60
26	BB	1878	G	O4'-C4'-C3'	7.26	111.27	104.00
1	AA	741	G	C4'-C3'-C2'	-7.26	95.34	102.60
26	BB	585	G	O4'-C1'-C2'	-7.26	100.34	107.60
49	BY	75	ASN	CA-CB-CG	7.26	119.86	112.60
1	AA	941	G	O4'-C1'-N9	7.26	119.39	108.50
3	AC	43	U	O4'-C1'-N1	7.26	119.09	108.20
5	AE	151	LYS	N-CA-C	7.26	121.05	111.75
26	BB	40	U	O4'-C4'-C3'	7.26	111.26	104.00
26	BB	1969	A	C4'-C3'-C2'	-7.26	95.34	102.60
39	BO	135	VAL	N-CA-C	-7.26	103.45	110.42
26	BB	1067	A	C4'-C3'-C2'	7.26	109.86	102.60
26	BB	2195	U	C4'-C3'-C2'	-7.26	95.34	102.60
30	BF	69	ARG	NE-CZ-NH1	7.26	128.76	121.50
41	BQ	41	ALA	O-C-N	7.26	129.80	121.31
26	BB	2555	U	P-O5'-C5'	7.26	131.79	120.90
26	BB	2571	U	C3'-C2'-O2'	7.26	121.59	110.70
1	AA	717	U	C1'-C2'-O2'	-7.26	97.52	108.40
26	BB	1266	G	C4'-C3'-C2'	-7.25	95.35	102.60
1	AA	1123	U	O4'-C4'-C3'	7.25	111.25	104.00
6	AF	231	ARG	NE-CZ-NH2	7.25	125.73	119.20
26	BB	147	C	C3'-C2'-C1'	7.25	108.55	101.30
26	BB	2660	A	C4'-C3'-C2'	-7.25	95.35	102.60
26	BB	510	C	C3'-C2'-C1'	7.25	108.55	101.30
26	BB	633	A	O4'-C1'-N9	7.25	119.37	108.50
26	BB	2035	G	C5'-C4'-C3'	7.25	126.07	115.20
1	AA	59	A	N9-C1'-C2'	-7.25	101.13	112.00
1	AA	186	C	C2'-C3'-O3'	7.25	124.57	113.70
25	BA	89	U	O4'-C1'-N1	7.25	119.37	108.50
42	BR	102	ARG	NH1-CZ-NH2	-7.25	109.88	119.30
26	BB	1764	C	N1-C1'-C2'	-7.24	101.14	112.00
34	BJ	10	ILE	CA-C-N	7.24	129.69	120.56
34	BJ	10	ILE	C-N-CA	7.24	129.69	120.56
1	AA	17	U	C3'-C2'-C1'	7.24	108.54	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2693	G	C4'-C3'-C2'	-7.24	95.36	102.60
1	AA	147	G	O4'-C1'-N9	7.24	119.36	108.50
26	BB	554	U	O4'-C1'-N1	7.24	119.36	108.50
26	BB	70	G	C4'-C3'-O3'	7.24	120.26	109.40
33	BI	76	GLU	CA-C-O	-7.24	113.70	121.45
53	B2	56	ARG	CA-C-N	7.24	133.62	122.25
53	B2	56	ARG	C-N-CA	7.24	133.62	122.25
1	AA	725	G	C3'-C2'-O2'	7.24	121.56	110.70
1	AA	461	A	C5'-C4'-C3'	-7.24	105.15	116.00
27	BC	121	MET	CA-C-N	7.23	130.30	120.54
27	BC	121	MET	C-N-CA	7.23	130.30	120.54
29	BE	201	LEU	CA-C-N	7.23	132.04	122.93
29	BE	201	LEU	C-N-CA	7.23	132.04	122.93
1	AA	1134	G	C1'-C2'-O2'	7.23	119.25	108.40
26	BB	637	A	C5'-C4'-C3'	-7.23	104.36	115.20
26	BB	1061	U	C4'-C3'-C2'	-7.23	95.37	102.60
26	BB	1107	G	C5'-C4'-O4'	7.23	120.65	109.80
2	AB	35	C	O4'-C1'-C2'	-7.23	100.37	107.60
26	BB	1836	C	C4'-C3'-C2'	-7.23	95.37	102.60
1	AA	1523	G	O4'-C4'-C3'	7.23	111.23	104.00
26	BB	429	A	C1'-O4'-C4'	7.23	117.13	109.90
26	BB	611	C	C4'-C3'-C2'	-7.23	95.37	102.60
31	BG	116	LEU	N-CA-C	7.23	121.04	111.28
45	BU	51	LEU	CA-C-N	7.23	129.97	120.28
45	BU	51	LEU	C-N-CA	7.23	129.97	120.28
5	AE	38	HIS	CA-CB-CG	7.22	121.02	113.80
26	BB	507	A	C3'-C2'-O2'	7.22	121.54	110.70
26	BB	1519	G	O3'-P-O5'	7.22	114.84	104.00
28	BD	166	ARG	CA-C-N	7.22	133.38	121.39
28	BD	166	ARG	C-N-CA	7.22	133.38	121.39
1	AA	1116	U	C5'-C4'-C3'	-7.22	105.17	116.00
23	AW	9	ARG	CA-C-O	-7.22	112.89	120.55
25	BA	28	C	C4'-C3'-C2'	-7.22	95.38	102.60
26	BB	1330	C	C5'-C4'-C3'	7.22	126.83	116.00
26	BB	2242	G	C3'-C2'-C1'	7.22	108.52	101.30
26	BB	2903	U	C3'-C2'-C1'	-7.22	94.08	101.30
28	BD	19	VAL	CA-C-O	7.22	128.70	120.76
26	BB	678	C	C1'-O4'-C4'	7.22	117.12	109.90
26	BB	618	G	C1'-O4'-C4'	-7.22	102.68	109.90
1	AA	960	U	P-O3'-C3'	7.22	131.03	120.20
26	BB	381	G	O4'-C4'-C3'	7.22	111.22	104.00
26	BB	1839	G	C4'-C3'-C2'	-7.21	95.39	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2014	A	C3'-C2'-C1'	-7.21	94.09	101.30
26	BB	2299	U	C1'-O4'-C4'	-7.21	102.69	109.90
26	BB	2846	G	O4'-C4'-C3'	7.21	111.21	104.00
26	BB	1524	G	C5'-C4'-O4'	7.21	120.61	109.80
26	BB	242	G	C2'-C3'-O3'	7.21	120.31	109.50
25	BA	44	G	C4'-C3'-O3'	-7.20	98.59	109.40
26	BB	1116	G	C4'-C3'-O3'	7.20	123.81	113.00
26	BB	1521	G	O4'-C1'-N9	7.20	119.31	108.50
40	BP	22	ARG	NE-CZ-NH2	7.20	125.68	119.20
1	AA	345	C	C4'-C3'-C2'	-7.20	95.40	102.60
26	BB	743	A	C4'-C3'-C2'	-7.20	95.40	102.60
26	BB	2777	G	O4'-C4'-C3'	7.20	111.20	104.00
1	AA	1386	G	C4'-C3'-O3'	7.20	123.79	113.00
26	BB	1819	A	O4'-C1'-N9	7.20	118.99	108.20
26	BB	2830	C	O4'-C1'-C2'	-7.20	100.40	107.60
43	BS	42	GLY	CA-C-N	7.20	130.23	120.44
43	BS	42	GLY	C-N-CA	7.20	130.23	120.44
54	B3	15	ARG	NE-CZ-NH2	7.20	125.68	119.20
1	AA	141	G	O4'-C1'-C2'	-7.19	100.41	107.60
37	BM	64	ARG	NE-CZ-NH2	7.19	125.67	119.20
34	BJ	109	ALA	O-C-N	-7.19	115.30	122.99
50	BZ	30	PRO	N-CA-CB	7.19	109.58	103.25
26	BB	725	G	C3'-C2'-C1'	7.19	108.49	101.30
28	BD	218	THR	CA-C-N	7.19	131.69	120.34
28	BD	218	THR	C-N-CA	7.19	131.69	120.34
1	AA	1010	U	O4'-C1'-N1	7.18	119.27	108.50
26	BB	2649	C	C3'-C2'-C1'	-7.18	94.12	101.30
26	BB	2160	C	C4'-C3'-O3'	7.18	123.77	113.00
26	BB	2732	G	O3'-P-O5'	-7.18	93.23	104.00
26	BB	1160	G	C4'-C3'-C2'	-7.18	95.42	102.60
26	BB	1205	A	O4'-C1'-C2'	7.18	112.98	105.80
1	AA	774	G	C4'-C3'-C2'	-7.17	95.42	102.60
26	BB	945	A	C3'-C2'-C1'	7.17	108.47	101.30
4	AD	7	G	C3'-C2'-C1'	7.17	108.67	101.50
29	BE	176	ASP	CA-CB-CG	7.17	119.77	112.60
1	AA	1232	U	O5'-C5'-C4'	7.17	122.25	111.50
26	BB	1578	U	C4'-C3'-C2'	-7.17	95.43	102.60
34	BJ	87	HIS	CA-C-N	7.17	127.17	119.28
34	BJ	87	HIS	C-N-CA	7.17	127.17	119.28
1	AA	936	C	C5'-C4'-C3'	-7.17	105.25	116.00
26	BB	1664	A	C5'-C4'-C3'	-7.17	105.25	116.00
1	AA	204	G	O3'-P-O5'	-7.17	93.25	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AP	32	ILE	CA-C-N	7.16	130.18	120.44
16	AP	32	ILE	C-N-CA	7.16	130.18	120.44
2	AB	58	A	C2'-C3'-O3'	7.16	124.44	113.70
26	BB	1852	U	O4'-C4'-C3'	7.16	111.16	104.00
1	AA	757	U	C4'-C3'-C2'	-7.16	95.44	102.60
1	AA	1377	A	O3'-P-O5'	-7.16	93.26	104.00
26	BB	2016	U	N1-C1'-C2'	7.16	122.74	112.00
51	B0	53	VAL	CA-C-N	7.16	129.87	120.28
51	B0	53	VAL	C-N-CA	7.16	129.87	120.28
26	BB	2511	U	O3'-P-O5'	-7.16	93.27	104.00
44	BT	43	ASN	CA-CB-CG	7.16	119.75	112.60
2	AB	35	C	C5'-C4'-O4'	7.15	120.53	109.80
8	AH	45	VAL	O-C-N	-7.15	114.20	122.07
17	AQ	72	PHE	CA-C-N	7.15	132.81	122.44
17	AQ	72	PHE	C-N-CA	7.15	132.81	122.44
26	BB	2730	C	C4'-C3'-C2'	-7.15	95.45	102.60
1	AA	317	U	P-O5'-C5'	7.15	131.63	120.90
29	BE	97	SER	CA-C-O	-7.15	110.29	120.51
18	AR	44	GLU	CA-C-O	-7.15	113.05	119.91
4	AD	58	A	O4'-C1'-C2'	-7.15	100.45	107.60
26	BB	119	A	O4'-C1'-C2'	-7.15	98.65	105.80
26	BB	2352	A	C5'-C4'-C3'	-7.15	105.28	116.00
32	BH	149	ALA	O-C-N	7.15	129.70	122.12
26	BB	16	C	C3'-C2'-C1'	7.15	108.45	101.30
26	BB	1486	U	O4'-C1'-N1	7.15	119.22	108.50
1	AA	1396	A	C5'-C4'-C3'	7.14	125.92	115.20
26	BB	805	G	O4'-C1'-N9	7.14	118.92	108.20
26	BB	1070	A	O4'-C4'-C3'	-7.14	98.95	106.10
16	AP	67	ASP	CA-CB-CG	-7.14	105.46	112.60
25	BA	82	U	O4'-C1'-N1	7.14	119.21	108.50
26	BB	1730	C	C3'-C2'-O2'	7.14	121.41	110.70
26	BB	2299	U	O4'-C1'-C2'	7.14	114.74	107.60
6	AF	96	VAL	N-CA-CB	-7.14	105.60	111.67
26	BB	1404	C	C3'-C2'-C1'	7.14	108.44	101.30
30	BF	125	SER	O-C-N	-7.14	116.39	123.46
25	BA	80	U	C3'-C2'-C1'	7.14	108.44	101.30
1	AA	130	A	C1'-O4'-C4'	-7.13	102.57	109.70
26	BB	1671	U	O3'-P-O5'	7.13	114.70	104.00
26	BB	1378	A	C3'-C2'-O2'	-7.13	103.91	114.60
1	AA	795	C	O3'-P-O5'	-7.13	93.31	104.00
26	BB	2699	C	O4'-C1'-N1	7.13	119.19	108.50
53	B2	25	ARG	NH1-CZ-NH2	-7.13	110.03	119.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2679	A	C5'-C4'-O4'	7.12	120.49	109.80
1	AA	825	A	O4'-C1'-C2'	-7.12	100.48	107.60
25	BA	69	G	O4'-C1'-C2'	-7.12	100.48	107.60
26	BB	234	U	C4'-C3'-C2'	-7.12	95.48	102.60
26	BB	815	C	C3'-C2'-C1'	7.12	108.42	101.30
1	AA	1000	A	O4'-C4'-C3'	-7.12	96.88	104.00
1	AA	1488	G	C3'-C2'-C1'	-7.12	94.18	101.30
1	AA	1538	C	C3'-C2'-O2'	7.12	121.37	110.70
26	BB	1274	A	O4'-C4'-C3'	7.12	111.12	104.00
26	BB	2542	A	C1'-O4'-C4'	-7.12	102.58	109.70
25	BA	7	G	O4'-C1'-C2'	-7.11	100.49	107.60
53	B2	30	HIS	CB-CG-CD2	-7.11	121.96	131.20
2	AB	49	G	O5'-C5'-C4'	7.11	122.16	111.50
9	AI	101	PRO	N-CA-CB	7.11	110.59	103.48
26	BB	727	A	O4'-C4'-C3'	7.11	111.11	104.00
26	BB	2843	G	C2'-C3'-O3'	-7.11	103.04	113.70
1	AA	202	G	O4'-C4'-C3'	7.11	111.11	104.00
26	BB	186	G	O4'-C4'-C3'	7.11	111.11	104.00
26	BB	1069	A	O4'-C1'-C2'	-7.11	98.69	105.80
40	BP	84	GLY	CA-C-O	-7.11	111.36	121.52
1	AA	504	C	C5'-C4'-C3'	-7.11	105.34	116.00
26	BB	1034	G	C2'-C3'-O3'	-7.11	103.04	113.70
26	BB	1404	C	C5'-C4'-C3'	-7.11	105.34	116.00
26	BB	16	C	C4'-C3'-C2'	-7.10	95.50	102.60
38	BN	29	LYS	CA-C-N	7.10	135.11	121.54
38	BN	29	LYS	C-N-CA	7.10	135.11	121.54
57	B6	29	ARG	NE-CZ-NH2	7.10	125.59	119.20
26	BB	664	G	O4'-C4'-C3'	7.10	111.10	104.00
26	BB	1611	C	C5'-C4'-O4'	7.10	120.45	109.80
26	BB	1761	C	C3'-C2'-O2'	-7.10	103.95	114.60
32	BH	169	ARG	NE-CZ-NH2	7.10	125.59	119.20
4	AD	28	U	C3'-C2'-C1'	7.10	108.40	101.30
25	BA	58	A	C4'-C3'-C2'	-7.10	95.50	102.60
26	BB	1784	A	O4'-C1'-N9	7.10	119.15	108.50
26	BB	2370	G	C4'-C3'-C2'	-7.10	95.50	102.60
26	BB	2518	A	O4'-C1'-C2'	-7.10	98.70	105.80
30	BF	191	ASP	N-CA-C	7.10	119.02	111.28
1	AA	706	A	C5'-C4'-O4'	7.10	120.44	109.80
1	AA	816	A	C3'-C2'-C1'	-7.10	94.40	101.50
26	BB	1069	A	C5'-C4'-O4'	7.10	119.74	109.10
26	BB	2446	G	C5'-C4'-O4'	7.10	120.44	109.80
42	BR	94	ALA	N-CA-C	7.10	120.05	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1058	U	C4'-C3'-C2'	-7.09	95.50	102.60
26	BB	1458	U	O4'-C4'-C3'	7.09	111.09	104.00
26	BB	2731	G	C3'-C2'-C1'	7.09	108.39	101.30
26	BB	1130	U	C2'-C3'-O3'	7.09	120.14	109.50
41	BQ	106	LEU	N-CA-CB	-7.09	99.63	110.20
2	AB	70	C	C3'-C2'-C1'	-7.09	94.21	101.30
26	BB	611	C	P-O3'-C3'	7.09	130.84	120.20
26	BB	2845	U	O5'-C5'-C4'	7.09	122.14	111.50
5	AE	138	ARG	NE-CZ-NH2	7.09	125.58	119.20
7	AG	163	GLN	CA-C-O	7.09	128.69	120.32
16	AP	71	GLU	CA-C-O	-7.09	113.03	120.55
26	BB	797	G	C4'-C3'-C2'	-7.09	95.51	102.60
48	BX	15	GLY	CA-C-O	-7.09	113.34	121.00
26	BB	2564	A	O4'-C1'-N9	7.09	119.13	108.50
45	BU	33	LEU	N-CA-C	7.09	120.04	111.82
26	BB	2816	G	C5'-C4'-O4'	7.09	120.43	109.80
26	BB	356	G	C4'-C3'-O3'	7.08	123.63	113.00
26	BB	2749	A	O4'-C4'-C3'	7.08	111.08	104.00
1	AA	1418	A	O4'-C4'-C3'	7.08	111.08	104.00
26	BB	1639	C	O4'-C4'-C3'	7.08	111.08	104.00
26	BB	2060	A	O4'-C4'-C3'	7.08	113.18	106.10
26	BB	382	A	O4'-C4'-C3'	-7.08	96.92	104.00
26	BB	2875	C	O4'-C4'-C3'	7.08	111.08	104.00
16	AP	28	ARG	NE-CZ-NH1	-7.08	114.42	121.50
16	AP	65	GLU	CA-C-N	7.08	128.99	120.14
16	AP	65	GLU	C-N-CA	7.08	128.99	120.14
26	BB	2543	G	C1'-O4'-C4'	7.08	116.98	109.90
35	BK	131	THR	CA-C-N	7.08	129.77	120.28
35	BK	131	THR	C-N-CA	7.08	129.77	120.28
1	AA	963	G	C4'-C3'-C2'	-7.08	95.52	102.60
1	AA	1418	A	C1'-O4'-C4'	-7.08	102.83	109.90
26	BB	2825	G	C4'-C3'-C2'	-7.08	95.52	102.60
1	AA	619	U	N1-C1'-C2'	7.07	122.61	112.00
26	BB	1555	G	O4'-C4'-C3'	7.07	111.07	104.00
9	AI	58	HIS	CB-CG-CD2	-7.07	122.01	131.20
28	BD	242	HIS	CB-CG-CD2	-7.07	122.01	131.20
1	AA	529	G	O4'-C4'-C3'	7.07	111.07	104.00
1	AA	687	A	C1'-C2'-O2'	7.07	122.40	111.80
26	BB	2746	U	C4'-C3'-C2'	-7.07	95.53	102.60
1	AA	563	A	C3'-C2'-C1'	7.07	108.37	101.30
1	AA	902	G	C3'-C2'-C1'	-7.07	94.23	101.30
26	BB	707	G	O4'-C1'-N9	7.07	119.10	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1973	G	O3'-P-O5'	-7.07	93.40	104.00
33	BI	18	GLN	O-C-N	7.07	131.31	123.04
1	AA	1106	G	C3'-C2'-O2'	7.06	121.30	110.70
26	BB	1029	A	C5'-C4'-C3'	-7.06	105.40	116.00
26	BB	2439	A	C2'-C3'-O3'	-7.06	103.10	113.70
4	AD	50	G	O4'-C4'-C3'	7.06	111.06	104.00
26	BB	663	G	C2'-C3'-O3'	-7.06	103.11	113.70
26	BB	2019	A	C2'-C3'-O3'	7.06	124.30	113.70
1	AA	1401	G	C5'-C4'-C3'	-7.06	105.41	116.00
26	BB	2116	G	C4'-C3'-C2'	-7.06	95.54	102.60
26	BB	549	G	O4'-C1'-C2'	7.06	112.86	105.80
26	BB	698	C	O4'-C1'-N1	7.06	119.09	108.50
26	BB	2439	A	C4'-C3'-O3'	7.06	123.59	113.00
2	AB	33	U	C4'-C3'-C2'	-7.06	95.54	102.60
20	AT	49	ASN	CA-CB-CG	7.06	119.66	112.60
26	BB	666	A	O4'-C1'-C2'	7.06	114.66	107.60
26	BB	1728	C	C4'-C3'-C2'	-7.06	95.54	102.60
27	BC	78	PHE	CA-C-N	7.06	134.53	121.62
27	BC	78	PHE	C-N-CA	7.06	134.53	121.62
55	B4	18	HIS	CA-CB-CG	7.06	120.86	113.80
1	AA	141	G	O4'-C4'-C3'	7.06	111.06	104.00
1	AA	320	A	C5'-C4'-C3'	-7.06	105.42	116.00
1	AA	730	G	O4'-C1'-N9	7.06	119.08	108.50
26	BB	762	U	O4'-C1'-C2'	-7.06	98.74	105.80
27	BC	219	GLY	O-C-N	-7.06	115.32	122.59
14	AN	6	ARG	CA-C-N	7.05	130.85	120.90
14	AN	6	ARG	C-N-CA	7.05	130.85	120.90
26	BB	2010	G	C1'-O4'-C4'	-7.05	102.84	109.90
1	AA	680	C	O4'-C4'-C3'	7.05	111.05	104.00
16	AP	90	HIS	CB-CG-CD2	-7.05	122.03	131.20
26	BB	1701	A	O4'-C1'-C2'	-7.05	100.55	107.60
7	AG	167	PRO	N-CA-CB	7.05	109.48	103.35
26	BB	2442	C	O4'-C1'-N1	7.05	119.08	108.50
26	BB	2326	C	O4'-C1'-N1	7.05	119.07	108.50
15	AO	8	ARG	NE-CZ-NH2	-7.05	112.86	119.20
1	AA	561	U	C3'-C2'-C1'	7.04	108.34	101.30
1	AA	1364	U	C3'-C2'-O2'	7.04	121.27	110.70
26	BB	2333	A	C5'-C4'-C3'	-7.04	104.63	115.20
31	BG	5	ASP	CA-CB-CG	7.04	119.64	112.60
26	BB	1156	A	C4'-C3'-O3'	7.04	119.97	109.40
1	AA	862	C	C1'-O4'-C4'	-7.04	102.86	109.90
26	BB	709	U	C5'-C4'-C3'	-7.04	105.44	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	54	C	O4'-C1'-N1	7.04	119.06	108.50
30	BF	75	SER	O-C-N	7.04	128.10	121.27
1	AA	662	U	C4'-C3'-C2'	-7.04	95.56	102.60
26	BB	992	C	O5'-C5'-C4'	-7.04	100.94	111.50
26	BB	1056	G	C4'-C3'-O3'	7.04	123.56	113.00
26	BB	81	G	O4'-C1'-C2'	-7.04	100.56	107.60
26	BB	378	C	C5'-C4'-O4'	7.04	120.35	109.80
26	BB	2236	U	O4'-C1'-N1	7.04	119.05	108.50
1	AA	757	U	O4'-C4'-C3'	7.03	111.03	104.00
5	AE	192	PRO	CA-C-N	7.03	130.70	120.71
5	AE	192	PRO	C-N-CA	7.03	130.70	120.71
26	BB	2843	G	C4'-C3'-O3'	7.03	123.55	113.00
26	BB	428	A	O4'-C1'-C2'	-7.03	98.77	105.80
26	BB	2008	C	C4'-C3'-C2'	-7.03	95.57	102.60
1	AA	707	U	O3'-P-O5'	-7.03	93.45	104.00
1	AA	67	C	C1'-O4'-C4'	-7.03	102.88	109.90
1	AA	280	C	C5'-C4'-O4'	7.03	119.64	109.10
1	AA	958	A	C5'-C4'-C3'	-7.03	105.46	116.00
16	AP	93	GLY	CA-C-O	7.03	126.79	119.27
26	BB	546	U	C4'-C3'-O3'	-7.03	102.46	113.00
26	BB	1863	G	C4'-C3'-O3'	-7.03	102.46	113.00
2	AB	41	C	C4'-C3'-C2'	-7.02	95.58	102.60
26	BB	1482	G	C4'-C3'-C2'	-7.02	95.58	102.60
35	BK	107	GLU	CA-C-N	7.02	129.41	120.56
35	BK	107	GLU	C-N-CA	7.02	129.41	120.56
5	AE	22	TRP	NE1-CE2-CD2	-7.02	98.27	107.40
26	BB	636	G	O3'-P-O5'	7.02	114.53	104.00
1	AA	37	U	N1-C1'-C2'	-7.02	101.47	112.00
48	BX	51	GLN	CA-C-N	7.02	130.98	120.31
48	BX	51	GLN	C-N-CA	7.02	130.98	120.31
1	AA	728	A	N9-C1'-C2'	7.02	122.53	112.00
50	BZ	5	GLN	CA-C-N	7.02	132.36	120.29
50	BZ	5	GLN	C-N-CA	7.02	132.36	120.29
1	AA	257	G	C4'-C3'-C2'	-7.02	95.58	102.60
1	AA	498	A	C1'-C2'-O2'	7.01	118.92	108.40
1	AA	1352	C	O4'-C4'-C3'	-7.01	96.99	104.00
26	BB	2511	U	C5'-C4'-O4'	7.01	120.32	109.80
1	AA	1453	G	O4'-C1'-N9	7.01	119.02	108.50
26	BB	2479	U	O3'-P-O5'	-7.01	93.48	104.00
25	BA	35	C	C4'-C3'-C2'	-7.01	95.59	102.60
26	BB	341	C	O4'-C4'-C3'	7.01	111.01	104.00
26	BB	1868	C	O4'-C1'-C2'	-7.01	100.59	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2739	U	C3'-C2'-C1'	7.01	108.31	101.30
26	BB	2756	U	P-O3'-C3'	7.01	130.72	120.20
29	BE	174	SER	N-CA-C	7.01	121.41	112.86
1	AA	121	U	O5'-C5'-C4'	-7.01	100.99	111.50
1	AA	279	A	P-O3'-C3'	7.01	130.71	120.20
1	AA	914	A	C4'-C3'-O3'	-7.01	102.49	113.00
7	AG	86	GLY	CA-C-O	-7.01	113.23	120.66
26	BB	112	U	C1'-O4'-C4'	-7.01	102.89	109.90
26	BB	472	A	O4'-C1'-N9	7.01	119.01	108.50
26	BB	771	G	O3'-P-O5'	-7.01	93.49	104.00
1	AA	1396	A	O4'-C1'-C2'	7.01	112.81	105.80
26	BB	731	C	O4'-C4'-C3'	7.01	111.01	104.00
26	BB	2047	C	C3'-C2'-C1'	7.00	108.31	101.30
1	AA	1542	A	C1'-C2'-O2'	7.00	118.90	108.40
11	AK	20	ASN	N-CA-C	7.00	121.41	112.86
26	BB	129	C	C4'-C3'-C2'	-7.00	95.60	102.60
1	AA	122	G	O4'-C1'-C2'	-7.00	100.60	107.60
16	AP	79	LEU	CA-C-N	7.00	130.36	120.28
16	AP	79	LEU	C-N-CA	7.00	130.36	120.28
26	BB	1639	C	C3'-C2'-C1'	7.00	108.30	101.30
26	BB	2430	A	N9-C1'-C2'	7.00	122.50	112.00
1	AA	1272	G	O4'-C4'-C3'	7.00	111.00	104.00
1	AA	1277	C	C1'-O4'-C4'	7.00	116.90	109.90
26	BB	2214	C	O3'-P-O5'	7.00	114.50	104.00
30	BF	106	LYS	CA-C-N	7.00	129.89	120.65
30	BF	106	LYS	C-N-CA	7.00	129.89	120.65
1	AA	1317	C	O4'-C1'-N1	7.00	118.99	108.50
4	AD	7	G	C4'-C3'-C2'	-7.00	95.60	102.60
32	BH	49	LEU	CA-C-N	7.00	132.85	122.99
32	BH	49	LEU	C-N-CA	7.00	132.85	122.99
1	AA	597	G	C4'-C3'-C2'	-7.00	95.61	102.60
26	BB	664	G	C1'-C2'-O2'	-7.00	97.91	108.40
57	B6	48	MET	CB-CA-C	7.00	122.81	110.36
6	AF	36	PHE	N-CA-C	6.99	118.55	111.07
1	AA	875	U	C4'-C3'-C2'	-6.99	95.61	102.60
26	BB	1085	A	P-O3'-C3'	6.99	130.69	120.20
33	BI	130	VAL	CB-CA-C	6.99	118.38	110.41
4	AD	49	C	C5'-C4'-C3'	-6.99	104.72	115.20
26	BB	478	A	N9-C1'-C2'	6.99	122.48	112.00
26	BB	80	G	O4'-C4'-C3'	6.99	110.99	104.00
26	BB	2059	A	C1'-O4'-C4'	-6.99	102.91	109.90
8	AH	125	LYS	CA-C-N	6.98	132.67	120.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	AH	125	LYS	C-N-CA	6.98	132.67	120.87
26	BB	534	U	C1'-O4'-C4'	6.98	116.88	109.90
24	AX	12	ASP	CA-CB-CG	-6.98	105.62	112.60
26	BB	264	C	O4'-C1'-N1	6.98	118.97	108.50
41	BQ	72	ALA	CA-C-N	6.98	129.63	120.28
41	BQ	72	ALA	C-N-CA	6.98	129.63	120.28
1	AA	319	G	C5'-C4'-C3'	-6.98	105.53	116.00
1	AA	477	C	O3'-P-O5'	6.98	114.47	104.00
4	AD	7	G	C4'-C3'-O3'	6.98	119.86	109.40
26	BB	2014	A	O4'-C1'-C2'	6.98	114.58	107.60
26	BB	2293	G	O3'-P-O5'	6.98	114.47	104.00
26	BB	2627	G	O3'-P-O5'	-6.98	93.53	104.00
1	AA	1501	C	O4'-C4'-C3'	6.98	110.98	104.00
3	AC	18	A	C5'-C4'-O4'	6.98	120.26	109.80
26	BB	1444	G	C4'-C3'-C2'	-6.98	95.62	102.60
26	BB	140	C	O4'-C4'-C3'	6.97	113.08	106.10
26	BB	765	C	C3'-C2'-C1'	6.97	108.27	101.30
28	BD	80	LEU	CB-CA-C	6.97	121.49	110.19
1	AA	292	G	O4'-C4'-C3'	6.97	110.97	104.00
1	AA	690	G	C4'-C3'-C2'	-6.97	95.63	102.60
26	BB	2081	U	C4'-C3'-C2'	-6.97	95.63	102.60
26	BB	2680	U	C3'-C2'-C1'	6.97	108.27	101.30
26	BB	369	U	N1-C1'-C2'	-6.97	101.54	112.00
1	AA	772	U	C1'-C2'-O2'	6.97	118.85	108.40
26	BB	262	A	O4'-C4'-C3'	6.97	110.97	104.00
26	BB	1324	G	O4'-C1'-C2'	-6.97	98.83	105.80
26	BB	2320	U	N1-C1'-C2'	6.97	122.46	112.00
26	BB	2848	G	C3'-C2'-C1'	-6.97	94.53	101.50
1	AA	177	G	C3'-C2'-C1'	6.97	108.27	101.30
26	BB	875	G	C2'-C3'-O3'	-6.97	103.25	113.70
26	BB	183	C	C1'-O4'-C4'	-6.97	102.93	109.90
1	AA	1411	C	O4'-C1'-N1	6.96	118.95	108.50
26	BB	570	G	C1'-O4'-C4'	-6.96	102.73	109.70
5	AE	209	VAL	CA-C-N	6.96	130.18	120.29
5	AE	209	VAL	C-N-CA	6.96	130.18	120.29
30	BF	176	ASP	CA-C-N	6.96	126.67	119.64
30	BF	176	ASP	C-N-CA	6.96	126.67	119.64
1	AA	816	A	O4'-C1'-N9	6.96	118.64	108.20
26	BB	82	U	O4'-C1'-C2'	-6.96	100.64	107.60
26	BB	160	A	P-O5'-C5'	6.96	131.34	120.90
26	BB	439	A	C4'-C3'-C2'	-6.96	95.64	102.60
26	BB	2842	G	P-O5'-C5'	6.96	131.34	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BC	67	HIS	O-C-N	-6.96	115.08	123.29
1	AA	518	C	O4'-C1'-N1	6.96	118.64	108.20
1	AA	741	G	O4'-C4'-C3'	6.96	110.96	104.00
1	AA	1415	G	O4'-C1'-C2'	-6.96	100.64	107.60
26	BB	624	C	O4'-C1'-C2'	-6.96	100.64	107.60
26	BB	1677	A	P-O5'-C5'	6.96	131.34	120.90
9	AI	123	ASP	CA-C-N	6.96	130.88	120.31
9	AI	123	ASP	C-N-CA	6.96	130.88	120.31
42	BR	27	VAL	CB-CA-C	6.96	119.38	110.96
26	BB	420	C	C4'-C3'-C2'	-6.95	95.65	102.60
26	BB	228	C	N1-C1'-C2'	-6.95	103.58	114.00
26	BB	2496	C	C3'-C2'-C1'	6.95	108.25	101.30
48	BX	77	VAL	CA-C-N	6.95	132.31	122.72
48	BX	77	VAL	C-N-CA	6.95	132.31	122.72
53	B2	43	PHE	CA-C-N	6.95	132.14	120.88
53	B2	43	PHE	C-N-CA	6.95	132.14	120.88
1	AA	694	A	O4'-C1'-C2'	-6.95	100.65	107.60
25	BA	55	U	C5'-C4'-C3'	-6.95	105.58	116.00
26	BB	2163	A	N9-C1'-C2'	-6.95	101.58	112.00
26	BB	1128	G	C1'-C2'-O2'	6.95	122.22	111.80
26	BB	1878	G	C4'-C3'-C2'	-6.95	95.65	102.60
1	AA	1246	A	C4'-C3'-C2'	-6.95	95.65	102.60
26	BB	674	G	O4'-C4'-C3'	6.95	110.95	104.00
26	BB	2456	C	O4'-C1'-C2'	-6.95	100.66	107.60
7	AG	68	GLU	CA-C-N	6.94	129.59	120.28
7	AG	68	GLU	C-N-CA	6.94	129.59	120.28
1	AA	576	C	C3'-C2'-O2'	-6.94	104.19	114.60
11	AK	14	ARG	N-CA-C	6.94	118.54	110.97
26	BB	1759	A	O4'-C1'-C2'	-6.94	100.66	107.60
1	AA	737	C	O4'-C4'-C3'	6.94	110.94	104.00
26	BB	1950	G	O4'-C4'-C3'	6.94	110.94	104.00
26	BB	2779	U	P-O5'-C5'	6.94	131.31	120.90
27	BC	105	LYS	N-CA-C	6.94	118.64	111.14
27	BC	10	VAL	CA-C-N	6.94	130.27	120.42
27	BC	10	VAL	C-N-CA	6.94	130.27	120.42
26	BB	455	C	O4'-C1'-N1	-6.94	98.09	108.50
26	BB	2039	U	C2'-C3'-O3'	-6.94	103.29	113.70
49	BY	45	HIS	CA-C-O	-6.94	113.82	121.87
1	AA	1110	A	C1'-C2'-O2'	6.94	118.80	108.40
26	BB	308	G	O4'-C1'-C2'	-6.93	100.67	107.60
26	BB	1324	G	O4'-C1'-N9	6.93	118.60	108.20
26	BB	847	U	N1-C1'-C2'	6.93	122.40	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	716	A	O4'-C4'-C3'	6.93	110.93	104.00
26	BB	2077	A	O4'-C1'-N9	6.93	118.89	108.50
55	B4	18	HIS	CB-CG-CD2	-6.93	122.19	131.20
26	BB	1098	A	C5'-C4'-O4'	6.93	120.19	109.80
26	BB	1587	G	C4'-C3'-C2'	-6.93	95.67	102.60
26	BB	1905	C	O4'-C1'-N1	6.93	118.89	108.50
26	BB	2469	A	C5'-C4'-O4'	6.93	120.19	109.80
30	BF	69	ARG	NH1-CZ-NH2	-6.93	110.30	119.30
50	BZ	9	LYS	O-C-N	6.93	130.70	122.94
1	AA	974	A	C1'-O4'-C4'	-6.92	102.78	109.70
19	AS	57	ILE	CA-C-O	-6.92	113.75	120.95
26	BB	941	A	C1'-O4'-C4'	-6.92	102.97	109.90
26	BB	670	A	O3'-P-O5'	-6.92	93.62	104.00
26	BB	2062	A	O5'-C5'-C4'	6.92	122.08	111.70
26	BB	2648	G	O4'-C1'-N9	6.92	118.88	108.50
47	BW	88	ASP	O-C-N	-6.92	114.82	122.92
1	AA	1268	G	O4'-C4'-C3'	6.92	110.92	104.00
6	AF	87	ARG	N-CA-C	6.92	120.98	112.54
26	BB	1768	C	C1'-O4'-C4'	-6.92	102.98	109.90
43	BS	114	ALA	CA-C-N	6.92	132.27	120.72
43	BS	114	ALA	C-N-CA	6.92	132.27	120.72
1	AA	634	C	O4'-C1'-C2'	-6.91	100.69	107.60
1	AA	1066	C	C4'-C3'-C2'	6.91	109.51	102.60
1	AA	1283	U	C3'-C2'-C1'	6.91	108.21	101.30
26	BB	636	G	O4'-C4'-C3'	6.91	110.91	104.00
29	BE	160	LYS	N-CA-C	6.91	120.12	108.23
26	BB	1462	C	C1'-O4'-C4'	-6.91	102.99	109.90
26	BB	1788	C	C4'-C3'-C2'	-6.91	95.69	102.60
26	BB	1912	A	O4'-C4'-C3'	6.91	110.91	104.00
26	BB	2894	G	C3'-C2'-O2'	6.91	121.06	110.70
29	BE	194	PRO	CA-C-O	-6.91	113.31	121.95
26	BB	1906	G	C4'-C3'-C2'	-6.91	95.69	102.60
18	AR	36	ASN	CA-C-N	6.91	129.42	120.44
18	AR	36	ASN	C-N-CA	6.91	129.42	120.44
26	BB	2704	C	O4'-C4'-C3'	6.91	110.91	104.00
41	BQ	59	ALA	CA-C-N	6.91	132.39	120.58
41	BQ	59	ALA	C-N-CA	6.91	132.39	120.58
49	BY	40	ARG	CD-NE-CZ	6.91	134.07	124.40
6	AF	76	ILE	CA-C-N	6.90	134.94	121.41
6	AF	76	ILE	C-N-CA	6.90	134.94	121.41
26	BB	2342	C	O3'-P-O5'	6.90	114.35	104.00
1	AA	1340	A	O4'-C4'-C3'	6.90	110.90	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	703	U	O4'-C4'-C3'	-6.90	97.10	104.00
26	BB	1674	G	O4'-C1'-N9	6.90	118.55	108.20
34	BJ	131	TYR	N-CA-C	6.90	119.68	111.33
7	AG	197	HIS	CB-CG-CD2	-6.90	122.23	131.20
3	AC	27	A	O4'-C1'-C2'	-6.90	100.70	107.60
7	AG	50	TYR	CA-C-N	6.90	127.60	119.94
7	AG	50	TYR	C-N-CA	6.90	127.60	119.94
26	BB	1095	A	O4'-C4'-C3'	6.90	110.90	104.00
1	AA	407	U	C4'-C3'-O3'	-6.89	102.66	113.00
1	AA	1311	A	C4'-C3'-C2'	-6.89	95.70	102.60
1	AA	1348	U	O4'-C1'-N1	6.89	118.84	108.50
26	BB	1446	C	C2'-C3'-O3'	-6.89	103.36	113.70
26	BB	1577	C	O4'-C4'-C3'	6.89	110.89	104.00
40	BP	3	HIS	CA-CB-CG	6.89	120.69	113.80
1	AA	461	A	N9-C1'-C2'	6.89	122.34	112.00
8	AH	72	ASN	CA-CB-CG	6.89	119.49	112.60
25	BA	63	C	C1'-O4'-C4'	-6.89	103.01	109.90
26	BB	303	G	C3'-C2'-C1'	-6.89	94.41	101.30
30	BF	40	ARG	NE-CZ-NH2	-6.89	113.00	119.20
1	AA	343	U	O4'-C4'-C3'	6.89	110.89	104.00
1	AA	1219	A	C5'-C4'-C3'	-6.89	105.67	116.00
26	BB	803	U	C3'-C2'-C1'	6.89	108.19	101.30
28	BD	184	GLU	CA-C-O	-6.89	113.57	121.15
29	BE	204	LYS	CA-C-N	6.89	126.93	119.90
29	BE	204	LYS	C-N-CA	6.89	126.93	119.90
1	AA	192	A	P-O5'-C5'	6.89	131.23	120.90
10	AJ	161	PHE	CA-C-N	6.89	130.20	120.28
10	AJ	161	PHE	C-N-CA	6.89	130.20	120.28
26	BB	1491	G	C2'-C3'-O3'	6.89	124.03	113.70
1	AA	906	A	C4'-C3'-C2'	-6.89	95.71	102.60
12	AL	44	ARG	NE-CZ-NH2	-6.89	113.00	119.20
26	BB	1178	C	O4'-C1'-N1	6.89	118.83	108.50
26	BB	1809	A	C3'-C2'-C1'	6.89	108.19	101.30
13	AM	54	SER	CA-C-N	6.88	126.40	119.24
13	AM	54	SER	C-N-CA	6.88	126.40	119.24
19	AS	14	ARG	CA-C-N	6.88	126.64	119.76
19	AS	14	ARG	C-N-CA	6.88	126.64	119.76
26	BB	1332	G	O4'-C1'-C2'	-6.88	100.72	107.60
26	BB	1580	A	C3'-C2'-O2'	6.88	121.03	110.70
26	BB	2207	C	C4'-C3'-C2'	-6.88	95.72	102.60
48	BX	43	ASP	CA-CB-CG	-6.88	105.72	112.60
26	BB	862	G	C4'-C3'-O3'	-6.88	102.68	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2331	G	P-O3'-C3'	6.88	130.52	120.20
26	BB	289	G	C3'-C2'-C1'	-6.88	94.42	101.30
26	BB	8	C	C1'-O4'-C4'	-6.88	103.02	109.90
26	BB	20	C	C5'-C4'-O4'	6.88	120.12	109.80
1	AA	649	A	C3'-C2'-C1'	6.88	108.18	101.30
22	AV	57	VAL	O-C-N	6.88	128.06	121.11
10	AJ	105	GLU	CA-C-N	6.88	130.05	120.29
10	AJ	105	GLU	C-N-CA	6.88	130.05	120.29
26	BB	2295	C	O5'-C5'-C4'	6.88	121.81	111.50
6	AF	130	ARG	CD-NE-CZ	6.87	134.02	124.40
25	BA	97	C	O4'-C1'-N1	6.87	118.81	108.50
26	BB	1669	A	O5'-C5'-C4'	6.87	121.81	111.50
45	BU	7	HIS	CB-CG-CD2	-6.87	122.26	131.20
1	AA	931	C	C5'-C4'-O4'	6.87	120.11	109.80
26	BB	2321	U	C4'-C3'-C2'	6.87	109.47	102.60
26	BB	2352	A	O4'-C4'-C3'	6.87	110.87	104.00
27	BC	10	VAL	N-CA-C	6.87	117.63	110.62
32	BH	124	CYS	CA-C-N	6.87	126.34	118.85
32	BH	124	CYS	C-N-CA	6.87	126.34	118.85
37	BM	103	VAL	O-C-N	-6.87	115.44	123.00
26	BB	2569	G	C3'-C2'-C1'	6.87	108.17	101.30
26	BB	2696	U	O5'-C5'-C4'	-6.87	101.20	111.50
26	BB	2327	A	C4'-C3'-C2'	-6.87	95.73	102.60
1	AA	1326	U	O4'-C1'-N1	6.86	118.80	108.50
4	AD	13	C	O4'-C4'-C3'	6.86	110.86	104.00
26	BB	807	U	O4'-C1'-N1	6.86	118.79	108.50
32	BH	83	THR	N-CA-C	6.86	119.16	110.24
26	BB	708	G	O4'-C1'-N9	6.86	118.79	108.50
4	AD	69	C	C4'-C3'-O3'	6.86	123.29	113.00
1	AA	969	A	C5'-C4'-C3'	-6.85	104.92	115.20
10	AJ	29	LEU	CA-C-N	6.85	130.55	120.95
10	AJ	29	LEU	C-N-CA	6.85	130.55	120.95
26	BB	2165	C	C4'-C3'-C2'	-6.85	95.75	102.60
26	BB	1504	A	C4'-C3'-C2'	-6.85	95.75	102.60
27	BC	29	LEU	O-C-N	6.85	129.49	122.09
1	AA	1369	C	O4'-C1'-N1	6.85	118.78	108.50
25	BA	100	G	C1'-C2'-O2'	6.85	118.68	108.40
1	AA	1141	C	O4'-C4'-C3'	6.85	110.85	104.00
26	BB	249	C	O4'-C1'-C2'	6.85	112.65	105.80
26	BB	2225	A	O4'-C4'-C3'	-6.85	99.25	106.10
1	AA	1059	C	C4'-C3'-C2'	-6.85	95.75	102.60
22	AV	29	PRO	N-CA-CB	6.85	109.35	103.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	89	U	C2'-C3'-O3'	6.85	123.97	113.70
1	AA	996	A	P-O3'-C3'	6.85	130.47	120.20
26	BB	76	C	C5'-C4'-O4'	6.84	120.07	109.80
26	BB	2117	A	C4'-C3'-C2'	-6.84	95.76	102.60
32	BH	41	GLU	N-CA-CB	-6.84	99.83	110.57
1	AA	1388	C	C5'-C4'-C3'	-6.84	105.74	116.00
18	AR	76	ARG	NE-CZ-NH2	-6.84	113.04	119.20
26	BB	589	U	C4'-C3'-C2'	-6.84	95.76	102.60
26	BB	2183	A	C4'-C3'-O3'	-6.84	102.74	113.00
1	AA	929	G	C4'-C3'-C2'	-6.84	95.76	102.60
23	AW	69	ASN	OD1-CG-ND2	-6.84	115.76	122.60
26	BB	2044	C	O4'-C1'-N1	6.84	118.76	108.50
52	B1	22	THR	CA-CB-CG2	6.84	122.13	110.50
1	AA	477	C	C1'-C2'-O2'	6.84	118.66	108.40
1	AA	505	G	C5'-C4'-C3'	-6.84	105.74	116.00
1	AA	1015	G	P-O5'-C5'	6.84	131.16	120.90
26	BB	2088	A	C3'-C2'-C1'	-6.84	94.46	101.30
34	BJ	29	SER	CA-C-O	-6.84	110.73	120.51
49	BY	56	HIS	ND1-CE1-NE2	6.84	115.24	108.40
26	BB	2684	U	C3'-C2'-O2'	6.83	120.95	110.70
31	BG	107	VAL	CA-C-N	6.83	126.53	119.56
31	BG	107	VAL	C-N-CA	6.83	126.53	119.56
1	AA	772	U	C5'-C4'-O4'	6.83	120.05	109.80
13	AM	31	ARG	NE-CZ-NH2	-6.83	113.05	119.20
23	AW	25	SER	O-C-N	6.83	129.10	122.07
25	BA	92	C	O4'-C1'-N1	6.83	118.75	108.50
26	BB	292	U	C1'-C2'-O2'	6.83	118.64	108.40
1	AA	17	U	O4'-C1'-N1	6.83	118.74	108.50
1	AA	122	G	O4'-C1'-N9	6.83	118.74	108.50
1	AA	639	G	O4'-C4'-C3'	6.83	110.83	104.00
1	AA	879	C	C2'-C3'-O3'	6.83	123.94	113.70
26	BB	1604	C	C3'-C2'-C1'	6.83	108.13	101.30
26	BB	2635	A	O4'-C1'-N9	6.83	118.74	108.50
1	AA	230	G	C3'-C2'-C1'	-6.83	94.47	101.30
3	AC	28	U	O4'-C1'-N1	6.83	118.74	108.50
51	B0	55	THR	CA-C-O	-6.83	112.39	120.10
27	BC	9	ARG	CD-NE-CZ	6.82	133.95	124.40
38	BN	23	ILE	N-CA-CB	-6.82	102.91	112.12
43	BS	45	ALA	CA-C-O	-6.82	113.60	120.90
1	AA	1388	C	O4'-C1'-C2'	-6.82	100.78	107.60
26	BB	25	U	O4'-C1'-C2'	6.82	114.42	107.60
26	BB	1925	C	C5'-C4'-O4'	6.82	120.03	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	BO	133	LYS	N-CA-C	6.82	118.72	111.28
1	AA	700	G	C5'-C4'-O4'	6.82	120.03	109.80
1	AA	829	G	C1'-O4'-C4'	6.82	116.72	109.90
3	AC	59	A	C4'-C3'-O3'	-6.82	99.17	109.40
26	BB	1008	A	C4'-C3'-O3'	6.82	119.63	109.40
26	BB	1725	U	N1-C1'-C2'	6.82	122.23	112.00
26	BB	177	G	O3'-P-O5'	-6.82	93.77	104.00
26	BB	2107	G	O4'-C1'-C2'	-6.82	100.78	107.60
26	BB	2867	G	P-O3'-C3'	6.82	130.43	120.20
26	BB	2237	G	O4'-C1'-N9	6.82	118.72	108.50
44	BT	28	ALA	CA-C-N	6.82	129.74	120.54
44	BT	28	ALA	C-N-CA	6.82	129.74	120.54
46	BV	65	GLY	CA-C-N	6.82	134.72	121.63
46	BV	65	GLY	C-N-CA	6.82	134.72	121.63
50	BZ	19	HIS	CB-CG-CD2	-6.82	122.34	131.20
1	AA	1125	U	C3'-C2'-C1'	6.81	108.31	101.50
26	BB	2722	G	C4'-C3'-O3'	-6.81	102.78	113.00
58	B7	2	LYS	CB-CA-C	6.81	121.64	109.38
26	BB	2059	A	C4'-C3'-C2'	-6.81	95.79	102.60
42	BR	55	HIS	CB-CG-ND1	6.81	132.91	122.70
1	AA	927	G	C3'-C2'-O2'	6.81	120.91	110.70
1	AA	1316	G	P-O3'-C3'	6.81	130.41	120.20
30	BF	31	VAL	CB-CA-C	6.81	120.68	111.97
26	BB	2352	A	C1'-C2'-O2'	6.81	118.61	108.40
32	BH	113	ASP	CA-CB-CG	6.81	119.41	112.60
1	AA	1494	G	C5'-C4'-C3'	-6.80	105.79	116.00
26	BB	2214	C	C3'-C2'-O2'	6.80	120.91	110.70
27	BC	29	LEU	CA-C-O	-6.80	113.69	120.70
27	BC	75	VAL	O-C-N	6.80	130.71	122.95
30	BF	29	HIS	CB-CG-CD2	-6.80	122.36	131.20
26	BB	1881	C	O4'-C4'-C3'	6.80	110.80	104.00
26	BB	2253	G	C4'-C3'-O3'	6.80	123.20	113.00
26	BB	2791	G	C5'-C4'-O4'	6.80	120.00	109.80
26	BB	2857	G	O4'-C1'-N9	6.80	118.70	108.50
24	AX	39	LYS	CA-C-N	6.80	127.07	119.32
24	AX	39	LYS	C-N-CA	6.80	127.07	119.32
26	BB	1401	G	C3'-C2'-O2'	6.80	120.90	110.70
3	AC	24	A	C4'-C3'-O3'	-6.80	102.81	113.00
26	BB	494	G	O4'-C1'-C2'	-6.80	100.80	107.60
47	BW	23	LYS	CA-C-N	6.80	130.36	120.91
47	BW	23	LYS	C-N-CA	6.80	130.36	120.91
26	BB	479	A	C2'-C3'-O3'	6.79	119.69	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1131	G	C5'-C4'-C3'	-6.79	105.81	116.00
26	BB	335	C	C5'-C4'-O4'	6.79	119.99	109.80
26	BB	2106	U	C3'-C2'-O2'	6.79	120.89	110.70
26	BB	2310	C	C5'-C4'-C3'	-6.79	105.81	116.00
30	BF	29	HIS	ND1-CG-CD2	6.79	112.89	106.10
56	B5	16	HIS	ND1-CG-CD2	6.79	112.89	106.10
26	BB	1667	G	O3'-P-O5'	-6.79	93.81	104.00
1	AA	1466	C	O4'-C1'-C2'	-6.79	100.81	107.60
1	AA	7	A	C3'-C2'-C1'	6.79	108.09	101.30
11	AK	36	ALA	CA-C-N	6.79	129.37	120.28
11	AK	36	ALA	C-N-CA	6.79	129.37	120.28
26	BB	38	A	C1'-O4'-C4'	-6.79	103.11	109.90
1	AA	932	C	C4'-C3'-C2'	-6.78	95.82	102.60
26	BB	377	G	O4'-C1'-C2'	-6.78	100.82	107.60
26	BB	518	G	C1'-O4'-C4'	6.78	116.68	109.90
21	AU	65	SER	CB-CA-C	6.78	122.22	111.51
26	BB	933	A	C5'-C4'-C3'	-6.78	105.83	116.00
26	BB	1341	G	N9-C1'-C2'	-6.78	103.83	114.00
26	BB	2350	C	O4'-C1'-N1	6.78	118.67	108.50
26	BB	2595	G	O4'-C4'-C3'	6.78	110.78	104.00
46	BV	70	HIS	CA-CB-CG	6.78	120.58	113.80
26	BB	1710	G	C1'-O4'-C4'	-6.78	103.12	109.90
1	AA	866	C	O4'-C1'-C2'	-6.78	100.82	107.60
1	AA	1362	A	O4'-C1'-N9	6.78	118.37	108.20
23	AW	11	ILE	CA-C-N	6.78	129.36	120.28
23	AW	11	ILE	C-N-CA	6.78	129.36	120.28
30	BF	75	SER	CA-C-O	-6.78	113.45	120.02
34	BJ	24	ALA	CA-C-N	6.78	132.58	122.75
34	BJ	24	ALA	C-N-CA	6.78	132.58	122.75
34	BJ	58	LEU	CA-C-N	6.78	129.36	120.28
34	BJ	58	LEU	C-N-CA	6.78	129.36	120.28
46	BV	14	PRO	N-CA-CB	6.78	109.64	103.34
1	AA	1062	U	O4'-C1'-N1	6.78	118.66	108.50
2	AB	13	C	C5'-C4'-C3'	-6.78	105.84	116.00
26	BB	166	U	C4'-C3'-C2'	-6.77	95.83	102.60
41	BQ	82	ALA	CA-C-N	6.77	130.61	120.31
41	BQ	82	ALA	C-N-CA	6.77	130.61	120.31
1	AA	174	A	C1'-C2'-O2'	6.77	118.56	108.40
1	AA	741	G	C3'-C2'-C1'	6.77	108.07	101.30
1	AA	857	C	C4'-C3'-C2'	-6.77	95.83	102.60
1	AA	1293	C	C1'-C2'-O2'	6.77	118.56	108.40
5	AE	27	LYS	CA-C-O	-6.77	112.10	118.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1224	U	O4'-C1'-N1	6.77	118.66	108.50
26	BB	1191	G	O4'-C4'-C3'	6.77	110.77	104.00
26	BB	2695	U	O4'-C4'-C3'	6.77	110.77	104.00
36	BL	33	ALA	CA-C-N	6.77	129.24	120.44
36	BL	33	ALA	C-N-CA	6.77	129.24	120.44
25	BA	52	A	C5'-C4'-C3'	-6.77	105.85	116.00
26	BB	444	C	O5'-C5'-C4'	-6.77	101.35	111.50
43	BS	38	VAL	CA-C-O	-6.77	113.91	120.95
1	AA	730	G	C2'-C3'-O3'	-6.77	103.55	113.70
1	AA	1101	A	C3'-C2'-O2'	-6.77	104.45	114.60
1	AA	1194	U	O4'-C4'-C3'	6.77	110.77	104.00
1	AA	1308	U	C4'-C3'-C2'	-6.77	95.83	102.60
26	BB	640	C	P-O5'-C5'	6.76	131.05	120.90
26	BB	1954	G	O4'-C1'-N9	6.76	118.35	108.20
26	BB	2295	C	O4'-C4'-C3'	6.76	110.76	104.00
1	AA	737	C	C5'-C4'-C3'	-6.76	105.86	116.00
23	AW	71	ALA	O-C-N	6.76	129.31	122.08
26	BB	1765	U	O4'-C4'-C3'	-6.76	97.24	104.00
1	AA	95	C	C5'-C4'-O4'	6.76	119.94	109.80
26	BB	2038	G	C4'-C3'-C2'	-6.76	95.84	102.60
18	AR	14	PHE	CA-CB-CG	6.76	120.56	113.80
26	BB	436	C	O4'-C4'-C3'	-6.76	97.24	104.00
26	BB	1193	G	C1'-C2'-O2'	6.76	118.54	108.40
26	BB	2238	G	O4'-C4'-C3'	6.76	112.86	106.10
1	AA	602	A	C4'-C3'-O3'	-6.76	102.87	113.00
1	AA	1000	A	O4'-C1'-C2'	6.76	114.36	107.60
20	AT	6	THR	N-CA-C	-6.76	97.19	108.75
26	BB	170	U	C3'-C2'-O2'	6.76	120.83	110.70
26	BB	1528	A	C4'-C3'-C2'	-6.76	95.84	102.60
26	BB	1652	A	C5'-C4'-C3'	-6.75	105.87	116.00
43	BS	98	ALA	CA-C-O	-6.75	113.74	120.70
26	BB	979	A	C1'-O4'-C4'	6.75	116.65	109.90
26	BB	1391	U	C1'-O4'-C4'	-6.75	102.95	109.70
26	BB	1994	C	P-O3'-C3'	6.75	130.33	120.20
26	BB	2181	U	C4'-C3'-C2'	-6.75	95.85	102.60
1	AA	1077	G	O3'-P-O5'	-6.75	93.87	104.00
26	BB	2501	C	O4'-C1'-C2'	-6.75	100.85	107.60
32	BH	131	VAL	CB-CA-C	6.75	119.77	110.99
26	BB	2132	U	N1-C1'-C2'	-6.75	101.88	112.00
1	AA	45	G	N9-C1'-C2'	-6.75	101.88	112.00
26	BB	430	A	C5'-C4'-C3'	-6.75	105.88	116.00
26	BB	1841	U	C4'-C3'-O3'	6.75	123.12	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	261	U	C4'-C3'-C2'	-6.75	95.86	102.60
1	AA	468	A	C4'-C3'-C2'	-6.75	95.86	102.60
26	BB	2374	C	C5'-C4'-O4'	6.75	119.92	109.80
26	BB	263	G	O4'-C1'-N9	6.74	118.61	108.50
46	BV	44	LYS	CA-C-N	6.74	129.21	120.44
46	BV	44	LYS	C-N-CA	6.74	129.21	120.44
1	AA	947	G	C4'-C3'-C2'	-6.74	95.86	102.60
2	AB	40	C	O4'-C1'-N1	6.74	118.61	108.50
30	BF	131	THR	O-C-N	6.74	129.26	122.12
46	BV	3	ARG	CA-C-N	6.74	130.44	120.87
46	BV	3	ARG	C-N-CA	6.74	130.44	120.87
26	BB	2170	A	C5'-C4'-C3'	-6.74	105.89	116.00
57	B6	42	HIS	CA-C-N	6.74	129.86	120.29
57	B6	42	HIS	C-N-CA	6.74	129.86	120.29
1	AA	676	A	O4'-C1'-C2'	-6.74	100.86	107.60
54	B3	37	HIS	CE1-NE2-CD2	-6.74	102.26	109.00
1	AA	1421	G	C4'-C3'-C2'	-6.73	95.87	102.60
1	AA	1525	G	C4'-C3'-C2'	-6.73	95.87	102.60
26	BB	2349	G	C2'-C3'-O3'	-6.73	103.60	113.70
26	BB	2426	A	C3'-C2'-O2'	-6.73	104.50	114.60
1	AA	153	C	O4'-C1'-C2'	-6.73	100.87	107.60
26	BB	2280	G	C4'-C3'-C2'	-6.73	95.87	102.60
1	AA	600	A	N9-C1'-C2'	-6.73	101.91	112.00
1	AA	754	C	C5'-C4'-C3'	-6.73	105.91	116.00
26	BB	735	A	C1'-O4'-C4'	-6.73	103.17	109.90
26	BB	2450	A	C2'-C3'-O3'	6.73	123.80	113.70
26	BB	2648	G	O4'-C1'-C2'	-6.73	100.87	107.60
53	B2	3	LYS	CA-C-N	6.73	129.97	120.28
53	B2	3	LYS	C-N-CA	6.73	129.97	120.28
26	BB	188	G	C3'-C2'-C1'	6.73	108.03	101.30
26	BB	1414	C	C4'-C3'-C2'	-6.73	95.87	102.60
26	BB	2044	C	O3'-P-O5'	-6.73	93.91	104.00
26	BB	2562	U	C1'-O4'-C4'	6.73	116.63	109.90
29	BE	67	HIS	CA-C-N	6.73	129.97	120.28
29	BE	67	HIS	C-N-CA	6.73	129.97	120.28
40	BP	60	VAL	N-CA-C	6.73	117.48	110.62
1	AA	387	U	O4'-C1'-N1	6.73	118.59	108.50
1	AA	352	C	C3'-C2'-C1'	6.72	108.03	101.30
1	AA	625	U	C4'-C3'-C2'	-6.72	95.88	102.60
1	AA	1227	A	C4'-C3'-C2'	-6.72	95.88	102.60
26	BB	252	G	O4'-C1'-N9	6.72	118.59	108.50
26	BB	1682	G	C4'-C3'-C2'	-6.72	95.88	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	AR	49	HIS	CB-CG-CD2	-6.72	122.46	131.20
26	BB	2816	G	C3'-C2'-O2'	6.72	120.78	110.70
38	BN	107	PHE	CA-C-N	6.72	132.48	123.00
38	BN	107	PHE	C-N-CA	6.72	132.48	123.00
46	BV	76	ARG	NE-CZ-NH1	-6.72	114.78	121.50
26	BB	821	A	C3'-C2'-C1'	6.72	108.02	101.30
26	BB	2887	A	C2'-C3'-O3'	6.72	123.78	113.70
1	AA	81	A	C4'-C3'-C2'	-6.72	95.88	102.60
1	AA	601	G	C1'-C2'-O2'	-6.72	98.32	108.40
26	BB	1142	A	P-O3'-C3'	6.72	130.28	120.20
26	BB	1701	A	C3'-C2'-C1'	6.72	108.02	101.30
26	BB	1440	U	C3'-C2'-O2'	6.72	120.77	110.70
30	BF	126	VAL	CA-C-N	6.72	130.19	120.38
30	BF	126	VAL	C-N-CA	6.72	130.19	120.38
1	AA	547	A	C3'-C2'-C1'	6.71	108.21	101.50
32	BH	62	ALA	CA-C-O	-6.71	113.77	120.82
25	BA	91	C	C5'-C4'-C3'	-6.71	105.93	116.00
46	BV	81	LYS	CA-C-N	6.71	132.46	122.99
46	BV	81	LYS	C-N-CA	6.71	132.46	122.99
1	AA	346	G	O3'-P-O5'	6.71	114.07	104.00
1	AA	851	G	C4'-C3'-C2'	-6.71	95.89	102.60
26	BB	2130	U	O4'-C1'-N1	6.71	118.57	108.50
10	AJ	152	HIS	CB-CG-CD2	-6.71	122.48	131.20
26	BB	810	U	C3'-C2'-C1'	6.71	108.01	101.30
26	BB	2257	U	O4'-C1'-N1	6.71	118.56	108.50
26	BB	2358	A	N9-C1'-C2'	6.71	122.06	112.00
50	BZ	33	HIS	CB-CG-CD2	-6.71	122.48	131.20
1	AA	1293	C	O5'-C5'-C4'	-6.71	101.44	111.50
3	AC	59	A	C4'-C3'-C2'	6.71	109.31	102.60
40	BP	38	LEU	CA-C-O	-6.71	112.35	118.79
26	BB	892	A	O3'-P-O5'	-6.71	93.94	104.00
26	BB	1459	G	O3'-P-O5'	6.71	114.06	104.00
1	AA	120	A	C4'-C3'-C2'	-6.70	95.90	102.60
1	AA	571	U	C5'-C4'-C3'	-6.70	105.94	116.00
5	AE	105	THR	N-CA-C	6.70	118.59	111.28
5	AE	135	MET	N-CA-C	-6.70	104.04	111.82
26	BB	1189	A	C5'-C4'-O4'	6.70	119.86	109.80
26	BB	2879	A	C3'-C2'-C1'	6.70	108.20	101.50
26	BB	201	C	C4'-C3'-C2'	-6.70	95.90	102.60
1	AA	63	C	C5'-C4'-O4'	6.70	119.85	109.80
26	BB	1761	C	C3'-C2'-C1'	-6.70	94.80	101.50
7	AG	187	ARG	CA-C-N	6.70	129.92	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	AG	187	ARG	C-N-CA	6.70	129.92	120.28
26	BB	1544	A	C5'-C4'-O4'	6.70	119.84	109.80
26	BB	47	C	N1-C1'-C2'	-6.69	101.96	112.00
26	BB	1107	G	O4'-C1'-C2'	-6.69	100.91	107.60
1	AA	406	G	C1'-O4'-C4'	6.69	116.59	109.90
1	AA	183	C	O4'-C4'-C3'	-6.69	97.31	104.00
1	AA	1356	G	C2'-C3'-O3'	-6.69	103.67	113.70
1	AA	1478	U	C4'-C3'-C2'	-6.69	95.91	102.60
26	BB	864	G	O5'-C5'-C4'	-6.69	101.47	111.50
25	BA	96	G	O4'-C4'-C3'	6.69	110.69	104.00
12	AL	90	ASP	CA-CB-CG	6.69	119.29	112.60
26	BB	987	C	O3'-P-O5'	6.69	114.03	104.00
26	BB	1769	U	P-O3'-C3'	6.69	130.23	120.20
26	BB	2189	U	N1-C1'-C2'	-6.69	101.97	112.00
26	BB	362	A	C5'-C4'-C3'	-6.69	105.97	116.00
1	AA	217	C	C4'-C3'-C2'	-6.68	95.92	102.60
6	AF	131	ARG	CD-NE-CZ	6.68	133.76	124.40
26	BB	363	G	C5'-C4'-C3'	-6.68	105.97	116.00
26	BB	2405	G	C4'-C3'-C2'	-6.68	95.92	102.60
26	BB	2717	C	C3'-C2'-O2'	6.68	120.73	110.70
26	BB	2810	A	C3'-C2'-O2'	6.68	120.73	110.70
34	BJ	5	GLN	CA-C-O	-6.68	111.02	119.31
3	AC	13	A	O4'-C1'-C2'	-6.68	100.92	107.60
7	AG	12	ARG	O-C-N	-6.68	114.05	122.27
9	AI	128	ASP	CA-CB-CG	6.68	119.28	112.60
11	AK	116	ARG	N-CA-C	-6.68	103.47	111.69
26	BB	2526	G	O4'-C1'-C2'	-6.68	100.92	107.60
1	AA	878	A	O3'-P-O5'	-6.68	93.98	104.00
26	BB	675	A	C4'-C3'-O3'	-6.68	102.98	113.00
26	BB	1836	C	C3'-C2'-C1'	6.68	107.98	101.30
1	AA	829	G	O4'-C1'-C2'	-6.68	100.92	107.60
8	AH	108	GLY	CA-C-N	6.68	133.56	122.54
8	AH	108	GLY	C-N-CA	6.68	133.56	122.54
26	BB	1229	C	O4'-C1'-N1	6.68	118.51	108.50
55	B4	27	ARG	NH1-CZ-NH2	-6.68	110.62	119.30
7	AG	106	PHE	CA-CB-CG	6.67	120.47	113.80
50	BZ	30	PRO	N-CA-C	6.67	121.70	111.15
1	AA	366	A	P-O3'-C3'	6.67	130.21	120.20
26	BB	2902	C	O4'-C1'-N1	6.67	118.51	108.50
1	AA	608	A	O3'-P-O5'	-6.67	93.99	104.00
25	BA	115	A	C4'-C3'-C2'	6.67	109.27	102.60
26	BB	1559	U	P-O3'-C3'	6.67	130.21	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B0	51	ALA	N-CA-C	6.67	118.21	111.07
26	BB	1943	U	C5'-C4'-C3'	6.67	125.20	115.20
1	AA	794	A	O4'-C1'-N9	6.67	118.50	108.50
26	BB	1102	C	C4'-C3'-C2'	-6.67	95.93	102.60
26	BB	2216	G	C4'-C3'-C2'	-6.67	95.93	102.60
1	AA	1263	C	O4'-C1'-C2'	-6.67	100.94	107.60
7	AG	24	VAL	N-CA-C	-6.67	106.30	112.96
26	BB	1975	G	O4'-C1'-C2'	6.67	114.27	107.60
24	AX	55	HIS	ND1-CG-CD2	6.66	112.76	106.10
26	BB	66	C	C4'-C3'-C2'	-6.66	95.94	102.60
26	BB	412	A	C3'-C2'-O2'	6.66	120.70	110.70
26	BB	2618	G	O3'-P-O5'	-6.66	94.00	104.00
26	BB	2015	A	O4'-C1'-N9	6.66	118.49	108.50
1	AA	1217	C	C3'-C2'-C1'	6.66	107.96	101.30
1	AA	1353	G	C4'-C3'-C2'	-6.66	95.94	102.60
23	AW	61	ALA	CA-C-O	-6.66	113.84	120.70
26	BB	627	A	P-O3'-C3'	6.66	130.19	120.20
43	BS	113	LYS	CB-CA-C	6.66	121.85	110.79
26	BB	41	C	O4'-C4'-C3'	-6.66	97.34	104.00
26	BB	1765	U	C3'-C2'-C1'	-6.66	94.64	101.30
26	BB	407	G	C5'-C4'-C3'	6.66	125.99	116.00
1	AA	375	U	O4'-C1'-C2'	-6.66	100.94	107.60
1	AA	1395	C	C5'-C4'-C3'	-6.66	106.02	116.00
3	AC	42	U	O3'-P-O5'	-6.66	94.02	104.00
26	BB	732	C	O4'-C1'-N1	6.66	118.48	108.50
26	BB	846	U	C1'-O4'-C4'	-6.66	103.04	109.70
26	BB	859	G	C3'-C2'-C1'	-6.66	94.84	101.50
26	BB	1682	G	O4'-C4'-C3'	6.66	110.66	104.00
39	BO	28	PHE	CA-CB-CG	6.66	120.46	113.80
23	AW	51	ASN	CA-C-O	-6.65	113.50	120.55
34	BJ	34	VAL	N-CA-C	6.65	117.41	110.62
1	AA	1346	A	C1'-C2'-O2'	6.65	121.78	111.80
25	BA	14	U	C4'-C3'-C2'	-6.65	95.95	102.60
26	BB	129	C	O4'-C1'-N1	6.65	118.48	108.50
26	BB	1693	U	C4'-C3'-C2'	-6.65	95.95	102.60
26	BB	2275	C	O4'-C1'-N1	6.65	118.48	108.50
28	BD	4	LYS	CA-C-N	6.65	130.16	120.71
28	BD	4	LYS	C-N-CA	6.65	130.16	120.71
31	BG	58	ALA	N-CA-C	6.65	119.36	111.71
45	BU	84	ARG	NE-CZ-NH1	-6.65	114.85	121.50
1	AA	120	A	O5'-C5'-C4'	-6.65	101.52	111.50
4	AD	69	C	C4'-C3'-C2'	-6.65	95.95	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	AH	59	ILE	CB-CA-C	6.65	120.48	111.97
26	BB	1382	G	N9-C1'-C2'	-6.65	102.03	112.00
26	BB	2749	A	O3'-P-O5'	-6.65	94.03	104.00
1	AA	262	A	C5'-C4'-O4'	6.65	119.77	109.80
1	AA	1000	A	C2'-C3'-O3'	-6.65	103.73	113.70
26	BB	250	G	C1'-O4'-C4'	-6.65	103.25	109.90
26	BB	1008	A	C1'-C2'-O2'	6.65	121.77	111.80
26	BB	2538	C	C4'-C3'-O3'	-6.65	103.03	113.00
47	BW	92	VAL	CA-C-N	6.65	130.15	120.71
47	BW	92	VAL	C-N-CA	6.65	130.15	120.71
48	BX	70	ILE	CA-C-O	-6.65	112.47	120.78
26	BB	390	U	O4'-C1'-N1	6.64	118.17	108.20
26	BB	714	U	C2'-C3'-O3'	6.64	123.66	113.70
26	BB	2026	U	O4'-C1'-N1	6.64	118.46	108.50
1	AA	862	C	O4'-C4'-C3'	6.64	110.64	104.00
1	AA	1286	U	O4'-C1'-N1	6.64	118.46	108.50
5	AE	207	ARG	NE-CZ-NH1	6.64	128.14	121.50
26	BB	1818	U	O4'-C4'-C3'	6.64	110.64	104.00
13	AM	68	ARG	NE-CZ-NH2	-6.64	113.22	119.20
26	BB	2303	G	C1'-O4'-C4'	6.64	116.54	109.90
43	BS	96	ASP	CA-C-N	6.64	131.75	121.19
43	BS	96	ASP	C-N-CA	6.64	131.75	121.19
26	BB	563	A	C1'-C2'-O2'	6.64	118.35	108.40
26	BB	2247	A	O4'-C4'-C3'	6.64	110.64	104.00
26	BB	2898	U	C5'-C4'-C3'	-6.64	106.04	116.00
47	BW	91	LYS	O-C-N	-6.64	114.97	122.93
26	BB	1796	U	C5'-C4'-O4'	6.63	119.75	109.80
1	AA	286	C	O4'-C4'-C3'	6.63	110.63	104.00
1	AA	980	C	O4'-C1'-N1	6.63	118.45	108.50
1	AA	1214	C	O4'-C1'-C2'	6.63	112.43	105.80
5	AE	130	LYS	CA-C-N	6.63	129.06	120.44
5	AE	130	LYS	C-N-CA	6.63	129.06	120.44
43	BS	108	LEU	O-C-N	6.63	129.15	122.12
1	AA	355	C	C4'-C3'-O3'	6.63	122.95	113.00
2	AB	41	C	O4'-C1'-N1	6.63	118.45	108.50
26	BB	2113	U	O4'-C1'-N1	6.63	118.45	108.50
26	BB	2476	A	C3'-C2'-C1'	-6.63	94.67	101.30
1	AA	963	G	C1'-O4'-C4'	-6.63	103.27	109.90
26	BB	2215	C	O4'-C1'-N1	6.63	118.44	108.50
26	BB	1057	A	C5'-C4'-C3'	-6.63	106.06	116.00
26	BB	1889	A	C1'-C2'-O2'	6.63	118.34	108.40
34	BJ	6	ASP	N-CA-C	6.63	118.50	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	78	A	O4'-C1'-C2'	-6.62	100.98	107.60
1	AA	834	U	C4'-C3'-C2'	-6.62	95.98	102.60
1	AA	1168	U	C1'-O4'-C4'	6.62	116.52	109.90
8	AH	24	VAL	N-CA-C	6.62	120.32	111.44
15	AO	111	GLN	CB-CA-C	6.62	121.37	110.90
26	BB	1086	A	N9-C1'-C2'	6.62	121.93	112.00
26	BB	1199	U	O4'-C4'-C3'	6.62	110.62	104.00
26	BB	1317	G	C1'-C2'-O2'	6.62	118.33	108.40
26	BB	2058	A	O4'-C4'-C3'	6.62	110.62	104.00
33	BI	75	LEU	CA-C-N	6.62	132.73	121.87
33	BI	75	LEU	C-N-CA	6.62	132.73	121.87
26	BB	2722	G	C5'-C4'-C3'	-6.62	106.07	116.00
1	AA	641	U	C4'-C3'-C2'	6.62	109.22	102.60
3	AC	20	G	C4'-C3'-C2'	-6.62	95.98	102.60
15	AO	63	THR	CA-C-N	6.62	133.45	122.73
15	AO	63	THR	C-N-CA	6.62	133.45	122.73
2	AB	34	C	C5'-C4'-O4'	6.62	119.73	109.80
12	AL	83	THR	CA-C-N	6.62	129.47	120.54
12	AL	83	THR	C-N-CA	6.62	129.47	120.54
26	BB	838	C	C4'-C3'-O3'	-6.62	103.07	113.00
26	BB	1066	U	C5'-C4'-C3'	-6.62	106.07	116.00
26	BB	2837	A	C4'-C3'-C2'	-6.62	95.98	102.60
38	BN	7	SER	CA-C-N	6.62	126.64	119.89
38	BN	7	SER	C-N-CA	6.62	126.64	119.89
1	AA	1012	A	C2'-C3'-O3'	-6.62	103.78	113.70
26	BB	361	G	O4'-C1'-C2'	-6.62	100.98	107.60
1	AA	1129	C	N1-C1'-C2'	-6.61	104.08	114.00
1	AA	1453	G	C4'-C3'-C2'	-6.61	95.99	102.60
16	AP	26	LYS	N-CA-CB	-6.61	100.42	110.01
25	BA	66	A	C4'-C3'-O3'	6.61	122.92	113.00
26	BB	722	A	C1'-O4'-C4'	6.61	116.51	109.90
26	BB	1263	U	O5'-C5'-C4'	-6.61	101.58	111.50
33	BI	31	VAL	O-C-N	6.61	128.64	121.10
17	AQ	43	ALA	N-CA-C	6.61	120.45	112.38
17	AQ	88	MET	CA-C-O	-6.61	113.49	120.63
21	AU	58	ILE	CA-C-N	6.61	129.43	120.44
21	AU	58	ILE	C-N-CA	6.61	129.43	120.44
1	AA	1507	A	C3'-C2'-C1'	-6.61	94.69	101.30
26	BB	469	G	O4'-C4'-C3'	6.61	110.61	104.00
26	BB	737	C	C4'-C3'-C2'	-6.61	95.99	102.60
26	BB	1459	G	O4'-C1'-N9	6.61	118.41	108.50
52	B1	46	MET	CA-CB-CG	-6.61	100.88	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2757	A	C3'-C2'-C1'	6.61	107.91	101.30
26	BB	609	A	C3'-C2'-C1'	6.60	107.90	101.30
43	BS	28	SER	N-CA-C	6.60	120.94	113.02
44	BT	61	ALA	CA-C-O	6.60	128.73	121.40
1	AA	1026	G	O4'-C4'-C3'	6.60	110.60	104.00
5	AE	199	ILE	CB-CA-C	6.60	118.83	111.04
42	BR	85	VAL	CA-CB-CG1	6.60	121.62	110.40
26	BB	1	G	C1'-C2'-O2'	-6.60	98.50	108.40
1	AA	696	A	O5'-C5'-C4'	6.60	121.40	111.50
1	AA	1429	A	C3'-C2'-C1'	-6.60	94.70	101.30
27	BC	97	MET	CA-C-N	6.60	129.02	120.44
27	BC	97	MET	C-N-CA	6.60	129.02	120.44
33	BI	132	PHE	O-C-N	-6.60	115.51	123.10
58	B7	34	LYS	CA-C-N	6.60	130.94	121.50
58	B7	34	LYS	C-N-CA	6.60	130.94	121.50
1	AA	912	C	N1-C1'-C2'	-6.60	102.10	112.00
26	BB	1700	A	C5'-C4'-C3'	-6.60	106.10	116.00
26	BB	2298	A	C1'-O4'-C4'	6.60	116.50	109.90
2	AB	66	C	C5'-C4'-C3'	-6.59	106.11	116.00
26	BB	1838	C	N1-C1'-C2'	-6.59	104.11	114.00
26	BB	2340	A	O4'-C4'-C3'	6.59	110.59	104.00
26	BB	2758	A	N9-C1'-C2'	-6.59	102.11	112.00
36	BL	40	HIS	CB-CG-CD2	-6.59	122.63	131.20
57	B6	19	GLY	CA-C-N	6.59	128.16	120.71
57	B6	19	GLY	C-N-CA	6.59	128.16	120.71
1	AA	1029	U	P-O3'-C3'	6.59	130.09	120.20
26	BB	656	G	C1'-C2'-O2'	6.59	118.29	108.40
27	BC	166	ASP	CA-CB-CG	6.59	119.19	112.60
1	AA	1188	A	P-O5'-C5'	6.59	130.79	120.90
26	BB	401	A	C4'-C3'-C2'	-6.59	96.01	102.60
26	BB	786	C	C4'-C3'-C2'	-6.59	96.01	102.60
26	BB	2770	G	C1'-O4'-C4'	6.59	116.49	109.90
1	AA	440	C	N1-C1'-C2'	-6.59	102.12	112.00
26	BB	1473	G	C4'-C3'-C2'	-6.59	96.01	102.60
39	BO	99	GLY	CA-C-O	-6.59	111.69	119.07
1	AA	690	G	O4'-C4'-C3'	6.59	110.59	104.00
1	AA	1244	G	C2'-C3'-O3'	-6.59	103.82	113.70
13	AM	58	ASN	CA-CB-CG	-6.59	106.01	112.60
26	BB	1293	C	C2'-C3'-O3'	6.59	123.58	113.70
26	BB	1997	C	C3'-C2'-C1'	6.59	107.89	101.30
26	BB	2332	C	C3'-C2'-C1'	6.59	107.89	101.30
38	BN	66	PHE	CA-CB-CG	6.59	120.39	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	BX	40	ILE	CA-CB-CG1	6.59	121.60	110.40
1	AA	285	C	C4'-C3'-C2'	-6.58	96.02	102.60
26	BB	1700	A	C5'-C4'-O4'	6.58	119.68	109.80
26	BB	2213	U	O4'-C4'-C3'	6.58	110.58	104.00
26	BB	2855	C	O4'-C1'-N1	6.58	118.38	108.50
52	B1	20	LYS	CA-C-N	6.58	129.43	120.54
52	B1	20	LYS	C-N-CA	6.58	129.43	120.54
1	AA	1118	U	C2'-C3'-O3'	-6.58	103.83	113.70
1	AA	1218	C	O4'-C1'-N1	6.58	118.37	108.50
26	BB	219	A	C3'-C2'-C1'	6.58	107.88	101.30
26	BB	1952	A	O4'-C1'-N9	6.58	118.07	108.20
26	BB	2262	U	O5'-C5'-C4'	6.58	121.37	111.50
48	BX	64	VAL	CA-C-O	6.58	127.46	120.48
1	AA	1037	C	P-O5'-C5'	6.58	130.77	120.90
1	AA	1396	A	C4'-C3'-O3'	6.58	119.27	109.40
12	AL	20	ILE	CA-CB-CG1	6.58	121.59	110.40
1	AA	485	U	O3'-P-O5'	-6.58	94.13	104.00
26	BB	1983	G	C1'-O4'-C4'	-6.58	103.32	109.90
26	BB	2241	A	O4'-C1'-C2'	6.58	114.18	107.60
28	BD	199	HIS	ND1-CE1-NE2	6.58	114.98	108.40
1	AA	690	G	O4'-C1'-N9	6.58	118.37	108.50
1	AA	368	U	C4'-C3'-O3'	-6.58	103.14	113.00
26	BB	151	C	O4'-C4'-C3'	6.58	110.58	104.00
26	BB	868	U	N1-C1'-C2'	-6.58	102.14	112.00
26	BB	1054	A	C5'-C4'-C3'	-6.58	106.14	116.00
26	BB	2419	U	O4'-C1'-N1	6.58	118.36	108.50
26	BB	2425	A	C1'-O4'-C4'	-6.58	103.12	109.70
26	BB	720	U	C4'-C3'-C2'	-6.57	96.03	102.60
1	AA	423	G	O4'-C1'-N9	6.57	118.36	108.50
1	AA	1157	A	C1'-O4'-C4'	6.57	116.27	109.70
2	AB	27	C	O4'-C1'-C2'	-6.57	101.03	107.60
1	AA	840	C	O5'-C5'-C4'	-6.57	101.64	111.50
13	AM	43	PRO	CA-C-N	6.57	130.82	121.42
13	AM	43	PRO	C-N-CA	6.57	130.82	121.42
26	BB	387	U	N1-C1'-C2'	-6.57	104.14	114.00
26	BB	666	A	C1'-O4'-C4'	-6.57	103.33	109.90
26	BB	2396	G	C3'-C2'-C1'	6.57	107.87	101.30
12	AL	66	VAL	CA-C-N	6.57	132.90	122.59
12	AL	66	VAL	C-N-CA	6.57	132.90	122.59
26	BB	1693	U	O3'-P-O5'	6.57	113.85	104.00
26	BB	2175	C	O3'-P-O5'	-6.57	94.15	104.00
26	BB	2752	C	O5'-C5'-C4'	-6.57	101.65	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
47	BW	12	VAL	N-CA-CB	-6.57	103.56	110.72
1	AA	1386	G	O4'-C4'-C3'	6.57	110.56	104.00
26	BB	2776	A	C1'-O4'-C4'	-6.57	103.13	109.70
30	BF	131	THR	CA-C-N	6.56	129.73	120.28
30	BF	131	THR	C-N-CA	6.56	129.73	120.28
1	AA	363	A	O4'-C4'-C3'	6.56	110.56	104.00
1	AA	536	C	C4'-C3'-O3'	-6.56	103.16	113.00
1	AA	1025	U	C3'-C2'-C1'	6.56	108.06	101.50
1	AA	1246	A	C1'-O4'-C4'	-6.56	103.34	109.90
8	AH	67	ARG	NH1-CZ-NH2	-6.56	110.77	119.30
44	BT	14	VAL	O-C-N	-6.56	117.26	122.97
1	AA	1327	C	C3'-C2'-C1'	6.56	107.86	101.30
5	AE	193	ASP	CA-CB-CG	6.56	119.16	112.60
7	AG	38	GLY	CA-C-O	-6.56	114.25	122.65
12	AL	48	ARG	NE-CZ-NH2	-6.56	113.30	119.20
1	AA	791	G	O4'-C1'-N9	6.56	118.04	108.20
36	BL	8	PRO	N-CA-CB	6.56	110.47	103.39
26	BB	805	G	C3'-C2'-C1'	-6.56	94.94	101.50
26	BB	1234	U	C2'-C3'-O3'	-6.56	103.86	113.70
32	BH	61	TRP	CA-C-N	6.56	128.96	120.44
32	BH	61	TRP	C-N-CA	6.56	128.96	120.44
1	AA	1299	A	O4'-C4'-C3'	-6.55	97.44	104.00
2	AB	53	G	C3'-C2'-O2'	6.55	120.53	110.70
26	BB	196	A	O4'-C4'-C3'	6.55	112.66	106.10
33	BI	118	PRO	CA-C-N	6.55	134.28	122.09
33	BI	118	PRO	C-N-CA	6.55	134.28	122.09
1	AA	647	C	C1'-C2'-O2'	6.55	118.23	108.40
26	BB	881	G	C4'-C3'-C2'	-6.55	96.05	102.60
26	BB	1639	C	C4'-C3'-C2'	-6.55	96.05	102.60
26	BB	2223	G	C5'-C4'-C3'	6.55	125.83	116.00
26	BB	2653	U	C2'-C3'-O3'	-6.55	103.87	113.70
26	BB	2335	A	C4'-C3'-C2'	-6.55	96.05	102.60
54	B3	50	GLY	O-C-N	6.55	130.01	122.61
56	B5	26	ASN	OD1-CG-ND2	-6.55	116.05	122.60
26	BB	810	U	O4'-C4'-C3'	6.55	110.55	104.00
37	BM	4	GLU	CB-CA-C	6.54	121.58	109.54
1	AA	1273	C	C5'-C4'-O4'	6.54	119.61	109.80
1	AA	1286	U	C3'-C2'-O2'	6.54	120.51	110.70
1	AA	1314	C	C3'-C2'-C1'	6.54	107.84	101.30
1	AA	1448	C	O5'-C5'-C4'	-6.54	101.69	111.50
1	AA	1120	C	C4'-C3'-C2'	-6.54	96.06	102.60
16	AP	13	HIS	CA-CB-CG	6.54	120.34	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1274	A	C5'-C4'-C3'	-6.54	106.19	116.00
8	AH	56	PRO	N-CD-CG	6.54	113.01	103.20
26	BB	1872	A	C4'-C3'-C2'	-6.54	96.06	102.60
1	AA	1248	A	C1'-O4'-C4'	-6.54	103.36	109.90
25	BA	20	G	O4'-C4'-C3'	6.54	110.54	104.00
26	BB	397	U	O3'-P-O5'	6.54	113.81	104.00
26	BB	726	G	O3'-P-O5'	-6.54	94.19	104.00
26	BB	1151	A	C5'-C4'-O4'	6.54	119.61	109.80
26	BB	2270	A	N9-C1'-C2'	6.54	121.81	112.00
34	BJ	119	ALA	CA-C-N	6.54	131.76	120.58
34	BJ	119	ALA	C-N-CA	6.54	131.76	120.58
43	BS	10	ARG	NE-CZ-NH2	6.54	125.08	119.20
53	B2	31	ASP	CA-CB-CG	-6.54	106.06	112.60
1	AA	974	A	O4'-C1'-C2'	6.54	112.34	105.80
25	BA	54	G	C5'-C4'-O4'	6.54	119.61	109.80
26	BB	984	A	C4'-C3'-C2'	6.54	109.14	102.60
26	BB	2853	C	C4'-C3'-C2'	-6.54	96.06	102.60
53	B2	24	ILE	CB-CA-C	6.54	118.77	111.45
1	AA	1536	C	N1-C1'-C2'	6.54	121.80	112.00
26	BB	2553	G	C3'-C2'-C1'	6.54	107.83	101.30
26	BB	2572	A	C1'-O4'-C4'	6.54	116.23	109.70
26	BB	2715	C	C5'-C4'-C3'	-6.54	106.20	116.00
26	BB	1005	C	O3'-P-O5'	-6.53	94.20	104.00
26	BB	2041	U	P-O5'-C5'	6.53	130.70	120.90
26	BB	2797	U	P-O3'-C3'	6.53	130.00	120.20
40	BP	38	LEU	CA-C-N	6.53	126.77	119.32
40	BP	38	LEU	C-N-CA	6.53	126.77	119.32
1	AA	372	C	C4'-C3'-O3'	6.53	119.20	109.40
1	AA	32	A	O3'-P-O5'	6.53	113.80	104.00
1	AA	1054	C	C3'-C2'-C1'	-6.53	94.97	101.50
1	AA	1176	A	C3'-C2'-C1'	6.53	107.83	101.30
14	AN	38	GLY	O-C-N	6.53	131.19	122.70
32	BH	8	VAL	CA-C-O	-6.53	112.62	120.78
6	AF	129	PHE	CA-CB-CG	6.53	120.33	113.80
27	BC	117	SER	CB-CA-C	6.53	118.90	109.11
1	AA	404	G	C4'-C3'-O3'	6.53	122.79	113.00
1	AA	1331	G	C1'-O4'-C4'	6.53	116.43	109.90
14	AN	3	ALA	CA-C-N	6.53	128.00	119.84
14	AN	3	ALA	C-N-CA	6.53	128.00	119.84
26	BB	86	G	O4'-C1'-C2'	6.53	114.13	107.60
26	BB	2306	C	O5'-C5'-C4'	-6.53	101.71	111.50
26	BB	2334	U	O4'-C1'-C2'	-6.53	101.07	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BM	114	LYS	CA-C-O	6.53	127.34	120.42
4	AD	37	U	O4'-C1'-C2'	-6.53	101.07	107.60
26	BB	2846	G	O3'-P-O5'	6.53	113.79	104.00
26	BB	1925	C	P-O3'-C3'	6.52	129.99	120.20
26	BB	2904	U	C3'-C2'-O2'	6.52	120.49	110.70
2	AB	58	A	O4'-C4'-C3'	6.52	110.52	104.00
26	BB	328	U	C4'-C3'-O3'	-6.52	103.22	113.00
35	BK	21	PRO	CA-C-N	6.52	126.21	119.56
35	BK	21	PRO	C-N-CA	6.52	126.21	119.56
56	B5	29	GLN	CA-C-N	6.52	128.78	120.56
56	B5	29	GLN	C-N-CA	6.52	128.78	120.56
1	AA	434	U	P-O3'-C3'	6.52	129.98	120.20
26	BB	2295	C	C4'-C3'-C2'	-6.52	96.08	102.60
1	AA	840	C	C5'-C4'-O4'	6.52	119.58	109.80
1	AA	1337	G	C4'-C3'-O3'	6.52	122.78	113.00
4	AD	17	C	O4'-C4'-C3'	6.52	110.52	104.00
26	BB	775	G	O4'-C4'-C3'	-6.52	99.58	106.10
26	BB	1378	A	O4'-C1'-C2'	-6.52	99.28	105.80
26	BB	2806	C	C4'-C3'-C2'	-6.52	96.08	102.60
1	AA	313	A	C4'-C3'-O3'	6.52	122.78	113.00
26	BB	66	C	C3'-C2'-C1'	6.52	107.82	101.30
26	BB	421	C	O4'-C1'-N1	6.52	117.98	108.20
26	BB	809	G	C5'-C4'-C3'	-6.52	106.22	116.00
26	BB	2242	G	C4'-C3'-C2'	-6.52	96.08	102.60
1	AA	1076	U	C3'-C2'-O2'	6.52	120.47	110.70
13	AM	25	ILE	CA-C-N	6.52	128.77	120.56
13	AM	25	ILE	C-N-CA	6.52	128.77	120.56
26	BB	516	C	P-O3'-C3'	6.52	129.97	120.20
26	BB	1231	U	O4'-C4'-C3'	6.52	110.52	104.00
26	BB	1731	G	O3'-P-O5'	-6.52	94.23	104.00
26	BB	2116	G	O4'-C4'-C3'	6.52	110.52	104.00
4	AD	34	U	O3'-P-O5'	-6.51	94.23	104.00
24	AX	34	ARG	NE-CZ-NH2	-6.51	113.34	119.20
26	BB	251	A	O4'-C4'-C3'	6.51	110.52	104.00
26	BB	1285	A	P-O5'-C5'	6.51	130.67	120.90
26	BB	1704	C	O4'-C4'-C3'	6.51	110.52	104.00
26	BB	2455	G	C5'-C4'-C3'	-6.51	106.23	116.00
26	BB	2755	C	C2'-C3'-O3'	6.51	123.47	113.70
26	BB	2841	C	C5'-C4'-C3'	-6.51	106.23	116.00
46	BV	12	ARG	CA-C-O	-6.51	111.28	120.07
26	BB	534	U	C2'-C3'-O3'	6.51	123.47	113.70
36	BL	34	ARG	N-CA-C	-6.51	104.10	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	12	G	C4'-C3'-C2'	-6.51	96.09	102.60
7	AG	183	ARG	CA-C-N	6.51	129.74	120.49
7	AG	183	ARG	C-N-CA	6.51	129.74	120.49
9	AI	7	VAL	CA-C-O	-6.51	113.05	120.67
16	AP	104	ASN	OD1-CG-ND2	-6.51	116.09	122.60
19	AS	79	ASN	CA-CB-CG	6.51	119.11	112.60
26	BB	2724	U	O4'-C4'-C3'	6.51	110.51	104.00
26	BB	2748	A	C3'-C2'-C1'	6.51	107.81	101.30
25	BA	34	A	C3'-C2'-O2'	-6.51	104.84	114.60
26	BB	1342	A	C5'-C4'-C3'	-6.51	105.44	115.20
1	AA	7	A	C1'-O4'-C4'	-6.51	103.39	109.90
1	AA	338	A	C4'-C3'-C2'	-6.51	96.09	102.60
1	AA	1269	A	O4'-C4'-C3'	6.51	110.51	104.00
26	BB	290	U	C3'-C2'-C1'	6.51	107.81	101.30
26	BB	1872	A	O4'-C4'-C3'	6.51	110.51	104.00
33	BI	29	PHE	CA-CB-CG	6.51	120.31	113.80
26	BB	2729	G	C5'-C4'-O4'	6.50	119.56	109.80
5	AE	147	LEU	CA-C-N	6.50	128.33	120.13
5	AE	147	LEU	C-N-CA	6.50	128.33	120.13
7	AG	153	ARG	NH1-CZ-NH2	-6.50	110.85	119.30
26	BB	1058	U	O4'-C1'-C2'	-6.50	101.10	107.60
26	BB	2463	C	O4'-C1'-C2'	-6.50	101.10	107.60
1	AA	209	U	O4'-C1'-C2'	-6.50	101.10	107.60
8	AH	143	LEU	O-C-N	-6.50	115.15	122.23
26	BB	913	U	O3'-P-O5'	-6.50	94.25	104.00
26	BB	1704	C	C1'-O4'-C4'	-6.50	103.40	109.90
26	BB	1868	C	C3'-C2'-C1'	6.50	107.80	101.30
27	BC	117	SER	CA-C-N	6.50	126.73	119.32
27	BC	117	SER	C-N-CA	6.50	126.73	119.32
6	AF	227	GLN	CA-C-O	6.50	128.94	121.47
26	BB	1916	A	C3'-C2'-C1'	6.50	107.80	101.30
26	BB	2646	C	C2'-C3'-O3'	-6.50	103.95	113.70
1	AA	420	U	C4'-C3'-O3'	-6.50	103.26	113.00
6	AF	175	HIS	CA-C-N	6.50	129.93	120.71
6	AF	175	HIS	C-N-CA	6.50	129.93	120.71
26	BB	2018	G	C3'-C2'-C1'	-6.50	94.81	101.30
1	AA	416	G	C5'-C4'-O4'	6.49	119.54	109.80
1	AA	1417	G	P-O3'-C3'	6.49	129.94	120.20
26	BB	413	C	P-O5'-C5'	6.49	130.64	120.90
26	BB	601	C	C5'-C4'-O4'	6.49	119.54	109.80
26	BB	1061	U	C5'-C4'-O4'	6.49	118.84	109.10
26	BB	2378	A	C1'-O4'-C4'	-6.49	103.41	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2587	A	C3'-C2'-C1'	6.49	107.79	101.30
31	BG	92	GLY	CA-C-N	6.49	128.98	120.28
31	BG	92	GLY	C-N-CA	6.49	128.98	120.28
1	AA	812	G	O4'-C1'-C2'	-6.49	101.11	107.60
14	AN	97	ARG	CA-C-O	-6.49	113.67	120.55
26	BB	922	C	O4'-C1'-N1	6.49	118.24	108.50
26	BB	1271	G	O3'-P-O5'	-6.49	94.26	104.00
6	AF	15	LYS	CB-CA-C	6.49	117.13	109.47
26	BB	756	A	N9-C1'-C2'	-6.49	102.26	112.00
26	BB	1008	A	O4'-C1'-N9	6.49	117.94	108.20
26	BB	1887	C	O4'-C1'-C2'	6.49	114.09	107.60
1	AA	944	G	P-O3'-C3'	6.49	129.93	120.20
9	AI	109	ARG	CA-C-O	-6.49	113.93	121.07
25	BA	112	G	O4'-C1'-C2'	-6.49	101.11	107.60
26	BB	2627	G	C5'-C4'-C3'	-6.49	106.27	116.00
1	AA	187	G	O5'-C5'-C4'	-6.49	101.77	111.50
1	AA	297	G	O5'-C5'-C4'	6.49	121.23	111.50
5	AE	74	ALA	N-CA-C	6.49	120.45	112.54
26	BB	531	C	O4'-C1'-C2'	6.49	112.29	105.80
26	BB	1488	C	O4'-C4'-C3'	6.49	110.49	104.00
11	AK	24	VAL	CA-CB-CG2	6.49	121.43	110.40
26	BB	728	G	O4'-C1'-C2'	-6.49	99.31	105.80
26	BB	773	U	C3'-C2'-C1'	6.49	107.78	101.30
26	BB	1319	C	C5'-C4'-C3'	-6.49	106.27	116.00
26	BB	2435	A	C3'-C2'-O2'	6.49	120.43	110.70
8	AH	160	VAL	CA-CB-CG2	6.48	121.42	110.40
26	BB	603	A	C5'-C4'-C3'	-6.48	105.47	115.20
1	AA	1149	C	C4'-C3'-C2'	-6.48	96.12	102.60
1	AA	188	C	O5'-C5'-C4'	6.48	121.22	111.50
8	AH	67	ARG	NE-CZ-NH2	6.48	125.03	119.20
26	BB	1081	U	C4'-C3'-C2'	-6.48	96.12	102.60
26	BB	1855	U	P-O5'-C5'	6.48	130.62	120.90
26	BB	2455	G	O5'-C5'-C4'	6.48	121.22	111.50
51	B0	36	GLN	CA-C-N	6.48	132.13	122.99
51	B0	36	GLN	C-N-CA	6.48	132.13	122.99
1	AA	294	U	C4'-C3'-C2'	-6.48	96.12	102.60
1	AA	879	C	C1'-O4'-C4'	-6.48	103.42	109.90
1	AA	1256	A	C3'-C2'-C1'	6.48	107.98	101.50
1	AA	1338	G	O4'-C1'-N9	6.48	118.22	108.50
26	BB	440	C	O4'-C4'-C3'	-6.48	97.52	104.00
26	BB	2515	C	O4'-C1'-C2'	-6.48	101.12	107.60
26	BB	2616	C	C2'-C3'-O3'	6.48	123.42	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B0	58	ASN	CB-CG-ND2	6.48	126.12	116.40
1	AA	23	C	C5'-C4'-C3'	6.47	125.71	116.00
26	BB	102	U	C3'-C2'-C1'	6.47	107.97	101.50
26	BB	556	A	C5'-C4'-O4'	6.47	119.51	109.80
40	BP	31	HIS	CB-CG-CD2	-6.47	122.78	131.20
53	B2	21	VAL	CA-CB-CG2	6.47	121.41	110.40
1	AA	314	C	C3'-C2'-C1'	6.47	107.77	101.30
1	AA	1061	G	O4'-C1'-C2'	-6.47	101.13	107.60
1	AA	1087	G	C4'-C3'-C2'	-6.47	96.13	102.60
15	AO	85	ARG	CA-C-O	-6.47	114.69	121.55
26	BB	392	U	C5'-C4'-O4'	6.47	119.51	109.80
26	BB	401	A	C4'-C3'-O3'	6.47	122.71	113.00
26	BB	806	C	C4'-C3'-C2'	-6.47	96.13	102.60
26	BB	2638	G	C4'-C3'-O3'	-6.47	99.69	109.40
29	BE	185	ASN	CB-CA-C	6.47	121.42	111.39
46	BV	43	ILE	O-C-N	6.47	128.50	121.83
25	BA	51	G	O5'-C5'-C4'	6.47	121.21	111.50
37	BM	99	ILE	CB-CA-C	6.47	120.10	110.98
40	BP	46	ARG	NE-CZ-NH1	6.47	127.97	121.50
1	AA	841	C	O4'-C1'-N1	6.47	118.20	108.50
1	AA	1404	C	C5'-C4'-O4'	6.47	119.50	109.80
26	BB	632	A	O4'-C4'-C3'	6.47	110.47	104.00
26	BB	1342	A	C1'-C2'-O2'	6.47	121.50	111.80
26	BB	1900	A	C1'-C2'-O2'	-6.47	102.10	111.80
26	BB	2252	G	C2'-C3'-O3'	6.47	119.20	109.50
35	BK	25	PRO	CA-C-N	6.47	128.95	120.28
35	BK	25	PRO	C-N-CA	6.47	128.95	120.28
38	BN	69	ARG	NE-CZ-NH2	6.47	125.02	119.20
1	AA	488	C	O4'-C1'-N1	6.47	118.20	108.50
6	AF	228	ARG	NE-CZ-NH2	-6.47	113.38	119.20
26	BB	1948	G	O4'-C1'-N9	6.47	118.20	108.50
26	BB	2025	C	C5'-C4'-O4'	6.47	119.50	109.80
51	B0	23	ARG	NE-CZ-NH2	-6.47	113.38	119.20
1	AA	256	U	C4'-C3'-C2'	-6.47	96.13	102.60
1	AA	505	G	O4'-C4'-C3'	6.47	110.47	104.00
13	AM	2	GLN	N-CA-CB	-6.47	101.11	110.36
26	BB	2547	A	C1'-C2'-O2'	-6.47	98.70	108.40
26	BB	2548	U	C3'-C2'-C1'	6.47	107.77	101.30
45	BU	95	ARG	CB-CA-C	6.47	120.46	109.53
55	B4	34	GLU	N-CA-C	6.47	118.41	111.36
8	AH	146	MET	N-CA-C	6.46	118.68	108.79
26	BB	1336	A	N9-C1'-C2'	-6.46	102.30	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2081	U	C3'-C2'-C1'	6.46	107.76	101.30
26	BB	1922	G	C5'-C4'-O4'	6.46	119.50	109.80
26	BB	2136	G	O4'-C1'-N9	6.46	118.19	108.50
23	AW	49	ALA	CA-C-N	6.46	128.84	120.44
23	AW	49	ALA	C-N-CA	6.46	128.84	120.44
26	BB	2901	C	C4'-C3'-C2'	-6.46	96.14	102.60
56	B5	21	ARG	NE-CZ-NH2	6.46	125.01	119.20
1	AA	853	C	O5'-C5'-C4'	-6.46	101.81	111.50
26	BB	100	U	O4'-C1'-C2'	6.46	114.06	107.60
26	BB	163	C	O4'-C1'-N1	6.46	118.19	108.50
26	BB	506	G	O4'-C4'-C3'	6.46	112.56	106.10
26	BB	2210	U	O4'-C1'-N1	6.46	117.89	108.20
1	AA	945	G	C5'-C4'-C3'	-6.46	106.31	116.00
26	BB	224	U	O4'-C1'-N1	6.46	118.19	108.50
26	BB	887	U	C3'-C2'-C1'	6.46	107.76	101.30
26	BB	2190	G	C4'-C3'-O3'	6.46	122.69	113.00
26	BB	2346	A	C5'-C4'-C3'	-6.46	105.51	115.20
26	BB	2789	C	C5'-C4'-O4'	6.46	119.49	109.80
26	BB	2866	U	C5'-C4'-O4'	6.46	118.79	109.10
39	BO	54	THR	CA-C-O	-6.46	112.54	119.97
1	AA	5	U	C3'-C2'-C1'	-6.46	95.04	101.50
6	AF	42	LEU	N-CA-C	-6.46	104.17	111.14
26	BB	2842	G	O4'-C1'-N9	6.46	118.18	108.50
27	BC	77	VAL	CB-CA-C	6.46	119.38	110.99
1	AA	1201	A	C5'-C4'-O4'	6.46	118.78	109.10
39	BO	123	LYS	O-C-N	6.46	131.85	122.43
51	B0	24	GLU	N-CA-CB	-6.46	100.71	110.07
1	AA	807	A	C3'-C2'-C1'	-6.45	94.85	101.30
1	AA	1282	C	C5'-C4'-C3'	-6.45	106.32	116.00
26	BB	1138	G	C1'-C2'-O2'	-6.45	98.72	108.40
10	AJ	130	LYS	O-C-N	-6.45	114.79	122.27
26	BB	679	C	C5'-C4'-O4'	6.45	119.48	109.80
26	BB	1378	A	C1'-C2'-O2'	6.45	121.48	111.80
46	BV	84	TYR	O-C-N	-6.45	115.86	123.22
26	BB	1128	G	C1'-O4'-C4'	-6.45	103.25	109.70
54	B3	42	ILE	O-C-N	6.45	129.95	123.18
26	BB	422	A	O4'-C4'-C3'	6.45	110.45	104.00
26	BB	2686	G	C4'-C3'-O3'	-6.45	103.33	113.00
8	AH	162	GLU	CA-C-O	-6.45	114.06	120.70
1	AA	1274	A	P-O3'-C3'	6.45	129.87	120.20
5	AE	81	ASP	CA-C-N	6.45	130.11	120.31
5	AE	81	ASP	C-N-CA	6.45	130.11	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1515	A	O4'-C1'-N9	6.44	118.17	108.50
34	BJ	50	TYR	CB-CA-C	6.44	120.98	109.38
9	AI	25	TYR	N-CA-C	-6.44	104.34	111.36
26	BB	731	C	O4'-C1'-N1	6.44	118.16	108.50
1	AA	1027	C	C4'-C3'-O3'	6.44	122.66	113.00
11	AK	25	THR	CB-CA-C	6.44	121.16	109.37
25	BA	2	G	O4'-C1'-N9	6.44	118.16	108.50
31	BG	43	ILE	N-CA-C	6.44	120.06	111.17
40	BP	31	HIS	CA-C-N	6.44	133.84	121.54
40	BP	31	HIS	C-N-CA	6.44	133.84	121.54
40	BP	120	GLU	CA-CB-CG	6.44	126.98	114.10
26	BB	2833	U	O4'-C1'-N1	6.44	117.86	108.20
28	BD	225	ASN	CA-C-N	6.44	126.66	119.32
28	BD	225	ASN	C-N-CA	6.44	126.66	119.32
1	AA	981	U	C1'-O4'-C4'	-6.44	103.46	109.90
1	AA	1422	G	C3'-C2'-O2'	6.44	120.36	110.70
23	AW	52	GLU	N-CA-C	6.44	118.38	111.36
25	BA	35	C	C1'-O4'-C4'	-6.44	103.46	109.90
1	AA	896	C	N1-C1'-C2'	-6.44	102.35	112.00
1	AA	163	C	C3'-C2'-O2'	6.43	120.35	110.70
1	AA	609	A	C1'-O4'-C4'	-6.43	103.47	109.90
1	AA	774	G	O4'-C1'-N9	6.43	118.15	108.50
1	AA	1302	C	C2'-C3'-O3'	6.43	123.35	113.70
26	BB	1119	U	O4'-C1'-N1	6.43	118.15	108.50
26	BB	2770	G	O3'-P-O5'	6.43	113.65	104.00
34	BJ	55	ARG	NE-CZ-NH2	-6.43	113.41	119.20
1	AA	235	C	O4'-C1'-N1	6.43	118.15	108.50
1	AA	1387	G	O4'-C1'-C2'	6.43	114.03	107.60
4	AD	72	C	O4'-C1'-N1	6.43	118.15	108.50
1	AA	391	G	O4'-C4'-C3'	6.43	110.43	104.00
16	AP	44	ILE	CA-C-O	-6.43	113.53	120.47
26	BB	311	A	C3'-C2'-O2'	-6.43	104.95	114.60
26	BB	1397	U	O4'-C1'-C2'	6.43	112.23	105.80
34	BJ	14	VAL	CA-C-O	-6.43	114.03	120.85
34	BJ	33	THR	CA-CB-OG1	6.43	119.24	109.60
47	BW	24	VAL	N-CA-C	-6.43	101.29	109.58
1	AA	88	U	O4'-C1'-N1	6.43	118.14	108.50
1	AA	1058	G	O4'-C1'-C2'	-6.43	101.17	107.60
25	BA	28	C	C3'-C2'-C1'	6.43	107.73	101.30
26	BB	2269	G	C5'-C4'-C3'	-6.43	106.36	116.00
17	AQ	93	PRO	CA-C-O	-6.42	114.36	121.23
25	BA	100	G	O4'-C1'-C2'	-6.42	101.17	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	705	A	C5'-C4'-C3'	-6.42	106.36	116.00
26	BB	1683	U	C3'-C2'-C1'	6.42	107.72	101.30
26	BB	2181	U	C4'-C3'-O3'	6.42	122.64	113.00
1	AA	756	C	C5'-C4'-C3'	-6.42	106.37	116.00
26	BB	94	A	C2'-C3'-O3'	6.42	123.33	113.70
26	BB	1832	C	O4'-C1'-N1	6.42	118.13	108.50
6	AF	56	ILE	CB-CA-C	6.42	120.19	110.62
26	BB	2178	C	C1'-O4'-C4'	6.42	116.32	109.90
1	AA	1224	U	P-O3'-C3'	6.42	129.83	120.20
5	AE	47	PRO	CA-C-N	6.42	129.17	120.44
5	AE	47	PRO	C-N-CA	6.42	129.17	120.44
26	BB	314	C	O3'-P-O5'	-6.42	94.37	104.00
26	BB	602	A	C3'-C2'-C1'	6.42	107.72	101.30
1	AA	475	C	C4'-C3'-C2'	-6.42	96.18	102.60
1	AA	952	U	C2'-C3'-O3'	-6.42	104.08	113.70
26	BB	144	A	C4'-C3'-C2'	-6.42	96.18	102.60
26	BB	639	U	C1'-C2'-O2'	6.42	118.02	108.40
26	BB	2886	A	O5'-C5'-C4'	-6.42	101.88	111.50
1	AA	889	A	N9-C1'-C2'	-6.42	104.38	114.00
26	BB	2117	A	O4'-C4'-C3'	6.42	110.42	104.00
5	AE	116	LEU	N-CA-C	-6.41	104.94	112.89
26	BB	234	U	C3'-C2'-C1'	6.41	107.71	101.30
26	BB	803	U	C4'-C3'-C2'	-6.41	96.19	102.60
26	BB	1510	G	C4'-C3'-C2'	6.41	109.01	102.60
26	BB	2872	A	C4'-C3'-C2'	-6.41	96.19	102.60
39	BO	60	GLN	OE1-CD-NE2	6.41	129.01	122.60
26	BB	967	U	O4'-C1'-C2'	-6.41	101.19	107.60
36	BL	77	HIS	CA-C-N	6.41	128.87	120.28
36	BL	77	HIS	C-N-CA	6.41	128.87	120.28
26	BB	229	C	O4'-C1'-N1	6.41	118.12	108.50
26	BB	2323	G	O5'-C5'-C4'	-6.41	101.89	111.50
1	AA	224	U	P-O3'-C3'	6.41	129.81	120.20
26	BB	980	A	C3'-C2'-C1'	6.41	107.71	101.30
26	BB	1307	A	C1'-O4'-C4'	-6.41	103.49	109.90
26	BB	435	C	O4'-C1'-C2'	-6.41	101.19	107.60
26	BB	1636	U	C3'-C2'-O2'	6.40	120.31	110.70
54	B3	18	HIS	CB-CG-CD2	-6.40	122.87	131.20
1	AA	762	U	C4'-C3'-C2'	-6.40	96.20	102.60
1	AA	1180	A	C3'-C2'-C1'	6.40	107.70	101.30
3	AC	24	A	C3'-C2'-C1'	6.40	107.70	101.30
19	AS	32	PHE	N-CA-C	6.40	118.50	108.96
26	BB	345	A	C2'-C3'-O3'	6.40	119.10	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	725	G	C4'-C3'-C2'	-6.40	96.20	102.60
26	BB	1150	C	O5'-C5'-C4'	-6.40	101.90	111.50
1	AA	1194	U	C5'-C4'-C3'	-6.40	106.40	116.00
26	BB	25	U	C1'-O4'-C4'	-6.40	103.50	109.90
26	BB	2106	U	C2'-C3'-O3'	6.40	123.30	113.70
41	BQ	13	ARG	NE-CZ-NH2	-6.40	113.44	119.20
26	BB	1300	G	C1'-O4'-C4'	6.40	116.30	109.90
26	BB	1305	C	O4'-C1'-N1	6.40	118.10	108.50
44	BT	44	GLY	CA-C-N	6.40	132.82	121.75
44	BT	44	GLY	C-N-CA	6.40	132.82	121.75
1	AA	560	A	O5'-C5'-C4'	6.40	121.09	111.50
1	AA	587	G	O5'-C5'-C4'	-6.40	102.10	111.70
26	BB	719	C	C1'-O4'-C4'	6.40	116.30	109.90
26	BB	1634	A	O4'-C4'-C3'	6.40	112.50	106.10
26	BB	2037	A	C5'-C4'-O4'	6.40	119.39	109.80
26	BB	2125	G	O4'-C4'-C3'	-6.40	97.60	104.00
26	BB	2383	G	O4'-C1'-N9	6.40	118.10	108.50
26	BB	2641	G	O4'-C1'-N9	6.40	118.10	108.50
30	BF	67	ARG	CA-C-N	6.40	133.76	121.54
30	BF	67	ARG	C-N-CA	6.40	133.76	121.54
26	BB	704	G	C4'-C3'-C2'	-6.40	96.20	102.60
26	BB	2320	U	C4'-C3'-O3'	-6.40	103.41	113.00
1	AA	62	U	C3'-C2'-C1'	-6.39	94.91	101.30
1	AA	149	A	C3'-C2'-C1'	6.39	107.69	101.30
1	AA	1458	G	C5'-C4'-C3'	-6.39	106.41	116.00
26	BB	53	A	O4'-C4'-C3'	-6.39	97.61	104.00
26	BB	1561	C	O4'-C4'-C3'	6.39	110.39	104.00
32	BH	34	ARG	NE-CZ-NH1	-6.39	115.11	121.50
49	BY	24	ARG	NE-CZ-NH2	6.39	124.96	119.20
1	AA	526	C	O4'-C4'-C3'	6.39	110.39	104.00
5	AE	77	GLU	CA-C-N	6.39	130.03	120.31
5	AE	77	GLU	C-N-CA	6.39	130.03	120.31
12	AL	17	ARG	N-CA-CB	6.39	119.86	109.95
26	BB	739	A	O4'-C1'-N9	6.39	117.79	108.20
26	BB	1276	A	C5'-C4'-O4'	6.39	119.39	109.80
33	BI	74	ALA	CA-C-O	6.39	127.99	120.70
6	AF	87	ARG	NE-CZ-NH2	-6.39	113.45	119.20
38	BN	142	ILE	CA-CB-CG1	6.39	121.27	110.40
26	BB	251	A	C1'-O4'-C4'	-6.39	103.51	109.90
26	BB	414	C	O4'-C1'-N1	6.39	118.08	108.50
26	BB	469	G	C4'-C3'-C2'	-6.39	96.21	102.60
26	BB	1364	G	C4'-C3'-C2'	-6.39	96.21	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BM	38	ILE	CA-C-O	6.39	127.56	120.59
42	BR	14	GLN	OE1-CD-NE2	6.39	128.99	122.60
1	AA	994	A	C5'-C4'-C3'	6.39	125.58	116.00
26	BB	1102	C	C5'-C4'-C3'	-6.39	106.42	116.00
26	BB	2321	U	O5'-C5'-C4'	-6.39	102.12	111.70
26	BB	2333	A	C1'-C2'-O2'	6.39	121.38	111.80
1	AA	325	A	C1'-O4'-C4'	-6.39	103.51	109.90
1	AA	601	G	C3'-C2'-O2'	6.39	120.28	110.70
4	AD	28	U	C1'-O4'-C4'	6.39	116.29	109.90
26	BB	618	G	C4'-C3'-C2'	-6.39	96.21	102.60
48	BX	88	HIS	ND1-CG-CD2	6.39	112.49	106.10
1	AA	730	G	O4'-C1'-C2'	-6.38	101.22	107.60
1	AA	1161	C	N1-C1'-C2'	-6.38	102.42	112.00
1	AA	1095	U	O4'-C1'-C2'	-6.38	101.22	107.60
6	AF	96	VAL	O-C-N	-6.38	115.89	121.57
10	AJ	154	ARG	N-CA-C	6.38	118.31	111.36
26	BB	2705	A	O4'-C4'-C3'	-6.38	97.62	104.00
26	BB	843	G	C3'-C2'-C1'	6.38	107.68	101.30
26	BB	1253	A	C3'-C2'-O2'	-6.38	105.03	114.60
26	BB	1585	C	C5'-C4'-O4'	6.38	119.37	109.80
26	BB	1674	G	O5'-C5'-C4'	6.38	121.27	111.70
27	BC	95	VAL	CA-C-O	-6.38	113.76	120.39
39	BO	106	ASP	CA-C-N	6.38	126.89	119.94
39	BO	106	ASP	C-N-CA	6.38	126.89	119.94
40	BP	102	PHE	CA-C-N	6.38	129.88	120.95
40	BP	102	PHE	C-N-CA	6.38	129.88	120.95
1	AA	128	G	C2'-C3'-O3'	6.38	123.27	113.70
26	BB	262	A	O4'-C1'-N9	6.38	118.06	108.50
26	BB	1095	A	O4'-C1'-C2'	-6.38	101.22	107.60
26	BB	2160	C	O4'-C4'-C3'	6.38	110.38	104.00
1	AA	1142	G	O5'-C5'-C4'	6.38	121.06	111.50
16	AP	115	ILE	CB-CA-C	6.38	118.32	110.73
26	BB	382	A	C1'-O4'-C4'	6.38	116.28	109.90
30	BF	102	ARG	CA-C-O	-6.38	112.64	119.97
38	BN	126	ARG	NE-CZ-NH2	-6.38	113.46	119.20
22	AV	60	PHE	CB-CA-C	6.37	120.74	110.29
1	AA	1371	G	O3'-P-O5'	-6.37	94.44	104.00
5	AE	101	THR	N-CA-C	6.37	119.21	111.82
9	AI	29	ILE	CA-C-O	-6.37	113.38	120.96
12	AL	74	GLN	CA-C-N	6.37	128.82	120.28
12	AL	74	GLN	C-N-CA	6.37	128.82	120.28
26	BB	881	G	O4'-C4'-C3'	6.37	110.37	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1489	C	O3'-P-O5'	-6.37	94.44	104.00
29	BE	149	ASN	O-C-N	6.37	129.66	123.04
1	AA	112	G	O4'-C1'-C2'	-6.37	101.23	107.60
3	AC	40	G	C1'-O4'-C4'	-6.37	103.53	109.90
26	BB	569	U	P-O3'-C3'	6.37	129.75	120.20
26	BB	964	C	C1'-O4'-C4'	-6.37	103.53	109.90
26	BB	2247	A	C4'-C3'-C2'	-6.37	96.23	102.60
39	BO	44	ARG	CA-C-N	6.37	129.33	120.29
39	BO	44	ARG	C-N-CA	6.37	129.33	120.29
41	BQ	113	ALA	O-C-N	6.37	129.41	122.15
5	AE	207	ARG	NH1-CZ-NH2	-6.37	111.02	119.30
26	BB	428	A	C3'-C2'-C1'	6.37	107.87	101.50
26	BB	2586	U	C3'-C2'-C1'	6.37	107.67	101.30
47	BW	50	ALA	CA-C-O	6.37	128.21	120.57
1	AA	832	G	C5'-C4'-C3'	-6.37	106.45	116.00
1	AA	1486	G	O4'-C4'-C3'	6.37	110.36	104.00
1	AA	1104	G	C5'-C4'-C3'	-6.36	106.46	116.00
6	AF	96	VAL	CA-C-N	6.36	126.28	119.85
6	AF	96	VAL	C-N-CA	6.36	126.28	119.85
7	AG	154	VAL	CA-CB-CG1	6.36	121.22	110.40
26	BB	786	C	O3'-P-O5'	-6.36	94.45	104.00
26	BB	1348	C	O4'-C1'-C2'	-6.36	101.24	107.60
26	BB	2598	A	O4'-C4'-C3'	6.36	110.36	104.00
28	BD	199	HIS	ND1-CG-CD2	6.36	112.46	106.10
57	B6	23	HIS	CB-CG-CD2	-6.36	122.93	131.20
1	AA	436	C	C4'-C3'-C2'	-6.36	96.24	102.60
1	AA	1202	U	C4'-C3'-C2'	-6.36	96.24	102.60
1	AA	1268	G	O4'-C1'-C2'	-6.36	101.24	107.60
10	AJ	26	VAL	CA-C-N	6.36	129.09	120.44
10	AJ	26	VAL	C-N-CA	6.36	129.09	120.44
26	BB	1864	U	O4'-C4'-C3'	6.36	110.36	104.00
26	BB	1868	C	O5'-C5'-C4'	-6.36	101.96	111.50
26	BB	2311	A	C4'-C3'-C2'	-6.36	96.24	102.60
27	BC	165	ASN	OD1-CG-ND2	6.36	128.96	122.60
56	B5	6	GLN	OE1-CD-NE2	-6.36	116.24	122.60
25	BA	7	G	C4'-C3'-C2'	-6.36	96.24	102.60
26	BB	2744	G	O4'-C1'-C2'	-6.36	101.24	107.60
26	BB	1990	C	O4'-C1'-N1	6.36	118.04	108.50
26	BB	2300	C	C1'-O4'-C4'	6.36	116.26	109.90
26	BB	2447	G	O4'-C1'-N9	6.36	117.74	108.20
26	BB	2750	A	C1'-O4'-C4'	-6.36	103.34	109.70
28	BD	242	HIS	CA-CB-CG	6.36	120.16	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	231	A	P-O5'-C5'	6.36	130.43	120.90
26	BB	708	G	P-O5'-C5'	6.36	130.43	120.90
35	BK	113	ALA	N-CA-C	6.36	118.74	111.11
1	AA	718	A	C5'-C4'-C3'	-6.35	106.47	116.00
1	AA	1221	G	O3'-P-O5'	-6.35	94.47	104.00
26	BB	2528	U	O4'-C1'-N1	6.35	118.03	108.50
32	BH	42	VAL	N-CA-C	6.35	116.77	107.37
20	AT	77	VAL	CA-C-N	6.35	128.47	120.72
20	AT	77	VAL	C-N-CA	6.35	128.47	120.72
25	BA	94	A	O4'-C4'-C3'	6.35	110.35	104.00
26	BB	576	U	O4'-C1'-C2'	-6.35	101.25	107.60
26	BB	1094	U	C4'-C3'-C2'	-6.35	96.25	102.60
28	BD	121	ALA	CA-C-N	6.35	130.93	121.72
28	BD	121	ALA	C-N-CA	6.35	130.93	121.72
26	BB	328	U	O3'-P-O5'	-6.35	94.47	104.00
26	BB	612	G	O3'-P-O5'	-6.35	94.47	104.00
26	BB	998	C	P-O5'-C5'	6.35	130.43	120.90
1	AA	757	U	C5'-C4'-C3'	-6.35	106.48	116.00
5	AE	200	PRO	N-CA-CB	6.35	108.95	103.36
12	AL	114	LYS	CA-C-N	6.35	129.01	120.50
12	AL	114	LYS	C-N-CA	6.35	129.01	120.50
26	BB	482	A	O4'-C1'-C2'	-6.35	101.25	107.60
26	BB	551	G	C4'-C3'-C2'	6.35	108.95	102.60
26	BB	2065	C	C1'-O4'-C4'	6.35	116.25	109.90
4	AD	46	G	C5'-C4'-C3'	6.35	125.52	116.00
26	BB	546	U	O4'-C1'-C2'	-6.35	101.25	107.60
26	BB	872	U	C1'-O4'-C4'	-6.35	103.55	109.90
26	BB	1379	U	C4'-C3'-C2'	-6.35	96.25	102.60
1	AA	1099	G	C4'-C3'-C2'	-6.35	96.25	102.60
1	AA	1323	G	O4'-C4'-C3'	-6.35	97.65	104.00
14	AN	23	HIS	CB-CG-CD2	-6.35	122.95	131.20
26	BB	2249	U	C1'-O4'-C4'	6.35	116.05	109.70
1	AA	965	U	C4'-C3'-O3'	-6.34	99.88	109.40
1	AA	1436	U	C4'-C3'-O3'	-6.34	103.48	113.00
26	BB	402	A	N9-C1'-C2'	-6.34	102.48	112.00
26	BB	820	A	O3'-P-O5'	-6.34	94.48	104.00
26	BB	2848	G	O4'-C4'-C3'	-6.34	99.76	106.10
26	BB	528	A	C4'-C3'-C2'	-6.34	96.26	102.60
26	BB	2823	A	C4'-C3'-C2'	-6.34	96.26	102.60
3	AC	42	U	O4'-C1'-C2'	-6.34	101.26	107.60
3	AC	52	U	O4'-C1'-N1	6.34	118.01	108.50
26	BB	2571	U	C3'-C2'-C1'	-6.34	94.96	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	293	G	C4'-C3'-C2'	-6.34	96.26	102.60
1	AA	899	C	C4'-C3'-C2'	-6.34	96.26	102.60
17	AQ	86	ALA	CA-C-O	-6.34	113.70	120.42
26	BB	507	A	C1'-C2'-O2'	-6.34	98.89	108.40
26	BB	1000	A	C4'-C3'-C2'	-6.34	96.26	102.60
26	BB	2324	U	O4'-C1'-N1	6.34	117.71	108.20
26	BB	2573	C	O4'-C1'-N1	6.34	118.01	108.50
28	BD	229	HIS	CG-CD2-NE2	6.34	113.54	107.20
34	BJ	67	PRO	CA-C-O	-6.34	113.87	121.48
40	BP	46	ARG	NH1-CZ-NH2	-6.34	111.06	119.30
42	BR	11	GLN	CA-C-N	6.34	129.76	120.82
42	BR	11	GLN	C-N-CA	6.34	129.76	120.82
5	AE	23	ASN	CA-C-N	6.34	126.82	119.47
5	AE	23	ASN	C-N-CA	6.34	126.82	119.47
12	AL	91	GLU	N-CA-C	6.34	120.11	112.38
26	BB	389	G	O4'-C4'-C3'	6.34	110.34	104.00
27	BC	106	LYS	CA-C-N	6.34	130.56	122.00
27	BC	106	LYS	C-N-CA	6.34	130.56	122.00
1	AA	873	A	O4'-C1'-C2'	6.34	112.14	105.80
1	AA	1171	A	C4'-C3'-O3'	-6.34	103.50	113.00
26	BB	1123	C	C4'-C3'-O3'	-6.34	103.49	113.00
26	BB	1454	C	P-O5'-C5'	6.34	130.40	120.90
26	BB	1466	U	C2'-C3'-O3'	6.34	123.21	113.70
1	AA	1534	A	O3'-P-O5'	6.33	113.50	104.00
26	BB	259	G	C1'-O4'-C4'	6.33	116.23	109.90
1	AA	1000	A	O4'-C1'-N9	6.33	118.00	108.50
26	BB	1576	U	O4'-C1'-C2'	-6.33	101.27	107.60
26	BB	2252	G	O3'-P-O5'	-6.33	94.50	104.00
1	AA	189	A	C4'-C3'-C2'	-6.33	96.27	102.60
19	AS	38	PHE	CA-CB-CG	6.33	120.13	113.80
26	BB	945	A	C4'-C3'-O3'	-6.33	103.50	113.00
26	BB	1435	G	O4'-C1'-C2'	-6.33	101.27	107.60
26	BB	1448	G	C5'-C4'-O4'	6.33	119.30	109.80
26	BB	2843	G	C3'-C2'-O2'	6.33	120.20	110.70
1	AA	462	G	C3'-C2'-C1'	-6.33	95.17	101.50
22	AV	1	PRO	CA-N-CD	-6.33	103.14	112.00
26	BB	2491	U	O4'-C1'-N1	6.33	117.69	108.20
46	BV	47	VAL	N-CA-C	6.33	122.50	109.34
1	AA	99	C	C2'-C3'-O3'	6.33	123.19	113.70
1	AA	203	G	O3'-P-O5'	-6.33	94.51	104.00
1	AA	688	G	C4'-C3'-C2'	-6.33	96.27	102.60
2	AB	65	C	C5'-C4'-O4'	6.33	119.29	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1394	U	C5'-C4'-C3'	-6.33	106.51	116.00
30	BF	29	HIS	CG-ND1-CE1	-6.33	98.54	109.30
1	AA	13	U	O4'-C1'-C2'	-6.33	99.47	105.80
1	AA	81	A	C3'-C2'-C1'	6.33	107.62	101.30
1	AA	144	G	O4'-C4'-C3'	6.33	110.33	104.00
9	AI	7	VAL	CB-CA-C	6.33	120.05	110.62
26	BB	2750	A	C4'-C3'-C2'	-6.33	96.28	102.60
1	AA	98	A	C4'-C3'-C2'	-6.32	96.28	102.60
38	BN	28	GLY	CA-C-N	6.32	130.12	120.82
38	BN	28	GLY	C-N-CA	6.32	130.12	120.82
47	BW	102	ILE	CA-CB-CG2	6.32	121.25	110.50
25	BA	19	C	C3'-C2'-O2'	-6.32	101.22	110.70
26	BB	993	G	C4'-C3'-C2'	-6.32	96.28	102.60
1	AA	442	G	C5'-C4'-C3'	-6.32	106.52	116.00
1	AA	524	G	O4'-C4'-C3'	6.32	110.32	104.00
1	AA	1233	G	C4'-C3'-C2'	-6.32	96.28	102.60
18	AR	41	HIS	CB-CG-CD2	-6.32	122.98	131.20
26	BB	46	G	C4'-C3'-C2'	-6.32	96.28	102.60
26	BB	323	C	N1-C1'-C2'	-6.32	104.52	114.00
26	BB	1942	C	C4'-C3'-C2'	-6.32	96.28	102.60
26	BB	1990	C	C5'-C4'-C3'	-6.32	106.52	116.00
26	BB	2613	U	C4'-C3'-C2'	-6.32	96.28	102.60
26	BB	2863	C	C1'-O4'-C4'	6.32	116.22	109.90
1	AA	744	C	C4'-C3'-O3'	6.32	122.48	113.00
1	AA	851	G	O4'-C4'-C3'	6.32	110.32	104.00
26	BB	896	A	C3'-C2'-C1'	-6.32	95.18	101.50
26	BB	1085	A	O4'-C1'-N9	6.32	117.97	108.50
26	BB	2672	U	O4'-C1'-N1	6.32	117.97	108.50
56	B5	26	ASN	N-CA-CB	-6.32	100.49	110.22
2	AB	70	C	O4'-C4'-C3'	-6.32	97.69	104.00
7	AG	57	LYS	CA-C-O	-6.32	113.73	120.42
10	AJ	150	PHE	CA-CB-CG	6.32	120.11	113.80
26	BB	941	A	C4'-C3'-C2'	-6.32	96.28	102.60
1	AA	485	U	C2'-C3'-O3'	6.31	118.97	109.50
25	BA	88	C	O4'-C1'-N1	6.31	117.97	108.50
26	BB	1622	G	O4'-C1'-C2'	-6.31	101.29	107.60
39	BO	64	TRP	CD2-CE3-CZ3	6.31	126.81	118.60
1	AA	572	A	N9-C1'-C2'	6.31	121.47	112.00
1	AA	1426	G	O4'-C4'-C3'	6.31	110.31	104.00
30	BF	31	VAL	CA-C-O	-6.31	114.48	121.17
58	B7	15	LYS	N-CA-C	6.31	119.14	111.82
1	AA	1326	U	O3'-P-O5'	-6.31	94.53	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	207	LEU	O-C-N	-6.31	115.93	123.31
3	AC	32	U	O4'-C1'-N1	6.31	117.96	108.50
9	AI	28	ALA	O-C-N	6.31	130.78	122.33
22	AV	51	HIS	CB-CG-CD2	-6.31	123.00	131.20
26	BB	2903	U	C2'-C3'-O3'	-6.31	104.24	113.70
1	AA	1165	U	O4'-C1'-N1	6.31	117.96	108.50
26	BB	1498	C	C4'-C3'-C2'	-6.31	96.29	102.60
33	BI	67	ALA	CA-C-N	6.31	128.64	120.44
33	BI	67	ALA	C-N-CA	6.31	128.64	120.44
1	AA	1297	G	O5'-C5'-C4'	6.31	121.16	111.70
47	BW	3	LYS	CA-C-N	-6.31	114.36	123.06
47	BW	3	LYS	C-N-CA	-6.31	114.36	123.06
15	AO	84	GLY	N-CA-C	-6.30	98.24	113.18
45	BU	15	GLN	CA-C-N	6.30	131.40	120.68
45	BU	15	GLN	C-N-CA	6.30	131.40	120.68
1	AA	1044	A	C5'-C4'-O4'	6.30	119.25	109.80
1	AA	1505	G	O4'-C1'-C2'	-6.30	101.30	107.60
3	AC	17	U	O4'-C1'-N1	6.30	117.95	108.50
26	BB	271	G	C4'-C3'-C2'	-6.30	96.30	102.60
26	BB	392	U	C3'-C2'-C1'	-6.30	95.00	101.30
1	AA	1030	U	O4'-C1'-C2'	-6.30	101.30	107.60
26	BB	1413	A	O4'-C1'-N9	6.30	117.95	108.50
26	BB	2238	G	C4'-C3'-C2'	-6.30	96.30	102.60
1	AA	157	U	C5'-C4'-C3'	6.30	125.45	116.00
26	BB	1855	U	C1'-O4'-C4'	-6.30	103.60	109.90
37	BM	3	GLN	N-CA-CB	-6.30	100.70	110.46
26	BB	1294	U	C1'-C2'-O2'	6.30	117.85	108.40
26	BB	2261	C	C4'-C3'-C2'	6.30	108.90	102.60
1	AA	1150	A	C4'-C3'-C2'	-6.30	96.30	102.60
26	BB	2183	A	C5'-C4'-O4'	6.30	119.25	109.80
32	BH	56	GLY	N-CA-C	6.30	124.05	115.30
36	BL	24	THR	CA-C-N	6.30	128.63	120.44
36	BL	24	THR	C-N-CA	6.30	128.63	120.44
1	AA	356	A	C4'-C3'-C2'	-6.29	96.31	102.60
6	AF	195	ILE	CB-CA-C	6.29	119.97	110.90
21	AU	38	ILE	CA-CB-CG1	6.29	121.10	110.40
26	BB	866	A	O4'-C4'-C3'	6.29	110.30	104.00
26	BB	1076	C	C4'-C3'-C2'	-6.29	96.31	102.60
26	BB	2040	G	C4'-C3'-C2'	-6.29	96.31	102.60
1	AA	474	G	C1'-O4'-C4'	6.29	116.19	109.90
3	AC	32	U	P-O3'-C3'	6.29	129.64	120.20
5	AE	215	ALA	CA-C-N	6.29	128.49	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	215	ALA	C-N-CA	6.29	128.49	120.56
11	AK	14	ARG	NE-CZ-NH2	6.29	124.86	119.20
18	AR	40	GLY	O-C-N	6.29	128.23	122.19
26	BB	2366	A	C3'-C2'-O2'	6.29	120.14	110.70
27	BC	182	ALA	CA-C-O	-6.29	114.21	120.82
1	AA	459	A	O3'-P-O5'	6.29	113.44	104.00
1	AA	1220	G	O5'-C5'-C4'	6.29	120.94	111.50
26	BB	810	U	C4'-C3'-C2'	-6.29	96.31	102.60
26	BB	1530	G	O4'-C1'-C2'	-6.29	101.31	107.60
26	BB	2653	U	O4'-C1'-N1	6.29	117.94	108.50
1	AA	547	A	C1'-O4'-C4'	6.29	115.99	109.70
26	BB	2868	A	C1'-C2'-O2'	6.29	117.83	108.40
44	BT	97	LYS	CA-C-O	6.29	127.24	120.32
1	AA	806	C	C1'-O4'-C4'	6.29	116.19	109.90
1	AA	870	U	O4'-C1'-N1	6.29	117.63	108.20
26	BB	2425	A	C2'-C3'-O3'	6.29	118.93	109.50
26	BB	1550	C	C3'-C2'-C1'	6.28	107.58	101.30
26	BB	1976	U	C3'-C2'-C1'	6.28	107.58	101.30
43	BS	70	GLN	N-CA-C	-6.28	104.48	111.71
52	B1	29	ARG	N-CA-C	-6.28	106.25	114.04
1	AA	343	U	C3'-C2'-C1'	6.28	107.58	101.30
1	AA	689	C	C3'-C2'-O2'	6.28	120.12	110.70
1	AA	861	G	O4'-C1'-C2'	-6.28	101.32	107.60
26	BB	1419	A	N9-C1'-C2'	-6.28	102.58	112.00
26	BB	2759	G	C2'-C3'-O3'	-6.28	104.28	113.70
30	BF	100	MET	CA-C-N	6.28	128.60	120.44
30	BF	100	MET	C-N-CA	6.28	128.60	120.44
1	AA	166	U	O3'-P-O5'	6.28	113.42	104.00
1	AA	1497	G	O4'-C1'-N9	6.28	117.92	108.50
18	AR	47	LYS	CA-CB-CG	6.28	126.66	114.10
26	BB	2499	C	C5'-C4'-C3'	-6.28	106.58	116.00
1	AA	4	U	N1-C1'-C2'	6.28	121.42	112.00
26	BB	665	U	O4'-C1'-N1	6.28	117.92	108.50
26	BB	1242	U	C3'-C2'-C1'	6.28	107.58	101.30
26	BB	1288	G	O5'-C5'-C4'	6.28	121.12	111.70
26	BB	2257	U	C4'-C3'-C2'	-6.28	96.32	102.60
26	BB	2660	A	C1'-O4'-C4'	-6.28	103.62	109.90
26	BB	2771	C	C4'-C3'-C2'	-6.28	96.32	102.60
26	BB	2808	G	P-O5'-C5'	6.28	130.32	120.90
1	AA	1470	U	O4'-C1'-C2'	6.28	113.88	107.60
2	AB	56	C	O4'-C1'-C2'	-6.28	101.33	107.60
26	BB	316	C	C1'-C2'-O2'	-6.28	98.99	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1525	G	O5'-C5'-C4'	-6.27	102.09	111.50
26	BB	233	A	C3'-C2'-C1'	6.27	107.57	101.30
1	AA	359	G	O4'-C1'-C2'	-6.27	101.33	107.60
1	AA	629	A	C5'-C4'-O4'	6.27	119.21	109.80
14	AN	6	ARG	CB-CA-C	6.27	120.85	109.62
26	BB	624	C	C3'-C2'-C1'	6.27	107.57	101.30
26	BB	1265	A	C3'-C2'-C1'	6.27	107.77	101.50
1	AA	1162	C	C1'-O4'-C4'	-6.27	103.63	109.90
26	BB	2589	A	N9-C1'-C2'	6.27	121.41	112.00
1	AA	530	G	P-O3'-C3'	6.27	129.60	120.20
1	AA	1153	G	C4'-C3'-O3'	6.27	122.41	113.00
7	AG	155	LYS	CA-C-N	6.27	128.97	120.44
7	AG	155	LYS	C-N-CA	6.27	128.97	120.44
25	BA	55	U	C3'-C2'-O2'	6.27	120.10	110.70
26	BB	292	U	C2'-C3'-O3'	-6.27	104.30	113.70
26	BB	534	U	C5'-C4'-O4'	6.27	119.20	109.80
26	BB	569	U	C1'-O4'-C4'	-6.27	103.43	109.70
26	BB	1791	A	C4'-C3'-O3'	-6.27	103.60	113.00
26	BB	620	G	O4'-C1'-C2'	-6.27	99.53	105.80
26	BB	2086	U	C4'-C3'-C2'	-6.27	96.33	102.60
1	AA	365	U	O4'-C1'-N1	6.27	117.90	108.50
1	AA	1310	G	C5'-C4'-O4'	6.27	119.20	109.80
1	AA	679	C	O4'-C4'-C3'	6.26	110.26	104.00
2	AB	68	C	O4'-C1'-N1	6.26	117.90	108.50
8	AH	84	VAL	O-C-N	6.26	129.61	123.03
18	AR	74	VAL	CA-C-N	6.26	128.92	120.65
18	AR	74	VAL	C-N-CA	6.26	128.92	120.65
26	BB	1300	G	C3'-C2'-C1'	6.26	107.56	101.30
26	BB	550	C	C1'-O4'-C4'	6.26	116.16	109.90
1	AA	1028	C	C1'-O4'-C4'	-6.26	103.64	109.90
1	AA	1184	G	C4'-C3'-C2'	-6.26	96.34	102.60
25	BA	57	A	C2'-C3'-O3'	6.26	123.09	113.70
7	AG	61	ARG	CD-NE-CZ	6.26	133.16	124.40
26	BB	300	A	C3'-C2'-C1'	-6.26	95.04	101.30
26	BB	576	U	C3'-C2'-C1'	6.26	107.56	101.30
26	BB	2543	G	C5'-C4'-C3'	-6.26	106.61	116.00
26	BB	2664	G	C4'-C3'-O3'	-6.26	103.61	113.00
39	BO	76	LYS	CA-C-N	6.26	126.23	119.78
39	BO	76	LYS	C-N-CA	6.26	126.23	119.78
26	BB	1172	C	C2'-C3'-O3'	6.26	123.09	113.70
1	AA	606	G	C5'-C4'-C3'	-6.26	106.61	116.00
1	AA	1431	A	C4'-C3'-O3'	-6.26	103.62	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	803	U	C5'-C4'-O4'	6.26	119.19	109.80
26	BB	1632	A	C4'-C3'-C2'	-6.26	96.34	102.60
32	BH	138	GLN	CA-C-O	-6.26	114.25	120.70
26	BB	1065	U	C3'-C2'-O2'	6.25	120.08	110.70
1	AA	911	U	O3'-P-O5'	-6.25	94.62	104.00
26	BB	1400	U	O4'-C1'-N1	6.25	117.88	108.50
26	BB	1824	G	P-O3'-C3'	6.25	129.58	120.20
26	BB	2177	C	O5'-C5'-C4'	-6.25	102.12	111.50
1	AA	338	A	C5'-C4'-O4'	6.25	119.18	109.80
1	AA	368	U	C1'-O4'-C4'	-6.25	103.65	109.90
5	AE	43	GLU	O-C-N	6.25	128.75	122.12
26	BB	371	A	C1'-C2'-O2'	6.25	121.18	111.80
26	BB	464	U	C4'-C3'-C2'	-6.25	96.35	102.60
26	BB	914	G	O4'-C4'-C3'	6.25	110.25	104.00
36	BL	26	GLY	CA-C-O	-6.25	112.08	119.45
1	AA	833	G	C4'-C3'-C2'	-6.25	96.35	102.60
6	AF	54	ILE	CB-CA-C	6.25	119.45	110.33
26	BB	170	U	O4'-C1'-N1	6.25	117.87	108.50
26	BB	1539	U	C4'-C3'-O3'	-6.25	103.63	113.00
1	AA	1460	C	N1-C1'-C2'	-6.25	102.63	112.00
26	BB	823	C	C5'-C4'-C3'	-6.25	106.63	116.00
26	BB	2137	U	C5'-C4'-C3'	-6.25	106.63	116.00
26	BB	2574	G	C1'-O4'-C4'	6.25	116.15	109.90
26	BB	2581	G	O3'-P-O5'	-6.25	94.63	104.00
29	BE	66	GLY	CA-C-N	6.25	128.90	120.65
29	BE	66	GLY	C-N-CA	6.25	128.90	120.65
26	BB	2424	C	O3'-P-O5'	-6.25	94.63	104.00
1	AA	353	A	C2'-C3'-O3'	6.24	123.07	113.70
1	AA	391	G	C1'-C2'-O2'	-6.24	99.03	108.40
1	AA	1300	G	O4'-C1'-N9	-6.24	98.83	108.20
9	AI	106	LYS	N-CA-C	-6.24	104.16	110.97
26	BB	1385	A	O3'-P-O5'	-6.24	94.64	104.00
26	BB	1394	U	C4'-C3'-C2'	6.24	108.84	102.60
52	B1	43	ILE	CA-CB-CG1	6.24	121.01	110.40
8	AH	54	GLU	CA-C-N	6.24	124.17	120.24
8	AH	54	GLU	C-N-CA	6.24	124.17	120.24
1	AA	231	U	C3'-C2'-C1'	6.24	107.54	101.30
2	AB	13	C	C4'-C3'-C2'	-6.24	96.36	102.60
26	BB	1941	C	C1'-O4'-C4'	6.24	116.14	109.90
26	BB	2615	U	C5'-C4'-O4'	6.24	119.16	109.80
1	AA	776	G	O3'-P-O5'	-6.24	94.64	104.00
3	AC	22	G	C3'-C2'-C1'	6.24	107.74	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1095	A	N9-C1'-C2'	6.24	121.36	112.00
26	BB	1169	A	C4'-C3'-O3'	-6.24	103.64	113.00
36	BL	37	ARG	NE-CZ-NH2	6.24	124.81	119.20
1	AA	494	G	N9-C1'-C2'	6.24	121.35	112.00
1	AA	1213	A	C2'-C3'-O3'	6.24	123.05	113.70
1	AA	1228	C	C4'-C3'-C2'	-6.24	96.36	102.60
21	AU	60	ARG	NE-CZ-NH1	6.24	127.74	121.50
26	BB	121	G	C3'-C2'-C1'	-6.24	95.06	101.30
26	BB	1484	U	C5'-C4'-C3'	-6.24	106.65	116.00
26	BB	1833	C	O5'-C5'-C4'	6.24	120.85	111.50
26	BB	2885	G	C3'-C2'-C1'	-6.24	95.06	101.30
41	BQ	74	VAL	CA-C-N	6.24	126.90	119.98
41	BQ	74	VAL	C-N-CA	6.24	126.90	119.98
46	BV	77	ARG	NE-CZ-NH1	-6.24	115.27	121.50
53	B2	5	ILE	CA-CB-CG1	6.24	121.00	110.40
26	BB	1829	A	O4'-C4'-C3'	6.23	110.23	104.00
48	BX	78	GLN	OE1-CD-NE2	-6.23	116.37	122.60
1	AA	1489	G	C5'-C4'-O4'	6.23	119.15	109.80
26	BB	147	C	C4'-C3'-C2'	-6.23	96.37	102.60
26	BB	437	U	O5'-C5'-C4'	-6.23	102.15	111.50
26	BB	1304	A	C1'-C2'-O2'	-6.23	99.05	108.40
26	BB	1780	A	O3'-P-O5'	-6.23	94.65	104.00
26	BB	2681	C	O4'-C1'-C2'	6.23	112.03	105.80
47	BW	60	LYS	CA-C-O	-6.23	113.40	120.32
1	AA	129	A	O4'-C1'-C2'	-6.23	99.57	105.80
1	AA	1234	C	O4'-C4'-C3'	6.23	110.23	104.00
1	AA	1391	U	O5'-C5'-C4'	-6.23	102.15	111.50
2	AB	34	C	C3'-C2'-C1'	6.23	107.53	101.30
26	BB	205	G	O4'-C4'-C3'	-6.23	99.87	106.10
26	BB	276	U	C4'-C3'-C2'	-6.23	96.37	102.60
26	BB	889	C	O4'-C4'-C3'	-6.23	97.77	104.00
26	BB	1951	U	P-O5'-C5'	6.23	130.24	120.90
26	BB	2450	A	O5'-C5'-C4'	6.23	120.84	111.50
26	BB	2743	U	N1-C1'-C2'	6.23	121.34	112.00
26	BB	2893	A	C2'-C3'-O3'	6.23	118.85	109.50
33	BI	117	LEU	CA-C-N	6.23	126.35	119.87
33	BI	117	LEU	C-N-CA	6.23	126.35	119.87
1	AA	1416	G	C4'-C3'-C2'	-6.23	96.37	102.60
3	AC	47	C	C1'-O4'-C4'	-6.23	103.47	109.70
26	BB	2400	G	C1'-O4'-C4'	6.23	116.13	109.90
27	BC	147	PRO	CA-C-N	6.23	133.44	121.54
27	BC	147	PRO	C-N-CA	6.23	133.44	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	312	C	C1'-C2'-O2'	6.23	117.74	108.40
1	AA	502	A	C3'-C2'-C1'	-6.23	95.07	101.30
2	AB	34	C	P-O3'-C3'	6.23	129.54	120.20
26	BB	809	G	C2'-C3'-O3'	6.23	123.04	113.70
26	BB	990	A	C3'-C2'-C1'	6.23	107.53	101.30
26	BB	1097	U	O4'-C1'-N1	6.23	117.84	108.50
26	BB	1294	U	C3'-C2'-C1'	-6.23	95.07	101.30
26	BB	1364	G	O4'-C4'-C3'	6.23	110.23	104.00
26	BB	2051	A	C3'-C2'-C1'	6.23	107.73	101.50
1	AA	819	A	P-O3'-C3'	6.23	129.54	120.20
26	BB	2128	G	O4'-C4'-C3'	6.23	110.23	104.00
1	AA	1	A	O4'-C1'-C2'	-6.22	101.38	107.60
1	AA	324	G	O3'-P-O5'	6.22	113.33	104.00
26	BB	1128	G	C5'-C4'-C3'	-6.22	105.86	115.20
17	AQ	100	TRP	CZ3-CH2-CZ2	-6.22	113.41	121.50
26	BB	1195	G	C4'-C3'-C2'	-6.22	96.38	102.60
42	BR	69	VAL	CA-C-N	6.22	130.96	122.19
42	BR	69	VAL	C-N-CA	6.22	130.96	122.19
1	AA	581	G	O4'-C1'-C2'	-6.22	101.38	107.60
1	AA	50	A	C4'-C3'-C2'	-6.22	96.38	102.60
1	AA	573	A	C5'-C4'-O4'	6.22	119.13	109.80
26	BB	310	A	O4'-C1'-C2'	-6.22	99.58	105.80
26	BB	1934	C	C4'-C3'-C2'	-6.22	96.38	102.60
26	BB	2381	A	C1'-O4'-C4'	6.22	116.12	109.90
26	BB	2533	U	C5'-C4'-C3'	-6.22	106.67	116.00
1	AA	472	U	C3'-C2'-C1'	6.22	107.52	101.30
26	BB	31	C	O4'-C4'-C3'	6.22	110.22	104.00
26	BB	1449	G	C5'-C4'-C3'	-6.22	106.68	116.00
26	BB	2646	C	C1'-O4'-C4'	6.22	116.12	109.90
8	AH	55	VAL	CA-C-O	-6.21	113.57	118.85
26	BB	843	G	O4'-C4'-C3'	6.21	110.22	104.00
1	AA	255	G	O4'-C4'-C3'	6.21	110.21	104.00
1	AA	632	U	C1'-O4'-C4'	-6.21	103.69	109.90
26	BB	733	G	C4'-C3'-C2'	-6.21	96.39	102.60
26	BB	2692	G	O4'-C1'-N9	6.21	117.82	108.50
1	AA	551	U	C5'-C4'-C3'	-6.21	106.68	116.00
26	BB	232	G	C4'-C3'-C2'	6.21	108.81	102.60
26	BB	454	A	C2'-C3'-O3'	6.21	118.82	109.50
26	BB	719	C	C5'-C4'-O4'	6.21	119.12	109.80
26	BB	908	C	C1'-O4'-C4'	-6.21	103.69	109.90
26	BB	1930	G	C5'-C4'-C3'	6.21	125.32	116.00
28	BD	237	ARG	CA-C-N	6.21	131.57	122.63

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	BD	237	ARG	C-N-CA	6.21	131.57	122.63
1	AA	1451	U	C1'-C2'-O2'	6.21	117.72	108.40
13	AM	97	ASP	CA-CB-CG	6.21	118.81	112.60
14	AN	121	ARG	CA-C-N	6.21	126.78	120.38
14	AN	121	ARG	C-N-CA	6.21	126.78	120.38
26	BB	802	A	O3'-P-O5'	-6.21	94.68	104.00
26	BB	1498	C	C1'-O4'-C4'	6.21	116.11	109.90
30	BF	91	ASP	CA-CB-CG	6.21	118.81	112.60
1	AA	402	G	C4'-C3'-C2'	-6.21	96.39	102.60
26	BB	2209	G	C3'-C2'-C1'	6.21	107.51	101.30
26	BB	2237	G	O4'-C4'-C3'	6.21	110.21	104.00
29	BE	175	LEU	CA-C-N	6.21	129.64	120.95
29	BE	175	LEU	C-N-CA	6.21	129.64	120.95
1	AA	1018	G	C4'-C3'-O3'	6.21	122.31	113.00
13	AM	74	VAL	CA-C-N	6.21	133.40	121.54
13	AM	74	VAL	C-N-CA	6.21	133.40	121.54
26	BB	416	U	O4'-C1'-N1	6.21	117.81	108.50
26	BB	495	G	C4'-C3'-O3'	-6.21	103.69	113.00
26	BB	1955	U	C1'-O4'-C4'	-6.21	103.49	109.70
26	BB	2328	A	O3'-P-O5'	-6.21	94.69	104.00
26	BB	2699	C	O4'-C4'-C3'	6.21	110.21	104.00
38	BN	116	VAL	CA-C-N	6.21	133.39	121.54
38	BN	116	VAL	C-N-CA	6.21	133.39	121.54
5	AE	230	SER	CA-C-N	6.21	128.51	120.44
5	AE	230	SER	C-N-CA	6.21	128.51	120.44
16	AP	75	SER	CA-C-O	-6.21	113.84	120.42
26	BB	911	A	C1'-O4'-C4'	6.21	116.11	109.90
26	BB	2057	G	C2'-C3'-O3'	-6.21	104.39	113.70
1	AA	406	G	O4'-C1'-C2'	-6.20	101.40	107.60
17	AQ	70	HIS	CA-C-N	6.20	132.17	121.07
17	AQ	70	HIS	C-N-CA	6.20	132.17	121.07
25	BA	105	G	O4'-C4'-C3'	6.20	110.20	104.00
26	BB	250	G	P-O5'-C5'	6.20	130.21	120.90
26	BB	963	U	C3'-C2'-O2'	6.20	120.00	110.70
26	BB	2572	A	O4'-C1'-N9	6.20	117.51	108.20
36	BL	74	TYR	CA-C-N	6.20	129.68	120.87
36	BL	74	TYR	C-N-CA	6.20	129.68	120.87
26	BB	1155	A	C1'-O4'-C4'	-6.20	103.70	109.90
26	BB	2055	C	C3'-C2'-C1'	6.20	107.50	101.30
30	BF	16	GLU	N-CA-C	-6.20	104.60	111.36
1	AA	78	A	P-O5'-C5'	6.20	130.20	120.90
1	AA	275	G	C3'-C2'-O2'	6.20	120.00	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1372	U	O4'-C1'-N1	6.20	117.80	108.50
26	BB	2290	G	C5'-C4'-C3'	-6.20	106.70	116.00
49	BY	10	ARG	NE-CZ-NH2	6.20	124.78	119.20
1	AA	62	U	C4'-C3'-O3'	-6.20	103.70	113.00
1	AA	634	C	C3'-C2'-C1'	6.20	107.50	101.30
20	AT	72	TRP	CB-CG-CD1	-6.20	117.60	126.90
26	BB	447	A	O4'-C1'-N9	6.20	117.50	108.20
17	AQ	29	ILE	N-CA-C	6.20	117.75	111.00
26	BB	1051	G	C4'-C3'-C2'	-6.20	96.40	102.60
26	BB	1870	C	C2'-C3'-O3'	-6.20	104.41	113.70
1	AA	675	A	C4'-C3'-C2'	-6.20	96.40	102.60
1	AA	784	A	C5'-C4'-C3'	-6.20	106.71	116.00
11	AK	66	GLN	N-CA-C	-6.19	106.36	114.04
26	BB	1460	U	P-O3'-C3'	6.19	129.49	120.20
26	BB	1470	A	C1'-C2'-O2'	-6.19	99.11	108.40
26	BB	2160	C	O4'-C1'-C2'	-6.19	101.41	107.60
33	BI	90	LEU	CA-C-N	6.19	128.82	120.65
33	BI	90	LEU	C-N-CA	6.19	128.82	120.65
49	BY	36	ILE	CA-C-O	-6.19	113.04	120.78
1	AA	746	A	C1'-O4'-C4'	-6.19	103.71	109.90
17	AQ	91	GLU	CA-C-N	6.19	129.46	123.02
17	AQ	91	GLU	C-N-CA	6.19	129.46	123.02
25	BA	11	C	O4'-C1'-N1	6.19	117.79	108.50
26	BB	302	C	C5'-C4'-C3'	-6.19	106.71	116.00
26	BB	817	C	C4'-C3'-C2'	-6.19	96.41	102.60
26	BB	1027	A	O5'-C5'-C4'	6.19	120.79	111.50
26	BB	2326	C	O4'-C1'-C2'	-6.19	101.41	107.60
31	BG	110	ILE	CA-CB-CG1	6.19	120.93	110.40
36	BL	91	GLU	CA-C-N	6.19	129.20	120.28
36	BL	91	GLU	C-N-CA	6.19	129.20	120.28
46	BV	36	LYS	N-CA-C	-6.19	105.69	113.18
1	AA	304	U	O4'-C4'-C3'	6.19	110.19	104.00
1	AA	460	A	P-O3'-C3'	6.19	129.49	120.20
1	AA	1510	C	O4'-C1'-N1	6.19	117.79	108.50
26	BB	620	G	C5'-C4'-O4'	-6.19	99.81	109.10
51	B0	11	VAL	CA-CB-CG2	6.19	120.92	110.40
1	AA	582	C	P-O3'-C3'	6.19	129.48	120.20
26	BB	373	U	C3'-C2'-O2'	6.19	119.98	110.70
1	AA	376	G	C1'-O4'-C4'	-6.19	103.71	109.90
17	AQ	69	PRO	CA-C-N	6.19	133.36	121.54
17	AQ	69	PRO	C-N-CA	6.19	133.36	121.54
26	BB	1078	U	O4'-C1'-N1	6.19	117.48	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1352	U	C3'-C2'-C1'	-6.19	95.11	101.30
53	B2	65	ASN	CA-C-N	6.19	125.28	120.33
53	B2	65	ASN	C-N-CA	6.19	125.28	120.33
26	BB	1968	G	C3'-C2'-C1'	6.19	107.49	101.30
5	AE	17	HIS	CA-C-O	-6.18	111.67	120.51
5	AE	26	MET	CA-C-N	6.18	128.74	120.58
5	AE	26	MET	C-N-CA	6.18	128.74	120.58
5	AE	152	ASP	CA-CB-CG	6.18	118.78	112.60
26	BB	632	A	C4'-C3'-C2'	-6.18	96.42	102.60
40	BP	11	ASN	CA-CB-CG	6.18	118.78	112.60
1	AA	34	C	O3'-P-O5'	-6.18	94.73	104.00
7	AG	103	ARG	CA-C-N	6.18	129.71	120.31
7	AG	103	ARG	C-N-CA	6.18	129.71	120.31
26	BB	610	C	C3'-C2'-O2'	6.18	119.97	110.70
28	BD	17	LYS	CB-CA-C	6.18	121.18	109.37
49	BY	2	HIS	CE1-NE2-CD2	-6.18	102.82	109.00
50	BZ	22	ASN	CA-CB-CG	-6.18	106.42	112.60
57	B6	46	LYS	CA-C-N	6.18	132.26	122.62
57	B6	46	LYS	C-N-CA	6.18	132.26	122.62
26	BB	335	C	C4'-C3'-C2'	-6.18	96.42	102.60
26	BB	1122	G	O5'-C5'-C4'	6.18	120.77	111.50
26	BB	1522	A	O4'-C4'-C3'	6.18	112.28	106.10
26	BB	1615	C	O4'-C1'-N1	6.18	117.47	108.20
26	BB	1741	C	C4'-C3'-C2'	-6.18	96.42	102.60
6	AF	78	LYS	CA-C-N	6.18	131.16	122.08
6	AF	78	LYS	C-N-CA	6.18	131.16	122.08
26	BB	302	C	O4'-C1'-N1	6.18	117.77	108.50
26	BB	374	A	C4'-C3'-C2'	-6.18	96.42	102.60
26	BB	981	A	O4'-C4'-C3'	6.18	110.18	104.00
26	BB	1703	G	C4'-C3'-O3'	6.18	122.27	113.00
8	AH	76	ASN	CA-C-N	6.18	133.34	121.54
8	AH	76	ASN	C-N-CA	6.18	133.34	121.54
26	BB	2530	A	P-O5'-C5'	6.18	130.16	120.90
47	BW	46	LYS	CB-CA-C	6.18	119.28	109.52
10	AJ	15	PRO	N-CA-CB	6.17	109.07	103.20
22	AV	13	HIS	CA-CB-CG	6.17	119.97	113.80
26	BB	279	A	O4'-C1'-N9	6.17	117.76	108.50
26	BB	299	A	O4'-C1'-N9	6.17	117.76	108.50
26	BB	566	U	C3'-C2'-O2'	6.17	119.96	110.70
27	BC	112	ASP	CA-CB-CG	-6.17	106.43	112.60
38	BN	23	ILE	N-CA-C	-6.17	107.48	113.53
1	AA	1227	A	P-O3'-C3'	6.17	129.46	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	580	U	C5'-C4'-O4'	6.17	119.06	109.80
26	BB	2193	G	O4'-C4'-C3'	6.17	110.17	104.00
1	AA	1122	U	C4'-C3'-C2'	-6.17	96.43	102.60
8	AH	120	HIS	CE1-NE2-CD2	-6.17	102.83	109.00
26	BB	582	A	O4'-C1'-C2'	-6.17	101.43	107.60
26	BB	2402	U	C1'-C2'-O2'	6.17	117.66	108.40
26	BB	1641	A	O3'-P-O5'	6.17	113.25	104.00
1	AA	876	C	O4'-C1'-N1	6.17	117.75	108.50
1	AA	1458	G	O4'-C1'-N9	6.17	117.75	108.50
2	AB	48	U	C1'-O4'-C4'	-6.17	103.73	109.90
26	BB	221	A	O4'-C1'-N9	6.17	117.45	108.20
34	BJ	36	LYS	N-CA-C	6.17	118.00	111.28
1	AA	188	C	O4'-C1'-C2'	-6.17	101.43	107.60
1	AA	1147	C	O5'-C5'-C4'	-6.17	102.25	111.50
29	BE	206	ALA	CA-C-N	6.17	130.90	120.29
29	BE	206	ALA	C-N-CA	6.17	130.90	120.29
1	AA	1167	A	C4'-C3'-O3'	6.17	122.25	113.00
48	BX	45	ASP	CA-CB-CG	6.17	118.77	112.60
1	AA	719	C	C5'-C4'-O4'	-6.16	99.86	109.10
1	AA	965	U	C1'-O4'-C4'	-6.16	103.54	109.70
6	AF	39	ARG	O-C-N	6.16	128.75	122.09
26	BB	936	A	C5'-C4'-C3'	-6.16	106.76	116.00
30	BF	69	ARG	CA-C-N	6.16	131.11	122.36
30	BF	69	ARG	C-N-CA	6.16	131.11	122.36
39	BO	64	TRP	CE2-CD2-CE3	-6.16	112.64	118.80
1	AA	651	C	C5'-C4'-C3'	-6.16	106.76	116.00
1	AA	1142	G	C4'-C3'-C2'	-6.16	96.44	102.60
1	AA	1257	A	C4'-C3'-C2'	-6.16	96.44	102.60
20	AT	72	TRP	CB-CG-CD2	6.16	135.42	126.80
26	BB	1811	G	O4'-C4'-C3'	6.16	110.16	104.00
27	BC	150	ALA	CA-C-N	6.16	128.45	120.44
27	BC	150	ALA	C-N-CA	6.16	128.45	120.44
1	AA	182	A	O4'-C1'-C2'	-6.16	99.64	105.80
1	AA	934	C	C4'-C3'-C2'	-6.16	96.44	102.60
26	BB	2259	U	C4'-C3'-C2'	6.16	108.76	102.60
26	BB	2867	G	C1'-O4'-C4'	6.16	115.86	109.70
32	BH	53	PRO	CA-C-O	-6.16	114.09	121.48
1	AA	9	G	C3'-C2'-O2'	6.16	119.94	110.70
26	BB	15	G	C5'-C4'-C3'	6.16	125.24	116.00
26	BB	2624	G	C3'-C2'-O2'	6.16	119.94	110.70
30	BF	111	GLU	N-CA-CB	-6.16	101.07	110.12
1	AA	210	C	O3'-P-O5'	6.16	113.23	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	86	G	C1'-O4'-C4'	-6.16	103.74	109.90
26	BB	1325	U	O3'-P-O5'	-6.16	94.77	104.00
26	BB	2350	C	O4'-C1'-C2'	-6.16	101.44	107.60
26	BB	79	C	C4'-C3'-C2'	-6.15	96.45	102.60
1	AA	485	U	C3'-C2'-O2'	-6.15	105.37	114.60
1	AA	843	U	C5'-C4'-C3'	-6.15	106.77	116.00
24	AX	48	LYS	CA-C-N	6.15	128.85	120.54
24	AX	48	LYS	C-N-CA	6.15	128.85	120.54
26	BB	533	G	N9-C1'-C2'	-6.15	102.77	112.00
26	BB	1493	C	O3'-P-O5'	-6.15	94.77	104.00
26	BB	2087	G	C1'-O4'-C4'	-6.15	103.75	109.90
26	BB	2559	C	C4'-C3'-C2'	-6.15	96.45	102.60
1	AA	1302	C	P-O3'-C3'	6.15	129.43	120.20
14	AN	69	CYS	CA-C-O	-6.15	114.36	120.70
26	BB	503	A	C4'-C3'-C2'	-6.15	96.45	102.60
26	BB	648	G	C4'-C3'-C2'	-6.15	96.45	102.60
6	AF	45	GLU	N-CA-C	6.15	118.95	111.82
26	BB	2065	C	C1'-C2'-O2'	6.15	117.62	108.40
26	BB	2587	A	O4'-C1'-N9	6.15	117.72	108.50
34	BJ	79	THR	CA-CB-CG2	6.15	120.95	110.50
51	B0	12	GLU	CA-C-N	6.15	130.97	121.19
51	B0	12	GLU	C-N-CA	6.15	130.97	121.19
1	AA	316	C	C5'-C4'-C3'	-6.15	106.78	116.00
7	AG	203	TYR	N-CA-C	6.15	120.47	113.15
23	AW	73	ARG	NE-CZ-NH2	-6.15	113.67	119.20
26	BB	223	A	O5'-C5'-C4'	-6.15	102.28	111.50
26	BB	448	U	C3'-C2'-C1'	6.15	107.65	101.50
26	BB	779	U	C4'-C3'-C2'	-6.15	96.45	102.60
26	BB	2011	U	O4'-C4'-C3'	6.15	110.15	104.00
26	BB	2155	U	C4'-C3'-C2'	-6.15	96.45	102.60
26	BB	2737	G	C1'-O4'-C4'	-6.15	103.75	109.90
1	AA	562	U	C2'-C3'-O3'	6.15	118.72	109.50
1	AA	1171	A	C3'-C2'-O2'	6.14	119.92	110.70
1	AA	1514	G	C4'-C3'-O3'	-6.14	103.78	113.00
26	BB	2038	G	O4'-C4'-C3'	6.14	110.14	104.00
26	BB	2039	U	C3'-C2'-O2'	6.14	119.92	110.70
26	BB	2274	A	C1'-O4'-C4'	6.14	116.05	109.90
34	BJ	64	GLU	O-C-N	6.14	128.73	122.09
37	BM	34	GLY	O-C-N	-6.14	117.53	122.81
57	B6	23	HIS	CB-CG-ND1	6.14	131.92	122.70
1	AA	142	G	O4'-C1'-N9	6.14	117.71	108.50
1	AA	1395	C	C4'-C3'-C2'	-6.14	96.46	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	76	C	O5'-C5'-C4'	-6.14	102.28	111.50
52	B1	19	HIS	CB-CG-CD2	-6.14	123.21	131.20
4	AD	64	G	C2'-C3'-O3'	6.14	122.91	113.70
26	BB	990	A	C1'-C2'-O2'	-6.14	99.19	108.40
26	BB	2745	C	C5'-C4'-C3'	-6.14	106.79	116.00
34	BJ	56	ASN	CA-CB-CG	6.14	118.74	112.60
34	BJ	62	ALA	CB-CA-C	6.14	121.29	110.85
41	BQ	12	THR	O-C-N	-6.14	115.03	122.22
26	BB	238	C	C1'-C2'-O2'	6.14	117.61	108.40
26	BB	436	C	C1'-C2'-O2'	6.14	117.61	108.40
26	BB	685	A	N9-C1'-C2'	-6.14	104.79	114.00
35	BK	95	ASP	CA-C-O	-6.14	113.74	120.43
1	AA	1493	A	C5'-C4'-C3'	-6.14	106.79	116.00
1	AA	1111	A	C3'-C2'-C1'	6.14	107.44	101.30
2	AB	13	C	O4'-C4'-C3'	6.14	110.14	104.00
25	BA	44	G	O5'-C5'-C4'	6.14	120.90	111.70
26	BB	532	A	O4'-C1'-N9	6.14	117.40	108.20
26	BB	1466	U	N1-C1'-C2'	-6.14	102.80	112.00
26	BB	1817	G	C1'-C2'-O2'	6.14	117.61	108.40
26	BB	1952	A	C3'-C2'-C1'	6.14	107.64	101.50
26	BB	2570	G	O3'-P-O5'	-6.14	94.80	104.00
50	BZ	17	ARG	NE-CZ-NH1	-6.14	115.36	121.50
1	AA	258	G	C4'-C3'-O3'	6.13	122.20	113.00
1	AA	394	G	C1'-C2'-O2'	-6.13	99.20	108.40
1	AA	1538	C	O4'-C4'-C3'	6.13	110.14	104.00
2	AB	49	G	O4'-C1'-N9	6.13	117.70	108.50
26	BB	179	C	C1'-O4'-C4'	6.13	116.03	109.90
26	BB	648	G	O4'-C1'-C2'	-6.13	101.47	107.60
40	BP	61	ALA	CA-C-O	6.13	127.05	120.55
7	AG	62	ARG	NE-CZ-NH1	6.13	127.63	121.50
20	AT	42	LYS	CA-C-N	6.13	132.14	122.94
20	AT	42	LYS	C-N-CA	6.13	132.14	122.94
26	BB	1820	U	O5'-C5'-C4'	-6.13	102.50	111.70
33	BI	33	GLN	O-C-N	6.13	130.32	122.04
54	B3	42	ILE	CB-CA-C	6.13	119.97	110.83
1	AA	921	U	O4'-C1'-C2'	-6.13	101.47	107.60
26	BB	1229	C	C5'-C4'-O4'	6.13	119.00	109.80
38	BN	86	GLU	CA-C-N	6.13	133.43	121.41
38	BN	86	GLU	C-N-CA	6.13	133.43	121.41
41	BQ	81	ARG	O-C-N	-6.13	114.73	122.27
51	B0	39	GLN	CA-C-N	6.13	130.41	120.60
51	B0	39	GLN	C-N-CA	6.13	130.41	120.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	13	U	N1-C1'-C2'	6.13	123.19	114.00
26	BB	2745	C	C3'-C2'-C1'	6.13	107.43	101.30
46	BV	46	ALA	CA-C-O	-6.13	114.33	121.07
1	AA	1042	A	C2'-C3'-O3'	-6.13	104.51	113.70
1	AA	1084	G	C5'-C4'-O4'	-6.13	100.61	109.80
6	AF	212	ALA	CA-C-O	6.13	128.05	121.55
31	BG	16	MET	CA-C-O	-6.13	114.06	120.55
33	BI	125	THR	O-C-N	-6.13	115.27	122.81
1	AA	579	A	C1'-O4'-C4'	-6.13	103.77	109.90
1	AA	1082	A	O4'-C4'-C3'	6.13	110.13	104.00
1	AA	1338	G	O4'-C1'-C2'	-6.13	101.47	107.60
26	BB	45	G	C3'-C2'-C1'	6.13	107.43	101.30
50	BZ	67	LEU	CA-C-O	-6.13	114.39	120.82
26	BB	1015	U	N1-C1'-C2'	-6.12	102.81	112.00
26	BB	1406	U	O3'-P-O5'	-6.12	94.81	104.00
39	BO	3	GLN	N-CA-CB	-6.12	104.67	111.10
1	AA	547	A	O4'-C1'-N9	6.12	117.38	108.20
23	AW	2	ASN	CA-C-N	6.12	129.31	120.98
23	AW	2	ASN	C-N-CA	6.12	129.31	120.98
26	BB	2657	A	C5'-C4'-C3'	-6.12	106.81	116.00
1	AA	800	G	C1'-O4'-C4'	-6.12	103.78	109.90
1	AA	1183	U	C2'-C3'-O3'	6.12	122.88	113.70
9	AI	29	ILE	CB-CA-C	-6.12	104.02	112.04
26	BB	997	G	C3'-C2'-C1'	-6.12	95.18	101.30
27	BC	141	LYS	CA-C-N	6.12	129.11	120.42
27	BC	141	LYS	C-N-CA	6.12	129.11	120.42
12	AL	18	VAL	CA-CB-CG2	6.12	120.81	110.40
26	BB	2756	U	O3'-P-O5'	6.12	113.18	104.00
34	BJ	149	LYS	O-C-N	6.12	128.61	122.12
1	AA	25	C	C1'-C2'-O2'	6.12	117.58	108.40
3	AC	58	C	C3'-C2'-C1'	6.12	107.42	101.30
4	AD	28	U	C2'-C3'-O3'	-6.12	104.52	113.70
1	AA	29	U	C5'-C4'-C3'	-6.12	106.83	116.00
1	AA	479	U	O4'-C1'-N1	6.12	117.68	108.50
3	AC	22	G	C4'-C3'-O3'	6.12	118.58	109.40
13	AM	50	THR	CA-CB-CG2	6.12	120.90	110.50
26	BB	1366	A	C4'-C3'-C2'	-6.12	96.48	102.60
26	BB	2210	U	C5'-C4'-O4'	6.12	118.28	109.10
1	AA	710	G	C1'-O4'-C4'	-6.12	103.78	109.90
26	BB	1097	U	C3'-C2'-C1'	6.12	107.42	101.30
26	BB	1932	A	C3'-C2'-O2'	6.12	119.87	110.70
26	BB	2540	C	C1'-C2'-O2'	6.12	117.57	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BH	172	GLU	CA-C-N	6.12	131.21	120.87
32	BH	172	GLU	C-N-CA	6.12	131.21	120.87
36	BL	40	HIS	CG-ND1-CE1	-6.12	98.90	109.30
1	AA	362	G	P-O5'-C5'	6.11	130.07	120.90
15	AO	51	VAL	CA-CB-CG1	6.11	120.79	110.40
26	BB	1587	G	C3'-C2'-C1'	6.11	107.41	101.30
26	BB	2205	A	C3'-C2'-C1'	-6.11	95.19	101.30
1	AA	10	A	C4'-C3'-C2'	-6.11	96.49	102.60
1	AA	1486	G	O3'-P-O5'	-6.11	94.83	104.00
26	BB	597	G	O3'-P-O5'	-6.11	94.83	104.00
26	BB	1157	G	O5'-C5'-C4'	6.11	120.67	111.50
26	BB	2031	A	C4'-C3'-O3'	6.11	118.57	109.40
36	BL	112	GLY	CA-C-N	6.11	125.59	119.24
36	BL	112	GLY	C-N-CA	6.11	125.59	119.24
1	AA	1268	G	O4'-C1'-N9	6.11	117.66	108.50
1	AA	1533	C	O3'-P-O5'	-6.11	94.84	104.00
13	AM	56	HIS	CE1-NE2-CD2	-6.11	102.89	109.00
34	BJ	28	ASP	O-C-N	-6.11	116.03	123.30
16	AP	90	HIS	CA-C-N	6.11	128.46	120.28
16	AP	90	HIS	C-N-CA	6.11	128.46	120.28
26	BB	1697	G	O3'-P-O5'	-6.11	94.84	104.00
29	BE	12	THR	CA-CB-OG1	6.11	118.76	109.60
1	AA	1244	G	O3'-P-O5'	-6.11	94.84	104.00
26	BB	484	C	P-O5'-C5'	6.11	130.06	120.90
26	BB	1919	A	O4'-C4'-C3'	6.11	110.11	104.00
26	BB	2556	C	O4'-C1'-N1	6.11	117.66	108.50
1	AA	1345	U	O4'-C4'-C3'	6.10	112.20	106.10
3	AC	44	U	C3'-C2'-C1'	6.10	107.40	101.30
10	AJ	27	ASN	CA-C-O	-6.10	114.41	120.70
37	BM	49	ARG	CA-C-N	6.10	129.68	121.01
37	BM	49	ARG	C-N-CA	6.10	129.68	121.01
1	AA	1495	U	O5'-C5'-C4'	-6.10	102.35	111.50
2	AB	28	C	C1'-C2'-O2'	-6.10	99.25	108.40
5	AE	12	GLY	N-CA-C	6.10	121.55	114.16
10	AJ	104	VAL	CA-CB-CG1	6.10	120.78	110.40
26	BB	611	C	O4'-C1'-N1	6.10	117.65	108.50
26	BB	1479	G	C2'-C3'-O3'	-6.10	104.55	113.70
28	BD	270	ARG	NE-CZ-NH1	-6.10	115.40	121.50
4	AD	57	C	O5'-C5'-C4'	-6.10	102.35	111.50
5	AE	115	ASP	CA-CB-CG	6.10	118.70	112.60
26	BB	1853	A	C3'-C2'-C1'	6.10	107.40	101.30
27	BC	67	HIS	CA-CB-CG	-6.10	107.70	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	859	G	C5'-C4'-C3'	-6.10	106.85	116.00
26	BB	603	A	N9-C1'-C2'	6.10	123.15	114.00
31	BG	12	VAL	CA-C-O	-6.10	114.39	120.85
37	BM	107	LEU	N-CA-CB	-6.10	101.11	110.44
1	AA	866	C	C1'-O4'-C4'	6.10	116.00	109.90
26	BB	2280	G	O3'-P-O5'	6.10	113.14	104.00
40	BP	83	LEU	CA-C-N	6.10	131.44	121.87
40	BP	83	LEU	C-N-CA	6.10	131.44	121.87
1	AA	328	C	O4'-C1'-N1	6.09	117.34	108.20
1	AA	671	G	C4'-C3'-C2'	-6.09	96.50	102.60
1	AA	1156	G	C5'-C4'-C3'	-6.09	106.86	116.00
1	AA	1353	G	O4'-C1'-N9	6.09	117.64	108.50
6	AF	91	ALA	CA-C-O	-6.09	114.09	120.55
30	BF	134	LEU	CA-C-N	6.09	129.06	120.28
30	BF	134	LEU	C-N-CA	6.09	129.06	120.28
38	BN	30	THR	CA-CB-CG2	6.09	120.86	110.50
1	AA	325	A	C4'-C3'-O3'	6.09	122.14	113.00
1	AA	1233	G	C5'-C4'-C3'	-6.09	106.86	116.00
3	AC	34	U	O4'-C1'-C2'	-6.09	101.51	107.60
48	BX	49	ASN	N-CA-CB	-6.09	101.12	110.44
1	AA	260	G	C1'-C2'-O2'	6.09	117.54	108.40
1	AA	1282	C	C3'-C2'-C1'	6.09	107.39	101.30
8	AH	150	GLU	CA-C-N	6.09	129.52	120.87
8	AH	150	GLU	C-N-CA	6.09	129.52	120.87
26	BB	841	G	O4'-C1'-N9	6.09	117.64	108.50
26	BB	1316	U	C1'-O4'-C4'	-6.09	103.81	109.90
26	BB	2089	C	C3'-C2'-O2'	6.09	119.84	110.70
28	BD	107	LYS	CA-C-N	6.09	126.13	120.34
28	BD	107	LYS	C-N-CA	6.09	126.13	120.34
11	AK	17	GLN	O-C-N	6.09	129.09	122.15
25	BA	84	G	C2'-C3'-O3'	6.09	122.83	113.70
26	BB	1790	C	P-O5'-C5'	6.09	130.03	120.90
1	AA	680	C	C4'-C3'-O3'	6.09	122.13	113.00
1	AA	504	C	C3'-C2'-C1'	6.09	107.39	101.30
20	AT	16	MET	CA-C-N	6.09	132.59	122.73
20	AT	16	MET	C-N-CA	6.09	132.59	122.73
21	AU	62	ARG	CB-CA-C	6.09	120.55	110.81
26	BB	1611	C	C5'-C4'-C3'	-6.09	106.87	116.00
57	B6	53	ASP	O-C-N	6.09	131.00	122.36
21	AU	44	THR	CA-C-N	6.08	131.76	120.87
21	AU	44	THR	C-N-CA	6.08	131.76	120.87
26	BB	271	G	O4'-C1'-C2'	-6.08	99.72	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2070	A	C3'-C2'-O2'	6.08	119.83	110.70
26	BB	2099	U	C4'-C3'-C2'	-6.08	96.52	102.60
26	BB	2762	C	C5'-C4'-O4'	-6.08	100.67	109.80
56	B5	28	ARG	CD-NE-CZ	6.08	132.92	124.40
1	AA	529	G	C2'-C3'-O3'	-6.08	104.57	113.70
1	AA	633	G	C5'-C4'-C3'	6.08	125.12	116.00
1	AA	789	U	C3'-C2'-O2'	-6.08	105.47	114.60
5	AE	36	LYS	CB-CA-C	6.08	121.15	111.48
10	AJ	158	LEU	CA-C-O	-6.08	112.97	119.97
1	AA	2	A	C5'-C4'-O4'	6.08	118.92	109.80
25	BA	77	U	C3'-C2'-O2'	6.08	119.82	110.70
26	BB	381	G	C4'-C3'-C2'	-6.08	96.52	102.60
26	BB	404	A	O4'-C1'-N9	6.08	117.32	108.20
26	BB	1580	A	O4'-C1'-C2'	-6.08	101.52	107.60
26	BB	2132	U	O4'-C1'-N1	6.08	117.62	108.50
26	BB	2588	G	C4'-C3'-C2'	-6.08	96.52	102.60
1	AA	1131	G	O3'-P-O5'	-6.08	94.88	104.00
19	AS	3	THR	CA-C-O	6.08	128.11	121.06
26	BB	677	A	C5'-C4'-O4'	6.08	118.92	109.80
26	BB	1065	U	O4'-C4'-C3'	-6.08	97.92	104.00
26	BB	1434	A	C2'-C3'-O3'	-6.08	104.58	113.70
53	B2	63	ARG	NH1-CZ-NH2	-6.08	111.39	119.30
1	AA	219	U	C3'-C2'-C1'	6.08	107.38	101.30
1	AA	1309	G	O3'-P-O5'	-6.08	94.88	104.00
6	AF	31	ASN	CA-CB-CG	6.08	118.68	112.60
26	BB	116	C	O4'-C1'-N1	6.08	117.62	108.50
26	BB	1090	A	O4'-C1'-N9	6.08	117.62	108.50
26	BB	1244	A	O4'-C1'-C2'	-6.08	101.52	107.60
1	AA	1048	G	O5'-C5'-C4'	6.08	120.61	111.50
25	BA	19	C	O4'-C1'-C2'	-6.08	101.52	107.60
26	BB	125	A	C1'-O4'-C4'	6.08	115.78	109.70
26	BB	343	C	N1-C1'-C2'	-6.08	102.88	112.00
26	BB	1909	C	O4'-C1'-N1	6.08	117.62	108.50
37	BM	18	ARG	CA-C-O	6.08	128.55	121.44
1	AA	740	U	C3'-C2'-C1'	6.08	107.38	101.30
26	BB	146	A	O4'-C1'-N9	6.08	117.61	108.50
26	BB	732	C	C4'-C3'-C2'	-6.08	96.53	102.60
26	BB	1935	G	C4'-C3'-C2'	-6.08	96.53	102.60
29	BE	190	LYS	O-C-N	6.08	129.08	122.15
1	AA	843	U	O4'-C4'-C3'	-6.07	97.93	104.00
1	AA	1056	U	O5'-C5'-C4'	-6.07	102.39	111.50
6	AF	178	ARG	CA-C-N	6.07	133.14	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	178	ARG	C-N-CA	6.07	133.14	121.54
7	AG	78	ALA	CA-C-N	6.07	128.92	120.29
7	AG	78	ALA	C-N-CA	6.07	128.92	120.29
36	BL	22	GLY	N-CA-C	6.07	122.19	114.66
37	BM	119	ALA	N-CA-C	6.07	123.23	109.81
1	AA	995	C	C4'-C3'-O3'	6.07	122.11	113.00
26	BB	2094	A	O4'-C1'-N9	6.07	117.31	108.20
1	AA	700	G	O3'-P-O5'	-6.07	94.89	104.00
26	BB	986	C	O4'-C1'-C2'	-6.07	101.53	107.60
26	BB	2656	U	C1'-C2'-O2'	6.07	117.50	108.40
31	BG	141	ASP	CB-CA-C	6.07	120.66	111.80
40	BP	64	ARG	NE-CZ-NH2	6.07	124.66	119.20
1	AA	34	C	C4'-C3'-O3'	-6.07	103.90	113.00
1	AA	528	C	O4'-C4'-C3'	6.07	110.07	104.00
1	AA	593	U	O5'-C5'-C4'	6.07	120.60	111.50
1	AA	744	C	C5'-C4'-O4'	6.07	118.90	109.80
26	BB	37	C	P-O3'-C3'	6.07	129.30	120.20
1	AA	673	A	O4'-C4'-C3'	6.07	110.07	104.00
1	AA	1370	G	C4'-C3'-C2'	-6.07	96.53	102.60
9	AI	89	VAL	CA-C-O	-6.07	114.02	120.39
26	BB	2028	U	O4'-C1'-N1	6.07	117.60	108.50
22	AV	56	HIS	CB-CA-C	6.07	119.78	109.53
26	BB	458	G	O5'-C5'-C4'	6.07	120.80	111.70
26	BB	1084	A	C5'-C4'-C3'	-6.07	106.90	116.00
47	BW	57	ILE	CA-C-N	6.06	131.48	123.11
47	BW	57	ILE	C-N-CA	6.06	131.48	123.11
1	AA	58	C	C4'-C3'-C2'	-6.06	96.54	102.60
1	AA	524	G	O4'-C1'-C2'	-6.06	101.54	107.60
26	BB	199	A	C3'-C2'-O2'	-6.06	105.51	114.60
26	BB	1661	G	C5'-C4'-C3'	-6.06	106.91	116.00
34	BJ	6	ASP	CA-C-N	6.06	129.53	120.31
34	BJ	6	ASP	C-N-CA	6.06	129.53	120.31
45	BU	49	LYS	O-C-N	6.06	128.55	122.12
1	AA	702	A	C1'-O4'-C4'	6.06	115.76	109.70
26	BB	930	G	C4'-C3'-C2'	-6.06	96.54	102.60
29	BE	138	LEU	CB-CA-C	6.06	120.50	111.89
10	AJ	98	LEU	CA-C-N	6.06	128.68	120.44
10	AJ	98	LEU	C-N-CA	6.06	128.68	120.44
14	AN	21	HIS	ND1-CG-CD2	6.06	112.16	106.10
26	BB	157	C	O4'-C1'-N1	6.06	117.59	108.50
26	BB	978	G	C4'-C3'-C2'	-6.06	96.54	102.60
1	AA	566	G	O4'-C4'-C3'	6.06	112.16	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1288	A	O4'-C1'-C2'	-6.06	101.54	107.60
26	BB	1107	G	C2'-C3'-O3'	-6.06	104.61	113.70
26	BB	2220	U	N1-C1'-C2'	-6.06	102.91	112.00
26	BB	2668	G	C4'-C3'-C2'	-6.06	96.54	102.60
30	BF	195	GLN	CA-C-N	6.06	129.40	120.74
30	BF	195	GLN	C-N-CA	6.06	129.40	120.74
1	AA	469	C	O5'-C5'-C4'	6.06	120.58	111.50
1	AA	1260	G	C5'-C4'-O4'	6.06	118.88	109.80
8	AH	28	ARG	CA-CB-CG	6.06	126.21	114.10
26	BB	2598	A	C5'-C4'-C3'	-6.06	106.92	116.00
40	BP	30	ARG	NE-CZ-NH1	6.06	127.56	121.50
1	AA	322	C	C2'-C3'-O3'	6.05	122.78	113.70
1	AA	328	C	C5'-C4'-O4'	6.05	118.18	109.10
26	BB	691	C	O4'-C1'-N1	6.05	117.58	108.50
26	BB	696	G	C3'-C2'-O2'	6.05	119.78	110.70
26	BB	954	G	C4'-C3'-C2'	-6.05	96.55	102.60
26	BB	673	C	C5'-C4'-C3'	-6.05	106.92	116.00
26	BB	1280	G	C4'-C3'-C2'	-6.05	96.55	102.60
26	BB	1723	G	P-O3'-C3'	6.05	129.28	120.20
1	AA	396	C	O4'-C1'-C2'	-6.05	101.55	107.60
9	AI	105	ALA	CA-C-N	6.05	128.64	120.65
9	AI	105	ALA	C-N-CA	6.05	128.64	120.65
25	BA	77	U	C4'-C3'-C2'	-6.05	96.55	102.60
26	BB	1903	G	C5'-C4'-O4'	6.05	118.88	109.80
26	BB	2111	U	O4'-C4'-C3'	6.05	112.15	106.10
38	BN	130	GLY	CA-C-N	6.05	128.88	120.29
38	BN	130	GLY	C-N-CA	6.05	128.88	120.29
40	BP	47	VAL	CA-C-O	-6.05	114.44	120.85
1	AA	410	G	O4'-C1'-C2'	-6.05	101.55	107.60
22	AV	40	PHE	CA-C-O	-6.05	114.94	120.50
26	BB	731	C	O3'-P-O5'	-6.05	94.93	104.00
26	BB	2141	G	O4'-C1'-N9	6.05	117.58	108.50
39	BO	77	PRO	N-CA-CB	6.05	108.61	103.35
57	B6	25	HIS	CG-CD2-NE2	6.05	113.25	107.20
26	BB	1703	G	C3'-C2'-O2'	6.05	119.77	110.70
39	BO	33	LEU	N-CA-CB	-6.05	101.05	110.55
1	AA	858	G	C4'-C3'-C2'	-6.05	96.55	102.60
5	AE	34	ARG	CB-CG-CD	6.05	125.21	111.30
5	AE	177	ASN	CA-C-O	-6.05	112.66	119.79
26	BB	972	A	O4'-C1'-N9	6.05	117.57	108.50
29	BE	65	ALA	CA-C-N	6.05	127.90	120.22
29	BE	65	ALA	C-N-CA	6.05	127.90	120.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BG	68	LYS	CA-CB-CG	6.05	126.19	114.10
38	BN	55	MET	N-CA-C	-6.05	102.43	109.93
40	BP	71	ARG	NE-CZ-NH2	6.05	124.64	119.20
1	AA	710	G	C4'-C3'-C2'	-6.04	96.56	102.60
1	AA	1123	U	C5'-C4'-O4'	6.04	118.87	109.80
1	AA	1458	G	O4'-C4'-C3'	6.04	110.05	104.00
26	BB	2485	G	O4'-C4'-C3'	6.04	110.05	104.00
1	AA	947	G	C3'-C2'-C1'	6.04	107.34	101.30
14	AN	6	ARG	N-CA-CB	-6.04	101.16	110.04
14	AN	104	PHE	CA-C-O	6.04	128.41	121.28
26	BB	218	A	C1'-O4'-C4'	-6.04	103.66	109.70
26	BB	546	U	O4'-C1'-N1	6.04	117.56	108.50
26	BB	741	U	O4'-C1'-C2'	-6.04	101.56	107.60
26	BB	1352	U	O4'-C1'-N1	6.04	117.56	108.50
26	BB	2559	C	C5'-C4'-C3'	-6.04	106.94	116.00
26	BB	2786	U	N1-C1'-C2'	-6.04	102.93	112.00
50	BZ	74	GLY	N-CA-C	-6.04	106.75	115.27
5	AE	50	ASN	CA-CB-CG	6.04	118.64	112.60
8	AH	14	LEU	CA-C-O	-6.04	113.48	120.49
26	BB	2567	G	C5'-C4'-C3'	-6.04	106.94	116.00
20	AT	23	ALA	N-CA-C	6.04	119.49	109.46
26	BB	1059	G	C1'-O4'-C4'	-6.04	103.86	109.90
26	BB	1734	G	C4'-C3'-C2'	-6.04	96.56	102.60
28	BD	69	ASN	OD1-CG-ND2	-6.04	116.56	122.60
1	AA	373	A	O4'-C1'-N9	6.04	117.56	108.50
1	AA	918	A	O4'-C1'-N9	6.04	117.56	108.50
1	AA	1343	G	C4'-C3'-O3'	6.04	122.06	113.00
12	AL	106	ASP	O-C-N	6.04	130.62	122.59
15	AO	85	ARG	CA-C-N	6.04	131.22	123.13
15	AO	85	ARG	C-N-CA	6.04	131.22	123.13
26	BB	678	C	O4'-C1'-C2'	-6.04	101.56	107.60
26	BB	1461	C	C4'-C3'-C2'	-6.04	96.56	102.60
1	AA	229	U	C5'-C4'-C3'	-6.04	106.94	116.00
7	AG	82	LYS	N-CA-C	-6.04	105.92	113.28
9	AI	37	HIS	CG-ND1-CE1	-6.04	99.04	109.30
26	BB	451	U	C1'-C2'-O2'	-6.04	102.75	111.80
26	BB	646	U	C3'-C2'-C1'	6.04	107.34	101.30
26	BB	1942	C	C3'-C2'-C1'	6.04	107.34	101.30
26	BB	2563	U	O4'-C4'-C3'	6.04	110.04	104.00
32	BH	134	GLY	CA-C-N	-6.04	112.87	122.29
32	BH	134	GLY	C-N-CA	-6.04	112.87	122.29
45	BU	71	VAL	CB-CA-C	6.04	119.56	112.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
47	BW	8	ASP	CA-C-N	6.04	129.40	120.95
47	BW	8	ASP	C-N-CA	6.04	129.40	120.95
1	AA	576	C	C1'-C2'-O2'	6.04	120.85	111.80
1	AA	793	U	C5'-C4'-O4'	6.04	118.15	109.10
8	AH	85	LYS	CA-C-N	6.04	126.41	120.98
8	AH	85	LYS	C-N-CA	6.04	126.41	120.98
11	AK	7	ALA	CA-C-O	-6.04	114.48	120.82
25	BA	102	G	O4'-C1'-C2'	-6.04	101.56	107.60
26	BB	2415	G	O4'-C4'-C3'	6.04	110.03	104.00
26	BB	2548	U	C4'-C3'-C2'	-6.04	96.56	102.60
26	BB	2844	G	C3'-C2'-C1'	6.04	107.33	101.30
45	BU	40	ASN	CA-C-N	6.04	133.07	121.54
45	BU	40	ASN	C-N-CA	6.04	133.07	121.54
14	AN	25	SER	CA-C-N	6.03	130.94	120.68
14	AN	25	SER	C-N-CA	6.03	130.94	120.68
36	BL	23	LYS	CA-C-N	6.03	132.03	122.62
36	BL	23	LYS	C-N-CA	6.03	132.03	122.62
45	BU	36	LEU	N-CA-C	6.03	118.82	111.82
25	BA	55	U	O4'-C1'-N1	6.03	117.55	108.50
29	BE	99	GLU	CA-C-N	6.03	130.25	120.60
29	BE	99	GLU	C-N-CA	6.03	130.25	120.60
11	AK	119	GLY	O-C-N	6.03	128.69	122.54
26	BB	2820	A	N9-C1'-C2'	6.03	121.05	112.00
1	AA	17	U	P-O3'-C3'	6.03	129.24	120.20
26	BB	2146	C	C4'-C3'-C2'	-6.03	96.57	102.60
26	BB	2749	A	C3'-C2'-C1'	6.03	107.33	101.30
30	BF	40	ARG	O-C-N	6.03	129.66	122.79
1	AA	271	C	O3'-P-O5'	6.03	113.04	104.00
1	AA	355	C	C4'-C3'-C2'	-6.03	96.57	102.60
26	BB	211	C	O3'-P-O5'	-6.03	94.96	104.00
26	BB	1568	G	C5'-C4'-O4'	6.03	118.84	109.80
51	B0	7	ARG	NE-CZ-NH2	-6.03	113.78	119.20
1	AA	20	U	P-O5'-C5'	6.03	129.94	120.90
1	AA	709	U	O4'-C1'-C2'	-6.03	101.57	107.60
26	BB	36	G	O3'-P-O5'	6.03	113.04	104.00
26	BB	423	A	O4'-C4'-C3'	6.03	110.03	104.00
26	BB	608	A	C4'-C3'-C2'	-6.03	96.57	102.60
26	BB	1183	U	C1'-C2'-O2'	6.03	117.44	108.40
26	BB	1379	U	O4'-C4'-C3'	6.03	110.03	104.00
26	BB	2744	G	O5'-C5'-C4'	-6.03	102.46	111.50
32	BH	143	VAL	CA-C-N	6.03	128.35	120.28
32	BH	143	VAL	C-N-CA	6.03	128.35	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	B1	30	ARG	NE-CZ-NH1	6.03	127.53	121.50
1	AA	932	C	C3'-C2'-C1'	6.02	107.32	101.30
26	BB	1040	A	C4'-C3'-C2'	-6.02	96.58	102.60
1	AA	105	G	O4'-C4'-C3'	6.02	110.02	104.00
1	AA	1339	A	C4'-C3'-C2'	-6.02	96.58	102.60
7	AG	197	HIS	CA-C-N	6.02	128.35	120.28
7	AG	197	HIS	C-N-CA	6.02	128.35	120.28
26	BB	232	G	C3'-C2'-C1'	-6.02	95.48	101.50
26	BB	508	A	C3'-C2'-O2'	6.02	119.73	110.70
26	BB	633	A	O4'-C1'-C2'	-6.02	101.58	107.60
26	BB	1460	U	C3'-C2'-C1'	6.02	107.32	101.30
26	BB	1702	G	O3'-P-O5'	6.02	113.03	104.00
26	BB	2078	C	O3'-P-O5'	6.02	113.03	104.00
26	BB	2176	A	O5'-C5'-C4'	-6.02	102.47	111.50
26	BB	2846	G	C5'-C4'-C3'	-6.02	106.97	116.00
32	BH	110	HIS	CA-C-N	6.02	126.33	119.83
32	BH	110	HIS	C-N-CA	6.02	126.33	119.83
1	AA	318	G	C4'-C3'-C2'	-6.02	96.58	102.60
1	AA	474	G	C2'-C3'-O3'	-6.02	104.67	113.70
7	AG	200	VAL	CA-CB-CG2	6.02	120.64	110.40
26	BB	1864	U	C3'-C2'-C1'	6.02	107.32	101.30
1	AA	522	C	O4'-C4'-C3'	6.02	110.02	104.00
1	AA	1283	U	O4'-C1'-C2'	-6.02	101.58	107.60
1	AA	1376	U	O4'-C1'-N1	6.02	117.53	108.50
2	AB	58	A	C1'-O4'-C4'	-6.02	103.88	109.90
24	AX	63	ASN	CA-CB-CG	6.02	118.62	112.60
26	BB	269	C	P-O5'-C5'	6.02	129.93	120.90
26	BB	932	U	N1-C1'-C2'	6.02	121.03	112.00
26	BB	957	C	O4'-C4'-C3'	6.02	112.12	106.10
30	BF	23	PHE	CA-CB-CG	6.02	119.82	113.80
33	BI	33	GLN	CA-C-O	-6.02	112.88	119.08
48	BX	86	LEU	O-C-N	-6.02	115.71	122.93
26	BB	1142	A	O5'-C5'-C4'	6.02	120.73	111.70
26	BB	1444	G	O3'-P-O5'	-6.02	94.97	104.00
1	AA	125	U	C1'-C2'-O2'	-6.02	99.38	108.40
23	AW	76	ALA	CA-C-N	6.02	128.26	120.44
23	AW	76	ALA	C-N-CA	6.02	128.26	120.44
7	AG	34	GLU	CB-CA-C	6.01	119.92	111.86
22	AV	25	GLY	CA-C-N	6.01	132.50	121.85
22	AV	25	GLY	C-N-CA	6.01	132.50	121.85
22	AV	36	ARG	NE-CZ-NH1	6.01	127.51	121.50
26	BB	23	G	O5'-C5'-C4'	-6.01	102.48	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2197	U	C1'-O4'-C4'	6.01	115.71	109.70
26	BB	2807	U	C4'-C3'-C2'	-6.01	96.59	102.60
1	AA	178	C	C4'-C3'-C2'	-6.01	96.59	102.60
1	AA	1255	G	C2'-C3'-O3'	-6.01	104.68	113.70
20	AT	35	LYS	CA-C-O	-6.01	114.58	121.19
26	BB	2273	A	O4'-C4'-C3'	6.01	110.01	104.00
27	BC	170	ILE	CB-CA-C	6.01	118.97	111.15
1	AA	169	C	P-O5'-C5'	6.01	129.92	120.90
26	BB	49	A	O5'-C5'-C4'	6.01	120.72	111.70
26	BB	394	C	O5'-C5'-C4'	-6.01	102.48	111.50
29	BE	76	GLY	CA-C-N	6.01	128.94	120.28
29	BE	76	GLY	C-N-CA	6.01	128.94	120.28
25	BA	23	G	C5'-C4'-O4'	6.01	118.81	109.80
26	BB	2555	U	C3'-C2'-C1'	6.01	107.31	101.30
32	BH	53	PRO	O-C-N	6.01	130.63	123.06
11	AK	44	PHE	CA-CB-CG	6.01	119.81	113.80
45	BU	42	LYS	CB-CG-CD	6.01	125.12	111.30
1	AA	182	A	C4'-C3'-C2'	-6.01	96.59	102.60
3	AC	56	G	C5'-C4'-C3'	6.01	125.01	116.00
7	AG	121	ALA	N-CA-C	-6.01	106.28	113.97
10	AJ	63	VAL	CA-C-O	-6.01	114.28	120.71
26	BB	666	A	C1'-C2'-O2'	-6.01	99.39	108.40
53	B2	8	LYS	N-CA-C	6.01	118.30	110.43
10	AJ	134	VAL	CA-C-N	6.00	128.33	120.28
10	AJ	134	VAL	C-N-CA	6.00	128.33	120.28
26	BB	2808	G	C4'-C3'-C2'	-6.00	96.59	102.60
29	BE	112	THR	CA-C-N	6.00	133.01	121.54
29	BE	112	THR	C-N-CA	6.00	133.01	121.54
1	AA	1253	G	C3'-C2'-O2'	6.00	119.70	110.70
26	BB	8	C	C3'-C2'-O2'	6.00	119.71	110.70
26	BB	820	A	C4'-C3'-C2'	-6.00	96.60	102.60
26	BB	1858	A	O4'-C1'-N9	6.00	117.50	108.50
26	BB	2136	G	P-O5'-C5'	6.00	129.91	120.90
26	BB	2741	A	C4'-C3'-O3'	-6.00	104.00	113.00
26	BB	2802	G	C3'-C2'-C1'	-6.00	95.30	101.30
26	BB	2869	G	O4'-C4'-C3'	6.00	110.00	104.00
31	BG	109	ARG	NE-CZ-NH2	-6.00	113.80	119.20
54	B3	12	ARG	CA-C-O	-6.00	114.19	120.55
14	AN	61	ALA	CA-C-N	6.00	128.24	120.44
14	AN	61	ALA	C-N-CA	6.00	128.24	120.44
26	BB	1173	U	C3'-C2'-O2'	6.00	119.70	110.70
26	BB	1824	G	C2'-C3'-O3'	6.00	122.70	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BG	75	GLY	N-CA-C	-6.00	107.46	115.32
1	AA	607	A	N9-C1'-C2'	6.00	121.00	112.00
26	BB	253	C	C5'-C4'-O4'	6.00	118.80	109.80
26	BB	1212	G	C5'-C4'-C3'	-6.00	106.20	115.20
30	BF	118	LEU	CA-C-N	6.00	128.24	120.56
30	BF	118	LEU	C-N-CA	6.00	128.24	120.56
51	B0	46	VAL	CB-CA-C	6.00	121.13	111.29
1	AA	94	G	C3'-C2'-C1'	-6.00	95.50	101.50
26	BB	830	G	C1'-O4'-C4'	6.00	115.70	109.70
26	BB	2008	C	C3'-C2'-O2'	6.00	119.69	110.70
34	BJ	28	ASP	N-CA-CB	-6.00	100.61	110.68
1	AA	243	A	C4'-C3'-O3'	6.00	118.39	109.40
1	AA	403	C	C4'-C3'-C2'	-6.00	96.61	102.60
7	AG	1	ALA	O-C-N	6.00	132.59	123.00
38	BN	133	ALA	N-CA-C	6.00	117.89	111.36
1	AA	111	G	O4'-C1'-C2'	-5.99	101.61	107.60
1	AA	535	A	O4'-C4'-C3'	5.99	109.99	104.00
8	AH	88	HIS	CB-CG-CD2	-5.99	123.41	131.20
26	BB	644	A	C4'-C3'-C2'	-5.99	96.61	102.60
26	BB	969	G	C5'-C4'-O4'	5.99	118.79	109.80
26	BB	1711	A	C5'-C4'-O4'	5.99	118.79	109.80
1	AA	595	A	O4'-C1'-N9	5.99	117.19	108.20
1	AA	996	A	C4'-C3'-O3'	5.99	121.99	113.00
1	AA	1317	C	C3'-C2'-C1'	5.99	107.29	101.30
4	AD	65	G	C3'-C2'-C1'	5.99	107.29	101.30
26	BB	720	U	C3'-C2'-C1'	5.99	107.29	101.30
26	BB	1673	G	C4'-C3'-O3'	-5.99	104.01	113.00
26	BB	2407	A	O3'-P-O5'	-5.99	95.01	104.00
5	AE	156	LEU	CA-C-N	5.99	126.18	120.31
5	AE	156	LEU	C-N-CA	5.99	126.18	120.31
11	AK	123	GLU	CB-CA-C	5.99	119.62	109.80
26	BB	2897	U	O3'-P-O5'	5.99	112.99	104.00
36	BL	35	ARG	NE-CZ-NH2	-5.99	113.81	119.20
26	BB	472	A	O4'-C1'-C2'	-5.99	101.61	107.60
26	BB	1383	A	C3'-C2'-C1'	5.99	107.29	101.30
26	BB	2201	G	C5'-C4'-C3'	5.99	124.98	116.00
40	BP	97	ILE	CB-CA-C	5.99	118.98	110.84
1	AA	26	A	O4'-C4'-C3'	5.99	109.99	104.00
26	BB	2154	A	O4'-C4'-C3'	5.99	109.99	104.00
26	BB	2677	G	O4'-C1'-N9	5.99	117.48	108.50
1	AA	625	U	O4'-C4'-C3'	5.99	109.99	104.00
1	AA	962	C	O4'-C4'-C3'	5.99	109.98	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	AC	48	C	C2'-C3'-O3'	5.99	118.48	109.50
4	AD	10	G	O4'-C1'-C2'	5.99	113.58	107.60
19	AS	44	SER	CB-CA-C	5.99	120.39	111.17
21	AU	68	PRO	CA-C-O	-5.99	114.30	121.48
26	BB	1459	G	C3'-C2'-C1'	5.99	107.28	101.30
26	BB	1590	A	C1'-O4'-C4'	-5.99	103.92	109.90
26	BB	1848	A	C1'-O4'-C4'	5.99	115.89	109.90
26	BB	2814	A	C2'-C3'-O3'	-5.99	104.72	113.70
51	B0	31	GLN	CA-C-N	5.99	128.79	120.29
51	B0	31	GLN	C-N-CA	5.99	128.79	120.29
1	AA	1319	A	O4'-C4'-C3'	-5.98	100.12	106.10
1	AA	1513	A	O3'-P-O5'	5.98	112.98	104.00
9	AI	106	LYS	CG-CD-CE	5.98	125.06	111.30
26	BB	98	G	C5'-C4'-O4'	5.98	118.78	109.80
26	BB	312	G	O4'-C4'-C3'	5.98	109.98	104.00
26	BB	2617	U	C3'-C2'-C1'	5.98	107.28	101.30
30	BF	26	ALA	CA-C-O	-5.98	114.21	120.55
26	BB	147	C	O4'-C1'-N1	5.98	117.47	108.50
26	BB	177	G	O4'-C1'-N9	5.98	117.17	108.20
5	AE	47	PRO	N-CA-CB	5.98	110.14	103.44
26	BB	2125	G	P-O5'-C5'	5.98	129.87	120.90
26	BB	2451	A	C3'-C2'-C1'	5.98	107.28	101.30
1	AA	372	C	C1'-O4'-C4'	-5.98	103.72	109.70
6	AF	130	ARG	NH1-CZ-NH2	-5.98	111.53	119.30
26	BB	946	C	O4'-C1'-N1	5.98	117.47	108.50
1	AA	973	G	C4'-C3'-O3'	-5.98	104.03	113.00
1	AA	1297	G	C5'-C4'-C3'	-5.98	106.23	115.20
26	BB	750	A	P-O5'-C5'	5.98	129.87	120.90
26	BB	1529	G	O4'-C1'-C2'	-5.98	101.62	107.60
6	AF	129	PHE	CB-CA-C	5.98	121.10	111.36
26	BB	410	G	P-O3'-C3'	5.98	129.16	120.20
26	BB	578	G	C2'-C3'-O3'	-5.98	104.74	113.70
26	BB	1662	U	O4'-C4'-C3'	-5.98	98.02	104.00
7	AG	87	GLU	CA-C-N	5.97	128.29	120.28
7	AG	87	GLU	C-N-CA	5.97	128.29	120.28
26	BB	1935	G	C5'-C4'-C3'	-5.97	107.04	116.00
32	BH	19	ASN	CA-C-N	5.97	133.12	121.41
32	BH	19	ASN	C-N-CA	5.97	133.12	121.41
26	BB	189	G	C3'-C2'-C1'	-5.97	95.33	101.30
26	BB	995	C	O4'-C1'-C2'	-5.97	99.83	105.80
26	BB	1497	U	O4'-C1'-N1	5.97	117.16	108.20
26	BB	2484	G	P-O3'-C3'	5.97	129.16	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	684	U	C1'-C2'-O2'	5.97	117.36	108.40
1	AA	913	A	C1'-C2'-O2'	5.97	120.76	111.80
1	AA	394	G	C3'-C2'-C1'	5.97	107.27	101.30
1	AA	697	U	C5'-C4'-C3'	-5.97	107.05	116.00
26	BB	93	G	C4'-C3'-C2'	-5.97	96.63	102.60
26	BB	730	A	C3'-C2'-C1'	-5.97	95.33	101.30
26	BB	2165	C	O4'-C4'-C3'	5.97	109.97	104.00
28	BD	30	ALA	CA-C-N	5.97	125.67	119.82
28	BD	30	ALA	C-N-CA	5.97	125.67	119.82
29	BE	42	ASN	CA-CB-CG	5.97	118.57	112.60
1	AA	42	G	O4'-C1'-C2'	-5.97	101.63	107.60
30	BF	131	THR	CA-C-O	-5.97	114.22	120.55
1	AA	1132	C	C5'-C4'-C3'	-5.97	107.05	116.00
1	AA	1354	U	C4'-C3'-C2'	-5.97	96.63	102.60
22	AV	42	ASN	CA-CB-CG	5.97	118.57	112.60
26	BB	115	C	C4'-C3'-C2'	-5.97	96.63	102.60
26	BB	2527	C	C1'-C2'-O2'	5.97	117.35	108.40
31	BG	19	PHE	CA-C-N	5.97	130.60	122.07
31	BG	19	PHE	C-N-CA	5.97	130.60	122.07
4	AD	32	G	C5'-C4'-C3'	5.96	124.95	116.00
4	AD	67	C	C5'-C4'-C3'	5.96	124.95	116.00
26	BB	210	C	C4'-C3'-C2'	-5.96	96.64	102.60
26	BB	1323	C	O4'-C4'-C3'	5.96	112.06	106.10
26	BB	2160	C	C3'-C2'-C1'	5.96	107.26	101.30
26	BB	2811	G	O3'-P-O5'	-5.96	95.05	104.00
23	AW	61	ALA	CA-C-N	5.96	128.55	120.38
23	AW	61	ALA	C-N-CA	5.96	128.55	120.38
26	BB	800	A	O4'-C1'-C2'	5.96	111.76	105.80
1	AA	316	C	O4'-C1'-N1	5.96	117.44	108.50
14	AN	69	CYS	N-CA-CB	-5.96	101.42	110.07
15	AO	44	PRO	N-CA-CB	5.96	109.51	103.25
26	BB	141	G	C5'-C4'-C3'	-5.96	107.06	116.00
26	BB	161	A	O3'-P-O5'	-5.96	95.06	104.00
26	BB	1269	A	O4'-C1'-N9	5.96	117.44	108.50
26	BB	2003	A	C4'-C3'-C2'	-5.96	96.64	102.60
36	BL	13	ARG	NH1-CZ-NH2	5.96	127.05	119.30
1	AA	610	U	C4'-C3'-C2'	-5.96	96.64	102.60
1	AA	297	G	O4'-C1'-C2'	-5.96	101.64	107.60
1	AA	701	U	O3'-P-O5'	-5.96	95.06	104.00
1	AA	713	G	C4'-C3'-C2'	-5.96	96.64	102.60
1	AA	906	A	C5'-C4'-C3'	-5.96	107.06	116.00
1	AA	1079	G	C4'-C3'-C2'	-5.96	96.64	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	AR	52	ARG	N-CA-C	-5.96	104.78	111.28
26	BB	1090	A	O4'-C4'-C3'	5.96	109.96	104.00
26	BB	1204	A	C4'-C3'-O3'	5.96	118.34	109.40
26	BB	1768	C	O4'-C4'-C3'	5.96	109.96	104.00
26	BB	2424	C	C5'-C4'-C3'	-5.96	107.06	116.00
26	BB	2636	C	C1'-C2'-O2'	-5.96	99.46	108.40
1	AA	1279	G	P-O3'-C3'	5.96	129.13	120.20
1	AA	1285	A	C5'-C4'-O4'	5.96	118.04	109.10
1	AA	1465	A	C4'-C3'-C2'	-5.96	96.64	102.60
22	AV	3	SER	N-CA-C	5.96	116.14	108.34
25	BA	47	C	N1-C1'-C2'	-5.96	103.06	112.00
19	AS	60	TRP	CA-C-N	5.96	130.07	120.30
19	AS	60	TRP	C-N-CA	5.96	130.07	120.30
26	BB	2146	C	P-O5'-C5'	5.96	129.83	120.90
1	AA	419	C	C4'-C3'-C2'	-5.95	96.65	102.60
4	AD	61	U	C4'-C3'-C2'	5.95	108.55	102.60
26	BB	239	C	O4'-C1'-N1	5.95	117.43	108.50
26	BB	881	G	C3'-C2'-C1'	5.95	107.25	101.30
26	BB	2209	G	C4'-C3'-C2'	-5.95	96.65	102.60
26	BB	2426	A	C1'-C2'-O2'	5.95	120.73	111.80
26	BB	2847	U	C3'-C2'-C1'	5.95	107.25	101.30
29	BE	36	GLN	O-C-N	5.95	130.51	122.59
43	BS	13	HIS	CB-CG-CD2	-5.95	123.46	131.20
21	AU	70	THR	CA-CB-OG1	5.95	118.53	109.60
26	BB	110	G	C4'-C3'-C2'	-5.95	96.65	102.60
26	BB	2113	U	C4'-C3'-O3'	5.95	121.93	113.00
26	BB	2555	U	O4'-C1'-C2'	-5.95	101.65	107.60
1	AA	75	G	O5'-C5'-C4'	-5.95	102.58	111.50
1	AA	531	U	C3'-C2'-C1'	5.95	107.45	101.50
26	BB	1101	U	C4'-C3'-C2'	-5.95	96.65	102.60
26	BB	2098	U	O4'-C1'-N1	5.95	117.43	108.50
26	BB	2554	U	C5'-C4'-C3'	-5.95	107.07	116.00
26	BB	2846	G	C1'-O4'-C4'	-5.95	103.95	109.90
29	BE	117	GLY	CA-C-N	5.95	128.74	120.29
29	BE	117	GLY	C-N-CA	5.95	128.74	120.29
30	BF	145	ASP	CA-C-O	-5.95	114.94	121.84
56	B5	26	ASN	CB-CG-ND2	5.95	125.33	116.40
1	AA	886	G	O3'-P-O5'	-5.95	95.08	104.00
1	AA	948	C	O4'-C1'-N1	5.95	117.42	108.50
1	AA	1341	U	C5'-C4'-C3'	-5.95	107.08	116.00
2	AB	18	G	P-O3'-C3'	5.95	129.12	120.20
7	AG	179	GLY	CA-C-O	-5.95	115.71	121.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	361	G	C1'-O4'-C4'	5.95	115.85	109.90
26	BB	491	G	C5'-C4'-O4'	5.95	118.72	109.80
26	BB	1456	G	O4'-C1'-N9	5.95	117.42	108.50
26	BB	1816	C	P-O3'-C3'	5.95	129.12	120.20
26	BB	2153	C	C5'-C4'-O4'	-5.95	100.18	109.10
26	BB	2293	G	C5'-C4'-C3'	-5.95	107.08	116.00
26	BB	2600	A	C4'-C3'-C2'	-5.95	96.65	102.60
26	BB	2710	C	C4'-C3'-C2'	-5.95	96.65	102.60
46	BV	74	ILE	CA-C-O	5.95	127.00	120.64
1	AA	344	A	P-O3'-C3'	5.95	129.12	120.20
1	AA	977	A	C1'-O4'-C4'	-5.95	103.95	109.90
48	BX	92	VAL	CA-C-O	-5.95	113.94	120.72
57	B6	24	LYS	CA-C-O	-5.95	114.22	121.36
1	AA	206	C	C5'-C4'-O4'	5.95	118.72	109.80
1	AA	805	C	C4'-C3'-O3'	-5.95	104.08	113.00
1	AA	1031	C	O4'-C4'-C3'	-5.95	100.16	106.10
5	AE	195	VAL	CA-CB-CG2	5.95	120.51	110.40
26	BB	120	U	O4'-C4'-C3'	-5.95	100.16	106.10
26	BB	528	A	O3'-P-O5'	5.95	112.92	104.00
26	BB	1106	G	C4'-C3'-O3'	5.95	121.92	113.00
42	BR	82	SER	CA-C-O	5.95	127.41	120.75
1	AA	1397	C	N1-C1'-C2'	5.94	120.92	112.00
26	BB	731	C	C3'-C2'-O2'	5.94	119.62	110.70
29	BE	190	LYS	N-CA-C	5.94	117.84	111.36
44	BT	23	GLU	CA-C-N	5.94	129.28	120.90
44	BT	23	GLU	C-N-CA	5.94	129.28	120.90
1	AA	141	G	O4'-C1'-N9	5.94	117.41	108.50
1	AA	812	G	C3'-C2'-C1'	5.94	107.24	101.30
26	BB	174	U	O5'-C5'-C4'	5.94	120.42	111.50
26	BB	957	C	C4'-C3'-C2'	-5.94	96.66	102.60
26	BB	2036	C	C1'-O4'-C4'	5.94	115.84	109.90
26	BB	2310	C	C5'-C4'-O4'	5.94	118.71	109.80
33	BI	10	ALA	CA-C-N	5.94	128.84	120.28
33	BI	10	ALA	C-N-CA	5.94	128.84	120.28
26	BB	1472	C	C4'-C3'-C2'	-5.94	96.66	102.60
26	BB	2011	U	O4'-C1'-N1	5.94	117.41	108.50
26	BB	2478	A	C1'-O4'-C4'	-5.94	103.96	109.90
27	BC	6	LYS	CB-CG-CD	5.94	124.96	111.30
1	AA	201	G	C5'-C4'-C3'	-5.94	107.09	116.00
24	AX	37	TYR	CA-CB-CG	5.94	124.59	113.90
26	BB	66	C	C4'-C3'-O3'	5.94	121.91	113.00
26	BB	2080	A	C1'-O4'-C4'	-5.94	103.96	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	BE	187	LEU	O-C-N	-5.94	115.98	123.05
1	AA	201	G	O4'-C1'-N9	5.94	117.41	108.50
1	AA	454	G	O4'-C1'-C2'	-5.94	101.66	107.60
4	AD	38	A	O3'-P-O5'	5.94	112.91	104.00
14	AN	34	THR	CA-C-O	5.94	128.39	121.44
18	AR	2	LEU	N-CA-CB	-5.94	100.48	111.53
27	BC	103	GLN	N-CA-C	5.94	117.42	111.07
27	BC	123	VAL	CA-C-O	-5.94	114.56	120.85
49	BY	28	GLU	CB-CA-C	5.94	119.16	109.90
26	BB	561	G	C4'-C3'-O3'	5.94	121.90	113.00
26	BB	991	C	O4'-C1'-C2'	-5.94	101.66	107.60
40	BP	36	THR	CA-CB-CG2	5.94	120.59	110.50
1	AA	714	G	N9-C1'-C2'	-5.93	103.10	112.00
26	BB	1990	C	C3'-C2'-O2'	-5.93	101.80	110.70
50	BZ	35	HIS	N-CA-C	5.93	118.57	108.90
1	AA	372	C	P-O3'-C3'	5.93	129.10	120.20
26	BB	330	A	N9-C1'-C2'	5.93	122.90	114.00
34	BJ	152	ARG	N-CA-CB	5.93	118.84	110.12
26	BB	2529	G	C4'-C3'-C2'	5.93	108.53	102.60
41	BQ	15	ARG	NE-CZ-NH1	5.93	127.43	121.50
1	AA	11	G	C4'-C3'-C2'	-5.93	96.67	102.60
1	AA	774	G	O3'-P-O5'	-5.93	95.11	104.00
1	AA	808	C	C2'-C3'-O3'	-5.93	104.81	113.70
1	AA	817	C	P-O3'-C3'	5.93	129.09	120.20
26	BB	63	A	C4'-C3'-O3'	5.93	121.89	113.00
26	BB	365	U	C3'-C2'-C1'	5.93	107.23	101.30
26	BB	904	G	C2'-C3'-O3'	-5.93	104.81	113.70
58	B7	31	PRO	N-CA-CB	5.93	109.41	103.48
2	AB	53	G	C5'-C4'-C3'	-5.93	107.11	116.00
26	BB	158	U	C1'-O4'-C4'	5.93	115.83	109.90
26	BB	566	U	O4'-C4'-C3'	5.93	109.93	104.00
1	AA	602	A	O4'-C1'-N9	5.93	117.39	108.50
26	BB	529	A	C5'-C4'-O4'	5.93	117.99	109.10
26	BB	1418	G	O4'-C4'-C3'	5.93	109.93	104.00
26	BB	1598	A	C5'-C4'-C3'	-5.93	107.11	116.00
1	AA	407	U	O4'-C1'-N1	5.92	117.39	108.50
26	BB	759	G	C5'-C4'-O4'	5.92	118.69	109.80
26	BB	1534	U	C3'-C2'-C1'	5.92	107.22	101.30
26	BB	1579	A	N9-C1'-C2'	-5.92	103.11	112.00
26	BB	1854	A	O3'-P-O5'	-5.92	95.11	104.00
26	BB	2091	C	O5'-C5'-C4'	5.92	120.39	111.50
26	BB	2092	U	O4'-C1'-C2'	-5.92	99.88	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2664	G	P-O5'-C5'	5.92	129.79	120.90
37	BM	5	GLN	CA-C-N	5.92	132.86	121.54
37	BM	5	GLN	C-N-CA	5.92	132.86	121.54
37	BM	29	HIS	CB-CG-CD2	-5.92	123.50	131.20
1	AA	62	U	O4'-C4'-C3'	-5.92	98.08	104.00
1	AA	271	C	C1'-C2'-O2'	5.92	117.28	108.40
1	AA	417	G	C1'-C2'-O2'	5.92	117.28	108.40
1	AA	427	U	C2'-C3'-O3'	-5.92	104.82	113.70
3	AC	55	A	O4'-C1'-N9	5.92	117.08	108.20
4	AD	26	C	O4'-C1'-C2'	-5.92	101.68	107.60
9	AI	63	ASN	OD1-CG-ND2	-5.92	116.68	122.60
26	BB	1656	C	C5'-C4'-C3'	-5.92	107.12	116.00
26	BB	1857	G	C3'-C2'-C1'	-5.92	95.58	101.50
26	BB	1882	U	C5'-C4'-O4'	5.92	118.68	109.80
26	BB	2090	A	O3'-P-O5'	-5.92	95.12	104.00
26	BB	2469	A	O5'-C5'-C4'	-5.92	102.62	111.50
1	AA	576	C	N1-C1'-C2'	-5.92	105.12	114.00
26	BB	813	U	C1'-C2'-O2'	-5.92	99.52	108.40
45	BU	46	LEU	CA-C-N	5.92	130.01	120.30
45	BU	46	LEU	C-N-CA	5.92	130.01	120.30
1	AA	362	G	C1'-O4'-C4'	5.92	115.82	109.90
1	AA	866	C	C4'-C3'-C2'	-5.92	96.68	102.60
1	AA	1452	C	C3'-C2'-C1'	-5.92	95.58	101.50
26	BB	783	A	C3'-C2'-C1'	-5.92	95.38	101.30
26	BB	1918	A	C4'-C3'-O3'	5.92	118.28	109.40
26	BB	2371	G	O4'-C1'-C2'	-5.92	101.68	107.60
36	BL	63	ALA	CA-C-N	5.92	129.96	121.02
36	BL	63	ALA	C-N-CA	5.92	129.96	121.02
54	B3	45	ASP	CA-CB-CG	-5.92	106.68	112.60
57	B6	43	LEU	N-CA-C	5.92	117.81	111.36
1	AA	440	C	P-O3'-C3'	5.92	129.07	120.20
10	AJ	3	ARG	CD-NE-CZ	5.92	132.68	124.40
26	BB	962	G	C1'-O4'-C4'	5.92	115.82	109.90
26	BB	1349	C	O4'-C4'-C3'	5.92	109.92	104.00
26	BB	2625	G	O4'-C1'-N9	5.92	117.38	108.50
26	BB	2886	A	C3'-C2'-C1'	5.92	107.22	101.30
27	BC	149	VAL	CA-C-N	5.92	128.80	120.28
27	BC	149	VAL	C-N-CA	5.92	128.80	120.28
38	BN	36	LYS	N-CA-C	5.92	123.40	110.80
19	AS	43	ALA	O-C-N	5.92	129.53	122.79
26	BB	774	G	C5'-C4'-C3'	-5.92	106.33	115.20
26	BB	1559	U	O4'-C1'-N1	5.92	117.07	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2153	C	O3'-P-O5'	5.92	112.87	104.00
1	AA	655	A	O4'-C1'-N9	5.91	117.37	108.50
1	AA	1140	C	C1'-O4'-C4'	5.91	115.81	109.90
26	BB	2273	A	C3'-C2'-C1'	5.91	107.21	101.30
26	BB	2897	U	C5'-C4'-C3'	-5.91	107.13	116.00
51	B0	2	LYS	CA-C-N	5.91	128.79	120.28
51	B0	2	LYS	C-N-CA	5.91	128.79	120.28
1	AA	293	G	O4'-C4'-C3'	5.91	109.91	104.00
26	BB	2007	U	O5'-C5'-C4'	-5.91	102.63	111.50
1	AA	12	U	O4'-C1'-N1	5.91	117.36	108.50
1	AA	676	A	C4'-C3'-C2'	-5.91	96.69	102.60
26	BB	1609	A	N9-C1'-C2'	5.91	120.87	112.00
26	BB	1769	U	C3'-C2'-C1'	5.91	107.21	101.30
28	BD	171	VAL	CA-C-N	5.91	130.63	122.77
28	BD	171	VAL	C-N-CA	5.91	130.63	122.77
49	BY	28	GLU	CA-C-N	5.91	130.73	120.68
49	BY	28	GLU	C-N-CA	5.91	130.73	120.68
1	AA	193	C	C4'-C3'-C2'	-5.91	96.69	102.60
19	AS	57	ILE	O-C-N	5.91	127.60	121.87
22	AV	83	ALA	N-CA-C	-5.91	104.53	110.97
26	BB	296	U	O4'-C1'-N1	5.91	117.36	108.50
26	BB	1221	C	C4'-C3'-C2'	-5.91	96.69	102.60
41	BQ	42	PRO	CA-C-N	5.91	129.29	120.31
41	BQ	42	PRO	C-N-CA	5.91	129.29	120.31
1	AA	104	G	C4'-C3'-O3'	5.91	121.86	113.00
1	AA	174	A	C3'-C2'-O2'	-5.91	101.84	110.70
1	AA	439	U	C4'-C3'-C2'	-5.91	96.69	102.60
25	BA	25	U	C4'-C3'-O3'	5.91	118.26	109.40
26	BB	705	A	C1'-O4'-C4'	-5.91	104.00	109.90
46	BV	28	ASN	CA-CB-CG	5.91	118.51	112.60
1	AA	720	C	C1'-O4'-C4'	-5.90	103.80	109.70
26	BB	1164	C	O4'-C1'-N1	5.90	117.36	108.50
1	AA	635	A	C4'-C3'-C2'	-5.90	96.70	102.60
1	AA	789	U	C1'-C2'-O2'	5.90	120.66	111.80
1	AA	1444	U	C5'-C4'-C3'	-5.90	107.15	116.00
26	BB	449	A	O5'-C5'-C4'	-5.90	102.65	111.50
26	BB	2705	A	O5'-C5'-C4'	5.90	120.35	111.50
26	BB	2791	G	O4'-C1'-C2'	-5.90	101.70	107.60
1	AA	438	U	O4'-C4'-C3'	5.90	112.00	106.10
1	AA	1025	U	C4'-C3'-O3'	5.90	118.25	109.40
26	BB	2300	C	O4'-C1'-N1	5.90	117.35	108.50
26	BB	2542	A	C4'-C3'-C2'	-5.90	96.70	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	BL	13	ARG	N-CA-CB	5.90	120.46	110.49
1	AA	1047	G	O4'-C1'-C2'	5.90	113.50	107.60
1	AA	110	C	O3'-P-O5'	-5.90	95.15	104.00
1	AA	664	G	C5'-C4'-O4'	5.90	118.65	109.80
26	BB	199	A	C3'-C2'-C1'	-5.90	95.60	101.50
26	BB	468	G	O4'-C1'-N9	5.90	117.35	108.50
26	BB	1429	G	C4'-C3'-C2'	-5.90	96.70	102.60
26	BB	1848	A	C1'-C2'-O2'	5.90	117.25	108.40
26	BB	1928	A	O5'-C5'-C4'	5.90	120.35	111.50
26	BB	2238	G	C1'-O4'-C4'	-5.90	103.80	109.70
26	BB	2511	U	C3'-C2'-O2'	5.90	119.55	110.70
35	BK	35	MET	N-CA-C	5.90	117.79	111.36
26	BB	417	C	C4'-C3'-C2'	-5.90	96.70	102.60
34	BJ	123	ASP	CA-CB-CG	5.90	118.50	112.60
1	AA	708	C	O4'-C4'-C3'	5.89	109.89	104.00
1	AA	765	G	O4'-C1'-C2'	-5.89	99.91	105.80
1	AA	1011	C	O4'-C4'-C3'	5.89	109.89	104.00
14	AN	122	PRO	CA-N-CD	-5.89	103.75	112.00
25	BA	108	A	C1'-O4'-C4'	-5.89	104.00	109.90
26	BB	343	C	C1'-C2'-O2'	-5.89	99.56	108.40
26	BB	446	G	C1'-O4'-C4'	5.89	115.59	109.70
26	BB	614	A	P-O3'-C3'	5.89	129.04	120.20
26	BB	923	G	C2'-C3'-O3'	-5.89	104.86	113.70
26	BB	2045	C	C1'-C2'-O2'	5.89	117.24	108.40
26	BB	2193	G	C1'-O4'-C4'	-5.89	104.00	109.90
1	AA	378	G	C5'-C4'-C3'	-5.89	107.16	116.00
1	AA	1012	A	O3'-P-O5'	-5.89	95.16	104.00
5	AE	22	TRP	CE2-CD2-CG	5.89	114.27	107.20
15	AO	62	VAL	CA-C-N	5.89	131.13	123.00
15	AO	62	VAL	C-N-CA	5.89	131.13	123.00
16	AP	45	SER	N-CA-C	5.89	120.00	112.34
26	BB	571	U	C5'-C4'-C3'	-5.89	107.16	116.00
26	BB	715	A	O3'-P-O5'	-5.89	95.16	104.00
1	AA	298	A	O4'-C4'-C3'	5.89	109.89	104.00
1	AA	561	U	O4'-C4'-C3'	5.89	109.89	104.00
24	AX	59	LEU	CB-CA-C	5.89	120.21	110.90
26	BB	61	C	C4'-C3'-C2'	-5.89	96.71	102.60
26	BB	379	G	O3'-P-O5'	5.89	112.84	104.00
1	AA	443	C	C2'-C3'-O3'	-5.89	104.87	113.70
8	AH	5	LYS	CA-C-N	5.89	130.93	122.21
8	AH	5	LYS	C-N-CA	5.89	130.93	122.21
26	BB	488	G	O5'-C5'-C4'	-5.89	102.67	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1132	U	O4'-C4'-C3'	5.89	111.99	106.10
26	BB	1494	A	O4'-C4'-C3'	5.89	109.89	104.00
26	BB	1978	A	C2'-C3'-O3'	-5.89	104.87	113.70
1	AA	1450	U	C5'-C4'-C3'	-5.89	107.17	116.00
2	AB	33	U	O4'-C4'-C3'	5.89	109.89	104.00
23	AW	53	MET	CA-C-N	5.89	128.15	120.26
23	AW	53	MET	C-N-CA	5.89	128.15	120.26
26	BB	1150	C	O3'-P-O5'	-5.89	95.17	104.00
26	BB	2158	A	O5'-C5'-C4'	5.89	120.53	111.70
28	BD	65	ASP	O-C-N	-5.89	115.17	122.82
1	AA	739	C	C4'-C3'-C2'	-5.89	96.71	102.60
1	AA	767	A	N9-C1'-C2'	-5.89	103.17	112.00
1	AA	999	C	C1'-C2'-O2'	-5.89	99.57	108.40
1	AA	1357	A	C5'-C4'-C3'	-5.89	107.17	116.00
26	BB	2036	C	O4'-C1'-C2'	-5.89	101.71	107.60
26	BB	2390	U	O4'-C4'-C3'	-5.89	98.11	104.00
26	BB	2708	G	O4'-C1'-N9	5.89	117.33	108.50
55	B4	41	VAL	CB-CA-C	5.89	119.36	111.94
5	AE	107	ARG	CA-C-O	-5.88	113.45	120.10
22	AV	73	PHE	CA-CB-CG	-5.88	107.92	113.80
26	BB	715	A	O4'-C1'-C2'	5.88	113.48	107.60
26	BB	833	A	C5'-C4'-O4'	5.88	118.62	109.80
26	BB	856	G	C4'-C3'-C2'	-5.88	96.72	102.60
26	BB	1156	A	O3'-P-O5'	-5.88	95.17	104.00
26	BB	2744	G	C4'-C3'-C2'	-5.88	96.72	102.60
33	BI	143	ILE	O-C-N	5.88	129.56	123.03
11	AK	62	LEU	CA-C-N	5.88	129.19	120.95
11	AK	62	LEU	C-N-CA	5.88	129.19	120.95
26	BB	974	G	C3'-C2'-C1'	-5.88	95.62	101.50
26	BB	2370	G	P-O3'-C3'	5.88	129.02	120.20
26	BB	2415	G	C1'-C2'-O2'	-5.88	99.58	108.40
1	AA	672	U	O4'-C4'-C3'	5.88	109.88	104.00
1	AA	1533	C	O4'-C4'-C3'	5.88	109.88	104.00
26	BB	1378	A	C4'-C3'-C2'	-5.88	96.72	102.60
26	BB	2535	G	O3'-P-O5'	5.88	112.82	104.00
26	BB	818	G	P-O3'-C3'	5.88	129.02	120.20
26	BB	565	C	O4'-C4'-C3'	5.88	109.88	104.00
26	BB	1300	G	C4'-C3'-O3'	-5.88	104.18	113.00
26	BB	1730	C	N1-C1'-C2'	5.88	120.82	112.00
26	BB	1940	U	C2'-C3'-O3'	5.88	118.32	109.50
26	BB	2366	A	C4'-C3'-C2'	5.88	108.48	102.60
46	BV	74	ILE	CA-CB-CG1	5.88	120.39	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	961	C	C1'-C2'-O2'	5.88	120.61	111.80
26	BB	2268	A	O3'-P-O5'	5.88	112.82	104.00
1	AA	1242	G	O4'-C1'-N9	5.88	117.31	108.50
26	BB	2416	C	O4'-C4'-C3'	5.88	109.88	104.00
1	AA	479	U	C3'-C2'-O2'	5.87	119.51	110.70
1	AA	1415	G	C3'-C2'-O2'	5.87	119.51	110.70
26	BB	248	G	C4'-C3'-C2'	-5.87	96.73	102.60
26	BB	900	A	O4'-C4'-C3'	5.87	109.87	104.00
26	BB	1238	G	C3'-C2'-C1'	5.87	107.17	101.30
26	BB	1970	A	C2'-C3'-O3'	5.87	118.31	109.50
1	AA	346	G	O4'-C4'-C3'	5.87	109.87	104.00
1	AA	662	U	O4'-C1'-N1	5.87	117.31	108.50
1	AA	954	G	O4'-C1'-N9	5.87	117.31	108.50
1	AA	1371	G	C4'-C3'-C2'	-5.87	96.73	102.60
1	AA	1428	A	P-O3'-C3'	5.87	129.01	120.20
26	BB	2252	G	C4'-C3'-C2'	-5.87	96.73	102.60
26	BB	1292	G	N9-C1'-C2'	-5.87	103.19	112.00
1	AA	960	U	C1'-C2'-O2'	-5.87	99.60	108.40
4	AD	60	A	O4'-C4'-C3'	5.87	109.87	104.00
10	AJ	39	GLU	CA-C-O	-5.87	114.61	121.07
22	AV	58	PRO	N-CA-CB	5.87	108.53	103.36
23	AW	83	ASN	CA-C-O	-5.87	113.47	120.10
26	BB	2561	U	C5'-C4'-O4'	5.87	118.60	109.80
36	BL	138	GLN	OE1-CD-NE2	5.87	128.47	122.60
11	AK	77	VAL	CB-CA-C	5.87	117.01	111.44
15	AO	10	PRO	CA-C-N	5.87	129.04	120.71
15	AO	10	PRO	C-N-CA	5.87	129.04	120.71
26	BB	440	C	O4'-C1'-N1	5.87	117.30	108.50
26	BB	972	A	C3'-C2'-O2'	5.87	119.50	110.70
36	BL	30	THR	N-CA-C	5.87	118.62	111.82
1	AA	1120	C	N1-C1'-C2'	-5.87	103.20	112.00
1	AA	1268	G	C4'-C3'-C2'	-5.87	96.73	102.60
1	AA	1377	A	C3'-C2'-C1'	5.87	107.17	101.30
9	AI	19	PRO	N-CA-CB	5.87	109.34	103.48
39	BO	59	ARG	NE-CZ-NH2	5.87	124.48	119.20
40	BP	44	LEU	CA-C-N	5.87	128.07	120.44
40	BP	44	LEU	C-N-CA	5.87	128.07	120.44
1	AA	1361	G	O4'-C1'-N9	5.86	117.30	108.50
4	AD	37	U	C3'-C2'-C1'	5.86	107.16	101.30
15	AO	121	PRO	CA-C-N	5.86	132.31	122.87
15	AO	121	PRO	C-N-CA	5.86	132.31	122.87
26	BB	1884	G	P-O3'-C3'	5.86	128.99	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	BL	101	ILE	CA-CB-CG1	5.86	120.37	110.40
1	AA	1110	A	O4'-C1'-N9	5.86	117.29	108.50
26	BB	2177	C	C3'-C2'-O2'	5.86	119.49	110.70
1	AA	569	C	O3'-P-O5'	-5.86	95.21	104.00
13	AM	2	GLN	N-CA-C	5.86	118.27	110.53
15	AO	115	LYS	N-CA-C	-5.86	100.28	109.25
26	BB	1075	C	O4'-C1'-N1	5.86	117.29	108.50
26	BB	1650	A	C4'-C3'-O3'	-5.86	104.21	113.00
26	BB	1697	G	C2'-C3'-O3'	5.86	122.49	113.70
26	BB	1773	A	C4'-C3'-O3'	5.86	121.79	113.00
26	BB	2282	G	C4'-C3'-C2'	-5.86	96.74	102.60
26	BB	2526	G	C4'-C3'-C2'	-5.86	96.74	102.60
26	BB	1037	G	N9-C1'-C2'	-5.86	103.21	112.00
26	BB	2074	U	C5'-C4'-O4'	5.86	118.59	109.80
1	AA	912	C	O4'-C4'-C3'	-5.86	98.14	104.00
1	AA	1186	G	C4'-C3'-O3'	5.86	121.78	113.00
1	AA	1521	C	C2'-C3'-O3'	5.86	122.49	113.70
26	BB	685	A	C3'-C2'-O2'	-5.86	105.81	114.60
26	BB	966	G	C1'-O4'-C4'	5.86	115.76	109.90
26	BB	2027	G	O4'-C1'-C2'	-5.86	101.74	107.60
26	BB	2502	G	C5'-C4'-O4'	5.86	117.89	109.10
1	AA	521	G	C5'-C4'-O4'	5.86	118.58	109.80
7	AG	142	VAL	O-C-N	5.86	129.11	123.14
26	BB	368	A	O4'-C1'-C2'	-5.86	101.75	107.60
26	BB	1768	C	C4'-C3'-C2'	-5.86	96.74	102.60
26	BB	1842	G	O4'-C1'-N9	5.86	117.28	108.50
26	BB	2849	U	P-O3'-C3'	5.86	128.98	120.20
30	BF	89	PRO	N-CA-CB	5.85	108.54	103.27
1	AA	1365	G	O4'-C4'-C3'	5.85	109.85	104.00
19	AS	9	HIS	CB-CG-CD2	-5.85	123.59	131.20
19	AS	67	ILE	CB-CA-C	5.85	118.76	111.15
25	BA	31	C	O4'-C1'-N1	5.85	117.28	108.50
26	BB	570	G	C4'-C3'-O3'	5.85	118.18	109.40
26	BB	1513	U	O4'-C4'-C3'	5.85	109.85	104.00
57	B6	7	ARG	CA-C-O	-5.85	114.22	120.42
1	AA	774	G	C3'-C2'-C1'	5.85	107.15	101.30
17	AQ	92	ILE	CA-CB-CG1	5.85	120.35	110.40
26	BB	436	C	C1'-O4'-C4'	5.85	115.75	109.90
35	BK	73	PRO	CA-C-N	5.85	125.86	119.89
35	BK	73	PRO	C-N-CA	5.85	125.86	119.89
25	BA	50	A	C3'-C2'-C1'	5.85	107.15	101.30
25	BA	94	A	C1'-O4'-C4'	-5.85	104.05	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1793	C	O4'-C4'-C3'	-5.85	98.15	104.00
26	BB	2489	U	O4'-C4'-C3'	5.85	109.85	104.00
51	B0	47	ARG	CA-C-N	5.85	129.20	120.31
51	B0	47	ARG	C-N-CA	5.85	129.20	120.31
1	AA	122	G	C3'-C2'-C1'	5.85	107.15	101.30
1	AA	149	A	C2'-C3'-O3'	-5.85	104.93	113.70
1	AA	1217	C	C4'-C3'-C2'	-5.85	96.75	102.60
23	AW	79	THR	N-CA-CB	-5.85	101.50	110.16
26	BB	859	G	O3'-P-O5'	-5.85	95.23	104.00
26	BB	1041	G	C4'-C3'-C2'	-5.85	96.75	102.60
26	BB	1630	A	N9-C1'-C2'	-5.85	103.23	112.00
26	BB	2178	C	O4'-C1'-N1	5.85	117.27	108.50
26	BB	2263	C	N1-C1'-C2'	-5.85	103.23	112.00
49	BY	31	LEU	CA-C-N	5.85	128.58	120.63
49	BY	31	LEU	C-N-CA	5.85	128.58	120.63
1	AA	171	A	O4'-C4'-C3'	5.85	109.85	104.00
1	AA	1265	C	O4'-C1'-N1	5.85	117.27	108.50
10	AJ	1	PRO	CB-CA-C	5.85	121.21	110.10
4	AD	58	A	C4'-C3'-C2'	-5.84	96.76	102.60
18	AR	53	ARG	O-C-N	5.84	128.32	122.12
26	BB	91	A	O4'-C4'-C3'	5.84	111.94	106.10
26	BB	251	A	C5'-C4'-C3'	-5.84	107.23	116.00
26	BB	1473	G	O4'-C4'-C3'	5.84	109.84	104.00
26	BB	2248	C	C4'-C3'-O3'	-5.84	104.23	113.00
26	BB	826	U	O4'-C1'-C2'	5.84	113.44	107.60
26	BB	1300	G	P-O3'-C3'	5.84	128.96	120.20
26	BB	2071	A	C4'-C3'-C2'	-5.84	96.76	102.60
40	BP	16	HIS	CA-CB-CG	5.84	119.64	113.80
1	AA	1286	U	O4'-C1'-C2'	-5.84	101.76	107.60
1	AA	1302	C	C3'-C2'-O2'	5.84	119.46	110.70
6	AF	104	GLU	CA-C-O	5.84	127.53	120.81
8	AH	134	ASN	CA-CB-CG	5.84	118.44	112.60
26	BB	2340	A	C5'-C4'-C3'	-5.84	107.24	116.00
26	BB	2713	U	O4'-C1'-C2'	5.84	111.64	105.80
26	BB	2787	C	C5'-C4'-O4'	5.84	118.56	109.80
52	B1	33	HIS	CB-CG-CD2	-5.84	123.61	131.20
1	AA	1027	C	C4'-C3'-C2'	-5.84	96.76	102.60
1	AA	1097	C	O4'-C1'-N1	5.84	117.26	108.50
23	AW	17	ARG	CA-C-N	5.84	128.10	120.28
23	AW	17	ARG	C-N-CA	5.84	128.10	120.28
25	BA	67	G	C1'-C2'-O2'	-5.84	99.64	108.40
26	BB	232	G	O4'-C1'-C2'	5.84	111.64	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	748	G	C4'-C3'-C2'	-5.84	96.76	102.60
1	AA	1164	G	C5'-C4'-C3'	-5.84	107.24	116.00
17	AQ	42	ASN	CA-C-N	5.84	129.94	120.60
17	AQ	42	ASN	C-N-CA	5.84	129.94	120.60
1	AA	29	U	O4'-C1'-N1	5.84	117.25	108.50
1	AA	1180	A	O4'-C4'-C3'	5.84	109.84	104.00
11	AK	17	GLN	N-CA-C	5.84	117.72	111.36
26	BB	109	C	C1'-O4'-C4'	-5.84	104.06	109.90
26	BB	817	C	C4'-C3'-O3'	5.84	121.75	113.00
26	BB	1232	G	P-O5'-C5'	5.84	129.65	120.90
26	BB	2393	U	C4'-C3'-C2'	-5.84	96.76	102.60
43	BS	28	SER	N-CA-CB	-5.84	102.01	110.47
48	BX	84	PRO	CA-C-O	-5.84	110.81	118.86
1	AA	40	C	C3'-C2'-O2'	5.83	119.45	110.70
1	AA	107	G	O4'-C1'-C2'	5.83	113.44	107.60
1	AA	202	G	C1'-O4'-C4'	-5.83	104.06	109.90
1	AA	1176	A	O5'-C5'-C4'	-5.83	102.75	111.50
1	AA	1267	C	C5'-C4'-O4'	5.83	118.55	109.80
26	BB	1103	A	C3'-C2'-C1'	5.83	107.14	101.30
30	BF	73	ILE	CA-C-N	5.83	131.39	122.23
30	BF	73	ILE	C-N-CA	5.83	131.39	122.23
1	AA	49	U	C2'-C3'-O3'	5.83	118.25	109.50
1	AA	363	A	C3'-C2'-O2'	5.83	119.45	110.70
1	AA	1002	G	C4'-C3'-O3'	5.83	121.75	113.00
5	AE	105	THR	O-C-N	5.83	128.30	122.12
26	BB	785	G	C4'-C3'-C2'	-5.83	96.77	102.60
26	BB	1055	G	C5'-C4'-C3'	-5.83	107.25	116.00
26	BB	1912	A	C2'-C3'-O3'	-5.83	104.95	113.70
26	BB	2101	A	O5'-C5'-C4'	-5.83	102.75	111.50
1	AA	553	A	C4'-C3'-C2'	-5.83	96.77	102.60
23	AW	74	HIS	CB-CG-ND1	5.83	131.45	122.70
26	BB	761	A	C4'-C3'-C2'	-5.83	96.77	102.60
26	BB	1384	A	O3'-P-O5'	5.83	112.75	104.00
26	BB	1661	G	C5'-C4'-O4'	5.83	118.55	109.80
26	BB	1676	A	O4'-C1'-C2'	5.83	113.43	107.60
31	BG	101	ARG	NE-CZ-NH2	5.83	124.45	119.20
1	AA	650	G	O4'-C4'-C3'	5.83	109.83	104.00
29	BE	109	VAL	O-C-N	5.83	129.86	122.57
1	AA	274	A	C4'-C3'-O3'	-5.83	100.66	109.40
1	AA	1341	U	O4'-C1'-N1	5.83	117.24	108.50
12	AL	55	ASP	CA-CB-CG	-5.83	106.77	112.60
26	BB	488	G	O4'-C4'-C3'	-5.83	98.17	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	649	G	C4'-C3'-C2'	-5.83	96.77	102.60
4	AD	65	G	C3'-C2'-O2'	5.83	119.44	110.70
26	BB	2616	C	O4'-C1'-N1	5.83	117.24	108.50
26	BB	2855	C	O4'-C1'-C2'	-5.83	101.77	107.60
1	AA	1235	U	C4'-C3'-C2'	-5.83	96.78	102.60
21	AU	59	LYS	N-CA-C	-5.83	104.85	111.14
24	AX	23	GLU	N-CA-C	5.83	118.06	110.43
26	BB	276	U	C3'-C2'-O2'	5.83	119.44	110.70
26	BB	945	A	N9-C1'-C2'	5.83	120.74	112.00
36	BL	132	HIS	CB-CG-CD2	-5.83	123.63	131.20
2	AB	7	G	C1'-O4'-C4'	5.82	115.72	109.90
45	BU	37	THR	CA-CB-CG2	5.82	120.40	110.50
57	B6	3	ILE	CA-CB-CG1	5.82	120.30	110.40
2	AB	8	4SU	P-O3'-C3'	5.82	126.69	119.70
9	AI	11	HIS	CA-CB-CG	5.82	119.62	113.80
26	BB	289	G	C3'-C2'-O2'	5.82	119.43	110.70
1	AA	894	G	C5'-C4'-O4'	5.82	118.53	109.80
1	AA	1202	U	O4'-C1'-C2'	-5.82	101.78	107.60
2	AB	36	A	O4'-C4'-C3'	5.82	109.82	104.00
12	AL	29	ILE	O-C-N	-5.82	117.03	123.20
26	BB	320	A	C3'-C2'-C1'	-5.82	95.48	101.30
26	BB	2272	U	N1-C1'-C2'	5.82	120.73	112.00
26	BB	2380	C	C4'-C3'-C2'	-5.82	96.78	102.60
26	BB	2480	C	O4'-C1'-N1	5.82	117.23	108.50
26	BB	2670	A	O4'-C4'-C3'	-5.82	98.18	104.00
44	BT	78	ARG	CA-C-N	5.82	130.71	120.87
44	BT	78	ARG	C-N-CA	5.82	130.71	120.87
1	AA	153	C	C3'-C2'-C1'	5.82	107.12	101.30
25	BA	43	C	O4'-C1'-C2'	-5.82	101.78	107.60
55	B4	27	ARG	NE-CZ-NH1	5.82	127.32	121.50
2	AB	42	G	C5'-C4'-O4'	5.82	118.53	109.80
9	AI	66	ALA	O-C-N	-5.82	117.29	121.83
26	BB	75	G	C1'-C2'-O2'	5.82	117.13	108.40
26	BB	134	G	C4'-C3'-C2'	-5.82	96.78	102.60
26	BB	494	G	C4'-C3'-C2'	-5.82	96.78	102.60
26	BB	670	A	C3'-C2'-C1'	5.82	107.32	101.50
26	BB	1576	U	N1-C1'-C2'	-5.82	103.27	112.00
26	BB	2376	A	N9-C1'-C2'	5.82	120.73	112.00
26	BB	2505	G	O4'-C1'-C2'	-5.82	99.98	105.80
34	BJ	152	ARG	O-C-N	5.82	128.29	122.12
1	AA	234	C	C1'-C2'-O2'	-5.82	99.68	108.40
7	AG	51	GLY	CA-C-O	-5.82	114.72	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	318	C	C3'-C2'-O2'	5.82	119.42	110.70
26	BB	1414	C	O4'-C1'-N1	5.82	117.22	108.50
35	BK	122	GLU	CA-C-N	5.82	128.39	120.54
35	BK	122	GLU	C-N-CA	5.82	128.39	120.54
21	AU	17	VAL	CB-CA-C	5.81	119.03	110.77
26	BB	923	G	O4'-C4'-C3'	-5.81	98.19	104.00
26	BB	2268	A	C5'-C4'-C3'	-5.81	107.28	116.00
2	AB	33	U	P-O3'-C3'	5.81	128.92	120.20
26	BB	77	G	O4'-C1'-C2'	5.81	113.41	107.60
26	BB	347	A	O4'-C1'-C2'	-5.81	101.79	107.60
26	BB	554	U	O4'-C4'-C3'	5.81	109.81	104.00
26	BB	821	A	C5'-C4'-C3'	-5.81	107.28	116.00
26	BB	877	A	O4'-C4'-C3'	-5.81	98.19	104.00
26	BB	2851	A	C1'-C2'-O2'	-5.81	99.68	108.40
47	BW	100	GLU	CA-C-N	5.81	130.38	122.19
47	BW	100	GLU	C-N-CA	5.81	130.38	122.19
26	BB	174	U	C4'-C3'-O3'	-5.81	104.28	113.00
26	BB	604	G	C3'-C2'-C1'	-5.81	95.49	101.30
26	BB	1382	G	O4'-C1'-N9	5.81	117.22	108.50
26	BB	56	A	O4'-C1'-C2'	-5.81	101.79	107.60
26	BB	532	A	C4'-C3'-C2'	-5.81	96.79	102.60
26	BB	578	G	C4'-C3'-C2'	-5.81	96.79	102.60
26	BB	1268	A	C3'-C2'-C1'	5.81	107.11	101.30
26	BB	2015	A	O4'-C4'-C3'	5.81	109.81	104.00
1	AA	905	U	C2'-C3'-O3'	-5.81	104.99	113.70
15	AO	55	ARG	N-CA-C	5.81	118.21	107.99
22	AV	33	TRP	CA-C-N	5.81	132.63	121.54
22	AV	33	TRP	C-N-CA	5.81	132.63	121.54
26	BB	1234	U	O5'-C5'-C4'	5.81	120.21	111.50
26	BB	1311	G	N9-C1'-C2'	-5.81	105.29	114.00
26	BB	2710	C	O4'-C4'-C3'	5.81	109.81	104.00
40	BP	30	ARG	NH1-CZ-NH2	-5.81	111.75	119.30
51	B0	24	GLU	CB-CA-C	5.81	120.08	110.90
1	AA	399	G	C4'-C3'-C2'	-5.81	96.79	102.60
4	AD	1	C	O5'-C5'-C4'	5.81	120.21	111.50
17	AQ	11	LYS	CA-C-N	5.81	129.14	120.31
17	AQ	11	LYS	C-N-CA	5.81	129.14	120.31
26	BB	139	U	O4'-C1'-N1	5.81	116.91	108.20
50	BZ	31	ASN	CA-CB-CG	5.81	118.41	112.60
1	AA	396	C	C3'-C2'-C1'	5.80	107.10	101.30
12	AL	22	PRO	N-CA-CB	5.80	108.48	103.31
22	AV	82	HIS	CA-C-N	5.80	128.31	120.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AV	82	HIS	C-N-CA	5.80	128.31	120.65
26	BB	282	A	C2'-C3'-O3'	-5.80	104.99	113.70
26	BB	377	G	O3'-P-O5'	5.80	112.71	104.00
26	BB	669	G	O4'-C1'-C2'	-5.80	101.80	107.60
28	BD	214	GLY	CA-C-N	5.80	130.53	122.93
28	BD	214	GLY	C-N-CA	5.80	130.53	122.93
30	BF	22	ASP	CA-CB-CG	5.80	118.40	112.60
50	BZ	35	HIS	CB-CG-CD2	-5.80	123.66	131.20
26	BB	221	A	O4'-C1'-C2'	-5.80	100.00	105.80
26	BB	368	A	O4'-C1'-N9	5.80	117.20	108.50
26	BB	2184	A	C4'-C3'-C2'	-5.80	96.80	102.60
26	BB	2822	G	C4'-C3'-C2'	-5.80	96.80	102.60
1	AA	121	U	C5'-C4'-O4'	5.80	118.50	109.80
1	AA	361	G	O4'-C4'-C3'	5.80	109.80	104.00
1	AA	789	U	C5'-C4'-C3'	-5.80	106.50	115.20
1	AA	1030	U	C3'-C2'-C1'	5.80	107.10	101.30
1	AA	1043	G	C5'-C4'-O4'	5.80	118.50	109.80
1	AA	1460	C	O4'-C4'-C3'	5.80	109.80	104.00
23	AW	59	ARG	CD-NE-CZ	5.80	132.52	124.40
26	BB	1963	U	P-O3'-C3'	5.80	128.90	120.20
28	BD	32	LEU	CA-C-O	5.80	126.44	119.59
31	BG	20	ASN	CA-CB-CG	-5.80	106.80	112.60
1	AA	529	G	C5'-C4'-O4'	5.80	118.50	109.80
1	AA	871	U	C1'-C2'-O2'	5.80	120.50	111.80
3	AC	27	A	C4'-C3'-O3'	5.80	121.70	113.00
26	BB	1104	C	O4'-C4'-C3'	5.80	109.80	104.00
45	BU	42	LYS	N-CA-C	5.80	117.68	111.36
19	AS	15	PRO	CA-C-N	5.80	131.16	122.99
19	AS	15	PRO	C-N-CA	5.80	131.16	122.99
26	BB	608	A	C3'-C2'-C1'	5.80	107.10	101.30
26	BB	2333	A	O4'-C4'-C3'	5.80	111.90	106.10
26	BB	2842	G	O5'-C5'-C4'	-5.80	102.80	111.50
35	BK	60	VAL	CA-C-N	5.80	133.69	122.03
35	BK	60	VAL	C-N-CA	5.80	133.69	122.03
22	AV	38	THR	CA-CB-CG2	5.80	120.36	110.50
22	AV	63	ASP	N-CA-CB	-5.80	101.29	110.22
26	BB	212	G	C3'-C2'-C1'	5.80	107.10	101.30
26	BB	499	U	O4'-C1'-C2'	5.80	113.40	107.60
26	BB	1662	U	O3'-P-O5'	5.80	112.69	104.00
26	BB	1858	A	C5'-C4'-C3'	-5.80	107.31	116.00
6	AF	161	ILE	CA-C-N	5.79	128.52	120.29
6	AF	161	ILE	C-N-CA	5.79	128.52	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	37	C	C5'-C4'-C3'	5.79	124.69	116.00
1	AA	67	C	C5'-C4'-C3'	-5.79	107.31	116.00
1	AA	346	G	C5'-C4'-C3'	-5.79	107.31	116.00
1	AA	931	C	C5'-C4'-C3'	-5.79	107.31	116.00
1	AA	1328	C	O4'-C1'-N1	5.79	117.19	108.50
1	AA	1340	A	C4'-C3'-C2'	-5.79	96.81	102.60
1	AA	1523	G	C5'-C4'-O4'	5.79	118.49	109.80
3	AC	30	U	C3'-C2'-C1'	5.79	107.29	101.50
26	BB	922	C	O4'-C1'-C2'	-5.79	101.81	107.60
26	BB	1208	C	C4'-C3'-C2'	-5.79	96.81	102.60
26	BB	1458	U	C1'-C2'-O2'	5.79	117.09	108.40
26	BB	2126	A	O3'-P-O5'	5.79	112.69	104.00
26	BB	2709	G	O5'-C5'-C4'	-5.79	102.81	111.50
26	BB	2745	C	C1'-O4'-C4'	5.79	115.69	109.90
28	BD	206	LYS	CA-CB-CG	5.79	125.69	114.10
56	B5	3	ARG	O-C-N	-5.79	116.45	122.94
1	AA	887	G	C4'-C3'-C2'	5.79	108.39	102.60
7	AG	145	ARG	CA-C-N	5.79	128.04	120.28
7	AG	145	ARG	C-N-CA	5.79	128.04	120.28
26	BB	604	G	C2'-C3'-O3'	5.79	122.39	113.70
26	BB	1813	G	C5'-C4'-O4'	5.79	118.49	109.80
26	BB	1863	G	C3'-C2'-C1'	-5.79	95.51	101.30
26	BB	440	C	C3'-C2'-C1'	-5.79	95.51	101.30
26	BB	1005	C	C5'-C4'-C3'	-5.79	107.31	116.00
26	BB	1799	G	P-O3'-C3'	5.79	128.88	120.20
26	BB	2118	U	P-O3'-C3'	5.79	128.88	120.20
26	BB	2757	A	C5'-C4'-O4'	5.79	118.48	109.80
28	BD	13	ARG	CA-C-O	-5.79	114.70	120.90
32	BH	23	ILE	O-C-N	5.79	129.51	123.26
1	AA	55	A	C2'-C3'-O3'	-5.79	105.02	113.70
1	AA	113	G	C5'-C4'-C3'	-5.79	107.32	116.00
1	AA	1113	C	O5'-C5'-C4'	-5.79	102.82	111.50
1	AA	1289	A	C3'-C2'-O2'	5.79	119.38	110.70
26	BB	149	A	O4'-C4'-C3'	5.79	109.79	104.00
26	BB	2576	G	O5'-C5'-C4'	5.79	120.18	111.50
28	BD	129	LEU	CA-C-N	5.79	125.72	119.76
28	BD	129	LEU	C-N-CA	5.79	125.72	119.76
33	BI	61	VAL	CA-C-N	5.79	132.05	122.73
33	BI	61	VAL	C-N-CA	5.79	132.05	122.73
1	AA	626	G	C3'-C2'-C1'	5.79	107.09	101.30
26	BB	1434	A	C1'-O4'-C4'	-5.79	104.11	109.90
26	BB	1829	A	C4'-C3'-C2'	-5.79	96.81	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2844	G	C4'-C3'-C2'	-5.79	96.81	102.60
30	BF	113	VAL	CA-CB-CG1	5.79	120.23	110.40
46	BV	70	HIS	CB-CG-CD2	-5.79	123.68	131.20
53	B2	50	ASP	CA-CB-CG	5.79	118.39	112.60
1	AA	1491	G	P-O3'-C3'	5.78	128.87	120.20
10	AJ	123	LEU	CA-C-O	-5.78	114.74	120.70
15	AO	63	THR	CA-CB-OG1	5.78	118.28	109.60
23	AW	67	HIS	CA-CB-CG	5.78	119.58	113.80
26	BB	174	U	C1'-O4'-C4'	-5.78	104.12	109.90
26	BB	476	G	O3'-P-O5'	-5.78	95.33	104.00
26	BB	1557	C	C2'-C3'-O3'	-5.78	105.03	113.70
26	BB	2054	A	N9-C1'-C2'	-5.78	103.32	112.00
26	BB	2424	C	P-O5'-C5'	5.78	129.58	120.90
28	BD	80	LEU	CA-C-O	-5.78	114.17	120.36
35	BK	132	ALA	O-C-N	-5.78	115.99	122.12
40	BP	110	MET	CA-C-O	5.78	127.64	121.11
52	B1	33	HIS	CB-CG-ND1	5.78	131.38	122.70
1	AA	248	C	O4'-C1'-N1	5.78	117.17	108.50
1	AA	880	C	O4'-C1'-N1	5.78	117.17	108.50
26	BB	1170	C	O4'-C1'-N1	5.78	117.17	108.50
26	BB	1586	A	P-O5'-C5'	5.78	129.57	120.90
1	AA	1092	A	C5'-C4'-O4'	5.78	118.47	109.80
4	AD	4	G	O4'-C1'-N9	5.78	117.17	108.50
26	BB	336	C	C5'-C4'-O4'	5.78	118.47	109.80
26	BB	844	A	C3'-C2'-O2'	5.78	119.37	110.70
26	BB	1264	A	O5'-C5'-C4'	5.78	120.17	111.50
26	BB	1852	U	C4'-C3'-C2'	-5.78	96.82	102.60
1	AA	496	A	C1'-O4'-C4'	-5.78	104.12	109.90
1	AA	554	A	C3'-C2'-O2'	5.78	119.37	110.70
1	AA	1446	A	C1'-O4'-C4'	-5.78	104.12	109.90
1	AA	1494	G	C5'-C4'-O4'	5.78	118.47	109.80
26	BB	176	A	C3'-C2'-C1'	5.78	107.08	101.30
1	AA	484	G	O4'-C1'-C2'	5.78	111.58	105.80
1	AA	634	C	C5'-C4'-O4'	5.78	118.47	109.80
4	AD	64	G	P-O5'-C5'	5.78	129.57	120.90
5	AE	156	LEU	O-C-N	-5.78	116.16	121.30
26	BB	466	A	C2'-C3'-O3'	-5.78	105.03	113.70
26	BB	1377	G	C4'-C3'-C2'	-5.78	96.82	102.60
26	BB	1587	G	O5'-C5'-C4'	-5.78	102.83	111.50
26	BB	2730	C	O4'-C4'-C3'	5.78	109.78	104.00
31	BG	36	ASN	OD1-CG-ND2	5.78	128.38	122.60
31	BG	129	MET	CA-C-N	5.78	132.73	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BG	129	MET	C-N-CA	5.78	132.73	121.41
36	BL	24	THR	O-C-N	-5.78	116.14	123.24
45	BU	31	GLN	CA-C-O	-5.78	114.30	120.42
51	B0	28	LEU	CA-C-O	-5.78	114.42	120.55
1	AA	1248	A	O4'-C1'-C2'	5.78	113.38	107.60
13	AM	95	GLY	O-C-N	5.78	127.73	122.19
33	BI	38	PRO	N-CA-CB	5.78	108.82	103.39
44	BT	36	ALA	CA-C-O	-5.78	112.51	119.27
53	B2	36	VAL	O-C-N	-5.78	116.36	122.83
1	AA	375	U	O3'-P-O5'	-5.77	95.34	104.00
1	AA	479	U	C5'-C4'-O4'	5.77	118.46	109.80
1	AA	791	G	O4'-C1'-C2'	5.77	111.57	105.80
7	AG	82	LYS	CA-CB-CG	-5.77	102.55	114.10
26	BB	13	A	C1'-O4'-C4'	-5.77	103.93	109.70
26	BB	225	C	C3'-C2'-O2'	5.77	119.36	110.70
26	BB	686	U	O4'-C1'-N1	5.77	116.86	108.20
26	BB	2178	C	C4'-C3'-O3'	5.77	121.66	113.00
36	BL	15	TRP	CG-CD1-NE1	-5.77	102.70	110.20
43	BS	68	ALA	CA-C-N	5.77	128.49	120.29
43	BS	68	ALA	C-N-CA	5.77	128.49	120.29
1	AA	672	U	C5'-C4'-O4'	5.77	118.46	109.80
1	AA	1515	G	O5'-C5'-C4'	-5.77	102.84	111.50
26	BB	627	A	C3'-C2'-C1'	-5.77	95.73	101.50
31	BG	143	ASP	CA-C-N	5.77	129.06	120.17
31	BG	143	ASP	C-N-CA	5.77	129.06	120.17
1	AA	1202	U	C5'-C4'-C3'	-5.77	107.35	116.00
6	AF	222	GLN	N-CA-C	5.77	116.23	109.60
26	BB	1352	U	O4'-C4'-C3'	-5.77	98.23	104.00
26	BB	1419	A	C1'-O4'-C4'	-5.77	104.13	109.90
26	BB	1521	G	C1'-O4'-C4'	5.77	115.67	109.90
26	BB	1534	U	C1'-O4'-C4'	-5.77	104.13	109.90
26	BB	2316	G	P-O5'-C5'	5.77	129.56	120.90
26	BB	2385	C	P-O5'-C5'	5.77	129.55	120.90
26	BB	2621	G	C3'-C2'-O2'	5.77	119.35	110.70
36	BL	76	HIS	ND1-CG-CD2	5.77	111.87	106.10
39	BO	53	MET	O-C-N	-5.77	115.57	122.15
50	BZ	10	ARG	CA-C-N	5.77	127.05	119.84
50	BZ	10	ARG	C-N-CA	5.77	127.05	119.84
10	AJ	13	PRO	CA-N-CD	-5.77	103.92	112.00
26	BB	2017	U	C5'-C4'-O4'	5.77	118.45	109.80
27	BC	47	ASN	CA-CB-CG	5.77	118.37	112.60
3	AC	46	C	C5'-C4'-O4'	5.77	117.75	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	105	G	O3'-P-O5'	-5.76	95.35	104.00
1	AA	311	C	P-O5'-C5'	5.76	129.55	120.90
1	AA	1411	C	O4'-C1'-C2'	-5.76	101.83	107.60
10	AJ	128	GLU	CA-C-N	5.76	130.35	122.34
10	AJ	128	GLU	C-N-CA	5.76	130.35	122.34
26	BB	1324	G	O3'-P-O5'	-5.76	95.35	104.00
26	BB	1719	G	C5'-C4'-O4'	5.76	118.45	109.80
26	BB	2813	A	C4'-C3'-C2'	-5.76	96.84	102.60
27	BC	214	ILE	CB-CA-C	5.76	119.57	110.81
30	BF	17	THR	CA-CB-CG2	5.76	120.30	110.50
44	BT	66	HIS	CB-CG-ND1	5.76	131.35	122.70
26	BB	723	C	P-O3'-C3'	5.76	128.84	120.20
26	BB	1571	A	P-O3'-C3'	5.76	128.84	120.20
26	BB	2850	A	P-O5'-C5'	5.76	129.54	120.90
1	AA	123	U	O4'-C1'-N1	5.76	117.14	108.50
1	AA	181	A	C3'-C2'-C1'	-5.76	95.74	101.50
1	AA	1184	G	O4'-C4'-C3'	5.76	109.76	104.00
5	AE	216	VAL	CA-C-N	5.76	128.47	120.29
5	AE	216	VAL	C-N-CA	5.76	128.47	120.29
26	BB	547	A	C3'-C2'-O2'	5.76	119.34	110.70
26	BB	1166	G	C5'-C4'-C3'	-5.76	107.36	116.00
26	BB	1210	G	C2'-C3'-O3'	5.76	118.14	109.50
26	BB	1568	G	O4'-C1'-C2'	-5.76	101.84	107.60
47	BW	68	ASN	CA-CB-CG	5.76	118.36	112.60
1	AA	209	U	O4'-C1'-N1	5.76	117.14	108.50
1	AA	434	U	O4'-C1'-C2'	-5.76	101.84	107.60
25	BA	20	G	C3'-C2'-C1'	5.76	107.06	101.30
25	BA	64	G	O4'-C1'-C2'	5.76	113.36	107.60
26	BB	764	A	O4'-C1'-N9	5.76	116.84	108.20
26	BB	832	U	C3'-C2'-O2'	5.76	119.34	110.70
26	BB	1435	G	C4'-C3'-C2'	-5.76	96.84	102.60
26	BB	1446	C	O4'-C1'-N1	5.76	117.14	108.50
26	BB	2686	G	O5'-C5'-C4'	5.76	120.14	111.50
32	BH	54	ARG	NH1-CZ-NH2	5.76	126.79	119.30
54	B3	1	ALA	CA-C-N	5.76	132.34	121.97
54	B3	1	ALA	C-N-CA	5.76	132.34	121.97
2	AB	45	U	C3'-C2'-O2'	5.76	119.34	110.70
26	BB	1918	A	C1'-O4'-C4'	5.76	115.46	109.70
26	BB	2890	G	P-O5'-C5'	5.76	129.54	120.90
45	BU	71	VAL	CA-CB-CG1	5.76	120.19	110.40
1	AA	451	A	C2'-C3'-O3'	5.76	118.13	109.50
1	AA	757	U	C3'-C2'-C1'	5.76	107.06	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	AJ	87	PRO	CA-C-N	5.76	131.00	122.71
10	AJ	87	PRO	C-N-CA	5.76	131.00	122.71
26	BB	126	A	O4'-C1'-N9	5.76	117.14	108.50
33	BI	51	ARG	O-C-N	5.76	129.35	122.27
34	BJ	69	GLU	CA-C-O	-5.76	113.99	120.32
17	AQ	56	PRO	CA-N-CD	-5.75	103.94	112.00
26	BB	185	G	C5'-C4'-C3'	-5.75	107.37	116.00
1	AA	764	C	C3'-C2'-O2'	5.75	119.33	110.70
2	AB	50	G	O4'-C1'-N9	5.75	117.13	108.50
12	AL	104	THR	CA-C-N	5.75	129.04	120.87
12	AL	104	THR	C-N-CA	5.75	129.04	120.87
22	AV	13	HIS	CB-CG-CD2	-5.75	123.72	131.20
26	BB	1050	A	C5'-C4'-C3'	-5.75	107.37	116.00
26	BB	1256	G	C4'-C3'-O3'	-5.75	104.37	113.00
29	BE	84	LEU	CA-C-O	-5.75	115.29	121.45
29	BE	200	ASP	O-C-N	-5.75	116.29	122.85
53	B2	62	LYS	CG-CD-CE	-5.75	98.07	111.30
1	AA	468	A	O4'-C1'-N9	5.75	117.13	108.50
15	AO	43	LYS	CA-C-N	5.75	127.03	119.84
15	AO	43	LYS	C-N-CA	5.75	127.03	119.84
26	BB	508	A	O4'-C1'-N9	5.75	117.13	108.50
26	BB	1289	C	C4'-C3'-C2'	-5.75	96.85	102.60
26	BB	1784	A	C2'-C3'-O3'	-5.75	105.07	113.70
27	BC	85	GLU	CA-C-N	5.75	128.46	120.29
27	BC	85	GLU	C-N-CA	5.75	128.46	120.29
1	AA	2	A	O4'-C4'-C3'	5.75	109.75	104.00
3	AC	13	A	C3'-C2'-O2'	5.75	119.33	110.70
12	AL	41	GLU	CA-C-N	5.75	129.80	120.60
12	AL	41	GLU	C-N-CA	5.75	129.80	120.60
26	BB	37	C	C5'-C4'-C3'	-5.75	107.38	116.00
26	BB	646	U	C4'-C3'-C2'	-5.75	96.85	102.60
1	AA	108	G	O4'-C1'-C2'	5.75	113.35	107.60
1	AA	1502	A	C5'-C4'-O4'	-5.75	100.48	109.10
26	BB	674	G	C1'-O4'-C4'	-5.75	104.15	109.90
26	BB	1061	U	C3'-C2'-O2'	-5.75	105.98	114.60
1	AA	201	G	N9-C1'-C2'	-5.75	103.38	112.00
1	AA	322	C	O3'-P-O5'	5.75	112.62	104.00
1	AA	334	C	C4'-C3'-C2'	-5.75	96.85	102.60
26	BB	81	G	C4'-C3'-C2'	-5.75	96.85	102.60
1	AA	1319	A	O5'-C5'-C4'	5.75	120.32	111.70
26	BB	782	A	O4'-C4'-C3'	-5.75	100.36	106.10
26	BB	997	G	P-O3'-C3'	5.75	128.82	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2334	U	O4'-C1'-N1	5.75	117.12	108.50
12	AL	80	HIS	CB-CG-CD2	-5.74	123.73	131.20
29	BE	9	VAL	CA-CB-CG1	5.74	120.16	110.40
30	BF	167	VAL	CA-CB-CG1	5.74	120.16	110.40
40	BP	43	GLU	CA-C-N	5.74	128.45	120.29
40	BP	43	GLU	C-N-CA	5.74	128.45	120.29
45	BU	37	THR	OG1-CB-CG2	-5.74	97.81	109.30
1	AA	168	G	C1'-C2'-O2'	-5.74	99.79	108.40
1	AA	795	C	C2'-C3'-O3'	-5.74	105.09	113.70
1	AA	867	G	C4'-C3'-C2'	-5.74	96.86	102.60
26	BB	2678	C	C3'-C2'-O2'	5.74	119.31	110.70
1	AA	1169	A	C5'-C4'-C3'	-5.74	107.39	116.00
1	AA	1425	U	C5'-C4'-O4'	5.74	118.41	109.80
26	BB	491	G	C5'-C4'-C3'	-5.74	107.39	116.00
26	BB	503	A	C1'-O4'-C4'	-5.74	104.16	109.90
26	BB	1630	A	O4'-C1'-C2'	-5.74	101.86	107.60
26	BB	2676	C	C4'-C3'-C2'	-5.74	96.86	102.60
35	BK	57	VAL	CB-CA-C	5.74	118.92	110.77
43	BS	28	SER	CA-C-O	-5.74	112.48	119.43
1	AA	394	G	C2'-C3'-O3'	5.74	122.31	113.70
10	AJ	1	PRO	CA-N-CD	-5.74	103.97	112.00
25	BA	87	U	P-O3'-C3'	5.74	128.81	120.20
26	BB	1767	G	P-O3'-C3'	-5.74	111.59	120.20
33	BI	109	GLU	CB-CA-C	5.74	119.25	109.72
54	B3	9	ARG	NE-CZ-NH2	5.74	124.36	119.20
26	BB	346	A	O4'-C1'-N9	5.74	117.11	108.50
26	BB	2790	U	O3'-P-O5'	-5.74	95.39	104.00
58	B7	15	LYS	CA-C-N	5.74	132.30	121.97
58	B7	15	LYS	C-N-CA	5.74	132.30	121.97
1	AA	537	G	O4'-C1'-N9	5.74	117.10	108.50
1	AA	1352	C	C5'-C4'-C3'	-5.74	107.40	116.00
1	AA	1387	G	C3'-C2'-C1'	-5.74	95.56	101.30
26	BB	549	G	O4'-C4'-C3'	-5.74	100.36	106.10
26	BB	1378	A	C2'-C3'-O3'	5.74	118.10	109.50
26	BB	1472	C	C2'-C3'-O3'	-5.74	105.10	113.70
56	B5	34	ARG	CA-C-N	5.74	127.90	120.44
56	B5	34	ARG	C-N-CA	5.74	127.90	120.44
1	AA	1391	U	C4'-C3'-O3'	5.73	121.60	113.00
2	AB	63	C	C3'-C2'-O2'	5.73	119.30	110.70
26	BB	1707	G	O4'-C4'-C3'	5.73	109.73	104.00
26	BB	2215	C	C5'-C4'-O4'	5.73	118.40	109.80
51	B0	41	HIS	CE1-NE2-CD2	-5.73	103.27	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	719	C	C3'-C2'-O2'	-5.73	106.00	114.60
1	AA	1014	A	O4'-C1'-N9	5.73	117.10	108.50
1	AA	1206	G	C4'-C3'-C2'	-5.73	96.87	102.60
1	AA	44	A	C3'-C2'-O2'	5.73	119.29	110.70
1	AA	1063	C	P-O3'-C3'	5.73	128.79	120.20
12	AL	118	ARG	N-CA-C	-5.73	105.78	112.89
26	BB	618	G	C5'-C4'-C3'	-5.73	107.40	116.00
26	BB	1975	G	C1'-O4'-C4'	-5.73	104.17	109.90
26	BB	2021	C	C3'-C2'-C1'	5.73	107.23	101.50
26	BB	2760	C	C4'-C3'-C2'	-5.73	96.87	102.60
38	BN	119	PRO	CB-CA-C	5.73	118.83	111.21
57	B6	57	VAL	CB-CA-C	5.73	120.13	112.22
26	BB	1329	U	O4'-C1'-N1	5.73	116.79	108.20
26	BB	2269	G	O4'-C4'-C3'	5.73	109.73	104.00
26	BB	2825	G	O4'-C1'-N9	5.73	117.09	108.50
19	AS	70	ARG	NE-CZ-NH2	-5.73	114.05	119.20
26	BB	10	A	O3'-P-O5'	5.73	112.59	104.00
26	BB	783	A	C1'-C2'-O2'	5.73	116.99	108.40
26	BB	1375	U	O4'-C1'-N1	5.73	117.09	108.50
26	BB	1632	A	O4'-C1'-C2'	-5.73	101.87	107.60
26	BB	2000	C	C1'-C2'-O2'	-5.73	99.81	108.40
26	BB	2477	U	C3'-C2'-C1'	5.73	107.03	101.30
43	BS	86	SER	CA-C-N	5.73	132.28	121.97
43	BS	86	SER	C-N-CA	5.73	132.28	121.97
1	AA	171	A	O3'-P-O5'	-5.73	95.41	104.00
1	AA	539	A	O4'-C1'-N9	5.73	117.09	108.50
1	AA	1534	A	C3'-C2'-O2'	5.73	119.29	110.70
26	BB	486	C	O5'-C5'-C4'	-5.73	102.91	111.50
33	BI	128	HIS	CB-CG-CD2	-5.73	123.76	131.20
1	AA	244	U	C2'-C3'-O3'	5.72	118.09	109.50
1	AA	326	G	N9-C1'-C2'	-5.72	103.41	112.00
1	AA	926	G	P-O3'-C3'	5.72	128.79	120.20
1	AA	1102	A	O4'-C1'-C2'	-5.72	101.88	107.60
15	AO	81	ILE	O-C-N	5.72	129.09	122.97
26	BB	1162	G	C4'-C3'-C2'	-5.72	96.88	102.60
26	BB	2196	C	N1-C1'-C2'	5.72	120.59	112.00
54	B3	15	ARG	NE-CZ-NH1	-5.72	115.78	121.50
1	AA	485	U	C5'-C4'-C3'	5.72	123.78	115.20
1	AA	692	U	C5'-C4'-C3'	-5.72	107.42	116.00
1	AA	790	A	O3'-P-O5'	-5.72	95.42	104.00
5	AE	237	VAL	CA-CB-CG1	5.72	120.13	110.40
26	BB	1519	G	C3'-C2'-C1'	5.72	107.02	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1529	G	C4'-C3'-O3'	5.72	121.58	113.00
26	BB	1289	C	O3'-P-O5'	-5.72	95.42	104.00
26	BB	1901	A	C3'-C2'-O2'	5.72	119.28	110.70
39	BO	55	ARG	NE-CZ-NH1	-5.72	115.78	121.50
1	AA	10	A	O4'-C4'-C3'	5.72	109.72	104.00
1	AA	196	A	C4'-C3'-C2'	-5.72	96.88	102.60
26	BB	2752	C	C4'-C3'-O3'	-5.72	104.42	113.00
30	BF	142	ALA	N-CA-C	5.72	119.28	111.39
40	BP	4	ARG	CB-CG-CD	5.72	124.46	111.30
1	AA	298	A	O3'-P-O5'	-5.72	95.42	104.00
26	BB	107	G	C1'-C2'-O2'	-5.72	99.82	108.40
26	BB	954	G	O4'-C4'-C3'	5.72	109.72	104.00
26	BB	2329	U	O4'-C1'-N1	5.72	117.08	108.50
40	BP	18	GLN	OE1-CD-NE2	-5.72	116.88	122.60
1	AA	160	A	C4'-C3'-C2'	-5.72	96.88	102.60
12	AL	33	SER	CA-C-N	5.72	128.21	120.38
12	AL	33	SER	C-N-CA	5.72	128.21	120.38
26	BB	291	G	O3'-P-O5'	-5.72	95.42	104.00
26	BB	508	A	O4'-C4'-C3'	5.72	109.72	104.00
43	BS	99	VAL	CA-C-O	-5.72	113.92	119.92
1	AA	1253	G	C1'-C2'-O2'	-5.71	99.83	108.40
11	AK	61	THR	N-CA-C	-5.71	100.39	109.59
25	BA	95	U	C3'-C2'-C1'	5.71	107.02	101.30
26	BB	61	C	C3'-C2'-C1'	5.71	107.01	101.30
26	BB	1476	U	C3'-C2'-C1'	-5.71	95.58	101.30
26	BB	2281	A	O5'-C5'-C4'	-5.71	102.93	111.50
26	BB	2557	G	C4'-C3'-C2'	5.71	108.31	102.60
29	BE	33	ARG	NH1-CZ-NH2	-5.71	111.87	119.30
32	BH	136	ASP	CA-CB-CG	5.71	118.31	112.60
38	BN	56	PRO	O-C-N	5.71	129.82	122.91
45	BU	109	ASP	N-CA-CB	-5.71	102.19	110.47
1	AA	368	U	C2'-C3'-O3'	5.71	122.27	113.70
1	AA	498	A	O4'-C4'-C3'	5.71	109.71	104.00
1	AA	1165	U	C5'-C4'-C3'	-5.71	107.43	116.00
22	AV	22	VAL	CB-CA-C	5.71	120.10	112.22
26	BB	537	G	P-O5'-C5'	5.71	129.47	120.90
26	BB	1876	A	C4'-C3'-C2'	-5.71	96.89	102.60
4	AD	68	C	N1-C1'-C2'	-5.71	103.43	112.00
19	AS	59	HIS	O-C-N	5.71	127.97	122.03
26	BB	185	G	O3'-P-O5'	-5.71	95.43	104.00
26	BB	454	A	C3'-C2'-C1'	-5.71	95.79	101.50
40	BP	117	ASP	CA-C-N	5.71	129.47	121.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	BP	117	ASP	C-N-CA	5.71	129.47	121.24
1	AA	577	G	O5'-C5'-C4'	-5.71	102.94	111.50
1	AA	1329	A	O4'-C4'-C3'	-5.71	98.29	104.00
1	AA	535	A	O3'-P-O5'	-5.71	95.44	104.00
1	AA	843	U	C5'-C4'-O4'	5.71	118.36	109.80
1	AA	1539	C	C4'-C3'-O3'	-5.71	104.44	113.00
4	AD	50	G	C3'-C2'-O2'	5.71	119.26	110.70
17	AQ	88	MET	O-C-N	5.71	128.17	122.12
26	BB	1128	G	O4'-C1'-N9	5.71	116.76	108.20
26	BB	1188	U	O5'-C5'-C4'	5.71	120.06	111.50
26	BB	1596	A	O4'-C1'-C2'	-5.71	101.89	107.60
26	BB	2236	U	C1'-C2'-O2'	-5.71	99.84	108.40
26	BB	2695	U	O3'-P-O5'	-5.71	95.44	104.00
29	BE	167	ASN	O-C-N	5.71	130.18	122.59
1	AA	1530	G	C5'-C4'-C3'	-5.71	107.44	116.00
20	AT	50	ASN	O-C-N	5.71	129.88	122.40
26	BB	8	C	O4'-C1'-C2'	5.71	113.31	107.60
26	BB	292	U	O4'-C1'-N1	5.71	117.06	108.50
26	BB	516	C	O3'-P-O5'	-5.71	95.44	104.00
26	BB	1980	G	C3'-C2'-C1'	5.71	107.21	101.50
26	BB	2311	A	C3'-C2'-C1'	5.71	107.21	101.50
26	BB	2594	C	C5'-C4'-C3'	-5.71	107.44	116.00
36	BL	46	PRO	N-CA-CB	5.71	109.06	102.33
39	BO	12	MET	CA-C-N	5.71	129.37	120.75
39	BO	12	MET	C-N-CA	5.71	129.37	120.75
1	AA	239	U	C4'-C3'-C2'	-5.71	96.89	102.60
26	BB	393	C	C4'-C3'-C2'	-5.71	96.89	102.60
26	BB	2020	A	C1'-O4'-C4'	-5.71	104.19	109.90
29	BE	171	THR	O-C-N	-5.71	116.82	123.27
34	BJ	92	ALA	N-CA-C	-5.71	105.43	112.90
26	BB	350	G	P-O5'-C5'	5.70	129.45	120.90
26	BB	362	A	C5'-C4'-O4'	5.70	118.36	109.80
26	BB	1330	C	C4'-C3'-C2'	5.70	108.30	102.60
26	BB	2315	G	C5'-C4'-O4'	5.70	118.35	109.80
51	B0	38	GLN	CA-C-O	-5.70	112.88	119.78
8	AH	5	LYS	CA-C-O	-5.70	115.59	122.03
26	BB	334	C	O3'-P-O5'	-5.70	95.45	104.00
26	BB	1284	A	O5'-C5'-C4'	5.70	120.05	111.50
1	AA	476	U	C2'-C3'-O3'	-5.70	105.15	113.70
1	AA	942	G	C4'-C3'-O3'	-5.70	104.45	113.00
4	AD	26	C	C1'-O4'-C4'	5.70	115.60	109.90
5	AE	146	SER	CA-CB-OG	-5.70	99.70	111.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	418	C	C4'-C3'-C2'	-5.70	96.90	102.60
26	BB	609	A	O4'-C4'-C3'	5.70	109.70	104.00
26	BB	1040	A	P-O5'-C5'	5.70	129.45	120.90
26	BB	1140	C	O3'-P-O5'	5.70	112.55	104.00
26	BB	1995	U	O4'-C1'-N1	5.70	117.05	108.50
29	BE	60	VAL	CA-C-O	-5.70	115.80	122.13
35	BK	117	THR	CA-C-N	5.70	125.52	120.10
35	BK	117	THR	C-N-CA	5.70	125.52	120.10
1	AA	581	G	C4'-C3'-C2'	-5.70	96.90	102.60
7	AG	74	TYR	CB-CG-CD2	-5.70	112.25	120.80
25	BA	47	C	C5'-C4'-C3'	-5.70	107.45	116.00
26	BB	1136	G	C3'-C2'-O2'	5.70	119.25	110.70
26	BB	2871	U	C3'-C2'-C1'	5.70	107.00	101.30
26	BB	2898	U	P-O5'-C5'	5.70	129.45	120.90
46	BV	86	THR	CA-CB-CG2	5.70	120.19	110.50
1	AA	635	A	N9-C1'-C2'	-5.70	103.45	112.00
25	BA	91	C	C3'-C2'-C1'	5.70	107.00	101.30
26	BB	34	U	C2'-C3'-O3'	5.70	118.05	109.50
26	BB	176	A	P-O5'-C5'	5.70	129.45	120.90
26	BB	2420	C	N1-C1'-C2'	5.70	120.55	112.00
1	AA	947	G	O3'-P-O5'	5.70	112.54	104.00
1	AA	983	A	C4'-C3'-C2'	-5.70	96.91	102.60
1	AA	1023	U	C5'-C4'-C3'	-5.70	107.46	116.00
1	AA	1123	U	C4'-C3'-O3'	-5.70	104.46	113.00
1	AA	1392	G	C1'-O4'-C4'	-5.70	104.20	109.90
1	AA	1393	U	C2'-C3'-O3'	5.70	122.24	113.70
11	AK	50	VAL	CB-CA-C	5.70	119.06	110.63
26	BB	791	C	C4'-C3'-C2'	-5.70	96.90	102.60
26	BB	1310	G	C3'-C2'-O2'	5.70	119.24	110.70
26	BB	1846	G	C5'-C4'-O4'	5.70	118.34	109.80
26	BB	2521	C	O5'-C5'-C4'	5.70	120.04	111.50
34	BJ	28	ASP	N-CA-C	5.70	118.18	108.90
39	BO	1	MET	CA-C-N	5.70	128.85	120.82
39	BO	1	MET	C-N-CA	5.70	128.85	120.82
1	AA	623	C	O4'-C1'-C2'	-5.69	101.91	107.60
1	AA	1138	G	O5'-C5'-C4'	5.69	120.04	111.50
1	AA	709	U	O5'-C5'-C4'	5.69	120.04	111.50
26	BB	1738	G	C5'-C4'-C3'	-5.69	106.66	115.20
26	BB	2213	U	O5'-C5'-C4'	5.69	120.04	111.50
44	BT	66	HIS	CA-CB-CG	5.69	119.49	113.80
44	BT	69	GLY	O-C-N	-5.69	115.30	122.70
54	B3	37	HIS	CB-CG-CD2	-5.69	123.80	131.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	239	U	O4'-C1'-C2'	-5.69	101.91	107.60
1	AA	837	U	O4'-C1'-N1	5.69	117.04	108.50
1	AA	850	U	P-O5'-C5'	5.69	129.44	120.90
12	AL	65	THR	CB-CA-C	5.69	120.00	109.70
20	AT	50	ASN	CB-CA-C	5.69	120.11	111.80
26	BB	835	C	P-O5'-C5'	-5.69	112.36	120.90
26	BB	959	A	C3'-C2'-C1'	5.69	106.99	101.30
26	BB	1844	C	C4'-C3'-C2'	-5.69	96.91	102.60
26	BB	1847	A	O4'-C1'-N9	5.69	117.04	108.50
26	BB	2322	A	C3'-C2'-C1'	5.69	106.99	101.30
1	AA	854	U	O4'-C4'-C3'	5.69	109.69	104.00
1	AA	1278	G	O4'-C1'-C2'	-5.69	100.11	105.80
4	AD	62	C	C1'-C2'-O2'	5.69	116.93	108.40
25	BA	51	G	O4'-C1'-C2'	-5.69	101.91	107.60
26	BB	458	G	O3'-P-O5'	-5.69	95.47	104.00
1	AA	1102	A	C4'-C3'-C2'	-5.69	96.91	102.60
1	AA	1467	C	O3'-P-O5'	-5.69	95.47	104.00
2	AB	53	G	O5'-C5'-C4'	5.69	120.03	111.50
14	AN	46	ALA	N-CA-C	-5.69	105.45	112.90
26	BB	1312	U	P-O5'-C5'	5.69	129.43	120.90
26	BB	2773	C	C4'-C3'-C2'	-5.69	96.91	102.60
1	AA	196	A	C3'-C2'-C1'	5.69	106.99	101.30
1	AA	642	A	C4'-C3'-C2'	-5.69	96.91	102.60
1	AA	947	G	C1'-O4'-C4'	-5.69	104.21	109.90
1	AA	1197	A	O4'-C1'-C2'	-5.69	101.91	107.60
1	AA	1214	C	O3'-P-O5'	5.69	112.53	104.00
26	BB	1030	C	O4'-C1'-N1	5.69	117.03	108.50
1	AA	1319	A	C5'-C4'-C3'	-5.68	106.67	115.20
15	AO	26	CYS	CA-C-O	-5.68	114.04	120.46
26	BB	552	U	N1-C1'-C2'	-5.68	103.47	112.00
26	BB	902	C	O4'-C1'-C2'	5.68	113.28	107.60
26	BB	1563	U	O4'-C1'-C2'	-5.68	101.92	107.60
26	BB	1999	C	O4'-C1'-N1	5.68	117.03	108.50
26	BB	2276	G	C5'-C4'-C3'	-5.68	107.47	116.00
26	BB	2523	G	P-O5'-C5'	5.68	129.43	120.90
26	BB	2724	U	N1-C1'-C2'	-5.68	103.47	112.00
33	BI	121	VAL	CA-C-N	5.68	132.40	121.54
33	BI	121	VAL	C-N-CA	5.68	132.40	121.54
1	AA	503	C	C5'-C4'-C3'	-5.68	107.48	116.00
1	AA	518	C	P-O5'-C5'	5.68	129.42	120.90
1	AA	1058	G	C4'-C3'-C2'	-5.68	96.92	102.60
1	AA	1219	A	O3'-P-O5'	-5.68	95.48	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1479	C	O5'-C5'-C4'	-5.68	102.98	111.50
2	AB	44	G	O4'-C1'-N9	5.68	117.02	108.50
9	AI	103	VAL	CA-CB-CG1	5.68	120.06	110.40
25	BA	55	U	O4'-C4'-C3'	5.68	109.68	104.00
26	BB	119	A	C3'-C2'-O2'	-5.68	106.08	114.60
26	BB	609	A	C3'-C2'-O2'	5.68	119.22	110.70
26	BB	950	G	C5'-C4'-C3'	-5.68	107.47	116.00
30	BF	19	PHE	CA-CB-CG	5.68	119.48	113.80
30	BF	146	VAL	CA-CB-CG2	5.68	120.06	110.40
32	BH	79	THR	CA-C-O	5.68	126.86	120.89
42	BR	97	TYR	N-CA-C	5.68	119.02	111.75
1	AA	583	A	O5'-C5'-C4'	5.68	120.02	111.50
1	AA	1300	G	O3'-P-O5'	-5.68	95.48	104.00
26	BB	2468	A	O5'-C5'-C4'	-5.68	103.18	111.70
45	BU	91	GLY	CA-C-N	5.68	128.83	120.82
45	BU	91	GLY	C-N-CA	5.68	128.83	120.82
1	AA	5	U	C4'-C3'-C2'	5.68	108.28	102.60
6	AF	227	GLN	CA-C-N	5.68	128.67	120.38
6	AF	227	GLN	C-N-CA	5.68	128.67	120.38
26	BB	472	A	C5'-C4'-C3'	-5.68	107.48	116.00
26	BB	1168	G	O4'-C4'-C3'	5.68	109.68	104.00
26	BB	1474	U	O4'-C1'-N1	5.68	117.02	108.50
26	BB	1504	A	C3'-C2'-O2'	5.68	119.22	110.70
26	BB	2113	U	C1'-O4'-C4'	-5.68	104.22	109.90
26	BB	2451	A	O5'-C5'-C4'	-5.68	102.98	111.50
26	BB	2792	A	N9-C1'-C2'	-5.68	103.48	112.00
8	AH	82	HIS	CE1-NE2-CD2	-5.68	103.32	109.00
12	AL	34	LEU	CA-C-N	5.68	128.46	120.28
12	AL	34	LEU	C-N-CA	5.68	128.46	120.28
15	AO	109	ARG	NE-CZ-NH2	-5.68	114.09	119.20
26	BB	1992	G	C3'-C2'-C1'	5.68	107.18	101.50
26	BB	2269	G	P-O3'-C3'	5.68	128.72	120.20
1	AA	47	C	O5'-C5'-C4'	5.68	120.21	111.70
1	AA	541	G	O4'-C4'-C3'	5.68	109.68	104.00
1	AA	1130	A	C3'-C2'-C1'	-5.68	95.62	101.30
1	AA	1479	C	P-O5'-C5'	5.68	129.41	120.90
1	AA	1484	C	O4'-C1'-N1	5.68	117.02	108.50
26	BB	1569	A	O4'-C4'-C3'	-5.68	98.32	104.00
26	BB	1826	G	C5'-C4'-C3'	-5.68	107.49	116.00
26	BB	1987	A	P-O5'-C5'	5.68	129.42	120.90
40	BP	30	ARG	CA-C-O	-5.68	112.96	119.60
1	AA	230	G	C3'-C2'-O2'	5.67	119.21	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	522	C	C4'-C3'-C2'	-5.67	96.93	102.60
9	AI	25	TYR	CB-CG-CD2	-5.67	112.29	120.80
26	BB	600	G	O4'-C1'-N9	5.67	117.01	108.50
26	BB	1821	A	C1'-C2'-O2'	5.67	116.91	108.40
26	BB	2614	A	O5'-C5'-C4'	-5.67	103.19	111.70
28	BD	56	GLY	O-C-N	-5.67	117.21	123.05
4	AD	22	A	C5'-C4'-O4'	5.67	117.61	109.10
26	BB	1536	C	C2'-C3'-O3'	-5.67	100.99	109.50
1	AA	196	A	C3'-C2'-O2'	5.67	119.21	110.70
1	AA	1425	U	O4'-C1'-C2'	-5.67	101.93	107.60
25	BA	10	G	N9-C1'-C2'	-5.67	103.49	112.00
25	BA	34	A	C3'-C2'-C1'	5.67	107.17	101.50
26	BB	1140	C	C5'-C4'-O4'	5.67	118.31	109.80
26	BB	1457	U	C4'-C3'-O3'	5.67	121.51	113.00
26	BB	1968	G	C4'-C3'-C2'	-5.67	96.93	102.60
26	BB	2864	G	C2'-C3'-O3'	-5.67	105.19	113.70
27	BC	183	ASP	N-CA-C	5.67	117.94	111.02
33	BI	136	SER	CA-C-N	5.67	132.64	122.38
33	BI	136	SER	C-N-CA	5.67	132.64	122.38
45	BU	25	ARG	NE-CZ-NH1	5.67	127.17	121.50
1	AA	177	G	O4'-C4'-C3'	-5.67	98.33	104.00
3	AC	29	G	C5'-C4'-C3'	5.67	124.50	116.00
26	BB	1098	A	O4'-C4'-C3'	5.67	109.67	104.00
26	BB	1732	C	C3'-C2'-O2'	-5.67	106.09	114.60
44	BT	91	GLN	CB-CA-C	5.67	121.70	110.42
26	BB	646	U	C4'-C3'-O3'	5.67	121.50	113.00
26	BB	765	C	C4'-C3'-C2'	-5.67	96.93	102.60
26	BB	932	U	O3'-P-O5'	-5.67	95.50	104.00
29	BE	57	ALA	CA-C-N	5.67	131.63	121.66
29	BE	57	ALA	C-N-CA	5.67	131.63	121.66
41	BQ	73	ALA	N-CA-C	5.67	117.46	111.28
1	AA	454	G	C4'-C3'-O3'	-5.67	104.50	113.00
4	AD	53	G	C4'-C3'-C2'	-5.67	96.93	102.60
5	AE	188	THR	CA-CB-CG2	5.67	120.13	110.50
26	BB	132	G	C2'-C3'-O3'	-5.67	105.20	113.70
26	BB	945	A	O3'-P-O5'	5.67	112.50	104.00
26	BB	1048	A	O3'-P-O5'	-5.67	95.50	104.00
26	BB	1790	C	O4'-C1'-N1	5.67	117.00	108.50
1	AA	212	G	O4'-C1'-N9	5.67	117.00	108.50
26	BB	173	A	O4'-C1'-C2'	-5.67	101.94	107.60
26	BB	508	A	O3'-P-O5'	5.67	112.50	104.00
1	AA	619	U	C3'-C2'-C1'	5.66	106.96	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	713	G	C3'-C2'-O2'	5.66	119.19	110.70
1	AA	1005	A	O4'-C4'-C3'	5.66	109.66	104.00
12	AL	93	LEU	CA-C-O	5.66	126.77	120.82
14	AN	58	THR	O-C-N	-5.66	117.86	121.88
26	BB	140	C	C3'-C2'-C1'	5.66	107.16	101.50
26	BB	1027	A	C3'-C2'-C1'	5.66	106.96	101.30
26	BB	1102	C	C3'-C2'-O2'	5.66	119.19	110.70
26	BB	2107	G	C3'-C2'-C1'	5.66	106.96	101.30
26	BB	2644	G	N9-C1'-C2'	-5.66	103.50	112.00
1	AA	1168	U	O4'-C1'-C2'	-5.66	101.94	107.60
25	BA	47	C	C5'-C4'-O4'	5.66	118.29	109.80
26	BB	1719	G	O4'-C4'-C3'	5.66	109.66	104.00
26	BB	2683	C	O5'-C5'-C4'	5.66	119.99	111.50
36	BL	32	LEU	O-C-N	-5.66	116.24	122.07
58	B7	24	ARG	NE-CZ-NH2	5.66	124.30	119.20
1	AA	1364	U	O4'-C4'-C3'	5.66	109.66	104.00
10	AJ	127	ALA	N-CA-C	5.66	118.22	111.71
15	AO	56	LEU	O-C-N	5.66	129.24	122.79
26	BB	2230	G	O4'-C1'-C2'	5.66	113.26	107.60
27	BC	132	GLY	CA-C-N	5.66	126.92	119.84
27	BC	132	GLY	C-N-CA	5.66	126.92	119.84
28	BD	55	GLY	O-C-N	5.66	129.26	122.98
36	BL	52	ASP	O-C-N	-5.66	116.60	122.94
1	AA	145	G	C1'-O4'-C4'	-5.66	104.24	109.90
1	AA	1043	G	C5'-C4'-C3'	-5.66	107.51	116.00
26	BB	603	A	P-O3'-C3'	5.66	128.69	120.20
26	BB	769	U	C4'-C3'-O3'	-5.66	104.51	113.00
26	BB	1456	G	O4'-C4'-C3'	5.66	109.66	104.00
26	BB	1844	C	C3'-C2'-O2'	5.66	119.19	110.70
26	BB	2134	A	O4'-C1'-N9	5.66	116.99	108.50
38	BN	35	HIS	CA-CB-CG	-5.66	108.14	113.80
41	BQ	81	ARG	NE-CZ-NH1	-5.66	115.84	121.50
6	AF	93	ILE	CA-C-N	5.66	130.78	121.39
6	AF	93	ILE	C-N-CA	5.66	130.78	121.39
26	BB	297	G	C4'-C3'-C2'	-5.66	96.94	102.60
30	BF	129	PRO	CA-C-N	5.66	130.97	122.99
30	BF	129	PRO	C-N-CA	5.66	130.97	122.99
1	AA	164	G	O3'-P-O5'	-5.66	95.52	104.00
1	AA	361	G	C4'-C3'-C2'	-5.66	96.94	102.60
1	AA	1045	C	O3'-P-O5'	5.66	112.48	104.00
18	AR	63	ARG	CA-C-N	5.66	128.32	120.29
18	AR	63	ARG	C-N-CA	5.66	128.32	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AV	18	VAL	CA-CB-CG1	5.66	120.01	110.40
26	BB	431	U	O4'-C4'-C3'	5.66	109.66	104.00
26	BB	2147	A	C3'-C2'-C1'	-5.66	95.84	101.50
46	BV	59	ASN	O-C-N	-5.66	116.77	123.22
55	B4	51	ALA	CA-C-N	5.66	132.34	121.54
55	B4	51	ALA	C-N-CA	5.66	132.34	121.54
1	AA	1181	G	C3'-C2'-C1'	-5.65	95.85	101.50
31	BG	100	GLU	CA-C-N	5.65	131.92	121.52
31	BG	100	GLU	C-N-CA	5.65	131.92	121.52
1	AA	127	G	C1'-C2'-O2'	5.65	116.88	108.40
1	AA	385	C	O4'-C1'-C2'	-5.65	101.95	107.60
7	AG	145	ARG	NE-CZ-NH2	5.65	124.29	119.20
8	AH	96	GLN	O-C-N	-5.65	117.89	121.85
29	BE	101	PHE	CA-CB-CG	-5.65	108.15	113.80
40	BP	29	VAL	CA-CB-CG2	5.65	120.01	110.40
1	AA	873	A	P-O3'-C3'	5.65	128.68	120.20
1	AA	1486	G	C1'-O4'-C4'	-5.65	104.25	109.90
14	AN	104	PHE	CA-CB-CG	5.65	119.45	113.80
25	BA	43	C	P-O3'-C3'	5.65	128.68	120.20
26	BB	1051	G	O4'-C4'-C3'	5.65	109.65	104.00
26	BB	2235	G	O4'-C1'-C2'	-5.65	101.95	107.60
1	AA	354	G	C4'-C3'-C2'	5.65	108.25	102.60
11	AK	41	GLU	CA-C-O	-5.65	114.43	120.42
39	BO	22	GLN	CB-CA-C	5.65	118.56	109.07
1	AA	1057	G	C1'-O4'-C4'	-5.65	104.25	109.90
1	AA	1496	C	C4'-C3'-O3'	-5.65	104.53	113.00
4	AD	22	A	O3'-P-O5'	-5.65	95.53	104.00
26	BB	38	A	O4'-C1'-C2'	5.65	113.25	107.60
26	BB	1206	G	O4'-C4'-C3'	5.65	109.65	104.00
26	BB	1914	C	C3'-C2'-C1'	-5.65	95.65	101.30
32	BH	39	ALA	CA-C-O	5.65	125.35	119.14
1	AA	781	A	C5'-C4'-O4'	5.65	118.27	109.80
1	AA	997	U	C1'-C2'-O2'	5.65	116.87	108.40
8	AH	69	ASN	CA-CB-CG	5.65	118.25	112.60
10	AJ	5	VAL	CB-CA-C	5.65	118.49	111.15
26	BB	1895	C	O4'-C1'-N1	5.65	116.97	108.50
1	AA	779	C	O5'-C5'-C4'	-5.64	103.03	111.50
1	AA	819	A	O5'-C5'-C4'	-5.64	103.23	111.70
16	AP	115	ILE	CA-CB-CG2	5.64	120.09	110.50
25	BA	62	C	O4'-C1'-C2'	5.64	113.25	107.60
26	BB	28	A	C3'-C2'-O2'	5.64	119.17	110.70
26	BB	257	C	C3'-C2'-O2'	5.64	119.17	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	911	A	O4'-C1'-C2'	-5.64	101.96	107.60
26	BB	971	G	O4'-C4'-C3'	5.64	109.64	104.00
28	BD	196	ASN	CB-CA-C	5.64	119.31	111.63
1	AA	679	C	C1'-O4'-C4'	-5.64	104.26	109.90
1	AA	1298	U	O4'-C1'-C2'	-5.64	100.16	105.80
26	BB	2875	C	C1'-O4'-C4'	-5.64	104.26	109.90
26	BB	2895	G	C2'-C3'-O3'	5.64	122.17	113.70
29	BE	182	ALA	CA-C-N	5.64	132.31	121.54
29	BE	182	ALA	C-N-CA	5.64	132.31	121.54
46	BV	35	ALA	CA-C-N	5.64	132.58	121.58
46	BV	35	ALA	C-N-CA	5.64	132.58	121.58
26	BB	1927	A	C3'-C2'-O2'	5.64	119.16	110.70
26	BB	2441	U	O4'-C1'-N1	5.64	116.96	108.50
2	AB	56	C	C1'-O4'-C4'	-5.64	104.26	109.90
4	AD	7	G	O4'-C4'-C3'	5.64	111.74	106.10
27	BC	186	LYS	CA-C-N	5.64	128.30	120.29
27	BC	186	LYS	C-N-CA	5.64	128.30	120.29
1	AA	656	G	C4'-C3'-C2'	-5.64	96.96	102.60
1	AA	743	A	O4'-C1'-N9	5.64	116.96	108.50
1	AA	1465	A	P-O3'-C3'	5.64	128.66	120.20
26	BB	1491	G	C4'-C3'-O3'	-5.64	104.54	113.00
26	BB	2280	G	O4'-C4'-C3'	5.64	109.64	104.00
25	BA	118	C	C3'-C2'-C1'	5.64	106.94	101.30
26	BB	2148	G	C2'-C3'-O3'	-5.64	105.25	113.70
26	BB	2489	U	C4'-C3'-C2'	-5.64	96.96	102.60
26	BB	2819	G	C5'-C4'-C3'	-5.64	107.54	116.00
26	BB	2881	U	C5'-C4'-C3'	-5.64	107.55	116.00
42	BR	38	ARG	NE-CZ-NH2	5.64	124.27	119.20
56	B5	27	GLY	CA-C-N	5.64	128.40	120.28
56	B5	27	GLY	C-N-CA	5.64	128.40	120.28
7	AG	87	GLU	N-CA-C	5.63	117.10	111.07
10	AJ	6	ILE	CA-CB-CG2	5.63	120.08	110.50
26	BB	1454	C	C5'-C4'-O4'	5.63	118.25	109.80
26	BB	1811	G	C4'-C3'-O3'	5.63	121.45	113.00
26	BB	1947	C	O4'-C1'-N1	5.63	116.95	108.50
26	BB	2559	C	C5'-C4'-O4'	5.63	118.25	109.80
29	BE	134	HIS	CB-CA-C	5.63	121.11	110.35
34	BJ	54	VAL	O-C-N	5.63	129.63	123.09
34	BJ	131	TYR	CA-C-O	-5.63	114.54	120.63
48	BX	14	LYS	CA-C-N	5.63	126.19	119.94
48	BX	14	LYS	C-N-CA	5.63	126.19	119.94
1	AA	397	A	C1'-O4'-C4'	-5.63	104.27	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1014	A	P-O3'-C3'	5.63	128.65	120.20
26	BB	2042	A	C5'-C4'-C3'	-5.63	107.55	116.00
7	AG	108	ALA	N-CA-CB	-5.63	102.37	110.65
12	AL	71	ILE	O-C-N	-5.63	116.39	121.91
25	BA	108	A	C4'-C3'-C2'	-5.63	96.97	102.60
26	BB	323	C	O4'-C1'-N1	5.63	116.65	108.20
26	BB	994	C	O4'-C1'-N1	5.63	116.95	108.50
26	BB	1132	U	C4'-C3'-C2'	-5.63	96.97	102.60
28	BD	130	PRO	N-CA-CB	5.63	108.32	103.31
1	AA	559	A	C3'-C2'-O2'	-5.63	106.16	114.60
1	AA	820	U	C1'-O4'-C4'	5.63	115.33	109.70
1	AA	1044	A	C4'-C3'-C2'	-5.63	96.97	102.60
6	AF	28	PHE	CA-C-O	-5.63	114.58	120.55
26	BB	1378	A	O3'-P-O5'	-5.63	95.56	104.00
26	BB	2186	G	C5'-C4'-C3'	-5.63	107.55	116.00
26	BB	2805	C	O4'-C1'-C2'	-5.63	101.97	107.60
39	BO	108	VAL	CA-C-N	5.63	126.88	119.84
39	BO	108	VAL	C-N-CA	5.63	126.88	119.84
1	AA	92	U	O4'-C1'-N1	5.63	116.94	108.50
1	AA	266	G	O5'-C5'-C4'	-5.63	103.06	111.50
7	AG	86	GLY	N-CA-C	-5.63	105.57	112.77
8	AH	156	ARG	NE-CZ-NH1	-5.63	115.87	121.50
26	BB	2444	G	C4'-C3'-C2'	-5.63	96.97	102.60
30	BF	132	LYS	N-CA-CB	-5.63	101.55	110.22
51	B0	52	ARG	CA-CB-CG	5.63	125.36	114.10
1	AA	359	G	C4'-C3'-C2'	-5.63	96.97	102.60
1	AA	1098	C	C4'-C3'-C2'	-5.63	96.97	102.60
25	BA	11	C	O4'-C1'-C2'	-5.63	101.97	107.60
26	BB	1594	U	O3'-P-O5'	-5.63	95.56	104.00
26	BB	1819	A	C1'-C2'-O2'	5.63	120.24	111.80
26	BB	2601	C	C3'-C2'-C1'	-5.63	95.87	101.50
26	BB	2604	U	O4'-C1'-C2'	-5.63	101.97	107.60
1	AA	563	A	O4'-C1'-C2'	-5.62	101.97	107.60
26	BB	932	U	C1'-O4'-C4'	5.62	115.53	109.90
40	BP	87	PHE	CA-C-N	5.62	128.59	120.38
40	BP	87	PHE	C-N-CA	5.62	128.59	120.38
49	BY	78	PHE	CB-CA-C	5.62	119.11	110.62
1	AA	870	U	O4'-C1'-C2'	-5.62	100.18	105.80
2	AB	68	C	O4'-C1'-C2'	-5.62	101.98	107.60
4	AD	76	C	C1'-C2'-O2'	-5.62	99.97	108.40
25	BA	10	G	O4'-C1'-N9	5.62	116.94	108.50
25	BA	50	A	O4'-C1'-C2'	-5.62	101.98	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	703	U	C3'-C2'-C1'	-5.62	95.68	101.30
26	BB	2149	U	C4'-C3'-C2'	5.62	108.22	102.60
26	BB	2596	U	C4'-C3'-C2'	5.62	108.22	102.60
1	AA	628	G	C3'-C2'-O2'	5.62	119.13	110.70
1	AA	1293	C	C4'-C3'-C2'	-5.62	96.98	102.60
21	AU	46	THR	OG1-CB-CG2	-5.62	98.06	109.30
25	BA	25	U	P-O3'-C3'	5.62	128.63	120.20
25	BA	95	U	C4'-C3'-C2'	-5.62	96.98	102.60
26	BB	1142	A	C2'-C3'-O3'	5.62	117.93	109.50
26	BB	1799	G	O4'-C1'-C2'	5.62	111.42	105.80
26	BB	1993	U	C1'-O4'-C4'	5.62	115.52	109.90
44	BT	4	VAL	CA-C-N	5.62	131.36	122.36
44	BT	4	VAL	C-N-CA	5.62	131.36	122.36
1	AA	184	G	C5'-C4'-O4'	5.62	118.23	109.80
1	AA	1289	A	C2'-C3'-O3'	5.62	122.13	113.70
7	AG	66	VAL	N-CA-C	5.62	116.57	108.48
11	AK	8	ASP	CA-CB-CG	5.62	118.22	112.60
26	BB	1898	U	C5'-C4'-C3'	-5.62	107.57	116.00
46	BV	71	GLY	CA-C-O	-5.62	114.72	120.45
12	AL	60	LEU	CA-C-O	-5.62	114.19	120.54
26	BB	64	A	C3'-C2'-C1'	-5.62	95.68	101.30
26	BB	72	U	O4'-C1'-N1	5.62	116.63	108.20
26	BB	574	A	O4'-C1'-N9	5.62	116.93	108.50
26	BB	769	U	O4'-C1'-N1	5.62	116.93	108.50
26	BB	2611	C	C4'-C3'-C2'	5.62	108.22	102.60
26	BB	2617	U	C4'-C3'-C2'	-5.62	96.98	102.60
32	BH	130	ILE	N-CA-C	-5.62	100.03	108.12
36	BL	42	ALA	CA-C-O	5.62	126.95	120.60
43	BS	31	TYR	O-C-N	-5.62	116.17	122.12
16	AP	94	LEU	CA-C-N	5.62	125.63	119.90
16	AP	94	LEU	C-N-CA	5.62	125.63	119.90
26	BB	777	G	O5'-C5'-C4'	5.62	119.93	111.50
26	BB	1742	U	P-O3'-C3'	5.62	128.62	120.20
45	BU	80	PRO	N-CA-CB	5.62	107.79	103.30
1	AA	877	G	N9-C1'-C2'	-5.62	103.58	112.00
1	AA	887	G	O5'-C5'-C4'	-5.62	103.08	111.50
4	AD	22	A	C1'-O4'-C4'	-5.62	104.08	109.70
7	AG	8	LEU	N-CA-C	5.62	119.39	112.54
12	AL	69	GLY	CA-C-N	5.62	128.44	122.38
12	AL	69	GLY	C-N-CA	5.62	128.44	122.38
26	BB	62	U	C5'-C4'-C3'	-5.62	107.58	116.00
26	BB	138	U	C4'-C3'-O3'	-5.62	104.58	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	155	A	N9-C1'-C2'	-5.62	103.58	112.00
26	BB	476	G	C4'-C3'-O3'	-5.62	104.58	113.00
26	BB	620	G	C3'-C2'-C1'	5.62	107.11	101.50
26	BB	1480	C	O3'-P-O5'	-5.62	95.58	104.00
26	BB	1765	U	O4'-C1'-N1	5.62	116.92	108.50
43	BS	13	HIS	N-CA-C	5.62	117.87	111.02
1	AA	287	U	O3'-P-O5'	5.61	112.42	104.00
1	AA	1060	U	C3'-C2'-C1'	5.61	106.91	101.30
1	AA	1181	G	O3'-P-O5'	-5.61	95.58	104.00
1	AA	1411	C	C4'-C3'-C2'	-5.61	96.99	102.60
23	AW	60	GLN	CA-CB-CG	5.61	125.33	114.10
26	BB	368	A	C4'-C3'-C2'	-5.61	96.99	102.60
26	BB	391	A	O4'-C1'-C2'	-5.61	101.99	107.60
26	BB	797	G	O4'-C1'-C2'	-5.61	101.99	107.60
26	BB	1590	A	C5'-C4'-C3'	-5.61	107.58	116.00
26	BB	1649	G	N9-C1'-C2'	-5.61	103.58	112.00
37	BM	113	MET	CA-CB-CG	-5.61	102.87	114.10
42	BR	100	ARG	NE-CZ-NH1	-5.61	115.89	121.50
26	BB	1522	A	C3'-C2'-C1'	5.61	107.11	101.50
1	AA	640	A	C1'-O4'-C4'	-5.61	104.29	109.90
14	AN	69	CYS	O-C-N	5.61	128.15	122.09
26	BB	1069	A	O4'-C1'-N9	5.61	116.61	108.20
26	BB	1402	U	C3'-C2'-O2'	5.61	119.11	110.70
26	BB	2287	A	C4'-C3'-O3'	5.61	117.81	109.40
26	BB	2408	U	C1'-O4'-C4'	5.61	115.51	109.90
26	BB	2716	C	C4'-C3'-C2'	5.61	108.21	102.60
45	BU	20	VAL	N-CA-C	5.61	116.39	110.72
5	AE	87	ASP	N-CA-C	-5.61	106.10	113.17
13	AM	31	ARG	NE-CZ-NH1	5.61	127.11	121.50
26	BB	1849	G	C3'-C2'-O2'	5.61	119.11	110.70
26	BB	2052	A	O4'-C1'-C2'	-5.61	101.99	107.60
30	BF	165	HIS	CA-CB-CG	5.61	119.41	113.80
1	AA	458	U	C5'-C4'-O4'	5.61	118.21	109.80
25	BA	20	G	O4'-C1'-N9	5.61	116.91	108.50
26	BB	365	U	C4'-C3'-C2'	-5.61	96.99	102.60
26	BB	451	U	P-O3'-C3'	5.61	128.61	120.20
26	BB	710	U	O3'-P-O5'	-5.61	95.59	104.00
26	BB	1243	C	C3'-C2'-O2'	5.61	119.11	110.70
26	BB	2373	G	C4'-C3'-C2'	-5.61	96.99	102.60
26	BB	2401	U	C4'-C3'-O3'	5.61	121.41	113.00
26	BB	2426	A	O4'-C1'-N9	5.61	116.61	108.20
33	BI	131	SER	CB-CA-C	5.61	119.75	110.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BK	73	PRO	N-CA-CB	5.61	108.52	103.08
37	BM	64	ARG	CA-C-N	5.61	130.90	122.99
37	BM	64	ARG	C-N-CA	5.61	130.90	122.99
1	AA	439	U	C1'-C2'-O2'	5.61	116.81	108.40
1	AA	1300	G	O4'-C4'-C3'	5.61	111.71	106.10
26	BB	969	G	O4'-C4'-C3'	-5.61	98.39	104.00
26	BB	1342	A	O4'-C1'-C2'	5.61	111.41	105.80
26	BB	2539	C	C4'-C3'-C2'	-5.61	96.99	102.60
26	BB	2614	A	C5'-C4'-O4'	5.61	117.51	109.10
26	BB	2895	G	O4'-C4'-C3'	5.61	109.61	104.00
46	BV	50	LEU	CA-C-N	5.61	132.25	121.54
46	BV	50	LEU	C-N-CA	5.61	132.25	121.54
1	AA	54	C	O4'-C1'-C2'	-5.60	102.00	107.60
26	BB	335	C	C3'-C2'-C1'	5.60	106.90	101.30
26	BB	544	C	O4'-C1'-C2'	-5.60	102.00	107.60
26	BB	1776	G	C5'-C4'-O4'	5.60	118.20	109.80
1	AA	928	G	C4'-C3'-C2'	-5.60	97.00	102.60
1	AA	1222	G	C3'-C2'-C1'	5.60	106.90	101.30
22	AV	65	MET	N-CA-C	-5.60	105.04	112.94
26	BB	534	U	O4'-C4'-C3'	-5.60	98.40	104.00
26	BB	2211	A	C5'-C4'-C3'	-5.60	107.60	116.00
29	BE	123	LYS	N-CA-CB	5.60	118.19	110.07
32	BH	158	GLY	O-C-N	-5.60	115.22	122.34
1	AA	1346	A	N9-C1'-C2'	-5.60	105.60	114.00
25	BA	5	U	O4'-C4'-C3'	5.60	109.60	104.00
26	BB	923	G	O4'-C1'-N9	5.60	116.90	108.50
26	BB	2405	G	C3'-C2'-C1'	5.60	106.90	101.30
39	BO	131	VAL	CA-C-O	-5.60	114.12	120.67
1	AA	933	G	C2'-C3'-O3'	-5.60	105.30	113.70
1	AA	1317	C	C1'-O4'-C4'	5.60	115.50	109.90
1	AA	1331	G	O4'-C1'-C2'	-5.60	102.00	107.60
8	AH	137	ARG	CA-C-N	5.60	128.05	120.38
8	AH	137	ARG	C-N-CA	5.60	128.05	120.38
26	BB	49	A	O4'-C1'-N9	5.60	116.60	108.20
26	BB	934	U	C3'-C2'-C1'	-5.60	95.70	101.30
26	BB	1073	A	C2'-C3'-O3'	5.60	122.10	113.70
26	BB	2327	A	O4'-C4'-C3'	5.60	109.60	104.00
32	BH	117	PRO	N-CA-CB	5.60	108.22	103.35
1	AA	1349	A	C2'-C3'-O3'	5.60	122.10	113.70
6	AF	13	ILE	CA-C-N	5.60	132.04	121.97
6	AF	13	ILE	C-N-CA	5.60	132.04	121.97
6	AF	64	ARG	NE-CZ-NH2	5.60	124.24	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	6	G	C5'-C4'-C3'	-5.60	107.60	116.00
26	BB	686	U	O5'-C5'-C4'	-5.60	103.30	111.70
26	BB	1714	U	C4'-C3'-C2'	-5.60	97.00	102.60
26	BB	1833	C	C5'-C4'-O4'	5.60	118.20	109.80
32	BH	148	ARG	NE-CZ-NH2	5.60	124.24	119.20
37	BM	72	PRO	N-CA-CB	5.60	109.22	103.23
41	BQ	22	GLY	CA-C-N	5.60	129.42	121.42
41	BQ	22	GLY	C-N-CA	5.60	129.42	121.42
1	AA	18	C	C5'-C4'-C3'	5.59	124.39	116.00
4	AD	45	A	O5'-C5'-C4'	-5.59	103.11	111.50
8	AH	120	HIS	ND1-CE1-NE2	5.59	113.99	108.40
26	BB	662	G	O4'-C1'-N9	5.59	116.89	108.50
26	BB	672	C	C5'-C4'-C3'	-5.59	107.61	116.00
26	BB	962	G	O4'-C4'-C3'	-5.59	98.41	104.00
26	BB	1532	A	C5'-C4'-O4'	5.59	118.19	109.80
26	BB	1644	C	O4'-C1'-N1	5.59	116.89	108.50
57	B6	23	HIS	N-CA-CB	-5.59	102.56	111.62
1	AA	1194	U	C4'-C3'-C2'	-5.59	97.01	102.60
1	AA	1269	A	O4'-C1'-C2'	5.59	113.19	107.60
5	AE	213	LEU	CA-C-N	5.59	127.13	120.14
5	AE	213	LEU	C-N-CA	5.59	127.13	120.14
26	BB	1367	A	P-O3'-C3'	5.59	128.59	120.20
26	BB	2187	U	C1'-O4'-C4'	5.59	115.49	109.90
40	BP	40	LYS	CB-CA-C	5.59	120.94	110.70
1	AA	290	C	C3'-C2'-C1'	-5.59	95.71	101.30
2	AB	33	U	C3'-C2'-C1'	5.59	106.89	101.30
5	AE	126	ASP	CA-CB-CG	-5.59	107.01	112.60
5	AE	212	TYR	N-CA-C	5.59	117.82	111.11
14	AN	110	THR	CA-CB-CG2	5.59	120.01	110.50
26	BB	448	U	O4'-C4'-C3'	5.59	111.69	106.10
26	BB	1445	G	C1'-O4'-C4'	5.59	115.49	109.90
26	BB	1674	G	C3'-C2'-C1'	-5.59	95.91	101.50
26	BB	1709	U	O4'-C1'-C2'	-5.59	102.01	107.60
26	BB	2222	C	O4'-C1'-C2'	-5.59	102.01	107.60
26	BB	2615	U	C5'-C4'-C3'	-5.59	107.61	116.00
26	BB	2747	G	O4'-C1'-C2'	-5.59	102.01	107.60
28	BD	55	GLY	CA-C-O	-5.59	115.49	122.59
1	AA	73	C	O4'-C1'-C2'	-5.59	102.01	107.60
1	AA	310	G	O4'-C1'-N9	5.59	116.89	108.50
1	AA	1466	C	P-O3'-C3'	5.59	128.59	120.20
2	AB	67	G	C4'-C3'-C2'	-5.59	97.01	102.60
9	AI	78	PHE	CA-CB-CG	5.59	119.39	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	787	C	N1-C1'-C2'	-5.59	103.62	112.00
26	BB	2793	C	O4'-C1'-C2'	-5.59	102.01	107.60
26	BB	2871	U	O4'-C1'-N1	5.59	116.89	108.50
46	BV	46	ALA	N-CA-C	5.59	117.84	111.02
1	AA	610	U	C3'-C2'-C1'	5.59	106.89	101.30
1	AA	1287	A	O5'-C5'-C4'	5.59	119.88	111.50
8	AH	155	LYS	CA-C-N	5.59	131.76	122.54
8	AH	155	LYS	C-N-CA	5.59	131.76	122.54
26	BB	1371	G	O4'-C1'-N9	5.59	116.88	108.50
26	BB	1409	U	O4'-C4'-C3'	5.59	109.59	104.00
38	BN	104	GLN	CA-C-N	5.59	128.06	120.63
38	BN	104	GLN	C-N-CA	5.59	128.06	120.63
45	BU	31	GLN	CA-C-N	5.59	128.04	120.38
45	BU	31	GLN	C-N-CA	5.59	128.04	120.38
1	AA	228	A	C4'-C3'-C2'	-5.59	97.01	102.60
1	AA	589	U	O3'-P-O5'	5.59	112.38	104.00
1	AA	1318	A	C5'-C4'-C3'	-5.59	107.62	116.00
9	AI	74	LEU	N-CA-C	5.59	117.45	111.36
26	BB	200	U	C1'-O4'-C4'	-5.59	104.31	109.90
26	BB	572	A	C2'-C3'-O3'	-5.59	105.32	113.70
26	BB	1613	G	C5'-C4'-O4'	5.59	118.18	109.80
26	BB	2526	G	O4'-C4'-C3'	5.59	109.59	104.00
41	BQ	76	LYS	CA-C-N	5.59	127.70	120.44
41	BQ	76	LYS	C-N-CA	5.59	127.70	120.44
1	AA	13	U	C5'-C4'-C3'	5.58	123.58	115.20
1	AA	219	U	O4'-C1'-C2'	-5.58	102.02	107.60
1	AA	346	G	C3'-C2'-C1'	5.58	106.89	101.30
1	AA	714	G	O4'-C1'-N9	5.58	116.88	108.50
1	AA	1087	G	C1'-C2'-O2'	5.58	116.78	108.40
1	AA	1217	C	O4'-C1'-C2'	-5.58	102.02	107.60
1	AA	1447	A	O4'-C1'-C2'	5.58	111.39	105.80
26	BB	50	U	O4'-C1'-N1	5.58	116.58	108.20
26	BB	152	A	C4'-C3'-O3'	5.58	121.38	113.00
26	BB	1337	G	C1'-C2'-O2'	5.58	116.78	108.40
26	BB	2803	G	N9-C1'-C2'	-5.58	103.62	112.00
1	AA	281	G	C4'-C3'-C2'	5.58	108.18	102.60
1	AA	437	U	C5'-C4'-C3'	5.58	124.38	116.00
1	AA	944	G	C3'-C2'-C1'	-5.58	95.72	101.30
1	AA	1230	C	C1'-O4'-C4'	5.58	115.48	109.90
1	AA	1260	G	O5'-C5'-C4'	5.58	119.87	111.50
8	AH	131	ASN	N-CA-CB	-5.58	99.97	109.57
16	AP	52	ILE	CA-C-O	-5.58	115.14	120.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1785	A	C4'-C3'-C2'	-5.58	97.02	102.60
30	BF	21	ARG	NE-CZ-NH2	5.58	124.22	119.20
51	B0	45	GLN	O-C-N	-5.58	116.49	122.85
1	AA	296	U	O4'-C1'-N1	5.58	116.87	108.50
2	AB	13	C	O4'-C1'-N1	5.58	116.87	108.50
2	AB	71	C	N1-C1'-C2'	-5.58	103.63	112.00
6	AF	189	HIS	CB-CG-CD2	-5.58	123.94	131.20
12	AL	70	GLY	CA-C-N	5.58	127.59	120.56
12	AL	70	GLY	C-N-CA	5.58	127.59	120.56
26	BB	1474	U	C4'-C3'-C2'	-5.58	97.02	102.60
26	BB	1645	G	C3'-C2'-C1'	5.58	107.08	101.50
27	BC	185	LEU	CA-C-O	-5.58	114.96	120.82
34	BJ	162	GLU	CA-C-O	-5.58	114.77	120.80
1	AA	854	U	O3'-P-O5'	5.58	112.37	104.00
5	AE	24	PRO	CA-N-CD	-5.58	104.19	112.00
26	BB	821	A	O4'-C1'-N9	5.58	116.87	108.50
26	BB	1491	G	N9-C1'-C2'	-5.58	103.63	112.00
26	BB	1949	G	C5'-C4'-O4'	5.58	118.17	109.80
26	BB	2092	U	C4'-C3'-C2'	-5.58	97.02	102.60
1	AA	12	U	C3'-C2'-O2'	5.58	119.07	110.70
1	AA	959	A	O4'-C4'-C3'	5.58	109.58	104.00
17	AQ	87	ALA	O-C-N	5.58	128.03	122.12
26	BB	1652	A	C3'-C2'-O2'	5.58	119.07	110.70
26	BB	2394	C	O4'-C4'-C3'	5.58	109.58	104.00
26	BB	2852	G	C4'-C3'-C2'	-5.58	97.02	102.60
33	BI	128	HIS	CE1-NE2-CD2	-5.58	103.42	109.00
33	BI	136	SER	CA-C-O	-5.58	114.61	120.63
1	AA	384	G	C5'-C4'-C3'	5.58	124.37	116.00
1	AA	394	G	C4'-C3'-C2'	-5.58	97.02	102.60
12	AL	110	VAL	CA-C-N	5.58	130.19	122.77
12	AL	110	VAL	C-N-CA	5.58	130.19	122.77
15	AO	53	ARG	CA-C-O	-5.58	114.33	120.69
26	BB	82	U	C4'-C3'-C2'	-5.58	97.02	102.60
26	BB	1304	A	C1'-O4'-C4'	5.58	115.48	109.90
26	BB	2468	A	C1'-O4'-C4'	-5.58	104.12	109.70
26	BB	2533	U	C3'-C2'-O2'	5.58	119.07	110.70
56	B5	14	ARG	CA-C-O	5.58	125.82	119.18
1	AA	110	C	C2'-C3'-O3'	5.58	122.06	113.70
4	AD	22	A	C4'-C3'-O3'	-5.58	101.04	109.40
26	BB	1259	G	O4'-C1'-N9	5.58	116.86	108.50
26	BB	2402	U	O3'-P-O5'	-5.58	95.64	104.00
26	BB	2685	G	C5'-C4'-O4'	5.58	118.17	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	73	C	C5'-C4'-C3'	-5.57	107.64	116.00
1	AA	742	G	C5'-C4'-C3'	-5.57	107.64	116.00
1	AA	1492	A	O4'-C1'-N9	5.57	116.86	108.50
24	AX	26	GLY	N-CA-C	-5.57	106.81	114.67
26	BB	171	U	C2'-C3'-O3'	5.57	122.06	113.70
26	BB	885	C	P-O5'-C5'	5.57	129.26	120.90
26	BB	1551	A	C3'-C2'-O2'	5.57	119.06	110.70
26	BB	1553	A	C4'-C3'-C2'	-5.57	97.03	102.60
26	BB	1998	A	O4'-C4'-C3'	-5.57	98.43	104.00
26	BB	2068	U	C4'-C3'-O3'	5.57	117.76	109.40
26	BB	2177	C	C3'-C2'-C1'	-5.57	95.73	101.30
26	BB	2473	U	O4'-C4'-C3'	5.57	109.57	104.00
41	BQ	50	ALA	CA-C-O	5.57	127.35	121.33
26	BB	101	A	O3'-P-O5'	-5.57	95.64	104.00
43	BS	48	ASP	CA-C-N	5.57	128.54	120.79
43	BS	48	ASP	C-N-CA	5.57	128.54	120.79
1	AA	351	G	O4'-C4'-C3'	-5.57	100.53	106.10
1	AA	1109	C	O4'-C1'-N1	5.57	116.86	108.50
26	BB	2448	A	C2'-C3'-O3'	5.57	117.86	109.50
31	BG	108	PRO	O-C-N	5.57	129.70	122.24
34	BJ	22	LEU	CA-C-O	-5.57	114.06	120.24
42	BR	41	ALA	CB-CA-C	5.57	120.47	109.66
44	BT	57	GLY	O-C-N	-5.57	119.04	123.27
1	AA	1411	C	O3'-P-O5'	5.57	112.35	104.00
26	BB	2569	G	O4'-C4'-C3'	5.57	109.57	104.00
40	BP	118	ARG	CA-C-N	5.57	132.18	121.54
40	BP	118	ARG	C-N-CA	5.57	132.18	121.54
1	AA	4	U	C1'-O4'-C4'	5.57	115.47	109.90
1	AA	116	A	C3'-C2'-C1'	5.57	106.87	101.30
1	AA	1183	U	C4'-C3'-C2'	-5.57	97.03	102.60
5	AE	14	HIS	CA-C-N	5.57	132.18	121.54
5	AE	14	HIS	C-N-CA	5.57	132.18	121.54
23	AW	15	LYS	CA-C-N	5.57	127.74	120.28
23	AW	15	LYS	C-N-CA	5.57	127.74	120.28
25	BA	91	C	O3'-P-O5'	5.57	112.35	104.00
26	BB	29	U	C3'-C2'-O2'	5.57	119.05	110.70
26	BB	443	A	C1'-O4'-C4'	-5.57	104.13	109.70
26	BB	1104	C	C5'-C4'-C3'	-5.57	107.65	116.00
41	BQ	1	MET	CA-C-N	5.57	129.26	121.24
41	BQ	1	MET	C-N-CA	5.57	129.26	121.24
51	B0	55	THR	O-C-N	5.57	128.74	122.22
54	B3	19	ASP	N-CA-CB	-5.57	101.92	110.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	716	A	O4'-C1'-N9	5.57	116.85	108.50
1	AA	985	C	O5'-C5'-C4'	-5.57	103.15	111.50
10	AJ	42	VAL	CA-C-O	-5.57	114.87	121.05
24	AX	4	LYS	CA-C-O	-5.57	114.52	120.42
26	BB	1047	G	C5'-C4'-O4'	5.57	117.45	109.10
26	BB	2432	A	O3'-P-O5'	-5.57	95.65	104.00
26	BB	2511	U	N1-C1'-C2'	-5.57	103.65	112.00
26	BB	2699	C	N1-C1'-C2'	-5.57	103.65	112.00
27	BC	67	HIS	CA-C-O	5.57	126.45	120.38
34	BJ	46	GLU	N-CA-C	-5.57	104.61	111.40
36	BL	80	HIS	CB-CG-CD2	-5.57	123.96	131.20
49	BY	13	ARG	NE-CZ-NH1	5.57	127.07	121.50
1	AA	946	A	P-O5'-C5'	5.56	129.25	120.90
8	AH	144	GLU	N-CA-C	5.56	117.34	111.28
26	BB	47	C	O4'-C1'-N1	5.56	116.85	108.50
26	BB	306	U	C3'-C2'-O2'	-5.56	102.35	110.70
5	AE	92	ASN	N-CA-C	-5.56	106.18	114.64
26	BB	66	C	P-O5'-C5'	5.56	129.25	120.90
26	BB	539	G	O3'-P-O5'	-5.56	95.66	104.00
26	BB	2567	G	C1'-O4'-C4'	-5.56	104.34	109.90
53	B2	6	HIS	CG-ND1-CE1	-5.56	99.84	109.30
1	AA	690	G	C3'-C2'-C1'	5.56	106.86	101.30
1	AA	1363	A	O4'-C1'-N9	5.56	116.54	108.20
26	BB	2001	C	C4'-C3'-C2'	-5.56	97.04	102.60
26	BB	2243	U	O4'-C1'-C2'	-5.56	102.04	107.60
1	AA	1338	G	C3'-C2'-C1'	5.56	106.86	101.30
11	AK	3	GLN	N-CA-C	-5.56	107.15	114.04
26	BB	33	C	C5'-C4'-C3'	-5.56	106.86	115.20
26	BB	168	G	C3'-C2'-O2'	5.56	119.04	110.70
26	BB	317	G	C3'-C2'-O2'	5.56	119.04	110.70
26	BB	1041	G	P-O5'-C5'	5.56	129.24	120.90
26	BB	1577	C	C2'-C3'-O3'	-5.56	105.36	113.70
26	BB	2005	A	O4'-C4'-C3'	5.56	109.56	104.00
29	BE	47	ALA	N-CA-CB	-5.56	103.11	111.56
33	BI	44	ILE	CA-C-O	-5.56	114.47	120.47
44	BT	63	VAL	CA-CB-CG2	5.56	119.85	110.40
1	AA	605	U	C1'-O4'-C4'	-5.56	104.34	109.90
1	AA	658	C	O4'-C1'-N1	5.56	116.84	108.50
26	BB	3	U	O4'-C4'-C3'	5.56	109.56	104.00
26	BB	640	C	O4'-C1'-C2'	5.56	113.16	107.60
26	BB	752	A	O4'-C4'-C3'	5.56	111.66	106.10
26	BB	2154	A	C5'-C4'-C3'	-5.56	107.67	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2213	U	O4'-C1'-N1	5.56	116.84	108.50
26	BB	2226	C	C5'-C4'-C3'	-5.56	107.66	116.00
26	BB	2284	A	O4'-C4'-C3'	5.56	109.56	104.00
27	BC	115	ILE	N-CA-CB	-5.56	104.66	110.72
33	BI	44	ILE	N-CA-C	-5.56	104.14	111.09
35	BK	89	SER	N-CA-CB	-5.56	101.67	110.28
36	BL	47	HIS	CB-CG-CD2	-5.56	123.98	131.20
1	AA	1171	A	C3'-C2'-C1'	-5.56	95.74	101.30
25	BA	13	G	O5'-C5'-C4'	-5.56	103.17	111.50
26	BB	2165	C	C3'-C2'-C1'	5.56	106.86	101.30
1	AA	137	U	C3'-C2'-C1'	5.55	106.85	101.30
1	AA	175	C	N1-C1'-C2'	-5.55	103.67	112.00
1	AA	206	C	O5'-C5'-C4'	-5.55	103.17	111.50
1	AA	1477	U	C4'-C3'-C2'	-5.55	97.05	102.60
5	AE	186	VAL	O-C-N	5.55	128.76	122.98
26	BB	300	A	C4'-C3'-O3'	5.55	121.33	113.00
26	BB	388	G	C1'-C2'-O2'	5.55	116.73	108.40
26	BB	1010	A	C5'-C4'-O4'	5.55	118.13	109.80
26	BB	1688	U	C5'-C4'-C3'	-5.55	107.67	116.00
26	BB	1968	G	C5'-C4'-C3'	-5.55	107.67	116.00
26	BB	2148	G	P-O5'-C5'	5.55	129.23	120.90
26	BB	2648	G	C1'-O4'-C4'	5.55	115.45	109.90
26	BB	2781	A	O3'-P-O5'	5.55	112.33	104.00
45	BU	7	HIS	ND1-CE1-NE2	5.55	113.95	108.40
1	AA	942	G	C5'-C4'-C3'	-5.55	107.67	116.00
26	BB	1111	A	O5'-C5'-C4'	5.55	120.03	111.70
26	BB	2416	C	C2'-C3'-O3'	-5.55	105.37	113.70
26	BB	2778	A	C5'-C4'-C3'	5.55	123.53	115.20
1	AA	410	G	O4'-C1'-N9	5.55	116.83	108.50
1	AA	1416	G	C1'-O4'-C4'	-5.55	104.35	109.90
6	AF	144	GLY	CA-C-O	5.55	124.74	120.91
25	BA	28	C	O4'-C1'-C2'	-5.55	102.05	107.60
25	BA	60	C	O3'-P-O5'	5.55	112.33	104.00
25	BA	86	G	P-O3'-C3'	5.55	128.53	120.20
26	BB	439	A	C2'-C3'-O3'	5.55	122.03	113.70
26	BB	531	C	O3'-P-O5'	-5.55	95.67	104.00
26	BB	1040	A	C3'-C2'-O2'	5.55	119.03	110.70
26	BB	1264	A	C4'-C3'-O3'	5.55	121.33	113.00
26	BB	1790	C	C5'-C4'-C3'	-5.55	107.67	116.00
26	BB	2412	A	C5'-C4'-O4'	5.55	118.13	109.80
26	BB	2576	G	C1'-C2'-O2'	5.55	116.73	108.40
26	BB	2781	A	C5'-C4'-O4'	5.55	118.13	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	BL	130	HIS	CA-CB-CG	5.55	119.35	113.80
38	BN	64	PHE	CA-C-O	-5.55	114.70	121.36
10	AJ	87	PRO	N-CA-CB	5.55	108.18	103.35
25	BA	26	C	C3'-C2'-C1'	-5.55	95.75	101.30
26	BB	599	A	P-O3'-C3'	5.55	128.52	120.20
26	BB	707	G	N9-C1'-C2'	-5.55	103.67	112.00
26	BB	781	A	P-O3'-C3'	5.55	128.52	120.20
26	BB	1450	G	O4'-C1'-C2'	5.55	113.15	107.60
26	BB	2422	C	P-O3'-C3'	5.55	128.52	120.20
26	BB	2438	U	C1'-O4'-C4'	-5.55	104.35	109.90
26	BB	2751	G	O3'-P-O5'	5.55	112.33	104.00
46	BV	38	ALA	CA-C-N	5.55	132.14	121.54
46	BV	38	ALA	C-N-CA	5.55	132.14	121.54
47	BW	73	ASN	CA-C-N	5.55	132.14	121.54
47	BW	73	ASN	C-N-CA	5.55	132.14	121.54
1	AA	276	G	C3'-C2'-C1'	5.55	106.85	101.30
26	BB	2105	U	O4'-C1'-C2'	-5.55	102.05	107.60
26	BB	2594	C	C1'-O4'-C4'	-5.55	104.35	109.90
34	BJ	95	PHE	O-C-N	-5.55	115.45	122.27
1	AA	227	G	N9-C1'-C2'	-5.55	103.68	112.00
1	AA	832	G	O4'-C4'-C3'	5.55	109.55	104.00
10	AJ	81	GLY	O-C-N	5.55	130.53	122.26
21	AU	32	ILE	O-C-N	5.55	129.08	123.20
26	BB	28	A	O3'-P-O5'	-5.55	95.68	104.00
26	BB	487	C	C2'-C3'-O3'	-5.55	105.38	113.70
26	BB	2462	C	C2'-C3'-O3'	-5.55	105.38	113.70
26	BB	2538	C	O5'-C5'-C4'	5.55	119.82	111.50
26	BB	2867	G	O4'-C4'-C3'	-5.55	100.55	106.10
29	BE	157	LYS	O-C-N	5.55	129.69	122.87
31	BG	69	ALA	CA-C-N	5.55	130.11	120.68
31	BG	69	ALA	C-N-CA	5.55	130.11	120.68
52	B1	43	ILE	CA-C-N	5.55	127.71	120.28
52	B1	43	ILE	C-N-CA	5.55	127.71	120.28
1	AA	1466	C	C1'-O4'-C4'	5.54	115.44	109.90
4	AD	72	C	C3'-C2'-C1'	5.54	106.84	101.30
26	BB	1004	U	C5'-C4'-C3'	-5.54	107.68	116.00
29	BE	34	VAL	CA-C-N	5.54	131.96	121.81
29	BE	34	VAL	C-N-CA	5.54	131.96	121.81
1	AA	703	G	C3'-C2'-O2'	-5.54	106.28	114.60
1	AA	802	A	C3'-C2'-O2'	5.54	119.02	110.70
26	BB	167	A	C4'-C3'-C2'	-5.54	97.06	102.60
26	BB	573	U	O4'-C1'-C2'	-5.54	102.06	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	659	G	O4'-C4'-C3'	5.54	109.54	104.00
26	BB	752	A	O4'-C1'-C2'	5.54	111.34	105.80
26	BB	1115	G	O5'-C5'-C4'	-5.54	103.19	111.50
26	BB	1451	C	C5'-C4'-O4'	5.54	117.41	109.10
26	BB	1810	A	C5'-C4'-C3'	5.54	124.32	116.00
46	BV	77	ARG	NE-CZ-NH2	5.54	124.19	119.20
1	AA	98	A	O4'-C4'-C3'	5.54	109.54	104.00
1	AA	776	G	C3'-C2'-O2'	5.54	119.01	110.70
1	AA	1027	C	O4'-C4'-C3'	5.54	109.54	104.00
1	AA	1477	U	O4'-C1'-N1	5.54	116.81	108.50
11	AK	123	GLU	O-C-N	-5.54	116.90	123.22
26	BB	463	G	O5'-C5'-C4'	-5.54	103.19	111.50
26	BB	1055	G	C5'-C4'-O4'	5.54	118.11	109.80
26	BB	2119	A	O3'-P-O5'	-5.54	95.69	104.00
26	BB	2394	C	O4'-C1'-N1	5.54	116.81	108.50
26	BB	2452	C	O4'-C1'-N1	5.54	116.81	108.50
26	BB	2572	A	C5'-C4'-C3'	5.54	123.51	115.20
27	BC	46	VAL	O-C-N	-5.54	117.33	123.20
28	BD	182	LYS	CA-C-N	5.54	130.69	122.99
28	BD	182	LYS	C-N-CA	5.54	130.69	122.99
43	BS	38	VAL	O-C-N	5.54	127.25	121.87
1	AA	696	A	O4'-C1'-N9	5.54	116.81	108.50
25	BA	103	U	C1'-O4'-C4'	-5.54	104.36	109.90
26	BB	185	G	C5'-C4'-O4'	5.54	118.11	109.80
26	BB	291	G	C1'-O4'-C4'	5.54	115.44	109.90
26	BB	1565	C	O4'-C1'-N1	5.54	116.51	108.20
26	BB	2863	C	O4'-C4'-C3'	-5.54	98.46	104.00
44	BT	54	VAL	CG1-CB-CG2	-5.54	98.61	110.80
1	AA	352	C	C1'-O4'-C4'	5.54	115.44	109.90
1	AA	718	A	N9-C1'-C2'	-5.54	103.69	112.00
26	BB	1919	A	C1'-O4'-C4'	-5.54	104.36	109.90
26	BB	1963	U	C4'-C3'-C2'	-5.54	97.06	102.60
29	BE	130	GLN	CA-C-N	5.54	129.56	121.31
29	BE	130	GLN	C-N-CA	5.54	129.56	121.31
30	BF	137	LYS	CB-CA-C	5.54	119.57	110.88
1	AA	537	G	C1'-O4'-C4'	-5.54	104.36	109.90
1	AA	1421	G	P-O5'-C5'	5.54	129.21	120.90
1	AA	1438	G	O4'-C4'-C3'	5.54	109.54	104.00
13	AM	91	ASP	N-CA-C	5.54	118.26	110.23
26	BB	395	U	C4'-C3'-C2'	-5.54	97.06	102.60
26	BB	1529	G	C2'-C3'-O3'	-5.54	105.39	113.70
1	AA	445	G	O4'-C4'-C3'	-5.54	98.47	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	702	A	P-O5'-C5'	5.54	129.20	120.90
1	AA	1066	C	C1'-C2'-O2'	5.54	116.70	108.40
10	AJ	83	THR	CA-CB-CG2	5.54	119.91	110.50
26	BB	2649	C	C3'-C2'-O2'	5.54	119.00	110.70
31	BG	146	ASP	CA-C-N	5.54	131.28	122.59
31	BG	146	ASP	C-N-CA	5.54	131.28	122.59
49	BY	65	LYS	CG-CD-CE	5.54	124.03	111.30
1	AA	480	U	O5'-C5'-C4'	5.53	119.80	111.50
4	AD	41	C	P-O3'-C3'	5.53	128.50	120.20
6	AF	200	TRP	CD2-CE2-CZ2	5.53	127.93	122.40
26	BB	567	U	P-O3'-C3'	5.53	128.50	120.20
26	BB	719	C	C3'-C2'-C1'	5.53	106.83	101.30
26	BB	2282	G	C2'-C3'-O3'	5.53	117.80	109.50
36	BL	125	TYR	CA-C-N	5.53	130.04	120.58
36	BL	125	TYR	C-N-CA	5.53	130.04	120.58
42	BR	28	LYS	CA-C-O	-5.53	114.29	120.54
1	AA	213	G	C4'-C3'-C2'	-5.53	97.07	102.60
14	AN	119	GLY	CA-C-N	5.53	128.96	121.05
14	AN	119	GLY	C-N-CA	5.53	128.96	121.05
26	BB	252	G	C4'-C3'-O3'	5.53	121.30	113.00
26	BB	1021	A	C3'-C2'-C1'	-5.53	95.77	101.30
26	BB	1568	G	O5'-C5'-C4'	-5.53	103.20	111.50
45	BU	75	PHE	CA-CB-CG	5.53	119.33	113.80
1	AA	157	U	O4'-C1'-N1	5.53	116.80	108.50
1	AA	481	G	O3'-P-O5'	-5.53	95.70	104.00
1	AA	825	A	O4'-C1'-N9	5.53	116.80	108.50
1	AA	910	C	O4'-C4'-C3'	5.53	109.53	104.00
26	BB	105	C	C1'-C2'-O2'	-5.53	100.11	108.40
26	BB	364	C	O4'-C1'-N1	5.53	116.80	108.50
26	BB	867	C	C4'-C3'-C2'	-5.53	97.07	102.60
26	BB	1609	A	C1'-C2'-O2'	5.53	116.69	108.40
26	BB	2301	C	P-O3'-C3'	5.53	128.50	120.20
51	B0	31	GLN	CA-CB-CG	-5.53	103.04	114.10
1	AA	175	C	O3'-P-O5'	-5.53	95.71	104.00
1	AA	828	U	P-O3'-C3'	5.53	128.49	120.20
1	AA	1029	U	O4'-C1'-N1	5.53	116.79	108.50
25	BA	44	G	O4'-C1'-C2'	-5.53	100.27	105.80
26	BB	1285	A	C5'-C4'-C3'	-5.53	107.71	116.00
26	BB	2053	G	C3'-C2'-O2'	5.53	118.99	110.70
29	BE	59	ARG	CD-NE-CZ	5.53	132.14	124.40
1	AA	584	G	C5'-C4'-C3'	-5.53	107.71	116.00
1	AA	939	G	C3'-C2'-C1'	-5.53	95.77	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	941	G	O3'-P-O5'	5.53	112.29	104.00
15	AO	69	GLU	N-CA-C	5.53	117.67	110.43
21	AU	42	ARG	NE-CZ-NH2	-5.53	114.23	119.20
22	AV	17	LYS	CA-C-N	5.53	128.03	120.46
22	AV	17	LYS	C-N-CA	5.53	128.03	120.46
26	BB	725	G	N9-C1'-C2'	-5.53	103.71	112.00
26	BB	851	C	C3'-C2'-C1'	5.53	106.83	101.30
26	BB	1984	G	N9-C1'-C2'	-5.53	103.71	112.00
26	BB	2315	G	C3'-C2'-C1'	5.53	106.83	101.30
46	BV	16	VAL	CA-C-O	5.53	125.14	120.22
47	BW	83	GLY	CA-C-N	5.53	130.56	122.77
47	BW	83	GLY	C-N-CA	5.53	130.56	122.77
48	BX	8	VAL	O-C-N	-5.53	116.20	122.72
48	BX	88	HIS	CG-ND1-CE1	-5.53	99.90	109.30
50	BZ	45	PHE	CA-C-N	5.53	131.96	122.67
50	BZ	45	PHE	C-N-CA	5.53	131.96	122.67
1	AA	255	G	C1'-O4'-C4'	-5.53	104.38	109.90
1	AA	285	C	C3'-C2'-O2'	5.53	118.99	110.70
1	AA	1461	G	C5'-C4'-O4'	5.53	118.09	109.80
25	BA	65	U	O4'-C1'-C2'	-5.53	102.08	107.60
26	BB	1709	U	O4'-C4'-C3'	-5.53	98.47	104.00
28	BD	260	LYS	CB-CA-C	5.53	120.37	111.36
37	BM	16	ALA	CA-C-N	5.53	132.09	121.54
37	BM	16	ALA	C-N-CA	5.53	132.09	121.54
45	BU	94	ASP	CA-CB-CG	5.53	118.13	112.60
1	AA	834	U	O4'-C4'-C3'	-5.52	98.48	104.00
18	AR	52	ARG	CD-NE-CZ	5.52	132.13	124.40
26	BB	79	C	C4'-C3'-O3'	-5.52	104.71	113.00
26	BB	85	G	C5'-C4'-C3'	-5.52	107.71	116.00
26	BB	705	A	O4'-C4'-C3'	5.52	109.52	104.00
28	BD	247	TRP	CE3-CZ3-CH2	-5.52	113.92	121.10
1	AA	320	A	O4'-C4'-C3'	5.52	109.52	104.00
9	AI	130	GLU	CA-C-N	5.52	131.22	122.94
9	AI	130	GLU	C-N-CA	5.52	131.22	122.94
26	BB	2016	U	C3'-C2'-O2'	5.52	118.98	110.70
37	BM	72	PRO	CA-N-CD	-5.52	104.27	112.00
40	BP	81	ASN	OD1-CG-ND2	-5.52	117.08	122.60
1	AA	280	C	C1'-O4'-C4'	5.52	115.22	109.70
25	BA	20	G	C4'-C3'-C2'	-5.52	97.08	102.60
26	BB	311	A	O5'-C5'-C4'	5.52	119.98	111.70
1	AA	23	C	O4'-C1'-C2'	-5.52	102.08	107.60
1	AA	53	A	C4'-C3'-C2'	-5.52	97.08	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	802	A	C4'-C3'-C2'	-5.52	97.08	102.60
1	AA	1154	G	O4'-C1'-C2'	-5.52	102.08	107.60
1	AA	1360	A	O4'-C4'-C3'	5.52	109.52	104.00
7	AG	2	ARG	NE-CZ-NH2	-5.52	114.23	119.20
26	BB	846	U	C1'-C2'-O2'	-5.52	103.52	111.80
26	BB	915	C	P-O3'-C3'	5.52	128.48	120.20
26	BB	1944	U	N1-C1'-C2'	-5.52	105.72	114.00
31	BG	99	PHE	CA-CB-CG	5.52	119.32	113.80
39	BO	64	TRP	NE1-CE2-CZ2	5.52	138.38	130.10
53	B2	19	GLY	O-C-N	5.52	128.12	122.88
1	AA	114	U	O4'-C1'-N1	5.52	116.78	108.50
1	AA	829	G	C2'-C3'-O3'	5.52	121.98	113.70
1	AA	1221	G	C5'-C4'-C3'	-5.52	107.72	116.00
26	BB	586	A	O4'-C4'-C3'	5.52	109.52	104.00
26	BB	1153	C	O4'-C1'-N1	5.52	116.78	108.50
26	BB	1261	C	C4'-C3'-C2'	-5.52	97.08	102.60
26	BB	1602	U	N1-C1'-C2'	5.52	122.28	114.00
26	BB	1822	C	C4'-C3'-C2'	-5.52	97.08	102.60
26	BB	1841	U	O5'-C5'-C4'	-5.52	103.22	111.50
26	BB	2169	A	O4'-C1'-N9	5.52	116.78	108.50
26	BB	2253	G	O4'-C1'-N9	5.52	116.78	108.50
26	BB	2404	U	O4'-C1'-N1	5.52	116.78	108.50
40	BP	63	ARG	N-CA-C	-5.52	105.35	111.36
1	AA	422	C	O3'-P-O5'	5.52	112.27	104.00
1	AA	431	A	N9-C1'-C2'	-5.52	103.72	112.00
1	AA	1250	A	P-O5'-C5'	5.52	129.17	120.90
17	AQ	86	ALA	CA-C-N	5.52	127.67	120.28
17	AQ	86	ALA	C-N-CA	5.52	127.67	120.28
26	BB	250	G	O5'-C5'-C4'	-5.52	103.22	111.50
26	BB	1651	G	C4'-C3'-O3'	5.52	121.27	113.00
26	BB	1831	G	C5'-C4'-C3'	-5.52	107.73	116.00
26	BB	2189	U	C1'-O4'-C4'	-5.52	104.38	109.90
26	BB	2348	U	P-O5'-C5'	5.52	129.18	120.90
26	BB	2797	U	C5'-C4'-O4'	5.52	118.08	109.80
38	BN	23	ILE	CA-CB-CG2	5.52	119.88	110.50
1	AA	554	A	O4'-C1'-N9	5.51	116.77	108.50
1	AA	666	G	C1'-O4'-C4'	5.51	115.42	109.90
1	AA	666	G	C3'-C2'-O2'	5.51	118.97	110.70
1	AA	1030	U	C1'-O4'-C4'	5.51	115.41	109.90
4	AD	45	A	C4'-C3'-C2'	-5.51	97.08	102.60
24	AX	13	VAL	N-CA-CB	5.51	117.29	111.00
26	BB	1635	A	C5'-C4'-C3'	-5.51	107.73	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1935	G	O4'-C1'-C2'	-5.51	102.09	107.60
26	BB	2307	G	C1'-O4'-C4'	5.51	115.21	109.70
42	BR	112	ARG	NH1-CZ-NH2	-5.51	112.13	119.30
56	B5	4	THR	N-CA-C	5.51	120.07	113.23
56	B5	6	GLN	CA-C-N	5.51	126.73	119.84
56	B5	6	GLN	C-N-CA	5.51	126.73	119.84
1	AA	1101	A	O4'-C1'-N9	5.51	116.47	108.20
26	BB	987	C	O5'-C5'-C4'	-5.51	103.23	111.50
26	BB	1291	C	C1'-O4'-C4'	-5.51	104.39	109.90
26	BB	2133	G	C4'-C3'-C2'	-5.51	97.09	102.60
1	AA	104	G	O4'-C4'-C3'	5.51	109.51	104.00
12	AL	10	ARG	CA-C-O	5.51	127.04	120.70
20	AT	30	HIS	CE1-NE2-CD2	-5.51	103.49	109.00
26	BB	1359	A	C4'-C3'-C2'	-5.51	97.09	102.60
26	BB	1542	U	C5'-C4'-C3'	-5.51	107.73	116.00
26	BB	1894	C	P-O3'-C3'	5.51	128.47	120.20
26	BB	2544	G	O4'-C1'-C2'	-5.51	102.09	107.60
26	BB	2823	A	O3'-P-O5'	5.51	112.27	104.00
29	BE	65	ALA	N-CA-C	5.51	117.37	111.36
1	AA	1	A	O4'-C1'-N9	5.51	116.76	108.50
1	AA	106	C	O4'-C1'-C2'	-5.51	102.09	107.60
1	AA	398	U	O4'-C4'-C3'	5.51	109.51	104.00
2	AB	71	C	C3'-C2'-O2'	5.51	118.96	110.70
7	AG	12	ARG	N-CA-C	5.51	118.21	111.82
26	BB	121	G	O4'-C1'-C2'	5.51	113.11	107.60
26	BB	279	A	C4'-C3'-C2'	-5.51	97.09	102.60
26	BB	929	U	O4'-C4'-C3'	5.51	109.51	104.00
26	BB	1023	U	C5'-C4'-O4'	-5.51	101.54	109.80
26	BB	1286	A	N9-C1'-C2'	5.51	122.26	114.00
26	BB	1535	A	C3'-C2'-O2'	-5.51	106.34	114.60
1	AA	171	A	P-O5'-C5'	-5.51	112.64	120.90
1	AA	425	G	C3'-C2'-C1'	-5.51	95.79	101.30
1	AA	868	C	N1-C1'-C2'	-5.51	103.74	112.00
1	AA	906	A	O4'-C4'-C3'	5.51	109.51	104.00
5	AE	55	GLU	CA-C-N	5.51	127.93	120.44
5	AE	55	GLU	C-N-CA	5.51	127.93	120.44
25	BA	79	G	C5'-C4'-C3'	-5.51	107.74	116.00
26	BB	259	G	O4'-C1'-C2'	-5.51	102.09	107.60
26	BB	792	A	C1'-C2'-O2'	-5.51	100.14	108.40
26	BB	910	A	O3'-P-O5'	5.51	112.26	104.00
26	BB	928	A	O4'-C1'-C2'	-5.51	102.09	107.60
26	BB	1494	A	O4'-C1'-C2'	-5.51	102.09	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	BO	6	ARG	CA-C-O	-5.51	115.18	121.40
1	AA	37	U	C5'-C4'-O4'	5.50	118.06	109.80
1	AA	203	G	C3'-C2'-O2'	5.50	118.96	110.70
1	AA	563	A	C1'-C2'-O2'	5.50	116.66	108.40
1	AA	799	G	C5'-C4'-C3'	-5.50	107.74	116.00
26	BB	565	C	C1'-O4'-C4'	-5.50	104.39	109.90
26	BB	2097	A	O5'-C5'-C4'	5.50	119.76	111.50
26	BB	2729	G	C3'-C2'-O2'	5.50	118.96	110.70
29	BE	150	GLN	CG-CD-NE2	5.50	124.66	116.40
43	BS	76	SER	CA-C-N	5.50	128.11	120.29
43	BS	76	SER	C-N-CA	5.50	128.11	120.29
1	AA	982	U	O3'-P-O5'	5.50	112.25	104.00
19	AS	18	GLN	CA-C-O	-5.50	114.67	121.11
26	BB	78	U	O5'-C5'-C4'	5.50	119.76	111.50
26	BB	1482	G	C3'-C2'-O2'	5.50	118.96	110.70
26	BB	1641	A	P-O5'-C5'	5.50	129.16	120.90
26	BB	1714	U	O4'-C1'-C2'	-5.50	102.10	107.60
26	BB	2399	G	C5'-C4'-C3'	-5.50	107.74	116.00
27	BC	188	ASN	CA-C-N	5.50	128.44	120.79
27	BC	188	ASN	C-N-CA	5.50	128.44	120.79
1	AA	213	G	C5'-C4'-C3'	-5.50	107.75	116.00
1	AA	244	U	C4'-C3'-O3'	-5.50	101.15	109.40
1	AA	1080	A	N9-C1'-C2'	-5.50	103.75	112.00
1	AA	1130	A	O5'-C5'-C4'	5.50	119.75	111.50
1	AA	1174	G	C1'-O4'-C4'	5.50	115.40	109.90
1	AA	1183	U	C3'-C2'-C1'	5.50	106.80	101.30
4	AD	44	A	N9-C1'-C2'	-5.50	103.75	112.00
26	BB	1998	A	C1'-C2'-O2'	-5.50	100.15	108.40
26	BB	2009	A	N9-C1'-C2'	-5.50	103.75	112.00
26	BB	2237	G	C1'-C2'-O2'	5.50	116.65	108.40
26	BB	2706	A	C1'-O4'-C4'	5.50	115.40	109.90
26	BB	2785	C	O5'-C5'-C4'	-5.50	103.25	111.50
57	B6	30	HIS	CB-CG-CD2	-5.50	124.05	131.20
1	AA	1110	A	N9-C1'-C2'	-5.50	103.75	112.00
2	AB	62	U	O3'-P-O5'	-5.50	95.75	104.00
26	BB	1185	G	C4'-C3'-C2'	-5.50	97.10	102.60
42	BR	59	THR	CA-CB-OG1	5.50	117.85	109.60
1	AA	196	A	C4'-C3'-O3'	5.50	121.25	113.00
1	AA	1091	U	C5'-C4'-C3'	5.50	124.25	116.00
1	AA	1215	G	C2'-C3'-O3'	-5.50	105.45	113.70
2	AB	57	G	O4'-C4'-C3'	-5.50	98.50	104.00
4	AD	33	OMC	P-O3'-C3'	5.50	128.45	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	3	VAL	CA-C-N	5.50	128.67	120.31
5	AE	3	VAL	C-N-CA	5.50	128.67	120.31
25	BA	25	U	C1'-O4'-C4'	-5.50	104.20	109.70
26	BB	938	G	C5'-C4'-O4'	5.50	118.05	109.80
26	BB	1037	G	C4'-C3'-C2'	5.50	108.10	102.60
26	BB	1275	A	O4'-C4'-C3'	-5.50	98.50	104.00
26	BB	1973	G	N9-C1'-C2'	-5.50	103.75	112.00
26	BB	2039	U	C5'-C4'-O4'	5.50	118.05	109.80
26	BB	2424	C	P-O3'-C3'	5.50	128.45	120.20
26	BB	2446	G	P-O3'-C3'	5.50	128.45	120.20
26	BB	2871	U	P-O3'-C3'	5.50	128.45	120.20
43	BS	73	ILE	CB-CA-C	5.50	119.29	110.82
1	AA	702	A	C4'-C3'-C2'	-5.50	97.10	102.60
26	BB	443	A	N9-C1'-C2'	-5.50	105.75	114.00
26	BB	751	A	C2'-C3'-O3'	5.50	117.74	109.50
26	BB	1567	G	O4'-C1'-N9	5.50	116.45	108.20
26	BB	2440	C	C4'-C3'-C2'	-5.50	97.10	102.60
27	BC	159	GLY	CA-C-N	5.50	129.15	121.02
27	BC	159	GLY	C-N-CA	5.50	129.15	121.02
1	AA	247	G	O4'-C4'-C3'	-5.50	98.50	104.00
2	AB	74	C	C3'-C2'-C1'	5.50	106.80	101.30
11	AK	122	GLY	CA-C-N	5.50	129.94	122.19
11	AK	122	GLY	C-N-CA	5.50	129.94	122.19
15	AO	92	VAL	O-C-N	5.50	129.58	122.77
25	BA	106	G	O3'-P-O5'	-5.50	95.76	104.00
26	BB	1230	A	C5'-C4'-C3'	-5.50	107.76	116.00
26	BB	1552	A	C5'-C4'-C3'	-5.50	107.76	116.00
50	BZ	28	PHE	CA-C-N	5.50	131.77	122.65
50	BZ	28	PHE	C-N-CA	5.50	131.77	122.65
1	AA	563	A	C4'-C3'-O3'	-5.49	104.76	113.00
1	AA	592	G	O3'-P-O5'	-5.49	95.76	104.00
1	AA	798	U	O4'-C1'-C2'	-5.49	102.11	107.60
1	AA	1157	A	P-O5'-C5'	5.49	129.14	120.90
10	AJ	37	THR	CA-C-N	5.49	128.09	120.29
10	AJ	37	THR	C-N-CA	5.49	128.09	120.29
17	AQ	41	TRP	CA-C-N	5.49	127.91	120.38
17	AQ	41	TRP	C-N-CA	5.49	127.91	120.38
18	AR	39	GLN	CA-C-N	5.49	125.93	119.94
18	AR	39	GLN	C-N-CA	5.49	125.93	119.94
26	BB	1673	G	C1'-C2'-O2'	-5.49	100.16	108.40
29	BE	68	PHE	CA-CB-CG	5.49	119.29	113.80
32	BH	34	ARG	CA-C-N	5.49	131.82	122.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BH	34	ARG	C-N-CA	5.49	131.82	122.37
45	BU	33	LEU	O-C-N	5.49	129.03	122.27
1	AA	1051	C	C5'-C4'-O4'	-5.49	101.56	109.80
1	AA	1159	U	C1'-O4'-C4'	-5.49	104.21	109.70
1	AA	1368	A	N9-C1'-C2'	-5.49	103.76	112.00
1	AA	1513	A	N9-C1'-C2'	-5.49	103.76	112.00
21	AU	65	SER	N-CA-CB	-5.49	103.95	112.30
1	AA	168	G	N9-C1'-C2'	-5.49	103.76	112.00
1	AA	266	G	O3'-P-O5'	5.49	112.24	104.00
1	AA	980	C	O5'-C5'-C4'	5.49	119.74	111.50
43	BS	3	VAL	CA-CB-CG2	5.49	119.73	110.40
1	AA	709	U	C1'-O4'-C4'	5.49	115.39	109.90
1	AA	1182	G	P-O3'-C3'	5.49	128.43	120.20
1	AA	1415	G	C4'-C3'-O3'	-5.49	104.77	113.00
5	AE	50	ASN	O-C-N	5.49	128.41	122.15
16	AP	14	ALA	CA-C-N	5.49	127.47	120.56
16	AP	14	ALA	C-N-CA	5.49	127.47	120.56
26	BB	1004	U	C1'-C2'-O2'	5.49	116.63	108.40
26	BB	1095	A	O4'-C1'-N9	5.49	116.73	108.50
26	BB	1320	C	O3'-P-O5'	5.49	112.23	104.00
26	BB	2616	C	C5'-C4'-C3'	5.49	124.23	116.00
3	AC	29	G	C1'-C2'-O2'	5.49	116.63	108.40
1	AA	311	C	N1-C1'-C2'	-5.49	103.77	112.00
1	AA	912	C	C4'-C3'-C2'	5.49	108.08	102.60
7	AG	16	THR	CA-C-N	5.49	128.18	120.28
7	AG	16	THR	C-N-CA	5.49	128.18	120.28
26	BB	114	U	C4'-C3'-C2'	-5.49	97.11	102.60
26	BB	1293	C	C4'-C3'-O3'	-5.49	104.77	113.00
26	BB	2213	U	C5'-C4'-O4'	5.49	118.03	109.80
26	BB	2541	A	C3'-C2'-O2'	5.49	118.93	110.70
26	BB	2699	C	O3'-P-O5'	-5.49	95.77	104.00
28	BD	208	GLY	O-C-N	5.49	128.57	122.54
30	BF	102	ARG	NE-CZ-NH2	5.49	124.14	119.20
1	AA	1394	A	O4'-C1'-C2'	5.48	111.28	105.80
2	AB	73	G	C4'-C3'-O3'	-5.48	104.77	113.00
17	AQ	42	ASN	CA-C-O	-5.48	114.71	120.63
26	BB	2196	C	C1'-O4'-C4'	-5.48	104.42	109.90
26	BB	2490	G	C4'-C3'-O3'	5.48	117.63	109.40
1	AA	308	C	P-O3'-C3'	5.48	128.42	120.20
4	AD	4	G	C3'-C2'-C1'	5.48	106.78	101.30
26	BB	794	A	C4'-C3'-C2'	-5.48	97.12	102.60
26	BB	2352	A	P-O3'-C3'	5.48	128.42	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2501	C	C1'-C2'-O2'	5.48	116.62	108.40
26	BB	2531	A	P-O3'-C3'	5.48	128.42	120.20
26	BB	2748	A	C1'-C2'-O2'	-5.48	100.18	108.40
26	BB	2777	G	P-O5'-C5'	5.48	129.12	120.90
29	BE	17	GLU	CA-C-O	5.48	126.34	120.20
33	BI	66	ASN	N-CA-C	5.48	117.06	111.14
48	BX	82	TYR	CD1-CG-CD2	5.48	126.33	118.10
1	AA	1158	C	C1'-O4'-C4'	-5.48	104.42	109.90
26	BB	343	C	O4'-C1'-C2'	-5.48	102.12	107.60
26	BB	1023	U	O4'-C4'-C3'	5.48	109.48	104.00
26	BB	1392	A	C1'-O4'-C4'	-5.48	104.42	109.90
26	BB	1809	A	C4'-C3'-C2'	-5.48	97.12	102.60
26	BB	1901	A	C5'-C4'-O4'	5.48	118.02	109.80
47	BW	45	GLN	CA-C-N	5.48	128.01	120.39
47	BW	45	GLN	C-N-CA	5.48	128.01	120.39
1	AA	445	G	C3'-C2'-O2'	5.48	118.92	110.70
1	AA	1160	G	C4'-C3'-C2'	-5.48	97.12	102.60
1	AA	1426	G	C4'-C3'-C2'	-5.48	97.12	102.60
26	BB	162	U	C5'-C4'-O4'	5.48	117.32	109.10
26	BB	2041	U	C1'-C2'-O2'	5.48	116.62	108.40
26	BB	2105	U	O3'-P-O5'	-5.48	95.78	104.00
26	BB	2739	U	C5'-C4'-O4'	5.48	118.02	109.80
50	BZ	17	ARG	N-CA-C	-5.48	103.88	111.28
1	AA	67	C	P-O3'-C3'	5.48	128.42	120.20
1	AA	552	U	O4'-C1'-N1	5.48	116.72	108.50
26	BB	223	A	O4'-C1'-N9	-5.48	100.28	108.50
26	BB	1283	G	C5'-C4'-C3'	-5.48	107.78	116.00
26	BB	1926	U	C4'-C3'-O3'	5.48	121.22	113.00
30	BF	119	ILE	N-CA-C	5.48	115.68	110.53
31	BG	150	GLY	N-CA-C	-5.48	105.26	112.82
31	BG	176	PHE	CA-C-O	5.48	127.53	121.56
39	BO	30	SER	CA-C-N	5.48	131.64	121.62
39	BO	30	SER	C-N-CA	5.48	131.64	121.62
1	AA	1335	U	O4'-C4'-C3'	5.48	109.48	104.00
1	AA	1344	C	C4'-C3'-O3'	-5.48	104.79	113.00
25	BA	64	G	O3'-P-O5'	5.48	112.21	104.00
1	AA	1187	G	C3'-C2'-O2'	5.47	118.91	110.70
26	BB	316	C	C3'-C2'-C1'	5.47	106.78	101.30
26	BB	499	U	O3'-P-O5'	5.47	112.21	104.00
26	BB	615	U	O5'-C5'-C4'	-5.47	103.49	111.70
26	BB	1628	G	C5'-C4'-C3'	-5.47	107.79	116.00
26	BB	2408	U	O4'-C4'-C3'	-5.47	98.53	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	BD	251	THR	CB-CA-C	5.47	121.18	110.67
49	BY	66	VAL	N-CA-C	5.47	116.32	108.93
50	BZ	49	ARG	NE-CZ-NH2	5.47	124.13	119.20
4	AD	72	C	C4'-C3'-C2'	-5.47	97.13	102.60
13	AM	32	THR	CA-C-N	5.47	132.44	121.22
13	AM	32	THR	C-N-CA	5.47	132.44	121.22
26	BB	2826	A	P-O3'-C3'	5.47	128.41	120.20
26	BB	544	C	P-O3'-C3'	5.47	128.41	120.20
26	BB	2555	U	O5'-C5'-C4'	5.47	119.71	111.50
26	BB	2863	C	O4'-C1'-C2'	-5.47	102.13	107.60
1	AA	47	C	C4'-C3'-O3'	5.47	117.60	109.40
1	AA	593	U	C5'-C4'-C3'	-5.47	107.80	116.00
6	AF	213	VAL	CA-C-N	5.47	127.61	120.28
6	AF	213	VAL	C-N-CA	5.47	127.61	120.28
26	BB	457	A	O4'-C1'-C2'	5.47	111.27	105.80
26	BB	1204	A	N9-C1'-C2'	-5.47	105.80	114.00
26	BB	1657	U	O3'-P-O5'	-5.47	95.80	104.00
26	BB	2401	U	C3'-C2'-C1'	5.47	106.77	101.30
28	BD	31	PRO	N-CA-C	5.47	121.04	113.98
39	BO	60	GLN	O-C-N	5.47	130.12	123.01
53	B2	30	HIS	CG-CD2-NE2	-5.47	101.73	107.20
1	AA	1176	A	P-O5'-C5'	5.47	129.10	120.90
1	AA	1234	C	C4'-C3'-C2'	-5.47	97.13	102.60
26	BB	2419	U	N1-C1'-C2'	-5.47	103.80	112.00
26	BB	31	C	C1'-O4'-C4'	-5.47	104.43	109.90
1	AA	756	C	C5'-C4'-O4'	5.46	118.00	109.80
1	AA	856	C	N1-C1'-C2'	-5.46	103.80	112.00
1	AA	907	A	C1'-O4'-C4'	-5.46	104.44	109.90
1	AA	922	G	P-O3'-C3'	5.46	128.40	120.20
1	AA	975	A	C5'-C4'-C3'	-5.46	107.80	116.00
1	AA	1417	G	C1'-O4'-C4'	-5.46	104.44	109.90
1	AA	1506	U	O4'-C1'-N1	5.46	116.70	108.50
4	AD	60	A	O4'-C1'-C2'	5.46	113.06	107.60
26	BB	2128	G	C5'-C4'-C3'	-5.46	107.81	116.00
33	BI	27	ARG	CA-C-N	5.46	129.85	120.72
33	BI	27	ARG	C-N-CA	5.46	129.85	120.72
35	BK	121	ILE	CA-C-N	5.46	127.87	120.44
35	BK	121	ILE	C-N-CA	5.46	127.87	120.44
26	BB	1367	A	O4'-C1'-C2'	-5.46	102.14	107.60
26	BB	1692	U	P-O3'-C3'	5.46	128.40	120.20
52	B1	24	LEU	N-CA-C	-5.46	106.12	112.89
1	AA	192	A	O3'-P-O5'	-5.46	95.81	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	825	A	C3'-C2'-C1'	5.46	106.76	101.30
1	AA	900	A	C4'-C3'-C2'	-5.46	97.14	102.60
1	AA	1284	C	O4'-C4'-C3'	-5.46	98.54	104.00
4	AD	75	C	C4'-C3'-O3'	-5.46	104.81	113.00
10	AJ	2	ARG	NE-CZ-NH1	5.46	126.96	121.50
26	BB	358	U	O4'-C4'-C3'	5.46	109.46	104.00
26	BB	574	A	O3'-P-O5'	-5.46	95.81	104.00
26	BB	1127	A	O5'-C5'-C4'	-5.46	103.31	111.50
26	BB	2053	G	C4'-C3'-C2'	-5.46	97.14	102.60
28	BD	204	LEU	CA-C-N	5.46	131.32	122.09
28	BD	204	LEU	C-N-CA	5.46	131.32	122.09
37	BM	76	VAL	CA-CB-CG1	5.46	119.68	110.40
1	AA	1316	G	O4'-C4'-C3'	5.46	109.46	104.00
26	BB	102	U	O4'-C1'-C2'	-5.46	100.34	105.80
26	BB	655	A	C4'-C3'-O3'	5.46	117.59	109.40
26	BB	1388	G	N9-C1'-C2'	-5.46	103.81	112.00
26	BB	1530	G	O4'-C1'-N9	5.46	116.69	108.50
26	BB	2064	C	O3'-P-O5'	5.46	112.19	104.00
1	AA	1102	A	C3'-C2'-C1'	5.46	106.76	101.30
1	AA	1533	C	C3'-C2'-C1'	5.46	106.76	101.30
16	AP	51	GLN	N-CA-C	-5.46	104.97	111.69
20	AT	27	PHE	N-CA-CB	5.46	118.30	110.06
26	BB	1819	A	N9-C1'-C2'	-5.46	105.81	114.00
26	BB	2811	G	O4'-C1'-C2'	-5.46	102.14	107.60
28	BD	247	TRP	NE1-CE2-CZ2	5.46	138.29	130.10
30	BF	71	GLY	CA-C-N	5.46	131.30	122.29
30	BF	71	GLY	C-N-CA	5.46	131.30	122.29
33	BI	38	PRO	CA-N-CD	-5.46	104.36	112.00
44	BT	42	ALA	CA-C-N	5.46	131.97	121.54
44	BT	42	ALA	C-N-CA	5.46	131.97	121.54
1	AA	168	G	C2'-C3'-O3'	5.46	121.88	113.70
1	AA	752	G	C1'-C2'-O2'	5.46	119.99	111.80
1	AA	1025	U	P-O5'-C5'	5.46	129.08	120.90
1	AA	1132	C	C4'-C3'-C2'	-5.46	97.14	102.60
1	AA	1240	U	C4'-C3'-C2'	-5.46	97.14	102.60
26	BB	1722	A	C3'-C2'-O2'	5.46	118.89	110.70
26	BB	1893	C	N1-C1'-C2'	-5.46	103.81	112.00
26	BB	1938	A	O4'-C1'-C2'	-5.46	100.34	105.80
26	BB	1978	A	C3'-C2'-O2'	5.46	118.88	110.70
50	BZ	40	GLU	CA-C-N	5.46	130.69	121.14
50	BZ	40	GLU	C-N-CA	5.46	130.69	121.14
6	AF	66	THR	CA-CB-CG2	5.46	119.77	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2845	U	N1-C1'-C2'	-5.46	103.82	112.00
1	AA	544	G	C4'-C3'-C2'	-5.45	97.15	102.60
1	AA	785	G	C4'-C3'-C2'	-5.45	97.15	102.60
12	AL	82	ILE	CA-C-O	-5.45	115.28	120.95
14	AN	30	ILE	CA-C-N	5.45	130.35	123.10
14	AN	30	ILE	C-N-CA	5.45	130.35	123.10
26	BB	106	C	C4'-C3'-C2'	-5.45	97.15	102.60
26	BB	1234	U	C3'-C2'-O2'	5.45	118.88	110.70
26	BB	1867	G	C1'-O4'-C4'	-5.45	104.45	109.90
38	BN	37	GLY	CA-C-N	5.45	128.34	120.38
38	BN	37	GLY	C-N-CA	5.45	128.34	120.38
1	AA	476	U	O5'-C5'-C4'	-5.45	103.32	111.50
1	AA	890	G	C4'-C3'-O3'	5.45	117.58	109.40
1	AA	909	A	O4'-C1'-N9	5.45	116.68	108.50
26	BB	187	G	O4'-C4'-C3'	5.45	109.45	104.00
26	BB	722	A	O5'-C5'-C4'	-5.45	103.32	111.50
26	BB	1687	G	O4'-C4'-C3'	5.45	109.45	104.00
27	BC	176	GLY	O-C-N	-5.45	119.28	123.80
30	BF	117	ARG	NE-CZ-NH1	5.45	126.95	121.50
47	BW	16	LYS	N-CA-C	5.45	119.65	112.89
1	AA	523	A	C3'-C2'-C1'	5.45	106.75	101.30
1	AA	1327	C	O4'-C1'-C2'	-5.45	102.15	107.60
24	AX	56	ALA	O-C-N	5.45	127.68	122.07
53	B2	30	HIS	ND1-CG-CD2	5.45	111.55	106.10
1	AA	390	U	O4'-C1'-N1	5.45	116.67	108.50
1	AA	684	U	O4'-C1'-N1	5.45	116.67	108.50
26	BB	261	G	O4'-C1'-C2'	-5.45	102.15	107.60
26	BB	380	G	C5'-C4'-O4'	5.45	117.97	109.80
1	AA	577	G	O4'-C4'-C3'	5.45	109.45	104.00
19	AS	14	ARG	O-C-N	5.45	125.64	121.23
26	BB	372	G	C1'-O4'-C4'	5.45	115.15	109.70
1	AA	929	G	O4'-C4'-C3'	5.45	109.44	104.00
19	AS	76	LYS	CA-C-O	-5.45	113.95	120.10
26	BB	1558	C	O5'-C5'-C4'	-5.45	103.53	111.70
26	BB	2382	G	O3'-P-O5'	-5.45	95.83	104.00
28	BD	181	ARG	O-C-N	5.45	130.41	123.11
29	BE	167	ASN	CA-CB-CG	5.45	118.05	112.60
42	BR	55	HIS	CB-CG-CD2	-5.45	124.12	131.20
1	AA	799	G	O4'-C4'-C3'	5.44	109.44	104.00
25	BA	99	A	O4'-C1'-C2'	-5.44	102.16	107.60
26	BB	1693	U	C2'-C3'-O3'	5.44	117.67	109.50
1	AA	26	A	C4'-C3'-C2'	-5.44	97.16	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	412	A	C3'-C2'-O2'	5.44	118.86	110.70
1	AA	1114	C	O4'-C1'-C2'	5.44	113.04	107.60
1	AA	1542	A	C1'-O4'-C4'	-5.44	104.46	109.90
3	AC	33	A	O4'-C4'-C3'	5.44	109.44	104.00
26	BB	1508	A	C5'-C4'-C3'	-5.44	107.84	116.00
26	BB	1775	U	O5'-C5'-C4'	5.44	119.66	111.50
26	BB	1936	A	C1'-C2'-O2'	5.44	119.96	111.80
28	BD	39	SER	CB-CA-C	5.44	119.37	110.17
40	BP	68	ALA	CA-C-O	5.44	126.28	120.24
1	AA	492	C	O4'-C1'-C2'	-5.44	102.16	107.60
1	AA	1443	C	C3'-C2'-O2'	5.44	118.86	110.70
1	AA	1496	C	O4'-C1'-N1	5.44	116.66	108.50
3	AC	34	U	C5'-C4'-C3'	-5.44	107.84	116.00
26	BB	1950	G	P-O5'-C5'	5.44	129.06	120.90
26	BB	2115	G	C2'-C3'-O3'	-5.44	105.54	113.70
26	BB	2838	G	C3'-C2'-C1'	5.44	106.74	101.30
1	AA	1448	C	N1-C1'-C2'	5.44	120.16	112.00
26	BB	2247	A	O4'-C1'-C2'	-5.44	102.16	107.60
1	AA	537	G	N9-C1'-C2'	-5.44	103.84	112.00
1	AA	1246	A	C5'-C4'-C3'	-5.44	107.84	116.00
9	AI	83	ALA	CA-C-O	-5.44	115.11	120.82
26	BB	371	A	O5'-C5'-C4'	5.44	119.86	111.70
26	BB	2771	C	C2'-C3'-O3'	5.44	121.86	113.70
26	BB	2844	G	C5'-C4'-C3'	-5.44	107.84	116.00
27	BC	185	LEU	O-C-N	5.44	127.67	122.07
38	BN	85	VAL	CA-C-O	-5.44	115.01	121.05
2	AB	18	G	O4'-C4'-C3'	5.44	109.44	104.00
26	BB	625	G	O4'-C4'-C3'	5.44	109.44	104.00
6	AF	96	VAL	CA-CB-CG2	5.43	119.64	110.40
26	BB	117	G	O4'-C1'-C2'	-5.43	102.17	107.60
26	BB	156	A	C1'-O4'-C4'	-5.43	104.47	109.90
26	BB	242	G	O4'-C1'-N9	5.43	116.35	108.20
26	BB	604	G	C5'-C4'-O4'	5.43	117.95	109.80
26	BB	830	G	O5'-C5'-C4'	5.43	119.85	111.70
26	BB	964	C	O4'-C4'-C3'	5.43	109.43	104.00
26	BB	1275	A	O4'-C1'-N9	5.43	116.65	108.50
26	BB	1459	G	O4'-C1'-C2'	-5.43	102.17	107.60
26	BB	2517	C	O3'-P-O5'	-5.43	95.85	104.00
40	BP	119	SER	CA-C-N	5.43	129.60	121.72
40	BP	119	SER	C-N-CA	5.43	129.60	121.72
1	AA	53	A	C5'-C4'-O4'	5.43	117.95	109.80
26	BB	266	G	C4'-C3'-C2'	-5.43	97.17	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1723	G	N9-C1'-C2'	-5.43	103.85	112.00
26	BB	2206	C	O4'-C1'-N1	5.43	116.65	108.50
4	AD	15	G	O4'-C4'-C3'	5.43	109.43	104.00
26	BB	620	G	O4'-C4'-C3'	5.43	111.53	106.10
26	BB	924	G	C5'-C4'-C3'	-5.43	107.85	116.00
26	BB	1482	G	O4'-C4'-C3'	5.43	109.43	104.00
30	BF	146	VAL	CA-C-N	5.43	130.08	121.99
30	BF	146	VAL	C-N-CA	5.43	130.08	121.99
50	BZ	27	ARG	NE-CZ-NH2	5.43	124.09	119.20
1	AA	737	C	C3'-C2'-C1'	5.43	106.73	101.30
6	AF	5	HIS	ND1-CG-CD2	5.43	111.53	106.10
14	AN	58	THR	CA-C-O	5.43	125.87	120.28
16	AP	9	PRO	N-CD-CG	5.43	111.34	103.20
26	BB	1840	G	P-O3'-C3'	5.43	128.34	120.20
26	BB	2382	G	O4'-C1'-N9	5.43	116.34	108.20
26	BB	2796	U	O4'-C1'-C2'	-5.43	102.17	107.60
26	BB	2822	G	C2'-C3'-O3'	-5.43	105.56	113.70
38	BN	127	VAL	CB-CA-C	5.43	120.10	110.71
6	AF	138	GLN	CB-CA-C	5.43	119.40	110.88
26	BB	2835	A	O4'-C4'-C3'	-5.43	100.67	106.10
1	AA	395	C	O4'-C4'-C3'	-5.43	98.57	104.00
1	AA	702	A	O3'-P-O5'	5.43	112.14	104.00
1	AA	785	G	C4'-C3'-O3'	5.43	121.14	113.00
26	BB	210	C	C5'-C4'-O4'	5.43	117.94	109.80
26	BB	848	C	C5'-C4'-O4'	5.43	117.94	109.80
26	BB	877	A	C4'-C3'-C2'	-5.43	97.17	102.60
26	BB	1566	A	O4'-C1'-N9	5.43	116.34	108.20
34	BJ	129	PRO	N-CA-CB	5.43	108.95	103.25
44	BT	53	PHE	CA-C-N	5.43	131.74	121.97
44	BT	53	PHE	C-N-CA	5.43	131.74	121.97
1	AA	38	G	C3'-C2'-O2'	5.42	118.84	110.70
1	AA	447	G	O4'-C4'-C3'	5.42	109.42	104.00
1	AA	1404	C	C3'-C2'-C1'	-5.42	95.88	101.30
7	AG	137	SER	CA-C-N	5.42	125.43	119.90
7	AG	137	SER	C-N-CA	5.42	125.43	119.90
21	AU	10	CYS	CA-C-N	5.42	131.90	121.54
21	AU	10	CYS	C-N-CA	5.42	131.90	121.54
26	BB	630	G	C3'-C2'-C1'	-5.42	95.88	101.30
26	BB	1107	G	O4'-C4'-C3'	5.42	109.42	104.00
26	BB	1816	C	O4'-C1'-N1	5.42	116.34	108.20
26	BB	2058	A	O4'-C1'-C2'	-5.42	102.17	107.60
26	BB	2202	U	C2'-C3'-O3'	-5.42	105.56	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BC	110	ASN	O-C-N	5.42	128.57	122.22
28	BD	79	ARG	CA-CB-CG	5.42	124.95	114.10
44	BT	55	ASP	CA-CB-CG	-5.42	107.18	112.60
1	AA	265	G	C4'-C3'-C2'	-5.42	97.18	102.60
1	AA	447	G	C1'-C2'-O2'	-5.42	100.27	108.40
1	AA	1443	C	C4'-C3'-C2'	-5.42	97.18	102.60
19	AS	43	ALA	CA-C-O	-5.42	115.58	121.87
26	BB	2249	U	C4'-C3'-C2'	5.42	108.02	102.60
31	BG	43	ILE	CA-CB-CG1	5.42	119.62	110.40
35	BK	72	THR	CA-C-O	5.42	126.82	120.69
1	AA	209	U	C4'-C3'-O3'	-5.42	104.87	113.00
4	AD	3	C	C1'-O4'-C4'	5.42	115.32	109.90
15	AO	6	LEU	CD1-CG-CD2	-5.42	98.87	110.80
26	BB	567	U	O4'-C4'-C3'	5.42	109.42	104.00
26	BB	757	G	P-O5'-C5'	5.42	129.03	120.90
26	BB	1545	A	O5'-C5'-C4'	-5.42	103.37	111.50
26	BB	1627	G	C5'-C4'-O4'	5.42	117.93	109.80
26	BB	1635	A	C4'-C3'-C2'	-5.42	97.18	102.60
30	BF	29	HIS	CE1-NE2-CD2	-5.42	103.58	109.00
36	BL	10	THR	CA-C-O	-5.42	112.71	119.38
38	BN	117	THR	CA-CB-CG2	-5.42	101.28	110.50
41	BQ	12	THR	CA-C-N	5.42	127.49	120.44
41	BQ	12	THR	C-N-CA	5.42	127.49	120.44
1	AA	1426	G	C5'-C4'-C3'	-5.42	107.87	116.00
4	AD	65	G	C4'-C3'-C2'	-5.42	97.18	102.60
21	AU	59	LYS	CB-CA-C	5.42	119.46	110.90
26	BB	1032	A	C3'-C2'-C1'	5.42	106.72	101.30
26	BB	1742	U	C5'-C4'-C3'	-5.42	107.87	116.00
34	BJ	148	GLY	O-C-N	5.42	127.45	122.19
1	AA	309	A	C3'-C2'-O2'	5.42	118.83	110.70
1	AA	478	A	C3'-C2'-C1'	-5.42	95.88	101.30
10	AJ	137	ARG	CA-C-O	-5.42	115.13	120.82
14	AN	78	ILE	O-C-N	5.42	129.11	122.72
30	BF	90	GLN	OE1-CD-NE2	-5.42	117.18	122.60
1	AA	228	A	O4'-C1'-C2'	-5.42	102.18	107.60
1	AA	1044	A	C5'-C4'-C3'	-5.42	107.88	116.00
1	AA	1272	G	O4'-C1'-C2'	-5.42	102.18	107.60
26	BB	292	U	C4'-C3'-O3'	5.42	121.13	113.00
26	BB	427	U	C2'-C3'-O3'	5.42	121.82	113.70
26	BB	455	C	C2'-C3'-O3'	5.42	121.83	113.70
26	BB	1196	C	O4'-C1'-N1	5.42	116.62	108.50
26	BB	1450	G	C1'-O4'-C4'	-5.42	104.48	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2052	A	C3'-C2'-C1'	5.42	106.72	101.30
26	BB	2217	G	C1'-C2'-O2'	5.42	116.53	108.40
47	BW	10	VAL	N-CA-C	5.42	116.71	108.80
48	BX	24	ASN	CB-CA-C	5.42	119.42	111.73
1	AA	1059	C	C4'-C3'-O3'	5.42	121.12	113.00
43	BS	99	VAL	N-CA-C	-5.42	104.72	112.35
49	BY	44	PHE	CB-CA-C	-5.42	100.59	109.53
1	AA	816	A	C2'-C3'-O3'	5.41	117.62	109.50
26	BB	23	G	C4'-C3'-O3'	-5.41	104.88	113.00
26	BB	396	G	O4'-C1'-N9	5.41	116.62	108.50
26	BB	627	A	O4'-C1'-C2'	5.41	111.21	105.80
26	BB	1050	A	C4'-C3'-C2'	-5.41	97.19	102.60
26	BB	1124	G	C1'-O4'-C4'	-5.41	104.49	109.90
26	BB	1147	A	C1'-C2'-O2'	-5.41	100.28	108.40
26	BB	1922	G	O4'-C4'-C3'	-5.41	98.59	104.00
39	BO	64	TRP	NE1-CE2-CD2	-5.41	100.36	107.40
1	AA	843	U	O4'-C1'-N1	5.41	116.62	108.50
1	AA	1271	A	C4'-C3'-O3'	5.41	121.12	113.00
26	BB	1176	U	C1'-C2'-O2'	5.41	116.52	108.40
26	BB	1355	G	C5'-C4'-O4'	5.41	117.92	109.80
26	BB	1796	U	C1'-C2'-O2'	5.41	116.52	108.40
1	AA	968	A	C3'-C2'-O2'	-5.41	106.48	114.60
1	AA	972	C	O4'-C1'-N1	5.41	116.62	108.50
1	AA	1485	U	C4'-C3'-O3'	-5.41	104.88	113.00
25	BA	26	C	O3'-P-O5'	-5.41	95.89	104.00
26	BB	1222	U	O4'-C1'-C2'	-5.41	102.19	107.60
26	BB	2697	G	C3'-C2'-O2'	5.41	118.81	110.70
32	BH	73	SER	CA-C-N	5.41	127.97	120.29
32	BH	73	SER	C-N-CA	5.41	127.97	120.29
32	BH	90	GLY	O-C-N	-5.41	115.67	122.70
36	BL	27	ARG	CA-C-O	5.41	126.17	119.79
1	AA	682	G	C4'-C3'-C2'	-5.41	97.19	102.60
1	AA	768	A	C4'-C3'-C2'	5.41	108.01	102.60
26	BB	312	G	C5'-C4'-C3'	5.41	124.11	116.00
26	BB	1659	G	O4'-C1'-N9	5.41	116.61	108.50
26	BB	2125	G	C4'-C3'-C2'	5.41	108.01	102.60
28	BD	226	PRO	CA-N-CD	-5.41	104.43	112.00
1	AA	1332	A	N9-C1'-C2'	-5.41	103.89	112.00
26	BB	125	A	O4'-C1'-N9	5.41	116.31	108.20
26	BB	2014	A	O5'-C5'-C4'	-5.41	103.39	111.50
47	BW	60	LYS	CB-CA-C	5.41	119.49	109.70
1	AA	434	U	C3'-C2'-C1'	5.41	106.71	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1059	C	C3'-C2'-C1'	5.41	106.71	101.30
5	AE	40	ILE	CA-C-O	-5.41	116.02	121.59
26	BB	87	U	C1'-O4'-C4'	5.41	115.31	109.90
26	BB	341	C	C4'-C3'-C2'	-5.41	97.19	102.60
26	BB	620	G	O4'-C1'-N9	5.41	116.31	108.20
26	BB	1077	A	O4'-C1'-N9	5.41	116.61	108.50
26	BB	2322	A	O4'-C4'-C3'	5.41	109.41	104.00
26	BB	2793	C	O4'-C1'-N1	5.41	116.61	108.50
26	BB	2879	A	O3'-P-O5'	-5.41	95.89	104.00
56	B5	12	ARG	NE-CZ-NH2	5.41	124.06	119.20
1	AA	475	C	C5'-C4'-C3'	-5.40	107.89	116.00
1	AA	1011	C	C3'-C2'-C1'	5.40	106.70	101.30
1	AA	1092	A	C4'-C3'-O3'	-5.40	104.89	113.00
12	AL	33	SER	O-C-N	5.40	128.95	122.79
1	AA	342	C	C4'-C3'-C2'	-5.40	97.20	102.60
1	AA	893	C	C3'-C2'-O2'	5.40	118.80	110.70
1	AA	1503	A	C3'-C2'-O2'	-5.40	106.50	114.60
10	AJ	92	PRO	N-CA-CB	5.40	109.42	103.26
16	AP	101	THR	CA-CB-CG2	5.40	119.68	110.50
17	AQ	56	PRO	N-CA-CB	5.40	109.35	103.30
19	AS	55	ASP	CA-C-N	5.40	129.73	120.71
19	AS	55	ASP	C-N-CA	5.40	129.73	120.71
26	BB	938	G	C5'-C4'-C3'	-5.40	107.89	116.00
26	BB	1494	A	C5'-C4'-C3'	-5.40	107.90	116.00
26	BB	1589	U	C3'-C2'-C1'	5.40	106.70	101.30
26	BB	1699	G	C3'-C2'-O2'	-5.40	106.50	114.60
26	BB	2640	G	C5'-C4'-O4'	5.40	117.90	109.80
26	BB	2748	A	C4'-C3'-O3'	-5.40	104.89	113.00
26	BB	2904	U	O4'-C4'-C3'	5.40	109.40	104.00
27	BC	196	LEU	CA-C-N	5.40	127.96	120.29
27	BC	196	LEU	C-N-CA	5.40	127.96	120.29
29	BE	149	ASN	CA-CB-CG	5.40	118.00	112.60
34	BJ	39	GLU	O-C-N	-5.40	115.19	122.43
45	BU	88	ARG	NE-CZ-NH2	5.40	124.06	119.20
1	AA	398	U	C3'-C2'-C1'	5.40	106.70	101.30
1	AA	640	A	O3'-P-O5'	-5.40	95.90	104.00
1	AA	1158	C	O3'-P-O5'	-5.40	95.90	104.00
26	BB	44	A	O4'-C4'-C3'	5.40	109.40	104.00
26	BB	196	A	O5'-C5'-C4'	-5.40	103.60	111.70
26	BB	534	U	C5'-C4'-C3'	-5.40	107.90	116.00
26	BB	566	U	C1'-C2'-O2'	-5.40	100.30	108.40
26	BB	1583	A	P-O5'-C5'	-5.40	112.80	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2109	U	C5'-C4'-C3'	-5.40	107.90	116.00
26	BB	2155	U	O5'-C5'-C4'	-5.40	103.40	111.50
28	BD	206	LYS	CA-C-N	5.40	128.06	120.28
28	BD	206	LYS	C-N-CA	5.40	128.06	120.28
41	BQ	18	LEU	O-C-N	5.40	129.57	122.33
45	BU	71	VAL	CA-C-N	5.40	127.96	120.29
45	BU	71	VAL	C-N-CA	5.40	127.96	120.29
26	BB	1033	U	O4'-C1'-N1	5.40	116.30	108.20
26	BB	2066	C	C5'-C4'-C3'	-5.40	107.90	116.00
53	B2	68	GLY	CA-C-N	5.40	131.30	122.07
53	B2	68	GLY	C-N-CA	5.40	131.30	122.07
1	AA	329	A	C3'-C2'-C1'	-5.40	96.10	101.50
1	AA	485	U	C1'-C2'-O2'	5.40	119.90	111.80
1	AA	797	C	C4'-C3'-C2'	-5.40	97.20	102.60
1	AA	1227	A	O4'-C1'-N9	5.40	116.30	108.20
1	AA	1418	A	C3'-C2'-C1'	5.40	106.70	101.30
26	BB	191	A	O3'-P-O5'	5.40	112.10	104.00
26	BB	573	U	O3'-P-O5'	-5.40	95.90	104.00
26	BB	691	C	C4'-C3'-C2'	-5.40	97.20	102.60
26	BB	1437	C	O4'-C1'-C2'	-5.40	102.20	107.60
26	BB	2558	C	C5'-C4'-O4'	5.40	117.89	109.80
26	BB	2904	U	C4'-C3'-C2'	-5.40	97.20	102.60
32	BH	168	VAL	CA-C-N	5.40	130.71	122.29
32	BH	168	VAL	C-N-CA	5.40	130.71	122.29
38	BN	46	VAL	O-C-N	5.40	128.53	122.75
41	BQ	111	ARG	CA-C-N	5.40	127.96	120.29
41	BQ	111	ARG	C-N-CA	5.40	127.96	120.29
43	BS	16	ILE	CA-CB-CG2	5.40	119.67	110.50
49	BY	2	HIS	CA-CB-CG	-5.40	108.40	113.80
1	AA	343	U	C4'-C3'-C2'	-5.40	97.20	102.60
7	AG	167	PRO	CA-C-O	-5.40	115.30	121.56
22	AV	54	ARG	NE-CZ-NH2	-5.40	114.34	119.20
25	BA	53	A	N9-C1'-C2'	-5.40	103.91	112.00
26	BB	1386	C	O4'-C1'-N1	5.40	116.59	108.50
26	BB	2356	U	O4'-C1'-N1	5.40	116.59	108.50
26	BB	2635	A	O5'-C5'-C4'	5.40	119.59	111.50
26	BB	2751	G	N9-C1'-C2'	5.40	122.09	114.00
42	BR	46	VAL	N-CA-CB	5.40	117.15	111.00
1	AA	809	G	C4'-C3'-C2'	-5.39	97.20	102.60
1	AA	1139	G	O4'-C4'-C3'	5.39	111.49	106.10
1	AA	1363	A	O4'-C1'-C2'	-5.39	100.41	105.80
26	BB	133	U	C1'-C2'-O2'	-5.39	100.31	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	169	G	C1'-O4'-C4'	5.39	115.30	109.90
28	BD	18	VAL	CA-CB-CG1	5.39	119.57	110.40
34	BJ	49	VAL	CA-C-N	5.39	130.75	122.93
34	BJ	49	VAL	C-N-CA	5.39	130.75	122.93
37	BM	61	VAL	O-C-N	5.39	129.12	123.02
43	BS	71	ASN	CA-C-N	5.39	131.24	120.77
43	BS	71	ASN	C-N-CA	5.39	131.24	120.77
47	BW	45	GLN	OE1-CD-NE2	5.39	128.00	122.60
1	AA	443	C	O4'-C1'-N1	5.39	116.59	108.50
1	AA	544	G	O3'-P-O5'	5.39	112.09	104.00
3	AC	36	U	C3'-C2'-O2'	5.39	118.79	110.70
26	BB	42	A	C4'-C3'-C2'	-5.39	97.21	102.60
26	BB	249	C	C1'-O4'-C4'	-5.39	104.31	109.70
26	BB	1250	G	C4'-C3'-C2'	5.39	107.99	102.60
26	BB	1294	U	O4'-C4'-C3'	-5.39	98.61	104.00
26	BB	1597	A	C5'-C4'-C3'	-5.39	107.91	116.00
28	BD	161	VAL	CA-C-N	5.39	128.50	120.95
28	BD	161	VAL	C-N-CA	5.39	128.50	120.95
32	BH	14	VAL	CB-CA-C	5.39	117.48	110.96
34	BJ	26	VAL	N-CA-C	5.39	115.62	107.75
49	BY	55	ASP	CA-CB-CG	5.39	117.99	112.60
1	AA	523	A	O4'-C4'-C3'	5.39	109.39	104.00
1	AA	782	A	P-O3'-C3'	5.39	128.29	120.20
1	AA	1023	U	P-O5'-C5'	5.39	128.99	120.90
6	AF	83	VAL	CA-CB-CG1	5.39	119.56	110.40
26	BB	68	G	P-O3'-C3'	5.39	128.29	120.20
26	BB	336	C	O4'-C1'-N1	5.39	116.59	108.50
26	BB	337	C	O4'-C1'-C2'	-5.39	102.21	107.60
26	BB	1079	C	O5'-C5'-C4'	-5.39	103.41	111.50
26	BB	1256	G	P-O3'-C3'	5.39	128.29	120.20
26	BB	2836	U	O3'-P-O5'	-5.39	95.91	104.00
47	BW	89	GLY	CA-C-N	5.39	129.40	120.94
47	BW	89	GLY	C-N-CA	5.39	129.40	120.94
1	AA	902	G	O4'-C4'-C3'	-5.39	98.61	104.00
1	AA	1013	G	C3'-C2'-O2'	5.39	118.78	110.70
3	AC	40	G	C4'-C3'-C2'	-5.39	97.21	102.60
6	AF	5	HIS	ND1-CE1-NE2	5.39	113.79	108.40
25	BA	103	U	C1'-C2'-O2'	5.39	116.48	108.40
26	BB	1186	G	O4'-C4'-C3'	5.39	109.39	104.00
26	BB	1976	U	O4'-C1'-N1	5.39	116.58	108.50
26	BB	2346	A	O4'-C4'-C3'	5.39	111.49	106.10
40	BP	81	ASN	O-C-N	5.39	128.36	122.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	BU	81	SER	N-CA-C	5.39	119.01	109.96
1	AA	1104	G	C1'-O4'-C4'	-5.39	104.51	109.90
7	AG	164	ARG	CA-C-N	5.39	128.42	120.82
7	AG	164	ARG	C-N-CA	5.39	128.42	120.82
26	BB	201	C	O4'-C4'-C3'	5.39	109.39	104.00
26	BB	615	U	P-O3'-C3'	5.39	128.28	120.20
26	BB	992	C	C5'-C4'-O4'	5.39	117.88	109.80
26	BB	1111	A	C3'-C2'-O2'	-5.39	106.52	114.60
53	B2	61	ASN	OD1-CG-ND2	-5.39	117.21	122.60
1	AA	222	C	O4'-C1'-N1	5.39	116.58	108.50
1	AA	503	C	P-O5'-C5'	5.39	128.98	120.90
1	AA	1470	U	C4'-C3'-C2'	5.39	107.99	102.60
17	AQ	91	GLU	N-CA-C	-5.39	105.97	112.54
26	BB	301	G	C2'-C3'-O3'	5.39	117.58	109.50
26	BB	2158	A	O4'-C1'-N9	5.39	116.28	108.20
26	BB	2815	C	C4'-C3'-C2'	-5.39	97.21	102.60
36	BL	61	LYS	O-C-N	-5.39	115.84	122.25
1	AA	862	C	C5'-C4'-C3'	-5.38	107.92	116.00
1	AA	1408	A	N9-C1'-C2'	-5.38	103.92	112.00
6	AF	91	ALA	CA-C-N	5.38	127.50	120.28
6	AF	91	ALA	C-N-CA	5.38	127.50	120.28
15	AO	8	ARG	NH1-CZ-NH2	5.38	126.30	119.30
26	BB	1325	U	N1-C1'-C2'	5.38	120.08	112.00
26	BB	1896	G	C5'-C4'-C3'	5.38	124.08	116.00
26	BB	2643	G	C5'-C4'-O4'	5.38	117.88	109.80
26	BB	2802	G	C3'-C2'-O2'	5.38	118.78	110.70
28	BD	93	VAL	CA-C-N	5.38	131.82	121.54
28	BD	93	VAL	C-N-CA	5.38	131.82	121.54
26	BB	615	U	C1'-O4'-C4'	-5.38	104.32	109.70
28	BD	227	VAL	N-CA-C	5.38	116.16	110.72
1	AA	1335	U	C2'-C3'-O3'	-5.38	105.63	113.70
1	AA	1508	A	C3'-C2'-C1'	-5.38	95.92	101.30
4	AD	66	C	O4'-C4'-C3'	-5.38	98.62	104.00
17	AQ	25	GLU	CA-C-O	5.38	125.79	119.28
26	BB	359	G	C3'-C2'-O2'	5.38	118.77	110.70
26	BB	1994	C	O4'-C1'-N1	5.38	116.57	108.50
27	BC	50	ILE	CA-C-N	5.38	127.75	120.38
27	BC	50	ILE	C-N-CA	5.38	127.75	120.38
27	BC	215	SER	CA-CB-OG	-5.38	100.34	111.10
31	BG	110	ILE	CA-C-N	5.38	130.31	122.08
31	BG	110	ILE	C-N-CA	5.38	130.31	122.08
35	BK	110	GLN	N-CA-CB	-5.38	101.94	110.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	BS	43	GLN	CA-C-N	5.38	127.44	120.44
43	BS	43	GLN	C-N-CA	5.38	127.44	120.44
1	AA	114	U	O4'-C1'-C2'	-5.38	102.22	107.60
11	AK	19	ALA	N-CA-C	5.38	119.48	113.02
1	AA	375	U	C3'-C2'-C1'	5.38	106.68	101.30
1	AA	628	G	C1'-O4'-C4'	-5.38	104.52	109.90
11	AK	58	LEU	CD1-CG-CD2	-5.38	98.97	110.80
24	AX	8	ASN	N-CA-C	-5.38	101.68	109.59
26	BB	235	U	P-O5'-C5'	5.38	128.97	120.90
26	BB	344	A	N9-C1'-C2'	5.38	120.07	112.00
26	BB	920	A	C3'-C2'-O2'	-5.38	102.63	110.70
26	BB	2563	U	C4'-C3'-C2'	-5.38	97.22	102.60
1	AA	388	G	C1'-C2'-O2'	5.38	119.86	111.80
1	AA	1059	C	P-O3'-C3'	5.38	128.26	120.20
5	AE	31	PHE	CA-C-N	5.38	125.79	120.31
5	AE	31	PHE	C-N-CA	5.38	125.79	120.31
9	AI	118	ASN	CA-C-N	5.38	129.70	120.72
9	AI	118	ASN	C-N-CA	5.38	129.70	120.72
10	AJ	91	ARG	CA-C-O	-5.38	114.75	120.23
26	BB	218	A	O4'-C4'-C3'	5.38	111.48	106.10
26	BB	305	C	C1'-O4'-C4'	5.38	115.28	109.90
26	BB	490	C	O4'-C1'-N1	5.38	116.56	108.50
26	BB	1050	A	C3'-C2'-C1'	5.38	106.68	101.30
26	BB	1160	G	O4'-C4'-C3'	5.38	109.38	104.00
26	BB	1702	G	C4'-C3'-C2'	-5.38	97.22	102.60
26	BB	2352	A	C4'-C3'-C2'	-5.38	97.22	102.60
28	BD	155	ARG	CA-C-N	5.38	129.38	120.94
28	BD	155	ARG	C-N-CA	5.38	129.38	120.94
1	AA	236	A	C2'-C3'-O3'	-5.38	105.64	113.70
1	AA	1177	G	O4'-C4'-C3'	5.38	109.38	104.00
26	BB	561	G	O4'-C1'-N9	5.38	116.56	108.50
26	BB	1156	A	C1'-O4'-C4'	5.38	115.08	109.70
26	BB	1887	C	C1'-C2'-O2'	5.38	116.46	108.40
38	BN	9	ALA	O-C-N	-5.38	116.20	122.81
1	AA	1209	C	P-O3'-C3'	5.37	128.26	120.20
10	AJ	140	VAL	CA-C-O	-5.37	115.15	120.85
25	BA	77	U	O4'-C1'-C2'	-5.37	102.23	107.60
26	BB	254	G	C4'-C3'-O3'	-5.37	104.94	113.00
26	BB	2174	C	C4'-C3'-C2'	-5.37	97.23	102.60
27	BC	9	ARG	CA-C-N	5.37	127.82	120.46
27	BC	9	ARG	C-N-CA	5.37	127.82	120.46
1	AA	137	U	O4'-C1'-C2'	-5.37	102.23	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	842	U	C3'-C2'-C1'	5.37	106.87	101.50
1	AA	848	C	O4'-C1'-N1	5.37	116.56	108.50
14	AN	12	ARG	CA-C-O	-5.37	112.83	120.51
25	BA	13	G	C4'-C3'-O3'	5.37	121.06	113.00
26	BB	1171	G	P-O3'-C3'	5.37	128.26	120.20
26	BB	1174	U	C4'-C3'-C2'	-5.37	97.23	102.60
26	BB	1991	U	C5'-C4'-C3'	-5.37	107.94	116.00
44	BT	90	ARG	CD-NE-CZ	5.37	131.92	124.40
1	AA	994	A	C2'-C3'-O3'	5.37	121.75	113.70
11	AK	18	ALA	N-CA-CB	-5.37	102.23	110.12
25	BA	52	A	O4'-C1'-C2'	-5.37	102.23	107.60
26	BB	1632	A	C4'-C3'-O3'	5.37	121.06	113.00
26	BB	2513	A	O5'-C5'-C4'	-5.37	103.44	111.50
35	BK	54	ILE	CA-C-N	5.37	125.54	119.90
35	BK	54	ILE	C-N-CA	5.37	125.54	119.90
1	AA	71	A	O4'-C1'-N9	5.37	116.55	108.50
1	AA	291	U	O4'-C1'-N1	5.37	116.55	108.50
1	AA	389	A	C1'-O4'-C4'	-5.37	104.53	109.90
1	AA	863	U	N1-C1'-C2'	-5.37	103.95	112.00
1	AA	1289	A	O4'-C4'-C3'	-5.37	98.63	104.00
2	AB	60	U	O5'-C5'-C4'	5.37	119.75	111.70
22	AV	35	ARG	NH1-CZ-NH2	-5.37	112.32	119.30
26	BB	390	U	C1'-C2'-O2'	5.37	119.85	111.80
26	BB	1228	G	C5'-C4'-C3'	-5.37	107.95	116.00
26	BB	1305	C	C3'-C2'-O2'	5.37	118.75	110.70
26	BB	1931	U	O4'-C4'-C3'	5.37	109.37	104.00
26	BB	2475	C	C4'-C3'-O3'	-5.37	104.95	113.00
26	BB	2657	A	C1'-O4'-C4'	-5.37	104.53	109.90
26	BB	2820	A	C1'-O4'-C4'	5.37	115.27	109.90
28	BD	270	ARG	NH1-CZ-NH2	5.37	126.28	119.30
41	BQ	90	VAL	CA-C-O	-5.37	116.71	121.97
1	AA	93	U	C1'-O4'-C4'	5.37	115.27	109.90
1	AA	1454	G	O4'-C4'-C3'	-5.37	98.63	104.00
26	BB	321	U	O4'-C1'-C2'	-5.37	102.23	107.60
26	BB	558	U	P-O3'-C3'	5.37	128.25	120.20
26	BB	575	A	C2'-C3'-O3'	5.37	121.75	113.70
26	BB	2469	A	C5'-C4'-C3'	-5.37	107.95	116.00
1	AA	71	A	C3'-C2'-O2'	5.37	118.75	110.70
1	AA	605	U	O3'-P-O5'	-5.37	95.95	104.00
1	AA	1352	C	C5'-C4'-O4'	5.37	117.85	109.80
8	AH	3	ILE	CA-CB-CG1	5.37	119.52	110.40
26	BB	613	A	C2'-C3'-O3'	-5.37	101.45	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	700	G	O4'-C1'-N9	5.37	116.55	108.50
26	BB	762	U	O4'-C1'-N1	5.37	116.25	108.20
26	BB	1214	A	O5'-C5'-C4'	5.37	119.55	111.50
26	BB	1587	G	C4'-C3'-O3'	5.37	121.05	113.00
26	BB	2207	C	O4'-C1'-C2'	-5.37	102.23	107.60
26	BB	2565	A	P-O3'-C3'	5.37	128.25	120.20
52	B1	19	HIS	CA-C-N	5.37	127.41	120.44
52	B1	19	HIS	C-N-CA	5.37	127.41	120.44
1	AA	1083	U	O5'-C5'-C4'	-5.36	103.45	111.50
1	AA	1087	G	O3'-P-O5'	-5.36	95.96	104.00
1	AA	1215	G	O4'-C1'-N9	5.36	116.55	108.50
1	AA	1301	U	C3'-C2'-C1'	-5.36	96.14	101.50
4	AD	15	G	C3'-C2'-C1'	5.36	106.66	101.30
5	AE	142	LYS	CA-C-O	-5.36	114.86	120.55
26	BB	30	G	N9-C1'-C2'	-5.36	103.95	112.00
26	BB	355	U	N1-C1'-C2'	-5.36	103.95	112.00
26	BB	1137	G	O4'-C1'-C2'	-5.36	102.24	107.60
26	BB	1691	C	C3'-C2'-O2'	5.36	118.75	110.70
26	BB	2076	U	O4'-C1'-N1	5.36	116.24	108.20
26	BB	2587	A	C4'-C3'-C2'	-5.36	97.24	102.60
26	BB	2623	G	C3'-C2'-O2'	5.36	118.74	110.70
26	BB	2728	U	P-O3'-C3'	5.36	128.24	120.20
31	BG	159	ALA	CA-C-N	5.36	130.61	122.08
31	BG	159	ALA	C-N-CA	5.36	130.61	122.08
44	BT	72	VAL	CA-CB-CG2	5.36	119.52	110.40
26	BB	513	A	C3'-C2'-C1'	5.36	106.66	101.30
36	BL	73	VAL	CA-C-N	5.36	130.56	122.68
36	BL	73	VAL	C-N-CA	5.36	130.56	122.68
1	AA	73	C	O4'-C4'-C3'	-5.36	98.64	104.00
1	AA	1054	C	C5'-C4'-C3'	-5.36	107.16	115.20
1	AA	1300	G	N9-C1'-C2'	5.36	122.04	114.00
15	AO	102	ASP	N-CA-C	5.36	119.44	113.01
23	AW	73	ARG	CA-C-O	-5.36	115.19	120.82
25	BA	92	C	C5'-C4'-O4'	5.36	117.84	109.80
25	BA	103	U	O4'-C4'-C3'	5.36	109.36	104.00
26	BB	789	A	O4'-C1'-C2'	-5.36	100.44	105.80
26	BB	1214	A	C1'-C2'-O2'	5.36	116.44	108.40
26	BB	1578	U	C1'-O4'-C4'	-5.36	104.54	109.90
1	AA	532	A	C4'-C3'-C2'	-5.36	97.24	102.60
1	AA	606	G	C3'-C2'-C1'	-5.36	95.94	101.30
6	AF	148	ILE	CA-CB-CG2	5.36	119.61	110.50
19	AS	59	HIS	CE1-NE2-CD2	-5.36	103.64	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2013	A	O4'-C1'-C2'	-5.36	102.24	107.60
26	BB	2486	C	C1'-O4'-C4'	-5.36	104.54	109.90
36	BL	113	PRO	N-CA-C	5.36	122.46	113.78
1	AA	29	U	C3'-C2'-O2'	5.36	118.74	110.70
1	AA	150	U	P-O5'-C5'	5.36	128.94	120.90
1	AA	277	C	C1'-O4'-C4'	-5.36	104.54	109.90
1	AA	806	C	O4'-C4'-C3'	-5.36	98.64	104.00
1	AA	992	U	C5'-C4'-C3'	-5.36	107.16	115.20
1	AA	1394	A	N9-C1'-C2'	-5.36	105.97	114.00
1	AA	1511	G	O3'-P-O5'	-5.36	95.96	104.00
9	AI	94	HIS	CB-CG-ND1	5.36	130.74	122.70
26	BB	571	U	O3'-P-O5'	5.36	112.03	104.00
26	BB	1266	G	C2'-C3'-O3'	5.36	117.53	109.50
26	BB	1349	C	C5'-C4'-C3'	-5.36	107.96	116.00
26	BB	1405	U	C3'-C2'-C1'	5.36	106.66	101.30
26	BB	1673	G	O3'-P-O5'	5.36	112.04	104.00
26	BB	1971	U	O4'-C4'-C3'	5.36	109.36	104.00
26	BB	2113	U	C4'-C3'-C2'	-5.36	97.24	102.60
26	BB	2364	C	O4'-C1'-N1	5.36	116.54	108.50
28	BD	32	LEU	CA-C-N	5.36	129.90	122.77
28	BD	32	LEU	C-N-CA	5.36	129.90	122.77
34	BJ	52	ARG	NE-CZ-NH2	-5.36	114.38	119.20
1	AA	618	C	O5'-C5'-C4'	-5.36	103.47	111.50
1	AA	736	C	C1'-C2'-O2'	-5.36	100.37	108.40
1	AA	871	U	O4'-C1'-N1	5.36	116.23	108.20
24	AX	18	PHE	CA-C-O	5.36	126.01	119.05
29	BE	150	GLN	N-CA-CB	-5.36	101.97	110.22
31	BG	76	PHE	CA-C-O	-5.36	115.98	122.03
43	BS	15	LYS	CA-C-N	5.36	127.31	120.56
43	BS	15	LYS	C-N-CA	5.36	127.31	120.56
30	BF	186	VAL	CB-CA-C	5.35	118.63	111.19
52	B1	24	LEU	CA-C-O	-5.35	112.67	119.31
1	AA	1119	C	C1'-O4'-C4'	-5.35	104.55	109.90
6	AF	14	VAL	CA-CB-CG2	5.35	119.50	110.40
8	AH	119	VAL	CB-CA-C	5.35	119.58	112.46
22	AV	33	TRP	O-C-N	5.35	128.93	122.35
23	AW	18	LYS	CA-C-O	-5.35	114.88	120.55
26	BB	387	U	O4'-C1'-N1	5.35	116.23	108.20
26	BB	455	C	O3'-P-O5'	5.35	112.03	104.00
26	BB	2847	U	C5'-C4'-C3'	-5.35	107.97	116.00
1	AA	510	A	O5'-C5'-C4'	-5.35	103.47	111.50
1	AA	858	G	C3'-C2'-C1'	5.35	106.65	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	655	A	P-O3'-C3'	5.35	128.23	120.20
26	BB	1982	U	O4'-C4'-C3'	-5.35	98.65	104.00
26	BB	2591	C	C3'-C2'-O2'	-5.35	102.67	110.70
51	B0	60	LYS	CA-C-N	5.35	129.91	121.56
51	B0	60	LYS	C-N-CA	5.35	129.91	121.56
57	B6	1	PRO	CA-N-CD	-5.35	104.51	112.00
1	AA	442	G	C4'-C3'-C2'	-5.35	97.25	102.60
1	AA	909	A	P-O3'-C3'	5.35	128.22	120.20
1	AA	1512	U	C3'-C2'-O2'	5.35	118.72	110.70
4	AD	68	C	C3'-C2'-O2'	5.35	118.72	110.70
26	BB	88	G	O4'-C1'-N9	5.35	116.52	108.50
26	BB	900	A	O5'-C5'-C4'	-5.35	103.47	111.50
26	BB	1225	G	C2'-C3'-O3'	5.35	121.72	113.70
26	BB	1450	G	O4'-C4'-C3'	5.35	109.35	104.00
26	BB	1678	A	C5'-C4'-O4'	5.35	117.82	109.80
26	BB	1694	C	C4'-C3'-O3'	5.35	117.43	109.40
27	BC	225	ASP	N-CA-C	-5.35	105.36	111.14
39	BO	18	ARG	NE-CZ-NH1	-5.35	116.15	121.50
1	AA	239	U	C2'-C3'-O3'	5.35	121.72	113.70
1	AA	458	U	C2'-C3'-O3'	-5.35	105.68	113.70
1	AA	760	G	C3'-C2'-C1'	-5.35	95.95	101.30
1	AA	931	C	O5'-C5'-C4'	5.35	119.52	111.50
1	AA	1156	G	P-O5'-C5'	5.35	128.92	120.90
1	AA	1228	C	O4'-C1'-N1	5.35	116.52	108.50
2	AB	6	C	C4'-C3'-O3'	-5.35	104.98	113.00
3	AC	30	U	O4'-C1'-N1	5.35	116.22	108.20
3	AC	39	U	C4'-C3'-O3'	5.35	121.02	113.00
4	AD	61	U	O3'-P-O5'	-5.35	95.98	104.00
10	AJ	47	GLU	CB-CA-C	5.35	119.94	110.85
26	BB	1591	A	C4'-C3'-O3'	5.35	121.02	113.00
26	BB	2025	C	C5'-C4'-C3'	-5.35	107.98	116.00
26	BB	2873	A	O4'-C4'-C3'	5.35	111.45	106.10
27	BC	123	VAL	N-CA-C	5.35	116.12	110.72
44	BT	66	HIS	CB-CG-CD2	-5.35	124.25	131.20
45	BU	75	PHE	CA-C-N	5.35	130.41	122.71
45	BU	75	PHE	C-N-CA	5.35	130.41	122.71
26	BB	1385	A	C4'-C3'-O3'	5.35	117.42	109.40
26	BB	1676	A	C1'-C2'-O2'	-5.35	100.38	108.40
27	BC	71	ARG	NH1-CZ-NH2	-5.35	112.35	119.30
31	BG	7	TYR	CA-C-N	5.35	127.76	120.54
31	BG	7	TYR	C-N-CA	5.35	127.76	120.54
33	BI	18	GLN	CA-C-O	-5.35	114.60	120.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	BI	25	TYR	CA-C-N	5.35	129.28	121.31
33	BI	25	TYR	C-N-CA	5.35	129.28	121.31
42	BR	110	LYS	CA-C-N	5.35	128.44	120.90
42	BR	110	LYS	C-N-CA	5.35	128.44	120.90
1	AA	703	G	C1'-C2'-O2'	5.34	119.82	111.80
21	AU	59	LYS	CA-C-N	5.34	129.69	121.19
21	AU	59	LYS	C-N-CA	5.34	129.69	121.19
26	BB	1353	A	C5'-C4'-C3'	-5.34	107.98	116.00
26	BB	2062	A	O4'-C1'-N9	5.34	116.22	108.20
38	BN	114	GLY	N-CA-C	-5.34	108.25	115.36
41	BQ	101	GLY	CA-C-N	5.34	127.88	120.29
41	BQ	101	GLY	C-N-CA	5.34	127.88	120.29
46	BV	90	GLY	O-C-N	5.34	129.65	122.70
26	BB	540	C	C3'-C2'-C1'	5.34	106.64	101.30
26	BB	2250	G	C3'-C2'-O2'	-5.34	106.59	114.60
26	BB	2496	C	P-O3'-C3'	5.34	128.22	120.20
1	AA	339	C	O4'-C1'-N1	5.34	116.51	108.50
1	AA	386	C	O4'-C1'-N1	5.34	116.51	108.50
26	BB	1045	C	C1'-O4'-C4'	5.34	115.04	109.70
26	BB	1123	C	C1'-C2'-O2'	5.34	116.41	108.40
26	BB	1560	G	C5'-C4'-C3'	-5.34	107.99	116.00
26	BB	1862	G	O4'-C1'-N9	5.34	116.51	108.50
26	BB	1983	G	N9-C1'-C2'	-5.34	103.99	112.00
39	BO	94	ALA	O-C-N	5.34	129.31	123.27
1	AA	622	A	C2'-C3'-O3'	5.34	121.71	113.70
1	AA	1337	G	C5'-C4'-C3'	-5.34	107.99	116.00
11	AK	6	ILE	CA-C-O	-5.34	114.31	119.92
26	BB	944	C	O4'-C1'-N1	5.34	116.51	108.50
26	BB	1308	A	C5'-C4'-O4'	5.34	117.81	109.80
26	BB	1652	A	O4'-C4'-C3'	5.34	109.34	104.00
26	BB	2076	U	O4'-C4'-C3'	5.34	111.44	106.10
26	BB	2294	G	C3'-C2'-C1'	5.34	106.64	101.30
26	BB	2430	A	O4'-C1'-N9	-5.34	100.49	108.50
52	B1	40	THR	CA-CB-CG2	-5.34	101.42	110.50
37	BM	31	ARG	N-CA-C	-5.34	106.45	113.12
1	AA	91	U	C4'-C3'-C2'	-5.34	97.26	102.60
1	AA	756	C	C2'-C3'-O3'	-5.34	105.69	113.70
4	AD	4	G	O4'-C1'-C2'	-5.34	102.26	107.60
5	AE	206	ILE	CA-CB-CG1	5.34	119.47	110.40
28	BD	229	HIS	CA-CB-CG	5.34	119.14	113.80
1	AA	292	G	C3'-C2'-C1'	5.33	106.64	101.30
1	AA	1346	A	C3'-C2'-C1'	5.33	106.83	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1533	C	O4'-C1'-N1	5.33	116.50	108.50
26	BB	461	C	O5'-C5'-C4'	-5.33	103.50	111.50
26	BB	2706	A	C5'-C4'-C3'	5.33	124.00	116.00
38	BN	106	GLU	N-CA-C	-5.33	107.78	114.56
1	AA	471	U	O4'-C1'-N1	5.33	116.50	108.50
1	AA	983	A	C3'-C2'-C1'	5.33	106.63	101.30
1	AA	1312	G	O5'-C5'-C4'	5.33	119.50	111.50
9	AI	49	TYR	CB-CA-C	5.33	116.88	108.88
11	AK	31	LEU	O-C-N	-5.33	116.33	122.09
26	BB	115	C	O4'-C1'-N1	5.33	116.50	108.50
26	BB	306	U	C5'-C4'-O4'	5.33	117.80	109.80
26	BB	410	G	C3'-C2'-C1'	-5.33	95.97	101.30
26	BB	460	A	C3'-C2'-O2'	5.33	118.70	110.70
26	BB	2379	G	C1'-C2'-O2'	5.33	116.40	108.40
26	BB	2773	C	C3'-C2'-C1'	5.33	106.63	101.30
26	BB	2833	U	O4'-C1'-C2'	-5.33	100.47	105.80
29	BE	151	THR	CA-C-N	5.33	126.51	119.84
29	BE	151	THR	C-N-CA	5.33	126.51	119.84
38	BN	24	GLY	O-C-N	5.33	129.58	122.27
38	BN	81	ASP	CA-C-N	5.33	127.43	120.28
38	BN	81	ASP	C-N-CA	5.33	127.43	120.28
39	BO	113	ALA	CA-C-N	5.33	127.37	120.44
39	BO	113	ALA	C-N-CA	5.33	127.37	120.44
44	BT	51	VAL	N-CA-C	5.33	113.15	107.76
1	AA	1310	G	C4'-C3'-O3'	5.33	121.00	113.00
26	BB	446	G	O4'-C4'-C3'	-5.33	100.77	106.10
26	BB	1432	G	O4'-C1'-C2'	-5.33	102.27	107.60
29	BE	150	GLN	N-CA-C	5.33	117.84	111.71
50	BZ	10	ARG	NE-CZ-NH1	-5.33	116.17	121.50
1	AA	474	G	O4'-C1'-C2'	-5.33	102.27	107.60
7	AG	153	ARG	CA-C-N	5.33	127.38	120.56
7	AG	153	ARG	C-N-CA	5.33	127.38	120.56
16	AP	78	ARG	N-CA-C	5.33	117.51	111.11
26	BB	1814	G	C1'-O4'-C4'	5.33	115.23	109.90
26	BB	2621	G	O4'-C1'-C2'	5.33	112.93	107.60
27	BC	73	VAL	CB-CA-C	5.33	120.03	111.29
28	BD	145	MET	N-CA-CB	-5.33	102.27	110.16
33	BI	135	HIS	CA-C-O	-5.33	114.88	121.06
42	BR	54	LEU	N-CA-CB	-5.33	102.09	110.30
44	BT	48	LYS	O-C-N	-5.33	115.70	122.26
4	AD	19	G	C2'-C3'-O3'	5.33	117.49	109.50
5	AE	229	ALA	N-CA-C	5.33	117.09	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	69	THR	N-CA-C	5.33	117.08	109.14
25	BA	57	A	C3'-C2'-C1'	-5.33	95.97	101.30
26	BB	386	G	C2'-C3'-O3'	5.33	117.49	109.50
26	BB	443	A	C3'-C2'-O2'	-5.33	106.61	114.60
26	BB	1724	G	O4'-C1'-N9	5.33	116.49	108.50
26	BB	2424	C	O4'-C4'-C3'	5.33	109.33	104.00
1	AA	1187	G	C2'-C3'-O3'	-5.33	105.71	113.70
26	BB	151	C	C3'-C2'-C1'	5.33	106.63	101.30
26	BB	278	A	C1'-C2'-O2'	-5.33	100.41	108.40
1	AA	148	G	C1'-C2'-O2'	-5.33	100.41	108.40
1	AA	447	G	O4'-C1'-N9	5.33	116.49	108.50
1	AA	500	G	C1'-O4'-C4'	5.33	115.23	109.90
1	AA	734	G	C1'-O4'-C4'	5.33	115.22	109.90
26	BB	27	G	C4'-C3'-C2'	-5.33	97.28	102.60
26	BB	1199	U	P-O5'-C5'	5.33	128.89	120.90
26	BB	1444	G	C2'-C3'-O3'	-5.33	105.71	113.70
26	BB	1938	A	O5'-C5'-C4'	-5.33	103.71	111.70
26	BB	2320	U	C1'-C2'-O2'	5.33	116.39	108.40
1	AA	116	A	C4'-C3'-C2'	-5.32	97.28	102.60
1	AA	647	C	C1'-O4'-C4'	-5.32	104.58	109.90
1	AA	850	U	O3'-P-O5'	-5.32	96.02	104.00
1	AA	1016	A	C5'-C4'-C3'	5.32	123.98	116.00
1	AA	1331	G	C5'-C4'-C3'	5.32	123.99	116.00
1	AA	1527	U	O4'-C4'-C3'	-5.32	98.68	104.00
3	AC	16	A	C3'-C2'-O2'	-5.32	106.61	114.60
26	BB	78	U	O4'-C4'-C3'	5.32	109.32	104.00
26	BB	173	A	C1'-O4'-C4'	5.32	115.22	109.90
26	BB	536	G	N9-C1'-C2'	-5.32	104.02	112.00
26	BB	1051	G	N9-C1'-C2'	5.32	119.99	112.00
26	BB	1539	U	O3'-P-O5'	5.32	111.98	104.00
26	BB	1804	C	O3'-P-O5'	-5.32	96.02	104.00
26	BB	2496	C	O4'-C1'-N1	5.32	116.48	108.50
43	BS	11	ALA	N-CA-CB	-5.32	102.10	110.30
57	B6	27	ASN	CB-CA-C	5.32	119.92	111.51
25	BA	101	A	C3'-C2'-C1'	5.32	106.62	101.30
26	BB	155	A	P-O5'-C5'	5.32	128.88	120.90
26	BB	1448	G	C4'-C3'-C2'	5.32	107.92	102.60
26	BB	2117	A	C3'-C2'-C1'	5.32	106.62	101.30
57	B6	41	ARG	NE-CZ-NH2	5.32	123.99	119.20
1	AA	1360	A	C1'-O4'-C4'	-5.32	104.58	109.90
1	AA	1539	C	C3'-C2'-C1'	5.32	106.62	101.30
2	AB	24	G	C5'-C4'-O4'	5.32	117.78	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	62	C	O4'-C1'-N1	5.32	116.48	108.50
13	AM	55	PRO	N-CD-CG	5.32	111.18	103.20
26	BB	11	C	O3'-P-O5'	5.32	111.98	104.00
26	BB	815	C	C5'-C4'-C3'	-5.32	108.02	116.00
26	BB	1201	U	O4'-C4'-C3'	5.32	109.32	104.00
26	BB	1594	U	C3'-C2'-C1'	5.32	106.62	101.30
26	BB	2286	G	C3'-C2'-C1'	5.32	106.82	101.50
26	BB	2516	A	O5'-C5'-C4'	5.32	119.48	111.50
30	BF	92	HIS	CA-C-N	5.32	128.40	120.90
30	BF	92	HIS	C-N-CA	5.32	128.40	120.90
1	AA	898	G	O3'-P-O5'	-5.32	96.02	104.00
11	AK	73	SER	CA-C-O	-5.32	115.04	120.89
26	BB	1973	G	O4'-C4'-C3'	-5.32	98.68	104.00
26	BB	2250	G	P-O5'-C5'	5.32	128.88	120.90
26	BB	2569	G	O4'-C1'-C2'	-5.32	102.28	107.60
26	BB	2757	A	O4'-C4'-C3'	5.32	109.32	104.00
1	AA	710	G	C5'-C4'-C3'	-5.32	108.02	116.00
1	AA	788	U	C4'-C3'-C2'	-5.32	97.28	102.60
1	AA	1059	C	C5'-C4'-C3'	-5.32	108.02	116.00
1	AA	1217	C	O4'-C1'-N1	5.32	116.48	108.50
1	AA	1311	A	C3'-C2'-C1'	5.32	106.62	101.30
18	AR	7	THR	O-C-N	-5.32	116.48	122.12
21	AU	53	GLN	CB-CG-CD	-5.32	103.56	112.60
26	BB	450	G	C4'-C3'-C2'	-5.32	97.28	102.60
26	BB	1005	C	O4'-C4'-C3'	5.32	109.32	104.00
26	BB	1629	U	O4'-C1'-C2'	-5.32	102.28	107.60
26	BB	2091	C	C4'-C3'-O3'	5.32	120.98	113.00
42	BR	4	ILE	CA-C-O	-5.32	114.98	121.04
1	AA	437	U	O4'-C4'-C3'	5.32	109.32	104.00
1	AA	448	A	O5'-C5'-C4'	5.32	119.47	111.50
26	BB	1360	G	N9-C1'-C2'	-5.32	104.03	112.00
26	BB	1418	G	C1'-C2'-O2'	5.32	116.37	108.40
26	BB	2789	C	N1-C1'-C2'	-5.32	104.03	112.00
35	BK	124	MET	CA-C-O	-5.32	115.24	120.82
40	BP	53	THR	CA-C-N	5.32	127.66	120.38
40	BP	53	THR	C-N-CA	5.32	127.66	120.38
1	AA	1327	C	O4'-C1'-N1	5.31	116.47	108.50
25	BA	11	C	O4'-C4'-C3'	-5.31	98.69	104.00
26	BB	119	A	O4'-C1'-N9	5.31	116.17	108.20
1	AA	511	C	C3'-C2'-C1'	-5.31	96.19	101.50
4	AD	50	G	O4'-C1'-N9	5.31	116.47	108.50
23	AW	14	GLU	CA-C-N	5.31	127.83	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	AW	14	GLU	C-N-CA	5.31	127.83	120.29
26	BB	45	G	C4'-C3'-O3'	5.31	120.97	113.00
26	BB	227	A	P-O3'-C3'	5.31	128.17	120.20
26	BB	684	G	O4'-C1'-N9	5.31	116.47	108.50
26	BB	777	G	C5'-C4'-C3'	5.31	123.97	116.00
26	BB	2514	U	P-O3'-C3'	5.31	128.17	120.20
9	AI	37	HIS	ND1-CE1-NE2	5.31	113.71	108.40
26	BB	2591	C	O5'-C5'-C4'	-5.31	103.53	111.50
31	BG	59	ILE	CB-CA-C	5.31	116.67	110.88
48	BX	55	GLU	CA-C-N	5.31	127.40	120.28
48	BX	55	GLU	C-N-CA	5.31	127.40	120.28
1	AA	28	A	C3'-C2'-C1'	-5.31	95.99	101.30
11	AK	72	GLU	CB-CG-CD	-5.31	103.58	112.60
22	AV	48	ILE	CA-CB-CG1	5.31	119.43	110.40
26	BB	233	A	C4'-C3'-C2'	-5.31	97.29	102.60
26	BB	330	A	C5'-C4'-C3'	-5.31	107.23	115.20
26	BB	482	A	O3'-P-O5'	-5.31	96.03	104.00
26	BB	842	U	O5'-C5'-C4'	5.31	119.47	111.50
26	BB	1396	U	C3'-C2'-C1'	-5.31	96.19	101.50
52	B1	9	THR	N-CA-CB	-5.31	101.86	110.14
1	AA	224	U	C3'-C2'-O2'	5.31	118.66	110.70
1	AA	1145	A	C4'-C3'-C2'	-5.31	97.29	102.60
2	AB	62	U	O5'-C5'-C4'	-5.31	103.54	111.50
7	AG	111	ALA	CA-C-N	5.31	127.34	120.44
7	AG	111	ALA	C-N-CA	5.31	127.34	120.44
26	BB	772	C	O4'-C1'-N1	5.31	116.46	108.50
26	BB	2697	G	C1'-O4'-C4'	-5.31	104.59	109.90
39	BO	108	VAL	CA-CB-CG2	5.31	119.42	110.40
43	BS	24	TYR	CA-C-N	5.31	131.81	121.41
43	BS	24	TYR	C-N-CA	5.31	131.81	121.41
50	BZ	70	LEU	CA-C-O	-5.31	114.79	120.42
41	BQ	115	LEU	CA-C-O	-5.31	116.27	122.37
1	AA	1307	U	O4'-C4'-C3'	5.30	109.31	104.00
13	AM	65	TYR	O-C-N	5.30	130.09	123.19
25	BA	116	G	C1'-O4'-C4'	-5.30	104.60	109.90
26	BB	198	C	C1'-O4'-C4'	5.30	115.20	109.90
26	BB	1107	G	C4'-C3'-C2'	-5.30	97.30	102.60
26	BB	1159	U	C3'-C2'-C1'	5.30	106.60	101.30
26	BB	1395	A	C1'-O4'-C4'	-5.30	104.40	109.70
26	BB	1569	A	O3'-P-O5'	5.30	111.96	104.00
26	BB	1929	G	O4'-C1'-N9	5.30	116.16	108.20
26	BB	1974	C	N1-C1'-C2'	-5.30	104.04	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2098	U	C4'-C3'-C2'	-5.30	97.30	102.60
26	BB	2822	G	O4'-C1'-N9	5.30	116.46	108.50
26	BB	1993	U	C3'-C2'-C1'	5.30	106.60	101.30
26	BB	2014	A	C3'-C2'-O2'	5.30	118.65	110.70
26	BB	2230	G	C1'-O4'-C4'	-5.30	104.60	109.90
26	BB	2315	G	O5'-C5'-C4'	-5.30	103.55	111.50
27	BC	224	VAL	CA-C-N	5.30	127.65	120.44
27	BC	224	VAL	C-N-CA	5.30	127.65	120.44
34	BJ	62	ALA	CA-C-O	-5.30	114.80	120.42
1	AA	1063	C	O4'-C4'-C3'	5.30	109.30	104.00
3	AC	59	A	C5'-C4'-C3'	-5.30	107.25	115.20
25	BA	46	A	O4'-C4'-C3'	5.30	109.30	104.00
26	BB	1327	A	C5'-C4'-C3'	-5.30	108.05	116.00
26	BB	1392	A	O5'-C5'-C4'	5.30	119.45	111.50
26	BB	2880	C	C3'-C2'-C1'	-5.30	96.00	101.30
27	BC	44	VAL	CA-C-N	5.30	129.47	122.42
27	BC	44	VAL	C-N-CA	5.30	129.47	122.42
29	BE	5	VAL	CA-C-N	5.30	127.52	122.27
29	BE	5	VAL	C-N-CA	5.30	127.52	122.27
37	BM	1	MET	O-C-N	5.30	131.48	123.00
39	BO	50	ARG	CA-CB-CG	-5.30	103.50	114.10
1	AA	957	U	P-O3'-C3'	5.30	128.15	120.20
12	AL	124	PRO	CB-CA-C	5.30	118.01	111.23
14	AN	34	THR	CA-C-N	5.30	129.26	120.94
14	AN	34	THR	C-N-CA	5.30	129.26	120.94
20	AT	44	HIS	CA-C-N	5.30	130.08	123.14
20	AT	44	HIS	C-N-CA	5.30	130.08	123.14
26	BB	756	A	O4'-C4'-C3'	5.30	109.30	104.00
26	BB	1552	A	O4'-C4'-C3'	-5.30	98.70	104.00
26	BB	2440	C	O4'-C1'-N1	5.30	116.45	108.50
30	BF	164	LEU	CB-CA-C	5.30	118.21	110.26
41	BQ	75	GLY	N-CA-C	-5.30	106.37	112.73
43	BS	85	ALA	CA-C-O	-5.30	115.93	121.55
1	AA	139	A	N9-C1'-C2'	-5.30	104.05	112.00
2	AB	45	U	C3'-C2'-C1'	5.30	106.60	101.30
26	BB	1502	A	C4'-C3'-C2'	-5.30	97.30	102.60
26	BB	1651	G	C5'-C4'-C3'	-5.30	108.05	116.00
26	BB	2520	C	C4'-C3'-C2'	-5.30	97.30	102.60
36	BL	130	HIS	CB-CG-ND1	5.30	130.65	122.70
37	BM	9	ASN	CA-C-N	5.30	127.60	120.50
37	BM	9	ASN	C-N-CA	5.30	127.60	120.50
1	AA	103	U	C4'-C3'-C2'	-5.30	97.30	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1334	G	O5'-C5'-C4'	5.30	119.44	111.50
1	AA	1400	C	C4'-C3'-C2'	-5.30	97.30	102.60
2	AB	75	C	P-O3'-C3'	5.30	128.14	120.20
6	AF	76	ILE	CB-CA-C	5.30	119.29	112.14
7	AG	11	SER	CA-C-N	5.30	128.36	120.31
7	AG	11	SER	C-N-CA	5.30	128.36	120.31
14	AN	5	ILE	CA-C-N	5.30	128.75	120.75
14	AN	5	ILE	C-N-CA	5.30	128.75	120.75
26	BB	79	C	C5'-C4'-C3'	-5.30	108.05	116.00
26	BB	160	A	C4'-C3'-O3'	-5.30	105.05	113.00
26	BB	603	A	C5'-C4'-O4'	-5.30	101.16	109.10
26	BB	1010	A	C5'-C4'-C3'	5.30	123.94	116.00
26	BB	2161	C	O4'-C1'-N1	5.30	116.45	108.50
26	BB	2451	A	O4'-C1'-N9	5.30	116.44	108.50
26	BB	2877	G	C5'-C4'-C3'	-5.30	108.05	116.00
1	AA	193	C	O4'-C1'-N1	5.29	116.44	108.50
1	AA	545	C	C2'-C3'-O3'	-5.29	105.76	113.70
2	AB	68	C	O3'-P-O5'	-5.29	96.06	104.00
11	AK	60	LEU	O-C-N	-5.29	116.73	123.24
13	AM	89	ARG	CA-C-O	-5.29	114.36	120.24
26	BB	1675	C	C4'-C3'-O3'	-5.29	101.46	109.40
26	BB	2294	G	C5'-C4'-C3'	-5.29	108.06	116.00
1	AA	69	G	P-O5'-C5'	5.29	128.84	120.90
12	AL	32	ARG	N-CA-CB	-5.29	102.86	111.22
12	AL	113	LYS	CB-CA-C	5.29	117.42	110.06
20	AT	39	ARG	NE-CZ-NH2	-5.29	114.44	119.20
26	BB	999	U	C4'-C3'-C2'	-5.29	97.31	102.60
26	BB	1437	C	C1'-O4'-C4'	5.29	115.19	109.90
26	BB	1498	C	C5'-C4'-C3'	-5.29	108.06	116.00
35	BK	128	ILE	CA-C-O	-5.29	113.49	119.42
43	BS	82	LEU	CD1-CG-CD2	-5.29	99.16	110.80
1	AA	466	A	C4'-C3'-O3'	5.29	120.94	113.00
1	AA	689	C	O4'-C1'-N1	5.29	116.44	108.50
26	BB	72	U	C3'-C2'-C1'	-5.29	96.21	101.50
26	BB	571	U	C1'-C2'-O2'	5.29	116.34	108.40
26	BB	1688	U	N1-C1'-C2'	-5.29	104.06	112.00
26	BB	1995	U	O3'-P-O5'	-5.29	96.06	104.00
26	BB	2690	U	N1-C1'-C2'	-5.29	106.06	114.00
41	BQ	78	VAL	CA-CB-CG2	5.29	119.39	110.40
1	AA	39	G	O4'-C4'-C3'	-5.29	98.71	104.00
1	AA	1327	C	C4'-C3'-C2'	-5.29	97.31	102.60
13	AM	55	PRO	O-C-N	5.29	127.89	122.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	900	A	C2'-C3'-O3'	5.29	121.64	113.70
26	BB	2004	G	O5'-C5'-C4'	5.29	119.44	111.50
1	AA	196	A	C5'-C4'-C3'	-5.29	108.07	116.00
1	AA	422	C	O4'-C1'-N1	5.29	116.13	108.20
1	AA	558	G	O4'-C4'-C3'	5.29	109.29	104.00
4	AD	23	G	C2'-C3'-O3'	-5.29	105.77	113.70
4	AD	72	C	O4'-C1'-C2'	-5.29	102.31	107.60
4	AD	74	A	O4'-C4'-C3'	5.29	109.29	104.00
8	AH	131	ASN	CB-CA-C	5.29	117.59	109.50
18	AR	26	VAL	CA-C-O	-5.29	114.76	120.47
23	AW	48	LYS	CA-C-N	5.29	127.37	120.28
23	AW	48	LYS	C-N-CA	5.29	127.37	120.28
26	BB	146	A	C1'-O4'-C4'	-5.29	104.61	109.90
26	BB	983	A	N9-C1'-C2'	5.29	119.93	112.00
26	BB	1164	C	C1'-O4'-C4'	-5.29	104.61	109.90
26	BB	2252	G	C1'-O4'-C4'	-5.29	104.41	109.70
29	BE	156	PHE	O-C-N	5.29	129.10	122.86
31	BG	137	PHE	CA-C-O	-5.29	113.66	121.27
33	BI	107	GLY	O-C-N	-5.29	115.62	122.34
43	BS	104	ALA	CA-C-N	5.29	131.64	121.54
43	BS	104	ALA	C-N-CA	5.29	131.64	121.54
1	AA	346	G	C4'-C3'-C2'	-5.29	97.31	102.60
1	AA	1343	G	C3'-C2'-C1'	5.29	106.59	101.30
1	AA	42	G	C1'-C2'-O2'	5.29	116.33	108.40
1	AA	199	A	C3'-C2'-C1'	5.29	106.58	101.30
13	AM	99	GLN	N-CA-C	5.29	117.34	108.73
20	AT	30	HIS	CA-C-N	5.29	125.09	119.28
20	AT	30	HIS	C-N-CA	5.29	125.09	119.28
22	AV	11	ASP	CA-C-N	5.29	127.36	120.28
22	AV	11	ASP	C-N-CA	5.29	127.36	120.28
26	BB	500	G	C5'-C4'-O4'	5.29	117.73	109.80
26	BB	717	C	C4'-C3'-C2'	-5.29	97.31	102.60
26	BB	1149	G	C4'-C3'-C2'	-5.29	97.31	102.60
26	BB	2343	U	C2'-C3'-O3'	5.29	121.63	113.70
26	BB	2475	C	O4'-C4'-C3'	5.29	109.29	104.00
26	BB	2516	A	P-O3'-C3'	5.29	128.13	120.20
26	BB	2520	C	C1'-C2'-O2'	5.29	116.33	108.40
27	BC	203	GLN	CB-CG-CD	5.29	121.59	112.60
34	BJ	115	GLU	CB-CA-C	5.29	118.25	109.53
57	B6	49	VAL	O-C-N	-5.29	117.17	122.62
1	AA	263	A	O4'-C4'-C3'	5.28	109.28	104.00
1	AA	1152	A	C3'-C2'-O2'	-5.28	102.77	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	40	C	O4'-C1'-C2'	-5.28	102.32	107.60
16	AP	15	VAL	N-CA-C	5.28	115.49	110.42
24	AX	1	PRO	N-CD-CG	5.28	111.13	103.20
26	BB	1027	A	N9-C1'-C2'	5.28	119.93	112.00
26	BB	1027	A	O4'-C1'-C2'	-5.28	102.32	107.60
26	BB	1238	G	C2'-C3'-O3'	-5.28	105.77	113.70
26	BB	1565	C	C4'-C3'-C2'	-5.28	97.32	102.60
26	BB	1888	G	O4'-C1'-C2'	-5.28	102.32	107.60
26	BB	2670	A	C5'-C4'-O4'	5.28	117.73	109.80
31	BG	94	ARG	NE-CZ-NH1	5.28	126.78	121.50
10	AJ	12	LEU	N-CA-C	-5.28	98.92	108.85
16	AP	43	LYS	CA-C-N	5.28	128.96	120.30
16	AP	43	LYS	C-N-CA	5.28	128.96	120.30
26	BB	1324	G	C4'-C3'-C2'	-5.28	97.32	102.60
26	BB	1719	G	C1'-O4'-C4'	-5.28	104.62	109.90
26	BB	1866	A	C3'-C2'-O2'	5.28	118.62	110.70
26	BB	2881	U	C5'-C4'-O4'	5.28	117.72	109.80
26	BB	2902	C	C4'-C3'-C2'	-5.28	97.32	102.60
28	BD	91	ALA	CA-C-O	-5.28	115.40	121.47
37	BM	2	ILE	CA-CB-CG1	5.28	119.38	110.40
1	AA	438	U	O4'-C1'-N1	5.28	116.12	108.20
1	AA	515	G	C5'-C4'-O4'	5.28	117.72	109.80
1	AA	528	C	C5'-C4'-O4'	5.28	117.72	109.80
1	AA	980	C	P-O3'-C3'	5.28	128.12	120.20
1	AA	1443	C	O4'-C4'-C3'	5.28	109.28	104.00
6	AF	161	ILE	O-C-N	-5.28	117.43	122.97
25	BA	111	U	C1'-O4'-C4'	-5.28	104.62	109.90
26	BB	1453	A	C1'-C2'-O2'	5.28	116.32	108.40
26	BB	1932	A	O4'-C4'-C3'	-5.28	98.72	104.00
26	BB	2061	G	C2'-C3'-O3'	5.28	117.42	109.50
26	BB	2431	U	C4'-C3'-C2'	-5.28	97.32	102.60
26	BB	2804	U	C5'-C4'-C3'	-5.28	108.08	116.00
1	AA	230	G	C1'-O4'-C4'	-5.28	104.62	109.90
1	AA	802	A	O4'-C1'-C2'	-5.28	102.32	107.60
32	BH	22	VAL	O-C-N	-5.28	116.92	122.83
56	B5	26	ASN	N-CA-C	5.28	117.78	111.71
1	AA	184	G	O4'-C1'-N9	5.28	116.42	108.50
26	BB	154	U	O4'-C1'-N1	5.28	116.42	108.50
26	BB	403	U	O4'-C1'-N1	5.28	116.42	108.50
26	BB	779	U	N1-C1'-C2'	5.28	119.92	112.00
26	BB	1776	G	C4'-C3'-O3'	-5.28	105.08	113.00
27	BC	111	PHE	CA-CB-CG	5.28	119.08	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	BE	92	VAL	N-CA-C	5.28	115.72	108.12
33	BI	86	ASP	CA-CB-CG	5.28	117.88	112.60
34	BJ	37	MET	N-CA-C	5.28	117.11	111.36
39	BO	132	THR	CA-C-N	5.28	127.35	120.28
39	BO	132	THR	C-N-CA	5.28	127.35	120.28
1	AA	54	C	C4'-C3'-C2'	-5.28	97.32	102.60
1	AA	629	A	C1'-O4'-C4'	-5.28	104.62	109.90
1	AA	648	A	O5'-C5'-C4'	-5.28	103.59	111.50
7	AG	166	LYS	O-C-N	-5.28	116.32	121.38
26	BB	1874	C	C4'-C3'-C2'	-5.28	97.32	102.60
26	BB	2836	U	C3'-C2'-C1'	-5.28	96.02	101.30
30	BF	106	LYS	CA-C-O	-5.28	114.96	120.55
33	BI	8	LYS	CB-CG-CD	5.28	123.43	111.30
55	B4	44	GLN	CA-C-O	-5.28	115.60	121.51
57	B6	24	LYS	CB-CA-C	5.28	118.53	109.51
57	B6	27	ASN	N-CA-CB	-5.28	104.28	112.30
1	AA	773	G	O4'-C1'-C2'	-5.27	102.33	107.60
40	BP	121	LYS	CA-C-N	5.27	128.57	120.82
40	BP	121	LYS	C-N-CA	5.27	128.57	120.82
57	B6	42	HIS	CB-CG-CD2	-5.27	124.34	131.20
1	AA	1215	G	C3'-C2'-C1'	-5.27	96.03	101.30
1	AA	1421	G	C1'-C2'-O2'	-5.27	100.49	108.40
5	AE	50	ASN	OD1-CG-ND2	-5.27	117.33	122.60
21	AU	62	ARG	CD-NE-CZ	5.27	131.78	124.40
26	BB	401	A	C5'-C4'-C3'	-5.27	108.09	116.00
26	BB	786	C	C5'-C4'-C3'	-5.27	108.09	116.00
26	BB	2371	G	C3'-C2'-O2'	5.27	118.61	110.70
28	BD	53	ILE	N-CA-C	-5.27	100.79	108.17
39	BO	15	GLY	O-C-N	5.27	129.56	122.70
39	BO	54	THR	O-C-N	5.27	128.76	122.27
40	BP	116	VAL	N-CA-C	5.27	116.00	110.62
1	AA	283	U	P-O5'-C5'	5.27	128.81	120.90
1	AA	847	G	C4'-C3'-C2'	-5.27	97.33	102.60
1	AA	853	C	C5'-C4'-C3'	5.27	123.91	116.00
3	AC	20	G	C3'-C2'-O2'	5.27	118.61	110.70
22	AV	56	HIS	CB-CG-CD2	-5.27	124.35	131.20
25	BA	59	A	N9-C1'-C2'	-5.27	104.09	112.00
26	BB	647	G	P-O5'-C5'	5.27	128.81	120.90
26	BB	1527	G	C3'-C2'-C1'	5.27	106.57	101.30
26	BB	1619	G	C3'-C2'-O2'	5.27	118.61	110.70
26	BB	2460	U	C5'-C4'-C3'	5.27	123.91	116.00
26	BB	2713	U	O5'-C5'-C4'	-5.27	103.79	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	31	G	C4'-C3'-C2'	-5.27	97.33	102.60
1	AA	440	C	O4'-C1'-N1	5.27	116.40	108.50
1	AA	1192	C	C4'-C3'-O3'	5.27	120.90	113.00
23	AW	2	ASN	CA-C-O	5.27	125.59	119.32
25	BA	79	G	C4'-C3'-C2'	-5.27	97.33	102.60
26	BB	673	C	O4'-C1'-N1	5.27	116.41	108.50
26	BB	829	A	C4'-C3'-O3'	5.27	117.30	109.40
26	BB	2043	C	P-O5'-C5'	5.27	128.80	120.90
31	BG	64	PRO	N-CA-C	5.27	119.14	111.03
1	AA	535	A	C3'-C2'-O2'	5.27	118.60	110.70
1	AA	714	G	C3'-C2'-O2'	5.27	118.60	110.70
1	AA	1245	C	P-O5'-C5'	5.27	128.80	120.90
2	AB	27	C	P-O3'-C3'	5.27	128.10	120.20
19	AS	35	ARG	CD-NE-CZ	5.27	131.77	124.40
22	AV	4	LEU	N-CA-C	-5.27	106.17	112.59
25	BA	116	G	O3'-P-O5'	-5.27	96.10	104.00
26	BB	318	C	O4'-C4'-C3'	5.27	109.27	104.00
26	BB	649	G	C1'-O4'-C4'	-5.27	104.63	109.90
26	BB	912	C	C5'-C4'-O4'	5.27	117.70	109.80
26	BB	1974	C	C1'-C2'-O2'	-5.27	100.50	108.40
26	BB	2818	U	C4'-C3'-C2'	-5.27	97.33	102.60
28	BD	25	LYS	O-C-N	5.27	129.64	122.37
32	BH	100	ASN	CA-CB-CG	5.27	117.87	112.60
39	BO	118	LYS	CA-C-N	5.27	127.29	120.44
39	BO	118	LYS	C-N-CA	5.27	127.29	120.44
49	BY	13	ARG	NH1-CZ-NH2	-5.27	112.45	119.30
1	AA	390	U	O4'-C1'-C2'	-5.27	102.33	107.60
1	AA	243	A	P-O3'-C3'	5.26	128.10	120.20
1	AA	549	C	C4'-C3'-O3'	-5.26	105.10	113.00
1	AA	872	A	C4'-C3'-C2'	-5.26	97.34	102.60
1	AA	1118	U	O4'-C1'-C2'	-5.26	102.33	107.60
2	AB	28	C	P-O3'-C3'	5.26	128.10	120.20
26	BB	82	U	O4'-C1'-N1	5.26	116.40	108.50
26	BB	188	G	O4'-C4'-C3'	5.26	109.26	104.00
26	BB	291	G	O4'-C4'-C3'	-5.26	98.74	104.00
26	BB	680	C	C4'-C3'-O3'	-5.26	105.10	113.00
26	BB	829	A	C5'-C4'-C3'	-5.26	107.30	115.20
26	BB	1157	G	N9-C1'-C2'	5.26	119.90	112.00
26	BB	1330	C	O4'-C1'-N1	5.26	116.40	108.50
26	BB	1398	C	C3'-C2'-O2'	5.26	118.60	110.70
26	BB	2557	G	C3'-C2'-C1'	-5.26	96.04	101.30
31	BG	154	THR	CA-C-N	5.26	128.23	120.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BG	154	THR	C-N-CA	5.26	128.23	120.91
42	BR	25	VAL	CA-CB-CG2	5.26	119.35	110.40
48	BX	84	PRO	O-C-N	5.26	129.72	122.35
50	BZ	8	GLY	N-CA-C	-5.26	106.79	114.90
53	B2	46	GLY	O-C-N	5.26	127.91	122.91
7	AG	144	ILE	CA-C-N	5.26	128.70	120.75
7	AG	144	ILE	C-N-CA	5.26	128.70	120.75
32	BH	68	ARG	CB-CA-C	5.26	119.14	110.88
48	BX	88	HIS	ND1-CE1-NE2	5.26	113.66	108.40
1	AA	702	A	O4'-C1'-C2'	-5.26	100.54	105.80
1	AA	952	U	O3'-P-O5'	-5.26	96.11	104.00
1	AA	1208	C	C5'-C4'-O4'	5.26	117.69	109.80
24	AX	51	ALA	CA-C-N	5.26	127.67	120.46
24	AX	51	ALA	C-N-CA	5.26	127.67	120.46
26	BB	1236	G	C3'-C2'-C1'	5.26	106.76	101.50
26	BB	1265	A	C1'-O4'-C4'	5.26	114.96	109.70
26	BB	2114	A	O4'-C1'-C2'	-5.26	102.34	107.60
26	BB	2544	G	O3'-P-O5'	5.26	111.89	104.00
9	AI	3	HIS	CB-CG-CD2	-5.26	124.36	131.20
19	AS	2	VAL	CA-C-N	5.26	130.97	122.29
19	AS	2	VAL	C-N-CA	5.26	130.97	122.29
22	AV	36	ARG	CA-C-O	-5.26	112.21	119.05
25	BA	51	G	C2'-C3'-O3'	5.26	121.59	113.70
26	BB	251	A	C3'-C2'-C1'	-5.26	96.04	101.30
26	BB	907	G	C5'-C4'-O4'	5.26	117.69	109.80
26	BB	2095	A	O4'-C4'-C3'	5.26	109.26	104.00
26	BB	2300	C	O4'-C1'-C2'	-5.26	102.34	107.60
50	BZ	5	GLN	N-CA-C	5.26	117.76	111.71
1	AA	256	U	C1'-C2'-O2'	5.26	116.29	108.40
1	AA	411	A	C5'-C4'-C3'	-5.26	107.31	115.20
1	AA	1439	G	O4'-C1'-N9	5.26	116.39	108.50
5	AE	236	PHE	CA-CB-CG	-5.26	108.54	113.80
25	BA	1	U	N1-C1'-C2'	-5.26	104.11	112.00
26	BB	193	U	C1'-C2'-O2'	5.26	116.29	108.40
26	BB	417	C	O4'-C1'-N1	5.26	116.39	108.50
26	BB	717	C	O4'-C1'-N1	5.26	116.39	108.50
26	BB	818	G	C4'-C3'-C2'	-5.26	97.34	102.60
1	AA	455	G	C3'-C2'-O2'	5.26	118.58	110.70
1	AA	875	U	C1'-O4'-C4'	-5.26	104.64	109.90
1	AA	1448	C	O3'-P-O5'	5.26	111.88	104.00
6	AF	86	LEU	CA-C-O	-5.26	115.29	120.70
14	AN	80	ASN	CA-CB-CG	5.26	117.86	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	50	A	C4'-C3'-C2'	-5.26	97.34	102.60
26	BB	171	U	O4'-C1'-C2'	-5.26	102.34	107.60
26	BB	407	G	C4'-C3'-C2'	-5.26	97.34	102.60
26	BB	808	G	O4'-C1'-N9	5.26	116.39	108.50
26	BB	1370	C	C3'-C2'-O2'	5.26	118.58	110.70
30	BF	163	ASN	CA-C-O	5.26	126.02	119.97
33	BI	37	VAL	CA-C-N	5.26	125.54	119.92
33	BI	37	VAL	C-N-CA	5.26	125.54	119.92
1	AA	505	G	C2'-C3'-O3'	-5.25	105.82	113.70
26	BB	27	G	C5'-C4'-O4'	-5.25	101.92	109.80
31	BG	22	ASN	CA-C-N	5.25	131.41	122.37
31	BG	22	ASN	C-N-CA	5.25	131.41	122.37
51	B0	31	GLN	CA-C-O	5.25	125.99	120.42
1	AA	435	A	N9-C1'-C2'	-5.25	104.12	112.00
12	AL	49	GLN	OE1-CD-NE2	5.25	127.85	122.60
24	AX	29	ALA	N-CA-C	-5.25	106.55	113.12
26	BB	141	G	C3'-C2'-C1'	5.25	106.55	101.30
26	BB	1404	C	O4'-C1'-N1	5.25	116.38	108.50
26	BB	2003	A	P-O3'-C3'	5.25	128.08	120.20
26	BB	2132	U	O5'-C5'-C4'	-5.25	103.62	111.50
26	BB	2553	G	C4'-C3'-C2'	-5.25	97.35	102.60
26	BB	2837	A	O4'-C4'-C3'	5.25	109.25	104.00
26	BB	2857	G	O4'-C1'-C2'	-5.25	102.35	107.60
50	BZ	16	ASN	CA-C-N	5.25	130.19	122.63
50	BZ	16	ASN	C-N-CA	5.25	130.19	122.63
1	AA	960	U	C2'-C3'-O3'	5.25	121.58	113.70
1	AA	1407	5MC	O3'-P-O5'	-5.25	96.12	104.00
6	AF	80	GLY	CA-C-O	-5.25	113.12	119.00
20	AT	54	ILE	CA-CB-CG2	5.25	119.43	110.50
26	BB	357	C	C4'-C3'-C2'	-5.25	97.35	102.60
26	BB	358	U	C5'-C4'-C3'	-5.25	108.12	116.00
26	BB	1433	A	C1'-C2'-O2'	-5.25	100.52	108.40
26	BB	2086	U	O4'-C1'-N1	5.25	116.38	108.50
42	BR	19	PHE	N-CA-CB	-5.25	102.89	111.66
45	BU	24	ILE	CA-CB-CG1	5.25	119.33	110.40
6	AF	92	ASP	N-CA-C	5.25	117.00	111.28
16	AP	92	ARG	NE-CZ-NH2	5.25	123.92	119.20
26	BB	473	G	O4'-C1'-C2'	-5.25	102.35	107.60
26	BB	2542	A	O4'-C4'-C3'	5.25	111.35	106.10
1	AA	1003	G	O4'-C4'-C3'	5.25	109.25	104.00
4	AD	5	G	C5'-C4'-O4'	5.25	117.67	109.80
25	BA	12	C	P-O3'-C3'	5.25	128.07	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	16	G	O5'-C5'-C4'	-5.25	103.63	111.50
25	BA	103	U	C4'-C3'-O3'	5.25	120.87	113.00
26	BB	1603	A	O4'-C1'-N9	5.25	116.37	108.50
26	BB	2579	C	C2'-C3'-O3'	-5.25	105.83	113.70
26	BB	2671	G	C1'-O4'-C4'	-5.25	104.65	109.90
26	BB	2727	A	O4'-C1'-N9	5.25	116.37	108.50
32	BH	158	GLY	N-CA-C	5.25	122.34	115.47
51	B0	41	HIS	ND1-CE1-NE2	5.25	113.65	108.40
1	AA	109	A	N9-C1'-C2'	-5.25	106.13	114.00
1	AA	673	A	C1'-O4'-C4'	-5.25	104.65	109.90
1	AA	1356	G	O3'-P-O5'	-5.25	96.13	104.00
2	AB	10	G	C5'-C4'-O4'	5.25	117.67	109.80
17	AQ	98	ALA	CA-C-O	5.25	126.15	120.43
22	AV	82	HIS	CB-CG-CD2	-5.25	124.38	131.20
26	BB	564	C	C3'-C2'-C1'	5.25	106.55	101.30
26	BB	780	G	C5'-C4'-O4'	5.25	117.67	109.80
26	BB	1536	C	C4'-C3'-O3'	5.25	117.27	109.40
26	BB	1550	C	O4'-C1'-C2'	-5.25	102.35	107.60
4	AD	73	A	N9-C1'-C2'	5.25	119.87	112.00
26	BB	1185	G	C5'-C4'-C3'	-5.25	108.13	116.00
26	BB	1960	A	C1'-C2'-O2'	-5.25	100.53	108.40
41	BQ	97	PHE	CA-CB-CG	5.25	119.05	113.80
24	AX	10	PRO	N-CA-CB	5.24	107.97	103.36
26	BB	897	C	C3'-C2'-O2'	5.24	118.57	110.70
26	BB	1587	G	O4'-C1'-C2'	-5.24	102.36	107.60
26	BB	1615	C	C2'-C3'-O3'	-5.24	101.64	109.50
26	BB	1670	C	O4'-C1'-C2'	-5.24	102.36	107.60
26	BB	1682	G	C4'-C3'-O3'	5.24	120.86	113.00
26	BB	2150	C	O4'-C4'-C3'	5.24	109.24	104.00
26	BB	2171	A	O3'-P-O5'	-5.24	96.14	104.00
26	BB	2332	C	O4'-C4'-C3'	5.24	109.24	104.00
26	BB	2739	U	O3'-P-O5'	-5.24	96.13	104.00
26	BB	2844	G	O4'-C4'-C3'	5.24	109.24	104.00
1	AA	1513	A	C1'-O4'-C4'	-5.24	104.66	109.90
26	BB	2361	G	C5'-C4'-C3'	5.24	123.86	116.00
1	AA	184	G	O4'-C1'-C2'	-5.24	102.36	107.60
1	AA	1443	C	C1'-O4'-C4'	-5.24	104.66	109.90
26	BB	1205	A	C5'-C4'-C3'	-5.24	107.34	115.20
26	BB	1264	A	O3'-P-O5'	-5.24	96.14	104.00
26	BB	2038	G	C3'-C2'-C1'	5.24	106.54	101.30
1	AA	808	C	C5'-C4'-C3'	-5.24	108.14	116.00
26	BB	962	G	C4'-C3'-C2'	5.24	107.84	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1745	A	C3'-C2'-O2'	5.24	118.56	110.70
26	BB	1848	A	C5'-C4'-O4'	5.24	117.66	109.80
26	BB	1953	A	C4'-C3'-C2'	5.24	107.84	102.60
26	BB	2781	A	C4'-C3'-O3'	5.24	120.86	113.00
32	BH	165	ASP	CA-CB-CG	5.24	117.84	112.60
34	BJ	111	ALA	O-C-N	-5.24	116.42	123.23
53	B2	38	SER	CA-C-N	5.24	130.81	122.59
53	B2	38	SER	C-N-CA	5.24	130.81	122.59
1	AA	541	G	C4'-C3'-C2'	-5.24	97.36	102.60
1	AA	1007	U	O3'-P-O5'	-5.24	96.14	104.00
20	AT	30	HIS	CA-C-O	-5.24	114.59	120.25
26	BB	212	G	O4'-C1'-C2'	-5.24	102.36	107.60
26	BB	585	G	C5'-C4'-O4'	5.24	117.66	109.80
26	BB	604	G	P-O5'-C5'	5.24	128.75	120.90
26	BB	2281	A	C3'-C2'-C1'	-5.24	96.06	101.30
26	BB	2325	G	C3'-C2'-O2'	5.24	118.56	110.70
26	BB	2496	C	C4'-C3'-C2'	-5.24	97.36	102.60
1	AA	1291	U	O4'-C1'-N1	5.24	116.35	108.50
25	BA	116	G	O4'-C1'-C2'	5.24	112.84	107.60
26	BB	68	G	C3'-C2'-C1'	5.24	106.53	101.30
26	BB	329	G	C3'-C2'-C1'	5.24	106.73	101.50
26	BB	515	A	C2'-C3'-O3'	5.24	121.55	113.70
26	BB	646	U	O4'-C1'-C2'	-5.24	102.36	107.60
26	BB	716	A	O4'-C1'-C2'	-5.24	102.36	107.60
26	BB	1496	A	C5'-C4'-O4'	5.24	117.66	109.80
26	BB	2018	G	O4'-C1'-N9	5.24	116.35	108.50
27	BC	124	VAL	N-CA-CB	-5.24	104.24	111.99
29	BE	32	ASN	O-C-N	5.24	129.17	123.04
30	BF	75	SER	N-CA-C	5.24	115.62	109.60
31	BG	62	GLN	CB-CA-C	5.24	119.09	109.46
34	BJ	148	GLY	CA-C-N	5.24	127.30	120.28
34	BJ	148	GLY	C-N-CA	5.24	127.30	120.28
57	B6	37	THR	CA-C-N	5.24	129.52	121.19
57	B6	37	THR	C-N-CA	5.24	129.52	121.19
1	AA	480	U	C5'-C4'-O4'	5.23	117.65	109.80
26	BB	1276	A	C1'-O4'-C4'	5.23	115.13	109.90
26	BB	2295	C	O4'-C1'-N1	5.23	116.35	108.50
31	BG	24	VAL	CB-CA-C	-5.23	104.41	112.05
1	AA	147	G	C5'-C4'-C3'	5.23	123.85	116.00
1	AA	760	G	C1'-O4'-C4'	-5.23	104.67	109.90
1	AA	1012	A	O4'-C1'-C2'	-5.23	102.37	107.60
1	AA	1079	G	O4'-C4'-C3'	5.23	109.23	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AK	127	TYR	CA-C-O	-5.23	115.25	121.16
26	BB	607	U	C5'-C4'-O4'	5.23	117.65	109.80
26	BB	617	G	C1'-C2'-O2'	5.23	116.25	108.40
26	BB	827	U	C3'-C2'-C1'	-5.23	96.27	101.50
26	BB	1396	U	O3'-P-O5'	5.23	111.85	104.00
26	BB	1644	C	C1'-C2'-O2'	-5.23	100.55	108.40
26	BB	2375	G	O4'-C4'-C3'	5.23	109.23	104.00
26	BB	2606	C	C3'-C2'-C1'	5.23	106.53	101.30
29	BE	193	VAL	CA-C-N	5.23	125.52	119.92
29	BE	193	VAL	C-N-CA	5.23	125.52	119.92
39	BO	108	VAL	CA-CB-CG1	5.23	119.30	110.40
1	AA	856	C	C5'-C4'-C3'	-5.23	108.15	116.00
1	AA	1197	A	C2'-C3'-O3'	-5.23	105.85	113.70
8	AH	108	GLY	O-C-N	5.23	129.12	122.58
16	AP	81	ASP	CA-C-N	5.23	129.52	120.58
16	AP	81	ASP	C-N-CA	5.23	129.52	120.58
26	BB	657	U	C5'-C4'-C3'	-5.23	108.15	116.00
29	BE	52	THR	N-CA-C	5.23	119.51	113.18
41	BQ	117	PHE	CA-CB-CG	5.23	119.03	113.80
45	BU	21	ALA	CA-C-O	-5.23	115.33	120.82
1	AA	38	G	O4'-C1'-N9	5.23	116.34	108.50
1	AA	47	C	C4'-C3'-C2'	-5.23	97.37	102.60
1	AA	1196	A	C3'-C2'-C1'	-5.23	96.27	101.50
9	AI	24	ARG	N-CA-C	5.23	117.06	111.36
19	AS	59	HIS	CG-ND1-CE1	-5.23	100.41	109.30
26	BB	368	A	C5'-C4'-O4'	5.23	117.64	109.80
1	AA	213	G	C3'-C2'-C1'	5.23	106.53	101.30
1	AA	853	C	C4'-C3'-C2'	5.23	107.83	102.60
1	AA	1226	C	P-O3'-C3'	5.23	128.04	120.20
1	AA	1245	C	C5'-C4'-O4'	5.23	117.64	109.80
16	AP	57	ASP	CA-C-N	5.23	128.26	120.31
16	AP	57	ASP	C-N-CA	5.23	128.26	120.31
26	BB	122	G	P-O5'-C5'	5.23	128.74	120.90
26	BB	2287	A	O4'-C4'-C3'	-5.23	100.87	106.10
26	BB	2349	G	C5'-C4'-C3'	-5.23	108.16	116.00
26	BB	2360	G	C5'-C4'-O4'	-5.23	101.96	109.80
33	BI	66	ASN	CA-C-O	-5.23	115.31	120.70
38	BN	22	GLY	O-C-N	5.23	129.50	122.70
58	B7	22	VAL	N-CA-C	5.23	115.43	108.11
1	AA	802	A	C2'-C3'-O3'	-5.23	105.86	113.70
1	AA	1478	U	O4'-C1'-C2'	-5.23	102.37	107.60
6	AF	137	VAL	N-CA-C	-5.23	105.29	110.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	AM	98	VAL	N-CA-CB	5.23	116.42	110.72
16	AP	25	GLY	CA-C-O	-5.23	116.83	122.47
26	BB	166	U	O3'-P-O5'	-5.23	96.16	104.00
1	AA	44	A	C1'-C2'-O2'	-5.22	100.56	108.40
1	AA	314	C	C2'-C3'-O3'	5.22	121.54	113.70
1	AA	895	G	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	756	A	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	1138	G	C5'-C4'-O4'	5.22	117.64	109.80
26	BB	1255	U	N1-C1'-C2'	5.22	119.84	112.00
26	BB	1308	A	P-O3'-C3'	5.22	128.04	120.20
31	BG	111	ARG	CA-C-N	5.22	130.12	122.39
31	BG	111	ARG	C-N-CA	5.22	130.12	122.39
38	BN	56	PRO	N-CA-C	5.22	119.44	111.34
56	B5	41	ARG	CA-CB-CG	5.22	124.55	114.10
1	AA	447	G	C5'-C4'-C3'	-5.22	108.17	116.00
1	AA	676	A	C3'-C2'-C1'	5.22	106.52	101.30
5	AE	25	LYS	N-CA-C	-5.22	106.86	113.18
12	AL	1	ALA	CA-C-N	5.22	130.78	121.75
12	AL	1	ALA	C-N-CA	5.22	130.78	121.75
13	AM	60	ASP	CA-C-O	-5.22	114.99	120.63
20	AT	50	ASN	N-CA-CB	-5.22	104.06	111.84
26	BB	130	C	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	543	G	O3'-P-O5'	5.22	111.83	104.00
26	BB	785	G	C4'-C3'-O3'	-5.22	105.17	113.00
26	BB	927	A	C1'-C2'-O2'	5.22	116.23	108.40
26	BB	2055	C	O4'-C1'-N1	5.22	116.33	108.50
26	BB	2440	C	P-O3'-C3'	5.22	128.03	120.20
26	BB	2547	A	C3'-C2'-C1'	5.22	106.52	101.30
27	BC	200	LYS	CA-C-N	5.22	125.51	119.92
27	BC	200	LYS	C-N-CA	5.22	125.51	119.92
34	BJ	78	PRO	N-CA-CB	5.22	107.97	103.27
36	BL	3	THR	CA-C-O	-5.22	115.87	121.56
36	BL	35	ARG	CA-C-N	5.22	129.44	120.72
36	BL	35	ARG	C-N-CA	5.22	129.44	120.72
1	AA	257	G	O5'-C5'-C4'	5.22	119.33	111.50
1	AA	287	U	O4'-C1'-C2'	-5.22	102.38	107.60
24	AX	15	LEU	N-CA-CB	5.22	116.90	110.53
26	BB	635	C	C2'-C3'-O3'	5.22	121.53	113.70
26	BB	827	U	O4'-C1'-C2'	5.22	111.02	105.80
26	BB	935	C	C5'-C4'-C3'	-5.22	108.17	116.00
43	BS	10	ARG	CA-CB-CG	-5.22	103.66	114.10
55	B4	51	ALA	CB-CA-C	5.22	120.81	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1066	C	C1'-O4'-C4'	5.22	115.12	109.90
1	AA	1230	C	O4'-C1'-C2'	-5.22	102.38	107.60
1	AA	1415	G	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	518	G	O4'-C1'-N9	5.22	116.33	108.50
26	BB	1479	G	O4'-C4'-C3'	-5.22	98.78	104.00
1	AA	356	A	C5'-C4'-C3'	-5.22	108.17	116.00
1	AA	415	A	N9-C1'-C2'	-5.22	104.17	112.00
1	AA	1454	G	C1'-O4'-C4'	5.22	115.12	109.90
1	AA	1499	A	O4'-C1'-N9	-5.22	100.67	108.50
23	AW	73	ARG	CB-CG-CD	5.22	123.30	111.30
26	BB	775	G	C1'-O4'-C4'	5.22	114.92	109.70
26	BB	2055	C	P-O3'-C3'	5.22	128.03	120.20
35	BK	131	THR	CA-C-O	-5.22	115.33	120.70
5	AE	175	ALA	O-C-N	-5.22	116.59	122.12
19	AS	16	PHE	CA-C-N	5.22	131.27	122.87
19	AS	16	PHE	C-N-CA	5.22	131.27	122.87
26	BB	640	C	O4'-C4'-C3'	5.22	109.22	104.00
26	BB	680	C	C1'-C2'-O2'	-5.22	100.58	108.40
26	BB	913	U	O4'-C1'-C2'	-5.22	100.58	105.80
38	BN	85	VAL	O-C-N	5.22	127.33	121.90
48	BX	35	GLU	CA-C-N	5.22	129.21	120.86
48	BX	35	GLU	C-N-CA	5.22	129.21	120.86
1	AA	551	U	C4'-C3'-C2'	-5.21	97.39	102.60
1	AA	795	C	O5'-C5'-C4'	-5.21	103.68	111.50
15	AO	5	GLN	OE1-CD-NE2	-5.21	117.39	122.60
20	AT	52	CYS	N-CA-CB	-5.21	102.98	110.44
26	BB	50	U	C5'-C4'-C3'	-5.21	107.38	115.20
26	BB	160	A	C5'-C4'-O4'	5.21	117.62	109.80
26	BB	342	A	C1'-C2'-O2'	5.21	116.22	108.40
26	BB	910	A	C4'-C3'-C2'	-5.21	97.39	102.60
26	BB	988	A	O3'-P-O5'	5.21	111.82	104.00
26	BB	1301	A	N9-C1'-C2'	5.21	121.82	114.00
26	BB	1590	A	C4'-C3'-C2'	-5.21	97.39	102.60
26	BB	1931	U	C4'-C3'-C2'	-5.21	97.39	102.60
26	BB	1971	U	C2'-C3'-O3'	5.21	121.52	113.70
26	BB	2216	G	P-O3'-C3'	5.21	128.02	120.20
28	BD	127	ASN	CA-C-O	-5.21	115.12	120.54
39	BO	80	VAL	N-CA-C	5.21	115.41	108.11
1	AA	708	C	O4'-C1'-C2'	5.21	112.81	107.60
1	AA	759	A	C5'-C4'-O4'	5.21	117.62	109.80
1	AA	783	C	C3'-C2'-O2'	5.21	118.52	110.70
1	AA	974	A	C5'-C4'-C3'	-5.21	107.38	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1408	A	O4'-C1'-N9	5.21	116.32	108.50
9	AI	46	GLN	CA-C-O	-5.21	114.71	120.60
18	AR	6	ALA	N-CA-C	-5.21	105.28	111.69
26	BB	450	G	C3'-C2'-C1'	5.21	106.51	101.30
58	B7	32	LYS	N-CA-CB	-5.21	101.46	110.32
1	AA	158	G	O4'-C1'-C2'	5.21	112.81	107.60
1	AA	273	U	O4'-C1'-N1	5.21	116.32	108.50
1	AA	368	U	C5'-C4'-C3'	-5.21	108.18	116.00
1	AA	1272	G	C1'-O4'-C4'	-5.21	104.69	109.90
2	AB	43	G	O5'-C5'-C4'	-5.21	103.68	111.50
23	AW	55	PRO	CA-N-CD	-5.21	104.70	112.00
26	BB	361	G	O4'-C1'-N9	5.21	116.32	108.50
26	BB	439	A	C5'-C4'-C3'	-5.21	108.18	116.00
26	BB	1740	G	O4'-C1'-C2'	-5.21	102.39	107.60
26	BB	2282	G	C4'-C3'-O3'	5.21	117.22	109.40
26	BB	2561	U	C3'-C2'-C1'	-5.21	96.09	101.30
26	BB	2723	C	N1-C1'-C2'	-5.21	104.18	112.00
51	B0	52	ARG	NE-CZ-NH2	5.21	123.89	119.20
26	BB	1703	G	C2'-C3'-O3'	-5.21	105.89	113.70
26	BB	2186	G	N9-C1'-C2'	-5.21	104.19	112.00
31	BG	149	ARG	NE-CZ-NH1	5.21	126.71	121.50
50	BZ	50	VAL	CA-C-O	-5.21	115.82	121.92
58	B7	25	VAL	N-CA-CB	5.21	116.94	111.00
1	AA	124	C	C2'-C3'-O3'	5.21	121.51	113.70
1	AA	546	A	O4'-C1'-N9	5.21	116.31	108.50
1	AA	1080	A	C5'-C4'-C3'	-5.21	108.19	116.00
11	AK	118	ALA	CA-C-O	5.21	125.96	119.97
26	BB	2465	C	C3'-C2'-C1'	-5.21	96.09	101.30
28	BD	51	ARG	CA-C-N	5.21	129.95	122.40
28	BD	51	ARG	C-N-CA	5.21	129.95	122.40
1	AA	191	G	C4'-C3'-C2'	-5.21	97.39	102.60
1	AA	1343	G	O4'-C1'-N9	5.21	116.31	108.50
26	BB	840	C	O5'-C5'-C4'	-5.21	103.69	111.50
26	BB	1135	C	C2'-C3'-O3'	5.21	121.51	113.70
26	BB	1361	G	C4'-C3'-C2'	-5.21	97.39	102.60
26	BB	2079	U	C4'-C3'-C2'	-5.21	97.39	102.60
37	BM	112	PHE	CA-C-O	-5.21	113.65	119.95
41	BQ	104	GLN	O-C-N	5.21	127.64	122.12
55	B4	20	TYR	CB-CA-C	5.21	119.59	109.33
1	AA	603	U	O4'-C1'-C2'	5.21	112.81	107.60
6	AF	65	VAL	CA-C-O	5.21	126.14	120.57
26	BB	2671	G	O4'-C4'-C3'	5.21	109.20	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	BP	37	THR	N-CA-CB	5.21	117.80	110.36
51	B0	43	LEU	CA-C-O	-5.21	113.65	119.79
1	AA	1096	C	C4'-C3'-C2'	-5.20	97.40	102.60
17	AQ	59	GLN	CB-CG-CD	5.20	121.44	112.60
26	BB	474	G	P-O5'-C5'	5.20	128.71	120.90
26	BB	726	G	P-O5'-C5'	5.20	128.70	120.90
26	BB	737	C	C4'-C3'-O3'	5.20	120.80	113.00
26	BB	1191	G	O4'-C1'-N9	5.20	116.31	108.50
26	BB	1217	U	C3'-C2'-O2'	5.20	118.50	110.70
26	BB	1280	G	O4'-C4'-C3'	5.20	109.20	104.00
26	BB	2032	G	C5'-C4'-C3'	-5.20	107.39	115.20
47	BW	39	ASN	CA-CB-CG	5.20	117.80	112.60
1	AA	184	G	C3'-C2'-C1'	5.20	106.50	101.30
26	BB	361	G	C5'-C4'-O4'	5.20	117.60	109.80
26	BB	687	C	P-O5'-C5'	-5.20	113.10	120.90
26	BB	1180	U	O4'-C1'-N1	5.20	116.30	108.50
26	BB	1232	G	C1'-C2'-O2'	5.20	116.20	108.40
26	BB	2902	C	N1-C1'-C2'	-5.20	104.20	112.00
31	BG	175	PRO	CA-C-O	-5.20	114.24	122.82
1	AA	837	U	O5'-C5'-C4'	-5.20	103.70	111.50
1	AA	985	C	O4'-C1'-N1	5.20	116.30	108.50
9	AI	95	ALA	CB-CA-C	5.20	118.22	109.48
26	BB	923	G	C5'-C4'-O4'	5.20	117.60	109.80
26	BB	2193	G	O5'-C5'-C4'	5.20	119.30	111.50
55	B4	45	HIS	CE1-NE2-CD2	-5.20	103.80	109.00
56	B5	41	ARG	NE-CZ-NH2	5.20	123.88	119.20
1	AA	250	A	C3'-C2'-O2'	-5.20	102.90	110.70
1	AA	635	A	C2'-C3'-O3'	-5.20	105.90	113.70
9	AI	19	PRO	CA-C-N	5.20	126.89	120.34
9	AI	19	PRO	C-N-CA	5.20	126.89	120.34
10	AJ	42	VAL	O-C-N	5.20	127.31	121.90
22	AV	70	LEU	O-C-N	5.20	128.30	122.22
26	BB	199	A	O3'-P-O5'	-5.20	96.20	104.00
26	BB	1564	C	P-O5'-C5'	5.20	128.70	120.90
26	BB	1646	C	C3'-C2'-C1'	5.20	106.50	101.30
26	BB	1843	C	O5'-C5'-C4'	5.20	119.30	111.50
26	BB	1922	G	C3'-C2'-O2'	5.20	118.50	110.70
26	BB	2604	U	O4'-C1'-N1	5.20	116.30	108.50
27	BC	48	LEU	O-C-N	-5.20	117.39	123.27
44	BT	33	VAL	O-C-N	-5.20	117.26	123.03
1	AA	1106	G	O4'-C1'-N9	5.20	116.30	108.50
9	AI	5	GLU	CB-CG-CD	-5.20	103.77	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	412	A	C5'-C4'-O4'	5.20	117.59	109.80
26	BB	603	A	O3'-P-O5'	-5.20	96.20	104.00
26	BB	1550	C	C4'-C3'-C2'	-5.20	97.40	102.60
1	AA	177	G	O4'-C1'-N9	5.20	116.29	108.50
1	AA	277	C	O3'-P-O5'	-5.20	96.21	104.00
1	AA	1083	U	C3'-C2'-C1'	5.20	106.50	101.30
11	AK	20	ASN	CA-CB-CG	5.20	117.80	112.60
26	BB	929	U	C5'-C4'-O4'	5.20	117.59	109.80
26	BB	2540	C	C5'-C4'-C3'	-5.20	108.21	116.00
31	BG	6	TYR	CA-C-O	-5.20	114.91	120.42
46	BV	67	VAL	CA-C-N	5.20	129.97	122.44
46	BV	67	VAL	C-N-CA	5.20	129.97	122.44
1	AA	412	A	O4'-C1'-C2'	-5.19	102.41	107.60
1	AA	547	A	C4'-C3'-C2'	-5.19	97.41	102.60
1	AA	1294	G	N9-C1'-C2'	-5.19	104.21	112.00
26	BB	142	A	O4'-C4'-C3'	5.19	109.19	104.00
26	BB	1260	A	C5'-C4'-C3'	-5.19	108.21	116.00
1	AA	287	U	C4'-C3'-C2'	-5.19	97.41	102.60
1	AA	310	G	C4'-C3'-C2'	-5.19	97.41	102.60
1	AA	591	U	C5'-C4'-O4'	5.19	117.59	109.80
1	AA	863	U	C5'-C4'-O4'	5.19	117.59	109.80
5	AE	52	ALA	CB-CA-C	5.19	119.03	110.88
8	AH	20	VAL	CA-CB-CG2	5.19	119.23	110.40
18	AR	56	LEU	CA-C-N	5.19	127.50	120.65
18	AR	56	LEU	C-N-CA	5.19	127.50	120.65
26	BB	441	U	C3'-C2'-O2'	5.19	118.49	110.70
26	BB	496	G	C4'-C3'-O3'	-5.19	105.21	113.00
26	BB	530	G	O3'-P-O5'	-5.19	96.21	104.00
26	BB	993	G	C4'-C3'-O3'	5.19	120.79	113.00
26	BB	1332	G	C1'-C2'-O2'	-5.19	100.61	108.40
26	BB	1562	U	C4'-C3'-O3'	-5.19	105.21	113.00
26	BB	1800	C	C5'-C4'-C3'	-5.19	107.41	115.20
26	BB	1967	C	C4'-C3'-O3'	-5.19	105.21	113.00
26	BB	2840	C	C5'-C4'-O4'	5.19	117.59	109.80
34	BJ	153	THR	O-C-N	5.19	128.07	122.15
1	AA	384	G	C3'-C2'-C1'	-5.19	96.11	101.30
1	AA	1359	C	O3'-P-O5'	-5.19	96.21	104.00
5	AE	83	ALA	N-CA-C	-5.19	105.70	111.36
7	AG	46	ARG	N-CA-C	5.19	116.75	111.14
26	BB	20	C	C2'-C3'-O3'	-5.19	105.92	113.70
26	BB	107	G	P-O5'-C5'	5.19	128.69	120.90
26	BB	271	G	C3'-C2'-O2'	-5.19	106.81	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	752	A	C1'-O4'-C4'	-5.19	104.51	109.70
26	BB	1092	C	C5'-C4'-O4'	5.19	117.58	109.80
26	BB	2595	G	O4'-C1'-C2'	-5.19	102.41	107.60
1	AA	1281	C	O4'-C1'-N1	5.19	115.98	108.20
10	AJ	98	LEU	CA-C-O	-5.19	115.37	120.82
26	BB	278	A	P-O3'-C3'	5.19	127.98	120.20
26	BB	975	A	C4'-C3'-C2'	-5.19	97.41	102.60
26	BB	1137	G	C4'-C3'-C2'	-5.19	97.41	102.60
26	BB	2040	G	C4'-C3'-O3'	5.19	120.78	113.00
26	BB	2394	C	N1-C1'-C2'	-5.19	104.22	112.00
1	AA	409	U	O4'-C1'-C2'	-5.19	102.41	107.60
1	AA	616	G	O5'-C5'-C4'	-5.19	103.72	111.50
1	AA	1116	U	C3'-C2'-O2'	5.19	118.48	110.70
8	AH	68	ARG	CA-CB-CG	5.19	124.48	114.10
11	AK	83	ARG	NE-CZ-NH1	-5.19	116.31	121.50
13	AM	74	VAL	CB-CA-C	5.19	119.80	111.29
25	BA	42	C	C4'-C3'-C2'	-5.19	97.41	102.60
26	BB	1203	U	O5'-C5'-C4'	5.19	119.28	111.50
26	BB	1297	C	C1'-O4'-C4'	5.19	115.09	109.90
33	BI	38	PRO	CA-C-N	5.19	131.87	122.27
33	BI	38	PRO	C-N-CA	5.19	131.87	122.27
45	BU	22	ASP	CA-CB-CG	5.19	117.79	112.60
1	AA	509	A	C2'-C3'-O3'	-5.19	105.92	113.70
17	AQ	17	ASP	CA-C-N	5.19	127.49	120.44
17	AQ	17	ASP	C-N-CA	5.19	127.49	120.44
26	BB	57	C	N1-C1'-C2'	-5.19	104.22	112.00
26	BB	1598	A	O5'-C5'-C4'	5.19	119.28	111.50
26	BB	2429	G	C1'-C2'-O2'	5.19	116.18	108.40
26	BB	2587	A	O4'-C1'-C2'	-5.19	102.41	107.60
1	AA	582	C	C2'-C3'-O3'	5.18	121.48	113.70
2	AB	51	G	P-O5'-C5'	5.18	128.68	120.90
10	AJ	3	ARG	O-C-N	5.18	127.41	122.07
26	BB	202	U	C5'-C4'-C3'	-5.18	108.22	116.00
26	BB	436	C	N1-C1'-C2'	5.18	119.78	112.00
26	BB	472	A	C5'-C4'-O4'	5.18	117.58	109.80
26	BB	1234	U	C5'-C4'-O4'	5.18	117.58	109.80
26	BB	1873	G	O5'-C5'-C4'	-5.18	103.72	111.50
1	AA	1206	G	O5'-C5'-C4'	5.18	119.27	111.50
6	AF	215	GLN	CA-C-N	5.18	125.19	120.21
6	AF	215	GLN	C-N-CA	5.18	125.19	120.21
11	AK	41	GLU	N-CA-C	5.18	117.01	111.36
23	AW	79	THR	CB-CA-C	5.18	119.66	110.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	42	A	C2'-C3'-O3'	-5.18	105.93	113.70
26	BB	887	U	C5'-C4'-C3'	-5.18	108.23	116.00
26	BB	1526	C	C3'-C2'-C1'	5.18	106.48	101.30
26	BB	1586	A	C4'-C3'-C2'	-5.18	97.42	102.60
26	BB	2130	U	C4'-C3'-O3'	5.18	120.78	113.00
30	BF	192	ALA	N-CA-C	5.18	116.93	111.28
43	BS	83	LYS	O-C-N	-5.18	116.63	122.12
49	BY	37	VAL	CB-CA-C	5.18	117.71	111.13
7	AG	184	LYS	CB-CA-C	5.18	117.55	109.42
26	BB	313	G	C5'-C4'-C3'	-5.18	108.23	116.00
26	BB	1425	G	O4'-C4'-C3'	5.18	109.18	104.00
26	BB	1636	U	O4'-C4'-C3'	-5.18	98.82	104.00
26	BB	2022	U	O4'-C1'-N1	5.18	115.97	108.20
29	BE	49	GLN	OE1-CD-NE2	-5.18	117.42	122.60
34	BJ	47	ALA	N-CA-C	5.18	119.45	113.18
13	AM	26	VAL	CB-CA-C	5.18	118.60	111.97
26	BB	1203	U	C2'-C3'-O3'	-5.18	105.93	113.70
26	BB	1684	G	P-O5'-C5'	5.18	128.67	120.90
26	BB	2559	C	P-O3'-C3'	5.18	127.97	120.20
36	BL	12	LYS	CA-C-N	5.18	131.43	121.54
36	BL	12	LYS	C-N-CA	5.18	131.43	121.54
38	BN	82	LEU	CA-C-N	5.18	131.43	121.18
38	BN	82	LEU	C-N-CA	5.18	131.43	121.18
1	AA	1484	C	C5'-C4'-O4'	5.18	117.57	109.80
26	BB	480	A	C5'-C4'-O4'	5.18	117.57	109.80
26	BB	1470	A	C3'-C2'-O2'	5.18	118.47	110.70
26	BB	1687	G	O3'-P-O5'	5.18	111.77	104.00
26	BB	2124	G	C5'-C4'-O4'	5.18	117.57	109.80
26	BB	2232	C	O4'-C1'-C2'	5.18	112.78	107.60
15	AO	122	LYS	CA-C-O	-5.18	115.31	121.16
21	AU	4	PHE	N-CA-C	5.18	116.92	111.28
26	BB	111	A	P-O3'-C3'	5.18	127.96	120.20
26	BB	575	A	O4'-C4'-C3'	5.18	109.18	104.00
26	BB	1070	A	O4'-C1'-N9	5.18	115.96	108.20
26	BB	1637	A	C5'-C4'-C3'	-5.18	108.24	116.00
26	BB	1845	G	C4'-C3'-C2'	-5.18	97.42	102.60
26	BB	1883	U	C1'-O4'-C4'	-5.18	104.72	109.90
26	BB	1971	U	O4'-C1'-C2'	-5.18	102.42	107.60
26	BB	2024	G	O4'-C1'-N9	5.18	116.27	108.50
26	BB	2346	A	O4'-C1'-N9	5.18	115.96	108.20
26	BB	2439	A	C5'-C4'-C3'	-5.18	108.24	116.00
3	AC	35	G	O3'-P-O5'	5.17	111.76	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	AO	65	TYR	CA-C-N	5.17	129.19	122.93
15	AO	65	TYR	C-N-CA	5.17	129.19	122.93
23	AW	31	ILE	N-CA-C	-5.17	105.45	110.42
26	BB	642	U	P-O5'-C5'	5.17	128.66	120.90
26	BB	1089	A	C3'-C2'-C1'	5.17	106.67	101.50
26	BB	1837	C	C4'-C3'-O3'	-5.17	105.24	113.00
26	BB	2177	C	O4'-C1'-N1	5.17	116.26	108.50
26	BB	2235	G	C1'-O4'-C4'	5.17	115.07	109.90
26	BB	2511	U	C3'-C2'-C1'	5.17	106.47	101.30
29	BE	180	VAL	CA-CB-CG1	5.17	119.20	110.40
31	BG	38	GLY	CA-C-N	5.17	127.18	120.56
31	BG	38	GLY	C-N-CA	5.17	127.18	120.56
43	BS	50	ARG	CD-NE-CZ	5.17	131.64	124.40
51	B0	7	ARG	NE-CZ-NH1	5.17	126.67	121.50
1	AA	756	C	C4'-C3'-C2'	-5.17	97.43	102.60
1	AA	1529	G	C4'-C3'-C2'	-5.17	97.43	102.60
2	AB	25	C	O4'-C1'-N1	5.17	116.26	108.50
26	BB	1368	G	C3'-C2'-C1'	5.17	106.47	101.30
26	BB	1705	A	C1'-O4'-C4'	-5.17	104.73	109.90
26	BB	1853	A	O4'-C4'-C3'	5.17	109.17	104.00
27	BC	181	ASP	O-C-N	-5.17	116.95	122.85
31	BG	124	ARG	N-CA-CB	-5.17	101.34	110.39
1	AA	353	A	C5'-C4'-C3'	-5.17	108.24	116.00
1	AA	454	G	C3'-C2'-O2'	5.17	118.46	110.70
4	AD	66	C	C2'-C3'-O3'	-5.17	105.94	113.70
12	AL	32	ARG	N-CA-C	5.17	116.52	109.18
24	AX	62	GLU	CA-C-N	-5.17	112.45	120.31
24	AX	62	GLU	C-N-CA	-5.17	112.45	120.31
25	BA	119	A	O4'-C1'-N9	5.17	116.26	108.50
26	BB	113	U	O4'-C1'-N1	5.17	116.26	108.50
26	BB	283	G	O4'-C1'-N9	5.17	116.26	108.50
26	BB	1009	A	P-O3'-C3'	5.17	127.96	120.20
26	BB	1399	C	O4'-C1'-N1	5.17	116.26	108.50
26	BB	2091	C	C5'-C4'-C3'	-5.17	108.24	116.00
26	BB	2309	A	O4'-C1'-C2'	5.17	112.77	107.60
26	BB	2311	A	O4'-C4'-C3'	5.17	111.27	106.10
26	BB	2606	C	P-O3'-C3'	5.17	127.96	120.20
26	BB	2627	G	P-O3'-C3'	5.17	127.96	120.20
27	BC	119	ASP	N-CA-C	5.17	117.66	111.71
28	BD	235	GLU	N-CA-CB	-5.17	101.99	110.21
29	BE	195	GLY	O-C-N	5.17	128.03	122.60
32	BH	148	ARG	N-CA-CB	-5.17	102.04	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BM	26	GLY	CA-C-N	5.17	128.05	120.91
37	BM	26	GLY	C-N-CA	5.17	128.05	120.91
58	B7	15	LYS	CG-CD-CE	5.17	123.19	111.30
1	AA	231	U	C4'-C3'-C2'	-5.17	97.43	102.60
26	BB	1321	A	C4'-C3'-O3'	-5.17	105.25	113.00
26	BB	1785	A	O4'-C4'-C3'	5.17	109.17	104.00
26	BB	1985	C	O4'-C1'-N1	5.17	116.25	108.50
31	BG	91	ARG	NE-CZ-NH1	-5.17	116.33	121.50
48	BX	68	LYS	CA-C-N	5.17	131.01	122.33
48	BX	68	LYS	C-N-CA	5.17	131.01	122.33
1	AA	977	A	O4'-C1'-C2'	5.17	112.77	107.60
1	AA	1077	G	C1'-C2'-O2'	5.17	116.15	108.40
1	AA	1448	C	C4'-C3'-C2'	-5.17	97.43	102.60
15	AO	55	ARG	NE-CZ-NH2	-5.17	114.55	119.20
26	BB	207	A	C5'-C4'-O4'	5.17	117.55	109.80
26	BB	1927	A	N9-C1'-C2'	5.17	119.75	112.00
26	BB	2208	C	O4'-C1'-C2'	-5.17	102.43	107.60
29	BE	114	LYS	CB-CA-C	5.17	118.06	109.38
31	BG	44	ALA	N-CA-C	-5.17	107.52	113.88
51	B0	48	ARG	CD-NE-CZ	5.17	131.63	124.40
54	B3	54	ILE	CB-CA-C	5.17	119.77	111.29
1	AA	1083	U	O4'-C4'-C3'	5.17	109.17	104.00
11	AK	47	ASP	CA-CB-CG	5.17	117.77	112.60
26	BB	721	A	O4'-C1'-C2'	-5.17	102.43	107.60
26	BB	1516	G	N9-C1'-C2'	-5.17	104.25	112.00
26	BB	1884	G	C3'-C2'-C1'	5.17	106.47	101.30
26	BB	2198	A	C4'-C3'-O3'	-5.17	101.65	109.40
28	BD	109	LEU	CA-C-N	5.17	128.44	121.05
28	BD	109	LEU	C-N-CA	5.17	128.44	121.05
29	BE	154	LYS	CA-C-N	5.17	129.84	123.12
29	BE	154	LYS	C-N-CA	5.17	129.84	123.12
38	BN	55	MET	CA-C-N	5.17	125.45	119.92
38	BN	55	MET	C-N-CA	5.17	125.45	119.92
46	BV	39	THR	CA-C-N	5.17	131.41	121.54
46	BV	39	THR	C-N-CA	5.17	131.41	121.54
1	AA	805	C	O4'-C1'-N1	5.17	116.25	108.50
26	BB	1763	G	O4'-C4'-C3'	-5.17	98.83	104.00
26	BB	1985	C	C1'-O4'-C4'	5.17	115.06	109.90
30	BF	67	ARG	NE-CZ-NH1	5.17	126.67	121.50
40	BP	24	MET	O-C-N	-5.17	116.26	122.15
54	B3	18	HIS	CA-CB-CG	-5.17	108.64	113.80
1	AA	18	C	O4'-C4'-C3'	5.16	109.16	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	140	U	C1'-O4'-C4'	-5.16	104.74	109.90
8	AH	42	ASN	CA-CB-CG	5.16	117.76	112.60
8	AH	160	VAL	N-CA-CB	5.16	118.33	110.58
10	AJ	163	HIS	CB-CG-CD2	-5.16	124.49	131.20
26	BB	162	U	C3'-C2'-C1'	-5.16	96.34	101.50
26	BB	934	U	C4'-C3'-C2'	5.16	107.76	102.60
26	BB	1391	U	C3'-C2'-C1'	-5.16	96.34	101.50
26	BB	1918	A	O4'-C1'-N9	5.16	115.94	108.20
26	BB	2180	U	C1'-C2'-O2'	5.16	116.14	108.40
26	BB	2184	A	C1'-O4'-C4'	-5.16	104.74	109.90
26	BB	2597	G	C4'-C3'-O3'	-5.16	105.26	113.00
26	BB	2732	G	O5'-C5'-C4'	-5.16	103.75	111.50
29	BE	149	ASN	CA-C-N	5.16	127.72	120.28
29	BE	149	ASN	C-N-CA	5.16	127.72	120.28
40	BP	66	ALA	CA-C-N	5.16	128.86	120.60
40	BP	66	ALA	C-N-CA	5.16	128.86	120.60
1	AA	156	C	O4'-C1'-N1	5.16	116.24	108.50
1	AA	750	C	O4'-C1'-C2'	5.16	112.76	107.60
1	AA	829	G	O5'-C5'-C4'	5.16	119.24	111.50
26	BB	775	G	C3'-C2'-C1'	-5.16	96.34	101.50
26	BB	803	U	C4'-C3'-O3'	5.16	120.74	113.00
26	BB	840	C	C5'-C4'-O4'	5.16	117.54	109.80
26	BB	1795	C	C1'-C2'-O2'	5.16	116.14	108.40
1	AA	832	G	C3'-C2'-C1'	-5.16	96.14	101.30
1	AA	835	U	C2'-C3'-O3'	-5.16	105.96	113.70
2	AB	13	C	C3'-C2'-C1'	5.16	106.46	101.30
6	AF	106	ARG	CB-CA-C	5.16	118.57	109.80
7	AG	191	SER	N-CA-CB	5.16	118.69	110.84
26	BB	617	G	C2'-C3'-O3'	5.16	121.44	113.70
26	BB	647	G	C1'-O4'-C4'	5.16	115.06	109.90
26	BB	1073	A	C5'-C4'-C3'	-5.16	108.26	116.00
26	BB	2107	G	C4'-C3'-C2'	-5.16	97.44	102.60
26	BB	2285	C	C5'-C4'-C3'	-5.16	108.26	116.00
26	BB	2466	C	C5'-C4'-C3'	-5.16	108.26	116.00
42	BR	88	ARG	CA-C-N	5.16	128.04	122.16
42	BR	88	ARG	C-N-CA	5.16	128.04	122.16
49	BY	2	HIS	CB-CG-CD2	-5.16	124.49	131.20
51	B0	9	LYS	CA-C-O	-5.16	115.93	121.56
1	AA	1094	G	C3'-C2'-C1'	5.16	106.66	101.50
10	AJ	178	ASN	CA-CB-CG	5.16	117.76	112.60
26	BB	381	G	O4'-C1'-N9	5.16	116.24	108.50
26	BB	1415	U	P-O5'-C5'	5.16	128.64	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1666	G	C3'-C2'-O2'	5.16	118.44	110.70
26	BB	1720	U	C4'-C3'-O3'	-5.16	105.26	113.00
26	BB	2091	C	P-O3'-C3'	-5.16	112.46	120.20
26	BB	2227	A	O4'-C1'-C2'	-5.16	102.44	107.60
26	BB	2534	A	P-O3'-C3'	5.16	127.94	120.20
30	BF	72	SER	CA-C-N	5.16	129.44	121.34
30	BF	72	SER	C-N-CA	5.16	129.44	121.34
31	BG	93	GLU	N-CA-CB	5.16	117.70	110.12
35	BK	86	LYS	CG-CD-CE	-5.16	99.44	111.30
1	AA	272	C	C5'-C4'-C3'	-5.16	108.26	116.00
1	AA	1088	G	C3'-C2'-C1'	5.16	106.46	101.30
1	AA	1099	G	C5'-C4'-O4'	-5.16	102.06	109.80
1	AA	1169	A	O4'-C4'-C3'	5.16	109.16	104.00
8	AH	20	VAL	CA-C-O	-5.16	114.89	120.67
22	AV	40	PHE	CA-CB-CG	5.16	118.96	113.80
26	BB	1173	U	O4'-C1'-C2'	5.16	112.76	107.60
26	BB	1316	U	N1-C1'-C2'	-5.16	104.26	112.00
54	B3	30	ASP	CA-CB-CG	5.16	117.76	112.60
1	AA	603	U	C1'-O4'-C4'	-5.16	104.74	109.90
1	AA	638	U	C3'-C2'-C1'	-5.16	96.14	101.30
1	AA	824	G	O3'-P-O5'	5.16	111.73	104.00
1	AA	838	G	C4'-C3'-C2'	-5.16	97.44	102.60
1	AA	949	A	N9-C1'-C2'	-5.16	104.27	112.00
1	AA	1265	C	N1-C1'-C2'	-5.16	104.27	112.00
1	AA	1301	U	C4'-C3'-C2'	5.16	107.76	102.60
16	AP	116	LYS	CA-C-O	-5.16	116.08	121.55
26	BB	11	C	O5'-C5'-C4'	-5.16	103.77	111.50
26	BB	378	C	O4'-C1'-N1	5.16	116.23	108.50
26	BB	1492	G	C4'-C3'-C2'	-5.16	97.44	102.60
26	BB	2823	A	O4'-C4'-C3'	5.16	109.16	104.00
1	AA	1267	C	C3'-C2'-C1'	5.15	106.45	101.30
1	AA	1302	C	O4'-C1'-N1	5.15	116.23	108.50
1	AA	1499	A	C3'-C2'-O2'	-5.15	102.97	110.70
22	AV	10	ILE	CA-CB-CG1	5.15	119.16	110.40
29	BE	200	ASP	CA-C-O	5.15	127.89	121.81
29	BE	203	VAL	CA-CB-CG1	5.15	119.16	110.40
36	BL	47	HIS	ND1-CG-CD2	5.15	111.25	106.10
42	BR	74	GLN	OE1-CD-NE2	-5.15	117.45	122.60
53	B2	36	VAL	CA-CB-CG2	5.15	119.16	110.40
1	AA	969	A	O4'-C4'-C3'	5.15	111.25	106.10
1	AA	979	C	C3'-C2'-C1'	5.15	106.45	101.30
1	AA	1163	A	O4'-C1'-N9	5.15	116.23	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1515	G	C4'-C3'-C2'	-5.15	97.45	102.60
1	AA	1525	G	C2'-C3'-O3'	5.15	121.43	113.70
12	AL	61	ASP	N-CA-C	-5.15	101.88	110.17
13	AM	89	ARG	O-C-N	5.15	128.93	122.23
26	BB	1049	C	C4'-C3'-O3'	-5.15	105.27	113.00
26	BB	2279	G	O4'-C1'-N9	5.15	116.23	108.50
26	BB	2535	G	O4'-C4'-C3'	5.15	109.15	104.00
1	AA	405	U	O5'-C5'-C4'	-5.15	103.77	111.50
1	AA	1211	U	O4'-C4'-C3'	5.15	109.15	104.00
13	AM	64	GLN	N-CA-C	-5.15	100.06	108.76
26	BB	351	C	C3'-C2'-C1'	5.15	106.45	101.30
26	BB	1118	C	P-O5'-C5'	5.15	128.63	120.90
26	BB	2083	G	C3'-C2'-C1'	5.15	106.45	101.30
26	BB	2828	G	C1'-O4'-C4'	-5.15	104.75	109.90
28	BD	213	ARG	NE-CZ-NH2	-5.15	114.56	119.20
44	BT	56	GLY	CA-C-N	5.15	128.07	121.27
44	BT	56	GLY	C-N-CA	5.15	128.07	121.27
1	AA	799	G	O5'-C5'-C4'	-5.15	103.78	111.50
26	BB	935	C	O4'-C1'-N1	5.15	116.22	108.50
26	BB	1481	U	C3'-C2'-O2'	5.15	118.42	110.70
26	BB	1604	C	O4'-C4'-C3'	5.15	109.15	104.00
26	BB	2080	A	O4'-C4'-C3'	5.15	109.15	104.00
55	B4	45	HIS	N-CA-C	-5.15	100.91	109.46
1	AA	21	G	C1'-C2'-O2'	5.15	116.12	108.40
1	AA	605	U	C1'-C2'-O2'	5.15	116.12	108.40
25	BA	48	U	C1'-O4'-C4'	-5.15	104.75	109.90
26	BB	90	U	O4'-C1'-N1	5.15	116.22	108.50
26	BB	126	A	C5'-C4'-O4'	5.15	117.52	109.80
26	BB	426	C	C3'-C2'-C1'	5.15	106.45	101.30
26	BB	1049	C	C2'-C3'-O3'	5.15	121.42	113.70
26	BB	1327	A	O4'-C1'-N9	5.15	116.22	108.50
26	BB	1394	U	C1'-C2'-O2'	-5.15	100.68	108.40
26	BB	1772	A	C4'-C3'-O3'	5.15	120.72	113.00
26	BB	1871	A	C5'-C4'-C3'	-5.15	108.28	116.00
26	BB	2506	U	C5'-C4'-C3'	5.15	123.72	116.00
26	BB	2599	G	O4'-C1'-N9	5.15	116.22	108.50
26	BB	2644	G	C5'-C4'-O4'	-5.15	102.08	109.80
29	BE	157	LYS	CA-C-O	-5.15	115.53	121.19
44	BT	82	HIS	CA-CB-CG	5.15	118.95	113.80
1	AA	22	G	O4'-C4'-C3'	5.15	109.15	104.00
1	AA	695	A	P-O3'-C3'	5.15	127.92	120.20
15	AO	107	LYS	CA-C-N	5.15	129.86	122.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	AO	107	LYS	C-N-CA	5.15	129.86	122.40
19	AS	68	SER	CA-C-N	5.15	127.69	120.28
19	AS	68	SER	C-N-CA	5.15	127.69	120.28
26	BB	827	U	C4'-C3'-C2'	5.15	107.75	102.60
26	BB	2367	G	C4'-C3'-C2'	-5.15	97.45	102.60
26	BB	2633	G	C4'-C3'-O3'	5.15	120.72	113.00
26	BB	2719	G	C4'-C3'-C2'	-5.15	97.45	102.60
55	B4	21	THR	CA-CB-OG1	-5.15	101.88	109.60
1	AA	138	G	C4'-C3'-O3'	-5.14	105.28	113.00
2	AB	6	C	N1-C1'-C2'	-5.14	104.28	112.00
5	AE	39	ILE	O-C-N	-5.14	117.64	123.20
10	AJ	129	ASN	CB-CA-C	5.14	118.75	111.86
25	BA	46	A	C5'-C4'-C3'	-5.14	108.28	116.00
26	BB	2267	A	O4'-C1'-C2'	5.14	112.74	107.60
33	BI	85	GLY	O-C-N	5.14	126.72	122.71
55	B4	11	VAL	CA-C-N	5.14	129.02	120.94
55	B4	11	VAL	C-N-CA	5.14	129.02	120.94
1	AA	345	C	C1'-O4'-C4'	-5.14	104.56	109.70
2	AB	29	G	C5'-C4'-C3'	5.14	123.71	116.00
15	AO	120	ARG	CA-C-N	5.14	126.27	119.84
15	AO	120	ARG	C-N-CA	5.14	126.27	119.84
26	BB	149	A	O5'-C5'-C4'	5.14	119.22	111.50
26	BB	980	A	O4'-C4'-C3'	5.14	109.14	104.00
26	BB	1761	C	O4'-C1'-C2'	5.14	110.94	105.80
26	BB	1789	A	C5'-C4'-C3'	-5.14	108.29	116.00
26	BB	2389	G	C4'-C3'-C2'	-5.14	97.46	102.60
27	BC	68	GLY	CA-C-O	5.14	127.45	121.90
28	BD	162	GLN	CA-C-N	5.14	127.97	120.98
28	BD	162	GLN	C-N-CA	5.14	127.97	120.98
43	BS	2	ARG	NE-CZ-NH1	-5.14	116.36	121.50
45	BU	25	ARG	NE-CZ-NH2	-5.14	114.57	119.20
49	BY	81	ILE	CA-C-N	5.14	129.18	121.72
49	BY	81	ILE	C-N-CA	5.14	129.18	121.72
1	AA	701	U	C2'-C3'-O3'	5.14	117.21	109.50
5	AE	140	LEU	CA-C-O	-5.14	115.42	120.82
26	BB	1046	A	P-O3'-C3'	5.14	127.91	120.20
26	BB	2699	C	C4'-C3'-C2'	-5.14	97.46	102.60
1	AA	41	G	O3'-P-O5'	5.14	111.71	104.00
1	AA	259	G	O4'-C1'-N9	5.14	116.21	108.50
1	AA	487	A	C5'-C4'-C3'	-5.14	108.29	116.00
1	AA	1191	A	C4'-C3'-O3'	-5.14	105.29	113.00
1	AA	1270	G	O4'-C4'-C3'	5.14	109.14	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1464	U	C1'-C2'-O2'	5.14	116.11	108.40
6	AF	180	ASP	CA-CB-CG	5.14	117.74	112.60
10	AJ	144	ALA	CA-C-N	5.14	128.12	120.31
10	AJ	144	ALA	C-N-CA	5.14	128.12	120.31
21	AU	16	GLY	CA-C-N	5.14	129.94	123.10
21	AU	16	GLY	C-N-CA	5.14	129.94	123.10
22	AV	47	THR	CA-C-N	5.14	130.10	123.11
22	AV	47	THR	C-N-CA	5.14	130.10	123.11
26	BB	554	U	C5'-C4'-C3'	-5.14	108.29	116.00
26	BB	870	U	C5'-C4'-C3'	5.14	123.71	116.00
26	BB	1013	C	C4'-C3'-C2'	-5.14	97.46	102.60
26	BB	2627	G	O4'-C1'-N9	5.14	116.21	108.50
40	BP	69	ARG	CB-CG-CD	5.14	123.12	111.30
1	AA	241	G	C4'-C3'-C2'	-5.14	97.46	102.60
3	AC	34	U	O4'-C1'-N1	5.14	116.21	108.50
13	AM	15	HIS	CB-CG-CD2	-5.14	124.52	131.20
21	AU	58	ILE	CB-CA-C	5.14	119.31	112.22
25	BA	61	G	O4'-C1'-C2'	-5.14	102.46	107.60
26	BB	326	G	C1'-C2'-O2'	5.14	116.11	108.40
26	BB	937	C	C3'-C2'-O2'	5.14	118.41	110.70
26	BB	1235	G	O4'-C1'-N9	5.14	116.21	108.50
26	BB	1792	G	P-O3'-C3'	5.14	127.91	120.20
26	BB	2043	C	C4'-C3'-O3'	-5.14	105.29	113.00
26	BB	2635	A	C3'-C2'-C1'	-5.14	96.16	101.30
37	BM	44	LYS	CB-CG-CD	5.14	123.12	111.30
22	AV	19	GLU	N-CA-C	5.14	116.88	111.28
26	BB	2280	G	O4'-C1'-C2'	-5.14	102.46	107.60
26	BB	2658	C	O3'-P-O5'	-5.14	96.30	104.00
29	BE	185	ASN	CA-CB-CG	-5.14	107.46	112.60
37	BM	12	ASP	CA-CB-CG	5.14	117.74	112.60
1	AA	806	C	O4'-C1'-C2'	-5.13	102.47	107.60
1	AA	1186	G	C4'-C3'-C2'	-5.13	97.47	102.60
1	AA	1205	U	C4'-C3'-O3'	-5.13	105.30	113.00
11	AK	76	ARG	CA-C-N	5.13	128.27	123.08
11	AK	76	ARG	C-N-CA	5.13	128.27	123.08
24	AX	21	SER	O-C-N	5.13	128.31	122.25
26	BB	785	G	C3'-C2'-O2'	5.13	118.40	110.70
26	BB	1021	A	P-O5'-C5'	5.13	128.60	120.90
26	BB	1232	G	O4'-C1'-N9	5.13	116.20	108.50
26	BB	1266	G	C5'-C4'-C3'	-5.13	107.50	115.20
26	BB	1811	G	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	1898	U	C1'-O4'-C4'	5.13	115.03	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2166	U	C5'-C4'-C3'	-5.13	108.30	116.00
26	BB	2476	A	C1'-C2'-O2'	5.13	116.10	108.40
36	BL	131	ASN	OD1-CG-ND2	5.13	127.73	122.60
43	BS	75	TYR	N-CA-C	5.13	116.88	111.28
1	AA	1125	U	C2'-C3'-O3'	5.13	117.20	109.50
1	AA	1434	A	C4'-C3'-O3'	-5.13	105.30	113.00
1	AA	1509	C	C3'-C2'-C1'	-5.13	96.17	101.30
5	AE	198	VAL	O-C-N	-5.13	117.64	123.18
25	BA	99	A	C1'-O4'-C4'	5.13	115.03	109.90
26	BB	295	G	C1'-O4'-C4'	-5.13	104.77	109.90
26	BB	2239	G	O4'-C4'-C3'	5.13	109.13	104.00
43	BS	3	VAL	CB-CA-C	5.13	118.22	110.98
45	BU	85	ILE	CA-C-O	5.13	126.66	120.65
1	AA	383	A	P-O3'-C3'	5.13	127.90	120.20
1	AA	1352	C	C3'-C2'-O2'	5.13	118.40	110.70
5	AE	191	ASP	N-CA-C	-5.13	103.23	110.31
9	AI	70	VAL	N-CA-C	-5.13	105.60	110.42
26	BB	109	C	O4'-C1'-C2'	5.13	112.73	107.60
26	BB	174	U	O4'-C4'-C3'	5.13	109.13	104.00
26	BB	1353	A	C1'-O4'-C4'	-5.13	104.77	109.90
26	BB	1547	C	O4'-C1'-C2'	-5.13	102.47	107.60
26	BB	1574	C	P-O5'-C5'	5.13	128.60	120.90
26	BB	1783	A	C1'-C2'-O2'	5.13	116.10	108.40
26	BB	2454	G	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	2616	C	C3'-C2'-C1'	5.13	106.43	101.30
38	BN	57	LEU	O-C-N	-5.13	115.72	122.39
1	AA	812	G	C4'-C3'-C2'	-5.13	97.47	102.60
3	AC	15	G	O4'-C4'-C3'	5.13	111.23	106.10
26	BB	2148	G	C3'-C2'-O2'	5.13	118.39	110.70
1	AA	860	A	O4'-C1'-N9	5.13	116.19	108.50
1	AA	1305	G	O4'-C1'-N9	-5.13	100.81	108.50
20	AT	28	VAL	CA-C-O	5.13	126.72	121.28
25	BA	53	A	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	557	C	O4'-C1'-C2'	-5.13	102.47	107.60
26	BB	605	G	N9-C1'-C2'	-5.13	104.31	112.00
26	BB	659	G	P-O5'-C5'	5.13	128.59	120.90
26	BB	2496	C	O4'-C1'-C2'	-5.13	102.47	107.60
28	BD	114	GLN	CA-C-N	5.13	128.89	122.48
28	BD	114	GLN	C-N-CA	5.13	128.89	122.48
47	BW	90	LYS	CA-C-O	5.13	127.15	121.56
49	BY	79	ILE	CA-C-N	5.13	130.62	122.62
49	BY	79	ILE	C-N-CA	5.13	130.62	122.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	B3	9	ARG	NE-CZ-NH1	-5.13	116.37	121.50
1	AA	146	G	O4'-C1'-C2'	-5.13	102.47	107.60
3	AC	24	A	C1'-O4'-C4'	5.13	115.03	109.90
10	AJ	51	GLN	OE1-CD-NE2	-5.13	117.47	122.60
16	AP	28	ARG	NE-CZ-NH2	5.13	123.81	119.20
23	AW	66	ILE	CB-CA-C	5.13	119.70	111.29
26	BB	156	A	C2'-C3'-O3'	-5.13	106.01	113.70
26	BB	818	G	O4'-C4'-C3'	5.13	109.13	104.00
26	BB	1198	U	O3'-P-O5'	-5.13	96.31	104.00
26	BB	1615	C	P-O3'-C3'	5.13	127.89	120.20
34	BJ	36	LYS	CA-C-N	5.13	127.57	120.29
34	BJ	36	LYS	C-N-CA	5.13	127.57	120.29
37	BM	70	ARG	NE-CZ-NH2	5.13	123.81	119.20
41	BQ	98	GLN	O-C-N	5.13	129.31	122.95
1	AA	1444	U	O4'-C1'-N1	5.12	116.19	108.50
23	AW	42	ASP	CB-CA-C	5.12	118.59	110.19
24	AX	50	SER	CA-C-O	-5.12	113.08	119.38
26	BB	1091	G	O3'-P-O5'	5.12	111.69	104.00
26	BB	2867	G	C5'-C4'-C3'	-5.12	107.51	115.20
56	B5	3	ARG	CB-CA-C	5.12	118.80	109.83
26	BB	1830	C	C4'-C3'-O3'	-5.12	105.31	113.00
26	BB	1991	U	O4'-C4'-C3'	-5.12	98.88	104.00
26	BB	2209	G	C4'-C3'-O3'	5.12	120.68	113.00
26	BB	2258	C	C1'-O4'-C4'	5.12	114.82	109.70
26	BB	2639	A	C4'-C3'-C2'	-5.12	97.48	102.60
26	BB	2773	C	O4'-C1'-N1	5.12	116.18	108.50
27	BC	72	SER	N-CA-C	5.12	116.94	111.36
30	BF	1	MET	CB-CA-C	5.12	119.83	110.10
30	BF	56	GLY	O-C-N	5.12	128.11	122.27
52	B1	22	THR	CA-C-O	-5.12	115.12	120.55
1	AA	308	C	C1'-O4'-C4'	5.12	115.02	109.90
1	AA	318	G	C1'-O4'-C4'	-5.12	104.78	109.90
1	AA	933	G	N9-C1'-C2'	5.12	119.68	112.00
1	AA	1178	G	C4'-C3'-O3'	5.12	120.68	113.00
1	AA	1263	C	C4'-C3'-O3'	5.12	120.68	113.00
1	AA	1384	C	C4'-C3'-C2'	-5.12	97.48	102.60
1	AA	1395	C	C4'-C3'-O3'	-5.12	105.32	113.00
2	AB	75	C	C3'-C2'-C1'	5.12	106.42	101.30
6	AF	166	TRP	O-C-N	5.12	128.99	123.10
23	AW	81	GLN	CA-C-N	5.12	127.21	120.60
23	AW	81	GLN	C-N-CA	5.12	127.21	120.60
26	BB	1429	G	O4'-C4'-C3'	5.12	109.12	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1560	G	O4'-C1'-C2'	-5.12	102.48	107.60
26	BB	1719	G	C4'-C3'-O3'	-5.12	105.32	113.00
26	BB	2106	U	N1-C1'-C2'	5.12	119.68	112.00
26	BB	2253	G	O3'-P-O5'	-5.12	96.32	104.00
26	BB	2671	G	O3'-P-O5'	-5.12	96.32	104.00
26	BB	2817	U	C1'-O4'-C4'	-5.12	104.78	109.90
32	BH	129	GLU	CB-CG-CD	5.12	121.31	112.60
40	BP	47	VAL	N-CA-C	5.12	115.89	110.72
1	AA	341	C	C1'-C2'-O2'	5.12	116.08	108.40
1	AA	1053	G	N9-C1'-C2'	5.12	121.68	114.00
1	AA	1139	G	C2'-C3'-O3'	5.12	117.18	109.50
1	AA	1376	U	O3'-P-O5'	5.12	111.68	104.00
25	BA	119	A	O5'-C5'-C4'	5.12	119.18	111.50
26	BB	2170	A	C2'-C3'-O3'	-5.12	106.02	113.70
26	BB	2485	G	C3'-C2'-C1'	5.12	106.42	101.30
26	BB	2739	U	C2'-C3'-O3'	-5.12	106.02	113.70
37	BM	29	HIS	CB-CG-ND1	5.12	130.38	122.70
1	AA	173	U	N1-C1'-C2'	5.12	121.68	114.00
1	AA	1012	A	P-O5'-C5'	5.12	128.58	120.90
1	AA	1017	U	O4'-C1'-N1	5.12	116.18	108.50
1	AA	1298	U	C5'-C4'-O4'	-5.12	101.42	109.10
22	AV	35	ARG	CA-C-N	5.12	131.31	121.18
22	AV	35	ARG	C-N-CA	5.12	131.31	121.18
26	BB	38	A	C3'-C2'-O2'	5.12	118.38	110.70
26	BB	571	U	N1-C1'-C2'	5.12	119.68	112.00
26	BB	1147	A	O3'-P-O5'	5.12	111.68	104.00
26	BB	1194	A	P-O5'-C5'	5.12	128.58	120.90
26	BB	1611	C	O3'-P-O5'	-5.12	96.32	104.00
26	BB	2032	G	C1'-O4'-C4'	-5.12	104.58	109.70
26	BB	2704	C	C3'-C2'-C1'	5.12	106.42	101.30
36	BL	138	GLN	CG-CD-NE2	-5.12	108.72	116.40
40	BP	29	VAL	N-CA-C	5.12	117.49	111.09
26	BB	487	C	C5'-C4'-C3'	-5.12	108.32	116.00
26	BB	1569	A	O5'-C5'-C4'	-5.12	103.82	111.50
49	BY	15	SER	CA-C-O	5.12	127.83	120.51
1	AA	111	G	C1'-C2'-O2'	5.12	116.07	108.40
1	AA	434	U	O4'-C1'-N1	5.12	116.17	108.50
1	AA	1076	U	O4'-C1'-C2'	-5.12	102.48	107.60
1	AA	1091	U	C3'-C2'-C1'	-5.12	96.18	101.30
1	AA	1094	G	C2'-C3'-O3'	5.12	117.17	109.50
1	AA	1166	G	O4'-C1'-N9	5.12	116.17	108.50
1	AA	1247	U	C3'-C2'-O2'	5.12	118.38	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1482	G	C4'-C3'-C2'	-5.12	97.48	102.60
26	BB	169	G	O4'-C4'-C3'	-5.12	98.89	104.00
26	BB	326	G	C1'-O4'-C4'	-5.12	104.78	109.90
26	BB	995	C	C4'-C3'-O3'	5.12	117.07	109.40
26	BB	1196	C	O4'-C4'-C3'	-5.12	98.89	104.00
26	BB	1570	A	C3'-C2'-C1'	5.12	106.42	101.30
26	BB	1612	C	P-O5'-C5'	5.12	128.57	120.90
26	BB	1888	G	C1'-O4'-C4'	5.12	115.02	109.90
26	BB	2884	U	O4'-C1'-N1	5.12	116.17	108.50
30	BF	114	ARG	N-CA-C	5.12	118.62	112.38
34	BJ	59	LEU	O-C-N	5.12	127.54	122.12
1	AA	702	A	O4'-C1'-N9	5.11	115.87	108.20
1	AA	1501	C	C3'-C2'-C1'	5.11	106.41	101.30
5	AE	35	ASN	OD1-CG-ND2	-5.11	117.49	122.60
12	AL	45	MET	CA-C-N	5.11	127.00	120.56
12	AL	45	MET	C-N-CA	5.11	127.00	120.56
19	AS	1	MET	CA-C-N	5.11	128.16	120.69
19	AS	1	MET	C-N-CA	5.11	128.16	120.69
26	BB	855	G	C3'-C2'-O2'	5.11	118.37	110.70
26	BB	891	G	O3'-P-O5'	-5.11	96.33	104.00
26	BB	1818	U	O4'-C1'-N1	5.11	116.17	108.50
44	BT	98	ILE	N-CA-C	5.11	116.11	108.54
47	BW	32	LYS	CA-C-N	5.11	131.01	122.57
47	BW	32	LYS	C-N-CA	5.11	131.01	122.57
53	B2	50	ASP	CA-C-N	5.11	131.18	121.97
53	B2	50	ASP	C-N-CA	5.11	131.18	121.97
7	AG	138	PRO	N-CA-CB	5.11	107.75	103.25
26	BB	2147	A	C5'-C4'-O4'	5.11	116.77	109.10
29	BE	184	ARG	CD-NE-CZ	5.11	131.56	124.40
1	AA	525	C	O4'-C1'-C2'	-5.11	102.49	107.60
1	AA	529	G	P-O3'-C3'	5.11	127.87	120.20
15	AO	35	ARG	CD-NE-CZ	-5.11	117.25	124.40
17	AQ	97	LYS	CA-C-O	5.11	126.77	121.15
23	AW	6	ALA	CA-C-N	5.11	129.46	121.08
23	AW	6	ALA	C-N-CA	5.11	129.46	121.08
26	BB	27	G	P-O5'-C5'	5.11	128.56	120.90
26	BB	205	G	C1'-O4'-C4'	5.11	114.81	109.70
26	BB	240	C	C5'-C4'-C3'	-5.11	108.33	116.00
26	BB	252	G	C5'-C4'-O4'	5.11	117.47	109.80
26	BB	443	A	C2'-C3'-O3'	5.11	117.17	109.50
26	BB	541	A	O4'-C1'-C2'	5.11	112.71	107.60
26	BB	621	A	N9-C1'-C2'	-5.11	104.33	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	627	A	P-O5'-C5'	5.11	128.56	120.90
26	BB	1122	G	C2'-C3'-O3'	-5.11	106.03	113.70
26	BB	1386	C	C5'-C4'-O4'	5.11	117.47	109.80
26	BB	1731	G	O4'-C1'-N9	5.11	115.86	108.20
30	BF	28	VAL	CB-CA-C	5.11	119.04	112.14
1	AA	1390	U	O5'-C5'-C4'	5.11	119.16	111.50
8	AH	128	GLY	CA-C-O	-5.11	115.59	122.33
26	BB	27	G	O4'-C4'-C3'	5.11	109.11	104.00
26	BB	1254	A	C1'-O4'-C4'	-5.11	104.59	109.70
26	BB	1259	G	C5'-C4'-O4'	5.11	117.46	109.80
26	BB	2435	A	O4'-C1'-C2'	-5.11	102.49	107.60
26	BB	2622	U	C1'-O4'-C4'	-5.11	104.79	109.90
1	AA	35	G	O4'-C4'-C3'	5.11	109.11	104.00
1	AA	61	G	O4'-C1'-N9	5.11	116.16	108.50
2	AB	27	C	O4'-C1'-N1	5.11	116.16	108.50
8	AH	136	VAL	N-CA-CB	-5.11	104.64	112.15
12	AL	103	VAL	CA-CB-CG1	5.11	119.08	110.40
13	AM	56	HIS	ND1-CE1-NE2	5.11	113.51	108.40
26	BB	133	U	O4'-C1'-N1	5.11	116.16	108.50
26	BB	1375	U	C3'-C2'-O2'	5.11	118.36	110.70
26	BB	1645	G	O4'-C4'-C3'	5.11	111.21	106.10
26	BB	2404	U	C4'-C3'-C2'	-5.11	97.49	102.60
26	BB	2709	G	O4'-C1'-N9	5.11	116.16	108.50
35	BK	120	ASP	O-C-N	-5.11	117.35	123.27
45	BU	4	ILE	CA-CB-CG1	5.11	119.08	110.40
52	B1	46	MET	CA-C-O	-5.11	115.01	120.42
1	AA	577	G	P-O5'-C5'	-5.11	113.24	120.90
1	AA	751	U	O3'-P-O5'	-5.11	96.34	104.00
1	AA	994	A	O4'-C1'-C2'	-5.11	102.50	107.60
1	AA	1294	G	C5'-C4'-C3'	-5.11	108.34	116.00
1	AA	1452	C	C1'-C2'-O2'	5.11	119.46	111.80
12	AL	42	THR	CA-C-N	5.11	128.85	120.63
12	AL	42	THR	C-N-CA	5.11	128.85	120.63
23	AW	20	ASN	CA-CB-CG	5.11	117.71	112.60
26	BB	420	C	O4'-C1'-N1	5.11	116.16	108.50
26	BB	1849	G	O4'-C1'-N9	5.11	116.16	108.50
26	BB	2639	A	C5'-C4'-O4'	5.11	117.46	109.80
47	BW	86	PHE	CA-CB-CG	5.11	118.91	113.80
54	B3	51	ARG	NE-CZ-NH2	5.11	123.80	119.20
1	AA	157	U	C3'-C2'-O2'	5.10	118.36	110.70
1	AA	848	C	C5'-C4'-O4'	5.10	117.46	109.80
1	AA	1119	C	O4'-C1'-N1	5.10	116.16	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1275	A	C5'-C4'-O4'	5.10	117.45	109.80
2	AB	9	A	O4'-C4'-C3'	5.10	109.10	104.00
32	BH	25	ILE	CB-CA-C	5.10	117.97	110.98
1	AA	292	G	C4'-C3'-C2'	-5.10	97.50	102.60
1	AA	361	G	O5'-C5'-C4'	-5.10	103.85	111.50
1	AA	504	C	C4'-C3'-C2'	-5.10	97.50	102.60
1	AA	1400	C	O5'-C5'-C4'	-5.10	104.05	111.70
21	AU	17	VAL	CA-C-O	5.10	125.70	120.39
26	BB	1423	G	N9-C1'-C2'	-5.10	104.35	112.00
26	BB	2469	A	N9-C1'-C2'	-5.10	104.35	112.00
1	AA	425	G	O4'-C1'-N9	5.10	116.15	108.50
21	AU	10	CYS	O-C-N	-5.10	117.35	123.27
26	BB	204	A	C4'-C3'-O3'	5.10	117.05	109.40
26	BB	335	C	P-O3'-C3'	5.10	127.85	120.20
26	BB	1580	A	O4'-C1'-N9	5.10	116.15	108.50
26	BB	2085	U	C4'-C3'-C2'	-5.10	97.50	102.60
40	BP	76	VAL	CA-CB-CG2	-5.10	101.73	110.40
1	AA	248	C	N1-C1'-C2'	-5.10	104.35	112.00
1	AA	698	G	C5'-C4'-C3'	-5.10	108.35	116.00
4	AD	39	A	C1'-C2'-O2'	5.10	116.05	108.40
11	AK	12	ARG	CA-CB-CG	-5.10	103.90	114.10
25	BA	22	U	C3'-C2'-O2'	5.10	118.35	110.70
26	BB	165	A	C3'-C2'-O2'	5.10	118.35	110.70
26	BB	551	G	C5'-C4'-O4'	5.10	117.45	109.80
26	BB	674	G	C4'-C3'-C2'	-5.10	97.50	102.60
26	BB	1030	C	N1-C1'-C2'	-5.10	104.35	112.00
26	BB	1635	A	O4'-C4'-C3'	5.10	109.10	104.00
26	BB	1742	U	C1'-O4'-C4'	-5.10	104.80	109.90
26	BB	1807	G	C1'-C2'-O2'	5.10	116.05	108.40
26	BB	2107	G	C5'-C4'-C3'	-5.10	108.35	116.00
26	BB	2289	G	O4'-C4'-C3'	5.10	109.10	104.00
30	BF	190	ALA	CA-C-O	5.10	125.86	120.10
32	BH	168	VAL	O-C-N	5.10	127.87	122.67
1	AA	1016	A	O4'-C1'-N9	5.10	116.15	108.50
5	AE	224	ARG	CA-C-N	5.10	127.36	120.38
5	AE	224	ARG	C-N-CA	5.10	127.36	120.38
7	AG	140	ASP	CA-C-N	5.10	129.88	123.10
7	AG	140	ASP	C-N-CA	5.10	129.88	123.10
10	AJ	133	ALA	CA-C-N	5.10	127.44	120.46
10	AJ	133	ALA	C-N-CA	5.10	127.44	120.46
26	BB	471	A	C1'-O4'-C4'	-5.10	104.80	109.90
26	BB	581	C	C4'-C3'-C2'	-5.10	97.50	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	841	G	O4'-C4'-C3'	5.10	109.10	104.00
26	BB	988	A	O4'-C4'-C3'	5.10	109.10	104.00
47	BW	26	ASN	N-CA-C	5.10	115.26	108.38
1	AA	645	G	P-O5'-C5'	-5.10	113.26	120.90
1	AA	1317	C	C4'-C3'-C2'	-5.10	97.50	102.60
2	AB	9	A	O3'-P-O5'	-5.10	96.36	104.00
22	AV	37	SER	CA-C-O	-5.10	115.14	120.80
26	BB	284	U	C4'-C3'-C2'	-5.10	97.50	102.60
26	BB	1863	G	C1'-O4'-C4'	-5.10	104.80	109.90
26	BB	2109	U	N1-C1'-C2'	5.10	119.64	112.00
1	AA	383	A	O4'-C1'-C2'	5.09	112.69	107.60
1	AA	938	A	O4'-C1'-C2'	-5.09	102.50	107.60
1	AA	1180	A	P-O5'-C5'	5.09	128.54	120.90
3	AC	24	A	C4'-C3'-C2'	-5.09	97.50	102.60
26	BB	289	G	C1'-C2'-O2'	5.09	116.04	108.40
26	BB	1686	C	C5'-C4'-O4'	5.09	117.44	109.80
26	BB	1820	U	C3'-C2'-O2'	-5.09	106.96	114.60
31	BG	7	TYR	CA-CB-CG	5.09	123.07	113.90
33	BI	122	LEU	CA-C-N	5.09	129.00	120.70
33	BI	122	LEU	C-N-CA	5.09	129.00	120.70
6	AF	55	VAL	CB-CA-C	5.09	117.05	110.12
26	BB	2585	U	O3'-P-O5'	5.09	111.64	104.00
28	BD	79	ARG	CA-C-O	-5.09	115.29	120.89
1	AA	670	G	O4'-C1'-C2'	-5.09	102.51	107.60
1	AA	717	U	C2'-C3'-O3'	5.09	121.34	113.70
1	AA	920	U	C1'-O4'-C4'	5.09	114.99	109.90
1	AA	1221	G	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	497	A	O4'-C4'-C3'	-5.09	98.91	104.00
26	BB	2185	U	C3'-C2'-O2'	5.09	118.34	110.70
40	BP	123	GLU	N-CA-CB	-5.09	103.85	110.88
57	B6	28	LEU	CA-C-O	-5.09	114.86	121.17
1	AA	430	A	C4'-C3'-O3'	5.09	120.63	113.00
1	AA	747	A	C5'-C4'-C3'	-5.09	108.37	116.00
1	AA	1062	U	C4'-C3'-C2'	-5.09	97.51	102.60
1	AA	1139	G	C4'-C3'-C2'	-5.09	97.51	102.60
1	AA	1271	A	C4'-C3'-C2'	-5.09	97.51	102.60
1	AA	1464	U	C4'-C3'-O3'	5.09	120.63	113.00
5	AE	188	THR	CA-C-O	-5.09	115.03	120.42
6	AF	71	ARG	O-C-N	-5.09	117.94	121.65
26	BB	1125	G	C5'-C4'-C3'	-5.09	108.36	116.00
26	BB	2077	A	C5'-C4'-O4'	5.09	117.44	109.80
26	BB	2562	U	O4'-C1'-N1	5.09	116.13	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BC	211	LYS	CA-C-N	5.09	129.50	123.19
27	BC	211	LYS	C-N-CA	5.09	129.50	123.19
1	AA	362	G	C5'-C4'-O4'	5.09	117.43	109.80
5	AE	2	THR	CA-CB-OG1	5.09	117.23	109.60
8	AH	137	ARG	NE-CZ-NH1	-5.09	116.41	121.50
22	AV	68	HIS	CA-CB-CG	-5.09	108.71	113.80
26	BB	491	G	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	1107	G	C3'-C2'-C1'	5.09	106.39	101.30
1	AA	1219	A	O4'-C1'-N9	5.09	116.13	108.50
8	AH	119	VAL	N-CA-C	-5.09	106.48	111.77
16	AP	11	HIS	CB-CG-ND1	5.09	130.33	122.70
26	BB	331	C	N1-C1'-C2'	5.09	121.63	114.00
26	BB	1050	A	O5'-C5'-C4'	-5.09	103.87	111.50
26	BB	1272	A	P-O3'-C3'	5.09	127.83	120.20
26	BB	1497	U	O4'-C1'-C2'	-5.09	100.71	105.80
26	BB	1715	G	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	2164	C	C2'-C3'-O3'	-5.09	106.07	113.70
38	BN	71	ALA	N-CA-CB	-5.09	101.89	110.49
38	BN	119	PRO	N-CA-C	-5.09	103.20	111.19
43	BS	77	LYS	CA-C-N	5.09	127.51	120.29
43	BS	77	LYS	C-N-CA	5.09	127.51	120.29
2	AB	31	U	C3'-C2'-O2'	5.08	118.33	110.70
26	BB	2401	U	C4'-C3'-C2'	-5.08	97.52	102.60
35	BK	133	ARG	CA-C-N	5.08	127.60	120.28
35	BK	133	ARG	C-N-CA	5.08	127.60	120.28
1	AA	180	U	C5'-C4'-O4'	5.08	117.42	109.80
1	AA	404	G	C5'-C4'-C3'	-5.08	108.37	116.00
3	AC	26	U	C3'-C2'-C1'	5.08	106.38	101.30
3	AC	49	U	O3'-P-O5'	-5.08	96.37	104.00
26	BB	94	A	C4'-C3'-O3'	-5.08	105.38	113.00
26	BB	166	U	O4'-C4'-C3'	5.08	109.08	104.00
26	BB	450	G	C2'-C3'-O3'	-5.08	106.08	113.70
26	BB	1709	U	C1'-O4'-C4'	5.08	114.98	109.90
41	BQ	75	GLY	CA-C-O	-5.08	115.51	120.75
57	B6	62	PRO	N-CA-CB	5.08	108.56	103.48
1	AA	366	A	C2'-C3'-O3'	5.08	121.32	113.70
1	AA	895	G	C3'-C2'-O2'	5.08	118.32	110.70
10	AJ	95	ARG	N-CA-C	-5.08	105.63	111.07
16	AP	116	LYS	O-C-N	5.08	129.06	122.81
17	AQ	90	GLY	CA-C-N	5.08	129.21	120.72
17	AQ	90	GLY	C-N-CA	5.08	129.21	120.72
18	AR	17	ASP	CA-C-O	-5.08	113.13	119.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	9	G	C3'-C2'-C1'	5.08	106.38	101.30
26	BB	111	A	C1'-O4'-C4'	-5.08	104.82	109.90
26	BB	123	G	O3'-P-O5'	-5.08	96.38	104.00
26	BB	502	A	O3'-P-O5'	5.08	111.62	104.00
26	BB	544	C	C4'-C3'-C2'	-5.08	97.52	102.60
26	BB	1233	C	C3'-C2'-O2'	5.08	118.32	110.70
26	BB	1391	U	C5'-C4'-O4'	5.08	116.72	109.10
26	BB	2205	A	C2'-C3'-O3'	5.08	121.32	113.70
26	BB	2351	G	N9-C1'-C2'	5.08	119.62	112.00
27	BC	231	ALA	CA-C-O	-5.08	113.40	119.35
29	BE	24	VAL	CG1-CB-CG2	-5.08	99.62	110.80
31	BG	154	THR	N-CA-CB	-5.08	102.97	110.49
35	BK	115	ASP	O-C-N	5.08	128.84	122.23
1	AA	51	A	C4'-C3'-O3'	5.08	117.02	109.40
1	AA	719	C	C4'-C3'-C2'	-5.08	97.52	102.60
1	AA	1289	A	C1'-O4'-C4'	5.08	114.98	109.90
25	BA	43	C	C3'-C2'-C1'	5.08	106.38	101.30
26	BB	828	U	O5'-C5'-C4'	-5.08	103.88	111.50
26	BB	913	U	C1'-O4'-C4'	5.08	114.78	109.70
31	BG	178	LYS	CB-CG-CD	5.08	122.98	111.30
32	BH	31	GLU	O-C-N	5.08	129.16	123.27
1	AA	490	C	O4'-C1'-N1	5.08	116.12	108.50
1	AA	892	A	C5'-C4'-O4'	5.08	117.42	109.80
2	AB	41	C	C3'-C2'-C1'	5.08	106.38	101.30
26	BB	1985	C	O5'-C5'-C4'	5.08	119.12	111.50
26	BB	2014	A	C2'-C3'-O3'	-5.08	106.08	113.70
1	AA	92	U	C5'-C4'-O4'	-5.08	102.19	109.80
1	AA	152	A	C1'-C2'-O2'	-5.08	100.78	108.40
1	AA	1224	U	C3'-C2'-C1'	5.08	106.58	101.50
2	AB	10	G	O4'-C1'-N9	5.08	116.12	108.50
5	AE	113	LEU	CB-CA-C	-5.08	102.88	110.90
20	AT	30	HIS	ND1-CE1-NE2	5.08	113.48	108.40
26	BB	175	G	C3'-C2'-O2'	5.08	118.32	110.70
29	BE	180	VAL	N-CA-C	5.08	115.79	108.48
46	BV	69	ARG	NE-CZ-NH2	5.08	123.77	119.20
1	AA	174	A	O4'-C4'-C3'	5.08	109.08	104.00
1	AA	396	C	O3'-P-O5'	-5.08	96.39	104.00
1	AA	686	U	C2'-C3'-O3'	5.08	117.11	109.50
1	AA	712	A	O3'-P-O5'	-5.08	96.39	104.00
1	AA	1488	G	O4'-C4'-C3'	-5.08	98.92	104.00
16	AP	6	ILE	CA-C-N	5.08	130.26	122.95
16	AP	6	ILE	C-N-CA	5.08	130.26	122.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AU	39	VAL	CA-C-N	5.08	125.08	119.90
21	AU	39	VAL	C-N-CA	5.08	125.08	119.90
26	BB	469	G	C3'-C2'-O2'	5.08	118.31	110.70
26	BB	623	C	P-O3'-C3'	5.08	127.81	120.20
26	BB	1391	U	C4'-C3'-C2'	5.08	107.67	102.60
26	BB	1563	U	C1'-O4'-C4'	5.08	114.98	109.90
26	BB	2806	C	C1'-C2'-O2'	-5.08	100.79	108.40
28	BD	156	SER	CA-C-N	5.08	128.06	120.90
28	BD	156	SER	C-N-CA	5.08	128.06	120.90
30	BF	93	SER	CA-C-N	5.08	132.94	123.09
30	BF	93	SER	C-N-CA	5.08	132.94	123.09
38	BN	89	VAL	CA-C-N	5.08	129.72	123.12
38	BN	89	VAL	C-N-CA	5.08	129.72	123.12
48	BX	22	ALA	N-CA-C	5.08	117.55	111.71
53	B2	61	ASN	CA-C-N	5.08	130.55	122.94
53	B2	61	ASN	C-N-CA	5.08	130.55	122.94
1	AA	77	A	C3'-C2'-O2'	-5.07	103.09	110.70
1	AA	146	G	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	394	G	O4'-C4'-C3'	5.07	109.07	104.00
1	AA	530	G	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	867	G	O4'-C4'-C3'	5.07	109.07	104.00
1	AA	1021	A	C4'-C3'-O3'	-5.07	105.39	113.00
2	AB	7	G	C5'-C4'-C3'	5.07	123.61	116.00
2	AB	36	A	C5'-C4'-C3'	-5.07	108.39	116.00
2	AB	56	C	N1-C1'-C2'	5.07	119.61	112.00
14	AN	19	VAL	O-C-N	-5.07	117.70	123.18
26	BB	310	A	O3'-P-O5'	-5.07	96.39	104.00
26	BB	1792	G	O4'-C1'-C2'	-5.07	102.53	107.60
26	BB	2323	G	O4'-C4'-C3'	5.07	109.07	104.00
26	BB	2903	U	O4'-C1'-N1	5.07	116.11	108.50
37	BM	97	THR	CA-C-O	5.07	124.72	119.14
57	B6	49	VAL	CA-C-N	5.07	130.02	121.14
57	B6	49	VAL	C-N-CA	5.07	130.02	121.14
1	AA	277	C	O4'-C4'-C3'	5.07	109.07	104.00
21	AU	46	THR	CB-CA-C	5.07	118.62	109.64
23	AW	4	LYS	O-C-N	5.07	129.34	123.41
26	BB	203	A	C2'-C3'-O3'	-5.07	106.09	113.70
26	BB	1223	G	O4'-C4'-C3'	-5.07	98.93	104.00
26	BB	2247	A	C3'-C2'-C1'	5.07	106.37	101.30
26	BB	2453	A	C3'-C2'-C1'	-5.07	96.23	101.30
26	BB	2611	C	C1'-O4'-C4'	5.07	114.97	109.90
35	BK	118	GLY	N-CA-C	5.07	117.76	111.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AP	53	ASP	CA-CB-CG	5.07	117.67	112.60
26	BB	275	C	P-O5'-C5'	-5.07	113.30	120.90
26	BB	328	U	C3'-C2'-O2'	5.07	118.31	110.70
26	BB	486	C	C2'-C3'-O3'	5.07	121.31	113.70
26	BB	524	G	C1'-C2'-O2'	-5.07	100.79	108.40
26	BB	1201	U	C5'-C4'-O4'	5.07	117.41	109.80
26	BB	1744	A	C5'-C4'-O4'	5.07	117.41	109.80
26	BB	2424	C	C4'-C3'-C2'	-5.07	97.53	102.60
54	B3	43	THR	CA-C-O	-5.07	116.30	122.03
1	AA	81	A	N9-C1'-C2'	-5.07	104.40	112.00
20	AT	51	GLU	CA-CB-CG	5.07	124.24	114.10
26	BB	296	U	C3'-C2'-O2'	5.07	118.30	110.70
26	BB	1499	C	C4'-C3'-C2'	-5.07	97.53	102.60
32	BH	123	GLU	CA-C-O	-5.07	116.03	121.45
34	BJ	60	ARG	CA-C-N	5.07	127.58	120.28
34	BJ	60	ARG	C-N-CA	5.07	127.58	120.28
40	BP	65	LEU	N-CA-CB	5.07	117.36	110.01
1	AA	345	C	C3'-C2'-C1'	5.07	106.57	101.50
1	AA	485	U	O4'-C1'-C2'	-5.07	100.73	105.80
7	AG	132	ALA	CA-C-N	5.07	131.28	122.56
7	AG	132	ALA	C-N-CA	5.07	131.28	122.56
26	BB	1238	G	O4'-C1'-N9	5.07	116.10	108.50
26	BB	1807	G	P-O3'-C3'	5.07	127.80	120.20
26	BB	2551	C	C5'-C4'-C3'	-5.07	108.40	116.00
26	BB	2594	C	C2'-C3'-O3'	-5.07	106.10	113.70
26	BB	2663	G	C1'-O4'-C4'	-5.07	104.83	109.90
27	BC	145	VAL	CA-C-O	-5.07	115.11	121.04
46	BV	73	ARG	NE-CZ-NH2	-5.07	114.64	119.20
51	B0	15	ASN	CA-CB-CG	5.07	117.67	112.60
1	AA	1112	C	O3'-P-O5'	-5.07	96.40	104.00
1	AA	1201	A	P-O3'-C3'	5.07	127.80	120.20
3	AC	42	U	N1-C1'-C2'	5.07	119.60	112.00
5	AE	144	GLU	O-C-N	5.07	127.56	122.09
26	BB	799	G	C1'-C2'-O2'	5.07	116.00	108.40
26	BB	2394	C	C5'-C4'-C3'	-5.07	108.40	116.00
26	BB	2427	C	O4'-C1'-N1	5.07	115.80	108.20
51	B0	18	LEU	CA-C-O	-5.07	115.48	120.80
1	AA	235	C	C2'-C3'-O3'	5.06	121.30	113.70
1	AA	286	C	C4'-C3'-O3'	5.06	120.60	113.00
26	BB	71	A	C3'-C2'-C1'	-5.06	96.44	101.50
28	BD	186	ASP	N-CA-C	-5.06	107.10	113.28
28	BD	199	HIS	CB-CG-CD2	-5.06	124.62	131.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BH	114	HIS	CB-CG-CD2	-5.06	124.62	131.20
1	AA	625	U	C5'-C4'-C3'	-5.06	108.41	116.00
1	AA	939	G	C5'-C4'-C3'	-5.06	108.41	116.00
14	AN	115	ILE	CB-CA-C	5.06	120.57	111.36
26	BB	552	U	P-O3'-C3'	5.06	127.79	120.20
26	BB	1026	G	O4'-C4'-C3'	-5.06	98.94	104.00
26	BB	2539	C	O4'-C1'-N1	5.06	116.09	108.50
36	BL	98	GLU	CA-C-O	-5.06	115.16	120.63
5	AE	198	VAL	CA-CB-CG2	5.06	119.00	110.40
15	AO	54	VAL	O-C-N	-5.06	117.71	123.18
16	AP	58	GLU	CA-C-N	5.06	127.61	120.42
16	AP	58	GLU	C-N-CA	5.06	127.61	120.42
24	AX	70	TYR	CA-CB-CG	5.06	123.01	113.90
26	BB	277	G	O4'-C1'-C2'	-5.06	102.54	107.60
26	BB	1235	G	O4'-C4'-C3'	5.06	109.06	104.00
26	BB	2310	C	C1'-C2'-O2'	5.06	115.99	108.40
36	BL	61	LYS	CB-CA-C	5.06	119.27	110.72
45	BU	84	ARG	CG-CD-NE	5.06	123.14	112.00
1	AA	262	A	O5'-C5'-C4'	5.06	119.09	111.50
1	AA	307	C	O5'-C5'-C4'	5.06	119.29	111.70
1	AA	845	A	O4'-C1'-C2'	-5.06	102.54	107.60
1	AA	992	U	O4'-C4'-C3'	5.06	111.16	106.10
9	AI	91	ARG	CA-C-N	5.06	127.06	120.28
9	AI	91	ARG	C-N-CA	5.06	127.06	120.28
14	AN	28	ASN	CA-CB-CG	5.06	117.66	112.60
25	BA	63	C	O4'-C4'-C3'	5.06	109.06	104.00
26	BB	613	A	O3'-P-O5'	-5.06	96.41	104.00
26	BB	853	C	O5'-C5'-C4'	-5.06	103.91	111.50
26	BB	1068	G	C3'-C2'-C1'	5.06	106.36	101.30
26	BB	1902	C	C3'-C2'-C1'	5.06	106.36	101.30
26	BB	2041	U	O3'-P-O5'	5.06	111.59	104.00
1	AA	739	C	C5'-C4'-C3'	-5.06	108.41	116.00
1	AA	827	U	N1-C1'-C2'	5.06	119.59	112.00
17	AQ	18	LYS	CA-C-O	-5.06	115.49	120.70
17	AQ	74	ARG	CA-C-N	5.06	128.00	120.31
17	AQ	74	ARG	C-N-CA	5.06	128.00	120.31
25	BA	100	G	C4'-C3'-O3'	-5.06	105.42	113.00
26	BB	721	A	P-O3'-C3'	5.06	127.78	120.20
26	BB	1130	U	C4'-C3'-C2'	-5.06	97.54	102.60
26	BB	1178	C	P-O3'-C3'	5.06	127.79	120.20
26	BB	1882	U	N1-C1'-C2'	-5.06	104.41	112.00
26	BB	1916	A	C1'-O4'-C4'	5.06	114.96	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
47	BW	53	GLN	CA-C-N	5.06	124.84	119.28
47	BW	53	GLN	C-N-CA	5.06	124.84	119.28
48	BX	34	LYS	N-CA-CB	-5.06	101.92	110.41
1	AA	750	C	O5'-C5'-C4'	-5.06	103.92	111.50
1	AA	935	A	C1'-O4'-C4'	5.06	114.96	109.90
23	AW	69	ASN	CA-C-N	5.06	127.36	120.54
23	AW	69	ASN	C-N-CA	5.06	127.36	120.54
26	BB	740	C	O4'-C1'-C2'	-5.06	102.54	107.60
26	BB	2823	A	O4'-C1'-C2'	-5.06	102.54	107.60
6	AF	72	PRO	N-CA-C	5.05	120.47	113.65
7	AG	70	GLN	CA-C-O	-5.05	115.51	120.82
11	AK	11	THR	CA-CB-CG2	5.05	119.09	110.50
17	AQ	97	LYS	N-CA-C	5.05	117.37	110.24
25	BA	34	A	P-O3'-C3'	5.05	127.78	120.20
25	BA	92	C	N1-C1'-C2'	-5.05	104.42	112.00
26	BB	305	C	P-O3'-C3'	5.05	127.78	120.20
26	BB	576	U	O3'-P-O5'	5.05	111.58	104.00
26	BB	2018	G	C4'-C3'-C2'	5.05	107.66	102.60
26	BB	2643	G	C3'-C2'-O2'	5.05	118.28	110.70
29	BE	195	GLY	CA-C-O	-5.05	117.33	122.59
42	BR	71	ARG	CD-NE-CZ	5.05	131.48	124.40
26	BB	555	G	C1'-C2'-O2'	-5.05	100.82	108.40
26	BB	2240	U	N1-C1'-C2'	5.05	119.58	112.00
26	BB	588	U	C5'-C4'-C3'	-5.05	108.42	116.00
26	BB	931	U	C2'-C3'-O3'	5.05	117.08	109.50
26	BB	1669	A	O4'-C1'-C2'	-5.05	102.55	107.60
26	BB	2443	C	C5'-C4'-O4'	5.05	117.38	109.80
26	BB	2512	C	C1'-C2'-O2'	5.05	115.98	108.40
34	BJ	19	LYS	CA-C-N	5.05	126.64	120.22
34	BJ	19	LYS	C-N-CA	5.05	126.64	120.22
34	BJ	78	PRO	N-CD-CG	5.05	110.78	103.20
46	BV	91	GLN	OE1-CD-NE2	-5.05	117.55	122.60
1	AA	773	G	C1'-O4'-C4'	5.05	114.95	109.90
1	AA	1053	G	O3'-P-O5'	-5.05	96.43	104.00
1	AA	1135	U	O4'-C1'-N1	5.05	116.07	108.50
21	AU	68	PRO	N-CA-CB	5.05	107.99	103.19
26	BB	1927	A	C2'-C3'-O3'	5.05	121.27	113.70
26	BB	1989	G	N9-C1'-C2'	-5.05	104.43	112.00
26	BB	2015	A	C1'-O4'-C4'	-5.05	104.85	109.90
26	BB	2065	C	O4'-C1'-N1	5.05	116.07	108.50
26	BB	2223	G	O3'-P-O5'	-5.05	96.42	104.00
26	BB	2675	A	P-O3'-C3'	5.05	127.77	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	603	U	C5'-C4'-C3'	-5.05	108.43	116.00
25	BA	6	G	C1'-O4'-C4'	5.05	114.95	109.90
26	BB	990	A	O4'-C4'-C3'	5.05	109.05	104.00
26	BB	1182	G	C4'-C3'-C2'	-5.05	97.55	102.60
26	BB	1631	G	C4'-C3'-C2'	-5.05	97.55	102.60
26	BB	2537	U	C3'-C2'-C1'	5.05	106.35	101.30
43	BS	82	LEU	N-CA-CB	-5.05	102.69	110.16
1	AA	749	A	O4'-C1'-N9	5.05	116.07	108.50
2	AB	64	U	O4'-C1'-C2'	-5.05	100.75	105.80
3	AC	47	C	C3'-C2'-O2'	-5.05	107.03	114.60
26	BB	1102	C	P-O5'-C5'	5.05	128.47	120.90
26	BB	1172	C	N1-C1'-C2'	-5.05	104.43	112.00
26	BB	1663	G	C4'-C3'-O3'	-5.05	105.43	113.00
26	BB	1669	A	C3'-C2'-O2'	5.05	118.27	110.70
26	BB	1676	A	C2'-C3'-O3'	-5.05	106.13	113.70
26	BB	2057	G	C4'-C3'-C2'	-5.05	97.55	102.60
26	BB	2257	U	O4'-C1'-C2'	-5.05	102.55	107.60
28	BD	245	THR	CA-C-N	5.05	124.77	119.82
28	BD	245	THR	C-N-CA	5.05	124.77	119.82
31	BG	121	PHE	CD1-CE1-CZ	5.05	129.08	120.00
32	BH	33	THR	CA-CB-OG1	5.05	117.17	109.60
54	B3	5	ASN	N-CA-C	5.05	117.08	109.41
2	AB	24	G	C5'-C4'-C3'	-5.04	108.43	116.00
26	BB	709	U	C4'-C3'-O3'	-5.04	105.43	113.00
26	BB	1421	G	O4'-C4'-C3'	5.04	109.05	104.00
47	BW	65	GLN	N-CA-C	5.04	117.19	110.53
50	BZ	21	LEU	CA-C-N	5.04	127.87	120.71
50	BZ	21	LEU	C-N-CA	5.04	127.87	120.71
1	AA	106	C	N1-C1'-C2'	-5.04	104.43	112.00
1	AA	308	C	C5'-C4'-O4'	5.04	117.37	109.80
1	AA	437	U	C5'-C4'-O4'	-5.04	102.23	109.80
1	AA	586	C	C3'-C2'-O2'	5.04	118.27	110.70
1	AA	610	U	O4'-C1'-N1	5.04	116.07	108.50
1	AA	1097	C	C3'-C2'-C1'	-5.04	96.26	101.30
22	AV	9	PHE	N-CA-CB	-5.04	102.21	110.68
26	BB	786	C	P-O3'-C3'	5.04	127.76	120.20
26	BB	1667	G	C3'-C2'-O2'	-5.04	107.03	114.60
26	BB	2380	C	C4'-C3'-O3'	5.04	120.57	113.00
26	BB	2514	U	C2'-C3'-O3'	-5.04	106.14	113.70
57	B6	12	ARG	NE-CZ-NH2	5.04	123.74	119.20
7	AG	22	SER	CA-C-N	5.04	131.29	121.41
7	AG	22	SER	C-N-CA	5.04	131.29	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	734	A	P-O3'-C3'	5.04	127.76	120.20
26	BB	1478	G	C1'-O4'-C4'	-5.04	104.86	109.90
26	BB	2380	C	C5'-C4'-C3'	5.04	123.56	116.00
26	BB	2494	G	O4'-C1'-C2'	-5.04	102.56	107.60
26	BB	2887	A	C5'-C4'-C3'	-5.04	108.44	116.00
30	BF	92	HIS	CE1-NE2-CD2	-5.04	103.96	109.00
44	BT	9	GLY	CA-C-N	5.04	130.24	122.93
44	BT	9	GLY	C-N-CA	5.04	130.24	122.93
1	AA	1139	G	C3'-C2'-C1'	5.04	106.54	101.50
1	AA	1157	A	O4'-C1'-C2'	-5.04	100.76	105.80
17	AQ	40	ARG	NE-CZ-NH2	-5.04	114.66	119.20
26	BB	1764	C	O4'-C1'-N1	5.04	116.06	108.50
26	BB	2175	C	C4'-C3'-C2'	5.04	107.64	102.60
1	AA	187	G	C1'-C2'-O2'	-5.04	100.84	108.40
1	AA	229	U	C1'-O4'-C4'	-5.04	104.86	109.90
1	AA	1274	A	O4'-C1'-C2'	-5.04	102.56	107.60
12	AL	115	VAL	O-C-N	5.04	127.97	122.63
14	AN	2	LYS	CB-CG-CD	5.04	122.89	111.30
26	BB	62	U	C3'-C2'-O2'	5.04	118.26	110.70
26	BB	439	A	O4'-C1'-N9	5.04	116.06	108.50
26	BB	1086	A	O3'-P-O5'	-5.04	96.44	104.00
26	BB	2271	G	C5'-C4'-O4'	5.04	117.36	109.80
26	BB	2339	C	P-O3'-C3'	5.04	127.76	120.20
26	BB	2418	A	O3'-P-O5'	-5.04	96.44	104.00
47	BW	81	ARG	CB-CA-C	5.04	118.27	109.65
21	AU	22	TYR	CA-C-O	5.04	124.04	118.65
26	BB	2685	G	O4'-C1'-C2'	-5.04	102.56	107.60
26	BB	2793	C	C3'-C2'-C1'	5.04	106.34	101.30
43	BS	45	ALA	O-C-N	5.04	127.33	122.09
1	AA	397	A	O4'-C1'-N9	-5.04	100.95	108.50
1	AA	1379	G	O5'-C5'-C4'	-5.04	103.95	111.50
2	AB	3	G	C1'-C2'-O2'	5.04	115.95	108.40
6	AF	68	HIS	ND1-CE1-NE2	5.04	113.44	108.40
12	AL	81	GLY	CA-C-N	5.04	127.36	120.46
12	AL	81	GLY	C-N-CA	5.04	127.36	120.46
13	AM	76	ILE	CA-CB-CG1	5.04	118.96	110.40
26	BB	111	A	C5'-C4'-C3'	-5.04	108.45	116.00
26	BB	2029	G	C1'-C2'-O2'	5.04	115.95	108.40
26	BB	2203	U	O3'-P-O5'	-5.04	96.45	104.00
26	BB	2303	G	O4'-C1'-C2'	-5.04	102.56	107.60
26	BB	2761	A	C3'-C2'-C1'	-5.04	96.26	101.30
26	BB	2798	U	C5'-C4'-O4'	5.04	116.65	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BC	187	GLU	CB-CG-CD	-5.04	104.04	112.60
29	BE	144	GLY	CA-C-O	-5.04	117.44	121.77
1	AA	441	A	O4'-C4'-C3'	5.03	109.03	104.00
1	AA	975	A	O4'-C4'-C3'	-5.03	98.97	104.00
1	AA	1399	C	C1'-C2'-O2'	5.03	119.35	111.80
2	AB	36	A	C4'-C3'-C2'	-5.03	97.57	102.60
11	AK	30	LYS	CA-C-N	5.03	127.29	120.44
11	AK	30	LYS	C-N-CA	5.03	127.29	120.44
26	BB	70	G	N9-C1'-C2'	-5.03	106.45	114.00
26	BB	178	G	N9-C1'-C2'	-5.03	104.45	112.00
26	BB	1189	A	C5'-C4'-C3'	-5.03	108.45	116.00
26	BB	2794	C	C1'-O4'-C4'	5.03	114.93	109.90
1	AA	72	A	C5'-C4'-O4'	5.03	117.35	109.80
2	AB	44	G	C5'-C4'-O4'	5.03	117.35	109.80
4	AD	43	G	O5'-C5'-C4'	5.03	119.05	111.50
26	BB	1145	C	N1-C1'-C2'	-5.03	104.45	112.00
26	BB	1708	C	P-O5'-C5'	5.03	128.45	120.90
28	BD	59	GLN	CA-C-N	5.03	130.13	120.97
28	BD	59	GLN	C-N-CA	5.03	130.13	120.97
38	BN	57	LEU	N-CA-C	5.03	118.52	112.38
44	BT	32	THR	CB-CA-C	5.03	118.05	109.75
1	AA	986	U	C1'-C2'-O2'	-5.03	100.85	108.40
1	AA	1189	U	C4'-C3'-O3'	5.03	120.55	113.00
4	AD	44	A	C1'-C2'-O2'	-5.03	100.85	108.40
9	AI	3	HIS	ND1-CG-CD2	5.03	111.13	106.10
12	AL	107	ALA	O-C-N	5.03	128.93	122.39
17	AQ	96	LYS	N-CA-C	5.03	116.64	109.14
26	BB	119	A	O4'-C4'-C3'	5.03	111.13	106.10
26	BB	1680	U	C5'-C4'-C3'	-5.03	108.45	116.00
26	BB	2069	7MG	P-O3'-C3'	5.03	127.74	120.20
26	BB	2335	A	C5'-C4'-C3'	-5.03	108.45	116.00
26	BB	2380	C	C1'-O4'-C4'	5.03	114.93	109.90
26	BB	2709	G	C1'-C2'-O2'	-5.03	100.86	108.40
6	AF	62	SER	CA-C-N	5.03	129.79	123.10
6	AF	62	SER	C-N-CA	5.03	129.79	123.10
26	BB	211	C	O4'-C1'-C2'	-5.03	102.57	107.60
26	BB	2766	A	C4'-C3'-C2'	5.03	107.63	102.60
47	BW	22	GLY	CA-C-N	5.03	130.79	121.94
47	BW	22	GLY	C-N-CA	5.03	130.79	121.94
1	AA	1155	A	C5'-C4'-C3'	-5.03	108.46	116.00
17	AQ	1	ALA	CA-C-N	5.03	131.14	121.54
17	AQ	1	ALA	C-N-CA	5.03	131.14	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	267	C	C1'-O4'-C4'	5.03	114.93	109.90
26	BB	829	A	N9-C1'-C2'	5.03	121.54	114.00
26	BB	976	G	C5'-C4'-O4'	5.03	117.34	109.80
26	BB	1025	G	C3'-C2'-C1'	-5.03	96.47	101.50
26	BB	1771	C	O4'-C1'-N1	5.03	116.04	108.50
26	BB	1999	C	O4'-C1'-C2'	-5.03	102.57	107.60
26	BB	2494	G	P-O5'-C5'	5.03	128.44	120.90
26	BB	2800	A	O4'-C4'-C3'	5.03	109.03	104.00
1	AA	97	G	C2'-C3'-O3'	5.03	121.24	113.70
1	AA	359	G	O4'-C1'-N9	5.03	116.04	108.50
1	AA	942	G	C1'-C2'-O2'	5.03	115.94	108.40
26	BB	156	A	C4'-C3'-C2'	-5.03	97.57	102.60
26	BB	197	A	O4'-C1'-C2'	-5.03	102.58	107.60
26	BB	1613	G	C4'-C3'-C2'	-5.03	97.58	102.60
26	BB	1926	U	O4'-C1'-N1	5.03	116.04	108.50
26	BB	2868	A	N9-C1'-C2'	5.03	119.54	112.00
37	BM	51	LYS	N-CA-CB	-5.03	102.05	110.39
43	BS	94	LEU	O-C-N	5.03	128.76	122.23
50	BZ	47	THR	CA-CB-CG2	5.03	119.04	110.50
1	AA	125	U	O4'-C1'-N1	5.02	116.04	108.50
7	AG	74	TYR	CD1-CG-CD2	5.02	125.64	118.10
9	AI	17	GLN	N-CA-C	5.02	118.56	112.23
26	BB	996	A	C5'-C4'-C3'	-5.02	108.46	116.00
7	AG	153	ARG	CD-NE-CZ	5.02	131.43	124.40
25	BA	51	G	O4'-C4'-C3'	5.02	109.02	104.00
25	BA	108	A	P-O3'-C3'	5.02	127.73	120.20
26	BB	268	C	C4'-C3'-O3'	5.02	120.53	113.00
26	BB	376	G	O4'-C1'-C2'	-5.02	102.58	107.60
26	BB	1180	U	C3'-C2'-O2'	5.02	118.23	110.70
26	BB	1209	U	N1-C1'-C2'	-5.02	104.47	112.00
26	BB	1425	G	N9-C1'-C2'	-5.02	104.47	112.00
26	BB	1570	A	C4'-C3'-C2'	-5.02	97.58	102.60
26	BB	2002	G	C4'-C3'-C2'	-5.02	97.58	102.60
26	BB	2802	G	C5'-C4'-O4'	5.02	117.33	109.80
27	BC	76	ALA	O-C-N	-5.02	116.62	123.10
38	BN	101	ILE	CA-C-O	-5.02	114.89	120.46
1	AA	5	U	O4'-C1'-N1	5.02	115.73	108.20
1	AA	1092	A	C1'-O4'-C4'	5.02	114.92	109.90
1	AA	1417	G	C5'-C4'-O4'	5.02	117.33	109.80
22	AV	51	HIS	O-C-N	5.02	129.09	123.06
26	BB	213	A	N9-C1'-C2'	-5.02	104.47	112.00
26	BB	2725	A	C5'-C4'-C3'	-5.02	107.67	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	566	G	C1'-C2'-O2'	5.02	119.33	111.80
10	AJ	130	LYS	CA-C-O	5.02	124.42	118.90
17	AQ	15	LEU	N-CA-C	-5.02	107.29	113.41
26	BB	20	C	O4'-C1'-C2'	-5.02	102.58	107.60
26	BB	1394	U	C3'-C2'-C1'	-5.02	96.28	101.30
28	BD	83	ASP	CA-CB-CG	-5.02	107.58	112.60
31	BG	78	ILE	N-CA-CB	-5.02	105.14	111.46
39	BO	41	LEU	CA-C-N	5.02	130.98	122.65
39	BO	41	LEU	C-N-CA	5.02	130.98	122.65
52	B1	19	HIS	CA-CB-CG	-5.02	108.78	113.80
1	AA	510	A	P-O3'-C3'	5.02	127.73	120.20
1	AA	1252	A	O5'-C5'-C4'	-5.02	103.97	111.50
7	AG	153	ARG	N-CA-C	5.02	118.50	112.38
14	AN	21	HIS	CB-CG-CD2	-5.02	124.68	131.20
22	AV	40	PHE	N-CA-C	5.02	116.38	108.55
26	BB	570	G	N9-C1'-C2'	5.02	121.53	114.00
26	BB	1216	G	C4'-C3'-C2'	-5.02	97.58	102.60
26	BB	1336	A	C5'-C4'-C3'	5.02	123.53	116.00
26	BB	2160	C	C4'-C3'-C2'	-5.02	97.58	102.60
26	BB	2235	G	C3'-C2'-C1'	5.02	106.32	101.30
26	BB	2271	G	P-O3'-C3'	5.02	127.73	120.20
26	BB	2695	U	O4'-C1'-N1	5.02	116.03	108.50
31	BG	12	VAL	N-CA-C	-5.02	105.65	110.72
33	BI	135	HIS	CE1-NE2-CD2	-5.02	103.98	109.00
43	BS	91	ARG	CA-C-N	5.02	127.94	120.31
43	BS	91	ARG	C-N-CA	5.02	127.94	120.31
1	AA	1213	A	P-O5'-C5'	5.02	128.42	120.90
26	BB	1798	U	C4'-C3'-O3'	-5.02	105.48	113.00
26	BB	2153	C	O4'-C1'-N1	5.02	115.72	108.20
26	BB	2546	U	C4'-C3'-O3'	-5.02	105.48	113.00
1	AA	79	G	O3'-P-O5'	-5.01	96.48	104.00
1	AA	152	A	C5'-C4'-O4'	5.01	117.32	109.80
1	AA	500	G	O4'-C1'-C2'	-5.01	102.59	107.60
1	AA	1369	C	C4'-C3'-C2'	-5.01	97.59	102.60
7	AG	202	LEU	O-C-N	5.01	127.50	122.09
9	AI	44	ARG	CA-C-N	5.01	130.56	122.29
9	AI	44	ARG	C-N-CA	5.01	130.56	122.29
18	AR	60	SER	CA-C-O	-5.01	115.23	120.55
20	AT	83	LEU	CB-CA-C	5.01	119.63	110.10
26	BB	28	A	C2'-C3'-O3'	-5.01	106.18	113.70
26	BB	1317	G	O3'-P-O5'	5.01	111.52	104.00
26	BB	1872	A	C3'-C2'-O2'	5.01	118.22	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2198	A	C1'-C2'-O2'	5.01	119.32	111.80
26	BB	2643	G	N9-C1'-C2'	5.01	119.52	112.00
1	AA	112	G	C4'-C3'-C2'	-5.01	97.59	102.60
1	AA	626	G	O4'-C1'-C2'	-5.01	102.59	107.60
5	AE	71	THR	CA-C-N	5.01	130.37	121.80
5	AE	71	THR	C-N-CA	5.01	130.37	121.80
8	AH	58	ALA	N-CA-C	5.01	116.43	111.07
24	AX	6	ARG	CB-CG-CD	5.01	122.83	111.30
26	BB	1466	U	C4'-C3'-O3'	-5.01	105.48	113.00
26	BB	1664	A	O4'-C4'-C3'	5.01	109.01	104.00
1	AA	186	C	C4'-C3'-O3'	-5.01	105.48	113.00
1	AA	1052	U	O4'-C1'-C2'	-5.01	102.59	107.60
1	AA	1490	U	C1'-O4'-C4'	-5.01	104.89	109.90
3	AC	42	U	C3'-C2'-C1'	5.01	106.31	101.30
26	BB	476	G	C5'-C4'-O4'	5.01	117.32	109.80
26	BB	496	G	C3'-C2'-O2'	5.01	118.22	110.70
26	BB	583	G	C4'-C3'-C2'	-5.01	97.59	102.60
26	BB	896	A	C2'-C3'-O3'	5.01	117.02	109.50
32	BH	54	ARG	CA-C-N	5.01	127.83	120.71
32	BH	54	ARG	C-N-CA	5.01	127.83	120.71
46	BV	72	GLN	CA-C-N	5.01	131.11	121.54
46	BV	72	GLN	C-N-CA	5.01	131.11	121.54
48	BX	78	GLN	CB-CA-C	5.01	118.02	109.75
1	AA	80	A	C2'-C3'-O3'	-5.01	106.19	113.70
1	AA	355	C	C5'-C4'-C3'	-5.01	108.48	116.00
1	AA	422	C	O4'-C1'-C2'	-5.01	100.79	105.80
1	AA	1158	C	C3'-C2'-O2'	5.01	118.22	110.70
1	AA	1446	A	C4'-C3'-C2'	-5.01	97.59	102.60
2	AB	47	U	P-O3'-C3'	5.01	127.71	120.20
9	AI	29	ILE	N-CA-C	5.01	115.68	110.82
26	BB	757	G	O3'-P-O5'	5.01	111.51	104.00
26	BB	1982	U	C1'-O4'-C4'	5.01	114.91	109.90
1	AA	827	U	C3'-C2'-O2'	5.01	118.21	110.70
1	AA	984	C	P-O5'-C5'	5.01	128.41	120.90
1	AA	1298	U	C1'-O4'-C4'	-5.01	104.69	109.70
2	AB	4	G	C2'-C3'-O3'	-5.01	106.19	113.70
9	AI	98	GLU	CA-C-N	5.01	131.10	121.54
9	AI	98	GLU	C-N-CA	5.01	131.10	121.54
19	AS	49	GLY	N-CA-C	5.01	120.22	114.16
26	BB	1540	G	C3'-C2'-O2'	-5.01	103.19	110.70
26	BB	2410	G	P-O3'-C3'	5.01	127.71	120.20
1	AA	149	A	C1'-C2'-O2'	-5.01	100.89	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1012	A	C5'-C4'-C3'	-5.01	108.49	116.00
1	AA	1111	A	C1'-O4'-C4'	-5.01	104.89	109.90
2	AB	68	C	P-O3'-C3'	5.01	127.71	120.20
26	BB	211	C	C4'-C3'-C2'	-5.01	97.59	102.60
26	BB	617	G	C1'-O4'-C4'	5.01	114.91	109.90
26	BB	961	C	N1-C1'-C2'	5.01	121.51	114.00
26	BB	1287	A	C5'-C4'-O4'	5.01	117.31	109.80
26	BB	1557	C	C4'-C3'-C2'	-5.01	97.59	102.60
45	BU	69	LEU	CB-CA-C	5.01	118.03	109.72
6	AF	83	VAL	O-C-N	5.00	129.03	122.12
26	BB	1226	A	C4'-C3'-O3'	5.00	120.51	113.00
26	BB	2292	U	O4'-C1'-N1	-5.00	100.99	108.50
26	BB	2407	A	C4'-C3'-C2'	5.00	107.61	102.60
26	BB	2831	G	C5'-C4'-C3'	-5.00	108.49	116.00
30	BF	69	ARG	CA-C-O	-5.00	114.22	119.97
48	BX	67	GLY	N-CA-C	-5.00	108.70	115.36
1	AA	122	G	C5'-C4'-O4'	5.00	117.31	109.80
1	AA	285	C	O3'-P-O5'	5.00	111.50	104.00
1	AA	960	U	C3'-C2'-O2'	5.00	118.20	110.70
6	AF	209	GLY	CA-C-N	5.00	129.77	121.86
6	AF	209	GLY	C-N-CA	5.00	129.77	121.86
13	AM	16	ARG	CA-C-O	-5.00	115.12	120.42
18	AR	80	LEU	N-CA-C	5.00	117.12	111.02
22	AV	76	THR	O-C-N	5.00	129.24	122.59
26	BB	391	A	C5'-C4'-O4'	5.00	117.30	109.80
26	BB	714	U	C1'-C2'-O2'	5.00	115.91	108.40
26	BB	980	A	O3'-P-O5'	5.00	111.50	104.00
26	BB	2058	A	C3'-C2'-C1'	5.00	106.30	101.30
26	BB	2490	G	C5'-C4'-O4'	5.00	116.61	109.10
35	BK	136	GLY	O-C-N	-5.00	116.11	122.32
39	BO	28	PHE	CA-C-O	5.00	125.42	119.67
1	AA	148	G	C5'-C4'-C3'	-5.00	108.50	116.00
1	AA	910	C	O4'-C1'-N1	5.00	116.00	108.50
21	AU	45	GLY	CA-C-N	5.00	128.17	120.82
21	AU	45	GLY	C-N-CA	5.00	128.17	120.82
26	BB	181	A	P-O5'-C5'	5.00	128.40	120.90
26	BB	597	G	C3'-C2'-O2'	5.00	118.20	110.70
26	BB	881	G	C3'-C2'-O2'	5.00	118.20	110.70
26	BB	1526	C	C4'-C3'-C2'	-5.00	97.60	102.60
26	BB	1967	C	O5'-C5'-C4'	5.00	119.00	111.50
26	BB	2507	C	O4'-C1'-C2'	-5.00	102.60	107.60
26	BB	2522	U	C5'-C4'-C3'	5.00	123.50	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	BF	29	HIS	CA-C-O	-5.00	115.23	120.63
32	BH	12	ALA	CA-C-O	5.00	126.75	121.05

There are no chirality outliers.

All (2945) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	100	G	Sidechain
1	AA	1000	A	Sidechain
1	AA	1001	C	Sidechain
1	AA	1003	G	Sidechain
1	AA	1005	A	Sidechain
1	AA	1007	U	Sidechain
1	AA	1008	U	Sidechain
1	AA	101	A	Sidechain
1	AA	1010	U	Sidechain
1	AA	1012	A	Sidechain
1	AA	1014	A	Sidechain
1	AA	1016	A	Sidechain
1	AA	1017	U	Sidechain
1	AA	102	G	Sidechain
1	AA	1022	A	Sidechain
1	AA	1023	U	Sidechain
1	AA	1024	G	Sidechain
1	AA	1026	G	Sidechain
1	AA	1031	C	Sidechain
1	AA	1033	G	Sidechain
1	AA	1034	G	Sidechain
1	AA	1035	A	Sidechain
1	AA	1036	A	Sidechain
1	AA	1038	C	Sidechain
1	AA	1039	G	Sidechain
1	AA	1040	U	Sidechain
1	AA	1042	A	Sidechain
1	AA	1043	G	Sidechain
1	AA	1044	A	Sidechain
1	AA	1045	C	Sidechain
1	AA	1046	A	Sidechain
1	AA	1047	G	Sidechain
1	AA	1048	G	Sidechain
1	AA	1049	U	Sidechain
1	AA	105	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1050	G	Sidechain
1	AA	1052	U	Sidechain
1	AA	1056	U	Sidechain
1	AA	1058	G	Sidechain
1	AA	1059	C	Sidechain
1	AA	106	C	Sidechain
1	AA	1060	U	Sidechain
1	AA	1065	U	Sidechain
1	AA	1067	A	Sidechain
1	AA	107	G	Sidechain
1	AA	1070	U	Sidechain
1	AA	1072	G	Sidechain
1	AA	1073	U	Sidechain
1	AA	1074	G	Sidechain
1	AA	1075	U	Sidechain
1	AA	1076	U	Sidechain
1	AA	1077	G	Sidechain
1	AA	108	G	Sidechain
1	AA	1082	A	Sidechain
1	AA	1085	U	Sidechain
1	AA	1087	G	Sidechain
1	AA	1088	G	Sidechain
1	AA	1089	G	Sidechain
1	AA	1090	U	Sidechain
1	AA	1091	U	Sidechain
1	AA	1093	A	Sidechain
1	AA	1094	G	Sidechain
1	AA	1095	U	Sidechain
1	AA	1096	C	Sidechain
1	AA	1098	C	Sidechain
1	AA	1099	G	Sidechain
1	AA	11	G	Sidechain
1	AA	110	C	Sidechain
1	AA	1101	A	Sidechain
1	AA	1102	A	Sidechain
1	AA	1103	C	Sidechain
1	AA	1104	G	Sidechain
1	AA	1105	A	Sidechain
1	AA	1106	G	Sidechain
1	AA	1110	A	Sidechain
1	AA	1113	C	Sidechain
1	AA	1115	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1116	U	Sidechain
1	AA	1118	U	Sidechain
1	AA	112	G	Sidechain
1	AA	1121	U	Sidechain
1	AA	1122	U	Sidechain
1	AA	1124	G	Sidechain
1	AA	1126	U	Sidechain
1	AA	1127	G	Sidechain
1	AA	1128	C	Sidechain
1	AA	1129	C	Sidechain
1	AA	1132	C	Sidechain
1	AA	1136	C	Sidechain
1	AA	1139	G	Sidechain
1	AA	1141	C	Sidechain
1	AA	1142	G	Sidechain
1	AA	1145	A	Sidechain
1	AA	1146	A	Sidechain
1	AA	1148	U	Sidechain
1	AA	1150	A	Sidechain
1	AA	1151	A	Sidechain
1	AA	1153	G	Sidechain
1	AA	1154	G	Sidechain
1	AA	1155	A	Sidechain
1	AA	1156	G	Sidechain
1	AA	116	A	Sidechain
1	AA	1160	G	Sidechain
1	AA	1161	C	Sidechain
1	AA	1163	A	Sidechain
1	AA	1166	G	Sidechain
1	AA	1167	A	Sidechain
1	AA	117	G	Sidechain
1	AA	1170	A	Sidechain
1	AA	1171	A	Sidechain
1	AA	1174	G	Sidechain
1	AA	1175	G	Sidechain
1	AA	1177	G	Sidechain
1	AA	1178	G	Sidechain
1	AA	1180	A	Sidechain
1	AA	1181	G	Sidechain
1	AA	1182	G	Sidechain
1	AA	1184	G	Sidechain
1	AA	1185	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1190	G	Sidechain
1	AA	1191	A	Sidechain
1	AA	1193	G	Sidechain
1	AA	1194	U	Sidechain
1	AA	1196	A	Sidechain
1	AA	1198	G	Sidechain
1	AA	12	U	Sidechain
1	AA	1200	C	Sidechain
1	AA	1201	A	Sidechain
1	AA	1203	C	Sidechain
1	AA	1204	A	Sidechain
1	AA	1205	U	Sidechain
1	AA	1206	G	Sidechain
1	AA	1208	C	Sidechain
1	AA	121	U	Sidechain
1	AA	1211	U	Sidechain
1	AA	1214	C	Sidechain
1	AA	1215	G	Sidechain
1	AA	1216	A	Sidechain
1	AA	1217	C	Sidechain
1	AA	1218	C	Sidechain
1	AA	1219	A	Sidechain
1	AA	122	G	Sidechain
1	AA	1220	G	Sidechain
1	AA	1222	G	Sidechain
1	AA	1224	U	Sidechain
1	AA	1226	C	Sidechain
1	AA	1229	A	Sidechain
1	AA	1230	C	Sidechain
1	AA	1233	G	Sidechain
1	AA	1234	C	Sidechain
1	AA	1235	U	Sidechain
1	AA	1236	A	Sidechain
1	AA	1239	A	Sidechain
1	AA	1240	U	Sidechain
1	AA	1241	G	Sidechain
1	AA	1242	G	Sidechain
1	AA	1243	C	Sidechain
1	AA	1244	G	Sidechain
1	AA	1245	C	Sidechain
1	AA	1247	U	Sidechain
1	AA	1249	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	125	U	Sidechain
1	AA	1250	A	Sidechain
1	AA	1253	G	Sidechain
1	AA	1254	A	Sidechain
1	AA	1256	A	Sidechain
1	AA	1258	G	Sidechain
1	AA	1259	C	Sidechain
1	AA	126	G	Sidechain
1	AA	1260	G	Sidechain
1	AA	1262	C	Sidechain
1	AA	1263	C	Sidechain
1	AA	1264	U	Sidechain
1	AA	1265	C	Sidechain
1	AA	1266	G	Sidechain
1	AA	1268	G	Sidechain
1	AA	127	G	Sidechain
1	AA	1272	G	Sidechain
1	AA	1274	A	Sidechain
1	AA	1278	G	Sidechain
1	AA	1279	G	Sidechain
1	AA	128	G	Sidechain
1	AA	1280	A	Sidechain
1	AA	1282	C	Sidechain
1	AA	1283	U	Sidechain
1	AA	1284	C	Sidechain
1	AA	1285	A	Sidechain
1	AA	1289	A	Sidechain
1	AA	129	A	Sidechain
1	AA	1290	G	Sidechain
1	AA	1291	U	Sidechain
1	AA	1292	G	Sidechain
1	AA	1294	G	Sidechain
1	AA	1295	U	Sidechain
1	AA	1298	U	Sidechain
1	AA	130	A	Sidechain
1	AA	1300	G	Sidechain
1	AA	1303	C	Sidechain
1	AA	1304	G	Sidechain
1	AA	1305	G	Sidechain
1	AA	1309	G	Sidechain
1	AA	131	A	Sidechain
1	AA	1310	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1312	G	Sidechain
1	AA	1313	U	Sidechain
1	AA	1315	U	Sidechain
1	AA	1316	G	Sidechain
1	AA	1317	C	Sidechain
1	AA	1318	A	Sidechain
1	AA	132	C	Sidechain
1	AA	1320	C	Sidechain
1	AA	1321	U	Sidechain
1	AA	1322	C	Sidechain
1	AA	1326	U	Sidechain
1	AA	1327	C	Sidechain
1	AA	1329	A	Sidechain
1	AA	133	U	Sidechain
1	AA	1331	G	Sidechain
1	AA	1332	A	Sidechain
1	AA	1333	A	Sidechain
1	AA	1336	C	Sidechain
1	AA	1337	G	Sidechain
1	AA	1338	G	Sidechain
1	AA	1339	A	Sidechain
1	AA	1341	U	Sidechain
1	AA	1342	C	Sidechain
1	AA	1343	G	Sidechain
1	AA	1345	U	Sidechain
1	AA	1346	A	Sidechain
1	AA	1347	G	Sidechain
1	AA	1348	U	Sidechain
1	AA	135	C	Sidechain
1	AA	1352	C	Sidechain
1	AA	1355	G	Sidechain
1	AA	1356	G	Sidechain
1	AA	1357	A	Sidechain
1	AA	1358	U	Sidechain
1	AA	1359	C	Sidechain
1	AA	1360	A	Sidechain
1	AA	1361	G	Sidechain
1	AA	1362	A	Sidechain
1	AA	1363	A	Sidechain
1	AA	1364	U	Sidechain
1	AA	1370	G	Sidechain
1	AA	1371	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1373	G	Sidechain
1	AA	1375	A	Sidechain
1	AA	1378	C	Sidechain
1	AA	1379	G	Sidechain
1	AA	138	G	Sidechain
1	AA	1380	U	Sidechain
1	AA	1382	C	Sidechain
1	AA	1383	C	Sidechain
1	AA	1388	C	Sidechain
1	AA	1392	G	Sidechain
1	AA	1393	U	Sidechain
1	AA	1396	A	Sidechain
1	AA	1397	C	Sidechain
1	AA	140	U	Sidechain
1	AA	1400	C	Sidechain
1	AA	1403	C	Sidechain
1	AA	1404	C	Sidechain
1	AA	1405	G	Sidechain
1	AA	141	G	Sidechain
1	AA	1411	C	Sidechain
1	AA	1415	G	Sidechain
1	AA	1416	G	Sidechain
1	AA	1417	G	Sidechain
1	AA	1418	A	Sidechain
1	AA	1419	G	Sidechain
1	AA	142	G	Sidechain
1	AA	1420	U	Sidechain
1	AA	1421	G	Sidechain
1	AA	1422	G	Sidechain
1	AA	1423	G	Sidechain
1	AA	1425	U	Sidechain
1	AA	1426	G	Sidechain
1	AA	1427	C	Sidechain
1	AA	1428	A	Sidechain
1	AA	143	A	Sidechain
1	AA	1431	A	Sidechain
1	AA	1432	G	Sidechain
1	AA	1435	G	Sidechain
1	AA	1436	U	Sidechain
1	AA	1438	G	Sidechain
1	AA	144	G	Sidechain
1	AA	1440	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1441	A	Sidechain
1	AA	1445	U	Sidechain
1	AA	1446	A	Sidechain
1	AA	1447	A	Sidechain
1	AA	1450	U	Sidechain
1	AA	1453	G	Sidechain
1	AA	1456	A	Sidechain
1	AA	1457	G	Sidechain
1	AA	1458	G	Sidechain
1	AA	1459	G	Sidechain
1	AA	146	G	Sidechain
1	AA	1461	G	Sidechain
1	AA	1463	U	Sidechain
1	AA	1464	U	Sidechain
1	AA	1465	A	Sidechain
1	AA	1467	C	Sidechain
1	AA	1469	C	Sidechain
1	AA	147	G	Sidechain
1	AA	1470	U	Sidechain
1	AA	1471	U	Sidechain
1	AA	1473	G	Sidechain
1	AA	1474	U	Sidechain
1	AA	1475	G	Sidechain
1	AA	1479	C	Sidechain
1	AA	148	G	Sidechain
1	AA	1480	A	Sidechain
1	AA	1481	U	Sidechain
1	AA	1482	G	Sidechain
1	AA	1484	C	Sidechain
1	AA	1486	G	Sidechain
1	AA	1487	G	Sidechain
1	AA	1489	G	Sidechain
1	AA	149	A	Sidechain
1	AA	1491	G	Sidechain
1	AA	1497	G	Sidechain
1	AA	15	G	Sidechain
1	AA	150	U	Sidechain
1	AA	1502	A	Sidechain
1	AA	1503	A	Sidechain
1	AA	1504	G	Sidechain
1	AA	1505	G	Sidechain
1	AA	1508	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1509	C	Sidechain
1	AA	1511	G	Sidechain
1	AA	1512	U	Sidechain
1	AA	1513	A	Sidechain
1	AA	1514	G	Sidechain
1	AA	1515	G	Sidechain
1	AA	1517	G	Sidechain
1	AA	152	A	Sidechain
1	AA	1521	C	Sidechain
1	AA	1524	C	Sidechain
1	AA	1525	G	Sidechain
1	AA	1526	G	Sidechain
1	AA	1528	U	Sidechain
1	AA	153	C	Sidechain
1	AA	1530	G	Sidechain
1	AA	1531	A	Sidechain
1	AA	1532	U	Sidechain
1	AA	1533	C	Sidechain
1	AA	1534	A	Sidechain
1	AA	1535	C	Sidechain
1	AA	1537	U	Sidechain
1	AA	1538	C	Sidechain
1	AA	1539	C	Sidechain
1	AA	154	U	Sidechain
1	AA	1541	U	Sidechain
1	AA	1542	A	Sidechain
1	AA	157	U	Sidechain
1	AA	161	A	Sidechain
1	AA	162	A	Sidechain
1	AA	164	G	Sidechain
1	AA	165	G	Sidechain
1	AA	167	A	Sidechain
1	AA	168	G	Sidechain
1	AA	169	C	Sidechain
1	AA	17	U	Sidechain
1	AA	170	U	Sidechain
1	AA	174	A	Sidechain
1	AA	176	C	Sidechain
1	AA	177	G	Sidechain
1	AA	179	A	Sidechain
1	AA	180	U	Sidechain
1	AA	183	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	184	G	Sidechain
1	AA	185	U	Sidechain
1	AA	187	G	Sidechain
1	AA	190	A	Sidechain
1	AA	196	A	Sidechain
1	AA	197	A	Sidechain
1	AA	199	A	Sidechain
1	AA	2	A	Sidechain
1	AA	203	G	Sidechain
1	AA	204	G	Sidechain
1	AA	205	A	Sidechain
1	AA	206	C	Sidechain
1	AA	207	C	Sidechain
1	AA	208	U	Sidechain
1	AA	209	U	Sidechain
1	AA	21	G	Sidechain
1	AA	210	C	Sidechain
1	AA	211	G	Sidechain
1	AA	212	G	Sidechain
1	AA	213	G	Sidechain
1	AA	214	C	Sidechain
1	AA	217	C	Sidechain
1	AA	218	U	Sidechain
1	AA	219	U	Sidechain
1	AA	220	G	Sidechain
1	AA	223	A	Sidechain
1	AA	224	U	Sidechain
1	AA	225	C	Sidechain
1	AA	227	G	Sidechain
1	AA	23	C	Sidechain
1	AA	230	G	Sidechain
1	AA	232	G	Sidechain
1	AA	233	C	Sidechain
1	AA	235	C	Sidechain
1	AA	237	G	Sidechain
1	AA	238	A	Sidechain
1	AA	240	G	Sidechain
1	AA	246	A	Sidechain
1	AA	248	C	Sidechain
1	AA	249	U	Sidechain
1	AA	250	A	Sidechain
1	AA	252	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	253	A	Sidechain
1	AA	254	G	Sidechain
1	AA	255	G	Sidechain
1	AA	256	U	Sidechain
1	AA	257	G	Sidechain
1	AA	258	G	Sidechain
1	AA	259	G	Sidechain
1	AA	26	A	Sidechain
1	AA	260	G	Sidechain
1	AA	261	U	Sidechain
1	AA	262	A	Sidechain
1	AA	263	A	Sidechain
1	AA	264	C	Sidechain
1	AA	268	U	Sidechain
1	AA	271	C	Sidechain
1	AA	279	A	Sidechain
1	AA	280	C	Sidechain
1	AA	281	G	Sidechain
1	AA	282	A	Sidechain
1	AA	283	U	Sidechain
1	AA	285	C	Sidechain
1	AA	286	C	Sidechain
1	AA	287	U	Sidechain
1	AA	288	A	Sidechain
1	AA	289	G	Sidechain
1	AA	29	U	Sidechain
1	AA	292	G	Sidechain
1	AA	293	G	Sidechain
1	AA	294	U	Sidechain
1	AA	296	U	Sidechain
1	AA	297	G	Sidechain
1	AA	298	A	Sidechain
1	AA	30	U	Sidechain
1	AA	300	A	Sidechain
1	AA	301	G	Sidechain
1	AA	305	G	Sidechain
1	AA	308	C	Sidechain
1	AA	312	C	Sidechain
1	AA	313	A	Sidechain
1	AA	314	C	Sidechain
1	AA	315	A	Sidechain
1	AA	32	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	321	A	Sidechain
1	AA	323	U	Sidechain
1	AA	324	G	Sidechain
1	AA	325	A	Sidechain
1	AA	326	G	Sidechain
1	AA	328	C	Sidechain
1	AA	329	A	Sidechain
1	AA	332	G	Sidechain
1	AA	337	G	Sidechain
1	AA	338	A	Sidechain
1	AA	347	G	Sidechain
1	AA	348	G	Sidechain
1	AA	350	G	Sidechain
1	AA	351	G	Sidechain
1	AA	353	A	Sidechain
1	AA	354	G	Sidechain
1	AA	355	C	Sidechain
1	AA	357	G	Sidechain
1	AA	359	G	Sidechain
1	AA	362	G	Sidechain
1	AA	363	A	Sidechain
1	AA	365	U	Sidechain
1	AA	366	A	Sidechain
1	AA	367	U	Sidechain
1	AA	368	U	Sidechain
1	AA	369	G	Sidechain
1	AA	371	A	Sidechain
1	AA	375	U	Sidechain
1	AA	376	G	Sidechain
1	AA	377	G	Sidechain
1	AA	378	G	Sidechain
1	AA	380	G	Sidechain
1	AA	383	A	Sidechain
1	AA	384	G	Sidechain
1	AA	387	U	Sidechain
1	AA	388	G	Sidechain
1	AA	389	A	Sidechain
1	AA	392	C	Sidechain
1	AA	393	A	Sidechain
1	AA	394	G	Sidechain
1	AA	395	C	Sidechain
1	AA	396	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	399	G	Sidechain
1	AA	4	U	Sidechain
1	AA	400	C	Sidechain
1	AA	402	G	Sidechain
1	AA	403	C	Sidechain
1	AA	404	G	Sidechain
1	AA	405	U	Sidechain
1	AA	406	G	Sidechain
1	AA	407	U	Sidechain
1	AA	408	A	Sidechain
1	AA	409	U	Sidechain
1	AA	41	G	Sidechain
1	AA	410	G	Sidechain
1	AA	412	A	Sidechain
1	AA	413	G	Sidechain
1	AA	415	A	Sidechain
1	AA	416	G	Sidechain
1	AA	417	G	Sidechain
1	AA	419	C	Sidechain
1	AA	42	G	Sidechain
1	AA	425	G	Sidechain
1	AA	426	U	Sidechain
1	AA	428	G	Sidechain
1	AA	429	U	Sidechain
1	AA	431	A	Sidechain
1	AA	434	U	Sidechain
1	AA	436	C	Sidechain
1	AA	438	U	Sidechain
1	AA	44	A	Sidechain
1	AA	441	A	Sidechain
1	AA	444	G	Sidechain
1	AA	445	G	Sidechain
1	AA	446	G	Sidechain
1	AA	447	G	Sidechain
1	AA	448	A	Sidechain
1	AA	45	G	Sidechain
1	AA	450	G	Sidechain
1	AA	454	G	Sidechain
1	AA	455	G	Sidechain
1	AA	457	G	Sidechain
1	AA	459	A	Sidechain
1	AA	46	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	460	A	Sidechain
1	AA	462	G	Sidechain
1	AA	463	U	Sidechain
1	AA	464	U	Sidechain
1	AA	469	C	Sidechain
1	AA	47	C	Sidechain
1	AA	470	C	Sidechain
1	AA	474	G	Sidechain
1	AA	475	C	Sidechain
1	AA	476	U	Sidechain
1	AA	477	C	Sidechain
1	AA	48	C	Sidechain
1	AA	480	U	Sidechain
1	AA	481	G	Sidechain
1	AA	484	G	Sidechain
1	AA	485	U	Sidechain
1	AA	487	A	Sidechain
1	AA	489	C	Sidechain
1	AA	49	U	Sidechain
1	AA	490	C	Sidechain
1	AA	493	A	Sidechain
1	AA	494	G	Sidechain
1	AA	495	A	Sidechain
1	AA	497	G	Sidechain
1	AA	498	A	Sidechain
1	AA	499	A	Sidechain
1	AA	50	A	Sidechain
1	AA	500	G	Sidechain
1	AA	502	A	Sidechain
1	AA	503	C	Sidechain
1	AA	504	C	Sidechain
1	AA	505	G	Sidechain
1	AA	506	G	Sidechain
1	AA	507	C	Sidechain
1	AA	508	U	Sidechain
1	AA	510	A	Sidechain
1	AA	511	C	Sidechain
1	AA	512	U	Sidechain
1	AA	515	G	Sidechain
1	AA	517	G	Sidechain
1	AA	518	C	Sidechain
1	AA	52	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	523	A	Sidechain
1	AA	524	G	Sidechain
1	AA	525	C	Sidechain
1	AA	529	G	Sidechain
1	AA	53	A	Sidechain
1	AA	530	G	Sidechain
1	AA	531	U	Sidechain
1	AA	533	A	Sidechain
1	AA	535	A	Sidechain
1	AA	536	C	Sidechain
1	AA	538	G	Sidechain
1	AA	541	G	Sidechain
1	AA	543	U	Sidechain
1	AA	544	G	Sidechain
1	AA	546	A	Sidechain
1	AA	547	A	Sidechain
1	AA	552	U	Sidechain
1	AA	554	A	Sidechain
1	AA	555	U	Sidechain
1	AA	556	C	Sidechain
1	AA	557	G	Sidechain
1	AA	558	G	Sidechain
1	AA	56	U	Sidechain
1	AA	561	U	Sidechain
1	AA	564	C	Sidechain
1	AA	565	U	Sidechain
1	AA	566	G	Sidechain
1	AA	567	G	Sidechain
1	AA	568	G	Sidechain
1	AA	569	C	Sidechain
1	AA	57	G	Sidechain
1	AA	570	G	Sidechain
1	AA	571	U	Sidechain
1	AA	573	A	Sidechain
1	AA	574	A	Sidechain
1	AA	575	G	Sidechain
1	AA	577	G	Sidechain
1	AA	579	A	Sidechain
1	AA	580	C	Sidechain
1	AA	581	G	Sidechain
1	AA	584	G	Sidechain
1	AA	587	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	588	G	Sidechain
1	AA	59	A	Sidechain
1	AA	590	U	Sidechain
1	AA	593	U	Sidechain
1	AA	594	U	Sidechain
1	AA	595	A	Sidechain
1	AA	597	G	Sidechain
1	AA	599	C	Sidechain
1	AA	60	A	Sidechain
1	AA	603	U	Sidechain
1	AA	604	G	Sidechain
1	AA	607	A	Sidechain
1	AA	609	A	Sidechain
1	AA	61	G	Sidechain
1	AA	610	U	Sidechain
1	AA	611	C	Sidechain
1	AA	613	C	Sidechain
1	AA	615	G	Sidechain
1	AA	616	G	Sidechain
1	AA	618	C	Sidechain
1	AA	619	U	Sidechain
1	AA	620	C	Sidechain
1	AA	621	A	Sidechain
1	AA	622	A	Sidechain
1	AA	627	G	Sidechain
1	AA	628	G	Sidechain
1	AA	63	C	Sidechain
1	AA	630	A	Sidechain
1	AA	633	G	Sidechain
1	AA	635	A	Sidechain
1	AA	636	U	Sidechain
1	AA	637	C	Sidechain
1	AA	638	U	Sidechain
1	AA	642	A	Sidechain
1	AA	646	G	Sidechain
1	AA	647	C	Sidechain
1	AA	648	A	Sidechain
1	AA	65	A	Sidechain
1	AA	650	G	Sidechain
1	AA	651	C	Sidechain
1	AA	653	U	Sidechain
1	AA	655	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	656	G	Sidechain
1	AA	657	U	Sidechain
1	AA	66	A	Sidechain
1	AA	660	C	Sidechain
1	AA	661	G	Sidechain
1	AA	663	A	Sidechain
1	AA	664	G	Sidechain
1	AA	666	G	Sidechain
1	AA	667	G	Sidechain
1	AA	668	G	Sidechain
1	AA	669	G	Sidechain
1	AA	67	C	Sidechain
1	AA	673	A	Sidechain
1	AA	678	U	Sidechain
1	AA	682	G	Sidechain
1	AA	684	U	Sidechain
1	AA	685	G	Sidechain
1	AA	688	G	Sidechain
1	AA	689	C	Sidechain
1	AA	691	G	Sidechain
1	AA	697	U	Sidechain
1	AA	699	C	Sidechain
1	AA	700	G	Sidechain
1	AA	703	G	Sidechain
1	AA	705	G	Sidechain
1	AA	707	U	Sidechain
1	AA	708	C	Sidechain
1	AA	709	U	Sidechain
1	AA	710	G	Sidechain
1	AA	712	A	Sidechain
1	AA	714	G	Sidechain
1	AA	717	U	Sidechain
1	AA	718	A	Sidechain
1	AA	719	C	Sidechain
1	AA	72	A	Sidechain
1	AA	721	G	Sidechain
1	AA	722	G	Sidechain
1	AA	723	U	Sidechain
1	AA	726	C	Sidechain
1	AA	728	A	Sidechain
1	AA	729	A	Sidechain
1	AA	730	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	731	G	Sidechain
1	AA	732	C	Sidechain
1	AA	733	G	Sidechain
1	AA	734	G	Sidechain
1	AA	735	C	Sidechain
1	AA	738	C	Sidechain
1	AA	740	U	Sidechain
1	AA	742	G	Sidechain
1	AA	743	A	Sidechain
1	AA	746	A	Sidechain
1	AA	748	G	Sidechain
1	AA	749	A	Sidechain
1	AA	75	G	Sidechain
1	AA	752	G	Sidechain
1	AA	753	A	Sidechain
1	AA	757	U	Sidechain
1	AA	758	C	Sidechain
1	AA	759	A	Sidechain
1	AA	76	G	Sidechain
1	AA	760	G	Sidechain
1	AA	761	G	Sidechain
1	AA	762	U	Sidechain
1	AA	763	G	Sidechain
1	AA	764	C	Sidechain
1	AA	767	A	Sidechain
1	AA	768	A	Sidechain
1	AA	769	G	Sidechain
1	AA	771	G	Sidechain
1	AA	772	U	Sidechain
1	AA	773	G	Sidechain
1	AA	774	G	Sidechain
1	AA	775	G	Sidechain
1	AA	776	G	Sidechain
1	AA	777	A	Sidechain
1	AA	778	G	Sidechain
1	AA	78	A	Sidechain
1	AA	780	A	Sidechain
1	AA	781	A	Sidechain
1	AA	782	A	Sidechain
1	AA	783	C	Sidechain
1	AA	785	G	Sidechain
1	AA	786	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	788	U	Sidechain
1	AA	79	G	Sidechain
1	AA	790	A	Sidechain
1	AA	791	G	Sidechain
1	AA	793	U	Sidechain
1	AA	796	C	Sidechain
1	AA	797	C	Sidechain
1	AA	8	A	Sidechain
1	AA	800	G	Sidechain
1	AA	803	G	Sidechain
1	AA	804	U	Sidechain
1	AA	805	C	Sidechain
1	AA	806	C	Sidechain
1	AA	807	A	Sidechain
1	AA	808	C	Sidechain
1	AA	809	G	Sidechain
1	AA	81	A	Sidechain
1	AA	810	C	Sidechain
1	AA	811	C	Sidechain
1	AA	812	G	Sidechain
1	AA	814	A	Sidechain
1	AA	815	A	Sidechain
1	AA	817	C	Sidechain
1	AA	818	G	Sidechain
1	AA	82	G	Sidechain
1	AA	822	U	Sidechain
1	AA	823	C	Sidechain
1	AA	824	G	Sidechain
1	AA	825	A	Sidechain
1	AA	827	U	Sidechain
1	AA	829	G	Sidechain
1	AA	83	C	Sidechain
1	AA	830	G	Sidechain
1	AA	831	A	Sidechain
1	AA	832	G	Sidechain
1	AA	833	G	Sidechain
1	AA	834	U	Sidechain
1	AA	835	U	Sidechain
1	AA	836	G	Sidechain
1	AA	840	C	Sidechain
1	AA	842	U	Sidechain
1	AA	843	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	844	G	Sidechain
1	AA	846	G	Sidechain
1	AA	847	G	Sidechain
1	AA	849	G	Sidechain
1	AA	85	U	Sidechain
1	AA	850	U	Sidechain
1	AA	852	G	Sidechain
1	AA	854	U	Sidechain
1	AA	856	C	Sidechain
1	AA	857	C	Sidechain
1	AA	858	G	Sidechain
1	AA	859	G	Sidechain
1	AA	860	A	Sidechain
1	AA	862	C	Sidechain
1	AA	864	A	Sidechain
1	AA	865	A	Sidechain
1	AA	866	C	Sidechain
1	AA	868	C	Sidechain
1	AA	869	G	Sidechain
1	AA	87	C	Sidechain
1	AA	870	U	Sidechain
1	AA	872	A	Sidechain
1	AA	873	A	Sidechain
1	AA	874	G	Sidechain
1	AA	875	U	Sidechain
1	AA	876	C	Sidechain
1	AA	877	G	Sidechain
1	AA	878	A	Sidechain
1	AA	879	C	Sidechain
1	AA	881	G	Sidechain
1	AA	882	C	Sidechain
1	AA	884	U	Sidechain
1	AA	887	G	Sidechain
1	AA	889	A	Sidechain
1	AA	89	U	Sidechain
1	AA	890	G	Sidechain
1	AA	891	U	Sidechain
1	AA	892	A	Sidechain
1	AA	894	G	Sidechain
1	AA	896	C	Sidechain
1	AA	897	C	Sidechain
1	AA	898	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	899	C	Sidechain
1	AA	9	G	Sidechain
1	AA	90	C	Sidechain
1	AA	900	A	Sidechain
1	AA	901	A	Sidechain
1	AA	902	G	Sidechain
1	AA	903	G	Sidechain
1	AA	905	U	Sidechain
1	AA	906	A	Sidechain
1	AA	91	U	Sidechain
1	AA	911	U	Sidechain
1	AA	912	C	Sidechain
1	AA	913	A	Sidechain
1	AA	914	A	Sidechain
1	AA	917	G	Sidechain
1	AA	918	A	Sidechain
1	AA	921	U	Sidechain
1	AA	922	G	Sidechain
1	AA	926	G	Sidechain
1	AA	927	G	Sidechain
1	AA	929	G	Sidechain
1	AA	93	U	Sidechain
1	AA	933	G	Sidechain
1	AA	934	C	Sidechain
1	AA	935	A	Sidechain
1	AA	937	A	Sidechain
1	AA	938	A	Sidechain
1	AA	939	G	Sidechain
1	AA	94	G	Sidechain
1	AA	940	C	Sidechain
1	AA	941	G	Sidechain
1	AA	943	U	Sidechain
1	AA	944	G	Sidechain
1	AA	945	G	Sidechain
1	AA	946	A	Sidechain
1	AA	949	A	Sidechain
1	AA	95	C	Sidechain
1	AA	950	U	Sidechain
1	AA	951	G	Sidechain
1	AA	953	G	Sidechain
1	AA	954	G	Sidechain
1	AA	956	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	957	U	Sidechain
1	AA	959	A	Sidechain
1	AA	960	U	Sidechain
1	AA	961	U	Sidechain
1	AA	962	C	Sidechain
1	AA	963	G	Sidechain
1	AA	964	A	Sidechain
1	AA	965	U	Sidechain
1	AA	969	A	Sidechain
1	AA	972	C	Sidechain
1	AA	973	G	Sidechain
1	AA	974	A	Sidechain
1	AA	975	A	Sidechain
1	AA	977	A	Sidechain
1	AA	978	A	Sidechain
1	AA	979	C	Sidechain
1	AA	98	A	Sidechain
1	AA	980	C	Sidechain
1	AA	982	U	Sidechain
1	AA	983	A	Sidechain
1	AA	984	C	Sidechain
1	AA	988	G	Sidechain
1	AA	989	U	Sidechain
1	AA	99	C	Sidechain
1	AA	990	C	Sidechain
1	AA	991	U	Sidechain
1	AA	993	G	Sidechain
1	AA	995	C	Sidechain
1	AA	996	A	Sidechain
1	AA	997	U	Sidechain
1	AA	998	C	Sidechain
1	AA	999	C	Sidechain
2	AB	1	A	Sidechain
2	AB	10	G	Sidechain
2	AB	13	C	Sidechain
2	AB	15	A	Sidechain
2	AB	19	G	Sidechain
2	AB	22	G	Sidechain
2	AB	24	G	Sidechain
2	AB	25	C	Sidechain
2	AB	3	G	Sidechain
2	AB	30	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	31	U	Sidechain
2	AB	34	C	Sidechain
2	AB	35	C	Sidechain
2	AB	38	A	Sidechain
2	AB	39	A	Sidechain
2	AB	41	C	Sidechain
2	AB	42	G	Sidechain
2	AB	43	G	Sidechain
2	AB	45	U	Sidechain
2	AB	48	U	Sidechain
2	AB	50	G	Sidechain
2	AB	53	G	Sidechain
2	AB	56	C	Sidechain
2	AB	58	A	Sidechain
2	AB	59	G	Sidechain
2	AB	60	U	Sidechain
2	AB	61	C	Sidechain
2	AB	66	C	Sidechain
2	AB	68	C	Sidechain
2	AB	69	C	Sidechain
2	AB	7	G	Sidechain
2	AB	72	U	Sidechain
2	AB	73	G	Sidechain
2	AB	75	C	Sidechain
2	AB	76	A	Sidechain
2	AB	9	A	Sidechain
3	AC	13	A	Sidechain
3	AC	14	G	Sidechain
3	AC	15	G	Sidechain
3	AC	17	U	Sidechain
3	AC	18	A	Sidechain
3	AC	20	G	Sidechain
3	AC	21	U	Sidechain
3	AC	23	C	Sidechain
3	AC	25	U	Sidechain
3	AC	27	A	Sidechain
3	AC	28	U	Sidechain
3	AC	29	G	Sidechain
3	AC	31	U	Sidechain
3	AC	33	A	Sidechain
3	AC	34	U	Sidechain
3	AC	35	G	Sidechain

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Mol	Chain	Res	Type	Group
3	AC	37	G	Sidechain
3	AC	39	U	Sidechain
3	AC	43	U	Sidechain
3	AC	45	G	Sidechain
3	AC	46	C	Sidechain
3	AC	47	C	Sidechain
3	AC	48	C	Sidechain
3	AC	49	U	Sidechain
3	AC	51	C	Sidechain
3	AC	52	U	Sidechain
3	AC	53	G	Sidechain
3	AC	55	A	Sidechain
3	AC	57	C	Sidechain
3	AC	58	C	Sidechain
3	AC	59	A	Sidechain
4	AD	1	C	Sidechain
4	AD	10	G	Sidechain
4	AD	11	A	Sidechain
4	AD	12	G	Sidechain
4	AD	14	A	Sidechain
4	AD	15	G	Sidechain
4	AD	16	C	Sidechain
4	AD	18	U	Sidechain
4	AD	19	G	Sidechain
4	AD	2	G	Sidechain
4	AD	20	G	Sidechain
4	AD	23	G	Sidechain
4	AD	24	C	Sidechain
4	AD	26	C	Sidechain
4	AD	27	G	Sidechain
4	AD	3	C	Sidechain
4	AD	30	G	Sidechain
4	AD	31	G	Sidechain
4	AD	32	G	Sidechain
4	AD	34	U	Sidechain
4	AD	36	A	Sidechain
4	AD	37	U	Sidechain
4	AD	38	A	Sidechain
4	AD	4	G	Sidechain
4	AD	43	G	Sidechain
4	AD	44	A	Sidechain
4	AD	45	A	Sidechain

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Mol	Chain	Res	Type	Group
4	AD	47	A	Sidechain
4	AD	48	U	Sidechain
4	AD	49	C	Sidechain
4	AD	5	G	Sidechain
4	AD	50	G	Sidechain
4	AD	53	G	Sidechain
4	AD	54	G	Sidechain
4	AD	57	C	Sidechain
4	AD	6	G	Sidechain
4	AD	60	A	Sidechain
4	AD	62	C	Sidechain
4	AD	63	C	Sidechain
4	AD	71	G	Sidechain
4	AD	73	A	Sidechain
4	AD	74	A	Sidechain
4	AD	76	C	Sidechain
4	AD	77	A	Sidechain
5	AE	133	ALA	Mainchain
5	AE	188	THR	Mainchain
5	AE	212	TYR	Sidechain
5	AE	73	ARG	Sidechain
5	AE	94	ARG	Peptide
6	AF	183	TYR	Sidechain
6	AF	215	GLN	Peptide
7	AG	110	ARG	Sidechain
7	AG	134	TYR	Sidechain
7	AG	163	GLN	Peptide
7	AG	181	PHE	Sidechain
7	AG	3	TYR	Sidechain
7	AG	55	ARG	Sidechain
7	AG	80	ARG	Sidechain
8	AH	111	ARG	Sidechain
8	AH	138	ALA	Mainchain
8	AH	153	ALA	Mainchain
8	AH	49	TYR	Sidechain
8	AH	53	ARG	Sidechain
8	AH	92	ARG	Sidechain
9	AI	24	ARG	Sidechain
9	AI	25	TYR	Sidechain
9	AI	46	GLN	Peptide
9	AI	64	VAL	Peptide
9	AI	86	ARG	Sidechain

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Mol	Chain	Res	Type	Group
10	AJ	161	PHE	Sidechain
10	AJ	163	HIS	Sidechain
10	AJ	176	TYR	Mainchain
10	AJ	4	ARG	Sidechain
10	AJ	43	TYR	Sidechain
11	AK	100	ILE	Peptide
11	AK	44	PHE	Peptide
12	AL	108	ARG	Sidechain
12	AL	32	ARG	Sidechain
12	AL	37	TYR	Sidechain
12	AL	5	TYR	Sidechain
12	AL	79	ARG	Sidechain
12	AL	89	TYR	Sidechain
13	AM	70	HIS	Sidechain
14	AN	55	ARG	Sidechain
15	AO	109	ARG	Sidechain
15	AO	116	TYR	Peptide
15	AO	13	ARG	Sidechain
15	AO	30	ARG	Sidechain
15	AO	37	TYR	Peptide
15	AO	54	VAL	Mainchain
15	AO	65	TYR	Sidechain
16	AP	62	PHE	Sidechain
17	AQ	40	ARG	Sidechain
17	AQ	52	ARG	Sidechain
17	AQ	89	ARG	Sidechain
18	AR	41	HIS	Sidechain
18	AR	62	ARG	Sidechain
18	AR	72	LYS	Mainchain,Peptide
18	AR	76	ARG	Sidechain
19	AS	17	TYR	Sidechain
19	AS	25	ARG	Sidechain
21	AU	22	TYR	Sidechain
21	AU	3	TYR	Sidechain
21	AU	69	TYR	Sidechain
21	AU	7	ARG	Sidechain
21	AU	73	HIS	Peptide
22	AV	73	PHE	Sidechain
22	AV	82	HIS	Peptide,Sidechain
23	AW	28	ARG	Sidechain
24	AX	18	PHE	Sidechain
24	AX	37	TYR	Sidechain

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Mol	Chain	Res	Type	Group
24	AX	68	ARG	Sidechain
52	B1	30	ARG	Sidechain
53	B2	30	HIS	Peptide
53	B2	41	HIS	Sidechain
53	B2	63	ARG	Sidechain
53	B2	9	TYR	Sidechain
54	B3	47	TYR	Sidechain
54	B3	48	TYR	Sidechain
55	B4	27	ARG	Sidechain
55	B4	48	TYR	Sidechain
56	B5	15	SER	Peptide
57	B6	41	ARG	Sidechain
58	B7	12	ARG	Sidechain
25	BA	10	G	Sidechain
25	BA	100	G	Sidechain
25	BA	102	G	Sidechain
25	BA	106	G	Sidechain
25	BA	109	A	Sidechain
25	BA	110	C	Sidechain
25	BA	112	G	Sidechain
25	BA	113	C	Sidechain
25	BA	114	C	Sidechain
25	BA	117	G	Sidechain
25	BA	119	A	Sidechain
25	BA	12	C	Sidechain
25	BA	13	G	Sidechain
25	BA	14	U	Sidechain
25	BA	15	A	Sidechain
25	BA	17	C	Sidechain
25	BA	18	G	Sidechain
25	BA	19	C	Sidechain
25	BA	2	G	Sidechain
25	BA	21	G	Sidechain
25	BA	24	G	Sidechain
25	BA	25	U	Sidechain
25	BA	26	C	Sidechain
25	BA	27	C	Sidechain
25	BA	29	A	Sidechain
25	BA	30	C	Sidechain
25	BA	32	U	Sidechain
25	BA	34	A	Sidechain
25	BA	35	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BA	38	C	Sidechain
25	BA	4	C	Sidechain
25	BA	40	U	Sidechain
25	BA	42	C	Sidechain
25	BA	43	C	Sidechain
25	BA	46	A	Sidechain
25	BA	47	C	Sidechain
25	BA	48	U	Sidechain
25	BA	49	C	Sidechain
25	BA	5	U	Sidechain
25	BA	50	A	Sidechain
25	BA	52	A	Sidechain
25	BA	57	A	Sidechain
25	BA	6	G	Sidechain
25	BA	61	G	Sidechain
25	BA	63	C	Sidechain
25	BA	64	G	Sidechain
25	BA	70	C	Sidechain
25	BA	74	U	Sidechain
25	BA	75	G	Sidechain
25	BA	78	A	Sidechain
25	BA	79	G	Sidechain
25	BA	81	G	Sidechain
25	BA	83	G	Sidechain
25	BA	84	G	Sidechain
25	BA	85	G	Sidechain
25	BA	86	G	Sidechain
25	BA	87	U	Sidechain
25	BA	88	C	Sidechain
25	BA	89	U	Sidechain
25	BA	9	G	Sidechain
25	BA	90	C	Sidechain
25	BA	94	A	Sidechain
25	BA	95	U	Sidechain
25	BA	96	G	Sidechain
25	BA	97	C	Sidechain
25	BA	98	G	Sidechain
26	BB	1	G	Sidechain
26	BB	10	A	Sidechain
26	BB	100	U	Sidechain
26	BB	1000	A	Sidechain
26	BB	1001	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1002	G	Sidechain
26	BB	1006	C	Sidechain
26	BB	1008	A	Sidechain
26	BB	1010	A	Sidechain
26	BB	1011	G	Sidechain
26	BB	1012	U	Sidechain
26	BB	1016	G	Sidechain
26	BB	1017	G	Sidechain
26	BB	1018	U	Sidechain
26	BB	1021	A	Sidechain
26	BB	1022	G	Sidechain
26	BB	1024	G	Sidechain
26	BB	1025	G	Sidechain
26	BB	1027	A	Sidechain
26	BB	1028	A	Sidechain
26	BB	1030	C	Sidechain
26	BB	1031	G	Sidechain
26	BB	1032	A	Sidechain
26	BB	1033	U	Sidechain
26	BB	1035	U	Sidechain
26	BB	1039	A	Sidechain
26	BB	104	A	Sidechain
26	BB	1040	A	Sidechain
26	BB	1045	C	Sidechain
26	BB	1047	G	Sidechain
26	BB	1048	A	Sidechain
26	BB	1050	A	Sidechain
26	BB	1051	G	Sidechain
26	BB	1052	C	Sidechain
26	BB	1053	C	Sidechain
26	BB	1054	A	Sidechain
26	BB	1055	G	Sidechain
26	BB	1056	G	Sidechain
26	BB	1058	U	Sidechain
26	BB	1059	G	Sidechain
26	BB	106	C	Sidechain
26	BB	1060	U	Sidechain
26	BB	1061	U	Sidechain
26	BB	1062	G	Sidechain
26	BB	1065	U	Sidechain
26	BB	1066	U	Sidechain
26	BB	1067	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1068	G	Sidechain
26	BB	1069	A	Sidechain
26	BB	107	G	Sidechain
26	BB	1072	C	Sidechain
26	BB	1073	A	Sidechain
26	BB	1074	G	Sidechain
26	BB	1075	C	Sidechain
26	BB	1076	C	Sidechain
26	BB	1077	A	Sidechain
26	BB	1079	C	Sidechain
26	BB	108	G	Sidechain
26	BB	1080	A	Sidechain
26	BB	1081	U	Sidechain
26	BB	1082	U	Sidechain
26	BB	1083	U	Sidechain
26	BB	1084	A	Sidechain
26	BB	1085	A	Sidechain
26	BB	1086	A	Sidechain
26	BB	1090	A	Sidechain
26	BB	1091	G	Sidechain
26	BB	1092	C	Sidechain
26	BB	1093	G	Sidechain
26	BB	1094	U	Sidechain
26	BB	1095	A	Sidechain
26	BB	1096	A	Sidechain
26	BB	1097	U	Sidechain
26	BB	1099	G	Sidechain
26	BB	11	C	Sidechain
26	BB	1100	C	Sidechain
26	BB	1101	U	Sidechain
26	BB	1102	C	Sidechain
26	BB	1103	A	Sidechain
26	BB	1104	C	Sidechain
26	BB	1105	U	Sidechain
26	BB	1106	G	Sidechain
26	BB	1107	G	Sidechain
26	BB	111	A	Sidechain
26	BB	1110	G	Sidechain
26	BB	1112	G	Sidechain
26	BB	1113	U	Sidechain
26	BB	1114	C	Sidechain
26	BB	1115	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1118	C	Sidechain
26	BB	1119	U	Sidechain
26	BB	112	U	Sidechain
26	BB	1121	C	Sidechain
26	BB	1122	G	Sidechain
26	BB	1123	C	Sidechain
26	BB	1124	G	Sidechain
26	BB	1125	G	Sidechain
26	BB	1127	A	Sidechain
26	BB	1129	A	Sidechain
26	BB	1130	U	Sidechain
26	BB	1132	U	Sidechain
26	BB	1133	A	Sidechain
26	BB	1134	A	Sidechain
26	BB	1135	C	Sidechain
26	BB	1136	G	Sidechain
26	BB	1137	G	Sidechain
26	BB	1138	G	Sidechain
26	BB	1139	G	Sidechain
26	BB	114	U	Sidechain
26	BB	1140	C	Sidechain
26	BB	1141	U	Sidechain
26	BB	1144	A	Sidechain
26	BB	1145	C	Sidechain
26	BB	1146	C	Sidechain
26	BB	1148	U	Sidechain
26	BB	115	C	Sidechain
26	BB	1152	C	Sidechain
26	BB	1153	C	Sidechain
26	BB	1154	G	Sidechain
26	BB	1156	A	Sidechain
26	BB	1157	G	Sidechain
26	BB	1158	C	Sidechain
26	BB	1160	G	Sidechain
26	BB	1163	G	Sidechain
26	BB	1165	A	Sidechain
26	BB	1166	G	Sidechain
26	BB	117	G	Sidechain
26	BB	1170	C	Sidechain
26	BB	1171	G	Sidechain
26	BB	1172	C	Sidechain
26	BB	1173	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1176	U	Sidechain
26	BB	1177	G	Sidechain
26	BB	1178	C	Sidechain
26	BB	1179	G	Sidechain
26	BB	1180	U	Sidechain
26	BB	1181	U	Sidechain
26	BB	1184	U	Sidechain
26	BB	1185	G	Sidechain
26	BB	1186	G	Sidechain
26	BB	1188	U	Sidechain
26	BB	1190	G	Sidechain
26	BB	1191	G	Sidechain
26	BB	1192	G	Sidechain
26	BB	1193	G	Sidechain
26	BB	1194	A	Sidechain
26	BB	1195	G	Sidechain
26	BB	1196	C	Sidechain
26	BB	1197	G	Sidechain
26	BB	12	U	Sidechain
26	BB	120	U	Sidechain
26	BB	1201	U	Sidechain
26	BB	1202	G	Sidechain
26	BB	1203	U	Sidechain
26	BB	1204	A	Sidechain
26	BB	1206	G	Sidechain
26	BB	1208	C	Sidechain
26	BB	1210	G	Sidechain
26	BB	1213	A	Sidechain
26	BB	1215	G	Sidechain
26	BB	1219	U	Sidechain
26	BB	122	G	Sidechain
26	BB	1220	G	Sidechain
26	BB	1222	U	Sidechain
26	BB	1224	U	Sidechain
26	BB	1226	A	Sidechain
26	BB	1227	G	Sidechain
26	BB	123	G	Sidechain
26	BB	1230	A	Sidechain
26	BB	1232	G	Sidechain
26	BB	1234	U	Sidechain
26	BB	1235	G	Sidechain
26	BB	1236	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1237	A	Sidechain
26	BB	124	G	Sidechain
26	BB	1241	A	Sidechain
26	BB	1242	U	Sidechain
26	BB	1243	C	Sidechain
26	BB	1244	A	Sidechain
26	BB	1245	G	Sidechain
26	BB	1248	G	Sidechain
26	BB	1250	G	Sidechain
26	BB	1254	A	Sidechain
26	BB	1255	U	Sidechain
26	BB	1256	G	Sidechain
26	BB	1259	G	Sidechain
26	BB	1260	A	Sidechain
26	BB	1261	C	Sidechain
26	BB	1263	U	Sidechain
26	BB	1265	A	Sidechain
26	BB	1266	G	Sidechain
26	BB	1268	A	Sidechain
26	BB	127	A	Sidechain
26	BB	1270	C	Sidechain
26	BB	1271	G	Sidechain
26	BB	1272	A	Sidechain
26	BB	1275	A	Sidechain
26	BB	1277	G	Sidechain
26	BB	1283	G	Sidechain
26	BB	1284	A	Sidechain
26	BB	1285	A	Sidechain
26	BB	1286	A	Sidechain
26	BB	1287	A	Sidechain
26	BB	1288	G	Sidechain
26	BB	1289	C	Sidechain
26	BB	129	C	Sidechain
26	BB	1292	G	Sidechain
26	BB	1294	U	Sidechain
26	BB	1295	C	Sidechain
26	BB	1296	G	Sidechain
26	BB	1299	G	Sidechain
26	BB	13	A	Sidechain
26	BB	1300	G	Sidechain
26	BB	1302	A	Sidechain
26	BB	1305	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1310	G	Sidechain
26	BB	1311	G	Sidechain
26	BB	1313	U	Sidechain
26	BB	1315	C	Sidechain
26	BB	1317	G	Sidechain
26	BB	132	G	Sidechain
26	BB	1322	A	Sidechain
26	BB	1324	G	Sidechain
26	BB	1327	A	Sidechain
26	BB	1330	C	Sidechain
26	BB	1332	G	Sidechain
26	BB	1333	G	Sidechain
26	BB	1334	G	Sidechain
26	BB	134	G	Sidechain
26	BB	1340	U	Sidechain
26	BB	1341	G	Sidechain
26	BB	1343	G	Sidechain
26	BB	1344	U	Sidechain
26	BB	1345	C	Sidechain
26	BB	1346	G	Sidechain
26	BB	1347	A	Sidechain
26	BB	1350	C	Sidechain
26	BB	1351	C	Sidechain
26	BB	1356	G	Sidechain
26	BB	1358	G	Sidechain
26	BB	136	G	Sidechain
26	BB	1361	G	Sidechain
26	BB	1364	G	Sidechain
26	BB	1365	A	Sidechain
26	BB	137	U	Sidechain
26	BB	1370	C	Sidechain
26	BB	1371	G	Sidechain
26	BB	1374	G	Sidechain
26	BB	1376	C	Sidechain
26	BB	1378	A	Sidechain
26	BB	1379	U	Sidechain
26	BB	138	U	Sidechain
26	BB	1380	G	Sidechain
26	BB	1383	A	Sidechain
26	BB	1385	A	Sidechain
26	BB	1387	A	Sidechain
26	BB	1388	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	139	U	Sidechain
26	BB	1390	U	Sidechain
26	BB	1391	U	Sidechain
26	BB	1393	A	Sidechain
26	BB	1396	U	Sidechain
26	BB	1397	U	Sidechain
26	BB	14	A	Sidechain
26	BB	1403	A	Sidechain
26	BB	1404	C	Sidechain
26	BB	1407	G	Sidechain
26	BB	1408	G	Sidechain
26	BB	141	G	Sidechain
26	BB	1410	G	Sidechain
26	BB	1411	U	Sidechain
26	BB	1412	U	Sidechain
26	BB	1413	A	Sidechain
26	BB	1414	C	Sidechain
26	BB	1415	U	Sidechain
26	BB	1416	G	Sidechain
26	BB	1417	C	Sidechain
26	BB	1419	A	Sidechain
26	BB	142	A	Sidechain
26	BB	1422	G	Sidechain
26	BB	1423	G	Sidechain
26	BB	1424	G	Sidechain
26	BB	1426	G	Sidechain
26	BB	1429	G	Sidechain
26	BB	1432	G	Sidechain
26	BB	1434	A	Sidechain
26	BB	1436	G	Sidechain
26	BB	1437	C	Sidechain
26	BB	144	A	Sidechain
26	BB	1440	U	Sidechain
26	BB	1442	U	Sidechain
26	BB	1444	G	Sidechain
26	BB	1448	G	Sidechain
26	BB	145	C	Sidechain
26	BB	1450	G	Sidechain
26	BB	1451	C	Sidechain
26	BB	1452	G	Sidechain
26	BB	1453	A	Sidechain
26	BB	1455	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1457	U	Sidechain
26	BB	1459	G	Sidechain
26	BB	146	A	Sidechain
26	BB	1460	U	Sidechain
26	BB	1461	C	Sidechain
26	BB	1462	C	Sidechain
26	BB	1463	C	Sidechain
26	BB	1464	G	Sidechain
26	BB	1467	U	Sidechain
26	BB	1468	U	Sidechain
26	BB	1469	A	Sidechain
26	BB	1470	A	Sidechain
26	BB	1475	G	Sidechain
26	BB	148	U	Sidechain
26	BB	1480	C	Sidechain
26	BB	1481	U	Sidechain
26	BB	1482	G	Sidechain
26	BB	1487	U	Sidechain
26	BB	1488	C	Sidechain
26	BB	149	A	Sidechain
26	BB	1490	A	Sidechain
26	BB	1497	U	Sidechain
26	BB	15	G	Sidechain
26	BB	1501	G	Sidechain
26	BB	1503	A	Sidechain
26	BB	1504	A	Sidechain
26	BB	1511	G	Sidechain
26	BB	1513	U	Sidechain
26	BB	1514	G	Sidechain
26	BB	1516	G	Sidechain
26	BB	1517	G	Sidechain
26	BB	1519	G	Sidechain
26	BB	1520	U	Sidechain
26	BB	1522	A	Sidechain
26	BB	1523	U	Sidechain
26	BB	1526	C	Sidechain
26	BB	1527	G	Sidechain
26	BB	1529	G	Sidechain
26	BB	153	U	Sidechain
26	BB	1530	G	Sidechain
26	BB	1531	C	Sidechain
26	BB	1532	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1535	A	Sidechain
26	BB	1536	C	Sidechain
26	BB	154	U	Sidechain
26	BB	1540	G	Sidechain
26	BB	1541	C	Sidechain
26	BB	1542	U	Sidechain
26	BB	1543	G	Sidechain
26	BB	1545	A	Sidechain
26	BB	1547	C	Sidechain
26	BB	1550	C	Sidechain
26	BB	1552	A	Sidechain
26	BB	1554	U	Sidechain
26	BB	1558	C	Sidechain
26	BB	1560	G	Sidechain
26	BB	1565	C	Sidechain
26	BB	1567	G	Sidechain
26	BB	1568	G	Sidechain
26	BB	157	C	Sidechain
26	BB	1572	A	Sidechain
26	BB	1573	G	Sidechain
26	BB	1574	C	Sidechain
26	BB	1575	C	Sidechain
26	BB	1576	U	Sidechain
26	BB	1578	U	Sidechain
26	BB	1580	A	Sidechain
26	BB	1581	G	Sidechain
26	BB	1582	C	Sidechain
26	BB	1583	A	Sidechain
26	BB	1584	U	Sidechain
26	BB	1585	C	Sidechain
26	BB	1586	A	Sidechain
26	BB	1587	G	Sidechain
26	BB	159	G	Sidechain
26	BB	1590	A	Sidechain
26	BB	1592	C	Sidechain
26	BB	1593	A	Sidechain
26	BB	1594	U	Sidechain
26	BB	1595	C	Sidechain
26	BB	1596	A	Sidechain
26	BB	1597	A	Sidechain
26	BB	1598	A	Sidechain
26	BB	16	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	160	A	Sidechain
26	BB	1600	C	Sidechain
26	BB	1602	U	Sidechain
26	BB	1603	A	Sidechain
26	BB	1604	C	Sidechain
26	BB	1606	C	Sidechain
26	BB	1607	C	Sidechain
26	BB	1609	A	Sidechain
26	BB	161	A	Sidechain
26	BB	1612	C	Sidechain
26	BB	1613	G	Sidechain
26	BB	1619	G	Sidechain
26	BB	162	U	Sidechain
26	BB	1620	G	Sidechain
26	BB	1622	G	Sidechain
26	BB	1623	G	Sidechain
26	BB	1624	U	Sidechain
26	BB	1626	A	Sidechain
26	BB	1627	G	Sidechain
26	BB	1628	G	Sidechain
26	BB	1629	U	Sidechain
26	BB	1631	G	Sidechain
26	BB	1632	A	Sidechain
26	BB	1634	A	Sidechain
26	BB	1635	A	Sidechain
26	BB	1636	U	Sidechain
26	BB	1637	A	Sidechain
26	BB	1639	C	Sidechain
26	BB	164	C	Sidechain
26	BB	1642	G	Sidechain
26	BB	1644	C	Sidechain
26	BB	1645	G	Sidechain
26	BB	1646	C	Sidechain
26	BB	1647	U	Sidechain
26	BB	1648	U	Sidechain
26	BB	1649	G	Sidechain
26	BB	165	A	Sidechain
26	BB	1651	G	Sidechain
26	BB	1653	G	Sidechain
26	BB	1654	A	Sidechain
26	BB	1655	A	Sidechain
26	BB	1656	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1659	G	Sidechain
26	BB	1660	G	Sidechain
26	BB	1662	U	Sidechain
26	BB	1663	G	Sidechain
26	BB	1666	G	Sidechain
26	BB	1667	G	Sidechain
26	BB	1668	A	Sidechain
26	BB	1671	U	Sidechain
26	BB	1672	A	Sidechain
26	BB	1673	G	Sidechain
26	BB	1677	A	Sidechain
26	BB	1679	A	Sidechain
26	BB	168	G	Sidechain
26	BB	1680	U	Sidechain
26	BB	1681	G	Sidechain
26	BB	1682	G	Sidechain
26	BB	1683	U	Sidechain
26	BB	1684	G	Sidechain
26	BB	1686	C	Sidechain
26	BB	1688	U	Sidechain
26	BB	169	G	Sidechain
26	BB	1693	U	Sidechain
26	BB	1694	C	Sidechain
26	BB	1695	G	Sidechain
26	BB	1696	G	Sidechain
26	BB	1697	G	Sidechain
26	BB	1698	A	Sidechain
26	BB	1699	G	Sidechain
26	BB	17	G	Sidechain
26	BB	1701	A	Sidechain
26	BB	1702	G	Sidechain
26	BB	1705	A	Sidechain
26	BB	1706	C	Sidechain
26	BB	1707	G	Sidechain
26	BB	1708	C	Sidechain
26	BB	1709	U	Sidechain
26	BB	1710	G	Sidechain
26	BB	1714	U	Sidechain
26	BB	1715	G	Sidechain
26	BB	1716	U	Sidechain
26	BB	1718	G	Sidechain
26	BB	1719	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1720	U	Sidechain
26	BB	1721	G	Sidechain
26	BB	1723	G	Sidechain
26	BB	1724	G	Sidechain
26	BB	1727	C	Sidechain
26	BB	1734	G	Sidechain
26	BB	1735	A	Sidechain
26	BB	1736	U	Sidechain
26	BB	1737	G	Sidechain
26	BB	1738	G	Sidechain
26	BB	1739	A	Sidechain
26	BB	174	U	Sidechain
26	BB	1743	G	Sidechain
26	BB	1744	A	Sidechain
26	BB	1745	A	Sidechain
26	BB	1746	A	Sidechain
26	BB	1747	U	Sidechain
26	BB	1748	C	Sidechain
26	BB	175	G	Sidechain
26	BB	1750	G	Sidechain
26	BB	1752	C	Sidechain
26	BB	1753	G	Sidechain
26	BB	1756	G	Sidechain
26	BB	1757	A	Sidechain
26	BB	1759	A	Sidechain
26	BB	1760	C	Sidechain
26	BB	1761	C	Sidechain
26	BB	1766	G	Sidechain
26	BB	1767	G	Sidechain
26	BB	1769	U	Sidechain
26	BB	177	G	Sidechain
26	BB	1771	C	Sidechain
26	BB	1772	A	Sidechain
26	BB	1773	A	Sidechain
26	BB	1775	U	Sidechain
26	BB	1777	U	Sidechain
26	BB	1779	U	Sidechain
26	BB	178	G	Sidechain
26	BB	1780	A	Sidechain
26	BB	1781	U	Sidechain
26	BB	1784	A	Sidechain
26	BB	1786	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1789	A	Sidechain
26	BB	179	C	Sidechain
26	BB	1790	C	Sidechain
26	BB	1792	G	Sidechain
26	BB	1793	C	Sidechain
26	BB	1794	A	Sidechain
26	BB	1796	U	Sidechain
26	BB	1797	G	Sidechain
26	BB	18	U	Sidechain
26	BB	180	G	Sidechain
26	BB	1800	C	Sidechain
26	BB	1801	A	Sidechain
26	BB	1802	A	Sidechain
26	BB	1806	C	Sidechain
26	BB	1807	G	Sidechain
26	BB	1809	A	Sidechain
26	BB	181	A	Sidechain
26	BB	1813	G	Sidechain
26	BB	1815	A	Sidechain
26	BB	1816	C	Sidechain
26	BB	1817	G	Sidechain
26	BB	1821	A	Sidechain
26	BB	1822	C	Sidechain
26	BB	1824	G	Sidechain
26	BB	1826	G	Sidechain
26	BB	1827	U	Sidechain
26	BB	1828	G	Sidechain
26	BB	183	C	Sidechain
26	BB	1830	C	Sidechain
26	BB	1831	G	Sidechain
26	BB	1832	C	Sidechain
26	BB	1834	U	Sidechain
26	BB	1840	G	Sidechain
26	BB	1842	G	Sidechain
26	BB	1844	C	Sidechain
26	BB	1845	G	Sidechain
26	BB	1846	G	Sidechain
26	BB	1847	A	Sidechain
26	BB	185	G	Sidechain
26	BB	1850	G	Sidechain
26	BB	1851	U	Sidechain
26	BB	1853	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1854	A	Sidechain
26	BB	1855	U	Sidechain
26	BB	1856	U	Sidechain
26	BB	1857	G	Sidechain
26	BB	1859	U	Sidechain
26	BB	186	G	Sidechain
26	BB	1861	G	Sidechain
26	BB	1862	G	Sidechain
26	BB	1865	U	Sidechain
26	BB	1866	A	Sidechain
26	BB	1868	C	Sidechain
26	BB	1869	G	Sidechain
26	BB	1870	C	Sidechain
26	BB	1875	G	Sidechain
26	BB	1877	A	Sidechain
26	BB	1878	G	Sidechain
26	BB	188	G	Sidechain
26	BB	1880	U	Sidechain
26	BB	1882	U	Sidechain
26	BB	1884	G	Sidechain
26	BB	1886	U	Sidechain
26	BB	1888	G	Sidechain
26	BB	1889	A	Sidechain
26	BB	189	G	Sidechain
26	BB	1890	A	Sidechain
26	BB	1891	G	Sidechain
26	BB	1893	C	Sidechain
26	BB	1895	C	Sidechain
26	BB	1896	G	Sidechain
26	BB	1897	G	Sidechain
26	BB	19	A	Sidechain
26	BB	190	A	Sidechain
26	BB	1901	A	Sidechain
26	BB	1903	G	Sidechain
26	BB	1904	G	Sidechain
26	BB	1905	C	Sidechain
26	BB	1906	G	Sidechain
26	BB	1907	G	Sidechain
26	BB	1909	C	Sidechain
26	BB	1910	G	Sidechain
26	BB	1912	A	Sidechain
26	BB	1913	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1916	A	Sidechain
26	BB	1918	A	Sidechain
26	BB	1920	C	Sidechain
26	BB	1922	G	Sidechain
26	BB	1929	G	Sidechain
26	BB	193	U	Sidechain
26	BB	1930	G	Sidechain
26	BB	1931	U	Sidechain
26	BB	1932	A	Sidechain
26	BB	1933	G	Sidechain
26	BB	1934	C	Sidechain
26	BB	1936	A	Sidechain
26	BB	1938	A	Sidechain
26	BB	1940	U	Sidechain
26	BB	1941	C	Sidechain
26	BB	1948	G	Sidechain
26	BB	1949	G	Sidechain
26	BB	1951	U	Sidechain
26	BB	1952	A	Sidechain
26	BB	1955	U	Sidechain
26	BB	1957	C	Sidechain
26	BB	1959	G	Sidechain
26	BB	196	A	Sidechain
26	BB	1960	A	Sidechain
26	BB	1961	C	Sidechain
26	BB	1963	U	Sidechain
26	BB	1964	G	Sidechain
26	BB	1965	C	Sidechain
26	BB	1966	A	Sidechain
26	BB	1968	G	Sidechain
26	BB	1969	A	Sidechain
26	BB	197	A	Sidechain
26	BB	1970	A	Sidechain
26	BB	1971	U	Sidechain
26	BB	1973	G	Sidechain
26	BB	1974	C	Sidechain
26	BB	198	C	Sidechain
26	BB	1981	A	Sidechain
26	BB	1982	U	Sidechain
26	BB	1983	G	Sidechain
26	BB	1984	G	Sidechain
26	BB	1985	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1986	C	Sidechain
26	BB	1988	G	Sidechain
26	BB	1989	G	Sidechain
26	BB	1990	C	Sidechain
26	BB	1991	U	Sidechain
26	BB	1993	U	Sidechain
26	BB	1994	C	Sidechain
26	BB	1995	U	Sidechain
26	BB	1997	C	Sidechain
26	BB	1998	A	Sidechain
26	BB	2001	C	Sidechain
26	BB	2002	G	Sidechain
26	BB	2003	A	Sidechain
26	BB	2004	G	Sidechain
26	BB	2005	A	Sidechain
26	BB	2006	C	Sidechain
26	BB	2009	A	Sidechain
26	BB	201	C	Sidechain
26	BB	2010	G	Sidechain
26	BB	2015	A	Sidechain
26	BB	2016	U	Sidechain
26	BB	2018	G	Sidechain
26	BB	202	U	Sidechain
26	BB	2022	U	Sidechain
26	BB	2025	C	Sidechain
26	BB	2026	U	Sidechain
26	BB	2027	G	Sidechain
26	BB	2029	G	Sidechain
26	BB	2031	A	Sidechain
26	BB	2035	G	Sidechain
26	BB	2036	C	Sidechain
26	BB	2038	G	Sidechain
26	BB	204	A	Sidechain
26	BB	2040	G	Sidechain
26	BB	2042	A	Sidechain
26	BB	2043	C	Sidechain
26	BB	2044	C	Sidechain
26	BB	2045	C	Sidechain
26	BB	2046	G	Sidechain
26	BB	2047	C	Sidechain
26	BB	2048	G	Sidechain
26	BB	2049	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	205	G	Sidechain
26	BB	2050	C	Sidechain
26	BB	2051	A	Sidechain
26	BB	2052	A	Sidechain
26	BB	2054	A	Sidechain
26	BB	2056	G	Sidechain
26	BB	2057	G	Sidechain
26	BB	2059	A	Sidechain
26	BB	206	U	Sidechain
26	BB	2062	A	Sidechain
26	BB	2063	C	Sidechain
26	BB	2064	C	Sidechain
26	BB	2067	G	Sidechain
26	BB	2068	U	Sidechain
26	BB	207	A	Sidechain
26	BB	2072	C	Sidechain
26	BB	2074	U	Sidechain
26	BB	2075	U	Sidechain
26	BB	2078	C	Sidechain
26	BB	208	C	Sidechain
26	BB	2080	A	Sidechain
26	BB	2083	G	Sidechain
26	BB	2085	U	Sidechain
26	BB	2086	U	Sidechain
26	BB	2087	G	Sidechain
26	BB	2090	A	Sidechain
26	BB	2093	G	Sidechain
26	BB	2094	A	Sidechain
26	BB	2098	U	Sidechain
26	BB	2101	A	Sidechain
26	BB	2103	C	Sidechain
26	BB	2104	C	Sidechain
26	BB	2110	G	Sidechain
26	BB	2111	U	Sidechain
26	BB	2112	G	Sidechain
26	BB	2113	U	Sidechain
26	BB	2114	A	Sidechain
26	BB	2115	G	Sidechain
26	BB	2116	G	Sidechain
26	BB	2117	A	Sidechain
26	BB	2119	A	Sidechain
26	BB	212	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2120	G	Sidechain
26	BB	2124	G	Sidechain
26	BB	2125	G	Sidechain
26	BB	2126	A	Sidechain
26	BB	2128	G	Sidechain
26	BB	2129	C	Sidechain
26	BB	2130	U	Sidechain
26	BB	2131	U	Sidechain
26	BB	2134	A	Sidechain
26	BB	2136	G	Sidechain
26	BB	2137	U	Sidechain
26	BB	2138	G	Sidechain
26	BB	214	G	Sidechain
26	BB	2141	G	Sidechain
26	BB	2144	G	Sidechain
26	BB	2147	A	Sidechain
26	BB	2149	U	Sidechain
26	BB	215	G	Sidechain
26	BB	2152	G	Sidechain
26	BB	2155	U	Sidechain
26	BB	2156	G	Sidechain
26	BB	2157	G	Sidechain
26	BB	2158	A	Sidechain
26	BB	2161	C	Sidechain
26	BB	2162	G	Sidechain
26	BB	2163	A	Sidechain
26	BB	2167	U	Sidechain
26	BB	2169	A	Sidechain
26	BB	2172	U	Sidechain
26	BB	2174	C	Sidechain
26	BB	2175	C	Sidechain
26	BB	2176	A	Sidechain
26	BB	2178	C	Sidechain
26	BB	2179	C	Sidechain
26	BB	2186	G	Sidechain
26	BB	2187	U	Sidechain
26	BB	2188	U	Sidechain
26	BB	219	A	Sidechain
26	BB	2190	G	Sidechain
26	BB	2192	U	Sidechain
26	BB	2194	U	Sidechain
26	BB	2196	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2197	U	Sidechain
26	BB	2198	A	Sidechain
26	BB	2199	A	Sidechain
26	BB	2200	C	Sidechain
26	BB	2203	U	Sidechain
26	BB	2204	G	Sidechain
26	BB	2205	A	Sidechain
26	BB	2206	C	Sidechain
26	BB	2207	C	Sidechain
26	BB	2208	C	Sidechain
26	BB	2209	G	Sidechain
26	BB	221	A	Sidechain
26	BB	2210	U	Sidechain
26	BB	2211	A	Sidechain
26	BB	2212	A	Sidechain
26	BB	2214	C	Sidechain
26	BB	2215	C	Sidechain
26	BB	2218	G	Sidechain
26	BB	2220	U	Sidechain
26	BB	2221	G	Sidechain
26	BB	2222	C	Sidechain
26	BB	2228	G	Sidechain
26	BB	2229	U	Sidechain
26	BB	223	A	Sidechain
26	BB	2230	G	Sidechain
26	BB	2231	U	Sidechain
26	BB	2233	U	Sidechain
26	BB	2234	G	Sidechain
26	BB	2235	G	Sidechain
26	BB	2237	G	Sidechain
26	BB	2238	G	Sidechain
26	BB	2239	G	Sidechain
26	BB	224	U	Sidechain
26	BB	2240	U	Sidechain
26	BB	2242	G	Sidechain
26	BB	2243	U	Sidechain
26	BB	2244	U	Sidechain
26	BB	2245	U	Sidechain
26	BB	2247	A	Sidechain
26	BB	2248	C	Sidechain
26	BB	2249	U	Sidechain
26	BB	2252	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2254	C	Sidechain
26	BB	2255	G	Sidechain
26	BB	2257	U	Sidechain
26	BB	226	A	Sidechain
26	BB	2260	C	Sidechain
26	BB	2261	C	Sidechain
26	BB	2262	U	Sidechain
26	BB	2267	A	Sidechain
26	BB	227	A	Sidechain
26	BB	2271	G	Sidechain
26	BB	2272	U	Sidechain
26	BB	2276	G	Sidechain
26	BB	2278	A	Sidechain
26	BB	2279	G	Sidechain
26	BB	228	C	Sidechain
26	BB	2280	G	Sidechain
26	BB	2282	G	Sidechain
26	BB	2283	C	Sidechain
26	BB	2284	A	Sidechain
26	BB	2289	G	Sidechain
26	BB	2292	U	Sidechain
26	BB	2294	G	Sidechain
26	BB	2296	U	Sidechain
26	BB	2297	A	Sidechain
26	BB	2299	U	Sidechain
26	BB	23	G	Sidechain
26	BB	230	G	Sidechain
26	BB	2301	C	Sidechain
26	BB	2302	U	Sidechain
26	BB	2303	G	Sidechain
26	BB	2304	G	Sidechain
26	BB	2305	U	Sidechain
26	BB	2307	G	Sidechain
26	BB	2310	C	Sidechain
26	BB	2312	U	Sidechain
26	BB	2313	C	Sidechain
26	BB	2316	G	Sidechain
26	BB	2317	A	Sidechain
26	BB	2318	G	Sidechain
26	BB	2319	G	Sidechain
26	BB	2324	U	Sidechain
26	BB	2325	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2326	C	Sidechain
26	BB	2327	A	Sidechain
26	BB	2329	U	Sidechain
26	BB	233	A	Sidechain
26	BB	2330	G	Sidechain
26	BB	2333	A	Sidechain
26	BB	2335	A	Sidechain
26	BB	2336	A	Sidechain
26	BB	2337	G	Sidechain
26	BB	2339	C	Sidechain
26	BB	2340	A	Sidechain
26	BB	2341	G	Sidechain
26	BB	2342	C	Sidechain
26	BB	2343	U	Sidechain
26	BB	2344	U	Sidechain
26	BB	2345	G	Sidechain
26	BB	2347	C	Sidechain
26	BB	2349	G	Sidechain
26	BB	2353	G	Sidechain
26	BB	2354	C	Sidechain
26	BB	2355	G	Sidechain
26	BB	2356	U	Sidechain
26	BB	2358	A	Sidechain
26	BB	2359	C	Sidechain
26	BB	2360	G	Sidechain
26	BB	2361	G	Sidechain
26	BB	2362	C	Sidechain
26	BB	2363	G	Sidechain
26	BB	2364	C	Sidechain
26	BB	2365	G	Sidechain
26	BB	2366	A	Sidechain
26	BB	2367	G	Sidechain
26	BB	237	C	Sidechain
26	BB	2372	U	Sidechain
26	BB	2375	G	Sidechain
26	BB	2376	A	Sidechain
26	BB	2379	G	Sidechain
26	BB	2380	C	Sidechain
26	BB	2382	G	Sidechain
26	BB	2384	U	Sidechain
26	BB	2385	C	Sidechain
26	BB	2386	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2387	U	Sidechain
26	BB	2388	A	Sidechain
26	BB	2389	G	Sidechain
26	BB	239	C	Sidechain
26	BB	2391	G	Sidechain
26	BB	2392	A	Sidechain
26	BB	2395	C	Sidechain
26	BB	2396	G	Sidechain
26	BB	2397	G	Sidechain
26	BB	2398	U	Sidechain
26	BB	2399	G	Sidechain
26	BB	2400	G	Sidechain
26	BB	2404	U	Sidechain
26	BB	2406	A	Sidechain
26	BB	2408	U	Sidechain
26	BB	2409	G	Sidechain
26	BB	2410	G	Sidechain
26	BB	2412	A	Sidechain
26	BB	2413	G	Sidechain
26	BB	2414	G	Sidechain
26	BB	2416	C	Sidechain
26	BB	2417	C	Sidechain
26	BB	2418	A	Sidechain
26	BB	2419	U	Sidechain
26	BB	2420	C	Sidechain
26	BB	2422	C	Sidechain
26	BB	2423	U	Sidechain
26	BB	2426	A	Sidechain
26	BB	2427	C	Sidechain
26	BB	2428	G	Sidechain
26	BB	2433	A	Sidechain
26	BB	2435	A	Sidechain
26	BB	2436	G	Sidechain
26	BB	2439	A	Sidechain
26	BB	2441	U	Sidechain
26	BB	2442	C	Sidechain
26	BB	2444	G	Sidechain
26	BB	2446	G	Sidechain
26	BB	2447	G	Sidechain
26	BB	2448	A	Sidechain
26	BB	245	G	Sidechain
26	BB	2450	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2451	A	Sidechain
26	BB	2453	A	Sidechain
26	BB	2454	G	Sidechain
26	BB	2455	G	Sidechain
26	BB	2456	C	Sidechain
26	BB	2458	G	Sidechain
26	BB	2460	U	Sidechain
26	BB	2461	A	Sidechain
26	BB	2464	G	Sidechain
26	BB	2465	C	Sidechain
26	BB	2469	A	Sidechain
26	BB	247	G	Sidechain
26	BB	2470	G	Sidechain
26	BB	2472	G	Sidechain
26	BB	2473	U	Sidechain
26	BB	2475	C	Sidechain
26	BB	2478	A	Sidechain
26	BB	2479	U	Sidechain
26	BB	248	G	Sidechain
26	BB	2481	G	Sidechain
26	BB	2482	A	Sidechain
26	BB	2484	G	Sidechain
26	BB	2485	G	Sidechain
26	BB	2487	G	Sidechain
26	BB	2488	G	Sidechain
26	BB	2489	U	Sidechain
26	BB	2490	G	Sidechain
26	BB	2491	U	Sidechain
26	BB	2492	U	Sidechain
26	BB	2493	U	Sidechain
26	BB	2494	G	Sidechain
26	BB	250	G	Sidechain
26	BB	2501	C	Sidechain
26	BB	2509	G	Sidechain
26	BB	251	A	Sidechain
26	BB	2510	C	Sidechain
26	BB	2514	U	Sidechain
26	BB	2517	C	Sidechain
26	BB	2518	A	Sidechain
26	BB	2520	C	Sidechain
26	BB	2521	C	Sidechain
26	BB	2522	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2523	G	Sidechain
26	BB	2524	G	Sidechain
26	BB	2526	G	Sidechain
26	BB	2529	G	Sidechain
26	BB	253	C	Sidechain
26	BB	2530	A	Sidechain
26	BB	2532	G	Sidechain
26	BB	2533	U	Sidechain
26	BB	2535	G	Sidechain
26	BB	2539	C	Sidechain
26	BB	254	G	Sidechain
26	BB	2540	C	Sidechain
26	BB	2541	A	Sidechain
26	BB	2542	A	Sidechain
26	BB	2543	G	Sidechain
26	BB	2544	G	Sidechain
26	BB	2545	G	Sidechain
26	BB	2546	U	Sidechain
26	BB	2547	A	Sidechain
26	BB	2549	G	Sidechain
26	BB	255	A	Sidechain
26	BB	2550	G	Sidechain
26	BB	2553	G	Sidechain
26	BB	2555	U	Sidechain
26	BB	2556	C	Sidechain
26	BB	2560	A	Sidechain
26	BB	2562	U	Sidechain
26	BB	2563	U	Sidechain
26	BB	2566	A	Sidechain
26	BB	2567	G	Sidechain
26	BB	2568	U	Sidechain
26	BB	2569	G	Sidechain
26	BB	2571	U	Sidechain
26	BB	2572	A	Sidechain
26	BB	2574	G	Sidechain
26	BB	2576	G	Sidechain
26	BB	2577	A	Sidechain
26	BB	2578	G	Sidechain
26	BB	2579	C	Sidechain
26	BB	258	G	Sidechain
26	BB	2583	G	Sidechain
26	BB	2584	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2589	A	Sidechain
26	BB	2590	A	Sidechain
26	BB	2592	G	Sidechain
26	BB	2594	C	Sidechain
26	BB	2595	G	Sidechain
26	BB	2596	U	Sidechain
26	BB	2597	G	Sidechain
26	BB	2598	A	Sidechain
26	BB	2599	G	Sidechain
26	BB	260	G	Sidechain
26	BB	2601	C	Sidechain
26	BB	2604	U	Sidechain
26	BB	2607	G	Sidechain
26	BB	2608	G	Sidechain
26	BB	2609	U	Sidechain
26	BB	2611	C	Sidechain
26	BB	2614	A	Sidechain
26	BB	2615	U	Sidechain
26	BB	2616	C	Sidechain
26	BB	2617	U	Sidechain
26	BB	2620	C	Sidechain
26	BB	2622	U	Sidechain
26	BB	2624	G	Sidechain
26	BB	2627	G	Sidechain
26	BB	263	G	Sidechain
26	BB	2630	G	Sidechain
26	BB	2633	G	Sidechain
26	BB	2634	A	Sidechain
26	BB	2635	A	Sidechain
26	BB	2636	C	Sidechain
26	BB	2637	U	Sidechain
26	BB	2638	G	Sidechain
26	BB	2639	A	Sidechain
26	BB	264	C	Sidechain
26	BB	2640	G	Sidechain
26	BB	2641	G	Sidechain
26	BB	2643	G	Sidechain
26	BB	2645	G	Sidechain
26	BB	2648	G	Sidechain
26	BB	2649	C	Sidechain
26	BB	265	A	Sidechain
26	BB	2651	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2652	C	Sidechain
26	BB	2653	U	Sidechain
26	BB	2655	G	Sidechain
26	BB	2656	U	Sidechain
26	BB	2657	A	Sidechain
26	BB	2659	G	Sidechain
26	BB	2663	G	Sidechain
26	BB	2664	G	Sidechain
26	BB	2667	C	Sidechain
26	BB	2668	G	Sidechain
26	BB	267	C	Sidechain
26	BB	2670	A	Sidechain
26	BB	2671	G	Sidechain
26	BB	2672	U	Sidechain
26	BB	2673	G	Sidechain
26	BB	2675	A	Sidechain
26	BB	2676	C	Sidechain
26	BB	2677	G	Sidechain
26	BB	2679	A	Sidechain
26	BB	2682	A	Sidechain
26	BB	2685	G	Sidechain
26	BB	2686	G	Sidechain
26	BB	2687	U	Sidechain
26	BB	2688	G	Sidechain
26	BB	2689	U	Sidechain
26	BB	2691	C	Sidechain
26	BB	2692	G	Sidechain
26	BB	2694	G	Sidechain
26	BB	2695	U	Sidechain
26	BB	2696	U	Sidechain
26	BB	270	A	Sidechain
26	BB	2701	U	Sidechain
26	BB	2702	G	Sidechain
26	BB	2704	C	Sidechain
26	BB	2707	U	Sidechain
26	BB	2708	G	Sidechain
26	BB	2709	G	Sidechain
26	BB	271	G	Sidechain
26	BB	2711	A	Sidechain
26	BB	2712	C	Sidechain
26	BB	2713	U	Sidechain
26	BB	2716	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2718	G	Sidechain
26	BB	272	A	Sidechain
26	BB	2720	U	Sidechain
26	BB	2722	G	Sidechain
26	BB	2723	C	Sidechain
26	BB	2724	U	Sidechain
26	BB	2727	A	Sidechain
26	BB	2728	U	Sidechain
26	BB	2729	G	Sidechain
26	BB	273	G	Sidechain
26	BB	2731	G	Sidechain
26	BB	2732	G	Sidechain
26	BB	2736	A	Sidechain
26	BB	2738	A	Sidechain
26	BB	2739	U	Sidechain
26	BB	274	C	Sidechain
26	BB	2740	A	Sidechain
26	BB	2742	G	Sidechain
26	BB	2747	G	Sidechain
26	BB	2748	A	Sidechain
26	BB	2750	A	Sidechain
26	BB	2751	G	Sidechain
26	BB	2752	C	Sidechain
26	BB	2753	A	Sidechain
26	BB	2755	C	Sidechain
26	BB	2757	A	Sidechain
26	BB	2759	G	Sidechain
26	BB	276	U	Sidechain
26	BB	2760	C	Sidechain
26	BB	2764	A	Sidechain
26	BB	2765	A	Sidechain
26	BB	2766	A	Sidechain
26	BB	2769	U	Sidechain
26	BB	277	G	Sidechain
26	BB	2770	G	Sidechain
26	BB	2771	C	Sidechain
26	BB	2775	G	Sidechain
26	BB	2779	U	Sidechain
26	BB	278	A	Sidechain
26	BB	2781	A	Sidechain
26	BB	2783	U	Sidechain
26	BB	2785	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2786	U	Sidechain
26	BB	2787	C	Sidechain
26	BB	2788	C	Sidechain
26	BB	2791	G	Sidechain
26	BB	2797	U	Sidechain
26	BB	280	U	Sidechain
26	BB	2800	A	Sidechain
26	BB	2803	G	Sidechain
26	BB	2804	U	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	2811	G	Sidechain
26	BB	2816	G	Sidechain
26	BB	2817	U	Sidechain
26	BB	2818	U	Sidechain
26	BB	2819	G	Sidechain
26	BB	2820	A	Sidechain
26	BB	2821	A	Sidechain
26	BB	2822	G	Sidechain
26	BB	2823	A	Sidechain
26	BB	2824	C	Sidechain
26	BB	2826	A	Sidechain
26	BB	2827	C	Sidechain
26	BB	283	G	Sidechain
26	BB	2830	C	Sidechain
26	BB	2831	G	Sidechain
26	BB	2832	U	Sidechain
26	BB	2833	U	Sidechain
26	BB	2834	G	Sidechain
26	BB	2835	A	Sidechain
26	BB	2836	U	Sidechain
26	BB	2838	G	Sidechain
26	BB	2839	G	Sidechain
26	BB	2843	G	Sidechain
26	BB	2844	G	Sidechain
26	BB	2845	U	Sidechain
26	BB	2846	G	Sidechain
26	BB	285	G	Sidechain
26	BB	2851	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2853	C	Sidechain
26	BB	2854	G	Sidechain
26	BB	2855	C	Sidechain
26	BB	2856	A	Sidechain
26	BB	2857	G	Sidechain
26	BB	2858	C	Sidechain
26	BB	2859	G	Sidechain
26	BB	286	U	Sidechain
26	BB	2860	A	Sidechain
26	BB	2861	U	Sidechain
26	BB	2862	G	Sidechain
26	BB	2863	C	Sidechain
26	BB	2864	G	Sidechain
26	BB	2866	U	Sidechain
26	BB	2869	G	Sidechain
26	BB	287	G	Sidechain
26	BB	2878	U	Sidechain
26	BB	2879	A	Sidechain
26	BB	2881	U	Sidechain
26	BB	2882	A	Sidechain
26	BB	2883	A	Sidechain
26	BB	2885	G	Sidechain
26	BB	2886	A	Sidechain
26	BB	2887	A	Sidechain
26	BB	2888	C	Sidechain
26	BB	289	G	Sidechain
26	BB	2891	U	Sidechain
26	BB	2892	G	Sidechain
26	BB	2893	A	Sidechain
26	BB	2894	G	Sidechain
26	BB	2895	G	Sidechain
26	BB	2899	A	Sidechain
26	BB	2900	A	Sidechain
26	BB	2904	U	Sidechain
26	BB	291	G	Sidechain
26	BB	294	A	Sidechain
26	BB	295	G	Sidechain
26	BB	296	U	Sidechain
26	BB	297	G	Sidechain
26	BB	298	G	Sidechain
26	BB	3	U	Sidechain
26	BB	30	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	300	A	Sidechain
26	BB	301	G	Sidechain
26	BB	302	C	Sidechain
26	BB	303	G	Sidechain
26	BB	304	U	Sidechain
26	BB	307	G	Sidechain
26	BB	308	G	Sidechain
26	BB	310	A	Sidechain
26	BB	311	A	Sidechain
26	BB	312	G	Sidechain
26	BB	313	G	Sidechain
26	BB	316	C	Sidechain
26	BB	318	C	Sidechain
26	BB	32	C	Sidechain
26	BB	322	A	Sidechain
26	BB	324	A	Sidechain
26	BB	326	G	Sidechain
26	BB	327	G	Sidechain
26	BB	329	G	Sidechain
26	BB	330	A	Sidechain
26	BB	331	C	Sidechain
26	BB	335	C	Sidechain
26	BB	336	C	Sidechain
26	BB	337	C	Sidechain
26	BB	338	G	Sidechain
26	BB	339	U	Sidechain
26	BB	34	U	Sidechain
26	BB	342	A	Sidechain
26	BB	343	C	Sidechain
26	BB	344	A	Sidechain
26	BB	345	A	Sidechain
26	BB	346	A	Sidechain
26	BB	348	A	Sidechain
26	BB	349	U	Sidechain
26	BB	35	G	Sidechain
26	BB	351	C	Sidechain
26	BB	352	A	Sidechain
26	BB	354	A	Sidechain
26	BB	355	U	Sidechain
26	BB	358	U	Sidechain
26	BB	359	G	Sidechain
26	BB	36	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	360	U	Sidechain
26	BB	361	G	Sidechain
26	BB	362	A	Sidechain
26	BB	363	G	Sidechain
26	BB	364	C	Sidechain
26	BB	365	U	Sidechain
26	BB	366	C	Sidechain
26	BB	367	G	Sidechain
26	BB	368	A	Sidechain
26	BB	371	A	Sidechain
26	BB	372	G	Sidechain
26	BB	376	G	Sidechain
26	BB	38	A	Sidechain
26	BB	380	G	Sidechain
26	BB	381	G	Sidechain
26	BB	384	A	Sidechain
26	BB	387	U	Sidechain
26	BB	389	G	Sidechain
26	BB	39	G	Sidechain
26	BB	392	U	Sidechain
26	BB	394	C	Sidechain
26	BB	396	G	Sidechain
26	BB	397	U	Sidechain
26	BB	398	C	Sidechain
26	BB	399	U	Sidechain
26	BB	400	G	Sidechain
26	BB	401	A	Sidechain
26	BB	405	U	Sidechain
26	BB	406	G	Sidechain
26	BB	407	G	Sidechain
26	BB	410	G	Sidechain
26	BB	411	G	Sidechain
26	BB	416	U	Sidechain
26	BB	417	C	Sidechain
26	BB	418	C	Sidechain
26	BB	419	U	Sidechain
26	BB	42	A	Sidechain
26	BB	421	C	Sidechain
26	BB	423	A	Sidechain
26	BB	424	G	Sidechain
26	BB	425	G	Sidechain
26	BB	427	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	43	G	Sidechain
26	BB	431	U	Sidechain
26	BB	434	U	Sidechain
26	BB	436	C	Sidechain
26	BB	437	U	Sidechain
26	BB	438	G	Sidechain
26	BB	441	U	Sidechain
26	BB	442	G	Sidechain
26	BB	444	C	Sidechain
26	BB	445	C	Sidechain
26	BB	446	G	Sidechain
26	BB	447	A	Sidechain
26	BB	448	U	Sidechain
26	BB	45	G	Sidechain
26	BB	450	G	Sidechain
26	BB	451	U	Sidechain
26	BB	452	G	Sidechain
26	BB	454	A	Sidechain
26	BB	455	C	Sidechain
26	BB	456	C	Sidechain
26	BB	458	G	Sidechain
26	BB	459	U	Sidechain
26	BB	462	C	Sidechain
26	BB	463	G	Sidechain
26	BB	464	U	Sidechain
26	BB	465	G	Sidechain
26	BB	467	G	Sidechain
26	BB	468	G	Sidechain
26	BB	469	G	Sidechain
26	BB	47	C	Sidechain
26	BB	473	G	Sidechain
26	BB	474	G	Sidechain
26	BB	475	C	Sidechain
26	BB	482	A	Sidechain
26	BB	489	G	Sidechain
26	BB	49	A	Sidechain
26	BB	492	A	Sidechain
26	BB	493	G	Sidechain
26	BB	495	G	Sidechain
26	BB	497	A	Sidechain
26	BB	498	G	Sidechain
26	BB	50	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	500	G	Sidechain
26	BB	501	A	Sidechain
26	BB	502	A	Sidechain
26	BB	504	A	Sidechain
26	BB	506	G	Sidechain
26	BB	507	A	Sidechain
26	BB	51	G	Sidechain
26	BB	512	G	Sidechain
26	BB	513	A	Sidechain
26	BB	514	A	Sidechain
26	BB	515	A	Sidechain
26	BB	517	C	Sidechain
26	BB	520	G	Sidechain
26	BB	522	A	Sidechain
26	BB	523	C	Sidechain
26	BB	524	G	Sidechain
26	BB	525	U	Sidechain
26	BB	526	A	Sidechain
26	BB	527	C	Sidechain
26	BB	529	A	Sidechain
26	BB	531	C	Sidechain
26	BB	535	G	Sidechain
26	BB	536	G	Sidechain
26	BB	537	G	Sidechain
26	BB	540	C	Sidechain
26	BB	541	A	Sidechain
26	BB	543	G	Sidechain
26	BB	544	C	Sidechain
26	BB	545	U	Sidechain
26	BB	548	G	Sidechain
26	BB	549	G	Sidechain
26	BB	55	G	Sidechain
26	BB	550	C	Sidechain
26	BB	552	U	Sidechain
26	BB	553	G	Sidechain
26	BB	556	A	Sidechain
26	BB	559	G	Sidechain
26	BB	56	A	Sidechain
26	BB	560	C	Sidechain
26	BB	561	G	Sidechain
26	BB	563	A	Sidechain
26	BB	564	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	565	C	Sidechain
26	BB	567	U	Sidechain
26	BB	569	U	Sidechain
26	BB	57	C	Sidechain
26	BB	570	G	Sidechain
26	BB	572	A	Sidechain
26	BB	574	A	Sidechain
26	BB	575	A	Sidechain
26	BB	576	U	Sidechain
26	BB	578	G	Sidechain
26	BB	579	G	Sidechain
26	BB	58	G	Sidechain
26	BB	580	U	Sidechain
26	BB	581	C	Sidechain
26	BB	583	G	Sidechain
26	BB	586	A	Sidechain
26	BB	587	C	Sidechain
26	BB	588	U	Sidechain
26	BB	590	A	Sidechain
26	BB	592	A	Sidechain
26	BB	595	C	Sidechain
26	BB	598	U	Sidechain
26	BB	60	G	Sidechain
26	BB	600	G	Sidechain
26	BB	605	G	Sidechain
26	BB	607	U	Sidechain
26	BB	608	A	Sidechain
26	BB	609	A	Sidechain
26	BB	61	C	Sidechain
26	BB	612	G	Sidechain
26	BB	613	A	Sidechain
26	BB	614	A	Sidechain
26	BB	615	U	Sidechain
26	BB	616	A	Sidechain
26	BB	619	G	Sidechain
26	BB	620	G	Sidechain
26	BB	622	G	Sidechain
26	BB	625	G	Sidechain
26	BB	627	A	Sidechain
26	BB	629	G	Sidechain
26	BB	63	A	Sidechain
26	BB	630	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	631	A	Sidechain
26	BB	633	A	Sidechain
26	BB	635	C	Sidechain
26	BB	636	G	Sidechain
26	BB	637	A	Sidechain
26	BB	639	U	Sidechain
26	BB	640	C	Sidechain
26	BB	641	U	Sidechain
26	BB	643	A	Sidechain
26	BB	644	A	Sidechain
26	BB	646	U	Sidechain
26	BB	647	G	Sidechain
26	BB	65	U	Sidechain
26	BB	653	U	Sidechain
26	BB	654	A	Sidechain
26	BB	656	G	Sidechain
26	BB	658	U	Sidechain
26	BB	659	G	Sidechain
26	BB	660	C	Sidechain
26	BB	661	A	Sidechain
26	BB	662	G	Sidechain
26	BB	663	G	Sidechain
26	BB	664	G	Sidechain
26	BB	665	U	Sidechain
26	BB	666	A	Sidechain
26	BB	668	A	Sidechain
26	BB	671	C	Sidechain
26	BB	672	C	Sidechain
26	BB	673	C	Sidechain
26	BB	674	G	Sidechain
26	BB	676	A	Sidechain
26	BB	678	C	Sidechain
26	BB	679	C	Sidechain
26	BB	68	G	Sidechain
26	BB	681	G	Sidechain
26	BB	682	G	Sidechain
26	BB	683	U	Sidechain
26	BB	684	G	Sidechain
26	BB	686	U	Sidechain
26	BB	688	U	Sidechain
26	BB	690	G	Sidechain
26	BB	691	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	692	C	Sidechain
26	BB	693	A	Sidechain
26	BB	695	G	Sidechain
26	BB	696	G	Sidechain
26	BB	699	A	Sidechain
26	BB	7	G	Sidechain
26	BB	70	G	Sidechain
26	BB	700	G	Sidechain
26	BB	702	U	Sidechain
26	BB	703	U	Sidechain
26	BB	705	A	Sidechain
26	BB	707	G	Sidechain
26	BB	709	U	Sidechain
26	BB	712	G	Sidechain
26	BB	713	G	Sidechain
26	BB	714	U	Sidechain
26	BB	715	A	Sidechain
26	BB	717	C	Sidechain
26	BB	719	C	Sidechain
26	BB	720	U	Sidechain
26	BB	721	A	Sidechain
26	BB	726	G	Sidechain
26	BB	729	G	Sidechain
26	BB	73	A	Sidechain
26	BB	730	A	Sidechain
26	BB	733	G	Sidechain
26	BB	734	A	Sidechain
26	BB	735	A	Sidechain
26	BB	736	C	Sidechain
26	BB	737	C	Sidechain
26	BB	738	G	Sidechain
26	BB	739	A	Sidechain
26	BB	74	A	Sidechain
26	BB	740	C	Sidechain
26	BB	741	U	Sidechain
26	BB	742	A	Sidechain
26	BB	748	G	Sidechain
26	BB	75	G	Sidechain
26	BB	750	A	Sidechain
26	BB	751	A	Sidechain
26	BB	752	A	Sidechain
26	BB	757	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	759	G	Sidechain
26	BB	760	G	Sidechain
26	BB	761	A	Sidechain
26	BB	762	U	Sidechain
26	BB	764	A	Sidechain
26	BB	765	C	Sidechain
26	BB	766	U	Sidechain
26	BB	767	U	Sidechain
26	BB	77	G	Sidechain
26	BB	771	G	Sidechain
26	BB	774	G	Sidechain
26	BB	775	G	Sidechain
26	BB	776	G	Sidechain
26	BB	777	G	Sidechain
26	BB	778	G	Sidechain
26	BB	779	U	Sidechain
26	BB	78	U	Sidechain
26	BB	781	A	Sidechain
26	BB	783	A	Sidechain
26	BB	784	G	Sidechain
26	BB	785	G	Sidechain
26	BB	787	C	Sidechain
26	BB	792	A	Sidechain
26	BB	794	A	Sidechain
26	BB	797	G	Sidechain
26	BB	798	G	Sidechain
26	BB	799	G	Sidechain
26	BB	8	C	Sidechain
26	BB	80	G	Sidechain
26	BB	800	A	Sidechain
26	BB	801	G	Sidechain
26	BB	802	A	Sidechain
26	BB	804	A	Sidechain
26	BB	805	G	Sidechain
26	BB	806	C	Sidechain
26	BB	807	U	Sidechain
26	BB	809	G	Sidechain
26	BB	81	G	Sidechain
26	BB	810	U	Sidechain
26	BB	811	U	Sidechain
26	BB	812	C	Sidechain
26	BB	814	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	815	C	Sidechain
26	BB	818	G	Sidechain
26	BB	819	A	Sidechain
26	BB	820	A	Sidechain
26	BB	821	A	Sidechain
26	BB	823	C	Sidechain
26	BB	824	U	Sidechain
26	BB	827	U	Sidechain
26	BB	828	U	Sidechain
26	BB	829	A	Sidechain
26	BB	83	A	Sidechain
26	BB	830	G	Sidechain
26	BB	831	G	Sidechain
26	BB	832	U	Sidechain
26	BB	834	G	Sidechain
26	BB	835	C	Sidechain
26	BB	84	A	Sidechain
26	BB	840	C	Sidechain
26	BB	842	U	Sidechain
26	BB	844	A	Sidechain
26	BB	847	U	Sidechain
26	BB	848	C	Sidechain
26	BB	849	A	Sidechain
26	BB	85	G	Sidechain
26	BB	850	U	Sidechain
26	BB	852	U	Sidechain
26	BB	855	G	Sidechain
26	BB	856	G	Sidechain
26	BB	857	G	Sidechain
26	BB	858	G	Sidechain
26	BB	859	G	Sidechain
26	BB	86	G	Sidechain
26	BB	862	G	Sidechain
26	BB	863	A	Sidechain
26	BB	864	G	Sidechain
26	BB	867	C	Sidechain
26	BB	868	U	Sidechain
26	BB	869	G	Sidechain
26	BB	87	U	Sidechain
26	BB	870	U	Sidechain
26	BB	872	U	Sidechain
26	BB	874	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	875	G	Sidechain
26	BB	877	A	Sidechain
26	BB	879	G	Sidechain
26	BB	88	G	Sidechain
26	BB	880	G	Sidechain
26	BB	883	G	Sidechain
26	BB	884	U	Sidechain
26	BB	886	A	Sidechain
26	BB	887	U	Sidechain
26	BB	889	C	Sidechain
26	BB	89	A	Sidechain
26	BB	890	C	Sidechain
26	BB	891	G	Sidechain
26	BB	892	A	Sidechain
26	BB	894	U	Sidechain
26	BB	895	U	Sidechain
26	BB	896	A	Sidechain
26	BB	898	C	Sidechain
26	BB	9	G	Sidechain
26	BB	90	U	Sidechain
26	BB	904	G	Sidechain
26	BB	905	A	Sidechain
26	BB	906	U	Sidechain
26	BB	907	G	Sidechain
26	BB	908	C	Sidechain
26	BB	909	A	Sidechain
26	BB	910	A	Sidechain
26	BB	912	C	Sidechain
26	BB	914	G	Sidechain
26	BB	915	C	Sidechain
26	BB	918	A	Sidechain
26	BB	92	U	Sidechain
26	BB	921	C	Sidechain
26	BB	924	G	Sidechain
26	BB	929	U	Sidechain
26	BB	93	G	Sidechain
26	BB	930	G	Sidechain
26	BB	931	U	Sidechain
26	BB	933	A	Sidechain
26	BB	934	U	Sidechain
26	BB	936	A	Sidechain
26	BB	938	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	939	G	Sidechain
26	BB	94	A	Sidechain
26	BB	940	G	Sidechain
26	BB	941	A	Sidechain
26	BB	942	G	Sidechain
26	BB	944	C	Sidechain
26	BB	945	A	Sidechain
26	BB	946	C	Sidechain
26	BB	949	G	Sidechain
26	BB	950	G	Sidechain
26	BB	951	C	Sidechain
26	BB	953	G	Sidechain
26	BB	956	G	Sidechain
26	BB	958	U	Sidechain
26	BB	959	A	Sidechain
26	BB	963	U	Sidechain
26	BB	965	C	Sidechain
26	BB	966	G	Sidechain
26	BB	967	U	Sidechain
26	BB	969	G	Sidechain
26	BB	970	U	Sidechain
26	BB	971	G	Sidechain
26	BB	974	G	Sidechain
26	BB	977	G	Sidechain
26	BB	978	G	Sidechain
26	BB	979	A	Sidechain
26	BB	98	G	Sidechain
26	BB	981	A	Sidechain
26	BB	985	C	Sidechain
26	BB	986	C	Sidechain
26	BB	987	C	Sidechain
26	BB	988	A	Sidechain
26	BB	989	G	Sidechain
26	BB	99	U	Sidechain
26	BB	990	A	Sidechain
26	BB	991	C	Sidechain
26	BB	992	C	Sidechain
26	BB	996	A	Sidechain
26	BB	997	G	Sidechain
26	BB	998	C	Sidechain
27	BC	164	ARG	Sidechain
27	BC	21	TYR	Sidechain

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Mol	Chain	Res	Type	Group
27	BC	60	ARG	Sidechain
28	BD	101	ARG	Peptide
28	BD	12	ARG	Sidechain
28	BD	166	ARG	Sidechain
28	BD	174	ARG	Sidechain
28	BD	176	ARG	Sidechain
28	BD	199	HIS	Sidechain
28	BD	254	LYS	Peptide
28	BD	257	ARG	Sidechain
28	BD	38	LYS	Mainchain
28	BD	77	VAL	Peptide
29	BE	113	SER	Peptide
29	BE	184	ARG	Sidechain
29	BE	32	ASN	Mainchain
29	BE	40	LEU	Peptide
29	BE	8	LYS	Peptide
30	BF	12	LEU	Mainchain
30	BF	21	ARG	Sidechain
30	BF	69	ARG	Sidechain
31	BG	101	ARG	Sidechain
31	BG	124	ARG	Sidechain
31	BG	127	TYR	Sidechain
31	BG	132	ARG	Mainchain
31	BG	149	ARG	Peptide
31	BG	177	ARG	Sidechain
31	BG	6	TYR	Sidechain
31	BG	87	LYS	Mainchain
31	BG	94	ARG	Sidechain
32	BH	148	ARG	Sidechain
32	BH	150	TYR	Sidechain
32	BH	34	ARG	Sidechain
32	BH	83	THR	Peptide
33	BI	36	ALA	Mainchain
33	BI	68	ARG	Sidechain
34	BJ	130	THR	Mainchain,Peptide
34	BJ	137	ARG	Sidechain
34	BJ	53	VAL	Peptide
34	BJ	98	PHE	Sidechain
35	BK	126	ARG	Sidechain
36	BL	116	ARG	Sidechain
36	BL	119	PHE	Sidechain
36	BL	125	TYR	Sidechain

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Mol	Chain	Res	Type	Group
36	BL	13	ARG	Sidechain
36	BL	37	ARG	Sidechain
36	BL	71	ASP	Mainchain
36	BL	74	TYR	Sidechain
36	BL	83	GLY	Peptide
36	BL	99	ARG	Sidechain
37	BM	17	ARG	Sidechain
37	BM	30	ARG	Sidechain
37	BM	32	TYR	Sidechain
37	BM	4	GLU	Peptide
37	BM	70	ARG	Sidechain
37	BM	78	ARG	Sidechain
37	BM	87	LEU	Mainchain
38	BN	126	ARG	Sidechain
38	BN	21	ARG	Sidechain
38	BN	45	GLY	Peptide
38	BN	58	TYR	Sidechain
38	BN	69	ARG	Sidechain
39	BO	22	GLN	Mainchain
39	BO	91	TYR	Sidechain
40	BP	112	TYR	Sidechain
40	BP	22	ARG	Sidechain
40	BP	45	ARG	Sidechain
41	BQ	10	ARG	Sidechain
41	BQ	111	ARG	Sidechain
41	BQ	64	TYR	Sidechain
41	BQ	99	TYR	Sidechain
42	BR	19	PHE	Sidechain
42	BR	98	TYR	Sidechain
43	BS	32	ARG	Sidechain
43	BS	75	TYR	Sidechain
44	BT	2	TYR	Sidechain
44	BT	5	PHE	Sidechain
45	BU	110	ARG	Sidechain
45	BU	12	SER	Peptide
45	BU	4	ILE	Peptide
45	BU	84	ARG	Sidechain
46	BV	49	LYS	Peptide
46	BV	69	ARG	Sidechain
47	BW	84	PHE	Sidechain
47	BW	86	PHE	Sidechain
48	BX	44	HIS	Sidechain

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Mol	Chain	Res	Type	Group
49	BY	13	ARG	Peptide
49	BY	16	GLU	Mainchain,Peptide
49	BY	17	ALA	Mainchain
49	BY	38	ARG	Sidechain
49	BY	39	GLN	Peptide
49	BY	70	VAL	Peptide
50	BZ	36	ARG	Sidechain
50	BZ	37	PHE	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	33089	0	16596	0	0
2	AB	1627	0	840	0	0
3	AC	993	0	501	0	0
4	AD	1641	0	839	0	0
5	AE	1872	0	1885	0	0
6	AF	1822	0	1913	0	0
7	AG	1643	0	1710	0	0
8	AH	1225	0	1273	0	0
9	AI	1101	0	1050	0	0
10	AJ	1400	0	1449	0	0
11	AK	979	0	1034	0	0
12	AL	1036	0	1084	0	0
13	AM	825	0	865	0	0
14	AN	965	0	997	0	0
15	AO	955	0	1019	0	0
16	AP	910	0	981	0	0
17	AQ	805	0	847	0	0
18	AR	716	0	742	0	0
19	AS	649	0	666	0	0
20	AT	672	0	716	0	0
21	AU	626	0	651	0	0
22	AV	727	0	769	0	0
23	AW	670	0	722	0	0
24	AX	590	0	631	0	0
25	BA	2566	0	1295	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	BB	62351	0	31202	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
31	BG	1420	0	1460	0	0
32	BH	1323	0	1374	0	0
33	BI	1111	0	1148	0	0
34	BJ	1233	0	1283	0	0
35	BK	1032	0	1088	0	0
36	BL	1129	0	1162	0	0
37	BM	947	0	1023	0	0
38	BN	1053	0	1129	0	0
39	BO	1074	0	1157	0	0
40	BP	1008	0	1045	0	0
41	BQ	900	0	935	0	0
42	BR	917	0	965	0	0
43	BS	947	0	1022	0	0
44	BT	816	0	839	0	0
45	BU	857	0	922	0	0
46	BV	787	0	846	0	0
47	BW	789	0	847	0	0
48	BX	753	0	780	0	0
49	BY	634	0	656	0	0
50	BZ	625	0	655	0	0
51	B0	509	0	543	0	0
52	B1	449	0	491	0	0
53	B2	549	0	552	0	0
54	B3	444	0	461	0	0
55	B4	441	0	485	0	0
56	B5	377	0	418	0	0
57	B6	504	0	574	0	0
58	B7	302	0	343	0	0
59	AB	14	0	9	0	0
60	BB	10	0	10	0	0
All	All	152351	0	103728	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
5	AE	238/240 (99%)	217 (91%)	14 (6%)	7 (3%)	3 23
6	AF	230/232 (99%)	217 (94%)	8 (4%)	5 (2%)	5 29
7	AG	203/205 (99%)	187 (92%)	13 (6%)	3 (2%)	8 40
8	AH	164/166 (99%)	148 (90%)	14 (8%)	2 (1%)	10 44
9	AI	133/135 (98%)	122 (92%)	10 (8%)	1 (1%)	16 54
10	AJ	176/178 (99%)	165 (94%)	9 (5%)	2 (1%)	11 46
11	AK	127/129 (98%)	119 (94%)	7 (6%)	1 (1%)	16 54
12	AL	127/129 (98%)	112 (88%)	12 (9%)	3 (2%)	4 27
13	AM	101/103 (98%)	90 (89%)	6 (6%)	5 (5%)	1 16
14	AN	126/128 (98%)	111 (88%)	14 (11%)	1 (1%)	16 54
15	AO	121/123 (98%)	106 (88%)	14 (12%)	1 (1%)	16 54
16	AP	115/117 (98%)	109 (95%)	5 (4%)	1 (1%)	14 51
17	AQ	98/100 (98%)	84 (86%)	7 (7%)	7 (7%)	1 11
18	AR	86/88 (98%)	81 (94%)	4 (5%)	1 (1%)	10 44
19	AS	80/82 (98%)	77 (96%)	3 (4%)	0	100 100
20	AT	81/83 (98%)	72 (89%)	8 (10%)	1 (1%)	10 44
21	AU	72/74 (97%)	61 (85%)	7 (10%)	4 (6%)	1 14
22	AV	89/91 (98%)	82 (92%)	6 (7%)	1 (1%)	11 46
23	AW	84/86 (98%)	78 (93%)	6 (7%)	0	100 100
24	AX	68/70 (97%)	61 (90%)	4 (6%)	3 (4%)	2 17
27	BC	232/234 (99%)	216 (93%)	11 (5%)	5 (2%)	5 29
28	BD	270/272 (99%)	235 (87%)	25 (9%)	10 (4%)	2 20
29	BE	207/209 (99%)	174 (84%)	26 (13%)	7 (3%)	3 21
30	BF	199/201 (99%)	174 (87%)	15 (8%)	10 (5%)	1 16
31	BG	176/178 (99%)	151 (86%)	16 (9%)	9 (5%)	1 15

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
32	BH	174/176 (99%)	157 (90%)	12 (7%)	5 (3%)	3 23
33	BI	147/149 (99%)	130 (88%)	12 (8%)	5 (3%)	3 21
34	BJ	162/164 (99%)	157 (97%)	4 (2%)	1 (1%)	21 59
35	BK	139/141 (99%)	134 (96%)	5 (4%)	0	100 100
36	BL	140/142 (99%)	120 (86%)	16 (11%)	4 (3%)	3 23
37	BM	121/123 (98%)	109 (90%)	8 (7%)	4 (3%)	3 21
38	BN	142/144 (99%)	124 (87%)	14 (10%)	4 (3%)	4 24
39	BO	134/136 (98%)	123 (92%)	10 (8%)	1 (1%)	18 56
40	BP	125/127 (98%)	116 (93%)	8 (6%)	1 (1%)	16 54
41	BQ	115/117 (98%)	110 (96%)	5 (4%)	0	100 100
42	BR	112/114 (98%)	98 (88%)	11 (10%)	3 (3%)	4 25
43	BS	115/117 (98%)	108 (94%)	4 (4%)	3 (3%)	4 25
44	BT	101/103 (98%)	90 (89%)	7 (7%)	4 (4%)	2 18
45	BU	108/110 (98%)	98 (91%)	6 (6%)	4 (4%)	2 20
46	BV	98/100 (98%)	76 (78%)	19 (19%)	3 (3%)	3 22
47	BW	101/103 (98%)	88 (87%)	10 (10%)	3 (3%)	3 23
48	BX	92/94 (98%)	87 (95%)	4 (4%)	1 (1%)	11 46
49	BY	82/84 (98%)	64 (78%)	16 (20%)	2 (2%)	4 27
50	BZ	75/77 (97%)	68 (91%)	4 (5%)	3 (4%)	2 18
51	B0	61/63 (97%)	57 (93%)	3 (5%)	1 (2%)	7 38
52	B1	56/58 (97%)	53 (95%)	3 (5%)	0	100 100
53	B2	68/70 (97%)	65 (96%)	2 (3%)	1 (2%)	8 40
54	B3	54/56 (96%)	48 (89%)	4 (7%)	2 (4%)	2 20
55	B4	52/54 (96%)	49 (94%)	1 (2%)	2 (4%)	2 19
56	B5	44/46 (96%)	40 (91%)	2 (4%)	2 (4%)	2 17
57	B6	62/64 (97%)	58 (94%)	3 (5%)	1 (2%)	7 38
58	B7	36/38 (95%)	30 (83%)	3 (8%)	3 (8%)	0 9
All	All	6319/6423 (98%)	5706 (90%)	460 (7%)	153 (2%)	7 27

All (153) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
6	AF	163	ARG

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Mol	Chain	Res	Type
8	AH	77	ASN
13	AM	57	VAL
14	AN	52	ARG
17	AQ	2	LYS
21	AU	11	ARG
27	BC	217	THR
28	BD	94	LEU
30	BF	78	TRP
31	BG	136	ILE
33	BI	3	VAL
38	BN	19	LEU
42	BR	25	VAL
43	BS	88	GLU
45	BU	41	LYS
45	BU	65	ASP
46	BV	39	THR
46	BV	86	THR
47	BW	97	SER
55	B4	35	LEU
5	AE	22	TRP
5	AE	127	LYS
6	AF	14	VAL
7	AG	47	LEU
13	AM	42	LEU
13	AM	62	ARG
13	AM	74	VAL
17	AQ	32	ASP
17	AQ	61	ASN
17	AQ	70	HIS
18	AR	87	ARG
22	AV	11	ASP
28	BD	35	LYS
28	BD	37	SER
28	BD	64	VAL
28	BD	140	VAL
28	BD	142	ASN
29	BE	119	ALA
29	BE	162	ALA
30	BF	62	GLN
30	BF	79	ARG
30	BF	188	MET
31	BG	148	VAL

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Mol	Chain	Res	Type
36	BL	14	ASP
36	BL	81	ILE
37	BM	6	THR
37	BM	71	ARG
39	BO	36	VAL
40	BP	107	ASN
43	BS	87	VAL
44	BT	43	ASN
44	BT	91	GLN
47	BW	74	ALA
50	BZ	18	SER
50	BZ	27	ARG
53	B2	43	PHE
55	B4	52	LYS
58	B7	6	SER
5	AE	17	HIS
6	AF	145	ALA
6	AF	179	ALA
8	AH	26	GLY
11	AK	80	PRO
12	AL	106	ASP
12	AL	122	ARG
12	AL	128	LYS
17	AQ	37	ASP
17	AQ	62	ARG
21	AU	18	GLN
24	AX	3	ILE
24	AX	9	GLU
24	AX	24	LYS
29	BE	173	GLN
30	BF	44	ARG
30	BF	68	ALA
30	BF	183	PHE
31	BG	99	PHE
33	BI	27	ARG
33	BI	93	SER
36	BL	65	THR
38	BN	36	LYS
46	BV	9	LYS
48	BX	71	LYS
51	B0	23	ARG
58	B7	16	ILE

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Mol	Chain	Res	Type
7	AG	27	ILE
13	AM	58	ASN
17	AQ	80	ARG
20	AT	81	ALA
27	BC	159	GLY
28	BD	123	ILE
30	BF	96	VAL
31	BG	66	ILE
31	BG	132	ARG
32	BH	94	ARG
32	BH	170	THR
33	BI	113	SER
34	BJ	33	THR
38	BN	3	LEU
38	BN	30	THR
43	BS	5	ARG
45	BU	89	ALA
49	BY	52	CYS
50	BZ	53	LYS
54	B3	2	VAL
5	AE	94	ARG
5	AE	205	ALA
7	AG	37	PRO
10	AJ	2	ARG
10	AJ	13	PRO
15	AO	43	LYS
16	AP	22	TYR
21	AU	5	ARG
21	AU	7	ARG
27	BC	55	SER
27	BC	73	VAL
28	BD	254	LYS
29	BE	109	VAL
29	BE	170	VAL
30	BF	45	ALA
30	BF	60	TRP
31	BG	145	VAL
32	BH	61	TRP
33	BI	122	LEU
37	BM	17	ARG
44	BT	101	ILE
45	BU	28	LYS

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Mol	Chain	Res	Type
49	BY	36	ILE
54	B3	48	TYR
56	B5	7	PRO
58	B7	4	ARG
5	AE	13	VAL
6	AF	3	LYS
9	AI	54	LEU
28	BD	204	LEU
29	BE	168	GLU
32	BH	9	VAL
42	BR	35	SER
27	BC	206	GLY
31	BG	88	VAL
31	BG	103	ILE
42	BR	32	VAL
5	AE	123	GLY
36	BL	79	GLY
44	BT	54	VAL
28	BD	240	GLY
31	BG	84	ILE
47	BW	55	GLY
29	BE	37	VAL
56	B5	44	VAL
57	B6	31	ILE
32	BH	153	PRO
37	BM	93	GLN

5.3.2 Protein sidechains

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
5	AE	198/198 (100%)	188 (95%)	10 (5%)	21 42
6	AF	189/189 (100%)	179 (95%)	10 (5%)	20 41
7	AG	172/172 (100%)	166 (96%)	6 (4%)	32 53
8	AH	125/125 (100%)	118 (94%)	7 (6%)	19 40

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
9	AI	116/116 (100%)	111 (96%)	5 (4%)	26 47
10	AJ	146/146 (100%)	134 (92%)	12 (8%)	10 31
11	AK	104/104 (100%)	98 (94%)	6 (6%)	18 40
12	AL	106/106 (100%)	101 (95%)	5 (5%)	23 45
13	AM	90/90 (100%)	86 (96%)	4 (4%)	25 47
14	AN	98/98 (100%)	94 (96%)	4 (4%)	27 49
15	AO	103/103 (100%)	96 (93%)	7 (7%)	14 36
16	AP	95/95 (100%)	93 (98%)	2 (2%)	47 65
17	AQ	83/83 (100%)	80 (96%)	3 (4%)	31 52
18	AR	76/76 (100%)	74 (97%)	2 (3%)	40 62
19	AS	65/65 (100%)	61 (94%)	4 (6%)	16 38
20	AT	77/77 (100%)	74 (96%)	3 (4%)	28 49
21	AU	64/64 (100%)	61 (95%)	3 (5%)	23 45
22	AV	78/78 (100%)	74 (95%)	4 (5%)	21 42
23	AW	65/65 (100%)	65 (100%)	0	100 100
24	AX	60/60 (100%)	57 (95%)	3 (5%)	22 43
27	BC	181/181 (100%)	170 (94%)	11 (6%)	17 38
28	BD	217/217 (100%)	209 (96%)	8 (4%)	30 51
29	BE	164/164 (100%)	150 (92%)	14 (8%)	10 29
30	BF	165/165 (100%)	157 (95%)	8 (5%)	23 44
31	BG	149/149 (100%)	137 (92%)	12 (8%)	11 31
32	BH	137/137 (100%)	123 (90%)	14 (10%)	7 23
33	BI	114/114 (100%)	111 (97%)	3 (3%)	40 62
34	BJ	122/122 (100%)	121 (99%)	1 (1%)	73 80
35	BK	109/109 (100%)	106 (97%)	3 (3%)	38 60
36	BL	116/116 (100%)	110 (95%)	6 (5%)	21 42
37	BM	104/104 (100%)	100 (96%)	4 (4%)	29 50
38	BN	103/103 (100%)	98 (95%)	5 (5%)	22 43
39	BO	109/109 (100%)	107 (98%)	2 (2%)	51 68
40	BP	103/103 (100%)	98 (95%)	5 (5%)	22 43
41	BQ	87/87 (100%)	79 (91%)	8 (9%)	8 27

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
42	BR	99/99 (100%)	93 (94%)	6 (6%)	17 38
43	BS	89/89 (100%)	82 (92%)	7 (8%)	11 32
44	BT	84/84 (100%)	80 (95%)	4 (5%)	23 44
45	BU	93/93 (100%)	89 (96%)	4 (4%)	26 47
46	BV	84/84 (100%)	77 (92%)	7 (8%)	10 30
47	BW	84/84 (100%)	79 (94%)	5 (6%)	17 39
48	BX	78/78 (100%)	73 (94%)	5 (6%)	16 37
49	BY	62/62 (100%)	58 (94%)	4 (6%)	15 37
50	BZ	67/67 (100%)	64 (96%)	3 (4%)	24 46
51	B0	55/55 (100%)	50 (91%)	5 (9%)	9 27
52	B1	48/48 (100%)	46 (96%)	2 (4%)	26 48
53	B2	62/62 (100%)	60 (97%)	2 (3%)	34 56
54	B3	47/47 (100%)	47 (100%)	0	100 100
55	B4	48/48 (100%)	44 (92%)	4 (8%)	10 30
56	B5	38/38 (100%)	35 (92%)	3 (8%)	11 32
57	B6	51/51 (100%)	50 (98%)	1 (2%)	48 66
58	B7	34/34 (100%)	33 (97%)	1 (3%)	37 58
All	All	5213/5213 (100%)	4946 (95%)	267 (5%)	23 42

All (267) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	AE	26	MET
5	AE	34	ARG
5	AE	35	ASN
5	AE	71	THR
5	AE	79	VAL
5	AE	81	ASP
5	AE	125	PHE
5	AE	129	THR
5	AE	193	ASP
5	AE	198	VAL
6	AF	13	ILE
6	AF	14	VAL
6	AF	33	ASP
6	AF	75	VAL

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Mol	Chain	Res	Type
6	AF	107	LYS
6	AF	109	GLU
6	AF	111	ASP
6	AF	139	ASN
6	AF	153	SER
6	AF	160	GLU
7	AG	16	THR
7	AG	29	THR
7	AG	60	VAL
7	AG	100	VAL
7	AG	165	GLU
7	AG	204	SER
8	AH	9	GLU
8	AH	19	ARG
8	AH	33	THR
8	AH	111	ARG
8	AH	125	LYS
8	AH	127	TYR
8	AH	158	LYS
9	AI	9	MET
9	AI	55	HIS
9	AI	71	ILE
9	AI	90	MET
9	AI	102	MET
10	AJ	4	ARG
10	AJ	9	ARG
10	AJ	28	ILE
10	AJ	34	LYS
10	AJ	42	VAL
10	AJ	66	GLU
10	AJ	72	VAL
10	AJ	74	VAL
10	AJ	78	ARG
10	AJ	86	VAL
10	AJ	88	VAL
10	AJ	174	LEU
11	AK	29	SER
11	AK	45	ILE
11	AK	55	LYS
11	AK	70	VAL
11	AK	80	PRO
11	AK	85	TYR

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Mol	Chain	Res	Type
12	AL	4	GLN
12	AL	83	THR
12	AL	88	GLU
12	AL	96	GLU
12	AL	105	ARG
13	AM	5	ARG
13	AM	17	LEU
13	AM	96	VAL
13	AM	100	ILE
14	AN	27	ASN
14	AN	29	THR
14	AN	95	THR
14	AN	124	LYS
15	AO	28	GLN
15	AO	50	LYS
15	AO	63	THR
15	AO	81	ILE
15	AO	87	LYS
15	AO	107	LYS
15	AO	115	LYS
16	AP	26	LYS
16	AP	100	ARG
17	AQ	45	LEU
17	AQ	82	LYS
17	AQ	95	LEU
18	AR	24	THR
18	AR	55	LEU
19	AS	18	GLN
19	AS	19	VAL
19	AS	29	ASN
19	AS	52	LEU
20	AT	19	SER
20	AT	20	ILE
20	AT	21	VAL
21	AU	4	PHE
21	AU	62	ARG
21	AU	71	ASP
22	AV	1	PRO
22	AV	13	HIS
22	AV	41	PRO
22	AV	76	THR
24	AX	1	PRO

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Mol	Chain	Res	Type
24	AX	5	VAL
24	AX	20	ARG
27	BC	12	ARG
27	BC	23	ILE
27	BC	41	SER
27	BC	57	GLN
27	BC	93	GLU
27	BC	118	PRO
27	BC	121	MET
27	BC	127	LEU
27	BC	170	ILE
27	BC	203	GLN
27	BC	226	GLN
28	BD	32	LEU
28	BD	92	LEU
28	BD	100	ARG
28	BD	114	GLN
28	BD	198	GLU
28	BD	200	MET
28	BD	212	TRP
28	BD	244	VAL
29	BE	14	ILE
29	BE	18	ASP
29	BE	38	LYS
29	BE	67	HIS
29	BE	74	GLU
29	BE	92	VAL
29	BE	99	GLU
29	BE	114	LYS
29	BE	142	VAL
29	BE	156	PHE
29	BE	168	GLU
29	BE	183	GLU
29	BE	204	LYS
29	BE	205	PRO
30	BF	13	THR
30	BF	83	VAL
30	BF	93	SER
30	BF	123	LYS
30	BF	139	LYS
30	BF	152	GLU
30	BF	163	ASN

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Mol	Chain	Res	Type
30	BF	195	GLN
31	BG	3	LEU
31	BG	43	ILE
31	BG	49	LEU
31	BG	90	LEU
31	BG	91	ARG
31	BG	109	ARG
31	BG	116	LEU
31	BG	131	VAL
31	BG	134	GLN
31	BG	137	PHE
31	BG	147	ARG
31	BG	178	LYS
32	BH	28	LYS
32	BH	31	GLU
32	BH	34	ARG
32	BH	40	VAL
32	BH	88	LEU
32	BH	104	LEU
32	BH	109	SER
32	BH	126	THR
32	BH	130	ILE
32	BH	139	VAL
32	BH	147	LEU
32	BH	151	ARG
32	BH	156	TYR
32	BH	171	LYS
33	BI	8	LYS
33	BI	28	ASN
33	BI	50	ARG
34	BJ	16	GLU
35	BK	35	MET
35	BK	57	VAL
35	BK	77	VAL
36	BL	1	MET
36	BL	61	LYS
36	BL	62	VAL
36	BL	103	ILE
36	BL	141	ASP
36	BL	142	ILE
37	BM	18	ARG
37	BM	29	HIS

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Mol	Chain	Res	Type
37	BM	38	ILE
37	BM	99	ILE
38	BN	6	LEU
38	BN	13	LYS
38	BN	120	VAL
38	BN	126	ARG
38	BN	142	ILE
39	BO	10	ARG
39	BO	97	GLN
40	BP	18	GLN
40	BP	39	PRO
40	BP	98	LEU
40	BP	107	ASN
40	BP	120	GLU
41	BQ	3	LYS
41	BQ	26	LEU
41	BQ	40	ILE
41	BQ	43	ASN
41	BQ	56	LYS
41	BQ	58	ILE
41	BQ	88	LYS
41	BQ	117	PHE
42	BR	7	LEU
42	BR	43	GLU
42	BR	49	ILE
42	BR	93	LYS
42	BR	96	LEU
42	BR	98	TYR
43	BS	7	VAL
43	BS	8	ILE
43	BS	38	VAL
43	BS	87	VAL
43	BS	91	ARG
43	BS	110	GLU
43	BS	113	LYS
44	BT	7	SER
44	BT	11	GLN
44	BT	38	VAL
44	BT	60	LYS
45	BU	66	ILE
45	BU	70	LYS
45	BU	75	PHE

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Mol	Chain	Res	Type
45	BU	95	ARG
46	BV	10	VAL
46	BV	39	THR
46	BV	72	GLN
46	BV	80	TRP
46	BV	85	VAL
46	BV	89	GLU
46	BV	100	GLU
47	BW	17	ASP
47	BW	38	ILE
47	BW	64	ILE
47	BW	87	GLU
47	BW	94	PHE
48	BX	1	MET
48	BX	7	GLU
48	BX	55	GLU
48	BX	63	ILE
48	BX	70	ILE
49	BY	8	SER
49	BY	16	GLU
49	BY	59	PHE
49	BY	66	VAL
50	BZ	32	LEU
50	BZ	48	LEU
50	BZ	60	LYS
51	B0	4	LYS
51	B0	15	ASN
51	B0	24	GLU
51	B0	26	PHE
51	B0	59	GLU
52	B1	41	PRO
52	B1	54	VAL
53	B2	8	LYS
53	B2	21	VAL
55	B4	31	GLU
55	B4	45	HIS
55	B4	46	VAL
55	B4	50	GLU
56	B5	4	THR
56	B5	41	ARG
56	B5	44	VAL
57	B6	34	LYS

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Mol	Chain	Res	Type
58	B7	10	LEU

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	1541/1542 (99%)	321 (20%)	98 (6%)
2	AB	75/76 (98%)	28 (37%)	8 (10%)
25	BA	119/120 (99%)	17 (14%)	11 (9%)
26	BB	2901/2904 (99%)	558 (19%)	181 (6%)
3	AC	46/47 (97%)	21 (45%)	7 (15%)
4	AD	76/77 (98%)	13 (17%)	3 (3%)
All	All	4758/4766 (99%)	958 (20%)	308 (6%)

All (958) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	2	A
1	AA	3	A
1	AA	5	U
1	AA	6	G
1	AA	7	A
1	AA	8	A
1	AA	9	G
1	AA	32	A
1	AA	36	C
1	AA	48	C
1	AA	52	C
1	AA	53	A
1	AA	54	C
1	AA	61	G
1	AA	83	C
1	AA	84	U
1	AA	85	U
1	AA	98	A
1	AA	108	G
1	AA	121	U
1	AA	122	G
1	AA	123	U

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Mol	Chain	Res	Type
1	AA	129	A
1	AA	131	A
1	AA	135	C
1	AA	153	C
1	AA	164	G
1	AA	166	U
1	AA	171	A
1	AA	174	A
1	AA	182	A
1	AA	184	G
1	AA	188	C
1	AA	189	A
1	AA	197	A
1	AA	204	G
1	AA	205	A
1	AA	209	U
1	AA	210	C
1	AA	212	G
1	AA	225	C
1	AA	228	A
1	AA	229	U
1	AA	240	G
1	AA	244	U
1	AA	245	U
1	AA	247	G
1	AA	250	A
1	AA	251	G
1	AA	252	U
1	AA	262	A
1	AA	266	G
1	AA	267	C
1	AA	272	C
1	AA	273	U
1	AA	280	C
1	AA	282	A
1	AA	289	G
1	AA	293	G
1	AA	298	A
1	AA	306	A
1	AA	307	C
1	AA	316	C
1	AA	317	U

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Mol	Chain	Res	Type
1	AA	319	G
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	344	A
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	373	A
1	AA	374	A
1	AA	381	C
1	AA	382	A
1	AA	384	G
1	AA	389	A
1	AA	390	U
1	AA	392	C
1	AA	395	C
1	AA	398	U
1	AA	404	G
1	AA	406	G
1	AA	411	A
1	AA	413	G
1	AA	415	A
1	AA	429	U
1	AA	444	G
1	AA	453	G
1	AA	463	U
1	AA	464	U
1	AA	467	U
1	AA	468	A
1	AA	476	U
1	AA	479	U
1	AA	481	G
1	AA	485	U
1	AA	486	U
1	AA	496	A
1	AA	498	A
1	AA	505	G
1	AA	508	U
1	AA	510	A

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Mol	Chain	Res	Type
1	AA	518	C
1	AA	527	7MG
1	AA	528	C
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	547	A
1	AA	552	U
1	AA	553	A
1	AA	560	A
1	AA	561	U
1	AA	562	U
1	AA	566	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	C
1	AA	577	G
1	AA	578	C
1	AA	583	A
1	AA	588	G
1	AA	609	A
1	AA	610	U
1	AA	615	G
1	AA	631	C
1	AA	633	G
1	AA	636	U
1	AA	641	U
1	AA	642	A
1	AA	650	G
1	AA	653	U
1	AA	654	G
1	AA	687	A
1	AA	688	G
1	AA	702	A
1	AA	704	A
1	AA	718	A
1	AA	719	C
1	AA	720	C
1	AA	721	G
1	AA	724	G

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Mol	Chain	Res	Type
1	AA	728	A
1	AA	729	A
1	AA	755	G
1	AA	760	G
1	AA	765	G
1	AA	766	A
1	AA	783	C
1	AA	789	U
1	AA	790	A
1	AA	791	G
1	AA	792	A
1	AA	805	C
1	AA	810	C
1	AA	812	G
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	819	A
1	AA	821	G
1	AA	828	U
1	AA	829	G
1	AA	840	C
1	AA	841	C
1	AA	845	A
1	AA	846	G
1	AA	870	U
1	AA	871	U
1	AA	873	A
1	AA	874	G
1	AA	876	C
1	AA	890	G
1	AA	899	C
1	AA	900	A
1	AA	910	C
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	931	C
1	AA	932	C
1	AA	935	A
1	AA	938	A
1	AA	939	G

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Mol	Chain	Res	Type
1	AA	945	G
1	AA	960	U
1	AA	961	U
1	AA	962	C
1	AA	965	U
1	AA	966	2MG
1	AA	968	A
1	AA	969	A
1	AA	970	C
1	AA	973	G
1	AA	974	A
1	AA	975	A
1	AA	977	A
1	AA	978	A
1	AA	981	U
1	AA	984	C
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	995	C
1	AA	1004	A
1	AA	1006	G
1	AA	1015	G
1	AA	1026	G
1	AA	1028	C
1	AA	1030	U
1	AA	1049	U
1	AA	1050	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1081	A
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1118	U
1	AA	1135	U
1	AA	1136	C
1	AA	1137	C
1	AA	1139	G
1	AA	1143	G
1	AA	1148	U

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Mol	Chain	Res	Type
1	AA	1149	C
1	AA	1152	A
1	AA	1154	G
1	AA	1159	U
1	AA	1168	U
1	AA	1181	G
1	AA	1183	U
1	AA	1184	G
1	AA	1190	G
1	AA	1197	A
1	AA	1198	G
1	AA	1200	C
1	AA	1201	A
1	AA	1202	U
1	AA	1208	C
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1215	G
1	AA	1224	U
1	AA	1226	C
1	AA	1227	A
1	AA	1228	C
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
1	AA	1250	A
1	AA	1254	A
1	AA	1256	A
1	AA	1257	A
1	AA	1258	G
1	AA	1264	U
1	AA	1270	G
1	AA	1278	G
1	AA	1280	A
1	AA	1286	U
1	AA	1290	G
1	AA	1300	G
1	AA	1301	U
1	AA	1303	C
1	AA	1305	G
1	AA	1315	U

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Mol	Chain	Res	Type
1	AA	1317	C
1	AA	1318	A
1	AA	1319	A
1	AA	1322	C
1	AA	1336	C
1	AA	1337	G
1	AA	1338	G
1	AA	1339	A
1	AA	1340	A
1	AA	1345	U
1	AA	1346	A
1	AA	1347	G
1	AA	1348	U
1	AA	1360	A
1	AA	1362	A
1	AA	1363	A
1	AA	1364	U
1	AA	1365	G
1	AA	1368	A
1	AA	1378	C
1	AA	1397	C
1	AA	1398	A
1	AA	1401	G
1	AA	1431	A
1	AA	1432	G
1	AA	1437	A
1	AA	1446	A
1	AA	1448	C
1	AA	1452	C
1	AA	1453	G
1	AA	1454	G
1	AA	1490	U
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1502	A
1	AA	1503	A
1	AA	1506	U
1	AA	1507	A
1	AA	1529	G
1	AA	1530	G
1	AA	1533	C

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Mol	Chain	Res	Type
1	AA	1534	A
1	AA	1535	C
1	AA	1536	C
1	AA	1539	C
1	AA	1540	U
2	AB	8	4SU
2	AB	9	A
2	AB	10	G
2	AB	11	U
2	AB	15	A
2	AB	17	H2U
2	AB	18	G
2	AB	19	G
2	AB	20	H2U
2	AB	21	A
2	AB	23	A
2	AB	24	G
2	AB	34	C
2	AB	35	C
2	AB	36	A
2	AB	46	7MG
2	AB	47	U
2	AB	48	U
2	AB	49	G
2	AB	56	C
2	AB	58	A
2	AB	59	G
2	AB	60	U
2	AB	61	C
2	AB	65	C
2	AB	73	G
2	AB	75	C
2	AB	76	A
3	AC	15	G
3	AC	16	A
3	AC	17	U
3	AC	18	A
3	AC	22	G
3	AC	23	C
3	AC	26	U
3	AC	27	A
3	AC	28	U

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Mol	Chain	Res	Type
3	AC	29	G
3	AC	30	U
3	AC	33	A
3	AC	34	U
3	AC	40	G
3	AC	42	U
3	AC	46	C
3	AC	47	C
3	AC	48	C
3	AC	49	U
3	AC	52	U
3	AC	54	U
4	AD	8	4SU
4	AD	9	G
4	AD	10	G
4	AD	18	U
4	AD	19	G
4	AD	22	A
4	AD	38	A
4	AD	47	A
4	AD	49	C
4	AD	50	G
4	AD	74	A
4	AD	75	C
4	AD	77	A
25	BA	9	G
25	BA	13	G
25	BA	14	U
25	BA	25	U
25	BA	26	C
25	BA	35	C
25	BA	41	G
25	BA	42	C
25	BA	44	G
25	BA	45	A
25	BA	51	G
25	BA	58	A
25	BA	66	A
25	BA	67	G
25	BA	73	A
25	BA	88	C
25	BA	99	A

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Mol	Chain	Res	Type
26	BB	13	A
26	BB	14	A
26	BB	18	U
26	BB	30	G
26	BB	34	U
26	BB	35	G
26	BB	42	A
26	BB	43	G
26	BB	45	G
26	BB	46	G
26	BB	49	A
26	BB	50	U
26	BB	71	A
26	BB	72	U
26	BB	75	G
26	BB	85	G
26	BB	91	A
26	BB	92	U
26	BB	95	A
26	BB	98	G
26	BB	99	U
26	BB	100	U
26	BB	103	A
26	BB	113	U
26	BB	115	C
26	BB	119	A
26	BB	120	U
26	BB	128	C
26	BB	140	C
26	BB	141	G
26	BB	194	G
26	BB	196	A
26	BB	197	A
26	BB	199	A
26	BB	204	A
26	BB	205	G
26	BB	215	G
26	BB	216	A
26	BB	218	A
26	BB	222	A
26	BB	224	U
26	BB	225	C

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Mol	Chain	Res	Type
26	BB	232	G
26	BB	242	G
26	BB	243	U
26	BB	248	G
26	BB	250	G
26	BB	255	A
26	BB	265	A
26	BB	266	G
26	BB	271	G
26	BB	277	G
26	BB	294	A
26	BB	295	G
26	BB	311	A
26	BB	312	G
26	BB	321	U
26	BB	322	A
26	BB	330	A
26	BB	332	A
26	BB	333	G
26	BB	338	G
26	BB	345	A
26	BB	346	A
26	BB	369	U
26	BB	371	A
26	BB	372	G
26	BB	386	G
26	BB	391	A
26	BB	396	G
26	BB	403	U
26	BB	404	A
26	BB	405	U
26	BB	406	G
26	BB	411	G
26	BB	418	C
26	BB	424	G
26	BB	428	A
26	BB	429	A
26	BB	431	U
26	BB	436	C
26	BB	443	A
26	BB	444	C
26	BB	452	G

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Mol	Chain	Res	Type
26	BB	453	A
26	BB	454	A
26	BB	456	C
26	BB	472	A
26	BB	479	A
26	BB	480	A
26	BB	481	G
26	BB	484	C
26	BB	490	C
26	BB	504	A
26	BB	505	A
26	BB	508	A
26	BB	509	C
26	BB	527	C
26	BB	531	C
26	BB	532	A
26	BB	546	U
26	BB	550	C
26	BB	562	U
26	BB	563	A
26	BB	571	U
26	BB	573	U
26	BB	574	A
26	BB	575	A
26	BB	603	A
26	BB	604	G
26	BB	612	G
26	BB	615	U
26	BB	628	G
26	BB	635	C
26	BB	637	A
26	BB	642	U
26	BB	644	A
26	BB	645	C
26	BB	646	U
26	BB	655	A
26	BB	656	G
26	BB	671	C
26	BB	675	A
26	BB	686	U
26	BB	696	G
26	BB	718	A

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Mol	Chain	Res	Type
26	BB	719	C
26	BB	728	G
26	BB	730	A
26	BB	732	C
26	BB	736	C
26	BB	747	5MU
26	BB	748	G
26	BB	751	A
26	BB	752	A
26	BB	753	A
26	BB	758	C
26	BB	763	G
26	BB	764	A
26	BB	775	G
26	BB	782	A
26	BB	784	G
26	BB	786	C
26	BB	789	A
26	BB	790	U
26	BB	793	A
26	BB	802	A
26	BB	805	G
26	BB	812	C
26	BB	846	U
26	BB	847	U
26	BB	848	C
26	BB	859	G
26	BB	870	U
26	BB	888	C
26	BB	889	C
26	BB	894	U
26	BB	896	A
26	BB	897	C
26	BB	901	C
26	BB	910	A
26	BB	915	C
26	BB	925	A
26	BB	932	U
26	BB	933	A
26	BB	938	G
26	BB	941	A
26	BB	945	A

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Mol	Chain	Res	Type
26	BB	946	C
26	BB	961	C
26	BB	973	A
26	BB	974	G
26	BB	980	A
26	BB	981	A
26	BB	985	C
26	BB	986	C
26	BB	990	A
26	BB	995	C
26	BB	996	A
26	BB	1002	G
26	BB	1003	G
26	BB	1005	C
26	BB	1008	A
26	BB	1010	A
26	BB	1011	G
26	BB	1012	U
26	BB	1013	C
26	BB	1022	G
26	BB	1025	G
26	BB	1026	G
26	BB	1044	C
26	BB	1048	A
26	BB	1052	C
26	BB	1060	U
26	BB	1062	G
26	BB	1070	A
26	BB	1073	A
26	BB	1079	C
26	BB	1081	U
26	BB	1083	U
26	BB	1084	A
26	BB	1087	G
26	BB	1094	U
26	BB	1095	A
26	BB	1096	A
26	BB	1097	U
26	BB	1098	A
26	BB	1104	C
26	BB	1109	C
26	BB	1110	G

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Mol	Chain	Res	Type
26	BB	1112	G
26	BB	1123	C
26	BB	1128	G
26	BB	1129	A
26	BB	1130	U
26	BB	1132	U
26	BB	1134	A
26	BB	1135	C
26	BB	1143	A
26	BB	1156	A
26	BB	1157	G
26	BB	1158	C
26	BB	1173	U
26	BB	1177	G
26	BB	1184	U
26	BB	1204	A
26	BB	1211	C
26	BB	1236	G
26	BB	1237	A
26	BB	1238	G
26	BB	1239	G
26	BB	1241	A
26	BB	1252	G
26	BB	1253	A
26	BB	1254	A
26	BB	1255	U
26	BB	1256	G
26	BB	1266	G
26	BB	1272	A
26	BB	1273	U
26	BB	1274	A
26	BB	1275	A
26	BB	1283	G
26	BB	1300	G
26	BB	1301	A
26	BB	1302	A
26	BB	1303	G
26	BB	1307	A
26	BB	1308	A
26	BB	1318	U
26	BB	1321	A
26	BB	1322	A

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Mol	Chain	Res	Type
26	BB	1323	C
26	BB	1329	U
26	BB	1332	G
26	BB	1333	G
26	BB	1341	G
26	BB	1349	C
26	BB	1362	C
26	BB	1363	C
26	BB	1365	A
26	BB	1368	G
26	BB	1378	A
26	BB	1379	U
26	BB	1383	A
26	BB	1384	A
26	BB	1385	A
26	BB	1386	C
26	BB	1387	A
26	BB	1395	A
26	BB	1396	U
26	BB	1416	G
26	BB	1417	C
26	BB	1420	A
26	BB	1421	G
26	BB	1454	C
26	BB	1458	U
26	BB	1459	G
26	BB	1460	U
26	BB	1461	C
26	BB	1482	G
26	BB	1494	A
26	BB	1509	A
26	BB	1514	G
26	BB	1515	A
26	BB	1522	A
26	BB	1523	U
26	BB	1524	G
26	BB	1552	A
26	BB	1558	C
26	BB	1565	C
26	BB	1567	G
26	BB	1569	A
26	BB	1578	U

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Mol	Chain	Res	Type
26	BB	1584	U
26	BB	1585	C
26	BB	1608	A
26	BB	1609	A
26	BB	1610	A
26	BB	1612	C
26	BB	1616	A
26	BB	1617	C
26	BB	1618	6MZ
26	BB	1632	A
26	BB	1633	G
26	BB	1635	A
26	BB	1636	U
26	BB	1646	C
26	BB	1647	U
26	BB	1648	U
26	BB	1649	G
26	BB	1654	A
26	BB	1669	A
26	BB	1674	G
26	BB	1675	C
26	BB	1677	A
26	BB	1693	U
26	BB	1694	C
26	BB	1713	A
26	BB	1715	G
26	BB	1716	U
26	BB	1724	G
26	BB	1730	C
26	BB	1753	G
26	BB	1757	A
26	BB	1758	U
26	BB	1759	A
26	BB	1760	C
26	BB	1763	G
26	BB	1764	C
26	BB	1773	A
26	BB	1781	U
26	BB	1784	A
26	BB	1785	A
26	BB	1786	A
26	BB	1787	A

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Mol	Chain	Res	Type
26	BB	1800	C
26	BB	1801	A
26	BB	1808	A
26	BB	1809	A
26	BB	1815	A
26	BB	1825	U
26	BB	1830	C
26	BB	1831	G
26	BB	1833	C
26	BB	1851	U
26	BB	1873	G
26	BB	1912	A
26	BB	1913	A
26	BB	1914	C
26	BB	1928	A
26	BB	1930	G
26	BB	1940	U
26	BB	1941	C
26	BB	1943	U
26	BB	1944	U
26	BB	1951	U
26	BB	1952	A
26	BB	1953	A
26	BB	1954	G
26	BB	1955	U
26	BB	1956	U
26	BB	1963	U
26	BB	1964	G
26	BB	1965	C
26	BB	1967	C
26	BB	1968	G
26	BB	1970	A
26	BB	1971	U
26	BB	1972	G
26	BB	1982	U
26	BB	1993	U
26	BB	1996	C
26	BB	1997	C
26	BB	2004	G
26	BB	2012	G
26	BB	2020	A
26	BB	2021	C

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Mol	Chain	Res	Type
26	BB	2023	C
26	BB	2030	6MZ
26	BB	2031	A
26	BB	2032	G
26	BB	2034	U
26	BB	2043	C
26	BB	2055	C
26	BB	2056	G
26	BB	2058	A
26	BB	2059	A
26	BB	2061	G
26	BB	2069	7MG
26	BB	2077	A
26	BB	2084	C
26	BB	2093	G
26	BB	2095	A
26	BB	2107	G
26	BB	2111	U
26	BB	2112	G
26	BB	2113	U
26	BB	2118	U
26	BB	2119	A
26	BB	2127	G
26	BB	2128	G
26	BB	2131	U
26	BB	2132	U
26	BB	2133	G
26	BB	2134	A
26	BB	2137	U
26	BB	2143	C
26	BB	2146	C
26	BB	2147	A
26	BB	2148	G
26	BB	2154	A
26	BB	2158	A
26	BB	2198	A
26	BB	2199	A
26	BB	2204	G
26	BB	2211	A
26	BB	2212	A
26	BB	2213	U
26	BB	2214	C

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Mol	Chain	Res	Type
26	BB	2215	C
26	BB	2224	G
26	BB	2225	A
26	BB	2237	G
26	BB	2238	G
26	BB	2239	G
26	BB	2246	G
26	BB	2249	U
26	BB	2250	G
26	BB	2252	G
26	BB	2253	G
26	BB	2266	A
26	BB	2272	U
26	BB	2282	G
26	BB	2283	C
26	BB	2286	G
26	BB	2287	A
26	BB	2288	A
26	BB	2306	C
26	BB	2307	G
26	BB	2311	A
26	BB	2312	U
26	BB	2321	U
26	BB	2322	A
26	BB	2325	G
26	BB	2335	A
26	BB	2336	A
26	BB	2337	G
26	BB	2340	A
26	BB	2345	G
26	BB	2346	A
26	BB	2347	C
26	BB	2350	C
26	BB	2354	C
26	BB	2358	A
26	BB	2377	A
26	BB	2383	G
26	BB	2385	C
26	BB	2389	G
26	BB	2390	U
26	BB	2406	A
26	BB	2407	A

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Mol	Chain	Res	Type
26	BB	2411	A
26	BB	2426	A
26	BB	2427	C
26	BB	2428	G
26	BB	2429	G
26	BB	2432	A
26	BB	2433	A
26	BB	2435	A
26	BB	2440	C
26	BB	2441	U
26	BB	2448	A
26	BB	2449	H2U
26	BB	2450	A
26	BB	2472	G
26	BB	2476	A
26	BB	2477	U
26	BB	2478	A
26	BB	2486	C
26	BB	2491	U
26	BB	2493	U
26	BB	2494	G
26	BB	2501	C
26	BB	2502	G
26	BB	2503	2MA
26	BB	2505	G
26	BB	2515	C
26	BB	2516	A
26	BB	2518	A
26	BB	2519	U
26	BB	2530	A
26	BB	2547	A
26	BB	2566	A
26	BB	2567	G
26	BB	2572	A
26	BB	2573	C
26	BB	2581	G
26	BB	2582	G
26	BB	2585	U
26	BB	2586	U
26	BB	2587	A
26	BB	2589	A
26	BB	2590	A

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Mol	Chain	Res	Type
26	BB	2599	G
26	BB	2603	G
26	BB	2606	C
26	BB	2609	U
26	BB	2613	U
26	BB	2616	C
26	BB	2629	U
26	BB	2639	A
26	BB	2654	A
26	BB	2655	G
26	BB	2656	U
26	BB	2664	G
26	BB	2665	A
26	BB	2685	G
26	BB	2689	U
26	BB	2690	U
26	BB	2714	G
26	BB	2737	G
26	BB	2739	U
26	BB	2742	G
26	BB	2744	G
26	BB	2757	A
26	BB	2765	A
26	BB	2766	A
26	BB	2769	U
26	BB	2771	C
26	BB	2774	C
26	BB	2777	G
26	BB	2778	A
26	BB	2779	U
26	BB	2780	G
26	BB	2781	A
26	BB	2782	G
26	BB	2791	G
26	BB	2800	A
26	BB	2807	U
26	BB	2825	G
26	BB	2833	U
26	BB	2835	A
26	BB	2836	U
26	BB	2842	G
26	BB	2861	U

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Mol	Chain	Res	Type
26	BB	2864	G
26	BB	2867	G
26	BB	2868	A
26	BB	2873	A
26	BB	2879	A
26	BB	2880	C
26	BB	2883	A
26	BB	2886	A
26	BB	2889	C
26	BB	2893	A
26	BB	2895	G
26	BB	2903	U

All (308) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	2	A
1	AA	5	U
1	AA	7	A
1	AA	39	G
1	AA	51	A
1	AA	84	U
1	AA	101	A
1	AA	128	G
1	AA	173	U
1	AA	178	C
1	AA	181	A
1	AA	187	G
1	AA	188	C
1	AA	204	G
1	AA	224	U
1	AA	239	U
1	AA	243	A
1	AA	244	U
1	AA	251	G
1	AA	272	C
1	AA	279	A
1	AA	306	A
1	AA	328	C
1	AA	366	A
1	AA	372	C
1	AA	381	C

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Mol	Chain	Res	Type
1	AA	410	G
1	AA	429	U
1	AA	481	G
1	AA	485	U
1	AA	497	G
1	AA	533	A
1	AA	534	U
1	AA	552	U
1	AA	560	A
1	AA	562	U
1	AA	582	C
1	AA	609	A
1	AA	630	A
1	AA	700	G
1	AA	717	U
1	AA	720	C
1	AA	744	C
1	AA	764	C
1	AA	765	G
1	AA	782	A
1	AA	789	U
1	AA	815	A
1	AA	840	C
1	AA	842	U
1	AA	870	U
1	AA	899	C
1	AA	904	U
1	AA	907	A
1	AA	926	G
1	AA	931	C
1	AA	937	A
1	AA	944	G
1	AA	960	U
1	AA	965	U
1	AA	968	A
1	AA	974	A
1	AA	992	U
1	AA	993	G
1	AA	1014	A
1	AA	1028	C
1	AA	1029	U
1	AA	1049	U

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Mol	Chain	Res	Type
1	AA	1110	A
1	AA	1129	C
1	AA	1143	G
1	AA	1167	A
1	AA	1183	U
1	AA	1201	A
1	AA	1213	A
1	AA	1214	C
1	AA	1226	C
1	AA	1227	A
1	AA	1240	U
1	AA	1253	G
1	AA	1302	C
1	AA	1310	G
1	AA	1313	U
1	AA	1323	G
1	AA	1336	C
1	AA	1338	G
1	AA	1346	A
1	AA	1347	G
1	AA	1362	A
1	AA	1364	U
1	AA	1375	A
1	AA	1397	C
1	AA	1452	C
1	AA	1491	G
1	AA	1502	A
1	AA	1533	C
1	AA	1534	A
1	AA	1535	C
2	AB	9	A
2	AB	17	H2U
2	AB	34	C
2	AB	38	A
2	AB	46	7MG
2	AB	58	A
2	AB	59	G
2	AB	65	C
3	AC	15	G
3	AC	16	A
3	AC	18	A
3	AC	22	G

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Mol	Chain	Res	Type
3	AC	27	A
3	AC	39	U
3	AC	47	C
4	AD	9	G
4	AD	22	A
4	AD	38	A
25	BA	12	C
25	BA	14	U
25	BA	25	U
25	BA	34	A
25	BA	36	C
25	BA	41	G
25	BA	44	G
25	BA	57	A
25	BA	66	A
25	BA	87	U
25	BA	106	G
26	BB	13	A
26	BB	34	U
26	BB	49	A
26	BB	69	C
26	BB	71	A
26	BB	91	A
26	BB	98	G
26	BB	99	U
26	BB	114	U
26	BB	140	C
26	BB	196	A
26	BB	199	A
26	BB	219	A
26	BB	228	C
26	BB	231	A
26	BB	241	A
26	BB	242	G
26	BB	265	A
26	BB	311	A
26	BB	332	A
26	BB	345	A
26	BB	347	A
26	BB	428	A
26	BB	443	A
26	BB	445	C

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Mol	Chain	Res	Type
26	BB	451	U
26	BB	452	G
26	BB	453	A
26	BB	463	G
26	BB	479	A
26	BB	489	G
26	BB	534	U
26	BB	552	U
26	BB	561	G
26	BB	569	U
26	BB	571	U
26	BB	573	U
26	BB	575	A
26	BB	585	G
26	BB	603	A
26	BB	611	C
26	BB	620	G
26	BB	628	G
26	BB	635	C
26	BB	652	U
26	BB	680	C
26	BB	689	A
26	BB	714	U
26	BB	743	A
26	BB	751	A
26	BB	776	G
26	BB	789	A
26	BB	846	U
26	BB	847	U
26	BB	870	U
26	BB	888	C
26	BB	900	A
26	BB	941	A
26	BB	980	A
26	BB	990	A
26	BB	995	C
26	BB	1012	U
26	BB	1035	U
26	BB	1040	A
26	BB	1043	C
26	BB	1069	A
26	BB	1070	A

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Mol	Chain	Res	Type
26	BB	1083	U
26	BB	1094	U
26	BB	1095	A
26	BB	1128	G
26	BB	1129	A
26	BB	1133	A
26	BB	1134	A
26	BB	1142	A
26	BB	1157	G
26	BB	1176	U
26	BB	1210	G
26	BB	1239	G
26	BB	1254	A
26	BB	1272	A
26	BB	1288	G
26	BB	1300	G
26	BB	1307	A
26	BB	1325	U
26	BB	1329	U
26	BB	1332	G
26	BB	1349	C
26	BB	1383	A
26	BB	1386	C
26	BB	1391	U
26	BB	1395	A
26	BB	1401	G
26	BB	1451	C
26	BB	1460	U
26	BB	1608	A
26	BB	1609	A
26	BB	1616	A
26	BB	1632	A
26	BB	1634	A
26	BB	1653	G
26	BB	1682	G
26	BB	1693	U
26	BB	1697	G
26	BB	1715	G
26	BB	1723	G
26	BB	1734	G
26	BB	1761	C
26	BB	1773	A

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Mol	Chain	Res	Type
26	BB	1784	A
26	BB	1786	A
26	BB	1828	G
26	BB	1901	A
26	BB	1912	A
26	BB	1927	A
26	BB	1939	5MU
26	BB	1940	U
26	BB	1943	U
26	BB	1953	A
26	BB	1955	U
26	BB	1963	U
26	BB	2019	A
26	BB	2021	C
26	BB	2058	A
26	BB	2068	U
26	BB	2092	U
26	BB	2106	U
26	BB	2118	U
26	BB	2147	A
26	BB	2163	A
26	BB	2198	A
26	BB	2223	G
26	BB	2225	A
26	BB	2236	U
26	BB	2238	G
26	BB	2249	U
26	BB	2252	G
26	BB	2282	G
26	BB	2286	G
26	BB	2287	A
26	BB	2306	C
26	BB	2311	A
26	BB	2321	U
26	BB	2336	A
26	BB	2374	C
26	BB	2376	A
26	BB	2385	C
26	BB	2388	A
26	BB	2406	A
26	BB	2425	A
26	BB	2427	C

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Mol	Chain	Res	Type
26	BB	2432	A
26	BB	2434	A
26	BB	2439	A
26	BB	2440	C
26	BB	2515	C
26	BB	2526	G
26	BB	2571	U
26	BB	2581	G
26	BB	2585	U
26	BB	2586	U
26	BB	2589	A
26	BB	2613	U
26	BB	2629	U
26	BB	2655	G
26	BB	2663	G
26	BB	2665	A
26	BB	2697	G
26	BB	2756	U
26	BB	2765	A
26	BB	2771	C
26	BB	2777	G
26	BB	2780	G
26	BB	2791	G
26	BB	2797	U
26	BB	2802	G
26	BB	2806	C
26	BB	2835	A
26	BB	2842	G
26	BB	2867	G
26	BB	2879	A

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

49 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	H2U	AB	20	2	18,21,22	1.43	3 (16%)	19,30,33	1.94	5 (26%)
1	5MC	AA	967	1	19,22,23	1.42	1 (5%)	26,32,35	2.06	8 (30%)
1	2MG	AA	1207	1	23,26,27	1.50	3 (13%)	33,38,41	1.48	4 (12%)
26	PSU	BB	2605	26	18,21,22	1.77	4 (22%)	21,30,33	2.32	6 (28%)
26	PSU	BB	2504	26	18,21,22	1.81	3 (16%)	21,30,33	2.34	6 (28%)
26	H2U	BB	2449	26	18,21,22	1.51	4 (22%)	19,30,33	1.17	3 (15%)
26	OMC	BB	2498	26	19,22,23	1.16	4 (21%)	25,31,34	1.89	7 (28%)
4	5MU	AD	55	4	19,22,23	1.49	5 (26%)	27,32,35	1.51	5 (18%)
1	UR3	AA	1498	1	19,22,23	1.47	3 (15%)	26,32,35	2.03	12 (46%)
2	MIA	AB	37	2	28,31,32	2.94	3 (10%)	38,44,47	1.84	7 (18%)
26	2MG	BB	1835	26	23,26,27	1.19	1 (4%)	33,38,41	1.52	4 (12%)
26	PSU	BB	1917	26	18,21,22	1.85	4 (22%)	21,30,33	1.34	2 (9%)
2	PSU	AB	55	2	18,21,22	1.94	5 (27%)	21,30,33	1.75	6 (28%)
1	4OC	AA	1402	1	20,23,24	1.34	3 (15%)	25,32,35	1.49	5 (20%)
26	PSU	BB	2457	26	18,21,22	1.66	4 (22%)	21,30,33	1.33	2 (9%)
1	2MG	AA	966	1	23,26,27	1.33	4 (17%)	33,38,41	1.22	3 (9%)
2	H2U	AB	16	2	18,21,22	2.01	5 (27%)	19,30,33	1.46	3 (15%)
26	1MG	BB	745	26	23,26,27	1.46	3 (13%)	33,39,42	2.39	14 (42%)
26	5MU	BB	1939	26	19,22,23	1.31	2 (10%)	27,32,35	1.92	9 (33%)
1	MA6	AA	1519	1	23,26,27	1.79	5 (21%)	33,38,41	2.04	7 (21%)
1	5MC	AA	1407	1	19,22,23	1.86	4 (21%)	26,32,35	1.48	5 (19%)
2	5MU	AB	54	2	19,22,23	1.52	3 (15%)	27,32,35	2.66	8 (29%)
4	4SU	AD	8	4	18,21,22	2.26	4 (22%)	25,30,33	2.53	9 (36%)
4	PSU	AD	56	4	18,21,22	1.99	4 (22%)	21,30,33	1.30	1 (4%)
26	6MZ	BB	2030	26	22,25,26	1.22	3 (13%)	29,36,39	2.27	9 (31%)
1	7MG	AA	527	1	23,26,27	3.02	5 (21%)	27,39,42	1.54	1 (3%)
26	PSU	BB	1911	26	18,21,22	1.80	5 (27%)	21,30,33	1.63	5 (23%)
26	OMU	BB	2552	26	19,22,23	1.00	2 (10%)	25,31,34	1.64	5 (20%)
26	7MG	BB	2069	26	23,26,27	3.67	5 (21%)	27,39,42	2.01	5 (18%)
26	2MA	BB	2503	26	22,25,26	1.99	4 (18%)	32,37,40	1.81	6 (18%)
26	PSU	BB	2580	26	18,21,22	1.90	4 (22%)	21,30,33	1.91	5 (23%)
26	6MZ	BB	1618	26	22,25,26	1.59	4 (18%)	29,36,39	1.78	7 (24%)
1	MA6	AA	1518	1	23,26,27	1.39	5 (21%)	33,38,41	1.51	7 (21%)
2	H2U	AB	17	2	18,21,22	1.62	4 (22%)	19,30,33	1.54	5 (26%)
2	4SU	AB	8	2	18,21,22	2.12	5 (27%)	25,30,33	1.60	6 (24%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
4	H2U	AD	21	4	18,21,22	1.40	2 (11%)	19,30,33	2.36	5 (26%)
26	5MU	BB	747	26	19,22,23	1.59	3 (15%)	27,32,35	2.13	10 (37%)
1	2MG	AA	1516	1	23,26,27	1.31	4 (17%)	33,38,41	1.24	3 (9%)
4	OMC	AD	33	4	19,22,23	1.02	2 (10%)	25,31,34	1.75	4 (16%)
2	7MG	AB	46	2	23,26,27	3.69	5 (21%)	27,39,42	1.81	4 (14%)
26	PSU	BB	746	26	18,21,22	1.79	5 (27%)	21,30,33	1.96	7 (33%)
2	OMC	AB	32	2	19,22,23	1.12	3 (15%)	25,31,34	1.79	6 (24%)
26	CH	BB	2575	26	16,21,22	1.57	2 (12%)	19,30,33	1.32	2 (10%)
1	PSU	AA	516	1	18,21,22	1.56	4 (22%)	21,30,33	2.01	5 (23%)
26	PSU	BB	955	26	18,21,22	2.03	3 (16%)	21,30,33	2.29	5 (23%)
26	3TD	BB	1915	26	19,22,23	1.92	5 (26%)	23,32,35	1.74	5 (21%)
26	5MC	BB	1962	26	19,22,23	2.81	5 (26%)	26,32,35	1.79	4 (15%)
26	2MG	BB	2445	26	23,26,27	1.11	2 (8%)	33,38,41	1.86	10 (30%)
26	OMG	BB	2251	26	23,26,27	1.07	1 (4%)	32,38,41	1.77	9 (28%)

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	H2U	AB	20	2	-	0/7/38/39	0/2/2/2
1	5MC	AA	967	1	-	0/7/25/26	0/2/2/2
1	2MG	AA	1207	1	-	0/9/27/28	0/3/3/3
26	PSU	BB	2605	26	-	2/7/25/26	0/2/2/2
26	PSU	BB	2504	26	-	0/7/25/26	0/2/2/2
26	H2U	BB	2449	26	-	0/7/38/39	0/2/2/2
26	OMC	BB	2498	26	-	1/9/27/28	0/2/2/2
4	5MU	AD	55	4	-	0/7/25/26	0/2/2/2
1	UR3	AA	1498	1	-	1/7/25/26	0/2/2/2
2	MIA	AB	37	2	-	1/15/33/34	0/3/3/3
26	2MG	BB	1835	26	-	0/9/27/28	0/3/3/3
26	PSU	BB	1917	26	-	1/7/25/26	0/2/2/2
2	PSU	AB	55	2	-	0/7/25/26	0/2/2/2
1	4OC	AA	1402	1	-	0/9/29/30	0/2/2/2
26	PSU	BB	2457	26	-	0/7/25/26	0/2/2/2
1	2MG	AA	966	1	-	0/9/27/28	0/3/3/3
2	H2U	AB	16	2	-	0/7/38/39	0/2/2/2
26	1MG	BB	745	26	-	0/7/25/26	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
1	MA6	AA	1519	1	-	0/11/29/30	0/3/3/3
1	5MC	AA	1407	1	-	0/7/25/26	0/2/2/2
2	5MU	AB	54	2	-	0/7/25/26	0/2/2/2
4	4SU	AD	8	4	-	0/7/25/26	0/2/2/2
4	PSU	AD	56	4	-	0/7/25/26	0/2/2/2
26	6MZ	BB	2030	26	-	1/9/27/28	0/3/3/3
1	7MG	AA	527	1	-	1/7/37/38	0/3/3/3
26	PSU	BB	1911	26	-	0/7/25/26	0/2/2/2
26	OMU	BB	2552	26	-	0/9/27/28	0/2/2/2
26	7MG	BB	2069	26	-	1/7/37/38	0/3/3/3
26	2MA	BB	2503	26	-	2/7/25/26	0/3/3/3
26	PSU	BB	2580	26	-	0/7/25/26	0/2/2/2
26	6MZ	BB	1618	26	-	0/9/27/28	0/3/3/3
1	MA6	AA	1518	1	-	0/11/29/30	0/3/3/3
2	H2U	AB	17	2	-	2/7/38/39	0/2/2/2
2	4SU	AB	8	2	-	5/7/25/26	0/2/2/2
4	H2U	AD	21	4	-	0/7/38/39	0/2/2/2
26	5MU	BB	747	26	-	0/7/25/26	0/2/2/2
1	2MG	AA	1516	1	-	1/9/27/28	0/3/3/3
4	OMC	AD	33	4	-	0/9/27/28	0/2/2/2
2	7MG	AB	46	2	-	0/7/37/38	0/3/3/3
26	PSU	BB	746	26	-	3/7/25/26	0/2/2/2
2	OMC	AB	32	2	-	1/9/27/28	0/2/2/2
26	CH	BB	2575	26	-	0/5/25/26	0/2/2/2
1	PSU	AA	516	1	-	1/7/25/26	0/2/2/2
26	PSU	BB	955	26	-	0/7/25/26	0/2/2/2
26	3TD	BB	1915	26	-	1/7/25/26	0/2/2/2
26	5MC	BB	1962	26	-	0/7/25/26	0/2/2/2
26	2MG	BB	2445	26	-	0/9/27/28	0/3/3/3
26	OMG	BB	2251	26	-	0/9/27/28	0/3/3/3

All (176) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2069	7MG	C8-N9	-16.15	1.35	1.45
2	AB	46	7MG	C8-N9	-15.37	1.35	1.45
2	AB	37	MIA	C2-S10	14.33	1.87	1.75
1	AA	527	7MG	C8-N9	-11.97	1.38	1.45
26	BB	1962	5MC	C5-C4	9.74	1.51	1.44
4	AD	8	4SU	C5-C4	-6.93	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2503	2MA	C4-N3	6.76	1.43	1.34
2	AB	8	4SU	C5-C4	-6.12	1.35	1.42
2	AB	46	7MG	C5-N7	5.80	1.43	1.35
26	BB	955	PSU	O4'-C1'	-5.69	1.36	1.43
1	AA	1407	5MC	C5-C4	5.45	1.48	1.44
26	BB	2575	CH	C5-C4	5.22	1.47	1.39
2	AB	55	PSU	O4'-C1'	-5.11	1.36	1.43
2	AB	16	H2U	C4-N3	-5.08	1.29	1.37
26	BB	1911	PSU	C2-N1	4.72	1.42	1.36
26	BB	1618	6MZ	O4'-C4'	-4.56	1.34	1.45
26	BB	1915	3TD	C10-N3	4.51	1.55	1.47
26	BB	2457	PSU	O4'-C4'	-4.39	1.35	1.45
26	BB	2504	PSU	C6-N1	4.35	1.43	1.36
26	BB	1917	PSU	O4'-C4'	-4.34	1.35	1.45
26	BB	2580	PSU	C2-N1	4.34	1.42	1.36
26	BB	2605	PSU	O4'-C1'	-4.31	1.37	1.43
4	AD	56	PSU	C6-C5	4.28	1.40	1.35
26	BB	1917	PSU	C6-C5	4.24	1.40	1.35
26	BB	2580	PSU	C2-N3	4.19	1.44	1.37
26	BB	1962	5MC	C6-N1	4.14	1.45	1.38
26	BB	746	PSU	C4-N3	4.09	1.46	1.38
26	BB	747	5MU	C2-N3	4.08	1.45	1.38
1	AA	1519	MA6	O3'-C3'	-4.04	1.33	1.43
26	BB	955	PSU	C2-N1	3.94	1.41	1.36
2	AB	37	MIA	C4-N3	3.91	1.39	1.34
4	AD	56	PSU	C6-N1	3.85	1.42	1.36
1	AA	527	7MG	C8-N7	-3.75	1.24	1.42
26	BB	1915	3TD	C1'-C5	3.74	1.58	1.50
1	AA	1207	2MG	C2-N1	3.74	1.42	1.36
1	AA	516	PSU	C2-N1	3.70	1.41	1.36
1	AA	1498	UR3	C2-N1	3.68	1.43	1.38
26	BB	1911	PSU	C6-N1	3.67	1.42	1.36
2	AB	17	H2U	C5-C4	3.64	1.57	1.50
26	BB	2605	PSU	C2'-C1'	3.63	1.58	1.53
1	AA	527	7MG	O2'-C2'	-3.60	1.34	1.43
1	AA	1518	MA6	O4'-C4'	-3.55	1.37	1.45
2	AB	55	PSU	C6-N1	3.51	1.42	1.36
4	AD	8	4SU	C2-N3	3.46	1.44	1.38
2	AB	54	5MU	C4-C5	3.41	1.50	1.44
2	AB	16	H2U	O4'-C1'	3.40	1.49	1.42
1	AA	1207	2MG	C2-N3	3.38	1.38	1.32
1	AA	1519	MA6	C9-N6	3.37	1.53	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2251	OMG	O4'-C4'	-3.35	1.37	1.45
4	AD	8	4SU	C4-S4	3.35	1.74	1.68
26	BB	1962	5MC	C2-N3	3.34	1.43	1.36
1	AA	1519	MA6	C4-N3	3.31	1.40	1.34
4	AD	56	PSU	C2-N1	3.30	1.41	1.36
26	BB	746	PSU	C6-C5	3.29	1.38	1.35
26	BB	2069	7MG	C4-N9	-3.29	1.33	1.37
4	AD	8	4SU	C2-N1	3.28	1.43	1.38
26	BB	1835	2MG	C2-N1	3.26	1.41	1.36
26	BB	745	1MG	C2-N2	3.25	1.39	1.34
26	BB	746	PSU	C2-N3	3.25	1.42	1.37
2	AB	8	4SU	C2-N1	3.14	1.43	1.38
2	AB	46	7MG	C1'-N9	3.13	1.52	1.46
26	BB	1917	PSU	C2-N1	3.11	1.40	1.36
26	BB	2030	6MZ	C6-N6	3.11	1.37	1.34
1	AA	527	7MG	C4-N9	-3.10	1.34	1.37
4	AD	55	5MU	C5M-C5	3.10	1.58	1.50
2	AB	16	H2U	C5-C4	3.07	1.56	1.50
2	AB	8	4SU	C5'-C4'	3.04	1.60	1.51
4	AD	21	H2U	C1'-N1	3.03	1.52	1.46
1	AA	1498	UR3	C4-N3	2.99	1.46	1.40
2	AB	16	H2U	O2'-C2'	2.98	1.50	1.43
26	BB	2504	PSU	O4'-C4'	-2.97	1.38	1.45
26	BB	745	1MG	C2-N3	2.96	1.38	1.33
26	BB	2449	H2U	C1'-N1	-2.95	1.41	1.46
26	BB	1911	PSU	C1'-C5	2.94	1.56	1.50
1	AA	1407	5MC	C6-C5	2.93	1.39	1.34
2	AB	8	4SU	C4-N3	2.92	1.40	1.37
26	BB	2552	OMU	O2'-C2'	-2.91	1.35	1.42
1	AA	1519	MA6	C5-C6	2.89	1.48	1.41
2	AB	17	H2U	C2-N3	-2.87	1.33	1.38
26	BB	2504	PSU	C2-N1	2.85	1.40	1.36
2	AB	17	H2U	O5'-C5'	-2.84	1.35	1.44
26	BB	747	5MU	C3'-C2'	2.84	1.61	1.53
1	AA	1518	MA6	C9-N6	2.83	1.51	1.45
1	AA	516	PSU	C2'-C1'	-2.82	1.49	1.53
26	BB	2503	2MA	C6-N1	2.80	1.38	1.35
1	AA	967	5MC	C3'-C4'	2.79	1.60	1.53
2	AB	20	H2U	C4-N3	2.79	1.42	1.37
26	BB	1962	5MC	C1'-N1	2.77	1.55	1.47
26	BB	2457	PSU	C5'-C4'	2.76	1.59	1.51
1	AA	527	7MG	C3'-C4'	2.74	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AD	56	PSU	C2'-C1'	2.74	1.57	1.53
26	BB	2503	2MA	C1'-N9	2.74	1.53	1.46
26	BB	2030	6MZ	C8-N9	2.74	1.42	1.37
26	BB	2605	PSU	C1'-C5	2.69	1.56	1.50
4	AD	21	H2U	C5-C4	2.69	1.55	1.50
2	AB	8	4SU	C2-N3	2.68	1.42	1.38
26	BB	2069	7MG	O4'-C1'	2.66	1.48	1.42
26	BB	2503	2MA	C5-N7	2.65	1.43	1.39
1	AA	1516	2MG	C3'-C4'	-2.64	1.46	1.53
2	AB	46	7MG	C2-N1	2.64	1.44	1.37
26	BB	2498	OMC	O4'-C1'	-2.63	1.35	1.42
26	BB	746	PSU	C3'-C2'	-2.61	1.46	1.53
26	BB	1939	5MU	C2-N1	2.60	1.42	1.38
26	BB	2580	PSU	C4-C5	2.58	1.51	1.44
1	AA	1402	4OC	C2-N3	-2.57	1.31	1.36
26	BB	747	5MU	O5'-C5'	-2.55	1.36	1.44
2	AB	54	5MU	C3'-C2'	-2.53	1.46	1.53
26	BB	2069	7MG	C5-N7	2.51	1.38	1.35
26	BB	1915	3TD	O4'-C1'	-2.49	1.40	1.43
26	BB	955	PSU	C1'-C5	2.48	1.55	1.50
2	AB	37	MIA	C2-N1	-2.48	1.30	1.34
4	AD	55	5MU	O4-C4	2.48	1.28	1.23
1	AA	966	2MG	C4-N3	2.47	1.39	1.34
26	BB	2069	7MG	O4'-C4'	-2.45	1.39	1.45
1	AA	966	2MG	CM2-N2	2.45	1.50	1.45
26	BB	2605	PSU	C4-C5	2.42	1.51	1.44
1	AA	516	PSU	O5'-C5'	-2.41	1.37	1.44
1	AA	1518	MA6	C10-N6	2.40	1.51	1.45
2	AB	55	PSU	C4-C5	2.40	1.51	1.44
26	BB	2457	PSU	C1'-C5	2.40	1.55	1.50
1	AA	1498	UR3	O2'-C2'	-2.40	1.37	1.43
2	AB	20	H2U	C6-N1	2.40	1.51	1.47
26	BB	2457	PSU	C2-N1	2.37	1.39	1.36
4	AD	33	OMC	O4'-C4'	-2.37	1.39	1.45
26	BB	2552	OMU	C2-N3	2.36	1.42	1.38
26	BB	2449	H2U	C6-C5	-2.35	1.46	1.52
4	AD	55	5MU	O5'-C5'	-2.35	1.37	1.44
26	BB	2445	2MG	C2'-C1'	-2.35	1.46	1.53
4	AD	55	5MU	C6-C5	2.33	1.38	1.34
1	AA	1407	5MC	O3'-C3'	2.32	1.48	1.43
26	BB	1618	6MZ	O5'-C5'	-2.31	1.37	1.44
1	AA	1516	2MG	C5-N7	2.30	1.43	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	516	PSU	C6-N1	2.29	1.40	1.36
1	AA	1518	MA6	C1'-N9	2.29	1.52	1.46
1	AA	1519	MA6	C10-N6	2.29	1.50	1.45
1	AA	1402	4OC	CM4-N4	2.28	1.49	1.45
26	BB	2580	PSU	O4'-C1'	-2.28	1.40	1.43
26	BB	2449	H2U	O3'-C3'	-2.27	1.37	1.43
26	BB	1939	5MU	C6-N1	2.24	1.41	1.38
1	AA	1207	2MG	O4'-C4'	-2.24	1.40	1.45
26	BB	2449	H2U	O4'-C4'	-2.23	1.40	1.45
26	BB	1915	3TD	C3'-C2'	-2.20	1.47	1.53
1	AA	1402	4OC	C6-C5	2.19	1.40	1.35
26	BB	1962	5MC	C2-N1	2.18	1.44	1.40
1	AA	1516	2MG	C5-C4	-2.18	1.32	1.38
1	AA	1516	2MG	C2-N3	2.17	1.36	1.32
26	BB	1618	6MZ	C8-N7	-2.15	1.27	1.31
2	AB	55	PSU	C2-N1	2.13	1.39	1.36
26	BB	1917	PSU	O4'-C1'	2.12	1.46	1.43
26	BB	2445	2MG	O5'-C5'	-2.11	1.38	1.44
26	BB	1915	3TD	C6-C5	2.11	1.37	1.35
2	AB	46	7MG	C8-N7	-2.11	1.32	1.42
2	AB	55	PSU	O5'-C5'	2.10	1.50	1.44
2	AB	17	H2U	C2-N1	2.10	1.38	1.35
2	AB	20	H2U	C2-N1	2.10	1.38	1.35
1	AA	966	2MG	C5-N7	2.09	1.43	1.39
2	AB	32	OMC	O2'-C2'	2.09	1.47	1.42
1	AA	1407	5MC	C2-N3	2.08	1.40	1.36
2	AB	54	5MU	C2-N1	2.08	1.41	1.38
4	AD	33	OMC	C3'-C4'	-2.08	1.47	1.53
2	AB	32	OMC	C4-N3	-2.07	1.30	1.34
4	AD	55	5MU	C4-C5	2.07	1.48	1.44
26	BB	1911	PSU	O4-C4	-2.07	1.19	1.23
1	AA	966	2MG	C6-N1	2.07	1.42	1.38
26	BB	2498	OMC	C4-N4	2.05	1.38	1.33
2	AB	16	H2U	C5'-C4'	-2.05	1.45	1.51
26	BB	1618	6MZ	O3'-C3'	-2.05	1.37	1.43
26	BB	746	PSU	C5'-C4'	2.05	1.57	1.51
1	AA	1518	MA6	O4'-C1'	-2.05	1.37	1.42
26	BB	2498	OMC	O4'-C4'	-2.04	1.40	1.45
26	BB	2498	OMC	C3'-C2'	2.04	1.57	1.53
26	BB	1911	PSU	C2-N3	2.04	1.40	1.37
26	BB	2030	6MZ	C9-N6	2.04	1.48	1.45
26	BB	745	1MG	C1'-N9	2.02	1.53	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	32	OMC	C4-N4	-2.02	1.29	1.33
26	BB	2575	CH	C2'-C3'	-2.00	1.47	1.53

All (281) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	46	7MG	N9-C8-N7	6.95	113.21	103.37
26	BB	2069	7MG	N9-C8-N7	6.89	113.13	103.37
1	AA	1519	MA6	N1-C6-N6	6.89	125.25	116.86
4	AD	21	H2U	O4'-C1'-N1	6.33	117.92	109.30
4	AD	8	4SU	C6-N1-C2	-6.27	113.36	121.00
26	BB	2605	PSU	C6-N1-C2	6.12	128.38	122.69
2	AB	37	MIA	C12-C13-C14	-6.01	116.23	127.01
1	AA	527	7MG	N9-C8-N7	6.00	111.86	103.37
26	BB	1618	6MZ	C9-N6-C6	5.94	128.36	122.85
26	BB	2504	PSU	C6-C5-C4	5.86	122.13	118.17
26	BB	747	5MU	C6-C5-C4	5.83	122.82	118.02
26	BB	745	1MG	N2-C2-N1	5.73	123.39	118.79
1	AA	516	PSU	C6-C5-C4	5.65	121.99	118.17
4	AD	8	4SU	C4-N3-C2	-5.50	122.05	127.31
2	AB	54	5MU	C6-C5-C4	5.47	122.53	118.02
26	BB	2503	2MA	O4'-C1'-N9	5.34	118.34	108.09
26	BB	955	PSU	C6-C5-C4	5.26	121.72	118.17
1	AA	967	5MC	O4'-C1'-N1	5.25	120.25	108.36
26	BB	745	1MG	C2-N1-C6	5.21	125.34	120.99
26	BB	955	PSU	O4'-C1'-C2'	5.18	112.31	105.15
2	AB	20	H2U	O4-C4-N3	5.07	128.11	120.30
2	AB	54	5MU	C5-C4-N3	-5.06	110.93	115.32
26	BB	2605	PSU	O2-C2-N1	5.05	127.99	122.79
26	BB	1962	5MC	CM5-C5-C6	-4.87	116.26	122.85
26	BB	2504	PSU	C5-C6-N1	-4.87	115.39	122.14
4	AD	33	OMC	O4'-C1'-N1	4.83	119.31	108.36
26	BB	2580	PSU	C6-C5-C4	4.80	121.42	118.17
26	BB	2030	6MZ	O4'-C4'-C3'	-4.77	95.69	105.15
26	BB	2030	6MZ	C5-C4-N9	4.70	110.94	105.81
26	BB	745	1MG	C5-C4-N9	4.70	114.07	105.66
2	AB	32	OMC	O2'-C2'-C1'	4.63	117.78	108.99
2	AB	54	5MU	N3-C2-N1	4.63	120.91	114.89
2	AB	54	5MU	O4'-C1'-N1	4.61	118.81	108.36
2	AB	54	5MU	C6-N1-C2	-4.57	116.75	121.30
4	AD	21	H2U	C2'-C3'-C4'	-4.56	93.79	102.61
26	BB	2030	6MZ	C9-N6-C6	-4.55	118.63	122.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	967	5MC	O2-C2-N1	4.52	127.76	118.90
26	BB	2503	2MA	N6-C6-N1	4.51	123.11	117.03
26	BB	1939	5MU	C6-C5-C4	4.49	121.72	118.02
26	BB	955	PSU	C3'-C2'-C1'	-4.40	96.50	101.69
4	AD	8	4SU	O4'-C4'-C3'	4.38	113.84	105.15
26	BB	1835	2MG	N1-C2-N2	4.35	121.00	116.56
26	BB	2605	PSU	C6-C5-C4	4.33	121.09	118.17
2	AB	54	5MU	C5M-C5-C6	-4.32	117.01	122.85
26	BB	2251	OMG	O2'-C2'-C1'	4.24	117.04	108.99
26	BB	746	PSU	C6-N1-C2	4.22	126.61	122.69
26	BB	1962	5MC	CM5-C5-C4	4.17	127.36	120.51
4	AD	21	H2U	N3-C2-N1	-4.11	112.51	116.65
2	AB	54	5MU	O2-C2-N3	-4.10	113.92	121.49
26	BB	1835	2MG	C2-N3-C4	4.01	117.02	112.00
26	BB	2457	PSU	C6-C5-C4	4.01	120.88	118.17
1	AA	1498	UR3	C6-N1-C2	-3.99	118.54	121.80
26	BB	2445	2MG	C2'-C3'-C4'	-3.98	94.92	102.61
2	AB	37	MIA	O4'-C1'-N9	3.92	115.63	108.09
26	BB	2251	OMG	C2'-C1'-N9	-3.89	106.85	114.24
4	AD	56	PSU	O3'-C3'-C4'	3.89	122.26	111.08
1	AA	1207	2MG	C2-N3-C4	3.87	116.84	112.00
26	BB	1915	3TD	O2-C2-N3	3.83	127.21	121.82
1	AA	1407	5MC	CM5-C5-C4	3.83	126.80	120.51
26	BB	745	1MG	CM1-N1-C6	-3.76	111.82	117.64
26	BB	2498	OMC	O3'-C3'-C4'	3.75	121.85	111.08
26	BB	2030	6MZ	C4-N9-C8	-3.70	101.85	105.74
26	BB	1915	3TD	O2'-C2'-C1'	-3.70	102.42	111.21
26	BB	2445	2MG	N2-C2-N3	-3.70	115.80	120.51
1	AA	516	PSU	C5-C6-N1	-3.68	117.03	122.14
26	BB	2498	OMC	O2-C2-N3	-3.67	116.55	122.33
26	BB	2552	OMU	C2'-C1'-N1	-3.66	107.29	114.24
26	BB	747	5MU	C2'-C3'-C4'	-3.66	95.54	102.61
26	BB	2445	2MG	C3'-C2'-C1'	3.66	108.39	101.46
26	BB	2580	PSU	O4'-C1'-C2'	3.66	110.21	105.15
1	AA	1519	MA6	C2-N1-C6	3.64	120.73	111.83
2	AB	16	H2U	O4'-C1'-N1	3.60	114.20	109.30
1	AA	516	PSU	C3'-C2'-C1'	3.58	105.91	101.69
26	BB	2552	OMU	O4'-C1'-N1	3.56	116.43	108.36
26	BB	2445	2MG	O4'-C4'-C3'	3.51	112.12	105.15
2	AB	55	PSU	C6-N1-C2	3.50	125.94	122.69
2	AB	17	H2U	N3-C2-N1	-3.48	113.15	116.65
1	AA	1519	MA6	C5-C6-N6	-3.47	119.84	125.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	32	OMC	C4-N3-C2	3.46	125.70	120.26
4	AD	33	OMC	O2-C2-N3	-3.46	116.88	122.33
26	BB	2251	OMG	N2-C2-N3	3.45	126.41	119.67
26	BB	2030	6MZ	O4'-C1'-N9	3.44	114.69	108.09
26	BB	955	PSU	O2-C2-N1	-3.40	119.28	122.79
26	BB	1911	PSU	C6-N1-C2	-3.39	119.54	122.69
26	BB	747	5MU	C5-C6-N1	-3.39	119.63	123.31
1	AA	1519	MA6	C3'-C2'-C1'	3.38	107.86	101.46
4	AD	8	4SU	N3-C2-N1	3.36	119.27	114.89
26	BB	746	PSU	O2-C2-N1	3.33	126.22	122.79
4	AD	33	OMC	O4'-C1'-C2'	-3.33	100.86	106.59
26	BB	745	1MG	C5-C4-N3	-3.32	123.10	128.39
1	AA	967	5MC	O2-C2-N3	-3.32	117.09	122.33
26	BB	2504	PSU	O2'-C2'-C1'	-3.30	103.38	111.21
26	BB	2498	OMC	C6-N1-C2	-3.30	114.89	120.46
26	BB	2575	CH	C5-C4-N3	3.27	119.91	118.04
2	AB	8	4SU	C5-C4-S4	-3.27	120.57	124.31
4	AD	8	4SU	C5-C4-N3	3.27	117.79	114.75
1	AA	1498	UR3	C3'-C2'-C1'	-3.24	95.33	101.46
1	AA	967	5MC	C5-C4-N4	-3.24	116.83	121.39
1	AA	1498	UR3	C2'-C3'-C4'	3.22	108.83	102.61
26	BB	1911	PSU	O4'-C4'-C5'	3.21	119.61	109.33
1	AA	1518	MA6	C4-C5-N7	-3.20	106.92	110.58
26	BB	745	1MG	C8-N9-C4	-3.19	100.05	106.03
4	AD	55	5MU	C3'-C2'-C1'	3.19	107.49	101.46
26	BB	2030	6MZ	C4-C5-N7	-3.16	106.97	110.58
26	BB	2605	PSU	C5-C6-N1	-3.16	117.75	122.14
2	AB	32	OMC	C5-C4-N3	-3.15	116.02	121.32
26	BB	1911	PSU	C6-C5-C4	3.14	120.30	118.17
26	BB	2580	PSU	C2'-C3'-C4'	-3.13	96.56	102.61
2	AB	37	MIA	N3-C2-N1	3.12	132.70	127.00
26	BB	745	1MG	C6-C5-C4	3.12	123.50	119.97
2	AB	55	PSU	C2'-C3'-C4'	-3.11	96.60	102.61
26	BB	1939	5MU	C5-C6-N1	-3.11	119.94	123.31
26	BB	2504	PSU	C2'-C3'-C4'	-3.10	96.62	102.61
1	AA	1207	2MG	C2'-C1'-N9	-3.10	104.62	113.25
26	BB	2069	7MG	C6-C5-N7	-3.10	127.13	131.93
26	BB	1835	2MG	N1-C2-N3	-3.07	118.51	123.68
1	AA	967	5MC	C5-C4-N3	3.07	124.90	121.75
26	BB	2069	7MG	C4-C5-N7	3.06	109.00	105.38
26	BB	2552	OMU	C5-C4-N3	-3.06	110.50	114.80
1	AA	1498	UR3	C5-C4-N3	-3.02	111.06	115.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1939	5MU	C6-N1-C2	-3.01	118.30	121.30
2	AB	32	OMC	C2'-C3'-C4'	-3.01	95.51	101.99
2	AB	8	4SU	C5-C4-N3	3.01	117.55	114.75
2	AB	8	4SU	O3'-C3'-C4'	3.00	119.71	111.08
4	AD	21	H2U	O2-C2-N1	2.99	126.70	123.10
2	AB	55	PSU	C3'-C2'-C1'	-2.97	98.19	101.69
26	BB	1962	5MC	O4'-C1'-N1	2.96	115.08	108.36
26	BB	2457	PSU	C4'-O4'-C1'	2.96	115.86	108.44
2	AB	54	5MU	C1'-N1-C6	2.96	126.02	121.15
26	BB	2030	6MZ	O4'-C1'-C2'	-2.96	100.29	106.62
26	BB	1939	5MU	O4'-C1'-C2'	-2.95	100.30	106.62
26	BB	746	PSU	O4'-C1'-C2'	-2.95	101.07	105.15
1	AA	1407	5MC	O3'-C3'-C2'	2.94	121.25	111.82
26	BB	745	1MG	C5-C6-N1	-2.92	109.63	115.02
4	AD	8	4SU	C3'-C2'-C1'	2.91	106.97	101.46
26	BB	2030	6MZ	C6-C5-N7	2.91	135.60	132.43
2	AB	37	MIA	C4-C5-C6	-2.89	114.38	116.78
26	BB	2069	7MG	O4'-C4'-C5'	2.88	118.55	109.33
26	BB	2251	OMG	C3'-C2'-C1'	-2.87	97.32	102.81
4	AD	8	4SU	C6-C5-C4	2.86	122.42	119.95
26	BB	745	1MG	C4-C5-N7	-2.86	106.14	110.67
1	AA	967	5MC	CM5-C5-C4	2.84	125.18	120.51
26	BB	2498	OMC	N1-C2-N3	2.83	123.72	118.80
2	AB	46	7MG	O4'-C4'-C3'	2.83	110.78	105.15
1	AA	1407	5MC	O4'-C1'-N1	2.81	114.73	108.36
1	AA	1498	UR3	C3U-N3-C2	2.81	122.23	117.33
4	AD	55	5MU	C5-C4-N3	-2.81	112.88	115.32
2	AB	20	H2U	N3-C2-N1	2.81	119.47	116.65
2	AB	17	H2U	O4'-C1'-N1	2.80	113.12	109.30
26	BB	2445	2MG	O3'-C3'-C2'	2.80	120.78	111.82
1	AA	1518	MA6	C2'-C1'-N9	-2.78	106.40	113.30
1	AA	1516	2MG	C2'-C3'-C4'	2.78	107.98	102.61
4	AD	55	5MU	C5M-C5-C6	-2.77	119.11	122.85
26	BB	2503	2MA	CM2-C2-N3	-2.76	112.99	117.13
2	AB	55	PSU	N1-C2-N3	-2.76	112.26	115.17
2	AB	17	H2U	O4'-C4'-C3'	2.75	110.60	105.15
1	AA	966	2MG	O6-C6-N1	-2.73	114.98	120.11
1	AA	1498	UR3	C6-C5-C4	2.72	125.93	120.73
26	BB	2449	H2U	O4'-C1'-N1	2.70	112.97	109.30
26	BB	2552	OMU	O4-C4-N3	2.69	123.17	119.27
1	AA	1519	MA6	C9-N6-C6	2.69	127.36	120.52
2	AB	20	H2U	O4'-C1'-N1	2.69	112.96	109.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2504	PSU	C3'-C2'-C1'	2.69	104.86	101.69
26	BB	747	5MU	C4-N3-C2	-2.68	123.82	127.34
26	BB	2605	PSU	O3'-C3'-C2'	2.68	120.39	111.82
2	AB	55	PSU	O4'-C1'-C2'	2.66	108.83	105.15
26	BB	1618	6MZ	C4-C5-C6	2.65	118.99	116.78
26	BB	1911	PSU	O2-C2-N1	-2.64	120.07	122.79
1	AA	516	PSU	O2-C2-N1	2.63	125.50	122.79
26	BB	2498	OMC	O2'-C2'-C1'	2.62	113.97	108.99
26	BB	1939	5MU	O4'-C1'-N1	2.62	114.29	108.36
26	BB	1915	3TD	O2-C2-N1	-2.62	115.50	121.48
26	BB	2503	2MA	O3'-C3'-C4'	2.61	118.59	111.08
26	BB	746	PSU	C3'-C2'-C1'	2.60	104.76	101.69
1	AA	1402	4OC	C4-N3-C2	2.60	123.55	120.11
4	AD	8	4SU	C2'-C3'-C4'	-2.59	97.60	102.61
26	BB	2498	OMC	C1'-N1-C2	2.58	124.14	118.44
26	BB	2580	PSU	C5-C6-N1	-2.58	118.56	122.14
26	BB	747	5MU	O4-C4-C5	2.58	127.86	124.92
1	AA	1207	2MG	C5-C4-N3	-2.57	124.29	128.39
26	BB	2445	2MG	N9-C8-N7	2.56	118.15	113.40
26	BB	746	PSU	N1-C2-N3	-2.56	112.47	115.17
1	AA	1518	MA6	O3'-C3'-C2'	2.55	120.00	111.82
2	AB	20	H2U	O4'-C1'-C2'	-2.55	101.16	106.62
26	BB	2449	H2U	C2'-C3'-C4'	2.55	107.53	102.61
26	BB	1917	PSU	C2'-C3'-C4'	-2.54	97.70	102.61
26	BB	2445	2MG	C8-N7-C5	-2.54	99.74	104.26
2	AB	16	H2U	O4'-C4'-C3'	-2.54	100.12	105.15
1	AA	1498	UR3	O2-C2-N3	2.53	124.84	121.33
2	AB	37	MIA	C11-S10-C2	2.53	104.15	102.25
4	AD	33	OMC	C6-N1-C2	-2.53	116.19	120.46
1	AA	967	5MC	O4'-C4'-C5'	2.52	117.41	109.33
1	AA	1407	5MC	CM5-C5-C6	-2.51	119.45	122.85
26	BB	955	PSU	C6-N1-C2	-2.50	120.37	122.69
26	BB	747	5MU	O2'-C2'-C1'	-2.49	101.51	110.10
26	BB	747	5MU	O2-C2-N1	2.48	126.02	122.80
2	AB	55	PSU	C5-C6-N1	-2.48	118.70	122.14
1	AA	1402	4OC	C1'-N1-C6	2.46	126.04	120.78
26	BB	1618	6MZ	O4'-C4'-C3'	2.46	110.03	105.15
26	BB	2251	OMG	C2-N3-C4	2.45	116.52	112.30
26	BB	1911	PSU	C5'-C4'-C3'	-2.44	106.42	115.21
2	AB	16	H2U	C2'-C3'-C4'	2.43	107.31	102.61
1	AA	1498	UR3	C3U-N3-C4	-2.43	114.51	117.87
2	AB	20	H2U	O4-C4-C5	-2.42	117.25	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1518	MA6	C5-C4-N9	2.42	108.44	105.81
26	BB	2030	6MZ	C5-C4-N3	-2.41	123.39	126.72
26	BB	1939	5MU	O3'-C3'-C4'	-2.39	104.21	111.08
4	AD	55	5MU	C5M-C5-C4	2.38	121.32	118.78
1	AA	1402	4OC	O2-C2-N3	-2.37	118.59	122.33
1	AA	1498	UR3	O2-C2-N1	-2.37	117.49	122.78
2	AB	8	4SU	O4'-C4'-C3'	2.36	109.84	105.15
1	AA	516	PSU	O2'-C2'-C1'	-2.35	105.63	111.21
26	BB	2552	OMU	C6-C5-C4	2.35	122.53	119.53
26	BB	745	1MG	C2'-C3'-C4'	-2.33	98.10	102.61
26	BB	1835	2MG	O6-C6-N1	-2.33	115.74	120.11
26	BB	2575	CH	O4'-C1'-C2'	-2.32	103.47	106.89
26	BB	1962	5MC	C5-C4-N4	-2.32	118.12	121.39
4	AD	55	5MU	O2'-C2'-C1'	-2.32	102.11	110.10
26	BB	745	1MG	O6-C6-N1	2.32	124.61	120.36
26	BB	747	5MU	C5M-C5-C6	-2.32	119.71	122.85
1	AA	1519	MA6	C4-C5-C6	2.32	118.30	115.91
1	AA	1207	2MG	C6-C5-C4	2.31	122.31	118.83
26	BB	747	5MU	O4'-C1'-N1	2.30	113.56	108.36
26	BB	1917	PSU	N1-C2-N3	-2.29	112.74	115.17
2	AB	8	4SU	O4'-C1'-N1	2.29	113.55	108.36
26	BB	746	PSU	C6-C5-C4	2.28	119.71	118.17
26	BB	2069	7MG	C2'-C3'-C4'	-2.28	98.20	102.61
26	BB	2251	OMG	C1'-N9-C8	2.27	133.19	126.73
26	BB	2251	OMG	O6-C6-N1	2.26	124.37	120.11
26	BB	1939	5MU	C5'-C4'-C3'	-2.26	107.07	115.21
1	AA	1516	2MG	O4'-C1'-C2'	2.26	111.45	106.62
1	AA	1518	MA6	C5-C6-N6	-2.26	121.76	125.33
2	AB	17	H2U	C4'-O4'-C1'	-2.26	104.49	109.47
26	BB	1618	6MZ	C4-C5-N7	-2.25	108.01	110.58
1	AA	1498	UR3	C1'-N1-C2	2.25	120.72	117.04
1	AA	1498	UR3	O2'-C2'-C1'	2.24	117.81	110.10
26	BB	1618	6MZ	C2'-C3'-C4'	-2.23	98.30	102.61
1	AA	1519	MA6	C2'-C3'-C4'	-2.23	98.31	102.61
4	AD	8	4SU	C1'-N1-C2	2.22	121.59	117.59
26	BB	2445	2MG	O2'-C2'-C1'	-2.22	102.46	110.10
26	BB	746	PSU	C2'-C3'-C4'	-2.22	98.32	102.61
1	AA	1402	4OC	C2'-C3'-C4'	-2.21	97.23	101.99
26	BB	1915	3TD	O3'-C3'-C4'	2.21	117.44	111.08
2	AB	46	7MG	O2'-C2'-C3'	2.20	118.86	111.82
1	AA	1518	MA6	C9-N6-C6	2.19	126.09	120.52
26	BB	2498	OMC	C3'-C2'-C1'	-2.19	98.62	102.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1516	2MG	C2'-C1'-N9	-2.18	107.19	113.25
26	BB	2449	H2U	N3-C2-N1	-2.17	114.47	116.65
1	AA	967	5MC	N1-C2-N3	-2.16	115.06	118.80
26	BB	2251	OMG	O4'-C4'-C3'	-2.16	100.87	105.15
26	BB	1618	6MZ	C5-C4-N9	2.15	108.16	105.81
2	AB	8	4SU	N3-C2-N1	-2.15	112.10	114.89
2	AB	32	OMC	O2-C2-N1	2.14	123.09	118.90
4	AD	21	H2U	O4'-C4'-C3'	-2.14	100.91	105.15
26	BB	745	1MG	O4'-C4'-C3'	2.13	109.39	105.15
26	BB	745	1MG	C3'-C2'-C1'	2.13	105.49	101.46
26	BB	2445	2MG	O2'-C2'-C3'	2.13	118.64	111.82
1	AA	1402	4OC	C5-C4-N4	-2.12	117.73	122.40
26	BB	1915	3TD	O3'-C3'-C2'	-2.11	105.04	111.82
1	AA	966	2MG	C2-N3-C4	2.11	114.65	112.00
26	BB	2580	PSU	O4'-C4'-C3'	2.11	109.34	105.15
26	BB	1618	6MZ	N1-C2-N3	2.10	131.77	128.58
26	BB	2445	2MG	C4'-O4'-C1'	-2.10	104.82	109.47
26	BB	2503	2MA	O4'-C1'-C2'	-2.10	102.11	106.62
26	BB	2251	OMG	N1-C2-N3	-2.09	119.49	123.32
2	AB	17	H2U	C5-C4-N3	2.08	118.90	116.69
26	BB	2605	PSU	N1-C2-N3	-2.08	112.97	115.17
26	BB	1939	5MU	N3-C2-N1	2.07	117.59	114.89
26	BB	747	5MU	O4-C4-N3	-2.06	116.25	120.11
1	AA	966	2MG	O4'-C4'-C5'	2.06	115.92	109.33
1	AA	1407	5MC	C1'-N1-C6	-2.05	117.77	121.15
1	AA	1498	UR3	O2'-C2'-C3'	2.05	118.39	111.82
2	AB	37	MIA	S10-C2-N1	-2.05	108.98	116.04
26	BB	2503	2MA	N3-C2-N1	2.04	129.37	125.77
26	BB	745	1MG	N9-C4-N3	-2.04	121.88	125.95
26	BB	1939	5MU	O4'-C4'-C5'	2.03	115.85	109.33
2	AB	37	MIA	C4-N9-C1'	-2.03	121.88	126.63
2	AB	46	7MG	C6-C5-C4	-2.03	118.84	122.40
2	AB	32	OMC	O4'-C1'-N1	2.03	112.95	108.36
26	BB	2504	PSU	C6-N1-C2	2.01	124.56	122.69
1	AA	1518	MA6	O2'-C2'-C1'	-2.00	103.21	110.10

There are no chirality outliers.

All (25) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	AA	1516	2MG	N3-C2-N2-CM2
2	AB	8	4SU	C2'-C1'-N1-C2

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Mol	Chain	Res	Type	Atoms
2	AB	32	OMC	C1'-C2'-O2'-CM2
26	BB	746	PSU	C2'-C1'-C5-C4
26	BB	2503	2MA	O4'-C1'-N9-C4
2	AB	8	4SU	C2'-C1'-N1-C6
2	AB	37	MIA	C12-C13-C14-C15
1	AA	527	7MG	C4'-C5'-O5'-P
26	BB	2069	7MG	O4'-C4'-C5'-O5'
2	AB	17	H2U	C4'-C5'-O5'-P
1	AA	516	PSU	O4'-C1'-C5-C4
26	BB	746	PSU	O4'-C1'-C5-C4
26	BB	1917	PSU	O4'-C1'-C5-C4
26	BB	2605	PSU	O4'-C1'-C5-C4
26	BB	2503	2MA	O4'-C1'-N9-C8
2	AB	8	4SU	O4'-C1'-N1-C6
2	AB	17	H2U	O4'-C4'-C5'-O5'
2	AB	8	4SU	C4'-C5'-O5'-P
26	BB	2030	6MZ	O4'-C1'-N9-C4
1	AA	1498	UR3	O4'-C4'-C5'-O5'
26	BB	746	PSU	O4'-C1'-C5-C6
26	BB	2498	OMC	C2'-C1'-N1-C6
2	AB	8	4SU	O4'-C1'-N1-C2
26	BB	1915	3TD	C2'-C1'-C5-C6
26	BB	2605	PSU	O4'-C4'-C5'-O5'

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

2 ligands 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	$\#\|Z\|>2$
59	TRP	AB	101	2,60	15,15,16	2.09	5 (33%)	17,20,22	1.82	4 (23%)
60	FME	BB	3001	59	8,9,10	0.86	0	8,9,11	1.17	1 (12%)

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
59	TRP	AB	101	2,60	-	0/6/6/8	0/2/2/2
60	FME	BB	3001	59	-	1/7/9/11	-

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	AB	101	TRP	OXT-C	-4.67	1.22	1.42
59	AB	101	TRP	CZ3-CE3	3.34	1.44	1.38
59	AB	101	TRP	CB-CG	3.11	1.56	1.50
59	AB	101	TRP	C-CA	2.99	1.57	1.52
59	AB	101	TRP	CE3-CD2	2.09	1.43	1.39

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	AB	101	TRP	CD2-CE2-NE1	-3.46	104.64	107.52
59	AB	101	TRP	CE2-NE1-CD1	3.18	111.91	109.08
59	AB	101	TRP	CZ2-CE2-CD2	3.11	125.20	122.19
59	AB	101	TRP	OXT-C-CA	2.52	121.20	111.52
60	BB	3001	FME	CB-CA-N	-2.32	106.29	110.52

There are no chirality outliers.

All (1) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
60	BB	3001	FME	O1-CN-N-CA

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
26	BB	2
1	AA	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BB	1872:A	O3'	1873:G	P	1.76
1	AA	1017:U	O3'	1018:G	P	1.75
1	BB	600:G	O3'	601:C	P	1.75

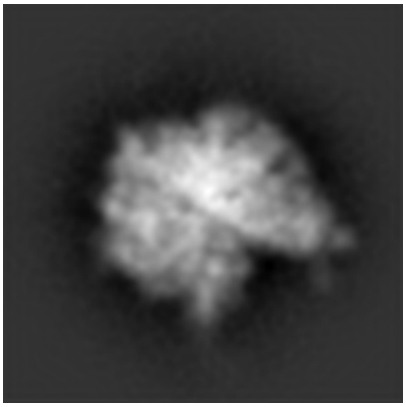
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-5363. These allow visual inspection of the internal detail of the map and identification of artifacts.

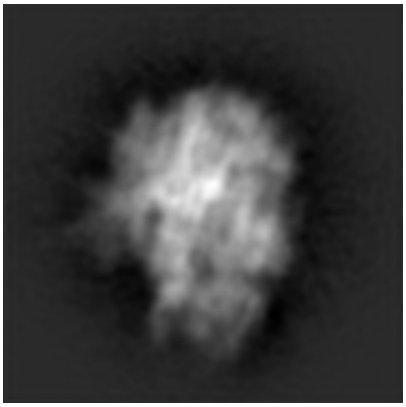
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

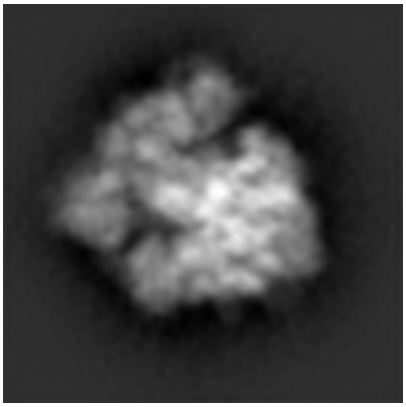
6.1.1 Primary map



X



Y

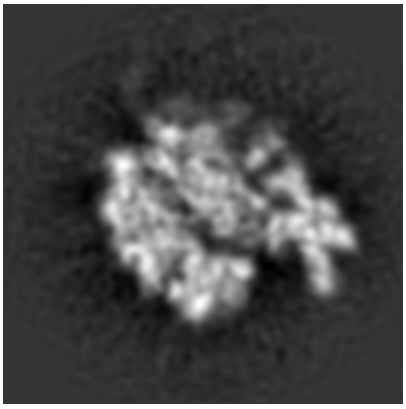


Z

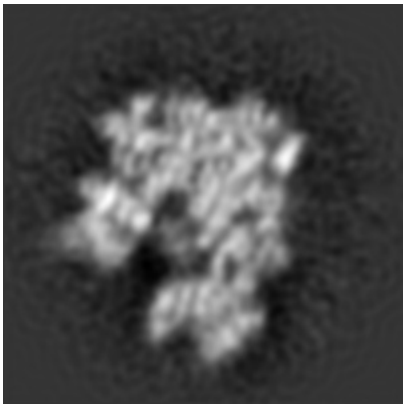
The images above show the map projected in three orthogonal directions.

6.2 Central slices

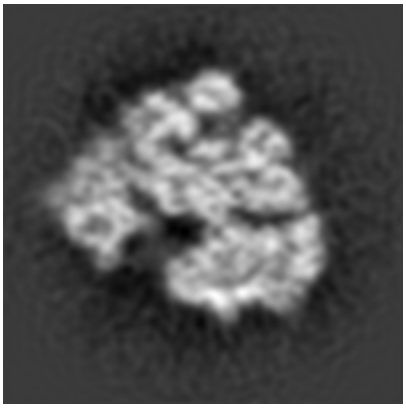
6.2.1 Primary map



X Index: 125



Y Index: 125

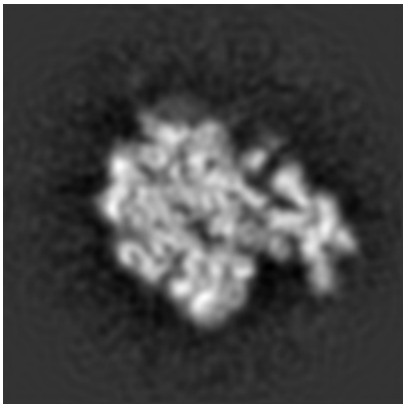


Z Index: 125

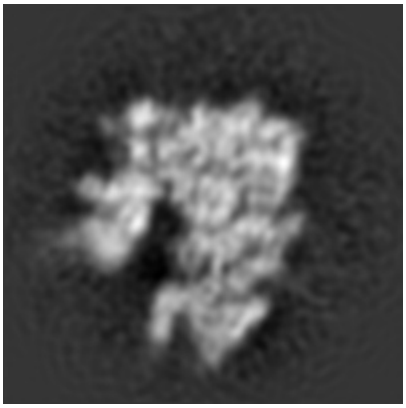
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

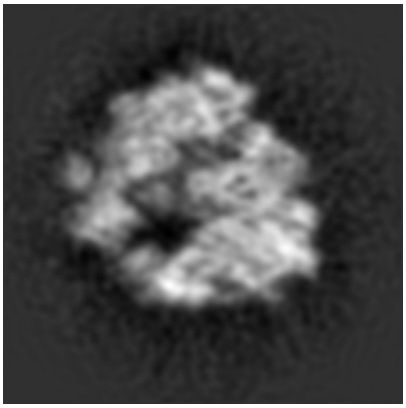
6.3.1 Primary map



X Index: 129



Y Index: 131

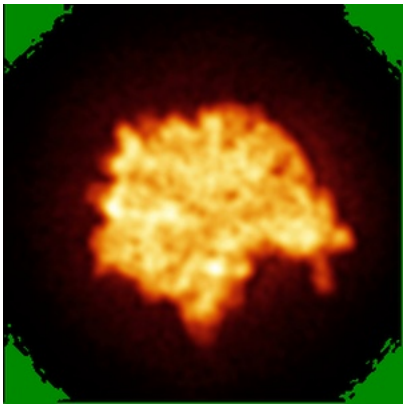


Z Index: 115

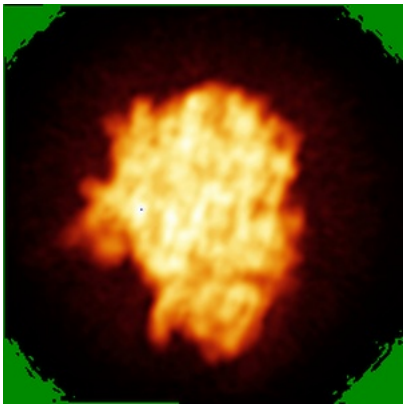
The images above show the largest variance slices of the map in three orthogonal directions.

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

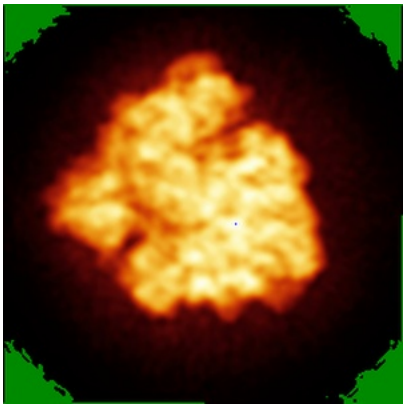
6.4.1 Primary map



X



Y

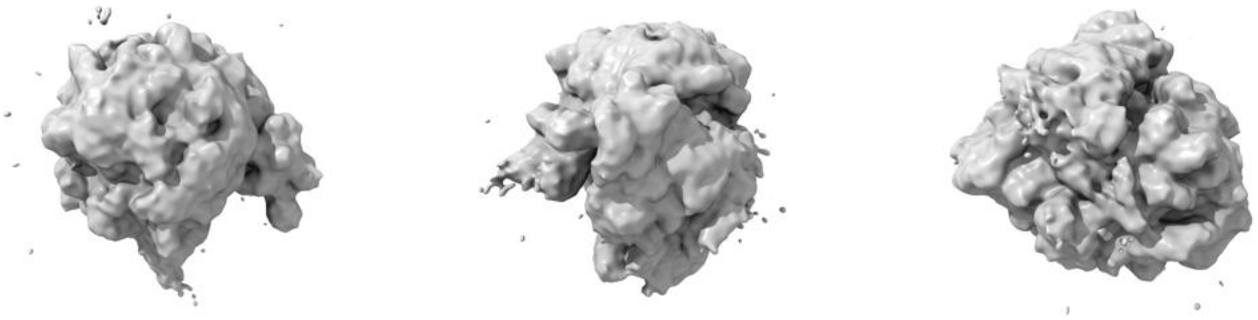


Z

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

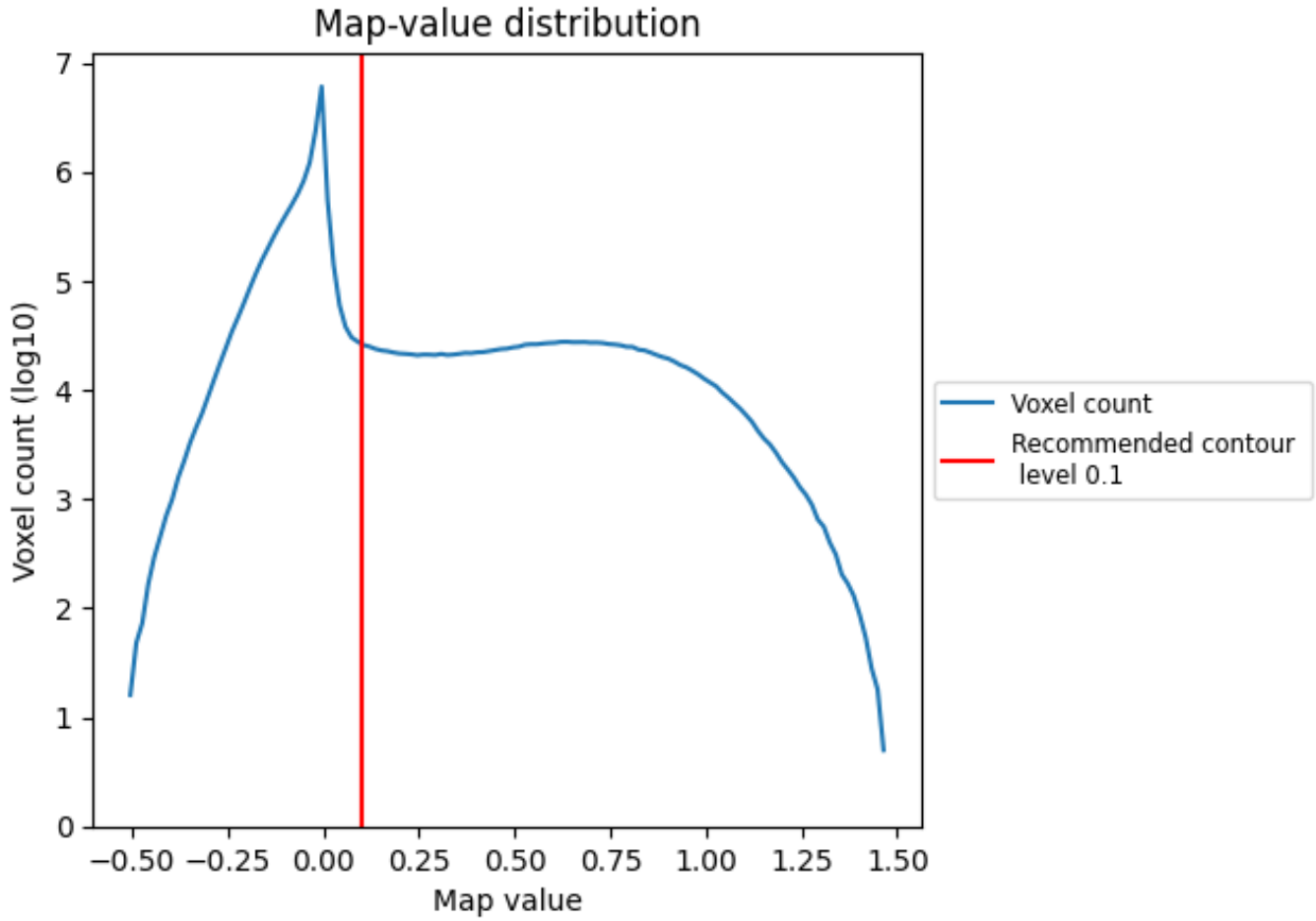
6.6 Mask visualisation (i)

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

7 Map analysis

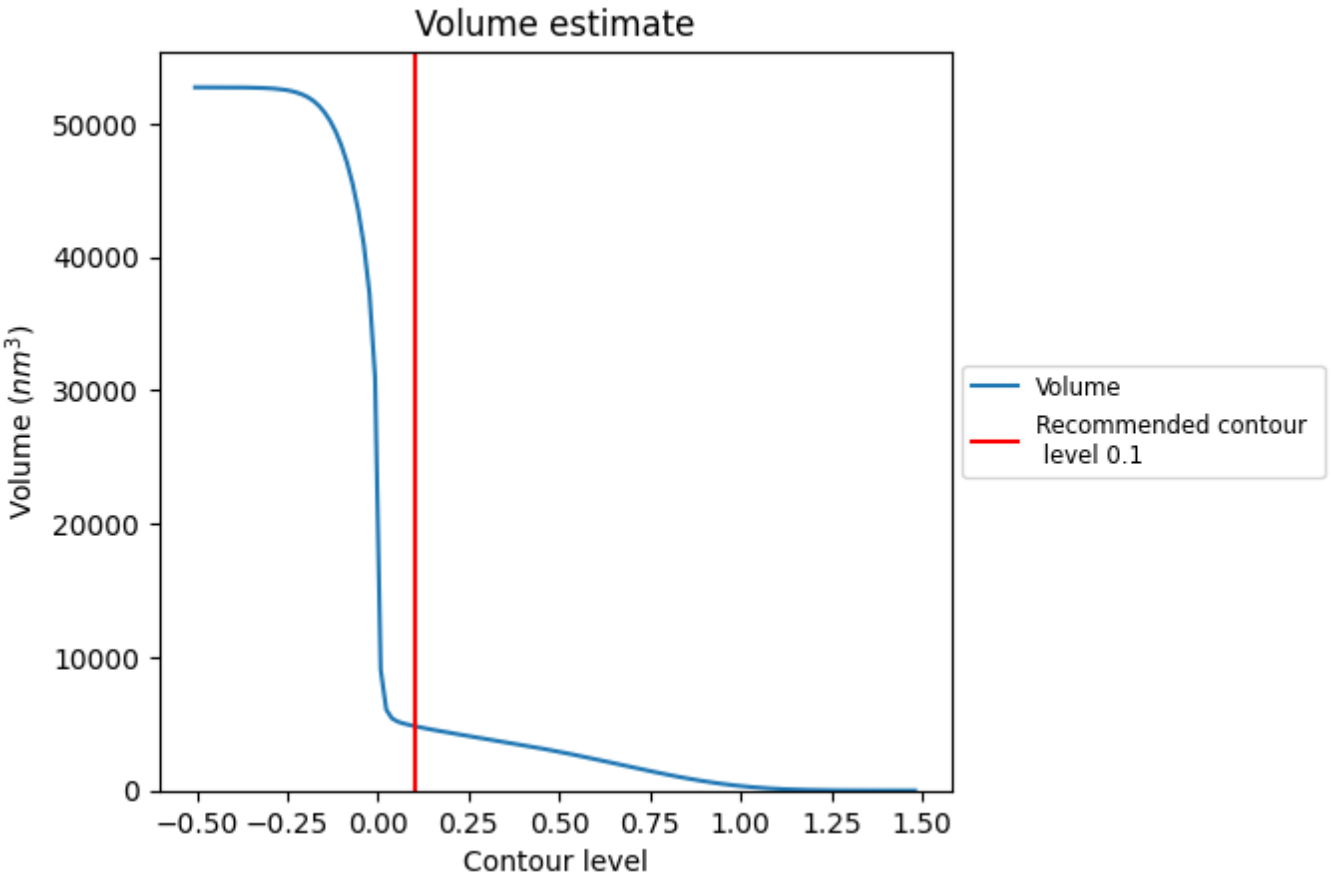
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

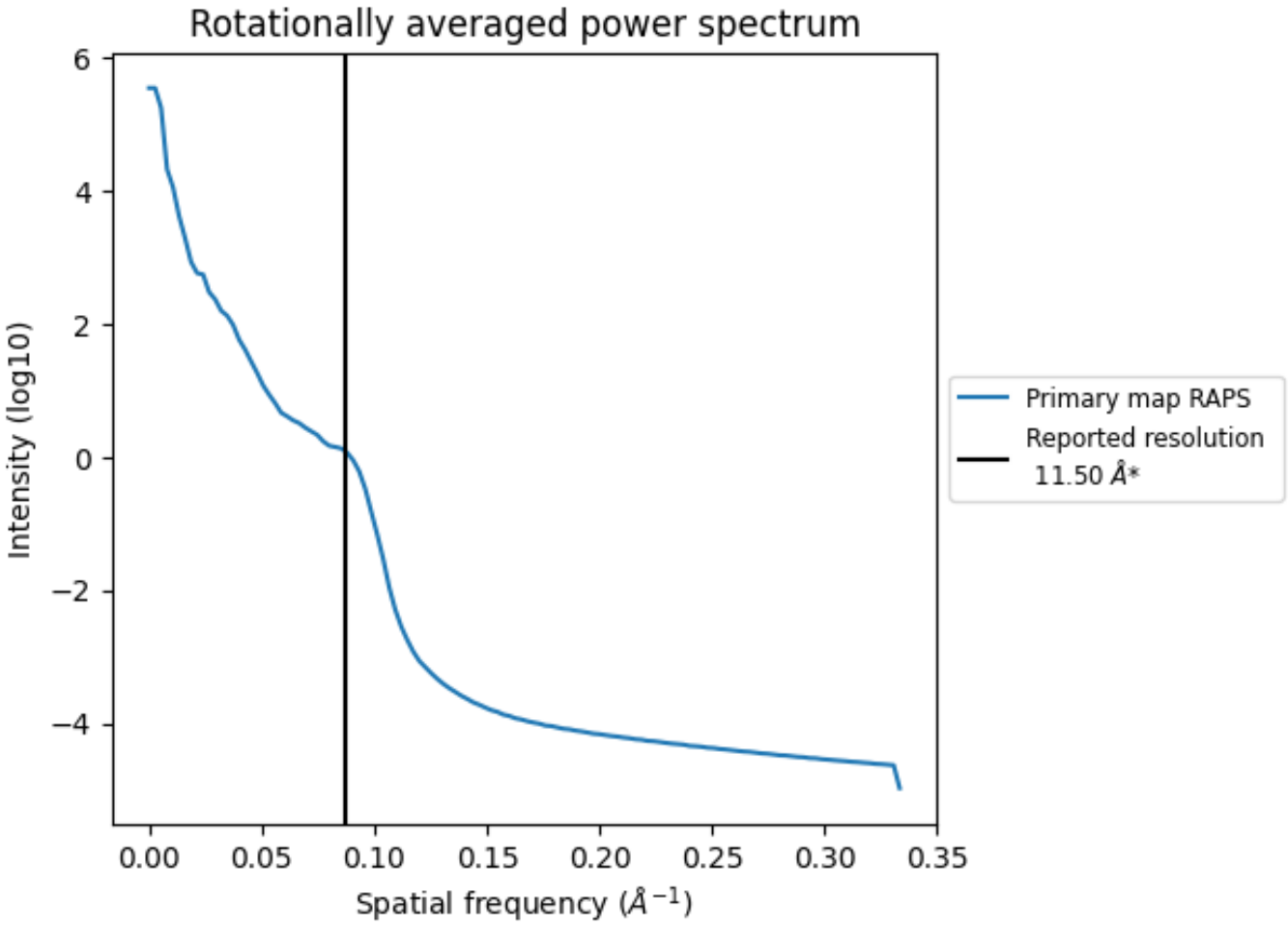
7.2 Volume estimate



The volume at the recommended contour level is 4835 nm^3; this corresponds to an approximate mass of 4367 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 0.087 Å^{-1}

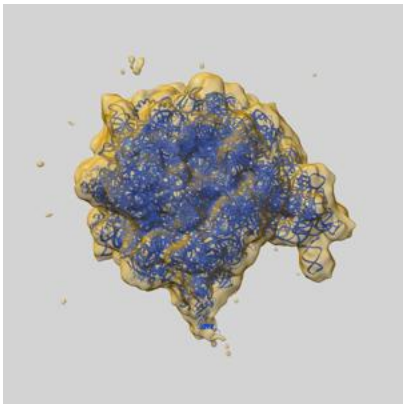
8 Fourier-Shell correlation

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

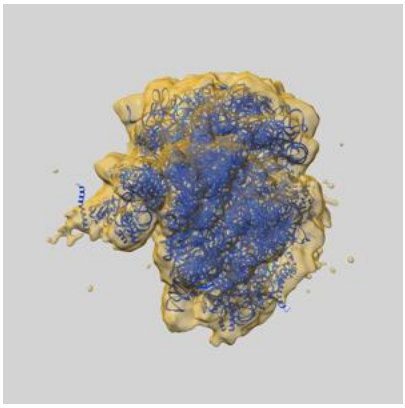
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-5363 and PDB model 4V6Q. Per-residue inclusion information can be found in section 3 on page 16.

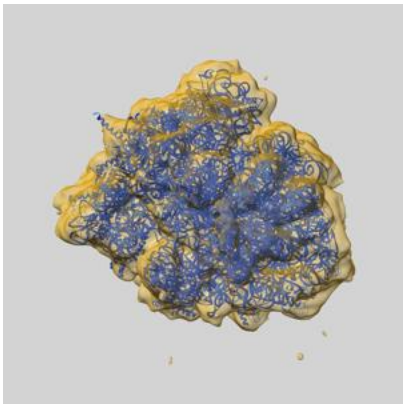
9.1 Map-model overlay



X



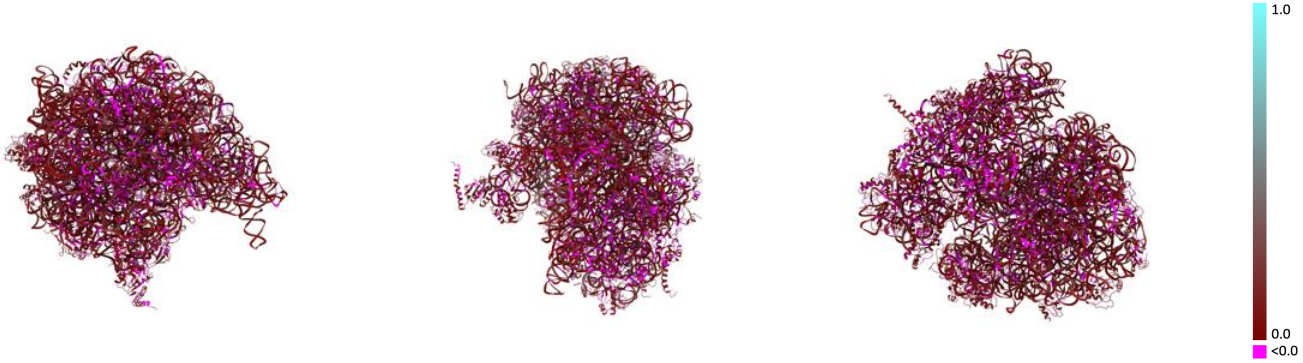
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.1 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

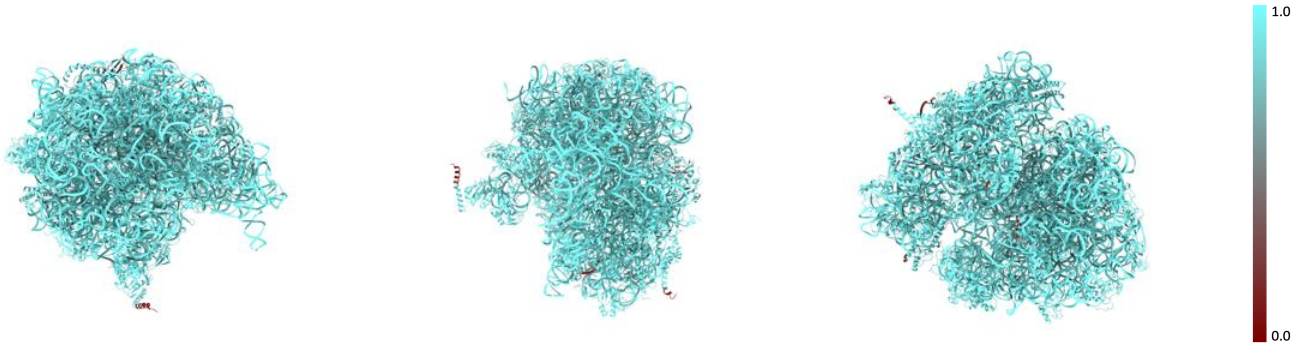
9.2 Q-score mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

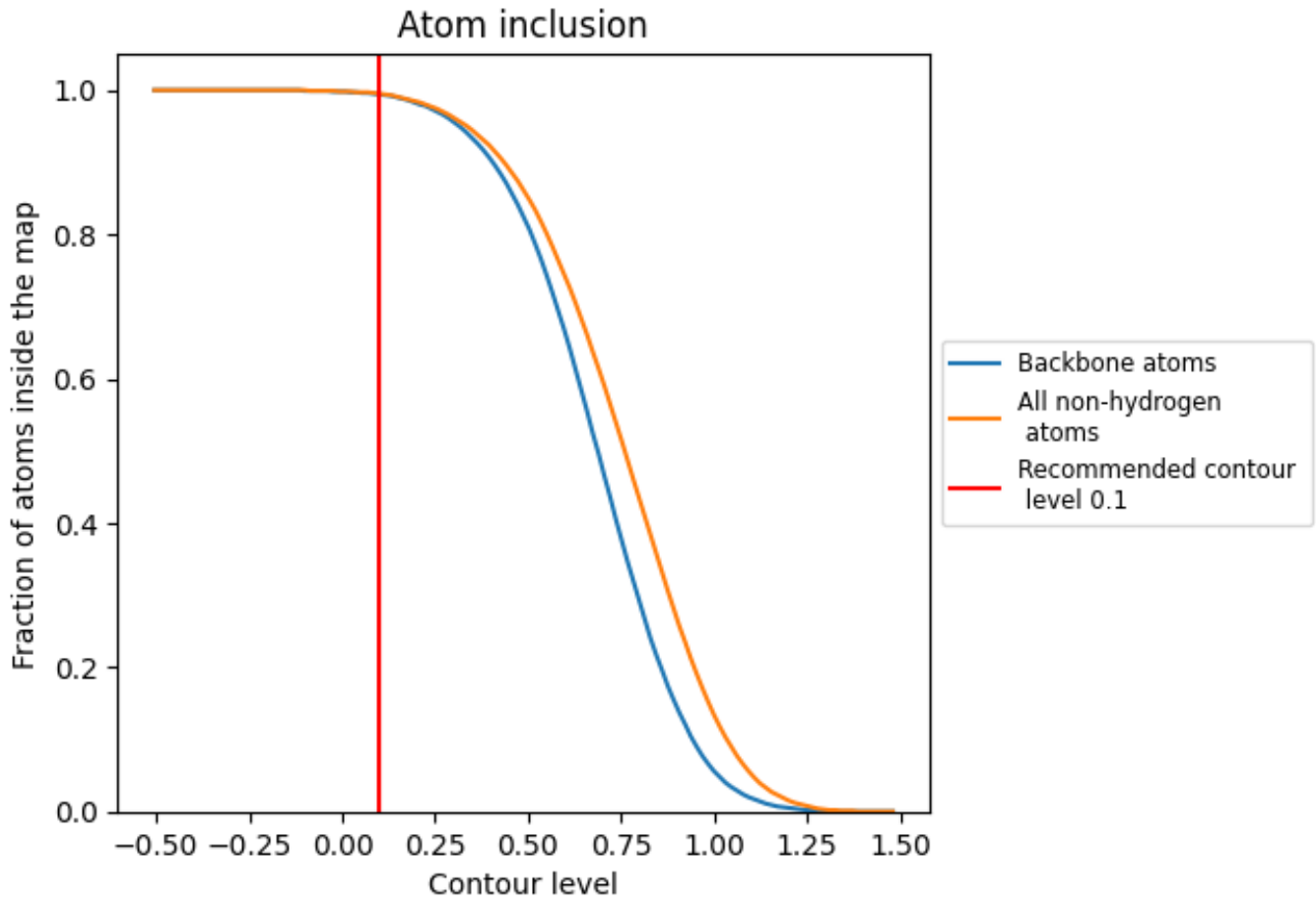
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.1).

9.4 Atom inclusion (i)



At the recommended contour level, 99% of all backbone atoms, 100% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9950	0.0740
AA	1.0000	0.0910
AB	0.9860	0.0530
AC	0.8950	0.0140
AD	0.9940	0.0980
AE	0.9470	0.0370
AF	0.9990	0.0630
AG	0.9990	0.0450
AH	0.9930	0.0430
AI	0.9810	0.0410
AJ	0.9910	0.0540
AK	0.9980	0.0400
AL	0.9810	0.0480
AM	1.0000	0.0220
AN	0.9930	0.0420
AO	0.9890	0.0400
AP	0.9750	0.0410
AQ	1.0000	0.0400
AR	1.0000	0.0540
AS	0.9980	0.0100
AT	1.0000	0.0560
AU	1.0000	0.0290
AV	0.9790	0.0360
AW	1.0000	0.0460
AX	1.0000	0.0290
B0	1.0000	0.0320
B1	1.0000	0.0430
B2	0.9810	0.0180
B3	1.0000	0.0280
B4	0.9980	0.0540
B5	1.0000	0.0030
B6	1.0000	0.0370
B7	1.0000	0.0320
BA	1.0000	0.1010
BB	1.0000	0.0910

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Chain	Atom inclusion	Q-score
BC	0.9910	0.0420
BD	1.0000	0.0180
BE	0.9990	0.0240
BF	0.9990	0.0650
BG	0.9910	0.0460
BH	1.0000	0.0250
BI	0.8510	0.0260
BJ	0.9000	0.0450
BK	0.9730	0.0380
BL	1.0000	0.0330
BM	0.9960	0.0600
BN	0.9990	0.0160
BO	1.0000	0.0440
BP	1.0000	0.0250
BQ	0.9950	0.0580
BR	0.9980	0.0280
BS	0.9980	0.0250
BT	0.9950	0.0480
BU	0.9980	0.0270
BV	0.9990	0.0330
BW	1.0000	0.0690
BX	1.0000	0.0740
BY	0.9980	0.0240
BZ	1.0000	0.0350