Full wwPDB EM Validation Report

Mar 29, 2026 – 05:41 AM UTC

PDB ID	:	4V6P / pdb_00004v6p
EMDB ID	:	EMD-5364
Title	:	Structural characterization of mRNA-tRNA translocation intermediates (class 4b 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	:	13.50 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 (i) 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 (1)) were used in the production of this report:

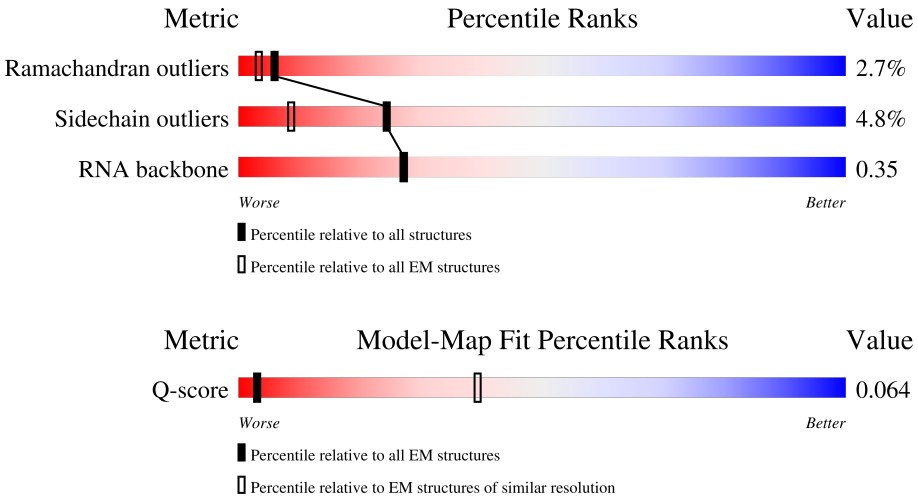
EMDB validation analysis	:	0.0.1.dev132
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13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

1 Overall quality at a glance

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

The reported resolution of this entry is 13.50 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	74 (13.00 - 14.00)

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	8% 39% 43% 11%
2	AB	76	5% 34% 45% 16%
3	AC	47	30% 47% 21%
4	AD	77	8% 40% 39% 13%

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Mol	Chain	Length	Quality of chain
5	AE	240	61% 37%
6	AF	232	56% 38% 6%
7	AG	205	54% 42%
8	AH	166	60% 34% 5%
9	AI	135	61% 35%
10	AJ	178	54% 43%
11	AK	129	62% 37%
12	AL	129	64% 34%
13	AM	103	43% 50% 7%
14	AN	128	59% 40%
15	AO	123	52% 42% 6%
16	AP	117	53% 44%
17	AQ	100	48% 47%
18	AR	88	50% 48%
19	AS	82	61% 37%
20	AT	83	64% 34%
21	AU	74	50% 45%
22	AV	91	65% 30% 5%
23	AW	86	63% 35%
24	AX	70	54% 41%
25	BA	120	8% 33% 49% 9%
26	BB	2904	7% 37% 45% 12%
27	BC	234	9% 54% 44%
28	BD	272	54% 42%
29	BE	209	57% 40%

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Mol	Chain	Length	Quality of chain
30	BF	201	51% 45%
31	BG	178	55% 38% 7%
32	BH	176	53% 44%
33	BI	149	5% 58% 38%
34	BJ	164	5% 59% 38%
35	BK	141	64% 35%
36	BL	142	57% 40%
37	BM	123	56% 40%
38	BN	144	62% 35%
39	BO	136	59% 38%
40	BP	127	54% 43%
41	BQ	117	54% 41% 5%
42	BR	114	55% 39% 5%
43	BS	117	56% 37% 7%
44	BT	103	53% 42% 5%
45	BU	110	50% 45% 5%
46	BV	100	52% 42% 6%
47	BW	103	62% 35%
48	BX	94	55% 37% 7%
49	BY	84	52% 42% 5%
50	BZ	77	51% 43% 6%
51	B0	63	67% 30%
52	B1	58	50% 45% 5%
53	B2	70	47% 47%
54	B3	56	70% 29%

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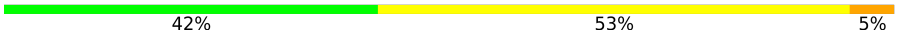
Mol	Chain	Length	Quality of chain
55	B4	54	
56	B5	46	
57	B6	64	
58	B7	38	

2 Entry composition (i)

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		

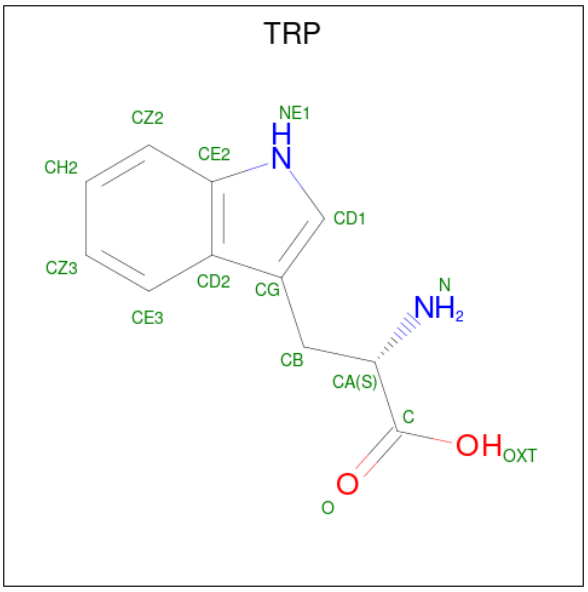
- Molecule 57 is a protein called 50S ribosomal protein L35.

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.

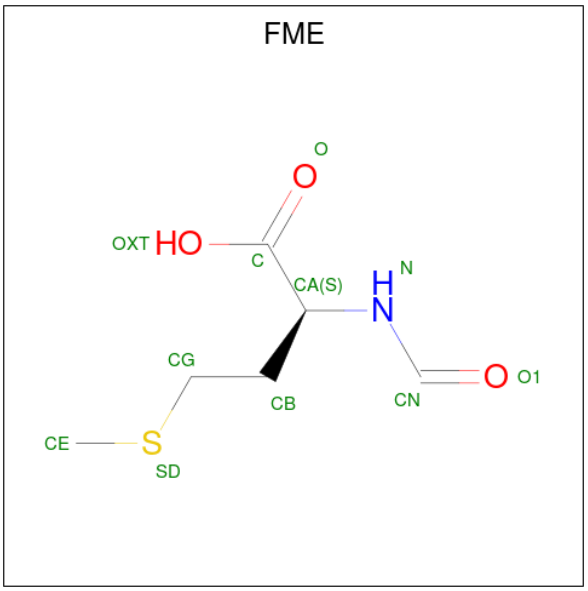
Mol	Chain	Residues	Atoms					AltConf	Trace
58	B7	38	Total	C	N	O	S	0	0
			302	185	65	48	4		

- 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: $C_6H_{11}NO_3S$).



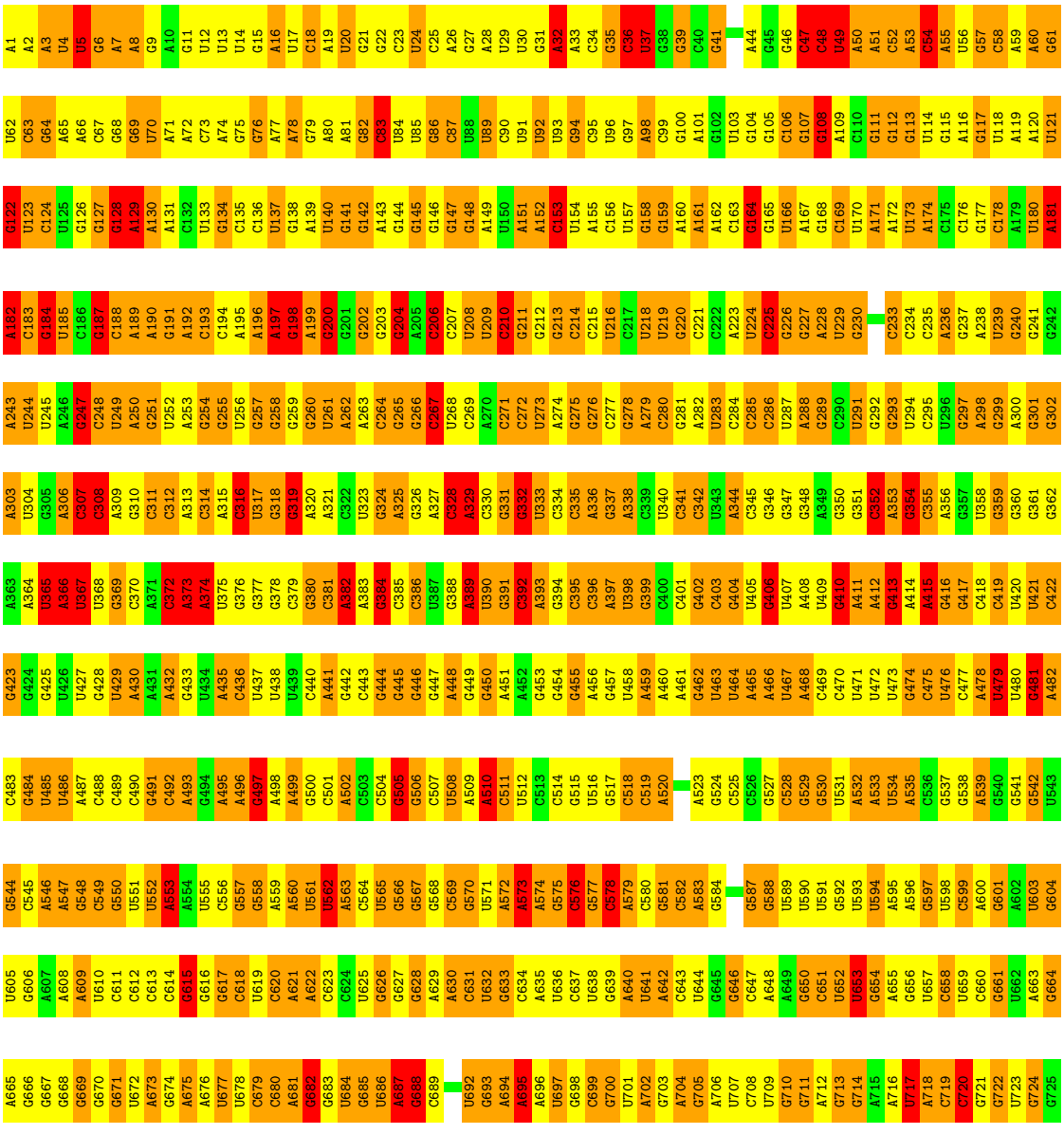
Mol	Chain	Residues	Atoms					AltConf
60	BB	1	Total	C	N	O	S	0
			10	6	1	2	1	

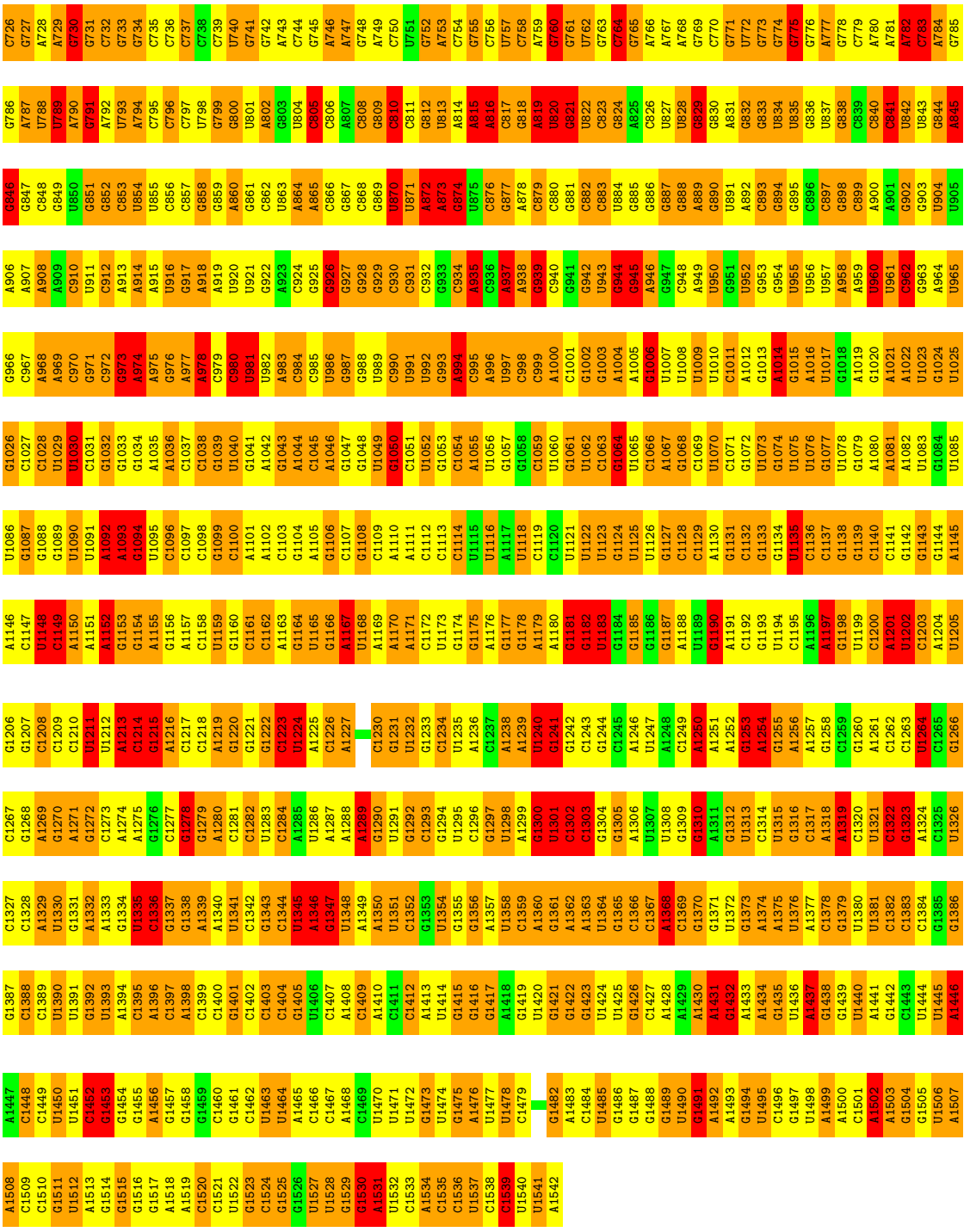
3 Residue-property plots (i)

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.

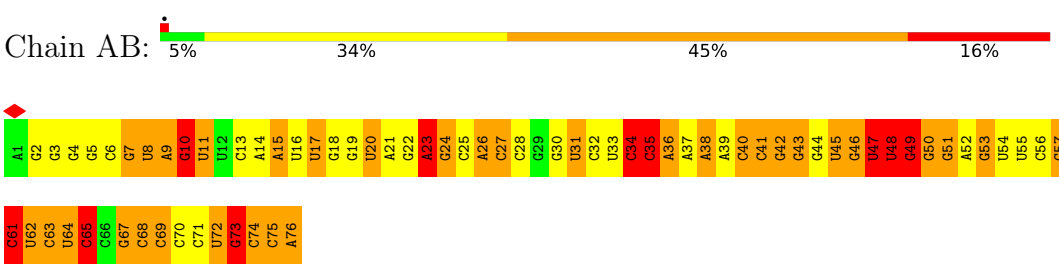
- Molecule 1: 16S ribosomal RNA

Chain AA: 8% 39% 43% 11%



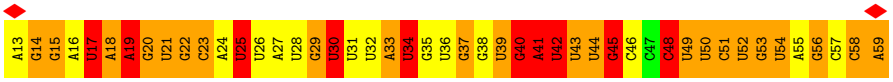


• Molecule 2: A site tRNA



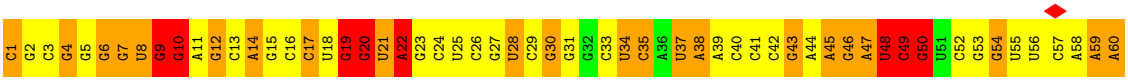
• Molecule 3: mRNA

Chain AC:



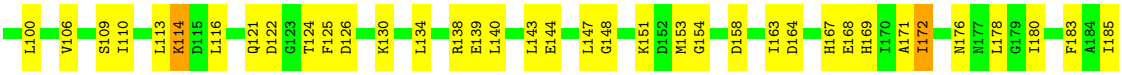
• Molecule 4: P site tRNA

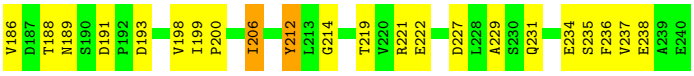
Chain AD:



• Molecule 5: 30S ribosomal protein S2

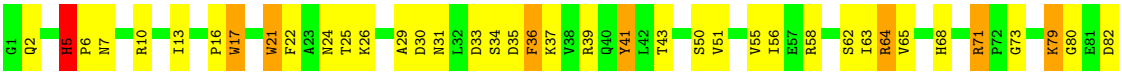
Chain AE:

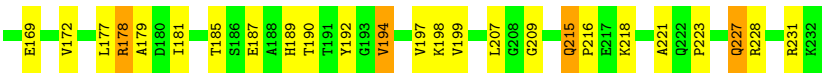




• Molecule 6: 30S ribosomal protein S3

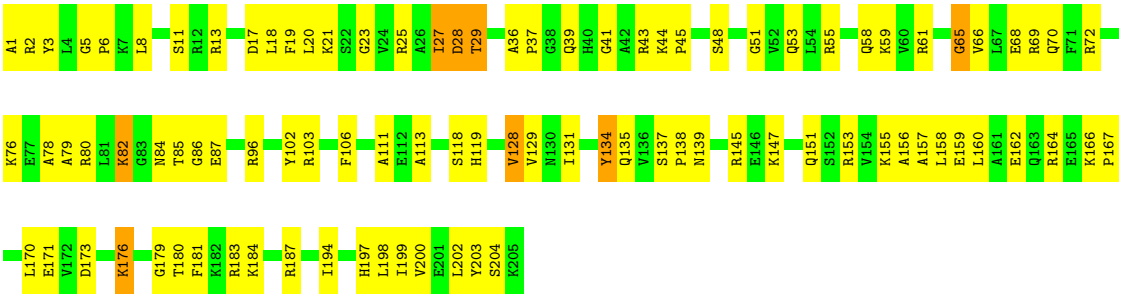
Chain AF:





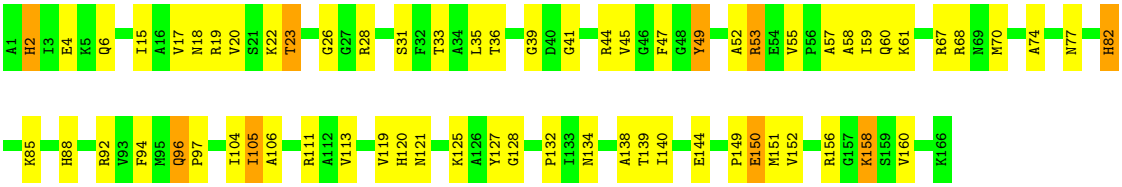
• Molecule 7: 30S ribosomal protein S4

Chain AG:



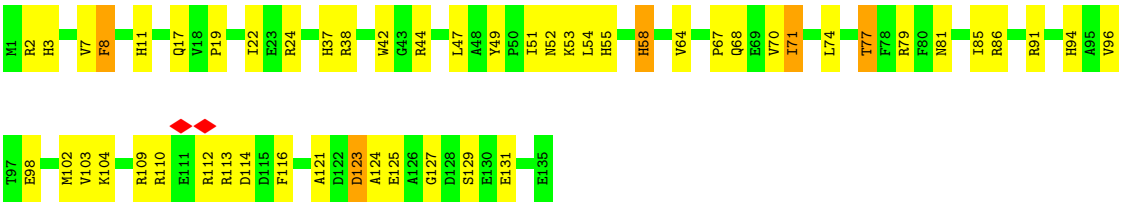
• Molecule 8: 30S ribosomal protein S5

Chain AH:



• Molecule 9: 30S ribosomal protein S6

Chain AI:

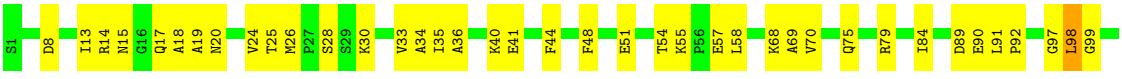


• Molecule 10: 30S ribosomal protein S7

Chain AJ:

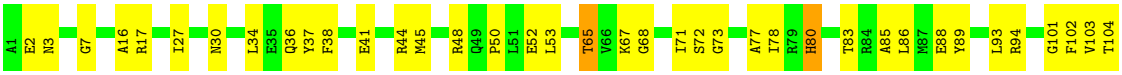
• Molecule 11: 30S ribosomal protein S8

Chain AK:



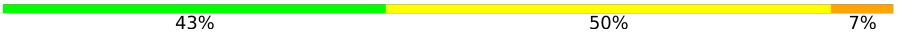
• Molecule 12: 30S ribosomal protein S9

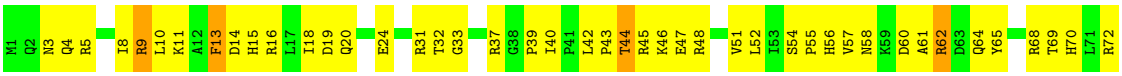
Chain AL:



• Molecule 13: 30S ribosomal protein S10

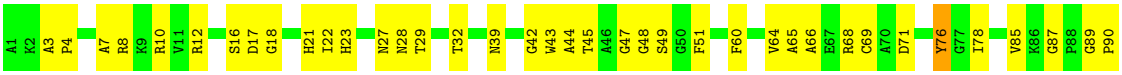
Chain AM:





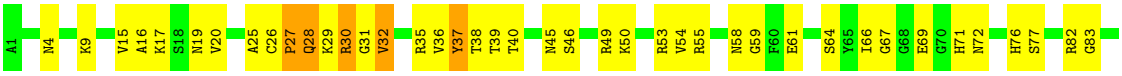
• Molecule 14: 30S ribosomal protein S11

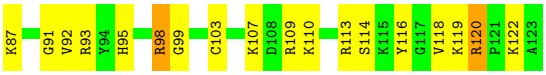
Chain AN:



• Molecule 15: 30S ribosomal protein S12

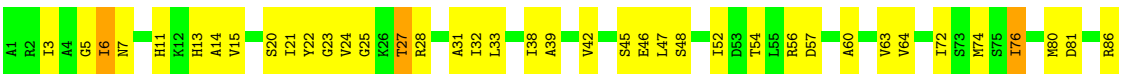
Chain AO:





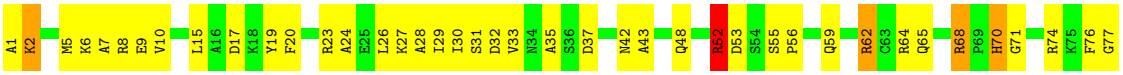
• Molecule 16: 30S ribosomal protein S13

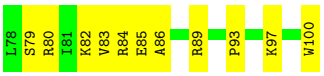
Chain AP:



• Molecule 17: 30S ribosomal protein S14

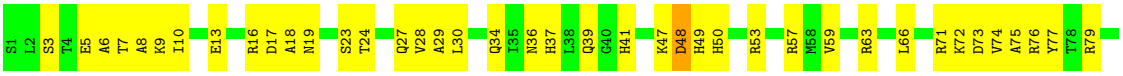
Chain AQ:





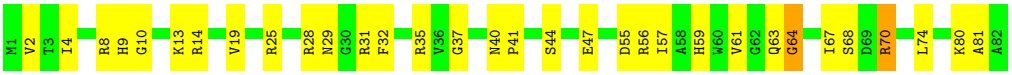
• Molecule 18: 30S ribosomal protein S15

Chain AR:



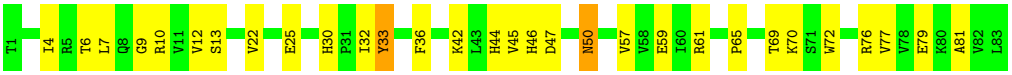
• Molecule 19: 30S ribosomal protein S16

Chain AS:



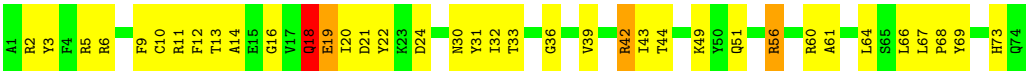
• Molecule 20: 30S ribosomal protein S17

Chain AT:



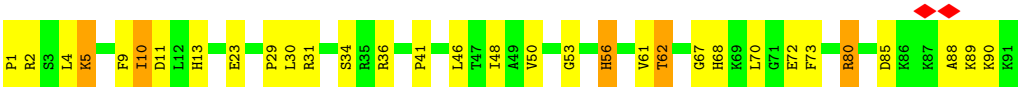
• Molecule 21: 30S ribosomal protein S18

Chain AU:



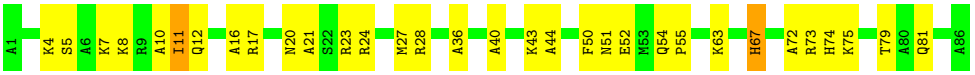
• Molecule 22: 30S ribosomal protein S19

Chain AV:



• Molecule 23: 30S ribosomal protein S20

Chain AW:

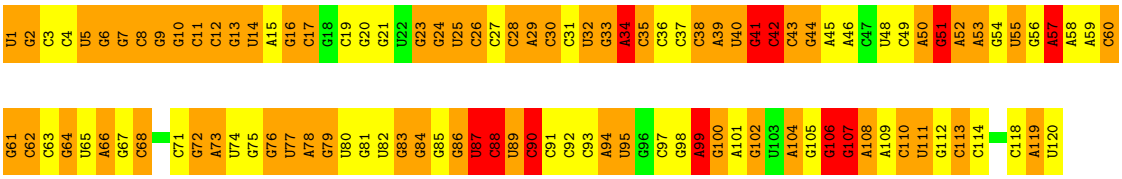


• Molecule 24: 30S ribosomal protein S21

Chain AX:

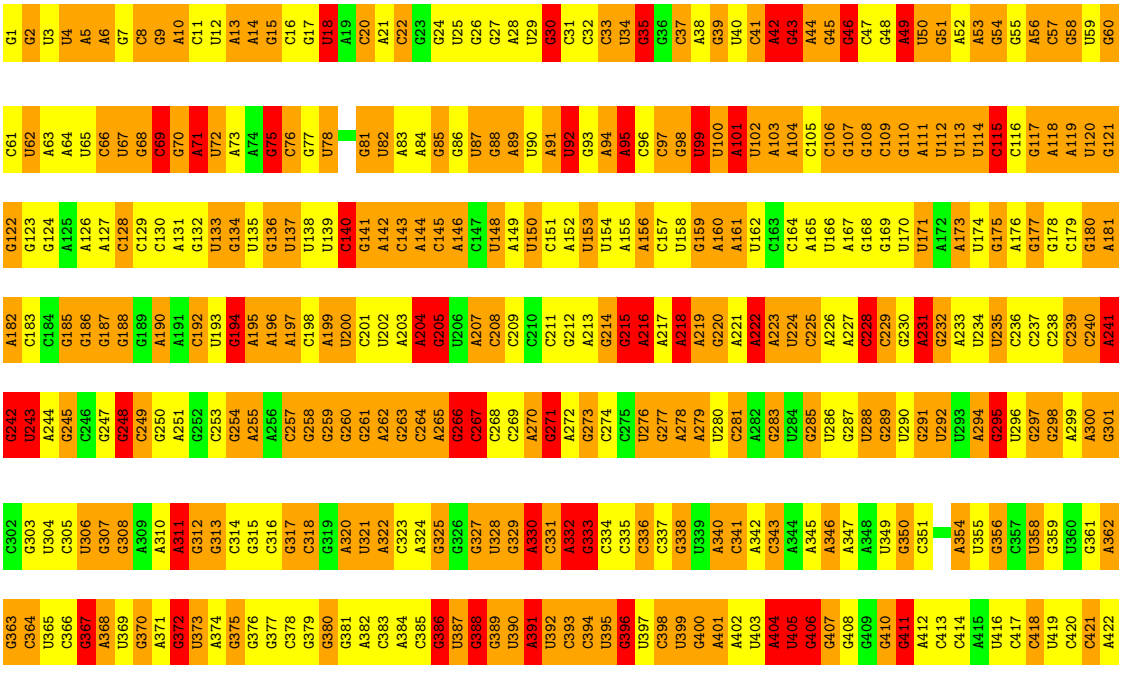
• Molecule 25: 5S ribosomal RNA

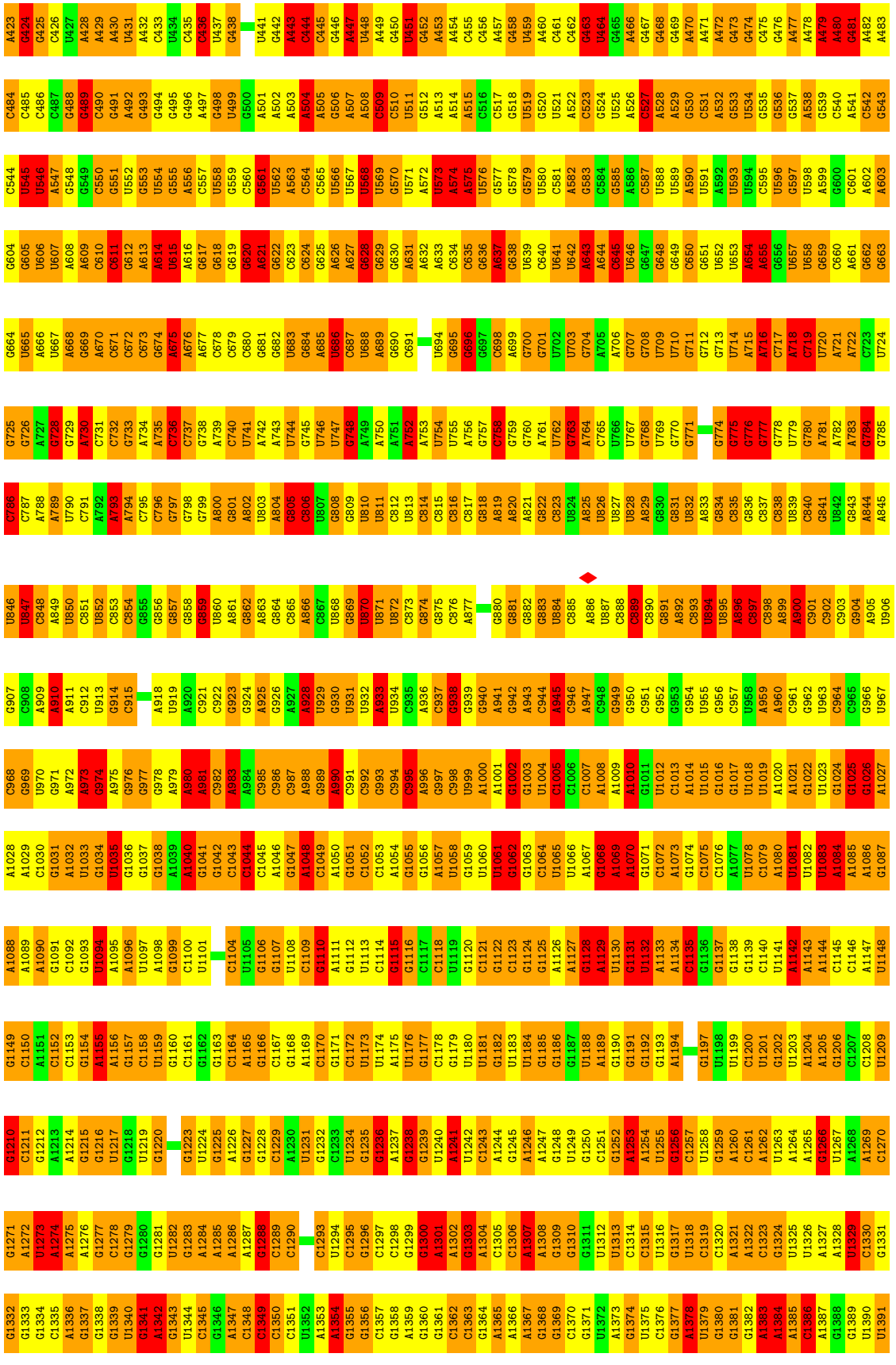
Chain BA:

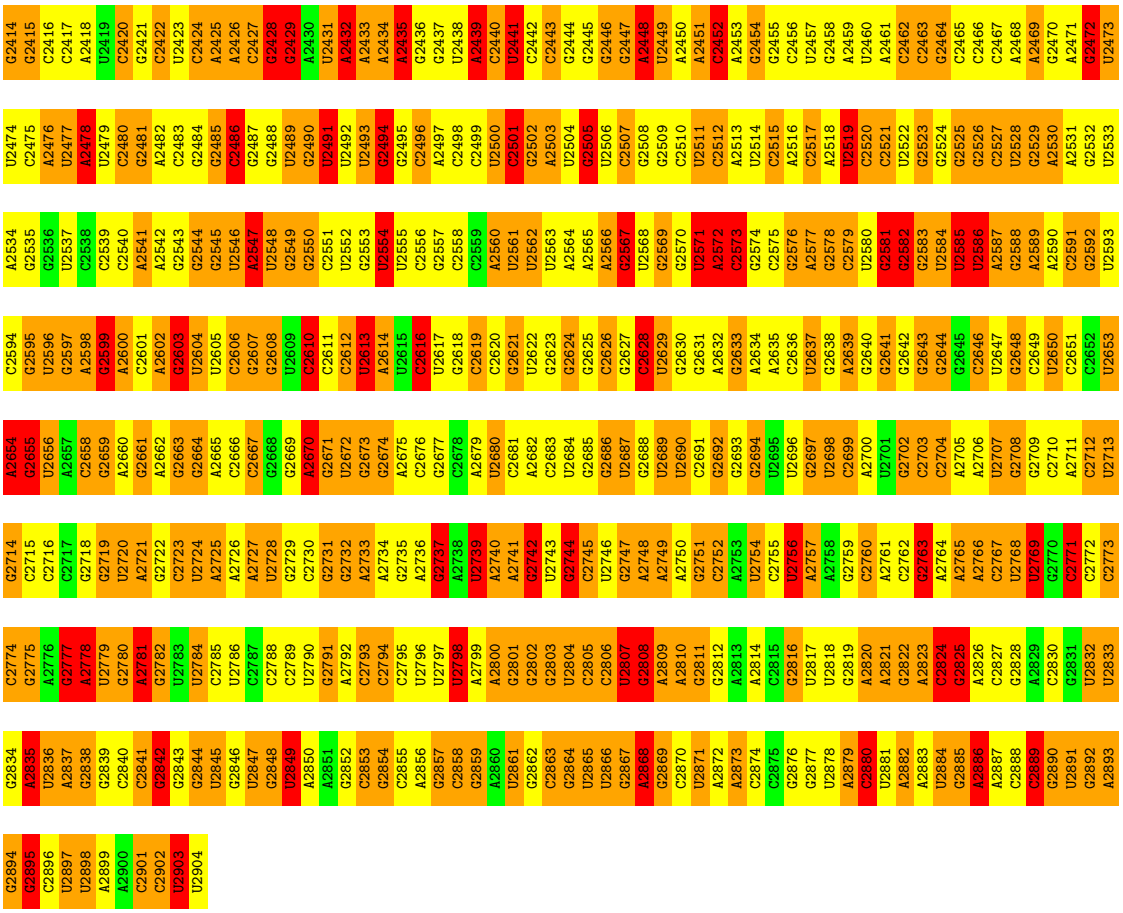


• Molecule 26: 23S ribosomal RNA

Chain BB:

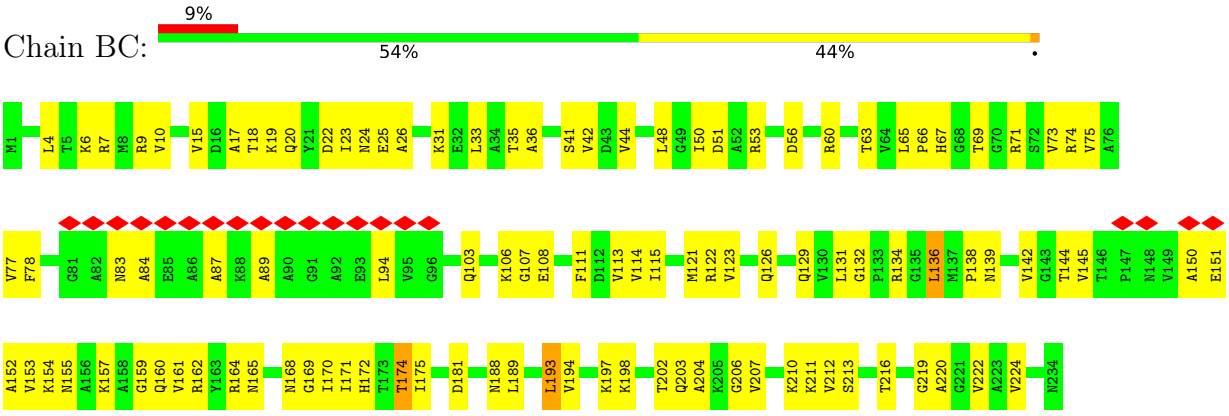






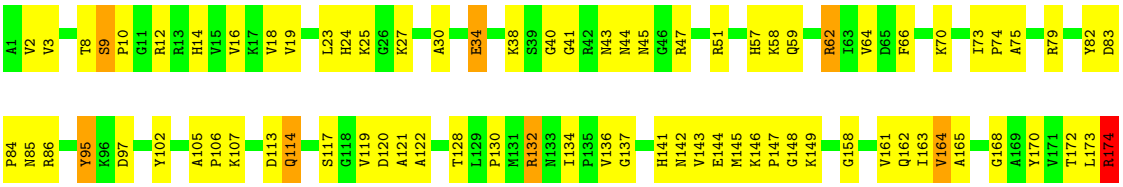
• Molecule 27: 50S ribosomal protein L1

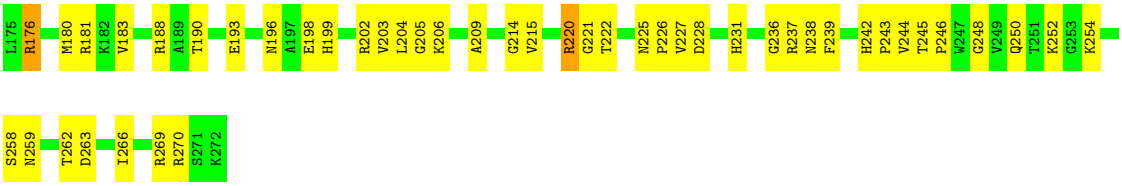
Chain BC:



• Molecule 28: 50S ribosomal protein L2

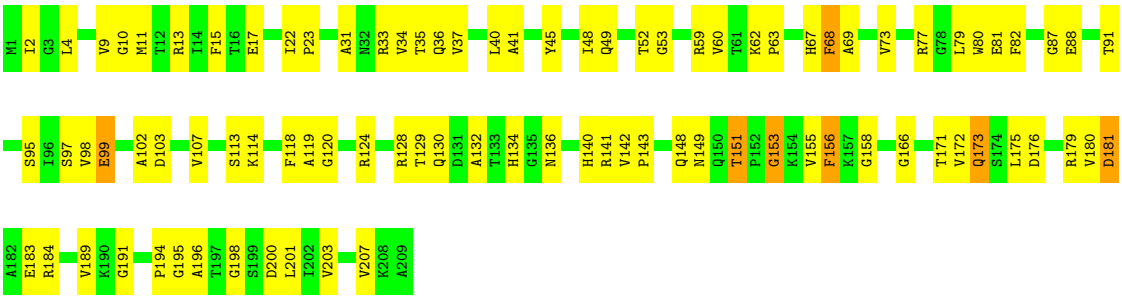
Chain BD:





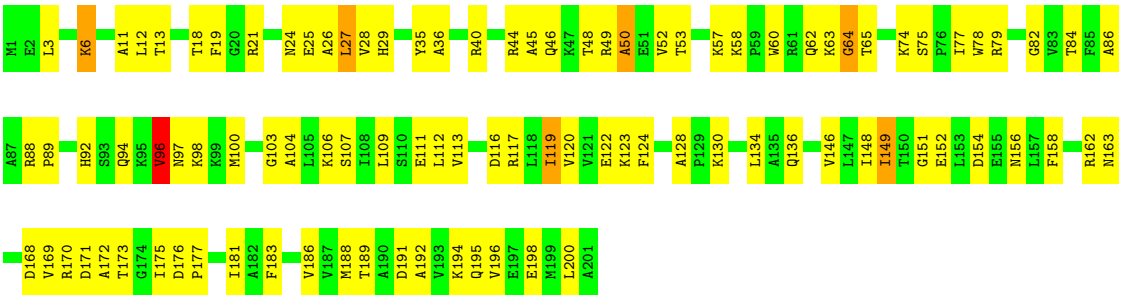
• Molecule 29: 50S ribosomal protein L3

Chain BE:



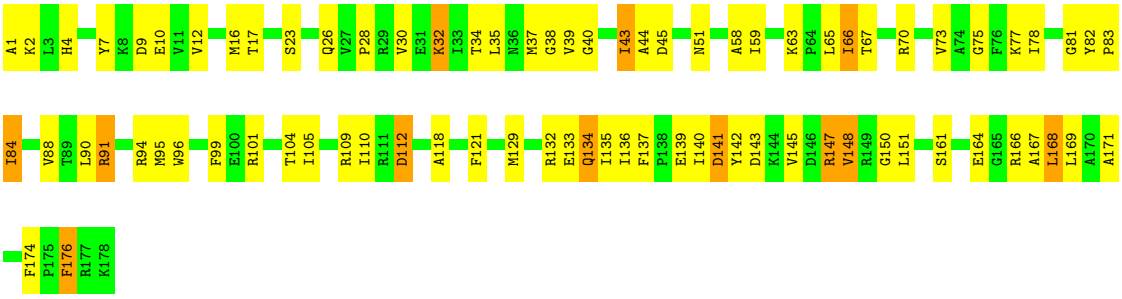
• Molecule 30: 50S ribosomal protein L4

Chain BF:



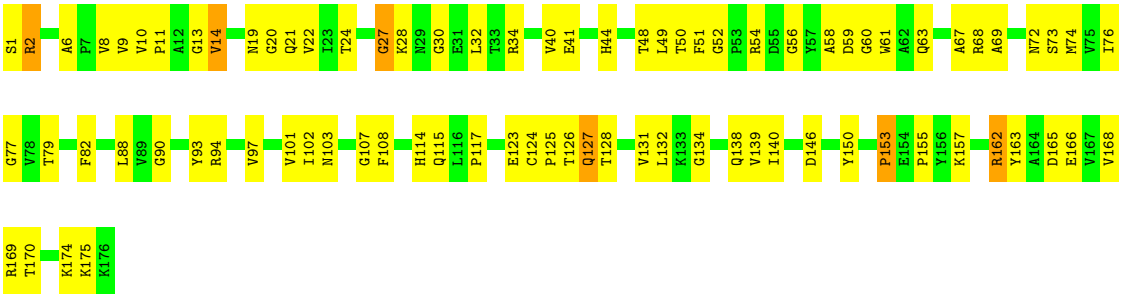
• Molecule 31: 50S ribosomal protein L5

Chain BG:



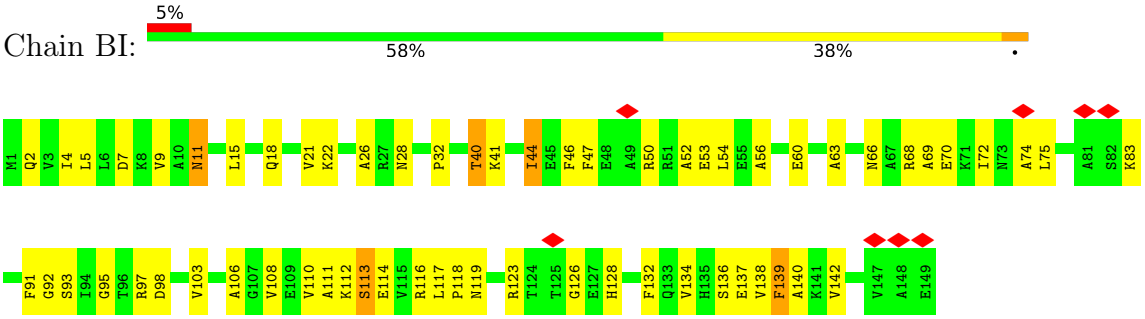
• Molecule 32: 50S ribosomal protein L6

Chain BH:



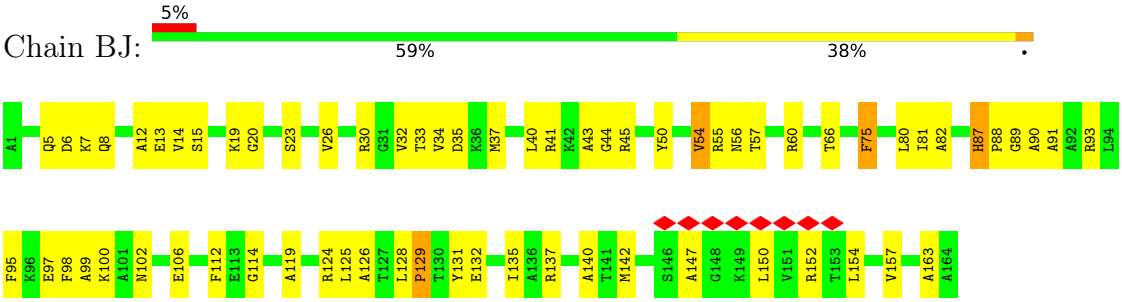
• Molecule 33: 50S ribosomal protein L9

Chain BI:



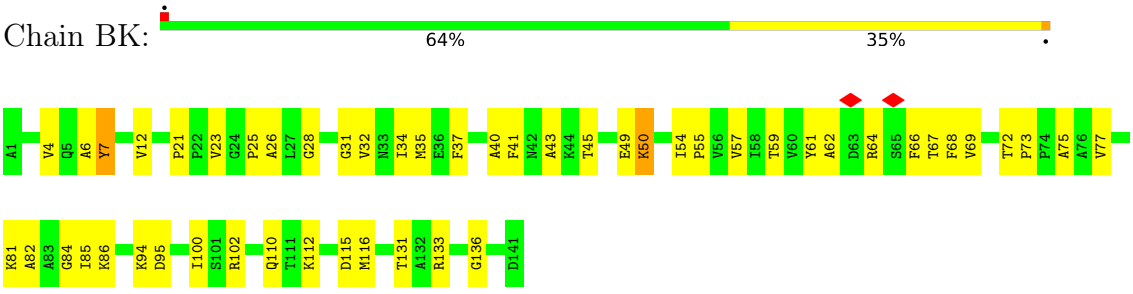
• Molecule 34: 50S ribosomal protein L10

Chain BJ:



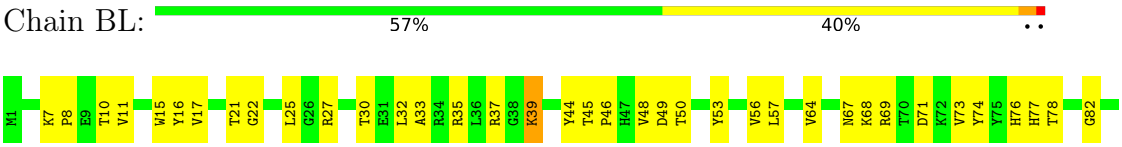
• Molecule 35: 50S ribosomal protein L11

Chain BK:



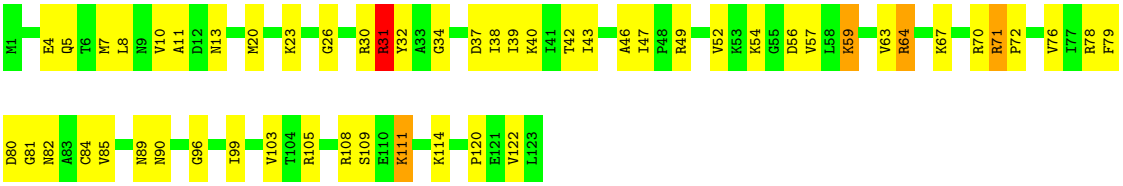
• Molecule 36: 50S ribosomal protein L13

Chain BL:



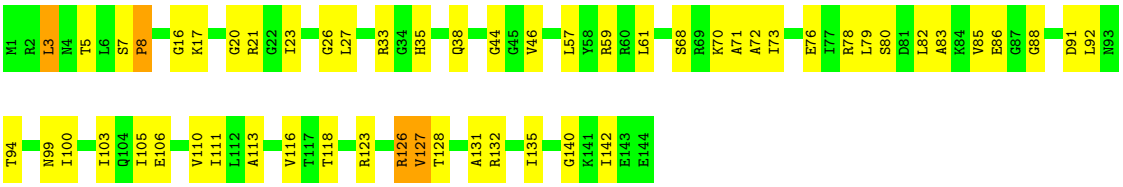
• Molecule 37: 50S ribosomal protein L14

Chain BM:



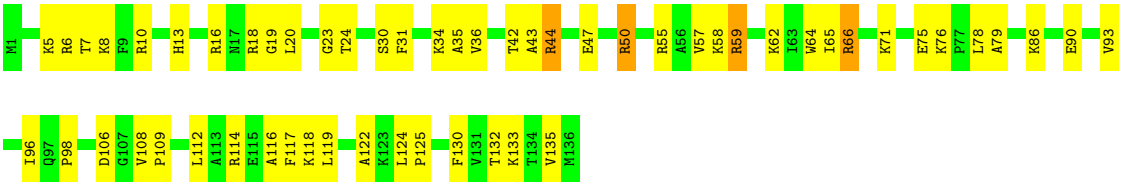
• Molecule 38: 50S ribosomal protein L15

Chain BN:



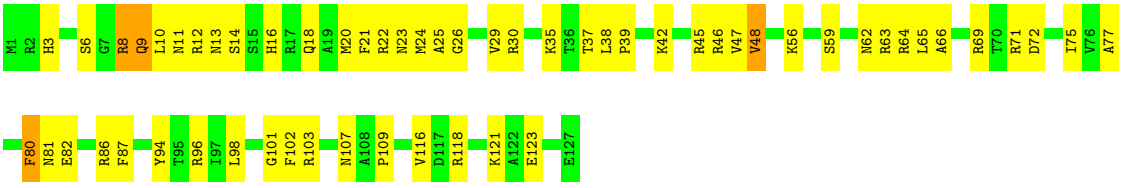
• Molecule 39: 50S ribosomal protein L16

Chain BO:



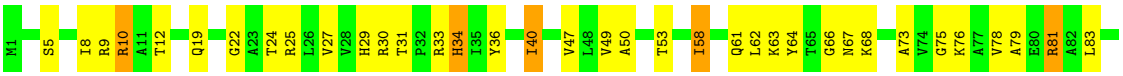
• Molecule 40: 50S ribosomal protein L17

Chain BP:



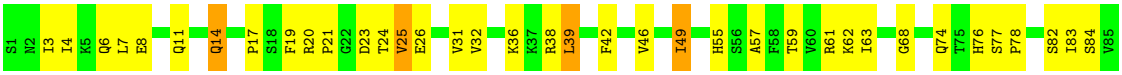
• Molecule 41: 50S ribosomal protein L18

Chain BQ:



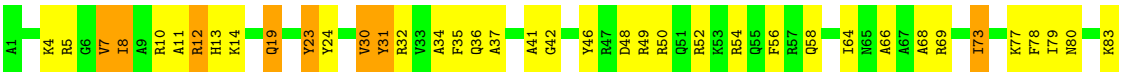
• Molecule 42: 50S ribosomal protein L19

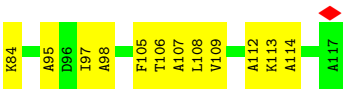
Chain BR:



• Molecule 43: 50S ribosomal protein L20

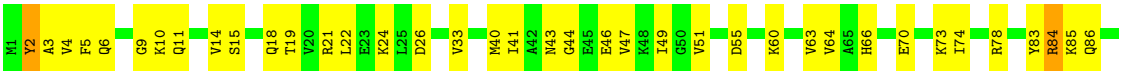
Chain BS:

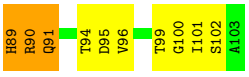




• Molecule 44: 50S ribosomal protein L21

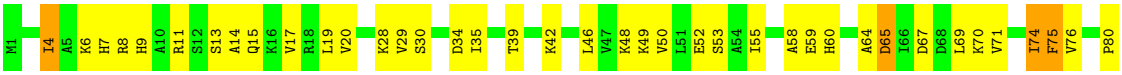
Chain BT:

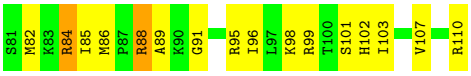




• Molecule 45: 50S ribosomal protein L22

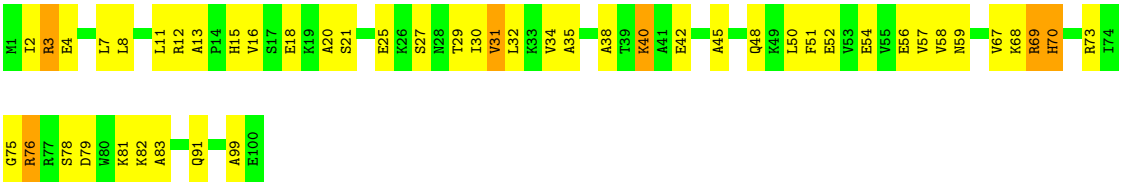
Chain BU:





• Molecule 46: 50S ribosomal protein L23

Chain BV:

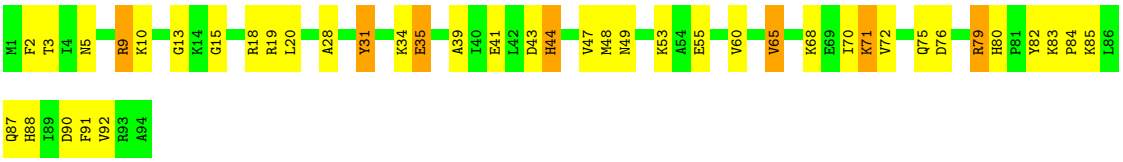


• Molecule 47: 50S ribosomal protein L24

Chain BW:

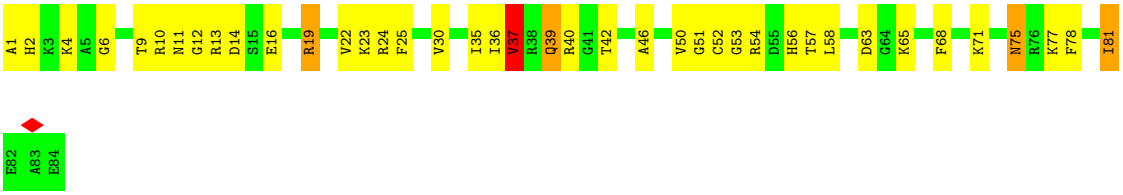
• Molecule 48: 50S ribosomal protein L25

Chain BX:



• Molecule 49: 50S ribosomal protein L27

Chain BY:

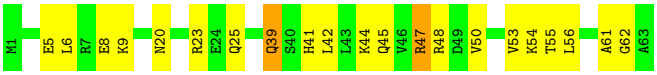


• Molecule 50: 50S ribosomal protein L28

Chain BZ:

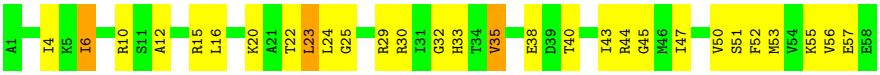
• Molecule 51: 50S ribosomal protein L29

Chain B0:



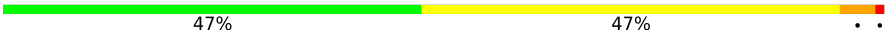
• Molecule 52: 50S ribosomal protein L30

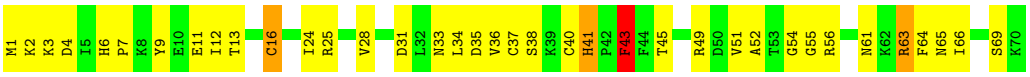
Chain B1:



• Molecule 53: 50S ribosomal protein L31

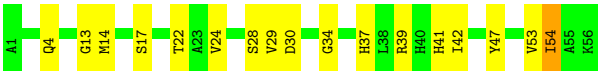
Chain B2:





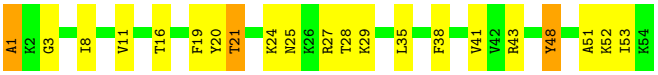
• Molecule 54: 50S ribosomal protein L32

Chain B3:



• Molecule 55: 50S ribosomal protein L33

Chain B4:

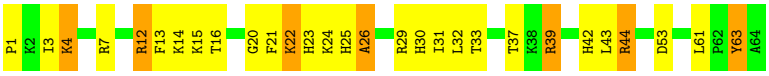


• Molecule 56: 50S ribosomal protein L34

Chain B5:

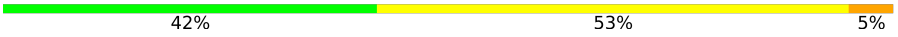
• Molecule 57: 50S ribosomal protein L35

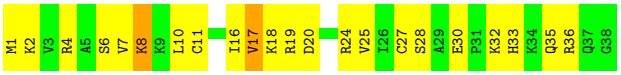
Chain B6:



• Molecule 58: 50S ribosomal protein L36

Chain B7:




M1
K2
V3
R4
A5
S6
V7
K8
K9
L10
C11
I16
V17
K18
R19
D20
R24
V25
I26
C27
S28
A29
E30
P31
K32
H33
K34
Q35
R36
Q37
G38

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	21000	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Volumes were CTF-corrected in defocus groups	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	25	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	58269	Depositor
Image detector	TVIPS TEMCAM-F415 (4k x 4k)	Depositor
Maximum map value	1.536	Depositor
Minimum map value	-0.480	Depositor
Average map value	0.031	Depositor
Map value standard deviation	0.200	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: UR3, OMC, 1MG, MA6, 2MA, PSU, FME, OMG, H2U, 4SU, 4OC, 6MZ, MIA, 2MG, OMU, 3TD, 5MC, 5MU, CH, 7MG

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	568/36769 (1.5%)	2.01	1972/57354 (3.4%)
2	AB	1.99	41/1600 (2.6%)	2.03	94/2492 (3.8%)
3	AC	1.94	22/1108 (2.0%)	2.12	74/1724 (4.3%)
4	AD	1.94	36/1721 (2.1%)	1.96	82/2683 (3.1%)
5	AE	1.92	32/1904 (1.7%)	2.41	111/2565 (4.3%)
6	AF	1.99	33/1852 (1.8%)	2.39	104/2490 (4.2%)
7	AG	2.02	34/1665 (2.0%)	2.41	101/2227 (4.5%)
8	AH	1.96	25/1239 (2.0%)	2.45	72/1664 (4.3%)
9	AI	1.93	13/1121 (1.2%)	2.37	54/1509 (3.6%)
10	AJ	1.97	28/1422 (2.0%)	2.44	90/1908 (4.7%)
11	AK	1.98	17/989 (1.7%)	2.32	48/1326 (3.6%)
12	AL	2.02	19/1048 (1.8%)	2.28	42/1394 (3.0%)
13	AM	2.04	18/835 (2.2%)	2.50	68/1127 (6.0%)
14	AN	1.99	17/982 (1.7%)	2.37	57/1323 (4.3%)
15	AO	2.05	22/969 (2.3%)	2.26	48/1300 (3.7%)
16	AP	2.10	31/919 (3.4%)	2.49	62/1226 (5.1%)
17	AQ	1.93	17/817 (2.1%)	2.33	44/1088 (4.0%)
18	AR	2.04	18/724 (2.5%)	2.50	55/966 (5.7%)
19	AS	2.04	16/659 (2.4%)	2.30	29/884 (3.3%)
20	AT	1.94	10/681 (1.5%)	2.39	34/913 (3.7%)
21	AU	2.16	18/637 (2.8%)	2.42	35/851 (4.1%)
22	AV	1.90	10/744 (1.3%)	2.31	31/995 (3.1%)
23	AW	2.00	14/676 (2.1%)	2.44	30/895 (3.4%)
24	AX	1.93	9/598 (1.5%)	2.36	33/792 (4.2%)
25	BA	1.85	36/2869 (1.3%)	2.02	149/4474 (3.3%)
26	BB	1.90	1145/69257 (1.7%)	2.00	3688/108040 (3.4%)
27	BC	1.97	35/1748 (2.0%)	2.39	105/2355 (4.5%)
28	BD	2.08	57/2131 (2.7%)	2.33	112/2863 (3.9%)
29	BE	1.95	27/1586 (1.7%)	2.38	90/2134 (4.2%)
30	BF	1.92	23/1571 (1.5%)	2.43	107/2113 (5.1%)
31	BG	1.98	18/1444 (1.2%)	2.38	74/1937 (3.8%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
32	BH	2.10	38/1343 (2.8%)	2.38	71/1816 (3.9%)
33	BI	2.07	24/1122 (2.1%)	2.32	61/1515 (4.0%)
34	BJ	1.99	18/1247 (1.4%)	2.40	76/1679 (4.5%)
35	BK	2.01	21/1046 (2.0%)	2.45	45/1410 (3.2%)
36	BL	1.95	21/1152 (1.8%)	2.48	64/1551 (4.1%)
37	BM	1.99	17/956 (1.8%)	2.36	59/1279 (4.6%)
38	BN	1.96	17/1062 (1.6%)	2.40	57/1413 (4.0%)
39	BO	1.98	22/1093 (2.0%)	2.39	48/1460 (3.3%)
40	BP	2.01	23/1021 (2.3%)	2.32	42/1364 (3.1%)
41	BQ	2.10	29/910 (3.2%)	2.35	46/1219 (3.8%)
42	BR	1.99	19/929 (2.0%)	2.26	49/1242 (3.9%)
43	BS	2.01	17/960 (1.8%)	2.55	67/1278 (5.2%)
44	BT	2.01	23/829 (2.8%)	2.22	36/1107 (3.3%)
45	BU	2.14	27/864 (3.1%)	2.40	55/1156 (4.8%)
46	BV	2.12	24/794 (3.0%)	2.39	40/1060 (3.8%)
47	BW	2.09	19/797 (2.4%)	2.21	29/1062 (2.7%)
48	BX	2.02	16/766 (2.1%)	2.31	40/1025 (3.9%)
49	BY	2.06	13/642 (2.0%)	2.43	38/848 (4.5%)
50	BZ	2.11	17/635 (2.7%)	2.38	34/848 (4.0%)
51	B0	1.87	3/510 (0.6%)	2.32	19/677 (2.8%)
52	B1	1.96	12/453 (2.6%)	2.38	26/605 (4.3%)
53	B2	2.00	14/559 (2.5%)	2.27	25/745 (3.4%)
54	B3	1.97	5/450 (1.1%)	2.31	16/599 (2.7%)
55	B4	2.00	7/448 (1.6%)	2.30	20/594 (3.4%)
56	B5	2.15	13/380 (3.4%)	2.41	23/498 (4.6%)
57	B6	2.06	12/513 (2.3%)	2.43	33/676 (4.9%)
58	B7	2.08	10/303 (3.3%)	2.34	21/397 (5.3%)
All	All	1.93	2890/164069 (1.8%)	2.11	8835/244735 (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	881
2	AB	0	40
3	AC	0	28
4	AD	0	42
5	AE	0	3
6	AF	0	11
7	AG	0	6

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Mol	Chain	#Chirality outliers	#Planarity outliers
8	AH	0	2
9	AI	0	4
10	AJ	0	4
11	AK	0	2
12	AL	0	2
14	AN	0	3
15	AO	0	4
16	AP	0	1
17	AQ	0	4
18	AR	0	1
19	AS	0	2
20	AT	0	1
21	AU	0	3
22	AV	0	2
23	AW	0	1
24	AX	0	2
25	BA	0	75
26	BB	0	1720
27	BC	0	2
28	BD	0	9
29	BE	0	4
30	BF	0	3
31	BG	0	6
32	BH	0	3
33	BI	0	1
34	BJ	0	5
35	BK	0	3
36	BL	0	2
37	BM	0	5
38	BN	0	2
39	BO	0	3
40	BP	0	4
41	BQ	0	6
42	BR	0	4
43	BS	0	6
44	BT	0	4
45	BU	0	5
46	BV	0	2
48	BX	0	4
49	BY	0	5
50	BZ	0	2
51	B0	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
52	B1	0	1
53	B2	0	4
54	B3	0	1
55	B4	0	4
56	B5	0	2
57	B6	0	2
All	All	0	2949

All (2890) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2552	OMU	O3'-P	12.14	1.68	1.56
26	BB	2104	C	P-O5'	11.58	1.77	1.59
2	AB	8	4SU	O3'-P	11.32	1.67	1.56
1	AA	1072	G	P-O5'	10.72	1.75	1.59
13	AM	40	ILE	CA-C	10.45	1.61	1.53
26	BB	2677	G	O3'-P	10.06	1.76	1.61
28	BD	18	VAL	CA-CB	9.93	1.65	1.54
26	BB	1695	G	C2'-O2'	-9.86	1.27	1.42
26	BB	1922	G	P-O5'	9.74	1.74	1.59
7	AG	119	HIS	ND1-CE1	9.73	1.42	1.32
35	BK	54	ILE	CA-C	9.64	1.60	1.53
26	BB	1114	C	C4'-O4'	-9.39	1.31	1.45
28	BD	83	ASP	C-N	9.35	1.41	1.33
26	BB	631	A	O5'-C5'	-9.26	1.28	1.42
26	BB	744	U	P-O5'	9.12	1.73	1.59
11	AK	15	ASN	CA-C	9.12	1.65	1.52
5	AE	93	HIS	CE1-NE2	9.10	1.41	1.32
26	BB	2008	C	C4'-O4'	-9.09	1.31	1.45
26	BB	1567	G	C4'-O4'	-9.05	1.32	1.45
46	BV	42	GLU	C-N	8.96	1.44	1.33
1	AA	1188	A	P-O5'	8.94	1.73	1.59
25	BA	29	A	O3'-P	8.93	1.74	1.61
10	AJ	152	HIS	ND1-CE1	8.88	1.41	1.32
26	BB	862	G	C5'-C4'	8.75	1.64	1.51
26	BB	2212	A	C4'-O4'	-8.72	1.32	1.45
53	B2	56	ARG	N-CA	8.70	1.56	1.46
26	BB	1702	G	P-O5'	8.67	1.72	1.59
17	AQ	31	SER	CA-C	8.64	1.60	1.52
26	BB	266	G	O3'-P	8.64	1.74	1.61
1	AA	467	U	P-O5'	8.63	1.72	1.59
26	BB	2861	U	C2'-O2'	-8.59	1.29	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BH	40	VAL	N-CA	8.58	1.55	1.46
1	AA	1521	C	O3'-P	8.55	1.74	1.61
26	BB	2020	A	P-O5'	8.55	1.72	1.59
1	AA	629	A	O3'-P	8.54	1.74	1.61
1	AA	419	C	P-O5'	8.54	1.72	1.59
15	AO	20	VAL	N-CA	8.53	1.53	1.46
26	BB	2260	C	P-O5'	8.52	1.72	1.59
37	BM	103	VAL	CA-CB	8.52	1.63	1.54
26	BB	2510	C	O3'-P	8.51	1.74	1.61
4	AD	22	A	C4'-O4'	-8.50	1.33	1.45
25	BA	61	G	O3'-P	8.50	1.73	1.61
26	BB	2699	C	P-O5'	8.47	1.72	1.59
26	BB	2750	A	P-O5'	8.43	1.72	1.59
31	BG	105	ILE	CA-C	8.40	1.63	1.52
44	BT	10	LYS	N-CA	-8.36	1.36	1.45
6	AF	218	LYS	CA-C	8.35	1.63	1.52
38	BN	78	ARG	NE-CZ	8.35	1.42	1.33
22	AV	73	PHE	CA-C	-8.34	1.42	1.52
6	AF	216	PRO	N-CA	-8.33	1.37	1.47
5	AE	76	SER	CA-C	8.31	1.63	1.52
26	BB	2264	C	C4'-O4'	-8.30	1.33	1.45
47	BW	23	LYS	CA-C	8.30	1.62	1.52
55	B4	29	LYS	CA-C	8.28	1.63	1.52
26	BB	2768	U	O3'-P	8.27	1.73	1.61
28	BD	163	ILE	CA-CB	8.27	1.63	1.54
36	BL	15	TRP	CA-C	8.27	1.62	1.52
26	BB	519	U	P-O5'	8.26	1.72	1.59
1	AA	716	A	C2'-O2'	-8.26	1.30	1.42
26	BB	1391	U	C3'-O3'	8.26	1.55	1.43
42	BR	57	ALA	CA-C	8.25	1.62	1.52
26	BB	684	G	C4'-O4'	-8.23	1.33	1.45
26	BB	1995	U	C4'-O4'	-8.23	1.33	1.45
1	AA	1522	U	P-O5'	8.23	1.72	1.59
26	BB	466	A	O3'-P	8.23	1.73	1.61
7	AG	96	ARG	CA-C	8.22	1.63	1.52
26	BB	404	A	P-O5'	8.21	1.72	1.59
26	BB	2648	G	P-O5'	8.21	1.72	1.59
1	AA	1045	C	P-O5'	8.19	1.72	1.59
49	BY	56	HIS	CG-ND1	8.17	1.47	1.38
1	AA	1069	C	O3'-P	8.17	1.73	1.61
21	AU	39	VAL	CA-C	8.15	1.60	1.52
26	BB	2600	A	C4'-O4'	-8.15	1.33	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	BX	15	GLY	CA-C	8.15	1.60	1.52
4	AD	8	4SU	O3'-P	8.14	1.64	1.56
32	BH	24	THR	CA-C	8.14	1.62	1.52
29	BE	4	LEU	N-CA	8.13	1.56	1.46
7	AG	159	GLU	CA-C	8.10	1.63	1.52
26	BB	1814	G	P-O5'	8.09	1.71	1.59
26	BB	2756	U	C4'-O4'	-8.09	1.33	1.45
26	BB	1127	A	C4'-O4'	-8.07	1.33	1.45
26	BB	1833	C	C2'-O2'	-8.06	1.30	1.42
6	AF	198	LYS	CA-CB	8.06	1.64	1.53
31	BG	136	ILE	CA-CB	8.01	1.63	1.54
1	AA	804	U	C5'-C4'	8.01	1.63	1.51
56	B5	37	LYS	CA-C	8.00	1.63	1.52
31	BG	38	GLY	N-CA	7.98	1.54	1.45
43	BS	42	GLY	CA-C	7.97	1.61	1.51
10	AJ	4	ARG	CA-C	7.96	1.62	1.52
55	B4	29	LYS	C-N	7.95	1.40	1.33
35	BK	4	VAL	CA-CB	7.95	1.65	1.54
5	AE	148	GLY	CA-C	7.94	1.61	1.51
30	BF	26	ALA	C-O	-7.94	1.14	1.24
7	AG	23	GLY	N-CA	7.93	1.57	1.45
26	BB	279	A	C5'-C4'	7.92	1.63	1.51
48	BX	88	HIS	CG-ND1	7.91	1.47	1.38
1	AA	475	C	P-O5'	7.91	1.71	1.59
4	AD	68	C	C4'-C3'	7.91	1.64	1.52
12	AL	106	ASP	CA-C	7.89	1.63	1.53
32	BH	68	ARG	CA-C	7.89	1.62	1.52
6	AF	194	VAL	CA-C	7.89	1.61	1.52
47	BW	60	LYS	N-CA	7.89	1.55	1.46
13	AM	64	GLN	CA-C	7.88	1.62	1.52
43	BS	19	GLN	CA-CB	7.88	1.66	1.53
1	AA	672	U	O3'-P	7.87	1.73	1.61
1	AA	1445	U	C4'-O4'	-7.86	1.33	1.45
26	BB	1816	C	C5'-C4'	7.85	1.63	1.51
21	AU	2	ARG	CA-C	7.84	1.62	1.52
26	BB	1131	G	P-O5'	-7.84	1.48	1.59
26	BB	1723	G	C4'-C3'	7.83	1.64	1.52
26	BB	722	A	O3'-P	7.82	1.72	1.61
19	AS	80	LYS	CA-C	7.82	1.60	1.52
26	BB	1315	C	P-O5'	7.80	1.71	1.59
26	BB	2359	C	P-O5'	7.79	1.71	1.59
26	BB	667	U	O3'-P	7.78	1.72	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2568	U	C4'-O4'	-7.78	1.33	1.45
1	AA	1479	C	P-O5'	7.78	1.71	1.59
1	AA	974	A	C4'-O4'	-7.76	1.34	1.45
49	BY	12	GLY	CA-C	7.75	1.59	1.52
1	AA	1451	U	C4'-O4'	-7.74	1.33	1.45
26	BB	1817	G	P-O5'	7.73	1.71	1.59
1	AA	845	A	P-O5'	7.72	1.71	1.59
15	AO	95	HIS	ND1-CE1	7.72	1.40	1.32
15	AO	30	ARG	NE-CZ	7.71	1.41	1.33
26	BB	2525	G	C4'-O4'	-7.70	1.33	1.45
26	BB	2358	A	P-O5'	7.70	1.71	1.59
3	AC	22	G	O3'-P	7.69	1.72	1.61
26	BB	1128	G	O3'-P	7.69	1.72	1.61
1	AA	1090	U	C4'-O4'	-7.68	1.34	1.45
1	AA	861	G	P-O5'	7.68	1.71	1.59
21	AU	42	ARG	N-CA	-7.68	1.37	1.46
31	BG	65	LEU	CA-C	7.67	1.62	1.52
26	BB	1563	U	P-O5'	7.64	1.71	1.59
26	BB	1849	G	O3'-P	7.63	1.72	1.61
15	AO	71	HIS	CE1-NE2	7.62	1.40	1.32
1	AA	958	A	C5'-C4'	7.62	1.62	1.51
26	BB	283	G	C4'-O4'	-7.62	1.34	1.45
20	AT	30	HIS	CG-ND1	7.61	1.46	1.38
27	BC	48	LEU	C-N	7.59	1.38	1.33
40	BP	38	LEU	N-CA	7.59	1.53	1.46
1	AA	969	A	P-O5'	7.57	1.71	1.59
58	B7	4	ARG	CD-NE	7.57	1.56	1.46
1	AA	146	G	P-O5'	7.57	1.71	1.59
12	AL	89	TYR	CA-CB	7.56	1.64	1.53
33	BI	140	ALA	CA-C	7.56	1.62	1.52
26	BB	2661	G	C5'-C4'	7.56	1.62	1.51
7	AG	25	ARG	CA-C	-7.55	1.43	1.52
26	BB	2650	U	C5'-C4'	7.55	1.62	1.51
47	BW	48	VAL	CA-C	7.55	1.60	1.52
56	B5	16	HIS	N-CA	7.54	1.53	1.46
25	BA	97	C	C4'-O4'	-7.53	1.34	1.45
12	AL	7	GLY	CA-C	7.53	1.59	1.52
1	AA	1449	C	C4'-O4'	-7.52	1.34	1.45
26	BB	248	G	C4'-O4'	-7.52	1.34	1.45
57	B6	42	HIS	ND1-CE1	7.51	1.40	1.32
3	AC	32	U	P-O5'	7.51	1.71	1.59
29	BE	17	GLU	N-CA	7.51	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	BO	58	LYS	CA-C	7.50	1.60	1.53
1	AA	705	G	P-O5'	7.49	1.71	1.59
1	AA	992	U	C4'-O4'	-7.49	1.34	1.45
26	BB	2643	G	C5'-C4'	7.48	1.62	1.51
26	BB	2344	U	C4'-C3'	-7.48	1.42	1.53
1	AA	135	C	O5'-C5'	-7.48	1.31	1.42
26	BB	2416	C	P-O5'	7.48	1.71	1.59
26	BB	297	G	P-O5'	7.47	1.71	1.59
26	BB	283	G	C5'-C4'	7.46	1.62	1.51
26	BB	1118	C	P-O5'	7.46	1.71	1.59
8	AH	119	VAL	CA-C	7.46	1.62	1.52
26	BB	1930	G	P-O5'	7.46	1.71	1.59
26	BB	820	A	P-O5'	7.45	1.71	1.59
1	AA	64	G	C3'-O3'	-7.45	1.31	1.43
1	AA	569	C	P-O5'	7.42	1.70	1.59
10	AJ	34	LYS	CA-C	7.42	1.61	1.53
1	AA	1278	G	C4'-O4'	-7.41	1.34	1.45
4	AD	29	C	O3'-P	7.41	1.72	1.61
26	BB	1708	C	C4'-O4'	-7.39	1.34	1.45
26	BB	2432	A	C1'-N9	7.38	1.59	1.48
28	BD	196	ASN	CA-CB	7.38	1.64	1.53
57	B6	26	ALA	CA-C	7.38	1.62	1.52
26	BB	2131	U	O3'-P	7.38	1.72	1.61
26	BB	1600	C	C5'-C4'	7.37	1.62	1.51
26	BB	1593	A	P-O5'	7.37	1.70	1.59
26	BB	2581	G	C4'-C3'	7.37	1.64	1.53
1	AA	1188	A	C3'-O3'	7.36	1.53	1.42
26	BB	481	G	C5'-C4'	7.36	1.62	1.51
26	BB	1935	G	C5'-C4'	7.36	1.62	1.51
30	BF	64	GLY	N-CA	7.35	1.56	1.45
36	BL	21	THR	CA-C	7.35	1.61	1.52
1	AA	1203	C	C2'-O2'	7.35	1.53	1.42
16	AP	24	VAL	C-O	-7.34	1.16	1.24
26	BB	2463	C	C4'-O4'	-7.34	1.34	1.45
7	AG	37	PRO	C-O	-7.33	1.16	1.23
48	BX	60	VAL	CA-CB	7.33	1.62	1.54
42	BR	38	ARG	CA-C	7.33	1.62	1.52
43	BS	10	ARG	NE-CZ	7.32	1.41	1.33
18	AR	49	HIS	CG-ND1	7.32	1.46	1.38
26	BB	2563	U	O3'-P	7.32	1.72	1.61
11	AK	18	ALA	N-CA	7.32	1.55	1.46
21	AU	36	GLY	CA-C	7.32	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	696	G	O3'-P	7.30	1.72	1.61
45	BU	19	LEU	CA-C	7.29	1.62	1.52
48	BX	10	LYS	CA-C	7.28	1.61	1.52
25	BA	23	G	O3'-P	7.28	1.72	1.61
26	BB	160	A	P-O5'	7.27	1.70	1.59
26	BB	2686	G	C4'-O4'	-7.26	1.34	1.45
2	AB	10	G	O4'-C1'	7.25	1.52	1.41
26	BB	411	G	C4'-C3'	7.25	1.64	1.53
26	BB	37	C	P-O5'	7.25	1.70	1.59
26	BB	2076	U	O3'-P	-7.25	1.50	1.61
1	AA	1150	A	C4'-O4'	-7.24	1.34	1.45
27	BC	9	ARG	NE-CZ	7.22	1.41	1.33
26	BB	2129	C	O3'-P	7.22	1.72	1.61
10	AJ	30	MET	CA-C	7.21	1.62	1.52
26	BB	1072	C	O4'-C1'	7.21	1.52	1.41
1	AA	640	A	C2'-O2'	-7.21	1.31	1.42
26	BB	2623	G	P-O5'	7.21	1.70	1.59
26	BB	448	U	C4'-O4'	-7.20	1.35	1.45
28	BD	209	ALA	CA-C	7.20	1.62	1.52
26	BB	1061	U	C4'-O4'	-7.19	1.35	1.45
26	BB	1224	U	O3'-P	-7.19	1.50	1.61
2	AB	50	G	C2'-O2'	-7.19	1.31	1.42
26	BB	1847	A	O3'-P	-7.19	1.50	1.61
6	AF	68	HIS	CB-CG	7.19	1.60	1.50
7	AG	137	SER	CA-C	7.18	1.62	1.52
1	AA	1006	G	O5'-C5'	-7.18	1.31	1.42
3	AC	37	G	O3'-P	7.18	1.72	1.61
26	BB	910	A	C4'-O4'	-7.18	1.34	1.45
26	BB	1301	A	P-O5'	7.18	1.70	1.59
30	BF	75	SER	C-N	7.17	1.42	1.34
26	BB	2283	C	C5'-C4'	7.17	1.61	1.51
5	AE	188	THR	N-CA	7.16	1.55	1.46
21	AU	60	ARG	NE-CZ	7.16	1.41	1.33
2	AB	73	G	C4'-O4'	-7.15	1.34	1.45
1	AA	464	U	C2'-C1'	7.15	1.64	1.53
1	AA	456	A	O3'-P	7.14	1.71	1.61
26	BB	1377	G	C1'-N9	7.14	1.58	1.48
26	BB	354	A	O3'-P	7.14	1.71	1.61
26	BB	598	U	P-O5'	7.14	1.70	1.59
26	BB	761	A	P-O5'	7.14	1.70	1.59
2	AB	74	C	O3'-P	7.14	1.71	1.61
27	BC	67	HIS	CG-ND1	7.14	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	844	A	C4'-O4'	-7.13	1.34	1.45
30	BF	92	HIS	N-CA	-7.13	1.37	1.46
35	BK	45	THR	CA-C	7.13	1.61	1.52
1	AA	759	A	C4'-O4'	-7.13	1.34	1.45
26	BB	1111	A	C4'-O4'	-7.13	1.35	1.45
26	BB	375	G	P-O5'	7.12	1.70	1.59
17	AQ	35	ALA	CA-CB	7.12	1.61	1.53
26	BB	2803	G	C1'-N9	7.12	1.58	1.48
1	AA	95	C	O3'-P	7.12	1.71	1.61
1	AA	60	A	C1'-N9	7.12	1.57	1.47
26	BB	529	A	C4'-C3'	7.11	1.63	1.53
30	BF	28	VAL	CA-CB	7.11	1.62	1.54
1	AA	723	U	C4'-O4'	-7.10	1.34	1.45
1	AA	1501	C	C5'-C4'	7.10	1.61	1.51
26	BB	2633	G	O3'-P	7.10	1.71	1.61
10	AJ	1	PRO	N-CD	-7.10	1.37	1.47
34	BJ	60	ARG	N-CA	-7.10	1.37	1.46
26	BB	1290	C	C5'-C4'	7.09	1.61	1.51
12	AL	118	ARG	CA-C	7.09	1.62	1.52
5	AE	163	ILE	CA-C	7.09	1.62	1.52
26	BB	667	U	P-O5'	7.08	1.70	1.59
45	BU	96	ILE	C-O	7.08	1.31	1.24
46	BV	70	HIS	CD2-NE2	7.08	1.45	1.37
15	AO	54	VAL	CA-C	7.08	1.60	1.52
45	BU	75	PHE	CA-C	7.07	1.61	1.52
26	BB	2811	G	O5'-C5'	-7.07	1.31	1.42
26	BB	1330	C	C3'-C2'	7.07	1.63	1.52
26	BB	2219	U	P-O5'	-7.07	1.49	1.59
29	BE	62	LYS	N-CA	7.07	1.53	1.46
2	AB	6	C	C5'-C4'	7.07	1.61	1.51
26	BB	1009	A	C4'-O4'	-7.06	1.34	1.45
1	AA	37	U	C4'-O4'	-7.06	1.34	1.45
26	BB	305	C	P-O5'	7.05	1.70	1.59
26	BB	2614	A	C4'-O4'	-7.05	1.35	1.45
1	AA	979	C	C4'-O4'	-7.04	1.34	1.45
26	BB	133	U	O3'-P	7.04	1.71	1.61
10	AJ	125	ASP	N-CA	-7.04	1.37	1.46
2	AB	48	U	P-O5'	7.04	1.70	1.59
1	AA	854	U	C3'-O3'	7.04	1.52	1.42
26	BB	481	G	P-O5'	7.04	1.70	1.59
26	BB	1921	G	O4'-C1'	7.03	1.52	1.41
26	BB	429	A	C4'-O4'	-7.03	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	906	U	P-O5'	7.03	1.70	1.59
26	BB	2882	A	O5'-C5'	-7.02	1.31	1.42
29	BE	10	GLY	CA-C	7.02	1.57	1.51
26	BB	1523	U	C4'-O4'	-7.02	1.35	1.45
30	BF	128	ALA	CA-C	7.01	1.60	1.52
48	BX	87	GLN	CA-C	7.01	1.62	1.52
26	BB	1309	G	O3'-P	7.01	1.71	1.61
21	AU	24	ASP	N-CA	7.00	1.54	1.45
26	BB	1709	U	C5'-C4'	7.00	1.61	1.51
26	BB	2870	C	C4'-O4'	-7.00	1.35	1.45
26	BB	1603	A	P-O5'	7.00	1.70	1.59
26	BB	591	U	C5'-C4'	7.00	1.61	1.51
26	BB	328	U	C4'-O4'	-6.99	1.35	1.45
2	AB	34	C	P-O5'	6.99	1.70	1.59
26	BB	1455	G	C5'-C4'	6.98	1.61	1.51
26	BB	132	G	C5'-C4'	6.98	1.61	1.51
26	BB	2198	A	C5'-C4'	6.98	1.61	1.51
7	AG	187	ARG	NE-CZ	6.97	1.40	1.33
36	BL	76	HIS	CG-CD2	6.97	1.43	1.35
5	AE	73	ARG	NE-CZ	6.97	1.40	1.33
1	AA	701	U	P-O5'	6.96	1.70	1.59
26	BB	627	A	C2'-C1'	6.96	1.63	1.53
26	BB	1533	C	C5'-C4'	6.96	1.61	1.51
32	BH	150	TYR	C-N	6.96	1.43	1.33
1	AA	438	U	C4'-O4'	-6.96	1.35	1.45
26	BB	2696	U	P-O5'	6.95	1.70	1.59
8	AH	45	VAL	CA-C	6.95	1.61	1.52
23	AW	27	MET	N-CA	6.95	1.54	1.46
44	BT	91	GLN	CA-C	6.93	1.62	1.52
7	AG	19	PHE	C-N	6.93	1.43	1.33
26	BB	2255	G	C3'-C2'	6.92	1.63	1.52
36	BL	27	ARG	CD-NE	6.92	1.55	1.46
1	AA	1085	U	C5'-C4'	6.92	1.61	1.51
19	AS	37	GLY	CA-C	6.92	1.58	1.51
26	BB	1993	U	C4'-O4'	-6.92	1.35	1.45
28	BD	242	HIS	CE1-NE2	6.92	1.39	1.32
47	BW	58	VAL	CA-C	6.91	1.61	1.52
1	AA	338	A	P-O5'	6.91	1.70	1.59
26	BB	2295	C	C4'-O4'	-6.91	1.35	1.45
15	AO	66	ILE	CA-C	6.91	1.60	1.52
26	BB	403	U	C4'-O4'	-6.90	1.35	1.45
33	BI	32	PRO	N-CD	-6.90	1.38	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1486	U	C5'-C4'	6.89	1.61	1.51
26	BB	1668	A	P-O5'	6.89	1.70	1.59
31	BG	59	ILE	CA-C	6.89	1.62	1.53
1	AA	304	U	C4'-O4'	-6.89	1.35	1.45
26	BB	88	G	P-O5'	6.89	1.70	1.59
1	AA	1197	A	P-O5'	6.89	1.70	1.59
1	AA	1465	A	P-O5'	6.89	1.70	1.59
20	AT	70	LYS	CA-C	6.88	1.60	1.52
26	BB	2381	A	P-O5'	6.88	1.70	1.59
1	AA	476	U	C5'-C4'	6.88	1.61	1.51
26	BB	635	C	C4'-O4'	-6.88	1.35	1.45
45	BU	98	LYS	N-CA	-6.88	1.37	1.46
26	BB	581	C	O3'-P	6.87	1.71	1.61
26	BB	1567	G	C4'-C3'	6.87	1.63	1.53
26	BB	1685	C	O3'-P	6.87	1.71	1.61
26	BB	259	G	P-O5'	6.87	1.70	1.59
16	AP	64	VAL	CA-CB	-6.87	1.46	1.54
49	BY	58	LEU	N-CA	6.87	1.54	1.46
26	BB	2804	U	C3'-C2'	6.86	1.63	1.52
9	AI	124	ALA	N-CA	-6.86	1.37	1.46
42	BR	95	LYS	CA-C	6.86	1.60	1.52
21	AU	73	HIS	ND1-CE1	6.85	1.39	1.32
26	BB	2556	C	C5'-C4'	6.85	1.61	1.51
5	AE	58	LYS	C-O	-6.85	1.15	1.23
10	AJ	159	ARG	NE-CZ	6.85	1.40	1.33
26	BB	2111	U	C5'-C4'	6.85	1.61	1.51
26	BB	2075	U	C4'-O4'	-6.85	1.35	1.45
34	BJ	20	GLY	CA-C	6.85	1.60	1.51
39	BO	55	ARG	NE-CZ	6.84	1.40	1.33
26	BB	643	A	C4'-O4'	-6.84	1.35	1.45
1	AA	787	A	C4'-O4'	-6.84	1.35	1.45
58	B7	33	HIS	ND1-CE1	6.84	1.39	1.32
39	BO	65	ILE	N-CA	-6.84	1.38	1.46
26	BB	1345	C	C1'-N1	6.83	1.58	1.48
25	BA	83	G	O3'-P	6.83	1.71	1.61
26	BB	1182	G	O3'-P	6.83	1.71	1.61
41	BQ	95	SER	CA-C	6.83	1.61	1.52
30	BF	21	ARG	CA-C	6.83	1.61	1.52
26	BB	769	U	O4'-C1'	6.82	1.51	1.41
26	BB	1940	U	C4'-O4'	-6.82	1.35	1.45
1	AA	1515	G	C1'-N9	6.82	1.58	1.48
26	BB	565	C	O4'-C1'	6.82	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	B2	40	CYS	CA-C	6.81	1.61	1.52
1	AA	1261	A	C1'-N9	6.81	1.58	1.48
1	AA	1273	C	P-O5'	6.81	1.70	1.59
8	AH	57	ALA	N-CA	-6.81	1.38	1.46
1	AA	181	A	C5'-C4'	6.81	1.61	1.51
1	AA	327	A	C1'-N9	6.80	1.57	1.47
5	AE	34	ARG	N-CA	6.80	1.54	1.46
14	AN	42	GLY	CA-C	6.80	1.58	1.51
26	BB	218	A	P-O5'	6.80	1.70	1.59
26	BB	57	C	C3'-C2'	6.80	1.62	1.52
27	BC	216	THR	N-CA	6.79	1.54	1.45
53	B2	16	CYS	N-CA	6.79	1.54	1.46
32	BH	2	ARG	N-CA	6.79	1.54	1.46
29	BE	53	GLY	CA-C	6.79	1.58	1.52
45	BU	102	HIS	N-CA	-6.79	1.37	1.46
26	BB	742	A	P-O5'	-6.79	1.49	1.59
2	AB	7	G	C4'-O4'	-6.78	1.35	1.45
26	BB	1137	G	O3'-P	6.78	1.71	1.61
43	BS	66	ALA	C-N	6.78	1.42	1.33
4	AD	45	A	P-O5'	6.78	1.70	1.59
40	BP	12	ARG	NE-CZ	6.78	1.40	1.33
9	AI	37	HIS	CG-ND1	6.77	1.45	1.38
7	AG	204	SER	N-CA	6.77	1.54	1.46
26	BB	793	A	O3'-P	6.77	1.71	1.61
9	AI	3	HIS	ND1-CE1	6.77	1.39	1.32
44	BT	51	VAL	CA-CB	6.76	1.62	1.54
49	BY	37	VAL	CA-C	6.76	1.61	1.52
30	BF	104	ALA	C-O	6.76	1.32	1.24
41	BQ	10	ARG	CD-NE	6.76	1.55	1.46
43	BS	32	ARG	C-O	-6.76	1.16	1.24
1	AA	866	C	O4'-C1'	6.75	1.51	1.41
6	AF	185	THR	CA-C	-6.75	1.44	1.52
26	BB	573	U	P-O5'	6.75	1.69	1.59
28	BD	38	LYS	CA-C	6.75	1.61	1.52
39	BO	116	ALA	CA-CB	-6.75	1.42	1.53
26	BB	1770	G	C5'-C4'	6.74	1.61	1.51
1	AA	1330	U	O3'-P	6.74	1.71	1.61
26	BB	1738	G	P-O5'	6.74	1.69	1.59
11	AK	99	GLY	CA-C	6.74	1.60	1.52
26	BB	386	G	C5'-C4'	6.73	1.61	1.51
35	BK	95	ASP	CA-C	6.73	1.60	1.52
26	BB	1906	G	P-O5'	6.73	1.69	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2131	U	P-O5'	6.73	1.69	1.59
26	BB	1772	A	P-O5'	6.73	1.69	1.59
1	AA	345	C	C5'-C4'	6.72	1.61	1.51
26	BB	1107	G	P-O5'	-6.72	1.49	1.59
26	BB	2079	U	C4'-O4'	-6.72	1.35	1.45
26	BB	198	C	P-O5'	6.72	1.69	1.59
26	BB	2856	A	P-O5'	6.72	1.69	1.59
1	AA	243	A	C5'-C4'	6.72	1.61	1.51
1	AA	414	A	P-O5'	6.72	1.69	1.59
25	BA	17	C	C4'-O4'	-6.72	1.35	1.45
1	AA	737	C	C5'-C4'	6.71	1.61	1.51
3	AC	30	U	P-O5'	6.71	1.69	1.59
26	BB	497	A	C5'-C4'	6.71	1.61	1.51
1	AA	14	U	O3'-P	6.71	1.71	1.61
13	AM	48	ARG	NE-CZ	6.71	1.40	1.33
29	BE	171	THR	N-CA	6.70	1.54	1.45
34	BJ	90	ALA	N-CA	6.70	1.54	1.46
1	AA	943	U	P-O5'	6.70	1.69	1.59
26	BB	70	G	C4'-O4'	-6.70	1.35	1.45
32	BH	124	CYS	CA-C	6.70	1.58	1.52
26	BB	1859	U	C5'-C4'	6.70	1.61	1.51
40	BP	39	PRO	N-CA	6.70	1.56	1.47
26	BB	622	G	C5'-C4'	6.70	1.61	1.51
26	BB	1900	A	C2'-O2'	-6.70	1.32	1.42
26	BB	2550	G	C4'-O4'	-6.69	1.35	1.45
1	AA	1025	U	O5'-C5'	6.69	1.52	1.42
26	BB	2618	G	C5'-C4'	6.69	1.61	1.51
26	BB	652	U	O4'-C1'	6.69	1.51	1.41
26	BB	522	A	C5'-C4'	6.69	1.61	1.51
20	AT	12	VAL	CA-CB	6.69	1.62	1.54
26	BB	1040	A	O3'-P	6.69	1.71	1.61
27	BC	84	ALA	CA-C	6.68	1.61	1.52
57	B6	30	HIS	CG-CD2	6.68	1.43	1.35
26	BB	347	A	O3'-P	6.68	1.71	1.61
23	AW	11	ILE	CA-CB	6.68	1.62	1.54
33	BI	118	PRO	CA-C	6.68	1.60	1.52
26	BB	1590	A	P-O5'	6.67	1.69	1.59
56	B5	35	ARG	CZ-NH2	6.67	1.42	1.33
1	AA	1315	U	C1'-N1	6.67	1.58	1.48
17	AQ	70	HIS	N-CA	6.66	1.54	1.46
19	AS	25	ARG	NE-CZ	6.66	1.40	1.33
54	B3	22	THR	CA-CB	6.66	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1475	G	P-O5'	6.66	1.69	1.59
5	AE	46	VAL	CA-CB	6.66	1.62	1.54
37	BM	71	ARG	CA-C	6.66	1.61	1.52
26	BB	1296	G	C4'-O4'	-6.66	1.35	1.45
46	BV	15	HIS	CE1-NE2	6.66	1.39	1.32
48	BX	28	ALA	CA-C	6.65	1.61	1.52
32	BH	13	GLY	CA-C	6.65	1.61	1.51
26	BB	662	G	C2'-O2'	-6.64	1.32	1.42
28	BD	10	PRO	N-CA	-6.64	1.39	1.47
40	BP	86	ARG	N-CA	-6.64	1.38	1.46
2	AB	73	G	P-O5'	6.64	1.69	1.59
9	AI	49	TYR	N-CA	6.64	1.52	1.46
1	AA	816	A	O3'-P	6.64	1.71	1.61
27	BC	222	VAL	C-N	6.64	1.42	1.33
28	BD	170	TYR	N-CA	6.64	1.54	1.45
25	BA	52	A	O3'-P	6.63	1.71	1.61
26	BB	900	A	O5'-C5'	-6.63	1.32	1.42
1	AA	879	C	O4'-C1'	6.63	1.51	1.41
34	BJ	119	ALA	N-CA	6.63	1.54	1.46
25	BA	6	G	O3'-P	6.63	1.71	1.61
26	BB	1345	C	C4'-O4'	-6.63	1.35	1.45
34	BJ	100	LYS	CA-CB	6.63	1.64	1.53
26	BB	150	U	O3'-P	6.62	1.71	1.61
1	AA	1194	U	C5'-C4'	6.62	1.61	1.51
6	AF	96	VAL	CA-CB	6.62	1.62	1.54
26	BB	1261	C	P-O5'	6.62	1.69	1.59
11	AK	14	ARG	CD-NE	6.62	1.55	1.46
26	BB	468	G	C2'-O2'	-6.62	1.32	1.42
26	BB	2335	A	C3'-C2'	6.62	1.62	1.52
28	BD	137	GLY	CA-C	6.62	1.61	1.51
47	BW	75	ALA	CA-C	6.62	1.61	1.52
11	AK	25	THR	N-CA	6.62	1.53	1.45
30	BF	154	ASP	N-CA	-6.62	1.38	1.46
1	AA	1403	C	C3'-C2'	6.61	1.62	1.52
26	BB	1454	C	C5'-C4'	6.61	1.61	1.51
40	BP	63	ARG	NE-CZ	6.61	1.40	1.33
26	BB	21	A	P-O5'	6.60	1.69	1.59
25	BA	30	C	O3'-P	6.60	1.71	1.61
26	BB	2486	C	O3'-P	6.60	1.71	1.61
26	BB	2317	A	C5'-C4'	6.59	1.61	1.51
30	BF	151	GLY	CA-C	6.59	1.61	1.51
40	BP	107	ASN	CA-C	6.59	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	528	C	C2'-O2'	6.59	1.52	1.42
26	BB	1475	G	C5'-C4'	6.59	1.61	1.51
33	BI	66	ASN	N-CA	-6.59	1.38	1.46
8	AH	20	VAL	CA-CB	6.59	1.62	1.54
29	BE	52	THR	CA-C	6.59	1.60	1.52
46	BV	20	ALA	CA-C	6.59	1.61	1.52
16	AP	11	HIS	CA-CB	6.59	1.63	1.53
26	BB	2074	U	P-O5'	6.58	1.69	1.59
21	AU	56	ARG	C-N	6.58	1.43	1.34
26	BB	2676	C	C1'-N1	6.58	1.58	1.48
19	AS	81	ALA	CA-C	6.58	1.61	1.52
1	AA	903	G	P-O5'	-6.58	1.49	1.59
1	AA	1435	G	C2'-C1'	-6.58	1.43	1.53
27	BC	211	LYS	N-CA	6.58	1.54	1.45
30	BF	3	LEU	CA-C	6.58	1.60	1.52
1	AA	1183	U	C1'-N1	6.57	1.57	1.47
41	BQ	25	ARG	CZ-NH1	6.57	1.42	1.32
1	AA	989	U	O5'-C5'	-6.57	1.32	1.42
47	BW	44	HIS	CA-CB	6.57	1.61	1.52
24	AX	41	THR	CB-OG1	-6.56	1.33	1.43
10	AJ	131	GLY	C-O	6.56	1.29	1.23
42	BR	100	ARG	NE-CZ	6.56	1.40	1.33
26	BB	1284	A	P-O5'	6.55	1.69	1.59
26	BB	2202	U	C4'-O4'	-6.55	1.35	1.45
29	BE	11	MET	CA-C	6.55	1.60	1.52
1	AA	489	C	C4'-O4'	-6.55	1.35	1.45
26	BB	1557	C	C5'-C4'	6.55	1.61	1.51
39	BO	24	THR	CA-C	6.55	1.61	1.52
1	AA	146	G	C3'-O3'	6.54	1.51	1.42
1	AA	973	G	C3'-O3'	6.54	1.51	1.42
26	BB	2700	A	P-O5'	6.54	1.69	1.59
16	AP	5	GLY	C-N	6.54	1.39	1.33
26	BB	2056	G	P-O5'	6.54	1.69	1.59
40	BP	11	ASN	CA-C	6.54	1.62	1.52
26	BB	2123	G	C4'-O4'	-6.54	1.35	1.45
44	BT	85	LYS	N-CA	6.53	1.54	1.46
47	BW	83	GLY	N-CA	6.53	1.50	1.44
18	AR	50	HIS	CD2-NE2	6.53	1.45	1.37
26	BB	158	U	C5'-C4'	6.53	1.61	1.51
26	BB	534	U	C4'-O4'	-6.53	1.35	1.45
32	BH	163	TYR	CA-C	6.53	1.60	1.52
1	AA	1227	A	O5'-C5'	-6.53	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	271	G	P-O5'	6.53	1.69	1.59
2	AB	72	U	C4'-O4'	-6.53	1.36	1.45
26	BB	822	G	C5'-C4'	6.52	1.61	1.51
35	BK	133	ARG	CA-C	6.52	1.61	1.52
26	BB	591	U	P-O5'	6.52	1.69	1.59
26	BB	2343	U	C4'-O4'	-6.52	1.35	1.45
1	AA	181	A	C4'-O4'	-6.51	1.36	1.45
26	BB	1252	G	O4'-C1'	6.51	1.51	1.42
26	BB	1404	C	P-O5'	6.50	1.69	1.59
21	AU	16	GLY	N-CA	6.50	1.52	1.45
26	BB	946	C	C4'-O4'	-6.50	1.35	1.45
26	BB	1152	C	C1'-N1	6.50	1.58	1.48
27	BC	63	THR	CA-C	6.50	1.60	1.52
39	BO	130	PHE	CA-C	6.50	1.61	1.52
1	AA	1016	A	P-O5'	6.50	1.69	1.59
26	BB	619	G	P-O5'	6.50	1.69	1.59
20	AT	61	ARG	N-CA	6.50	1.54	1.45
26	BB	31	C	P-O5'	6.50	1.69	1.59
1	AA	1322	C	O3'-P	6.49	1.70	1.61
26	BB	239	C	P-O5'	6.49	1.69	1.59
26	BB	1698	A	C5'-C4'	6.49	1.61	1.51
26	BB	2131	U	C4'-O4'	-6.49	1.35	1.45
50	BZ	47	THR	CB-OG1	-6.49	1.33	1.43
26	BB	976	G	P-O5'	6.49	1.69	1.59
26	BB	2697	G	C4'-C3'	-6.49	1.42	1.52
26	BB	2768	U	P-O5'	6.49	1.69	1.59
26	BB	2859	G	P-O5'	6.49	1.69	1.59
41	BQ	66	GLY	N-CA	6.49	1.54	1.45
26	BB	952	G	C5'-C4'	6.48	1.60	1.51
36	BL	73	VAL	CA-CB	6.48	1.62	1.54
27	BC	94	LEU	CA-C	6.48	1.60	1.52
1	AA	4	U	O3'-P	6.48	1.70	1.61
1	AA	603	U	O4'-C1'	-6.48	1.31	1.41
1	AA	1127	G	P-O5'	6.48	1.69	1.59
26	BB	2308	G	C4'-O4'	-6.48	1.36	1.45
6	AF	135	ARG	NE-CZ	6.48	1.40	1.33
1	AA	855	U	P-O5'	6.47	1.69	1.59
37	BM	57	VAL	CA-CB	6.47	1.62	1.54
1	AA	1434	A	P-O5'	6.47	1.69	1.59
26	BB	1343	G	C4'-O4'	-6.47	1.35	1.45
47	BW	46	LYS	CA-C	6.47	1.60	1.52
1	AA	147	G	O3'-P	6.47	1.70	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	849	A	P-O5'	6.47	1.69	1.59
52	B1	47	ILE	CA-C	6.47	1.62	1.52
26	BB	2635	A	P-O5'	6.46	1.69	1.59
1	AA	288	A	C3'-O3'	-6.46	1.32	1.42
26	BB	299	A	C3'-O3'	6.46	1.51	1.42
1	AA	907	A	C5'-C4'	6.46	1.60	1.51
1	AA	293	G	O3'-P	6.45	1.70	1.61
26	BB	2	G	C5'-C4'	6.45	1.60	1.51
26	BB	325	G	O5'-C5'	-6.45	1.32	1.42
31	BG	166	ARG	CA-C	6.45	1.61	1.52
22	AV	2	ARG	CD-NE	6.45	1.55	1.46
10	AJ	141	HIS	ND1-CE1	6.45	1.39	1.32
26	BB	1772	A	C4'-C3'	6.45	1.62	1.52
1	AA	173	U	C5'-C4'	6.44	1.61	1.51
1	AA	653	U	P-O5'	6.44	1.69	1.59
35	BK	12	VAL	N-CA	6.44	1.54	1.46
36	BL	100	VAL	CA-CB	6.44	1.61	1.54
41	BQ	40	ILE	CA-C	6.44	1.60	1.52
1	AA	145	G	O5'-C5'	-6.44	1.32	1.42
15	AO	31	GLY	N-CA	6.44	1.52	1.45
16	AP	32	ILE	CA-CB	6.44	1.62	1.54
16	AP	57	ASP	N-CA	-6.44	1.38	1.46
26	BB	2512	C	P-O5'	6.44	1.69	1.59
48	BX	15	GLY	N-CA	6.44	1.53	1.45
1	AA	1190	G	C2'-C1'	6.44	1.62	1.53
46	BV	99	ALA	N-CA	6.44	1.54	1.46
1	AA	250	A	C4'-O4'	-6.43	1.35	1.45
26	BB	2272	U	P-O5'	6.43	1.69	1.59
29	BE	166	GLY	CA-C	-6.43	1.42	1.51
1	AA	820	U	C1'-N1	6.43	1.57	1.47
1	AA	491	G	O3'-P	6.43	1.70	1.61
43	BS	73	ILE	N-CA	6.42	1.54	1.46
26	BB	562	U	C3'-C2'	6.42	1.62	1.52
26	BB	2889	C	C2'-C1'	6.42	1.62	1.53
32	BH	60	GLY	N-CA	6.42	1.52	1.45
35	BK	131	THR	C-O	-6.42	1.16	1.24
1	AA	710	G	P-O5'	6.41	1.69	1.59
1	AA	1392	G	O3'-P	6.41	1.70	1.61
51	B0	42	LEU	CA-C	6.41	1.61	1.52
26	BB	1410	G	C1'-N9	6.41	1.57	1.48
1	AA	208	U	C5'-C4'	6.41	1.60	1.51
40	BP	25	ALA	CA-C	6.41	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BW	61	GLU	CA-C	6.41	1.61	1.52
26	BB	1303	G	P-O5'	6.41	1.69	1.59
26	BB	2000	C	O3'-P	6.41	1.70	1.61
1	AA	221	C	O5'-C5'	6.40	1.52	1.42
26	BB	889	C	P-O5'	6.40	1.69	1.59
26	BB	1729	U	C3'-O3'	-6.40	1.32	1.42
30	BF	198	GLU	CA-C	6.39	1.61	1.52
2	AB	49	G	O3'-P	6.39	1.70	1.61
26	BB	1980	G	C4'-O4'	-6.39	1.36	1.45
5	AE	80	LYS	CA-C	6.39	1.61	1.52
11	AK	40	LYS	CA-C	6.39	1.60	1.52
26	BB	306	U	P-O5'	6.39	1.69	1.59
1	AA	728	A	C5'-C4'	6.38	1.60	1.51
26	BB	2052	A	P-O5'	6.38	1.69	1.59
1	AA	1284	C	C4'-O4'	-6.38	1.35	1.45
26	BB	330	A	O3'-P	6.38	1.70	1.61
1	AA	258	G	O3'-P	6.38	1.70	1.61
1	AA	971	G	C4'-C3'	6.38	1.62	1.53
1	AA	1201	A	C4'-O4'	-6.38	1.36	1.45
39	BO	66	ARG	CA-C	6.38	1.60	1.52
26	BB	1785	A	C4'-O4'	-6.37	1.35	1.45
1	AA	53	A	C4'-O4'	-6.37	1.35	1.45
26	BB	1078	U	C4'-C3'	6.37	1.62	1.53
26	BB	1556	C	C4'-O4'	-6.37	1.35	1.45
26	BB	1004	U	C5'-C4'	6.37	1.60	1.51
23	AW	74	HIS	CG-ND1	6.37	1.45	1.38
1	AA	303	A	C5'-C4'	6.36	1.60	1.51
26	BB	1843	C	C4'-O4'	-6.36	1.36	1.45
26	BB	2587	A	C5'-C4'	6.36	1.60	1.51
26	BB	2371	G	C2'-O2'	-6.36	1.32	1.42
32	BH	77	GLY	CA-C	6.36	1.58	1.52
26	BB	303	G	C5'-C4'	6.35	1.60	1.51
26	BB	732	C	C3'-C2'	6.35	1.62	1.52
46	BV	59	ASN	CA-C	6.35	1.60	1.52
47	BW	93	ARG	NE-CZ	6.35	1.40	1.33
26	BB	1866	A	C5'-C4'	6.35	1.60	1.51
26	BB	2326	C	C4'-C3'	6.35	1.62	1.52
26	BB	1830	C	P-O5'	6.35	1.69	1.59
1	AA	889	A	C3'-O3'	6.34	1.52	1.43
27	BC	138	PRO	N-CD	-6.34	1.38	1.47
26	BB	1649	G	P-O5'	6.34	1.69	1.59
1	AA	405	U	C5'-C4'	6.34	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2141	G	O3'-P	6.34	1.70	1.61
1	AA	15	G	P-O5'	6.34	1.69	1.59
1	AA	1244	G	P-O5'	6.34	1.69	1.59
10	AJ	96	ASN	N-CA	6.34	1.53	1.46
21	AU	73	HIS	CG-ND1	6.34	1.45	1.38
37	BM	71	ARG	CZ-NH1	6.34	1.41	1.32
32	BH	169	ARG	NE-CZ	6.34	1.40	1.33
27	BC	42	VAL	CA-CB	6.34	1.62	1.54
3	AC	30	U	C4'-O4'	-6.33	1.36	1.45
26	BB	1660	G	C5'-C4'	6.33	1.60	1.51
15	AO	83	GLY	N-CA	6.33	1.52	1.45
26	BB	1396	U	C4'-O4'	-6.33	1.36	1.45
45	BU	29	VAL	N-CA	6.33	1.54	1.46
1	AA	33	A	C2'-O2'	-6.33	1.32	1.42
22	AV	62	THR	CA-C	6.32	1.60	1.52
26	BB	628	G	O4'-C1'	6.32	1.51	1.41
26	BB	288	U	C5'-C4'	6.32	1.60	1.51
26	BB	2168	G	O3'-P	6.32	1.70	1.61
53	B2	51	VAL	CA-CB	-6.32	1.46	1.54
1	AA	195	A	P-O5'	6.32	1.69	1.59
1	AA	940	C	O3'-P	6.31	1.70	1.61
26	BB	1770	G	P-O5'	6.31	1.69	1.59
1	AA	1059	C	C4'-O4'	-6.31	1.36	1.45
26	BB	235	U	C4'-O4'	-6.31	1.36	1.45
26	BB	1805	A	C1'-N9	6.31	1.57	1.48
26	BB	2553	G	C1'-N9	6.31	1.57	1.48
28	BD	163	ILE	CA-C	6.31	1.60	1.52
40	BP	26	GLY	CA-C	6.31	1.59	1.52
10	AJ	51	GLN	N-CA	6.30	1.54	1.46
15	AO	76	HIS	CG-ND1	6.30	1.45	1.38
26	BB	379	G	C4'-O4'	-6.30	1.36	1.45
26	BB	761	A	C3'-O3'	-6.30	1.32	1.42
26	BB	1211	C	C2'-C1'	6.30	1.62	1.53
28	BD	57	HIS	CA-C	-6.30	1.44	1.52
7	AG	173	ASP	N-CA	6.30	1.53	1.46
28	BD	47	ARG	CZ-NH1	6.30	1.41	1.32
1	AA	1435	G	O5'-C5'	6.30	1.51	1.42
26	BB	2641	G	O3'-P	6.30	1.70	1.61
26	BB	1721	G	C3'-O3'	-6.30	1.33	1.43
28	BD	114	GLN	CA-C	6.30	1.60	1.52
1	AA	753	A	O4'-C1'	-6.29	1.32	1.42
1	AA	1114	C	O5'-C5'	-6.29	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	AM	70	HIS	CA-C	6.29	1.60	1.52
26	BB	160	A	O4'-C1'	6.29	1.51	1.41
26	BB	761	A	C5'-C4'	6.29	1.60	1.51
1	AA	898	G	O3'-P	-6.29	1.51	1.61
26	BB	2771	C	C4'-O4'	-6.29	1.36	1.45
1	AA	216	U	C2'-O2'	-6.29	1.33	1.42
1	AA	562	U	C5'-C4'	6.29	1.60	1.51
34	BJ	157	VAL	CA-C	6.29	1.60	1.52
1	AA	406	G	C4'-O4'	-6.28	1.36	1.45
1	AA	854	U	P-O5'	6.28	1.69	1.59
15	AO	67	GLY	N-CA	-6.28	1.38	1.45
26	BB	1889	A	P-O5'	6.28	1.69	1.59
26	BB	2155	U	C4'-C3'	6.28	1.61	1.52
1	AA	1191	A	C2'-C1'	6.28	1.62	1.53
26	BB	798	G	O5'-C5'	-6.28	1.33	1.42
26	BB	1201	U	O4'-C1'	6.28	1.51	1.41
24	AX	65	ARG	NE-CZ	6.28	1.40	1.33
28	BD	105	ALA	CA-C	6.28	1.60	1.52
4	AD	68	C	P-O5'	6.28	1.69	1.59
26	BB	2094	A	P-O5'	6.28	1.69	1.59
26	BB	742	A	C1'-N9	6.27	1.57	1.48
1	AA	949	A	O5'-C5'	-6.27	1.33	1.42
1	AA	1105	A	O3'-P	6.27	1.70	1.61
25	BA	14	U	O5'-C5'	-6.27	1.33	1.42
53	B2	35	ASP	CA-C	6.27	1.60	1.52
58	B7	36	ARG	NE-CZ	6.27	1.40	1.33
1	AA	1535	C	C5'-C4'	6.26	1.60	1.51
28	BD	222	THR	CB-OG1	-6.26	1.33	1.43
1	AA	822	U	O5'-C5'	-6.26	1.33	1.42
26	BB	1680	U	C2'-C1'	-6.26	1.44	1.53
46	BV	50	LEU	N-CA	6.26	1.54	1.46
7	AG	39	GLN	N-CA	6.26	1.54	1.46
26	BB	2104	C	C4'-O4'	-6.26	1.36	1.45
1	AA	677	U	P-O5'	6.26	1.69	1.59
26	BB	1911	PSU	O3'-P	6.26	1.70	1.61
26	BB	2007	U	C4'-O4'	-6.26	1.36	1.45
26	BB	964	C	O3'-P	6.25	1.70	1.61
26	BB	1132	U	C5'-C4'	6.25	1.60	1.51
39	BO	50	ARG	C-O	6.25	1.31	1.24
8	AH	88	HIS	ND1-CE1	6.25	1.38	1.32
8	AH	140	ILE	CA-CB	6.25	1.62	1.54
26	BB	1685	C	C4'-O4'	-6.25	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1963	U	C4'-O4'	-6.25	1.36	1.45
26	BB	2356	U	O3'-P	6.25	1.70	1.61
4	AD	12	G	P-O5'	6.25	1.69	1.59
26	BB	1510	G	P-O5'	6.25	1.69	1.59
26	BB	2292	U	C4'-C3'	-6.25	1.43	1.52
32	BH	155	PRO	N-CD	-6.24	1.39	1.47
38	BN	21	ARG	CD-NE	6.24	1.54	1.46
40	BP	16	HIS	CG-ND1	-6.24	1.31	1.38
1	AA	1473	G	C2'-C1'	6.24	1.62	1.53
2	AB	10	G	C5'-C4'	6.24	1.60	1.51
2	AB	71	C	P-O5'	6.24	1.69	1.59
30	BF	181	ILE	CA-C	-6.24	1.45	1.52
45	BU	86	MET	CA-C	-6.24	1.45	1.52
1	AA	297	G	P-O5'	6.24	1.69	1.59
39	BO	20	LEU	CA-C	-6.24	1.45	1.52
46	BV	13	ALA	N-CA	6.24	1.51	1.46
1	AA	70	U	C5'-C4'	6.24	1.60	1.51
26	BB	2202	U	O3'-P	-6.24	1.51	1.61
1	AA	1536	C	C4'-C3'	6.23	1.61	1.52
16	AP	39	ALA	N-CA	-6.23	1.38	1.46
26	BB	670	A	O3'-P	6.23	1.70	1.61
1	AA	335	C	O4'-C1'	6.23	1.50	1.41
26	BB	681	G	C4'-O4'	-6.23	1.36	1.45
23	AW	81	GLN	C-O	-6.23	1.16	1.24
1	AA	857	C	C5'-C4'	6.22	1.60	1.51
1	AA	1019	A	O3'-P	6.22	1.70	1.61
42	BR	68	GLY	CA-C	6.22	1.60	1.51
1	AA	415	A	O4'-C1'	6.22	1.50	1.41
3	AC	43	U	C5'-C4'	6.22	1.60	1.51
26	BB	1159	U	C5'-C4'	6.22	1.60	1.51
28	BD	84	PRO	N-CD	-6.22	1.39	1.47
57	B6	12	ARG	N-CA	6.22	1.54	1.46
36	BL	44	TYR	N-CA	6.22	1.55	1.46
26	BB	513	A	C4'-O4'	-6.21	1.36	1.45
37	BM	67	LYS	N-CA	6.21	1.54	1.46
40	BP	9	GLN	CA-C	6.21	1.60	1.52
1	AA	1288	A	O3'-P	6.21	1.70	1.61
42	BR	24	THR	N-CA	6.21	1.53	1.46
1	AA	556	C	P-O5'	6.21	1.69	1.59
26	BB	1083	U	C5'-C4'	6.21	1.60	1.51
26	BB	1809	A	P-O5'	6.21	1.69	1.59
26	BB	2382	G	C1'-N9	6.21	1.56	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BV	11	LEU	C-N	6.21	1.42	1.33
1	AA	1062	U	C3'-O3'	6.21	1.51	1.42
14	AN	68	ARG	CD-NE	6.20	1.54	1.46
16	AP	32	ILE	N-CA	-6.20	1.39	1.46
4	AD	68	C	O5'-C5'	-6.20	1.33	1.42
13	AM	48	ARG	CA-C	6.20	1.60	1.52
26	BB	881	G	C2'-O2'	-6.20	1.33	1.42
19	AS	64	GLY	CA-C	6.19	1.60	1.51
26	BB	474	G	C1'-N9	6.19	1.56	1.47
26	BB	211	C	C4'-O4'	-6.19	1.36	1.45
1	AA	811	C	C3'-O3'	6.19	1.51	1.42
21	AU	66	LEU	N-CA	-6.19	1.37	1.46
26	BB	1610	A	C1'-N9	6.19	1.56	1.47
32	BH	21	GLN	CA-C	6.19	1.61	1.52
49	BY	50	VAL	CA-C	6.19	1.59	1.52
26	BB	1928	A	C5'-C4'	6.19	1.60	1.51
32	BH	8	VAL	N-CA	6.19	1.53	1.46
1	AA	1102	A	C4'-O4'	-6.19	1.36	1.45
26	BB	1464	G	C5'-C4'	6.19	1.60	1.51
26	BB	1933	G	C4'-O4'	-6.19	1.36	1.45
5	AE	221	ARG	CA-C	6.18	1.60	1.52
26	BB	2449	H2U	O3'-P	6.18	1.70	1.61
1	AA	610	U	C3'-O3'	-6.18	1.32	1.42
1	AA	1240	U	C4'-O4'	-6.18	1.36	1.45
3	AC	39	U	C2'-O2'	-6.18	1.33	1.42
26	BB	1646	C	C4'-O4'	-6.18	1.36	1.45
26	BB	1766	G	O3'-P	6.18	1.70	1.61
1	AA	671	G	C4'-C3'	6.18	1.61	1.52
2	AB	4	G	O5'-C5'	6.18	1.51	1.42
26	BB	1381	G	C5'-C4'	6.18	1.60	1.51
1	AA	538	G	C5'-C4'	6.18	1.60	1.51
1	AA	1249	C	P-O5'	6.18	1.69	1.59
26	BB	2530	A	P-O5'	6.18	1.69	1.59
26	BB	2893	A	C2'-C1'	-6.17	1.43	1.53
16	AP	23	GLY	N-CA	6.17	1.54	1.45
26	BB	861	A	C3'-O3'	6.17	1.51	1.42
1	AA	1445	U	P-O5'	6.17	1.69	1.59
26	BB	1046	A	C1'-N9	6.17	1.56	1.47
36	BL	116	ARG	CA-C	6.17	1.60	1.52
26	BB	1745	A	C2'-O2'	-6.17	1.33	1.42
18	AR	41	HIS	CG-ND1	6.17	1.45	1.38
26	BB	1991	U	C5'-C4'	6.17	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2778	A	C4'-O4'	-6.17	1.36	1.45
28	BD	51	ARG	NE-CZ	6.17	1.39	1.33
26	BB	1068	G	C4'-O4'	-6.16	1.36	1.45
3	AC	59	A	C1'-N9	6.16	1.56	1.47
22	AV	68	HIS	CD2-NE2	6.16	1.44	1.37
47	BW	82	VAL	N-CA	-6.16	1.38	1.46
1	AA	1430	A	C1'-N9	6.16	1.57	1.48
26	BB	1025	G	P-O5'	6.16	1.69	1.59
1	AA	423	G	P-O5'	6.16	1.69	1.59
26	BB	361	G	P-O5'	6.16	1.69	1.59
52	B1	44	ARG	C-O	-6.16	1.17	1.24
26	BB	1906	G	C4'-O4'	-6.15	1.36	1.45
1	AA	577	G	C4'-O4'	-6.15	1.36	1.45
1	AA	942	G	C4'-O4'	-6.15	1.36	1.45
1	AA	1169	A	P-O5'	6.15	1.69	1.59
26	BB	1556	C	O3'-P	6.15	1.70	1.61
56	B5	44	VAL	CA-CB	6.14	1.62	1.54
1	AA	13	U	O3'-P	6.14	1.70	1.61
7	AG	139	ASN	C-N	6.14	1.41	1.33
15	AO	95	HIS	CD2-NE2	6.14	1.44	1.37
28	BD	245	THR	C-N	6.14	1.38	1.33
26	BB	1435	G	O5'-C5'	-6.14	1.33	1.42
26	BB	61	C	C3'-C2'	6.13	1.61	1.52
26	BB	1071	G	C4'-O4'	-6.13	1.36	1.45
26	BB	760	G	C4'-O4'	-6.13	1.36	1.45
26	BB	543	G	C4'-O4'	-6.13	1.36	1.45
1	AA	37	U	P-O5'	6.12	1.69	1.59
5	AE	138	ARG	NE-CZ	6.12	1.39	1.33
1	AA	974	A	C4'-C3'	6.12	1.62	1.53
18	AR	16	ARG	CA-C	6.12	1.60	1.52
26	BB	1030	C	C4'-O4'	-6.12	1.36	1.45
26	BB	1434	A	C1'-N9	6.12	1.57	1.48
33	BI	110	VAL	N-CA	6.12	1.53	1.46
16	AP	56	ARG	CD-NE	6.12	1.54	1.46
26	BB	1520	U	C4'-O4'	-6.12	1.36	1.45
1	AA	1226	C	P-O5'	6.12	1.69	1.59
26	BB	9	G	P-O5'	6.12	1.69	1.59
26	BB	2553	G	O3'-P	-6.12	1.51	1.61
41	BQ	49	VAL	N-CA	6.12	1.54	1.46
26	BB	1776	G	C5'-C4'	6.11	1.60	1.51
10	AJ	109	LYS	CA-C	6.11	1.61	1.52
26	BB	47	C	C1'-N1	6.11	1.57	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	195	A	O3'-P	6.11	1.70	1.61
56	B5	21	ARG	CD-NE	6.11	1.54	1.46
26	BB	90	U	C4'-C3'	6.11	1.61	1.52
26	BB	194	G	P-O5'	6.11	1.69	1.59
26	BB	1341	G	O3'-P	6.11	1.70	1.61
52	B1	4	ILE	CA-CB	6.10	1.64	1.55
1	AA	1130	A	C5'-C4'	6.10	1.60	1.51
26	BB	658	U	O3'-P	6.10	1.70	1.61
26	BB	1577	C	O4'-C1'	6.10	1.50	1.41
26	BB	2118	U	P-O5'	6.10	1.68	1.59
26	BB	114	U	P-O5'	6.09	1.68	1.59
26	BB	1270	C	C2'-C1'	-6.09	1.44	1.53
26	BB	2146	C	C4'-O4'	-6.09	1.36	1.45
1	AA	946	A	P-O5'	6.09	1.68	1.59
13	AM	100	ILE	CA-C	6.09	1.59	1.52
57	B6	37	THR	N-CA	6.09	1.53	1.46
1	AA	112	G	C4'-O4'	-6.09	1.36	1.45
1	AA	286	C	P-O5'	6.09	1.68	1.59
1	AA	565	U	P-O5'	6.08	1.68	1.59
26	BB	2623	G	C3'-C2'	6.08	1.61	1.52
26	BB	2818	U	O5'-C5'	-6.08	1.33	1.42
26	BB	264	C	C2'-O2'	6.08	1.51	1.42
26	BB	1142	A	C1'-N9	6.08	1.56	1.47
32	BH	162	ARG	CZ-NH2	6.08	1.41	1.33
1	AA	41	G	O3'-P	6.08	1.70	1.61
16	AP	13	HIS	ND1-CE1	6.08	1.38	1.32
26	BB	722	A	C4'-O4'	-6.08	1.36	1.45
26	BB	850	U	C5'-C4'	6.08	1.60	1.51
26	BB	1166	G	C5'-C4'	6.08	1.60	1.51
42	BR	8	GLU	N-CA	6.08	1.53	1.46
40	BP	56	LYS	C-N	6.07	1.42	1.33
26	BB	69	C	P-O5'	6.07	1.68	1.59
26	BB	732	C	O4'-C1'	6.07	1.50	1.41
1	AA	227	G	C4'-O4'	-6.07	1.36	1.45
26	BB	219	A	O3'-P	-6.07	1.52	1.61
26	BB	482	A	C5'-C4'	6.07	1.60	1.51
1	AA	713	G	P-O5'	6.06	1.68	1.59
2	AB	42	G	O3'-P	6.06	1.70	1.61
36	BL	25	LEU	N-CA	6.06	1.53	1.46
26	BB	1492	G	C1'-N9	6.06	1.57	1.48
26	BB	2050	C	C5'-C4'	6.06	1.60	1.51
26	BB	2422	C	C2'-C1'	6.06	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	BN	59	ARG	CD-NE	6.06	1.54	1.46
40	BP	30	ARG	N-CA	6.06	1.53	1.46
1	AA	1428	A	O3'-P	6.05	1.70	1.61
35	BK	73	PRO	CA-C	6.05	1.57	1.52
1	AA	737	C	O4'-C1'	6.05	1.50	1.41
16	AP	42	VAL	N-CA	6.05	1.53	1.46
50	BZ	28	PHE	CA-C	6.05	1.59	1.52
26	BB	30	G	P-O5'	6.05	1.68	1.59
26	BB	1708	C	C1'-N1	6.05	1.57	1.48
26	BB	1734	G	C5'-C4'	6.05	1.60	1.51
26	BB	2639	A	C5'-C4'	6.05	1.60	1.51
26	BB	1893	C	C3'-C2'	-6.05	1.43	1.52
26	BB	158	U	C4'-O4'	-6.04	1.36	1.45
26	BB	2869	G	P-O5'	6.04	1.68	1.59
26	BB	1192	G	C4'-O4'	-6.04	1.36	1.45
26	BB	2740	A	O3'-P	-6.04	1.52	1.61
26	BB	349	U	C4'-C3'	-6.04	1.43	1.52
1	AA	898	G	C3'-O3'	-6.04	1.33	1.42
14	AN	16	SER	N-CA	6.04	1.53	1.46
21	AU	9	PHE	N-CA	6.04	1.53	1.46
26	BB	2017	U	C4'-O4'	-6.04	1.36	1.45
26	BB	2798	U	O4'-C1'	6.03	1.50	1.42
6	AF	163	ARG	C-O	-6.03	1.17	1.23
32	BH	115	GLN	C-O	-6.03	1.16	1.23
1	AA	952	U	C3'-C2'	6.03	1.61	1.52
1	AA	1397	C	P-O5'	6.03	1.68	1.59
1	AA	1415	G	P-O5'	6.03	1.68	1.59
26	BB	781	A	C4'-O4'	-6.03	1.36	1.45
33	BI	63	ALA	CA-C	6.03	1.61	1.52
5	AE	38	HIS	CG-ND1	6.03	1.44	1.38
6	AF	215	GLN	CA-C	6.03	1.57	1.52
26	BB	113	U	P-O5'	6.03	1.68	1.59
26	BB	870	U	C4'-O4'	-6.03	1.36	1.45
28	BD	238	ASN	CA-C	6.03	1.60	1.52
2	AB	41	C	C4'-O4'	-6.02	1.36	1.45
26	BB	986	C	C5'-C4'	6.02	1.60	1.51
1	AA	1141	C	P-O5'	6.02	1.68	1.59
26	BB	685	A	P-O5'	6.02	1.68	1.59
26	BB	2129	C	C3'-O3'	6.02	1.51	1.42
14	AN	44	ALA	CA-C	6.02	1.60	1.52
26	BB	51	G	C2'-O2'	6.02	1.50	1.41
26	BB	99	U	O3'-P	6.02	1.70	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BQ	79	ALA	N-CA	-6.02	1.39	1.46
1	AA	401	C	C2'-O2'	-6.02	1.33	1.42
17	AQ	27	LYS	CA-C	6.02	1.60	1.52
1	AA	142	G	C5'-C4'	6.01	1.60	1.51
26	BB	486	C	O3'-P	6.01	1.70	1.61
26	BB	633	A	P-O5'	6.01	1.68	1.59
29	BE	140	HIS	CG-ND1	6.01	1.44	1.38
26	BB	806	C	C4'-O4'	-6.01	1.36	1.45
26	BB	1827	U	C5'-C4'	6.01	1.60	1.51
1	AA	502	A	C4'-O4'	-6.01	1.36	1.45
15	AO	76	HIS	ND1-CE1	6.01	1.38	1.32
26	BB	484	C	C3'-O3'	-6.01	1.33	1.42
29	BE	134	HIS	CE1-NE2	6.01	1.38	1.32
1	AA	1368	A	C4'-C3'	6.00	1.61	1.52
26	BB	1846	G	C5'-C4'	6.00	1.60	1.51
1	AA	413	G	C5'-C4'	6.00	1.60	1.51
26	BB	1171	G	C2'-O2'	-6.00	1.33	1.42
28	BD	142	ASN	N-CA	6.00	1.54	1.46
1	AA	137	U	C5'-C4'	6.00	1.60	1.51
2	AB	36	A	P-O5'	6.00	1.68	1.59
1	AA	898	G	O4'-C1'	6.00	1.50	1.41
1	AA	1332	A	C4'-O4'	-6.00	1.36	1.45
5	AE	91	VAL	CA-C	6.00	1.59	1.52
1	AA	1534	A	P-O5'	6.00	1.68	1.59
26	BB	429	A	P-O5'	6.00	1.68	1.59
26	BB	2132	U	P-O5'	6.00	1.68	1.59
27	BC	174	THR	N-CA	-6.00	1.38	1.46
26	BB	635	C	C5'-C4'	6.00	1.60	1.51
26	BB	1046	A	C4'-O4'	-5.99	1.36	1.45
1	AA	1287	A	C5'-C4'	5.99	1.60	1.51
1	AA	656	G	C5'-C4'	5.99	1.60	1.51
26	BB	47	C	P-O5'	5.99	1.68	1.59
31	BG	77	LYS	N-CA	-5.99	1.38	1.46
4	AD	10	G	O4'-C1'	5.99	1.50	1.41
4	AD	37	U	P-O5'	5.99	1.68	1.59
22	AV	90	LYS	C-N	5.99	1.41	1.33
27	BC	31	LYS	N-CA	5.99	1.53	1.46
26	BB	763	G	O3'-P	5.99	1.70	1.61
49	BY	65	LYS	C-N	5.99	1.40	1.33
27	BC	108	GLU	N-CA	5.99	1.53	1.46
39	BO	124	LEU	CA-C	5.99	1.60	1.53
1	AA	493	A	O3'-P	5.98	1.70	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	BE	34	VAL	N-CA	-5.98	1.38	1.46
1	AA	140	U	C4'-C3'	-5.98	1.43	1.52
2	AB	47	U	P-O5'	5.98	1.68	1.59
6	AF	50	SER	CA-C	5.98	1.61	1.53
7	AG	184	LYS	N-CA	5.98	1.53	1.46
9	AI	98	GLU	N-CA	5.98	1.52	1.46
26	BB	1616	A	C3'-O3'	5.98	1.52	1.43
26	BB	2110	G	P-O5'	5.98	1.68	1.59
1	AA	972	C	C1'-N1	5.97	1.57	1.48
52	B1	53	MET	N-CA	5.97	1.54	1.46
26	BB	2226	C	O3'-P	5.97	1.70	1.61
36	BL	96	ARG	NE-CZ	5.97	1.39	1.33
26	BB	1115	G	C5'-C4'	5.97	1.60	1.51
26	BB	1249	U	C2'-C1'	5.97	1.62	1.53
43	BS	30	VAL	C-N	5.97	1.41	1.33
36	BL	77	HIS	CE1-NE2	5.97	1.38	1.32
1	AA	384	G	C1'-N9	5.97	1.56	1.48
26	BB	280	U	O3'-P	5.97	1.70	1.61
1	AA	1397	C	C4'-O4'	-5.96	1.36	1.45
8	AH	82	HIS	CE1-NE2	5.96	1.38	1.32
26	BB	1612	C	P-O5'	5.96	1.68	1.59
58	B7	11	CYS	CA-C	5.96	1.60	1.52
26	BB	960	A	C5'-C4'	5.96	1.60	1.51
26	BB	312	G	O4'-C1'	-5.96	1.32	1.41
26	BB	1773	A	O4'-C1'	5.96	1.50	1.41
26	BB	4	U	C5'-C4'	5.96	1.60	1.51
26	BB	107	G	C3'-C2'	5.96	1.61	1.52
13	AM	31	ARG	CZ-NH2	5.96	1.41	1.33
26	BB	443	A	C5'-C4'	5.96	1.60	1.51
26	BB	2690	U	C1'-N1	5.96	1.56	1.47
26	BB	343	C	C2'-C1'	-5.96	1.44	1.53
26	BB	2145	C	P-O5'	5.96	1.68	1.59
26	BB	1142	A	P-O5'	5.95	1.68	1.59
3	AC	49	U	C2'-O2'	-5.95	1.33	1.42
17	AQ	6	LYS	CA-C	5.95	1.60	1.52
26	BB	1923	U	C5'-C4'	5.95	1.60	1.51
1	AA	893	C	P-O5'	5.95	1.68	1.59
2	AB	74	C	P-O5'	5.95	1.68	1.59
26	BB	553	G	C4'-O4'	-5.95	1.36	1.45
26	BB	2383	G	O3'-P	5.95	1.70	1.61
32	BH	74	MET	C-N	5.95	1.41	1.33
1	AA	946	A	C4'-O4'	-5.95	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1670	C	O3'-P	5.95	1.70	1.61
26	BB	2617	U	C4'-O4'	-5.95	1.36	1.45
1	AA	495	A	C4'-O4'	-5.95	1.36	1.45
25	BA	71	C	C3'-C2'	5.95	1.61	1.52
26	BB	1473	G	C5'-C4'	5.95	1.60	1.51
34	BJ	13	GLU	CA-C	5.95	1.60	1.52
26	BB	783	A	C3'-C2'	-5.94	1.43	1.52
1	AA	153	C	C5'-C4'	5.94	1.60	1.51
1	AA	888	G	C5'-C4'	5.94	1.60	1.51
26	BB	62	U	C5'-C4'	5.94	1.60	1.51
1	AA	6	G	C1'-N9	5.94	1.56	1.48
3	AC	15	G	C1'-N9	5.94	1.56	1.48
7	AG	45	PRO	N-CA	-5.94	1.40	1.47
26	BB	2001	C	C4'-O4'	-5.94	1.36	1.45
44	BT	90	ARG	CA-C	5.94	1.58	1.52
56	B5	32	ALA	N-CA	5.94	1.53	1.46
26	BB	2644	G	C1'-N9	5.94	1.56	1.48
1	AA	1016	A	C4'-O4'	-5.94	1.36	1.45
25	BA	112	G	O4'-C1'	5.93	1.50	1.41
26	BB	1625	C	O3'-P	5.93	1.70	1.61
1	AA	938	A	P-O5'	5.93	1.68	1.59
26	BB	2013	A	C4'-C3'	5.93	1.61	1.52
38	BN	68	SER	N-CA	5.93	1.53	1.46
1	AA	679	C	P-O5'	5.93	1.68	1.59
13	AM	33	GLY	C-O	-5.93	1.18	1.24
26	BB	1272	A	C4'-O4'	-5.93	1.36	1.45
49	BY	75	ASN	N-CA	5.93	1.53	1.46
26	BB	239	C	C1'-N1	5.93	1.57	1.48
26	BB	2728	U	P-O5'	5.93	1.68	1.59
42	BR	89	GLY	N-CA	-5.93	1.39	1.45
1	AA	957	U	P-O5'	5.92	1.68	1.59
26	BB	1019	U	C5'-C4'	5.92	1.60	1.51
1	AA	563	A	O4'-C1'	5.92	1.50	1.41
14	AN	49	SER	CA-C	5.92	1.60	1.53
26	BB	841	G	O3'-P	5.92	1.70	1.61
26	BB	1014	A	O5'-C5'	5.92	1.51	1.42
28	BD	73	ILE	C-N	5.92	1.41	1.33
2	AB	64	U	C1'-N1	5.92	1.56	1.47
9	AI	55	HIS	ND1-CE1	5.92	1.38	1.32
1	AA	93	U	C2'-O2'	-5.92	1.33	1.42
1	AA	593	U	P-O5'	5.92	1.68	1.59
2	AB	47	U	C4'-O4'	-5.92	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AF	166	TRP	CA-C	5.92	1.59	1.52
8	AH	104	ILE	CA-CB	5.92	1.60	1.54
26	BB	734	A	C1'-N9	5.92	1.56	1.48
26	BB	1877	A	P-O5'	5.92	1.68	1.59
6	AF	73	GLY	CA-C	5.92	1.59	1.51
1	AA	83	C	C4'-O4'	-5.91	1.36	1.45
13	AM	45	ARG	CZ-NH1	5.91	1.41	1.32
26	BB	122	G	P-O5'	5.91	1.68	1.59
37	BM	39	ILE	CA-C	5.91	1.60	1.52
1	AA	1254	A	O3'-P	5.91	1.70	1.61
10	AJ	161	PHE	CA-C	5.91	1.60	1.52
26	BB	228	C	P-O5'	5.91	1.68	1.59
26	BB	2584	U	C5'-C4'	5.91	1.60	1.51
1	AA	564	C	C2'-C1'	5.91	1.62	1.53
26	BB	1353	A	P-O5'	5.91	1.68	1.59
29	BE	200	ASP	C-N	5.91	1.41	1.33
41	BQ	81	ARG	CA-C	5.91	1.60	1.52
1	AA	5	U	C4'-O4'	-5.91	1.36	1.45
16	AP	99	GLN	N-CA	5.91	1.53	1.45
26	BB	1140	C	C4'-O4'	-5.91	1.36	1.45
26	BB	2779	U	C4'-O4'	-5.91	1.36	1.45
26	BB	922	C	O3'-P	-5.91	1.52	1.61
26	BB	1894	C	C4'-O4'	-5.91	1.36	1.45
2	AB	68	C	C3'-C2'	5.91	1.61	1.52
34	BJ	89	GLY	CA-C	5.91	1.58	1.52
3	AC	17	U	C4'-O4'	-5.90	1.36	1.45
19	AS	14	ARG	N-CA	-5.90	1.40	1.46
26	BB	1422	G	P-O5'	5.90	1.68	1.59
26	BB	2826	A	C5'-C4'	5.90	1.60	1.51
26	BB	2842	G	P-O5'	5.90	1.68	1.59
41	BQ	24	THR	C-N	5.90	1.41	1.33
20	AT	6	THR	CA-C	5.90	1.59	1.52
44	BT	94	THR	CA-C	5.90	1.59	1.52
5	AE	46	VAL	C-N	5.90	1.41	1.34
26	BB	1952	A	P-O5'	5.90	1.68	1.59
1	AA	23	C	C4'-O4'	-5.90	1.36	1.45
41	BQ	105	ALA	CA-C	5.90	1.60	1.52
28	BD	199	HIS	CE1-NE2	5.89	1.38	1.32
34	BJ	87	HIS	CA-CB	5.89	1.60	1.53
1	AA	753	A	C4'-O4'	-5.89	1.37	1.45
1	AA	1312	G	O3'-P	5.89	1.70	1.61
18	AR	77	TYR	C-O	-5.89	1.17	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2005	A	P-O5'	5.89	1.68	1.59
1	AA	308	C	C1'-N1	5.89	1.57	1.48
26	BB	2124	G	P-O5'	5.89	1.68	1.59
26	BB	1860	G	C4'-C3'	5.89	1.61	1.52
1	AA	1379	G	C3'-C2'	5.89	1.61	1.52
2	AB	21	A	C4'-O4'	-5.89	1.36	1.45
1	AA	344	A	C2'-O2'	-5.88	1.32	1.41
3	AC	43	U	C3'-C2'	5.88	1.61	1.52
26	BB	1603	A	C3'-C2'	5.88	1.61	1.52
29	BE	158	GLY	CA-C	5.88	1.59	1.51
26	BB	1469	A	P-O5'	5.88	1.68	1.59
45	BU	95	ARG	NE-CZ	5.88	1.39	1.33
26	BB	2895	G	C1'-N9	5.88	1.56	1.48
1	AA	654	G	P-O5'	5.88	1.68	1.59
3	AC	57	C	C4'-C3'	5.88	1.61	1.52
13	AM	70	HIS	CG-ND1	5.88	1.44	1.38
23	AW	51	ASN	CA-C	5.88	1.60	1.52
26	BB	2670	A	O3'-P	5.88	1.70	1.61
33	BI	2	GLN	CA-C	5.88	1.58	1.52
50	BZ	31	ASN	C-O	5.88	1.30	1.24
26	BB	2014	A	C1'-N9	5.88	1.56	1.48
26	BB	1751	U	P-O5'	5.87	1.68	1.59
27	BC	168	ASN	N-CA	5.87	1.53	1.46
1	AA	1312	G	O4'-C1'	5.87	1.50	1.41
26	BB	2298	A	C4'-O4'	-5.87	1.36	1.45
31	BG	34	THR	CB-OG1	-5.87	1.34	1.43
1	AA	998	C	C4'-O4'	-5.87	1.36	1.45
1	AA	1416	G	C4'-O4'	-5.87	1.36	1.45
26	BB	2286	G	P-O5'	5.87	1.68	1.59
26	BB	2893	A	O3'-P	5.87	1.70	1.61
21	AU	5	ARG	NE-CZ	5.87	1.39	1.33
1	AA	268	U	C2'-C1'	-5.87	1.44	1.53
15	AO	37	TYR	N-CA	5.86	1.53	1.46
26	BB	1679	A	O3'-P	5.86	1.70	1.61
26	BB	2315	G	O3'-P	5.86	1.70	1.61
53	B2	66	ILE	CA-CB	5.86	1.61	1.54
28	BD	23	LEU	C-N	5.86	1.40	1.33
55	B4	35	LEU	CA-CB	5.86	1.63	1.53
12	AL	48	ARG	NE-CZ	5.86	1.39	1.33
19	AS	9	HIS	CE1-NE2	5.86	1.38	1.32
26	BB	2553	G	P-O5'	5.86	1.68	1.59
1	AA	610	U	O3'-P	5.86	1.70	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1457	G	P-O5'	5.86	1.68	1.59
26	BB	196	A	C4'-O4'	-5.86	1.37	1.45
26	BB	593	U	C3'-C2'	-5.86	1.44	1.52
1	AA	318	G	O3'-P	5.86	1.70	1.61
26	BB	1723	G	O3'-P	5.86	1.70	1.61
38	BN	113	ALA	C-N	5.86	1.40	1.33
57	B6	4	LYS	C-N	5.86	1.41	1.33
1	AA	438	U	C2'-C1'	-5.85	1.44	1.53
47	BW	59	GLU	N-CA	-5.85	1.39	1.46
27	BC	111	PHE	N-CA	5.85	1.55	1.46
35	BK	81	LYS	N-CA	-5.85	1.39	1.46
1	AA	754	C	P-O5'	5.85	1.68	1.59
1	AA	925	G	P-O5'	5.85	1.68	1.59
1	AA	1378	C	C4'-O4'	-5.85	1.36	1.45
1	AA	1509	C	O3'-P	5.85	1.70	1.61
26	BB	765	C	C3'-O3'	-5.85	1.33	1.42
26	BB	2081	U	C4'-O4'	-5.85	1.36	1.45
38	BN	118	THR	N-CA	-5.85	1.39	1.46
26	BB	2295	C	C3'-O3'	5.85	1.50	1.42
26	BB	433	C	P-O5'	5.85	1.68	1.59
26	BB	837	C	C5'-C4'	5.85	1.60	1.51
26	BB	1271	G	C4'-O4'	-5.85	1.36	1.45
53	B2	34	LEU	C-N	5.84	1.41	1.33
4	AD	47	A	P-O5'	5.84	1.68	1.59
1	AA	1232	U	P-O5'	5.84	1.68	1.59
27	BC	69	THR	N-CA	5.84	1.53	1.46
27	BC	212	VAL	CA-CB	5.84	1.61	1.54
55	B4	29	LYS	C-O	-5.84	1.17	1.23
1	AA	392	C	C2'-C1'	5.84	1.62	1.53
44	BT	89	HIS	N-CA	5.84	1.53	1.46
26	BB	2654	A	C4'-O4'	-5.84	1.37	1.45
32	BH	41	GLU	N-CA	-5.84	1.39	1.46
1	AA	840	C	C2'-C1'	5.84	1.62	1.53
26	BB	886	A	O4'-C1'	-5.84	1.32	1.41
50	BZ	10	ARG	CA-C	5.84	1.58	1.52
54	B3	41	HIS	ND1-CE1	5.84	1.38	1.32
26	BB	899	A	C4'-O4'	-5.83	1.36	1.45
41	BQ	61	GLN	CA-CB	5.83	1.62	1.53
1	AA	1478	U	C5'-C4'	5.83	1.59	1.51
9	AI	125	GLU	CA-C	5.83	1.60	1.52
16	AP	72	ILE	CA-CB	5.83	1.62	1.54
26	BB	790	U	C5'-C4'	5.83	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	664	G	O3'-P	5.83	1.69	1.61
26	BB	2078	C	C3'-O3'	5.83	1.50	1.42
26	BB	1348	C	O4'-C1'	5.83	1.50	1.41
32	BH	20	GLY	CA-C	5.83	1.59	1.52
1	AA	267	C	C2'-O2'	5.83	1.51	1.42
1	AA	1362	A	C5'-C4'	5.82	1.59	1.51
5	AE	229	ALA	CA-C	5.82	1.59	1.52
26	BB	1186	G	O3'-P	5.82	1.69	1.61
1	AA	311	C	P-O5'	5.82	1.68	1.59
16	AP	60	ALA	CA-C	5.82	1.60	1.52
26	BB	1716	U	C4'-O4'	-5.82	1.36	1.45
26	BB	2332	C	C4'-O4'	-5.82	1.36	1.45
41	BQ	47	VAL	N-CA	5.82	1.52	1.46
44	BT	26	ASP	N-CA	5.82	1.53	1.46
11	AK	102	VAL	C-N	5.81	1.40	1.33
26	BB	1557	C	C4'-O4'	-5.81	1.36	1.45
38	BN	23	ILE	CA-CB	5.81	1.61	1.54
26	BB	2061	G	C1'-N9	5.81	1.55	1.47
1	AA	833	G	C3'-O3'	5.81	1.50	1.42
2	AB	60	U	C5'-C4'	5.81	1.59	1.51
26	BB	120	U	C5'-C4'	5.81	1.60	1.51
26	BB	2679	A	C3'-O3'	-5.81	1.33	1.42
53	B2	25	ARG	CA-C	5.81	1.59	1.52
9	AI	44	ARG	NE-CZ	5.81	1.39	1.33
26	BB	2255	G	C5'-C4'	5.81	1.59	1.51
26	BB	136	G	C4'-O4'	-5.80	1.36	1.45
26	BB	403	U	O3'-P	5.80	1.69	1.61
26	BB	2781	A	C5'-C4'	5.80	1.59	1.51
44	BT	84	ARG	NE-CZ	5.80	1.39	1.33
10	AJ	89	GLU	CA-C	5.80	1.60	1.52
1	AA	300	A	P-O5'	5.79	1.68	1.59
30	BF	79	ARG	CA-C	5.79	1.60	1.52
11	AK	28	SER	C-N	5.79	1.41	1.33
1	AA	506	G	P-O5'	5.79	1.68	1.59
21	AU	42	ARG	CA-CB	5.79	1.62	1.53
11	AK	13	ILE	C-O	-5.79	1.17	1.24
1	AA	730	G	C4'-O4'	-5.79	1.36	1.45
24	AX	47	ALA	CA-C	5.79	1.60	1.52
26	BB	2245	U	O3'-P	5.79	1.69	1.61
33	BI	22	LYS	CA-C	5.79	1.60	1.52
42	BR	59	THR	N-CA	5.79	1.54	1.46
1	AA	980	C	C4'-O4'	-5.79	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BI	60	GLU	C-O	-5.79	1.16	1.24
26	BB	363	G	P-O5'	5.79	1.68	1.59
28	BD	262	THR	C-O	-5.79	1.16	1.24
26	BB	2360	G	O3'-P	5.78	1.69	1.61
26	BB	2477	U	C4'-O4'	-5.78	1.36	1.45
1	AA	741	G	P-O5'	5.78	1.68	1.59
18	AR	18	ALA	N-CA	-5.78	1.38	1.45
26	BB	2698	U	C4'-O4'	-5.78	1.36	1.45
26	BB	1477	A	O3'-P	5.78	1.69	1.61
1	AA	166	U	O5'-C5'	-5.78	1.33	1.42
26	BB	297	G	O3'-P	5.78	1.69	1.61
26	BB	1166	G	C3'-O3'	5.78	1.50	1.42
26	BB	2519	U	C1'-N1	5.78	1.56	1.47
1	AA	365	U	C3'-C2'	5.77	1.61	1.52
45	BU	34	ASP	C-O	-5.77	1.17	1.24
50	BZ	9	LYS	N-CA	-5.77	1.38	1.45
1	AA	237	G	P-O5'	5.77	1.68	1.59
43	BS	108	LEU	CA-C	5.77	1.60	1.52
1	AA	1162	C	P-O5'	5.77	1.68	1.59
4	AD	4	G	C4'-O4'	-5.77	1.36	1.45
12	AL	67	LYS	CA-CB	5.77	1.64	1.53
26	BB	2195	U	P-O5'	5.77	1.68	1.59
28	BD	196	ASN	C-N	5.77	1.41	1.33
26	BB	1648	U	C4'-O4'	-5.77	1.36	1.45
26	BB	1173	U	P-O5'	5.76	1.68	1.59
26	BB	1231	U	O3'-P	5.76	1.69	1.61
33	BI	54	LEU	N-CA	5.76	1.53	1.46
54	B3	17	SER	CA-C	5.76	1.60	1.52
1	AA	788	U	C4'-C3'	5.76	1.61	1.52
23	AW	40	ALA	CA-CB	-5.76	1.43	1.53
26	BB	2320	U	C2'-O2'	5.76	1.51	1.42
38	BN	61	LEU	C-N	5.76	1.40	1.33
1	AA	863	U	P-O5'	5.76	1.68	1.59
28	BD	164	VAL	C-N	5.76	1.41	1.33
44	BT	10	LYS	CA-CB	5.76	1.62	1.53
9	AI	74	LEU	C-N	5.76	1.41	1.33
26	BB	2239	G	C4'-O4'	-5.76	1.36	1.45
1	AA	1190	G	O3'-P	5.75	1.69	1.61
13	AM	81	GLU	CA-C	5.75	1.60	1.52
19	AS	19	VAL	N-CA	5.75	1.53	1.46
39	BO	86	LYS	CA-C	5.75	1.59	1.52
6	AF	5	HIS	CA-C	5.75	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	AG	61	ARG	CD-NE	5.75	1.54	1.46
26	BB	2345	G	P-O5'	5.75	1.68	1.59
38	BN	111	ILE	CA-C	5.75	1.59	1.52
40	BP	77	ALA	CA-C	5.75	1.60	1.52
45	BU	52	GLU	CA-C	5.75	1.60	1.52
6	AF	158	GLY	CA-C	5.75	1.59	1.51
9	AI	51	ILE	CA-CB	5.75	1.61	1.54
26	BB	397	U	P-O5'	5.75	1.68	1.59
30	BF	26	ALA	C-N	5.75	1.41	1.33
1	AA	1113	C	C4'-O4'	-5.75	1.36	1.45
12	AL	104	THR	N-CA	-5.75	1.38	1.46
26	BB	2074	U	C4'-C3'	-5.75	1.44	1.52
4	AD	30	G	O3'-P	5.75	1.69	1.61
26	BB	678	C	C4'-O4'	-5.75	1.36	1.45
26	BB	1185	G	C2'-C1'	5.74	1.61	1.53
26	BB	1242	U	C2'-O2'	-5.74	1.33	1.42
46	BV	67	VAL	CA-CB	5.74	1.60	1.54
18	AR	29	ALA	CA-C	5.74	1.60	1.52
28	BD	227	VAL	CA-CB	5.74	1.61	1.54
7	AG	58	GLN	N-CA	5.74	1.53	1.46
26	BB	565	C	C5'-C4'	5.74	1.59	1.51
26	BB	2293	G	C5'-C4'	5.74	1.59	1.51
42	BR	4	ILE	CA-CB	5.74	1.60	1.54
26	BB	22	C	C1'-N1	5.73	1.57	1.48
26	BB	5	A	P-O5'	5.73	1.68	1.59
26	BB	1871	A	C5'-C4'	5.73	1.59	1.51
1	AA	240	G	O3'-P	5.73	1.69	1.61
26	BB	576	U	P-O5'	5.73	1.68	1.59
26	BB	1450	G	C5'-C4'	5.73	1.59	1.51
26	BB	1575	C	P-O5'	5.73	1.68	1.59
38	BN	123	ARG	NE-CZ	5.73	1.39	1.33
1	AA	687	A	C4'-O4'	-5.73	1.37	1.45
33	BI	139	PHE	CA-CB	5.73	1.60	1.53
41	BQ	34	HIS	N-CA	5.73	1.53	1.46
13	AM	51	VAL	CA-C	5.73	1.59	1.52
26	BB	511	U	C3'-O3'	5.73	1.50	1.42
1	AA	860	A	C1'-N9	5.73	1.56	1.48
1	AA	731	G	C5'-C4'	5.72	1.59	1.51
19	AS	32	PHE	N-CA	5.72	1.53	1.45
26	BB	117	G	O3'-P	5.72	1.69	1.61
16	AP	25	GLY	C-O	-5.72	1.19	1.24
26	BB	217	A	C3'-C2'	5.72	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	BE	132	ALA	CA-CB	5.72	1.60	1.52
33	BI	108	VAL	CA-C	5.72	1.58	1.52
26	BB	2128	G	O3'-P	-5.72	1.52	1.61
26	BB	2301	C	C2'-O2'	5.72	1.51	1.42
26	BB	1794	A	C3'-O3'	-5.72	1.33	1.42
1	AA	800	G	C4'-O4'	-5.71	1.36	1.45
1	AA	890	G	C4'-O4'	-5.71	1.37	1.45
26	BB	1993	U	P-O5'	5.71	1.68	1.59
26	BB	2551	C	P-O5'	5.71	1.68	1.59
46	BV	13	ALA	C-N	5.71	1.41	1.33
26	BB	1437	C	C4'-O4'	-5.71	1.36	1.45
26	BB	2848	G	P-O5'	5.71	1.68	1.59
31	BG	95	MET	CA-C	5.71	1.60	1.52
7	AG	155	LYS	CA-C	5.71	1.60	1.52
26	BB	510	C	C5'-C4'	5.71	1.59	1.51
27	BC	65	LEU	CA-C	5.71	1.59	1.52
1	AA	755	G	O4'-C1'	5.71	1.50	1.41
26	BB	846	U	C3'-O3'	-5.71	1.33	1.42
26	BB	1091	G	O3'-P	5.71	1.69	1.61
37	BM	32	TYR	CA-C	5.71	1.59	1.52
1	AA	1009	U	C4'-O4'	-5.71	1.36	1.45
22	AV	61	VAL	C-N	5.71	1.40	1.33
26	BB	910	A	C1'-N9	5.71	1.56	1.48
27	BC	67	HIS	CE1-NE2	5.71	1.38	1.32
28	BD	40	GLY	CA-C	5.71	1.57	1.51
34	BJ	99	ALA	N-CA	5.71	1.53	1.46
1	AA	518	C	C5'-C4'	5.70	1.59	1.51
26	BB	42	A	O3'-P	-5.70	1.52	1.61
26	BB	1093	G	C2'-O2'	5.70	1.51	1.42
26	BB	1699	G	O5'-C5'	-5.70	1.34	1.42
26	BB	2650	U	C4'-O4'	-5.70	1.36	1.45
1	AA	430	A	C2'-O2'	5.70	1.51	1.42
26	BB	1327	A	P-O5'	5.70	1.68	1.59
48	BX	48	MET	CA-C	5.70	1.59	1.52
49	BY	10	ARG	N-CA	5.70	1.53	1.46
2	AB	73	G	O3'-P	5.70	1.69	1.61
6	AF	63	ILE	C-O	-5.70	1.18	1.24
26	BB	75	G	C5'-C4'	5.70	1.59	1.51
26	BB	770	G	C4'-O4'	-5.70	1.37	1.45
45	BU	50	VAL	N-CA	5.70	1.53	1.46
5	AE	169	HIS	CE1-NE2	5.70	1.38	1.32
26	BB	1846	G	C2'-C1'	5.70	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2137	U	C2'-C1'	-5.70	1.44	1.53
27	BC	15	VAL	CA-C	5.70	1.59	1.52
47	BW	74	ALA	C-N	-5.70	1.26	1.33
26	BB	1398	C	C5'-C4'	5.70	1.59	1.51
26	BB	2629	U	O5'-C5'	-5.70	1.34	1.42
1	AA	41	G	C2'-C1'	5.69	1.61	1.53
1	AA	1002	G	C5'-C4'	5.69	1.59	1.51
26	BB	925	A	P-O5'	5.69	1.68	1.59
1	AA	311	C	C5'-C4'	5.69	1.59	1.51
26	BB	579	G	C3'-O3'	5.69	1.50	1.42
26	BB	1152	C	C4'-O4'	-5.69	1.37	1.45
44	BT	5	PHE	CA-C	5.69	1.59	1.52
35	BK	67	THR	CA-C	-5.69	1.45	1.52
18	AR	3	SER	CA-C	5.68	1.59	1.52
26	BB	1309	G	O4'-C1'	5.68	1.50	1.41
32	BH	19	ASN	CA-C	5.68	1.59	1.52
26	BB	1284	A	C3'-C2'	5.68	1.61	1.52
41	BQ	76	LYS	C-O	-5.68	1.17	1.24
13	AM	101	SER	CA-C	5.68	1.59	1.52
26	BB	977	G	C5'-C4'	5.68	1.59	1.51
26	BB	1837	C	O3'-P	5.68	1.69	1.61
1	AA	1496	C	C2'-C1'	5.68	1.61	1.53
26	BB	209	C	C5'-C4'	5.68	1.59	1.51
26	BB	2464	G	P-O5'	5.68	1.68	1.59
26	BB	2624	G	C5'-C4'	5.68	1.59	1.51
35	BK	59	THR	N-CA	5.68	1.52	1.46
1	AA	352	C	O5'-C5'	5.68	1.50	1.42
1	AA	97	G	C1'-N9	5.68	1.56	1.48
1	AA	460	A	C4'-C3'	5.68	1.61	1.52
1	AA	664	G	C4'-O4'	-5.68	1.37	1.45
26	BB	632	A	C5'-C4'	5.68	1.59	1.51
29	BE	88	GLU	N-CA	5.68	1.53	1.46
33	BI	110	VAL	C-O	-5.68	1.18	1.24
1	AA	692	U	P-O5'	5.67	1.68	1.59
15	AO	17	LYS	CA-CB	5.67	1.62	1.53
25	BA	26	C	C1'-N1	5.67	1.56	1.48
26	BB	1383	A	C4'-O4'	-5.67	1.37	1.45
26	BB	2062	A	C4'-O4'	-5.67	1.37	1.45
26	BB	2138	G	C5'-C4'	5.67	1.59	1.51
29	BE	41	ALA	CA-C	5.67	1.60	1.52
1	AA	872	A	P-O5'	5.67	1.68	1.59
25	BA	57	A	C4'-O4'	-5.67	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	930	G	C4'-O4'	-5.67	1.37	1.45
26	BB	1720	U	O3'-P	5.67	1.69	1.61
34	BJ	12	ALA	N-CA	5.67	1.53	1.46
1	AA	999	C	P-O5'	5.67	1.68	1.59
26	BB	91	A	C5'-C4'	5.67	1.59	1.51
26	BB	2067	G	C5'-C4'	5.67	1.59	1.51
16	AP	25	GLY	CA-C	5.67	1.58	1.51
26	BB	531	C	C4'-O4'	-5.67	1.37	1.45
1	AA	518	C	C2'-C1'	5.66	1.61	1.53
1	AA	284	C	C4'-O4'	-5.66	1.37	1.45
26	BB	1628	G	C3'-O3'	5.66	1.50	1.42
26	BB	2159	G	O5'-C5'	-5.66	1.33	1.42
26	BB	1106	G	P-O5'	5.66	1.68	1.59
26	BB	1137	G	C2'-O2'	-5.66	1.33	1.42
26	BB	1584	U	O3'-P	5.66	1.69	1.61
27	BC	150	ALA	CA-C	5.66	1.60	1.52
32	BH	48	THR	CA-C	5.66	1.59	1.52
3	AC	22	G	P-O5'	5.66	1.68	1.59
5	AE	219	THR	CB-OG1	-5.66	1.34	1.43
41	BQ	67	ASN	N-CA	-5.66	1.38	1.45
1	AA	1031	C	C1'-N1	5.66	1.56	1.48
1	AA	325	A	P-O5'	5.66	1.68	1.59
26	BB	438	G	O4'-C1'	5.66	1.50	1.41
26	BB	775	G	C4'-O4'	-5.66	1.37	1.45
27	BC	193	LEU	CA-C	5.66	1.60	1.52
28	BD	203	VAL	CA-C	5.66	1.60	1.53
41	BQ	73	ALA	CA-C	5.65	1.60	1.52
56	B5	24	THR	CA-C	5.65	1.60	1.52
1	AA	809	G	C1'-N9	5.65	1.56	1.48
16	AP	112	ARG	NE-CZ	5.65	1.39	1.33
26	BB	105	C	C5'-C4'	5.65	1.59	1.51
26	BB	2210	U	C1'-N1	5.65	1.55	1.47
1	AA	601	G	C4'-O4'	-5.65	1.37	1.45
25	BA	114	C	C5'-C4'	5.65	1.59	1.51
26	BB	1754	A	O3'-P	5.65	1.69	1.61
26	BB	2803	G	P-O5'	5.65	1.68	1.59
50	BZ	42	GLU	CA-C	-5.65	1.45	1.52
26	BB	244	A	P-O5'	5.65	1.68	1.59
26	BB	1906	G	O3'-P	5.65	1.69	1.61
26	BB	2568	U	C5'-C4'	5.65	1.59	1.51
1	AA	1046	A	C4'-C3'	5.65	1.61	1.52
7	AG	129	VAL	CA-CB	5.65	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	503	A	C4'-O4'	-5.65	1.37	1.45
26	BB	1946	U	C4'-O4'	-5.65	1.37	1.45
56	B5	27	GLY	N-CA	5.65	1.52	1.45
1	AA	629	A	C3'-C2'	-5.64	1.44	1.52
1	AA	778	G	P-O5'	5.64	1.68	1.59
26	BB	1586	A	C5'-C4'	5.64	1.59	1.51
26	BB	1871	A	P-O5'	5.64	1.68	1.59
26	BB	2800	A	P-O5'	5.64	1.68	1.59
39	BO	30	SER	C-N	5.64	1.40	1.33
44	BT	43	ASN	CA-CB	-5.64	1.49	1.53
1	AA	1214	C	C5'-C4'	5.64	1.59	1.51
26	BB	92	U	C2'-O2'	-5.64	1.33	1.42
54	B3	22	THR	CA-C	5.64	1.61	1.53
53	B2	41	HIS	CD2-NE2	5.64	1.44	1.37
1	AA	613	C	C4'-C3'	5.64	1.61	1.52
1	AA	1093	A	O3'-P	5.64	1.69	1.61
26	BB	2679	A	P-O5'	5.64	1.68	1.59
26	BB	1454	C	O3'-P	5.64	1.69	1.61
28	BD	147	PRO	N-CD	5.64	1.55	1.47
44	BT	40	MET	N-CA	-5.64	1.39	1.46
8	AH	92	ARG	NE-CZ	5.64	1.39	1.33
26	BB	1307	A	P-O5'	5.64	1.68	1.59
39	BO	42	THR	C-N	5.64	1.41	1.33
44	BT	63	VAL	CA-C	5.64	1.59	1.52
1	AA	4	U	P-O5'	5.63	1.68	1.59
26	BB	506	G	P-O5'	5.63	1.68	1.59
17	AQ	20	PHE	N-CA	5.63	1.53	1.46
1	AA	1352	C	C2'-O2'	5.63	1.50	1.42
26	BB	2361	G	C4'-O4'	-5.63	1.37	1.45
32	BH	34	ARG	CZ-NH1	5.63	1.40	1.32
1	AA	307	C	C3'-O3'	-5.63	1.34	1.43
1	AA	1387	G	C3'-O3'	-5.63	1.33	1.42
26	BB	509	C	O3'-P	5.63	1.69	1.61
46	BV	70	HIS	CE1-NE2	5.63	1.38	1.32
47	BW	80	ASP	N-CA	5.63	1.53	1.45
1	AA	82	G	C3'-C2'	-5.63	1.44	1.52
52	B1	35	VAL	C-N	5.63	1.41	1.33
1	AA	993	G	C1'-N9	5.63	1.55	1.47
34	BJ	125	LEU	CA-C	5.63	1.60	1.52
1	AA	1063	C	C4'-O4'	-5.62	1.37	1.45
26	BB	1834	U	C4'-O4'	-5.62	1.37	1.45
29	BE	153	GLY	CA-C	5.62	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
50	BZ	44	ARG	CA-C	5.62	1.59	1.52
1	AA	411	A	C4'-O4'	-5.62	1.37	1.45
23	AW	74	HIS	N-CA	-5.62	1.39	1.46
26	BB	2854	G	C5'-C4'	-5.62	1.42	1.51
1	AA	470	C	C4'-O4'	-5.62	1.37	1.45
26	BB	2050	C	C2'-C1'	5.62	1.61	1.53
26	BB	2800	A	C2'-O2'	5.62	1.50	1.42
1	AA	1205	U	C4'-O4'	-5.62	1.37	1.45
19	AS	59	HIS	CE1-NE2	5.62	1.38	1.32
43	BS	49	ARG	NE-CZ	5.62	1.39	1.33
1	AA	399	G	C3'-C2'	5.62	1.61	1.52
1	AA	1225	A	P-O5'	5.62	1.68	1.59
8	AH	58	ALA	N-CA	-5.62	1.39	1.46
26	BB	2108	A	O3'-P	5.62	1.69	1.61
26	BB	2280	G	C4'-O4'	-5.62	1.37	1.45
1	AA	67	C	O5'-C5'	5.62	1.50	1.42
1	AA	476	U	P-O5'	5.62	1.68	1.59
26	BB	2468	A	C4'-O4'	-5.62	1.37	1.45
7	AG	194	ILE	CA-C	5.61	1.59	1.52
24	AX	33	ARG	N-CA	5.61	1.53	1.46
26	BB	808	G	O3'-P	5.61	1.69	1.61
48	BX	44	HIS	ND1-CE1	5.61	1.38	1.32
16	AP	96	VAL	C-O	-5.61	1.18	1.24
1	AA	826	C	C4'-O4'	-5.61	1.37	1.45
1	AA	903	G	C5'-C4'	5.61	1.59	1.51
26	BB	2295	C	O3'-P	5.61	1.69	1.61
26	BB	2447	G	C5'-C4'	5.61	1.59	1.51
5	AE	16	GLY	N-CA	5.61	1.53	1.45
26	BB	10	A	C4'-O4'	-5.61	1.37	1.45
28	BD	252	LYS	C-O	5.61	1.31	1.24
57	B6	15	LYS	N-CA	-5.61	1.38	1.45
1	AA	851	G	C2'-C1'	-5.61	1.45	1.53
1	AA	1107	C	C2'-C1'	-5.61	1.45	1.53
11	AK	75	GLN	N-CA	5.61	1.52	1.46
26	BB	2563	U	C4'-C3'	5.61	1.60	1.52
7	AG	18	LEU	CA-C	5.61	1.60	1.53
23	AW	44	ALA	CA-C	5.61	1.60	1.52
26	BB	740	C	O4'-C1'	5.61	1.50	1.41
41	BQ	33	ARG	C-O	-5.61	1.17	1.23
1	AA	1328	C	P-O5'	5.60	1.68	1.59
25	BA	110	C	C5'-C4'	5.60	1.59	1.51
26	BB	1676	A	C5'-C4'	5.60	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	592	G	C2'-O2'	-5.60	1.34	1.42
26	BB	100	U	C1'-N1	5.60	1.56	1.48
26	BB	2448	A	C5'-C4'	5.60	1.59	1.51
26	BB	1534	U	C5'-C4'	5.60	1.59	1.51
26	BB	1295	C	C1'-N1	5.60	1.56	1.48
1	AA	140	U	O3'-P	5.60	1.69	1.61
8	AH	138	ALA	CA-C	5.60	1.60	1.52
21	AU	61	ALA	N-CA	5.59	1.53	1.46
26	BB	626	A	P-O5'	5.59	1.68	1.59
26	BB	2278	A	C3'-O3'	-5.59	1.33	1.42
1	AA	695	A	C4'-C3'	5.59	1.60	1.52
26	BB	279	A	O5'-C5'	5.59	1.50	1.42
26	BB	874	G	C5'-C4'	5.59	1.59	1.51
25	BA	100	G	C2'-O2'	5.59	1.50	1.42
36	BL	32	LEU	N-CA	5.59	1.53	1.46
1	AA	790	A	P-O5'	5.59	1.68	1.59
26	BB	220	G	C5'-C4'	5.59	1.59	1.51
26	BB	542	C	O3'-P	5.59	1.69	1.61
26	BB	814	C	P-O5'	5.59	1.68	1.59
26	BB	2123	G	O3'-P	5.59	1.69	1.61
1	AA	726	C	C5'-C4'	5.59	1.59	1.51
2	AB	75	C	P-O5'	5.59	1.68	1.59
26	BB	648	G	P-O5'	5.59	1.68	1.59
26	BB	2713	U	O4'-C1'	5.59	1.50	1.42
26	BB	2801	G	C3'-C2'	5.59	1.61	1.52
39	BO	125	PRO	C-N	5.59	1.40	1.33
58	B7	7	VAL	N-CA	5.59	1.53	1.46
1	AA	1321	U	O3'-P	5.58	1.69	1.61
26	BB	1430	G	C3'-C2'	5.58	1.61	1.52
4	AD	16	C	C4'-O4'	-5.58	1.37	1.45
26	BB	379	G	P-O5'	5.58	1.68	1.59
37	BM	111	LYS	C-N	5.58	1.41	1.33
26	BB	1450	G	C4'-O4'	-5.58	1.37	1.45
26	BB	2003	A	C5'-C4'	5.58	1.59	1.51
26	BB	1256	G	C2'-O2'	5.58	1.50	1.42
29	BE	34	VAL	CA-CB	5.58	1.60	1.54
33	BI	60	GLU	CA-C	5.58	1.60	1.52
26	BB	8	C	P-O5'	5.58	1.68	1.59
26	BB	2896	C	C4'-O4'	-5.58	1.37	1.45
26	BB	223	A	O5'-C5'	-5.57	1.34	1.42
26	BB	480	A	O4'-C1'	5.57	1.50	1.41
26	BB	2038	G	P-O5'	5.57	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	72	U	C4'-O4'	-5.57	1.37	1.45
26	BB	504	A	O5'-C5'	5.57	1.50	1.42
46	BV	4	GLU	CA-C	5.57	1.59	1.52
1	AA	1021	A	O3'-P	-5.57	1.52	1.61
5	AE	106	VAL	CA-CB	5.57	1.61	1.54
26	BB	228	C	C1'-N1	5.57	1.55	1.47
26	BB	684	G	C5'-C4'	5.57	1.59	1.51
27	BC	53	ARG	NE-CZ	5.57	1.39	1.33
1	AA	1351	U	O3'-P	5.57	1.69	1.61
26	BB	1380	G	C5'-C4'	5.57	1.59	1.51
26	BB	2070	A	O3'-P	5.57	1.69	1.61
26	BB	2619	C	C4'-O4'	-5.57	1.37	1.45
37	BM	34	GLY	CA-C	5.57	1.60	1.52
56	B5	27	GLY	CA-C	5.57	1.58	1.52
10	AJ	172	PRO	CA-C	5.56	1.59	1.52
26	BB	552	U	C2'-C1'	5.56	1.61	1.53
35	BK	85	ILE	CA-C	5.56	1.57	1.52
1	AA	541	G	P-O5'	5.56	1.68	1.59
1	AA	1147	C	C3'-O3'	5.56	1.50	1.42
12	AL	17	ARG	N-CA	-5.56	1.39	1.46
26	BB	542	C	P-O5'	5.56	1.68	1.59
41	BQ	22	GLY	CA-C	5.56	1.58	1.51
1	AA	344	A	C1'-N9	5.56	1.55	1.47
26	BB	200	U	P-O5'	5.56	1.68	1.59
26	BB	1499	C	C1'-N1	5.56	1.56	1.48
26	BB	1583	A	O3'-P	5.56	1.69	1.61
26	BB	1663	G	C2'-C1'	5.56	1.61	1.53
26	BB	2886	A	C1'-N9	5.56	1.56	1.48
26	BB	2886	A	C2'-O2'	-5.56	1.34	1.42
1	AA	729	A	C5'-C4'	5.55	1.59	1.51
19	AS	57	ILE	CA-CB	5.55	1.61	1.54
53	B2	69	SER	N-CA	5.55	1.53	1.46
57	B6	32	LEU	C-N	5.55	1.42	1.33
18	AR	71	ARG	CA-C	5.55	1.60	1.52
26	BB	2828	G	P-O5'	5.55	1.68	1.59
1	AA	1431	A	O4'-C1'	5.55	1.50	1.41
2	AB	40	C	C1'-N1	5.55	1.56	1.48
26	BB	1074	G	P-O5'	5.55	1.68	1.59
26	BB	2201	G	O3'-P	5.55	1.69	1.61
26	BB	2324	U	C5'-C4'	5.55	1.59	1.51
26	BB	1040	A	C4'-O4'	-5.55	1.37	1.45
8	AH	23	THR	C-N	5.55	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	990	C	C4'-O4'	-5.55	1.37	1.45
1	AA	1472	U	P-O5'	5.55	1.68	1.59
11	AK	105	THR	CB-OG1	-5.55	1.34	1.43
26	BB	44	A	P-O5'	5.55	1.68	1.59
26	BB	1247	A	C4'-O4'	-5.55	1.37	1.45
26	BB	1262	A	P-O5'	5.55	1.68	1.59
40	BP	3	HIS	N-CA	5.55	1.52	1.46
55	B4	41	VAL	C-N	5.55	1.39	1.33
18	AR	49	HIS	CD2-NE2	-5.54	1.31	1.37
1	AA	180	U	C3'-O3'	5.54	1.50	1.42
26	BB	1616	A	O3'-P	5.54	1.69	1.61
38	BN	21	ARG	CZ-NH1	5.54	1.40	1.32
1	AA	1439	G	C5'-C4'	5.54	1.59	1.51
15	AO	99	GLY	CA-C	5.54	1.60	1.51
26	BB	1705	A	C2'-C1'	-5.54	1.45	1.53
26	BB	1827	U	C4'-O4'	-5.54	1.37	1.45
26	BB	2841	C	C5'-C4'	5.54	1.59	1.51
52	B1	23	LEU	CA-CB	5.54	1.61	1.53
4	AD	19	G	C3'-O3'	-5.54	1.34	1.43
26	BB	471	A	C4'-O4'	-5.54	1.37	1.45
44	BT	86	GLN	C-O	-5.54	1.17	1.23
26	BB	872	U	C4'-O4'	-5.54	1.37	1.45
42	BR	62	LYS	C-O	-5.54	1.17	1.24
18	AR	41	HIS	CB-CG	5.54	1.57	1.50
1	AA	75	G	C5'-C4'	5.53	1.59	1.51
26	BB	1850	G	C3'-C2'	5.53	1.61	1.52
1	AA	648	A	C4'-O4'	-5.53	1.37	1.45
26	BB	471	A	P-O5'	5.53	1.68	1.59
26	BB	1889	A	O5'-C5'	-5.53	1.34	1.42
28	BD	107	LYS	C-O	5.53	1.31	1.24
12	AL	93	LEU	CB-CG	5.53	1.64	1.53
26	BB	91	A	C4'-O4'	-5.53	1.37	1.45
26	BB	700	G	C4'-O4'	-5.53	1.37	1.45
1	AA	386	C	C4'-O4'	-5.53	1.37	1.45
26	BB	387	U	C4'-C3'	5.53	1.61	1.53
26	BB	744	U	C2'-O2'	5.53	1.50	1.42
26	BB	1021	A	O5'-C5'	5.53	1.50	1.42
26	BB	1621	U	O3'-P	5.53	1.69	1.61
28	BD	24	HIS	N-CA	5.53	1.52	1.46
48	BX	5	ASN	CA-C	5.53	1.59	1.52
1	AA	1013	G	O4'-C1'	5.53	1.50	1.41
25	BA	46	A	C5'-C4'	5.53	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	BT	15	SER	CA-C	-5.53	1.46	1.52
12	AL	41	GLU	N-CA	5.52	1.52	1.45
17	AQ	71	GLY	CA-C	5.52	1.59	1.51
1	AA	331	G	C4'-O4'	-5.52	1.37	1.45
7	AG	36	ALA	N-CA	5.52	1.52	1.45
13	AM	56	HIS	CA-C	5.52	1.59	1.52
26	BB	1295	C	C5'-C4'	5.52	1.59	1.51
26	BB	2597	G	O3'-P	5.52	1.69	1.61
32	BH	41	GLU	CA-C	5.52	1.59	1.52
41	BQ	8	ILE	N-CA	5.52	1.53	1.46
1	AA	149	A	O3'-P	5.52	1.69	1.61
7	AG	28	ASP	CA-CB	5.52	1.62	1.53
27	BC	103	GLN	CA-C	5.52	1.59	1.52
45	BU	59	GLU	CA-CB	5.52	1.62	1.53
1	AA	546	A	C4'-O4'	-5.52	1.37	1.45
6	AF	141	MET	C-N	5.52	1.42	1.33
26	BB	41	C	C3'-C2'	5.52	1.61	1.52
26	BB	997	G	C3'-C2'	-5.52	1.44	1.52
32	BH	140	ILE	CA-C	5.52	1.59	1.52
37	BM	76	VAL	CA-C	5.52	1.59	1.52
26	BB	1933	G	O3'-P	5.51	1.69	1.61
46	BV	82	LYS	C-N	5.51	1.41	1.33
1	AA	1437	A	C2'-O2'	-5.51	1.34	1.42
1	AA	772	U	C5'-C4'	5.51	1.59	1.51
25	BA	53	A	C4'-C3'	5.51	1.60	1.52
26	BB	1116	G	C5'-C4'	5.51	1.59	1.51
26	BB	1274	A	P-O5'	5.51	1.68	1.59
33	BI	4	ILE	CA-CB	5.51	1.60	1.53
46	BV	3	ARG	CD-NE	5.51	1.53	1.46
1	AA	1037	C	C4'-O4'	-5.51	1.37	1.45
26	BB	1482	G	C2'-C1'	-5.51	1.45	1.53
16	AP	33	LEU	CA-C	5.51	1.59	1.52
26	BB	988	A	C5'-C4'	5.51	1.59	1.51
1	AA	770	C	C4'-O4'	-5.51	1.37	1.45
1	AA	961	U	C5'-C4'	5.51	1.59	1.51
7	AG	43	ARG	NE-CZ	5.51	1.39	1.33
26	BB	94	A	C5'-C4'	5.51	1.59	1.51
26	BB	1015	U	O4'-C1'	5.51	1.50	1.41
26	BB	1800	C	C4'-O4'	-5.51	1.37	1.45
27	BC	115	ILE	CA-C	5.51	1.59	1.52
39	BO	59	ARG	NE-CZ	5.51	1.39	1.33
49	BY	52	CYS	CA-C	5.51	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1722	A	C4'-O4'	-5.50	1.37	1.45
26	BB	1837	C	C4'-C3'	5.50	1.60	1.52
1	AA	1404	C	C4'-O4'	-5.50	1.37	1.45
26	BB	617	G	C1'-N9	5.50	1.56	1.48
26	BB	1201	U	O3'-P	5.50	1.69	1.61
26	BB	2453	A	P-O5'	5.50	1.68	1.59
28	BD	9	SER	C-N	5.50	1.40	1.33
26	BB	2576	G	O3'-P	5.50	1.69	1.61
1	AA	1054	C	O5'-C5'	-5.50	1.34	1.42
1	AA	1373	G	P-O5'	5.50	1.68	1.59
26	BB	6	A	O4'-C1'	5.50	1.49	1.41
26	BB	597	G	P-O5'	5.50	1.68	1.59
26	BB	1833	C	C5'-C4'	5.50	1.59	1.51
4	AD	29	C	C4'-C3'	5.50	1.60	1.52
26	BB	885	C	P-O5'	5.50	1.68	1.59
26	BB	2725	A	O5'-C5'	-5.50	1.34	1.42
28	BD	161	VAL	N-CA	-5.50	1.39	1.46
42	BR	55	HIS	CE1-NE2	5.50	1.38	1.32
1	AA	412	A	C5'-C4'	5.49	1.59	1.51
26	BB	390	U	C5'-C4'	5.49	1.59	1.51
26	BB	1331	G	C2'-O2'	-5.49	1.34	1.42
26	BB	1473	G	O5'-C5'	-5.49	1.34	1.42
1	AA	53	A	C5'-C4'	5.49	1.59	1.51
26	BB	1008	A	C4'-O4'	-5.49	1.37	1.45
16	AP	81	ASP	CA-C	5.49	1.60	1.52
26	BB	181	A	O3'-P	5.49	1.69	1.61
26	BB	2230	G	O3'-P	-5.49	1.52	1.61
1	AA	459	A	C4'-O4'	-5.49	1.37	1.45
28	BD	59	GLN	N-CA	5.49	1.52	1.45
1	AA	719	C	O4'-C1'	-5.49	1.33	1.42
6	AF	190	THR	C-N	5.49	1.41	1.33
26	BB	1271	G	P-O5'	5.49	1.68	1.59
26	BB	1882	U	C1'-N1	5.49	1.56	1.48
36	BL	86	GLN	CA-C	5.49	1.59	1.52
50	BZ	18	SER	CA-CB	5.49	1.62	1.54
26	BB	1288	G	C5'-C4'	5.48	1.59	1.51
26	BB	1497	U	C4'-O4'	-5.48	1.37	1.45
26	BB	2267	A	C5'-C4'	5.48	1.59	1.51
1	AA	1180	A	C5'-C4'	5.48	1.59	1.51
26	BB	514	A	O3'-P	5.48	1.69	1.61
26	BB	896	A	N9-C8	-5.48	1.26	1.37
26	BB	2679	A	C2'-C1'	-5.48	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	413	C	C4'-O4'	-5.48	1.37	1.45
1	AA	1039	G	O3'-P	5.48	1.69	1.61
26	BB	2314	A	P-O5'	5.48	1.68	1.59
26	BB	2455	G	P-O5'	5.48	1.68	1.59
1	AA	1345	U	C4'-C3'	-5.48	1.45	1.53
25	BA	63	C	C4'-O4'	-5.48	1.37	1.45
1	AA	609	A	C4'-O4'	-5.47	1.37	1.45
10	AJ	17	PHE	N-CA	5.47	1.52	1.45
26	BB	216	A	O3'-P	5.47	1.69	1.61
39	BO	19	GLY	CA-C	5.47	1.59	1.51
1	AA	639	G	P-O5'	5.47	1.68	1.59
25	BA	99	A	C4'-O4'	-5.47	1.37	1.45
26	BB	1526	C	O3'-P	5.47	1.69	1.61
1	AA	269	C	O3'-P	5.47	1.69	1.61
26	BB	1800	C	O4'-C1'	5.47	1.50	1.42
1	AA	52	C	C4'-O4'	-5.47	1.37	1.45
1	AA	236	A	O3'-P	5.47	1.69	1.61
20	AT	72	TRP	NE1-CE2	5.47	1.43	1.37
26	BB	2055	C	C5'-C4'	5.47	1.59	1.51
26	BB	2079	U	C1'-N1	5.47	1.56	1.48
1	AA	1364	U	C1'-N1	5.47	1.56	1.48
26	BB	1771	C	O4'-C1'	5.47	1.49	1.41
27	BC	69	THR	CA-C	5.47	1.59	1.52
6	AF	37	LYS	CA-C	-5.47	1.45	1.52
1	AA	561	U	C3'-C2'	5.46	1.60	1.52
26	BB	338	G	C4'-O4'	-5.46	1.37	1.45
26	BB	400	G	P-O5'	5.46	1.68	1.59
32	BH	56	GLY	N-CA	5.46	1.51	1.45
41	BQ	111	ARG	CA-C	5.46	1.60	1.52
2	AB	47	U	O3'-P	5.46	1.69	1.61
26	BB	25	U	O5'-C5'	-5.46	1.34	1.42
26	BB	388	G	P-O5'	5.46	1.68	1.59
26	BB	407	G	C3'-C2'	5.46	1.60	1.52
38	BN	21	ARG	CA-C	5.46	1.59	1.52
44	BT	100	GLY	N-CA	-5.46	1.41	1.46
46	BV	3	ARG	NE-CZ	5.46	1.39	1.33
26	BB	544	C	O3'-P	5.46	1.69	1.61
26	BB	568	U	O3'-P	5.46	1.69	1.61
32	BH	97	VAL	CA-C	-5.46	1.46	1.52
34	BJ	102	ASN	N-CA	5.46	1.53	1.46
10	AJ	93	VAL	N-CA	5.46	1.52	1.46
26	BB	2540	C	O3'-P	5.46	1.69	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	56	C	P-O5'	5.46	1.68	1.59
26	BB	142	A	O3'-P	5.46	1.69	1.61
1	AA	1235	U	C3'-O3'	-5.45	1.33	1.42
26	BB	966	G	P-O5'	5.45	1.68	1.59
26	BB	2624	G	C1'-N9	5.45	1.56	1.48
27	BC	145	VAL	CA-C	5.45	1.59	1.53
14	AN	27	ASN	CA-C	5.45	1.59	1.52
20	AT	46	HIS	N-CA	5.45	1.53	1.46
26	BB	88	G	C1'-N9	5.45	1.56	1.48
26	BB	2370	G	P-O5'	5.45	1.68	1.59
26	BB	2460	U	C5'-C4'	5.45	1.59	1.51
26	BB	2848	G	C4'-O4'	-5.45	1.37	1.45
33	BI	132	PHE	CA-C	5.45	1.59	1.52
45	BU	35	ILE	CA-C	5.45	1.59	1.52
16	AP	80	MET	N-CA	5.45	1.53	1.46
26	BB	736	C	C5'-C4'	5.45	1.59	1.51
32	BH	76	ILE	CA-C	5.45	1.60	1.52
26	BB	1541	C	O3'-P	5.45	1.69	1.61
1	AA	1170	A	C4'-O4'	-5.45	1.37	1.45
25	BA	65	U	C5'-C4'	5.45	1.59	1.51
26	BB	2241	A	C5'-C4'	5.45	1.59	1.51
26	BB	2588	G	O4'-C1'	5.45	1.49	1.41
26	BB	2736	A	P-O5'	5.45	1.68	1.59
16	AP	45	SER	N-CA	-5.44	1.39	1.46
1	AA	91	U	C5'-C4'	5.44	1.59	1.51
1	AA	644	U	P-O5'	5.44	1.68	1.59
1	AA	1299	A	C4'-O4'	-5.44	1.37	1.45
10	AJ	177	LEU	CA-C	5.44	1.60	1.53
18	AR	5	GLU	N-CA	5.44	1.53	1.46
26	BB	1350	C	O3'-P	5.44	1.69	1.61
26	BB	725	G	P-O5'	5.44	1.68	1.59
26	BB	126	A	O4'-C1'	-5.44	1.33	1.41
35	BK	25	PRO	N-CA	-5.44	1.40	1.47
8	AH	77	ASN	C-O	5.44	1.30	1.24
26	BB	1741	C	C5'-C4'	5.44	1.59	1.51
26	BB	620	G	C4'-O4'	-5.43	1.37	1.45
26	BB	1740	G	P-O5'	5.43	1.68	1.59
1	AA	441	A	P-O5'	5.43	1.67	1.59
1	AA	1539	C	C1'-N1	5.43	1.56	1.48
26	BB	505	A	O3'-P	5.43	1.69	1.61
26	BB	1711	A	C3'-O3'	-5.43	1.34	1.42
26	BB	2096	C	C4'-O4'	-5.43	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BL	116	ARG	CD-NE	-5.43	1.38	1.46
41	BQ	78	VAL	CA-CB	5.43	1.61	1.54
1	AA	168	G	C5'-C4'	5.43	1.59	1.51
1	AA	819	A	O4'-C1'	5.43	1.49	1.41
1	AA	1431	A	P-O5'	5.43	1.67	1.59
24	AX	34	ARG	NE-CZ	5.43	1.39	1.33
26	BB	1481	U	C4'-O4'	-5.43	1.37	1.45
41	BQ	29	HIS	ND1-CE1	5.43	1.38	1.32
26	BB	570	G	C4'-C3'	-5.43	1.44	1.52
1	AA	837	U	O3'-P	5.42	1.69	1.61
20	AT	10	ARG	CD-NE	5.42	1.53	1.46
26	BB	587	C	C4'-O4'	-5.42	1.37	1.45
26	BB	762	U	C1'-N1	5.42	1.55	1.47
26	BB	2651	C	C4'-O4'	-5.42	1.37	1.45
31	BG	10	GLU	N-CA	-5.42	1.39	1.46
1	AA	1247	U	C2'-C1'	5.42	1.61	1.53
5	AE	33	ALA	CA-C	5.42	1.60	1.53
28	BD	34	GLU	C-N	5.42	1.41	1.33
41	BQ	31	THR	CA-C	5.42	1.59	1.52
1	AA	1220	G	C3'-C2'	5.42	1.60	1.52
1	AA	453	G	C4'-O4'	-5.42	1.37	1.45
1	AA	653	U	C2'-C1'	-5.42	1.45	1.53
2	AB	58	A	C4'-O4'	-5.42	1.37	1.45
27	BC	136	LEU	N-CA	5.42	1.52	1.46
28	BD	193	GLU	CA-CB	5.42	1.63	1.54
29	BE	189	VAL	N-CA	5.42	1.52	1.46
1	AA	240	G	C3'-C2'	5.42	1.60	1.52
26	BB	2142	A	C5'-C4'	5.42	1.59	1.51
26	BB	659	G	N7-C5	5.42	1.50	1.39
1	AA	1232	U	C4'-O4'	-5.41	1.37	1.45
26	BB	1792	G	C2'-O2'	5.41	1.50	1.42
57	B6	3	ILE	N-CA	5.41	1.53	1.46
28	BD	165	ALA	CA-C	5.41	1.59	1.52
1	AA	48	C	P-O5'	5.41	1.67	1.59
1	AA	713	G	O3'-P	5.41	1.69	1.61
1	AA	1536	C	C4'-O4'	-5.41	1.37	1.45
16	AP	92	ARG	CA-C	5.41	1.60	1.52
23	AW	5	SER	CA-C	5.41	1.60	1.52
25	BA	28	C	C4'-O4'	-5.41	1.37	1.45
26	BB	2266	A	C3'-C2'	5.41	1.61	1.52
19	AS	41	PRO	C-N	5.41	1.38	1.33
26	BB	278	A	C4'-O4'	-5.41	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1750	G	C5'-C4'	5.41	1.59	1.51
1	AA	227	G	P-O5'	5.41	1.67	1.59
26	BB	1577	C	C4'-C3'	5.41	1.60	1.52
26	BB	2291	U	C4'-O4'	-5.41	1.37	1.45
41	BQ	25	ARG	N-CA	5.41	1.52	1.46
26	BB	108	G	C4'-O4'	-5.41	1.37	1.45
26	BB	1651	G	C4'-O4'	-5.41	1.37	1.45
1	AA	226	G	C5'-C4'	5.40	1.59	1.51
26	BB	2660	A	C4'-O4'	-5.40	1.37	1.45
50	BZ	26	ARG	NE-CZ	5.40	1.39	1.33
1	AA	415	A	P-O5'	5.40	1.67	1.59
1	AA	713	G	C4'-O4'	-5.40	1.37	1.45
1	AA	1048	G	C4'-O4'	-5.40	1.37	1.45
25	BA	97	C	C5'-C4'	5.40	1.59	1.51
26	BB	1170	C	P-O5'	5.40	1.67	1.59
26	BB	2836	U	O3'-P	5.40	1.69	1.61
34	BJ	99	ALA	C-N	-5.40	1.25	1.33
1	AA	860	A	P-O5'	5.40	1.67	1.59
26	BB	1286	A	C4'-O4'	-5.40	1.37	1.45
26	BB	2364	C	C5'-C4'	5.40	1.59	1.51
1	AA	1092	A	C3'-C2'	5.40	1.60	1.52
31	BG	84	ILE	CA-C	5.40	1.59	1.52
41	BQ	113	ALA	C-O	-5.40	1.17	1.24
26	BB	828	U	C1'-N1	5.39	1.56	1.48
26	BB	2344	U	C3'-C2'	5.39	1.61	1.52
38	BN	132	ARG	NE-CZ	5.39	1.39	1.33
6	AF	157	GLY	CA-C	5.39	1.58	1.51
8	AH	19	ARG	N-CA	5.39	1.52	1.46
26	BB	623	C	C2'-O2'	-5.39	1.34	1.42
26	BB	2299	U	C4'-O4'	-5.39	1.37	1.45
26	BB	2819	G	O3'-P	5.39	1.69	1.61
44	BT	6	GLN	N-CA	-5.39	1.39	1.46
1	AA	1379	G	O3'-P	5.39	1.69	1.61
4	AD	1	C	O3'-P	5.39	1.69	1.61
26	BB	1357	C	P-O5'	5.39	1.67	1.59
28	BD	43	ASN	CA-CB	5.39	1.62	1.53
1	AA	130	A	C5'-C4'	5.39	1.59	1.51
1	AA	758	C	O3'-P	5.39	1.69	1.61
35	BK	100	ILE	CA-C	5.39	1.59	1.52
40	BP	14	SER	N-CA	5.39	1.52	1.46
26	BB	483	A	O4'-C1'	5.39	1.49	1.41
26	BB	1600	C	O3'-P	5.39	1.69	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	559	A	C4'-C3'	5.39	1.61	1.53
1	AA	1372	U	P-O5'	5.39	1.67	1.59
1	AA	1441	A	O3'-P	5.39	1.69	1.61
4	AD	12	G	C5'-C4'	5.39	1.59	1.51
15	AO	109	ARG	CD-NE	5.39	1.53	1.46
26	BB	1591	A	C2'-O2'	-5.39	1.34	1.42
57	B6	14	LYS	N-CA	-5.39	1.39	1.45
4	AD	46	G	P-O5'	5.38	1.67	1.59
26	BB	186	G	C3'-O3'	-5.38	1.34	1.42
26	BB	1031	G	C5'-C4'	5.38	1.59	1.51
26	BB	2197	U	C5'-C4'	5.38	1.59	1.51
20	AT	47	ASP	CA-C	5.38	1.59	1.52
26	BB	1424	G	O4'-C1'	5.38	1.49	1.41
49	BY	46	ALA	CA-C	5.38	1.59	1.52
1	AA	29	U	C4'-O4'	-5.38	1.37	1.45
7	AG	82	LYS	CA-CB	5.38	1.61	1.53
26	BB	940	G	C4'-O4'	-5.38	1.37	1.45
26	BB	1336	A	C5'-C4'	5.38	1.59	1.51
1	AA	435	A	C2'-O2'	-5.38	1.34	1.42
2	AB	33	U	O5'-C5'	5.38	1.50	1.42
17	AQ	77	GLY	CA-C	5.38	1.58	1.51
26	BB	1057	A	C5'-C4'	5.38	1.59	1.51
1	AA	333	U	C4'-O4'	-5.38	1.37	1.45
3	AC	38	G	C1'-N9	5.38	1.56	1.48
4	AD	10	G	C4'-O4'	-5.38	1.37	1.45
16	AP	100	ARG	NE-CZ	5.38	1.39	1.33
1	AA	1094	G	P-O5'	5.38	1.67	1.59
26	BB	701	G	C4'-O4'	-5.38	1.37	1.45
26	BB	1466	U	P-O5'	5.38	1.67	1.59
26	BB	1977	A	O3'-P	5.38	1.69	1.61
49	BY	35	ILE	C-O	-5.38	1.17	1.24
4	AD	73	A	O3'-P	5.38	1.69	1.61
26	BB	1937	A	C4'-O4'	-5.38	1.37	1.45
26	BB	318	C	C2'-C1'	-5.37	1.45	1.53
26	BB	777	G	P-O5'	5.37	1.67	1.59
26	BB	1614	A	C5'-C4'	5.37	1.59	1.51
1	AA	396	C	C2'-O2'	5.37	1.50	1.42
1	AA	1066	C	O3'-P	5.37	1.69	1.61
26	BB	276	U	O3'-P	5.37	1.69	1.61
35	BK	84	GLY	CA-C	5.37	1.58	1.51
50	BZ	41	SER	C-N	5.37	1.41	1.33
52	B1	20	LYS	N-CA	5.37	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	72	A	P-O5'	5.37	1.67	1.59
7	AG	68	GLU	CA-C	5.37	1.59	1.52
15	AO	77	SER	C-O	-5.37	1.17	1.23
26	BB	940	G	O4'-C1'	5.37	1.49	1.41
1	AA	334	C	P-O5'	5.37	1.67	1.59
1	AA	1075	U	P-O5'	5.37	1.67	1.59
4	AD	28	U	P-O5'	5.37	1.67	1.59
16	AP	31	ALA	CA-C	5.37	1.59	1.52
26	BB	1748	C	C4'-O4'	-5.37	1.37	1.45
27	BC	144	THR	CA-C	5.37	1.60	1.52
3	AC	53	G	C5'-C4'	5.37	1.59	1.51
14	AN	118	ASN	CA-CB	5.37	1.61	1.53
26	BB	1826	G	O3'-P	5.37	1.69	1.61
31	BG	28	PRO	CA-C	5.37	1.60	1.52
1	AA	646	G	C4'-O4'	-5.36	1.37	1.45
4	AD	20	G	P-O5'	5.36	1.67	1.59
5	AE	62	ARG	NE-CZ	5.36	1.39	1.33
26	BB	1220	G	O4'-C1'	5.36	1.49	1.41
26	BB	2062	A	C4'-C3'	5.36	1.61	1.53
30	BF	19	PHE	N-CA	5.36	1.53	1.46
26	BB	187	G	O3'-P	-5.36	1.53	1.61
1	AA	561	U	O3'-P	5.36	1.69	1.61
4	AD	34	U	C1'-N1	5.36	1.56	1.48
5	AE	153	MET	N-CA	5.36	1.52	1.46
26	BB	1467	U	C4'-O4'	-5.36	1.37	1.45
32	BH	125	PRO	N-CD	-5.36	1.40	1.47
1	AA	200	G	P-O5'	5.36	1.67	1.59
4	AD	43	G	P-O5'	5.36	1.67	1.59
11	AK	68	LYS	CA-C	5.36	1.58	1.53
25	BA	113	C	O4'-C1'	5.36	1.49	1.41
26	BB	665	U	C5'-C4'	5.36	1.59	1.51
1	AA	1145	A	P-O5'	5.36	1.67	1.59
5	AE	59	ILE	CA-C	5.36	1.60	1.52
6	AF	107	LYS	CA-C	5.36	1.59	1.52
24	AX	38	GLU	CA-C	5.36	1.59	1.52
26	BB	852	U	O4'-C1'	5.36	1.49	1.41
29	BE	130	GLN	CA-C	5.36	1.60	1.52
42	BR	102	ARG	CA-C	5.36	1.59	1.52
45	BU	46	LEU	CA-C	5.36	1.59	1.52
55	B4	24	LYS	C-O	5.36	1.30	1.23
56	B5	44	VAL	CA-C	5.36	1.59	1.52
3	AC	37	G	P-O5'	5.35	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AD	69	C	O3'-P	-5.35	1.53	1.61
26	BB	998	C	C3'-C2'	5.35	1.60	1.52
26	BB	1528	A	P-O5'	5.35	1.67	1.59
1	AA	714	G	C4'-O4'	-5.35	1.37	1.45
26	BB	735	A	C2'-C1'	5.35	1.61	1.53
26	BB	2141	G	C3'-O3'	5.35	1.50	1.42
26	BB	2485	G	C5'-C4'	5.35	1.59	1.51
23	AW	74	HIS	CE1-NE2	5.35	1.38	1.32
26	BB	377	G	C4'-O4'	-5.35	1.37	1.45
26	BB	1799	G	C4'-O4'	-5.35	1.37	1.45
1	AA	1087	G	C5'-C4'	5.35	1.59	1.51
1	AA	1482	G	C3'-O3'	5.35	1.50	1.42
26	BB	99	U	C4'-O4'	-5.35	1.37	1.45
26	BB	1092	C	C4'-O4'	-5.35	1.37	1.45
26	BB	1137	G	P-O5'	5.35	1.67	1.59
26	BB	1167	C	C2'-C1'	5.35	1.61	1.53
29	BE	155	VAL	CA-CB	5.35	1.60	1.54
35	BK	136	GLY	CA-C	5.35	1.58	1.51
57	B6	44	ARG	CA-C	5.35	1.59	1.52
4	AD	15	G	C5'-C4'	5.35	1.59	1.51
26	BB	2177	C	O3'-P	5.35	1.69	1.61
37	BM	52	VAL	N-CA	5.35	1.52	1.46
1	AA	1074	G	C4'-O4'	-5.35	1.37	1.45
26	BB	292	U	P-O5'	5.35	1.67	1.59
26	BB	1371	G	C5'-C4'	5.35	1.59	1.51
26	BB	898	C	C3'-C2'	5.34	1.60	1.52
26	BB	1947	C	C5'-C4'	5.34	1.59	1.51
26	BB	2732	G	C2'-C1'	-5.34	1.45	1.53
45	BU	98	LYS	CA-C	-5.34	1.46	1.53
1	AA	889	A	P-O5'	5.34	1.67	1.59
1	AA	1007	U	C5'-C4'	5.34	1.59	1.51
26	BB	267	C	C4'-C3'	-5.34	1.44	1.52
26	BB	1149	G	C4'-O4'	-5.34	1.37	1.45
26	BB	1559	U	P-O5'	5.34	1.67	1.59
26	BB	468	G	C5'-C4'	5.34	1.59	1.51
1	AA	1040	U	C5'-C4'	5.34	1.59	1.51
1	AA	1333	A	C5'-C4'	5.34	1.59	1.51
4	AD	24	C	C1'-N1	5.34	1.56	1.48
26	BB	546	U	C5'-C4'	5.34	1.59	1.51
58	B7	16	ILE	CB-CG1	5.33	1.64	1.53
10	AJ	103	ILE	CA-CB	5.33	1.61	1.54
26	BB	173	A	C4'-O4'	-5.33	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1656	C	C3'-C2'	5.33	1.60	1.52
26	BB	2716	C	P-O5'	5.33	1.67	1.59
26	BB	2439	A	O3'-P	5.33	1.69	1.61
26	BB	2573	C	O3'-P	5.33	1.69	1.61
9	AI	86	ARG	NE-CZ	5.33	1.39	1.33
26	BB	608	A	C1'-N9	5.33	1.55	1.48
26	BB	1514	G	C2'-C1'	-5.33	1.45	1.53
42	BR	61	ARG	CA-C	5.33	1.59	1.52
43	BS	77	LYS	CA-C	5.33	1.59	1.52
1	AA	758	C	P-O5'	5.33	1.67	1.59
1	AA	955	U	C4'-O4'	-5.33	1.37	1.45
1	AA	1231	G	C4'-C3'	-5.33	1.44	1.52
26	BB	2893	A	C4'-O4'	-5.33	1.37	1.45
28	BD	270	ARG	CA-C	5.33	1.59	1.52
30	BF	200	LEU	CB-CG	5.33	1.64	1.53
1	AA	681	A	O3'-P	5.33	1.69	1.61
26	BB	69	C	C5'-C4'	5.33	1.59	1.51
37	BM	120	PRO	N-CD	-5.33	1.40	1.47
42	BR	90	ALA	C-O	-5.33	1.17	1.23
1	AA	1091	U	P-O5'	5.33	1.67	1.59
1	AA	1384	C	O3'-P	5.33	1.69	1.61
3	AC	19	A	P-O5'	5.33	1.67	1.59
6	AF	164	THR	CA-C	5.33	1.59	1.52
17	AQ	8	ARG	NE-CZ	5.33	1.39	1.33
26	BB	1075	C	P-O5'	5.33	1.67	1.59
26	BB	1574	C	O4'-C1'	5.33	1.49	1.41
26	BB	2564	A	C1'-N9	-5.33	1.40	1.48
44	BT	102	SER	CA-C	5.33	1.59	1.52
45	BU	82	MET	C-O	-5.33	1.17	1.24
1	AA	1492	A	C2'-O2'	-5.32	1.34	1.42
7	AG	69	ARG	NE-CZ	5.32	1.39	1.33
26	BB	1260	A	C2'-O2'	-5.32	1.34	1.42
26	BB	1533	C	C1'-N1	5.32	1.56	1.48
33	BI	26	ALA	CA-C	5.32	1.59	1.52
26	BB	819	A	C3'-C2'	-5.32	1.44	1.52
12	AL	16	ALA	N-CA	5.32	1.53	1.46
22	AV	88	ALA	N-CA	5.32	1.53	1.46
24	AX	67	THR	CA-C	5.32	1.60	1.52
26	BB	768	G	P-O5'	5.32	1.67	1.59
27	BC	77	VAL	CA-C	-5.32	1.45	1.52
1	AA	192	A	C4'-C3'	5.32	1.60	1.52
1	AA	29	U	P-O5'	5.32	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	478	A	C2'-C1'	-5.32	1.45	1.53
7	AG	194	ILE	C-O	-5.32	1.18	1.24
14	AN	89	GLY	CA-C	5.32	1.59	1.51
26	BB	1419	A	C4'-O4'	-5.32	1.37	1.45
26	BB	2441	U	N1-C2	5.32	1.49	1.38
26	BB	2847	U	C3'-C2'	-5.32	1.44	1.52
39	BO	116	ALA	C-N	5.32	1.41	1.33
45	BU	76	VAL	CA-C	-5.32	1.46	1.52
1	AA	879	C	N3-C4	5.32	1.44	1.33
6	AF	71	ARG	NE-CZ	5.32	1.38	1.33
17	AQ	24	ALA	CA-C	-5.32	1.48	1.53
18	AR	7	THR	N-CA	-5.32	1.40	1.46
26	BB	755	U	C4'-O4'	-5.32	1.37	1.45
52	B1	32	GLY	C-O	-5.32	1.20	1.24
23	AW	81	GLN	CA-C	5.31	1.59	1.52
39	BO	6	ARG	C-N	5.31	1.41	1.33
26	BB	808	G	P-O5'	5.31	1.67	1.59
26	BB	1033	U	C4'-O4'	-5.31	1.37	1.45
26	BB	1479	G	C4'-O4'	-5.31	1.37	1.45
26	BB	1786	A	O3'-P	5.31	1.69	1.61
26	BB	2550	G	O4'-C1'	5.31	1.49	1.41
31	BG	112	ASP	CA-C	5.31	1.59	1.52
46	BV	51	PHE	CA-C	5.31	1.59	1.52
1	AA	733	G	O3'-P	-5.31	1.53	1.61
26	BB	96	C	C2'-C1'	5.31	1.61	1.53
26	BB	245	G	C5'-C4'	5.31	1.59	1.51
26	BB	426	C	O3'-P	5.31	1.69	1.61
26	BB	1343	G	C5'-C4'	5.31	1.59	1.51
26	BB	2439	A	C4'-O4'	-5.31	1.37	1.45
56	B5	31	LEU	CB-CG	5.31	1.64	1.53
18	AR	87	ARG	NE-CZ	5.31	1.38	1.33
26	BB	167	A	C4'-O4'	-5.31	1.37	1.45
26	BB	818	G	O3'-P	5.31	1.69	1.61
26	BB	1918	A	C1'-N9	5.31	1.54	1.47
26	BB	2368	C	O4'-C1'	5.31	1.49	1.41
26	BB	2659	G	C5'-C4'	5.31	1.59	1.51
1	AA	1396	A	C3'-O3'	-5.31	1.35	1.43
7	AG	20	LEU	C-N	5.31	1.41	1.33
26	BB	1225	G	C2'-O2'	-5.31	1.34	1.42
26	BB	2611	C	P-O5'	-5.31	1.51	1.59
8	AH	4	GLU	N-CA	5.30	1.52	1.45
26	BB	237	C	C4'-O4'	-5.30	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	801	G	C5'-C4'	5.30	1.59	1.51
26	BB	2881	U	O5'-C5'	5.30	1.50	1.42
50	BZ	40	GLU	C-O	-5.30	1.17	1.24
26	BB	2859	G	C5'-C4'	5.30	1.59	1.51
1	AA	656	G	O3'-P	5.30	1.69	1.61
26	BB	432	A	O4'-C1'	5.30	1.49	1.41
40	BP	21	PHE	CA-C	5.30	1.59	1.52
48	BX	83	LYS	CA-CB	-5.30	1.46	1.54
1	AA	78	A	C4'-C3'	-5.30	1.44	1.52
28	BD	266	ILE	CA-CB	5.30	1.59	1.53
42	BR	39	LEU	C-N	5.30	1.40	1.33
12	AL	78	ILE	N-CA	-5.30	1.39	1.46
26	BB	949	G	P-O5'	5.30	1.67	1.59
26	BB	1945	G	O5'-C5'	-5.30	1.34	1.42
1	AA	54	C	C5'-C4'	5.29	1.59	1.51
1	AA	1500	A	C5'-C4'	5.29	1.59	1.51
26	BB	304	U	C3'-C2'	5.29	1.60	1.52
26	BB	1072	C	P-O5'	5.29	1.67	1.59
26	BB	1424	G	P-O5'	5.29	1.67	1.59
26	BB	2260	C	O4'-C1'	5.29	1.49	1.41
26	BB	2426	A	P-O5'	5.29	1.67	1.59
1	AA	514	C	O3'-P	5.29	1.69	1.61
11	AK	116	ARG	NE-CZ	5.29	1.38	1.33
26	BB	39	G	C1'-N9	5.29	1.55	1.48
26	BB	2425	A	O3'-P	5.29	1.69	1.61
43	BS	13	HIS	CE1-NE2	5.29	1.37	1.32
1	AA	64	G	C2'-C1'	-5.29	1.45	1.53
1	AA	1193	G	P-O5'	5.29	1.67	1.59
2	AB	15	A	C4'-O4'	-5.29	1.37	1.45
12	AL	121	ARG	CD-NE	5.29	1.53	1.46
18	AR	71	ARG	CZ-NH2	5.29	1.40	1.33
26	BB	1514	G	C2'-O2'	-5.29	1.34	1.42
26	BB	1927	A	C4'-O4'	-5.29	1.37	1.45
26	BB	2840	C	O4'-C1'	-5.29	1.33	1.41
43	BS	79	ILE	CA-C	5.29	1.59	1.52
5	AE	68	PHE	CA-CB	5.29	1.59	1.53
26	BB	2666	C	C1'-N1	5.29	1.56	1.48
26	BB	2835	A	C4'-O4'	-5.29	1.38	1.45
36	BL	93	ILE	N-CA	5.29	1.53	1.46
24	AX	65	ARG	CA-CB	5.29	1.61	1.53
26	BB	1735	A	C5'-C4'	5.29	1.59	1.51
26	BB	2885	G	P-O5'	5.29	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BV	76	ARG	CZ-NH1	5.29	1.40	1.32
1	AA	1068	G	C2'-O2'	-5.29	1.34	1.42
26	BB	711	G	C1'-N9	5.29	1.55	1.48
2	AB	44	G	O3'-P	5.29	1.69	1.61
26	BB	821	A	C2'-O2'	5.29	1.50	1.42
38	BN	8	PRO	N-CA	-5.29	1.40	1.47
45	BU	4	ILE	CA-CB	5.29	1.60	1.54
1	AA	749	A	C1'-N9	5.28	1.55	1.48
26	BB	231	A	C3'-O3'	5.28	1.50	1.42
26	BB	2253	G	C3'-C2'	5.28	1.60	1.52
1	AA	505	G	C5'-C4'	5.28	1.59	1.51
26	BB	638	G	C2'-O2'	5.28	1.50	1.42
14	AN	48	GLY	CA-C	5.28	1.60	1.51
26	BB	1938	A	P-O5'	5.28	1.67	1.59
57	B6	20	GLY	CA-C	-5.28	1.44	1.51
1	AA	101	A	C3'-O3'	5.28	1.50	1.42
1	AA	263	A	C4'-O4'	-5.28	1.37	1.45
1	AA	1036	A	O3'-P	5.28	1.69	1.61
39	BO	42	THR	N-CA	5.28	1.52	1.46
15	AO	26	CYS	CA-C	5.28	1.58	1.52
18	AR	17	ASP	CA-C	5.28	1.60	1.52
19	AS	29	ASN	CA-C	5.28	1.59	1.52
26	BB	713	G	O5'-C5'	5.28	1.50	1.42
8	AH	26	GLY	C-N	5.28	1.40	1.33
11	AK	106	SER	C-O	-5.28	1.17	1.24
19	AS	68	SER	CA-CB	-5.28	1.44	1.53
26	BB	509	C	C5'-C4'	5.28	1.59	1.51
32	BH	11	PRO	CA-C	5.28	1.58	1.52
36	BL	129	GLU	N-CA	5.28	1.52	1.46
40	BP	116	VAL	N-CA	5.28	1.53	1.46
1	AA	1362	A	P-O5'	5.27	1.67	1.59
5	AE	126	ASP	CA-C	5.27	1.59	1.52
10	AJ	28	ILE	N-CA	-5.27	1.41	1.46
1	AA	229	U	C3'-O3'	5.27	1.50	1.42
9	AI	58	HIS	ND1-CE1	5.27	1.37	1.32
26	BB	1027	A	O3'-P	5.27	1.69	1.61
1	AA	1099	G	C5'-C4'	5.27	1.59	1.51
34	BJ	90	ALA	CA-CB	5.27	1.61	1.53
1	AA	1428	A	P-O5'	5.27	1.67	1.59
28	BD	250	GLN	N-CA	5.27	1.52	1.46
32	BH	48	THR	CB-OG1	-5.27	1.35	1.43
12	AL	102	PHE	N-CA	5.27	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2252	G	O3'-P	5.27	1.69	1.61
26	BB	2481	G	C4'-O4'	-5.27	1.37	1.45
42	BR	74	GLN	CA-CB	5.27	1.60	1.53
50	BZ	33	HIS	CB-CG	5.27	1.57	1.50
25	BA	112	G	C4'-O4'	-5.27	1.37	1.45
26	BB	1293	C	O4'-C1'	5.27	1.49	1.41
37	BM	23	LYS	CA-C	5.27	1.58	1.52
1	AA	481	G	C2'-C1'	5.26	1.60	1.53
1	AA	1261	A	C4'-C3'	5.26	1.60	1.52
1	AA	1438	G	C3'-C2'	5.26	1.60	1.52
26	BB	174	U	C5'-C4'	5.26	1.59	1.51
32	BH	131	VAL	CA-CB	5.26	1.60	1.53
26	BB	30	G	O5'-C5'	-5.26	1.34	1.42
26	BB	2843	G	C3'-O3'	5.26	1.50	1.42
28	BD	164	VAL	N-CA	5.26	1.50	1.46
1	AA	1176	A	P-O5'	5.26	1.67	1.59
26	BB	1246	A	C5'-C4'	5.26	1.59	1.51
26	BB	1621	U	C4'-O4'	-5.26	1.37	1.45
26	BB	2658	C	P-O5'	5.26	1.67	1.59
26	BB	2824	C	P-O5'	5.26	1.67	1.59
1	AA	693	G	C4'-O4'	-5.26	1.37	1.45
1	AA	1190	G	C1'-N9	5.26	1.54	1.47
17	AQ	9	GLU	C-N	5.26	1.40	1.33
26	BB	153	U	O4'-C1'	-5.26	1.33	1.41
26	BB	464	U	C4'-O4'	-5.26	1.37	1.45
26	BB	809	G	C2'-C1'	5.26	1.61	1.53
26	BB	1681	G	P-O5'	5.26	1.67	1.59
26	BB	1734	G	C4'-O4'	-5.26	1.37	1.45
26	BB	2074	U	C3'-O3'	-5.26	1.34	1.42
26	BB	2300	C	P-O5'	5.26	1.67	1.59
26	BB	2562	U	C1'-N1	5.26	1.56	1.48
34	BJ	82	ALA	C-N	5.26	1.40	1.33
1	AA	1405	G	O3'-P	5.26	1.69	1.61
27	BC	107	GLY	CA-C	5.26	1.58	1.51
28	BD	95	TYR	N-CA	-5.26	1.39	1.46
1	AA	105	G	C4'-O4'	-5.26	1.37	1.45
2	AB	11	U	C5'-C4'	5.26	1.59	1.51
10	AJ	3	ARG	CA-C	5.26	1.59	1.52
15	AO	110	LYS	CA-C	5.26	1.59	1.52
16	AP	46	GLU	CA-C	5.26	1.59	1.52
26	BB	473	G	O3'-P	5.26	1.69	1.61
26	BB	698	C	O5'-C5'	-5.26	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	BD	174	ARG	CA-C	5.26	1.59	1.52
36	BL	130	HIS	CG-CD2	5.26	1.41	1.35
24	AX	26	GLY	N-CA	5.25	1.52	1.45
26	BB	2459	A	O5'-C5'	-5.25	1.34	1.42
1	AA	560	A	P-O5'	-5.25	1.51	1.59
30	BF	96	VAL	N-CA	-5.25	1.39	1.46
1	AA	838	G	C5'-C4'	5.25	1.59	1.51
25	BA	42	C	O4'-C1'	5.25	1.49	1.41
26	BB	720	U	C2-O2	-5.25	1.11	1.22
13	AM	73	LEU	C-O	-5.25	1.18	1.24
26	BB	1396	U	C5'-C4'	5.25	1.59	1.51
26	BB	1955	U	C4'-O4'	-5.25	1.38	1.45
46	BV	31	VAL	CA-C	5.25	1.59	1.52
1	AA	315	A	P-O5'	5.25	1.67	1.59
7	AG	160	LEU	CA-CB	5.25	1.61	1.53
35	BK	82	ALA	C-N	5.25	1.41	1.33
36	BL	74	TYR	N-CA	5.25	1.54	1.46
26	BB	709	U	C2'-C1'	5.25	1.61	1.53
26	BB	1367	A	C3'-O3'	5.25	1.50	1.42
1	AA	109	A	C4'-C3'	5.24	1.61	1.53
1	AA	620	C	C4'-O4'	-5.24	1.37	1.45
2	AB	47	U	C3'-O3'	5.24	1.51	1.43
26	BB	310	A	C4'-O4'	-5.24	1.38	1.45
26	BB	392	U	O4'-C1'	5.24	1.49	1.41
26	BB	624	C	C5'-C4'	5.24	1.59	1.51
41	BQ	89	ASP	N-CA	5.24	1.54	1.46
42	BR	104	GLY	CA-C	5.24	1.57	1.51
17	AQ	80	ARG	CZ-NH1	5.24	1.40	1.32
26	BB	789	A	C5'-C4'	5.24	1.59	1.51
53	B2	45	THR	N-CA	-5.24	1.40	1.46
1	AA	21	G	C2'-O2'	-5.24	1.34	1.42
1	AA	765	G	O3'-P	5.24	1.69	1.61
1	AA	1121	U	C3'-O3'	-5.24	1.34	1.42
26	BB	567	U	O5'-C5'	5.24	1.50	1.42
26	BB	952	G	O5'-C5'	-5.24	1.34	1.42
26	BB	1121	C	C3'-C2'	5.24	1.60	1.52
26	BB	1964	G	P-O5'	5.24	1.67	1.59
12	AL	103	VAL	CA-CB	5.24	1.61	1.54
26	BB	2151	U	C3'-O3'	-5.24	1.34	1.42
56	B5	29	GLN	CA-C	5.24	1.59	1.52
1	AA	1156	G	O3'-P	5.24	1.69	1.61
26	BB	1194	A	O3'-P	-5.24	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2307	G	C3'-C2'	-5.24	1.45	1.52
29	BE	149	ASN	CA-C	5.24	1.59	1.52
4	AD	50	G	O3'-P	5.23	1.69	1.61
10	AJ	101	ARG	NE-CZ	5.23	1.38	1.33
1	AA	793	U	C4'-C3'	5.23	1.60	1.52
26	BB	235	U	O4'-C1'	5.23	1.49	1.41
26	BB	644	A	O3'-P	5.23	1.69	1.61
26	BB	2402	U	C4'-O4'	-5.23	1.38	1.45
3	AC	49	U	P-O5'	5.23	1.67	1.59
26	BB	1832	C	C1'-N1	5.23	1.56	1.48
26	BB	2199	A	C4'-O4'	-5.23	1.37	1.45
26	BB	2711	A	O3'-P	5.23	1.69	1.61
26	BB	2827	C	C1'-N1	5.23	1.56	1.48
44	BT	74	ILE	CA-CB	-5.23	1.47	1.54
27	BC	164	ARG	CD-NE	5.23	1.53	1.46
1	AA	1324	A	C2'-C1'	5.23	1.61	1.53
26	BB	1007	C	P-O5'	5.23	1.67	1.59
1	AA	329	A	P-O5'	5.22	1.67	1.59
16	AP	96	VAL	CA-C	5.22	1.60	1.52
26	BB	1961	C	C3'-O3'	5.22	1.50	1.42
26	BB	2467	C	C4'-O4'	-5.22	1.37	1.45
32	BH	54	ARG	CA-C	5.22	1.59	1.52
53	B2	11	GLU	CA-C	5.22	1.59	1.52
26	BB	763	G	C4'-O4'	-5.22	1.37	1.45
26	BB	1698	A	C4'-C3'	5.22	1.60	1.53
34	BJ	106	GLU	C-N	5.22	1.40	1.33
1	AA	1321	U	C1'-N1	5.22	1.56	1.48
14	AN	69	CYS	N-CA	5.22	1.52	1.46
26	BB	839	U	C3'-C2'	5.22	1.60	1.52
53	B2	6	HIS	CE1-NE2	5.22	1.37	1.32
1	AA	81	A	O3'-P	5.22	1.69	1.61
1	AA	615	G	O4'-C1'	5.22	1.49	1.41
1	AA	824	G	C4'-O4'	-5.22	1.37	1.45
23	AW	63	LYS	CA-CB	5.22	1.62	1.53
26	BB	1655	A	C3'-C2'	5.22	1.60	1.52
26	BB	2642	G	O3'-P	5.22	1.69	1.61
33	BI	95	GLY	N-CA	5.22	1.52	1.45
1	AA	778	G	C2'-O2'	-5.21	1.34	1.42
1	AA	921	U	C3'-C2'	5.21	1.60	1.52
15	AO	71	HIS	CG-ND1	-5.21	1.32	1.38
26	BB	893	C	C5'-C4'	5.21	1.59	1.51
46	BV	48	GLN	N-CA	5.21	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
51	B0	23	ARG	CA-CB	5.21	1.62	1.53
6	AF	178	ARG	CD-NE	5.21	1.53	1.46
11	AK	35	ILE	N-CA	5.21	1.52	1.46
26	BB	119	A	O4'-C1'	5.21	1.49	1.42
26	BB	255	A	O3'-P	5.21	1.69	1.61
38	BN	78	ARG	CD-NE	5.21	1.53	1.46
13	AM	91	ASP	N-CA	-5.21	1.40	1.46
26	BB	1152	C	P-O5'	5.21	1.67	1.59
26	BB	1315	C	O3'-P	5.21	1.69	1.61
26	BB	1796	U	N1-C2	5.21	1.49	1.38
26	BB	2027	G	C4'-C3'	5.21	1.60	1.52
26	BB	2716	C	O5'-C5'	-5.21	1.34	1.42
11	AK	110	MET	CA-C	5.21	1.59	1.52
26	BB	1088	A	C1'-N9	5.21	1.55	1.48
26	BB	1564	C	C5'-C4'	5.21	1.59	1.51
46	BV	73	ARG	CZ-NH2	5.21	1.40	1.33
4	AD	9	G	C4'-O4'	-5.21	1.37	1.45
33	BI	53	GLU	N-CA	5.21	1.52	1.46
26	BB	2780	G	C1'-N9	5.21	1.54	1.47
11	AK	14	ARG	N-CA	5.21	1.52	1.46
13	AM	8	ILE	CA-C	5.21	1.58	1.52
1	AA	258	G	O4'-C1'	5.20	1.49	1.41
1	AA	1332	A	O3'-P	5.20	1.69	1.61
26	BB	1100	C	C2'-O2'	5.20	1.50	1.42
26	BB	1376	C	C4'-C3'	5.20	1.60	1.52
39	BO	34	LYS	N-CA	5.20	1.52	1.46
47	BW	11	ILE	CA-C	5.20	1.58	1.52
1	AA	765	G	C5'-C4'	5.20	1.59	1.51
1	AA	1022	A	C3'-C2'	5.20	1.60	1.52
26	BB	1243	C	C4'-O4'	-5.20	1.37	1.45
26	BB	1594	U	C5'-C4'	5.20	1.59	1.51
26	BB	2159	G	C4'-O4'	-5.20	1.37	1.45
43	BS	66	ALA	N-CA	5.20	1.52	1.46
16	AP	104	ASN	N-CA	-5.20	1.39	1.46
26	BB	507	A	P-O5'	5.20	1.67	1.59
26	BB	657	U	P-O5'	5.20	1.67	1.59
26	BB	2462	C	O3'-P	5.20	1.69	1.61
28	BD	172	THR	CB-OG1	-5.20	1.35	1.43
46	BV	73	ARG	NE-CZ	5.20	1.38	1.33
26	BB	993	G	P-O5'	5.20	1.67	1.59
26	BB	128	C	C4'-O4'	-5.20	1.37	1.45
26	BB	1460	U	C5'-C4'	5.20	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1566	A	P-O5'	5.20	1.67	1.59
2	AB	24	G	C5'-C4'	5.19	1.59	1.51
22	AV	5	LYS	CA-C	5.19	1.59	1.52
26	BB	470	A	C4'-C3'	5.19	1.60	1.52
26	BB	1347	A	O3'-P	5.19	1.69	1.61
26	BB	1454	C	C4'-O4'	-5.19	1.38	1.45
28	BD	40	GLY	N-CA	5.19	1.53	1.46
1	AA	858	G	P-O5'	5.19	1.67	1.59
1	AA	1522	U	O3'-P	5.19	1.69	1.61
42	BR	106	ALA	N-CA	5.19	1.52	1.46
1	AA	475	C	O3'-P	5.19	1.69	1.61
14	AN	64	VAL	N-CA	5.19	1.52	1.46
26	BB	1053	C	P-O5'	5.19	1.67	1.59
1	AA	979	C	P-O5'	5.19	1.67	1.59
26	BB	2216	G	C4'-O4'	-5.19	1.37	1.45
26	BB	431	U	P-O5'	5.19	1.67	1.59
56	B5	24	THR	CB-OG1	-5.19	1.35	1.43
1	AA	1445	U	O5'-C5'	5.18	1.50	1.42
7	AG	11	SER	C-O	-5.18	1.17	1.24
46	BV	81	LYS	CA-C	-5.18	1.46	1.52
50	BZ	35	HIS	CG-CD2	5.18	1.41	1.35
1	AA	1343	G	O4'-C1'	-5.18	1.33	1.41
10	AJ	148	LYS	C-O	5.18	1.31	1.24
26	BB	1005	C	C3'-O3'	-5.18	1.34	1.42
26	BB	1586	A	P-O5'	5.18	1.67	1.59
37	BM	56	ASP	N-CA	5.18	1.52	1.46
1	AA	976	G	C3'-C2'	5.18	1.60	1.52
23	AW	17	ARG	NE-CZ	5.18	1.38	1.33
26	BB	833	A	P-O5'	5.18	1.67	1.59
26	BB	192	C	C4'-C3'	5.18	1.60	1.52
26	BB	1070	A	C4'-C3'	-5.18	1.45	1.53
26	BB	1712	U	C4'-O4'	-5.18	1.37	1.45
47	BW	44	HIS	ND1-CE1	5.18	1.37	1.32
26	BB	2712	C	O5'-C5'	-5.18	1.35	1.42
35	BK	73	PRO	C-N	5.18	1.40	1.33
1	AA	746	A	C5'-C4'	5.18	1.59	1.51
1	AA	1532	U	P-O5'	5.18	1.67	1.59
26	BB	267	C	O3'-P	5.18	1.69	1.61
1	AA	620	C	P-O5'	5.17	1.67	1.59
1	AA	809	G	C5'-C4'	5.17	1.59	1.51
26	BB	1133	A	P-O5'	5.17	1.67	1.59
26	BB	1177	G	C5'-C4'	5.17	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1693	U	C4'-O4'	-5.17	1.38	1.45
26	BB	1707	G	O3'-P	5.17	1.69	1.61
26	BB	2667	C	O3'-P	5.17	1.69	1.61
26	BB	2684	U	C4'-O4'	-5.17	1.37	1.45
17	AQ	5	MET	SD-CE	5.17	1.92	1.79
26	BB	1369	G	P-O5'	5.17	1.67	1.59
26	BB	2357	G	C5'-C4'	5.17	1.59	1.51
1	AA	1076	U	C5'-C4'	5.17	1.59	1.51
26	BB	661	A	C2'-C1'	5.17	1.61	1.53
26	BB	928	A	C5'-C4'	5.17	1.59	1.51
36	BL	76	HIS	ND1-CE1	5.17	1.37	1.32
43	BS	41	ALA	CA-CB	5.17	1.61	1.53
30	BF	12	LEU	CA-C	5.17	1.58	1.52
1	AA	1283	U	O3'-P	5.17	1.69	1.61
4	AD	15	G	C4'-O4'	-5.17	1.37	1.45
6	AF	172	VAL	N-CA	5.17	1.52	1.46
20	AT	76	ARG	CD-NE	5.17	1.53	1.46
26	BB	1341	G	C5'-C4'	5.17	1.59	1.51
43	BS	52	ARG	CD-NE	5.17	1.53	1.46
47	BW	96	LYS	CA-C	5.17	1.59	1.52
10	AJ	45	ALA	CA-C	5.17	1.59	1.52
17	AQ	17	ASP	N-CA	-5.17	1.40	1.46
21	AU	68	PRO	CA-C	5.17	1.58	1.52
26	BB	34	U	O3'-P	5.17	1.68	1.61
26	BB	1314	C	O3'-P	5.17	1.68	1.61
44	BT	4	VAL	CA-C	5.17	1.58	1.52
26	BB	491	G	O3'-P	5.17	1.68	1.61
26	BB	1803	A	C2'-C1'	-5.17	1.45	1.53
1	AA	417	G	C4'-O4'	-5.16	1.37	1.45
1	AA	1035	A	C5'-C4'	5.16	1.58	1.51
1	AA	1070	U	C3'-C2'	-5.16	1.45	1.52
1	AA	1365	G	P-O5'	-5.16	1.52	1.59
26	BB	324	A	C1'-N9	5.16	1.55	1.48
26	BB	848	C	C3'-O3'	5.16	1.49	1.42
28	BD	161	VAL	CA-C	5.16	1.59	1.52
30	BF	103	GLY	N-CA	5.16	1.52	1.45
35	BK	86	LYS	CA-C	5.16	1.59	1.52
8	AH	160	VAL	CA-C	5.16	1.60	1.52
26	BB	1064	C	O3'-P	5.16	1.68	1.61
26	BB	2624	G	C4'-O4'	-5.16	1.37	1.45
40	BP	18	GLN	C-O	-5.16	1.18	1.24
46	BV	12	ARG	N-CA	-5.16	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	39	G	C3'-C2'	5.16	1.60	1.52
4	AD	24	C	C4'-O4'	-5.16	1.37	1.45
7	AG	135	GLN	CA-C	-5.16	1.46	1.52
26	BB	148	U	C4'-O4'	-5.16	1.37	1.45
26	BB	1757	A	C5'-C4'	5.16	1.58	1.51
1	AA	940	C	C5'-C4'	5.16	1.58	1.51
1	AA	999	C	O5'-C5'	5.16	1.50	1.42
26	BB	880	G	C2'-C1'	5.16	1.61	1.53
1	AA	1124	G	C3'-C2'	-5.16	1.45	1.52
1	AA	1439	G	C3'-C2'	5.16	1.60	1.52
4	AD	49	C	C4'-O4'	-5.16	1.38	1.45
12	AL	88	GLU	N-CA	5.16	1.52	1.46
22	AV	80	ARG	CA-CB	5.16	1.60	1.53
30	BF	175	ILE	CA-CB	5.16	1.59	1.54
47	BW	101	THR	C-O	5.16	1.30	1.23
1	AA	461	A	C5'-C4'	5.15	1.58	1.51
1	AA	699	C	C4'-O4'	-5.15	1.37	1.45
12	AL	83	THR	CB-OG1	-5.15	1.35	1.43
26	BB	229	C	P-O5'	5.15	1.67	1.59
26	BB	675	A	O3'-P	5.15	1.68	1.61
26	BB	2839	G	P-O5'	5.15	1.67	1.59
28	BD	180	MET	CA-C	5.15	1.58	1.52
32	BH	49	LEU	CA-C	5.15	1.59	1.52
5	AE	186	VAL	N-CA	5.15	1.52	1.46
26	BB	1757	A	P-O5'	5.15	1.67	1.59
26	BB	2593	U	C3'-O3'	5.15	1.49	1.42
1	AA	617	G	C5'-C4'	5.15	1.58	1.51
1	AA	1455	G	C4'-O4'	-5.15	1.37	1.45
10	AJ	164	GLN	CA-C	5.15	1.59	1.53
18	AR	66	LEU	N-CA	5.15	1.52	1.46
26	BB	1884	G	C2'-C1'	5.15	1.61	1.53
25	BA	91	C	P-O5'	5.15	1.67	1.59
26	BB	2863	C	C2'-C1'	-5.15	1.45	1.53
41	BQ	27	VAL	N-CA	-5.15	1.40	1.46
1	AA	788	U	C4'-O4'	-5.15	1.37	1.45
1	AA	1234	C	P-O5'	5.15	1.67	1.59
26	BB	1266	G	C2'-O2'	5.15	1.49	1.41
26	BB	2535	G	C2'-C1'	5.15	1.61	1.53
26	BB	1736	U	C4'-O4'	-5.15	1.37	1.45
26	BB	2356	U	P-O5'	5.15	1.67	1.59
28	BD	176	ARG	CA-C	5.15	1.59	1.52
36	BL	35	ARG	CA-C	5.14	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BP	6	SER	CA-C	5.14	1.58	1.52
1	AA	251	G	O3'-P	5.14	1.68	1.61
1	AA	1073	U	O3'-P	5.14	1.68	1.61
7	AG	198	LEU	C-N	5.14	1.40	1.33
18	AR	76	ARG	C-N	5.14	1.40	1.33
26	BB	234	U	P-O5'	5.14	1.67	1.59
1	AA	1392	G	C1'-N9	5.14	1.55	1.48
1	AA	1412	C	O5'-C5'	-5.14	1.34	1.42
58	B7	19	ARG	NE-CZ	5.14	1.38	1.33
1	AA	16	A	P-O5'	5.14	1.67	1.59
26	BB	2278	A	C3'-C2'	5.14	1.60	1.52
26	BB	2316	G	C1'-N9	5.14	1.55	1.48
40	BP	12	ARG	CA-C	5.14	1.58	1.52
28	BD	30	ALA	N-CA	5.14	1.53	1.46
26	BB	2321	U	O3'-P	5.14	1.68	1.61
41	BQ	47	VAL	CA-CB	5.14	1.59	1.53
1	AA	53	A	C1'-N9	5.13	1.55	1.48
32	BH	127	GLN	C-O	-5.13	1.17	1.24
1	AA	566	G	C1'-N9	5.13	1.54	1.47
26	BB	215	G	P-O5'	5.13	1.67	1.59
48	BX	31	TYR	CA-C	5.13	1.60	1.53
14	AN	47	GLY	CA-C	5.13	1.59	1.51
26	BB	143	C	C4'-O4'	-5.13	1.37	1.45
26	BB	1035	U	O3'-P	5.13	1.68	1.61
26	BB	129	C	C1'-N1	-5.13	1.40	1.48
26	BB	1518	C	O5'-C5'	-5.13	1.34	1.42
32	BH	49	LEU	CA-CB	5.13	1.60	1.53
1	AA	302	G	O3'-P	5.13	1.68	1.61
7	AG	200	VAL	N-CA	5.13	1.53	1.46
14	AN	124	LYS	N-CA	5.13	1.52	1.46
25	BA	95	U	C4'-C3'	5.13	1.60	1.52
38	BN	88	GLY	C-N	-5.13	1.28	1.33
45	BU	65	ASP	N-CA	5.13	1.52	1.46
45	BU	107	VAL	CA-CB	5.13	1.61	1.54
1	AA	655	A	P-O5'	5.13	1.67	1.59
1	AA	949	A	O3'-P	5.13	1.68	1.61
26	BB	2840	C	C4'-O4'	-5.13	1.37	1.45
5	AE	29	PHE	CA-C	5.12	1.60	1.52
26	BB	1380	G	P-O5'	5.12	1.67	1.59
31	BG	23	SER	N-CA	5.12	1.52	1.45
4	AD	31	G	C5'-C4'	5.12	1.58	1.51
6	AF	114	LEU	N-CA	-5.12	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	AH	128	GLY	N-CA	5.12	1.53	1.45
26	BB	324	A	O5'-C5'	-5.12	1.34	1.42
26	BB	794	A	O3'-P	5.12	1.68	1.61
26	BB	2521	C	C5'-C4'	5.12	1.58	1.51
26	BB	686	U	P-O5'	5.12	1.67	1.59
26	BB	2047	C	C5'-C4'	5.12	1.58	1.51
33	BI	111	ALA	CA-C	5.12	1.59	1.53
44	BT	46	GLU	CA-CB	-5.12	1.45	1.53
26	BB	89	A	O5'-C5'	5.12	1.50	1.42
26	BB	1709	U	C3'-C2'	5.12	1.60	1.52
27	BC	89	ALA	N-CA	5.12	1.52	1.46
27	BC	204	ALA	CA-C	5.12	1.59	1.53
1	AA	565	U	O5'-C5'	-5.12	1.34	1.42
1	AA	1200	C	O3'-P	5.12	1.68	1.61
50	BZ	71	ARG	NE-CZ	5.12	1.38	1.33
26	BB	190	A	C4'-O4'	-5.12	1.37	1.45
26	BB	307	G	C5'-C4'	5.12	1.58	1.51
26	BB	2352	A	O3'-P	5.12	1.68	1.61
45	BU	17	VAL	CA-CB	5.12	1.61	1.54
58	B7	28	SER	N-CA	-5.12	1.39	1.46
6	AF	228	ARG	CD-NE	5.11	1.53	1.46
14	AN	21	HIS	CG-CD2	5.11	1.41	1.35
26	BB	35	G	O3'-P	5.11	1.68	1.61
26	BB	35	G	C3'-C2'	5.11	1.60	1.52
26	BB	59	U	O5'-C5'	5.11	1.50	1.42
26	BB	236	C	C4'-O4'	-5.11	1.37	1.45
26	BB	324	A	O3'-P	5.11	1.68	1.61
26	BB	1773	A	P-O5'	5.11	1.67	1.59
26	BB	1121	C	O4'-C1'	5.11	1.49	1.41
1	AA	8	A	O4'-C1'	5.11	1.49	1.42
1	AA	882	C	C4'-O4'	-5.11	1.37	1.45
3	AC	57	C	O3'-P	-5.11	1.53	1.61
13	AM	15	HIS	CA-C	5.11	1.59	1.52
32	BH	114	HIS	CG-ND1	-5.11	1.32	1.38
1	AA	1468	A	O3'-P	5.11	1.68	1.61
52	B1	10	ARG	NE-CZ	5.11	1.38	1.33
1	AA	588	G	O3'-P	-5.11	1.53	1.61
26	BB	1639	C	O4'-C1'	-5.11	1.33	1.41
43	BS	113	LYS	CA-C	5.11	1.59	1.52
54	B3	39	ARG	CZ-NH1	5.11	1.40	1.32
1	AA	1287	A	O3'-P	5.11	1.68	1.61
26	BB	1802	A	C5'-C4'	5.11	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2700	A	C1'-N9	5.11	1.55	1.48
26	BB	2750	A	C3'-O3'	-5.11	1.35	1.43
48	BX	72	VAL	N-CA	5.11	1.52	1.46
26	BB	361	G	N1-C2	-5.10	1.27	1.37
26	BB	2120	G	C4'-O4'	-5.10	1.37	1.45
32	BH	77	GLY	N-CA	-5.10	1.39	1.45
37	BM	7	MET	N-CA	-5.10	1.39	1.46
1	AA	946	A	C4'-C3'	5.10	1.60	1.52
26	BB	668	A	C2'-O2'	-5.10	1.34	1.42
26	BB	2344	U	C4'-O4'	-5.10	1.38	1.45
38	BN	5	THR	CA-CB	5.10	1.61	1.53
58	B7	1	MET	CA-C	5.10	1.63	1.52
1	AA	288	A	C5'-C4'	5.10	1.58	1.51
23	AW	23	ARG	CA-C	5.10	1.59	1.52
1	AA	688	G	C3'-O3'	5.10	1.49	1.42
1	AA	1222	G	P-O5'	5.10	1.67	1.59
6	AF	39	ARG	C-O	-5.10	1.18	1.24
26	BB	1918	A	C3'-O3'	-5.10	1.35	1.43
28	BD	38	LYS	C-O	-5.10	1.17	1.24
1	AA	119	A	O3'-P	5.10	1.68	1.61
1	AA	770	C	C5'-C4'	5.10	1.58	1.51
6	AF	29	ALA	CA-C	-5.10	1.46	1.52
14	AN	12	ARG	NE-CZ	5.10	1.38	1.33
26	BB	1424	G	C2'-O2'	-5.10	1.34	1.42
26	BB	2308	G	C5'-C4'	5.10	1.58	1.51
26	BB	2560	A	O3'-P	5.10	1.68	1.61
28	BD	141	HIS	C-N	5.10	1.40	1.33
5	AE	76	SER	C-O	5.10	1.29	1.24
1	AA	19	A	P-O5'	5.09	1.67	1.59
1	AA	614	C	C3'-C2'	5.09	1.60	1.52
4	AD	52	C	P-O5'	5.09	1.67	1.59
12	AL	68	GLY	N-CA	-5.09	1.40	1.45
25	BA	57	A	P-O5'	5.09	1.67	1.59
26	BB	333	G	C5'-C4'	5.09	1.58	1.51
41	BQ	87	ILE	CA-C	5.09	1.58	1.53
1	AA	375	U	O3'-P	5.09	1.68	1.61
26	BB	1017	G	C1'-N9	5.09	1.55	1.48
26	BB	1951	U	P-O5'	5.09	1.67	1.59
32	BH	124	CYS	C-N	-5.09	1.27	1.34
26	BB	537	G	C4'-O4'	-5.09	1.38	1.45
26	BB	1128	G	C4'-O4'	-5.09	1.38	1.45
26	BB	1535	A	C3'-O3'	5.09	1.50	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2094	A	O3'-P	5.09	1.68	1.61
26	BB	2603	G	C5'-C4'	5.09	1.58	1.51
29	BE	119	ALA	C-N	5.09	1.41	1.33
1	AA	1539	C	P-O5'	5.09	1.67	1.59
26	BB	462	C	C4'-O4'	-5.09	1.38	1.45
26	BB	523	C	P-O5'	5.09	1.67	1.59
26	BB	1862	G	C5'-C4'	5.09	1.58	1.51
26	BB	2321	U	C4'-O4'	-5.09	1.38	1.45
35	BK	115	ASP	C-O	5.09	1.31	1.24
1	AA	1409	C	C3'-C2'	5.09	1.60	1.52
33	BI	110	VAL	C-N	5.09	1.40	1.33
1	AA	1165	U	C3'-C2'	5.09	1.60	1.52
1	AA	1287	A	P-O5'	5.09	1.67	1.59
8	AH	35	LEU	C-O	-5.09	1.18	1.24
17	AQ	30	ILE	C-O	-5.09	1.19	1.24
25	BA	55	U	C2'-C1'	5.09	1.60	1.53
26	BB	285	G	C1'-N9	5.09	1.55	1.48
26	BB	972	A	P-O5'	5.09	1.67	1.59
26	BB	1171	G	C2'-C1'	5.09	1.60	1.53
26	BB	2044	C	C5'-C4'	5.09	1.58	1.51
26	BB	2655	G	O3'-P	5.09	1.68	1.61
28	BD	231	HIS	C-N	5.09	1.40	1.33
1	AA	1378	C	O4'-C1'	5.08	1.49	1.41
1	AA	919	A	C4'-O4'	-5.08	1.38	1.45
14	AN	7	ALA	N-CA	-5.08	1.39	1.45
26	BB	882	G	O5'-C5'	-5.08	1.34	1.42
26	BB	1129	A	C4'-O4'	-5.08	1.38	1.45
26	BB	1174	U	C2-N3	5.08	1.48	1.37
26	BB	2165	C	C4'-O4'	-5.08	1.38	1.45
1	AA	146	G	C4'-O4'	-5.08	1.38	1.45
1	AA	360	G	C1'-N9	5.08	1.55	1.48
1	AA	1293	C	C4'-O4'	-5.08	1.38	1.45
2	AB	67	G	C3'-C2'	5.08	1.60	1.52
6	AF	199	VAL	C-O	-5.08	1.18	1.24
26	BB	1753	G	P-O5'	5.08	1.67	1.59
26	BB	2795	C	C1'-N1	5.08	1.56	1.48
31	BG	174	PHE	N-CA	5.08	1.51	1.46
1	AA	1386	G	C5'-C4'	5.08	1.58	1.51
2	AB	22	G	P-O5'	5.08	1.67	1.59
9	AI	67	PRO	N-CD	-5.08	1.40	1.47
26	BB	2391	G	C5'-C4'	5.08	1.58	1.51
26	BB	2414	G	P-O5'	5.08	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	401	C	O3'-P	-5.08	1.53	1.61
1	AA	696	A	C2'-C1'	-5.08	1.45	1.53
16	AP	47	LEU	C-O	5.08	1.30	1.23
26	BB	177	G	O3'-P	5.08	1.68	1.61
26	BB	701	G	C1'-N9	5.08	1.55	1.48
45	BU	110	ARG	NE-CZ	5.08	1.38	1.33
1	AA	1434	A	C4'-O4'	-5.08	1.38	1.45
1	AA	693	G	O3'-P	5.08	1.68	1.61
1	AA	1124	G	P-O5'	5.08	1.67	1.59
26	BB	488	G	C2'-O2'	-5.08	1.34	1.42
26	BB	873	C	P-O5'	5.08	1.67	1.59
35	BK	43	ALA	C-O	-5.07	1.17	1.24
52	B1	50	VAL	CA-C	5.07	1.59	1.52
6	AF	79	LYS	CA-C	5.07	1.59	1.52
8	AH	121	ASN	N-CA	5.07	1.52	1.46
26	BB	1789	A	O5'-C5'	-5.07	1.34	1.42
26	BB	181	A	C2'-O2'	5.07	1.50	1.42
26	BB	237	C	C1'-N1	5.07	1.56	1.48
26	BB	335	C	O3'-P	5.07	1.68	1.61
26	BB	363	G	C5'-C4'	5.07	1.58	1.51
26	BB	2562	U	C5'-C4'	5.07	1.58	1.51
26	BB	2855	C	P-O5'	5.07	1.67	1.59
52	B1	16	LEU	CA-C	5.07	1.59	1.53
1	AA	728	A	C3'-O3'	5.07	1.49	1.42
26	BB	167	A	C4'-C3'	5.07	1.60	1.52
26	BB	2587	A	C4'-O4'	-5.07	1.38	1.45
1	AA	185	U	C4'-C3'	5.07	1.60	1.52
26	BB	351	C	C3'-O3'	-5.07	1.34	1.42
26	BB	607	U	O3'-P	5.07	1.68	1.61
36	BL	11	VAL	N-CA	5.07	1.51	1.46
58	B7	25	VAL	CA-C	5.07	1.59	1.52
26	BB	62	U	P-O5'	5.07	1.67	1.59
26	BB	868	U	P-O5'	5.07	1.67	1.59
26	BB	994	C	P-O5'	5.07	1.67	1.59
50	BZ	19	HIS	CE1-NE2	5.07	1.37	1.32
25	BA	14	U	C3'-C2'	5.06	1.60	1.52
26	BB	704	G	C4'-C3'	5.06	1.60	1.52
26	BB	1670	C	C4'-O4'	-5.06	1.38	1.45
31	BG	168	LEU	C-N	5.06	1.40	1.33
1	AA	1282	C	P-O5'	5.06	1.67	1.59
26	BB	1452	G	C5'-C4'	5.06	1.58	1.51
26	BB	1656	C	C5'-C4'	5.06	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	BG	151	LEU	CA-C	5.06	1.59	1.52
43	BS	54	ARG	CZ-NH2	5.06	1.40	1.33
8	AH	94	PHE	N-CA	5.06	1.52	1.45
26	BB	1973	G	C4'-O4'	-5.06	1.38	1.45
1	AA	350	G	C4'-C3'	5.06	1.60	1.52
1	AA	1166	G	O3'-P	5.06	1.68	1.61
26	BB	2243	U	C2'-C1'	5.06	1.60	1.53
26	BB	2388	A	C3'-O3'	-5.06	1.34	1.42
26	BB	2494	G	O3'-P	5.06	1.68	1.61
30	BF	89	PRO	CA-C	5.06	1.59	1.52
8	AH	39	GLY	CA-C	5.06	1.58	1.51
26	BB	1592	C	C4'-O4'	-5.06	1.38	1.45
26	BB	2219	U	C5'-C4'	5.06	1.58	1.51
49	BY	71	LYS	CA-C	5.06	1.58	1.52
50	BZ	39	VAL	CA-C	5.06	1.59	1.52
10	AJ	117	LEU	CA-C	5.06	1.59	1.52
26	BB	1116	G	C4'-C3'	5.05	1.60	1.52
26	BB	2739	U	C5'-C4'	5.05	1.58	1.51
1	AA	673	A	C1'-N9	-5.05	1.40	1.48
1	AA	1164	G	C5'-C4'	5.05	1.58	1.51
17	AQ	43	ALA	N-CA	5.05	1.52	1.46
26	BB	634	C	O3'-P	5.05	1.68	1.61
45	BU	99	ARG	NE-CZ	5.05	1.38	1.33
1	AA	294	U	C4'-O4'	-5.05	1.38	1.45
1	AA	314	C	C5'-C4'	5.05	1.58	1.51
6	AF	143	LEU	CA-C	5.05	1.59	1.52
25	BA	30	C	O4'-C1'	5.05	1.49	1.41
26	BB	507	A	C4'-O4'	-5.05	1.38	1.45
26	BB	649	G	C4'-C3'	5.05	1.60	1.52
1	AA	563	A	C4'-O4'	-5.05	1.38	1.45
1	AA	767	A	O4'-C1'	-5.05	1.34	1.41
6	AF	93	ILE	CA-CB	5.05	1.61	1.54
14	AN	28	ASN	N-CA	5.05	1.52	1.46
17	AQ	64	ARG	CZ-NH1	5.05	1.39	1.32
26	BB	2139	U	P-O5'	5.05	1.67	1.59
26	BB	2312	U	C4'-C3'	5.05	1.60	1.52
26	BB	898	C	C4'-O4'	-5.04	1.38	1.45
1	AA	529	G	C2'-C1'	5.04	1.60	1.53
1	AA	794	A	P-O5'	5.04	1.67	1.59
1	AA	858	G	O3'-P	5.04	1.68	1.61
1	AA	1074	G	O3'-P	5.04	1.68	1.61
5	AE	164	ASP	CA-C	-5.04	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2115	G	C5'-C4'	5.04	1.58	1.51
1	AA	254	G	C5'-C4'	5.04	1.58	1.51
1	AA	580	C	C2'-C1'	5.04	1.60	1.53
1	AA	1015	G	C4'-O4'	-5.04	1.38	1.45
1	AA	1445	U	C1'-N1	5.04	1.56	1.48
8	AH	6	GLN	CA-C	5.04	1.59	1.52
21	AU	67	LEU	CB-CG	5.04	1.63	1.53
26	BB	2763	G	O3'-P	5.04	1.68	1.61
45	BU	101	SER	C-N	5.04	1.41	1.33
48	BX	71	LYS	CA-C	5.04	1.59	1.52
1	AA	806	C	C5'-C4'	5.04	1.58	1.51
29	BE	9	VAL	CA-C	5.04	1.59	1.52
40	BP	46	ARG	N-CA	5.04	1.52	1.46
45	BU	67	ASP	N-CA	5.04	1.52	1.46
1	AA	529	G	C4'-O4'	-5.04	1.38	1.45
19	AS	56	ARG	CA-CB	5.04	1.61	1.53
26	BB	588	U	C5'-C4'	5.04	1.58	1.51
26	BB	915	C	C5'-C4'	5.04	1.58	1.51
26	BB	1069	A	O3'-P	5.04	1.68	1.61
26	BB	1737	G	O4'-C1'	5.04	1.49	1.41
37	BM	78	ARG	NE-CZ	5.04	1.38	1.33
44	BT	19	THR	CA-CB	5.04	1.60	1.53
47	BW	29	SER	N-CA	5.04	1.53	1.46
52	B1	22	THR	CB-OG1	-5.04	1.35	1.43
1	AA	870	U	C4'-O4'	-5.04	1.38	1.45
19	AS	8	ARG	N-CA	5.04	1.52	1.46
26	BB	116	C	P-O5'	5.04	1.67	1.59
26	BB	1483	G	P-O5'	5.04	1.67	1.59
26	BB	2136	G	C3'-C2'	5.04	1.60	1.52
5	AE	189	ASN	C-N	5.04	1.40	1.33
26	BB	323	C	O5'-C5'	-5.04	1.35	1.42
26	BB	423	A	P-O5'	5.04	1.67	1.59
26	BB	1030	C	O3'-P	5.04	1.68	1.61
26	BB	1928	A	P-O5'	5.04	1.67	1.59
10	AJ	64	ALA	CA-C	5.03	1.59	1.52
39	BO	78	LEU	CA-C	5.03	1.58	1.53
26	BB	884	U	C4'-O4'	-5.03	1.38	1.45
10	AJ	149	ALA	C-N	5.03	1.40	1.33
12	AL	101	GLY	N-CA	5.03	1.52	1.45
22	AV	13	HIS	N-CA	5.03	1.52	1.46
26	BB	181	A	P-O5'	5.03	1.67	1.59
26	BB	646	U	O3'-P	5.03	1.68	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	BX	19	ARG	CD-NE	-5.03	1.39	1.46
2	AB	24	G	P-O5'	5.03	1.67	1.59
26	BB	2110	G	C3'-O3'	-5.03	1.35	1.43
26	BB	988	A	C2'-C1'	5.03	1.60	1.53
26	BB	1259	G	C5'-C4'	5.03	1.58	1.51
26	BB	1482	G	P-O5'	5.03	1.67	1.59
26	BB	2236	U	C4'-O4'	-5.03	1.38	1.45
34	BJ	88	PRO	C-N	5.03	1.40	1.33
1	AA	719	C	C3'-C2'	5.03	1.60	1.52
3	AC	33	A	C4'-C3'	5.03	1.60	1.52
26	BB	987	C	O3'-P	5.03	1.68	1.61
26	BB	1700	A	O4'-C1'	5.03	1.49	1.41
33	BI	68	ARG	NE-CZ	5.03	1.38	1.33
1	AA	684	U	C5'-C4'	5.02	1.58	1.51
26	BB	1482	G	O3'-P	-5.02	1.53	1.61
26	BB	2884	U	C1'-N1	5.02	1.55	1.48
1	AA	1281	C	C2'-O2'	5.02	1.49	1.41
2	AB	76	A	C5'-C4'	5.02	1.58	1.51
8	AH	106	ALA	C-O	-5.02	1.18	1.23
26	BB	2413	G	C2'-C1'	5.02	1.60	1.53
26	BB	2616	C	C1'-N1	5.02	1.55	1.48
26	BB	2721	A	C2'-C1'	5.02	1.60	1.53
1	AA	1015	G	O5'-C5'	5.02	1.50	1.42
26	BB	762	U	O4'-C1'	5.02	1.49	1.42
26	BB	1987	A	C1'-N9	5.02	1.55	1.48
26	BB	2168	G	N7-C5	5.02	1.49	1.39
30	BF	109	LEU	N-CA	-5.02	1.40	1.46
1	AA	358	U	C4'-O4'	-5.02	1.38	1.45
1	AA	1179	A	O3'-P	5.02	1.68	1.61
5	AE	172	ILE	C-O	-5.02	1.18	1.24
26	BB	260	G	P-O5'	5.02	1.67	1.59
26	BB	266	G	C3'-C2'	-5.02	1.45	1.52
26	BB	1076	C	P-O5'	5.02	1.67	1.59
26	BB	2144	G	C4'-O4'	-5.02	1.38	1.45
26	BB	2558	C	C5'-C4'	5.02	1.58	1.51
31	BG	66	ILE	CA-CB	5.02	1.61	1.54
45	BU	65	ASP	CA-C	5.02	1.59	1.52
1	AA	104	G	P-O5'	5.02	1.67	1.59
50	BZ	51	SER	N-CA	5.02	1.51	1.45
1	AA	515	G	C3'-C2'	5.01	1.60	1.52
1	AA	579	A	O3'-P	5.01	1.68	1.61
3	AC	54	U	C2'-O2'	-5.01	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	715	A	C5'-C4'	5.01	1.58	1.51
28	BD	75	ALA	N-CA	-5.01	1.39	1.45
25	BA	118	C	P-O5'	5.01	1.67	1.59
26	BB	2499	C	O3'-P	-5.01	1.53	1.61
25	BA	85	G	P-O5'	5.01	1.67	1.59
26	BB	768	G	C4'-O4'	-5.01	1.38	1.45
26	BB	1624	U	C5'-C4'	5.01	1.58	1.51
33	BI	98	ASP	CA-C	5.01	1.59	1.52
48	BX	39	ALA	N-CA	5.01	1.52	1.46
1	AA	180	U	O3'-P	-5.01	1.53	1.61
1	AA	1156	G	C4'-C3'	5.01	1.60	1.52
1	AA	1283	U	C2'-C1'	-5.01	1.45	1.53
4	AD	6	G	C4'-O4'	-5.01	1.38	1.45
15	AO	16	ALA	C-O	5.01	1.30	1.24
26	BB	1570	A	O5'-C5'	-5.01	1.34	1.42
26	BB	1791	A	C5'-C4'	5.01	1.58	1.51
29	BE	81	GLU	N-CA	5.01	1.52	1.45
29	BE	191	GLY	C-N	5.01	1.40	1.33
39	BO	47	GLU	N-CA	5.01	1.52	1.46
16	AP	13	HIS	CD2-NE2	5.01	1.43	1.37
26	BB	1327	A	O3'-P	5.01	1.68	1.61
26	BB	1959	G	C1'-N9	-5.01	1.40	1.48
1	AA	1168	U	P-O5'	5.01	1.67	1.59
26	BB	445	C	P-O5'	5.01	1.67	1.59
26	BB	950	G	P-O5'	5.01	1.67	1.59
26	BB	1753	G	O4'-C1'	5.01	1.49	1.41
33	BI	41	LYS	N-CA	5.01	1.52	1.46
37	BM	84	CYS	N-CA	5.01	1.52	1.46
45	BU	99	ARG	CZ-NH2	5.01	1.40	1.33
49	BY	53	GLY	N-CA	5.01	1.52	1.45
55	B4	53	ILE	CA-C	5.01	1.60	1.52
15	AO	55	ARG	N-CA	5.00	1.52	1.46
26	BB	2234	G	C4'-O4'	-5.00	1.38	1.45
53	B2	36	VAL	CA-CB	5.00	1.61	1.54
26	BB	397	U	C5'-C4'	5.00	1.58	1.51
26	BB	1047	G	C4'-O4'	-5.00	1.38	1.45
26	BB	1188	U	C5'-C4'	5.00	1.58	1.51
40	BP	121	LYS	CA-C	5.00	1.58	1.52
1	AA	597	G	C3'-C2'	5.00	1.60	1.52
8	AH	44	ARG	CA-CB	5.00	1.62	1.53
21	AU	33	THR	CA-CB	5.00	1.61	1.53
25	BA	77	U	P-O5'	5.00	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1069	A	C4'-O4'	-5.00	1.38	1.45
26	BB	2646	C	P-O5'	5.00	1.67	1.59
51	B0	44	LYS	CA-C	-5.00	1.46	1.52

All (8835) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	694	A	C4'-C3'-C2'	-13.67	88.93	102.60
46	BV	70	HIS	CA-CB-CG	13.47	127.27	113.80
26	BB	2903	U	O4'-C1'-C2'	-13.21	94.39	107.60
26	BB	2075	U	C4'-C3'-C2'	-13.17	89.43	102.60
4	AD	7	G	C4'-C3'-O3'	13.11	129.06	109.40
1	AA	765	G	O4'-C1'-C2'	-12.90	94.70	107.60
26	BB	332	A	O4'-C1'-C2'	-12.53	93.27	105.80
1	AA	1051	C	C3'-C2'-C1'	12.53	113.83	101.30
26	BB	595	C	C4'-C3'-C2'	-12.43	90.17	102.60
1	AA	1201	A	C2'-C3'-O3'	12.23	127.84	109.50
48	BX	70	ILE	CB-CA-C	12.22	122.12	110.63
26	BB	805	G	C1'-O4'-C4'	-12.03	97.87	109.90
5	AE	168	GLU	CA-C-N	12.00	136.36	120.28
5	AE	168	GLU	C-N-CA	12.00	136.36	120.28
50	BZ	45	PHE	CA-CB-CG	11.71	125.51	113.80
1	AA	596	A	O4'-C4'-C3'	11.66	115.66	104.00
26	BB	1382	G	C4'-C3'-C2'	-11.55	91.05	102.60
26	BB	161	A	C1'-C2'-O2'	11.46	125.59	108.40
46	BV	40	LYS	CA-C-N	11.45	136.02	120.44
46	BV	40	LYS	C-N-CA	11.45	136.02	120.44
16	AP	86	ARG	CA-C-N	11.17	132.38	119.98
16	AP	86	ARG	C-N-CA	11.17	132.38	119.98
51	B0	48	ARG	NE-CZ-NH1	10.91	132.41	121.50
26	BB	2139	U	C5'-C4'-C3'	-10.91	99.64	116.00
1	AA	1150	A	O4'-C4'-C3'	10.88	114.88	104.00
43	BS	8	ILE	N-CA-C	-10.80	101.41	111.45
26	BB	1565	C	O3'-P-O5'	-10.77	87.84	104.00
26	BB	2402	U	O4'-C1'-N1	10.77	124.35	108.20
25	BA	53	A	C3'-C2'-C1'	10.77	112.06	101.30
8	AH	55	VAL	CA-C-O	-10.75	111.49	118.69
26	BB	2322	A	C4'-C3'-C2'	-10.75	91.85	102.60
3	AC	55	A	C3'-C2'-C1'	10.73	112.03	101.30
13	AM	40	ILE	CA-C-N	10.73	131.09	119.28
13	AM	40	ILE	C-N-CA	10.73	131.09	119.28
26	BB	1864	U	C1'-O4'-C4'	10.73	120.63	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	BP	80	PHE	CA-CB-CG	10.72	124.52	113.80
51	B0	48	ARG	NE-CZ-NH2	-10.72	109.55	119.20
12	AL	85	ALA	O-C-N	10.70	133.65	122.09
26	BB	1472	C	C4'-C3'-C2'	-10.62	91.98	102.60
1	AA	1520	C	C3'-C2'-C1'	10.57	111.87	101.30
26	BB	1933	G	C4'-C3'-C2'	-10.56	92.04	102.60
26	BB	1460	U	C3'-C2'-C1'	10.55	111.85	101.30
26	BB	1900	A	O3'-P-O5'	-10.55	88.17	104.00
26	BB	479	A	O4'-C1'-C2'	-10.53	95.27	105.80
1	AA	1035	A	O4'-C4'-C3'	10.50	114.50	104.00
24	AX	11	PHE	CA-CB-CG	10.50	124.30	113.80
26	BB	1607	C	C5'-C4'-O4'	10.45	124.77	109.10
26	BB	2402	U	O4'-C1'-C2'	-10.45	95.36	105.80
29	BE	23	PRO	CA-C-N	10.42	138.00	122.58
29	BE	23	PRO	C-N-CA	10.42	138.00	122.58
1	AA	882	C	C4'-C3'-C2'	-10.41	92.19	102.60
18	AR	73	ASP	CA-CB-CG	10.40	123.00	112.60
26	BB	1888	G	C3'-C2'-C1'	-10.38	90.92	101.30
1	AA	470	C	O4'-C4'-C3'	10.35	114.35	104.00
26	BB	1134	A	O4'-C4'-C3'	10.33	116.43	106.10
44	BT	99	THR	CA-C-N	10.32	130.11	122.16
44	BT	99	THR	C-N-CA	10.32	130.11	122.16
1	AA	183	C	C1'-O4'-C4'	-10.31	99.59	109.90
1	AA	420	U	C4'-C3'-C2'	-10.30	92.30	102.60
40	BP	42	LYS	O-C-N	10.29	133.20	122.09
1	AA	588	G	O5'-C5'-C4'	-10.24	96.14	111.50
26	BB	2554	U	C4'-C3'-C2'	-10.23	92.37	102.60
28	BD	220	ARG	CA-C-N	10.20	131.45	120.03
28	BD	220	ARG	C-N-CA	10.20	131.45	120.03
26	BB	507	A	O3'-P-O5'	-10.19	88.71	104.00
26	BB	1796	U	C4'-C3'-C2'	-10.19	92.41	102.60
1	AA	32	A	O4'-C1'-C2'	-10.18	97.42	107.60
26	BB	2890	G	O4'-C4'-C3'	10.17	114.17	104.00
26	BB	3	U	C4'-C3'-C2'	-10.12	92.48	102.60
29	BE	87	GLY	O-C-N	10.08	131.64	122.77
1	AA	1400	C	O4'-C1'-N1	10.07	123.30	108.20
6	AF	71	ARG	O-C-N	-10.05	114.00	121.84
3	AC	58	C	C3'-C2'-C1'	10.05	111.35	101.30
1	AA	1005	A	C4'-C3'-C2'	-10.03	92.57	102.60
1	AA	1313	U	O5'-C5'-C4'	10.02	126.53	111.50
16	AP	105	ALA	N-CA-C	10.02	126.72	113.30
26	BB	2845	U	C4'-C3'-C2'	-10.02	92.58	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	385	C	C4'-C3'-O3'	-9.98	98.03	113.00
26	BB	1604	C	C3'-C2'-C1'	9.96	111.27	101.30
26	BB	2806	C	O4'-C1'-N1	9.95	123.42	108.50
1	AA	399	G	O5'-C5'-C4'	-9.92	96.61	111.50
1	AA	291	U	O4'-C4'-C3'	9.88	113.89	104.00
26	BB	2023	C	C4'-C3'-C2'	-9.88	92.72	102.60
26	BB	157	C	O4'-C1'-N1	9.88	123.31	108.50
26	BB	599	A	C4'-C3'-C2'	-9.86	92.74	102.60
35	BK	26	ALA	CA-C-O	-9.86	110.10	120.55
26	BB	1362	C	C4'-C3'-C2'	-9.84	92.76	102.60
1	AA	758	C	O4'-C1'-C2'	-9.84	97.76	107.60
1	AA	381	C	C3'-C2'-C1'	9.84	111.14	101.30
1	AA	402	G	O3'-P-O5'	9.83	118.75	104.00
1	AA	1399	C	O4'-C1'-C2'	-9.83	95.97	105.80
4	AD	61	U	O4'-C1'-C2'	9.83	115.63	105.80
26	BB	1824	G	C4'-C3'-C2'	-9.81	92.79	102.60
26	BB	2711	A	O4'-C4'-C3'	9.81	113.81	104.00
1	AA	757	U	O4'-C4'-C3'	9.80	113.80	104.00
26	BB	645	C	O4'-C1'-C2'	-9.79	97.81	107.60
12	AL	71	ILE	N-CA-C	9.78	120.63	110.36
1	AA	239	U	O3'-P-O5'	-9.77	89.34	104.00
26	BB	2502	G	C3'-C2'-C1'	9.77	111.27	101.50
1	AA	809	G	C4'-C3'-C2'	-9.74	92.86	102.60
28	BD	121	ALA	O-C-N	9.74	132.25	121.93
1	AA	243	A	C2'-C3'-O3'	9.73	124.09	109.50
36	BL	45	THR	CA-C-N	9.67	129.44	119.19
36	BL	45	THR	C-N-CA	9.67	129.44	119.19
1	AA	1401	G	C5'-C4'-C3'	-9.64	101.54	116.00
2	AB	36	A	O4'-C4'-C3'	9.63	113.63	104.00
1	AA	812	G	O4'-C4'-C3'	9.60	113.60	104.00
1	AA	17	U	C4'-C3'-C2'	-9.60	93.00	102.60
26	BB	1250	G	O3'-P-O5'	-9.59	89.62	104.00
26	BB	561	G	C3'-C2'-O2'	9.58	125.08	110.70
1	AA	1050	G	C3'-C2'-C1'	9.58	110.88	101.30
1	AA	1055	A	C4'-C3'-C2'	-9.55	93.05	102.60
26	BB	1728	C	O4'-C1'-C2'	-9.54	98.06	107.60
1	AA	1150	A	C4'-C3'-C2'	-9.53	93.07	102.60
1	AA	812	G	C4'-C3'-C2'	-9.53	93.07	102.60
1	AA	1051	C	C4'-C3'-C2'	-9.53	93.07	102.60
26	BB	1306	C	O4'-C1'-C2'	-9.52	98.08	107.60
26	BB	530	G	C4'-C3'-C2'	-9.52	93.08	102.60
26	BB	2886	A	C4'-C3'-C2'	-9.50	93.10	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2293	G	C4'-C3'-C2'	-9.49	93.11	102.60
26	BB	171	U	C3'-C2'-C1'	9.48	110.78	101.30
26	BB	1606	C	C1'-C2'-O2'	9.48	122.62	108.40
26	BB	1391	U	C2'-C3'-O3'	9.47	123.71	109.50
1	AA	1238	A	O4'-C4'-C3'	9.47	113.47	104.00
26	BB	2720	U	C5'-C4'-C3'	-9.47	101.80	116.00
26	BB	1963	U	O3'-P-O5'	-9.44	89.83	104.00
1	AA	1142	G	C3'-C2'-O2'	9.43	124.85	110.70
26	BB	784	G	C4'-C3'-C2'	-9.43	93.17	102.60
26	BB	1852	U	C3'-C2'-C1'	9.43	110.73	101.30
26	BB	595	C	C3'-C2'-C1'	9.42	110.72	101.30
26	BB	2324	U	O4'-C1'-N1	9.40	122.30	108.20
26	BB	1567	G	O4'-C1'-C2'	-9.39	96.41	105.80
26	BB	109	C	C1'-O4'-C4'	-9.38	100.52	109.90
26	BB	287	G	O4'-C1'-C2'	-9.38	98.22	107.60
1	AA	173	U	C2'-C3'-O3'	9.38	123.57	109.50
26	BB	2866	U	O4'-C1'-C2'	9.37	115.17	105.80
29	BE	143	PRO	N-CA-CB	9.37	111.62	103.19
41	BQ	31	THR	O-C-N	-9.37	114.52	121.83
1	AA	1448	C	O4'-C4'-C3'	9.37	113.37	104.00
26	BB	2178	C	O4'-C1'-N1	9.36	122.54	108.50
31	BG	118	ALA	CA-C-N	9.36	133.17	120.44
31	BG	118	ALA	C-N-CA	9.36	133.17	120.44
23	AW	24	ARG	CA-C-O	-9.36	110.50	120.42
1	AA	39	G	C4'-C3'-C2'	-9.35	93.25	102.60
26	BB	2374	C	O4'-C1'-N1	9.35	122.53	108.50
26	BB	2179	C	C4'-C3'-C2'	-9.35	93.25	102.60
26	BB	2151	U	O4'-C1'-N1	9.35	122.52	108.50
26	BB	2756	U	C2'-C3'-O3'	9.34	123.52	109.50
26	BB	2632	A	C3'-C2'-C1'	-9.34	91.96	101.30
26	BB	2527	C	C4'-C3'-O3'	-9.33	99.00	113.00
26	BB	1547	C	C4'-C3'-C2'	-9.33	93.27	102.60
26	BB	1762	A	C2'-C3'-O3'	9.31	123.47	109.50
26	BB	2806	C	C4'-C3'-C2'	-9.31	93.29	102.60
39	BO	108	VAL	CA-C-N	9.31	131.48	119.84
39	BO	108	VAL	C-N-CA	9.31	131.48	119.84
25	BA	55	U	C5'-C4'-C3'	-9.30	102.04	116.00
26	BB	200	U	O4'-C1'-N1	9.31	122.46	108.50
28	BD	132	ARG	NE-CZ-NH2	-9.30	110.83	119.20
26	BB	2022	U	O4'-C1'-C2'	-9.29	96.52	105.80
28	BD	117	SER	CA-C-N	9.28	130.56	120.44
28	BD	117	SER	C-N-CA	9.28	130.56	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BH	108	PHE	CA-CB-CG	9.28	123.08	113.80
26	BB	1446	C	O4'-C1'-C2'	-9.27	98.33	107.60
36	BL	128	ASN	CA-CB-CG	9.27	121.87	112.60
2	AB	59	G	O5'-C5'-C4'	9.27	125.60	111.70
36	BL	73	VAL	N-CA-C	-9.25	102.15	111.77
1	AA	1	A	C4'-C3'-C2'	-9.24	93.36	102.60
26	BB	2807	U	O4'-C1'-N1	9.23	122.34	108.50
26	BB	1250	G	O4'-C1'-N9	9.23	122.04	108.20
26	BB	2351	G	O4'-C1'-C2'	-9.23	98.37	107.60
26	BB	614	A	C4'-C3'-C2'	-9.22	93.38	102.60
1	AA	714	G	C4'-C3'-C2'	-9.22	93.38	102.60
26	BB	1864	U	O4'-C1'-C2'	-9.22	98.38	107.60
26	BB	1061	U	O3'-P-O5'	-9.21	90.18	104.00
26	BB	986	C	P-O5'-C5'	9.21	134.72	120.90
47	BW	75	ALA	CA-C-O	-9.20	110.66	120.42
10	AJ	9	ARG	N-CA-C	9.20	122.40	110.53
3	AC	28	U	O4'-C1'-N1	9.18	122.27	108.50
26	BB	1847	A	O4'-C1'-C2'	-9.18	98.42	107.60
26	BB	2070	A	O4'-C1'-C2'	-9.17	98.43	107.60
26	BB	2804	U	C4'-C3'-C2'	-9.16	93.44	102.60
26	BB	129	C	O3'-P-O5'	9.16	117.74	104.00
1	AA	429	U	C3'-C2'-C1'	-9.15	92.35	101.50
26	BB	2377	A	O4'-C1'-N9	9.15	122.23	108.50
57	B6	42	HIS	CB-CG-CD2	-9.15	119.31	131.20
26	BB	2797	U	C1'-O4'-C4'	-9.14	100.76	109.90
1	AA	224	U	O4'-C1'-C2'	-9.13	98.47	107.60
9	AI	79	ARG	NE-CZ-NH2	-9.13	110.99	119.20
1	AA	496	A	C3'-C2'-C1'	9.12	110.42	101.30
1	AA	1020	G	C4'-C3'-C2'	-9.12	93.48	102.60
26	BB	1114	C	C5'-C4'-C3'	-9.12	102.33	116.00
1	AA	816	A	C4'-C3'-C2'	-9.11	93.49	102.60
23	AW	73	ARG	O-C-N	9.10	131.77	122.12
26	BB	1323	C	C1'-O4'-C4'	-9.10	100.60	109.70
26	BB	2158	A	C4'-C3'-C2'	9.10	111.70	102.60
1	AA	1054	C	C1'-O4'-C4'	-9.09	100.81	109.90
26	BB	1001	A	C4'-C3'-C2'	-9.09	93.51	102.60
14	AN	27	ASN	CA-CB-CG	-9.08	103.52	112.60
1	AA	1361	G	O4'-C4'-C3'	9.08	113.08	104.00
10	AJ	95	ARG	CA-C-N	9.08	132.25	120.44
10	AJ	95	ARG	C-N-CA	9.08	132.25	120.44
1	AA	1085	U	C3'-C2'-C1'	-9.08	92.42	101.50
25	BA	66	A	C4'-C3'-O3'	9.08	126.61	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	495	A	C3'-C2'-C1'	-9.07	92.42	101.50
32	BH	6	ALA	CA-C-N	9.06	128.91	120.21
32	BH	6	ALA	C-N-CA	9.06	128.91	120.21
1	AA	1435	G	C3'-C2'-C1'	9.06	110.36	101.30
1	AA	1226	C	C2'-C3'-O3'	9.06	123.09	109.50
12	AL	124	PRO	N-CA-CB	9.06	111.23	103.35
25	BA	54	G	C2'-C3'-O3'	9.05	127.28	113.70
26	BB	806	C	O4'-C4'-C3'	9.05	113.05	104.00
39	BO	117	PHE	CA-C-N	9.05	132.74	120.44
39	BO	117	PHE	C-N-CA	9.05	132.74	120.44
26	BB	1383	A	O4'-C1'-C2'	-9.04	98.56	107.60
26	BB	212	G	C4'-C3'-C2'	-9.04	93.56	102.60
26	BB	1183	U	C1'-O4'-C4'	-9.01	100.89	109.90
26	BB	1482	G	C4'-C3'-C2'	-9.01	93.59	102.60
26	BB	2376	A	O4'-C1'-C2'	-9.00	98.60	107.60
26	BB	2175	C	O3'-P-O5'	-9.00	90.50	104.00
26	BB	2663	G	C3'-C2'-O2'	9.00	124.20	110.70
26	BB	1333	G	C4'-C3'-C2'	-8.99	93.61	102.60
22	AV	67	GLY	O-C-N	-8.99	113.16	122.51
37	BM	108	ARG	NE-CZ-NH2	-8.99	111.11	119.20
26	BB	382	A	O4'-C1'-C2'	-8.99	98.61	107.60
1	AA	63	C	O4'-C1'-C2'	-8.98	98.62	107.60
26	BB	1579	A	O4'-C4'-C3'	8.97	112.97	104.00
1	AA	475	C	C3'-C2'-C1'	8.97	110.27	101.30
2	AB	25	C	C4'-C3'-C2'	-8.97	93.63	102.60
26	BB	1482	G	C1'-O4'-C4'	-8.97	100.93	109.90
29	BE	184	ARG	NE-CZ-NH2	8.97	127.27	119.20
1	AA	288	A	O5'-C5'-C4'	-8.96	98.05	111.50
1	AA	809	G	C3'-C2'-C1'	8.96	110.26	101.30
40	BP	13	ASN	CA-CB-CG	-8.95	103.65	112.60
1	AA	1202	U	O4'-C4'-C3'	8.95	112.95	104.00
26	BB	1144	A	O4'-C4'-C3'	8.94	112.94	104.00
26	BB	2845	U	O4'-C1'-N1	8.94	121.91	108.50
26	BB	553	G	C4'-C3'-C2'	-8.94	93.66	102.60
26	BB	101	A	C4'-C3'-C2'	-8.93	93.67	102.60
53	B2	31	ASP	CA-CB-CG	8.93	121.53	112.60
26	BB	1975	G	C2'-C3'-O3'	-8.93	100.31	113.70
36	BL	120	ARG	NE-CZ-NH2	8.92	127.23	119.20
6	AF	126	ARG	NE-CZ-NH2	8.92	127.23	119.20
25	BA	90	C	C4'-C3'-C2'	-8.92	93.68	102.60
19	AS	31	ARG	NE-CZ-NH2	-8.92	111.17	119.20
29	BE	134	HIS	CE1-NE2-CD2	-8.91	100.09	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	AC	18	A	O4'-C4'-C3'	8.90	112.90	104.00
26	BB	1482	G	O4'-C4'-C3'	8.90	112.90	104.00
1	AA	1234	C	C4'-C3'-C2'	-8.90	93.70	102.60
7	AG	87	GLU	CA-C-N	8.89	132.00	120.44
7	AG	87	GLU	C-N-CA	8.89	132.00	120.44
37	BM	79	PHE	CA-CB-CG	8.89	122.69	113.80
1	AA	1202	U	C1'-O4'-C4'	-8.89	101.01	109.90
26	BB	806	C	O4'-C1'-N1	8.88	121.82	108.50
26	BB	866	A	O4'-C4'-C3'	8.88	112.88	104.00
1	AA	50	A	C3'-C2'-C1'	8.88	110.38	101.50
1	AA	848	C	C1'-O4'-C4'	-8.87	101.03	109.90
30	BF	25	GLU	CA-C-N	8.87	132.17	120.28
30	BF	25	GLU	C-N-CA	8.87	132.17	120.28
57	B6	13	PHE	CA-CB-CG	8.87	122.67	113.80
26	BB	538	A	C4'-C3'-C2'	-8.87	93.73	102.60
2	AB	74	C	C1'-O4'-C4'	-8.86	100.84	109.70
6	AF	7	ASN	CA-C-O	-8.86	107.84	120.51
26	BB	1423	G	O4'-C4'-C3'	8.85	112.85	104.00
26	BB	983	A	O4'-C4'-C3'	8.85	112.85	104.00
43	BS	19	GLN	OE1-CD-NE2	-8.84	113.76	122.60
27	BC	129	GLN	CA-C-N	8.84	132.69	120.49
27	BC	129	GLN	C-N-CA	8.84	132.69	120.49
1	AA	267	C	O4'-C1'-N1	8.83	121.75	108.50
26	BB	220	G	C4'-C3'-C2'	-8.83	93.77	102.60
1	AA	1381	U	O3'-P-O5'	-8.83	90.76	104.00
26	BB	499	U	C5'-C4'-C3'	-8.82	102.77	116.00
25	BA	8	C	C4'-C3'-C2'	-8.82	93.78	102.60
26	BB	1277	G	C4'-C3'-C2'	-8.82	93.78	102.60
26	BB	1747	U	C4'-C3'-O3'	-8.81	99.78	113.00
1	AA	1383	C	C5'-C4'-C3'	-8.81	102.78	116.00
26	BB	2535	G	O4'-C1'-C2'	-8.81	98.79	107.60
57	B6	39	ARG	NE-CZ-NH2	8.81	127.13	119.20
26	BB	1255	U	C3'-C2'-C1'	8.81	110.11	101.30
26	BB	2077	A	O4'-C1'-C2'	-8.80	98.80	107.60
29	BE	142	VAL	CA-C-N	8.80	129.35	119.93
29	BE	142	VAL	C-N-CA	8.80	129.35	119.93
5	AE	169	HIS	CA-C-N	8.80	131.65	120.56
5	AE	169	HIS	C-N-CA	8.80	131.65	120.56
26	BB	1771	C	O4'-C1'-C2'	-8.79	98.81	107.60
26	BB	2724	U	P-O3'-C3'	8.79	133.39	120.20
26	BB	1375	U	C3'-C2'-O2'	8.79	123.89	110.70
40	BP	48	VAL	N-CA-C	8.79	120.58	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	BP	37	THR	O-C-N	-8.79	112.77	122.79
1	AA	1022	A	C4'-C3'-C2'	-8.79	93.81	102.60
1	AA	34	C	O4'-C4'-C3'	8.78	112.78	104.00
26	BB	1115	G	C4'-C3'-C2'	-8.78	93.82	102.60
26	BB	1142	A	C2'-C3'-O3'	8.78	122.67	109.50
26	BB	2865	U	C1'-O4'-C4'	-8.78	101.12	109.90
49	BY	6	GLY	CA-C-N	8.78	132.20	122.55
49	BY	6	GLY	C-N-CA	8.78	132.20	122.55
27	BC	210	LYS	CA-C-O	-8.77	111.17	120.55
25	BA	108	A	O4'-C1'-C2'	8.77	116.36	107.60
26	BB	1745	A	C3'-C2'-C1'	8.76	110.06	101.30
50	BZ	2	ARG	NE-CZ-NH2	8.75	127.08	119.20
1	AA	804	U	O4'-C1'-C2'	-8.75	98.85	107.60
26	BB	1661	G	C5'-C4'-C3'	-8.74	102.89	116.00
1	AA	53	A	C5'-C4'-O4'	8.74	122.91	109.80
1	AA	724	G	C5'-C4'-O4'	8.73	122.90	109.80
1	AA	1520	C	O4'-C1'-C2'	-8.73	98.87	107.60
1	AA	89	U	O4'-C1'-N1	8.73	121.59	108.50
25	BA	97	C	O4'-C1'-C2'	-8.73	98.87	107.60
25	BA	118	C	O4'-C1'-N1	8.73	121.59	108.50
26	BB	1376	C	C5'-C4'-C3'	8.73	129.09	116.00
1	AA	422	C	O4'-C1'-C2'	-8.72	97.08	105.80
26	BB	1826	G	C1'-O4'-C4'	-8.72	101.18	109.90
2	AB	47	U	O4'-C1'-C2'	-8.71	97.09	105.80
2	AB	53	G	O4'-C4'-C3'	8.69	112.69	104.00
26	BB	2106	U	C2'-C3'-O3'	8.69	126.74	113.70
1	AA	352	C	C5'-C4'-C3'	-8.69	102.97	116.00
26	BB	869	G	C1'-O4'-C4'	-8.68	101.22	109.90
26	BB	2621	G	O4'-C1'-C2'	8.68	116.28	107.60
2	AB	7	G	C2'-C3'-O3'	8.67	126.70	113.70
26	BB	2654	A	C3'-C2'-C1'	-8.67	92.83	101.50
28	BD	141	HIS	CA-CB-CG	8.67	122.47	113.80
26	BB	1174	U	C1'-O4'-C4'	-8.67	101.23	109.90
26	BB	2697	G	C5'-C4'-C3'	-8.67	103.00	116.00
30	BF	92	HIS	CA-CB-CG	8.67	122.47	113.80
1	AA	49	U	O4'-C4'-C3'	8.66	114.77	106.10
25	BA	11	C	C3'-C2'-C1'	8.66	109.96	101.30
26	BB	3	U	O4'-C4'-C3'	8.66	112.67	104.00
26	BB	2718	G	O4'-C1'-C2'	-8.66	98.94	107.60
6	AF	111	ASP	CA-CB-CG	8.66	121.26	112.60
26	BB	719	C	O4'-C1'-N1	8.65	121.48	108.50
26	BB	2749	A	O3'-P-O5'	-8.65	91.02	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1416	G	C4'-C3'-C2'	-8.65	93.95	102.60
34	BJ	15	SER	CA-C-N	8.65	132.07	120.65
34	BJ	15	SER	C-N-CA	8.65	132.07	120.65
26	BB	2035	G	C3'-C2'-O2'	-8.65	101.63	114.60
1	AA	202	G	C4'-C3'-C2'	-8.64	93.96	102.60
26	BB	1752	C	O4'-C4'-C3'	8.64	112.64	104.00
26	BB	391	A	C3'-C2'-C1'	-8.63	92.67	101.30
26	BB	2185	U	C4'-C3'-C2'	-8.62	93.97	102.60
26	BB	1903	G	O4'-C4'-C3'	8.62	112.62	104.00
26	BB	1768	C	C4'-C3'-C2'	-8.62	93.98	102.60
26	BB	2892	G	O4'-C4'-C3'	8.61	112.61	104.00
31	BG	83	PRO	N-CA-CB	8.61	111.35	103.34
37	BM	90	ASN	CA-CB-CG	-8.61	103.99	112.60
34	BJ	132	GLU	CA-C-O	-8.60	111.30	120.42
16	AP	86	ARG	O-C-N	8.60	131.04	122.09
2	AB	34	C	N1-C1'-C2'	8.60	124.90	112.00
34	BJ	128	LEU	CB-CA-C	8.60	118.79	110.71
26	BB	790	U	O4'-C1'-N1	8.60	121.39	108.50
3	AC	15	G	O4'-C1'-N9	8.59	121.39	108.50
34	BJ	5	GLN	CB-CG-CD	8.59	127.21	112.60
26	BB	2210	U	P-O5'-C5'	8.59	133.78	120.90
26	BB	2667	C	C5'-C4'-C3'	-8.58	103.13	116.00
26	BB	2350	C	C5'-C4'-C3'	-8.58	103.13	116.00
3	AC	27	A	O4'-C1'-C2'	-8.58	99.02	107.60
26	BB	1646	C	O4'-C4'-C3'	8.57	112.57	104.00
26	BB	2118	U	C1'-O4'-C4'	-8.56	101.14	109.70
26	BB	162	U	O4'-C1'-C2'	-8.56	97.24	105.80
7	AG	181	PHE	CA-CB-CG	8.55	122.36	113.80
26	BB	369	U	C1'-O4'-C4'	-8.55	101.35	109.90
17	AQ	89	ARG	NE-CZ-NH1	8.54	130.04	121.50
1	AA	405	U	O4'-C4'-C3'	8.54	112.54	104.00
1	AA	921	U	O4'-C4'-C3'	8.54	112.54	104.00
1	AA	688	G	C4'-C3'-C2'	-8.54	94.06	102.60
26	BB	2541	A	C1'-O4'-C4'	8.53	118.43	109.90
20	AT	10	ARG	CA-C-N	8.52	133.16	122.43
20	AT	10	ARG	C-N-CA	8.52	133.16	122.43
26	BB	748	G	C3'-C2'-O2'	8.52	123.48	110.70
26	BB	900	A	C3'-C2'-O2'	8.52	123.48	110.70
26	BB	338	G	O4'-C4'-C3'	8.51	112.51	104.00
7	AG	180	THR	O-C-N	-8.51	113.23	123.27
52	B1	15	ARG	NE-CZ-NH2	-8.51	111.54	119.20
26	BB	113	U	C3'-C2'-C1'	-8.51	92.79	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
58	B7	18	LYS	CA-C-N	8.51	134.08	122.77
58	B7	18	LYS	C-N-CA	8.51	134.08	122.77
26	BB	2023	C	O4'-C4'-C3'	8.50	112.50	104.00
26	BB	2857	G	C3'-C2'-O2'	8.50	123.45	110.70
39	BO	106	ASP	CA-CB-CG	8.50	121.10	112.60
26	BB	70	G	C4'-C3'-O3'	8.50	122.15	109.40
1	AA	472	U	O4'-C4'-C3'	8.49	112.50	104.00
1	AA	1244	G	C5'-C4'-C3'	-8.49	103.26	116.00
26	BB	1819	A	O5'-C5'-C4'	8.49	124.44	111.70
1	AA	1272	G	C3'-C2'-O2'	8.49	123.43	110.70
1	AA	51	A	C2'-C3'-O3'	8.49	122.23	109.50
44	BT	44	GLY	CA-C-O	8.49	128.43	119.01
43	BS	12	ARG	CA-C-O	-8.48	111.96	120.70
26	BB	1597	A	O4'-C4'-C3'	8.48	112.48	104.00
26	BB	994	C	C4'-C3'-O3'	-8.47	100.30	113.00
26	BB	1768	C	C3'-C2'-C1'	8.47	109.77	101.30
1	AA	304	U	O4'-C4'-C3'	8.46	112.46	104.00
26	BB	731	C	O4'-C1'-N1	8.46	121.19	108.50
1	AA	281	G	C3'-C2'-C1'	8.46	109.96	101.50
26	BB	2690	U	C4'-C3'-C2'	-8.45	94.15	102.60
14	AN	107	THR	CA-C-O	-8.45	111.46	120.42
26	BB	730	A	O5'-C5'-C4'	-8.45	98.83	111.50
1	AA	1096	C	C4'-C3'-C2'	-8.45	94.15	102.60
8	AH	61	LYS	CA-C-O	8.45	129.94	120.90
26	BB	269	C	O5'-C5'-C4'	-8.44	98.83	111.50
26	BB	662	G	N9-C1'-C2'	-8.45	99.33	112.00
1	AA	32	A	O4'-C1'-N9	8.44	121.16	108.50
1	AA	1279	G	C4'-C3'-O3'	-8.44	100.34	113.00
1	AA	366	A	C4'-C3'-C2'	8.44	111.04	102.60
26	BB	2597	G	O4'-C4'-C3'	8.43	112.43	104.00
26	BB	492	A	O4'-C1'-N9	8.43	121.15	108.50
1	AA	956	U	O4'-C1'-N1	8.43	121.14	108.50
26	BB	1805	A	O4'-C4'-C3'	8.43	112.43	104.00
1	AA	334	C	C4'-C3'-C2'	-8.43	94.17	102.60
26	BB	224	U	C5'-C4'-C3'	-8.43	103.36	116.00
1	AA	430	A	C5'-C4'-C3'	-8.42	103.37	116.00
26	BB	109	C	O4'-C4'-C3'	8.42	112.42	104.00
1	AA	544	G	C4'-C3'-C2'	-8.42	94.18	102.60
26	BB	1698	A	C4'-C3'-O3'	8.42	122.03	109.40
1	AA	474	G	C4'-C3'-C2'	-8.41	94.19	102.60
26	BB	2336	A	C2'-C3'-O3'	8.41	122.11	109.50
1	AA	765	G	O4'-C1'-N9	8.41	121.11	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	BL	7	LYS	CA-C-N	8.41	128.61	119.87
36	BL	7	LYS	C-N-CA	8.41	128.61	119.87
1	AA	740	U	C4'-C3'-C2'	-8.40	94.20	102.60
26	BB	2773	C	O4'-C1'-N1	8.40	121.10	108.50
26	BB	1626	A	C2'-C3'-O3'	8.40	122.09	109.50
26	BB	146	A	C4'-C3'-C2'	-8.39	94.20	102.60
26	BB	1912	A	O4'-C4'-C3'	8.39	112.39	104.00
6	AF	131	ARG	CA-C-N	8.39	131.87	120.54
6	AF	131	ARG	C-N-CA	8.39	131.87	120.54
26	BB	575	A	C1'-O4'-C4'	-8.39	101.51	109.90
26	BB	797	G	O4'-C4'-C3'	8.39	112.39	104.00
26	BB	1178	C	C4'-C3'-C2'	-8.39	94.21	102.60
1	AA	154	U	O4'-C1'-N1	8.38	121.08	108.50
10	AJ	119	LEU	CA-C-O	-8.38	111.53	120.42
26	BB	2700	A	C4'-C3'-C2'	-8.39	94.21	102.60
26	BB	2816	G	O4'-C1'-C2'	8.38	115.98	107.60
1	AA	835	U	O4'-C1'-N1	8.37	121.06	108.50
26	BB	997	G	O4'-C1'-N9	8.37	121.06	108.50
16	AP	76	ILE	CB-CA-C	8.37	123.00	112.04
1	AA	948	C	O4'-C1'-N1	8.37	121.05	108.50
1	AA	726	C	O4'-C1'-C2'	-8.36	99.24	107.60
26	BB	921	C	O4'-C4'-C3'	8.36	112.36	104.00
26	BB	301	G	C5'-C4'-C3'	-8.36	102.67	115.20
3	AC	44	U	O4'-C4'-C3'	8.35	112.35	104.00
36	BL	98	GLU	CA-C-O	-8.35	111.62	120.63
26	BB	2381	A	O4'-C4'-C3'	8.35	112.34	104.00
26	BB	1386	C	O4'-C1'-N1	8.34	121.01	108.50
26	BB	797	G	C4'-C3'-C2'	-8.34	94.26	102.60
12	AL	37	TYR	CA-C-O	-8.34	110.99	120.24
25	BA	5	U	C5'-C4'-O4'	8.34	122.30	109.80
28	BD	66	PHE	CA-CB-CG	8.34	122.14	113.80
26	BB	2537	U	C1'-C2'-O2'	8.33	120.90	108.40
34	BJ	7	LYS	N-CA-C	8.33	121.49	111.82
26	BB	1134	A	C1'-O4'-C4'	-8.33	101.37	109.70
1	AA	603	U	C4'-C3'-C2'	-8.33	94.27	102.60
1	AA	1468	A	C3'-C2'-C1'	-8.33	92.97	101.30
26	BB	2157	G	C5'-C4'-O4'	8.32	121.59	109.10
3	AC	45	G	O4'-C1'-N9	8.32	120.68	108.20
1	AA	267	C	C3'-C2'-C1'	8.31	109.61	101.30
10	AJ	14	ASP	CA-CB-CG	8.31	120.92	112.60
1	AA	501	C	C4'-C3'-C2'	-8.31	94.29	102.60
1	AA	1506	U	C4'-C3'-O3'	-8.31	96.94	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	531	C	C4'-C3'-C2'	-8.31	94.29	102.60
26	BB	1512	C	O5'-C5'-C4'	8.31	123.96	111.50
26	BB	2797	U	C3'-C2'-O2'	8.31	123.16	110.70
26	BB	72	U	O4'-C1'-N1	8.30	120.65	108.20
32	BH	103	ASN	CA-C-N	8.30	135.63	122.59
32	BH	103	ASN	C-N-CA	8.30	135.63	122.59
40	BP	87	PHE	CB-CA-C	8.30	124.96	110.01
1	AA	1370	G	N9-C1'-C2'	-8.30	99.55	112.00
1	AA	309	A	C1'-O4'-C4'	-8.29	101.61	109.90
13	AM	37	ARG	CA-C-O	-8.29	111.49	120.36
1	AA	1234	C	O4'-C4'-C3'	8.29	112.29	104.00
1	AA	497	G	P-O3'-C3'	8.28	132.62	120.20
1	AA	1086	U	O4'-C1'-N1	8.28	120.92	108.50
55	B4	27	ARG	NE-CZ-NH2	8.28	126.65	119.20
26	BB	921	C	C4'-C3'-C2'	-8.27	94.33	102.60
31	BG	9	ASP	CA-CB-CG	8.27	120.87	112.60
1	AA	184	G	C1'-O4'-C4'	-8.27	101.63	109.90
48	BX	18	ARG	NE-CZ-NH2	8.27	126.64	119.20
26	BB	810	U	O4'-C1'-N1	8.27	120.90	108.50
1	AA	1337	G	C1'-C2'-O2'	8.26	120.80	108.40
26	BB	764	A	O4'-C1'-C2'	-8.26	97.54	105.80
26	BB	2323	G	O4'-C4'-C3'	8.26	112.26	104.00
26	BB	2537	U	C4'-C3'-C2'	-8.26	94.34	102.60
26	BB	1847	A	C5'-C4'-C3'	-8.26	103.61	116.00
26	BB	551	G	C3'-C2'-O2'	8.26	123.08	110.70
26	BB	1536	C	O3'-P-O5'	8.25	116.37	104.00
30	BF	183	PHE	CA-CB-CG	8.25	122.05	113.80
36	BL	91	GLU	CA-C-N	8.25	132.42	120.38
36	BL	91	GLU	C-N-CA	8.25	132.42	120.38
26	BB	1779	U	C3'-C2'-C1'	8.24	109.54	101.30
29	BE	128	ARG	NE-CZ-NH1	-8.24	113.26	121.50
1	AA	225	C	O4'-C4'-C3'	-8.24	95.76	104.00
26	BB	423	A	C4'-C3'-C2'	8.23	110.83	102.60
26	BB	2650	U	C5'-C4'-C3'	-8.23	103.66	116.00
1	AA	694	A	O4'-C4'-C3'	8.23	112.23	104.00
1	AA	726	C	C3'-C2'-O2'	8.22	123.04	110.70
26	BB	2232	C	O4'-C1'-N1	8.22	120.84	108.50
1	AA	1494	G	O4'-C4'-C3'	8.22	112.22	104.00
1	AA	1094	G	C2'-C3'-O3'	8.22	121.83	109.50
26	BB	2579	C	C1'-O4'-C4'	-8.22	101.68	109.90
30	BF	13	THR	CA-C-N	8.22	132.70	120.95
30	BF	13	THR	C-N-CA	8.22	132.70	120.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	167	A	C4'-C3'-C2'	-8.21	94.39	102.60
26	BB	888	C	C3'-C2'-C1'	8.21	109.52	101.30
1	AA	476	U	O4'-C1'-N1	8.21	120.82	108.50
26	BB	161	A	O4'-C4'-C3'	8.21	112.21	104.00
26	BB	2649	C	C4'-C3'-O3'	8.21	125.32	113.00
52	B1	44	ARG	CA-C-N	8.21	129.09	119.98
52	B1	44	ARG	C-N-CA	8.21	129.09	119.98
58	B7	4	ARG	NE-CZ-NH2	-8.21	111.81	119.20
13	AM	44	THR	O-C-N	8.21	132.23	122.96
26	BB	28	A	N9-C1'-C2'	-8.21	99.69	112.00
26	BB	1531	C	O4'-C1'-N1	8.20	120.80	108.50
26	BB	1090	A	O4'-C4'-C3'	8.19	112.19	104.00
1	AA	32	A	C4'-C3'-C2'	-8.19	94.41	102.60
42	BR	77	SER	CA-C-N	8.19	128.39	119.87
42	BR	77	SER	C-N-CA	8.19	128.39	119.87
26	BB	1097	U	O4'-C4'-C3'	8.19	112.19	104.00
26	BB	599	A	C3'-C2'-C1'	8.18	109.48	101.30
1	AA	111	G	C4'-C3'-C2'	-8.18	94.42	102.60
26	BB	540	C	O4'-C4'-C3'	8.18	112.18	104.00
12	AL	73	GLY	CA-C-O	-8.18	111.30	120.30
26	BB	1604	C	C4'-C3'-C2'	-8.18	94.42	102.60
26	BB	2628	C	O4'-C4'-C3'	8.18	112.18	104.00
1	AA	1367	C	O4'-C1'-N1	8.17	120.76	108.50
34	BJ	35	ASP	CA-CB-CG	8.17	120.77	112.60
1	AA	800	G	C4'-C3'-C2'	-8.17	94.43	102.60
26	BB	722	A	C1'-O4'-C4'	8.17	118.07	109.90
26	BB	2722	G	C4'-C3'-O3'	-8.17	100.75	113.00
30	BF	172	ALA	CA-C-N	8.17	132.38	120.95
30	BF	172	ALA	C-N-CA	8.17	132.38	120.95
26	BB	385	C	O3'-P-O5'	-8.16	91.75	104.00
26	BB	1413	A	C4'-C3'-C2'	-8.16	94.44	102.60
26	BB	2808	G	O4'-C1'-C2'	-8.16	99.44	107.60
26	BB	358	U	C4'-C3'-C2'	-8.16	94.44	102.60
35	BK	21	PRO	CA-C-N	8.16	127.83	119.19
35	BK	21	PRO	C-N-CA	8.16	127.83	119.19
26	BB	722	A	O4'-C1'-C2'	-8.15	99.45	107.60
26	BB	1259	G	C1'-O4'-C4'	-8.15	101.75	109.90
26	BB	2597	G	C3'-C2'-C1'	8.15	109.45	101.30
6	AF	97	PRO	N-CA-CB	8.15	111.81	103.25
26	BB	643	A	C4'-C3'-C2'	-8.15	94.45	102.60
1	AA	1013	G	C4'-C3'-C2'	-8.14	94.45	102.60
25	BA	10	G	O4'-C1'-N9	8.14	120.72	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	16	PRO	N-CA-CB	8.14	111.05	103.39
16	AP	104	ASN	CA-CB-CG	8.14	120.74	112.60
1	AA	206	C	C2'-C3'-O3'	8.14	125.91	113.70
1	AA	1165	U	C4'-C3'-C2'	-8.14	94.46	102.60
1	AA	1253	G	C2'-C3'-O3'	8.14	125.91	113.70
38	BN	131	ALA	CA-C-N	8.14	131.85	120.29
38	BN	131	ALA	C-N-CA	8.14	131.85	120.29
26	BB	1214	A	C4'-C3'-C2'	-8.14	94.46	102.60
26	BB	2579	C	O4'-C4'-C3'	8.14	112.14	104.00
26	BB	2721	A	C4'-C3'-C2'	-8.14	94.46	102.60
26	BB	2865	U	O4'-C4'-C3'	8.14	112.14	104.00
26	BB	1590	A	O4'-C4'-C3'	8.14	112.14	104.00
26	BB	1300	G	C2'-C3'-O3'	-8.14	101.50	113.70
26	BB	2718	G	O4'-C1'-N9	8.14	120.70	108.50
1	AA	393	A	C3'-C2'-C1'	8.13	109.43	101.30
1	AA	729	A	C4'-C3'-C2'	-8.13	94.47	102.60
26	BB	622	G	P-O3'-C3'	8.13	132.40	120.20
1	AA	1522	U	C5'-C4'-C3'	-8.13	103.81	116.00
13	AM	68	ARG	NE-CZ-NH2	8.13	126.52	119.20
26	BB	459	U	C4'-C3'-C2'	-8.13	94.47	102.60
11	AK	122	GLY	N-CA-C	8.13	121.02	110.45
26	BB	373	U	O4'-C1'-N1	8.13	120.69	108.50
6	AF	227	GLN	N-CA-C	-8.13	102.12	112.93
26	BB	2725	A	C3'-C2'-C1'	8.12	109.62	101.50
1	AA	1503	A	O4'-C1'-N9	8.12	120.39	108.20
1	AA	204	G	C2'-C3'-O3'	8.12	121.68	109.50
1	AA	635	A	C2'-C3'-O3'	-8.12	101.52	113.70
26	BB	1235	G	C3'-C2'-C1'	8.12	109.42	101.30
26	BB	464	U	O4'-C1'-C2'	-8.12	99.48	107.60
25	BA	92	C	O4'-C1'-C2'	-8.12	99.48	107.60
26	BB	2837	A	C4'-C3'-C2'	-8.11	94.49	102.60
1	AA	83	C	O4'-C1'-N1	8.11	120.67	108.50
1	AA	822	U	C4'-C3'-C2'	-8.11	94.49	102.60
14	AN	111	ASP	CA-CB-CG	8.11	120.71	112.60
26	BB	947	A	C3'-C2'-C1'	8.11	109.41	101.30
26	BB	2628	C	C3'-C2'-C1'	8.11	109.41	101.30
27	BC	162	ARG	NE-CZ-NH2	8.11	126.50	119.20
1	AA	135	C	C1'-O4'-C4'	-8.11	101.79	109.90
1	AA	986	U	C3'-C2'-C1'	8.10	109.40	101.30
13	AM	37	ARG	NE-CZ-NH2	8.10	126.49	119.20
26	BB	2845	U	O3'-P-O5'	-8.10	91.84	104.00
1	AA	671	G	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	1492	A	C5'-C4'-O4'	8.10	121.94	109.80
26	BB	1979	U	C4'-C3'-C2'	-8.09	94.51	102.60
26	BB	1821	A	C4'-C3'-C2'	-8.09	94.51	102.60
1	AA	344	A	C3'-C2'-C1'	8.09	109.59	101.50
26	BB	1544	A	O4'-C4'-C3'	8.09	112.09	104.00
26	BB	2515	C	C5'-C4'-C3'	8.09	128.13	116.00
38	BN	26	GLY	CA-C-O	-8.09	112.96	119.83
1	AA	436	C	O4'-C1'-N1	8.08	120.62	108.50
26	BB	1217	U	O4'-C1'-N1	8.07	120.61	108.50
1	AA	730	G	C4'-C3'-C2'	-8.07	94.53	102.60
28	BD	226	PRO	N-CA-CB	8.07	111.00	103.41
1	AA	853	C	O4'-C4'-C3'	8.07	112.07	104.00
26	BB	804	A	C5'-C4'-C3'	8.07	128.10	116.00
1	AA	1078	U	C1'-O4'-C4'	-8.06	101.84	109.90
26	BB	887	U	O4'-C1'-C2'	-8.06	99.54	107.60
26	BB	910	A	O4'-C4'-C3'	8.05	112.05	104.00
26	BB	691	C	C5'-C4'-C3'	-8.05	103.93	116.00
1	AA	1022	A	C1'-O4'-C4'	-8.04	101.86	109.90
1	AA	319	G	O4'-C1'-C2'	-8.03	99.57	107.60
1	AA	1419	G	O4'-C4'-C3'	8.03	112.03	104.00
26	BB	620	G	C5'-C4'-O4'	8.03	121.14	109.10
30	BF	176	ASP	CA-C-N	8.03	127.75	119.64
30	BF	176	ASP	C-N-CA	8.03	127.75	119.64
1	AA	1512	U	C4'-C3'-C2'	-8.03	94.57	102.60
1	AA	36	C	O4'-C1'-N1	8.02	120.53	108.50
1	AA	505	G	C5'-C4'-C3'	-8.02	103.97	116.00
26	BB	417	C	C3'-C2'-C1'	8.02	109.32	101.30
26	BB	814	C	O4'-C1'-N1	8.01	120.51	108.50
26	BB	1256	G	C4'-C3'-O3'	-8.01	100.99	113.00
55	B4	28	THR	CA-CB-OG1	8.01	121.61	109.60
26	BB	611	C	C4'-C3'-C2'	-8.01	94.59	102.60
26	BB	1203	U	O4'-C4'-C3'	8.01	112.01	104.00
1	AA	420	U	C3'-C2'-C1'	8.01	109.31	101.30
26	BB	717	C	O4'-C1'-N1	8.00	120.51	108.50
26	BB	806	C	C4'-C3'-C2'	-8.00	94.60	102.60
1	AA	1471	U	O4'-C1'-N1	7.99	120.48	108.50
26	BB	1927	A	C2'-C3'-O3'	7.99	125.68	113.70
1	AA	1121	U	C4'-C3'-C2'	-7.99	94.61	102.60
26	BB	1029	A	C5'-C4'-O4'	7.98	121.78	109.80
1	AA	1346	A	O3'-P-O5'	-7.98	92.03	104.00
26	BB	2163	A	C1'-O4'-C4'	-7.98	101.72	109.70
17	AQ	86	ALA	CA-C-N	7.98	131.62	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	AQ	86	ALA	C-N-CA	7.98	131.62	120.29
1	AA	1535	C	O4'-C1'-N1	7.98	120.47	108.50
26	BB	1954	G	C3'-C2'-C1'	7.98	109.28	101.30
1	AA	1483	A	C3'-C2'-C1'	-7.97	93.33	101.30
1	AA	801	U	C3'-C2'-O2'	7.97	122.66	110.70
26	BB	1225	G	O4'-C4'-C3'	7.97	111.97	104.00
26	BB	1262	A	C5'-C4'-O4'	7.97	121.76	109.80
1	AA	488	C	C4'-C3'-C2'	-7.97	94.63	102.60
16	AP	76	ILE	N-CA-C	-7.97	103.09	110.82
25	BA	87	U	C2'-C3'-O3'	7.97	125.65	113.70
3	AC	48	C	O4'-C1'-N1	7.97	120.45	108.50
26	BB	1341	G	N9-C1'-C2'	-7.97	102.05	114.00
26	BB	2691	C	C4'-C3'-C2'	-7.96	94.64	102.60
1	AA	566	G	C5'-C4'-C3'	-7.96	103.26	115.20
26	BB	949	G	C4'-C3'-O3'	7.96	124.94	113.00
26	BB	13	A	O4'-C1'-C2'	-7.96	97.84	105.80
26	BB	511	U	O4'-C1'-C2'	-7.96	99.64	107.60
33	BI	46	PHE	CA-CB-CG	7.96	121.76	113.80
26	BB	2582	G	O4'-C4'-C3'	7.96	111.95	104.00
26	BB	1186	G	O5'-C5'-C4'	-7.95	99.57	111.50
26	BB	2715	C	C5'-C4'-C3'	-7.95	104.08	116.00
1	AA	183	C	C4'-C3'-C2'	-7.95	94.65	102.60
1	AA	823	C	C4'-C3'-C2'	-7.95	94.66	102.60
1	AA	1409	C	P-O5'-C5'	7.95	132.82	120.90
1	AA	258	G	C3'-C2'-O2'	7.94	122.61	110.70
26	BB	2713	U	C3'-C2'-C1'	7.94	109.44	101.50
1	AA	819	A	C1'-O4'-C4'	-7.94	101.96	109.90
1	AA	1035	A	C4'-C3'-C2'	-7.94	94.66	102.60
26	BB	2094	A	C4'-C3'-O3'	-7.94	97.49	109.40
1	AA	948	C	C4'-C3'-C2'	-7.94	94.66	102.60
26	BB	626	A	C5'-C4'-C3'	-7.94	104.09	116.00
26	BB	1183	U	C4'-C3'-C2'	-7.94	94.66	102.60
1	AA	615	G	C1'-O4'-C4'	-7.93	101.97	109.90
16	AP	15	VAL	O-C-N	7.93	129.68	121.91
26	BB	251	A	C3'-C2'-O2'	7.93	122.60	110.70
30	BF	195	GLN	CA-C-N	7.93	132.08	120.74
30	BF	195	GLN	C-N-CA	7.93	132.08	120.74
29	BE	67	HIS	CA-C-O	-7.93	112.50	120.82
26	BB	2477	U	O4'-C1'-C2'	-7.92	99.68	107.60
26	BB	1173	U	C4'-C3'-C2'	-7.92	94.68	102.60
58	B7	2	LYS	O-C-N	-7.92	114.52	122.99
1	AA	921	U	C4'-C3'-C2'	-7.92	94.68	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	BN	38	GLN	OE1-CD-NE2	7.92	130.52	122.60
26	BB	2009	A	O4'-C1'-N9	7.92	120.38	108.50
1	AA	243	A	O4'-C4'-C3'	-7.91	98.19	106.10
1	AA	1118	U	C3'-C2'-C1'	7.91	109.21	101.30
26	BB	2440	C	P-O3'-C3'	7.91	132.07	120.20
38	BN	123	ARG	CA-C-N	7.91	137.44	121.78
38	BN	123	ARG	C-N-CA	7.91	137.44	121.78
26	BB	216	A	C3'-C2'-O2'	7.91	122.56	110.70
26	BB	2519	U	C4'-C3'-C2'	-7.91	94.69	102.60
1	AA	675	A	C4'-C3'-C2'	-7.91	94.69	102.60
1	AA	724	G	C1'-O4'-C4'	7.91	117.81	109.90
26	BB	2634	A	O4'-C1'-C2'	-7.91	99.69	107.60
26	BB	2611	C	O4'-C4'-C3'	7.90	111.90	104.00
26	BB	662	G	O4'-C1'-N9	7.90	120.35	108.50
1	AA	717	U	C1'-C2'-O2'	-7.90	96.55	108.40
20	AT	36	PHE	CA-CB-CG	7.90	121.70	113.80
26	BB	1829	A	O4'-C1'-C2'	-7.90	99.70	107.60
34	BJ	112	PHE	CA-CB-CG	7.90	121.70	113.80
26	BB	129	C	C5'-C4'-O4'	7.89	121.64	109.80
26	BB	2109	U	N1-C1'-C2'	7.89	123.84	112.00
26	BB	491	G	O3'-P-O5'	-7.89	92.17	104.00
1	AA	1083	U	O4'-C4'-C3'	7.89	111.89	104.00
26	BB	1239	G	C5'-C4'-O4'	7.89	121.63	109.80
26	BB	2468	A	C3'-C2'-C1'	7.88	109.38	101.50
35	BK	54	ILE	CA-C-N	7.88	127.88	119.76
35	BK	54	ILE	C-N-CA	7.88	127.88	119.76
1	AA	392	C	C5'-C4'-O4'	7.88	121.62	109.80
1	AA	635	A	C5'-C4'-C3'	7.88	127.82	116.00
31	BG	43	ILE	CA-C-N	7.88	134.14	122.08
31	BG	43	ILE	C-N-CA	7.88	134.14	122.08
26	BB	1364	G	C5'-C4'-C3'	7.87	127.81	116.00
46	BV	13	ALA	N-CA-CB	-7.87	101.35	111.35
52	B1	15	ARG	NE-CZ-NH1	7.87	129.37	121.50
23	AW	52	GLU	CA-C-N	7.87	131.46	120.29
23	AW	52	GLU	C-N-CA	7.87	131.46	120.29
26	BB	789	A	C3'-C2'-C1'	7.87	109.37	101.50
10	AJ	9	ARG	NE-CZ-NH2	-7.87	112.12	119.20
22	AV	67	GLY	CA-C-O	7.87	126.17	118.77
14	AN	78	ILE	CA-C-N	7.86	134.11	122.08
14	AN	78	ILE	C-N-CA	7.86	134.11	122.08
26	BB	486	C	O4'-C1'-N1	7.86	120.30	108.50
26	BB	2296	U	C5'-C4'-O4'	7.86	120.89	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	319	G	O4'-C4'-C3'	-7.86	96.14	104.00
1	AA	1017	U	C4'-C3'-C2'	-7.86	94.74	102.60
3	AC	58	C	C4'-C3'-C2'	-7.86	94.74	102.60
26	BB	1861	G	C5'-C4'-C3'	-7.86	104.21	116.00
26	BB	638	G	C5'-C4'-C3'	-7.86	104.22	116.00
26	BB	2302	U	C1'-O4'-C4'	7.86	117.76	109.90
1	AA	990	C	O4'-C1'-N1	7.85	120.28	108.50
26	BB	1315	C	O4'-C1'-N1	7.85	120.28	108.50
33	BI	93	SER	CA-C-N	7.85	136.10	121.97
33	BI	93	SER	C-N-CA	7.85	136.10	121.97
48	BX	43	ASP	CA-C-N	7.85	131.14	120.38
48	BX	43	ASP	C-N-CA	7.85	131.14	120.38
26	BB	1110	G	C1'-C2'-O2'	7.85	123.58	111.80
37	BM	11	ALA	N-CA-CB	-7.85	102.37	111.79
43	BS	84	LYS	CA-C-N	7.85	131.97	120.90
43	BS	84	LYS	C-N-CA	7.85	131.97	120.90
45	BU	88	ARG	NE-CZ-NH2	7.85	126.27	119.20
26	BB	1272	A	O4'-C1'-N9	7.85	119.97	108.20
46	BV	48	GLN	N-CA-C	-7.85	103.73	113.38
1	AA	589	U	C4'-C3'-C2'	-7.84	94.76	102.60
26	BB	1707	G	O4'-C1'-N9	7.84	120.27	108.50
26	BB	1910	G	C4'-C3'-C2'	-7.84	94.76	102.60
1	AA	1373	G	O4'-C1'-C2'	-7.84	99.76	107.60
26	BB	46	G	C3'-C2'-O2'	7.84	122.46	110.70
1	AA	86	G	O4'-C4'-C3'	-7.84	98.26	106.10
1	AA	129	A	O4'-C4'-C3'	7.83	113.93	106.10
26	BB	8	C	C1'-C2'-O2'	7.83	120.15	108.40
1	AA	661	G	C3'-C2'-C1'	7.83	109.13	101.30
29	BE	87	GLY	CA-C-O	-7.83	113.62	120.98
26	BB	34	U	O4'-C1'-N1	7.83	120.24	108.50
56	B5	12	ARG	CA-C-N	7.83	131.10	120.38
56	B5	12	ARG	C-N-CA	7.83	131.10	120.38
26	BB	1768	C	O4'-C4'-C3'	7.82	111.82	104.00
26	BB	2763	G	C4'-C3'-C2'	-7.82	94.78	102.60
1	AA	215	C	C4'-C3'-C2'	-7.82	94.78	102.60
2	AB	7	G	C4'-C3'-O3'	-7.82	101.27	113.00
26	BB	655	A	C3'-C2'-C1'	7.82	109.32	101.50
26	BB	115	C	C5'-C4'-C3'	-7.81	104.28	116.00
26	BB	2145	C	O4'-C1'-N1	7.81	119.92	108.20
1	AA	1221	G	O3'-P-O5'	-7.81	92.28	104.00
26	BB	1955	U	C3'-C2'-C1'	-7.81	93.69	101.50
27	BC	31	LYS	CA-C-N	7.81	132.18	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BC	31	LYS	C-N-CA	7.81	132.18	120.31
1	AA	920	U	C1'-O4'-C4'	7.81	117.71	109.90
36	BL	71	ASP	CA-CB-CG	7.81	120.41	112.60
1	AA	1399	C	O4'-C1'-N1	7.81	119.91	108.20
36	BL	131	ASN	CA-CB-CG	7.81	120.41	112.60
1	AA	1375	A	C4'-C3'-C2'	-7.80	94.80	102.60
26	BB	1069	A	C1'-O4'-C4'	-7.80	101.90	109.70
1	AA	187	G	C4'-C3'-C2'	-7.80	94.80	102.60
26	BB	1966	A	O4'-C4'-C3'	7.80	111.80	104.00
1	AA	924	C	O4'-C1'-N1	7.80	120.20	108.50
26	BB	1397	U	C3'-C2'-C1'	7.80	109.30	101.50
52	B1	33	HIS	CA-CB-CG	7.80	121.60	113.80
26	BB	417	C	C4'-C3'-C2'	-7.79	94.81	102.60
26	BB	2547	A	C1'-O4'-C4'	-7.79	102.11	109.90
49	BY	54	ARG	NE-CZ-NH2	7.79	126.21	119.20
26	BB	1199	U	O4'-C4'-C3'	7.79	111.79	104.00
26	BB	2433	A	C4'-C3'-C2'	7.79	110.39	102.60
26	BB	53	A	C4'-C3'-C2'	-7.78	94.82	102.60
1	AA	1234	C	C3'-C2'-C1'	7.78	109.08	101.30
26	BB	154	U	O4'-C1'-N1	7.78	120.16	108.50
26	BB	553	G	O4'-C4'-C3'	7.78	111.78	104.00
26	BB	166	U	C1'-O4'-C4'	-7.77	102.13	109.90
26	BB	1460	U	O4'-C1'-C2'	-7.77	99.83	107.60
26	BB	1487	U	O4'-C1'-C2'	-7.77	99.83	107.60
1	AA	795	C	C1'-O4'-C4'	7.77	117.67	109.90
26	BB	2847	U	C4'-C3'-C2'	-7.77	94.83	102.60
31	BG	176	PHE	CA-CB-CG	7.77	121.57	113.80
1	AA	1239	A	O4'-C4'-C3'	7.76	111.76	104.00
26	BB	2679	A	C2'-C3'-O3'	7.76	125.34	113.70
1	AA	612	C	C5'-C4'-C3'	-7.76	104.36	116.00
26	BB	2022	U	C3'-C2'-O2'	-7.76	102.96	114.60
36	BL	101	ILE	CA-C-N	7.76	130.52	120.44
36	BL	101	ILE	C-N-CA	7.76	130.52	120.44
26	BB	1571	A	C1'-O4'-C4'	7.75	117.65	109.90
28	BD	113	ASP	CA-CB-CG	7.75	120.35	112.60
26	BB	2083	G	C3'-C2'-C1'	7.75	109.05	101.30
10	AJ	86	VAL	CA-C-N	7.75	127.76	119.78
10	AJ	86	VAL	C-N-CA	7.75	127.76	119.78
26	BB	2541	A	C5'-C4'-O4'	7.75	121.42	109.80
1	AA	918	A	C3'-C2'-O2'	7.74	122.32	110.70
1	AA	948	C	O4'-C4'-C3'	7.74	111.74	104.00
1	AA	764	C	C2'-C3'-O3'	7.74	125.31	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2721	A	C5'-C4'-C3'	-7.74	104.39	116.00
26	BB	1728	C	C1'-O4'-C4'	7.73	117.63	109.90
1	AA	530	G	O3'-P-O5'	-7.73	92.40	104.00
26	BB	146	A	C1'-O4'-C4'	-7.73	102.17	109.90
26	BB	2667	C	C4'-C3'-C2'	-7.73	94.87	102.60
2	AB	25	C	O4'-C4'-C3'	7.72	111.72	104.00
26	BB	1516	G	C3'-C2'-O2'	7.72	122.29	110.70
35	BK	57	VAL	O-C-N	-7.72	114.92	123.26
26	BB	350	G	O4'-C1'-C2'	-7.72	99.88	107.60
26	BB	2725	A	C4'-C3'-C2'	-7.72	94.88	102.60
26	BB	1865	U	C4'-C3'-O3'	7.72	120.98	109.40
1	AA	395	C	C4'-C3'-C2'	-7.72	94.88	102.60
4	AD	49	C	C5'-C4'-C3'	-7.72	103.62	115.20
26	BB	1933	G	O4'-C1'-C2'	-7.71	99.89	107.60
26	BB	2887	A	O5'-C5'-C4'	7.71	123.07	111.50
1	AA	1319	A	C5'-C4'-O4'	7.71	120.67	109.10
20	AT	65	PRO	N-CA-CB	7.71	110.17	103.31
38	BN	72	ALA	CA-C-N	7.71	131.30	122.36
38	BN	72	ALA	C-N-CA	7.71	131.30	122.36
1	AA	1398	A	O4'-C4'-C3'	7.71	111.71	104.00
4	AD	9	G	C4'-C3'-C2'	7.71	110.31	102.60
26	BB	869	G	C5'-C4'-O4'	-7.71	98.24	109.80
1	AA	29	U	O5'-C5'-C4'	7.70	123.06	111.50
1	AA	243	A	P-O3'-C3'	7.70	131.76	120.20
26	BB	938	G	N9-C1'-C2'	-7.70	100.45	112.00
19	AS	59	HIS	ND1-CG-CD2	7.70	113.80	106.10
26	BB	2178	C	O4'-C1'-C2'	-7.70	99.90	107.60
9	AI	8	PHE	CA-CB-CG	7.70	121.50	113.80
1	AA	1141	C	C4'-C3'-C2'	-7.70	94.91	102.60
26	BB	2432	A	P-O3'-C3'	7.70	131.74	120.20
26	BB	2761	A	C3'-C2'-C1'	-7.70	93.61	101.30
8	AH	18	ASN	CA-CB-CG	7.69	120.29	112.60
26	BB	585	G	C4'-C3'-C2'	-7.69	94.91	102.60
26	BB	1725	U	O4'-C1'-C2'	-7.69	99.91	107.60
26	BB	1892	C	C4'-C3'-C2'	-7.69	94.91	102.60
24	AX	66	ARG	NE-CZ-NH2	7.69	126.12	119.20
26	BB	1730	C	O4'-C1'-N1	7.69	120.04	108.50
1	AA	836	G	C3'-C2'-C1'	7.69	108.99	101.30
11	AK	26	MET	CA-C-N	7.69	127.74	119.90
11	AK	26	MET	C-N-CA	7.69	127.74	119.90
26	BB	1845	G	C4'-C3'-C2'	-7.69	94.91	102.60
26	BB	2340	A	O4'-C1'-C2'	-7.69	99.91	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2727	A	O5'-C5'-C4'	7.69	123.03	111.50
1	AA	594	U	C4'-C3'-C2'	-7.68	94.92	102.60
5	AE	191	ASP	CA-C-O	-7.68	112.73	120.64
26	BB	2305	U	C5'-C4'-C3'	-7.68	104.48	116.00
43	BS	68	ALA	CA-C-N	7.68	131.20	120.29
43	BS	68	ALA	C-N-CA	7.68	131.20	120.29
3	AC	39	U	C2'-C3'-O3'	7.68	125.22	113.70
2	AB	23	A	C4'-C3'-C2'	-7.68	94.92	102.60
26	BB	850	U	C2'-C3'-O3'	-7.68	102.18	113.70
36	BL	77	HIS	CA-CB-CG	7.68	121.48	113.80
1	AA	770	C	O4'-C1'-N1	7.67	120.01	108.50
26	BB	1753	G	O4'-C4'-C3'	7.67	111.67	104.00
14	AN	23	HIS	CB-CG-CD2	-7.67	121.23	131.20
26	BB	995	C	C5'-C4'-C3'	-7.67	103.69	115.20
7	AG	44	LYS	CA-C-O	-7.67	112.41	120.23
26	BB	1796	U	O4'-C4'-C3'	7.67	111.67	104.00
12	AL	94	ARG	N-CA-C	-7.67	102.93	111.82
26	BB	1581	G	C4'-C3'-C2'	-7.67	94.93	102.60
26	BB	2020	A	C5'-C4'-C3'	-7.66	104.50	116.00
55	B4	25	ASN	CA-CB-CG	7.66	120.26	112.60
26	BB	2113	U	O4'-C1'-N1	7.66	119.99	108.50
1	AA	771	G	C1'-C2'-O2'	7.66	119.89	108.40
26	BB	1925	C	O4'-C1'-C2'	-7.66	99.94	107.60
33	BI	138	VAL	O-C-N	-7.66	115.60	123.03
1	AA	121	U	O4'-C1'-C2'	-7.66	99.94	107.60
26	BB	1174	U	C4'-C3'-C2'	-7.66	94.94	102.60
26	BB	2471	A	C2'-C3'-O3'	7.65	120.98	109.50
26	BB	660	C	O3'-P-O5'	-7.65	92.53	104.00
26	BB	662	G	O5'-C5'-C4'	7.65	122.97	111.50
26	BB	1270	C	C3'-C2'-C1'	7.65	109.15	101.50
1	AA	1070	U	C1'-O4'-C4'	-7.65	102.25	109.90
1	AA	277	C	C1'-C2'-O2'	7.64	119.87	108.40
1	AA	1013	G	C2'-C3'-O3'	7.64	125.16	113.70
1	AA	1483	A	C4'-C3'-C2'	7.64	110.24	102.60
26	BB	1571	A	O4'-C1'-C2'	-7.64	99.96	107.60
26	BB	645	C	C4'-C3'-C2'	-7.64	94.96	102.60
26	BB	2603	G	C5'-C4'-O4'	7.64	121.26	109.80
40	BP	102	PHE	CA-C-O	-7.64	112.19	121.36
43	BS	84	LYS	CA-C-O	-7.64	112.83	120.70
1	AA	675	A	O4'-C1'-N9	7.64	119.96	108.50
7	AG	151	GLN	CA-C-O	-7.64	113.45	121.55
1	AA	563	A	C1'-O4'-C4'	-7.63	102.27	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	657	U	O4'-C4'-C3'	7.63	111.63	104.00
26	BB	2257	U	C4'-C3'-C2'	-7.63	94.97	102.60
26	BB	1154	G	O4'-C4'-C3'	7.63	111.63	104.00
26	BB	1509	A	C5'-C4'-O4'	7.63	120.55	109.10
32	BH	114	HIS	CB-CG-CD2	-7.63	121.28	131.20
1	AA	504	C	C1'-C2'-O2'	-7.63	96.96	108.40
8	AH	120	HIS	CA-C-O	-7.63	110.68	119.60
26	BB	1729	U	C4'-C3'-C2'	-7.62	94.97	102.60
26	BB	2721	A	C1'-O4'-C4'	-7.62	102.28	109.90
4	AD	74	A	N9-C1'-C2'	7.62	123.44	112.00
10	AJ	34	LYS	CA-C-N	7.62	131.89	120.31
10	AJ	34	LYS	C-N-CA	7.62	131.89	120.31
25	BA	106	G	C2'-C3'-O3'	7.62	125.13	113.70
26	BB	499	U	C4'-C3'-O3'	-7.62	101.58	113.00
1	AA	1263	C	C4'-C3'-C2'	-7.61	94.99	102.60
26	BB	1166	G	O4'-C1'-N9	7.61	119.92	108.50
1	AA	1057	G	C4'-C3'-C2'	-7.61	94.99	102.60
26	BB	2422	C	C4'-C3'-C2'	-7.61	94.99	102.60
1	AA	1463	U	O4'-C1'-N1	7.61	119.91	108.50
1	AA	1319	A	C4'-C3'-O3'	7.61	120.81	109.40
1	AA	1422	G	C3'-C2'-O2'	7.61	122.11	110.70
26	BB	317	G	O4'-C4'-C3'	7.61	111.61	104.00
36	BL	49	ASP	CA-C-N	7.61	130.69	120.65
36	BL	49	ASP	C-N-CA	7.61	130.69	120.65
43	BS	109	VAL	CA-C-N	7.61	131.23	120.28
43	BS	109	VAL	C-N-CA	7.61	131.23	120.28
13	AM	43	PRO	N-CA-CB	7.60	111.23	103.25
1	AA	758	C	O4'-C1'-N1	7.60	119.90	108.50
1	AA	1182	G	O4'-C4'-C3'	-7.60	98.50	106.10
6	AF	86	LEU	N-CA-C	-7.60	102.93	111.14
26	BB	66	C	O4'-C1'-N1	7.60	119.90	108.50
2	AB	60	U	O4'-C1'-N1	7.60	119.90	108.50
1	AA	1244	G	C4'-C3'-C2'	-7.60	95.00	102.60
26	BB	2843	G	C2'-C3'-O3'	-7.59	102.31	113.70
1	AA	1510	C	O4'-C1'-N1	7.59	119.89	108.50
1	AA	195	A	C5'-C4'-C3'	-7.59	104.62	116.00
13	AM	19	ASP	CA-C-O	-7.59	112.51	120.55
1	AA	791	G	C1'-O4'-C4'	-7.58	102.31	109.90
1	AA	46	G	C4'-C3'-O3'	-7.58	101.62	113.00
3	AC	50	U	C3'-C2'-C1'	7.58	108.88	101.30
1	AA	74	A	C1'-O4'-C4'	-7.58	102.32	109.90
26	BB	1337	G	C1'-C2'-O2'	7.58	119.77	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BY	75	ASN	O-C-N	7.58	132.67	122.59
44	BT	66	HIS	CB-CA-C	7.58	122.61	110.19
26	BB	520	G	O4'-C1'-N9	7.57	119.86	108.50
26	BB	715	A	O4'-C1'-C2'	-7.57	100.03	107.60
1	AA	835	U	C4'-C3'-C2'	-7.57	95.03	102.60
1	AA	1284	C	O4'-C1'-C2'	-7.57	100.03	107.60
26	BB	1079	C	C4'-C3'-O3'	7.57	124.36	113.00
26	BB	1975	G	C3'-C2'-C1'	-7.57	93.73	101.30
9	AI	58	HIS	CA-CB-CG	7.57	121.36	113.80
26	BB	337	C	O4'-C4'-C3'	7.57	111.57	104.00
26	BB	1599	U	C5'-C4'-C3'	-7.57	104.65	116.00
26	BB	2075	U	O4'-C4'-C3'	7.56	111.56	104.00
26	BB	362	A	O4'-C4'-C3'	7.56	111.56	104.00
26	BB	2053	G	O5'-C5'-C4'	-7.56	100.16	111.50
37	BM	76	VAL	N-CA-CB	7.56	119.19	110.49
1	AA	996	A	C5'-C4'-C3'	-7.56	104.66	116.00
26	BB	791	C	C3'-C2'-C1'	-7.56	93.94	101.50
22	AV	62	THR	CA-C-N	7.56	131.42	120.38
22	AV	62	THR	C-N-CA	7.56	131.42	120.38
26	BB	477	A	C4'-C3'-C2'	-7.56	95.04	102.60
37	BM	47	ILE	O-C-N	-7.56	116.43	121.72
18	AR	75	ALA	N-CA-C	7.56	119.21	110.97
44	BT	11	GLN	CB-CG-CD	7.56	125.44	112.60
1	AA	706	A	O4'-C1'-C2'	-7.55	100.05	107.60
1	AA	1450	U	O4'-C1'-N1	7.55	119.83	108.50
26	BB	113	U	C4'-C3'-C2'	7.55	110.15	102.60
53	B2	63	ARG	NE-CZ-NH2	7.55	126.00	119.20
1	AA	805	C	C1'-O4'-C4'	-7.55	102.35	109.90
26	BB	1706	C	O3'-P-O5'	-7.55	92.67	104.00
26	BB	2655	G	C3'-C2'-C1'	-7.55	93.95	101.50
1	AA	1000	A	O3'-P-O5'	-7.55	92.67	104.00
26	BB	795	C	C4'-C3'-O3'	-7.55	101.68	113.00
1	AA	746	A	C4'-C3'-C2'	-7.55	95.05	102.60
26	BB	2280	G	C4'-C3'-C2'	-7.55	95.05	102.60
30	BF	113	VAL	CA-C-O	-7.55	112.64	120.71
26	BB	1937	A	C4'-C3'-C2'	-7.54	95.06	102.60
41	BQ	50	ALA	N-CA-CB	-7.54	98.56	111.69
40	BP	30	ARG	NE-CZ-NH2	-7.54	112.41	119.20
26	BB	2422	C	C3'-C2'-C1'	7.54	108.84	101.30
26	BB	1259	G	O4'-C4'-C3'	7.54	111.54	104.00
19	AS	35	ARG	NE-CZ-NH2	-7.54	112.42	119.20
26	BB	1224	U	O4'-C1'-N1	7.54	119.80	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	AC	55	A	C2'-C3'-O3'	7.53	125.00	113.70
25	BA	65	U	O3'-P-O5'	7.53	115.30	104.00
26	BB	963	U	C4'-C3'-C2'	-7.53	95.07	102.60
47	BW	102	ILE	CB-CA-C	7.53	121.97	110.82
1	AA	855	U	O3'-P-O5'	7.53	115.30	104.00
26	BB	392	U	C5'-C4'-O4'	7.53	121.09	109.80
1	AA	184	G	O4'-C4'-C3'	7.53	111.53	104.00
38	BN	76	GLU	CA-C-N	7.53	132.91	123.12
38	BN	76	GLU	C-N-CA	7.53	132.91	123.12
1	AA	991	U	P-O3'-C3'	7.53	131.49	120.20
26	BB	49	A	C2'-C3'-O3'	7.53	120.79	109.50
26	BB	892	A	O3'-P-O5'	-7.53	92.71	104.00
26	BB	2892	G	O4'-C1'-C2'	7.53	115.13	107.60
26	BB	314	C	C5'-C4'-C3'	7.53	127.29	116.00
26	BB	2627	G	O4'-C4'-C3'	7.53	111.53	104.00
1	AA	789	U	O4'-C4'-C3'	7.52	111.52	104.00
26	BB	2386	A	C5'-C4'-C3'	-7.52	104.72	116.00
26	BB	1654	A	P-O5'-C5'	7.52	132.18	120.90
31	BG	67	THR	CA-CB-OG1	7.52	120.88	109.60
1	AA	1504	G	C3'-C2'-C1'	-7.52	93.98	101.50
26	BB	2377	A	O4'-C4'-C3'	7.52	111.52	104.00
1	AA	368	U	C4'-C3'-C2'	-7.51	95.08	102.60
26	BB	1307	A	N9-C1'-C2'	7.51	123.27	112.00
26	BB	346	A	O4'-C1'-N9	7.51	119.77	108.50
7	AG	44	LYS	CA-C-N	7.51	127.42	120.21
7	AG	44	LYS	C-N-CA	7.51	127.42	120.21
26	BB	1091	G	C3'-C2'-C1'	-7.51	93.79	101.30
26	BB	2212	A	O4'-C1'-N9	7.51	119.46	108.20
6	AF	10	ARG	NE-CZ-NH2	-7.51	112.44	119.20
10	AJ	142	ARG	NE-CZ-NH2	7.51	125.96	119.20
1	AA	779	C	O4'-C1'-N1	7.50	119.75	108.50
5	AE	236	PHE	CA-C-O	-7.50	111.34	119.97
1	AA	1024	G	C1'-O4'-C4'	-7.50	102.40	109.90
28	BD	242	HIS	CA-C-N	7.50	129.22	119.84
28	BD	242	HIS	C-N-CA	7.50	129.22	119.84
1	AA	190	A	C3'-C2'-C1'	-7.50	93.80	101.30
26	BB	272	A	C5'-C4'-O4'	7.50	121.05	109.80
1	AA	101	A	P-O3'-C3'	7.50	131.44	120.20
32	BH	54	ARG	NE-CZ-NH2	7.50	125.95	119.20
26	BB	1916	A	C3'-C2'-O2'	7.49	121.94	110.70
1	AA	1050	G	C4'-C3'-C2'	-7.49	95.11	102.60
9	AI	121	ALA	CA-C-N	7.49	131.32	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	AI	121	ALA	C-N-CA	7.49	131.32	120.38
26	BB	444	C	N1-C1'-C2'	-7.49	100.76	112.00
26	BB	996	A	O5'-C5'-C4'	7.49	122.73	111.50
26	BB	1472	C	C3'-C2'-C1'	7.49	108.79	101.30
28	BD	162	GLN	CA-C-N	7.49	130.59	120.63
28	BD	162	GLN	C-N-CA	7.49	130.59	120.63
1	AA	98	A	O4'-C4'-C3'	-7.49	96.51	104.00
1	AA	202	G	O4'-C4'-C3'	7.49	111.49	104.00
26	BB	1864	U	C3'-C2'-C1'	7.49	108.79	101.30
1	AA	1290	G	C1'-O4'-C4'	7.49	117.39	109.90
52	B1	38	GLU	CA-C-N	7.49	133.14	121.99
52	B1	38	GLU	C-N-CA	7.49	133.14	121.99
26	BB	1641	A	C4'-C3'-C2'	-7.48	95.12	102.60
26	BB	453	A	O4'-C1'-C2'	7.48	115.08	107.60
26	BB	2462	C	O4'-C4'-C3'	7.48	111.48	104.00
26	BB	707	G	O4'-C4'-C3'	7.48	111.48	104.00
26	BB	1033	U	O3'-P-O5'	-7.48	92.78	104.00
35	BK	28	GLY	O-C-N	7.48	129.43	122.17
1	AA	752	G	O4'-C1'-C2'	-7.48	98.32	105.80
25	BA	97	C	C1'-O4'-C4'	7.48	117.38	109.90
26	BB	1787	A	O3'-P-O5'	-7.48	92.78	104.00
30	BF	171	ASP	CA-CB-CG	7.48	120.08	112.60
1	AA	154	U	C1'-C2'-O2'	7.47	119.61	108.40
10	AJ	54	GLY	O-C-N	7.47	131.71	122.29
21	AU	42	ARG	N-CA-C	7.47	119.42	111.28
25	BA	11	C	O4'-C1'-N1	7.47	119.71	108.50
1	AA	174	A	O5'-C5'-C4'	-7.47	100.29	111.50
1	AA	196	A	C4'-C3'-O3'	7.47	124.20	113.00
5	AE	31	PHE	CA-C-N	7.47	129.67	122.27
5	AE	31	PHE	C-N-CA	7.47	129.67	122.27
26	BB	1227	G	C3'-C2'-O2'	7.47	121.90	110.70
28	BD	242	HIS	CB-CG-CD2	-7.47	121.49	131.20
26	BB	2277	G	C4'-C3'-O3'	-7.47	101.80	113.00
2	AB	51	G	C4'-C3'-C2'	-7.46	95.14	102.60
14	AN	98	ALA	N-CA-C	7.46	119.49	111.36
26	BB	87	U	O4'-C1'-N1	7.46	119.69	108.50
26	BB	1009	A	O5'-C5'-C4'	-7.46	100.31	111.50
26	BB	1610	A	O5'-C5'-C4'	7.46	122.89	111.70
5	AE	89	PHE	CA-CB-CG	-7.46	106.34	113.80
54	B3	42	ILE	CB-CA-C	7.46	123.75	111.59
25	BA	114	C	C3'-C2'-C1'	-7.46	93.84	101.30
28	BD	206	LYS	CA-C-N	7.46	131.02	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	BD	206	LYS	C-N-CA	7.46	131.02	120.28
32	BH	157	LYS	N-CA-C	-7.46	105.36	114.75
1	AA	929	G	C4'-C3'-C2'	-7.45	95.15	102.60
26	BB	573	U	C5'-C4'-C3'	-7.45	104.02	115.20
26	BB	1224	U	N1-C1'-C2'	7.45	123.18	112.00
1	AA	1503	A	O4'-C1'-C2'	-7.45	98.35	105.80
29	BE	184	ARG	NE-CZ-NH1	-7.45	114.05	121.50
1	AA	86	G	O4'-C1'-N9	7.45	119.37	108.20
1	AA	912	C	O3'-P-O5'	-7.45	92.83	104.00
1	AA	943	U	C5'-C4'-C3'	-7.45	104.83	116.00
1	AA	1475	G	C4'-C3'-C2'	-7.45	95.15	102.60
26	BB	2887	A	C3'-C2'-O2'	7.45	121.87	110.70
4	AD	49	C	C1'-O4'-C4'	7.45	117.15	109.70
1	AA	779	C	O4'-C4'-C3'	7.45	111.45	104.00
17	AQ	28	ALA	CA-C-N	7.45	130.99	120.42
17	AQ	28	ALA	C-N-CA	7.45	130.99	120.42
26	BB	2133	G	P-O3'-C3'	7.44	131.37	120.20
26	BB	1423	G	C1'-O4'-C4'	-7.44	102.46	109.90
26	BB	988	A	C3'-C2'-C1'	-7.44	93.86	101.30
26	BB	652	U	O4'-C1'-N1	7.44	119.66	108.50
1	AA	1256	A	C4'-C3'-C2'	7.44	110.04	102.60
1	AA	372	C	C4'-C3'-O3'	7.44	120.55	109.40
26	BB	230	G	C4'-C3'-C2'	-7.43	95.17	102.60
1	AA	544	G	C1'-O4'-C4'	-7.43	102.47	109.90
1	AA	310	G	C4'-C3'-C2'	-7.43	95.17	102.60
26	BB	528	A	O4'-C4'-C3'	7.43	111.43	104.00
26	BB	769	U	O5'-C5'-C4'	7.43	122.64	111.50
28	BD	122	ALA	CA-C-N	7.43	133.72	121.54
28	BD	122	ALA	C-N-CA	7.43	133.72	121.54
26	BB	508	A	C5'-C4'-O4'	7.43	120.94	109.80
26	BB	2897	U	O3'-P-O5'	7.42	115.14	104.00
45	BU	102	HIS	CA-CB-CG	7.42	121.22	113.80
1	AA	944	G	C2'-C3'-O3'	7.42	124.83	113.70
39	BO	10	ARG	N-CA-C	7.42	121.59	112.54
26	BB	1847	A	C3'-C2'-C1'	7.42	108.72	101.30
24	AX	27	VAL	N-CA-C	-7.41	105.90	111.90
26	BB	28	A	O3'-P-O5'	-7.41	92.88	104.00
26	BB	464	U	C3'-C2'-C1'	7.41	108.71	101.30
26	BB	595	C	O4'-C1'-C2'	-7.41	100.19	107.60
26	BB	2702	G	C1'-C2'-O2'	7.41	119.52	108.40
1	AA	801	U	O4'-C1'-C2'	-7.41	100.19	107.60
1	AA	960	U	P-O3'-C3'	7.41	131.31	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1749	A	C5'-C4'-C3'	-7.41	104.89	116.00
1	AA	1140	C	C3'-C2'-C1'	7.40	108.70	101.30
26	BB	2214	C	O4'-C1'-C2'	-7.40	100.20	107.60
1	AA	291	U	C4'-C3'-C2'	-7.40	95.20	102.60
1	AA	935	A	O4'-C1'-C2'	-7.40	100.20	107.60
26	BB	771	G	O5'-C5'-C4'	7.40	122.59	111.50
26	BB	1215	G	C5'-C4'-O4'	7.40	120.90	109.80
34	BJ	44	GLY	CA-C-O	-7.40	113.13	120.75
18	AR	53	ARG	NE-CZ-NH1	7.39	128.90	121.50
1	AA	609	A	C1'-C2'-O2'	-7.39	97.31	108.40
26	BB	1737	G	O4'-C4'-C3'	7.39	111.39	104.00
26	BB	260	G	C1'-O4'-C4'	-7.39	102.51	109.90
28	BD	85	ASN	OD1-CG-ND2	-7.38	115.22	122.60
5	AE	227	ASP	CA-CB-CG	7.38	119.98	112.60
26	BB	1890	A	C4'-C3'-O3'	7.38	124.07	113.00
43	BS	98	ALA	CA-C-N	7.38	133.30	121.34
43	BS	98	ALA	C-N-CA	7.38	133.30	121.34
1	AA	472	U	C3'-C2'-O2'	7.38	121.77	110.70
1	AA	840	C	C5'-C4'-O4'	7.38	120.87	109.80
26	BB	350	G	O4'-C1'-N9	7.38	119.57	108.50
26	BB	2004	G	C3'-C2'-C1'	7.38	108.68	101.30
26	BB	2834	G	C4'-C3'-O3'	-7.38	101.93	113.00
34	BJ	152	ARG	CD-NE-CZ	7.38	134.73	124.40
26	BB	1020	A	O4'-C1'-N9	7.38	119.26	108.20
32	BH	11	PRO	N-CA-CB	7.38	112.38	103.45
26	BB	1833	C	C5'-C4'-C3'	-7.38	104.94	116.00
1	AA	801	U	O4'-C1'-N1	7.37	119.56	108.50
17	AQ	56	PRO	N-CD-CG	7.37	114.26	103.20
26	BB	59	U	O3'-P-O5'	-7.37	92.94	104.00
26	BB	1981	A	O4'-C4'-C3'	7.37	111.37	104.00
49	BY	81	ILE	N-CA-C	7.37	120.10	108.89
26	BB	732	C	O4'-C1'-N1	7.37	119.56	108.50
1	AA	58	C	C4'-C3'-C2'	-7.37	95.23	102.60
1	AA	980	C	O5'-C5'-C4'	7.37	122.55	111.50
1	AA	1310	G	C4'-C3'-O3'	7.37	124.05	113.00
11	AK	51	GLU	CA-C-N	7.37	130.98	121.85
11	AK	51	GLU	C-N-CA	7.37	130.98	121.85
26	BB	2788	C	C5'-C4'-C3'	-7.37	104.95	116.00
1	AA	1492	A	C2'-C3'-O3'	-7.36	102.66	113.70
26	BB	171	U	O4'-C1'-C2'	-7.36	100.24	107.60
1	AA	145	G	C4'-C3'-C2'	-7.36	95.24	102.60
26	BB	1889	A	O4'-C4'-C3'	-7.36	96.64	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	AR	6	ALA	CA-C-N	7.36	130.14	120.28
18	AR	6	ALA	C-N-CA	7.36	130.14	120.28
26	BB	918	A	O4'-C4'-C3'	7.36	111.36	104.00
26	BB	2232	C	O4'-C1'-C2'	-7.36	100.24	107.60
1	AA	991	U	O4'-C1'-N1	7.35	119.23	108.20
4	AD	70	C	C4'-C3'-C2'	-7.35	95.25	102.60
26	BB	638	G	C5'-C4'-O4'	7.35	120.83	109.80
26	BB	761	A	O5'-C5'-C4'	-7.35	100.47	111.50
26	BB	1252	G	C2'-C3'-O3'	7.35	120.53	109.50
26	BB	2323	G	C4'-C3'-C2'	-7.35	95.25	102.60
26	BB	2544	G	O3'-P-O5'	7.35	115.03	104.00
26	BB	873	C	O3'-P-O5'	-7.35	92.97	104.00
26	BB	1966	A	O5'-C5'-C4'	-7.35	100.47	111.50
26	BB	116	C	O4'-C1'-N1	7.35	119.52	108.50
26	BB	1359	A	C1'-O4'-C4'	-7.35	102.55	109.90
3	AC	26	U	O4'-C1'-C2'	-7.35	100.25	107.60
26	BB	1282	U	O4'-C4'-C3'	-7.35	96.65	104.00
26	BB	2311	A	O5'-C5'-C4'	-7.35	100.68	111.70
4	AD	49	C	O4'-C1'-N1	7.34	119.22	108.20
8	AH	60	GLN	CA-C-O	-7.34	112.64	120.42
26	BB	963	U	O4'-C4'-C3'	7.34	111.34	104.00
8	AH	158	LYS	CA-C-N	7.33	130.11	120.28
8	AH	158	LYS	C-N-CA	7.33	130.11	120.28
26	BB	57	C	O4'-C1'-C2'	-7.33	100.27	107.60
2	AB	52	A	O4'-C1'-C2'	-7.33	100.27	107.60
26	BB	1888	G	C3'-C2'-O2'	7.33	121.70	110.70
26	BB	2880	C	C5'-C4'-C3'	-7.33	105.00	116.00
26	BB	670	A	O4'-C4'-C3'	7.33	113.43	106.10
26	BB	2468	A	O3'-P-O5'	-7.33	93.00	104.00
26	BB	2859	G	O4'-C1'-C2'	-7.33	100.27	107.60
39	BO	122	ALA	CA-C-O	-7.33	111.54	119.97
39	BO	50	ARG	CA-C-O	-7.33	113.13	120.82
26	BB	1061	U	O4'-C1'-C2'	-7.32	98.48	105.80
26	BB	1267	U	C2'-C3'-O3'	-7.32	102.73	113.70
26	BB	2730	C	C4'-C3'-C2'	-7.32	95.28	102.60
20	AT	81	ALA	CA-C-N	7.31	132.63	120.64
20	AT	81	ALA	C-N-CA	7.31	132.63	120.64
4	AD	19	G	C3'-C2'-C1'	7.31	108.81	101.50
1	AA	381	C	O4'-C1'-C2'	-7.31	100.29	107.60
26	BB	887	U	C1'-O4'-C4'	7.30	117.20	109.90
26	BB	81	G	C4'-C3'-C2'	-7.30	95.30	102.60
45	BU	84	ARG	NE-CZ-NH1	-7.30	114.20	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	AI	79	ARG	NE-CZ-NH1	7.29	128.79	121.50
26	BB	2398	U	C5'-C4'-O4'	7.29	120.74	109.80
1	AA	196	A	C3'-C2'-O2'	7.29	121.64	110.70
26	BB	105	C	C3'-C2'-C1'	7.29	108.59	101.30
26	BB	1249	U	C4'-C3'-O3'	-7.29	102.06	113.00
26	BB	2135	A	C3'-C2'-C1'	7.29	108.59	101.30
30	BF	48	THR	CA-C-N	7.29	131.81	121.02
30	BF	48	THR	C-N-CA	7.29	131.81	121.02
26	BB	107	G	C4'-C3'-C2'	-7.29	95.31	102.60
26	BB	1868	C	O5'-C5'-C4'	-7.29	100.57	111.50
1	AA	1368	A	C4'-C3'-C2'	-7.28	95.32	102.60
26	BB	1608	A	C3'-C2'-C1'	7.28	108.78	101.50
14	AN	39	ASN	OD1-CG-ND2	-7.28	115.32	122.60
39	BO	109	PRO	CA-C-N	7.28	130.37	120.54
39	BO	109	PRO	C-N-CA	7.28	130.37	120.54
1	AA	1446	A	O4'-C1'-C2'	-7.28	100.32	107.60
26	BB	1419	A	O4'-C4'-C3'	7.28	111.28	104.00
1	AA	1005	A	C3'-C2'-C1'	7.28	108.58	101.30
1	AA	1335	U	C1'-O4'-C4'	-7.28	102.42	109.70
24	AX	54	ARG	NE-CZ-NH2	7.28	125.75	119.20
26	BB	2209	G	O4'-C4'-C3'	7.28	111.28	104.00
41	BQ	83	LEU	N-CA-C	7.28	120.26	111.82
1	AA	304	U	C5'-C4'-C3'	-7.28	105.09	116.00
26	BB	829	A	C5'-C4'-O4'	7.27	120.01	109.10
1	AA	49	U	C5'-C4'-C3'	-7.27	104.29	115.20
1	AA	800	G	C4'-C3'-O3'	7.27	123.91	113.00
26	BB	2534	A	P-O5'-C5'	7.27	131.81	120.90
43	BS	105	PHE	CA-CB-CG	7.27	121.07	113.80
11	AK	121	GLY	O-C-N	7.27	132.15	122.70
26	BB	1805	A	C4'-C3'-C2'	-7.27	95.33	102.60
26	BB	2818	U	C4'-C3'-C2'	-7.27	95.33	102.60
1	AA	1337	G	C3'-C2'-C1'	-7.27	94.03	101.30
3	AC	41	A	C2'-C3'-O3'	7.27	120.40	109.50
26	BB	789	A	C4'-C3'-C2'	-7.27	95.33	102.60
26	BB	2549	G	O4'-C4'-C3'	7.27	111.27	104.00
26	BB	498	G	O4'-C4'-C3'	7.26	111.26	104.00
26	BB	1793	C	C3'-C2'-O2'	7.26	121.60	110.70
26	BB	1115	G	O4'-C4'-C3'	7.26	111.26	104.00
26	BB	1944	U	C3'-C2'-C1'	7.26	108.56	101.30
26	BB	2869	G	O5'-C5'-C4'	-7.26	100.61	111.50
1	AA	967	5MC	P-O3'-C3'	7.26	131.09	120.20
16	AP	102	LYS	CA-C-N	7.26	133.20	121.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AP	102	LYS	C-N-CA	7.26	133.20	121.74
26	BB	1597	A	C4'-C3'-C2'	-7.26	95.34	102.60
26	BB	1781	U	C4'-C3'-O3'	-7.26	98.52	109.40
22	AV	56	HIS	CB-CG-CD2	-7.25	121.77	131.20
1	AA	1319	A	O5'-C5'-C4'	7.25	122.58	111.70
26	BB	461	C	O3'-P-O5'	-7.25	93.12	104.00
56	B5	18	PHE	CA-C-N	7.25	129.87	120.44
56	B5	18	PHE	C-N-CA	7.25	129.87	120.44
1	AA	657	U	C4'-C3'-C2'	-7.25	95.35	102.60
26	BB	1441	G	C5'-C4'-O4'	7.25	120.67	109.80
26	BB	2078	C	C5'-C4'-O4'	7.25	120.68	109.80
26	BB	71	A	C5'-C4'-O4'	-7.25	98.23	109.10
29	BE	36	GLN	OE1-CD-NE2	-7.25	115.35	122.60
11	AK	97	GLY	O-C-N	7.25	131.47	122.41
26	BB	1599	U	C4'-C3'-C2'	-7.25	95.35	102.60
28	BD	263	ASP	CA-CB-CG	-7.25	105.36	112.60
1	AA	9	G	O4'-C1'-N9	7.24	119.36	108.50
5	AE	199	ILE	CA-C-N	7.24	128.38	119.98
5	AE	199	ILE	C-N-CA	7.24	128.38	119.98
26	BB	1004	U	O4'-C1'-C2'	-7.24	100.36	107.60
29	BE	22	ILE	CA-C-N	7.24	127.65	119.83
29	BE	22	ILE	C-N-CA	7.24	127.65	119.83
38	BN	91	ASP	CA-C-N	7.24	132.97	120.58
38	BN	91	ASP	C-N-CA	7.24	132.97	120.58
18	AR	13	GLU	CA-C-N	7.24	133.92	122.62
18	AR	13	GLU	C-N-CA	7.24	133.92	122.62
37	BM	10	VAL	CA-C-N	7.24	132.61	121.53
37	BM	10	VAL	C-N-CA	7.24	132.61	121.53
1	AA	980	C	O4'-C1'-N1	7.24	119.36	108.50
26	BB	1615	C	O3'-P-O5'	-7.24	93.14	104.00
26	BB	2660	A	C3'-C2'-C1'	7.24	108.54	101.30
28	BD	120	ASP	CA-C-O	7.24	128.18	119.78
1	AA	25	C	C5'-C4'-O4'	7.24	120.66	109.80
26	BB	2050	C	C1'-O4'-C4'	7.24	117.14	109.90
1	AA	389	A	C5'-C4'-O4'	7.24	120.65	109.80
1	AA	461	A	N9-C1'-C2'	7.24	122.85	112.00
26	BB	395	U	C4'-C3'-C2'	-7.23	95.37	102.60
9	AI	85	ILE	CA-C-O	-7.23	112.43	120.46
26	BB	522	A	C5'-C4'-O4'	7.23	120.64	109.80
26	BB	2639	A	C5'-C4'-C3'	-7.23	105.16	116.00
1	AA	530	G	O4'-C1'-C2'	7.23	114.83	107.60
45	BU	64	ALA	N-CA-C	7.23	119.85	108.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	38	A	C5'-C4'-O4'	7.22	120.63	109.80
26	BB	1457	U	O3'-P-O5'	-7.22	93.17	104.00
35	BK	110	GLN	OE1-CD-NE2	7.22	129.82	122.60
26	BB	289	G	O4'-C4'-C3'	7.22	111.22	104.00
26	BB	499	U	C4'-C3'-C2'	-7.22	95.38	102.60
26	BB	1495	A	C3'-C2'-C1'	-7.22	94.08	101.30
26	BB	2062	A	C5'-C4'-C3'	-7.22	104.37	115.20
1	AA	1068	G	P-O5'-C5'	7.22	131.73	120.90
26	BB	1646	C	C3'-C2'-C1'	7.22	108.52	101.30
1	AA	1302	C	O3'-P-O5'	-7.22	93.17	104.00
1	AA	1096	C	O4'-C4'-C3'	7.21	111.21	104.00
25	BA	120	U	O4'-C1'-N1	7.21	119.32	108.50
31	BG	81	GLY	CA-C-N	7.21	131.63	120.60
31	BG	81	GLY	C-N-CA	7.21	131.63	120.60
10	AJ	49	LEU	CA-C-O	-7.21	112.91	120.55
26	BB	30	G	C4'-C3'-C2'	-7.21	95.39	102.60
1	AA	1175	G	C4'-C3'-C2'	-7.21	95.39	102.60
26	BB	276	U	C4'-C3'-C2'	-7.21	95.39	102.60
26	BB	2018	G	C4'-C3'-O3'	-7.21	102.19	113.00
26	BB	2234	G	C5'-C4'-O4'	7.21	120.61	109.80
26	BB	322	A	C4'-C3'-C2'	-7.21	95.39	102.60
1	AA	111	G	O4'-C1'-C2'	-7.20	100.40	107.60
26	BB	231	A	C2'-C3'-O3'	7.20	124.50	113.70
30	BF	24	ASN	CA-C-N	7.20	129.81	120.44
30	BF	24	ASN	C-N-CA	7.20	129.81	120.44
1	AA	441	A	C5'-C4'-O4'	7.20	120.60	109.80
26	BB	300	A	O3'-P-O5'	7.20	114.80	104.00
21	AU	69	TYR	N-CA-C	-7.20	104.48	113.55
1	AA	85	U	N1-C1'-C2'	-7.20	103.21	114.00
1	AA	171	A	O3'-P-O5'	-7.20	93.21	104.00
26	BB	2462	C	C4'-C3'-O3'	7.19	123.79	113.00
26	BB	2845	U	O4'-C1'-C2'	-7.19	100.41	107.60
26	BB	2211	A	O5'-C5'-C4'	7.19	122.29	111.50
26	BB	2793	C	C4'-C3'-C2'	-7.19	95.41	102.60
1	AA	155	A	C4'-C3'-C2'	-7.18	95.42	102.60
26	BB	1082	U	C3'-C2'-C1'	7.18	108.48	101.30
7	AG	158	LEU	N-CA-C	-7.18	103.38	111.07
26	BB	452	G	O4'-C1'-C2'	-7.18	100.42	107.60
26	BB	529	A	O4'-C4'-C3'	-7.18	98.92	106.10
13	AM	20	GLN	O-C-N	7.18	130.33	122.15
26	BB	2444	G	C1'-C2'-O2'	7.18	119.17	108.40
26	BB	2667	C	O4'-C1'-C2'	-7.18	100.42	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1991	U	O3'-P-O5'	7.18	114.77	104.00
1	AA	1322	C	C4'-C3'-C2'	7.17	109.77	102.60
26	BB	188	G	C4'-C3'-C2'	-7.17	95.43	102.60
26	BB	1959	G	C1'-O4'-C4'	-7.17	102.73	109.90
26	BB	2847	U	C3'-C2'-C1'	7.17	108.47	101.30
32	BH	93	TYR	N-CA-CB	-7.17	100.70	110.67
1	AA	1372	U	O4'-C4'-C3'	7.17	111.17	104.00
1	AA	1465	A	C2'-C3'-O3'	-7.17	102.94	113.70
26	BB	2439	A	C1'-C2'-O2'	7.17	119.16	108.40
1	AA	1448	C	N1-C1'-C2'	7.17	122.75	112.00
26	BB	900	A	C2'-C3'-O3'	7.17	124.45	113.70
26	BB	2454	G	C3'-C2'-C1'	7.17	108.47	101.30
26	BB	2794	C	O4'-C1'-N1	7.17	119.25	108.50
1	AA	380	G	O4'-C4'-C3'	7.17	111.17	104.00
33	BI	28	ASN	OD1-CG-ND2	-7.17	115.44	122.60
1	AA	279	A	C3'-C2'-O2'	7.16	125.35	114.60
1	AA	1044	A	C4'-C3'-C2'	-7.16	95.44	102.60
6	AF	29	ALA	CA-C-N	7.16	130.46	120.29
6	AF	29	ALA	C-N-CA	7.16	130.46	120.29
26	BB	914	G	C4'-C3'-C2'	-7.16	95.44	102.60
25	BA	4	C	C1'-O4'-C4'	-7.16	102.74	109.90
48	BX	91	PHE	CA-CB-CG	7.16	120.96	113.80
1	AA	1284	C	C3'-C2'-C1'	7.16	108.46	101.30
1	AA	1391	U	O4'-C1'-N1	7.16	119.24	108.50
26	BB	2856	A	C2'-C3'-O3'	-7.16	102.96	113.70
4	AD	61	U	C1'-C2'-O2'	7.16	122.54	111.80
26	BB	944	C	O4'-C4'-C3'	7.16	111.16	104.00
26	BB	1866	A	O4'-C1'-N9	7.16	119.23	108.50
1	AA	495	A	C5'-C4'-C3'	-7.16	104.47	115.20
4	AD	19	G	C4'-C3'-C2'	-7.16	95.44	102.60
4	AD	35	C	C5'-C4'-O4'	7.16	120.53	109.80
45	BU	46	LEU	O-C-N	7.16	129.44	122.07
31	BG	2	LYS	CA-C-N	7.15	130.20	120.54
31	BG	2	LYS	C-N-CA	7.15	130.20	120.54
1	AA	359	G	C4'-C3'-C2'	-7.15	95.45	102.60
26	BB	322	A	C3'-C2'-C1'	7.15	108.65	101.50
26	BB	1359	A	O4'-C4'-C3'	7.15	111.15	104.00
26	BB	2740	A	C4'-C3'-C2'	-7.15	95.45	102.60
31	BG	174	PHE	CA-CB-CG	7.15	120.95	113.80
26	BB	455	C	O3'-P-O5'	7.15	114.72	104.00
26	BB	2130	U	P-O3'-C3'	7.15	130.92	120.20
27	BC	126	GLN	CA-C-N	7.15	133.82	123.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BC	126	GLN	C-N-CA	7.15	133.82	123.17
1	AA	368	U	C5'-C4'-C3'	-7.14	105.28	116.00
26	BB	2571	U	C4'-C3'-C2'	-7.14	95.46	102.60
26	BB	831	G	O5'-C5'-C4'	7.14	122.22	111.50
26	BB	995	C	O4'-C1'-N1	7.14	118.91	108.20
26	BB	469	G	C4'-C3'-C2'	-7.14	95.46	102.60
26	BB	1925	C	C3'-C2'-C1'	7.14	108.44	101.30
1	AA	651	C	O4'-C4'-C3'	7.14	111.14	104.00
26	BB	733	G	O3'-P-O5'	-7.14	93.29	104.00
26	BB	994	C	C4'-C3'-C2'	-7.14	95.46	102.60
26	BB	2011	U	C5'-C4'-C3'	-7.14	105.29	116.00
12	AL	126	PHE	CA-CB-CG	-7.14	106.66	113.80
1	AA	36	C	O4'-C1'-C2'	-7.13	100.47	107.60
26	BB	73	A	O3'-P-O5'	-7.13	93.30	104.00
1	AA	1111	A	C3'-C2'-O2'	7.13	121.40	110.70
26	BB	2500	U	O5'-C5'-C4'	7.13	122.20	111.50
46	BV	32	LEU	CA-C-N	7.13	131.93	122.30
46	BV	32	LEU	C-N-CA	7.13	131.93	122.30
1	AA	306	A	O5'-C5'-C4'	7.13	122.20	111.50
10	AJ	128	GLU	CA-C-N	7.13	132.84	122.36
10	AJ	128	GLU	C-N-CA	7.13	132.84	122.36
23	AW	55	PRO	CA-C-N	7.13	129.69	120.56
23	AW	55	PRO	C-N-CA	7.13	129.69	120.56
26	BB	111	A	C3'-C2'-C1'	7.13	108.43	101.30
26	BB	329	G	C5'-C4'-C3'	-7.13	104.50	115.20
26	BB	609	A	C1'-O4'-C4'	7.13	117.03	109.90
26	BB	1493	C	C2'-C3'-O3'	-7.13	103.00	113.70
1	AA	519	C	C5'-C4'-C3'	-7.13	105.31	116.00
26	BB	2253	G	C4'-C3'-O3'	-7.13	102.31	113.00
2	AB	56	C	C3'-C2'-C1'	7.13	108.43	101.30
19	AS	80	LYS	CA-C-N	7.13	134.46	122.20
19	AS	80	LYS	C-N-CA	7.13	134.46	122.20
26	BB	664	G	O4'-C1'-C2'	7.13	114.73	107.60
26	BB	1649	G	O4'-C4'-C3'	-7.13	96.87	104.00
26	BB	1654	A	C5'-C4'-C3'	-7.13	105.31	116.00
5	AE	189	ASN	CA-CB-CG	-7.13	105.47	112.60
26	BB	1891	G	C3'-C2'-C1'	-7.13	94.17	101.30
26	BB	2746	U	C3'-C2'-O2'	7.13	121.39	110.70
45	BU	101	SER	CA-C-O	7.13	129.16	121.11
1	AA	1070	U	C5'-C4'-C3'	-7.12	105.31	116.00
7	AG	197	HIS	CB-CG-CD2	-7.12	121.94	131.20
26	BB	212	G	O4'-C1'-N9	7.12	119.19	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1908	C	C4'-C3'-C2'	-7.12	95.47	102.60
1	AA	973	G	O4'-C4'-C3'	7.12	111.12	104.00
10	AJ	79	VAL	CB-CA-C	7.12	118.77	110.93
45	BU	14	ALA	CA-C-N	7.12	129.82	120.28
45	BU	14	ALA	C-N-CA	7.12	129.82	120.28
9	AI	17	GLN	OE1-CD-NE2	-7.12	115.48	122.60
26	BB	1356	G	O4'-C4'-C3'	-7.12	96.88	104.00
35	BK	66	PHE	CA-CB-CG	7.12	120.92	113.80
26	BB	615	U	P-O3'-C3'	7.12	130.88	120.20
26	BB	817	C	C4'-C3'-C2'	-7.12	95.48	102.60
2	AB	23	A	C3'-C2'-C1'	7.12	108.42	101.30
26	BB	2816	G	C1'-O4'-C4'	-7.12	102.78	109.90
26	BB	2050	C	O4'-C1'-C2'	-7.11	100.49	107.60
26	BB	2382	G	O4'-C4'-C3'	7.11	113.21	106.10
4	AD	7	G	C3'-C2'-C1'	7.11	108.61	101.50
26	BB	57	C	C5'-C4'-O4'	7.11	120.47	109.80
30	BF	26	ALA	N-CA-C	7.11	119.03	111.28
26	BB	764	A	C4'-C3'-C2'	-7.11	95.49	102.60
26	BB	1320	C	C4'-C3'-O3'	-7.11	98.74	109.40
26	BB	1750	G	P-O3'-C3'	7.11	130.86	120.20
27	BC	224	VAL	CA-C-N	7.11	130.11	120.44
27	BC	224	VAL	C-N-CA	7.11	130.11	120.44
36	BL	25	LEU	O-C-N	-7.11	114.70	122.09
50	BZ	42	GLU	CA-C-N	7.11	135.12	121.54
50	BZ	42	GLU	C-N-CA	7.11	135.12	121.54
1	AA	381	C	O4'-C4'-C3'	7.10	111.10	104.00
26	BB	1076	C	C4'-C3'-O3'	7.10	123.66	113.00
26	BB	67	U	C4'-C3'-C2'	-7.10	95.50	102.60
26	BB	2247	A	O4'-C1'-N9	7.10	119.15	108.50
26	BB	238	C	C2'-C3'-O3'	7.10	124.35	113.70
1	AA	1014	A	C2'-C3'-O3'	7.10	124.35	113.70
1	AA	1032	G	C2'-C3'-O3'	-7.10	103.05	113.70
50	BZ	2	ARG	NH1-CZ-NH2	-7.10	110.07	119.30
1	AA	749	A	C5'-C4'-O4'	7.10	120.44	109.80
26	BB	574	A	C3'-C2'-C1'	7.09	108.39	101.30
26	BB	2804	U	O4'-C4'-C3'	7.09	111.09	104.00
36	BL	22	GLY	N-CA-C	-7.09	105.08	115.30
1	AA	247	G	C3'-C2'-O2'	7.09	121.34	110.70
26	BB	1673	G	O3'-P-O5'	7.09	114.64	104.00
1	AA	1460	C	C3'-C2'-O2'	7.09	121.33	110.70
26	BB	2161	C	C4'-C3'-C2'	-7.09	95.51	102.60
26	BB	2460	U	O4'-C1'-C2'	-7.09	100.51	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BC	89	ALA	N-CA-C	7.09	120.04	111.82
1	AA	1118	U	O4'-C1'-N1	7.09	119.13	108.50
36	BL	118	MET	CA-C-N	7.09	129.65	120.44
36	BL	118	MET	C-N-CA	7.09	129.65	120.44
1	AA	844	G	C2'-C3'-O3'	7.09	120.13	109.50
26	BB	2341	G	C5'-C4'-C3'	-7.09	105.37	116.00
26	BB	2454	G	C4'-C3'-C2'	-7.09	95.51	102.60
26	BB	276	U	O4'-C1'-N1	7.08	119.13	108.50
5	AE	193	ASP	O-C-N	7.08	130.96	122.96
26	BB	2842	G	C3'-C2'-O2'	7.08	121.33	110.70
1	AA	1377	A	O3'-P-O5'	-7.08	93.38	104.00
26	BB	2796	U	C5'-C4'-C3'	-7.08	105.38	116.00
1	AA	196	A	C2'-C3'-O3'	-7.08	103.08	113.70
11	AK	34	ALA	CA-C-N	7.08	129.62	120.56
11	AK	34	ALA	C-N-CA	7.08	129.62	120.56
26	BB	204	A	O4'-C1'-N9	7.08	118.82	108.20
26	BB	805	G	O3'-P-O5'	7.08	114.62	104.00
30	BF	152	GLU	O-C-N	7.08	131.06	122.35
56	B5	41	ARG	NE-CZ-NH2	7.08	125.57	119.20
26	BB	2614	A	C4'-C3'-C2'	-7.08	95.52	102.60
1	AA	1314	C	O4'-C4'-C3'	7.08	111.08	104.00
3	AC	57	C	C3'-C2'-C1'	7.08	108.38	101.30
5	AE	47	PRO	CA-C-N	7.08	130.06	120.44
5	AE	47	PRO	C-N-CA	7.08	130.06	120.44
35	BK	102	ARG	N-CA-C	7.08	119.07	111.36
48	BX	2	PHE	CA-CB-CG	7.08	120.88	113.80
1	AA	968	A	O3'-P-O5'	-7.07	93.39	104.00
1	AA	1359	C	O3'-P-O5'	-7.07	93.39	104.00
21	AU	9	PHE	CB-CA-C	7.07	120.35	110.16
38	BN	38	GLN	N-CA-C	-7.07	104.39	113.16
1	AA	964	A	C4'-C3'-O3'	-7.07	102.40	113.00
26	BB	740	C	O4'-C1'-C2'	-7.07	100.53	107.60
26	BB	2777	G	O4'-C1'-C2'	-7.07	100.53	107.60
49	BY	40	ARG	NE-CZ-NH2	7.07	125.56	119.20
1	AA	346	G	O3'-P-O5'	7.07	114.60	104.00
40	BP	16	HIS	CB-CG-CD2	-7.07	122.02	131.20
26	BB	1092	C	O4'-C1'-N1	7.06	119.10	108.50
26	BB	2346	A	C5'-C4'-O4'	7.06	119.70	109.10
41	BQ	62	LEU	N-CA-C	7.06	119.90	109.24
42	BR	97	TYR	CA-C-O	-7.06	113.00	120.63
1	AA	413	G	C3'-C2'-O2'	-7.06	104.01	114.60
1	AA	1527	U	C5'-C4'-C3'	7.06	126.59	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	207	LEU	O-C-N	7.06	131.27	123.22
8	AH	52	ALA	CA-C-N	7.06	129.74	120.28
8	AH	52	ALA	C-N-CA	7.06	129.74	120.28
14	AN	66	ALA	CA-C-N	7.06	130.31	120.29
14	AN	66	ALA	C-N-CA	7.06	130.31	120.29
26	BB	2888	C	C4'-C3'-C2'	-7.06	95.54	102.60
27	BC	4	LEU	CA-C-N	7.06	133.67	122.59
27	BC	4	LEU	C-N-CA	7.06	133.67	122.59
26	BB	27	G	O4'-C4'-C3'	7.06	111.06	104.00
26	BB	2196	C	C4'-C3'-C2'	-7.06	95.54	102.60
32	BH	50	THR	O-C-N	7.06	131.70	123.30
26	BB	836	G	C5'-C4'-C3'	-7.06	105.42	116.00
1	AA	535	A	O4'-C4'-C3'	7.05	111.06	104.00
26	BB	2143	C	P-O3'-C3'	7.05	130.78	120.20
26	BB	2602	A	C1'-O4'-C4'	-7.05	102.65	109.70
23	AW	67	HIS	CA-CB-CG	-7.05	106.75	113.80
25	BA	109	A	C5'-C4'-C3'	7.05	126.57	116.00
1	AA	342	C	O4'-C1'-N1	7.05	119.07	108.50
2	AB	71	C	O4'-C1'-N1	7.05	119.07	108.50
9	AI	58	HIS	CE1-NE2-CD2	-7.05	101.95	109.00
2	AB	26	A	C5'-C4'-O4'	7.05	120.37	109.80
3	AC	55	A	C4'-C3'-C2'	-7.05	95.55	102.60
1	AA	846	G	O5'-C5'-C4'	7.04	122.07	111.50
1	AA	606	G	O5'-C5'-C4'	7.04	122.06	111.50
3	AC	14	G	O4'-C4'-C3'	7.04	111.04	104.00
26	BB	1097	U	C4'-C3'-O3'	-7.04	102.43	113.00
41	BQ	9	ARG	NE-CZ-NH1	7.04	128.54	121.50
1	AA	475	C	O4'-C4'-C3'	7.04	111.04	104.00
26	BB	207	A	C5'-C4'-C3'	-7.04	105.44	116.00
26	BB	1662	U	C5'-C4'-C3'	-7.04	105.44	116.00
8	AH	85	LYS	CA-C-N	7.04	127.89	120.43
8	AH	85	LYS	C-N-CA	7.04	127.89	120.43
26	BB	143	C	C4'-C3'-C2'	-7.04	95.56	102.60
26	BB	1096	A	C3'-C2'-C1'	7.04	108.54	101.50
1	AA	53	A	C5'-C4'-C3'	-7.04	105.44	116.00
6	AF	228	ARG	NE-CZ-NH2	-7.04	112.87	119.20
26	BB	2427	C	P-O5'-C5'	7.04	131.45	120.90
26	BB	2670	A	N9-C1'-C2'	-7.04	101.45	112.00
26	BB	2739	U	C5'-C4'-C3'	-7.04	105.45	116.00
26	BB	2903	U	O4'-C1'-N1	7.04	119.05	108.50
35	BK	69	VAL	O-C-N	7.04	130.57	123.18
26	BB	1494	A	C4'-C3'-C2'	7.03	109.63	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1338	G	O4'-C1'-C2'	7.03	114.63	107.60
52	B1	40	THR	CA-C-N	7.03	128.63	119.84
52	B1	40	THR	C-N-CA	7.03	128.63	119.84
1	AA	482	A	O4'-C1'-C2'	-7.03	100.57	107.60
26	BB	2514	U	C4'-C3'-C2'	-7.03	95.57	102.60
1	AA	993	G	O4'-C1'-C2'	-7.03	98.77	105.80
1	AA	251	G	O3'-P-O5'	-7.03	93.46	104.00
13	AM	16	ARG	CA-C-N	7.03	130.27	120.29
13	AM	16	ARG	C-N-CA	7.03	130.27	120.29
17	AQ	59	GLN	CB-CG-CD	7.03	124.55	112.60
26	BB	418	C	C3'-C2'-C1'	-7.03	94.27	101.30
26	BB	1396	U	C2'-C3'-O3'	7.03	120.04	109.50
26	BB	2303	G	C1'-O4'-C4'	7.03	116.93	109.90
29	BE	97	SER	CA-C-N	7.03	131.57	120.47
29	BE	97	SER	C-N-CA	7.03	131.57	120.47
25	BA	71	C	C1'-C2'-O2'	7.03	118.94	108.40
26	BB	2153	C	O4'-C4'-C3'	7.02	111.02	104.00
26	BB	2320	U	N1-C1'-C2'	7.02	122.53	112.00
36	BL	33	ALA	CA-C-N	7.02	129.57	120.44
36	BL	33	ALA	C-N-CA	7.02	129.57	120.44
26	BB	1299	G	N9-C1'-C2'	-7.02	101.47	112.00
26	BB	2126	A	C3'-C2'-O2'	-7.02	104.07	114.60
1	AA	215	C	C4'-C3'-O3'	7.02	123.53	113.00
1	AA	402	G	C5'-C4'-O4'	7.02	120.33	109.80
1	AA	589	U	O4'-C4'-C3'	7.02	111.02	104.00
26	BB	1933	G	C3'-C2'-C1'	7.02	108.32	101.30
1	AA	987	G	N9-C1'-C2'	-7.01	101.48	112.00
5	AE	172	ILE	CA-C-N	7.01	130.01	120.54
5	AE	172	ILE	C-N-CA	7.01	130.01	120.54
6	AF	58	ARG	O-C-N	7.01	127.70	121.32
26	BB	247	G	C3'-C2'-C1'	7.01	108.31	101.30
6	AF	137	VAL	CA-C-O	-7.01	113.66	120.95
21	AU	21	ASP	O-C-N	-7.01	115.09	122.94
26	BB	2660	A	O4'-C1'-N9	7.01	119.02	108.50
26	BB	2760	C	O5'-C5'-C4'	7.01	122.02	111.50
1	AA	1136	C	O4'-C1'-C2'	-7.01	100.59	107.60
26	BB	627	A	O3'-P-O5'	-7.01	93.48	104.00
32	BH	52	GLY	CA-C-N	7.01	127.56	119.99
32	BH	52	GLY	C-N-CA	7.01	127.56	119.99
36	BL	104	ALA	CA-C-O	-7.01	111.30	119.78
1	AA	1029	U	O3'-P-O5'	-7.01	93.49	104.00
26	BB	1932	A	O4'-C1'-N9	7.01	119.01	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2674	G	N9-C1'-C2'	-7.01	101.49	112.00
41	BQ	112	GLU	CA-C-N	7.01	130.24	120.29
41	BQ	112	GLU	C-N-CA	7.01	130.24	120.29
43	BS	80	ASN	CA-CB-CG	7.01	119.61	112.60
2	AB	65	C	C3'-C2'-C1'	7.00	108.30	101.30
1	AA	997	U	C1'-O4'-C4'	-7.00	102.90	109.90
26	BB	253	C	C4'-C3'-C2'	-7.00	95.60	102.60
26	BB	2126	A	C5'-C4'-C3'	-7.00	104.70	115.20
26	BB	511	U	C3'-C2'-C1'	7.00	108.30	101.30
1	AA	1369	C	O4'-C1'-N1	7.00	119.00	108.50
1	AA	877	G	O5'-C5'-C4'	7.00	121.99	111.50
1	AA	994	A	C3'-C2'-C1'	7.00	108.30	101.30
1	AA	1298	U	O4'-C1'-C2'	-7.00	98.80	105.80
25	BA	30	C	O4'-C1'-N1	7.00	119.00	108.50
26	BB	247	G	O4'-C1'-C2'	-7.00	100.60	107.60
26	BB	829	A	C5'-C4'-C3'	-7.00	104.70	115.20
28	BD	45	ASN	CA-CB-CG	7.00	119.60	112.60
37	BM	70	ARG	NE-CZ-NH2	-7.00	112.90	119.20
1	AA	495	A	C1'-O4'-C4'	-7.00	102.70	109.70
26	BB	2562	U	C5'-C4'-C3'	-7.00	105.51	116.00
26	BB	2322	A	C3'-C2'-C1'	6.99	108.29	101.30
26	BB	726	G	O3'-P-O5'	-6.99	93.51	104.00
26	BB	2720	U	C5'-C4'-O4'	6.99	120.29	109.80
26	BB	321	U	O4'-C1'-C2'	-6.99	100.61	107.60
26	BB	1076	C	C4'-C3'-C2'	-6.99	95.61	102.60
26	BB	1800	C	O3'-P-O5'	-6.99	93.51	104.00
36	BL	46	PRO	N-CA-CB	6.99	110.93	103.52
55	B4	48	TYR	CA-C-O	-6.99	113.01	121.89
1	AA	1149	C	N1-C1'-C2'	-6.99	101.52	112.00
26	BB	2756	U	P-O3'-C3'	6.99	130.68	120.20
1	AA	196	A	C1'-C2'-O2'	-6.99	97.92	108.40
26	BB	2886	A	C3'-C2'-C1'	6.99	108.29	101.30
1	AA	1339	A	P-O3'-C3'	6.99	130.68	120.20
25	BA	16	G	C4'-C3'-C2'	-6.99	95.61	102.60
1	AA	341	C	C4'-C3'-O3'	6.98	123.47	113.00
14	AN	27	ASN	OD1-CG-ND2	-6.98	115.62	122.60
38	BN	59	ARG	NE-CZ-NH2	6.98	125.48	119.20
55	B4	11	VAL	CB-CA-C	6.98	121.42	110.81
1	AA	277	C	C4'-C3'-C2'	-6.98	95.62	102.60
1	AA	461	A	C5'-C4'-C3'	-6.98	105.53	116.00
4	AD	74	A	O5'-C5'-C4'	-6.98	101.03	111.50
25	BA	92	C	C1'-O4'-C4'	6.98	116.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1490	A	O4'-C4'-C3'	6.98	110.98	104.00
26	BB	1715	G	C4'-C3'-O3'	-6.98	98.93	109.40
26	BB	941	A	C3'-C2'-C1'	6.98	108.28	101.30
26	BB	2374	C	C2'-C3'-O3'	6.98	124.17	113.70
26	BB	2476	A	O4'-C1'-C2'	-6.98	100.62	107.60
26	BB	1267	U	O5'-C5'-C4'	-6.97	101.04	111.50
26	BB	1454	C	C4'-C3'-C2'	-6.97	95.63	102.60
41	BQ	53	THR	CA-C-N	6.97	132.08	120.64
41	BQ	53	THR	C-N-CA	6.97	132.08	120.64
3	AC	55	A	O3'-P-O5'	6.97	114.46	104.00
26	BB	1210	G	C2'-C3'-O3'	6.97	119.96	109.50
1	AA	723	U	O4'-C4'-C3'	6.97	110.97	104.00
1	AA	1165	U	C3'-C2'-C1'	6.97	108.27	101.30
35	BK	45	THR	N-CA-C	-6.97	104.41	113.12
37	BM	7	MET	CA-C-O	-6.97	113.11	121.05
51	B0	47	ARG	N-CA-C	-6.97	104.91	113.41
1	AA	562	U	O4'-C1'-C2'	6.97	112.77	105.80
1	AA	1154	G	O4'-C1'-C2'	-6.97	100.63	107.60
27	BC	165	ASN	CA-CB-CG	6.97	119.57	112.60
26	BB	2759	G	C2'-C3'-O3'	-6.97	103.25	113.70
1	AA	66	A	C4'-C3'-O3'	-6.96	102.55	113.00
20	AT	72	TRP	CE2-CD2-CE3	-6.96	111.83	118.80
26	BB	181	A	O4'-C4'-C3'	6.96	110.96	104.00
26	BB	2157	G	O4'-C1'-N9	6.96	118.65	108.20
26	BB	2634	A	C3'-C2'-C1'	6.96	108.27	101.30
26	BB	347	A	O4'-C4'-C3'	-6.96	97.04	104.00
1	AA	1112	C	O4'-C4'-C3'	6.96	110.96	104.00
1	AA	1541	U	C4'-C3'-C2'	6.96	109.56	102.60
10	AJ	116	ALA	N-CA-C	6.96	118.87	111.28
26	BB	1515	A	C5'-C4'-C3'	-6.96	105.56	116.00
26	BB	1905	C	C3'-C2'-C1'	6.96	108.26	101.30
26	BB	2501	C	C4'-C3'-O3'	6.96	123.44	113.00
1	AA	309	A	C4'-C3'-C2'	-6.96	95.64	102.60
1	AA	397	A	N9-C1'-C2'	6.96	122.44	112.00
1	AA	861	G	O3'-P-O5'	6.96	114.44	104.00
34	BJ	135	ILE	CA-C-N	6.96	130.17	120.29
34	BJ	135	ILE	C-N-CA	6.96	130.17	120.29
1	AA	971	G	C4'-C3'-C2'	-6.96	95.64	102.60
26	BB	1614	A	C4'-C3'-C2'	6.96	109.56	102.60
26	BB	2103	C	N1-C1'-C2'	-6.96	101.56	112.00
33	BI	7	ASP	CA-C-O	-6.96	113.82	121.33
40	BP	77	ALA	CA-C-O	-6.96	113.05	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1610	A	O4'-C1'-C2'	6.96	112.75	105.80
1	AA	970	C	C4'-C3'-O3'	6.95	123.43	113.00
26	BB	469	G	P-O3'-C3'	6.95	130.63	120.20
47	BW	75	ALA	O-C-N	6.95	130.08	122.15
26	BB	1500	G	C5'-C4'-C3'	-6.95	105.57	116.00
26	BB	2158	A	O4'-C4'-C3'	-6.95	99.15	106.10
26	BB	2358	A	C1'-O4'-C4'	-6.95	102.95	109.90
1	AA	166	U	N1-C1'-C2'	-6.95	101.58	112.00
1	AA	1381	U	C4'-C3'-C2'	-6.95	95.65	102.60
1	AA	1419	G	O4'-C1'-N9	6.95	118.93	108.50
26	BB	382	A	C1'-O4'-C4'	6.95	116.85	109.90
26	BB	1705	A	C5'-C4'-C3'	6.95	126.42	116.00
1	AA	1231	G	C4'-C3'-C2'	-6.95	95.65	102.60
26	BB	228	C	O4'-C1'-N1	6.95	118.62	108.20
26	BB	529	A	O3'-P-O5'	-6.95	93.58	104.00
26	BB	973	A	O4'-C4'-C3'	6.95	113.05	106.10
26	BB	1000	A	C4'-C3'-C2'	-6.95	95.65	102.60
46	BV	7	LEU	N-CA-CB	-6.95	101.29	110.88
1	AA	1066	C	O5'-C5'-C4'	6.95	121.92	111.50
7	AG	48	SER	CA-C-N	6.95	129.59	120.28
7	AG	48	SER	C-N-CA	6.95	129.59	120.28
1	AA	1451	U	O4'-C1'-N1	6.94	118.92	108.50
25	BA	34	A	C4'-C3'-O3'	6.94	123.42	113.00
26	BB	617	G	P-O5'-C5'	6.94	131.31	120.90
40	BP	20	MET	CA-C-N	6.94	129.58	120.28
40	BP	20	MET	C-N-CA	6.94	129.58	120.28
26	BB	1754	A	C4'-C3'-C2'	6.94	109.54	102.60
26	BB	2426	A	O4'-C1'-N9	6.94	118.61	108.20
26	BB	2454	G	C5'-C4'-O4'	6.94	120.21	109.80
26	BB	1644	C	O4'-C1'-N1	6.94	118.91	108.50
26	BB	2351	G	C3'-C2'-C1'	6.94	108.24	101.30
36	BL	30	THR	CA-C-O	-6.94	111.99	119.97
24	AX	55	HIS	CB-CG-CD2	-6.94	122.18	131.20
1	AA	865	A	O4'-C4'-C3'	6.93	110.94	104.00
30	BF	29	HIS	CA-C-O	6.93	128.12	120.63
1	AA	829	G	C4'-C3'-C2'	-6.93	95.67	102.60
37	BM	59	LYS	CB-CA-C	6.93	121.96	109.83
1	AA	60	A	P-O3'-C3'	6.93	130.60	120.20
1	AA	109	A	O4'-C1'-N9	6.93	118.60	108.20
1	AA	990	C	O4'-C1'-C2'	-6.93	100.67	107.60
26	BB	2506	U	C3'-C2'-O2'	6.93	121.10	110.70
1	AA	1330	U	O4'-C4'-C3'	6.93	110.93	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1346	A	C1'-O4'-C4'	-6.93	102.77	109.70
26	BB	1772	A	C5'-C4'-C3'	-6.93	105.61	116.00
37	BM	64	ARG	NE-CZ-NH2	6.93	125.44	119.20
17	AQ	82	LYS	CA-C-N	6.93	129.29	120.56
17	AQ	82	LYS	C-N-CA	6.93	129.29	120.56
48	BX	47	VAL	N-CA-C	6.93	119.22	111.88
1	AA	559	A	O4'-C1'-N9	6.93	118.59	108.20
25	BA	90	C	C5'-C4'-C3'	-6.92	105.61	116.00
26	BB	2238	G	C1'-O4'-C4'	-6.92	102.78	109.70
1	AA	1468	A	O4'-C1'-C2'	6.92	114.52	107.60
37	BM	49	ARG	NE-CZ-NH2	6.92	125.43	119.20
8	AH	15	ILE	CB-CA-C	6.92	119.51	111.55
26	BB	2269	G	O4'-C1'-C2'	-6.92	100.68	107.60
26	BB	2531	A	O4'-C4'-C3'	6.92	110.92	104.00
49	BY	63	ASP	CA-C-O	-6.92	114.26	121.87
2	AB	59	G	C1'-O4'-C4'	-6.92	102.78	109.70
57	B6	53	ASP	CA-CB-CG	6.92	119.52	112.60
26	BB	703	U	C1'-O4'-C4'	6.92	116.82	109.90
26	BB	2866	U	C1'-O4'-C4'	-6.92	102.78	109.70
35	BK	31	GLY	N-CA-C	-6.92	105.27	115.72
1	AA	58	C	O4'-C1'-N1	6.92	118.88	108.50
1	AA	524	G	C3'-C2'-C1'	6.92	108.22	101.30
26	BB	2411	A	C3'-C2'-O2'	6.92	121.07	110.70
10	AJ	139	ASP	CA-CB-CG	6.91	119.51	112.60
26	BB	1578	U	O3'-P-O5'	6.91	114.37	104.00
26	BB	2427	C	O4'-C1'-N1	6.91	118.87	108.50
1	AA	1013	G	C3'-C2'-C1'	6.91	108.21	101.30
15	AO	53	ARG	NE-CZ-NH2	-6.91	112.98	119.20
1	AA	119	A	C5'-C4'-O4'	-6.91	98.74	109.10
26	BB	985	C	O4'-C1'-N1	6.91	118.86	108.50
26	BB	2376	A	N9-C1'-C2'	6.91	122.36	112.00
4	AD	70	C	O4'-C4'-C3'	6.91	110.91	104.00
6	AF	218	LYS	CA-C-O	-6.91	110.70	120.16
7	AG	66	VAL	CA-CB-CG1	6.91	122.14	110.40
26	BB	2079	U	C5'-C4'-O4'	6.91	120.16	109.80
26	BB	2775	G	C4'-C3'-C2'	-6.91	95.69	102.60
26	BB	397	U	C4'-C3'-C2'	-6.91	95.69	102.60
26	BB	970	U	P-O5'-C5'	6.91	131.26	120.90
26	BB	1809	A	C1'-C2'-O2'	-6.91	98.04	108.40
26	BB	1833	C	O4'-C1'-N1	6.91	118.86	108.50
49	BY	4	LYS	CA-C-N	6.91	134.73	121.54
49	BY	4	LYS	C-N-CA	6.91	134.73	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	B6	29	ARG	NE-CZ-NH1	-6.90	114.60	121.50
1	AA	475	C	O4'-C1'-N1	6.90	118.85	108.50
25	BA	92	C	C3'-C2'-C1'	6.90	108.20	101.30
26	BB	1626	A	C4'-C3'-O3'	-6.90	99.05	109.40
30	BF	12	LEU	N-CA-C	-6.90	106.75	114.62
1	AA	1423	G	O4'-C1'-C2'	-6.90	100.70	107.60
40	BP	30	ARG	NE-CZ-NH1	6.90	128.40	121.50
1	AA	1525	G	O4'-C1'-C2'	-6.90	100.70	107.60
1	AA	760	G	O5'-C5'-C4'	6.90	121.84	111.50
1	AA	1144	G	C4'-C3'-C2'	-6.90	95.70	102.60
13	AM	54	SER	CA-C-N	6.90	127.18	119.32
13	AM	54	SER	C-N-CA	6.90	127.18	119.32
14	AN	66	ALA	O-C-N	-6.89	114.81	122.12
26	BB	991	C	C1'-O4'-C4'	6.89	116.80	109.90
26	BB	1215	G	C4'-C3'-O3'	-6.89	102.66	113.00
1	AA	1100	C	C3'-C2'-C1'	6.89	108.19	101.30
7	AG	85	THR	CA-C-N	6.89	127.58	120.00
7	AG	85	THR	C-N-CA	6.89	127.58	120.00
26	BB	2168	G	O3'-P-O5'	6.89	114.34	104.00
26	BB	2549	G	C1'-C2'-O2'	-6.89	98.06	108.40
46	BV	15	HIS	CB-CG-CD2	-6.89	122.24	131.20
26	BB	2667	C	C3'-C2'-C1'	6.89	108.19	101.30
26	BB	2707	U	C4'-C3'-C2'	-6.89	95.71	102.60
36	BL	106	LYS	O-C-N	6.89	129.45	122.08
26	BB	1084	A	O5'-C5'-C4'	-6.89	101.17	111.50
1	AA	1179	A	C3'-C2'-C1'	-6.88	94.42	101.30
5	AE	74	ALA	O-C-N	6.88	129.74	122.23
7	AG	138	PRO	CA-C-N	6.88	133.86	123.05
7	AG	138	PRO	C-N-CA	6.88	133.86	123.05
26	BB	687	C	C3'-C2'-O2'	6.88	121.03	110.70
1	AA	528	C	C5'-C4'-O4'	6.88	120.12	109.80
1	AA	1378	C	O4'-C1'-C2'	-6.88	100.72	107.60
26	BB	2597	G	C4'-C3'-C2'	-6.88	95.72	102.60
1	AA	420	U	C2'-C3'-O3'	6.88	124.02	113.70
1	AA	1397	C	C3'-C2'-C1'	-6.88	94.62	101.50
1	AA	1466	C	O4'-C1'-C2'	-6.88	100.72	107.60
26	BB	313	G	C4'-C3'-C2'	-6.88	95.72	102.60
27	BC	154	LYS	O-C-N	6.88	129.99	122.15
43	BS	12	ARG	O-C-N	6.88	129.52	122.09
26	BB	323	C	O4'-C1'-N1	6.88	118.51	108.20
1	AA	1363	A	C3'-C2'-C1'	-6.87	94.63	101.50
1	AA	288	A	C5'-C4'-O4'	6.87	120.10	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	575	G	C4'-C3'-C2'	-6.87	95.73	102.60
26	BB	223	A	O3'-P-O5'	-6.87	93.70	104.00
26	BB	2262	U	C5'-C4'-C3'	-6.87	105.70	116.00
26	BB	2817	U	C4'-C3'-C2'	-6.87	95.73	102.60
1	AA	805	C	C4'-C3'-C2'	-6.87	95.73	102.60
26	BB	558	U	P-O3'-C3'	6.87	130.50	120.20
26	BB	1460	U	O4'-C4'-C3'	6.87	110.86	104.00
26	BB	2054	A	O3'-P-O5'	6.87	114.30	104.00
1	AA	1352	C	C3'-C2'-O2'	6.86	121.00	110.70
18	AR	63	ARG	NE-CZ-NH2	6.86	125.38	119.20
26	BB	809	G	O4'-C1'-N9	6.86	118.80	108.50
26	BB	1856	U	O3'-P-O5'	6.86	114.30	104.00
26	BB	2114	A	O5'-C5'-C4'	-6.86	101.20	111.50
39	BO	112	LEU	CA-C-O	-6.86	113.15	120.42
51	B0	8	GLU	CA-CB-CG	6.86	127.83	114.10
1	AA	699	C	C4'-C3'-C2'	-6.86	95.74	102.60
25	BA	41	G	O5'-C5'-C4'	-6.86	101.41	111.70
26	BB	2028	U	C1'-C2'-O2'	6.86	118.69	108.40
26	BB	2401	U	C5'-C4'-O4'	6.86	120.09	109.80
26	BB	1663	G	C4'-C3'-O3'	-6.86	102.71	113.00
26	BB	1452	G	O4'-C4'-C3'	6.86	110.86	104.00
26	BB	1740	G	O4'-C1'-C2'	-6.86	100.74	107.60
26	BB	1852	U	O4'-C1'-C2'	-6.86	100.74	107.60
40	BP	75	ILE	N-CA-C	6.86	117.65	110.72
26	BB	119	A	C5'-C4'-C3'	-6.86	104.92	115.20
5	AE	231	GLN	OE1-CD-NE2	-6.85	115.75	122.60
7	AG	78	ALA	CA-C-N	6.85	130.02	120.29
7	AG	78	ALA	C-N-CA	6.85	130.02	120.29
26	BB	1940	U	C1'-O4'-C4'	-6.85	102.85	109.70
7	AG	106	PHE	O-C-N	6.85	130.24	122.22
25	BA	85	G	C4'-C3'-C2'	-6.85	95.75	102.60
26	BB	136	G	O5'-C5'-C4'	6.85	121.78	111.50
50	BZ	29	LEU	CB-CA-C	6.85	119.19	108.84
29	BE	63	PRO	CA-C-N	6.85	132.29	120.58
29	BE	63	PRO	C-N-CA	6.85	132.29	120.58
26	BB	2380	C	P-O3'-C3'	6.85	130.47	120.20
26	BB	2403	C	C5'-C4'-C3'	-6.85	105.72	116.00
1	AA	1414	U	C3'-C2'-O2'	6.85	120.97	110.70
26	BB	1055	G	C3'-C2'-C1'	-6.85	94.45	101.30
26	BB	2379	G	C3'-C2'-O2'	6.85	120.97	110.70
3	AC	41	A	C4'-C3'-C2'	-6.85	95.75	102.60
26	BB	1619	G	C3'-C2'-O2'	6.84	120.97	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	697	U	C1'-C2'-O2'	-6.84	98.14	108.40
1	AA	1297	G	C5'-C4'-O4'	6.84	119.36	109.10
5	AE	176	ASN	CA-CB-CG	6.84	119.44	112.60
26	BB	372	G	C3'-C2'-C1'	-6.84	94.66	101.50
1	AA	369	G	C3'-C2'-C1'	6.84	108.14	101.30
1	AA	1372	U	C4'-C3'-C2'	-6.84	95.76	102.60
26	BB	35	G	C3'-C2'-C1'	-6.84	94.46	101.30
26	BB	1082	U	O4'-C1'-C2'	-6.84	100.76	107.60
26	BB	1527	G	C4'-C3'-C2'	-6.84	95.76	102.60
41	BQ	25	ARG	NE-CZ-NH2	-6.84	113.04	119.20
18	AR	8	ALA	CA-C-N	6.84	129.33	120.44
18	AR	8	ALA	C-N-CA	6.84	129.33	120.44
26	BB	316	C	O3'-P-O5'	-6.84	93.74	104.00
1	AA	148	G	C3'-C2'-O2'	6.84	120.95	110.70
1	AA	1213	A	C2'-C3'-O3'	6.84	123.95	113.70
26	BB	317	G	C4'-C3'-C2'	-6.83	95.77	102.60
26	BB	1881	C	C5'-C4'-C3'	-6.83	105.75	116.00
26	BB	2723	C	O4'-C1'-N1	6.83	118.75	108.50
26	BB	684	G	O5'-C5'-C4'	6.83	121.75	111.50
9	AI	91	ARG	N-CA-C	6.83	119.55	110.53
26	BB	1776	G	O4'-C4'-C3'	6.83	110.83	104.00
26	BB	1807	G	P-O3'-C3'	6.83	130.44	120.20
40	BP	109	PRO	N-CA-CB	6.83	109.42	103.27
26	BB	2483	C	O4'-C1'-C2'	-6.83	100.77	107.60
1	AA	1448	C	O5'-C5'-C4'	-6.83	101.26	111.50
26	BB	1839	G	O4'-C1'-C2'	-6.83	100.77	107.60
1	AA	1263	C	O4'-C1'-C2'	-6.82	100.78	107.60
16	AP	74	MET	CA-C-O	-6.82	112.12	119.97
26	BB	1661	G	C3'-C2'-C1'	6.82	108.12	101.30
9	AI	123	ASP	CA-CB-CG	6.82	119.42	112.60
26	BB	737	C	C4'-C3'-C2'	-6.82	95.78	102.60
26	BB	941	A	O4'-C1'-C2'	-6.82	100.78	107.60
26	BB	2140	G	C1'-O4'-C4'	-6.82	103.08	109.90
26	BB	269	C	P-O5'-C5'	6.82	131.13	120.90
26	BB	2290	G	C4'-C3'-O3'	6.82	123.23	113.00
26	BB	786	C	C5'-C4'-C3'	-6.82	105.78	116.00
1	AA	735	C	C3'-C2'-C1'	6.82	108.12	101.30
1	AA	743	A	C3'-C2'-C1'	6.82	108.11	101.30
5	AE	231	GLN	CB-CA-C	6.82	117.95	109.16
26	BB	458	G	C5'-C4'-C3'	-6.82	104.98	115.20
4	AD	60	A	O4'-C4'-C3'	6.81	110.81	104.00
26	BB	1429	G	O4'-C4'-C3'	6.81	110.81	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	978	A	O4'-C1'-C2'	6.81	114.41	107.60
1	AA	1141	C	O4'-C4'-C3'	6.81	110.81	104.00
10	AJ	96	ASN	OD1-CG-ND2	-6.81	115.79	122.60
26	BB	950	G	O5'-C5'-C4'	6.81	121.72	111.50
26	BB	2660	A	C4'-C3'-C2'	-6.81	95.79	102.60
26	BB	2791	G	C5'-C4'-O4'	6.81	120.02	109.80
27	BC	36	ALA	CA-C-N	6.81	129.64	120.65
27	BC	36	ALA	C-N-CA	6.81	129.64	120.65
35	BK	116	MET	CA-C-O	6.81	129.53	121.36
1	AA	926	G	C4'-C3'-O3'	6.81	119.61	109.40
26	BB	57	C	C4'-C3'-C2'	-6.81	95.79	102.60
26	BB	2676	C	C4'-C3'-C2'	-6.81	95.79	102.60
26	BB	329	G	C5'-C4'-O4'	6.81	119.31	109.10
1	AA	485	U	O4'-C1'-C2'	-6.80	99.00	105.80
26	BB	2370	G	C3'-C2'-O2'	6.80	120.91	110.70
26	BB	2707	U	O4'-C1'-C2'	-6.80	100.80	107.60
1	AA	259	G	O4'-C1'-N9	6.80	118.70	108.50
1	AA	676	A	C4'-C3'-C2'	-6.80	95.80	102.60
1	AA	1149	C	C4'-C3'-C2'	-6.80	95.80	102.60
25	BA	94	A	C2'-C3'-O3'	-6.80	103.50	113.70
26	BB	2027	G	O4'-C1'-C2'	6.80	114.40	107.60
26	BB	2479	U	C4'-C3'-C2'	-6.80	95.80	102.60
8	AH	6	GLN	OE1-CD-NE2	-6.80	115.80	122.60
26	BB	1555	G	C4'-C3'-C2'	-6.80	95.80	102.60
31	BG	26	GLN	OE1-CD-NE2	-6.80	115.80	122.60
1	AA	257	G	C5'-C4'-O4'	6.80	120.00	109.80
1	AA	1287	A	O3'-P-O5'	6.80	114.20	104.00
1	AA	952	U	C5'-C4'-O4'	6.80	120.00	109.80
16	AP	86	ARG	CA-C-O	-6.80	113.63	120.90
26	BB	542	C	O5'-C5'-C4'	6.80	121.69	111.50
1	AA	809	G	O4'-C4'-C3'	6.79	110.80	104.00
11	AK	114	ALA	CA-C-N	6.79	130.06	120.28
11	AK	114	ALA	C-N-CA	6.79	130.06	120.28
1	AA	213	G	P-O5'-C5'	6.79	131.09	120.90
1	AA	448	A	C5'-C4'-C3'	-6.79	105.81	116.00
1	AA	541	G	C3'-C2'-C1'	6.79	108.09	101.30
1	AA	1027	C	O4'-C4'-C3'	6.79	110.79	104.00
1	AA	1078	U	O4'-C1'-C2'	6.79	114.39	107.60
23	AW	12	GLN	O-C-N	6.79	129.32	122.12
26	BB	115	C	C4'-C3'-C2'	-6.79	95.81	102.60
26	BB	2804	U	O4'-C1'-C2'	-6.79	100.81	107.60
26	BB	314	C	C3'-C2'-O2'	6.79	120.89	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B0	54	LYS	CB-CG-CD	6.79	126.92	111.30
14	AN	4	PRO	CA-C-N	6.79	131.27	121.02
14	AN	4	PRO	C-N-CA	6.79	131.27	121.02
26	BB	1183	U	O4'-C4'-C3'	6.79	110.79	104.00
1	AA	781	A	C5'-C4'-O4'	6.79	119.98	109.80
26	BB	335	C	O4'-C4'-C3'	6.79	110.78	104.00
26	BB	2408	U	O4'-C1'-C2'	-6.79	100.81	107.60
29	BE	22	ILE	CA-CB-CG1	6.79	121.93	110.40
25	BA	36	C	O5'-C5'-C4'	-6.78	101.32	111.50
26	BB	445	C	N1-C1'-C2'	-6.78	101.83	112.00
26	BB	1028	A	P-O5'-C5'	6.78	131.08	120.90
26	BB	1865	U	P-O3'-C3'	6.78	130.37	120.20
26	BB	1824	G	C3'-C2'-C1'	6.78	108.08	101.30
26	BB	1164	C	C1'-O4'-C4'	-6.78	103.12	109.90
1	AA	1232	U	N1-C1'-C2'	-6.78	101.83	112.00
4	AD	19	G	C3'-C2'-O2'	-6.78	104.43	114.60
26	BB	436	C	C4'-C3'-C2'	-6.78	95.82	102.60
26	BB	2308	G	O4'-C1'-C2'	6.78	112.58	105.80
25	BA	14	U	C4'-C3'-C2'	-6.78	95.82	102.60
26	BB	510	C	C5'-C4'-O4'	6.78	119.96	109.80
1	AA	324	G	C3'-C2'-C1'	6.77	108.07	101.30
26	BB	962	G	C4'-C3'-O3'	-6.77	102.84	113.00
1	AA	103	U	O5'-C5'-C4'	6.77	121.66	111.50
26	BB	195	A	O4'-C4'-C3'	6.77	110.77	104.00
26	BB	1730	C	O4'-C1'-C2'	-6.77	100.83	107.60
26	BB	1521	G	C4'-C3'-C2'	-6.77	95.83	102.60
26	BB	2060	A	C4'-C3'-C2'	-6.77	95.83	102.60
55	B4	19	PHE	CA-CB-CG	6.77	120.57	113.80
1	AA	32	A	O3'-P-O5'	6.77	114.15	104.00
25	BA	50	A	C3'-C2'-O2'	6.77	120.85	110.70
26	BB	1259	G	C5'-C4'-C3'	-6.77	105.85	116.00
26	BB	2468	A	C4'-C3'-C2'	-6.77	95.83	102.60
1	AA	302	G	C5'-C4'-O4'	6.77	119.95	109.80
32	BH	114	HIS	CB-CG-ND1	6.77	132.85	122.70
56	B5	29	GLN	OE1-CD-NE2	-6.77	115.83	122.60
5	AE	85	SER	CA-C-O	6.77	129.31	121.87
1	AA	173	U	C5'-C4'-C3'	-6.76	105.05	115.20
1	AA	978	A	P-O3'-C3'	6.76	130.35	120.20
26	BB	1573	G	P-O5'-C5'	6.76	131.05	120.90
26	BB	1983	G	P-O3'-C3'	6.76	130.35	120.20
26	BB	2718	G	C4'-C3'-C2'	-6.76	95.84	102.60
1	AA	948	C	C3'-C2'-C1'	6.76	108.06	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2282	G	P-O3'-C3'	6.76	130.34	120.20
27	BC	138	PRO	O-C-N	6.76	130.67	123.10
28	BD	180	MET	CB-CA-C	6.76	121.48	109.65
38	BN	135	ILE	CA-C-O	-6.76	113.48	120.71
26	BB	198	C	O4'-C1'-N1	6.76	118.64	108.50
1	AA	632	U	O3'-P-O5'	-6.76	93.86	104.00
26	BB	992	C	O5'-C5'-C4'	-6.76	101.36	111.50
1	AA	790	A	O4'-C1'-C2'	-6.76	100.84	107.60
1	AA	952	U	N1-C1'-C2'	-6.76	101.87	112.00
1	AA	988	G	C3'-C2'-C1'	-6.76	94.54	101.30
19	AS	35	ARG	NE-CZ-NH1	6.76	128.26	121.50
26	BB	642	U	O5'-C5'-C4'	-6.76	101.37	111.50
50	BZ	19	HIS	CA-C-O	-6.76	109.98	118.43
26	BB	1661	G	C5'-C4'-O4'	6.75	119.93	109.80
45	BU	9	HIS	ND1-CE1-NE2	6.75	115.16	108.40
26	BB	327	G	N9-C1'-C2'	-6.75	101.87	112.00
4	AD	5	G	C4'-C3'-O3'	6.75	123.13	113.00
26	BB	2408	U	C3'-C2'-C1'	6.75	108.05	101.30
26	BB	2578	G	N9-C1'-C2'	-6.75	101.87	112.00
26	BB	2672	U	C1'-O4'-C4'	6.75	116.65	109.90
38	BN	116	VAL	CA-C-N	6.75	134.44	121.54
38	BN	116	VAL	C-N-CA	6.75	134.44	121.54
5	AE	76	SER	O-C-N	6.75	129.02	122.07
26	BB	55	G	C4'-C3'-C2'	-6.75	95.85	102.60
32	BH	63	GLN	N-CA-C	6.75	121.67	113.17
40	BP	71	ARG	CD-NE-CZ	6.75	133.85	124.40
12	AL	72	SER	N-CA-C	6.75	118.63	111.28
26	BB	1094	U	C3'-C2'-C1'	6.75	108.05	101.30
33	BI	63	ALA	O-C-N	-6.75	114.05	122.35
1	AA	617	G	C4'-C3'-C2'	-6.75	95.86	102.60
1	AA	1167	A	C4'-C3'-O3'	6.75	123.12	113.00
28	BD	10	PRO	N-CA-C	6.75	121.81	111.15
26	BB	689	A	C4'-C3'-C2'	-6.74	95.86	102.60
26	BB	1170	C	O4'-C1'-N1	6.74	118.61	108.50
1	AA	1539	C	C4'-C3'-C2'	6.74	109.34	102.60
26	BB	1545	A	O4'-C1'-N9	6.74	118.61	108.50
57	B6	16	THR	CA-C-N	6.74	128.78	120.22
57	B6	16	THR	C-N-CA	6.74	128.78	120.22
1	AA	224	U	C1'-O4'-C4'	6.74	116.64	109.90
26	BB	1043	C	O4'-C1'-N1	6.74	118.61	108.50
33	BI	126	GLY	N-CA-C	6.74	120.33	111.70
1	AA	319	G	C1'-O4'-C4'	6.74	116.64	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	31	U	C5'-C4'-O4'	6.74	119.91	109.80
26	BB	472	A	O3'-P-O5'	-6.74	93.89	104.00
5	AE	151	LYS	O-C-N	-6.74	115.13	122.07
1	AA	473	U	O3'-P-O5'	-6.74	93.90	104.00
1	AA	762	U	O4'-C1'-N1	6.74	118.61	108.50
1	AA	1522	U	C3'-C2'-C1'	6.73	108.03	101.30
26	BB	2235	G	C4'-C3'-C2'	-6.73	95.87	102.60
1	AA	491	G	C3'-C2'-O2'	6.73	120.80	110.70
26	BB	269	C	C4'-C3'-C2'	-6.73	95.87	102.60
26	BB	645	C	O4'-C4'-C3'	6.73	110.73	104.00
26	BB	1025	G	O4'-C1'-N9	6.73	118.30	108.20
31	BG	73	VAL	CA-CB-CG2	6.73	121.85	110.40
1	AA	1050	G	O4'-C4'-C3'	6.73	110.73	104.00
1	AA	1533	C	C3'-C2'-C1'	6.73	108.03	101.30
26	BB	654	A	O4'-C4'-C3'	-6.73	97.27	104.00
1	AA	838	G	C3'-C2'-C1'	-6.73	94.57	101.30
26	BB	1876	A	O4'-C1'-C2'	-6.73	100.87	107.60
26	BB	2057	G	C3'-C2'-O2'	6.73	120.79	110.70
27	BC	165	ASN	OD1-CG-ND2	-6.73	115.87	122.60
1	AA	1290	G	O4'-C4'-C3'	-6.72	97.28	104.00
4	AD	76	C	C5'-C4'-C3'	-6.72	105.11	115.20
1	AA	213	G	C5'-C4'-C3'	-6.72	105.92	116.00
1	AA	987	G	O4'-C1'-N9	6.72	118.58	108.50
26	BB	2434	A	C3'-C2'-O2'	-6.72	104.52	114.60
38	BN	27	LEU	CA-C-N	6.72	127.39	120.00
38	BN	27	LEU	C-N-CA	6.72	127.39	120.00
3	AC	23	C	C1'-O4'-C4'	6.72	116.62	109.90
15	AO	98	ARG	O-C-N	6.72	130.54	122.27
26	BB	1212	G	O4'-C1'-C2'	6.72	112.52	105.80
26	BB	2377	A	C4'-C3'-C2'	-6.72	95.88	102.60
26	BB	2750	A	C1'-O4'-C4'	-6.72	102.98	109.70
1	AA	1059	C	C5'-C4'-C3'	-6.72	105.92	116.00
5	AE	144	GLU	CA-C-N	6.72	129.28	120.28
5	AE	144	GLU	C-N-CA	6.72	129.28	120.28
28	BD	44	ASN	CA-CB-CG	6.72	119.32	112.60
1	AA	631	C	C1'-O4'-C4'	-6.72	103.18	109.90
26	BB	838	C	C5'-C4'-C3'	-6.72	105.92	116.00
26	BB	2800	A	O4'-C4'-C3'	6.72	110.72	104.00
1	AA	280	C	N1-C1'-C2'	-6.71	103.93	114.00
7	AG	131	ILE	CA-C-N	6.71	129.95	120.28
7	AG	131	ILE	C-N-CA	6.71	129.95	120.28
26	BB	643	A	C2'-C3'-O3'	6.71	123.77	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	874	G	C4'-C3'-C2'	-6.71	95.89	102.60
26	BB	2153	C	C3'-C2'-C1'	6.71	108.01	101.30
26	BB	2428	G	C3'-C2'-C1'	6.71	108.01	101.30
41	BQ	111	ARG	CA-C-O	-6.71	112.51	120.10
15	AO	92	VAL	CB-CA-C	6.71	119.78	111.25
26	BB	1210	G	C4'-C3'-O3'	6.71	119.47	109.40
26	BB	2479	U	O3'-P-O5'	-6.71	93.93	104.00
26	BB	2523	G	N9-C1'-C2'	-6.71	101.93	112.00
1	AA	295	C	C1'-O4'-C4'	6.71	116.61	109.90
5	AE	236	PHE	CA-C-N	6.71	129.99	120.53
5	AE	236	PHE	C-N-CA	6.71	129.99	120.53
26	BB	1809	A	C3'-C2'-O2'	6.71	120.77	110.70
46	BV	27	SER	CA-C-O	6.71	126.35	119.91
1	AA	374	A	C3'-C2'-O2'	6.71	120.77	110.70
26	BB	840	C	C4'-C3'-C2'	-6.71	95.89	102.60
26	BB	1847	A	C4'-C3'-C2'	-6.71	95.89	102.60
26	BB	2814	A	O4'-C1'-N9	6.71	118.56	108.50
7	AG	176	LYS	O-C-N	6.71	129.40	122.09
15	AO	20	VAL	CA-C-O	-6.71	114.21	119.98
26	BB	748	G	C1'-C2'-O2'	-6.71	98.34	108.40
26	BB	2261	C	C5'-C4'-C3'	-6.71	105.94	116.00
1	AA	519	C	O5'-C5'-C4'	-6.71	101.44	111.50
1	AA	1177	G	O4'-C4'-C3'	6.71	110.71	104.00
26	BB	404	A	C3'-C2'-C1'	6.71	108.21	101.50
3	AC	22	G	C2'-C3'-O3'	6.71	123.76	113.70
26	BB	597	G	O3'-P-O5'	-6.71	93.94	104.00
26	BB	1681	G	C3'-C2'-C1'	-6.71	94.80	101.50
51	B0	5	GLU	N-CA-C	-6.71	103.44	111.69
1	AA	504	C	C3'-C2'-O2'	6.70	120.75	110.70
1	AA	946	A	C4'-C3'-C2'	-6.70	95.90	102.60
1	AA	1146	A	C2'-C3'-O3'	-6.70	103.64	113.70
1	AA	1452	C	C1'-O4'-C4'	6.70	116.40	109.70
1	AA	1458	G	O4'-C4'-C3'	6.70	110.70	104.00
26	BB	542	C	C4'-C3'-C2'	-6.70	95.90	102.60
26	BB	1865	U	O4'-C4'-C3'	6.70	112.80	106.10
26	BB	1899	A	O3'-P-O5'	6.70	114.06	104.00
17	AQ	42	ASN	OD1-CG-ND2	-6.70	115.90	122.60
26	BB	816	C	C1'-C2'-O2'	6.70	118.45	108.40
26	BB	1714	U	O5'-C5'-C4'	6.70	121.55	111.50
38	BN	33	ARG	CA-C-O	-6.70	114.01	121.51
1	AA	1106	G	C3'-C2'-O2'	6.70	120.75	110.70
26	BB	1141	U	O4'-C1'-N1	6.70	118.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1460	U	C1'-C2'-O2'	-6.70	98.35	108.40
26	BB	784	G	O4'-C1'-N9	6.70	118.55	108.50
1	AA	1232	U	O4'-C1'-C2'	-6.70	100.91	107.60
25	BA	86	G	O4'-C4'-C3'	6.70	110.69	104.00
26	BB	1398	C	O4'-C4'-C3'	6.70	110.69	104.00
35	BK	75	ALA	CA-C-N	6.70	129.25	120.28
35	BK	75	ALA	C-N-CA	6.70	129.25	120.28
45	BU	9	HIS	CE1-NE2-CD2	-6.70	102.31	109.00
1	AA	366	A	C3'-C2'-C1'	-6.69	94.61	101.30
1	AA	1031	C	O4'-C1'-N1	6.69	118.54	108.50
1	AA	1083	U	C4'-C3'-C2'	-6.69	95.91	102.60
22	AV	85	ASP	O-C-N	6.69	130.98	123.48
26	BB	173	A	C4'-C3'-C2'	-6.69	95.91	102.60
26	BB	2670	A	C4'-C3'-C2'	-6.69	95.91	102.60
27	BC	67	HIS	O-C-N	-6.69	115.55	122.18
1	AA	757	U	O4'-C1'-N1	6.69	118.53	108.50
1	AA	1401	G	O4'-C1'-C2'	-6.69	100.91	107.60
26	BB	611	C	O4'-C1'-N1	6.69	118.53	108.50
1	AA	1501	C	C5'-C4'-O4'	6.69	119.83	109.80
26	BB	2258	C	O4'-C1'-N1	6.69	118.23	108.20
1	AA	468	A	O4'-C4'-C3'	6.69	110.69	104.00
26	BB	1581	G	O4'-C4'-C3'	6.69	110.69	104.00
9	AI	49	TYR	CA-C-O	-6.69	113.91	120.26
26	BB	2793	C	C3'-C2'-C1'	6.69	107.99	101.30
1	AA	926	G	O3'-P-O5'	6.68	114.03	104.00
1	AA	1152	A	O4'-C1'-N9	6.68	118.53	108.50
26	BB	517	C	C5'-C4'-C3'	-6.68	105.97	116.00
26	BB	568	U	N1-C1'-C2'	6.68	122.03	112.00
26	BB	1544	A	C1'-O4'-C4'	-6.68	103.22	109.90
28	BD	144	GLU	CA-C-O	-6.68	113.34	121.36
1	AA	51	A	P-O3'-C3'	6.68	130.22	120.20
26	BB	763	G	C1'-C2'-O2'	6.68	118.42	108.40
26	BB	1285	A	C5'-C4'-C3'	-6.68	105.97	116.00
26	BB	1937	A	O4'-C4'-C3'	6.68	110.68	104.00
26	BB	2653	U	C2'-C3'-O3'	-6.68	103.68	113.70
26	BB	2751	G	O4'-C1'-N9	6.68	118.22	108.20
25	BA	30	C	C3'-C2'-O2'	6.68	120.72	110.70
26	BB	1259	G	C4'-C3'-C2'	-6.68	95.92	102.60
26	BB	2293	G	C5'-C4'-C3'	-6.68	105.98	116.00
25	BA	104	A	O5'-C5'-C4'	-6.68	101.48	111.50
1	AA	188	C	N1-C1'-C2'	6.68	122.02	112.00
1	AA	1039	G	O4'-C1'-N9	6.68	118.52	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2582	G	C1'-O4'-C4'	-6.68	103.22	109.90
1	AA	51	A	O4'-C4'-C3'	6.67	112.78	106.10
1	AA	1121	U	C5'-C4'-C3'	-6.67	105.99	116.00
26	BB	1675	C	C4'-C3'-C2'	-6.67	95.93	102.60
26	BB	2676	C	C1'-O4'-C4'	-6.67	103.23	109.90
26	BB	463	G	C3'-C2'-C1'	-6.67	94.63	101.30
1	AA	7	A	O4'-C4'-C3'	6.67	110.67	104.00
1	AA	306	A	C2'-C3'-O3'	-6.67	103.69	113.70
26	BB	823	C	C1'-O4'-C4'	-6.67	103.23	109.90
38	BN	140	GLY	CA-C-O	-6.67	114.21	122.82
15	AO	50	LYS	CA-C-N	6.67	133.29	122.69
15	AO	50	LYS	C-N-CA	6.67	133.29	122.69
26	BB	1053	C	C5'-C4'-O4'	6.67	119.81	109.80
1	AA	753	A	C4'-C3'-C2'	-6.67	95.93	102.60
31	BG	39	VAL	CA-C-N	6.67	128.52	121.45
31	BG	39	VAL	C-N-CA	6.67	128.52	121.45
26	BB	140	C	O4'-C1'-N1	6.67	118.20	108.20
27	BC	122	ARG	CA-C-O	-6.67	113.82	120.82
1	AA	642	A	C3'-C2'-C1'	-6.66	94.64	101.30
5	AE	138	ARG	CA-C-N	6.66	130.44	120.31
5	AE	138	ARG	C-N-CA	6.66	130.44	120.31
8	AH	19	ARG	CD-NE-CZ	6.66	133.73	124.40
26	BB	829	A	C3'-C2'-C1'	6.66	108.16	101.50
26	BB	2310	C	C4'-C3'-O3'	-6.66	103.01	113.00
35	BK	61	TYR	O-C-N	6.66	130.48	122.68
1	AA	299	G	C4'-C3'-C2'	-6.66	95.94	102.60
26	BB	1768	C	C1'-O4'-C4'	-6.66	103.24	109.90
13	AM	14	ASP	CA-C-N	6.66	130.43	120.31
13	AM	14	ASP	C-N-CA	6.66	130.43	120.31
26	BB	684	G	C3'-C2'-C1'	-6.66	94.64	101.30
26	BB	717	C	C3'-C2'-C1'	6.66	107.96	101.30
26	BB	46	G	C4'-C3'-C2'	-6.66	95.94	102.60
26	BB	989	G	O4'-C4'-C3'	6.66	112.76	106.10
1	AA	1238	A	C1'-O4'-C4'	-6.66	103.25	109.90
4	AD	75	C	C1'-O4'-C4'	-6.66	103.04	109.70
26	BB	182	A	O4'-C4'-C3'	6.65	110.65	104.00
26	BB	2440	C	C3'-C2'-C1'	-6.65	94.65	101.30
2	AB	47	U	C1'-C2'-O2'	6.65	121.78	111.80
11	AK	57	GLU	CA-C-N	6.65	132.18	123.00
11	AK	57	GLU	C-N-CA	6.65	132.18	123.00
26	BB	967	U	C4'-C3'-O3'	-6.65	103.02	113.00
26	BB	1692	U	C4'-C3'-C2'	-6.65	95.95	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1858	A	C4'-C3'-C2'	-6.65	95.95	102.60
26	BB	2850	A	O5'-C5'-C4'	-6.65	101.52	111.50
44	BT	96	VAL	O-C-N	6.65	130.01	123.03
1	AA	733	G	P-O3'-C3'	6.65	130.17	120.20
25	BA	14	U	O4'-C4'-C3'	6.65	112.75	106.10
25	BA	68	C	C5'-C4'-C3'	6.65	125.97	116.00
26	BB	1430	G	C4'-C3'-C2'	-6.65	95.95	102.60
26	BB	1460	U	C4'-C3'-C2'	-6.65	95.95	102.60
2	AB	21	A	C1'-O4'-C4'	6.65	116.55	109.90
26	BB	219	A	C4'-C3'-C2'	-6.65	95.95	102.60
26	BB	1890	A	C2'-C3'-O3'	-6.65	103.73	113.70
26	BB	2153	C	O4'-C1'-N1	6.65	118.47	108.50
43	BS	66	ALA	CA-C-N	6.65	129.51	120.54
43	BS	66	ALA	C-N-CA	6.65	129.51	120.54
5	AE	222	GLU	CA-C-N	6.65	127.32	119.94
5	AE	222	GLU	C-N-CA	6.65	127.32	119.94
1	AA	618	C	O4'-C4'-C3'	-6.64	97.36	104.00
12	AL	118	ARG	N-CA-C	-6.64	104.88	114.12
23	AW	17	ARG	CD-NE-CZ	6.64	133.70	124.40
26	BB	46	G	C1'-O4'-C4'	-6.64	103.25	109.90
26	BB	665	U	O4'-C4'-C3'	6.64	110.64	104.00
26	BB	1712	U	O4'-C1'-N1	6.64	118.47	108.50
26	BB	2760	C	C4'-C3'-C2'	-6.64	95.95	102.60
51	B0	20	ASN	CA-CB-CG	6.64	119.25	112.60
1	AA	1087	G	C4'-C3'-O3'	-6.64	103.04	113.00
8	AH	77	ASN	OD1-CG-ND2	-6.64	115.96	122.60
26	BB	1364	G	C1'-O4'-C4'	6.64	116.54	109.90
26	BB	1891	G	O4'-C1'-C2'	6.64	114.24	107.60
26	BB	2120	G	O3'-P-O5'	-6.64	94.04	104.00
26	BB	2146	C	C1'-C2'-O2'	-6.64	101.84	111.80
26	BB	2204	G	N9-C1'-C2'	6.64	121.96	112.00
27	BC	203	GLN	CA-C-O	6.64	125.82	118.52
1	AA	749	A	C5'-C4'-C3'	-6.64	106.05	116.00
1	AA	1069	C	C1'-C2'-O2'	-6.64	98.44	108.40
1	AA	1465	A	C3'-C2'-C1'	-6.64	94.66	101.30
3	AC	35	G	O4'-C1'-C2'	-6.64	100.96	107.60
26	BB	731	C	O4'-C4'-C3'	6.64	110.64	104.00
33	BI	52	ALA	CA-C-N	6.64	129.07	120.44
33	BI	52	ALA	C-N-CA	6.64	129.07	120.44
42	BR	91	VAL	CA-CB-CG1	6.64	121.68	110.40
3	AC	39	U	P-O3'-C3'	6.63	130.15	120.20
4	AD	16	C	O4'-C1'-C2'	-6.63	99.17	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	135	ARG	NE-CZ-NH2	-6.63	113.23	119.20
26	BB	477	A	O4'-C4'-C3'	6.63	110.64	104.00
32	BH	73	SER	CA-C-N	6.63	129.71	120.29
32	BH	73	SER	C-N-CA	6.63	129.71	120.29
37	BM	109	SER	CA-C-N	6.63	129.47	120.38
37	BM	109	SER	C-N-CA	6.63	129.47	120.38
1	AA	475	C	C1'-C2'-O2'	-6.63	98.45	108.40
1	AA	696	A	O4'-C1'-C2'	6.63	114.23	107.60
1	AA	764	C	O4'-C1'-N1	6.63	118.45	108.50
10	AJ	129	ASN	CB-CA-C	6.63	120.31	111.82
26	BB	846	U	O4'-C1'-N1	6.63	118.45	108.50
26	BB	1726	C	O4'-C1'-N1	6.63	118.45	108.50
26	BB	2493	U	O3'-P-O5'	-6.63	94.05	104.00
57	B6	3	ILE	CB-CA-C	6.63	120.67	111.19
1	AA	661	G	O4'-C1'-C2'	-6.63	100.97	107.60
26	BB	2386	A	C4'-C3'-O3'	-6.63	103.06	113.00
1	AA	653	U	C2'-C3'-O3'	6.63	119.44	109.50
7	AG	118	SER	CA-C-O	-6.63	113.47	120.63
26	BB	664	G	C3'-C2'-O2'	6.63	120.64	110.70
26	BB	1752	C	C4'-C3'-C2'	-6.63	95.97	102.60
34	BJ	26	VAL	N-CA-CB	-6.63	103.02	111.64
48	BX	20	LEU	CA-C-N	6.63	131.79	120.72
48	BX	20	LEU	C-N-CA	6.63	131.79	120.72
26	BB	926	G	C3'-C2'-C1'	-6.63	94.67	101.30
26	BB	1976	U	O4'-C1'-C2'	-6.63	100.97	107.60
27	BC	56	ASP	N-CA-C	6.63	118.50	111.28
30	BF	111	GLU	N-CA-C	6.63	119.33	111.71
50	BZ	66	VAL	CA-C-N	6.63	129.16	120.28
50	BZ	66	VAL	C-N-CA	6.63	129.16	120.28
30	BF	78	TRP	CA-C-N	6.62	129.16	120.28
30	BF	78	TRP	C-N-CA	6.62	129.16	120.28
1	AA	728	A	O4'-C4'-C3'	6.62	110.62	104.00
32	BH	128	THR	CA-CB-OG1	6.62	119.54	109.60
34	BJ	23	SER	N-CA-CB	6.62	122.99	111.00
1	AA	476	U	O5'-C5'-C4'	-6.62	101.57	111.50
26	BB	1721	G	C1'-O4'-C4'	-6.62	103.08	109.70
26	BB	2287	A	C2'-C3'-O3'	6.62	119.43	109.50
1	AA	512	U	O4'-C1'-N1	6.62	118.43	108.50
1	AA	1511	G	O4'-C4'-C3'	-6.62	97.38	104.00
2	AB	58	A	C5'-C4'-O4'	6.62	119.73	109.80
50	BZ	19	HIS	CB-CG-CD2	-6.62	122.60	131.20
5	AE	27	LYS	CA-C-N	6.62	126.39	119.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	27	LYS	C-N-CA	6.62	126.39	119.05
26	BB	1704	C	C5'-C4'-C3'	-6.62	106.08	116.00
35	BK	23	VAL	CA-CB-CG1	6.62	121.64	110.40
1	AA	1463	U	N1-C1'-C2'	-6.61	102.08	112.00
26	BB	84	A	C4'-C3'-C2'	6.61	109.21	102.60
26	BB	151	C	C1'-O4'-C4'	6.61	116.51	109.90
26	BB	570	G	O4'-C1'-C2'	-6.61	100.99	107.60
26	BB	1048	A	O3'-P-O5'	-6.61	94.08	104.00
26	BB	1267	U	O4'-C1'-N1	6.61	118.42	108.50
57	B6	33	THR	CA-CB-CG2	6.61	121.74	110.50
26	BB	2261	C	C5'-C4'-O4'	6.61	119.72	109.80
26	BB	848	C	P-O5'-C5'	-6.61	110.98	120.90
30	BF	98	LYS	O-C-N	6.61	129.13	122.12
26	BB	835	C	O4'-C1'-N1	6.61	118.41	108.50
1	AA	621	A	O4'-C1'-C2'	-6.61	100.99	107.60
1	AA	828	U	C3'-C2'-C1'	6.61	107.91	101.30
1	AA	1239	A	P-O3'-C3'	6.61	130.11	120.20
1	AA	1422	G	C3'-C2'-C1'	-6.61	94.69	101.30
19	AS	44	SER	CA-C-O	6.61	128.35	121.28
26	BB	1518	C	O4'-C1'-N1	6.61	118.41	108.50
1	AA	789	U	O4'-C1'-C2'	-6.61	101.00	107.60
12	AL	30	ASN	OD1-CG-ND2	-6.61	115.99	122.60
26	BB	741	U	C1'-C2'-O2'	6.61	118.31	108.40
26	BB	2725	A	O4'-C4'-C3'	6.61	112.70	106.10
35	BK	41	PHE	CA-C-O	-6.61	112.91	120.24
26	BB	888	C	O4'-C1'-C2'	-6.60	101.00	107.60
26	BB	1057	A	N9-C1'-C2'	6.60	121.91	112.00
4	AD	22	A	P-O5'-C5'	6.60	130.80	120.90
26	BB	489	G	C4'-C3'-C2'	-6.60	96.00	102.60
26	BB	1592	C	O4'-C1'-C2'	-6.60	101.00	107.60
54	B3	4	GLN	N-CA-C	-6.60	106.43	114.75
1	AA	266	G	O3'-P-O5'	6.60	113.90	104.00
26	BB	2239	G	C3'-C2'-C1'	-6.60	94.70	101.30
26	BB	2428	G	O4'-C4'-C3'	6.60	110.60	104.00
1	AA	910	C	O3'-P-O5'	6.60	113.90	104.00
26	BB	573	U	C1'-C2'-O2'	6.60	121.70	111.80
46	BV	13	ALA	N-CA-C	6.60	115.73	108.14
1	AA	1082	A	C4'-C3'-C2'	-6.60	96.00	102.60
26	BB	305	C	C5'-C4'-C3'	-6.60	106.10	116.00
26	BB	1446	C	P-O3'-C3'	6.60	130.10	120.20
36	BL	136	GLN	CA-C-N	6.60	128.09	119.84
36	BL	136	GLN	C-N-CA	6.60	128.09	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1116	U	C3'-C2'-C1'	6.60	107.90	101.30
28	BD	19	VAL	N-CA-CB	-6.60	104.82	112.34
1	AA	587	G	C1'-C2'-O2'	6.59	121.69	111.80
1	AA	912	C	O4'-C1'-N1	6.59	118.39	108.50
12	AL	2	GLU	CB-CG-CD	-6.59	101.39	112.60
18	AR	59	VAL	CA-C-N	6.59	129.12	120.28
18	AR	59	VAL	C-N-CA	6.59	129.12	120.28
26	BB	71	A	C1'-O4'-C4'	-6.59	103.11	109.70
26	BB	995	C	C1'-C2'-O2'	6.59	121.69	111.80
1	AA	169	C	C5'-C4'-C3'	-6.59	106.11	116.00
26	BB	1017	G	C4'-C3'-C2'	-6.59	96.01	102.60
6	AF	26	LYS	CA-C-O	-6.59	110.67	119.11
26	BB	2512	C	C5'-C4'-C3'	6.59	125.89	116.00
1	AA	606	G	C1'-O4'-C4'	6.59	116.49	109.90
26	BB	2114	A	O4'-C4'-C3'	6.59	110.59	104.00
28	BD	62	ARG	NE-CZ-NH2	-6.59	113.27	119.20
30	BF	177	PRO	N-CA-CB	6.59	109.59	103.46
34	BJ	19	LYS	CA-C-N	6.59	128.59	120.22
34	BJ	19	LYS	C-N-CA	6.59	128.59	120.22
1	AA	961	U	O4'-C1'-C2'	-6.59	101.01	107.60
10	AJ	159	ARG	NE-CZ-NH2	6.59	125.13	119.20
26	BB	1982	U	O4'-C1'-N1	6.59	118.38	108.50
26	BB	2687	U	C5'-C4'-O4'	6.59	119.68	109.80
12	AL	121	ARG	O-C-N	6.59	128.91	121.93
26	BB	1578	U	P-O5'-C5'	6.59	130.78	120.90
26	BB	1966	A	C1'-O4'-C4'	-6.59	103.31	109.90
29	BE	99	GLU	N-CA-C	6.59	120.18	111.75
25	BA	55	U	C5'-C4'-O4'	6.58	119.68	109.80
26	BB	2060	A	O4'-C4'-C3'	6.58	112.69	106.10
1	AA	49	U	C4'-C3'-C2'	-6.58	96.02	102.60
1	AA	764	C	C1'-O4'-C4'	-6.58	103.32	109.90
26	BB	382	A	C3'-C2'-C1'	6.58	107.88	101.30
26	BB	734	A	N9-C1'-C2'	6.58	121.88	112.00
26	BB	513	A	O4'-C4'-C3'	6.58	110.58	104.00
1	AA	135	C	O4'-C1'-C2'	6.58	114.18	107.60
1	AA	157	U	O3'-P-O5'	-6.58	94.13	104.00
1	AA	812	G	C5'-C4'-C3'	-6.58	106.13	116.00
2	AB	22	G	C4'-C3'-O3'	6.58	122.87	113.00
43	BS	48	ASP	CA-CB-CG	-6.58	106.02	112.60
26	BB	408	G	C4'-C3'-C2'	-6.58	96.02	102.60
26	BB	1634	A	O4'-C1'-C2'	6.58	112.38	105.80
26	BB	1328	A	O4'-C4'-C3'	6.58	110.58	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2604	U	C5'-C4'-O4'	6.58	119.67	109.80
26	BB	2804	U	O4'-C1'-N1	6.58	118.37	108.50
1	AA	761	G	C4'-C3'-C2'	-6.58	96.03	102.60
1	AA	958	A	O4'-C4'-C3'	6.58	110.58	104.00
1	AA	1363	A	C1'-C2'-O2'	6.58	121.66	111.80
26	BB	1609	A	O4'-C4'-C3'	6.58	110.58	104.00
26	BB	1818	U	O4'-C1'-N1	6.58	118.36	108.50
48	BX	80	HIS	CB-CG-CD2	-6.58	122.65	131.20
26	BB	258	G	C4'-C3'-C2'	-6.57	96.03	102.60
26	BB	1725	U	C3'-C2'-C1'	6.57	107.87	101.30
26	BB	1782	U	O4'-C4'-C3'	6.57	110.57	104.00
37	BM	70	ARG	NH1-CZ-NH2	6.57	127.84	119.30
47	BW	73	ASN	CA-CB-CG	6.57	119.17	112.60
53	B2	65	ASN	OD1-CG-ND2	6.57	129.17	122.60
1	AA	787	A	C4'-C3'-O3'	6.57	122.86	113.00
26	BB	1998	A	C5'-C4'-O4'	6.57	119.66	109.80
26	BB	2423	U	P-O5'-C5'	6.57	130.76	120.90
1	AA	1388	C	O4'-C1'-N1	6.57	118.35	108.50
13	AM	20	GLN	CA-C-O	-6.57	113.45	120.42
26	BB	301	G	C2'-C3'-O3'	6.57	119.36	109.50
26	BB	569	U	O4'-C1'-C2'	-6.57	99.23	105.80
26	BB	2322	A	O4'-C1'-C2'	-6.57	101.03	107.60
1	AA	1030	U	C3'-C2'-C1'	-6.57	94.93	101.50
54	B3	14	MET	N-CA-C	6.57	118.52	111.36
1	AA	1345	U	C4'-C3'-C2'	6.57	109.17	102.60
1	AA	1455	G	O3'-P-O5'	-6.57	94.15	104.00
39	BO	13	HIS	CA-CB-CG	6.57	120.36	113.80
26	BB	2393	U	C5'-C4'-C3'	-6.56	106.16	116.00
46	BV	32	LEU	CA-C-O	6.56	128.67	121.06
26	BB	93	G	C4'-C3'-C2'	-6.56	96.04	102.60
26	BB	1976	U	C3'-C2'-C1'	6.56	107.86	101.30
26	BB	311	A	N9-C1'-C2'	-6.56	104.16	114.00
33	BI	103	VAL	N-CA-CB	-6.56	105.70	112.06
38	BN	73	ILE	CA-C-O	-6.56	114.34	119.46
39	BO	8	LYS	CA-C-N	6.56	132.84	122.21
39	BO	8	LYS	C-N-CA	6.56	132.84	122.21
3	AC	19	A	C4'-C3'-C2'	-6.56	96.04	102.60
4	AD	22	A	P-O3'-C3'	6.56	130.03	120.20
10	AJ	137	ARG	CA-C-O	-6.56	113.94	120.82
26	BB	1725	U	C4'-C3'-C2'	-6.56	96.04	102.60
44	BT	49	ILE	N-CA-C	6.56	118.56	109.45
1	AA	1214	C	C2'-C3'-O3'	6.56	119.33	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	AG	65	GLY	CA-C-N	6.56	131.10	122.51
7	AG	65	GLY	C-N-CA	6.56	131.10	122.51
26	BB	1250	G	C3'-C2'-C1'	6.56	108.06	101.50
26	BB	2293	G	C3'-C2'-C1'	6.56	107.86	101.30
1	AA	405	U	O4'-C1'-N1	6.55	118.33	108.50
26	BB	2468	A	O4'-C4'-C3'	6.55	112.66	106.10
8	AH	120	HIS	CB-CG-CD2	-6.55	122.68	131.20
9	AI	55	HIS	CB-CG-CD2	-6.55	122.68	131.20
1	AA	135	C	C5'-C4'-C3'	-6.55	106.17	116.00
27	BC	67	HIS	CA-CB-CG	6.55	120.35	113.80
2	AB	34	C	O4'-C1'-C2'	-6.55	101.05	107.60
10	AJ	109	LYS	CA-C-N	6.55	130.26	120.31
10	AJ	109	LYS	C-N-CA	6.55	130.26	120.31
26	BB	1673	G	O4'-C4'-C3'	6.55	110.55	104.00
26	BB	2019	A	N9-C1'-C2'	-6.55	102.18	112.00
27	BC	75	VAL	CA-C-O	6.55	128.11	120.71
36	BL	22	GLY	CA-C-N	6.55	130.87	121.50
36	BL	22	GLY	C-N-CA	6.55	130.87	121.50
45	BU	75	PHE	O-C-N	6.55	130.72	123.25
26	BB	493	G	C1'-O4'-C4'	-6.55	103.35	109.90
26	BB	2243	U	C5'-C4'-C3'	-6.55	106.18	116.00
1	AA	930	C	O4'-C1'-N1	6.55	118.32	108.50
1	AA	1290	G	O4'-C1'-C2'	-6.55	101.05	107.60
3	AC	50	U	O4'-C1'-C2'	-6.55	101.05	107.60
8	AH	132	PRO	N-CA-C	6.55	123.30	113.81
26	BB	239	C	O4'-C4'-C3'	6.55	110.55	104.00
26	BB	603	A	C5'-C4'-C3'	-6.55	105.38	115.20
26	BB	817	C	C4'-C3'-O3'	6.55	122.82	113.00
26	BB	1108	U	O4'-C1'-N1	6.55	118.32	108.50
26	BB	1723	G	C3'-C2'-C1'	-6.55	94.75	101.30
1	AA	506	G	C3'-C2'-O2'	6.54	120.52	110.70
26	BB	377	G	O3'-P-O5'	6.54	113.81	104.00
8	AH	59	ILE	CB-CA-C	6.54	120.97	112.14
26	BB	81	G	O4'-C1'-N9	6.54	118.31	108.50
26	BB	118	A	O4'-C1'-N9	6.54	118.31	108.50
26	BB	644	A	C4'-C3'-C2'	-6.54	96.06	102.60
26	BB	1046	A	O4'-C1'-N9	6.54	118.01	108.20
26	BB	1660	G	C3'-C2'-O2'	6.54	120.51	110.70
26	BB	2632	A	O4'-C1'-C2'	6.54	114.14	107.60
8	AH	59	ILE	O-C-N	6.54	128.21	121.87
26	BB	977	G	C3'-C2'-C1'	6.54	107.84	101.30
26	BB	686	U	O4'-C1'-N1	6.54	118.00	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	996	A	C4'-C3'-C2'	6.54	109.14	102.60
1	AA	702	A	O3'-P-O5'	6.54	113.80	104.00
26	BB	430	A	P-O3'-C3'	6.54	130.00	120.20
26	BB	1659	G	C4'-C3'-C2'	-6.54	96.06	102.60
1	AA	461	A	C4'-C3'-C2'	-6.53	96.07	102.60
1	AA	1401	G	C5'-C4'-O4'	6.53	119.60	109.80
12	AL	27	ILE	O-C-N	6.53	130.09	123.10
26	BB	399	U	O4'-C1'-N1	6.53	118.30	108.50
26	BB	1107	G	C2'-C3'-O3'	-6.53	103.90	113.70
26	BB	1628	G	C5'-C4'-C3'	-6.53	106.20	116.00
38	BN	7	SER	CA-C-N	6.53	128.01	119.84
38	BN	7	SER	C-N-CA	6.53	128.01	119.84
1	AA	216	U	C3'-C2'-O2'	6.53	120.50	110.70
26	BB	217	A	O4'-C4'-C3'	6.53	110.53	104.00
26	BB	829	A	C4'-C3'-C2'	-6.53	96.07	102.60
26	BB	983	A	C4'-C3'-C2'	-6.53	96.07	102.60
26	BB	1875	G	C4'-C3'-C2'	-6.53	96.07	102.60
28	BD	145	MET	N-CA-C	-6.53	103.66	111.69
26	BB	274	C	C5'-C4'-C3'	-6.53	106.21	116.00
26	BB	1326	U	O4'-C4'-C3'	-6.53	97.47	104.00
1	AA	739	C	C5'-C4'-C3'	-6.53	106.21	116.00
26	BB	211	C	C4'-C3'-C2'	-6.53	96.07	102.60
26	BB	498	G	O4'-C1'-N9	6.53	118.29	108.50
1	AA	955	U	C4'-C3'-C2'	-6.53	96.08	102.60
26	BB	211	C	O4'-C1'-C2'	-6.53	101.08	107.60
26	BB	502	A	C1'-O4'-C4'	6.53	116.42	109.90
26	BB	665	U	C3'-C2'-C1'	6.53	107.83	101.30
1	AA	1538	C	P-O3'-C3'	6.52	129.99	120.20
26	BB	423	A	C3'-C2'-C1'	-6.52	94.78	101.30
26	BB	2117	A	O4'-C4'-C3'	6.52	110.52	104.00
26	BB	2621	G	C3'-C2'-C1'	-6.52	94.78	101.30
1	AA	1441	A	C4'-C3'-C2'	-6.52	96.08	102.60
20	AT	22	VAL	CA-CB-CG2	6.52	121.49	110.40
25	BA	118	C	C2'-C3'-O3'	6.52	123.48	113.70
26	BB	1242	U	O3'-P-O5'	-6.52	94.22	104.00
26	BB	2553	G	C2'-C3'-O3'	-6.52	103.92	113.70
26	BB	2554	U	O3'-P-O5'	6.52	113.78	104.00
57	B6	24	LYS	CA-C-N	6.52	129.97	120.71
57	B6	24	LYS	C-N-CA	6.52	129.97	120.71
26	BB	931	U	O3'-P-O5'	-6.52	94.22	104.00
26	BB	1843	C	O4'-C4'-C3'	-6.52	97.48	104.00
1	AA	692	U	C5'-C4'-O4'	6.52	119.58	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1171	A	C4'-C3'-C2'	6.52	109.12	102.60
8	AH	134	ASN	CA-CB-CG	-6.52	106.08	112.60
26	BB	947	A	O4'-C1'-C2'	-6.52	101.08	107.60
1	AA	129	A	C2'-C3'-O3'	6.52	119.28	109.50
26	BB	1834	U	O4'-C1'-C2'	-6.52	101.08	107.60
26	BB	2214	C	O4'-C1'-N1	6.52	118.28	108.50
29	BE	172	VAL	N-CA-C	-6.52	106.33	113.43
43	BS	49	ARG	NE-CZ-NH2	6.52	125.06	119.20
1	AA	511	C	O3'-P-O5'	-6.52	94.23	104.00
26	BB	149	A	C4'-C3'-C2'	-6.52	96.08	102.60
26	BB	2694	G	C3'-C2'-O2'	6.52	120.47	110.70
1	AA	971	G	O4'-C4'-C3'	6.51	112.61	106.10
26	BB	898	C	C4'-C3'-C2'	-6.51	96.09	102.60
26	BB	1329	U	C2'-C3'-O3'	6.51	119.27	109.50
26	BB	2671	G	O4'-C1'-N9	6.51	118.27	108.50
33	BI	118	PRO	CA-C-N	6.51	133.76	122.82
33	BI	118	PRO	C-N-CA	6.51	133.76	122.82
26	BB	1425	G	C4'-C3'-O3'	6.51	122.77	113.00
48	BX	84	PRO	O-C-N	6.51	131.29	122.37
1	AA	466	A	C4'-C3'-C2'	-6.51	96.09	102.60
25	BA	39	A	C5'-C4'-C3'	-6.51	106.23	116.00
26	BB	1085	A	C5'-C4'-C3'	-6.51	106.23	116.00
27	BC	152	ALA	N-CA-C	6.51	118.38	111.28
26	BB	2890	G	C4'-C3'-C2'	-6.51	96.09	102.60
1	AA	1051	C	O4'-C1'-C2'	-6.51	101.09	107.60
26	BB	2156	G	O4'-C4'-C3'	6.51	110.51	104.00
1	AA	59	A	C4'-C3'-O3'	6.51	119.16	109.40
1	AA	893	C	C5'-C4'-O4'	6.51	119.56	109.80
1	AA	1129	C	C5'-C4'-C3'	6.51	124.96	115.20
1	AA	1154	G	O4'-C4'-C3'	-6.51	97.49	104.00
1	AA	1362	A	C3'-C2'-C1'	6.51	107.81	101.30
1	AA	1374	A	C4'-C3'-C2'	-6.51	96.09	102.60
26	BB	87	U	C3'-C2'-O2'	6.51	120.46	110.70
26	BB	295	G	O4'-C1'-N9	6.51	118.26	108.50
26	BB	1148	U	C2'-C3'-O3'	-6.51	103.94	113.70
32	BH	10	VAL	CA-C-N	6.51	127.40	120.11
32	BH	10	VAL	C-N-CA	6.51	127.40	120.11
1	AA	1322	C	P-O3'-C3'	6.50	129.96	120.20
26	BB	104	A	C4'-C3'-C2'	-6.50	96.09	102.60
26	BB	1910	G	O4'-C4'-C3'	6.50	110.50	104.00
30	BF	49	ARG	NE-CZ-NH2	6.50	125.05	119.20
32	BH	59	ASP	CA-C-N	6.50	126.16	119.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BH	59	ASP	C-N-CA	6.50	126.16	119.92
25	BA	89	U	O3'-P-O5'	-6.50	94.24	104.00
26	BB	2286	G	O4'-C4'-C3'	6.50	112.60	106.10
28	BD	24	HIS	CB-CG-CD2	-6.50	122.75	131.20
35	BK	62	ALA	CA-C-N	6.50	132.74	122.60
35	BK	62	ALA	C-N-CA	6.50	132.74	122.60
37	BM	13	ASN	CA-C-N	6.50	133.96	121.54
37	BM	13	ASN	C-N-CA	6.50	133.96	121.54
1	AA	1374	A	N9-C1'-C2'	-6.50	102.25	112.00
5	AE	154	GLY	N-CA-C	6.50	121.61	114.40
6	AF	21	TRP	CA-CB-CG	6.50	125.95	113.60
26	BB	1370	C	O4'-C4'-C3'	6.50	110.50	104.00
26	BB	2192	U	O4'-C1'-N1	6.50	118.25	108.50
1	AA	13	U	C4'-C3'-O3'	-6.50	99.66	109.40
1	AA	277	C	O4'-C1'-N1	6.50	118.25	108.50
1	AA	961	U	C1'-O4'-C4'	6.50	116.40	109.90
5	AE	95	TRP	N-CA-C	6.50	119.66	110.50
38	BN	5	THR	CA-CB-CG2	6.50	121.54	110.50
1	AA	272	C	P-O3'-C3'	6.49	129.94	120.20
1	AA	1023	U	O4'-C4'-C3'	-6.49	97.51	104.00
1	AA	1074	G	C4'-C3'-C2'	-6.49	96.11	102.60
2	AB	35	C	C1'-O4'-C4'	6.49	116.39	109.90
14	AN	45	THR	N-CA-C	6.49	118.81	109.14
18	AR	53	ARG	NE-CZ-NH2	-6.49	113.36	119.20
26	BB	472	A	C5'-C4'-O4'	6.49	119.54	109.80
26	BB	1326	U	C3'-C2'-O2'	6.49	120.44	110.70
26	BB	1646	C	C4'-C3'-C2'	-6.49	96.11	102.60
18	AR	19	ASN	CA-C-N	6.49	132.15	123.00
18	AR	19	ASN	C-N-CA	6.49	132.15	123.00
26	BB	228	C	O4'-C1'-C2'	-6.49	99.31	105.80
26	BB	2567	G	C5'-C4'-O4'	6.49	119.54	109.80
39	BO	76	LYS	CB-CA-C	6.49	117.37	110.17
1	AA	919	A	O4'-C1'-N9	6.49	118.23	108.50
26	BB	1078	U	O4'-C1'-N1	6.49	117.93	108.20
26	BB	1519	G	C4'-C3'-C2'	-6.49	96.11	102.60
1	AA	264	C	O5'-C5'-C4'	6.49	121.23	111.50
26	BB	1727	C	C1'-O4'-C4'	-6.49	103.41	109.90
26	BB	2841	C	O4'-C4'-C3'	6.49	110.49	104.00
26	BB	2886	A	C1'-O4'-C4'	-6.49	103.42	109.90
39	BO	18	ARG	CD-NE-CZ	6.49	133.48	124.40
1	AA	524	G	C1'-C2'-O2'	-6.48	98.67	108.40
26	BB	473	G	C4'-C3'-C2'	-6.48	96.12	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2090	A	C1'-C2'-O2'	6.48	118.13	108.40
26	BB	2604	U	O5'-C5'-C4'	-6.48	101.77	111.50
1	AA	485	U	O4'-C1'-N1	6.48	117.92	108.20
23	AW	75	LYS	CA-C-N	6.48	128.87	120.44
23	AW	75	LYS	C-N-CA	6.48	128.87	120.44
26	BB	1878	G	C5'-C4'-O4'	6.48	119.52	109.80
30	BF	116	ASP	CB-CA-C	6.48	120.44	111.63
33	BI	112	LYS	O-C-N	-6.48	116.69	123.56
26	BB	1125	G	C3'-C2'-C1'	-6.48	94.82	101.30
26	BB	2435	A	O4'-C1'-N9	6.48	118.22	108.50
26	BB	1934	C	O5'-C5'-C4'	6.48	121.22	111.50
26	BB	2021	C	O4'-C1'-N1	6.48	118.22	108.50
34	BJ	128	LEU	CA-C-N	6.48	126.39	119.85
34	BJ	128	LEU	C-N-CA	6.48	126.39	119.85
1	AA	1313	U	C2'-C3'-O3'	6.48	123.42	113.70
26	BB	913	U	O4'-C1'-N1	6.48	117.92	108.20
26	BB	1353	A	C5'-C4'-O4'	6.48	119.52	109.80
26	BB	1460	U	O3'-P-O5'	6.48	113.72	104.00
26	BB	1658	C	C4'-C3'-C2'	-6.48	96.12	102.60
26	BB	1905	C	C4'-C3'-C2'	-6.48	96.12	102.60
26	BB	1957	C	C1'-C2'-O2'	6.48	118.12	108.40
26	BB	1960	A	C2'-C3'-O3'	-6.48	103.98	113.70
26	BB	2070	A	O5'-C5'-C4'	6.48	121.22	111.50
26	BB	2114	A	C4'-C3'-C2'	-6.48	96.12	102.60
26	BB	2134	A	O4'-C1'-C2'	-6.48	101.12	107.60
26	BB	2574	G	C5'-C4'-O4'	-6.48	100.08	109.80
26	BB	2589	A	C4'-C3'-C2'	-6.48	96.12	102.60
1	AA	293	G	C5'-C4'-C3'	-6.47	106.29	116.00
1	AA	857	C	C3'-C2'-O2'	6.47	120.41	110.70
26	BB	1338	G	C2'-C3'-O3'	6.47	123.41	113.70
1	AA	187	G	O4'-C1'-C2'	-6.47	101.13	107.60
16	AP	11	HIS	CB-CG-CD2	-6.47	122.79	131.20
26	BB	1794	A	O4'-C1'-C2'	-6.47	101.13	107.60
45	BU	91	GLY	CA-C-N	6.47	130.30	121.05
45	BU	91	GLY	C-N-CA	6.47	130.30	121.05
34	BJ	56	ASN	CA-C-N	6.47	128.95	120.28
34	BJ	56	ASN	C-N-CA	6.47	128.95	120.28
1	AA	775	G	O4'-C4'-C3'	6.47	110.47	104.00
26	BB	15	G	C5'-C4'-O4'	-6.47	100.10	109.80
26	BB	2344	U	C4'-C3'-O3'	6.47	119.10	109.40
26	BB	2769	U	C4'-C3'-C2'	-6.47	96.13	102.60
5	AE	139	GLU	CA-C-N	6.47	128.85	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	139	GLU	C-N-CA	6.47	128.85	120.44
25	BA	75	G	N9-C1'-C2'	6.47	121.70	112.00
1	AA	626	G	C1'-C2'-O2'	6.47	118.10	108.40
6	AF	71	ARG	CA-C-O	6.47	125.60	119.13
17	AQ	15	LEU	CA-C-N	6.47	129.27	120.54
17	AQ	15	LEU	C-N-CA	6.47	129.27	120.54
26	BB	2277	G	C5'-C4'-C3'	-6.47	106.30	116.00
26	BB	2375	G	O4'-C1'-N9	6.47	118.20	108.50
41	BQ	87	ILE	O-C-N	6.47	129.73	122.68
49	BY	2	HIS	CA-CB-CG	6.47	120.27	113.80
1	AA	724	G	C5'-C4'-C3'	-6.46	106.30	116.00
1	AA	1321	U	P-O3'-C3'	6.46	129.90	120.20
11	AK	118	ALA	N-CA-C	6.46	119.32	111.82
26	BB	1041	G	C4'-C3'-C2'	-6.46	96.14	102.60
29	BE	119	ALA	CA-C-N	6.46	134.08	121.41
29	BE	119	ALA	C-N-CA	6.46	134.08	121.41
26	BB	743	A	C1'-C2'-O2'	6.46	118.09	108.40
26	BB	1051	G	O3'-P-O5'	-6.46	94.31	104.00
26	BB	2867	G	P-O3'-C3'	6.46	129.89	120.20
38	BN	3	LEU	CA-C-O	-6.46	113.72	120.70
1	AA	220	G	C3'-C2'-O2'	6.46	120.39	110.70
1	AA	726	C	O4'-C1'-N1	6.46	118.19	108.50
26	BB	144	A	C4'-C3'-O3'	-6.46	103.31	113.00
1	AA	1465	A	C1'-O4'-C4'	-6.46	103.44	109.90
1	AA	1476	A	C2'-C3'-O3'	6.46	123.39	113.70
26	BB	539	G	O4'-C1'-N9	6.46	118.19	108.50
26	BB	1313	U	N1-C1'-C2'	6.46	121.69	112.00
26	BB	1354	A	C3'-C2'-C1'	-6.46	94.84	101.30
26	BB	2049	G	O4'-C1'-N9	6.46	118.19	108.50
1	AA	962	C	C1'-O4'-C4'	-6.46	103.44	109.90
1	AA	978	A	O5'-C5'-C4'	6.46	121.18	111.50
26	BB	644	A	O3'-P-O5'	6.46	113.68	104.00
26	BB	1342	A	C5'-C4'-C3'	-6.46	105.52	115.20
26	BB	1585	C	O4'-C4'-C3'	6.46	110.46	104.00
26	BB	2655	G	C4'-C3'-C2'	6.46	109.06	102.60
45	BU	48	LYS	N-CA-C	6.46	117.98	111.07
1	AA	353	A	O4'-C1'-N9	6.45	118.18	108.50
8	AH	150	GLU	O-C-N	6.45	131.17	122.59
26	BB	1096	A	O3'-P-O5'	-6.45	94.32	104.00
26	BB	1753	G	C1'-O4'-C4'	-6.45	103.45	109.90
26	BB	1895	C	P-O3'-C3'	6.45	129.88	120.20
30	BF	6	LYS	N-CA-CB	-6.45	99.58	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1225	G	C4'-C3'-O3'	6.45	122.68	113.00
26	BB	1238	G	O4'-C1'-N9	6.45	118.18	108.50
26	BB	2627	G	C4'-C3'-O3'	6.45	122.68	113.00
26	BB	2698	U	C2'-C3'-O3'	-6.45	104.02	113.70
1	AA	247	G	C4'-C3'-O3'	-6.45	103.32	113.00
1	AA	502	A	C3'-C2'-O2'	6.45	120.38	110.70
1	AA	1230	C	N1-C1'-C2'	-6.45	102.32	112.00
1	AA	1370	G	O4'-C1'-N9	6.45	118.18	108.50
4	AD	75	C	C3'-C2'-C1'	-6.45	95.05	101.50
7	AG	76	LYS	CA-C-O	-6.45	113.71	120.55
8	AH	2	HIS	CB-CG-CD2	-6.45	122.81	131.20
49	BY	77	LYS	CA-C-N	6.45	132.02	122.86
49	BY	77	LYS	C-N-CA	6.45	132.02	122.86
1	AA	712	A	C5'-C4'-O4'	6.45	119.47	109.80
9	AI	94	HIS	CB-CG-CD2	-6.45	122.82	131.20
26	BB	334	C	P-O3'-C3'	6.45	129.87	120.20
42	BR	11	GLN	O-C-N	6.45	128.96	122.12
1	AA	51	A	C3'-C2'-C1'	6.45	107.95	101.50
26	BB	1702	G	O4'-C1'-N9	6.45	118.17	108.50
1	AA	437	U	C3'-C2'-O2'	6.45	120.37	110.70
1	AA	461	A	O4'-C4'-C3'	6.45	110.45	104.00
1	AA	615	G	O4'-C4'-C3'	6.45	110.45	104.00
1	AA	1420	U	C3'-C2'-O2'	6.45	120.37	110.70
26	BB	538	A	O4'-C4'-C3'	6.45	110.44	104.00
26	BB	2702	G	C5'-C4'-O4'	6.45	119.47	109.80
1	AA	111	G	C3'-C2'-C1'	6.44	107.74	101.30
1	AA	149	A	C4'-C3'-O3'	6.44	122.67	113.00
19	AS	55	ASP	N-CA-C	6.44	119.12	111.71
1	AA	304	U	C3'-C2'-C1'	6.44	107.74	101.30
26	BB	540	C	C4'-C3'-C2'	-6.44	96.16	102.60
26	BB	981	A	O4'-C4'-C3'	6.44	110.44	104.00
26	BB	1725	U	C3'-C2'-O2'	6.44	120.36	110.70
26	BB	2267	A	O5'-C5'-C4'	6.44	121.16	111.50
26	BB	2468	A	O4'-C1'-C2'	-6.44	99.36	105.80
1	AA	823	C	P-O3'-C3'	6.44	129.86	120.20
4	AD	1	C	O3'-P-O5'	-6.44	94.34	104.00
26	BB	2046	G	O4'-C4'-C3'	-6.44	97.56	104.00
28	BD	198	GLU	CA-C-N	6.44	129.20	120.38
28	BD	198	GLU	C-N-CA	6.44	129.20	120.38
1	AA	1037	C	O4'-C4'-C3'	6.44	110.44	104.00
3	AC	27	A	C1'-O4'-C4'	6.44	116.34	109.90
26	BB	2561	U	O4'-C1'-N1	6.44	118.16	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BY	54	ARG	NE-CZ-NH1	-6.44	115.06	121.50
26	BB	1075	C	O4'-C4'-C3'	6.44	110.44	104.00
46	BV	83	ALA	CA-C-O	6.44	127.65	120.70
21	AU	43	ILE	CA-C-N	6.43	131.62	120.68
21	AU	43	ILE	C-N-CA	6.43	131.62	120.68
26	BB	863	A	C3'-C2'-C1'	6.43	107.73	101.30
26	BB	2216	G	C4'-C3'-C2'	-6.43	96.17	102.60
26	BB	2420	C	C5'-C4'-C3'	-6.43	106.35	116.00
1	AA	744	C	N1-C1'-C2'	-6.43	102.35	112.00
26	BB	2751	G	C3'-C2'-O2'	-6.43	104.95	114.60
1	AA	1141	C	C3'-C2'-C1'	6.43	107.73	101.30
32	BH	61	TRP	CA-C-N	6.43	128.80	120.44
32	BH	61	TRP	C-N-CA	6.43	128.80	120.44
46	BV	78	SER	N-CA-C	6.43	118.63	110.33
26	BB	119	A	C4'-C3'-O3'	6.43	119.05	109.40
26	BB	368	A	C3'-C2'-C1'	-6.43	94.87	101.30
26	BB	733	G	C1'-O4'-C4'	-6.43	103.47	109.90
26	BB	1229	C	C3'-C2'-C1'	-6.43	94.87	101.30
1	AA	1219	A	O3'-P-O5'	6.43	113.64	104.00
26	BB	846	U	C3'-C2'-C1'	6.43	107.73	101.30
26	BB	1465	G	O4'-C1'-N9	6.43	118.14	108.50
1	AA	1178	G	P-O3'-C3'	6.43	129.84	120.20
1	AA	1219	A	C1'-C2'-O2'	6.43	118.04	108.40
26	BB	573	U	C2'-C3'-O3'	6.43	119.14	109.50
26	BB	1415	U	C4'-C3'-O3'	-6.43	103.36	113.00
28	BD	214	GLY	CA-C-N	6.43	132.48	122.84
28	BD	214	GLY	C-N-CA	6.43	132.48	122.84
39	BO	44	ARG	CA-C-N	6.43	129.41	120.29
39	BO	44	ARG	C-N-CA	6.43	129.41	120.29
1	AA	34	C	C4'-C3'-C2'	-6.42	96.18	102.60
26	BB	89	A	C1'-O4'-C4'	-6.42	103.48	109.90
26	BB	1236	G	O5'-C5'-C4'	6.42	121.34	111.70
26	BB	1732	C	O4'-C1'-N1	6.42	117.83	108.20
26	BB	2250	G	O4'-C1'-C2'	6.42	112.22	105.80
26	BB	2470	G	C5'-C4'-O4'	6.42	119.44	109.80
26	BB	2769	U	O4'-C4'-C3'	6.42	110.42	104.00
28	BD	14	HIS	CB-CG-CD2	-6.42	122.85	131.20
26	BB	834	G	C5'-C4'-O4'	6.42	119.43	109.80
1	AA	196	A	O4'-C4'-C3'	6.42	110.42	104.00
1	AA	735	C	O4'-C1'-C2'	-6.42	101.18	107.60
26	BB	1197	G	O5'-C5'-C4'	-6.42	101.87	111.50
26	BB	1255	U	O4'-C1'-C2'	-6.42	101.18	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1666	G	C4'-C3'-C2'	-6.42	96.18	102.60
1	AA	137	U	O4'-C1'-N1	6.42	118.13	108.50
7	AG	79	ALA	CA-C-O	6.42	127.22	120.42
26	BB	1044	C	O4'-C1'-N1	6.42	118.13	108.50
26	BB	2178	C	N1-C1'-C2'	-6.42	102.37	112.00
8	AH	125	LYS	O-C-N	6.42	130.76	122.87
8	AH	149	PRO	N-CA-CB	6.42	109.67	102.67
29	BE	15	PHE	CA-CB-CG	6.42	120.22	113.80
1	AA	641	U	O4'-C1'-N1	6.42	117.82	108.20
26	BB	1176	U	O4'-C4'-C3'	-6.42	97.58	104.00
6	AF	29	ALA	O-C-N	-6.42	114.84	122.15
16	AP	57	ASP	CA-CB-CG	-6.42	106.19	112.60
1	AA	1362	A	O4'-C1'-N9	6.41	118.12	108.50
6	AF	221	ALA	CA-C-N	6.41	133.90	122.35
6	AF	221	ALA	C-N-CA	6.41	133.90	122.35
34	BJ	87	HIS	CA-C-N	6.41	125.99	119.19
34	BJ	87	HIS	C-N-CA	6.41	125.99	119.19
26	BB	2532	G	P-O5'-C5'	6.41	130.52	120.90
1	AA	137	U	O4'-C1'-C2'	-6.41	101.19	107.60
1	AA	499	A	C5'-C4'-O4'	6.41	118.72	109.10
26	BB	1402	U	C5'-C4'-O4'	6.41	119.42	109.80
55	B4	21	THR	CA-C-N	6.41	133.94	121.63
55	B4	21	THR	C-N-CA	6.41	133.94	121.63
2	AB	69	C	C4'-C3'-C2'	-6.41	96.19	102.60
26	BB	1381	G	O4'-C4'-C3'	6.41	110.41	104.00
29	BE	118	PHE	CA-CB-CG	6.41	120.21	113.80
53	B2	28	VAL	CB-CA-C	6.41	120.31	111.34
1	AA	908	A	C1'-C2'-O2'	-6.41	98.79	108.40
14	AN	96	ILE	O-C-N	6.41	128.56	121.90
26	BB	1050	A	O4'-C4'-C3'	-6.41	97.59	104.00
18	AR	19	ASN	OD1-CG-ND2	6.41	129.01	122.60
26	BB	2232	C	O5'-C5'-C4'	6.41	121.11	111.50
26	BB	2443	C	O4'-C1'-N1	6.41	118.11	108.50
1	AA	760	G	O4'-C1'-C2'	-6.40	101.20	107.60
26	BB	60	G	C5'-C4'-C3'	-6.40	105.59	115.20
1	AA	568	G	O4'-C1'-C2'	-6.40	101.20	107.60
4	AD	66	C	O4'-C1'-N1	6.40	118.10	108.50
26	BB	2808	G	O3'-P-O5'	-6.40	94.40	104.00
26	BB	2825	G	O4'-C4'-C3'	-6.40	97.60	104.00
42	BR	46	VAL	CB-CA-C	6.40	119.38	111.25
1	AA	228	A	O4'-C4'-C3'	6.40	110.40	104.00
26	BB	1037	G	C5'-C4'-C3'	6.40	125.60	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1111	A	C3'-C2'-O2'	-6.40	105.00	114.60
26	BB	2636	C	O4'-C1'-N1	6.40	118.10	108.50
1	AA	1384	C	C1'-O4'-C4'	-6.40	103.50	109.90
4	AD	27	G	C4'-C3'-C2'	-6.40	96.20	102.60
26	BB	2047	C	C3'-C2'-O2'	6.40	120.30	110.70
26	BB	242	G	C5'-C4'-C3'	-6.40	105.61	115.20
26	BB	1845	G	C3'-C2'-C1'	6.40	107.70	101.30
26	BB	2751	G	C1'-C2'-O2'	6.40	121.39	111.80
26	BB	433	C	O4'-C1'-C2'	6.39	113.99	107.60
26	BB	2711	A	C3'-C2'-C1'	6.39	107.69	101.30
1	AA	541	G	C4'-C3'-C2'	-6.39	96.21	102.60
4	AD	13	C	O4'-C4'-C3'	6.39	110.39	104.00
26	BB	62	U	C3'-C2'-C1'	6.39	107.69	101.30
26	BB	337	C	C4'-C3'-C2'	-6.39	96.21	102.60
26	BB	377	G	C4'-C3'-C2'	-6.39	96.21	102.60
26	BB	620	G	C4'-C3'-C2'	6.39	108.99	102.60
26	BB	1018	U	O4'-C4'-C3'	6.39	110.39	104.00
26	BB	2764	A	O3'-P-O5'	-6.39	94.41	104.00
1	AA	599	C	C4'-C3'-C2'	-6.39	96.21	102.60
17	AQ	53	ASP	CA-C-N	6.39	133.83	121.18
17	AQ	53	ASP	C-N-CA	6.39	133.83	121.18
26	BB	1718	G	O4'-C4'-C3'	6.39	110.39	104.00
26	BB	389	G	N9-C1'-C2'	6.39	121.58	112.00
26	BB	1963	U	P-O5'-C5'	6.39	130.48	120.90
26	BB	559	G	O4'-C1'-N9	6.39	118.08	108.50
26	BB	1806	C	O4'-C1'-C2'	-6.39	101.21	107.60
29	BE	35	THR	CA-CB-OG1	-6.39	100.02	109.60
26	BB	342	A	C5'-C4'-O4'	6.38	119.38	109.80
26	BB	2219	U	O4'-C1'-N1	6.38	118.08	108.50
26	BB	2384	U	C3'-C2'-O2'	-6.38	105.02	114.60
26	BB	1686	C	C4'-C3'-C2'	-6.38	96.22	102.60
4	AD	71	G	C4'-C3'-C2'	-6.38	96.22	102.60
13	AM	9	ARG	CD-NE-CZ	6.38	133.33	124.40
16	AP	87	GLY	CA-C-O	-6.38	114.18	120.75
26	BB	945	A	C5'-C4'-C3'	-6.38	105.63	115.20
1	AA	840	C	C4'-C3'-C2'	6.38	108.98	102.60
1	AA	1501	C	C2'-C3'-O3'	-6.38	104.13	113.70
26	BB	2237	G	C2'-C3'-O3'	-6.38	104.13	113.70
55	B4	41	VAL	CA-C-N	6.38	129.22	122.14
55	B4	41	VAL	C-N-CA	6.38	129.22	122.14
1	AA	142	G	O4'-C1'-N9	6.38	118.07	108.50
26	BB	119	A	C1'-O4'-C4'	-6.38	103.32	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	974	G	C1'-O4'-C4'	-6.38	103.32	109.70
26	BB	2140	G	C4'-C3'-C2'	-6.38	96.22	102.60
26	BB	2158	A	C3'-C2'-C1'	-6.38	95.12	101.50
26	BB	2396	G	N9-C1'-C2'	-6.38	102.44	112.00
47	BW	14	THR	CA-CB-CG2	6.38	121.34	110.50
50	BZ	31	ASN	CA-CB-CG	-6.38	106.22	112.60
5	AE	200	PRO	N-CA-CB	6.38	108.84	103.17
26	BB	2841	C	C3'-C2'-C1'	6.38	107.67	101.30
26	BB	2867	G	C3'-C2'-O2'	6.38	124.16	114.60
1	AA	20	U	O5'-C5'-C4'	-6.37	101.94	111.50
1	AA	1097	C	C4'-C3'-O3'	6.37	122.56	113.00
1	AA	1280	A	C3'-C2'-O2'	-6.37	105.04	114.60
6	AF	156	LEU	O-C-N	6.37	130.71	122.87
16	AP	54	THR	N-CA-C	6.37	118.23	111.28
26	BB	1787	A	N9-C1'-C2'	6.37	121.56	112.00
26	BB	2591	C	C4'-C3'-C2'	-6.37	96.23	102.60
1	AA	1013	G	O4'-C4'-C3'	6.37	110.37	104.00
5	AE	14	HIS	CB-CG-CD2	-6.37	122.92	131.20
8	AH	82	HIS	CA-CB-CG	6.37	120.17	113.80
26	BB	1269	A	O5'-C5'-C4'	-6.37	101.94	111.50
26	BB	1633	G	O4'-C4'-C3'	6.37	110.37	104.00
26	BB	1751	U	O4'-C4'-C3'	-6.37	97.63	104.00
26	BB	2230	G	C3'-C2'-O2'	6.37	120.26	110.70
32	BH	175	LYS	CA-CB-CG	6.37	126.84	114.10
8	AH	96	GLN	CB-CG-CD	6.37	123.43	112.60
26	BB	385	C	O4'-C4'-C3'	6.37	110.37	104.00
26	BB	1238	G	O4'-C4'-C3'	-6.37	97.63	104.00
26	BB	2788	C	O4'-C1'-C2'	-6.37	101.23	107.60
26	BB	1374	G	C3'-C2'-C1'	6.37	107.67	101.30
26	BB	1973	G	C5'-C4'-C3'	-6.37	106.45	116.00
26	BB	2060	A	C3'-C2'-C1'	6.37	107.87	101.50
27	BC	20	GLN	CA-C-N	6.37	132.81	122.81
27	BC	20	GLN	C-N-CA	6.37	132.81	122.81
26	BB	1503	A	O4'-C1'-N9	6.37	118.05	108.50
1	AA	1266	G	O4'-C1'-C2'	-6.37	101.23	107.60
22	AV	11	ASP	CA-C-N	6.37	128.81	120.28
22	AV	11	ASP	C-N-CA	6.37	128.81	120.28
26	BB	765	C	C4'-C3'-C2'	-6.37	96.23	102.60
26	BB	1029	A	C3'-C2'-O2'	6.37	120.25	110.70
26	BB	2385	C	C5'-C4'-O4'	6.37	119.35	109.80
32	BH	67	ALA	CA-C-O	-6.37	113.76	120.63
33	BI	117	LEU	CA-C-N	6.37	127.28	120.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	BI	117	LEU	C-N-CA	6.37	127.28	120.47
1	AA	1382	C	C4'-C3'-C2'	-6.36	96.24	102.60
21	AU	19	GLU	CA-C-N	6.36	129.03	121.84
21	AU	19	GLU	C-N-CA	6.36	129.03	121.84
24	AX	68	ARG	NE-CZ-NH2	-6.36	113.47	119.20
26	BB	1216	G	O4'-C1'-C2'	6.36	113.96	107.60
2	AB	69	C	C3'-C2'-C1'	6.36	107.66	101.30
26	BB	137	U	O3'-P-O5'	-6.36	94.46	104.00
26	BB	1399	C	O4'-C4'-C3'	6.36	110.36	104.00
1	AA	1198	G	C4'-C3'-O3'	6.36	122.54	113.00
26	BB	94	A	P-O3'-C3'	6.36	129.74	120.20
26	BB	2289	G	O4'-C4'-C3'	6.36	110.36	104.00
29	BE	128	ARG	NH1-CZ-NH2	6.36	127.57	119.30
32	BH	138	GLN	N-CA-C	6.36	118.01	111.14
37	BM	82	ASN	CA-CB-CG	6.36	118.96	112.60
26	BB	2491	U	O5'-C5'-C4'	-6.36	102.16	111.70
26	BB	686	U	C2'-C3'-O3'	6.36	119.04	109.50
1	AA	594	U	O4'-C1'-C2'	-6.36	101.24	107.60
26	BB	2262	U	C3'-C2'-O2'	6.36	120.23	110.70
27	BC	155	ASN	N-CA-C	6.36	119.19	111.82
29	BE	141	ARG	O-C-N	-6.36	114.90	122.27
48	BX	49	ASN	CA-CB-CG	-6.36	106.24	112.60
26	BB	1059	G	O4'-C1'-C2'	6.35	113.95	107.60
26	BB	2710	C	P-O5'-C5'	6.35	130.43	120.90
26	BB	2140	G	O4'-C4'-C3'	6.35	110.35	104.00
26	BB	2213	U	C4'-C3'-C2'	-6.35	96.25	102.60
26	BB	2741	A	C4'-C3'-C2'	-6.35	96.25	102.60
32	BH	68	ARG	N-CA-C	6.35	117.87	111.07
1	AA	22	G	C4'-C3'-C2'	-6.35	96.25	102.60
26	BB	2153	C	C4'-C3'-C2'	-6.35	96.25	102.60
1	AA	1103	C	O4'-C1'-C2'	-6.35	101.25	107.60
1	AA	1267	C	C1'-O4'-C4'	-6.35	103.55	109.90
8	AH	74	ALA	N-CA-C	6.35	119.53	109.50
26	BB	1572	A	N9-C1'-C2'	-6.35	102.47	112.00
26	BB	2312	U	C1'-O4'-C4'	6.35	116.25	109.90
1	AA	917	G	C5'-C4'-C3'	-6.35	106.48	116.00
1	AA	1486	G	C4'-C3'-C2'	-6.35	96.25	102.60
24	AX	65	ARG	NE-CZ-NH2	-6.35	113.49	119.20
26	BB	786	C	O4'-C1'-N1	6.35	118.02	108.50
26	BB	1397	U	C4'-C3'-O3'	-6.35	99.88	109.40
26	BB	2490	G	C5'-C4'-C3'	6.35	124.72	115.20
38	BN	105	ILE	N-CA-CB	-6.35	103.80	110.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1224	U	O4'-C1'-N1	6.35	117.72	108.20
1	AA	1322	C	O4'-C4'-C3'	-6.35	99.75	106.10
4	AD	61	U	C3'-C2'-O2'	-6.35	105.08	114.60
26	BB	40	U	C4'-C3'-O3'	-6.35	103.48	113.00
26	BB	1020	A	C4'-C3'-C2'	-6.35	96.25	102.60
43	BS	78	PHE	CA-C-N	6.35	129.43	120.42
43	BS	78	PHE	C-N-CA	6.35	129.43	120.42
26	BB	199	A	O4'-C1'-C2'	-6.34	99.46	105.80
26	BB	1157	G	C3'-C2'-C1'	6.34	107.64	101.30
26	BB	1577	C	O3'-P-O5'	6.34	113.52	104.00
26	BB	1967	C	P-O3'-C3'	6.34	129.72	120.20
26	BB	2290	G	O4'-C4'-C3'	6.34	110.34	104.00
26	BB	2520	C	O4'-C1'-N1	6.34	118.02	108.50
40	BP	81	ASN	OD1-CG-ND2	-6.34	116.26	122.60
5	AE	109	SER	N-CA-CB	-6.34	100.53	110.30
14	AN	71	ASP	CA-C-N	6.34	128.78	120.28
14	AN	71	ASP	C-N-CA	6.34	128.78	120.28
26	BB	931	U	O4'-C1'-N1	6.34	117.72	108.20
26	BB	2570	G	C4'-C3'-O3'	-6.34	103.49	113.00
1	AA	1365	G	O3'-P-O5'	-6.34	94.49	104.00
26	BB	757	G	C4'-C3'-C2'	-6.34	96.26	102.60
45	BU	55	ILE	N-CA-C	6.34	117.09	110.62
1	AA	630	A	O4'-C1'-N9	6.34	118.01	108.50
19	AS	74	LEU	CA-C-N	6.34	128.55	120.56
19	AS	74	LEU	C-N-CA	6.34	128.55	120.56
25	BA	91	C	O4'-C1'-N1	6.34	118.01	108.50
26	BB	1446	C	O3'-P-O5'	-6.34	94.49	104.00
26	BB	1736	U	C4'-C3'-C2'	-6.34	96.26	102.60
26	BB	1866	A	O4'-C4'-C3'	-6.34	97.66	104.00
26	BB	2347	C	O4'-C1'-C2'	-6.34	101.26	107.60
26	BB	298	G	C1'-C2'-O2'	6.34	117.91	108.40
26	BB	750	A	C5'-C4'-C3'	-6.34	106.49	116.00
26	BB	1687	G	O4'-C4'-C3'	6.34	110.34	104.00
26	BB	1710	G	O4'-C1'-N9	6.34	118.00	108.50
26	BB	1566	A	O4'-C4'-C3'	6.33	110.33	104.00
26	BB	1824	G	P-O3'-C3'	6.33	129.70	120.20
38	BN	105	ILE	CB-CA-C	6.33	118.77	110.91
1	AA	1005	A	O4'-C4'-C3'	6.33	110.33	104.00
1	AA	1503	A	C4'-C3'-O3'	6.33	118.90	109.40
26	BB	323	C	C2'-C3'-O3'	6.33	119.00	109.50
26	BB	2249	U	C3'-C2'-C1'	6.33	107.83	101.50
49	BY	40	ARG	CA-C-N	6.33	128.32	120.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BY	40	ARG	C-N-CA	6.33	128.32	120.34
1	AA	1452	C	C4'-C3'-O3'	-6.33	99.91	109.40
58	B7	35	GLN	CA-C-N	6.33	129.40	120.28
58	B7	35	GLN	C-N-CA	6.33	129.40	120.28
1	AA	1021	A	C5'-C4'-C3'	-6.33	106.51	116.00
7	AG	164	ARG	CA-C-N	6.33	130.80	120.23
7	AG	164	ARG	C-N-CA	6.33	130.80	120.23
26	BB	422	A	O3'-P-O5'	-6.33	94.51	104.00
26	BB	472	A	C3'-C2'-C1'	-6.33	94.97	101.30
26	BB	2178	C	C4'-C3'-C2'	-6.33	96.27	102.60
1	AA	911	U	O4'-C1'-N1	6.33	117.99	108.50
22	AV	56	HIS	CE1-NE2-CD2	-6.33	102.67	109.00
26	BB	977	G	C4'-C3'-C2'	-6.33	96.27	102.60
1	AA	299	G	O4'-C4'-C3'	6.33	110.33	104.00
26	BB	631	A	O5'-C5'-C4'	-6.33	102.01	111.50
26	BB	770	G	O4'-C1'-C2'	-6.33	101.28	107.60
31	BG	129	MET	CB-CA-C	6.33	122.05	111.30
1	AA	621	A	C1'-C2'-O2'	6.32	117.89	108.40
13	AM	51	VAL	CA-CB-CG2	6.32	121.15	110.40
26	BB	1244	A	O5'-C5'-C4'	6.32	120.99	111.50
26	BB	1371	G	O4'-C4'-C3'	6.32	110.32	104.00
26	BB	2485	G	O4'-C1'-N9	6.32	117.99	108.50
9	AI	44	ARG	CA-C-O	-6.32	113.84	121.05
23	AW	20	ASN	CA-CB-CG	6.32	118.92	112.60
26	BB	1826	G	C2'-C3'-O3'	-6.32	104.22	113.70
26	BB	2507	C	C1'-O4'-C4'	6.32	116.22	109.90
31	BG	40	GLY	CA-C-O	-6.32	113.56	121.53
48	BX	80	HIS	ND1-CG-CD2	6.32	112.42	106.10
1	AA	833	G	C4'-C3'-C2'	-6.32	96.28	102.60
1	AA	1102	A	O3'-P-O5'	6.32	113.48	104.00
17	AQ	84	ARG	CA-C-N	6.32	128.75	120.28
17	AQ	84	ARG	C-N-CA	6.32	128.75	120.28
1	AA	70	U	C4'-C3'-O3'	6.32	118.88	109.40
1	AA	392	C	O4'-C1'-C2'	-6.32	101.28	107.60
8	AH	70	MET	O-C-N	6.32	130.98	123.27
26	BB	1075	C	C4'-C3'-C2'	-6.32	96.28	102.60
1	AA	265	G	C4'-C3'-C2'	-6.32	96.28	102.60
1	AA	1284	C	C4'-C3'-C2'	-6.32	96.28	102.60
15	AO	49	ARG	NE-CZ-NH2	-6.32	113.52	119.20
26	BB	513	A	O3'-P-O5'	-6.32	94.52	104.00
26	BB	1323	C	O4'-C1'-C2'	6.32	112.12	105.80
26	BB	1405	U	C2'-C3'-O3'	-6.32	104.22	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1652	A	O4'-C4'-C3'	6.32	110.32	104.00
26	BB	2142	A	P-O3'-C3'	6.32	129.68	120.20
30	BF	192	ALA	CA-C-O	-6.32	113.85	120.55
1	AA	187	G	C3'-C2'-O2'	6.32	120.17	110.70
1	AA	848	C	C4'-C3'-C2'	-6.32	96.28	102.60
1	AA	1054	C	C3'-C2'-O2'	6.32	120.17	110.70
7	AG	61	ARG	CA-C-O	-6.32	113.81	120.63
26	BB	591	U	C4'-C3'-C2'	-6.32	96.28	102.60
26	BB	765	C	C3'-C2'-C1'	6.32	107.61	101.30
26	BB	2075	U	C3'-C2'-C1'	6.32	107.61	101.30
42	BR	14	GLN	OE1-CD-NE2	-6.31	116.29	122.60
1	AA	393	A	O4'-C1'-C2'	-6.31	101.29	107.60
1	AA	848	C	C5'-C4'-C3'	-6.31	106.53	116.00
1	AA	1247	U	C4'-C3'-C2'	-6.31	96.29	102.60
26	BB	2147	A	C3'-C2'-C1'	-6.31	95.19	101.50
26	BB	2452	C	O4'-C1'-C2'	-6.31	99.49	105.80
44	BT	3	ALA	N-CA-C	6.31	118.67	109.07
1	AA	744	C	C5'-C4'-O4'	6.31	119.27	109.80
26	BB	428	A	C3'-C2'-O2'	6.31	120.17	110.70
26	BB	2117	A	C1'-O4'-C4'	-6.31	103.59	109.90
38	BN	127	VAL	O-C-N	-6.31	116.25	123.00
1	AA	512	U	O5'-C5'-C4'	-6.31	102.04	111.50
3	AC	23	C	O4'-C1'-C2'	-6.31	101.29	107.60
5	AE	121	GLN	CA-C-N	6.31	129.37	120.28
5	AE	121	GLN	C-N-CA	6.31	129.37	120.28
22	AV	34	SER	O-C-N	6.31	130.63	122.43
26	BB	662	G	O4'-C1'-C2'	6.31	113.91	107.60
26	BB	713	G	O4'-C4'-C3'	6.31	110.31	104.00
26	BB	1762	A	O4'-C1'-N9	6.31	117.67	108.20
30	BF	156	ASN	N-CA-C	-6.31	105.06	112.89
1	AA	831	A	C4'-C3'-C2'	-6.31	96.29	102.60
1	AA	1157	A	O4'-C4'-C3'	6.31	112.41	106.10
1	AA	1430	A	O3'-P-O5'	6.31	113.46	104.00
26	BB	618	G	O4'-C4'-C3'	6.31	110.31	104.00
26	BB	1038	G	O3'-P-O5'	6.31	113.46	104.00
26	BB	2401	U	C2'-C3'-O3'	-6.31	104.24	113.70
37	BM	10	VAL	O-C-N	6.31	129.32	122.63
1	AA	28	A	O4'-C1'-N9	6.31	117.96	108.50
28	BD	225	ASN	N-CA-CB	-6.31	102.36	109.49
42	BR	23	ASP	CA-CB-CG	6.31	118.91	112.60
1	AA	1	A	O4'-C4'-C3'	6.30	110.30	104.00
4	AD	24	C	C4'-C3'-C2'	-6.30	96.30	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	708	G	C3'-C2'-O2'	6.30	120.16	110.70
26	BB	1643	G	O4'-C4'-C3'	6.30	110.31	104.00
27	BC	9	ARG	CA-C-O	-6.30	113.87	120.55
1	AA	587	G	C4'-C3'-O3'	-6.30	99.95	109.40
1	AA	743	A	C4'-C3'-C2'	-6.30	96.30	102.60
3	AC	44	U	C5'-C4'-C3'	-6.30	106.55	116.00
12	AL	80	HIS	CA-C-N	6.30	126.93	120.00
12	AL	80	HIS	C-N-CA	6.30	126.93	120.00
26	BB	133	U	C3'-C2'-O2'	6.30	120.15	110.70
26	BB	1550	C	O5'-C5'-C4'	6.30	120.95	111.50
26	BB	2793	C	O4'-C4'-C3'	6.30	110.30	104.00
28	BD	41	GLY	N-CA-C	6.30	122.58	115.08
42	BR	108	ARG	NE-CZ-NH1	-6.30	115.20	121.50
1	AA	1246	A	C4'-C3'-C2'	-6.30	96.30	102.60
26	BB	1612	C	C5'-C4'-O4'	6.30	119.25	109.80
26	BB	2321	U	C3'-C2'-C1'	6.30	107.80	101.50
1	AA	152	A	C3'-C2'-C1'	-6.30	95.00	101.30
1	AA	724	G	O4'-C1'-C2'	-6.30	101.30	107.60
1	AA	1214	C	C3'-C2'-C1'	6.30	107.80	101.50
17	AQ	97	LYS	CA-C-N	6.30	131.27	121.26
17	AQ	97	LYS	C-N-CA	6.30	131.27	121.26
26	BB	29	U	O4'-C1'-C2'	6.30	113.90	107.60
26	BB	2842	G	O5'-C5'-C4'	-6.30	102.06	111.50
45	BU	84	ARG	NE-CZ-NH2	6.30	124.87	119.20
8	AH	23	THR	N-CA-C	6.29	124.21	110.80
1	AA	152	A	O4'-C1'-C2'	6.29	113.89	107.60
1	AA	427	U	C5'-C4'-C3'	-6.29	106.56	116.00
1	AA	1254	A	C4'-C3'-C2'	-6.29	96.31	102.60
26	BB	55	G	O5'-C5'-C4'	6.29	120.94	111.50
26	BB	569	U	C1'-O4'-C4'	-6.29	103.41	109.70
26	BB	2716	C	C3'-C2'-C1'	6.29	107.59	101.30
39	BO	75	GLU	N-CA-CB	-6.29	100.56	110.69
53	B2	37	CYS	CB-CA-C	6.29	117.28	109.16
26	BB	401	A	O4'-C4'-C3'	-6.29	97.71	104.00
26	BB	904	G	C2'-C3'-O3'	-6.29	104.26	113.70
26	BB	1558	C	O4'-C1'-C2'	6.29	112.09	105.80
48	BX	76	ASP	N-CA-C	6.29	118.42	110.24
1	AA	688	G	C1'-O4'-C4'	-6.29	103.61	109.90
26	BB	161	A	C4'-C3'-C2'	-6.29	96.31	102.60
26	BB	1149	G	O4'-C1'-N9	6.29	117.93	108.50
2	AB	45	U	C4'-C3'-C2'	-6.29	96.31	102.60
26	BB	1148	U	C5'-C4'-C3'	-6.29	106.57	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	555	U	C5'-C4'-C3'	-6.29	106.57	116.00
15	AO	59	GLY	CA-C-O	-6.29	111.27	119.44
25	BA	61	G	O4'-C4'-C3'	6.29	110.29	104.00
26	BB	300	A	C3'-C2'-C1'	-6.29	95.02	101.30
26	BB	1165	A	C3'-C2'-O2'	6.29	120.13	110.70
26	BB	1332	G	C5'-C4'-O4'	6.29	118.53	109.10
26	BB	2413	G	O4'-C4'-C3'	6.29	110.29	104.00
26	BB	2651	C	C4'-C3'-C2'	-6.29	96.31	102.60
38	BN	38	GLN	CG-CD-NE2	-6.29	106.97	116.40
1	AA	364	A	C2'-C3'-O3'	-6.28	104.28	113.70
1	AA	565	U	C2'-C3'-O3'	-6.28	104.28	113.70
1	AA	772	U	C5'-C4'-O4'	6.28	119.23	109.80
1	AA	1529	G	C3'-C2'-C1'	6.28	107.58	101.30
7	AG	53	GLN	CB-CA-C	6.28	121.22	110.79
21	AU	67	LEU	CA-C-O	-6.28	113.81	120.28
26	BB	1816	C	O4'-C1'-N1	6.28	117.62	108.20
26	BB	1998	A	C4'-C3'-C2'	-6.28	96.32	102.60
1	AA	688	G	O4'-C4'-C3'	6.28	110.28	104.00
18	AR	34	GLN	CA-C-N	6.28	129.07	120.46
18	AR	34	GLN	C-N-CA	6.28	129.07	120.46
26	BB	161	A	O3'-P-O5'	-6.28	94.58	104.00
26	BB	100	U	O4'-C1'-N1	6.28	117.92	108.50
26	BB	437	U	C4'-C3'-O3'	6.28	122.42	113.00
26	BB	613	A	C1'-C2'-O2'	-6.28	98.98	108.40
26	BB	2499	C	C4'-C3'-C2'	-6.28	96.32	102.60
26	BB	2769	U	C4'-C3'-O3'	-6.28	103.58	113.00
19	AS	70	ARG	CA-C-N	6.28	129.06	120.46
19	AS	70	ARG	C-N-CA	6.28	129.06	120.46
26	BB	1816	C	C5'-C4'-O4'	6.28	118.52	109.10
28	BD	221	GLY	CA-C-O	-6.28	114.65	120.80
1	AA	587	G	C2'-C3'-O3'	6.28	118.92	109.50
1	AA	618	C	P-O3'-C3'	6.28	129.62	120.20
26	BB	1356	G	C4'-C3'-O3'	-6.28	103.58	113.00
30	BF	158	PHE	CA-CB-CG	-6.28	107.52	113.80
1	AA	907	A	C1'-O4'-C4'	-6.28	103.62	109.90
4	AD	38	A	C5'-C4'-O4'	6.28	119.21	109.80
3	AC	54	U	C3'-C2'-C1'	-6.27	95.03	101.30
26	BB	1993	U	C4'-C3'-C2'	-6.27	96.33	102.60
45	BU	60	HIS	CA-C-O	6.27	128.45	121.11
1	AA	1067	A	O4'-C1'-C2'	-6.27	99.53	105.80
26	BB	56	A	O4'-C4'-C3'	-6.27	97.73	104.00
26	BB	1827	U	O4'-C1'-C2'	-6.27	101.33	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2224	G	C4'-C3'-C2'	-6.27	96.33	102.60
13	AM	39	PRO	N-CA-CB	6.27	108.56	103.36
25	BA	21	G	C4'-C3'-O3'	6.27	122.41	113.00
1	AA	63	C	C1'-O4'-C4'	6.27	116.17	109.90
1	AA	1358	U	P-O3'-C3'	6.27	129.60	120.20
1	AA	1466	C	C4'-C3'-C2'	-6.27	96.33	102.60
17	AQ	48	GLN	CB-CA-C	6.27	121.76	111.23
26	BB	899	A	O4'-C1'-N9	6.27	117.91	108.50
26	BB	2006	C	C3'-C2'-C1'	6.27	107.57	101.30
26	BB	2088	A	O4'-C1'-C2'	-6.27	101.33	107.60
1	AA	182	A	O4'-C1'-N9	6.27	117.60	108.20
1	AA	942	G	O4'-C1'-C2'	-6.27	101.33	107.60
5	AE	79	VAL	CA-C-N	6.27	128.68	120.28
5	AE	79	VAL	C-N-CA	6.27	128.68	120.28
15	AO	95	HIS	CA-C-O	-6.27	114.11	121.44
25	BA	36	C	C1'-O4'-C4'	6.27	116.17	109.90
26	BB	137	U	O4'-C1'-N1	6.27	117.90	108.50
26	BB	1028	A	C1'-O4'-C4'	-6.27	103.63	109.90
26	BB	2279	G	O5'-C5'-C4'	-6.27	102.10	111.50
26	BB	2745	C	C3'-C2'-C1'	6.27	107.57	101.30
14	AN	8	ARG	CA-C-N	6.27	129.19	120.29
14	AN	8	ARG	C-N-CA	6.27	129.19	120.29
26	BB	101	A	C5'-C4'-O4'	6.26	118.50	109.10
26	BB	1049	C	C2'-C3'-O3'	6.26	123.10	113.70
40	BP	69	ARG	CA-C-O	-6.26	114.25	120.70
1	AA	337	G	C4'-C3'-C2'	-6.26	96.34	102.60
1	AA	471	U	O4'-C1'-N1	6.26	117.89	108.50
21	AU	19	GLU	N-CA-CB	-6.26	101.10	111.06
25	BA	110	C	O4'-C1'-C2'	-6.26	101.34	107.60
26	BB	241	A	C1'-C2'-O2'	-6.26	102.41	111.80
26	BB	750	A	O4'-C4'-C3'	6.26	110.26	104.00
26	BB	1042	G	O4'-C4'-C3'	6.26	110.26	104.00
1	AA	85	U	P-O3'-C3'	6.26	129.59	120.20
1	AA	848	C	O4'-C4'-C3'	6.26	110.26	104.00
1	AA	1103	C	C4'-C3'-C2'	-6.26	96.34	102.60
1	AA	1118	U	C1'-O4'-C4'	6.26	116.16	109.90
2	AB	55	PSU	O3'-P-O5'	-6.26	94.61	104.00
25	BA	3	C	O4'-C1'-N1	6.26	117.89	108.50
26	BB	2407	A	O3'-P-O5'	-6.26	94.61	104.00
51	B0	50	VAL	CA-C-N	6.26	128.58	120.44
51	B0	50	VAL	C-N-CA	6.26	128.58	120.44
26	BB	2640	G	C5'-C4'-O4'	6.26	119.19	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BG	94	ARG	CA-C-O	-6.26	113.92	120.55
34	BJ	163	ALA	CB-CA-C	6.26	119.66	109.90
1	AA	992	U	O4'-C4'-C3'	6.26	112.36	106.10
2	AB	45	U	O4'-C1'-N1	6.26	117.58	108.20
2	AB	73	G	C1'-O4'-C4'	-6.26	103.64	109.90
26	BB	2904	U	C3'-C2'-C1'	6.26	107.56	101.30
36	BL	64	VAL	CA-C-O	-6.26	112.46	120.03
1	AA	510	A	O4'-C4'-C3'	6.25	110.25	104.00
26	BB	1378	A	O4'-C4'-C3'	6.25	112.36	106.10
26	BB	1423	G	C4'-C3'-C2'	-6.25	96.34	102.60
26	BB	1513	U	C3'-C2'-C1'	6.25	107.56	101.30
1	AA	423	G	O4'-C1'-N9	6.25	117.88	108.50
1	AA	917	G	O5'-C5'-C4'	6.25	120.88	111.50
19	AS	2	VAL	O-C-N	6.25	128.86	122.79
26	BB	1759	A	C5'-C4'-C3'	6.25	124.58	115.20
26	BB	2124	G	C1'-O4'-C4'	6.25	116.15	109.90
26	BB	346	A	C4'-C3'-C2'	-6.25	96.35	102.60
26	BB	1838	C	C3'-C2'-C1'	-6.25	95.25	101.50
26	BB	1085	A	C4'-C3'-C2'	-6.25	96.35	102.60
26	BB	1560	G	O4'-C4'-C3'	6.25	110.25	104.00
26	BB	2796	U	O4'-C4'-C3'	6.25	110.25	104.00
26	BB	2233	U	C3'-C2'-O2'	-6.25	101.33	110.70
1	AA	273	U	C3'-C2'-O2'	6.25	120.07	110.70
1	AA	412	A	C1'-C2'-O2'	6.25	117.77	108.40
1	AA	712	A	C2'-C3'-O3'	-6.25	104.33	113.70
1	AA	1193	G	C3'-C2'-C1'	-6.25	95.05	101.30
1	AA	1499	A	N9-C1'-C2'	-6.25	102.63	112.00
2	AB	71	C	C5'-C4'-C3'	-6.25	106.63	116.00
26	BB	903	C	C2'-C3'-O3'	6.25	123.07	113.70
26	BB	1059	G	O4'-C1'-N9	6.25	117.87	108.50
26	BB	1449	G	O4'-C1'-N9	6.25	117.87	108.50
26	BB	1877	A	O4'-C1'-C2'	-6.25	101.35	107.60
30	BF	148	ILE	CB-CA-C	6.25	118.39	111.08
45	BU	50	VAL	CA-CB-CG1	6.25	121.02	110.40
1	AA	815	A	O4'-C4'-C3'	6.25	112.34	106.10
5	AE	183	PHE	CA-CB-CG	-6.25	107.56	113.80
26	BB	2740	A	O5'-C5'-C4'	6.25	120.87	111.50
1	AA	51	A	C5'-C4'-C3'	-6.24	105.83	115.20
2	AB	65	C	O4'-C1'-N1	6.24	117.86	108.50
25	BA	62	C	O4'-C1'-C2'	-6.24	101.36	107.60
26	BB	272	A	O5'-C5'-C4'	-6.24	102.14	111.50
1	AA	1444	U	C3'-C2'-C1'	6.24	107.54	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1588	G	O5'-C5'-C4'	-6.24	102.14	111.50
26	BB	2810	A	C5'-C4'-O4'	6.24	119.16	109.80
1	AA	278	G	O4'-C4'-C3'	-6.24	97.76	104.00
16	AP	14	ALA	CA-C-N	6.24	128.42	120.56
16	AP	14	ALA	C-N-CA	6.24	128.42	120.56
26	BB	383	C	O4'-C4'-C3'	6.24	110.24	104.00
26	BB	735	A	P-O3'-C3'	6.24	129.56	120.20
26	BB	2351	G	C4'-C3'-C2'	-6.24	96.36	102.60
29	BE	189	VAL	CA-C-O	-6.24	113.61	120.72
1	AA	1296	C	O4'-C1'-C2'	-6.24	101.36	107.60
6	AF	133	MET	CA-C-N	6.24	129.15	120.29
6	AF	133	MET	C-N-CA	6.24	129.15	120.29
26	BB	378	C	C1'-C2'-O2'	-6.24	99.04	108.40
26	BB	1420	A	N9-C1'-C2'	-6.24	102.64	112.00
26	BB	1585	C	C5'-C4'-O4'	6.24	119.16	109.80
26	BB	1860	G	O4'-C4'-C3'	-6.24	97.76	104.00
26	BB	2820	A	O4'-C4'-C3'	6.24	112.34	106.10
28	BD	102	TYR	CA-CB-CG	6.24	125.13	113.90
33	BI	114	GLU	CB-CG-CD	6.24	123.20	112.60
26	BB	689	A	C4'-C3'-O3'	6.24	122.36	113.00
26	BB	1205	A	O4'-C1'-C2'	-6.24	99.56	105.80
41	BQ	10	ARG	NE-CZ-NH1	-6.24	115.26	121.50
1	AA	510	A	C5'-C4'-C3'	-6.24	106.65	116.00
22	AV	1	PRO	CA-N-CD	-6.24	103.27	112.00
26	BB	289	G	C1'-C2'-O2'	-6.24	99.05	108.40
26	BB	381	G	C3'-C2'-O2'	6.24	120.05	110.70
26	BB	840	C	C3'-C2'-C1'	6.24	107.53	101.30
26	BB	1317	G	O3'-P-O5'	6.24	113.35	104.00
26	BB	2111	U	P-O3'-C3'	6.24	129.55	120.20
30	BF	46	GLN	O-C-N	6.24	130.48	122.81
1	AA	831	A	O4'-C4'-C3'	6.23	110.23	104.00
26	BB	112	U	N1-C1'-C2'	-6.23	102.65	112.00
26	BB	216	A	O4'-C1'-N9	6.23	117.85	108.50
1	AA	508	U	O4'-C4'-C3'	6.23	112.33	106.10
5	AE	185	ILE	CB-CA-C	6.23	118.15	110.73
26	BB	1625	C	O5'-C5'-C4'	-6.23	102.15	111.50
26	BB	2043	C	C5'-C4'-C3'	-6.23	106.65	116.00
26	BB	2380	C	C5'-C4'-O4'	6.23	119.15	109.80
26	BB	2446	G	C3'-C2'-C1'	-6.23	95.07	101.30
37	BM	30	ARG	NE-CZ-NH2	6.23	124.81	119.20
2	AB	27	C	O5'-C5'-C4'	-6.23	102.15	111.50
26	BB	1477	A	C5'-C4'-O4'	6.23	119.15	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1535	A	C4'-C3'-C2'	-6.23	96.37	102.60
26	BB	1960	A	C4'-C3'-O3'	6.23	122.35	113.00
1	AA	598	U	C1'-O4'-C4'	-6.23	103.67	109.90
1	AA	829	G	C1'-O4'-C4'	-6.23	103.67	109.90
26	BB	925	A	C5'-C4'-C3'	-6.23	106.66	116.00
1	AA	1138	G	O5'-C5'-C4'	6.23	120.84	111.50
1	AA	1400	C	C4'-C3'-O3'	6.23	118.74	109.40
6	AF	96	VAL	CA-CB-CG2	6.23	120.99	110.40
26	BB	367	G	C5'-C4'-C3'	-6.23	106.66	116.00
26	BB	2042	A	O3'-P-O5'	6.23	113.34	104.00
26	BB	2096	C	C1'-C2'-O2'	6.23	117.74	108.40
44	BT	41	ILE	CA-C-O	-6.23	113.88	120.48
1	AA	55	A	C2'-C3'-O3'	-6.23	104.36	113.70
10	AJ	147	ASN	CA-CB-CG	6.23	118.83	112.60
1	AA	365	U	O4'-C1'-C2'	-6.22	101.38	107.60
26	BB	1898	U	P-O5'-C5'	6.22	130.24	120.90
26	BB	2395	C	O4'-C4'-C3'	-6.22	97.78	104.00
1	AA	457	G	O3'-P-O5'	6.22	113.33	104.00
7	AG	96	ARG	CA-C-O	-6.22	114.95	121.55
26	BB	1681	G	C5'-C4'-C3'	6.22	124.53	115.20
26	BB	2347	C	C3'-C2'-C1'	6.22	107.52	101.30
28	BD	136	VAL	CB-CA-C	6.22	121.49	111.29
19	AS	64	GLY	CA-C-N	6.22	129.95	121.05
19	AS	64	GLY	C-N-CA	6.22	129.95	121.05
33	BI	9	VAL	CA-C-N	6.22	133.42	121.54
33	BI	9	VAL	C-N-CA	6.22	133.42	121.54
26	BB	408	G	O4'-C4'-C3'	6.22	110.22	104.00
26	BB	1002	G	C4'-C3'-O3'	6.22	122.33	113.00
4	AD	62	C	O4'-C1'-N1	6.22	117.83	108.50
26	BB	728	G	N9-C1'-C2'	-6.22	104.67	114.00
26	BB	1263	U	C3'-C2'-C1'	6.22	107.52	101.30
26	BB	2084	C	C1'-C2'-O2'	6.22	117.73	108.40
1	AA	169	C	C3'-C2'-O2'	6.22	120.02	110.70
26	BB	2020	A	O4'-C1'-N9	6.22	117.82	108.50
26	BB	2808	G	C3'-C2'-C1'	6.22	107.52	101.30
26	BB	2902	C	O4'-C1'-N1	6.22	117.82	108.50
51	B0	41	HIS	CG-CD2-NE2	6.22	113.42	107.20
1	AA	29	U	O4'-C4'-C3'	6.21	110.21	104.00
7	AG	153	ARG	NE-CZ-NH2	6.21	124.79	119.20
23	AW	73	ARG	CA-C-O	-6.21	113.96	120.55
26	BB	1608	A	O4'-C1'-N9	6.21	117.52	108.20
26	BB	2092	U	O4'-C1'-N1	6.21	117.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2742	G	C1'-O4'-C4'	-6.21	103.69	109.90
1	AA	210	C	O3'-P-O5'	6.21	113.32	104.00
42	BR	112	ARG	NE-CZ-NH1	-6.21	115.29	121.50
26	BB	1260	A	O4'-C4'-C3'	6.21	110.21	104.00
26	BB	1680	U	O4'-C1'-N1	6.21	117.82	108.50
37	BM	49	ARG	CA-C-N	6.21	126.87	120.60
37	BM	49	ARG	C-N-CA	6.21	126.87	120.60
46	BV	45	ALA	CA-C-O	-6.21	114.30	120.70
28	BD	144	GLU	O-C-N	6.21	130.01	123.06
1	AA	573	A	C4'-C3'-C2'	-6.21	96.39	102.60
1	AA	784	A	O4'-C4'-C3'	6.21	110.21	104.00
1	AA	950	U	O4'-C1'-N1	6.21	117.81	108.50
1	AA	1512	U	C2'-C3'-O3'	6.21	123.01	113.70
4	AD	61	U	P-O5'-C5'	6.21	130.21	120.90
5	AE	237	VAL	CA-C-O	-6.21	114.59	121.05
31	BG	51	ASN	CA-C-N	6.21	128.60	120.28
31	BG	51	ASN	C-N-CA	6.21	128.60	120.28
26	BB	21	A	C3'-C2'-C1'	-6.21	95.09	101.30
26	BB	254	G	C3'-C2'-C1'	6.21	107.51	101.30
1	AA	1263	C	C4'-C3'-O3'	6.21	122.31	113.00
26	BB	1513	U	C4'-C3'-C2'	-6.21	96.39	102.60
26	BB	1958	C	C1'-C2'-O2'	6.21	117.71	108.40
37	BM	67	LYS	CA-C-N	6.21	132.59	121.92
37	BM	67	LYS	C-N-CA	6.21	132.59	121.92
1	AA	520	A	C3'-C2'-C1'	6.20	107.50	101.30
24	AX	2	VAL	CA-CB-CG1	6.20	120.95	110.40
24	AX	61	ARG	NE-CZ-NH2	6.20	124.78	119.20
26	BB	696	G	C3'-C2'-C1'	6.20	107.50	101.30
26	BB	1306	C	C1'-O4'-C4'	6.20	116.10	109.90
26	BB	1326	U	C5'-C4'-C3'	-6.20	106.70	116.00
27	BC	48	LEU	CA-C-N	6.20	127.58	121.62
27	BC	48	LEU	C-N-CA	6.20	127.58	121.62
30	BF	176	ASP	O-C-N	-6.20	116.99	121.83
33	BI	5	LEU	O-C-N	6.20	130.56	122.93
26	BB	1645	G	C1'-O4'-C4'	6.20	115.90	109.70
26	BB	2147	A	P-O5'-C5'	6.20	130.20	120.90
26	BB	2673	G	C3'-C2'-O2'	6.20	120.00	110.70
27	BC	123	VAL	N-CA-C	6.20	116.98	110.72
1	AA	354	G	C4'-C3'-O3'	-6.20	103.70	113.00
1	AA	472	U	C4'-C3'-O3'	6.20	122.30	113.00
1	AA	492	C	O4'-C4'-C3'	6.20	110.20	104.00
1	AA	898	G	P-O3'-C3'	6.20	129.50	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2235	G	O4'-C4'-C3'	6.20	110.20	104.00
26	BB	2855	C	O5'-C5'-C4'	-6.20	102.20	111.50
29	BE	73	VAL	CA-C-N	6.20	132.48	121.75
29	BE	73	VAL	C-N-CA	6.20	132.48	121.75
35	BK	49	GLU	N-CA-C	6.20	119.47	110.42
45	BU	74	ILE	O-C-N	6.20	130.32	122.57
26	BB	703	U	C3'-C2'-C1'	6.20	107.50	101.30
26	BB	1333	G	O4'-C1'-C2'	-6.20	101.40	107.60
26	BB	2223	G	C4'-C3'-C2'	-6.20	96.40	102.60
1	AA	576	C	C5'-C4'-C3'	-6.20	105.91	115.20
26	BB	1304	A	C4'-C3'-O3'	-6.20	103.70	113.00
3	AC	52	U	C3'-C2'-C1'	6.20	107.69	101.50
26	BB	2692	G	C1'-O4'-C4'	-6.19	103.71	109.90
30	BF	169	VAL	CA-C-O	6.19	126.89	120.39
1	AA	2	A	O4'-C1'-C2'	-6.19	101.41	107.60
12	AL	118	ARG	NE-CZ-NH1	6.19	127.69	121.50
26	BB	1265	A	C5'-C4'-C3'	-6.19	105.91	115.20
54	B3	24	VAL	CA-CB-CG1	6.19	120.93	110.40
1	AA	417	G	C1'-C2'-O2'	6.19	117.69	108.40
1	AA	1213	A	P-O3'-C3'	6.19	129.49	120.20
11	AK	8	ASP	CA-CB-CG	-6.19	106.41	112.60
26	BB	469	G	O4'-C4'-C3'	6.19	110.19	104.00
26	BB	603	A	P-O3'-C3'	6.19	129.49	120.20
26	BB	2680	U	C4'-C3'-O3'	-6.19	103.71	113.00
1	AA	1262	C	O4'-C1'-N1	6.19	117.78	108.50
17	AQ	70	HIS	ND1-CE1-NE2	6.19	114.59	108.40
26	BB	2674	G	O4'-C1'-N9	6.19	117.78	108.50
23	AW	10	ALA	CA-C-N	6.19	128.48	120.56
23	AW	10	ALA	C-N-CA	6.19	128.48	120.56
26	BB	1568	G	C5'-C4'-O4'	6.19	119.08	109.80
26	BB	1571	A	C4'-C3'-O3'	6.19	122.28	113.00
34	BJ	129	PRO	O-C-N	-6.19	115.45	123.06
37	BM	105	ARG	NH1-CZ-NH2	-6.19	111.26	119.30
1	AA	1380	U	O5'-C5'-C4'	6.19	120.98	111.70
1	AA	1431	A	O4'-C1'-C2'	-6.19	101.41	107.60
3	AC	55	A	C4'-C3'-O3'	-6.19	103.72	113.00
26	BB	959	A	C4'-C3'-C2'	6.19	108.79	102.60
26	BB	2903	U	C4'-C3'-O3'	-6.19	103.72	113.00
48	BX	90	ASP	CA-CB-CG	6.19	118.79	112.60
26	BB	2371	G	O4'-C1'-C2'	-6.18	101.42	107.60
26	BB	2583	G	O4'-C4'-C3'	6.18	110.18	104.00
27	BC	161	VAL	O-C-N	-6.18	116.54	123.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	BI	97	ARG	CD-NE-CZ	6.18	133.06	124.40
35	BK	54	ILE	CA-C-O	-6.18	114.69	119.20
1	AA	295	C	O4'-C1'-C2'	-6.18	101.42	107.60
1	AA	1197	A	O4'-C1'-N9	6.18	117.78	108.50
1	AA	1389	C	O4'-C1'-N1	6.18	117.77	108.50
1	AA	1477	U	O5'-C5'-C4'	-6.18	102.23	111.50
26	BB	814	C	C5'-C4'-O4'	6.18	119.07	109.80
26	BB	936	A	C5'-C4'-C3'	-6.18	106.72	116.00
26	BB	1741	C	C4'-C3'-C2'	-6.18	96.42	102.60
26	BB	2224	G	O3'-P-O5'	6.18	113.27	104.00
28	BD	199	HIS	CB-CG-CD2	-6.18	123.16	131.20
1	AA	1142	G	C2'-C3'-O3'	-6.18	104.43	113.70
1	AA	1175	G	C5'-C4'-C3'	-6.18	106.73	116.00
1	AA	1453	G	C4'-C3'-C2'	-6.18	96.42	102.60
18	AR	41	HIS	ND1-CG-CD2	6.18	112.28	106.10
26	BB	273	G	O5'-C5'-C4'	-6.18	102.23	111.50
26	BB	421	C	P-O3'-C3'	6.18	129.47	120.20
26	BB	424	G	O4'-C1'-N9	6.18	117.77	108.50
1	AA	1190	G	C1'-C2'-O2'	6.18	121.07	111.80
1	AA	1303	C	O4'-C1'-C2'	-6.18	101.42	107.60
1	AA	1525	G	C1'-O4'-C4'	6.18	116.08	109.90
26	BB	2129	C	O4'-C1'-N1	6.18	117.77	108.50
43	BS	58	GLN	CA-C-N	6.18	128.56	120.28
43	BS	58	GLN	C-N-CA	6.18	128.56	120.28
1	AA	855	U	C4'-C3'-O3'	6.18	122.27	113.00
1	AA	1388	C	C4'-C3'-C2'	-6.18	96.42	102.60
26	BB	1485	U	O3'-P-O5'	-6.18	94.73	104.00
26	BB	1664	A	O4'-C4'-C3'	6.18	110.18	104.00
26	BB	2477	U	O4'-C4'-C3'	6.18	110.18	104.00
1	AA	197	A	O4'-C1'-C2'	6.17	111.97	105.80
2	AB	71	C	N1-C1'-C2'	-6.17	102.74	112.00
49	BY	11	ASN	N-CA-C	-6.17	105.33	112.92
26	BB	515	A	C4'-C3'-O3'	-6.17	103.74	113.00
26	BB	2061	G	O5'-C5'-C4'	6.17	120.96	111.70
26	BB	2574	G	C4'-C3'-C2'	-6.17	96.43	102.60
1	AA	974	A	C4'-C3'-C2'	-6.17	96.43	102.60
26	BB	203	A	C3'-C2'-C1'	6.17	107.47	101.30
26	BB	523	C	C3'-C2'-O2'	6.17	119.96	110.70
26	BB	2627	G	C1'-O4'-C4'	-6.17	103.73	109.90
1	AA	1121	U	P-O3'-C3'	6.17	129.46	120.20
1	AA	1384	C	C3'-C2'-O2'	-6.17	101.44	110.70
18	AR	48	ASP	CA-CB-CG	6.17	118.77	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	BJ	154	LEU	O-C-N	6.17	130.63	123.41
1	AA	991	U	C4'-C3'-O3'	-6.17	100.15	109.40
26	BB	563	A	C5'-C4'-C3'	-6.17	106.75	116.00
26	BB	1742	U	C3'-C2'-C1'	6.17	107.47	101.30
26	BB	2340	A	C1'-O4'-C4'	6.17	116.07	109.90
29	BE	207	VAL	CA-C-N	6.17	131.81	122.56
29	BE	207	VAL	C-N-CA	6.17	131.81	122.56
34	BJ	19	LYS	O-C-N	6.17	128.66	122.12
35	BK	26	ALA	O-C-N	6.17	128.66	122.12
1	AA	710	G	C4'-C3'-C2'	-6.17	96.43	102.60
4	AD	27	G	C5'-C4'-C3'	-6.17	106.75	116.00
26	BB	295	G	O4'-C1'-C2'	6.17	113.77	107.60
26	BB	1355	G	O3'-P-O5'	-6.17	94.75	104.00
26	BB	1626	A	C3'-C2'-O2'	-6.17	105.35	114.60
46	BV	25	GLU	N-CA-C	6.17	118.51	111.11
1	AA	593	U	O4'-C1'-C2'	-6.17	101.44	107.60
26	BB	2342	C	O4'-C1'-C2'	-6.17	101.44	107.60
1	AA	346	G	O4'-C1'-N9	6.16	117.74	108.50
26	BB	482	A	C4'-C3'-O3'	-6.16	103.75	113.00
26	BB	1129	A	N9-C1'-C2'	6.16	121.25	112.00
26	BB	1715	G	O5'-C5'-C4'	6.16	120.94	111.70
26	BB	2797	U	C2'-C3'-O3'	-6.16	104.45	113.70
28	BD	8	THR	CA-C-N	6.16	133.36	122.08
28	BD	8	THR	C-N-CA	6.16	133.36	122.08
31	BG	96	TRP	O-C-N	6.16	128.65	122.12
47	BW	54	PRO	N-CA-CB	6.16	110.05	103.52
49	BY	68	PHE	CB-CA-C	6.16	119.71	111.82
1	AA	841	C	N1-C1'-C2'	6.16	121.24	112.00
26	BB	833	A	O4'-C1'-C2'	-6.16	101.44	107.60
42	BR	26	GLU	CA-C-O	6.16	127.86	120.28
1	AA	480	U	C5'-C4'-C3'	-6.16	106.76	116.00
1	AA	1107	C	C4'-C3'-O3'	-6.16	103.76	113.00
9	AI	7	VAL	CA-CB-CG1	6.16	120.87	110.40
26	BB	1711	A	C5'-C4'-O4'	6.16	119.04	109.80
26	BB	1745	A	O4'-C1'-C2'	-6.16	101.44	107.60
26	BB	1870	C	C2'-C3'-O3'	-6.16	104.46	113.70
26	BB	2325	G	C4'-C3'-C2'	6.16	108.76	102.60
1	AA	93	U	C1'-C2'-O2'	6.16	117.64	108.40
4	AD	64	G	C4'-C3'-C2'	-6.16	96.44	102.60
26	BB	298	G	C4'-C3'-C2'	-6.16	96.44	102.60
26	BB	606	U	C5'-C4'-O4'	6.16	119.04	109.80
26	BB	1348	C	O4'-C1'-C2'	-6.16	101.44	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	BE	195	GLY	CA-C-O	-6.16	116.18	122.59
33	BI	53	GLU	N-CA-C	6.16	117.66	111.07
26	BB	1442	U	O4'-C1'-N1	6.16	117.74	108.50
1	AA	535	A	O4'-C1'-C2'	6.16	113.75	107.60
25	BA	39	A	C1'-O4'-C4'	-6.16	103.75	109.90
26	BB	1560	G	O5'-C5'-C4'	-6.16	102.27	111.50
26	BB	2756	U	C3'-C2'-O2'	6.16	123.83	114.60
25	BA	12	C	O3'-P-O5'	-6.15	94.77	104.00
26	BB	2162	G	C3'-C2'-C1'	6.15	107.45	101.30
18	AR	28	VAL	N-CA-C	6.15	116.89	110.62
26	BB	110	G	C1'-C2'-O2'	6.15	117.63	108.40
26	BB	1111	A	C5'-C4'-O4'	6.15	118.33	109.10
26	BB	1173	U	C3'-C2'-C1'	6.15	107.45	101.30
46	BV	51	PHE	CA-CB-CG	6.15	119.95	113.80
1	AA	926	G	C1'-C2'-O2'	-6.15	102.58	111.80
1	AA	1452	C	O4'-C1'-N1	6.15	117.43	108.20
25	BA	106	G	C1'-C2'-O2'	6.15	117.63	108.40
26	BB	992	C	C5'-C4'-O4'	6.15	119.03	109.80
26	BB	642	U	C2'-C3'-O3'	-6.15	104.48	113.70
26	BB	2117	A	C4'-C3'-C2'	-6.15	96.45	102.60
29	BE	23	PRO	N-CA-CB	6.15	108.80	103.27
37	BM	13	ASN	CA-CB-CG	6.15	118.75	112.60
39	BO	50	ARG	NE-CZ-NH1	-6.15	115.35	121.50
2	AB	61	C	O5'-C5'-C4'	-6.15	102.28	111.50
34	BJ	43	ALA	CA-C-N	6.15	126.80	119.98
34	BJ	43	ALA	C-N-CA	6.15	126.80	119.98
1	AA	422	C	C4'-C3'-C2'	-6.14	96.46	102.60
1	AA	1337	G	C4'-C3'-O3'	-6.14	103.78	113.00
25	BA	85	G	O4'-C4'-C3'	6.14	110.14	104.00
26	BB	2063	C	C1'-O4'-C4'	-6.14	103.76	109.90
29	BE	2	ILE	N-CA-C	6.14	116.95	108.84
1	AA	1495	U	C4'-C3'-C2'	-6.14	96.46	102.60
25	BA	51	G	O4'-C1'-C2'	-6.14	101.46	107.60
26	BB	197	A	O5'-C5'-C4'	-6.14	102.29	111.50
18	AR	47	LYS	CB-CA-C	6.14	119.42	111.50
26	BB	1173	U	C1'-C2'-O2'	-6.14	99.19	108.40
26	BB	1648	U	C4'-C3'-C2'	-6.14	96.46	102.60
1	AA	470	C	O5'-C5'-C4'	-6.14	102.29	111.50
1	AA	614	C	C4'-C3'-O3'	6.14	122.21	113.00
26	BB	672	C	C3'-C2'-C1'	6.14	107.44	101.30
26	BB	177	G	O5'-C5'-C4'	6.14	120.91	111.70
26	BB	1273	U	C5'-C4'-C3'	-6.14	106.80	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1504	A	O4'-C4'-C3'	-6.14	97.86	104.00
26	BB	1583	A	P-O3'-C3'	6.14	129.41	120.20
26	BB	1631	G	C3'-C2'-O2'	6.14	119.90	110.70
26	BB	2185	U	O4'-C4'-C3'	6.14	110.14	104.00
28	BD	130	PRO	N-CA-CB	6.14	108.77	103.31
1	AA	1072	G	O4'-C1'-C2'	-6.13	101.47	107.60
13	AM	13	PHE	CA-CB-CG	6.13	119.93	113.80
26	BB	219	A	C5'-C4'-C3'	-6.13	106.80	116.00
26	BB	2709	G	C3'-C2'-C1'	6.13	107.44	101.30
26	BB	2811	G	O4'-C1'-C2'	-6.13	101.47	107.60
27	BC	17	ALA	N-CA-C	6.13	118.10	108.96
1	AA	628	G	O4'-C1'-N9	6.13	117.70	108.50
26	BB	544	C	C4'-C3'-C2'	-6.13	96.47	102.60
26	BB	1650	A	O4'-C1'-N9	6.13	117.70	108.50
9	AI	81	ASN	CA-CB-CG	6.13	118.73	112.60
10	AJ	91	ARG	CA-C-N	6.13	126.31	119.32
10	AJ	91	ARG	C-N-CA	6.13	126.31	119.32
26	BB	2832	U	C2'-C3'-O3'	6.13	118.70	109.50
1	AA	376	G	C1'-O4'-C4'	-6.13	103.77	109.90
26	BB	1975	G	O4'-C1'-C2'	6.13	113.73	107.60
27	BC	35	THR	CA-CB-OG1	6.13	118.79	109.60
1	AA	829	G	C3'-C2'-O2'	6.13	119.89	110.70
1	AA	1505	G	O4'-C1'-C2'	-6.13	101.47	107.60
26	BB	1661	G	C4'-C3'-C2'	-6.13	96.47	102.60
26	BB	2425	A	C2'-C3'-O3'	6.13	118.69	109.50
26	BB	2597	G	P-O3'-C3'	6.13	129.39	120.20
26	BB	2611	C	O5'-C5'-C4'	-6.13	102.31	111.50
26	BB	2632	A	C5'-C4'-O4'	6.13	118.99	109.80
1	AA	562	U	O5'-C5'-C4'	6.13	120.89	111.70
1	AA	639	G	C5'-C4'-O4'	6.13	118.99	109.80
26	BB	150	U	O4'-C1'-N1	6.13	117.69	108.50
26	BB	1632	A	C3'-C2'-C1'	6.13	107.43	101.30
31	BG	139	GLU	N-CA-C	-6.13	104.51	112.23
42	BR	31	VAL	CA-CB-CG1	6.13	120.82	110.40
47	BW	87	GLU	CA-C-N	6.12	132.16	122.36
47	BW	87	GLU	C-N-CA	6.12	132.16	122.36
1	AA	421	U	C1'-O4'-C4'	6.12	115.82	109.70
26	BB	2021	C	P-O3'-C3'	6.12	129.39	120.20
26	BB	2451	A	C5'-C4'-C3'	-6.12	106.81	116.00
1	AA	134	G	O3'-P-O5'	6.12	113.18	104.00
1	AA	177	G	C3'-C2'-C1'	6.12	107.42	101.30
2	AB	11	U	O4'-C1'-N1	6.12	117.68	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	AC	30	U	O4'-C4'-C3'	6.12	110.12	104.00
17	AQ	100	TRP	CA-CB-CG	6.12	125.23	113.60
25	BA	57	A	N9-C1'-C2'	6.12	121.18	112.00
26	BB	568	U	C4'-C3'-C2'	6.12	108.72	102.60
26	BB	718	A	C4'-C3'-C2'	-6.12	96.48	102.60
26	BB	1802	A	C4'-C3'-O3'	-6.12	103.82	113.00
26	BB	2349	G	C2'-C3'-O3'	-6.12	104.52	113.70
32	BH	27	GLY	CA-C-N	6.12	130.89	121.83
32	BH	27	GLY	C-N-CA	6.12	130.89	121.83
1	AA	471	U	C4'-C3'-C2'	-6.12	96.48	102.60
1	AA	834	U	C4'-C3'-C2'	-6.12	96.48	102.60
5	AE	77	GLU	CA-C-N	6.12	129.61	120.31
5	AE	77	GLU	C-N-CA	6.12	129.61	120.31
16	AP	25	GLY	N-CA-C	-6.12	105.45	112.79
26	BB	329	G	C1'-C2'-O2'	6.12	120.98	111.80
26	BB	1943	U	C3'-C2'-O2'	-6.12	105.42	114.60
42	BR	77	SER	N-CA-CB	-6.12	101.19	109.88
13	AM	54	SER	CA-C-O	-6.12	114.08	120.87
25	BA	40	U	C5'-C4'-C3'	-6.12	106.03	115.20
26	BB	402	A	O4'-C1'-N9	6.12	117.67	108.50
28	BD	164	VAL	CA-C-O	6.12	126.08	119.35
1	AA	115	G	C5'-C4'-C3'	-6.12	106.03	115.20
1	AA	1092	A	O4'-C4'-C3'	6.12	110.12	104.00
1	AA	1141	C	O4'-C1'-N1	6.12	117.67	108.50
7	AG	72	ARG	N-CA-C	6.12	117.94	111.28
14	AN	32	THR	CB-CA-C	6.12	119.56	110.14
26	BB	545	U	C4'-C3'-C2'	6.12	108.72	102.60
26	BB	1391	U	O4'-C1'-C2'	-6.12	99.69	105.80
26	BB	1702	G	C4'-C3'-O3'	6.12	122.17	113.00
27	BC	171	ILE	CA-C-O	6.12	127.07	120.53
1	AA	7	A	O4'-C1'-C2'	-6.11	101.49	107.60
10	AJ	129	ASN	CA-C-O	-6.11	114.12	121.40
25	BA	38	C	N1-C1'-C2'	-6.11	102.83	112.00
26	BB	69	C	O4'-C1'-N1	6.11	117.67	108.50
1	AA	250	A	C4'-C3'-O3'	-6.11	103.83	113.00
1	AA	1098	C	N1-C1'-C2'	-6.11	102.83	112.00
1	AA	1367	C	C4'-C3'-C2'	-6.11	96.49	102.60
12	AL	85	ALA	CA-C-O	-6.11	114.41	120.70
1	AA	1223	C	C5'-C4'-C3'	-6.11	106.83	116.00
3	AC	18	A	C4'-C3'-C2'	-6.11	96.49	102.60
3	AC	52	U	O4'-C1'-N1	6.11	117.36	108.20
3	AC	53	G	O4'-C1'-C2'	-6.11	101.49	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	46	A	C5'-C4'-C3'	6.11	125.17	116.00
26	BB	798	G	C3'-C2'-C1'	-6.11	95.19	101.30
26	BB	2387	U	O4'-C1'-C2'	-6.11	101.49	107.60
26	BB	2675	A	O3'-P-O5'	6.11	113.17	104.00
27	BC	188	ASN	CA-C-N	6.11	128.38	120.44
27	BC	188	ASN	C-N-CA	6.11	128.38	120.44
31	BG	110	ILE	O-C-N	6.11	130.21	122.57
26	BB	1598	A	C5'-C4'-O4'	6.11	118.96	109.80
5	AE	180	ILE	CA-CB-CG2	6.11	120.88	110.50
48	BX	79	ARG	CA-CB-CG	-6.11	101.88	114.10
1	AA	171	A	C4'-C3'-O3'	-6.11	103.84	113.00
1	AA	750	C	O4'-C1'-N1	6.11	117.66	108.50
12	AL	129	ARG	CB-CG-CD	6.11	125.34	111.30
14	AN	100	ASN	CA-CB-CG	6.11	118.71	112.60
26	BB	1034	G	O4'-C4'-C3'	6.11	110.11	104.00
26	BB	1583	A	C1'-C2'-O2'	6.11	120.96	111.80
26	BB	2838	G	O4'-C4'-C3'	6.11	110.11	104.00
49	BY	19	ARG	CD-NE-CZ	6.11	132.95	124.40
1	AA	1363	A	O3'-P-O5'	-6.10	94.84	104.00
26	BB	288	U	C5'-C4'-C3'	6.10	125.16	116.00
26	BB	1250	G	C5'-C4'-O4'	6.10	118.26	109.10
1	AA	224	U	O4'-C1'-N1	6.10	117.65	108.50
1	AA	287	U	O4'-C1'-N1	6.10	117.65	108.50
1	AA	1300	G	C3'-C2'-C1'	6.10	107.60	101.50
11	AK	90	GLU	O-C-N	6.10	128.88	122.23
25	BA	57	A	P-O3'-C3'	6.10	129.35	120.20
26	BB	1034	G	C4'-C3'-C2'	-6.10	96.50	102.60
26	BB	2739	U	C4'-C3'-C2'	-6.10	96.50	102.60
26	BB	649	G	C5'-C4'-C3'	-6.10	106.85	116.00
1	AA	332	G	C5'-C4'-O4'	6.10	118.95	109.80
1	AA	1194	U	O4'-C1'-N1	6.10	117.65	108.50
26	BB	1691	C	C3'-C2'-O2'	6.10	119.85	110.70
27	BC	202	THR	CA-C-N	6.10	130.64	120.70
27	BC	202	THR	C-N-CA	6.10	130.64	120.70
40	BP	71	ARG	N-CA-C	6.10	118.72	108.23
26	BB	1542	U	C4'-C3'-C2'	-6.10	96.50	102.60
26	BB	2190	G	C3'-C2'-O2'	6.10	119.85	110.70
26	BB	2480	C	O4'-C1'-N1	6.10	117.65	108.50
54	B3	28	SER	CA-C-N	6.10	131.24	122.77
54	B3	28	SER	C-N-CA	6.10	131.24	122.77
1	AA	1	A	C3'-C2'-C1'	6.10	107.40	101.30
26	BB	1722	A	C1'-O4'-C4'	6.10	116.00	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1775	U	C3'-C2'-C1'	-6.10	95.20	101.30
3	AC	23	C	O4'-C4'-C3'	-6.09	97.91	104.00
26	BB	674	G	N9-C1'-C2'	-6.09	102.86	112.00
26	BB	1913	A	C2'-C3'-O3'	6.09	118.64	109.50
1	AA	1235	U	O4'-C1'-N1	6.09	117.64	108.50
4	AD	48	U	C3'-C2'-O2'	6.09	119.84	110.70
29	BE	33	ARG	CA-C-O	-6.09	113.94	120.46
1	AA	562	U	C3'-C2'-C1'	-6.09	95.41	101.50
4	AD	17	C	C5'-C4'-O4'	6.09	118.24	109.10
7	AG	5	GLY	CA-C-N	6.09	127.45	119.84
7	AG	5	GLY	C-N-CA	6.09	127.45	119.84
26	BB	386	G	C3'-C2'-C1'	6.09	107.59	101.50
26	BB	718	A	C1'-O4'-C4'	-6.09	103.81	109.90
26	BB	838	C	C4'-C3'-C2'	-6.09	96.51	102.60
26	BB	1663	G	C3'-C2'-O2'	6.09	119.84	110.70
26	BB	1779	U	O4'-C1'-C2'	-6.09	101.51	107.60
1	AA	963	G	P-O5'-C5'	6.09	130.03	120.90
1	AA	1419	G	O5'-C5'-C4'	-6.09	102.36	111.50
25	BA	77	U	O4'-C1'-N1	6.09	117.63	108.50
25	BA	86	G	C4'-C3'-C2'	-6.09	96.51	102.60
26	BB	1186	G	C1'-O4'-C4'	6.09	115.99	109.90
19	AS	13	LYS	CA-C-O	-6.09	113.14	120.32
1	AA	236	A	C4'-C3'-C2'	-6.09	96.51	102.60
1	AA	664	G	C3'-C2'-C1'	-6.09	95.21	101.30
2	AB	14	A	C5'-C4'-C3'	-6.09	106.87	116.00
3	AC	57	C	C4'-C3'-C2'	-6.09	96.51	102.60
5	AE	143	LEU	CA-C-N	6.09	128.72	120.44
5	AE	143	LEU	C-N-CA	6.09	128.72	120.44
2	AB	76	A	O4'-C4'-C3'	-6.08	100.02	106.10
26	BB	1550	C	C4'-C3'-C2'	-6.08	96.52	102.60
28	BD	18	VAL	N-CA-C	-6.08	98.92	108.23
1	AA	95	C	C5'-C4'-O4'	6.08	118.93	109.80
1	AA	271	C	C4'-C3'-O3'	-6.08	103.87	113.00
1	AA	836	G	C4'-C3'-C2'	-6.08	96.52	102.60
26	BB	819	A	C3'-C2'-C1'	6.08	107.38	101.30
28	BD	236	GLY	CA-C-O	-6.08	109.98	120.57
1	AA	109	A	C5'-C4'-C3'	-6.08	106.08	115.20
26	BB	1307	A	O4'-C4'-C3'	-6.08	97.92	104.00
1	AA	7	A	C5'-C4'-C3'	-6.08	106.88	116.00
26	BB	18	U	O4'-C1'-N1	6.08	117.62	108.50
26	BB	1308	A	P-O3'-C3'	6.08	129.32	120.20
1	AA	1398	A	C4'-C3'-C2'	-6.08	96.52	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	222	A	O4'-C4'-C3'	6.08	112.18	106.10
26	BB	696	G	C4'-C3'-C2'	-6.08	96.52	102.60
26	BB	2596	U	C5'-C4'-C3'	-6.08	106.88	116.00
26	BB	1058	U	C5'-C4'-C3'	-6.08	106.89	116.00
26	BB	1091	G	O4'-C1'-C2'	6.08	113.68	107.60
26	BB	1123	C	C2'-C3'-O3'	-6.08	104.58	113.70
1	AA	177	G	C4'-C3'-C2'	-6.08	96.52	102.60
1	AA	814	A	N9-C1'-C2'	-6.08	102.89	112.00
1	AA	676	A	C5'-C4'-C3'	-6.07	106.89	116.00
26	BB	402	A	C1'-O4'-C4'	6.07	115.97	109.90
26	BB	1888	G	O4'-C4'-C3'	-6.07	97.93	104.00
26	BB	2468	A	P-O3'-C3'	6.07	129.31	120.20
39	BO	71	LYS	CB-CA-C	6.07	116.78	109.31
1	AA	764	C	P-O3'-C3'	6.07	129.31	120.20
1	AA	911	U	C3'-C2'-C1'	6.07	107.37	101.30
26	BB	2593	U	C5'-C4'-O4'	6.07	118.91	109.80
52	B1	25	GLY	O-C-N	6.07	128.02	122.19
1	AA	181	A	C3'-C2'-C1'	-6.07	95.43	101.50
1	AA	1075	U	C1'-C2'-O2'	-6.07	99.29	108.40
1	AA	1252	A	C3'-C2'-O2'	6.07	119.81	110.70
3	AC	20	G	O4'-C1'-C2'	-6.07	101.53	107.60
25	BA	63	C	O4'-C1'-N1	6.07	117.61	108.50
26	BB	292	U	C3'-C2'-O2'	6.07	119.81	110.70
26	BB	1572	A	O4'-C4'-C3'	6.07	110.07	104.00
26	BB	2104	C	O4'-C4'-C3'	6.07	110.07	104.00
29	BE	31	ALA	CA-C-N	6.07	131.33	122.41
29	BE	31	ALA	C-N-CA	6.07	131.33	122.41
36	BL	130	HIS	CA-C-O	6.07	127.40	120.54
8	AH	53	ARG	N-CA-CB	-6.07	101.20	110.12
32	BH	79	THR	CA-C-N	6.07	132.69	121.52
32	BH	79	THR	C-N-CA	6.07	132.69	121.52
44	BT	33	VAL	CB-CA-C	6.07	119.09	110.84
1	AA	997	U	O3'-P-O5'	-6.07	94.90	104.00
26	BB	253	C	C5'-C4'-O4'	6.07	118.90	109.80
26	BB	1147	A	C4'-C3'-C2'	-6.07	96.53	102.60
26	BB	2149	U	C3'-C2'-O2'	6.07	119.80	110.70
1	AA	1124	G	C1'-O4'-C4'	-6.07	103.63	109.70
6	AF	178	ARG	CB-CA-C	6.07	120.95	109.37
26	BB	89	A	C3'-C2'-O2'	6.07	119.80	110.70
26	BB	1943	U	C1'-O4'-C4'	6.07	115.77	109.70
25	BA	43	C	P-O3'-C3'	6.06	129.30	120.20
26	BB	223	A	C1'-C2'-O2'	6.06	117.50	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	551	U	N1-C1'-C2'	-6.06	102.91	112.00
1	AA	1029	U	C4'-C3'-O3'	6.06	118.49	109.40
9	AI	94	HIS	CB-CG-ND1	6.06	131.79	122.70
17	AQ	55	SER	CA-C-N	6.06	127.42	119.84
17	AQ	55	SER	C-N-CA	6.06	127.42	119.84
26	BB	2194	U	C3'-C2'-O2'	6.06	119.79	110.70
26	BB	2351	G	C1'-O4'-C4'	6.06	115.96	109.90
58	B7	10	LEU	N-CA-C	-6.06	106.86	114.56
25	BA	82	U	C4'-C3'-C2'	-6.06	96.54	102.60
1	AA	376	G	O4'-C4'-C3'	6.06	110.06	104.00
1	AA	598	U	O4'-C4'-C3'	6.06	110.06	104.00
2	AB	9	A	O4'-C4'-C3'	6.06	110.06	104.00
15	AO	93	ARG	NE-CZ-NH2	-6.06	113.75	119.20
26	BB	1159	U	C5'-C4'-C3'	-6.06	106.91	116.00
26	BB	2676	C	C3'-C2'-O2'	6.06	119.79	110.70
57	B6	61	LEU	CB-CA-C	-6.06	102.65	111.01
1	AA	829	G	O4'-C4'-C3'	6.06	110.06	104.00
1	AA	1393	U	O4'-C1'-N1	6.06	117.59	108.50
2	AB	35	C	C5'-C4'-O4'	6.06	118.89	109.80
26	BB	112	U	O3'-P-O5'	6.06	113.09	104.00
26	BB	154	U	P-O5'-C5'	6.06	129.99	120.90
28	BD	215	VAL	CA-C-O	-6.06	114.83	120.22
44	BT	78	ARG	CA-C-N	6.06	133.11	121.54
44	BT	78	ARG	C-N-CA	6.06	133.11	121.54
45	BU	9	HIS	CB-CG-CD2	-6.06	123.33	131.20
26	BB	610	C	C5'-C4'-O4'	6.06	118.88	109.80
26	BB	1418	G	C4'-C3'-O3'	-6.06	103.92	113.00
26	BB	2319	G	O4'-C4'-C3'	6.06	112.16	106.10
1	AA	1465	A	O4'-C1'-C2'	6.05	113.65	107.60
26	BB	1537	G	C1'-C2'-O2'	6.05	117.48	108.40
26	BB	2737	G	C3'-C2'-C1'	6.05	107.35	101.30
10	AJ	138	GLU	CA-C-N	6.05	128.67	120.44
10	AJ	138	GLU	C-N-CA	6.05	128.67	120.44
26	BB	521	U	O4'-C4'-C3'	6.05	110.05	104.00
26	BB	2754	U	O4'-C1'-N1	6.05	117.58	108.50
1	AA	336	A	O4'-C1'-C2'	-6.05	101.55	107.60
1	AA	782	A	N9-C1'-C2'	-6.05	102.92	112.00
1	AA	883	C	P-O5'-C5'	6.05	129.98	120.90
1	AA	992	U	O4'-C1'-C2'	6.05	111.85	105.80
1	AA	1417	G	O5'-C5'-C4'	-6.05	102.42	111.50
1	AA	696	A	C1'-O4'-C4'	-6.05	103.85	109.90
1	AA	726	C	C4'-C3'-C2'	-6.05	96.55	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	238	GLU	CA-C-N	6.05	132.93	122.64
5	AE	238	GLU	C-N-CA	6.05	132.93	122.64
6	AF	172	VAL	CA-C-N	6.05	125.96	119.85
6	AF	172	VAL	C-N-CA	6.05	125.96	119.85
26	BB	941	A	C4'-C3'-C2'	-6.05	96.55	102.60
26	BB	1695	G	O4'-C1'-N9	6.05	117.57	108.50
26	BB	1849	G	C4'-C3'-O3'	-6.05	103.93	113.00
26	BB	2200	C	C4'-C3'-C2'	-6.05	96.55	102.60
26	BB	2367	G	O3'-P-O5'	6.05	113.07	104.00
34	BJ	147	ALA	CA-C-N	6.05	126.71	120.60
34	BJ	147	ALA	C-N-CA	6.05	126.71	120.60
1	AA	1197	A	O3'-P-O5'	6.05	113.07	104.00
26	BB	829	A	C4'-C3'-O3'	6.05	118.47	109.40
26	BB	2105	U	O3'-P-O5'	-6.05	94.93	104.00
42	BR	4	ILE	CA-C-N	6.05	133.09	121.54
42	BR	4	ILE	C-N-CA	6.05	133.09	121.54
3	AC	22	G	P-O3'-C3'	6.05	129.27	120.20
24	AX	5	VAL	CB-CA-C	6.05	118.24	111.59
24	AX	44	ARG	O-C-N	6.05	130.20	122.10
26	BB	111	A	O4'-C4'-C3'	6.05	110.05	104.00
26	BB	940	G	O4'-C1'-C2'	-6.05	101.55	107.60
26	BB	1419	A	C5'-C4'-C3'	-6.05	106.93	116.00
26	BB	2135	A	C4'-C3'-C2'	-6.05	96.55	102.60
26	BB	2707	U	C3'-C2'-C1'	6.05	107.35	101.30
26	BB	2841	C	C4'-C3'-C2'	-6.05	96.55	102.60
34	BJ	8	GLN	O-C-N	6.05	130.43	122.33
43	BS	31	TYR	N-CA-C	6.05	117.54	111.07
52	B1	15	ARG	CB-CG-CD	6.05	125.20	111.30
1	AA	9	G	O4'-C4'-C3'	6.04	110.05	104.00
5	AE	167	HIS	CB-CG-CD2	-6.04	123.34	131.20
26	BB	764	A	C3'-C2'-C1'	6.04	107.54	101.50
26	BB	1265	A	N9-C1'-C2'	-6.04	104.93	114.00
26	BB	2301	C	C4'-C3'-C2'	-6.04	96.56	102.60
26	BB	2595	G	C5'-C4'-C3'	-6.04	106.94	116.00
27	BC	41	SER	CB-CA-C	6.04	119.77	109.80
1	AA	534	U	O4'-C1'-N1	6.04	117.56	108.50
10	AJ	169	SER	CA-C-N	6.04	131.51	123.05
10	AJ	169	SER	C-N-CA	6.04	131.51	123.05
13	AM	24	GLU	N-CA-C	6.04	117.94	111.36
26	BB	1337	G	C3'-C2'-C1'	-6.04	95.26	101.30
1	AA	71	A	O4'-C4'-C3'	6.04	110.04	104.00
1	AA	1215	G	O4'-C1'-N9	6.04	117.56	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	AM	70	HIS	CB-CG-CD2	-6.04	123.35	131.20
16	AP	27	THR	O-C-N	6.04	128.29	122.07
26	BB	758	C	O4'-C4'-C3'	-6.04	97.96	104.00
43	BS	34	ALA	CA-C-N	6.04	128.29	120.44
43	BS	34	ALA	C-N-CA	6.04	128.29	120.44
26	BB	236	C	O4'-C1'-C2'	-6.04	101.56	107.60
26	BB	1957	C	O4'-C1'-C2'	-6.04	101.56	107.60
1	AA	1433	A	C1'-C2'-O2'	6.04	117.45	108.40
3	AC	17	U	C2'-C3'-O3'	6.04	118.55	109.50
8	AH	152	VAL	N-CA-C	-6.04	107.61	113.53
13	AM	5	ARG	NE-CZ-NH2	-6.04	113.77	119.20
27	BC	44	VAL	N-CA-C	6.04	116.56	108.11
36	BL	37	ARG	NE-CZ-NH1	-6.04	115.46	121.50
1	AA	700	G	C5'-C4'-O4'	6.03	118.85	109.80
26	BB	541	A	C3'-C2'-C1'	6.03	107.33	101.30
26	BB	599	A	O4'-C1'-C2'	-6.03	101.57	107.60
26	BB	1358	G	C3'-C2'-C1'	6.03	107.33	101.30
26	BB	1934	C	C3'-C2'-O2'	6.03	119.75	110.70
26	BB	1935	G	O5'-C5'-C4'	-6.03	102.45	111.50
26	BB	2217	G	O4'-C1'-C2'	-6.03	101.57	107.60
26	BB	2599	G	C3'-C2'-O2'	6.03	119.75	110.70
35	BK	55	PRO	N-CA-CB	6.03	108.68	103.31
1	AA	177	G	O4'-C1'-C2'	-6.03	101.57	107.60
1	AA	601	G	C4'-C3'-C2'	-6.03	96.57	102.60
26	BB	355	U	O4'-C1'-N1	6.03	117.55	108.50
26	BB	835	C	C5'-C4'-O4'	6.03	118.85	109.80
26	BB	1265	A	O4'-C4'-C3'	-6.03	100.07	106.10
1	AA	575	G	C3'-C2'-O2'	-6.03	105.55	114.60
1	AA	1006	G	O4'-C4'-C3'	6.03	110.03	104.00
13	AM	62	ARG	NE-CZ-NH1	6.03	127.53	121.50
26	BB	797	G	C5'-C4'-C3'	-6.03	106.96	116.00
26	BB	2323	G	O4'-C1'-C2'	-6.03	101.57	107.60
34	BJ	6	ASP	CA-C-N	6.03	129.48	120.31
34	BJ	6	ASP	C-N-CA	6.03	129.48	120.31
43	BS	52	ARG	CA-C-N	6.03	128.85	120.29
43	BS	52	ARG	C-N-CA	6.03	128.85	120.29
1	AA	174	A	O4'-C1'-N9	6.03	117.54	108.50
1	AA	511	C	N1-C1'-C2'	6.03	123.04	114.00
26	BB	288	U	O4'-C1'-N1	6.03	117.54	108.50
26	BB	582	A	C4'-C3'-C2'	-6.03	96.57	102.60
1	AA	747	A	C4'-C3'-C2'	-6.03	96.57	102.60
26	BB	240	C	O4'-C1'-N1	6.03	117.54	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	813	U	C4'-C3'-C2'	-6.03	96.57	102.60
26	BB	1648	U	C5'-C4'-C3'	-6.03	106.96	116.00
26	BB	1669	A	C1'-O4'-C4'	-6.03	103.87	109.90
26	BB	2639	A	O5'-C5'-C4'	6.03	120.54	111.50
28	BD	79	ARG	NE-CZ-NH2	6.03	124.62	119.20
34	BJ	93	ARG	NE-CZ-NH2	6.03	124.62	119.20
41	BQ	19	GLN	CA-C-O	-6.03	113.04	119.97
6	AF	149	LYS	CB-CG-CD	6.03	125.16	111.30
14	AN	22	ILE	CB-CA-C	6.03	119.33	110.77
26	BB	20	C	N1-C1'-C2'	-6.03	102.96	112.00
26	BB	486	C	C1'-O4'-C4'	6.03	115.93	109.90
26	BB	543	G	O5'-C5'-C4'	6.03	120.54	111.50
26	BB	1865	U	C4'-C3'-C2'	-6.03	96.57	102.60
26	BB	1883	U	O4'-C1'-N1	6.03	117.54	108.50
26	BB	2242	G	C4'-C3'-C2'	-6.03	96.57	102.60
26	BB	2323	G	C5'-C4'-O4'	6.03	118.84	109.80
26	BB	2699	C	C5'-C4'-C3'	6.03	125.04	116.00
29	BE	13	ARG	CB-CA-C	6.03	120.75	110.81
38	BN	99	ASN	OD1-CG-ND2	-6.03	116.57	122.60
3	AC	19	A	C3'-C2'-O2'	-6.02	105.57	114.60
20	AT	46	HIS	N-CA-C	6.02	118.93	109.96
26	BB	26	G	C5'-C4'-O4'	6.02	118.83	109.80
26	BB	498	G	C4'-C3'-C2'	-6.02	96.58	102.60
26	BB	1650	A	C4'-C3'-C2'	-6.02	96.58	102.60
26	BB	2670	A	C1'-O4'-C4'	-6.02	103.88	109.90
26	BB	2722	G	O4'-C4'-C3'	6.02	110.02	104.00
41	BQ	101	GLY	CA-C-N	6.02	128.63	120.44
41	BQ	101	GLY	C-N-CA	6.02	128.63	120.44
1	AA	657	U	C1'-C2'-O2'	-6.02	99.37	108.40
7	AG	204	SER	N-CA-C	6.02	117.64	111.14
1	AA	198	G	O5'-C5'-C4'	-6.02	102.47	111.50
9	AI	68	GLN	CA-C-N	6.02	128.63	120.38
9	AI	68	GLN	C-N-CA	6.02	128.63	120.38
10	AJ	110	ARG	CA-C-N	6.02	130.66	120.91
10	AJ	110	ARG	C-N-CA	6.02	130.66	120.91
26	BB	1564	C	C4'-C3'-C2'	-6.02	96.58	102.60
26	BB	2170	A	O4'-C1'-C2'	6.02	113.62	107.60
26	BB	2810	A	C3'-C2'-C1'	-6.02	95.28	101.30
36	BL	68	LYS	CA-C-N	6.02	128.27	120.44
36	BL	68	LYS	C-N-CA	6.02	128.27	120.44
43	BS	105	PHE	N-CA-C	6.02	119.94	112.47
1	AA	1391	U	C3'-C2'-O2'	6.02	119.72	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	92	ASP	N-CA-C	6.02	117.84	111.28
7	AG	27	ILE	O-C-N	6.02	130.09	122.57
14	AN	87	GLY	CA-C-N	6.02	126.97	120.83
14	AN	87	GLY	C-N-CA	6.02	126.97	120.83
26	BB	173	A	O4'-C4'-C3'	6.02	110.02	104.00
26	BB	1924	C	C4'-C3'-C2'	-6.02	96.58	102.60
26	BB	1933	G	C1'-O4'-C4'	6.02	115.92	109.90
26	BB	2684	U	C4'-C3'-C2'	-6.02	96.58	102.60
41	BQ	31	THR	CA-CB-CG2	6.02	120.73	110.50
1	AA	336	A	O5'-C5'-C4'	6.02	120.52	111.50
9	AI	22	ILE	O-C-N	6.02	127.70	121.87
15	AO	45	ASN	N-CA-CB	-6.02	101.26	111.31
26	BB	856	G	N9-C1'-C2'	-6.02	102.98	112.00
26	BB	679	C	C1'-O4'-C4'	-6.01	103.89	109.90
43	BS	14	LYS	CA-C-N	6.01	128.26	120.44
43	BS	14	LYS	C-N-CA	6.01	128.26	120.44
1	AA	455	G	C1'-O4'-C4'	-6.01	103.89	109.90
26	BB	67	U	C3'-C2'-O2'	6.01	119.72	110.70
1	AA	985	C	O4'-C1'-N1	6.01	117.52	108.50
1	AA	1426	G	O4'-C4'-C3'	6.01	110.01	104.00
1	AA	1490	U	C4'-C3'-C2'	-6.01	96.59	102.60
26	BB	1974	C	C4'-C3'-O3'	-6.01	103.98	113.00
3	AC	19	A	O4'-C1'-C2'	-6.01	99.79	105.80
26	BB	1264	A	O4'-C4'-C3'	6.01	110.01	104.00
27	BC	126	GLN	CB-CA-C	6.01	119.25	111.50
26	BB	161	A	C1'-O4'-C4'	-6.01	103.89	109.90
53	B2	51	VAL	CA-CB-CG2	6.01	120.61	110.40
1	AA	1275	A	O4'-C1'-N9	6.01	117.51	108.50
8	AH	88	HIS	CB-CG-CD2	-6.01	123.39	131.20
26	BB	166	U	O4'-C4'-C3'	6.01	110.01	104.00
26	BB	1241	A	C4'-C3'-C2'	-6.01	96.59	102.60
26	BB	2210	U	O4'-C1'-N1	6.01	117.21	108.20
26	BB	2433	A	C3'-C2'-C1'	-6.01	95.29	101.30
26	BB	2555	U	C4'-C3'-O3'	6.01	122.01	113.00
39	BO	132	THR	CB-CA-C	6.01	120.19	109.38
41	BQ	9	ARG	NE-CZ-NH2	-6.01	113.79	119.20
1	AA	505	G	C5'-C4'-O4'	6.00	118.81	109.80
6	AF	21	TRP	NE1-CE2-CD2	-6.00	99.59	107.40
26	BB	1008	A	C4'-C3'-O3'	6.00	118.41	109.40
26	BB	2296	U	P-O5'-C5'	6.00	129.91	120.90
26	BB	2624	G	C3'-C2'-C1'	-6.00	95.30	101.30
32	BH	58	ALA	N-CA-C	6.00	119.71	112.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	41	G	C4'-C3'-O3'	-6.00	100.39	109.40
26	BB	629	G	C5'-C4'-C3'	-6.00	106.99	116.00
26	BB	1173	U	O4'-C4'-C3'	6.00	110.00	104.00
1	AA	119	A	C1'-C2'-O2'	-6.00	102.80	111.80
1	AA	632	U	C4'-C3'-O3'	-6.00	104.00	113.00
1	AA	1520	C	O3'-P-O5'	-6.00	95.00	104.00
11	AK	20	ASN	CA-CB-CG	-6.00	106.60	112.60
19	AS	47	GLU	N-CA-C	-6.00	105.88	112.72
26	BB	57	C	C1'-O4'-C4'	6.00	115.90	109.90
26	BB	1755	A	C5'-C4'-O4'	6.00	118.80	109.80
26	BB	1967	C	C5'-C4'-C3'	-6.00	107.00	116.00
26	BB	2735	G	C3'-C2'-C1'	-6.00	95.30	101.30
1	AA	57	G	O3'-P-O5'	-6.00	95.00	104.00
1	AA	184	G	O5'-C5'-C4'	6.00	120.50	111.50
5	AE	163	ILE	N-CA-C	-6.00	105.97	111.67
9	AI	58	HIS	CG-CD2-NE2	6.00	113.20	107.20
26	BB	1970	A	C5'-C4'-C3'	-6.00	106.20	115.20
26	BB	2128	G	C1'-C2'-O2'	-6.00	99.40	108.40
26	BB	2347	C	O3'-P-O5'	-6.00	95.00	104.00
26	BB	2477	U	N1-C1'-C2'	6.00	121.00	112.00
26	BB	2570	G	C2'-C3'-O3'	6.00	122.70	113.70
32	BH	1	SER	CA-C-N	6.00	128.60	120.38
32	BH	1	SER	C-N-CA	6.00	128.60	120.38
40	BP	62	ASN	N-CA-C	-6.00	105.45	112.89
44	BT	60	LYS	CB-CA-C	6.00	119.43	109.53
1	AA	1316	G	C4'-C3'-O3'	-6.00	104.00	113.00
1	AA	1341	U	C1'-C2'-O2'	-6.00	99.40	108.40
18	AR	85	GLY	CA-C-N	6.00	132.99	121.54
18	AR	85	GLY	C-N-CA	6.00	132.99	121.54
46	BV	68	LYS	CA-C-N	6.00	132.99	121.54
46	BV	68	LYS	C-N-CA	6.00	132.99	121.54
53	B2	61	ASN	CA-CB-CG	6.00	118.60	112.60
1	AA	465	A	O4'-C4'-C3'	6.00	112.09	106.10
26	BB	458	G	O3'-P-O5'	-6.00	95.01	104.00
26	BB	591	U	O4'-C1'-C2'	-6.00	101.61	107.60
1	AA	122	G	C2'-C3'-O3'	5.99	122.69	113.70
1	AA	580	C	O4'-C1'-N1	5.99	117.49	108.50
1	AA	1064	G	C4'-C3'-O3'	5.99	118.39	109.40
1	AA	1452	C	C5'-C4'-C3'	-5.99	106.21	115.20
1	AA	1531	A	P-O5'-C5'	5.99	129.89	120.90
26	BB	863	A	O4'-C1'-C2'	-5.99	101.61	107.60
26	BB	1592	C	C3'-C2'-C1'	5.99	107.29	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BK	21	PRO	N-CA-CB	5.99	108.89	103.08
26	BB	420	C	O4'-C1'-C2'	-5.99	101.61	107.60
26	BB	583	G	O3'-P-O5'	5.99	112.99	104.00
34	BJ	35	ASP	N-CA-C	5.99	118.33	111.02
1	AA	946	A	C1'-O4'-C4'	5.99	115.89	109.90
15	AO	64	SER	CA-C-O	-5.99	114.10	121.11
26	BB	1143	A	O3'-P-O5'	-5.99	95.02	104.00
26	BB	1525	A	O4'-C4'-C3'	5.99	109.99	104.00
26	BB	1877	A	C4'-C3'-C2'	-5.99	96.61	102.60
26	BB	2806	C	O4'-C1'-C2'	-5.99	101.61	107.60
1	AA	272	C	O5'-C5'-C4'	5.99	120.48	111.50
1	AA	1016	A	O4'-C4'-C3'	5.99	109.99	104.00
15	AO	76	HIS	CB-CG-CD2	-5.99	123.42	131.20
17	AQ	7	ALA	CA-C-O	-5.99	114.53	120.70
26	BB	695	G	N9-C1'-C2'	-5.99	103.02	112.00
26	BB	1055	G	C5'-C4'-C3'	-5.99	107.02	116.00
26	BB	2284	A	O3'-P-O5'	5.99	112.98	104.00
1	AA	861	G	O4'-C1'-C2'	-5.99	101.61	107.60
10	AJ	3	ARG	CD-NE-CZ	5.99	132.78	124.40
26	BB	1682	G	O4'-C4'-C3'	5.99	109.99	104.00
1	AA	41	G	C4'-C3'-C2'	-5.99	96.61	102.60
1	AA	1038	C	O3'-P-O5'	-5.99	95.02	104.00
25	BA	35	C	C2'-C3'-O3'	5.99	122.68	113.70
26	BB	856	G	O4'-C1'-N9	5.99	117.48	108.50
26	BB	1587	G	P-O5'-C5'	5.99	129.88	120.90
34	BJ	132	GLU	CA-C-N	5.99	129.41	120.31
34	BJ	132	GLU	C-N-CA	5.99	129.41	120.31
1	AA	1439	G	O4'-C1'-C2'	-5.98	101.62	107.60
19	AS	44	SER	N-CA-CB	-5.98	101.52	111.57
26	BB	1638	C	C4'-C3'-C2'	-5.98	96.62	102.60
1	AA	367	U	C5'-C4'-C3'	-5.98	106.23	115.20
1	AA	565	U	O4'-C1'-N1	5.98	117.47	108.50
6	AF	122	GLN	CA-C-N	5.98	128.79	120.29
6	AF	122	GLN	C-N-CA	5.98	128.79	120.29
9	AI	19	PRO	O-C-N	5.98	130.26	122.24
18	AR	10	ILE	N-CA-C	5.98	117.44	110.62
26	BB	2512	C	C5'-C4'-O4'	-5.98	100.83	109.80
50	BZ	68	ALA	N-CA-C	5.98	118.59	111.71
5	AE	7	ASP	CA-CB-CG	5.98	118.58	112.60
25	BA	88	C	O4'-C1'-N1	5.98	117.47	108.50
26	BB	117	G	O4'-C4'-C3'	5.98	109.98	104.00
26	BB	468	G	C2'-C3'-O3'	-5.98	104.73	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1272	A	P-O3'-C3'	5.98	129.17	120.20
26	BB	2053	G	C4'-C3'-C2'	-5.98	96.62	102.60
26	BB	2373	G	C5'-C4'-C3'	5.98	124.97	116.00
27	BC	207	VAL	CA-CB-CG2	-5.98	100.23	110.40
31	BG	143	ASP	N-CA-C	5.98	117.77	110.41
26	BB	2111	U	C4'-C3'-O3'	5.98	118.37	109.40
26	BB	2486	C	O4'-C1'-N1	5.98	117.47	108.50
30	BF	86	ALA	O-C-N	5.98	131.28	122.97
39	BO	76	LYS	CA-C-O	-5.98	114.09	119.59
1	AA	114	U	C1'-O4'-C4'	5.98	115.88	109.90
1	AA	734	G	C4'-C3'-C2'	5.98	108.58	102.60
1	AA	861	G	C1'-O4'-C4'	5.98	115.88	109.90
1	AA	1020	G	C3'-C2'-C1'	5.98	107.28	101.30
3	AC	40	G	P-O3'-C3'	5.98	129.17	120.20
7	AG	179	GLY	CA-C-O	-5.98	114.86	121.37
26	BB	134	G	C4'-C3'-C2'	-5.98	96.62	102.60
26	BB	1047	G	O5'-C5'-C4'	-5.98	102.73	111.70
26	BB	1597	A	C5'-C4'-C3'	-5.98	107.03	116.00
26	BB	1954	G	O4'-C4'-C3'	5.98	109.98	104.00
26	BB	2311	A	C4'-C3'-C2'	-5.98	96.62	102.60
26	BB	2754	U	C2'-C3'-O3'	-5.98	104.73	113.70
13	AM	4	GLN	OE1-CD-NE2	-5.98	116.62	122.60
26	BB	670	A	C1'-O4'-C4'	-5.98	103.72	109.70
33	BI	72	ILE	CA-C-O	-5.98	114.27	119.29
34	BJ	131	TYR	CA-C-N	5.98	128.78	120.29
34	BJ	131	TYR	C-N-CA	5.98	128.78	120.29
1	AA	7	A	C2'-C3'-O3'	-5.97	104.74	113.70
1	AA	491	G	O4'-C1'-C2'	5.97	113.57	107.60
1	AA	750	C	C4'-C3'-C2'	5.97	108.57	102.60
1	AA	1031	C	C5'-C4'-C3'	-5.97	107.04	116.00
1	AA	1364	U	O3'-P-O5'	5.97	112.96	104.00
26	BB	114	U	C2'-C3'-O3'	5.97	122.66	113.70
26	BB	451	U	O4'-C1'-N1	5.97	117.16	108.20
26	BB	509	C	O4'-C4'-C3'	5.97	109.97	104.00
26	BB	1099	G	C4'-C3'-O3'	5.97	121.96	113.00
26	BB	1585	C	P-O5'-C5'	5.97	129.86	120.90
26	BB	2118	U	O4'-C4'-C3'	5.97	112.08	106.10
26	BB	2539	C	O4'-C1'-N1	5.97	117.46	108.50
43	BS	108	LEU	N-CA-C	-5.97	104.77	111.28
44	BT	55	ASP	CA-CB-CG	-5.97	106.62	112.60
1	AA	1468	A	C4'-C3'-O3'	-5.97	104.04	113.00
8	AH	92	ARG	CA-C-N	5.97	132.19	122.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	AH	92	ARG	C-N-CA	5.97	132.19	122.69
9	AI	47	LEU	CA-C-N	5.97	128.88	120.28
9	AI	47	LEU	C-N-CA	5.97	128.88	120.28
15	AO	120	ARG	NE-CZ-NH2	-5.97	113.83	119.20
1	AA	1171	A	O4'-C1'-N9	5.97	117.46	108.50
25	BA	24	G	O4'-C4'-C3'	5.97	112.07	106.10
26	BB	2095	A	O4'-C4'-C3'	5.97	109.97	104.00
29	BE	107	VAL	CA-CB-CG2	5.97	120.55	110.40
39	BO	57	VAL	CB-CA-C	5.97	120.07	111.65
26	BB	42	A	O3'-P-O5'	5.97	112.95	104.00
26	BB	224	U	C3'-C2'-O2'	5.97	119.66	110.70
26	BB	2249	U	O4'-C4'-C3'	5.97	112.07	106.10
31	BG	171	ALA	N-CA-C	-5.97	106.00	113.28
57	B6	42	HIS	CA-CB-CG	5.97	119.77	113.80
11	AK	89	ASP	N-CA-C	-5.97	105.96	113.72
26	BB	679	C	C4'-C3'-C2'	-5.97	96.63	102.60
48	BX	5	ASN	OD1-CG-ND2	-5.97	116.63	122.60
1	AA	332	G	C3'-C2'-C1'	-5.97	95.33	101.30
1	AA	866	C	C4'-C3'-O3'	5.97	121.95	113.00
1	AA	983	A	O4'-C1'-C2'	5.97	113.57	107.60
22	AV	4	LEU	CA-C-N	5.97	132.94	121.54
22	AV	4	LEU	C-N-CA	5.97	132.94	121.54
26	BB	53	A	O4'-C1'-C2'	-5.97	101.63	107.60
26	BB	2788	C	C5'-C4'-O4'	5.97	118.75	109.80
43	BS	97	ILE	N-CA-C	-5.97	106.50	112.17
1	AA	466	A	C3'-C2'-C1'	5.96	107.27	101.30
26	BB	1273	U	O4'-C1'-C2'	5.96	113.56	107.60
26	BB	2301	C	C2'-C3'-O3'	5.96	122.65	113.70
26	BB	2348	U	C1'-O4'-C4'	-5.96	103.94	109.90
28	BD	236	GLY	O-C-N	5.96	130.46	122.70
30	BF	27	LEU	CA-C-N	5.96	128.19	120.56
30	BF	27	LEU	C-N-CA	5.96	128.19	120.56
38	BN	126	ARG	CD-NE-CZ	5.96	132.75	124.40
8	AH	104	ILE	N-CA-C	5.96	117.73	109.80
26	BB	912	C	C1'-O4'-C4'	-5.96	103.94	109.90
26	BB	2388	A	C1'-O4'-C4'	-5.96	103.94	109.90
54	B3	53	VAL	N-CA-CB	-5.96	104.17	112.52
1	AA	1083	U	C1'-O4'-C4'	-5.96	103.94	109.90
1	AA	1457	G	C5'-C4'-O4'	5.96	118.74	109.80
26	BB	833	A	C4'-C3'-C2'	-5.96	96.64	102.60
38	BN	35	HIS	CA-C-O	5.96	127.61	121.23
50	BZ	76	LYS	CA-C-O	5.96	127.76	120.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	930	C	P-O3'-C3'	5.96	129.14	120.20
26	BB	663	G	O4'-C1'-N9	5.96	117.44	108.50
26	BB	774	G	C5'-C4'-C3'	-5.96	106.26	115.20
1	AA	1210	C	O4'-C1'-N1	5.96	117.44	108.50
14	AN	23	HIS	CB-CG-ND1	5.96	131.63	122.70
26	BB	2757	A	C4'-C3'-O3'	5.96	121.94	113.00
44	BT	41	ILE	O-C-N	5.96	129.44	123.18
1	AA	800	G	O4'-C1'-C2'	-5.96	101.64	107.60
1	AA	1254	A	P-O3'-C3'	-5.96	111.27	120.20
26	BB	1717	A	O4'-C4'-C3'	5.96	109.95	104.00
1	AA	1507	A	C3'-C2'-C1'	-5.95	95.35	101.30
26	BB	1031	G	C3'-C2'-O2'	5.95	119.63	110.70
26	BB	1680	U	C3'-C2'-C1'	5.95	107.25	101.30
26	BB	2250	G	C1'-O4'-C4'	-5.95	103.75	109.70
26	BB	2386	A	O3'-P-O5'	-5.95	95.07	104.00
26	BB	2606	C	C3'-C2'-C1'	5.95	107.25	101.30
26	BB	2671	G	O4'-C4'-C3'	5.95	109.95	104.00
26	BB	2074	U	O4'-C4'-C3'	5.95	109.95	104.00
31	BG	34	THR	O-C-N	5.95	130.41	122.43
44	BT	94	THR	CA-CB-OG1	-5.95	100.67	109.60
1	AA	162	A	O4'-C1'-N9	5.95	117.42	108.50
26	BB	111	A	C4'-C3'-C2'	-5.95	96.65	102.60
26	BB	2146	C	P-O3'-C3'	5.95	129.12	120.20
26	BB	2764	A	C4'-C3'-C2'	-5.95	96.65	102.60
9	AI	70	VAL	CA-C-O	-5.95	113.88	120.96
26	BB	190	A	C4'-C3'-C2'	-5.95	96.65	102.60
26	BB	1900	A	C3'-C2'-O2'	5.95	119.62	110.70
26	BB	2096	C	C4'-C3'-O3'	5.95	121.92	113.00
28	BD	134	ILE	CB-CA-C	5.95	116.73	110.37
37	BM	105	ARG	NE-CZ-NH1	5.95	127.45	121.50
57	B6	7	ARG	CA-C-O	5.95	126.72	120.42
1	AA	1094	G	O3'-P-O5'	-5.95	95.08	104.00
10	AJ	79	VAL	CA-C-O	5.95	124.55	119.38
26	BB	561	G	P-O3'-C3'	5.95	129.12	120.20
29	BE	201	LEU	N-CA-CB	-5.95	102.16	111.56
26	BB	737	C	O4'-C4'-C3'	5.95	109.94	104.00
26	BB	839	U	C5'-C4'-C3'	-5.95	107.08	116.00
26	BB	2799	A	C4'-C3'-C2'	-5.95	96.65	102.60
47	BW	55	GLY	CA-C-N	5.95	128.96	119.98
47	BW	55	GLY	C-N-CA	5.95	128.96	119.98
51	B0	41	HIS	CE1-NE2-CD2	-5.95	103.05	109.00
1	AA	53	A	C3'-C2'-O2'	5.94	119.62	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	AJ	156	LEU	CA-C-O	-5.94	113.64	120.24
26	BB	2821	A	O4'-C1'-C2'	-5.94	101.66	107.60
1	AA	651	C	C4'-C3'-C2'	-5.94	96.66	102.60
1	AA	972	C	O4'-C1'-N1	5.94	117.41	108.50
4	AD	5	G	C2'-C3'-O3'	-5.94	104.79	113.70
5	AE	110	ILE	O-C-N	5.94	127.64	121.87
13	AM	48	ARG	NE-CZ-NH2	5.94	124.55	119.20
26	BB	289	G	C4'-C3'-C2'	-5.94	96.66	102.60
26	BB	757	G	O4'-C1'-N9	5.94	117.41	108.50
26	BB	1027	A	P-O3'-C3'	5.94	129.11	120.20
26	BB	2187	U	C2'-C3'-O3'	-5.94	104.79	113.70
26	BB	2888	C	C3'-C2'-C1'	5.94	107.24	101.30
1	AA	269	C	O4'-C1'-C2'	-5.94	101.66	107.60
1	AA	367	U	C5'-C4'-O4'	5.94	118.01	109.10
21	AU	49	LYS	CB-CA-C	5.94	120.37	110.92
26	BB	648	G	C4'-C3'-C2'	-5.94	96.66	102.60
26	BB	1050	A	O4'-C1'-C2'	-5.94	101.66	107.60
26	BB	1348	C	P-O3'-C3'	5.94	129.11	120.20
26	BB	2108	A	O3'-P-O5'	-5.94	95.09	104.00
26	BB	2218	G	C5'-C4'-O4'	5.94	118.71	109.80
26	BB	2757	A	C3'-C2'-C1'	5.94	107.24	101.30
1	AA	744	C	O4'-C1'-C2'	-5.94	101.66	107.60
1	AA	1532	U	C5'-C4'-C3'	-5.94	107.09	116.00
7	AG	59	LYS	N-CA-C	5.94	118.23	111.11
15	AO	17	LYS	N-CA-C	5.94	119.84	112.24
18	AR	37	HIS	ND1-CE1-NE2	5.94	114.34	108.40
26	BB	2558	C	P-O5'-C5'	5.94	129.81	120.90
34	BJ	56	ASN	N-CA-C	-5.94	104.75	112.23
1	AA	401	C	O4'-C1'-N1	5.94	117.40	108.50
8	AH	55	VAL	O-C-N	5.94	124.22	120.42
26	BB	561	G	C4'-C3'-C2'	-5.94	96.66	102.60
1	AA	741	G	C3'-C2'-O2'	5.93	119.60	110.70
1	AA	876	C	O5'-C5'-C4'	-5.93	102.60	111.50
8	AH	97	PRO	N-CA-CB	5.93	108.31	103.32
26	BB	1577	C	N1-C1'-C2'	5.93	120.90	112.00
26	BB	1887	C	O4'-C1'-N1	5.93	117.40	108.50
26	BB	2236	U	P-O3'-C3'	5.93	129.10	120.20
45	BU	80	PRO	CA-C-N	5.93	130.87	122.09
45	BU	80	PRO	C-N-CA	5.93	130.87	122.09
1	AA	156	C	C3'-C2'-O2'	5.93	119.60	110.70
1	AA	1425	U	C1'-O4'-C4'	-5.93	103.97	109.90
26	BB	863	A	C1'-O4'-C4'	5.93	115.83	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1229	C	C5'-C4'-C3'	-5.93	107.10	116.00
26	BB	1536	C	C5'-C4'-C3'	-5.93	106.30	115.20
27	BC	7	ARG	N-CA-C	-5.93	105.53	112.89
46	BV	57	VAL	CB-CA-C	5.93	119.84	110.52
26	BB	91	A	P-O3'-C3'	5.93	129.10	120.20
26	BB	331	C	C2'-C3'-O3'	5.93	118.40	109.50
26	BB	1054	A	O4'-C1'-C2'	-5.93	101.67	107.60
1	AA	519	C	C1'-O4'-C4'	-5.93	103.97	109.90
1	AA	740	U	C5'-C4'-O4'	5.93	118.69	109.80
7	AG	128	VAL	CA-CB-CG1	5.93	120.48	110.40
26	BB	481	G	O4'-C1'-N9	5.93	117.09	108.20
26	BB	736	C	C4'-C3'-C2'	-5.93	96.67	102.60
26	BB	1101	U	O4'-C1'-C2'	5.93	113.53	107.60
38	BN	23	ILE	CA-C-N	5.93	127.81	120.34
38	BN	23	ILE	C-N-CA	5.93	127.81	120.34
26	BB	1225	G	O3'-P-O5'	5.93	112.89	104.00
36	BL	15	TRP	CE2-CD2-CE3	-5.93	112.87	118.80
40	BP	59	SER	CA-C-N	5.93	128.58	120.46
40	BP	59	SER	C-N-CA	5.93	128.58	120.46
57	B6	21	PHE	CA-C-N	5.93	129.13	120.71
57	B6	21	PHE	C-N-CA	5.93	129.13	120.71
1	AA	32	A	C3'-C2'-C1'	5.93	107.23	101.30
1	AA	463	U	O5'-C5'-C4'	-5.93	102.61	111.50
4	AD	2	G	N9-C1'-C2'	-5.93	103.11	112.00
17	AQ	10	VAL	CA-C-O	-5.93	114.79	120.95
23	AW	11	ILE	CA-C-N	5.93	128.22	120.28
23	AW	11	ILE	C-N-CA	5.93	128.22	120.28
1	AA	247	G	C3'-C2'-C1'	-5.92	95.38	101.30
1	AA	1205	U	O5'-C5'-C4'	5.92	120.39	111.50
1	AA	1508	A	N9-C1'-C2'	5.92	120.89	112.00
5	AE	167	HIS	CB-CG-ND1	5.92	131.59	122.70
14	AN	90	PRO	CA-C-O	-5.92	114.50	122.08
16	AP	60	ALA	CA-C-N	5.92	128.70	120.29
16	AP	60	ALA	C-N-CA	5.92	128.70	120.29
26	BB	776	G	C4'-C3'-O3'	-5.92	100.52	109.40
26	BB	1927	A	O5'-C5'-C4'	5.92	120.39	111.50
26	BB	2367	G	C3'-C2'-O2'	5.92	119.59	110.70
26	BB	2850	A	C4'-C3'-C2'	-5.92	96.68	102.60
1	AA	542	G	C5'-C4'-C3'	-5.92	107.11	116.00
6	AF	85	LYS	CA-C-N	5.92	128.50	120.44
6	AF	85	LYS	C-N-CA	5.92	128.50	120.44
22	AV	29	PRO	CB-CA-C	5.92	121.33	111.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	74	U	O4'-C1'-C2'	-5.92	101.68	107.60
26	BB	715	A	O3'-P-O5'	5.92	112.89	104.00
52	B1	12	ALA	N-CA-C	-5.92	104.67	112.72
1	AA	220	G	C4'-C3'-O3'	-5.92	104.12	113.00
1	AA	795	C	C4'-C3'-C2'	5.92	108.52	102.60
3	AC	25	U	C3'-C2'-C1'	5.92	107.42	101.50
26	BB	401	A	C1'-O4'-C4'	-5.92	103.98	109.90
26	BB	717	C	O4'-C1'-C2'	-5.92	101.68	107.60
26	BB	1320	C	O4'-C4'-C3'	5.92	112.02	106.10
26	BB	2423	U	C3'-C2'-C1'	-5.92	95.58	101.50
29	BE	196	ALA	N-CA-CB	-5.92	102.27	110.38
47	BW	79	ALA	CA-C-O	-5.92	114.66	121.47
1	AA	8	A	O4'-C1'-C2'	-5.92	99.88	105.80
19	AS	14	ARG	N-CA-CB	-5.92	103.64	111.40
26	BB	2564	A	C3'-C2'-O2'	5.92	119.58	110.70
35	BK	26	ALA	N-CA-CB	-5.92	101.42	110.12
1	AA	1133	G	C4'-C3'-C2'	-5.92	96.68	102.60
26	BB	818	G	O4'-C4'-C3'	5.92	109.92	104.00
26	BB	1081	U	P-O5'-C5'	5.92	129.78	120.90
26	BB	1203	U	C3'-C2'-C1'	5.92	107.22	101.30
26	BB	2410	G	C5'-C4'-O4'	5.92	118.68	109.80
26	BB	2684	U	C5'-C4'-O4'	5.92	118.68	109.80
26	BB	2847	U	O4'-C4'-C3'	5.92	109.92	104.00
1	AA	1183	U	N1-C1'-C2'	5.92	122.88	114.00
10	AJ	27	ASN	N-CA-C	5.92	117.53	111.14
26	BB	2448	A	O4'-C1'-N9	5.92	117.07	108.20
26	BB	2622	U	C5'-C4'-O4'	5.92	118.68	109.80
21	AU	73	HIS	N-CA-C	-5.92	105.72	113.17
26	BB	318	C	C4'-C3'-C2'	-5.92	96.69	102.60
26	BB	716	A	O4'-C1'-N9	5.92	117.37	108.50
26	BB	1028	A	O4'-C4'-C3'	5.92	109.92	104.00
26	BB	1844	C	C4'-C3'-C2'	-5.92	96.69	102.60
1	AA	419	C	C3'-C2'-C1'	-5.91	95.39	101.30
25	BA	105	G	O4'-C1'-N9	5.91	117.37	108.50
26	BB	45	G	O3'-P-O5'	5.91	112.87	104.00
26	BB	423	A	O4'-C1'-N9	5.91	117.37	108.50
26	BB	613	A	P-O5'-C5'	5.91	129.77	120.90
26	BB	2589	A	O4'-C1'-C2'	-5.91	101.69	107.60
26	BB	2725	A	O3'-P-O5'	-5.91	95.13	104.00
1	AA	295	C	O4'-C1'-N1	5.91	117.37	108.50
1	AA	532	A	C4'-C3'-C2'	5.91	108.51	102.60
1	AA	628	G	C1'-C2'-O2'	5.91	117.27	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1268	G	O4'-C1'-N9	5.91	117.36	108.50
7	AG	147	LYS	CA-C-O	5.91	126.21	119.18
26	BB	93	G	O4'-C1'-C2'	-5.91	101.69	107.60
26	BB	1029	A	N9-C1'-C2'	-5.91	103.13	112.00
4	AD	9	G	C1'-O4'-C4'	5.91	115.81	109.90
7	AG	70	GLN	CA-C-N	5.91	129.29	120.31
7	AG	70	GLN	C-N-CA	5.91	129.29	120.31
7	AG	111	ALA	CA-C-O	-5.91	114.61	120.70
12	AL	72	SER	CA-C-N	5.91	127.72	120.22
12	AL	72	SER	C-N-CA	5.91	127.72	120.22
26	BB	183	C	C4'-C3'-O3'	-5.91	104.14	113.00
26	BB	1032	A	C2'-C3'-O3'	-5.91	104.84	113.70
26	BB	1066	U	P-O3'-C3'	5.91	129.06	120.20
26	BB	1341	G	O5'-C5'-C4'	-5.91	102.84	111.70
26	BB	1775	U	O4'-C1'-N1	5.91	117.36	108.50
26	BB	1925	C	C5'-C4'-C3'	5.91	124.86	116.00
26	BB	2283	C	O4'-C1'-C2'	-5.91	101.69	107.60
32	BH	146	ASP	CA-CB-CG	5.91	118.51	112.60
1	AA	1131	G	C2'-C3'-O3'	-5.91	104.84	113.70
1	AA	1268	G	O4'-C1'-C2'	-5.91	101.69	107.60
1	AA	1292	G	C3'-C2'-O2'	5.91	119.56	110.70
1	AA	1367	C	C5'-C4'-C3'	-5.91	107.14	116.00
26	BB	1975	G	C3'-C2'-O2'	5.91	119.56	110.70
29	BE	49	GLN	OE1-CD-NE2	-5.91	116.69	122.60
1	AA	344	A	O3'-P-O5'	5.91	112.86	104.00
1	AA	873	A	C3'-C2'-C1'	5.91	107.41	101.50
5	AE	130	LYS	CA-C-N	5.91	128.51	120.54
5	AE	130	LYS	C-N-CA	5.91	128.51	120.54
11	AK	19	ALA	CA-C-N	5.91	130.79	122.46
11	AK	19	ALA	C-N-CA	5.91	130.79	122.46
18	AR	37	HIS	CB-CG-CD2	-5.91	123.52	131.20
26	BB	50	U	C5'-C4'-O4'	5.91	117.96	109.10
26	BB	243	U	P-O3'-C3'	5.91	129.06	120.20
26	BB	1214	A	O4'-C4'-C3'	5.91	109.91	104.00
33	BI	47	PHE	O-C-N	5.91	128.15	122.07
39	BO	64	TRP	CD2-CE2-CZ2	-5.91	116.49	122.40
29	BE	68	PHE	CA-CB-CG	5.90	119.70	113.80
5	AE	164	ASP	CA-CB-CG	-5.90	106.70	112.60
26	BB	295	G	C1'-O4'-C4'	-5.90	104.00	109.90
26	BB	2171	A	O5'-C5'-C4'	-5.90	102.85	111.70
26	BB	2342	C	O4'-C1'-N1	5.90	117.36	108.50
26	BB	2543	G	C5'-C4'-C3'	-5.90	107.15	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	658	C	C3'-C2'-O2'	5.90	119.55	110.70
1	AA	743	A	O4'-C1'-C2'	-5.90	101.70	107.60
1	AA	828	U	O4'-C1'-C2'	-5.90	101.70	107.60
24	AX	10	PRO	CA-C-N	5.90	131.77	122.21
24	AX	10	PRO	C-N-CA	5.90	131.77	122.21
25	BA	1	U	O5'-C5'-C4'	-5.90	102.65	111.50
26	BB	108	G	O4'-C1'-N9	5.90	117.35	108.50
26	BB	381	G	O4'-C1'-N9	5.90	117.35	108.50
26	BB	527	C	C1'-C2'-O2'	5.90	120.65	111.80
26	BB	2773	C	N1-C1'-C2'	-5.90	103.15	112.00
28	BD	14	HIS	ND1-CE1-NE2	5.90	114.30	108.40
1	AA	564	C	C4'-C3'-O3'	5.90	121.85	113.00
21	AU	51	GLN	CA-C-N	5.90	128.18	120.28
21	AU	51	GLN	C-N-CA	5.90	128.18	120.28
25	BA	55	U	O4'-C4'-C3'	5.90	109.90	104.00
26	BB	564	C	C5'-C4'-C3'	-5.90	107.15	116.00
1	AA	197	A	C4'-C3'-O3'	-5.90	100.55	109.40
1	AA	789	U	O4'-C1'-N1	5.90	117.34	108.50
26	BB	320	A	C2'-C3'-O3'	-5.90	104.85	113.70
26	BB	2849	U	N1-C1'-C2'	5.90	122.85	114.00
28	BD	259	ASN	CA-CB-CG	5.90	118.50	112.60
1	AA	783	C	C4'-C3'-O3'	5.90	121.84	113.00
26	BB	1736	U	P-O3'-C3'	5.90	129.04	120.20
18	AR	19	ASN	CA-CB-CG	5.89	118.49	112.60
26	BB	82	U	C4'-C3'-C2'	-5.89	96.70	102.60
26	BB	892	A	O4'-C4'-C3'	5.89	109.89	104.00
26	BB	2904	U	O4'-C1'-N1	5.89	117.34	108.50
26	BB	636	G	C3'-C2'-O2'	-5.89	101.86	110.70
26	BB	1757	A	C4'-C3'-C2'	-5.89	96.71	102.60
1	AA	1135	U	C4'-C3'-C2'	-5.89	96.71	102.60
51	B0	45	GLN	OE1-CD-NE2	5.89	128.49	122.60
1	AA	163	C	C3'-C2'-C1'	5.89	107.19	101.30
1	AA	571	U	C3'-C2'-C1'	5.89	107.19	101.30
1	AA	849	G	C2'-C3'-O3'	-5.89	104.87	113.70
1	AA	1231	G	O4'-C4'-C3'	5.89	109.89	104.00
9	AI	11	HIS	CA-C-N	5.89	127.20	119.84
9	AI	11	HIS	C-N-CA	5.89	127.20	119.84
11	AK	54	THR	CA-C-N	5.89	128.74	122.26
11	AK	54	THR	C-N-CA	5.89	128.74	122.26
15	AO	4	ASN	CA-CB-CG	5.89	118.49	112.60
26	BB	281	C	P-O3'-C3'	5.89	129.03	120.20
26	BB	1997	C	C4'-C3'-C2'	-5.89	96.71	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	BL	67	ASN	CB-CG-ND2	-5.89	107.57	116.40
1	AA	707	U	C1'-O4'-C4'	5.89	115.79	109.90
25	BA	57	A	C3'-C2'-C1'	-5.89	95.41	101.30
26	BB	1303	G	C1'-C2'-O2'	5.89	117.23	108.40
2	AB	30	G	C2'-C3'-O3'	-5.89	104.87	113.70
7	AG	36	ALA	CA-C-N	5.89	128.19	120.25
7	AG	36	ALA	C-N-CA	5.89	128.19	120.25
13	AM	14	ASP	CA-C-O	-5.89	115.15	121.45
15	AO	82	ARG	CB-CA-C	5.89	121.01	109.35
18	AR	53	ARG	O-C-N	5.89	128.36	122.12
26	BB	1617	C	C3'-C2'-C1'	-5.89	95.61	101.50
26	BB	2544	G	C1'-O4'-C4'	5.89	115.79	109.90
26	BB	2584	U	O4'-C1'-N1	5.89	117.33	108.50
28	BD	97	ASP	CB-CA-C	5.89	120.99	110.81
31	BG	44	ALA	CB-CA-C	5.89	118.31	109.13
1	AA	37	U	O4'-C4'-C3'	5.88	109.89	104.00
1	AA	566	G	C3'-C2'-C1'	-5.88	95.62	101.50
1	AA	1437	A	P-O3'-C3'	5.88	129.03	120.20
26	BB	898	C	O3'-P-O5'	-5.88	95.17	104.00
26	BB	1238	G	C1'-O4'-C4'	5.88	115.78	109.90
26	BB	2299	U	O5'-C5'-C4'	-5.88	102.67	111.50
26	BB	2839	G	C4'-C3'-O3'	-5.88	104.17	113.00
28	BD	183	VAL	CA-C-O	-5.88	114.12	120.36
44	BT	22	LEU	CA-C-N	5.88	129.07	120.71
44	BT	22	LEU	C-N-CA	5.88	129.07	120.71
26	BB	1400	U	O4'-C1'-N1	5.88	117.33	108.50
1	AA	502	A	N9-C1'-C2'	-5.88	103.18	112.00
1	AA	682	G	C2'-C3'-O3'	5.88	122.52	113.70
1	AA	1190	G	O3'-P-O5'	-5.88	95.18	104.00
26	BB	585	G	C5'-C4'-O4'	5.88	118.62	109.80
26	BB	593	U	C1'-C2'-O2'	-5.88	99.58	108.40
26	BB	603	A	O4'-C1'-N9	5.88	117.02	108.20
26	BB	796	C	C3'-C2'-O2'	5.88	119.52	110.70
29	BE	151	THR	CA-CB-CG2	5.88	120.50	110.50
29	BE	198	GLY	CA-C-N	5.88	130.18	120.94
29	BE	198	GLY	C-N-CA	5.88	130.18	120.94
32	BH	139	VAL	CA-CB-CG1	5.88	120.40	110.40
46	BV	78	SER	CA-C-O	-5.88	115.38	122.03
16	AP	7	ASN	CA-CB-CG	-5.88	106.72	112.60
1	AA	1484	C	O4'-C1'-N1	5.88	117.32	108.50
26	BB	332	A	C4'-C3'-C2'	-5.88	96.72	102.60
26	BB	1181	U	O4'-C1'-C2'	-5.88	101.72	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1227	G	C5'-C4'-O4'	5.88	118.62	109.80
26	BB	2379	G	C3'-C2'-C1'	5.88	107.18	101.30
26	BB	2687	U	O3'-P-O5'	5.88	112.82	104.00
1	AA	979	C	C4'-C3'-C2'	-5.88	96.72	102.60
1	AA	1046	A	C4'-C3'-C2'	-5.88	96.72	102.60
9	AI	77	THR	CA-C-O	-5.88	114.19	120.42
26	BB	457	A	C3'-C2'-C1'	5.88	107.38	101.50
26	BB	828	U	C3'-C2'-C1'	5.88	107.18	101.30
26	BB	1288	G	O4'-C1'-N9	5.88	117.01	108.20
26	BB	1322	A	O5'-C5'-C4'	-5.88	102.68	111.50
26	BB	2663	G	C1'-C2'-O2'	-5.88	99.59	108.40
30	BF	163	ASN	OD1-CG-ND2	-5.88	116.72	122.60
36	BL	77	HIS	CB-CG-CD2	-5.88	123.56	131.20
37	BM	30	ARG	NE-CZ-NH1	-5.88	115.62	121.50
39	BO	16	ARG	NE-CZ-NH2	-5.88	113.91	119.20
40	BP	96	ARG	NE-CZ-NH1	-5.88	115.62	121.50
1	AA	809	G	C1'-C2'-O2'	-5.88	99.59	108.40
26	BB	341	C	O4'-C1'-C2'	-5.88	101.72	107.60
26	BB	762	U	O4'-C4'-C3'	5.88	111.97	106.10
26	BB	1005	C	C4'-C3'-O3'	-5.88	104.19	113.00
26	BB	1412	U	C2'-C3'-O3'	-5.88	104.89	113.70
26	BB	2465	C	O4'-C1'-N1	5.88	117.31	108.50
1	AA	355	C	O4'-C1'-N1	5.87	117.31	108.50
1	AA	1270	G	C2'-C3'-O3'	5.87	122.51	113.70
16	AP	56	ARG	CB-CG-CD	5.87	124.81	111.30
26	BB	166	U	O4'-C1'-C2'	5.87	113.47	107.60
26	BB	1466	U	O3'-P-O5'	-5.87	95.19	104.00
26	BB	2755	C	O4'-C4'-C3'	-5.87	98.13	104.00
26	BB	2889	C	O3'-P-O5'	5.87	112.81	104.00
41	BQ	104	GLN	CA-C-O	-5.87	114.65	120.82
46	BV	3	ARG	CA-C-O	-5.87	114.76	121.40
1	AA	171	A	C5'-C4'-O4'	5.87	118.61	109.80
2	AB	75	C	O4'-C1'-N1	5.87	117.31	108.50
13	AM	65	TYR	CA-C-O	5.87	127.04	120.70
23	AW	16	ALA	CA-C-O	-5.87	114.33	120.55
26	BB	1205	A	C1'-O4'-C4'	5.87	115.57	109.70
29	BE	124	ARG	NE-CZ-NH2	5.87	124.48	119.20
2	AB	53	G	C5'-C4'-C3'	-5.87	107.19	116.00
3	AC	34	U	O4'-C1'-C2'	-5.87	101.73	107.60
11	AK	58	LEU	CA-C-O	-5.87	113.98	120.38
26	BB	2500	U	P-O3'-C3'	5.87	129.00	120.20
1	AA	1070	U	O4'-C4'-C3'	5.87	109.87	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2198	A	C5'-C4'-C3'	-5.87	106.40	115.20
27	BC	24	ASN	CA-C-O	-5.87	114.20	120.42
49	BY	9	THR	CA-CB-CG2	5.87	120.48	110.50
1	AA	787	A	O4'-C4'-C3'	5.87	109.87	104.00
9	AI	2	ARG	NH1-CZ-NH2	-5.87	111.67	119.30
16	AP	48	SER	CA-C-N	5.87	128.73	120.28
16	AP	48	SER	C-N-CA	5.87	128.73	120.28
46	BV	56	GLU	CA-C-O	-5.87	112.98	120.31
49	BY	6	GLY	CA-C-O	5.87	127.49	121.21
1	AA	399	G	C5'-C4'-C3'	5.87	124.80	116.00
1	AA	549	C	C5'-C4'-O4'	5.87	118.60	109.80
26	BB	1472	C	C5'-C4'-C3'	-5.87	107.20	116.00
26	BB	1576	U	C4'-C3'-C2'	-5.87	96.73	102.60
46	BV	99	ALA	CA-C-O	-5.87	112.12	120.51
1	AA	1494	G	C5'-C4'-C3'	-5.86	107.20	116.00
26	BB	311	A	O4'-C1'-N9	5.86	117.00	108.20
26	BB	2049	G	C3'-C2'-C1'	5.86	107.16	101.30
26	BB	2664	G	C1'-C2'-O2'	5.86	117.19	108.40
1	AA	198	G	C4'-C3'-O3'	-5.86	104.21	113.00
1	AA	395	C	C5'-C4'-O4'	5.86	118.59	109.80
26	BB	666	A	C5'-C4'-O4'	5.86	118.59	109.80
45	BU	7	HIS	CB-CG-CD2	-5.86	123.58	131.20
1	AA	173	U	O4'-C1'-N1	5.86	116.99	108.20
1	AA	863	U	C4'-C3'-C2'	-5.86	96.74	102.60
2	AB	68	C	C4'-C3'-C2'	-5.86	96.74	102.60
12	AL	123	ARG	CA-C-N	5.86	125.82	119.78
12	AL	123	ARG	C-N-CA	5.86	125.82	119.78
26	BB	570	G	C5'-C4'-C3'	-5.86	107.21	116.00
26	BB	1267	U	C5'-C4'-O4'	5.86	118.59	109.80
26	BB	1446	C	O4'-C1'-N1	5.86	117.29	108.50
26	BB	1496	A	O4'-C4'-C3'	-5.86	98.14	104.00
26	BB	2553	G	C3'-C2'-O2'	5.86	119.49	110.70
26	BB	2802	G	O4'-C1'-C2'	-5.86	101.74	107.60
50	BZ	49	ARG	NE-CZ-NH2	5.86	124.47	119.20
26	BB	2263	C	C4'-C3'-C2'	-5.86	96.74	102.60
1	AA	128	G	C2'-C3'-O3'	5.86	122.49	113.70
26	BB	92	U	O4'-C1'-N1	5.86	117.29	108.50
26	BB	2158	A	C5'-C4'-O4'	-5.86	100.31	109.10
43	BS	107	ALA	CA-C-N	5.86	128.13	120.28
43	BS	107	ALA	C-N-CA	5.86	128.13	120.28
1	AA	609	A	C1'-O4'-C4'	5.86	115.76	109.90
1	AA	943	U	O4'-C1'-C2'	-5.86	101.74	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1421	G	C4'-C3'-C2'	-5.86	96.75	102.60
2	AB	70	C	C1'-O4'-C4'	-5.86	104.05	109.90
13	AM	55	PRO	CA-N-CD	-5.86	103.80	112.00
21	AU	18	GLN	CA-CB-CG	5.86	125.81	114.10
26	BB	903	C	C4'-C3'-O3'	-5.86	104.22	113.00
26	BB	1255	U	O4'-C4'-C3'	5.86	109.86	104.00
26	BB	2454	G	O4'-C1'-C2'	-5.86	101.74	107.60
30	BF	100	MET	N-CA-C	-5.86	104.26	111.40
1	AA	83	C	N1-C1'-C2'	-5.85	103.22	112.00
1	AA	1153	G	C2'-C3'-O3'	-5.85	104.92	113.70
20	AT	42	LYS	CA-CB-CG	5.85	125.81	114.10
1	AA	249	U	O4'-C1'-N1	5.85	117.28	108.50
1	AA	381	C	O4'-C1'-N1	5.85	117.28	108.50
7	AG	96	ARG	NE-CZ-NH1	-5.85	115.65	121.50
10	AJ	61	PHE	CA-C-O	-5.85	114.87	120.90
25	BA	76	G	C1'-C2'-O2'	5.85	117.18	108.40
26	BB	721	A	C1'-C2'-O2'	-5.85	99.62	108.40
26	BB	1452	G	C3'-C2'-C1'	5.85	107.15	101.30
26	BB	1598	A	O4'-C4'-C3'	5.85	109.85	104.00
1	AA	94	G	O3'-P-O5'	-5.85	95.22	104.00
9	AI	109	ARG	NE-CZ-NH2	5.85	124.47	119.20
10	AJ	136	LYS	N-CA-C	5.85	117.74	111.36
26	BB	1380	G	O4'-C1'-N9	5.85	117.28	108.50
34	BJ	50	TYR	CB-CA-C	5.85	119.91	109.38
1	AA	685	G	C4'-C3'-C2'	-5.85	96.75	102.60
26	BB	1715	G	C5'-C4'-C3'	-5.85	106.43	115.20
26	BB	2421	G	O5'-C5'-C4'	5.85	120.27	111.50
26	BB	281	C	O3'-P-O5'	-5.85	95.23	104.00
31	BG	96	TRP	CG-CD1-NE1	5.85	117.80	110.20
38	BN	110	VAL	N-CA-CB	-5.85	104.35	110.72
1	AA	106	C	C5'-C4'-C3'	5.84	124.77	116.00
1	AA	699	C	C5'-C4'-C3'	-5.84	107.23	116.00
25	BA	34	A	P-O3'-C3'	5.84	128.97	120.20
26	BB	805	G	C2'-C3'-O3'	5.84	122.47	113.70
26	BB	2041	U	C3'-C2'-O2'	5.84	119.47	110.70
26	BB	2260	C	O4'-C1'-N1	5.84	117.27	108.50
35	BK	35	MET	N-CA-C	5.84	117.65	111.28
37	BM	64	ARG	O-C-N	5.84	129.94	123.33
1	AA	215	C	C2'-C3'-O3'	-5.84	104.94	113.70
26	BB	2466	C	C3'-C2'-C1'	5.84	107.14	101.30
1	AA	58	C	C5'-C4'-C3'	-5.84	107.24	116.00
25	BA	60	C	O4'-C1'-N1	5.84	117.26	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1295	C	O4'-C1'-N1	5.84	117.26	108.50
51	B0	25	GLN	N-CA-C	-5.84	104.99	111.36
1	AA	117	G	C3'-C2'-O2'	5.84	119.46	110.70
1	AA	1382	C	C3'-C2'-O2'	5.84	119.46	110.70
4	AD	44	A	C5'-C4'-C3'	-5.84	107.24	116.00
25	BA	41	G	O4'-C1'-C2'	5.84	111.64	105.80
26	BB	1249	U	C1'-C2'-O2'	-5.84	99.64	108.40
32	BH	168	VAL	CA-CB-CG1	5.84	120.33	110.40
1	AA	1509	C	C4'-C3'-C2'	-5.84	96.76	102.60
26	BB	22	C	C5'-C4'-C3'	-5.84	107.24	116.00
26	BB	554	U	C4'-C3'-C2'	-5.84	96.76	102.60
26	BB	1776	G	C5'-C4'-C3'	-5.84	107.24	116.00
26	BB	2330	G	C4'-C3'-C2'	-5.84	96.76	102.60
27	BC	213	SER	CB-CA-C	5.84	119.87	109.65
1	AA	1318	A	N9-C1'-C2'	-5.84	103.25	112.00
10	AJ	96	ASN	CB-CA-C	5.84	120.04	110.88
26	BB	576	U	N1-C1'-C2'	5.84	120.75	112.00
26	BB	1135	C	C1'-O4'-C4'	-5.84	104.06	109.90
26	BB	1264	A	C1'-O4'-C4'	-5.84	104.06	109.90
26	BB	1682	G	C5'-C4'-C3'	-5.84	107.24	116.00
27	BC	50	ILE	O-C-N	5.84	129.10	122.97
31	BG	16	MET	N-CA-C	5.84	117.64	111.28
1	AA	1524	C	O4'-C1'-C2'	-5.83	101.77	107.60
2	AB	53	G	C4'-C3'-O3'	5.83	121.75	113.00
31	BG	90	LEU	CB-CA-C	5.83	119.37	109.80
1	AA	59	A	P-O3'-C3'	5.83	128.95	120.20
1	AA	199	A	O4'-C1'-N9	5.83	117.25	108.50
1	AA	211	G	P-O3'-C3'	5.83	128.95	120.20
26	BB	545	U	O3'-P-O5'	-5.83	95.25	104.00
26	BB	928	A	N9-C1'-C2'	-5.83	103.25	112.00
28	BD	145	MET	CA-C-O	-5.83	113.77	120.24
32	BH	22	VAL	N-CA-CB	5.83	116.89	110.53
38	BN	131	ALA	O-C-N	-5.83	115.09	122.27
1	AA	407	U	O4'-C1'-C2'	5.83	113.43	107.60
1	AA	702	A	C3'-C2'-C1'	5.83	107.33	101.50
9	AI	96	VAL	CA-C-O	-5.83	115.40	121.93
11	AK	30	LYS	O-C-N	5.83	128.30	122.12
26	BB	420	C	C3'-C2'-C1'	5.83	107.13	101.30
38	BN	142	ILE	CA-CB-CG1	5.83	120.31	110.40
1	AA	95	C	C3'-C2'-C1'	5.83	107.13	101.30
1	AA	1107	C	O4'-C1'-C2'	-5.83	101.77	107.60
52	B1	33	HIS	CE1-NE2-CD2	-5.83	103.17	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	943	U	P-O5'-C5'	-5.83	112.16	120.90
1	AA	976	G	O4'-C1'-C2'	-5.83	101.77	107.60
1	AA	1453	G	C5'-C4'-O4'	5.83	118.54	109.80
7	AG	184	LYS	CB-CA-C	5.83	116.78	110.08
26	BB	1510	G	O3'-P-O5'	-5.83	95.26	104.00
26	BB	2903	U	C1'-O4'-C4'	5.83	115.73	109.90
30	BF	176	ASP	CA-CB-CG	5.83	118.43	112.60
39	BO	13	HIS	CA-C-N	5.83	128.41	120.54
39	BO	13	HIS	C-N-CA	5.83	128.41	120.54
1	AA	1128	C	C3'-C2'-C1'	-5.83	95.47	101.30
26	BB	1223	G	C5'-C4'-C3'	-5.83	107.26	116.00
26	BB	1234	U	C1'-C2'-O2'	-5.83	99.66	108.40
1	AA	250	A	O3'-P-O5'	-5.83	95.26	104.00
1	AA	275	G	P-O5'-C5'	5.83	129.64	120.90
1	AA	657	U	C3'-C2'-C1'	5.83	107.13	101.30
1	AA	1376	U	C4'-C3'-C2'	5.83	108.43	102.60
26	BB	1521	G	O4'-C4'-C3'	5.83	109.83	104.00
26	BB	2056	G	C3'-C2'-O2'	5.83	119.44	110.70
26	BB	2756	U	O4'-C4'-C3'	5.83	111.93	106.10
1	AA	433	G	C3'-C2'-C1'	-5.82	95.48	101.30
17	AQ	52	ARG	NE-CZ-NH2	-5.82	113.96	119.20
26	BB	757	G	O4'-C1'-C2'	-5.82	101.78	107.60
26	BB	1613	G	O4'-C1'-N9	5.82	117.24	108.50
29	BE	60	VAL	CA-CB-CG1	5.82	120.30	110.40
1	AA	82	G	N9-C1'-C2'	-5.82	103.27	112.00
1	AA	337	G	O4'-C1'-N9	5.82	117.23	108.50
26	BB	1739	A	C5'-C4'-C3'	-5.82	107.27	116.00
49	BY	40	ARG	NH1-CZ-NH2	-5.82	111.73	119.30
1	AA	973	G	N9-C1'-C2'	5.82	120.73	112.00
3	AC	19	A	C1'-O4'-C4'	-5.82	103.88	109.70
21	AU	6	ARG	CB-CA-C	5.82	120.71	111.51
25	BA	15	A	C1'-O4'-C4'	5.82	115.52	109.70
26	BB	1227	G	C1'-O4'-C4'	5.82	115.72	109.90
26	BB	1587	G	C4'-C3'-C2'	-5.82	96.78	102.60
44	BT	6	GLN	CB-CG-CD	5.82	122.49	112.60
1	AA	427	U	O3'-P-O5'	-5.82	95.27	104.00
1	AA	1263	C	C1'-C2'-O2'	5.82	117.13	108.40
26	BB	1696	G	O4'-C1'-N9	5.82	117.23	108.50
26	BB	2196	C	C3'-C2'-C1'	5.82	107.12	101.30
26	BB	2378	A	C1'-C2'-O2'	5.82	117.13	108.40
26	BB	2537	U	C3'-C2'-O2'	5.82	119.43	110.70
1	AA	574	A	O4'-C4'-C3'	5.82	109.82	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AK	41	GLU	N-CA-C	5.82	117.70	111.36
26	BB	343	C	O4'-C1'-N1	5.82	117.23	108.50
26	BB	1793	C	C4'-C3'-C2'	-5.82	96.78	102.60
26	BB	2005	A	O4'-C4'-C3'	5.82	109.82	104.00
26	BB	2219	U	O4'-C4'-C3'	5.82	109.82	104.00
38	BN	99	ASN	CA-CB-CG	5.82	118.42	112.60
44	BT	64	VAL	N-CA-C	-5.82	107.83	113.53
1	AA	488	C	O4'-C4'-C3'	5.82	109.81	104.00
5	AE	180	ILE	N-CA-C	-5.82	103.25	108.95
26	BB	22	C	C5'-C4'-O4'	5.82	118.52	109.80
26	BB	490	C	N1-C1'-C2'	5.82	120.72	112.00
26	BB	513	A	C5'-C4'-O4'	5.82	118.52	109.80
26	BB	1826	G	C3'-C2'-O2'	5.82	119.42	110.70
42	BR	108	ARG	CA-C-N	5.82	131.18	122.75
42	BR	108	ARG	C-N-CA	5.82	131.18	122.75
1	AA	1266	G	C3'-C2'-C1'	5.81	107.11	101.30
17	AQ	8	ARG	NE-CZ-NH1	-5.81	115.69	121.50
26	BB	998	C	C2'-C3'-O3'	5.81	122.42	113.70
26	BB	1710	G	C1'-O4'-C4'	-5.81	104.09	109.90
1	AA	578	C	C5'-C4'-O4'	5.81	118.52	109.80
1	AA	1329	A	C4'-C3'-C2'	-5.81	96.79	102.60
1	AA	1336	C	O4'-C4'-C3'	5.81	111.91	106.10
2	AB	36	A	C4'-C3'-C2'	-5.81	96.79	102.60
26	BB	102	U	C1'-C2'-O2'	-5.81	103.08	111.80
26	BB	1481	U	C3'-C2'-C1'	-5.81	95.49	101.30
26	BB	2168	G	C4'-C3'-O3'	-5.81	104.28	113.00
26	BB	2381	A	C4'-C3'-C2'	-5.81	96.79	102.60
30	BF	124	PHE	CA-CB-CG	5.81	119.61	113.80
40	BP	96	ARG	NE-CZ-NH2	5.81	124.43	119.20
41	BQ	93	ASP	CA-CB-CG	-5.81	106.79	112.60
48	BX	55	GLU	CA-C-N	5.81	128.07	120.28
48	BX	55	GLU	C-N-CA	5.81	128.07	120.28
1	AA	505	G	O4'-C4'-C3'	5.81	109.81	104.00
1	AA	948	C	O4'-C1'-C2'	-5.81	101.79	107.60
26	BB	2589	A	O4'-C4'-C3'	5.81	109.81	104.00
1	AA	97	G	P-O3'-C3'	5.81	128.91	120.20
26	BB	277	G	O5'-C5'-C4'	-5.81	102.78	111.50
26	BB	1122	G	N9-C1'-C2'	-5.81	103.28	112.00
26	BB	1147	A	C1'-C2'-O2'	5.81	117.11	108.40
26	BB	1441	G	C5'-C4'-C3'	-5.81	107.29	116.00
26	BB	2420	C	O4'-C4'-C3'	5.81	109.81	104.00
26	BB	2892	G	C1'-O4'-C4'	-5.81	104.09	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	BE	194	PRO	N-CA-C	5.81	119.64	111.33
45	BU	34	ASP	CA-C-N	5.81	128.72	120.53
45	BU	34	ASP	C-N-CA	5.81	128.72	120.53
47	BW	57	ILE	CA-C-N	5.81	131.13	123.11
47	BW	57	ILE	C-N-CA	5.81	131.13	123.11
1	AA	106	C	O4'-C1'-C2'	-5.81	101.79	107.60
1	AA	406	G	C3'-C2'-C1'	-5.81	95.49	101.30
4	AD	76	C	C1'-O4'-C4'	-5.81	103.89	109.70
8	AH	97	PRO	N-CD-CG	5.81	111.91	103.20
26	BB	897	C	O4'-C1'-N1	5.81	117.21	108.50
17	AQ	65	GLN	O-C-N	5.81	128.56	122.23
26	BB	1542	U	O4'-C1'-N1	5.81	117.21	108.50
26	BB	2890	G	C1'-C2'-O2'	5.81	117.11	108.40
33	BI	123	ARG	O-C-N	5.81	129.19	122.17
1	AA	324	G	C4'-C3'-C2'	-5.80	96.80	102.60
1	AA	1368	A	C5'-C4'-O4'	5.80	118.51	109.80
26	BB	1588	G	O4'-C4'-C3'	-5.80	98.19	104.00
26	BB	243	U	O4'-C1'-C2'	-5.80	101.80	107.60
25	BA	65	U	C4'-C3'-C2'	-5.80	96.80	102.60
26	BB	428	A	C2'-C3'-O3'	-5.80	105.00	113.70
26	BB	1460	U	P-O3'-C3'	5.80	128.90	120.20
26	BB	1843	C	O4'-C1'-C2'	-5.80	101.80	107.60
26	BB	2422	C	O3'-P-O5'	-5.80	95.30	104.00
49	BY	68	PHE	CA-C-N	5.80	131.02	121.39
49	BY	68	PHE	C-N-CA	5.80	131.02	121.39
1	AA	580	C	O4'-C4'-C3'	5.80	109.80	104.00
1	AA	934	C	O4'-C1'-C2'	-5.80	100.00	105.80
1	AA	1323	G	P-O5'-C5'	5.80	129.60	120.90
26	BB	1274	A	O4'-C1'-N9	5.80	117.20	108.50
26	BB	2146	C	O4'-C1'-N1	5.80	116.90	108.20
26	BB	2403	C	C4'-C3'-C2'	-5.80	96.80	102.60
37	BM	80	ASP	CA-C-N	5.80	132.78	121.41
37	BM	80	ASP	C-N-CA	5.80	132.78	121.41
26	BB	1726	C	O4'-C1'-C2'	-5.80	101.80	107.60
26	BB	1736	U	O4'-C4'-C3'	5.80	109.80	104.00
26	BB	2463	C	N1-C1'-C2'	-5.80	103.30	112.00
1	AA	1430	A	O5'-C5'-C4'	5.80	120.20	111.50
10	AJ	154	ARG	NE-CZ-NH2	-5.80	113.98	119.20
26	BB	989	G	O4'-C1'-N9	5.80	116.89	108.20
26	BB	1235	G	C4'-C3'-C2'	-5.80	96.80	102.60
26	BB	1713	A	O4'-C4'-C3'	5.80	111.90	106.10
26	BB	2638	G	O4'-C4'-C3'	-5.80	100.30	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BH	165	ASP	CA-CB-CG	-5.80	106.80	112.60
3	AC	19	A	C2'-C3'-O3'	5.79	118.19	109.50
26	BB	1635	A	C5'-C4'-C3'	-5.79	107.31	116.00
33	BI	72	ILE	CA-CB-CG1	5.79	120.25	110.40
1	AA	735	C	P-O3'-C3'	5.79	128.89	120.20
4	AD	7	G	O5'-C5'-C4'	-5.79	103.01	111.70
8	AH	68	ARG	CD-NE-CZ	5.79	132.51	124.40
9	AI	52	ASN	OD1-CG-ND2	-5.79	116.81	122.60
10	AJ	72	VAL	CA-C-O	-5.79	114.56	121.28
26	BB	349	U	O4'-C1'-N1	5.79	117.19	108.50
26	BB	1018	U	C3'-C2'-O2'	5.79	119.39	110.70
26	BB	1192	G	O5'-C5'-C4'	5.79	120.19	111.50
26	BB	2022	U	C4'-C3'-C2'	-5.79	96.81	102.60
26	BB	2429	G	O4'-C4'-C3'	5.79	109.79	104.00
1	AA	810	C	C4'-C3'-C2'	-5.79	96.81	102.60
1	AA	1399	C	N1-C1'-C2'	-5.79	105.31	114.00
2	AB	44	G	O4'-C4'-C3'	5.79	109.79	104.00
16	AP	5	GLY	CA-C-N	5.79	129.64	121.53
16	AP	5	GLY	C-N-CA	5.79	129.64	121.53
30	BF	177	PRO	CA-C-N	5.79	129.82	120.55
30	BF	177	PRO	C-N-CA	5.79	129.82	120.55
1	AA	535	A	C1'-O4'-C4'	-5.79	104.11	109.90
26	BB	107	G	O3'-P-O5'	-5.79	95.31	104.00
26	BB	2482	A	C2'-C3'-O3'	5.79	122.39	113.70
1	AA	1002	G	O4'-C1'-C2'	-5.79	101.81	107.60
1	AA	1329	A	P-O3'-C3'	5.79	128.88	120.20
6	AF	111	ASP	CA-C-O	5.79	127.23	120.75
25	BA	74	U	C3'-C2'-C1'	5.79	107.09	101.30
26	BB	328	U	O4'-C4'-C3'	5.79	109.79	104.00
26	BB	2112	G	C3'-C2'-O2'	-5.79	105.92	114.60
26	BB	84	A	P-O3'-C3'	5.79	128.88	120.20
32	BH	139	VAL	CA-C-N	5.79	128.39	120.46
32	BH	139	VAL	C-N-CA	5.79	128.39	120.46
42	BR	21	PRO	CA-C-O	-5.79	114.61	121.67
1	AA	432	A	O3'-P-O5'	-5.79	95.32	104.00
1	AA	694	A	C3'-C2'-C1'	5.79	107.09	101.30
1	AA	799	G	O5'-C5'-C4'	-5.79	102.82	111.50
1	AA	957	U	C3'-C2'-C1'	5.79	107.08	101.30
26	BB	1493	C	C3'-C2'-O2'	5.79	119.38	110.70
26	BB	1494	A	C5'-C4'-O4'	5.79	118.48	109.80
26	BB	1538	G	C3'-C2'-C1'	-5.79	95.52	101.30
26	BB	1637	A	O4'-C4'-C3'	5.79	109.78	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1932	A	C4'-C3'-O3'	5.79	121.68	113.00
26	BB	2824	C	C3'-C2'-O2'	5.79	119.38	110.70
39	BO	114	ARG	NE-CZ-NH2	5.79	124.41	119.20
1	AA	482	A	C1'-O4'-C4'	5.78	115.68	109.90
20	AT	12	VAL	O-C-N	-5.78	116.90	122.16
25	BA	84	G	C5'-C4'-O4'	5.78	118.48	109.80
26	BB	540	C	C1'-O4'-C4'	-5.78	104.12	109.90
26	BB	1224	U	O4'-C1'-C2'	-5.78	101.82	107.60
26	BB	2761	A	C1'-C2'-O2'	5.78	117.08	108.40
1	AA	1522	U	C1'-C2'-O2'	-5.78	99.73	108.40
26	BB	1762	A	C3'-C2'-C1'	5.78	107.28	101.50
26	BB	2078	C	C1'-C2'-O2'	5.78	117.07	108.40
1	AA	475	C	C4'-C3'-C2'	-5.78	96.82	102.60
1	AA	841	C	C1'-O4'-C4'	-5.78	104.12	109.90
1	AA	1253	G	O4'-C1'-N9	5.78	117.17	108.50
1	AA	1492	A	C5'-C4'-C3'	-5.78	107.33	116.00
26	BB	2179	C	O4'-C1'-C2'	-5.78	101.82	107.60
28	BD	239	PHE	CA-C-O	5.78	127.77	121.06
31	BG	63	LYS	CA-C-N	5.78	127.79	120.51
31	BG	63	LYS	C-N-CA	5.78	127.79	120.51
26	BB	2610	C	O3'-P-O5'	-5.78	95.33	104.00
31	BG	96	TRP	CA-C-O	-5.78	114.42	120.55
1	AA	76	G	C3'-C2'-C1'	5.78	107.08	101.30
1	AA	819	A	C1'-C2'-O2'	5.78	117.07	108.40
1	AA	1015	G	C4'-C3'-C2'	-5.78	96.82	102.60
10	AJ	91	ARG	N-CA-C	5.78	117.17	109.83
15	AO	107	LYS	CA-C-N	5.78	132.57	121.54
15	AO	107	LYS	C-N-CA	5.78	132.57	121.54
26	BB	1108	U	O4'-C1'-C2'	-5.78	101.82	107.60
26	BB	1413	A	O4'-C4'-C3'	5.78	109.78	104.00
1	AA	1503	A	C2'-C3'-O3'	-5.78	100.84	109.50
8	AH	53	ARG	NE-CZ-NH2	-5.78	114.00	119.20
26	BB	887	U	C3'-C2'-C1'	5.78	107.08	101.30
26	BB	2006	C	O4'-C4'-C3'	5.78	109.78	104.00
46	BV	45	ALA	CA-C-N	5.78	130.37	121.19
46	BV	45	ALA	C-N-CA	5.78	130.37	121.19
1	AA	137	U	O5'-C5'-C4'	-5.77	102.84	111.50
1	AA	333	U	C4'-C3'-O3'	-5.77	104.34	113.00
26	BB	2384	U	P-O5'-C5'	5.77	129.56	120.90
37	BM	99	ILE	CB-CA-C	5.77	120.70	110.71
1	AA	805	C	C3'-C2'-O2'	-5.77	102.04	110.70
1	AA	1377	A	C5'-C4'-C3'	5.77	124.66	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1912	A	C4'-C3'-O3'	-5.77	104.34	113.00
26	BB	1930	G	O5'-C5'-C4'	-5.77	102.84	111.50
26	BB	2429	G	N9-C1'-C2'	5.77	120.66	112.00
37	BM	89	ASN	CA-CB-CG	5.77	118.37	112.60
1	AA	676	A	C2'-C3'-O3'	-5.77	105.04	113.70
2	AB	47	U	C4'-C3'-O3'	-5.77	100.74	109.40
26	BB	1241	A	C2'-C3'-O3'	-5.77	105.04	113.70
30	BF	18	THR	N-CA-CB	5.77	118.60	110.12
1	AA	189	A	C3'-C2'-C1'	5.77	107.07	101.30
1	AA	816	A	C1'-C2'-O2'	5.77	117.05	108.40
1	AA	972	C	C5'-C4'-O4'	5.77	118.45	109.80
1	AA	1434	A	C5'-C4'-C3'	-5.77	107.35	116.00
10	AJ	116	ALA	CA-C-N	5.77	128.48	120.29
10	AJ	116	ALA	C-N-CA	5.77	128.48	120.29
16	AP	111	PRO	N-CA-CB	5.77	109.31	103.25
26	BB	1266	G	C4'-C3'-O3'	-5.77	100.75	109.40
26	BB	2052	A	C4'-C3'-O3'	-5.77	104.35	113.00
26	BB	2333	A	O5'-C5'-C4'	-5.77	103.05	111.70
26	BB	2613	U	C4'-C3'-C2'	-5.77	96.83	102.60
26	BB	2620	C	O4'-C1'-N1	5.77	117.16	108.50
26	BB	2832	U	C1'-O4'-C4'	5.77	115.47	109.70
26	BB	2870	C	C4'-C3'-C2'	-5.77	96.83	102.60
30	BF	50	ALA	O-C-N	5.77	130.26	122.59
52	B1	32	GLY	O-C-N	5.77	127.45	121.97
4	AD	17	C	C3'-C2'-C1'	5.77	107.27	101.50
26	BB	841	G	O4'-C1'-N9	5.77	117.15	108.50
26	BB	2122	U	C2'-C3'-O3'	5.77	122.35	113.70
31	BG	70	ARG	NE-CZ-NH2	5.77	124.39	119.20
43	BS	7	VAL	CA-C-N	5.77	130.19	121.65
43	BS	7	VAL	C-N-CA	5.77	130.19	121.65
1	AA	904	U	C4'-C3'-O3'	-5.77	104.35	113.00
26	BB	1879	C	C4'-C3'-C2'	-5.77	96.83	102.60
3	AC	56	G	C3'-C2'-C1'	-5.76	95.53	101.30
26	BB	455	C	C4'-C3'-O3'	-5.76	104.35	113.00
26	BB	988	A	C4'-C3'-O3'	-5.76	104.35	113.00
26	BB	989	G	C5'-C4'-C3'	-5.76	106.55	115.20
26	BB	1943	U	N1-C1'-C2'	-5.76	105.35	114.00
26	BB	2053	G	C3'-C2'-O2'	5.76	119.34	110.70
26	BB	2415	G	C4'-C3'-C2'	-5.76	96.83	102.60
1	AA	1466	C	P-O5'-C5'	5.76	129.54	120.90
26	BB	1068	G	C5'-C4'-C3'	-5.76	107.36	116.00
1	AA	9	G	N9-C1'-C2'	-5.76	103.36	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	471	U	O3'-P-O5'	5.76	112.64	104.00
1	AA	520	A	O4'-C4'-C3'	5.76	109.76	104.00
1	AA	1172	C	O4'-C4'-C3'	5.76	109.76	104.00
4	AD	5	G	C5'-C4'-C3'	-5.76	107.36	116.00
6	AF	119	ILE	CA-C-N	5.76	128.57	120.28
6	AF	119	ILE	C-N-CA	5.76	128.57	120.28
26	BB	1274	A	P-O5'-C5'	5.76	129.54	120.90
26	BB	1407	G	C4'-C3'-C2'	-5.76	96.84	102.60
26	BB	2731	G	C3'-C2'-C1'	5.76	107.06	101.30
26	BB	2754	U	C1'-C2'-O2'	-5.76	99.76	108.40
26	BB	2885	G	C5'-C4'-O4'	5.76	118.44	109.80
34	BJ	87	HIS	N-CA-CB	-5.76	103.85	111.40
1	AA	987	G	C2'-C3'-O3'	5.76	122.34	113.70
1	AA	1061	G	C5'-C4'-C3'	-5.76	107.36	116.00
1	AA	1111	A	O4'-C1'-C2'	-5.76	101.84	107.60
15	AO	61	GLU	N-CA-CB	-5.76	101.14	110.81
26	BB	1279	G	O5'-C5'-C4'	5.76	120.14	111.50
26	BB	2320	U	P-O3'-C3'	5.76	128.84	120.20
26	BB	2449	H2U	O3'-P-O5'	-5.76	95.36	104.00
50	BZ	5	GLN	CA-C-N	5.76	132.34	121.97
50	BZ	5	GLN	C-N-CA	5.76	132.34	121.97
1	AA	1410	A	O4'-C4'-C3'	5.76	109.76	104.00
25	BA	62	C	C3'-C2'-C1'	5.76	107.06	101.30
26	BB	2365	G	P-O5'-C5'	5.76	129.54	120.90
43	BS	37	ALA	CA-C-N	5.76	128.35	120.46
43	BS	37	ALA	C-N-CA	5.76	128.35	120.46
1	AA	566	G	N9-C1'-C2'	-5.76	105.36	114.00
1	AA	566	G	O4'-C1'-C2'	5.76	111.56	105.80
1	AA	798	U	C2'-C3'-O3'	5.76	122.33	113.70
2	AB	34	C	C5'-C4'-C3'	-5.76	107.36	116.00
26	BB	1907	G	C3'-C2'-O2'	5.76	119.33	110.70
26	BB	2049	G	C5'-C4'-O4'	5.76	118.44	109.80
26	BB	2278	A	N9-C1'-C2'	-5.76	103.36	112.00
40	BP	23	ASN	CB-CG-ND2	5.76	125.03	116.40
26	BB	332	A	C5'-C4'-O4'	5.75	117.73	109.10
30	BF	136	GLN	CA-C-N	5.75	127.92	120.44
30	BF	136	GLN	C-N-CA	5.75	127.92	120.44
32	BH	11	PRO	CA-N-CD	-5.75	103.94	112.00
1	AA	917	G	C5'-C4'-O4'	5.75	118.43	109.80
1	AA	1014	A	C3'-C2'-O2'	5.75	119.33	110.70
26	BB	236	C	O4'-C1'-N1	5.75	117.13	108.50
26	BB	895	U	N1-C1'-C2'	5.75	122.63	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1963	U	P-O3'-C3'	5.75	128.83	120.20
26	BB	2437	G	C4'-C3'-C2'	-5.75	96.85	102.60
31	BG	17	THR	CA-CB-CG2	5.75	120.28	110.50
1	AA	627	G	C4'-C3'-C2'	-5.75	96.85	102.60
1	AA	652	U	O4'-C1'-C2'	5.75	111.55	105.80
25	BA	53	A	O4'-C1'-C2'	-5.75	101.85	107.60
26	BB	938	G	C1'-C2'-O2'	5.75	117.03	108.40
9	AI	2	ARG	O-C-N	-5.75	115.67	123.15
11	AK	36	ALA	CA-C-N	5.75	128.46	120.29
11	AK	36	ALA	C-N-CA	5.75	128.46	120.29
26	BB	1385	A	O3'-P-O5'	-5.75	95.38	104.00
26	BB	2473	U	N1-C1'-C2'	5.75	120.62	112.00
11	AK	26	MET	N-CA-CB	-5.75	105.06	111.10
26	BB	3	U	O4'-C1'-N1	5.75	117.12	108.50
26	BB	243	U	C1'-C2'-O2'	5.75	117.02	108.40
26	BB	533	G	C5'-C4'-C3'	-5.75	107.38	116.00
26	BB	673	C	C4'-C3'-C2'	-5.75	96.85	102.60
26	BB	1215	G	C3'-C2'-O2'	5.75	119.32	110.70
26	BB	2346	A	C5'-C4'-C3'	-5.75	106.58	115.20
1	AA	410	G	C1'-C2'-O2'	-5.75	99.78	108.40
5	AE	199	ILE	O-C-N	-5.75	117.75	121.37
14	AN	29	THR	CA-CB-OG1	5.75	118.22	109.60
26	BB	1938	A	C4'-C3'-O3'	-5.75	104.38	113.00
26	BB	2451	A	O4'-C1'-N9	5.75	117.12	108.50
43	BS	112	ALA	N-CA-CB	-5.75	101.74	110.07
51	B0	9	LYS	CA-C-O	-5.75	114.37	120.92
1	AA	1179	A	O3'-P-O5'	-5.75	95.38	104.00
20	AT	32	ILE	CA-C-O	-5.75	113.60	120.78
26	BB	2309	A	P-O5'-C5'	5.75	129.52	120.90
26	BB	2453	A	O4'-C4'-C3'	5.75	109.75	104.00
26	BB	2584	U	O4'-C1'-C2'	-5.75	101.86	107.60
1	AA	1009	U	C4'-C3'-C2'	-5.74	96.86	102.60
1	AA	1019	A	C5'-C4'-O4'	5.74	118.41	109.80
7	AG	8	LEU	CA-C-N	5.74	128.25	120.38
7	AG	8	LEU	C-N-CA	5.74	128.25	120.38
25	BA	36	C	C5'-C4'-C3'	5.74	124.62	116.00
26	BB	356	G	C5'-C4'-O4'	-5.74	101.19	109.80
26	BB	2752	C	P-O3'-C3'	5.74	128.82	120.20
49	BY	39	GLN	CA-CB-CG	5.74	125.59	114.10
1	AA	582	C	C4'-C3'-C2'	-5.74	96.86	102.60
1	AA	1296	C	C5'-C4'-C3'	-5.74	107.39	116.00
4	AD	34	U	C1'-O4'-C4'	5.74	115.64	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	AG	187	ARG	CB-CG-CD	5.74	124.51	111.30
26	BB	389	G	C5'-C4'-C3'	-5.74	107.39	116.00
1	AA	609	A	C2'-C3'-O3'	-5.74	105.09	113.70
1	AA	962	C	C3'-C2'-O2'	5.74	119.31	110.70
1	AA	1004	A	C4'-C3'-C2'	-5.74	96.86	102.60
1	AA	1241	G	C4'-C3'-O3'	5.74	121.61	113.00
4	AD	76	C	C2'-C3'-O3'	5.74	118.11	109.50
26	BB	1827	U	O4'-C1'-N1	5.74	117.11	108.50
26	BB	2608	G	C5'-C4'-O4'	5.74	118.41	109.80
34	BJ	7	LYS	N-CA-CB	-5.74	101.38	110.28
26	BB	923	G	O4'-C1'-N9	5.74	117.11	108.50
26	BB	1425	G	C2'-C3'-O3'	-5.74	105.09	113.70
26	BB	2569	G	O4'-C4'-C3'	5.74	109.74	104.00
26	BB	2901	C	C3'-C2'-O2'	5.74	119.31	110.70
26	BB	2903	U	C4'-C3'-C2'	-5.74	96.86	102.60
7	AG	145	ARG	O-C-N	-5.74	116.25	122.79
7	AG	202	LEU	N-CA-C	-5.74	105.11	111.36
26	BB	2663	G	O4'-C1'-N9	5.74	117.10	108.50
28	BD	225	ASN	CA-CB-CG	5.74	118.34	112.60
1	AA	1445	U	C4'-C3'-C2'	5.73	108.33	102.60
26	BB	514	A	C5'-C4'-C3'	-5.73	107.40	116.00
26	BB	1264	A	O4'-C1'-C2'	5.73	113.33	107.60
26	BB	1384	A	O4'-C4'-C3'	5.73	109.73	104.00
26	BB	1579	A	C1'-O4'-C4'	-5.73	104.17	109.90
26	BB	2541	A	C3'-C2'-C1'	-5.73	95.57	101.30
26	BB	2616	C	C5'-C4'-C3'	5.73	124.60	116.00
1	AA	496	A	C4'-C3'-C2'	-5.73	96.87	102.60
1	AA	872	A	O4'-C4'-C3'	5.73	111.83	106.10
1	AA	1337	G	O4'-C1'-C2'	-5.73	101.87	107.60
26	BB	185	G	O3'-P-O5'	-5.73	95.40	104.00
26	BB	816	C	C5'-C4'-O4'	5.73	118.40	109.80
26	BB	1243	C	C4'-C3'-C2'	-5.73	96.87	102.60
26	BB	1300	G	P-O5'-C5'	5.73	129.50	120.90
26	BB	2512	C	C1'-C2'-O2'	5.73	117.00	108.40
28	BD	119	VAL	CA-C-O	-5.73	113.90	119.92
23	AW	79	THR	CA-CB-CG2	5.73	120.24	110.50
26	BB	1016	G	O5'-C5'-C4'	5.73	120.09	111.50
1	AA	1536	C	C5'-C4'-O4'	5.73	118.39	109.80
19	AS	28	ARG	CB-CG-CD	5.73	124.48	111.30
26	BB	325	G	C1'-O4'-C4'	-5.73	104.17	109.90
26	BB	943	A	O5'-C5'-C4'	-5.73	102.91	111.50
26	BB	1045	C	C1'-C2'-O2'	5.73	120.39	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	BS	106	THR	CA-C-N	5.73	127.96	120.28
43	BS	106	THR	C-N-CA	5.73	127.96	120.28
1	AA	193	C	C4'-C3'-C2'	-5.73	96.87	102.60
8	AH	47	PHE	CA-CB-CG	5.73	119.53	113.80
26	BB	872	U	P-O5'-C5'	5.73	129.49	120.90
26	BB	1178	C	O4'-C1'-N1	5.73	117.09	108.50
26	BB	2329	U	C1'-C2'-O2'	-5.73	99.81	108.40
26	BB	2759	G	O4'-C4'-C3'	-5.73	98.27	104.00
26	BB	2853	C	O4'-C1'-C2'	-5.73	101.87	107.60
45	BU	70	LYS	CA-C-O	-5.73	114.42	121.06
57	B6	21	PHE	O-C-N	-5.73	116.95	123.48
1	AA	1160	G	C5'-C4'-O4'	5.73	118.39	109.80
21	AU	13	THR	CA-CB-CG2	5.73	120.23	110.50
26	BB	100	U	N1-C1'-C2'	-5.73	103.41	112.00
26	BB	1903	G	C1'-O4'-C4'	-5.73	104.17	109.90
1	AA	279	A	C4'-C3'-O3'	5.72	117.99	109.40
7	AG	29	THR	CB-CA-C	5.72	120.02	111.89
26	BB	230	G	O4'-C4'-C3'	5.72	109.72	104.00
26	BB	677	A	C3'-C2'-O2'	5.72	119.29	110.70
26	BB	1229	C	C1'-O4'-C4'	-5.72	104.18	109.90
26	BB	1475	G	C3'-C2'-O2'	-5.72	106.01	114.60
26	BB	1937	A	C1'-O4'-C4'	-5.72	104.17	109.90
26	BB	2136	G	O5'-C5'-C4'	-5.72	102.91	111.50
26	BB	2156	G	C1'-O4'-C4'	-5.72	104.18	109.90
26	BB	2183	A	P-O5'-C5'	5.72	129.49	120.90
26	BB	2527	C	O4'-C1'-C2'	-5.72	101.88	107.60
28	BD	70	LYS	CA-C-O	5.72	127.47	120.60
31	BG	132	ARG	CA-C-O	-5.72	112.32	120.51
32	BH	9	VAL	CA-CB-CG2	5.72	120.13	110.40
1	AA	632	U	N1-C1'-C2'	5.72	120.58	112.00
25	BA	3	C	O4'-C1'-C2'	-5.72	101.88	107.60
26	BB	240	C	C5'-C4'-O4'	5.72	118.38	109.80
26	BB	691	C	O4'-C4'-C3'	5.72	109.72	104.00
1	AA	306	A	O4'-C1'-C2'	-5.72	101.88	107.60
1	AA	468	A	C5'-C4'-C3'	-5.72	107.42	116.00
2	AB	24	G	C4'-C3'-O3'	-5.72	104.42	113.00
26	BB	2554	U	C1'-O4'-C4'	-5.72	104.18	109.90
1	AA	285	C	C3'-C2'-C1'	-5.72	95.58	101.30
1	AA	1534	A	C1'-O4'-C4'	5.72	115.62	109.90
11	AK	24	VAL	CA-CB-CG2	5.72	120.12	110.40
14	AN	60	PHE	N-CA-C	5.72	118.45	111.82
26	BB	249	C	O4'-C1'-N1	5.72	116.78	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	464	U	O4'-C4'-C3'	5.72	109.72	104.00
26	BB	1040	A	C5'-C4'-O4'	5.72	118.38	109.80
26	BB	2129	C	C3'-C2'-O2'	5.72	119.28	110.70
27	BC	160	GLN	CB-CA-C	5.72	118.39	110.16
28	BD	250	GLN	OE1-CD-NE2	-5.72	116.88	122.60
32	BH	28	LYS	CA-C-N	5.72	129.68	121.50
32	BH	28	LYS	C-N-CA	5.72	129.68	121.50
20	AT	4	ILE	CA-C-O	-5.72	114.92	121.44
26	BB	257	C	O4'-C1'-C2'	-5.72	101.88	107.60
26	BB	663	G	C4'-C3'-O3'	5.72	121.58	113.00
1	AA	408	A	C3'-C2'-C1'	5.72	107.02	101.30
26	BB	262	A	C2'-C3'-O3'	-5.72	105.12	113.70
26	BB	1329	U	O3'-P-O5'	-5.72	95.43	104.00
26	BB	1721	G	O4'-C1'-C2'	5.72	111.52	105.80
26	BB	2651	C	O4'-C1'-C2'	-5.72	101.88	107.60
26	BB	2809	A	C4'-C3'-C2'	-5.72	96.88	102.60
1	AA	18	C	C3'-C2'-O2'	5.71	119.27	110.70
1	AA	716	A	C4'-C3'-C2'	-5.71	96.89	102.60
1	AA	806	C	C5'-C4'-O4'	5.71	118.37	109.80
1	AA	1195	C	C5'-C4'-O4'	5.71	118.37	109.80
1	AA	1366	C	O4'-C4'-C3'	5.71	109.71	104.00
4	AD	65	G	O3'-P-O5'	5.71	112.57	104.00
17	AQ	26	LEU	O-C-N	5.71	128.66	122.15
26	BB	894	U	O3'-P-O5'	5.71	112.57	104.00
26	BB	1847	A	O4'-C1'-N9	5.71	117.07	108.50
26	BB	2360	G	O4'-C4'-C3'	5.71	109.72	104.00
49	BY	42	THR	CA-CB-CG2	5.71	120.22	110.50
26	BB	1650	A	C3'-C2'-C1'	5.71	107.01	101.30
26	BB	2075	U	P-O5'-C5'	5.71	129.47	120.90
38	BN	71	ALA	CA-C-O	-5.71	113.64	120.10
1	AA	405	U	C4'-C3'-O3'	-5.71	104.43	113.00
1	AA	735	C	C4'-C3'-C2'	-5.71	96.89	102.60
1	AA	1003	G	C4'-C3'-C2'	-5.71	96.89	102.60
25	BA	118	C	C4'-C3'-C2'	-5.71	96.89	102.60
26	BB	781	A	O3'-P-O5'	-5.71	95.43	104.00
26	BB	787	C	O4'-C1'-C2'	-5.71	101.89	107.60
6	AF	82	ASP	CA-C-O	-5.71	114.83	120.82
26	BB	2367	G	C5'-C4'-O4'	5.71	118.37	109.80
1	AA	1390	U	C4'-C3'-C2'	-5.71	96.89	102.60
26	BB	654	A	C5'-C4'-C3'	5.71	124.56	116.00
26	BB	742	A	O5'-C5'-C4'	-5.71	102.94	111.50
26	BB	1744	A	O4'-C1'-N9	5.71	117.06	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2794	C	N1-C1'-C2'	-5.71	103.44	112.00
26	BB	2882	A	O4'-C4'-C3'	5.71	109.71	104.00
43	BS	64	ILE	CA-C-N	5.71	127.86	120.44
43	BS	64	ILE	C-N-CA	5.71	127.86	120.44
1	AA	416	G	O4'-C4'-C3'	5.71	109.71	104.00
1	AA	840	C	C2'-C3'-O3'	5.71	122.26	113.70
8	AH	156	ARG	CA-C-N	5.71	126.31	119.98
8	AH	156	ARG	C-N-CA	5.71	126.31	119.98
14	AN	106	ILE	CA-CB-CG2	5.71	120.20	110.50
26	BB	828	U	C4'-C3'-C2'	-5.71	96.89	102.60
1	AA	876	C	N1-C1'-C2'	-5.71	103.44	112.00
26	BB	349	U	O4'-C1'-C2'	-5.71	101.89	107.60
26	BB	2161	C	C4'-C3'-O3'	-5.71	104.44	113.00
47	BW	16	LYS	CA-CB-CG	-5.71	102.69	114.10
53	B2	4	ASP	CA-C-O	-5.71	112.86	119.14
1	AA	898	G	C4'-C3'-C2'	-5.70	96.90	102.60
1	AA	1251	A	C3'-C2'-C1'	5.70	107.00	101.30
1	AA	1435	G	C4'-C3'-C2'	-5.70	96.90	102.60
26	BB	165	A	O4'-C4'-C3'	5.70	109.70	104.00
26	BB	862	G	C2'-C3'-O3'	5.70	122.26	113.70
26	BB	1536	C	O4'-C4'-C3'	5.70	111.80	106.10
26	BB	1580	A	C4'-C3'-C2'	-5.70	96.90	102.60
26	BB	1799	G	O4'-C4'-C3'	5.70	111.80	106.10
26	BB	2291	U	C1'-C2'-O2'	-5.70	99.84	108.40
26	BB	2583	G	C4'-C3'-O3'	-5.70	104.44	113.00
28	BD	269	ARG	N-CA-C	5.70	118.54	109.81
29	BE	40	LEU	N-CA-CB	-5.70	102.69	110.56
31	BG	1	ALA	CA-C-O	-5.70	111.11	120.80
31	BG	164	GLU	O-C-N	5.70	130.07	122.43
1	AA	528	C	C2'-C3'-O3'	5.70	122.25	113.70
1	AA	1090	U	C4'-C3'-C2'	-5.70	96.90	102.60
45	BU	103	ILE	O-C-N	5.70	129.36	123.03
46	BV	54	GLU	N-CA-C	5.70	118.10	110.35
1	AA	935	A	C3'-C2'-C1'	5.70	107.00	101.30
1	AA	1474	U	O4'-C4'-C3'	5.70	109.70	104.00
21	AU	16	GLY	CA-C-N	5.70	131.75	122.69
21	AU	16	GLY	C-N-CA	5.70	131.75	122.69
26	BB	325	G	C5'-C4'-C3'	-5.70	107.45	116.00
26	BB	2451	A	O4'-C4'-C3'	5.70	109.70	104.00
26	BB	2750	A	O4'-C4'-C3'	5.70	111.80	106.10
3	AC	52	U	C1'-O4'-C4'	-5.70	104.00	109.70
4	AD	76	C	O3'-P-O5'	-5.70	95.45	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AK	26	MET	N-CA-C	5.70	113.35	108.22
14	AN	124	LYS	CA-C-N	5.70	130.25	121.53
14	AN	124	LYS	C-N-CA	5.70	130.25	121.53
26	BB	1246	A	C5'-C4'-O4'	5.70	118.35	109.80
26	BB	1364	G	O4'-C1'-C2'	-5.70	101.90	107.60
26	BB	1493	C	C4'-C3'-O3'	5.70	121.55	113.00
26	BB	2228	G	O4'-C4'-C3'	5.70	109.70	104.00
26	BB	2272	U	C5'-C4'-O4'	5.70	118.35	109.80
45	BU	110	ARG	NE-CZ-NH2	5.70	124.33	119.20
26	BB	2684	U	O4'-C4'-C3'	5.70	109.70	104.00
1	AA	320	A	O4'-C4'-C3'	5.70	109.70	104.00
1	AA	1280	A	O5'-C5'-C4'	-5.70	103.16	111.70
26	BB	60	G	O3'-P-O5'	-5.70	95.46	104.00
26	BB	756	A	C4'-C3'-C2'	-5.70	96.90	102.60
26	BB	1209	U	P-O3'-C3'	5.70	128.74	120.20
26	BB	1400	U	O5'-C5'-C4'	-5.70	102.96	111.50
26	BB	1572	A	C3'-C2'-O2'	5.70	119.25	110.70
26	BB	2357	G	C4'-C3'-C2'	-5.70	96.91	102.60
1	AA	301	G	C4'-C3'-O3'	-5.69	104.46	113.00
26	BB	65	U	C3'-C2'-C1'	5.69	106.99	101.30
26	BB	1484	U	O4'-C4'-C3'	5.69	109.69	104.00
26	BB	2301	C	O4'-C4'-C3'	5.69	109.69	104.00
51	B0	61	ALA	CA-C-O	-5.69	112.87	119.59
1	AA	158	G	O3'-P-O5'	-5.69	95.46	104.00
1	AA	414	A	C5'-C4'-O4'	5.69	118.34	109.80
26	BB	1799	G	O4'-C1'-N9	5.69	116.74	108.20
26	BB	2443	C	C5'-C4'-C3'	-5.69	107.46	116.00
1	AA	328	C	C3'-C2'-C1'	5.69	107.19	101.50
2	AB	73	G	O3'-P-O5'	-5.69	95.47	104.00
3	AC	44	U	O5'-C5'-C4'	-5.69	102.96	111.50
6	AF	187	GLU	CA-C-O	-5.69	114.00	120.32
26	BB	435	C	P-O5'-C5'	5.69	129.44	120.90
26	BB	2641	G	O3'-P-O5'	-5.69	95.46	104.00
26	BB	2899	A	C3'-C2'-C1'	5.69	106.99	101.30
30	BF	92	HIS	N-CA-CB	-5.69	102.16	110.47
34	BJ	14	VAL	O-C-N	5.69	127.69	121.83
36	BL	69	ARG	CB-CA-C	5.69	119.81	110.88
42	BR	32	VAL	CA-C-N	5.69	130.31	121.26
42	BR	32	VAL	C-N-CA	5.69	130.31	121.26
50	BZ	60	LYS	CA-C-N	5.69	128.37	120.29
50	BZ	60	LYS	C-N-CA	5.69	128.37	120.29
57	B6	22	LYS	CG-CD-CE	5.69	124.39	111.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	89	U	C5'-C4'-C3'	-5.69	107.47	116.00
1	AA	650	G	O4'-C4'-C3'	5.69	109.69	104.00
1	AA	833	G	O4'-C1'-C2'	-5.69	101.91	107.60
2	AB	3	G	N9-C1'-C2'	-5.69	103.47	112.00
13	AM	58	ASN	CB-CA-C	5.69	121.74	110.42
26	BB	116	C	C3'-C2'-C1'	5.69	106.99	101.30
26	BB	990	A	C4'-C3'-O3'	5.69	121.53	113.00
26	BB	2529	G	C4'-C3'-C2'	-5.69	96.91	102.60
1	AA	1136	C	C1'-O4'-C4'	5.69	115.59	109.90
4	AD	46	G	P-O5'-C5'	5.69	129.43	120.90
26	BB	1234	U	C3'-C2'-O2'	5.69	119.23	110.70
26	BB	1883	U	C1'-O4'-C4'	5.69	115.59	109.90
1	AA	955	U	C5'-C4'-C3'	5.68	124.53	116.00
6	AF	209	GLY	O-C-N	5.68	128.31	122.91
15	AO	71	HIS	CE1-NE2-CD2	-5.68	103.31	109.00
26	BB	10	A	O4'-C1'-N9	5.68	117.03	108.50
26	BB	380	G	N9-C1'-C2'	-5.68	103.47	112.00
26	BB	2242	G	O4'-C4'-C3'	5.68	109.69	104.00
26	BB	2446	G	C1'-O4'-C4'	-5.68	104.22	109.90
31	BG	37	MET	N-CA-C	5.68	119.52	112.47
45	BU	65	ASP	CA-CB-CG	5.68	118.28	112.60
45	BU	86	MET	CB-CA-C	5.68	117.57	109.38
53	B2	43	PHE	CA-C-N	5.68	132.40	121.54
53	B2	43	PHE	C-N-CA	5.68	132.40	121.54
56	B5	40	ALA	CA-C-N	5.68	132.21	121.69
56	B5	40	ALA	C-N-CA	5.68	132.21	121.69
1	AA	107	G	C3'-C2'-O2'	5.68	119.22	110.70
1	AA	548	G	P-O5'-C5'	5.68	129.43	120.90
1	AA	642	A	N9-C1'-C2'	5.68	120.52	112.00
1	AA	1150	A	C3'-C2'-C1'	5.68	106.98	101.30
7	AG	167	PRO	N-CD-CG	5.68	111.72	103.20
11	AK	84	ILE	CA-CB-CG1	5.68	120.06	110.40
15	AO	98	ARG	CA-C-O	-5.68	113.44	119.97
15	AO	98	ARG	NE-CZ-NH2	5.68	124.31	119.20
26	BB	637	A	C5'-C4'-C3'	-5.68	106.68	115.20
26	BB	2491	U	O4'-C1'-C2'	-5.68	100.12	105.80
51	B0	39	GLN	CA-C-N	5.68	128.46	120.28
51	B0	39	GLN	C-N-CA	5.68	128.46	120.28
1	AA	440	C	O4'-C1'-N1	5.68	117.02	108.50
1	AA	444	G	O4'-C1'-N9	5.68	117.02	108.50
1	AA	1011	C	P-O3'-C3'	5.68	128.72	120.20
26	BB	736	C	C3'-C2'-C1'	5.68	106.98	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	468	A	C4'-C3'-C2'	-5.68	96.92	102.60
1	AA	660	C	C5'-C4'-C3'	-5.68	107.48	116.00
1	AA	934	C	O4'-C4'-C3'	5.68	111.78	106.10
1	AA	1025	U	C5'-C4'-C3'	5.68	123.72	115.20
26	BB	1299	G	O3'-P-O5'	-5.68	95.48	104.00
26	BB	2673	G	C5'-C4'-C3'	-5.68	107.48	116.00
26	BB	2865	U	C5'-C4'-O4'	5.68	118.32	109.80
29	BE	95	SER	O-C-N	5.68	129.99	122.04
2	AB	40	C	O5'-C5'-C4'	-5.68	102.98	111.50
1	AA	31	G	O4'-C1'-C2'	5.68	111.48	105.80
1	AA	590	U	C1'-O4'-C4'	-5.68	104.22	109.90
1	AA	612	C	C1'-O4'-C4'	-5.68	104.22	109.90
1	AA	1086	U	O4'-C1'-C2'	-5.68	101.92	107.60
1	AA	1444	U	O4'-C4'-C3'	5.68	109.68	104.00
5	AE	116	LEU	CA-C-N	5.68	130.29	120.58
5	AE	116	LEU	C-N-CA	5.68	130.29	120.58
26	BB	1084	A	O4'-C1'-C2'	-5.68	101.92	107.60
26	BB	1115	G	C3'-C2'-O2'	5.68	119.22	110.70
48	BX	9	ARG	NE-CZ-NH2	5.68	124.31	119.20
1	AA	50	A	C4'-C3'-O3'	5.67	117.91	109.40
1	AA	85	U	O4'-C4'-C3'	5.67	111.77	106.10
18	AR	41	HIS	CG-CD2-NE2	-5.67	101.53	107.20
26	BB	978	G	O4'-C4'-C3'	-5.67	98.33	104.00
26	BB	1343	G	C1'-O4'-C4'	5.67	115.58	109.90
26	BB	1637	A	C3'-C2'-C1'	5.67	106.97	101.30
26	BB	2236	U	C2'-C3'-O3'	5.67	122.21	113.70
54	B3	28	SER	CA-C-O	5.67	128.00	121.47
1	AA	990	C	C1'-O4'-C4'	5.67	115.57	109.90
1	AA	1456	A	C4'-C3'-O3'	5.67	121.51	113.00
8	AH	144	GLU	CA-C-N	5.67	132.07	122.65
8	AH	144	GLU	C-N-CA	5.67	132.07	122.65
13	AM	18	ILE	CB-CG1-CD1	5.67	125.71	113.80
25	BA	114	C	O4'-C4'-C3'	-5.67	98.33	104.00
26	BB	171	U	C4'-C3'-C2'	-5.67	96.93	102.60
26	BB	2655	G	C1'-O4'-C4'	-5.67	104.03	109.70
26	BB	2868	A	C5'-C4'-C3'	5.67	124.51	116.00
1	AA	76	G	C4'-C3'-C2'	-5.67	96.93	102.60
1	AA	520	A	C2'-C3'-O3'	5.67	122.21	113.70
1	AA	556	C	C4'-C3'-O3'	-5.67	104.49	113.00
2	AB	67	G	P-O3'-C3'	5.67	128.71	120.20
13	AM	80	THR	CA-C-N	5.67	127.88	120.28
13	AM	80	THR	C-N-CA	5.67	127.88	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AV	41	PRO	CA-C-N	5.67	128.66	120.38
22	AV	41	PRO	C-N-CA	5.67	128.66	120.38
26	BB	911	A	C4'-C3'-C2'	-5.67	96.93	102.60
26	BB	1140	C	O4'-C4'-C3'	5.67	109.67	104.00
26	BB	1310	G	O4'-C1'-C2'	-5.67	101.93	107.60
26	BB	1740	G	O4'-C1'-N9	5.67	117.01	108.50
36	BL	130	HIS	CE1-NE2-CD2	5.67	114.67	109.00
1	AA	530	G	C3'-C2'-O2'	5.67	119.20	110.70
13	AM	85	ASP	N-CA-C	-5.67	105.18	111.36
26	BB	2549	G	N9-C1'-C2'	-5.67	103.50	112.00
53	B2	41	HIS	CE1-NE2-CD2	-5.67	103.33	109.00
1	AA	686	U	P-O3'-C3'	5.67	128.70	120.20
1	AA	1448	C	C5'-C4'-C3'	-5.67	107.50	116.00
18	AR	41	HIS	O-C-N	5.67	127.91	122.07
19	AS	40	ASN	CA-C-N	5.67	125.77	119.87
19	AS	40	ASN	C-N-CA	5.67	125.77	119.87
26	BB	940	G	O4'-C1'-N9	5.67	117.00	108.50
26	BB	1089	A	C4'-C3'-O3'	5.67	117.90	109.40
26	BB	1527	G	C3'-C2'-C1'	5.67	106.97	101.30
26	BB	2441	U	C4'-C3'-C2'	-5.67	96.93	102.60
45	BU	69	LEU	N-CA-C	-5.67	102.90	110.55
50	BZ	33	HIS	CB-CG-CD2	-5.67	123.83	131.20
1	AA	1131	G	C5'-C4'-O4'	5.67	118.30	109.80
1	AA	1183	U	C2'-C3'-O3'	5.67	118.00	109.50
26	BB	261	G	N9-C1'-C2'	-5.67	103.50	112.00
26	BB	703	U	O4'-C1'-C2'	-5.67	101.93	107.60
36	BL	82	GLY	CA-C-N	5.67	126.52	122.16
36	BL	82	GLY	C-N-CA	5.67	126.52	122.16
1	AA	935	A	O4'-C4'-C3'	5.67	109.67	104.00
1	AA	979	C	C2'-C3'-O3'	5.67	122.20	113.70
1	AA	1491	G	C2'-C3'-O3'	-5.67	105.20	113.70
16	AP	13	HIS	CA-C-N	5.67	130.31	120.68
16	AP	13	HIS	C-N-CA	5.67	130.31	120.68
2	AB	62	U	O3'-P-O5'	-5.66	95.51	104.00
3	AC	26	U	C1'-O4'-C4'	5.66	115.56	109.90
17	AQ	29	ILE	O-C-N	5.66	127.66	121.83
25	BA	107	G	C4'-C3'-O3'	-5.66	104.51	113.00
26	BB	61	C	C4'-C3'-C2'	-5.66	96.94	102.60
26	BB	479	A	P-O3'-C3'	5.66	128.70	120.20
27	BC	60	ARG	NE-CZ-NH2	-5.66	114.10	119.20
45	BU	39	THR	O-C-N	5.66	129.84	123.27
47	BW	68	ASN	CA-CB-CG	5.66	118.26	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1021	A	C4'-C3'-O3'	5.66	121.49	113.00
1	AA	1399	C	C4'-C3'-C2'	-5.66	96.94	102.60
8	AH	33	THR	CA-C-O	-5.66	114.76	121.16
26	BB	1359	A	O3'-P-O5'	5.66	112.49	104.00
26	BB	1954	G	C1'-C2'-O2'	-5.66	99.91	108.40
32	BH	34	ARG	CA-CB-CG	5.66	125.42	114.10
1	AA	189	A	C4'-C3'-C2'	-5.66	96.94	102.60
11	AK	54	THR	CA-CB-CG2	5.66	120.12	110.50
26	BB	1004	U	C4'-C3'-C2'	-5.66	96.94	102.60
26	BB	2636	C	C5'-C4'-C3'	-5.66	107.51	116.00
34	BJ	114	GLY	CA-C-O	5.66	124.99	119.27
45	BU	75	PHE	CA-CB-CG	5.66	119.46	113.80
1	AA	581	G	C2'-C3'-O3'	5.66	122.19	113.70
1	AA	1100	C	C4'-C3'-C2'	-5.66	96.94	102.60
1	AA	1100	C	O4'-C4'-C3'	5.66	109.66	104.00
26	BB	1150	C	C4'-C3'-C2'	5.66	108.26	102.60
26	BB	2388	A	P-O5'-C5'	-5.66	112.41	120.90
53	B2	7	PRO	N-CA-CB	5.66	108.27	103.35
15	AO	114	SER	CA-C-N	5.66	129.82	120.94
15	AO	114	SER	C-N-CA	5.66	129.82	120.94
26	BB	2892	G	C1'-C2'-O2'	5.66	116.89	108.40
34	BJ	142	MET	CA-C-O	-5.66	114.42	120.42
37	BM	85	VAL	CA-C-O	-5.66	114.03	120.65
1	AA	861	G	C4'-C3'-C2'	-5.66	96.94	102.60
4	AD	22	A	O4'-C1'-N9	5.66	116.68	108.20
26	BB	1396	U	P-O3'-C3'	5.66	128.68	120.20
26	BB	2477	U	C3'-C2'-C1'	5.66	106.96	101.30
35	BK	26	ALA	N-CA-C	5.66	117.44	111.28
45	BU	64	ALA	CA-C-O	-5.66	115.18	121.23
1	AA	297	G	O4'-C4'-C3'	5.65	109.65	104.00
39	BO	43	ALA	CA-C-N	5.65	127.86	120.28
39	BO	43	ALA	C-N-CA	5.65	127.86	120.28
1	AA	756	C	O4'-C1'-N1	5.65	116.98	108.50
1	AA	815	A	C1'-O4'-C4'	-5.65	104.05	109.70
30	BF	46	GLN	CA-C-O	-5.65	115.56	121.55
31	BG	161	SER	O-C-N	-5.65	115.07	122.59
1	AA	1015	G	O4'-C1'-N9	5.65	116.98	108.50
1	AA	1037	C	C4'-C3'-C2'	-5.65	96.95	102.60
1	AA	1122	U	C3'-C2'-C1'	5.65	106.95	101.30
1	AA	1345	U	C3'-C2'-C1'	-5.65	95.85	101.50
26	BB	437	U	C5'-C4'-O4'	5.65	118.28	109.80
26	BB	1188	U	O4'-C1'-C2'	-5.65	101.95	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	BQ	36	TYR	CA-C-O	-5.65	114.16	120.66
1	AA	993	G	N9-C1'-C2'	5.65	122.47	114.00
1	AA	1423	G	C3'-C2'-O2'	5.65	119.17	110.70
26	BB	2796	U	C4'-C3'-C2'	-5.65	96.95	102.60
39	BO	66	ARG	CA-C-O	5.65	126.15	119.48
1	AA	346	G	O4'-C4'-C3'	5.65	109.65	104.00
1	AA	620	C	C4'-C3'-C2'	-5.65	96.95	102.60
1	AA	1094	G	C4'-C3'-C2'	-5.65	96.95	102.60
2	AB	61	C	C4'-C3'-O3'	-5.65	104.53	113.00
18	AR	77	TYR	CA-C-O	-5.65	115.08	120.90
26	BB	2144	G	C4'-C3'-C2'	5.65	108.25	102.60
26	BB	2513	A	C4'-C3'-C2'	5.65	108.25	102.60
1	AA	407	U	C1'-O4'-C4'	-5.65	104.25	109.90
1	AA	720	C	C4'-C3'-C2'	-5.65	96.95	102.60
14	AN	17	ASP	CA-C-O	5.65	127.31	120.99
26	BB	571	U	O4'-C4'-C3'	5.65	111.75	106.10
1	AA	566	G	C1'-O4'-C4'	-5.64	104.06	109.70
1	AA	603	U	C3'-C2'-C1'	5.64	106.94	101.30
26	BB	737	C	O4'-C1'-C2'	-5.64	101.95	107.60
26	BB	1004	U	C3'-C2'-C1'	5.64	106.94	101.30
26	BB	2561	U	C4'-C3'-C2'	-5.64	96.96	102.60
1	AA	1052	U	C4'-C3'-O3'	5.64	121.46	113.00
1	AA	1106	G	C3'-C2'-C1'	-5.64	95.66	101.30
26	BB	788	A	O4'-C4'-C3'	-5.64	100.46	106.10
26	BB	922	C	C1'-C2'-O2'	5.64	116.86	108.40
26	BB	1012	U	C1'-C2'-O2'	5.64	120.27	111.80
26	BB	1044	C	O4'-C1'-C2'	-5.64	101.96	107.60
26	BB	1197	G	C3'-C2'-C1'	5.64	106.94	101.30
26	BB	1289	C	C3'-C2'-C1'	5.64	106.94	101.30
26	BB	1552	A	C1'-O4'-C4'	-5.64	104.26	109.90
1	AA	218	U	C4'-C3'-O3'	5.64	121.46	113.00
1	AA	275	G	C3'-C2'-C1'	-5.64	95.66	101.30
1	AA	462	G	C5'-C4'-C3'	-5.64	106.74	115.20
26	BB	1775	U	O3'-P-O5'	5.64	112.46	104.00
28	BD	66	PHE	CA-C-N	5.64	130.23	120.58
28	BD	66	PHE	C-N-CA	5.64	130.23	120.58
1	AA	631	C	O3'-P-O5'	-5.64	95.54	104.00
1	AA	773	G	O4'-C4'-C3'	5.64	109.64	104.00
1	AA	1074	G	O4'-C4'-C3'	5.64	109.64	104.00
1	AA	1202	U	C4'-C3'-C2'	-5.64	96.96	102.60
26	BB	1479	G	O4'-C1'-N9	5.64	116.96	108.50
26	BB	1723	G	C5'-C4'-O4'	5.64	118.26	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1737	G	C4'-C3'-O3'	-5.64	104.54	113.00
26	BB	2585	U	O4'-C1'-N1	5.64	116.96	108.50
57	B6	44	ARG	CA-C-N	5.64	125.62	120.21
57	B6	44	ARG	C-N-CA	5.64	125.62	120.21
1	AA	700	G	O5'-C5'-C4'	-5.64	103.04	111.50
26	BB	1189	A	C4'-C3'-O3'	-5.64	104.54	113.00
26	BB	2756	U	O4'-C1'-C2'	-5.64	100.16	105.80
1	AA	86	G	C4'-C3'-O3'	-5.64	100.95	109.40
1	AA	397	A	O4'-C4'-C3'	5.64	109.64	104.00
1	AA	485	U	O3'-P-O5'	-5.64	95.55	104.00
1	AA	970	C	C5'-C4'-C3'	-5.64	107.55	116.00
1	AA	1344	C	C2'-C3'-O3'	5.64	122.16	113.70
14	AN	65	ALA	CA-C-N	5.64	127.83	120.28
14	AN	65	ALA	C-N-CA	5.64	127.83	120.28
25	BA	84	G	C1'-C2'-O2'	5.64	116.86	108.40
26	BB	91	A	O4'-C1'-N9	5.64	116.66	108.20
26	BB	733	G	C4'-C3'-C2'	-5.64	96.96	102.60
26	BB	869	G	C4'-C3'-C2'	-5.64	96.96	102.60
26	BB	1104	C	O4'-C4'-C3'	5.64	109.64	104.00
26	BB	2334	U	C3'-C2'-C1'	5.64	106.94	101.30
1	AA	207	C	P-O5'-C5'	5.63	129.35	120.90
2	AB	48	U	C1'-C2'-O2'	5.63	116.85	108.40
15	AO	39	THR	CA-C-O	5.63	127.42	121.33
26	BB	146	A	N9-C1'-C2'	-5.63	103.55	112.00
26	BB	733	G	O4'-C4'-C3'	5.63	109.64	104.00
26	BB	1220	G	O4'-C4'-C3'	5.63	109.63	104.00
26	BB	2805	C	C3'-C2'-C1'	-5.63	95.67	101.30
29	BE	22	ILE	N-CA-C	5.63	114.15	107.73
56	B5	21	ARG	CB-CA-C	5.63	119.10	109.24
1	AA	1147	C	C4'-C3'-C2'	-5.63	96.97	102.60
4	AD	68	C	O3'-P-O5'	5.63	112.45	104.00
26	BB	2338	C	O3'-P-O5'	5.63	112.45	104.00
1	AA	373	A	C4'-C3'-O3'	-5.63	104.55	113.00
1	AA	1223	C	P-O3'-C3'	5.63	128.65	120.20
1	AA	1289	A	O4'-C1'-N9	5.63	116.95	108.50
4	AD	47	A	C2'-C3'-O3'	-5.63	105.25	113.70
5	AE	140	LEU	CA-C-N	5.63	128.14	120.54
5	AE	140	LEU	C-N-CA	5.63	128.14	120.54
16	AP	90	HIS	CB-CG-CD2	-5.63	123.88	131.20
20	AT	44	HIS	ND1-CE1-NE2	5.63	114.03	108.40
26	BB	828	U	C1'-O4'-C4'	-5.63	104.27	109.90
26	BB	1590	A	C4'-C3'-C2'	-5.63	96.97	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2165	C	O4'-C1'-C2'	-5.63	101.97	107.60
26	BB	2195	U	O4'-C1'-C2'	-5.63	101.97	107.60
27	BC	164	ARG	NE-CZ-NH2	-5.63	114.13	119.20
2	AB	61	C	O4'-C4'-C3'	5.63	109.63	104.00
26	BB	276	U	O4'-C1'-C2'	-5.63	101.97	107.60
26	BB	808	G	O4'-C1'-C2'	-5.63	101.97	107.60
26	BB	2703	C	N1-C1'-C2'	-5.63	103.56	112.00
1	AA	667	G	O4'-C4'-C3'	5.63	109.63	104.00
1	AA	764	C	C4'-C3'-C2'	-5.63	96.97	102.60
1	AA	809	G	O4'-C1'-C2'	-5.63	101.97	107.60
14	AN	106	ILE	CB-CA-C	5.63	120.52	111.29
20	AT	33	TYR	CA-CB-CG	5.63	124.03	113.90
26	BB	398	C	C1'-O4'-C4'	-5.63	104.27	109.90
26	BB	763	G	C3'-C2'-C1'	-5.63	95.67	101.30
26	BB	1373	A	O5'-C5'-C4'	5.63	119.94	111.50
26	BB	2128	G	C2'-C3'-O3'	-5.63	105.26	113.70
26	BB	2248	C	C3'-C2'-C1'	5.63	106.93	101.30
26	BB	2591	C	C5'-C4'-O4'	5.63	118.24	109.80
37	BM	85	VAL	O-C-N	5.63	129.81	122.94
26	BB	37	C	C5'-C4'-C3'	-5.63	107.56	116.00
26	BB	231	A	C3'-C2'-O2'	5.63	119.14	110.70
26	BB	947	A	P-O5'-C5'	5.63	129.34	120.90
26	BB	1500	G	C5'-C4'-O4'	5.63	118.24	109.80
26	BB	2537	U	C5'-C4'-O4'	5.63	118.24	109.80
33	BI	134	VAL	CA-C-N	5.63	131.48	121.75
33	BI	134	VAL	C-N-CA	5.63	131.48	121.75
52	B1	45	GLY	CA-C-O	-5.63	114.95	120.75
2	AB	6	C	C2'-C3'-O3'	-5.62	105.26	113.70
26	BB	2083	G	O4'-C4'-C3'	5.62	109.62	104.00
27	BC	23	ILE	CA-CB-CG2	5.62	120.06	110.50
1	AA	1485	U	C2'-C3'-O3'	-5.62	105.27	113.70
9	AI	113	ARG	CA-C-N	5.62	130.72	121.39
9	AI	113	ARG	C-N-CA	5.62	130.72	121.39
14	AN	69	CYS	CA-C-O	-5.62	114.91	120.70
26	BB	336	C	C1'-O4'-C4'	5.62	115.52	109.90
26	BB	606	U	C4'-C3'-O3'	-5.62	104.56	113.00
26	BB	704	G	P-O3'-C3'	5.62	128.63	120.20
26	BB	973	A	C4'-C3'-C2'	-5.62	96.98	102.60
26	BB	1370	C	C4'-C3'-C2'	-5.62	96.98	102.60
26	BB	1401	G	C4'-C3'-C2'	-5.62	96.98	102.60
1	AA	1066	C	O4'-C4'-C3'	5.62	109.62	104.00
1	AA	1364	U	C4'-C3'-C2'	-5.62	96.98	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1391	U	P-O5'-C5'	5.62	129.33	120.90
26	BB	364	C	O4'-C1'-N1	5.62	116.93	108.50
26	BB	1461	C	O4'-C1'-C2'	-5.62	101.98	107.60
26	BB	1574	C	O4'-C1'-C2'	-5.62	101.98	107.60
26	BB	1886	U	C4'-C3'-O3'	-5.62	104.57	113.00
26	BB	2691	C	C4'-C3'-O3'	5.62	121.43	113.00
28	BD	16	VAL	CB-CA-C	5.62	119.16	110.50
57	B6	7	ARG	O-C-N	-5.62	115.74	122.15
20	AT	69	THR	CA-CB-OG1	5.62	118.03	109.60
26	BB	2153	C	P-O5'-C5'	5.62	129.33	120.90
26	BB	2560	A	C5'-C4'-C3'	5.62	124.43	116.00
28	BD	97	ASP	CA-C-N	5.62	132.83	121.93
28	BD	97	ASP	C-N-CA	5.62	132.83	121.93
31	BG	135	ILE	CA-C-N	5.62	128.10	120.63
31	BG	135	ILE	C-N-CA	5.62	128.10	120.63
1	AA	994	A	O4'-C1'-C2'	-5.62	101.98	107.60
1	AA	1066	C	O4'-C1'-C2'	-5.62	101.98	107.60
1	AA	1078	U	C5'-C4'-C3'	-5.62	107.57	116.00
4	AD	5	G	C4'-C3'-C2'	-5.62	96.98	102.60
26	BB	167	A	C4'-C3'-O3'	5.62	121.43	113.00
26	BB	390	U	C3'-C2'-C1'	5.62	107.12	101.50
26	BB	900	A	C1'-C2'-O2'	-5.62	99.97	108.40
26	BB	1154	G	C1'-O4'-C4'	-5.62	104.28	109.90
26	BB	2583	G	O4'-C1'-C2'	5.62	113.22	107.60
27	BC	73	VAL	CA-CB-CG1	5.62	119.95	110.40
26	BB	556	A	C5'-C4'-O4'	5.62	118.22	109.80
26	BB	829	A	O4'-C4'-C3'	5.62	111.72	106.10
1	AA	871	U	P-O3'-C3'	5.62	128.62	120.20
1	AA	1050	G	C3'-C2'-O2'	5.62	119.12	110.70
1	AA	1222	G	C3'-C2'-C1'	5.62	106.92	101.30
1	AA	1508	A	C2'-C3'-O3'	5.62	122.12	113.70
1	AA	1525	G	C2'-C3'-O3'	5.62	122.12	113.70
8	AH	140	ILE	O-C-N	-5.62	115.55	122.57
16	AP	11	HIS	ND1-CE1-NE2	5.62	114.02	108.40
26	BB	818	G	O5'-C5'-C4'	5.62	119.92	111.50
26	BB	1378	A	O3'-P-O5'	-5.62	95.58	104.00
26	BB	2476	A	C3'-C2'-C1'	5.62	106.92	101.30
27	BC	10	VAL	CA-C-O	-5.62	115.11	120.95
33	BI	137	GLU	N-CA-CB	-5.62	102.39	110.65
54	B3	13	GLY	O-C-N	5.62	130.00	122.70
1	AA	583	A	C4'-C3'-O3'	-5.61	104.58	113.00
1	AA	1158	C	C4'-C3'-O3'	-5.61	104.58	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	AC	55	A	O4'-C1'-C2'	-5.61	101.99	107.60
26	BB	1186	G	O4'-C1'-C2'	-5.61	101.99	107.60
26	BB	2349	G	O4'-C1'-C2'	-5.61	101.99	107.60
26	BB	1532	A	N9-C1'-C2'	-5.61	103.58	112.00
26	BB	2870	C	O4'-C1'-N1	5.61	116.92	108.50
1	AA	221	C	O4'-C1'-C2'	-5.61	101.99	107.60
1	AA	830	G	N9-C1'-C2'	-5.61	103.58	112.00
1	AA	1391	U	C4'-C3'-O3'	5.61	121.42	113.00
5	AE	185	ILE	N-CA-C	-5.61	97.81	107.24
6	AF	30	ASP	CA-CB-CG	5.61	118.21	112.60
26	BB	2166	U	O5'-C5'-C4'	-5.61	103.08	111.50
38	BN	100	ILE	CA-C-O	-5.61	113.77	120.78
41	BQ	103	VAL	N-CA-C	-5.61	104.88	111.00
1	AA	1524	C	P-O5'-C5'	5.61	129.31	120.90
1	AA	78	A	C3'-C2'-C1'	-5.61	95.69	101.30
1	AA	1055	A	C2'-C3'-O3'	-5.61	105.29	113.70
1	AA	1241	G	C2'-C3'-O3'	-5.61	105.29	113.70
4	AD	72	C	P-O3'-C3'	5.61	128.61	120.20
26	BB	56	A	C4'-C3'-C2'	5.61	108.21	102.60
38	BN	79	LEU	CA-C-N	5.61	128.11	120.54
38	BN	79	LEU	C-N-CA	5.61	128.11	120.54
1	AA	1131	G	C4'-C3'-O3'	5.61	121.41	113.00
5	AE	79	VAL	CA-CB-CG2	5.61	119.93	110.40
26	BB	1866	A	C1'-C2'-O2'	5.61	116.81	108.40
26	BB	2439	A	C2'-C3'-O3'	-5.61	105.29	113.70
26	BB	2687	U	O4'-C1'-N1	5.61	116.91	108.50
1	AA	411	A	O4'-C1'-N9	5.60	116.61	108.20
26	BB	560	C	N1-C1'-C2'	-5.60	103.59	112.00
27	BC	139	ASN	CA-C-N	5.60	125.70	119.87
27	BC	139	ASN	C-N-CA	5.60	125.70	119.87
1	AA	109	A	N9-C1'-C2'	-5.60	105.60	114.00
1	AA	630	A	C4'-C3'-C2'	-5.60	97.00	102.60
4	AD	61	U	C5'-C4'-O4'	5.60	117.50	109.10
5	AE	178	LEU	CD1-CG-CD2	-5.60	98.47	110.80
11	AK	79	ARG	CD-NE-CZ	5.60	132.24	124.40
26	BB	31	C	C2'-C3'-O3'	5.60	122.11	113.70
26	BB	2025	C	C5'-C4'-C3'	-5.60	107.60	116.00
26	BB	2195	U	C4'-C3'-C2'	-5.60	97.00	102.60
26	BB	2551	C	C5'-C4'-C3'	-5.60	107.60	116.00
27	BC	114	VAL	N-CA-C	5.60	115.95	108.11
58	B7	8	LYS	CA-CB-CG	5.60	125.30	114.10
2	AB	21	A	O4'-C1'-C2'	-5.60	102.00	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	B1	24	LEU	N-CA-C	-5.60	105.94	112.89
1	AA	382	A	C3'-C2'-O2'	5.60	119.10	110.70
1	AA	462	G	C5'-C4'-O4'	5.60	117.50	109.10
1	AA	805	C	C2'-C3'-O3'	5.60	122.10	113.70
1	AA	1491	G	O3'-P-O5'	-5.60	95.60	104.00
1	AA	1512	U	C3'-C2'-C1'	5.60	106.90	101.30
3	AC	36	U	N1-C1'-C2'	-5.60	103.60	112.00
5	AE	212	TYR	N-CA-CB	-5.60	103.45	110.90
26	BB	1031	G	C4'-C3'-C2'	-5.60	97.00	102.60
26	BB	2888	C	C5'-C4'-C3'	-5.60	107.60	116.00
29	BE	200	ASP	CA-C-N	5.60	131.05	121.87
29	BE	200	ASP	C-N-CA	5.60	131.05	121.87
30	BF	186	VAL	N-CA-C	5.60	115.66	107.37
1	AA	568	G	C3'-C2'-C1'	5.60	106.90	101.30
7	AG	21	LYS	CA-C-N	5.60	130.68	121.39
7	AG	21	LYS	C-N-CA	5.60	130.68	121.39
1	AA	396	C	C4'-C3'-O3'	5.60	121.39	113.00
1	AA	560	A	O4'-C1'-N9	5.60	116.59	108.20
1	AA	993	G	C1'-O4'-C4'	5.59	115.30	109.70
15	AO	66	ILE	CB-CA-C	5.59	119.05	110.55
26	BB	1619	G	O4'-C4'-C3'	5.59	109.59	104.00
26	BB	1814	G	C2'-C3'-O3'	-5.59	105.31	113.70
44	BT	41	ILE	CB-CA-C	5.59	119.17	110.83
1	AA	188	C	O3'-P-O5'	5.59	112.39	104.00
26	BB	1673	G	C3'-C2'-C1'	5.59	106.89	101.30
26	BB	2485	G	P-O3'-C3'	5.59	128.59	120.20
1	AA	1466	C	O4'-C1'-N1	5.59	116.89	108.50
26	BB	241	A	C3'-C2'-O2'	5.59	122.99	114.60
26	BB	752	A	O3'-P-O5'	-5.59	95.61	104.00
26	BB	883	G	C2'-C3'-O3'	5.59	122.09	113.70
26	BB	1534	U	C3'-C2'-C1'	5.59	106.89	101.30
26	BB	2065	C	O4'-C1'-C2'	5.59	113.19	107.60
26	BB	2106	U	C5'-C4'-O4'	5.59	118.19	109.80
38	BN	82	LEU	N-CA-C	5.59	117.38	111.28
44	BT	91	GLN	OE1-CD-NE2	5.59	128.19	122.60
1	AA	868	C	O4'-C4'-C3'	5.59	109.59	104.00
1	AA	1324	A	C3'-C2'-O2'	5.59	119.08	110.70
9	AI	55	HIS	ND1-CG-CD2	5.59	111.69	106.10
26	BB	1842	G	C3'-C2'-O2'	5.59	119.08	110.70
26	BB	2160	C	P-O3'-C3'	5.59	128.58	120.20
43	BS	13	HIS	CA-CB-CG	5.59	119.39	113.80
1	AA	1425	U	O4'-C4'-C3'	5.59	109.59	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	6	PRO	N-CA-CB	5.59	108.88	103.51
1	AA	640	A	C1'-O4'-C4'	-5.59	104.31	109.90
1	AA	730	G	N9-C1'-C2'	-5.59	103.62	112.00
17	AQ	79	SER	CA-C-N	5.59	132.21	121.54
17	AQ	79	SER	C-N-CA	5.59	132.21	121.54
26	BB	296	U	C5'-C4'-C3'	-5.59	107.62	116.00
26	BB	1031	G	O3'-P-O5'	-5.59	95.62	104.00
26	BB	2366	A	O4'-C1'-N9	5.59	116.88	108.50
37	BM	20	MET	CA-C-N	5.59	129.28	121.24
37	BM	20	MET	C-N-CA	5.59	129.28	121.24
40	BP	8	ARG	NE-CZ-NH1	5.59	127.09	121.50
40	BP	66	ALA	CA-C-O	-5.59	114.50	120.42
14	AN	18	GLY	CA-C-N	5.58	130.77	123.06
14	AN	18	GLY	C-N-CA	5.58	130.77	123.06
26	BB	148	U	C2'-C3'-O3'	-5.58	105.32	113.70
26	BB	1145	C	C4'-C3'-O3'	5.58	121.38	113.00
1	AA	1073	U	C5'-C4'-O4'	5.58	118.17	109.80
26	BB	296	U	O5'-C5'-C4'	5.58	119.88	111.50
26	BB	744	U	C4'-C3'-C2'	-5.58	97.02	102.60
26	BB	2592	G	O4'-C4'-C3'	5.58	109.58	104.00
29	BE	77	ARG	NE-CZ-NH1	-5.58	115.92	121.50
1	AA	224	U	C3'-C2'-C1'	5.58	106.88	101.30
1	AA	377	G	C4'-C3'-C2'	-5.58	97.02	102.60
5	AE	114	LYS	N-CA-CB	-5.58	101.12	110.39
25	BA	72	G	C4'-C3'-O3'	-5.58	104.63	113.00
26	BB	748	G	N9-C1'-C2'	5.58	120.37	112.00
26	BB	1058	U	C3'-C2'-O2'	5.58	119.07	110.70
26	BB	1582	C	P-O3'-C3'	5.58	128.57	120.20
26	BB	2493	U	O5'-C5'-C4'	5.58	119.87	111.50
27	BC	132	GLY	CA-C-O	-5.58	113.54	121.52
42	BR	86	LYS	CA-C-N	5.58	128.80	120.87
42	BR	86	LYS	C-N-CA	5.58	128.80	120.87
56	B5	3	ARG	CA-C-N	5.58	131.13	122.26
56	B5	3	ARG	C-N-CA	5.58	131.13	122.26
58	B7	1	MET	CA-CB-CG	5.58	125.26	114.10
1	AA	823	C	C3'-C2'-C1'	5.58	106.88	101.30
26	BB	1536	C	C4'-C3'-C2'	-5.58	97.02	102.60
26	BB	2225	A	O4'-C4'-C3'	-5.58	100.52	106.10
33	BI	69	ALA	O-C-N	5.58	128.03	122.12
46	BV	2	ILE	CA-CB-CG1	5.58	119.89	110.40
1	AA	49	U	C3'-C2'-C1'	5.58	107.08	101.50
25	BA	89	U	O4'-C4'-C3'	5.58	109.58	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2262	U	P-O5'-C5'	-5.58	112.53	120.90
47	BW	44	HIS	CA-CB-CG	-5.58	108.22	113.80
8	AH	2	HIS	N-CA-C	5.58	122.68	110.80
26	BB	708	G	O4'-C1'-N9	5.58	116.86	108.50
1	AA	1511	G	C1'-O4'-C4'	5.58	115.48	109.90
13	AM	79	PRO	N-CD-CG	5.58	111.56	103.20
26	BB	391	A	O3'-P-O5'	5.58	112.36	104.00
26	BB	2736	A	C4'-C3'-C2'	-5.58	97.03	102.60
44	BT	99	THR	N-CA-C	-5.58	102.09	110.06
24	AX	65	ARG	NE-CZ-NH1	5.57	127.07	121.50
26	BB	175	G	N9-C1'-C2'	-5.57	103.64	112.00
26	BB	218	A	C5'-C4'-C3'	-5.57	107.64	116.00
26	BB	260	G	C5'-C4'-C3'	-5.57	107.64	116.00
26	BB	385	C	P-O5'-C5'	5.57	129.26	120.90
26	BB	874	G	C5'-C4'-C3'	5.57	124.36	116.00
26	BB	1000	A	C1'-C2'-O2'	5.57	116.76	108.40
37	BM	63	VAL	CB-CA-C	5.57	116.11	110.65
1	AA	823	C	O4'-C1'-N1	5.57	116.86	108.50
1	AA	1320	C	C3'-C2'-O2'	5.57	119.06	110.70
26	BB	1612	C	C4'-C3'-C2'	-5.57	97.03	102.60
27	BC	157	LYS	CA-C-O	-5.57	113.56	119.97
4	AD	54	G	O4'-C1'-C2'	-5.57	102.03	107.60
10	AJ	69	ARG	O-C-N	-5.57	115.18	121.36
25	BA	75	G	C5'-C4'-O4'	5.57	118.16	109.80
26	BB	291	G	C4'-C3'-O3'	5.57	121.36	113.00
26	BB	1974	C	C2'-C3'-O3'	5.57	122.06	113.70
26	BB	2303	G	O4'-C1'-C2'	-5.57	102.03	107.60
1	AA	680	C	C5'-C4'-O4'	5.57	118.15	109.80
1	AA	752	G	C2'-C3'-O3'	5.57	117.85	109.50
26	BB	330	A	O3'-P-O5'	5.57	112.35	104.00
26	BB	499	U	C5'-C4'-O4'	5.57	118.15	109.80
26	BB	587	C	C1'-O4'-C4'	5.57	115.27	109.70
41	BQ	5	SER	CA-C-O	-5.57	114.96	120.70
47	BW	40	LEU	N-CA-CB	-5.57	102.18	111.20
1	AA	659	U	C3'-C2'-O2'	5.57	119.05	110.70
3	AC	51	C	O4'-C1'-N1	5.57	116.85	108.50
26	BB	124	G	O4'-C4'-C3'	-5.57	98.43	104.00
26	BB	800	A	C4'-C3'-C2'	5.57	108.17	102.60
30	BF	48	THR	O-C-N	-5.57	116.81	123.27
30	BF	74	LYS	O-C-N	5.57	129.02	122.34
30	BF	98	LYS	CA-C-O	-5.57	114.65	120.55
52	B1	55	LYS	CB-CA-C	5.57	119.32	110.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	474	G	O4'-C1'-C2'	-5.57	102.03	107.60
1	AA	1024	G	O5'-C5'-C4'	5.57	119.85	111.50
3	AC	48	C	N1-C1'-C2'	-5.57	103.65	112.00
17	AQ	33	VAL	O-C-N	5.57	129.80	122.12
22	AV	30	LEU	CA-C-N	5.57	132.17	121.54
22	AV	30	LEU	C-N-CA	5.57	132.17	121.54
23	AW	72	ALA	CA-C-N	5.57	127.74	120.28
23	AW	72	ALA	C-N-CA	5.57	127.74	120.28
25	BA	34	A	O4'-C1'-N9	5.57	116.85	108.50
26	BB	299	A	C4'-C3'-O3'	5.57	121.35	113.00
26	BB	1901	A	O4'-C1'-N9	5.57	116.85	108.50
26	BB	2304	G	C5'-C4'-C3'	5.57	124.35	116.00
26	BB	2333	A	C4'-C3'-C2'	-5.57	97.03	102.60
26	BB	962	G	C2'-C3'-O3'	5.56	122.05	113.70
26	BB	1452	G	O5'-C5'-C4'	-5.56	103.15	111.50
26	BB	2086	U	C3'-C2'-O2'	5.56	119.05	110.70
3	AC	14	G	O4'-C1'-C2'	-5.56	102.04	107.60
24	AX	36	PHE	CA-CB-CG	5.56	119.36	113.80
25	BA	114	C	C3'-C2'-O2'	5.56	119.04	110.70
26	BB	885	C	O5'-C5'-C4'	-5.56	103.16	111.50
26	BB	1606	C	O5'-C5'-C4'	5.56	119.84	111.50
26	BB	1987	A	O5'-C5'-C4'	-5.56	103.16	111.50
26	BB	2431	U	C4'-C3'-C2'	-5.56	97.04	102.60
26	BB	2882	A	N9-C1'-C2'	-5.56	103.66	112.00
27	BC	51	ASP	CA-C-N	5.56	130.26	122.08
27	BC	51	ASP	C-N-CA	5.56	130.26	122.08
43	BS	23	TYR	CA-CB-CG	5.56	123.91	113.90
4	AD	19	G	C2'-C3'-O3'	5.56	117.84	109.50
16	AP	63	VAL	O-C-N	5.56	129.52	122.57
18	AR	76	ARG	N-CA-C	-5.56	104.60	111.33
26	BB	2403	C	C5'-C4'-O4'	5.56	118.14	109.80
26	BB	2574	G	C4'-C3'-O3'	-5.56	104.66	113.00
49	BY	30	VAL	CA-C-N	5.56	131.23	122.78
49	BY	30	VAL	C-N-CA	5.56	131.23	122.78
1	AA	104	G	P-O5'-C5'	5.56	129.24	120.90
1	AA	1523	G	C4'-C3'-O3'	-5.56	104.66	113.00
16	AP	27	THR	CA-C-O	-5.56	114.98	120.82
26	BB	78	U	P-O5'-C5'	5.56	129.24	120.90
26	BB	1000	A	O4'-C1'-N9	5.56	116.84	108.50
26	BB	1127	A	O4'-C1'-N9	-5.56	100.16	108.50
26	BB	1649	G	C3'-C2'-C1'	-5.56	95.74	101.30
26	BB	1669	A	C2'-C3'-O3'	-5.56	105.36	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1888	G	O4'-C1'-N9	5.56	116.84	108.50
55	B4	1	ALA	CA-C-N	5.56	130.33	121.66
55	B4	1	ALA	C-N-CA	5.56	130.33	121.66
1	AA	1302	C	C2'-C3'-O3'	5.56	122.03	113.70
1	AA	1329	A	C4'-C3'-O3'	5.56	121.34	113.00
1	AA	1502	A	C4'-C3'-C2'	-5.56	97.04	102.60
5	AE	214	GLY	CA-C-N	5.56	129.49	120.60
5	AE	214	GLY	C-N-CA	5.56	129.49	120.60
13	AM	10	LEU	O-C-N	5.56	129.85	123.29
13	AM	86	ALA	O-C-N	5.56	128.49	122.15
15	AO	19	ASN	CA-CB-CG	-5.56	107.04	112.60
20	AT	57	VAL	O-C-N	-5.56	116.60	123.10
26	BB	54	G	O4'-C4'-C3'	5.56	109.56	104.00
26	BB	84	A	C3'-C2'-C1'	-5.56	95.94	101.50
26	BB	126	A	O5'-C5'-C4'	-5.56	103.16	111.50
26	BB	643	A	C4'-C3'-O3'	-5.56	104.66	113.00
26	BB	1341	G	O4'-C1'-N9	5.56	116.53	108.20
26	BB	1593	A	O4'-C1'-N9	5.56	116.84	108.50
26	BB	2075	U	C1'-O4'-C4'	-5.56	104.34	109.90
26	BB	2285	C	O4'-C1'-C2'	-5.56	102.04	107.60
26	BB	2546	U	O5'-C5'-C4'	-5.56	103.17	111.50
29	BE	67	HIS	N-CA-C	-5.56	105.12	111.07
45	BU	75	PHE	N-CA-C	5.56	117.52	109.07
12	AL	65	THR	O-C-N	-5.56	116.81	123.31
26	BB	2127	G	O3'-P-O5'	-5.56	95.67	104.00
1	AA	473	U	O4'-C1'-N1	5.55	116.83	108.50
1	AA	1448	C	C4'-C3'-O3'	5.55	121.33	113.00
26	BB	1055	G	C3'-C2'-O2'	5.55	119.03	110.70
26	BB	1067	A	C3'-C2'-C1'	5.55	106.86	101.30
26	BB	1789	A	C5'-C4'-C3'	-5.55	107.67	116.00
26	BB	1863	G	C3'-C2'-O2'	5.55	119.03	110.70
29	BE	173	GLN	CA-C-N	5.55	130.02	122.19
29	BE	173	GLN	C-N-CA	5.55	130.02	122.19
42	BR	76	HIS	CA-C-O	-5.55	112.56	119.28
44	BT	18	GLN	CA-C-N	5.55	129.80	122.30
44	BT	18	GLN	C-N-CA	5.55	129.80	122.30
26	BB	154	U	C4'-C3'-C2'	-5.55	97.05	102.60
26	BB	1209	U	C3'-C2'-O2'	5.55	119.03	110.70
26	BB	2600	A	O4'-C1'-N9	5.55	116.83	108.50
1	AA	94	G	C5'-C4'-C3'	-5.55	106.87	115.20
1	AA	589	U	C3'-C2'-C1'	5.55	106.85	101.30
1	AA	1268	G	C1'-O4'-C4'	5.55	115.45	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	AJ	112	ASP	N-CA-C	5.55	118.74	110.52
25	BA	108	A	C4'-C3'-C2'	5.55	108.15	102.60
26	BB	1607	C	C2'-C3'-O3'	5.55	117.83	109.50
26	BB	1723	G	C3'-C2'-O2'	5.55	119.03	110.70
26	BB	1797	G	O5'-C5'-C4'	-5.55	103.17	111.50
26	BB	2709	G	O4'-C1'-C2'	-5.55	102.05	107.60
27	BC	122	ARG	N-CA-C	5.55	117.01	111.07
33	BI	40	THR	CA-C-N	5.55	132.14	121.54
33	BI	40	THR	C-N-CA	5.55	132.14	121.54
33	BI	110	VAL	CA-C-N	5.55	130.49	122.16
33	BI	110	VAL	C-N-CA	5.55	130.49	122.16
54	B3	22	THR	CA-C-O	-5.55	116.18	122.01
1	AA	675	A	O5'-C5'-C4'	-5.55	103.17	111.50
16	AP	6	ILE	CB-CG1-CD1	5.55	125.45	113.80
26	BB	387	U	C2'-C3'-O3'	5.55	117.82	109.50
26	BB	676	A	O4'-C1'-C2'	-5.55	102.05	107.60
26	BB	870	U	O4'-C1'-N1	5.55	116.82	108.50
26	BB	1505	A	O4'-C4'-C3'	5.55	109.55	104.00
26	BB	2489	U	O4'-C4'-C3'	5.55	109.55	104.00
38	BN	83	ALA	CA-C-N	5.55	131.52	121.92
38	BN	83	ALA	C-N-CA	5.55	131.52	121.92
1	AA	117	G	C3'-C2'-C1'	5.55	106.85	101.30
1	AA	260	G	C4'-C3'-O3'	-5.55	104.68	113.00
25	BA	8	C	C3'-C2'-C1'	5.55	106.85	101.30
26	BB	853	C	O3'-P-O5'	5.55	112.32	104.00
1	AA	1176	A	C1'-O4'-C4'	5.55	115.45	109.90
1	AA	1425	U	N1-C1'-C2'	-5.55	103.68	112.00
18	AR	74	VAL	CA-C-O	-5.55	114.48	120.47
25	BA	29	A	O4'-C4'-C3'	5.55	109.55	104.00
26	BB	45	G	C4'-C3'-O3'	5.55	121.32	113.00
26	BB	1299	G	C1'-O4'-C4'	5.55	115.45	109.90
26	BB	1576	U	P-O3'-C3'	5.55	128.52	120.20
26	BB	1953	A	C4'-C3'-C2'	-5.55	97.05	102.60
35	BK	7	TYR	CA-C-O	5.55	128.44	120.51
1	AA	1337	G	N9-C1'-C2'	5.54	120.32	112.00
26	BB	340	A	O4'-C1'-C2'	-5.54	102.06	107.60
26	BB	1626	A	O4'-C1'-N9	5.54	116.52	108.20
27	BC	33	LEU	O-C-N	-5.54	115.41	122.34
28	BD	242	HIS	ND1-CG-CD2	5.54	111.64	106.10
1	AA	384	G	C4'-C3'-C2'	-5.54	97.06	102.60
1	AA	1241	G	P-O5'-C5'	5.54	129.22	120.90
4	AD	75	C	O4'-C1'-N1	5.54	116.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AL	52	GLU	N-CA-CB	-5.54	101.69	110.28
15	AO	49	ARG	CB-CG-CD	5.54	124.05	111.30
26	BB	1993	U	C2'-C3'-O3'	-5.54	105.38	113.70
26	BB	2043	C	P-O5'-C5'	5.54	129.22	120.90
26	BB	2310	C	C5'-C4'-O4'	5.54	118.12	109.80
26	BB	2527	C	C5'-C4'-O4'	5.54	118.12	109.80
56	B5	15	SER	CA-CB-OG	-5.54	100.01	111.10
1	AA	1091	U	O4'-C1'-N1	5.54	116.81	108.50
1	AA	1163	A	O3'-P-O5'	-5.54	95.69	104.00
1	AA	1393	U	C5'-C4'-O4'	5.54	118.11	109.80
5	AE	191	ASP	O-C-N	5.54	128.68	121.64
12	AL	53	LEU	O-C-N	5.54	128.07	122.09
22	AV	1	PRO	N-CA-CB	5.54	109.09	103.00
26	BB	116	C	C4'-C3'-C2'	-5.54	97.06	102.60
26	BB	1702	G	O4'-C4'-C3'	5.54	109.54	104.00
26	BB	2693	G	C4'-C3'-C2'	-5.54	97.06	102.60
26	BB	2799	A	O5'-C5'-C4'	5.54	119.81	111.50
46	BV	34	VAL	CA-C-O	-5.54	114.56	119.38
1	AA	1240	U	O4'-C1'-C2'	-5.54	100.26	105.80
26	BB	2876	G	O5'-C5'-C4'	-5.54	103.19	111.50
1	AA	1323	G	C5'-C4'-O4'	5.54	118.11	109.80
10	AJ	41	ILE	CA-C-N	5.54	127.65	120.56
10	AJ	41	ILE	C-N-CA	5.54	127.65	120.56
10	AJ	72	VAL	CA-CB-CG2	5.54	119.81	110.40
25	BA	78	A	O4'-C4'-C3'	5.54	109.54	104.00
26	BB	1749	A	O4'-C1'-N9	5.54	116.81	108.50
26	BB	2408	U	O4'-C1'-N1	5.54	116.81	108.50
37	BM	37	ASP	N-CA-C	5.54	117.67	110.53
1	AA	1139	G	O4'-C1'-N9	5.54	116.51	108.20
7	AG	28	ASP	CA-CB-CG	-5.54	107.06	112.60
10	AJ	77	ARG	NE-CZ-NH2	5.54	124.18	119.20
26	BB	1648	U	C4'-C3'-O3'	-5.54	104.69	113.00
53	B2	13	THR	O-C-N	-5.54	115.70	122.34
1	AA	259	G	C5'-C4'-C3'	5.54	124.30	116.00
1	AA	532	A	C3'-C2'-O2'	5.54	119.00	110.70
1	AA	545	C	C2'-C3'-O3'	-5.54	105.40	113.70
1	AA	953	G	C1'-C2'-O2'	5.54	116.70	108.40
10	AJ	78	ARG	CB-CG-CD	5.54	124.03	111.30
25	BA	7	G	C4'-C3'-O3'	-5.54	104.70	113.00
26	BB	251	A	C4'-C3'-C2'	-5.54	97.06	102.60
26	BB	561	G	C4'-C3'-O3'	5.54	121.30	113.00
26	BB	737	C	N1-C1'-C2'	-5.54	103.70	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1459	G	P-O3'-C3'	5.54	128.50	120.20
26	BB	2057	G	O3'-P-O5'	5.54	112.30	104.00
41	BQ	30	ARG	NH1-CZ-NH2	-5.54	112.10	119.30
43	BS	36	GLN	CA-C-N	5.54	127.70	120.28
43	BS	36	GLN	C-N-CA	5.54	127.70	120.28
50	BZ	47	THR	CA-CB-CG2	5.54	119.91	110.50
58	B7	32	LYS	CA-C-O	-5.54	115.01	120.82
24	AX	13	VAL	CB-CA-C	5.53	119.04	110.96
26	BB	323	C	C5'-C4'-C3'	-5.53	106.90	115.20
26	BB	437	U	O5'-C5'-C4'	-5.53	103.20	111.50
26	BB	1852	U	C4'-C3'-C2'	-5.53	97.07	102.60
27	BC	129	GLN	O-C-N	5.53	127.80	121.93
50	BZ	59	ASP	CA-C-N	5.53	128.15	120.29
50	BZ	59	ASP	C-N-CA	5.53	128.15	120.29
1	AA	753	A	O4'-C4'-C3'	5.53	111.63	106.10
11	AK	55	LYS	CA-C-O	-5.53	114.82	120.63
12	AL	44	ARG	N-CA-C	-5.53	105.40	111.82
26	BB	1082	U	C4'-C3'-C2'	-5.53	97.07	102.60
26	BB	1855	U	C3'-C2'-C1'	5.53	106.83	101.30
26	BB	2143	C	O3'-P-O5'	-5.53	95.70	104.00
26	BB	2266	A	O4'-C4'-C3'	5.53	111.63	106.10
26	BB	2277	G	O5'-C5'-C4'	5.53	119.80	111.50
1	AA	632	U	C3'-C2'-C1'	5.53	106.83	101.30
1	AA	757	U	C3'-C2'-C1'	5.53	106.83	101.30
1	AA	1172	C	C4'-C3'-C2'	-5.53	97.07	102.60
19	AS	29	ASN	O-C-N	-5.53	117.70	123.56
26	BB	629	G	C4'-C3'-C2'	-5.53	97.07	102.60
1	AA	1533	C	O4'-C4'-C3'	5.53	109.53	104.00
26	BB	1381	G	C1'-O4'-C4'	-5.53	104.37	109.90
26	BB	2752	C	O4'-C1'-N1	5.53	116.79	108.50
41	BQ	100	HIS	CB-CG-CD2	-5.53	124.01	131.20
18	AR	36	ASN	O-C-N	5.53	128.06	122.09
26	BB	1324	G	O3'-P-O5'	-5.53	95.71	104.00
26	BB	1419	A	C4'-C3'-C2'	-5.53	97.07	102.60
26	BB	1687	G	O3'-P-O5'	5.53	112.29	104.00
26	BB	2361	G	C5'-C4'-C3'	5.53	124.29	116.00
26	BB	537	G	O4'-C4'-C3'	5.53	109.53	104.00
26	BB	930	G	C4'-C3'-C2'	-5.53	97.07	102.60
26	BB	1587	G	C3'-C2'-C1'	5.53	106.83	101.30
26	BB	2687	U	O5'-C5'-C4'	5.53	119.79	111.50
29	BE	82	PHE	CA-CB-CG	-5.53	108.27	113.80
52	B1	52	PHE	O-C-N	5.53	128.97	122.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	255	G	O4'-C1'-N9	5.52	116.79	108.50
1	AA	977	A	C3'-C2'-C1'	5.52	106.82	101.30
2	AB	33	U	P-O3'-C3'	5.52	128.49	120.20
26	BB	748	G	O3'-P-O5'	5.52	112.29	104.00
26	BB	2133	G	O4'-C1'-C2'	5.52	111.32	105.80
37	BM	40	LYS	CA-C-N	5.52	130.23	123.10
37	BM	40	LYS	C-N-CA	5.52	130.23	123.10
1	AA	1083	U	C5'-C4'-C3'	-5.52	107.72	116.00
1	AA	1331	G	O4'-C4'-C3'	5.52	109.52	104.00
1	AA	1528	U	O4'-C4'-C3'	5.52	111.62	106.10
18	AR	36	ASN	OD1-CG-ND2	-5.52	117.08	122.60
24	AX	52	VAL	CA-C-N	5.52	128.23	120.28
24	AX	52	VAL	C-N-CA	5.52	128.23	120.28
25	BA	9	G	O4'-C4'-C3'	5.52	109.52	104.00
25	BA	29	A	C1'-O4'-C4'	-5.52	104.38	109.90
26	BB	2325	G	O4'-C1'-C2'	5.52	113.12	107.60
26	BB	2534	A	C3'-C2'-C1'	-5.52	95.78	101.30
26	BB	2782	G	C4'-C3'-O3'	5.52	121.28	113.00
31	BG	58	ALA	N-CA-C	5.52	118.06	111.71
20	AT	44	HIS	ND1-CG-CD2	5.52	111.62	106.10
25	BA	64	G	C5'-C4'-C3'	-5.52	107.72	116.00
26	BB	823	C	O4'-C4'-C3'	5.52	109.52	104.00
26	BB	2434	A	C1'-C2'-O2'	5.52	120.08	111.80
30	BF	63	LYS	CA-C-N	5.52	132.23	121.41
30	BF	63	LYS	C-N-CA	5.52	132.23	121.41
47	BW	46	LYS	CA-C-N	5.52	125.43	119.85
47	BW	46	LYS	C-N-CA	5.52	125.43	119.85
7	AG	55	ARG	CA-C-N	5.52	130.06	120.68
7	AG	55	ARG	C-N-CA	5.52	130.06	120.68
13	AM	61	ALA	CA-C-O	-5.52	112.62	120.51
16	AP	92	ARG	NH1-CZ-NH2	-5.52	112.12	119.30
25	BA	119	A	O4'-C1'-N9	5.52	116.78	108.50
26	BB	582	A	N9-C1'-C2'	-5.52	103.72	112.00
26	BB	1100	C	C4'-C3'-C2'	-5.52	97.08	102.60
26	BB	1459	G	C4'-C3'-C2'	-5.52	97.08	102.60
1	AA	251	G	C4'-C3'-C2'	5.52	108.12	102.60
1	AA	539	A	O4'-C1'-C2'	-5.52	102.08	107.60
1	AA	1087	G	C3'-C2'-O2'	5.52	118.98	110.70
1	AA	1113	C	C5'-C4'-C3'	5.52	124.28	116.00
1	AA	1538	C	O4'-C1'-N1	-5.52	100.22	108.50
26	BB	448	U	O4'-C4'-C3'	5.52	111.62	106.10
26	BB	790	U	C4'-C3'-C2'	-5.52	97.08	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1173	U	C2'-C3'-O3'	5.52	121.98	113.70
26	BB	1833	C	N1-C1'-C2'	-5.52	103.72	112.00
36	BL	132	HIS	CA-C-N	5.52	130.21	121.44
36	BL	132	HIS	C-N-CA	5.52	130.21	121.44
48	BX	13	GLY	CA-C-N	5.52	127.67	120.28
48	BX	13	GLY	C-N-CA	5.52	127.67	120.28
1	AA	867	G	C4'-C3'-C2'	-5.52	97.08	102.60
1	AA	1119	C	C4'-C3'-C2'	-5.52	97.08	102.60
26	BB	43	G	C3'-C2'-C1'	-5.52	95.78	101.30
26	BB	1383	A	O4'-C1'-N9	5.52	116.77	108.50
26	BB	2723	C	O4'-C4'-C3'	5.52	109.52	104.00
1	AA	121	U	C4'-C3'-C2'	-5.51	97.08	102.60
1	AA	157	U	O4'-C1'-N1	5.51	116.77	108.50
26	BB	636	G	O4'-C4'-C3'	5.51	109.52	104.00
26	BB	1120	G	C1'-C2'-O2'	5.51	116.67	108.40
26	BB	1821	A	C3'-C2'-O2'	5.51	118.97	110.70
26	BB	2384	U	C3'-C2'-C1'	5.51	107.01	101.50
36	BL	102	GLU	CA-C-O	-5.51	115.03	120.82
1	AA	7	A	O3'-P-O5'	5.51	112.27	104.00
1	AA	892	A	O4'-C4'-C3'	5.51	109.51	104.00
22	AV	48	ILE	CB-CA-C	5.51	119.03	111.31
26	BB	2141	G	C1'-O4'-C4'	-5.51	104.39	109.90
26	BB	2432	A	O4'-C4'-C3'	5.51	109.51	104.00
1	AA	640	A	C2'-C3'-O3'	-5.51	105.43	113.70
1	AA	1323	G	O3'-P-O5'	5.51	112.27	104.00
1	AA	1327	C	C4'-C3'-C2'	-5.51	97.09	102.60
3	AC	39	U	O4'-C1'-N1	5.51	116.77	108.50
14	AN	85	VAL	CB-CA-C	5.51	118.83	110.62
26	BB	1643	G	C4'-C3'-C2'	-5.51	97.09	102.60
26	BB	1672	A	C2'-C3'-O3'	-5.51	105.43	113.70
30	BF	36	ALA	CA-C-N	5.51	128.69	120.31
30	BF	36	ALA	C-N-CA	5.51	128.69	120.31
40	BP	107	ASN	N-CA-C	5.51	117.20	107.61
41	BQ	58	ILE	CA-CB-CG1	5.51	119.77	110.40
1	AA	272	C	O4'-C1'-N1	5.51	116.77	108.50
1	AA	880	C	C5'-C4'-O4'	-5.51	101.54	109.80
1	AA	1398	A	C5'-C4'-O4'	5.51	118.06	109.80
2	AB	57	G	C5'-C4'-O4'	5.51	118.06	109.80
24	AX	34	ARG	NE-CZ-NH1	5.51	127.01	121.50
26	BB	1137	G	O4'-C1'-C2'	-5.51	102.09	107.60
26	BB	1250	G	C1'-C2'-O2'	-5.51	103.53	111.80
26	BB	2654	A	O4'-C1'-C2'	5.51	111.31	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	BZ	59	ASP	N-CA-C	-5.51	105.19	111.14
1	AA	450	G	C4'-C3'-O3'	-5.51	104.74	113.00
1	AA	1424	U	O4'-C1'-N1	5.51	116.76	108.50
26	BB	17	G	O4'-C4'-C3'	5.51	109.51	104.00
26	BB	1101	U	O3'-P-O5'	5.51	112.26	104.00
26	BB	2055	C	C1'-O4'-C4'	-5.51	104.39	109.90
26	BB	2165	C	N1-C1'-C2'	5.51	120.26	112.00
26	BB	2808	G	C1'-O4'-C4'	5.51	115.41	109.90
42	BR	7	LEU	CA-C-N	5.51	127.93	120.44
42	BR	7	LEU	C-N-CA	5.51	127.93	120.44
11	AK	48	PHE	CA-CB-CG	5.51	119.31	113.80
26	BB	70	G	C4'-C3'-C2'	-5.51	97.09	102.60
26	BB	2327	A	C3'-C2'-C1'	5.51	106.81	101.30
26	BB	2444	G	C4'-C3'-C2'	-5.51	97.09	102.60
26	BB	2548	U	O4'-C1'-C2'	5.51	113.11	107.60
45	BU	71	VAL	CB-CA-C	5.51	118.96	112.68
1	AA	21	G	O4'-C1'-C2'	-5.50	102.09	107.60
1	AA	1165	U	C4'-C3'-O3'	5.50	121.26	113.00
1	AA	1434	A	C5'-C4'-O4'	5.50	118.06	109.80
14	AN	23	HIS	ND1-CE1-NE2	5.50	113.91	108.40
26	BB	1278	C	C3'-C2'-C1'	5.50	106.81	101.30
58	B7	17	VAL	CA-C-O	5.50	126.82	120.76
1	AA	303	A	C5'-C4'-C3'	-5.50	107.74	116.00
1	AA	626	G	O4'-C1'-C2'	-5.50	102.10	107.60
1	AA	628	G	C4'-C3'-C2'	-5.50	97.10	102.60
1	AA	872	A	C4'-C3'-C2'	-5.50	97.10	102.60
1	AA	997	U	C4'-C3'-C2'	-5.50	97.10	102.60
1	AA	1172	C	C3'-C2'-C1'	5.50	106.80	101.30
1	AA	1190	G	N9-C1'-C2'	-5.50	105.75	114.00
13	AM	47	GLU	CA-C-O	5.50	126.43	120.43
26	BB	165	A	N9-C1'-C2'	5.50	120.25	112.00
26	BB	596	U	C4'-C3'-O3'	5.50	121.26	113.00
26	BB	903	C	C4'-C3'-C2'	-5.50	97.10	102.60
26	BB	1146	C	C3'-C2'-O2'	5.50	118.96	110.70
26	BB	2589	A	N9-C1'-C2'	5.50	120.25	112.00
26	BB	2612	C	C5'-C4'-O4'	5.50	118.06	109.80
26	BB	2865	U	P-O3'-C3'	5.50	128.46	120.20
27	BC	113	VAL	CA-C-N	5.50	130.35	123.14
27	BC	113	VAL	C-N-CA	5.50	130.35	123.14
1	AA	732	C	O4'-C1'-C2'	-5.50	102.10	107.60
1	AA	1001	C	C3'-C2'-O2'	-5.50	102.45	110.70
1	AA	1032	G	C5'-C4'-O4'	5.50	118.05	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	35	G	C1'-C2'-O2'	5.50	116.65	108.40
45	BU	8	ARG	NE-CZ-NH1	5.50	127.00	121.50
46	BV	76	ARG	N-CA-C	5.50	118.41	109.06
13	AM	74	VAL	CB-CA-C	5.50	120.31	111.29
26	BB	2431	U	O4'-C4'-C3'	5.50	109.50	104.00
58	B7	20	ASP	CA-C-N	5.50	131.31	122.40
58	B7	20	ASP	C-N-CA	5.50	131.31	122.40
58	B7	24	ARG	CD-NE-CZ	5.50	132.10	124.40
1	AA	77	A	O4'-C1'-N9	5.50	116.75	108.50
1	AA	171	A	O4'-C4'-C3'	5.50	109.50	104.00
1	AA	435	A	C5'-C4'-O4'	5.50	118.05	109.80
1	AA	821	G	C4'-C3'-C2'	-5.50	97.10	102.60
1	AA	1032	G	C3'-C2'-C1'	-5.50	95.80	101.30
1	AA	1414	U	O3'-P-O5'	-5.50	95.75	104.00
3	AC	42	U	C1'-O4'-C4'	-5.50	104.40	109.90
12	AL	128	LYS	CA-C-O	5.50	127.77	121.28
26	BB	475	C	C4'-C3'-C2'	-5.50	97.10	102.60
26	BB	808	G	C1'-C2'-O2'	5.50	116.65	108.40
26	BB	1251	C	O5'-C5'-C4'	-5.50	103.45	111.70
26	BB	1595	C	C4'-C3'-C2'	-5.50	97.10	102.60
26	BB	2231	U	C5'-C4'-C3'	-5.50	107.75	116.00
26	BB	2611	C	C4'-C3'-O3'	-5.50	104.75	113.00
1	AA	393	A	O4'-C1'-N9	5.50	116.74	108.50
1	AA	642	A	C1'-C2'-O2'	5.50	116.64	108.40
1	AA	920	U	P-O3'-C3'	5.50	128.45	120.20
26	BB	1750	G	C4'-C3'-C2'	5.50	108.10	102.60
26	BB	1901	A	C4'-C3'-C2'	-5.50	97.10	102.60
26	BB	1982	U	C5'-C4'-C3'	-5.50	107.76	116.00
26	BB	2312	U	C3'-C2'-C1'	5.50	106.80	101.30
26	BB	2586	U	C5'-C4'-C3'	-5.50	106.95	115.20
26	BB	2621	G	C1'-O4'-C4'	-5.50	104.40	109.90
43	BS	95	ALA	CA-C-N	5.50	132.28	122.06
43	BS	95	ALA	C-N-CA	5.50	132.28	122.06
11	AK	92	PRO	CB-CA-C	5.50	120.63	111.56
31	BG	176	PHE	CA-C-N	5.50	128.67	120.87
31	BG	176	PHE	C-N-CA	5.50	128.67	120.87
14	AN	76	TYR	CA-C-N	5.49	131.43	120.77
14	AN	76	TYR	C-N-CA	5.49	131.43	120.77
26	BB	157	C	O3'-P-O5'	5.49	112.24	104.00
26	BB	1604	C	O4'-C1'-C2'	-5.49	102.11	107.60
26	BB	2708	G	O4'-C1'-N9	5.49	116.74	108.50
1	AA	1528	U	P-O3'-C3'	5.49	128.44	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	155	ARG	N-CA-C	-5.49	103.05	110.68
26	BB	217	A	P-O3'-C3'	5.49	128.44	120.20
26	BB	1874	C	O4'-C1'-N1	5.49	116.74	108.50
1	AA	790	A	O5'-C5'-C4'	5.49	119.74	111.50
1	AA	1165	U	C5'-C4'-C3'	-5.49	107.76	116.00
11	AK	105	THR	CA-C-N	5.49	129.47	120.63
11	AK	105	THR	C-N-CA	5.49	129.47	120.63
26	BB	484	C	C4'-C3'-C2'	-5.49	97.11	102.60
26	BB	1257	C	C4'-C3'-O3'	5.49	121.23	113.00
26	BB	1544	A	C4'-C3'-C2'	-5.49	97.11	102.60
26	BB	2444	G	C5'-C4'-C3'	-5.49	107.77	116.00
26	BB	2499	C	C3'-C2'-C1'	5.49	106.79	101.30
26	BB	2739	U	O4'-C1'-N1	5.49	116.74	108.50
9	AI	77	THR	N-CA-C	-5.49	105.38	111.36
25	BA	35	C	C4'-C3'-O3'	-5.49	104.77	113.00
26	BB	1288	G	O4'-C1'-C2'	-5.49	100.31	105.80
26	BB	1540	G	C1'-C2'-O2'	-5.49	100.17	108.40
26	BB	1616	A	C1'-C2'-O2'	5.49	120.03	111.80
26	BB	1752	C	C3'-C2'-C1'	5.49	106.79	101.30
26	BB	2136	G	P-O5'-C5'	5.49	129.13	120.90
26	BB	2347	C	C4'-C3'-C2'	-5.49	97.11	102.60
26	BB	2633	G	O4'-C1'-N9	5.49	116.73	108.50
1	AA	183	C	O4'-C1'-N1	5.49	116.73	108.50
1	AA	311	C	C1'-O4'-C4'	-5.49	104.41	109.90
1	AA	708	C	O4'-C4'-C3'	5.49	109.49	104.00
1	AA	821	G	C3'-C2'-C1'	5.49	106.79	101.30
9	AI	116	PHE	CA-CB-CG	-5.49	108.31	113.80
26	BB	458	G	O5'-C5'-C4'	5.49	119.93	111.70
26	BB	334	C	O4'-C1'-N1	5.49	116.73	108.50
26	BB	337	C	C2'-C3'-O3'	5.49	121.93	113.70
26	BB	1184	U	C4'-C3'-O3'	-5.49	104.77	113.00
26	BB	1275	A	O4'-C1'-N9	5.49	116.73	108.50
26	BB	2293	G	O4'-C1'-C2'	-5.49	102.11	107.60
26	BB	2865	U	C5'-C4'-C3'	-5.49	107.77	116.00
41	BQ	63	LYS	CB-CA-C	5.49	119.40	110.24
58	B7	27	CYS	O-C-N	-5.49	116.54	122.79
10	AJ	68	VAL	CB-CA-C	5.48	120.28	111.29
26	BB	82	U	N1-C1'-C2'	-5.48	103.77	112.00
26	BB	2618	G	C5'-C4'-O4'	5.48	118.03	109.80
34	BJ	7	LYS	CG-CD-CE	5.48	123.91	111.30
1	AA	487	A	C3'-C2'-O2'	5.48	118.92	110.70
1	AA	775	G	C1'-O4'-C4'	-5.48	104.42	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1494	G	C3'-C2'-C1'	5.48	106.78	101.30
26	BB	477	A	C3'-C2'-O2'	5.48	118.92	110.70
26	BB	1259	G	C5'-C4'-O4'	5.48	118.02	109.80
26	BB	2730	C	O4'-C1'-C2'	-5.48	102.12	107.60
28	BD	202	ARG	CB-CA-C	5.48	119.86	110.81
28	BD	258	SER	N-CA-C	5.48	119.23	112.54
29	BE	120	GLY	CA-C-N	5.48	131.34	123.17
29	BE	120	GLY	C-N-CA	5.48	131.34	123.17
40	BP	64	ARG	NE-CZ-NH2	-5.48	114.27	119.20
14	AN	10	ARG	O-C-N	-5.48	116.06	122.96
14	AN	104	PHE	CA-C-N	5.48	129.26	121.42
14	AN	104	PHE	C-N-CA	5.48	129.26	121.42
26	BB	182	A	C4'-C3'-C2'	-5.48	97.12	102.60
26	BB	453	A	C4'-C3'-O3'	5.48	121.22	113.00
26	BB	831	G	C5'-C4'-C3'	-5.48	107.78	116.00
26	BB	2256	G	P-O3'-C3'	5.48	128.42	120.20
1	AA	802	A	C2'-C3'-O3'	-5.48	105.48	113.70
1	AA	1464	U	O3'-P-O5'	-5.48	95.78	104.00
6	AF	35	ASP	CA-CB-CG	5.48	118.08	112.60
26	BB	1788	C	C1'-O4'-C4'	-5.48	104.42	109.90
26	BB	2861	U	O5'-C5'-C4'	-5.48	103.28	111.50
1	AA	89	U	O3'-P-O5'	-5.48	95.78	104.00
26	BB	224	U	O4'-C1'-N1	5.48	116.72	108.50
26	BB	1051	G	O4'-C1'-C2'	-5.48	102.12	107.60
26	BB	1505	A	O3'-P-O5'	5.48	112.22	104.00
26	BB	1830	C	C3'-C2'-O2'	5.48	118.92	110.70
26	BB	2107	G	O4'-C1'-N9	5.48	116.72	108.50
26	BB	2214	C	C1'-O4'-C4'	5.48	115.38	109.90
5	AE	212	TYR	CB-CA-C	5.48	118.22	109.02
16	AP	13	HIS	CA-CB-CG	-5.48	108.32	113.80
26	BB	1184	U	C5'-C4'-O4'	5.48	118.01	109.80
34	BJ	57	THR	O-C-N	5.48	127.92	122.12
1	AA	146	G	C4'-C3'-C2'	-5.47	97.12	102.60
1	AA	267	C	O4'-C1'-C2'	-5.47	102.13	107.60
1	AA	432	A	O5'-C5'-C4'	5.47	119.71	111.50
1	AA	937	A	P-O3'-C3'	5.47	128.41	120.20
1	AA	1010	U	C4'-C3'-O3'	5.47	121.21	113.00
13	AM	20	GLN	CG-CD-NE2	-5.47	108.19	116.40
26	BB	523	C	C1'-C2'-O2'	-5.47	100.19	108.40
26	BB	861	A	C3'-C2'-O2'	5.47	118.91	110.70
26	BB	1074	G	O5'-C5'-C4'	-5.47	103.29	111.50
26	BB	2302	U	O4'-C4'-C3'	-5.47	98.53	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2422	C	O4'-C1'-C2'	-5.47	102.12	107.60
26	BB	2637	U	O4'-C1'-C2'	-5.47	102.12	107.60
27	BC	51	ASP	CA-C-O	5.47	125.22	119.03
45	BU	42	LYS	CA-C-N	5.47	128.37	120.38
45	BU	42	LYS	C-N-CA	5.47	128.37	120.38
1	AA	68	G	O5'-C5'-C4'	-5.47	103.29	111.50
1	AA	80	A	O3'-P-O5'	-5.47	95.79	104.00
1	AA	828	U	P-O3'-C3'	5.47	128.41	120.20
1	AA	877	G	C1'-O4'-C4'	-5.47	104.43	109.90
7	AG	69	ARG	N-CA-C	5.47	117.25	111.28
18	AR	83	ARG	CA-C-N	5.47	131.41	122.65
18	AR	83	ARG	C-N-CA	5.47	131.41	122.65
26	BB	180	G	C2'-C3'-O3'	5.47	121.91	113.70
26	BB	1206	G	C3'-C2'-C1'	5.47	106.77	101.30
26	BB	1826	G	O3'-P-O5'	-5.47	95.79	104.00
26	BB	2290	G	C3'-C2'-C1'	5.47	106.77	101.30
26	BB	2492	U	O4'-C1'-N1	5.47	116.41	108.20
29	BE	4	LEU	CA-C-O	-5.47	114.30	120.32
30	BF	88	ARG	NE-CZ-NH1	-5.47	116.03	121.50
57	B6	42	HIS	CB-CG-ND1	5.47	130.91	122.70
1	AA	1533	C	O4'-C1'-N1	5.47	116.71	108.50
26	BB	205	G	O4'-C1'-N9	5.47	116.41	108.20
26	BB	1824	G	O4'-C4'-C3'	5.47	109.47	104.00
26	BB	1876	A	C2'-C3'-O3'	-5.47	105.49	113.70
1	AA	1246	A	C3'-C2'-C1'	5.47	106.77	101.30
18	AR	63	ARG	CA-C-N	5.47	127.88	120.44
18	AR	63	ARG	C-N-CA	5.47	127.88	120.44
26	BB	82	U	C3'-C2'-C1'	5.47	106.77	101.30
26	BB	336	C	C5'-C4'-O4'	5.47	118.00	109.80
26	BB	914	G	C3'-C2'-O2'	5.47	118.91	110.70
26	BB	929	U	C5'-C4'-O4'	5.47	118.00	109.80
26	BB	1694	C	C2'-C3'-O3'	5.47	117.70	109.50
26	BB	2110	G	O4'-C4'-C3'	5.47	111.57	106.10
26	BB	2650	U	C1'-O4'-C4'	5.47	115.37	109.90
26	BB	2847	U	C2'-C3'-O3'	-5.47	105.50	113.70
55	B4	27	ARG	CA-C-O	5.47	124.82	118.97
1	AA	752	G	C1'-C2'-O2'	-5.47	103.60	111.80
1	AA	1051	C	O4'-C4'-C3'	5.47	109.47	104.00
15	AO	28	GLN	CB-CA-C	5.47	120.10	109.33
18	AR	72	LYS	CB-CA-C	5.47	120.56	110.56
23	AW	36	ALA	O-C-N	-5.47	114.92	122.46
26	BB	62	U	C1'-C2'-O2'	5.47	116.60	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	333	G	O4'-C4'-C3'	5.47	109.47	104.00
26	BB	1583	A	C1'-O4'-C4'	-5.47	104.23	109.70
26	BB	2072	C	P-O5'-C5'	5.47	129.10	120.90
26	BB	2348	U	O4'-C1'-C2'	5.47	113.07	107.60
41	BQ	92	PHE	N-CA-C	5.47	118.84	110.20
1	AA	791	G	C3'-C2'-O2'	5.46	118.90	110.70
1	AA	853	C	N1-C1'-C2'	5.46	120.20	112.00
1	AA	1032	G	O4'-C1'-C2'	5.46	113.06	107.60
1	AA	1162	C	C3'-C2'-C1'	5.46	106.76	101.30
15	AO	92	VAL	N-CA-CB	-5.46	104.59	111.31
25	BA	28	C	O3'-P-O5'	-5.46	95.80	104.00
26	BB	106	C	C4'-C3'-C2'	-5.46	97.14	102.60
26	BB	381	G	C4'-C3'-C2'	-5.46	97.14	102.60
26	BB	528	A	C5'-C4'-O4'	5.46	118.00	109.80
26	BB	1026	G	C3'-C2'-C1'	-5.46	95.83	101.30
26	BB	1323	C	O4'-C4'-C3'	5.46	111.56	106.10
26	BB	1556	C	P-O5'-C5'	5.46	129.10	120.90
26	BB	2289	G	O5'-C5'-C4'	5.46	119.70	111.50
26	BB	2311	A	O4'-C4'-C3'	5.46	111.56	106.10
28	BD	246	PRO	CA-C-O	5.46	124.91	118.68
35	BK	50	LYS	O-C-N	5.46	127.89	122.10
16	AP	24	VAL	CA-C-O	5.46	126.39	120.43
23	AW	81	GLN	CA-C-N	5.46	127.65	120.60
23	AW	81	GLN	C-N-CA	5.46	127.65	120.60
26	BB	2762	C	C4'-C3'-C2'	-5.46	97.14	102.60
32	BH	68	ARG	NE-CZ-NH2	-5.46	114.28	119.20
1	AA	632	U	C2'-C3'-O3'	5.46	121.89	113.70
3	AC	30	U	O4'-C1'-N1	5.46	116.69	108.50
3	AC	43	U	P-O3'-C3'	5.46	128.39	120.20
5	AE	188	THR	N-CA-CB	-5.46	101.57	110.42
8	AH	28	ARG	CA-C-O	5.46	126.14	120.30
26	BB	587	C	C4'-C3'-C2'	5.46	108.06	102.60
26	BB	1902	C	C4'-C3'-C2'	5.46	108.06	102.60
26	BB	2588	G	O5'-C5'-C4'	-5.46	103.31	111.50
26	BB	2623	G	C4'-C3'-C2'	-5.46	97.14	102.60
39	BO	118	LYS	N-CA-C	-5.46	105.24	111.14
1	AA	460	A	P-O5'-C5'	5.46	129.09	120.90
1	AA	942	G	O4'-C1'-N9	5.46	116.69	108.50
26	BB	2858	C	O4'-C1'-N1	5.46	116.39	108.20
1	AA	92	U	O4'-C1'-C2'	5.46	113.06	107.60
1	AA	206	C	O4'-C4'-C3'	5.46	109.46	104.00
1	AA	560	A	O4'-C1'-C2'	-5.46	100.34	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1025	U	C4'-C3'-C2'	5.46	108.06	102.60
26	BB	395	U	O4'-C4'-C3'	5.46	111.56	106.10
26	BB	1104	C	C3'-C2'-C1'	5.46	106.76	101.30
26	BB	2788	C	C4'-C3'-C2'	-5.46	97.14	102.60
31	BG	132	ARG	NE-CZ-NH1	-5.46	116.04	121.50
37	BM	38	ILE	CB-CA-C	5.46	118.46	110.98
1	AA	207	C	O3'-P-O5'	-5.46	95.81	104.00
1	AA	484	G	C4'-C3'-C2'	5.46	108.06	102.60
1	AA	779	C	C3'-C2'-C1'	5.46	106.76	101.30
1	AA	978	A	C2'-C3'-O3'	5.46	121.89	113.70
1	AA	986	U	C5'-C4'-C3'	-5.46	107.82	116.00
1	AA	1346	A	C5'-C4'-O4'	-5.46	100.92	109.10
4	AD	20	G	C5'-C4'-O4'	5.46	117.98	109.80
26	BB	536	G	O4'-C1'-C2'	-5.46	102.14	107.60
26	BB	1688	U	C4'-C3'-C2'	-5.46	97.14	102.60
26	BB	2742	G	C4'-C3'-C2'	-5.46	97.14	102.60
38	BN	17	LYS	CA-C-N	5.46	131.13	122.62
38	BN	17	LYS	C-N-CA	5.46	131.13	122.62
49	BY	23	LYS	CB-CA-C	5.46	121.28	110.42
1	AA	364	A	O4'-C1'-N9	5.46	116.68	108.50
1	AA	508	U	C5'-C4'-C3'	-5.46	107.02	115.20
1	AA	676	A	C3'-C2'-O2'	5.46	118.88	110.70
3	AC	55	A	O4'-C4'-C3'	5.46	109.45	104.00
6	AF	65	VAL	O-C-N	5.46	129.09	123.03
12	AL	124	PRO	CA-N-CD	-5.46	104.36	112.00
8	AH	105	ILE	CA-CB-CG1	5.45	119.67	110.40
16	AP	95	PRO	CA-C-N	5.45	128.34	121.85
16	AP	95	PRO	C-N-CA	5.45	128.34	121.85
26	BB	350	G	C1'-O4'-C4'	5.45	115.35	109.90
26	BB	825	A	C5'-C4'-C3'	-5.45	107.82	116.00
26	BB	1275	A	C1'-O4'-C4'	-5.45	104.45	109.90
26	BB	1720	U	C5'-C4'-O4'	5.45	117.98	109.80
26	BB	2391	G	O5'-C5'-C4'	-5.45	103.52	111.70
33	BI	50	ARG	NE-CZ-NH2	5.45	124.11	119.20
1	AA	345	C	C5'-C4'-C3'	-5.45	107.02	115.20
1	AA	968	A	O4'-C4'-C3'	5.45	111.55	106.10
1	AA	1294	G	C5'-C4'-C3'	-5.45	107.82	116.00
26	BB	2432	A	C2'-C3'-O3'	5.45	121.88	113.70
33	BI	142	VAL	CB-CA-C	5.45	118.99	111.19
54	B3	30	ASP	O-C-N	-5.45	116.53	123.24
1	AA	791	G	C2'-C3'-O3'	-5.45	105.52	113.70
1	AA	902	G	O3'-P-O5'	-5.45	95.82	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	932	C	O4'-C4'-C3'	5.45	109.45	104.00
1	AA	1043	G	C3'-C2'-O2'	5.45	118.88	110.70
1	AA	1136	C	C5'-C4'-O4'	5.45	117.98	109.80
8	AH	111	ARG	NE-CZ-NH1	5.45	126.95	121.50
10	AJ	99	ALA	N-CA-C	5.45	116.90	111.07
24	AX	20	ARG	CA-CB-CG	5.45	125.00	114.10
26	BB	566	U	C4'-C3'-O3'	-5.45	104.82	113.00
26	BB	780	G	O4'-C4'-C3'	5.45	109.45	104.00
26	BB	1862	G	O4'-C1'-C2'	-5.45	102.15	107.60
26	BB	2469	A	C5'-C4'-O4'	5.45	117.97	109.80
1	AA	722	G	N9-C1'-C2'	5.45	120.17	112.00
1	AA	1104	G	C4'-C3'-C2'	-5.45	97.15	102.60
6	AF	51	VAL	CB-CA-C	-5.45	101.22	111.30
26	BB	62	U	O4'-C4'-C3'	5.45	109.45	104.00
26	BB	534	U	O5'-C5'-C4'	-5.45	103.33	111.50
26	BB	838	C	O4'-C4'-C3'	5.45	109.45	104.00
26	BB	2190	G	C4'-C3'-C2'	-5.45	97.15	102.60
26	BB	2744	G	P-O3'-C3'	5.45	128.37	120.20
26	BB	2863	C	O4'-C1'-C2'	5.45	113.05	107.60
48	BX	75	GLN	CA-C-O	5.45	128.30	120.51
24	AX	55	HIS	CB-CG-ND1	5.45	130.87	122.70
26	BB	734	A	O5'-C5'-C4'	5.45	119.67	111.50
26	BB	768	G	C1'-O4'-C4'	5.45	115.35	109.90
26	BB	1107	G	O4'-C4'-C3'	5.45	109.45	104.00
26	BB	1578	U	C5'-C4'-C3'	-5.45	107.83	116.00
26	BB	2031	A	C2'-C3'-O3'	5.45	117.67	109.50
26	BB	2244	U	N1-C1'-C2'	-5.45	103.83	112.00
26	BB	2848	G	C3'-C2'-C1'	-5.45	96.05	101.50
1	AA	604	G	C5'-C4'-C3'	-5.45	107.83	116.00
26	BB	104	A	O4'-C4'-C3'	5.45	109.44	104.00
26	BB	1086	A	C1'-C2'-O2'	-5.45	100.23	108.40
26	BB	1144	A	C1'-O4'-C4'	-5.45	104.45	109.90
26	BB	1534	U	C2'-C3'-O3'	5.45	121.87	113.70
37	BM	31	ARG	CA-C-O	5.45	126.29	119.59
40	BP	118	ARG	CA-C-N	5.45	128.50	119.35
40	BP	118	ARG	C-N-CA	5.45	128.50	119.35
51	B0	39	GLN	CA-CB-CG	5.45	124.99	114.10
53	B2	2	LYS	CA-C-N	5.45	128.59	120.31
53	B2	2	LYS	C-N-CA	5.45	128.59	120.31
1	AA	408	A	O4'-C4'-C3'	5.44	109.44	104.00
1	AA	835	U	C3'-C2'-C1'	5.44	106.74	101.30
10	AJ	24	LYS	CA-C-O	-5.44	113.37	119.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	108	G	C3'-C2'-C1'	-5.44	95.86	101.30
26	BB	1836	C	C4'-C3'-C2'	-5.44	97.16	102.60
26	BB	2400	G	O4'-C1'-C2'	5.44	113.04	107.60
26	BB	2472	G	C3'-C2'-C1'	5.44	106.74	101.30
1	AA	743	A	O4'-C1'-N9	5.44	116.66	108.50
1	AA	1396	A	O4'-C1'-N9	5.44	116.36	108.20
10	AJ	93	VAL	CA-CB-CG1	5.44	119.65	110.40
26	BB	859	G	O3'-P-O5'	-5.44	95.84	104.00
26	BB	1172	C	C3'-C2'-O2'	5.44	118.86	110.70
26	BB	1577	C	C5'-C4'-C3'	5.44	124.16	116.00
26	BB	1721	G	P-O3'-C3'	5.44	128.36	120.20
26	BB	2439	A	P-O3'-C3'	5.44	128.36	120.20
1	AA	945	G	C2'-C3'-O3'	-5.44	105.54	113.70
2	AB	14	A	C5'-C4'-O4'	5.44	117.96	109.80
6	AF	21	TRP	CE2-CD2-CE3	-5.44	113.36	118.80
26	BB	1398	C	C3'-C2'-O2'	5.44	118.86	110.70
26	BB	1852	U	N1-C1'-C2'	5.44	120.16	112.00
26	BB	2862	G	C2'-C3'-O3'	-5.44	105.54	113.70
29	BE	48	ILE	CB-CA-C	5.44	118.50	110.77
1	AA	128	G	O4'-C4'-C3'	-5.44	98.56	104.00
5	AE	100	LEU	N-CA-C	-5.44	107.65	114.56
6	AF	10	ARG	NE-CZ-NH1	5.44	126.94	121.50
26	BB	144	A	O4'-C1'-C2'	-5.44	102.16	107.60
26	BB	1099	G	O4'-C4'-C3'	5.44	109.44	104.00
26	BB	1582	C	O4'-C1'-N1	5.44	116.66	108.50
26	BB	1739	A	O4'-C1'-N9	5.44	116.66	108.50
1	AA	1010	U	O3'-P-O5'	-5.44	95.84	104.00
1	AA	1255	G	C2'-C3'-O3'	-5.44	105.54	113.70
2	AB	48	U	C5'-C4'-O4'	5.44	117.95	109.80
26	BB	992	C	C3'-C2'-O2'	5.44	118.86	110.70
26	BB	1529	G	C4'-C3'-O3'	5.44	121.16	113.00
26	BB	1873	G	C5'-C4'-O4'	5.44	117.96	109.80
27	BC	31	LYS	N-CA-C	5.44	118.13	111.82
48	BX	80	HIS	ND1-CE1-NE2	5.44	113.84	108.40
2	AB	56	C	O4'-C1'-C2'	-5.44	102.16	107.60
26	BB	290	U	C5'-C4'-C3'	-5.44	107.85	116.00
26	BB	555	G	O3'-P-O5'	5.44	112.15	104.00
26	BB	1762	A	O5'-C5'-C4'	-5.44	103.55	111.70
1	AA	1017	U	C1'-C2'-O2'	5.43	116.55	108.40
11	AK	34	ALA	N-CA-C	5.43	117.20	111.28
20	AT	70	LYS	CB-CG-CD	5.43	123.80	111.30
26	BB	581	C	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	972	A	C3'-C2'-C1'	5.43	106.73	101.30
26	BB	1159	U	C1'-O4'-C4'	-5.43	104.47	109.90
26	BB	2878	U	C3'-C2'-O2'	5.43	118.85	110.70
30	BF	128	ALA	CA-C-O	-5.43	113.74	119.50
43	BS	11	ALA	CA-C-N	5.43	127.83	120.44
43	BS	11	ALA	C-N-CA	5.43	127.83	120.44
45	BU	49	LYS	CA-C-N	5.43	129.64	120.29
45	BU	49	LYS	C-N-CA	5.43	129.64	120.29
47	BW	47	PRO	N-CA-CB	5.43	108.38	103.33
55	B4	11	VAL	O-C-N	-5.43	117.60	123.14
1	AA	970	C	C2'-C3'-O3'	-5.43	105.55	113.70
1	AA	1152	A	C1'-O4'-C4'	-5.43	104.47	109.90
1	AA	1421	G	O5'-C5'-C4'	-5.43	103.35	111.50
3	AC	22	G	C4'-C3'-C2'	-5.43	97.17	102.60
21	AU	68	PRO	CA-C-N	5.43	132.46	122.79
21	AU	68	PRO	C-N-CA	5.43	132.46	122.79
22	AV	50	VAL	CB-CA-C	5.43	118.59	111.53
25	BA	19	C	O4'-C1'-N1	5.43	116.65	108.50
26	BB	176	A	O4'-C4'-C3'	-5.43	98.57	104.00
26	BB	399	U	C3'-C2'-O2'	5.43	118.85	110.70
26	BB	892	A	C4'-C3'-C2'	-5.43	97.17	102.60
26	BB	1579	A	C2'-C3'-O3'	-5.43	105.55	113.70
26	BB	1818	U	C4'-C3'-O3'	-5.43	104.85	113.00
26	BB	2189	U	O4'-C1'-C2'	-5.43	102.17	107.60
13	AM	79	PRO	CA-C-N	5.43	131.91	121.54
13	AM	79	PRO	C-N-CA	5.43	131.91	121.54
26	BB	288	U	P-O3'-C3'	5.43	128.35	120.20
26	BB	942	G	C4'-C3'-C2'	-5.43	97.17	102.60
26	BB	1094	U	O5'-C5'-C4'	-5.43	103.35	111.50
44	BT	70	GLU	CB-CA-C	5.43	119.45	109.46
1	AA	161	A	O4'-C1'-N9	5.43	116.64	108.50
6	AF	139	ASN	CA-CB-CG	5.43	118.03	112.60
6	AF	223	PRO	CA-C-N	5.43	130.31	122.44
6	AF	223	PRO	C-N-CA	5.43	130.31	122.44
7	AG	173	ASP	CA-CB-CG	-5.43	107.17	112.60
12	AL	36	GLN	OE1-CD-NE2	-5.43	117.17	122.60
26	BB	1444	G	C4'-C3'-C2'	-5.43	97.17	102.60
26	BB	1815	A	O4'-C1'-N9	5.43	116.34	108.20
26	BB	2018	G	O4'-C1'-C2'	-5.43	102.17	107.60
26	BB	2370	G	O4'-C1'-N9	5.43	116.64	108.50
1	AA	903	G	N9-C1'-C2'	-5.43	103.86	112.00
1	AA	992	U	P-O3'-C3'	5.43	128.34	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1014	A	C4'-C3'-C2'	-5.43	97.17	102.60
26	BB	597	G	C3'-C2'-C1'	-5.43	95.87	101.30
26	BB	1088	A	C3'-C2'-C1'	5.43	106.73	101.30
26	BB	1431	A	O4'-C4'-C3'	5.43	109.43	104.00
26	BB	2437	G	O4'-C1'-C2'	-5.43	102.17	107.60
26	BB	2750	A	C4'-C3'-O3'	5.43	117.54	109.40
27	BC	142	VAL	CA-C-N	5.43	131.26	122.09
27	BC	142	VAL	C-N-CA	5.43	131.26	122.09
30	BF	65	THR	CA-CB-OG1	5.43	117.74	109.60
1	AA	421	U	C3'-C2'-O2'	-5.42	106.46	114.60
10	AJ	129	ASN	O-C-N	5.42	128.80	122.67
10	AJ	155	TRP	CE2-CD2-CE3	-5.42	113.38	118.80
26	BB	242	G	O5'-C5'-C4'	-5.42	103.56	111.70
26	BB	1022	G	C1'-O4'-C4'	-5.42	104.28	109.70
26	BB	1345	C	O3'-P-O5'	-5.42	95.86	104.00
26	BB	1559	U	C3'-C2'-O2'	-5.42	106.46	114.60
26	BB	2225	A	C1'-C2'-O2'	5.42	119.94	111.80
26	BB	2683	C	C1'-O4'-C4'	-5.42	104.47	109.90
26	BB	2837	A	C3'-C2'-O2'	5.42	118.84	110.70
26	BB	262	A	O4'-C1'-N9	5.42	116.64	108.50
26	BB	1582	C	N1-C1'-C2'	-5.42	103.86	112.00
26	BB	2460	U	O4'-C1'-N1	5.42	116.63	108.50
1	AA	384	G	O4'-C1'-N9	5.42	116.63	108.50
1	AA	719	C	C1'-C2'-O2'	5.42	119.93	111.80
1	AA	1088	G	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	95	A	O5'-C5'-C4'	5.42	119.63	111.50
26	BB	533	G	O4'-C1'-N9	5.42	116.63	108.50
26	BB	1062	G	O4'-C1'-C2'	-5.42	102.18	107.60
46	BV	7	LEU	CA-C-N	5.42	132.78	121.94
46	BV	7	LEU	C-N-CA	5.42	132.78	121.94
1	AA	283	U	C3'-C2'-C1'	-5.42	95.88	101.30
1	AA	860	A	N9-C1'-C2'	-5.42	103.87	112.00
5	AE	58	LYS	N-CA-C	-5.42	107.03	113.97
9	AI	71	ILE	N-CA-C	5.42	118.65	111.17
26	BB	144	A	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	662	G	C5'-C4'-C3'	-5.42	107.87	116.00
26	BB	891	G	O5'-C5'-C4'	5.42	119.63	111.50
26	BB	1503	A	O4'-C1'-C2'	-5.42	102.18	107.60
42	BR	100	ARG	CA-C-N	5.42	131.89	121.54
42	BR	100	ARG	C-N-CA	5.42	131.89	121.54
1	AA	193	C	C1'-O4'-C4'	-5.42	104.48	109.90
1	AA	391	G	C4'-C3'-O3'	5.42	121.13	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	596	A	C4'-C3'-C2'	-5.42	97.18	102.60
1	AA	1347	G	P-O3'-C3'	5.42	128.33	120.20
1	AA	1472	U	C5'-C4'-C3'	5.42	124.13	116.00
26	BB	655	A	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	669	G	C1'-O4'-C4'	5.42	115.32	109.90
26	BB	970	U	N1-C1'-C2'	-5.42	103.87	112.00
26	BB	1030	C	O4'-C1'-N1	5.42	116.63	108.50
26	BB	1208	C	O4'-C1'-N1	5.42	116.63	108.50
26	BB	1333	G	C3'-C2'-C1'	5.42	106.72	101.30
26	BB	2073	C	C3'-C2'-O2'	5.42	118.83	110.70
26	BB	2297	A	C5'-C4'-O4'	5.42	117.93	109.80
26	BB	2814	A	P-O5'-C5'	5.42	129.03	120.90
42	BR	62	LYS	CA-C-N	5.42	131.72	121.97
42	BR	62	LYS	C-N-CA	5.42	131.72	121.97
1	AA	411	A	C3'-C2'-O2'	-5.42	106.47	114.60
1	AA	474	G	C3'-C2'-C1'	5.42	106.72	101.30
1	AA	492	C	C4'-C3'-C2'	-5.42	97.18	102.60
1	AA	640	A	C5'-C4'-O4'	5.42	117.92	109.80
1	AA	1404	C	O5'-C5'-C4'	-5.42	103.38	111.50
25	BA	17	C	C1'-O4'-C4'	5.42	115.32	109.90
26	BB	2140	G	C4'-C3'-O3'	5.42	121.12	113.00
26	BB	2281	A	O3'-P-O5'	-5.42	95.88	104.00
26	BB	2473	U	O3'-P-O5'	5.42	112.12	104.00
26	BB	2790	U	C4'-C3'-O3'	-5.42	101.27	109.40
27	BC	26	ALA	CA-C-N	5.42	129.60	120.29
27	BC	26	ALA	C-N-CA	5.42	129.60	120.29
29	BE	98	VAL	CA-CB-CG2	5.42	119.61	110.40
29	BE	173	GLN	OE1-CD-NE2	-5.42	117.18	122.60
50	BZ	74	GLY	N-CA-C	-5.42	105.93	112.48
1	AA	1113	C	O4'-C4'-C3'	5.42	109.42	104.00
26	BB	2797	U	C5'-C4'-O4'	5.42	117.92	109.80
36	BL	117	ALA	CA-C-N	5.42	127.80	120.44
36	BL	117	ALA	C-N-CA	5.42	127.80	120.44
45	BU	30	SER	N-CA-C	-5.42	105.03	111.69
1	AA	422	C	O4'-C1'-N1	5.41	116.32	108.20
1	AA	756	C	O4'-C4'-C3'	5.41	109.41	104.00
1	AA	916	U	O4'-C4'-C3'	5.41	109.41	104.00
1	AA	992	U	C2'-C3'-O3'	5.41	117.62	109.50
1	AA	1216	A	C2'-C3'-O3'	-5.41	105.58	113.70
25	BA	37	C	C1'-C2'-O2'	5.41	116.52	108.40
26	BB	865	C	O4'-C1'-C2'	5.41	111.21	105.80
26	BB	1020	A	C3'-C2'-C1'	5.41	106.91	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1696	G	C4'-C3'-C2'	-5.41	97.19	102.60
26	BB	1821	A	O4'-C4'-C3'	5.41	109.41	104.00
30	BF	148	ILE	O-C-N	-5.41	116.77	122.83
1	AA	118	U	C4'-C3'-C2'	-5.41	97.19	102.60
5	AE	147	LEU	CA-C-N	5.41	126.95	120.13
5	AE	147	LEU	C-N-CA	5.41	126.95	120.13
6	AF	98	ALA	CA-C-N	5.41	131.31	122.81
6	AF	98	ALA	C-N-CA	5.41	131.31	122.81
10	AJ	87	PRO	N-CA-CB	5.41	108.06	103.35
26	BB	154	U	N1-C1'-C2'	-5.41	103.88	112.00
26	BB	2013	A	O3'-P-O5'	-5.41	95.88	104.00
26	BB	2533	U	O3'-P-O5'	5.41	112.12	104.00
1	AA	550	G	O5'-C5'-C4'	-5.41	103.38	111.50
1	AA	1140	C	O4'-C1'-C2'	-5.41	102.19	107.60
1	AA	1185	G	O4'-C1'-C2'	-5.41	102.19	107.60
26	BB	221	A	C3'-C2'-C1'	5.41	106.91	101.50
26	BB	447	A	C3'-C2'-C1'	5.41	106.91	101.50
26	BB	743	A	C4'-C3'-C2'	-5.41	97.19	102.60
26	BB	1094	U	O4'-C1'-C2'	-5.41	102.19	107.60
26	BB	1877	A	C3'-C2'-C1'	5.41	106.71	101.30
27	BC	83	ASN	CA-C-N	5.41	127.47	120.44
27	BC	83	ASN	C-N-CA	5.41	127.47	120.44
27	BC	153	VAL	N-CA-C	-5.41	105.23	110.42
26	BB	272	A	P-O3'-C3'	5.41	128.31	120.20
26	BB	669	G	O4'-C1'-C2'	-5.41	102.19	107.60
26	BB	967	U	O4'-C4'-C3'	-5.41	98.59	104.00
26	BB	1154	G	C4'-C3'-C2'	-5.41	97.19	102.60
26	BB	2778	A	O4'-C1'-C2'	-5.41	100.39	105.80
27	BC	121	MET	CA-C-N	5.41	127.47	120.44
27	BC	121	MET	C-N-CA	5.41	127.47	120.44
28	BD	174	ARG	CD-NE-CZ	5.41	131.97	124.40
50	BZ	13	THR	CA-C-O	-5.41	115.10	121.16
26	BB	1146	C	O4'-C1'-N1	5.41	116.61	108.50
26	BB	1339	G	O4'-C1'-C2'	-5.41	102.19	107.60
1	AA	505	G	O4'-C1'-C2'	5.41	113.00	107.60
1	AA	836	G	O5'-C5'-C4'	5.41	119.61	111.50
4	AD	14	A	O4'-C1'-C2'	-5.41	102.19	107.60
14	AN	85	VAL	CA-CB-CG2	5.41	119.59	110.40
26	BB	341	C	C3'-C2'-C1'	5.41	106.70	101.30
26	BB	569	U	O5'-C5'-C4'	5.41	119.81	111.70
26	BB	611	C	O4'-C4'-C3'	5.41	109.41	104.00
26	BB	832	U	N1-C1'-C2'	5.41	120.11	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	BD	188	ARG	CA-C-N	5.41	131.07	122.10
28	BD	188	ARG	C-N-CA	5.41	131.07	122.10
7	AG	194	ILE	CB-CA-C	5.40	118.67	110.62
26	BB	652	U	C4'-C3'-O3'	-5.40	104.89	113.00
26	BB	748	G	O4'-C1'-N9	5.40	116.61	108.50
26	BB	1408	G	O4'-C4'-C3'	-5.40	98.60	104.00
26	BB	1905	C	C5'-C4'-C3'	-5.40	107.89	116.00
26	BB	2572	A	C3'-C2'-C1'	5.40	106.90	101.50
1	AA	309	A	O4'-C4'-C3'	5.40	109.40	104.00
1	AA	433	G	C5'-C4'-C3'	-5.40	107.89	116.00
1	AA	495	A	C1'-C2'-O2'	5.40	119.90	111.80
1	AA	1150	A	C1'-O4'-C4'	-5.40	104.50	109.90
1	AA	1437	A	C1'-O4'-C4'	-5.40	104.50	109.90
5	AE	49	PHE	O-C-N	-5.40	115.42	122.39
28	BD	73	ILE	CA-C-N	5.40	125.70	119.92
28	BD	73	ILE	C-N-CA	5.40	125.70	119.92
20	AT	45	VAL	CA-C-N	5.40	129.01	121.02
20	AT	45	VAL	C-N-CA	5.40	129.01	121.02
26	BB	174	U	O4'-C1'-N1	5.40	116.60	108.50
26	BB	731	C	C4'-C3'-C2'	-5.40	97.20	102.60
26	BB	2630	G	C2'-C3'-O3'	5.40	121.80	113.70
28	BD	9	SER	CA-CB-OG	-5.40	100.30	111.10
57	B6	30	HIS	CB-CG-CD2	-5.40	124.18	131.20
1	AA	1306	A	O4'-C4'-C3'	5.40	109.40	104.00
1	AA	1345	U	C4'-C3'-O3'	5.40	117.50	109.40
25	BA	33	G	C5'-C4'-C3'	-5.40	107.90	116.00
26	BB	1766	G	C4'-C3'-O3'	-5.40	104.90	113.00
36	BL	57	LEU	N-CA-CB	-5.40	102.75	110.80
1	AA	160	A	O4'-C4'-C3'	5.40	109.40	104.00
1	AA	235	C	C5'-C4'-O4'	5.40	117.90	109.80
1	AA	804	U	C1'-O4'-C4'	5.40	115.30	109.90
1	AA	1140	C	O4'-C1'-N1	5.40	116.60	108.50
4	AD	59	A	O4'-C1'-C2'	-5.40	100.40	105.80
16	AP	104	ASN	CA-C-N	5.40	130.85	122.49
16	AP	104	ASN	C-N-CA	5.40	130.85	122.49
16	AP	111	PRO	CA-C-N	5.40	128.38	120.71
16	AP	111	PRO	C-N-CA	5.40	128.38	120.71
24	AX	20	ARG	CB-CG-CD	5.40	123.72	111.30
26	BB	2233	U	C3'-C2'-C1'	5.40	106.70	101.30
26	BB	2700	A	N9-C1'-C2'	-5.40	103.91	112.00
26	BB	2842	G	C5'-C4'-C3'	-5.40	107.91	116.00
26	BB	2871	U	C3'-C2'-O2'	5.40	118.80	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	BN	20	GLY	CA-C-O	5.40	124.70	118.98
1	AA	925	G	C1'-C2'-O2'	5.40	116.49	108.40
26	BB	2763	G	O4'-C1'-C2'	-5.40	102.20	107.60
32	BH	90	GLY	N-CA-C	-5.40	106.54	112.04
58	B7	27	CYS	CA-C-O	5.40	128.13	121.87
1	AA	1271	A	C3'-C2'-O2'	5.39	118.79	110.70
5	AE	191	ASP	CA-CB-CG	5.39	117.99	112.60
10	AJ	14	ASP	CA-C-N	5.39	125.11	119.82
10	AJ	14	ASP	C-N-CA	5.39	125.11	119.82
26	BB	765	C	C5'-C4'-C3'	-5.39	107.91	116.00
26	BB	1963	U	C1'-O4'-C4'	-5.39	104.51	109.90
26	BB	2533	U	C5'-C4'-O4'	5.39	117.89	109.80
36	BL	98	GLU	N-CA-C	5.39	117.86	111.33
44	BT	46	GLU	CB-CG-CD	5.39	121.77	112.60
1	AA	1296	C	C5'-C4'-O4'	5.39	117.89	109.80
26	BB	78	U	O4'-C4'-C3'	5.39	109.39	104.00
26	BB	541	A	C4'-C3'-O3'	5.39	121.09	113.00
26	BB	554	U	O4'-C1'-N1	5.39	116.59	108.50
26	BB	630	G	C4'-C3'-C2'	-5.39	97.21	102.60
26	BB	1062	G	C2'-C3'-O3'	5.39	121.79	113.70
26	BB	1723	G	P-O3'-C3'	5.39	128.29	120.20
26	BB	1894	C	C5'-C4'-C3'	-5.39	107.91	116.00
26	BB	2512	C	O3'-P-O5'	-5.39	95.91	104.00
26	BB	2775	G	C2'-C3'-O3'	5.39	121.79	113.70
32	BH	88	LEU	CA-C-N	5.39	130.06	123.10
32	BH	88	LEU	C-N-CA	5.39	130.06	123.10
51	B0	55	THR	CA-C-O	-5.39	113.77	119.97
1	AA	981	U	O4'-C1'-C2'	-5.39	102.21	107.60
26	BB	1015	U	C3'-C2'-O2'	5.39	118.79	110.70
29	BE	103	ASP	CA-C-N	5.39	130.50	123.06
29	BE	103	ASP	C-N-CA	5.39	130.50	123.06
1	AA	451	A	C5'-C4'-C3'	5.39	123.28	115.20
1	AA	1387	G	C3'-C2'-O2'	5.39	118.78	110.70
10	AJ	61	PHE	CA-CB-CG	5.39	119.19	113.80
26	BB	155	A	C5'-C4'-C3'	-5.39	107.91	116.00
26	BB	590	A	O4'-C4'-C3'	5.39	109.39	104.00
26	BB	1275	A	O5'-C5'-C4'	-5.39	103.42	111.50
26	BB	1512	C	O4'-C1'-N1	5.39	116.58	108.50
26	BB	1815	A	N9-C1'-C2'	-5.39	105.92	114.00
26	BB	2187	U	O4'-C1'-N1	5.39	116.58	108.50
26	BB	2517	C	O3'-P-O5'	-5.39	95.92	104.00
29	BE	67	HIS	CB-CG-CD2	-5.39	124.19	131.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	BE	91	THR	CA-C-O	5.39	126.01	119.11
31	BG	109	ARG	CB-CG-CD	5.39	123.70	111.30
42	BR	84	SER	CA-C-O	-5.39	114.82	120.80
1	AA	1116	U	C4'-C3'-C2'	-5.39	97.21	102.60
14	AN	113	THR	O-C-N	5.39	127.52	121.32
26	BB	1610	A	N9-C1'-C2'	-5.39	105.92	114.00
26	BB	2073	C	O4'-C4'-C3'	-5.39	98.61	104.00
26	BB	2596	U	P-O5'-C5'	5.39	128.98	120.90
1	AA	155	A	P-O5'-C5'	5.39	128.98	120.90
26	BB	1816	C	C5'-C4'-C3'	-5.39	107.12	115.20
26	BB	2019	A	P-O3'-C3'	5.39	128.28	120.20
26	BB	2677	G	O4'-C1'-N9	5.39	116.58	108.50
1	AA	895	G	C5'-C4'-O4'	5.38	117.88	109.80
1	AA	1326	U	C4'-C3'-C2'	5.38	107.98	102.60
26	BB	886	A	O4'-C4'-C3'	5.38	109.38	104.00
26	BB	1802	A	C5'-C4'-C3'	-5.38	107.92	116.00
26	BB	2541	A	C4'-C3'-O3'	-5.38	104.92	113.00
26	BB	2586	U	C4'-C3'-O3'	5.38	117.48	109.40
12	AL	80	HIS	CA-CB-CG	5.38	119.18	113.80
47	BW	52	ASN	OD1-CG-ND2	-5.38	117.22	122.60
1	AA	121	U	O4'-C1'-N1	5.38	116.57	108.50
1	AA	124	C	C5'-C4'-C3'	-5.38	107.93	116.00
1	AA	1232	U	O4'-C1'-N1	5.38	116.57	108.50
2	AB	27	C	O4'-C4'-C3'	5.38	109.38	104.00
14	AN	51	PHE	N-CA-CB	5.38	117.88	109.97
18	AR	66	LEU	N-CA-C	-5.38	105.49	111.36
25	BA	92	C	C4'-C3'-C2'	-5.38	97.22	102.60
26	BB	1936	A	C3'-C2'-C1'	-5.38	96.12	101.50
27	BC	67	HIS	N-CA-C	-5.38	104.06	110.41
54	B3	4	GLN	CA-C-N	5.38	130.70	121.87
54	B3	4	GLN	C-N-CA	5.38	130.70	121.87
4	AD	59	A	C3'-C2'-C1'	5.38	106.88	101.50
19	AS	63	GLN	O-C-N	5.38	128.28	122.15
26	BB	1034	G	C5'-C4'-C3'	-5.38	107.93	116.00
41	BQ	108	ASP	O-C-N	5.38	127.61	122.07
1	AA	291	U	C3'-C2'-C1'	5.38	106.68	101.30
1	AA	1224	U	C4'-C3'-O3'	5.38	117.47	109.40
26	BB	186	G	N9-C1'-C2'	-5.38	103.93	112.00
26	BB	652	U	O4'-C1'-C2'	-5.38	102.22	107.60
26	BB	1201	U	O4'-C1'-N1	5.38	116.57	108.50
26	BB	2230	G	C4'-C3'-C2'	-5.38	97.22	102.60
26	BB	2607	G	P-O3'-C3'	5.38	128.27	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2620	C	C4'-C3'-C2'	-5.38	97.22	102.60
1	AA	257	G	O4'-C4'-C3'	5.38	109.38	104.00
1	AA	785	G	N9-C1'-C2'	-5.38	103.94	112.00
2	AB	65	C	C5'-C4'-O4'	5.38	117.87	109.80
9	AI	94	HIS	CE1-NE2-CD2	-5.38	103.62	109.00
26	BB	67	U	O4'-C1'-C2'	-5.38	102.22	107.60
26	BB	737	C	C3'-C2'-C1'	5.38	106.68	101.30
26	BB	1109	C	O4'-C1'-N1	5.38	116.57	108.50
26	BB	2106	U	P-O3'-C3'	5.38	128.26	120.20
26	BB	2311	A	C4'-C3'-O3'	5.38	117.47	109.40
26	BB	2543	G	P-O5'-C5'	5.38	128.97	120.90
1	AA	403	C	N1-C1'-C2'	-5.38	103.94	112.00
6	AF	120	THR	N-CA-CB	-5.38	101.94	110.22
10	AJ	163	HIS	CB-CG-CD2	-5.38	124.21	131.20
11	AK	98	LEU	CA-C-N	5.38	126.60	120.53
11	AK	98	LEU	C-N-CA	5.38	126.60	120.53
20	AT	50	ASN	CB-CG-ND2	-5.38	108.34	116.40
26	BB	97	C	C2'-C3'-O3'	5.38	121.76	113.70
26	BB	545	U	C3'-C2'-C1'	-5.38	96.12	101.50
1	AA	988	G	C5'-C4'-O4'	5.37	117.86	109.80
1	AA	1003	G	O5'-C5'-C4'	5.37	119.56	111.50
13	AM	80	THR	CA-C-O	5.37	128.19	120.51
26	BB	737	C	O4'-C1'-N1	5.37	116.56	108.50
26	BB	2511	U	O4'-C1'-N1	5.37	116.56	108.50
28	BD	149	LYS	CA-C-O	-5.37	114.80	120.55
43	BS	69	ARG	CA-C-N	5.37	128.02	120.28
43	BS	69	ARG	C-N-CA	5.37	128.02	120.28
52	B1	6	ILE	CA-CB-CG1	5.37	119.53	110.40
1	AA	258	G	O4'-C1'-N9	5.37	116.56	108.50
1	AA	570	G	O3'-P-O5'	5.37	112.06	104.00
1	AA	1404	C	O4'-C1'-N1	5.37	116.56	108.50
7	AG	6	PRO	O-C-N	5.37	129.89	122.64
21	AU	39	VAL	CA-C-O	5.37	124.45	119.62
26	BB	1653	G	P-O3'-C3'	5.37	128.26	120.20
26	BB	2215	C	O4'-C4'-C3'	-5.37	98.63	104.00
26	BB	2229	U	O4'-C1'-C2'	-5.37	102.23	107.60
26	BB	2320	U	O4'-C1'-C2'	-5.37	102.23	107.60
26	BB	2675	A	C3'-C2'-C1'	-5.37	95.93	101.30
26	BB	2696	U	O5'-C5'-C4'	-5.37	103.44	111.50
27	BC	198	LYS	N-CA-C	5.37	117.13	111.28
6	AF	58	ARG	CA-C-O	-5.37	113.97	120.74
26	BB	1202	G	C2'-C3'-O3'	-5.37	105.64	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1211	C	O4'-C1'-N1	5.37	116.25	108.20
26	BB	1251	C	O3'-P-O5'	-5.37	95.94	104.00
26	BB	1737	G	N9-C1'-C2'	-5.37	103.94	112.00
26	BB	2823	A	C5'-C4'-C3'	-5.37	107.94	116.00
1	AA	24	U	P-O5'-C5'	5.37	128.95	120.90
6	AF	25	THR	CA-CB-OG1	5.37	117.65	109.60
16	AP	109	LYS	CA-C-O	-5.37	113.15	119.05
26	BB	431	U	C1'-O4'-C4'	-5.37	104.53	109.90
26	BB	433	C	C4'-C3'-C2'	5.37	107.97	102.60
26	BB	2178	C	C5'-C4'-C3'	-5.37	107.95	116.00
43	BS	4	LYS	CA-C-N	5.37	131.79	121.54
43	BS	4	LYS	C-N-CA	5.37	131.79	121.54
1	AA	106	C	C3'-C2'-C1'	5.37	106.67	101.30
26	BB	886	A	O4'-C1'-C2'	5.37	112.97	107.60
1	AA	673	A	O4'-C1'-C2'	-5.37	102.23	107.60
1	AA	1272	G	C4'-C3'-C2'	-5.37	97.23	102.60
10	AJ	58	LEU	N-CA-C	5.37	119.93	113.17
13	AM	77	VAL	O-C-N	-5.37	116.65	121.91
21	AU	30	ASN	CA-C-N	5.37	131.10	122.14
21	AU	30	ASN	C-N-CA	5.37	131.10	122.14
26	BB	1503	A	C1'-O4'-C4'	5.37	115.27	109.90
26	BB	1836	C	P-O3'-C3'	5.37	128.25	120.20
28	BD	168	GLY	O-C-N	-5.37	117.81	122.91
45	BU	20	VAL	CA-C-N	5.37	127.42	120.44
45	BU	20	VAL	C-N-CA	5.37	127.42	120.44
1	AA	768	A	C3'-C2'-C1'	-5.36	95.94	101.30
1	AA	881	G	O5'-C5'-C4'	5.36	119.55	111.50
1	AA	1288	A	C3'-C2'-C1'	-5.36	95.94	101.30
6	AF	121	SER	CB-CA-C	5.36	119.30	110.88
18	AR	30	LEU	CA-C-O	-5.36	115.18	120.70
26	BB	1727	C	O4'-C4'-C3'	5.36	109.36	104.00
26	BB	2140	G	O5'-C5'-C4'	-5.36	103.46	111.50
26	BB	2281	A	O4'-C1'-N9	5.36	116.54	108.50
26	BB	2526	G	O4'-C4'-C3'	5.36	109.36	104.00
33	BI	70	GLU	O-C-N	-5.36	116.30	122.09
34	BJ	60	ARG	CA-C-N	5.36	128.00	120.28
34	BJ	60	ARG	C-N-CA	5.36	128.00	120.28
5	AE	47	PRO	N-CA-CB	5.36	109.20	103.52
36	BL	15	TRP	CA-CB-CG	5.36	123.79	113.60
1	AA	920	U	O4'-C4'-C3'	-5.36	98.64	104.00
14	AN	3	ALA	N-CA-CB	-5.36	103.43	109.49
26	BB	994	C	C1'-O4'-C4'	-5.36	104.54	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1059	G	O5'-C5'-C4'	-5.36	103.46	111.50
26	BB	1827	U	C3'-C2'-C1'	5.36	106.66	101.30
53	B2	52	ALA	CA-C-O	-5.36	115.29	121.19
8	AH	138	ALA	O-C-N	5.36	127.66	122.09
22	AV	53	GLY	O-C-N	5.36	128.08	122.51
26	BB	527	C	O4'-C1'-N1	5.36	116.24	108.20
26	BB	1262	A	O4'-C1'-N9	5.36	116.54	108.50
26	BB	1792	G	O4'-C1'-N9	-5.36	100.46	108.50
26	BB	2512	C	O4'-C1'-N1	5.36	116.54	108.50
53	B2	64	PHE	CA-CB-CG	5.36	119.16	113.80
1	AA	301	G	O4'-C1'-C2'	-5.36	102.24	107.60
1	AA	699	C	C1'-C2'-O2'	5.36	116.44	108.40
1	AA	867	G	O4'-C4'-C3'	5.36	109.36	104.00
5	AE	121	GLN	CA-C-O	-5.36	113.47	119.79
7	AG	13	ARG	CA-C-O	-5.36	115.18	120.70
21	AU	42	ARG	CD-NE-CZ	5.36	131.90	124.40
24	AX	26	GLY	CA-C-N	5.36	127.86	122.66
24	AX	26	GLY	C-N-CA	5.36	127.86	122.66
26	BB	398	C	C4'-C3'-C2'	-5.36	97.24	102.60
26	BB	412	A	O4'-C1'-N9	5.36	116.54	108.50
26	BB	703	U	O4'-C1'-N1	5.36	116.54	108.50
26	BB	841	G	P-O3'-C3'	5.36	128.24	120.20
27	BC	66	PRO	CB-CA-C	-5.36	102.72	111.56
31	BG	78	ILE	CA-C-N	5.36	131.77	121.54
31	BG	78	ILE	C-N-CA	5.36	131.77	121.54
26	BB	311	A	C3'-C2'-O2'	-5.36	106.57	114.60
26	BB	547	A	C3'-C2'-C1'	-5.36	95.94	101.30
26	BB	1097	U	C3'-C2'-C1'	5.36	106.66	101.30
26	BB	1549	A	O4'-C1'-N9	5.36	116.53	108.50
26	BB	2292	U	C4'-C3'-O3'	-5.36	104.97	113.00
26	BB	2528	U	P-O3'-C3'	5.36	128.23	120.20
36	BL	130	HIS	CG-CD2-NE2	-5.36	101.84	107.20
26	BB	108	G	C3'-C2'-O2'	5.35	118.73	110.70
26	BB	1704	C	P-O5'-C5'	5.35	128.93	120.90
31	BG	164	GLU	CA-C-O	-5.35	112.80	119.38
1	AA	358	U	O4'-C4'-C3'	5.35	109.35	104.00
1	AA	454	G	C4'-C3'-O3'	-5.35	104.97	113.00
1	AA	722	G	O4'-C4'-C3'	-5.35	98.65	104.00
26	BB	771	G	O4'-C4'-C3'	5.35	109.35	104.00
26	BB	866	A	N9-C1'-C2'	5.35	120.03	112.00
26	BB	1022	G	C4'-C3'-C2'	-5.35	97.25	102.60
26	BB	1040	A	C5'-C4'-C3'	-5.35	107.97	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1263	U	O4'-C1'-C2'	-5.35	102.25	107.60
26	BB	1713	A	C1'-O4'-C4'	-5.35	104.35	109.70
26	BB	1733	G	C5'-C4'-C3'	-5.35	107.97	116.00
26	BB	2265	U	C4'-C3'-O3'	-5.35	104.97	113.00
26	BB	2732	G	C3'-C2'-C1'	5.35	106.65	101.30
27	BC	22	ASP	N-CA-C	-5.35	102.12	110.10
41	BQ	113	ALA	N-CA-C	5.35	117.19	111.36
48	BX	68	LYS	CA-C-N	5.35	131.32	122.33
48	BX	68	LYS	C-N-CA	5.35	131.32	122.33
1	AA	1542	A	C3'-C2'-O2'	5.35	118.73	110.70
25	BA	78	A	P-O5'-C5'	5.35	128.93	120.90
26	BB	754	U	C4'-C3'-O3'	-5.35	104.97	113.00
26	BB	1370	C	C4'-C3'-O3'	5.35	121.03	113.00
26	BB	1893	C	C2'-C3'-O3'	-5.35	105.67	113.70
41	BQ	76	LYS	N-CA-C	-5.35	105.36	111.14
41	BQ	111	ARG	N-CA-C	-5.35	105.56	111.71
45	BU	84	ARG	CA-C-N	5.35	129.06	122.37
45	BU	84	ARG	C-N-CA	5.35	129.06	122.37
47	BW	52	ASN	CA-CB-CG	-5.35	107.25	112.60
1	AA	214	C	C4'-C3'-O3'	5.35	121.03	113.00
1	AA	902	G	O5'-C5'-C4'	5.35	119.53	111.50
1	AA	1478	U	O5'-C5'-C4'	-5.35	103.48	111.50
6	AF	177	LEU	CA-C-N	5.35	130.97	122.94
6	AF	177	LEU	C-N-CA	5.35	130.97	122.94
22	AV	70	LEU	CA-C-N	5.35	130.30	123.08
22	AV	70	LEU	C-N-CA	5.35	130.30	123.08
26	BB	570	G	C3'-C2'-C1'	5.35	106.65	101.30
26	BB	985	C	C5'-C4'-O4'	-5.35	101.78	109.80
26	BB	2823	A	O4'-C4'-C3'	5.35	109.35	104.00
28	BD	248	GLY	N-CA-C	-5.35	107.40	115.32
1	AA	86	G	C4'-C3'-C2'	5.35	107.95	102.60
1	AA	151	A	O4'-C1'-C2'	-5.35	102.25	107.60
13	AM	86	ALA	CA-C-N	5.35	128.22	120.79
13	AM	86	ALA	C-N-CA	5.35	128.22	120.79
26	BB	708	G	C5'-C4'-O4'	5.35	117.82	109.80
26	BB	1020	A	O4'-C4'-C3'	5.35	111.45	106.10
26	BB	2049	G	C4'-C3'-C2'	-5.35	97.25	102.60
26	BB	2332	C	C1'-O4'-C4'	5.35	115.25	109.90
26	BB	2337	G	C4'-C3'-C2'	-5.35	97.25	102.60
30	BF	97	ASN	CB-CA-C	5.35	118.60	109.72
35	BK	40	ALA	CA-C-O	-5.35	113.82	119.97
53	B2	43	PHE	CA-CB-CG	5.35	119.15	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	B4	43	ARG	CA-C-N	5.35	130.92	122.36
55	B4	43	ARG	C-N-CA	5.35	130.92	122.36
7	AG	84	ASN	OD1-CG-ND2	-5.35	117.25	122.60
8	AH	113	VAL	CA-C-O	-5.35	115.50	121.17
26	BB	1459	G	O4'-C1'-N9	5.35	116.52	108.50
26	BB	1513	U	O3'-P-O5'	-5.35	95.98	104.00
26	BB	1956	U	C4'-C3'-C2'	-5.35	97.25	102.60
30	BF	119	ILE	CA-C-N	5.35	131.59	121.97
30	BF	119	ILE	C-N-CA	5.35	131.59	121.97
1	AA	874	G	C5'-C4'-O4'	5.34	117.82	109.80
1	AA	1363	A	O4'-C1'-C2'	5.34	111.14	105.80
5	AE	237	VAL	O-C-N	5.34	127.13	121.89
10	AJ	2	ARG	CA-C-N	5.34	130.50	121.14
10	AJ	2	ARG	C-N-CA	5.34	130.50	121.14
26	BB	944	C	C1'-C2'-O2'	-5.34	100.39	108.40
26	BB	2383	G	O4'-C4'-C3'	5.34	109.34	104.00
26	BB	2417	C	N1-C1'-C2'	-5.34	103.98	112.00
26	BB	2527	C	C1'-O4'-C4'	5.34	115.24	109.90
29	BE	102	ALA	N-CA-C	-5.34	107.77	114.56
34	BJ	34	VAL	CA-C-O	-5.34	115.39	120.95
48	BX	85	LYS	CA-C-O	-5.34	115.89	121.55
1	AA	39	G	C5'-C4'-O4'	5.34	117.81	109.80
1	AA	99	C	C4'-C3'-C2'	-5.34	97.26	102.60
1	AA	277	C	O3'-P-O5'	-5.34	95.99	104.00
1	AA	1239	A	C4'-C3'-C2'	-5.34	97.26	102.60
26	BB	2099	U	O4'-C1'-N1	5.34	116.52	108.50
39	BO	10	ARG	NE-CZ-NH2	5.34	124.01	119.20
47	BW	44	HIS	CB-CG-CD2	-5.34	124.25	131.20
52	B1	29	ARG	NE-CZ-NH2	-5.34	114.39	119.20
1	AA	183	C	O4'-C1'-C2'	-5.34	102.26	107.60
1	AA	1250	A	N9-C1'-C2'	5.34	120.01	112.00
1	AA	1457	G	P-O5'-C5'	-5.34	112.89	120.90
1	AA	1510	C	C4'-C3'-C2'	-5.34	97.26	102.60
7	AG	113	ALA	CA-C-O	-5.34	115.21	120.82
21	AU	64	LEU	CA-C-N	5.34	129.94	122.36
21	AU	64	LEU	C-N-CA	5.34	129.94	122.36
26	BB	40	U	P-O5'-C5'	5.34	128.91	120.90
26	BB	393	C	O5'-C5'-C4'	-5.34	103.49	111.50
26	BB	724	U	O4'-C1'-N1	5.34	116.51	108.50
26	BB	1749	A	C5'-C4'-O4'	5.34	117.81	109.80
26	BB	1776	G	C4'-C3'-O3'	-5.34	104.99	113.00
26	BB	1805	A	C1'-O4'-C4'	-5.34	104.56	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2089	C	C3'-C2'-C1'	-5.34	95.96	101.30
26	BB	2663	G	C2'-C3'-O3'	5.34	121.71	113.70
26	BB	2863	C	C3'-C2'-O2'	5.34	118.71	110.70
36	BL	112	GLY	O-C-N	5.34	127.11	121.77
52	B1	56	VAL	N-CA-C	5.34	116.00	108.36
1	AA	164	G	P-O3'-C3'	5.34	128.21	120.20
1	AA	761	G	O5'-C5'-C4'	5.34	119.51	111.50
1	AA	968	A	N9-C1'-C2'	5.34	122.01	114.00
4	AD	19	G	O4'-C1'-N9	5.34	116.21	108.20
5	AE	134	LEU	N-CA-C	-5.34	105.62	111.82
11	AK	17	GLN	O-C-N	5.34	128.24	122.15
26	BB	974	G	O4'-C1'-N9	5.34	116.21	108.20
26	BB	980	A	C5'-C4'-O4'	5.34	117.11	109.10
26	BB	1301	A	C4'-C3'-O3'	5.34	117.41	109.40
26	BB	2421	G	O4'-C4'-C3'	5.34	109.34	104.00
29	BE	156	PHE	CA-CB-CG	-5.34	108.46	113.80
43	BS	83	LYS	CA-C-N	5.34	127.70	120.44
43	BS	83	LYS	C-N-CA	5.34	127.70	120.44
1	AA	1181	G	C1'-C2'-O2'	5.34	119.81	111.80
6	AF	92	ASP	N-CA-CB	-5.34	102.27	110.12
34	BJ	91	ALA	N-CA-C	5.34	117.79	111.33
1	AA	800	G	C3'-C2'-C1'	5.34	106.64	101.30
2	AB	48	U	N1-C1'-C2'	5.34	120.00	112.00
7	AG	17	ASP	CA-CB-CG	5.34	117.94	112.60
26	BB	617	G	O3'-P-O5'	5.34	112.00	104.00
26	BB	1706	C	O4'-C1'-N1	5.34	116.20	108.20
26	BB	650	C	C3'-C2'-O2'	5.33	118.70	110.70
26	BB	1229	C	O4'-C1'-C2'	5.33	112.94	107.60
26	BB	1494	A	O4'-C4'-C3'	-5.33	98.67	104.00
26	BB	1862	G	O4'-C4'-C3'	-5.33	98.67	104.00
1	AA	391	G	C4'-C3'-C2'	-5.33	97.27	102.60
1	AA	558	G	C1'-O4'-C4'	-5.33	104.57	109.90
2	AB	48	U	O5'-C5'-C4'	-5.33	103.50	111.50
4	AD	70	C	C3'-C2'-C1'	5.33	106.63	101.30
20	AT	46	HIS	CE1-NE2-CD2	-5.33	103.67	109.00
22	AV	29	PRO	CA-C-N	5.33	130.81	122.17
22	AV	29	PRO	C-N-CA	5.33	130.81	122.17
25	BA	72	G	C5'-C4'-C3'	-5.33	108.00	116.00
26	BB	151	C	O4'-C1'-C2'	-5.33	102.27	107.60
26	BB	1107	G	C4'-C3'-C2'	-5.33	97.27	102.60
26	BB	1349	C	C4'-C3'-C2'	-5.33	97.27	102.60
26	BB	1656	C	O4'-C4'-C3'	-5.33	98.67	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1854	A	P-O5'-C5'	5.33	128.90	120.90
26	BB	2702	G	C5'-C4'-C3'	-5.33	108.00	116.00
39	BO	7	THR	CB-CA-C	5.33	119.56	109.37
1	AA	188	C	C2'-C3'-O3'	-5.33	105.70	113.70
1	AA	755	G	C5'-C4'-C3'	-5.33	108.00	116.00
6	AF	64	ARG	NE-CZ-NH1	-5.33	116.17	121.50
25	BA	89	U	O4'-C1'-N1	5.33	116.50	108.50
26	BB	425	G	C4'-C3'-C2'	-5.33	97.27	102.60
26	BB	1741	C	O4'-C4'-C3'	5.33	109.33	104.00
1	AA	267	C	O5'-C5'-C4'	5.33	119.50	111.50
1	AA	530	G	C2'-C3'-O3'	-5.33	105.70	113.70
1	AA	660	C	O4'-C4'-C3'	5.33	109.33	104.00
2	AB	13	C	O4'-C1'-N1	5.33	116.50	108.50
6	AF	131	ARG	NE-CZ-NH2	-5.33	114.40	119.20
17	AQ	23	ARG	CA-C-N	5.33	129.12	121.71
17	AQ	23	ARG	C-N-CA	5.33	129.12	121.71
27	BC	151	GLU	CA-C-O	-5.33	115.22	120.82
30	BF	24	ASN	N-CA-C	-5.33	99.14	107.93
39	BO	96	ILE	CB-CA-C	5.33	118.50	110.98
48	BX	3	THR	CA-C-O	5.33	126.00	120.40
1	AA	727	G	C5'-C4'-C3'	-5.33	108.01	116.00
1	AA	978	A	O3'-P-O5'	-5.33	96.01	104.00
1	AA	1446	A	C3'-C2'-C1'	5.33	106.63	101.30
20	AT	9	GLY	O-C-N	-5.33	118.61	123.56
26	BB	478	A	C4'-C3'-O3'	-5.33	105.01	113.00
26	BB	851	C	C1'-C2'-O2'	-5.33	100.41	108.40
26	BB	2049	G	O4'-C4'-C3'	5.33	109.33	104.00
26	BB	2140	G	C2'-C3'-O3'	-5.33	105.71	113.70
26	BB	2530	A	C4'-C3'-O3'	-5.33	105.01	113.00
53	B2	52	ALA	CA-C-N	5.33	129.68	121.53
53	B2	52	ALA	C-N-CA	5.33	129.68	121.53
1	AA	1027	C	C5'-C4'-C3'	-5.33	108.01	116.00
1	AA	1128	C	C4'-C3'-O3'	-5.33	105.01	113.00
26	BB	572	A	O4'-C4'-C3'	5.33	109.33	104.00
1	AA	682	G	C3'-C2'-O2'	5.33	118.69	110.70
1	AA	852	G	C4'-C3'-C2'	-5.33	97.28	102.60
1	AA	1240	U	O4'-C1'-N1	5.33	116.19	108.20
26	BB	217	A	C2'-C3'-O3'	-5.33	105.71	113.70
26	BB	458	G	C3'-C2'-C1'	-5.33	96.17	101.50
26	BB	998	C	C5'-C4'-C3'	-5.33	108.01	116.00
26	BB	2537	U	C1'-O4'-C4'	-5.33	104.57	109.90
31	BG	167	ALA	CA-C-O	-5.33	115.66	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	58	C	O4'-C4'-C3'	5.32	109.32	104.00
1	AA	86	G	O3'-P-O5'	-5.32	96.02	104.00
1	AA	379	C	C2'-C3'-O3'	5.32	121.69	113.70
1	AA	451	A	C4'-C3'-O3'	-5.32	101.42	109.40
1	AA	1314	C	N1-C1'-C2'	5.32	119.98	112.00
26	BB	145	C	C1'-O4'-C4'	-5.32	104.58	109.90
26	BB	1970	A	C3'-C2'-C1'	5.32	106.82	101.50
26	BB	2669	G	C4'-C3'-O3'	5.32	120.98	113.00
50	BZ	35	HIS	CE1-NE2-CD2	-5.32	103.68	109.00
57	B6	25	HIS	CE1-NE2-CD2	-5.32	103.68	109.00
1	AA	761	G	O3'-P-O5'	-5.32	96.02	104.00
26	BB	1204	A	N9-C1'-C2'	-5.32	106.02	114.00
26	BB	1456	G	N9-C1'-C2'	-5.32	104.02	112.00
26	BB	2229	U	C3'-C2'-C1'	5.32	106.62	101.30
39	BO	7	THR	CA-CB-CG2	5.32	119.55	110.50
1	AA	463	U	N1-C1'-C2'	-5.32	104.02	112.00
1	AA	1021	A	C3'-C2'-C1'	5.32	106.62	101.30
1	AA	1035	A	C4'-C3'-O3'	5.32	120.98	113.00
1	AA	1054	C	O4'-C1'-N1	5.32	116.48	108.50
2	AB	31	U	C5'-C4'-C3'	-5.32	108.02	116.00
26	BB	277	G	O4'-C1'-N9	5.32	116.48	108.50
26	BB	2124	G	O4'-C1'-C2'	-5.32	102.28	107.60
33	BI	47	PHE	CA-C-O	-5.32	115.23	120.82
33	BI	116	ARG	N-CA-CB	5.32	117.79	109.97
1	AA	868	C	C4'-C3'-C2'	-5.32	97.28	102.60
1	AA	1440	U	C4'-C3'-C2'	-5.32	97.28	102.60
1	AA	1541	U	O4'-C4'-C3'	-5.32	98.68	104.00
26	BB	266	G	O4'-C4'-C3'	-5.32	98.68	104.00
26	BB	1124	G	C1'-O4'-C4'	5.32	115.22	109.90
26	BB	1625	C	O4'-C1'-N1	5.32	116.48	108.50
1	AA	268	U	C4'-C3'-O3'	5.32	120.98	113.00
1	AA	481	G	C4'-C3'-C2'	5.32	107.92	102.60
1	AA	818	G	C2'-C3'-O3'	5.32	121.68	113.70
1	AA	1059	C	O4'-C1'-N1	5.32	116.48	108.50
1	AA	1187	G	C4'-C3'-O3'	5.32	120.98	113.00
1	AA	1269	A	C4'-C3'-C2'	-5.32	97.28	102.60
2	AB	24	G	C3'-C2'-O2'	5.32	118.68	110.70
26	BB	350	G	C5'-C4'-O4'	5.32	117.78	109.80
26	BB	787	C	C4'-C3'-C2'	-5.32	97.28	102.60
26	BB	1494	A	C3'-C2'-C1'	-5.32	95.98	101.30
26	BB	2143	C	C1'-C2'-O2'	-5.32	100.42	108.40
26	BB	2282	G	O3'-P-O5'	-5.32	96.03	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	BD	236	GLY	CA-C-N	5.32	131.70	121.54
28	BD	236	GLY	C-N-CA	5.32	131.70	121.54
1	AA	1226	C	C1'-C2'-O2'	5.32	119.77	111.80
8	AH	17	VAL	CA-C-N	5.32	130.87	122.36
8	AH	17	VAL	C-N-CA	5.32	130.87	122.36
26	BB	399	U	C3'-C2'-C1'	-5.32	95.98	101.30
26	BB	510	C	C1'-O4'-C4'	5.32	115.22	109.90
26	BB	928	A	C3'-C2'-O2'	5.32	118.67	110.70
26	BB	1097	U	P-O3'-C3'	5.32	128.17	120.20
26	BB	2191	A	C3'-C2'-O2'	5.32	118.67	110.70
26	BB	2520	C	C3'-C2'-O2'	5.32	118.67	110.70
36	BL	112	GLY	CA-C-N	5.32	124.50	118.97
36	BL	112	GLY	C-N-CA	5.32	124.50	118.97
43	BS	12	ARG	NE-CZ-NH1	-5.32	116.18	121.50
49	BY	57	THR	O-C-N	-5.32	117.16	123.22
1	AA	592	G	O3'-P-O5'	-5.31	96.03	104.00
1	AA	943	U	C3'-C2'-C1'	5.31	106.61	101.30
1	AA	1264	U	C4'-C3'-C2'	-5.31	97.29	102.60
12	AL	38	PHE	CA-CB-CG	5.31	119.11	113.80
25	BA	36	C	C2'-C3'-O3'	5.31	121.67	113.70
26	BB	786	C	C3'-C2'-C1'	5.31	106.61	101.30
26	BB	1530	G	C3'-C2'-O2'	5.31	118.67	110.70
33	BI	119	ASN	CA-C-N	5.31	126.72	121.62
33	BI	119	ASN	C-N-CA	5.31	126.72	121.62
42	BR	61	ARG	CA-C-N	5.31	127.67	120.44
42	BR	61	ARG	C-N-CA	5.31	127.67	120.44
1	AA	965	U	C4'-C3'-C2'	-5.31	97.29	102.60
1	AA	1350	A	C3'-C2'-O2'	5.31	118.67	110.70
5	AE	122	ASP	CA-C-O	-5.31	114.10	120.10
26	BB	547	A	O4'-C1'-N9	5.31	116.47	108.50
26	BB	1764	C	O4'-C1'-C2'	-5.31	102.29	107.60
27	BC	6	LYS	CA-C-O	-5.31	115.24	120.82
31	BG	145	VAL	CA-CB-CG2	5.31	119.43	110.40
43	BS	78	PHE	N-CA-C	-5.31	105.57	111.36
56	B5	45	SER	CB-CA-C	-5.31	102.48	110.24
1	AA	309	A	C3'-C2'-O2'	5.31	118.67	110.70
26	BB	330	A	O4'-C1'-C2'	5.31	111.11	105.80
26	BB	1002	G	C4'-C3'-C2'	-5.31	97.29	102.60
26	BB	1569	A	C1'-O4'-C4'	-5.31	104.59	109.90
35	BK	21	PRO	N-CA-C	5.31	117.18	110.70
44	BT	73	LYS	CA-C-N	5.31	130.16	123.10
44	BT	73	LYS	C-N-CA	5.31	130.16	123.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	299	G	O4'-C1'-N9	5.31	116.47	108.50
1	AA	669	G	O4'-C1'-N9	5.31	116.46	108.50
1	AA	1077	G	O3'-P-O5'	-5.31	96.03	104.00
10	AJ	115	MET	CA-C-N	5.31	127.39	120.28
10	AJ	115	MET	C-N-CA	5.31	127.39	120.28
26	BB	208	C	O3'-P-O5'	-5.31	96.03	104.00
26	BB	311	A	O3'-P-O5'	-5.31	96.03	104.00
26	BB	710	U	O3'-P-O5'	-5.31	96.04	104.00
26	BB	717	C	C4'-C3'-C2'	-5.31	97.29	102.60
26	BB	1571	A	C3'-C2'-C1'	5.31	106.61	101.30
28	BD	83	ASP	CA-CB-CG	5.31	117.91	112.60
33	BI	92	GLY	O-C-N	5.31	129.60	122.70
39	BO	133	LYS	CA-C-N	5.31	131.68	121.54
39	BO	133	LYS	C-N-CA	5.31	131.68	121.54
1	AA	47	C	C1'-C2'-O2'	5.31	119.76	111.80
1	AA	192	A	O5'-C5'-C4'	-5.31	103.54	111.50
1	AA	1466	C	O3'-P-O5'	-5.31	96.04	104.00
2	AB	36	A	C5'-C4'-C3'	-5.31	108.04	116.00
7	AG	103	ARG	NE-CZ-NH2	-5.31	114.42	119.20
8	AH	2	HIS	CB-CG-ND1	5.31	130.66	122.70
26	BB	162	U	O4'-C1'-N1	5.31	116.16	108.20
26	BB	533	G	C1'-O4'-C4'	5.31	115.21	109.90
26	BB	2751	G	P-O3'-C3'	5.31	128.16	120.20
1	AA	98	A	C5'-C4'-O4'	5.31	117.76	109.80
1	AA	785	G	C5'-C4'-O4'	5.31	117.76	109.80
2	AB	11	U	O4'-C1'-C2'	-5.31	102.29	107.60
25	BA	93	C	N1-C1'-C2'	-5.31	104.04	112.00
26	BB	1420	A	C4'-C3'-C2'	-5.31	97.29	102.60
26	BB	2752	C	C3'-C2'-C1'	5.31	106.61	101.30
44	BT	47	VAL	N-CA-C	5.31	117.41	108.81
1	AA	163	C	O4'-C1'-C2'	-5.30	102.30	107.60
1	AA	350	G	C3'-C2'-C1'	5.30	106.60	101.30
25	BA	15	A	O4'-C1'-N9	5.30	116.16	108.20
26	BB	979	A	C5'-C4'-C3'	5.30	123.96	116.00
26	BB	1539	U	C4'-C3'-C2'	-5.30	97.30	102.60
26	BB	1687	G	C4'-C3'-C2'	-5.30	97.30	102.60
26	BB	2011	U	P-O3'-C3'	5.30	128.16	120.20
26	BB	2462	C	N1-C1'-C2'	5.30	119.95	112.00
26	BB	2767	C	O4'-C1'-C2'	5.30	112.90	107.60
26	BB	2799	A	C5'-C4'-O4'	5.30	117.75	109.80
50	BZ	44	ARG	N-CA-C	5.30	116.86	108.96
56	B5	43	THR	CA-CB-CG2	5.30	119.52	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	70	U	C3'-C2'-C1'	-5.30	96.20	101.50
1	AA	1132	C	C4'-C3'-C2'	-5.30	97.30	102.60
7	AG	197	HIS	CA-CB-CG	5.30	119.10	113.80
10	AJ	96	ASN	N-CA-C	-5.30	105.40	111.07
25	BA	8	C	O4'-C1'-C2'	-5.30	102.30	107.60
26	BB	2424	C	O4'-C1'-C2'	-5.30	102.30	107.60
33	BI	134	VAL	CA-C-O	-5.30	114.90	120.57
1	AA	75	G	C5'-C4'-C3'	-5.30	108.05	116.00
1	AA	1191	A	O4'-C4'-C3'	5.30	109.30	104.00
13	AM	60	ASP	CA-CB-CG	5.30	117.90	112.60
26	BB	395	U	C1'-O4'-C4'	-5.30	104.40	109.70
26	BB	744	U	O4'-C1'-N1	5.30	116.45	108.50
26	BB	1265	A	C4'-C3'-C2'	5.30	107.90	102.60
26	BB	1616	A	C3'-C2'-C1'	5.30	106.80	101.50
26	BB	1682	G	C5'-C4'-O4'	5.30	117.75	109.80
26	BB	1702	G	C1'-O4'-C4'	-5.30	104.60	109.90
26	BB	2535	G	O4'-C1'-N9	5.30	116.45	108.50
26	BB	2868	A	C1'-C2'-O2'	5.30	116.35	108.40
30	BF	77	ILE	N-CA-C	-5.30	107.58	112.83
41	BQ	76	LYS	CA-C-O	-5.30	115.24	120.70
1	AA	413	G	O4'-C4'-C3'	5.30	111.40	106.10
6	AF	33	ASP	CA-C-N	5.30	127.82	120.29
6	AF	33	ASP	C-N-CA	5.30	127.82	120.29
6	AF	55	VAL	CB-CA-C	5.30	117.33	110.12
19	AS	67	ILE	O-C-N	-5.30	116.91	122.95
26	BB	475	C	C3'-C2'-C1'	5.30	106.60	101.30
26	BB	2001	C	O3'-P-O5'	-5.30	96.05	104.00
26	BB	2025	C	C1'-O4'-C4'	-5.30	104.60	109.90
26	BB	2490	G	C3'-C2'-O2'	5.30	122.55	114.60
30	BF	88	ARG	CA-C-N	5.30	125.20	119.85
30	BF	88	ARG	C-N-CA	5.30	125.20	119.85
53	B2	24	ILE	CB-CA-C	5.30	119.31	111.26
53	B2	33	ASN	CA-CB-CG	5.30	117.90	112.60
1	AA	162	A	O4'-C4'-C3'	5.30	109.30	104.00
26	BB	486	C	C5'-C4'-O4'	5.30	117.75	109.80
26	BB	937	C	C4'-C3'-O3'	5.30	120.95	113.00
31	BG	7	TYR	CA-C-O	-5.30	114.80	120.42
1	AA	1358	U	N1-C1'-C2'	-5.30	104.06	112.00
10	AJ	163	HIS	ND1-CE1-NE2	5.30	113.70	108.40
15	AO	25	ALA	CA-C-N	5.30	131.54	122.38
15	AO	25	ALA	C-N-CA	5.30	131.54	122.38
15	AO	36	VAL	CA-CB-CG1	5.30	119.40	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	AR	53	ARG	CB-CG-CD	5.30	123.48	111.30
19	AS	31	ARG	CA-C-O	-5.30	115.12	120.84
26	BB	286	U	O4'-C1'-N1	5.30	116.44	108.50
26	BB	317	G	C1'-O4'-C4'	-5.30	104.60	109.90
26	BB	1993	U	O4'-C4'-C3'	5.30	109.30	104.00
26	BB	2748	A	C5'-C4'-O4'	5.30	117.75	109.80
38	BN	128	THR	CA-C-N	5.30	128.77	120.82
38	BN	128	THR	C-N-CA	5.30	128.77	120.82
57	B6	30	HIS	CB-CG-ND1	5.30	130.65	122.70
5	AE	206	ILE	CA-C-N	5.29	129.68	120.68
5	AE	206	ILE	C-N-CA	5.29	129.68	120.68
26	BB	2035	G	C2'-C3'-O3'	5.29	117.44	109.50
26	BB	2063	C	O3'-P-O5'	-5.29	96.06	104.00
26	BB	2745	C	C5'-C4'-C3'	-5.29	108.06	116.00
37	BM	43	ILE	CA-C-N	5.29	130.41	121.14
37	BM	43	ILE	C-N-CA	5.29	130.41	121.14
13	AM	47	GLU	O-C-N	-5.29	117.29	123.27
26	BB	6	A	O4'-C1'-C2'	5.29	112.89	107.60
26	BB	627	A	C3'-C2'-C1'	-5.29	96.21	101.50
26	BB	783	A	C4'-C3'-C2'	5.29	107.89	102.60
26	BB	1315	C	C5'-C4'-O4'	5.29	117.74	109.80
26	BB	1416	G	O4'-C1'-N9	5.29	116.14	108.20
26	BB	2161	C	C5'-C4'-C3'	5.29	123.94	116.00
26	BB	2249	U	N1-C1'-C2'	-5.29	106.06	114.00
26	BB	2746	U	C4'-C3'-C2'	-5.29	97.31	102.60
37	BM	76	VAL	CA-CB-CG2	5.29	119.40	110.40
1	AA	597	G	C4'-C3'-C2'	-5.29	97.31	102.60
2	AB	28	C	C3'-C2'-C1'	-5.29	96.01	101.30
7	AG	1	ALA	CA-C-N	5.29	132.43	121.32
7	AG	1	ALA	C-N-CA	5.29	132.43	121.32
14	AN	39	ASN	CA-C-N	5.29	128.85	121.02
14	AN	39	ASN	C-N-CA	5.29	128.85	121.02
26	BB	816	C	P-O5'-C5'	5.29	128.84	120.90
26	BB	2041	U	O4'-C1'-N1	5.29	116.44	108.50
26	BB	2212	A	C4'-C3'-C2'	-5.29	97.31	102.60
26	BB	2308	G	C3'-C2'-C1'	-5.29	96.21	101.50
26	BB	2383	G	C4'-C3'-C2'	-5.29	97.31	102.60
44	BT	21	ARG	NE-CZ-NH1	-5.29	116.21	121.50
1	AA	3	A	C3'-C2'-C1'	-5.29	96.01	101.30
4	AD	41	C	O3'-P-O5'	5.29	111.94	104.00
26	BB	2888	C	O4'-C4'-C3'	5.29	109.29	104.00
43	BS	24	TYR	CA-C-N	5.29	128.59	120.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	BS	24	TYR	C-N-CA	5.29	128.59	120.07
49	BY	78	PHE	CA-C-N	5.29	129.52	122.01
49	BY	78	PHE	C-N-CA	5.29	129.52	122.01
1	AA	773	G	O4'-C1'-N9	5.29	116.43	108.50
1	AA	1386	G	C2'-C3'-O3'	-5.29	105.77	113.70
7	AG	69	ARG	CA-C-N	5.29	127.31	120.44
7	AG	69	ARG	C-N-CA	5.29	127.31	120.44
26	BB	411	G	O5'-C5'-C4'	-5.29	103.77	111.70
26	BB	422	A	C1'-O4'-C4'	-5.29	104.61	109.90
26	BB	502	A	C3'-C2'-C1'	5.29	106.59	101.30
26	BB	510	C	C4'-C3'-O3'	-5.29	105.07	113.00
58	B7	33	HIS	CB-CA-C	5.29	120.14	110.36
1	AA	956	U	O5'-C5'-C4'	-5.29	103.57	111.50
1	AA	1473	G	C5'-C4'-C3'	-5.29	108.07	116.00
26	BB	218	A	O4'-C1'-N9	5.29	116.43	108.50
30	BF	28	VAL	CA-C-N	5.29	127.62	120.38
30	BF	28	VAL	C-N-CA	5.29	127.62	120.38
1	AA	16	A	O4'-C1'-N9	5.29	116.43	108.50
1	AA	260	G	C2'-C3'-O3'	5.29	121.63	113.70
14	AN	99	LEU	O-C-N	5.29	128.18	122.15
26	BB	21	A	C4'-C3'-C2'	5.29	107.89	102.60
26	BB	435	C	C3'-C2'-O2'	5.29	118.63	110.70
26	BB	2086	U	C1'-O4'-C4'	-5.29	104.61	109.90
28	BD	3	VAL	CB-CA-C	5.29	118.27	110.77
38	BN	70	LYS	CA-CB-CG	-5.29	103.53	114.10
44	BT	70	GLU	CA-C-N	5.29	131.64	121.54
44	BT	70	GLU	C-N-CA	5.29	131.64	121.54
1	AA	114	U	O4'-C4'-C3'	-5.28	98.72	104.00
1	AA	795	C	C5'-C4'-O4'	5.28	117.73	109.80
1	AA	813	U	C4'-C3'-C2'	-5.28	97.32	102.60
1	AA	861	G	P-O5'-C5'	5.28	128.83	120.90
1	AA	1182	G	O4'-C1'-N9	5.28	116.12	108.20
13	AM	90	LEU	CA-C-N	5.28	130.79	122.34
13	AM	90	LEU	C-N-CA	5.28	130.79	122.34
23	AW	28	ARG	CD-NE-CZ	5.28	131.80	124.40
24	AX	19	LYS	CA-C-N	5.28	131.01	122.29
24	AX	19	LYS	C-N-CA	5.28	131.01	122.29
26	BB	88	G	C5'-C4'-O4'	5.28	117.73	109.80
26	BB	785	G	O4'-C1'-N9	5.28	116.42	108.50
26	BB	1599	U	N1-C1'-C2'	-5.28	104.07	112.00
26	BB	2467	C	O3'-P-O5'	-5.28	96.08	104.00
26	BB	2485	G	C4'-C3'-C2'	-5.28	97.32	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2614	A	O3'-P-O5'	-5.28	96.08	104.00
30	BF	194	LYS	CB-CG-CD	5.28	123.45	111.30
48	BX	34	LYS	CB-CA-C	5.28	120.68	111.86
57	B6	24	LYS	O-C-N	5.28	129.29	123.16
1	AA	176	C	O4'-C1'-N1	5.28	116.42	108.50
1	AA	420	U	O5'-C5'-C4'	-5.28	103.58	111.50
26	BB	1469	A	O4'-C1'-C2'	-5.28	102.32	107.60
26	BB	1661	G	O4'-C4'-C3'	5.28	109.28	104.00
34	BJ	129	PRO	CA-C-O	5.28	128.11	121.67
42	BR	83	ILE	CA-C-N	5.28	130.52	122.65
42	BR	83	ILE	C-N-CA	5.28	130.52	122.65
5	AE	17	HIS	CA-C-O	-5.28	112.96	120.51
15	AO	17	LYS	CA-C-N	5.28	129.05	120.23
15	AO	17	LYS	C-N-CA	5.28	129.05	120.23
18	AR	24	THR	CA-C-O	-5.28	115.28	120.82
25	BA	11	C	O4'-C1'-C2'	-5.28	102.32	107.60
26	BB	999	U	O3'-P-O5'	5.28	111.92	104.00
26	BB	1298	C	C1'-O4'-C4'	-5.28	104.62	109.90
26	BB	1790	C	P-O3'-C3'	5.28	128.12	120.20
28	BD	95	TYR	CA-C-O	-5.28	115.38	121.19
30	BF	26	ALA	CA-C-N	5.28	127.62	120.44
30	BF	26	ALA	C-N-CA	5.28	127.62	120.44
54	B3	22	THR	N-CA-CB	-5.28	103.07	110.25
1	AA	550	G	O4'-C1'-N9	5.28	116.42	108.50
1	AA	812	G	C3'-C2'-O2'	5.28	118.62	110.70
1	AA	1495	U	C3'-C2'-C1'	5.28	106.58	101.30
1	AA	1534	A	O4'-C1'-C2'	-5.28	102.32	107.60
13	AM	72	ARG	NH1-CZ-NH2	-5.28	112.44	119.30
26	BB	196	A	O4'-C1'-N9	5.28	116.12	108.20
26	BB	265	A	C4'-C3'-C2'	-5.28	97.32	102.60
26	BB	871	U	C5'-C4'-O4'	5.28	117.72	109.80
26	BB	2406	A	O4'-C4'-C3'	5.28	109.28	104.00
26	BB	2636	C	O5'-C5'-C4'	5.28	119.42	111.50
27	BC	172	HIS	ND1-CE1-NE2	5.28	113.68	108.40
31	BG	84	ILE	CB-CA-C	5.28	119.95	111.29
39	BO	98	PRO	CA-C-N	5.28	131.25	120.80
39	BO	98	PRO	C-N-CA	5.28	131.25	120.80
1	AA	508	U	C1'-C2'-O2'	5.28	119.72	111.80
1	AA	774	G	C3'-C2'-O2'	5.28	118.62	110.70
1	AA	1157	A	O3'-P-O5'	5.28	111.92	104.00
2	AB	63	C	O4'-C1'-N1	5.28	116.42	108.50
26	BB	75	G	N9-C1'-C2'	-5.28	104.08	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	844	A	C4'-C3'-C2'	-5.28	97.32	102.60
26	BB	1209	U	O4'-C1'-C2'	-5.28	102.32	107.60
26	BB	2022	U	C4'-C3'-O3'	5.28	117.32	109.40
26	BB	2153	C	O4'-C1'-C2'	-5.28	102.32	107.60
26	BB	2206	C	C5'-C4'-O4'	5.28	117.72	109.80
30	BF	19	PHE	CA-C-N	5.28	136.78	122.06
30	BF	19	PHE	C-N-CA	5.28	136.78	122.06
40	BP	66	ALA	CA-C-N	5.28	129.53	120.72
40	BP	66	ALA	C-N-CA	5.28	129.53	120.72
1	AA	21	G	C2'-C3'-O3'	5.28	121.61	113.70
1	AA	772	U	O4'-C1'-N1	5.28	116.41	108.50
1	AA	1123	U	O4'-C1'-C2'	5.28	112.88	107.60
26	BB	156	A	O4'-C1'-N9	5.28	116.41	108.50
26	BB	325	G	C4'-C3'-O3'	5.28	120.91	113.00
26	BB	2062	A	O4'-C4'-C3'	5.28	111.38	106.10
32	BH	14	VAL	N-CA-C	5.28	115.19	108.12
1	AA	1521	C	C2'-C3'-O3'	5.27	121.61	113.70
26	BB	121	G	O4'-C4'-C3'	5.27	109.27	104.00
26	BB	1655	A	O4'-C1'-N9	5.27	116.41	108.50
26	BB	2346	A	O4'-C4'-C3'	5.27	111.37	106.10
26	BB	2713	U	C3'-C2'-O2'	-5.27	106.69	114.60
26	BB	2751	G	C4'-C3'-O3'	-5.27	101.49	109.40
50	BZ	46	VAL	CA-C-O	-5.27	114.36	121.32
16	AP	21	ILE	CA-C-N	5.27	131.61	121.54
16	AP	21	ILE	C-N-CA	5.27	131.61	121.54
25	BA	44	G	P-O3'-C3'	5.27	128.11	120.20
26	BB	2083	G	C4'-C3'-C2'	-5.27	97.33	102.60
26	BB	2481	G	O4'-C1'-N9	5.27	116.41	108.50
26	BB	2490	G	O4'-C4'-C3'	5.27	111.37	106.10
29	BE	2	ILE	CA-CB-CG1	5.27	119.36	110.40
30	BF	112	LEU	CA-C-O	-5.27	114.14	120.10
1	AA	627	G	O4'-C4'-C3'	5.27	109.27	104.00
18	AR	63	ARG	CA-C-O	-5.27	114.96	120.55
26	BB	463	G	C5'-C4'-O4'	5.27	117.71	109.80
26	BB	1411	U	O4'-C1'-N1	5.27	116.41	108.50
26	BB	1647	U	C4'-C3'-C2'	-5.27	97.33	102.60
26	BB	2213	U	C5'-C4'-O4'	5.27	117.71	109.80
26	BB	2555	U	C2'-C3'-O3'	-5.27	105.79	113.70
1	AA	211	G	O5'-C5'-C4'	-5.27	103.59	111.50
1	AA	465	A	C3'-C2'-C1'	5.27	106.77	101.50
1	AA	567	G	C4'-C3'-C2'	5.27	107.87	102.60
1	AA	1112	C	C4'-C3'-O3'	5.27	120.91	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1375	A	C3'-C2'-O2'	5.27	118.60	110.70
7	AG	119	HIS	CA-CB-CG	5.27	119.07	113.80
26	BB	104	A	O5'-C5'-C4'	-5.27	103.59	111.50
26	BB	394	C	C5'-C4'-C3'	5.27	123.91	116.00
26	BB	470	A	O4'-C4'-C3'	-5.27	98.73	104.00
26	BB	925	A	O3'-P-O5'	-5.27	96.10	104.00
26	BB	1777	U	C1'-C2'-O2'	5.27	116.30	108.40
26	BB	1956	U	C1'-O4'-C4'	-5.27	104.63	109.90
26	BB	2011	U	C1'-C2'-O2'	-5.27	100.50	108.40
26	BB	2360	G	N9-C1'-C2'	-5.27	104.10	112.00
26	BB	2731	G	O4'-C4'-C3'	5.27	109.27	104.00
32	BH	138	GLN	O-C-N	5.27	127.78	122.09
1	AA	219	U	C4'-C3'-C2'	-5.27	97.33	102.60
1	AA	685	G	C5'-C4'-C3'	-5.27	108.10	116.00
1	AA	840	C	C1'-C2'-O2'	5.27	116.30	108.40
1	AA	1368	A	C3'-C2'-C1'	5.27	106.57	101.30
1	AA	1404	C	C2'-C3'-O3'	5.27	121.60	113.70
12	AL	34	LEU	O-C-N	-5.27	116.54	122.12
25	BA	32	U	O4'-C1'-N1	5.27	116.40	108.50
26	BB	492	A	O4'-C1'-C2'	-5.27	102.33	107.60
26	BB	1054	A	C4'-C3'-C2'	-5.27	97.33	102.60
26	BB	2513	A	P-O5'-C5'	5.27	128.80	120.90
26	BB	2660	A	O3'-P-O5'	-5.27	96.10	104.00
28	BD	107	LYS	N-CA-CB	-5.27	102.11	110.22
32	BH	30	GLY	CA-C-O	-5.27	114.71	120.40
36	BL	27	ARG	NE-CZ-NH2	-5.27	114.46	119.20
37	BM	71	ARG	CD-NE-CZ	-5.27	117.03	124.40
42	BR	78	PRO	N-CA-CB	5.27	108.36	103.41
25	BA	16	G	P-O3'-C3'	5.27	128.10	120.20
26	BB	271	G	O4'-C1'-C2'	5.27	111.07	105.80
26	BB	834	G	O5'-C5'-C4'	5.27	119.40	111.50
26	BB	2148	G	P-O3'-C3'	5.27	128.10	120.20
26	BB	2614	A	O4'-C1'-N9	5.27	116.10	108.20
1	AA	230	G	C5'-C4'-C3'	-5.26	108.10	116.00
1	AA	828	U	O4'-C1'-N1	5.26	116.40	108.50
1	AA	1125	U	O3'-P-O5'	-5.26	96.10	104.00
6	AF	99	GLN	CA-C-N	5.26	130.38	122.75
6	AF	99	GLN	C-N-CA	5.26	130.38	122.75
7	AG	184	LYS	CA-C-O	-5.26	115.87	119.29
8	AH	36	THR	CA-CB-CG2	5.26	119.45	110.50
13	AM	81	GLU	O-C-N	5.26	127.70	122.12
26	BB	2840	C	C1'-O4'-C4'	5.26	115.16	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
33	BI	15	LEU	CB-CA-C	5.26	118.46	111.14
1	AA	467	U	O4'-C4'-C3'	-5.26	98.74	104.00
1	AA	717	U	C4'-C3'-C2'	-5.26	97.34	102.60
1	AA	1231	G	C3'-C2'-C1'	5.26	106.56	101.30
26	BB	673	C	C2'-C3'-O3'	-5.26	105.81	113.70
26	BB	787	C	O4'-C4'-C3'	5.26	109.26	104.00
26	BB	1327	A	O3'-P-O5'	-5.26	96.11	104.00
26	BB	2164	C	P-O3'-C3'	5.26	128.09	120.20
26	BB	2425	A	O4'-C4'-C3'	-5.26	100.84	106.10
26	BB	2554	U	O4'-C4'-C3'	5.26	109.26	104.00
1	AA	557	G	O4'-C1'-N9	5.26	116.39	108.50
1	AA	960	U	O4'-C1'-N1	5.26	116.39	108.50
15	AO	58	ASN	CA-CB-CG	5.26	117.86	112.60
26	BB	68	G	O4'-C1'-N9	5.26	116.39	108.50
26	BB	931	U	C2'-C3'-O3'	5.26	117.39	109.50
26	BB	1349	C	C3'-C2'-C1'	5.26	106.56	101.30
26	BB	2208	C	C4'-C3'-C2'	-5.26	97.34	102.60
26	BB	2799	A	P-O3'-C3'	5.26	128.09	120.20
46	BV	38	ALA	CA-C-N	5.26	131.59	121.54
46	BV	38	ALA	C-N-CA	5.26	131.59	121.54
48	BX	28	ALA	CA-C-N	5.26	130.51	122.25
48	BX	28	ALA	C-N-CA	5.26	130.51	122.25
56	B5	18	PHE	O-C-N	5.26	129.59	122.59
1	AA	1339	A	C3'-C2'-O2'	-5.26	102.81	110.70
3	AC	20	G	C1'-O4'-C4'	5.26	115.16	109.90
4	AD	10	G	O4'-C4'-C3'	5.26	109.26	104.00
26	BB	410	G	C4'-C3'-O3'	5.26	120.89	113.00
26	BB	1792	G	C3'-C2'-O2'	-5.26	102.81	110.70
26	BB	2036	C	O3'-P-O5'	-5.26	96.11	104.00
26	BB	2070	A	C1'-O4'-C4'	5.26	115.16	109.90
26	BB	2672	U	O3'-P-O5'	5.26	111.89	104.00
30	BF	53	THR	N-CA-C	5.26	118.84	111.90
34	BJ	97	GLU	CA-C-N	5.26	128.31	120.31
34	BJ	97	GLU	C-N-CA	5.26	128.31	120.31
54	B3	34	GLY	N-CA-C	-5.26	108.43	115.32
1	AA	1501	C	C4'-C3'-C2'	5.26	107.86	102.60
1	AA	233	C	O3'-P-O5'	-5.26	96.11	104.00
1	AA	268	U	P-O5'-C5'	5.26	128.78	120.90
1	AA	593	U	C4'-C3'-C2'	-5.26	97.34	102.60
1	AA	808	C	C4'-C3'-O3'	5.26	120.88	113.00
1	AA	866	C	C1'-O4'-C4'	-5.26	104.64	109.90
1	AA	930	C	C2'-C3'-O3'	-5.26	105.81	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	931	C	C3'-C2'-C1'	-5.26	96.04	101.30
1	AA	1349	A	O4'-C4'-C3'	5.26	109.26	104.00
1	AA	1414	U	P-O3'-C3'	5.26	128.09	120.20
1	AA	1524	C	O3'-P-O5'	-5.26	96.11	104.00
4	AD	37	U	C4'-C3'-C2'	-5.26	97.34	102.60
9	AI	110	ARG	CA-C-N	5.26	129.62	120.68
9	AI	110	ARG	C-N-CA	5.26	129.62	120.68
26	BB	106	C	O4'-C1'-N1	5.26	116.38	108.50
26	BB	241	A	C5'-C4'-O4'	5.26	116.98	109.10
26	BB	2154	A	C1'-C2'-O2'	-5.26	100.52	108.40
26	BB	2533	U	N1-C1'-C2'	-5.26	104.11	112.00
31	BG	147	ARG	CD-NE-CZ	5.26	131.76	124.40
47	BW	85	ARG	NE-CZ-NH2	5.26	123.93	119.20
1	AA	630	A	N9-C1'-C2'	-5.25	104.12	112.00
26	BB	1802	A	P-O3'-C3'	5.25	128.08	120.20
26	BB	2312	U	O4'-C1'-C2'	-5.25	102.34	107.60
40	BP	64	ARG	NE-CZ-NH1	5.25	126.75	121.50
1	AA	908	A	O4'-C1'-C2'	-5.25	102.35	107.60
1	AA	1379	G	O4'-C4'-C3'	5.25	109.25	104.00
26	BB	391	A	O4'-C1'-N9	5.25	116.38	108.50
26	BB	503	A	O3'-P-O5'	-5.25	96.12	104.00
26	BB	1308	A	C5'-C4'-O4'	5.25	117.68	109.80
31	BG	101	ARG	NE-CZ-NH1	-5.25	116.25	121.50
1	AA	284	C	C5'-C4'-C3'	-5.25	108.12	116.00
1	AA	894	G	C5'-C4'-O4'	5.25	117.68	109.80
1	AA	1044	A	C1'-O4'-C4'	-5.25	104.65	109.90
1	AA	1261	A	C2'-C3'-O3'	-5.25	105.82	113.70
26	BB	137	U	C5'-C4'-C3'	5.25	123.88	116.00
26	BB	670	A	C4'-C3'-O3'	-5.25	101.52	109.40
26	BB	683	U	O4'-C1'-N1	5.25	116.38	108.50
26	BB	2164	C	O5'-C5'-C4'	-5.25	103.62	111.50
28	BD	143	VAL	CB-CA-C	5.25	117.07	111.35
33	BI	18	GLN	CA-C-N	5.25	130.99	123.27
33	BI	18	GLN	C-N-CA	5.25	130.99	123.27
57	B6	37	THR	CA-CB-OG1	-5.25	101.72	109.60
16	AP	24	VAL	CA-CB-CG1	5.25	119.32	110.40
31	BG	133	GLU	CB-CG-CD	-5.25	103.67	112.60
1	AA	113	G	O4'-C1'-C2'	-5.25	102.35	107.60
1	AA	599	C	C5'-C4'-C3'	-5.25	108.13	116.00
1	AA	867	G	C2'-C3'-O3'	5.25	121.57	113.70
1	AA	1327	C	C5'-C4'-O4'	5.25	117.67	109.80
1	AA	1501	C	C5'-C4'-C3'	-5.25	108.13	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	AW	54	GLN	CA-C-O	-5.25	113.59	118.73
25	BA	109	A	O5'-C5'-C4'	-5.25	103.63	111.50
26	BB	42	A	C4'-C3'-O3'	5.25	120.87	113.00
26	BB	200	U	C1'-C2'-O2'	5.25	116.27	108.40
26	BB	1172	C	O5'-C5'-C4'	-5.25	103.63	111.50
26	BB	1603	A	N9-C1'-C2'	5.25	119.87	112.00
26	BB	1972	G	C4'-C3'-O3'	-5.25	105.13	113.00
31	BG	121	PHE	CA-C-O	-5.25	115.44	121.47
34	BJ	40	LEU	N-CA-C	-5.25	106.72	113.23
43	BS	50	ARG	N-CA-CB	5.25	117.93	110.16
1	AA	870	U	O4'-C1'-N1	5.25	116.07	108.20
1	AA	944	G	P-O5'-C5'	5.25	128.77	120.90
4	AD	70	C	O4'-C1'-N1	5.25	116.37	108.50
20	AT	25	GLU	CA-CB-CG	5.25	124.59	114.10
26	BB	988	A	C3'-C2'-O2'	5.25	118.57	110.70
26	BB	1681	G	O3'-P-O5'	-5.25	96.13	104.00
26	BB	2691	C	O4'-C4'-C3'	5.25	109.25	104.00
55	B4	8	ILE	CA-CB-CG1	5.25	119.32	110.40
1	AA	1055	A	C5'-C4'-O4'	5.25	117.67	109.80
1	AA	1438	G	C2'-C3'-O3'	5.25	121.57	113.70
7	AG	134	TYR	CA-CB-CG	5.25	123.34	113.90
36	BL	44	TYR	N-CA-C	-5.25	106.20	113.18
1	AA	1190	G	P-O5'-C5'	5.24	128.77	120.90
16	AP	38	ILE	CB-CA-C	5.24	118.79	111.34
26	BB	519	U	C5'-C4'-C3'	5.24	123.86	116.00
26	BB	637	A	P-O3'-C3'	5.24	128.07	120.20
26	BB	660	C	O4'-C1'-C2'	-5.24	102.36	107.60
26	BB	1062	G	C1'-C2'-O2'	5.24	116.27	108.40
26	BB	1385	A	O4'-C1'-C2'	-5.24	100.56	105.80
26	BB	1490	A	C1'-O4'-C4'	-5.24	104.66	109.90
26	BB	1770	G	C4'-C3'-O3'	5.24	120.87	113.00
41	BQ	47	VAL	CB-CA-C	5.24	116.89	111.23
44	BT	2	TYR	CA-C-N	5.24	130.82	121.75
44	BT	2	TYR	C-N-CA	5.24	130.82	121.75
26	BB	2176	A	O4'-C1'-C2'	-5.24	102.36	107.60
26	BB	2505	G	O4'-C1'-C2'	-5.24	100.56	105.80
1	AA	230	G	C5'-C4'-O4'	5.24	117.66	109.80
1	AA	758	C	C1'-O4'-C4'	5.24	115.14	109.90
1	AA	982	U	O4'-C4'-C3'	5.24	111.34	106.10
7	AG	170	LEU	CB-CA-C	5.24	120.68	110.30
26	BB	630	G	C3'-C2'-C1'	5.24	106.54	101.30
26	BB	1991	U	O4'-C4'-C3'	-5.24	98.76	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2022	U	C5'-C4'-O4'	5.24	116.96	109.10
26	BB	2191	A	C1'-C2'-O2'	-5.24	100.54	108.40
33	BI	136	SER	CA-C-O	-5.24	112.50	119.10
1	AA	1356	G	O4'-C1'-N9	5.24	116.36	108.50
8	AH	22	LYS	CA-C-N	5.24	131.54	121.54
8	AH	22	LYS	C-N-CA	5.24	131.54	121.54
26	BB	38	A	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	1468	U	C3'-C2'-O2'	5.24	118.56	110.70
26	BB	1638	C	P-O5'-C5'	5.24	128.76	120.90
26	BB	2295	C	O4'-C4'-C3'	5.24	109.24	104.00
26	BB	2887	A	C4'-C3'-O3'	-5.24	105.14	113.00
1	AA	1398	A	C5'-C4'-C3'	-5.24	108.14	116.00
10	AJ	46	LEU	CA-C-N	5.24	127.73	120.29
10	AJ	46	LEU	C-N-CA	5.24	127.73	120.29
11	AK	8	ASP	O-C-N	5.24	127.67	122.12
17	AQ	93	PRO	N-CD-CG	5.24	111.06	103.20
26	BB	379	G	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	1024	G	N9-C1'-C2'	5.24	119.86	112.00
26	BB	2694	G	O4'-C1'-N9	5.24	116.36	108.50
28	BD	190	THR	CA-CB-CG2	5.24	119.40	110.50
30	BF	60	TRP	CH2-CZ2-CE2	5.24	124.31	117.50
34	BJ	137	ARG	CD-NE-CZ	5.24	131.73	124.40
1	AA	135	C	C5'-C4'-O4'	5.24	117.65	109.80
9	AI	74	LEU	CA-C-O	-5.24	114.87	120.42
10	AJ	151	ALA	CA-C-O	-5.24	115.13	120.89
14	AN	43	TRP	CE3-CZ3-CH2	5.24	127.91	121.10
16	AP	24	VAL	CA-C-N	5.24	129.18	122.85
16	AP	24	VAL	C-N-CA	5.24	129.18	122.85
26	BB	421	C	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	513	A	C3'-C2'-C1'	5.24	106.53	101.30
26	BB	1565	C	N1-C1'-C2'	5.24	121.85	114.00
26	BB	1752	C	C1'-C2'-O2'	5.24	116.25	108.40
26	BB	2283	C	C1'-O4'-C4'	5.24	115.14	109.90
28	BD	2	VAL	CG1-CB-CG2	-5.24	99.28	110.80
49	BY	1	ALA	CB-CA-C	5.24	118.35	110.50
1	AA	1363	A	C1'-O4'-C4'	-5.23	104.47	109.70
23	AW	43	LYS	N-CA-CB	-5.23	102.48	110.07
26	BB	318	C	C3'-C2'-C1'	5.23	106.53	101.30
26	BB	1303	G	C4'-C3'-O3'	-5.23	105.15	113.00
26	BB	1484	U	N1-C1'-C2'	-5.23	104.15	112.00
26	BB	1584	U	C5'-C4'-C3'	-5.23	107.35	115.20
26	BB	2780	G	P-O5'-C5'	5.23	128.75	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	59	A	C3'-C2'-O2'	5.23	122.45	114.60
1	AA	287	U	O3'-P-O5'	5.23	111.85	104.00
1	AA	601	G	P-O3'-C3'	5.23	128.05	120.20
1	AA	1343	G	C3'-C2'-C1'	5.23	106.53	101.30
6	AF	119	ILE	CA-CB-CG1	-5.23	101.50	110.40
11	AK	24	VAL	O-C-N	5.23	128.62	123.18
26	BB	1205	A	C3'-C2'-C1'	5.23	106.73	101.50
26	BB	1650	A	O4'-C1'-C2'	-5.23	102.37	107.60
26	BB	1674	G	C3'-C2'-O2'	-5.23	106.75	114.60
26	BB	1816	C	P-O3'-C3'	5.23	128.05	120.20
30	BF	107	SER	O-C-N	5.23	127.47	122.03
8	AH	59	ILE	CA-C-O	-5.23	115.51	120.95
26	BB	9	G	C5'-C4'-C3'	-5.23	108.15	116.00
26	BB	193	U	O4'-C1'-N1	5.23	116.34	108.50
26	BB	365	U	C3'-C2'-O2'	5.23	118.55	110.70
26	BB	460	A	C4'-C3'-C2'	-5.23	97.37	102.60
26	BB	1116	G	O4'-C1'-N9	5.23	116.34	108.50
26	BB	1421	G	C4'-C3'-C2'	-5.23	97.37	102.60
26	BB	1891	G	C1'-O4'-C4'	-5.23	104.67	109.90
26	BB	2478	A	C4'-C3'-C2'	-5.23	97.37	102.60
26	BB	2880	C	C3'-C2'-C1'	-5.23	96.07	101.30
28	BD	142	ASN	CA-CB-CG	5.23	117.83	112.60
41	BQ	9	ARG	CD-NE-CZ	5.23	131.72	124.40
1	AA	457	G	C5'-C4'-C3'	-5.23	108.16	116.00
1	AA	261	U	C4'-C3'-O3'	5.23	120.84	113.00
1	AA	482	A	O4'-C1'-N9	5.23	116.34	108.50
1	AA	589	U	P-O5'-C5'	5.23	128.74	120.90
1	AA	1471	U	C5'-C4'-O4'	5.23	117.64	109.80
3	AC	50	U	C4'-C3'-C2'	-5.23	97.37	102.60
4	AD	27	G	C2'-C3'-O3'	-5.23	105.86	113.70
5	AE	113	LEU	CA-C-O	-5.23	115.31	120.70
5	AE	238	GLU	N-CA-CB	-5.23	102.42	110.16
26	BB	968	C	C4'-C3'-C2'	-5.23	97.37	102.60
26	BB	1664	A	C5'-C4'-C3'	-5.23	108.16	116.00
26	BB	2514	U	C5'-C4'-C3'	-5.23	108.16	116.00
26	BB	2844	G	O3'-P-O5'	-5.23	96.16	104.00
57	B6	39	ARG	NE-CZ-NH1	-5.23	116.27	121.50
1	AA	697	U	C3'-C2'-O2'	5.23	118.54	110.70
3	AC	27	A	N9-C1'-C2'	5.23	119.84	112.00
26	BB	1081	U	O4'-C1'-N1	5.23	116.34	108.50
26	BB	2003	A	P-O5'-C5'	5.23	128.74	120.90
1	AA	210	C	O4'-C1'-N1	5.22	116.04	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1000	A	O4'-C1'-N9	5.22	116.34	108.50
1	AA	1161	C	C5'-C4'-C3'	5.22	123.84	116.00
1	AA	1504	G	C1'-O4'-C4'	-5.22	104.48	109.70
26	BB	139	U	O3'-P-O5'	5.22	111.84	104.00
26	BB	419	U	P-O5'-C5'	5.22	128.74	120.90
26	BB	688	U	C5'-C4'-C3'	5.22	123.83	116.00
26	BB	1234	U	O4'-C1'-N1	5.22	116.34	108.50
26	BB	1814	G	N9-C1'-C2'	5.22	119.84	112.00
26	BB	2882	A	C4'-C3'-O3'	-5.22	105.16	113.00
29	BE	52	THR	CA-CB-OG1	5.22	117.44	109.60
30	BF	60	TRP	CZ3-CH2-CZ2	-5.22	114.71	121.50
1	AA	479	U	C5'-C4'-O4'	5.22	117.63	109.80
1	AA	695	A	C4'-C3'-O3'	-5.22	105.17	113.00
1	AA	1148	U	O4'-C1'-N1	5.22	116.33	108.50
1	AA	1511	G	C4'-C3'-C2'	5.22	107.82	102.60
9	AI	52	ASN	O-C-N	5.22	129.03	122.55
15	AO	103	CYS	O-C-N	-5.22	117.21	123.06
26	BB	1024	G	C3'-C2'-O2'	5.22	118.53	110.70
26	BB	1141	U	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	1789	A	N9-C1'-C2'	5.22	119.83	112.00
34	BJ	95	PHE	CD1-CG-CD2	5.22	126.44	118.60
36	BL	10	THR	N-CA-C	5.22	119.64	113.16
37	BM	96	GLY	O-C-N	5.22	128.57	123.35
37	BM	122	VAL	CB-CA-C	5.22	119.86	111.29
1	AA	630	A	C3'-C2'-O2'	5.22	118.53	110.70
1	AA	1298	U	C4'-C3'-O3'	5.22	117.23	109.40
26	BB	265	A	C2'-C3'-O3'	5.22	121.53	113.70
26	BB	847	U	C1'-O4'-C4'	-5.22	104.68	109.90
26	BB	990	A	C2'-C3'-O3'	-5.22	105.87	113.70
26	BB	1071	G	C1'-C2'-O2'	5.22	116.23	108.40
39	BO	90	GLU	CA-C-O	-5.22	113.14	119.61
45	BU	67	ASP	CA-CB-CG	5.22	117.82	112.60
2	AB	25	C	O4'-C1'-C2'	-5.22	102.38	107.60
26	BB	1313	U	C2'-C3'-O3'	-5.22	105.87	113.70
26	BB	1409	U	P-O5'-C5'	5.22	128.73	120.90
26	BB	2223	G	P-O3'-C3'	5.22	128.03	120.20
26	BB	2226	C	P-O3'-C3'	5.22	128.03	120.20
26	BB	2446	G	P-O3'-C3'	5.22	128.03	120.20
26	BB	2715	C	O4'-C1'-C2'	-5.22	102.38	107.60
30	BF	122	GLU	CA-C-N	5.22	131.51	121.54
30	BF	122	GLU	C-N-CA	5.22	131.51	121.54
1	AA	730	G	C3'-C2'-C1'	5.22	106.52	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	181	ILE	CB-CA-C	5.22	120.95	111.30
13	AM	11	LYS	N-CA-C	5.22	117.41	108.90
26	BB	45	G	C5'-C4'-C3'	-5.22	108.17	116.00
26	BB	62	U	O5'-C5'-C4'	-5.22	103.67	111.50
26	BB	1384	A	C5'-C4'-O4'	5.22	117.63	109.80
26	BB	2020	A	P-O5'-C5'	-5.22	113.07	120.90
26	BB	2799	A	C3'-C2'-C1'	5.22	106.52	101.30
35	BK	77	VAL	CA-C-O	-5.22	115.32	120.85
1	AA	696	A	C3'-C2'-C1'	-5.22	96.08	101.30
1	AA	1262	C	C5'-C4'-O4'	5.22	117.62	109.80
26	BB	89	A	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	369	U	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	445	C	C5'-C4'-O4'	5.22	117.62	109.80
26	BB	545	U	O4'-C1'-C2'	5.22	111.02	105.80
26	BB	1210	G	O4'-C1'-N9	5.22	116.03	108.20
26	BB	2639	A	C3'-C2'-O2'	5.22	118.53	110.70
46	BV	18	GLU	CB-CA-C	5.22	120.80	110.42
1	AA	73	C	O4'-C1'-N1	5.21	116.32	108.50
1	AA	1262	C	C1'-C2'-O2'	-5.21	100.58	108.40
4	AD	40	C	N1-C1'-C2'	-5.21	104.18	112.00
5	AE	172	ILE	CA-CB-CG1	5.21	119.27	110.40
25	BA	100	G	O4'-C1'-C2'	-5.21	102.39	107.60
26	BB	2231	U	O3'-P-O5'	-5.21	96.18	104.00
26	BB	2316	G	C5'-C4'-O4'	5.21	117.62	109.80
27	BC	197	LYS	O-C-N	5.21	127.72	122.09
28	BD	141	HIS	ND1-CE1-NE2	5.21	113.61	108.40
55	B4	29	LYS	CA-C-N	5.21	126.15	120.83
55	B4	29	LYS	C-N-CA	5.21	126.15	120.83
5	AE	124	THR	CB-CA-C	5.21	119.37	110.56
1	AA	392	C	O4'-C1'-N1	5.21	116.32	108.50
24	AX	16	ARG	N-CA-C	5.21	119.51	113.20
26	BB	76	C	C1'-C2'-O2'	5.21	116.22	108.40
26	BB	611	C	C2'-C3'-O3'	5.21	121.52	113.70
26	BB	1110	G	C5'-C4'-C3'	-5.21	107.38	115.20
26	BB	1266	G	C2'-C3'-O3'	5.21	117.32	109.50
26	BB	1527	G	C5'-C4'-C3'	-5.21	108.18	116.00
26	BB	1537	G	O4'-C1'-N9	5.21	116.32	108.50
26	BB	2022	U	C1'-C2'-O2'	5.21	119.62	111.80
26	BB	2116	G	P-O5'-C5'	-5.21	113.08	120.90
26	BB	2300	C	C5'-C4'-C3'	-5.21	108.18	116.00
26	BB	2349	G	C5'-C4'-C3'	-5.21	108.18	116.00
1	AA	1382	C	C5'-C4'-O4'	5.21	117.61	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1467	C	O4'-C4'-C3'	5.21	109.21	104.00
13	AM	19	ASP	O-C-N	5.21	127.64	122.12
26	BB	2149	U	O5'-C5'-C4'	-5.21	103.69	111.50
26	BB	2873	A	O4'-C1'-C2'	-5.21	100.59	105.80
30	BF	130	LYS	CA-C-O	-5.21	114.98	120.92
1	AA	891	U	C1'-O4'-C4'	-5.21	104.69	109.90
26	BB	30	G	C3'-C2'-O2'	5.21	118.51	110.70
26	BB	1379	U	C5'-C4'-C3'	-5.21	108.19	116.00
26	BB	2007	U	O4'-C4'-C3'	5.21	109.21	104.00
26	BB	2399	G	N9-C1'-C2'	-5.21	104.19	112.00
26	BB	2417	C	O4'-C1'-N1	5.21	116.31	108.50
29	BE	80	TRP	CE2-CD2-CE3	-5.21	113.59	118.80
39	BO	50	ARG	NE-CZ-NH2	5.21	123.89	119.20
1	AA	180	U	O3'-P-O5'	-5.21	96.19	104.00
1	AA	855	U	O4'-C1'-N1	5.21	116.31	108.50
18	AR	39	GLN	O-C-N	5.21	129.16	122.39
26	BB	34	U	O4'-C4'-C3'	5.21	109.21	104.00
26	BB	448	U	O3'-P-O5'	-5.21	96.19	104.00
26	BB	554	U	C3'-C2'-C1'	5.21	106.51	101.30
26	BB	1340	U	C4'-C3'-C2'	-5.21	97.39	102.60
26	BB	2809	A	C1'-C2'-O2'	5.21	116.21	108.40
42	BR	108	ARG	NE-CZ-NH2	5.21	123.89	119.20
1	AA	1025	U	O4'-C1'-C2'	5.21	111.00	105.80
7	AG	70	GLN	N-CA-C	-5.21	105.50	111.07
9	AI	112	ARG	NE-CZ-NH2	5.21	123.88	119.20
1	AA	127	G	O4'-C1'-N9	5.20	116.30	108.50
15	AO	69	GLU	CB-CA-C	5.20	118.22	109.89
26	BB	255	A	C2'-C3'-O3'	-5.20	105.89	113.70
26	BB	406	G	O3'-P-O5'	-5.20	96.19	104.00
26	BB	1335	C	C1'-O4'-C4'	5.20	115.10	109.90
26	BB	1368	G	C3'-C2'-C1'	-5.20	96.10	101.30
26	BB	2545	G	C5'-C4'-C3'	5.20	123.81	116.00
26	BB	2774	C	O4'-C1'-N1	5.20	116.31	108.50
26	BB	2811	G	C1'-O4'-C4'	5.20	115.10	109.90
26	BB	2843	G	C1'-C2'-O2'	-5.20	100.59	108.40
27	BC	151	GLU	CB-CA-C	5.20	119.05	110.88
34	BJ	55	ARG	CD-NE-CZ	5.20	131.69	124.40
49	BY	4	LYS	CA-C-O	5.20	126.32	120.70
1	AA	1438	G	O4'-C1'-C2'	-5.20	102.40	107.60
8	AH	41	GLY	CA-C-N	5.20	129.94	121.98
8	AH	41	GLY	C-N-CA	5.20	129.94	121.98
26	BB	90	U	O4'-C1'-N1	5.20	116.30	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1694	C	O4'-C1'-N1	5.20	116.00	108.20
31	BG	30	VAL	N-CA-CB	-5.20	105.07	111.00
4	AD	59	A	O3'-P-O5'	-5.20	96.20	104.00
8	AH	97	PRO	CA-N-CD	-5.20	104.72	112.00
20	AT	50	ASN	CA-CB-CG	5.20	117.80	112.60
22	AV	56	HIS	O-C-N	-5.20	116.87	123.01
26	BB	2537	U	O4'-C4'-C3'	5.20	109.20	104.00
28	BD	226	PRO	CA-C-N	5.20	129.17	120.64
28	BD	226	PRO	C-N-CA	5.20	129.17	120.64
46	BV	25	GLU	CB-CG-CD	5.20	121.44	112.60
1	AA	277	C	O4'-C4'-C3'	5.20	109.20	104.00
26	BB	212	G	O4'-C1'-C2'	-5.20	102.40	107.60
26	BB	417	C	O4'-C4'-C3'	5.20	109.20	104.00
26	BB	490	C	O4'-C1'-N1	5.20	116.30	108.50
26	BB	672	C	C3'-C2'-O2'	5.20	118.50	110.70
26	BB	820	A	O4'-C1'-N9	5.20	116.30	108.50
26	BB	1027	A	O4'-C4'-C3'	-5.20	98.80	104.00
26	BB	2358	A	O3'-P-O5'	-5.20	96.20	104.00
26	BB	2446	G	C3'-C2'-O2'	5.20	118.50	110.70
26	BB	2824	C	C4'-C3'-O3'	-5.20	105.20	113.00
56	B5	31	LEU	N-CA-C	-5.20	105.61	111.28
1	AA	1352	C	C4'-C3'-O3'	5.20	120.80	113.00
26	BB	394	C	C4'-C3'-O3'	-5.20	105.20	113.00
26	BB	525	U	O3'-P-O5'	-5.20	96.20	104.00
26	BB	578	G	C3'-C2'-O2'	5.20	118.50	110.70
26	BB	1478	G	C5'-C4'-O4'	5.20	117.59	109.80
26	BB	1527	G	O4'-C4'-C3'	5.20	109.20	104.00
26	BB	2147	A	C4'-C3'-O3'	-5.20	101.60	109.40
26	BB	2316	G	C5'-C4'-C3'	-5.20	108.20	116.00
26	BB	2637	U	C4'-C3'-C2'	-5.20	97.40	102.60
1	AA	108	G	C3'-C2'-O2'	-5.20	102.91	110.70
1	AA	619	U	C3'-C2'-O2'	5.20	118.49	110.70
1	AA	788	U	O5'-C5'-C4'	-5.20	103.71	111.50
1	AA	1108	G	O3'-P-O5'	-5.20	96.21	104.00
1	AA	1232	U	C4'-C3'-C2'	-5.20	97.40	102.60
1	AA	1520	C	C4'-C3'-C2'	-5.20	97.40	102.60
2	AB	71	C	C5'-C4'-O4'	5.20	117.59	109.80
6	AF	68	HIS	CA-C-N	5.20	130.67	122.36
6	AF	68	HIS	C-N-CA	5.20	130.67	122.36
21	AU	20	ILE	N-CA-C	-5.20	107.76	112.96
21	AU	32	ILE	CA-CB-CG2	5.20	119.33	110.50
26	BB	111	A	O4'-C1'-N9	5.20	116.29	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	857	G	C3'-C2'-C1'	5.20	106.50	101.30
26	BB	2512	C	C4'-C3'-C2'	-5.20	97.40	102.60
21	AU	3	TYR	CB-CG-CD2	-5.19	113.01	120.80
26	BB	1396	U	P-O5'-C5'	5.19	128.69	120.90
26	BB	1543	G	C4'-C3'-O3'	-5.19	105.21	113.00
26	BB	1616	A	C3'-C2'-O2'	-5.19	106.81	114.60
26	BB	1797	G	O3'-P-O5'	-5.19	96.21	104.00
26	BB	2827	C	C3'-C2'-C1'	-5.19	96.11	101.30
57	B6	23	HIS	CB-CG-ND1	5.19	130.49	122.70
16	AP	63	VAL	CA-C-N	5.19	128.54	120.34
16	AP	63	VAL	C-N-CA	5.19	128.54	120.34
16	AP	106	ARG	CD-NE-CZ	5.19	131.67	124.40
26	BB	813	U	O4'-C1'-N1	5.19	116.29	108.50
26	BB	814	C	C4'-C3'-O3'	-5.19	105.21	113.00
26	BB	1373	A	O4'-C4'-C3'	-5.19	98.81	104.00
26	BB	1973	G	O3'-P-O5'	-5.19	96.21	104.00
26	BB	2301	C	C3'-C2'-C1'	5.19	106.49	101.30
31	BG	51	ASN	CB-CG-ND2	-5.19	108.61	116.40
34	BJ	54	VAL	CA-CB-CG2	5.19	119.23	110.40
56	B5	43	THR	CA-C-N	5.19	131.32	121.97
56	B5	43	THR	C-N-CA	5.19	131.32	121.97
1	AA	565	U	C4'-C3'-O3'	5.19	120.78	113.00
1	AA	847	G	C4'-C3'-C2'	-5.19	97.41	102.60
1	AA	1155	A	O4'-C1'-C2'	5.19	112.79	107.60
1	AA	1350	A	O4'-C4'-C3'	5.19	109.19	104.00
1	AA	1416	G	C1'-C2'-O2'	5.19	116.19	108.40
15	AO	40	THR	CA-CB-OG1	5.19	117.39	109.60
26	BB	1576	U	C3'-C2'-C1'	5.19	106.49	101.30
26	BB	1664	A	O3'-P-O5'	-5.19	96.22	104.00
26	BB	2185	U	C1'-O4'-C4'	-5.19	104.71	109.90
26	BB	2574	G	O4'-C1'-C2'	-5.19	102.41	107.60
26	BB	2612	C	C3'-C2'-C1'	5.19	106.49	101.30
26	BB	2661	G	C3'-C2'-C1'	5.19	106.49	101.30
26	BB	2785	C	C2'-C3'-O3'	-5.19	105.91	113.70
38	BN	92	LEU	N-CA-CB	-5.19	102.47	110.20
55	B4	16	THR	CA-CB-CG2	5.19	119.33	110.50
1	AA	994	A	O3'-P-O5'	-5.19	96.22	104.00
7	AG	156	ALA	N-CA-C	-5.19	105.70	111.36
13	AM	89	ARG	NE-CZ-NH2	-5.19	114.53	119.20
25	BA	46	A	C1'-C2'-O2'	5.19	116.18	108.40
26	BB	308	G	O5'-C5'-C4'	5.19	119.28	111.50
26	BB	375	G	O4'-C4'-C3'	5.19	109.19	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	477	A	C1'-C2'-O2'	-5.19	100.62	108.40
26	BB	1064	C	C5'-C4'-O4'	5.19	117.58	109.80
26	BB	2556	C	C5'-C4'-C3'	5.19	123.78	116.00
35	BK	116	MET	O-C-N	-5.19	117.25	123.06
37	BM	47	ILE	CB-CA-C	5.19	115.49	109.89
10	AJ	177	LEU	O-C-N	5.19	128.82	122.75
13	AM	3	ASN	CA-CB-CG	-5.19	107.41	112.60
13	AM	72	ARG	NE-CZ-NH2	5.19	123.87	119.20
26	BB	513	A	C5'-C4'-C3'	-5.19	108.22	116.00
26	BB	1034	G	C4'-C3'-O3'	-5.19	105.22	113.00
26	BB	1080	A	O5'-C5'-C4'	-5.19	103.72	111.50
26	BB	1392	A	C3'-C2'-C1'	5.19	106.49	101.30
26	BB	1734	G	C4'-C3'-C2'	-5.19	97.41	102.60
26	BB	2006	C	C4'-C3'-C2'	-5.19	97.41	102.60
26	BB	2167	U	O4'-C1'-C2'	5.19	112.79	107.60
26	BB	2577	A	C1'-C2'-O2'	5.19	116.18	108.40
29	BE	34	VAL	CA-CB-CG2	5.19	119.22	110.40
32	BH	174	LYS	CA-C-O	5.19	126.96	121.05
36	BL	37	ARG	NE-CZ-NH2	5.19	123.87	119.20
46	BV	48	GLN	CB-CG-CD	5.19	121.42	112.60
58	B7	30	GLU	CA-C-O	-5.19	115.00	119.72
1	AA	1330	U	O4'-C1'-N1	5.19	116.28	108.50
26	BB	157	C	O4'-C1'-C2'	-5.19	102.41	107.60
26	BB	1375	U	O4'-C1'-N1	5.19	116.28	108.50
26	BB	2548	U	C1'-O4'-C4'	-5.19	104.71	109.90
34	BJ	66	THR	CA-CB-OG1	5.19	117.38	109.60
13	AM	68	ARG	NE-CZ-NH1	-5.18	116.31	121.50
23	AW	4	LYS	CA-C-N	5.18	131.70	122.06
23	AW	4	LYS	C-N-CA	5.18	131.70	122.06
26	BB	873	C	C1'-C2'-O2'	5.18	116.18	108.40
26	BB	1369	G	O4'-C1'-C2'	-5.18	102.42	107.60
28	BD	79	ARG	CA-C-N	5.18	130.31	123.05
28	BD	79	ARG	C-N-CA	5.18	130.31	123.05
5	AE	125	PHE	CA-C-N	5.18	128.21	120.90
5	AE	125	PHE	C-N-CA	5.18	128.21	120.90
20	AT	77	VAL	CA-C-N	5.18	127.04	120.72
20	AT	77	VAL	C-N-CA	5.18	127.04	120.72
26	BB	774	G	C4'-C3'-C2'	-5.18	97.42	102.60
26	BB	1051	G	O4'-C1'-N9	5.18	116.27	108.50
26	BB	1569	A	N9-C1'-C2'	-5.18	104.22	112.00
26	BB	1945	G	C3'-C2'-O2'	-5.18	102.93	110.70
26	BB	1947	C	C4'-C3'-C2'	-5.18	97.42	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2902	C	C2'-C3'-O3'	-5.18	105.92	113.70
29	BE	69	ALA	N-CA-C	5.18	117.01	111.36
30	BF	94	GLN	CA-CB-CG	5.18	124.47	114.10
1	AA	430	A	C5'-C4'-O4'	5.18	117.57	109.80
1	AA	908	A	O4'-C4'-C3'	-5.18	98.82	104.00
26	BB	801	G	C2'-C3'-O3'	5.18	117.27	109.50
26	BB	1059	G	C1'-O4'-C4'	-5.18	104.72	109.90
38	BN	88	GLY	CA-C-N	5.18	127.55	120.35
38	BN	88	GLY	C-N-CA	5.18	127.55	120.35
1	AA	747	A	C4'-C3'-O3'	5.18	120.77	113.00
1	AA	1130	A	O5'-C5'-C4'	-5.18	103.73	111.50
26	BB	1209	U	C4'-C3'-C2'	-5.18	97.42	102.60
26	BB	1260	A	C1'-O4'-C4'	-5.18	104.72	109.90
26	BB	1940	U	O4'-C4'-C3'	5.18	111.28	106.10
26	BB	1994	C	C4'-C3'-O3'	-5.18	105.23	113.00
26	BB	2046	G	O5'-C5'-C4'	-5.18	103.73	111.50
26	BB	2076	U	O4'-C4'-C3'	5.18	111.28	106.10
26	BB	2635	A	O5'-C5'-C4'	5.18	119.27	111.50
26	BB	2887	A	C2'-C3'-O3'	5.18	121.47	113.70
35	BK	72	THR	CA-CB-CG2	5.18	119.30	110.50
45	BU	53	SER	CA-C-O	-5.18	115.38	120.82
50	BZ	58	ILE	CA-C-N	5.18	127.48	120.44
50	BZ	58	ILE	C-N-CA	5.18	127.48	120.44
1	AA	353	A	O4'-C1'-C2'	-5.18	102.42	107.60
1	AA	719	C	C3'-C2'-O2'	-5.18	106.83	114.60
1	AA	1211	U	C4'-C3'-C2'	5.18	107.78	102.60
1	AA	1287	A	C4'-C3'-C2'	-5.18	97.42	102.60
1	AA	1468	A	C4'-C3'-C2'	5.18	107.78	102.60
3	AC	46	C	O4'-C1'-N1	5.18	116.27	108.50
4	AD	29	C	C5'-C4'-C3'	-5.18	108.23	116.00
10	AJ	96	ASN	CA-C-N	5.18	127.64	120.29
10	AJ	96	ASN	C-N-CA	5.18	127.64	120.29
13	AM	79	PRO	CA-N-CD	-5.18	104.75	112.00
26	BB	1065	U	C4'-C3'-C2'	5.18	107.78	102.60
26	BB	1719	G	C3'-C2'-C1'	-5.18	96.12	101.30
26	BB	1942	C	C5'-C4'-O4'	5.18	117.57	109.80
26	BB	2062	A	C4'-C3'-C2'	-5.18	97.42	102.60
48	BX	76	ASP	O-C-N	5.18	129.45	122.82
1	AA	86	G	C2'-C3'-O3'	5.18	117.27	109.50
1	AA	224	U	P-O3'-C3'	5.18	127.97	120.20
1	AA	717	U	C3'-C2'-O2'	5.18	118.47	110.70
1	AA	1323	G	O4'-C1'-N9	5.18	116.26	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AF	56	ILE	CA-CB-CG2	-5.18	101.70	110.50
8	AH	139	THR	N-CA-C	-5.18	106.81	113.02
25	BA	99	A	O4'-C4'-C3'	5.18	109.18	104.00
26	BB	732	C	C5'-C4'-C3'	5.18	123.76	116.00
26	BB	741	U	C5'-C4'-C3'	-5.18	108.24	116.00
26	BB	1224	U	C3'-C2'-C1'	5.18	106.48	101.30
26	BB	1739	A	C3'-C2'-O2'	5.18	118.47	110.70
26	BB	1785	A	C4'-C3'-C2'	-5.18	97.42	102.60
26	BB	2711	A	P-O5'-C5'	5.18	128.66	120.90
29	BE	95	SER	CA-C-N	5.18	127.52	120.63
29	BE	95	SER	C-N-CA	5.18	127.52	120.63
31	BG	65	LEU	O-C-N	5.18	127.87	122.23
35	BK	81	LYS	N-CA-C	5.18	116.61	111.07
42	BR	3	ILE	N-CA-C	-5.18	108.79	113.71
1	AA	164	G	O4'-C1'-C2'	-5.17	102.43	107.60
1	AA	510	A	C4'-C3'-C2'	-5.17	97.42	102.60
1	AA	852	G	C1'-O4'-C4'	5.17	115.07	109.90
1	AA	1464	U	C3'-C2'-O2'	5.17	118.46	110.70
2	AB	75	C	O5'-C5'-C4'	5.17	119.26	111.50
6	AF	41	TYR	CB-CG-CD2	-5.17	113.04	120.80
26	BB	826	U	C4'-C3'-O3'	5.17	120.76	113.00
26	BB	1505	A	C4'-C3'-C2'	-5.17	97.43	102.60
26	BB	1749	A	C2'-C3'-O3'	5.17	121.46	113.70
26	BB	2584	U	C3'-C2'-C1'	5.17	106.47	101.30
26	BB	2704	C	O4'-C4'-C3'	5.17	109.17	104.00
34	BJ	82	ALA	CA-C-O	5.17	126.19	120.71
53	B2	16	CYS	CA-CB-SG	-5.17	102.50	114.40
1	AA	163	C	O4'-C4'-C3'	5.17	109.17	104.00
1	AA	191	G	C4'-C3'-C2'	-5.17	97.43	102.60
6	AF	108	PRO	CA-C-O	5.17	127.24	119.74
33	BI	128	HIS	O-C-N	-5.17	117.89	123.42
1	AA	106	C	O3'-P-O5'	5.17	111.76	104.00
1	AA	720	C	N1-C1'-C2'	5.17	119.76	112.00
1	AA	760	G	O4'-C1'-N9	5.17	116.26	108.50
26	BB	273	G	C5'-C4'-O4'	5.17	117.56	109.80
26	BB	607	U	C2'-C3'-O3'	5.17	121.46	113.70
26	BB	2109	U	O4'-C1'-C2'	-5.17	102.43	107.60
26	BB	1075	C	C3'-C2'-C1'	5.17	106.47	101.30
45	BU	102	HIS	CA-C-O	-5.17	115.16	120.54
1	AA	248	C	C5'-C4'-O4'	5.17	117.55	109.80
1	AA	598	U	O4'-C1'-C2'	5.17	112.77	107.60
1	AA	622	A	C3'-C2'-O2'	5.17	118.45	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	928	G	C4'-C3'-C2'	-5.17	97.43	102.60
20	AT	57	VAL	CA-C-N	5.17	130.85	122.68
20	AT	57	VAL	C-N-CA	5.17	130.85	122.68
25	BA	71	C	O4'-C4'-C3'	5.17	109.17	104.00
26	BB	1622	G	C2'-C3'-O3'	-5.17	105.95	113.70
26	BB	1817	G	C5'-C4'-C3'	5.17	123.75	116.00
26	BB	2547	A	O3'-P-O5'	-5.17	96.25	104.00
26	BB	2788	C	C3'-C2'-O2'	5.17	118.45	110.70
31	BG	45	ASP	CA-C-O	-5.17	113.76	119.81
32	BH	73	SER	N-CA-C	5.17	117.31	111.11
33	BI	106	ALA	CA-C-O	-5.17	115.58	121.68
34	BJ	124	ARG	CA-C-N	5.17	127.21	120.28
34	BJ	124	ARG	C-N-CA	5.17	127.21	120.28
35	BK	32	VAL	N-CA-CB	-5.17	104.22	111.25
42	BR	87	ARG	O-C-N	5.17	129.20	122.89
1	AA	303	A	C5'-C4'-O4'	5.17	117.55	109.80
1	AA	355	C	C5'-C4'-O4'	5.17	117.55	109.80
1	AA	969	A	O3'-P-O5'	-5.17	96.25	104.00
6	AF	43	THR	CA-C-O	-5.17	114.26	120.10
7	AG	164	ARG	NE-CZ-NH2	5.17	123.85	119.20
15	AO	35	ARG	NE-CZ-NH1	5.17	126.67	121.50
26	BB	99	U	P-O3'-C3'	5.17	127.95	120.20
26	BB	519	U	O3'-P-O5'	-5.17	96.25	104.00
26	BB	2319	G	O3'-P-O5'	-5.17	96.25	104.00
29	BE	128	ARG	CD-NE-CZ	5.17	131.63	124.40
40	BP	35	LYS	CA-C-O	-5.17	115.12	120.70
6	AF	135	ARG	CA-C-N	5.17	127.47	120.65
6	AF	135	ARG	C-N-CA	5.17	127.47	120.65
17	AQ	85	GLU	CA-C-N	5.17	127.62	120.29
17	AQ	85	GLU	C-N-CA	5.17	127.62	120.29
26	BB	274	C	O4'-C1'-N1	5.17	116.25	108.50
1	AA	279	A	C2'-C3'-O3'	5.16	117.25	109.50
1	AA	771	G	C5'-C4'-O4'	5.16	117.55	109.80
1	AA	796	C	P-O3'-C3'	5.16	127.95	120.20
1	AA	893	C	O4'-C1'-N1	5.16	116.25	108.50
1	AA	1489	G	C2'-C3'-O3'	5.16	121.45	113.70
7	AG	21	LYS	CB-CA-C	5.16	120.69	110.42
7	AG	159	GLU	CA-C-N	5.16	127.20	120.28
7	AG	159	GLU	C-N-CA	5.16	127.20	120.28
13	AM	46	LYS	CA-C-N	5.16	129.85	122.72
13	AM	46	LYS	C-N-CA	5.16	129.85	122.72
26	BB	155	A	C5'-C4'-O4'	5.16	117.54	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	214	G	O4'-C1'-N9	5.16	116.24	108.50
26	BB	1121	C	C3'-C2'-O2'	5.16	118.45	110.70
26	BB	1564	C	O5'-C5'-C4'	-5.16	103.75	111.50
26	BB	2418	A	C1'-O4'-C4'	-5.16	104.74	109.90
26	BB	2748	A	O3'-P-O5'	5.16	111.75	104.00
1	AA	119	A	C3'-C2'-C1'	5.16	106.66	101.50
1	AA	227	G	C3'-C2'-O2'	5.16	118.44	110.70
1	AA	534	U	O3'-P-O5'	5.16	111.74	104.00
26	BB	576	U	C4'-C3'-O3'	-5.16	105.26	113.00
26	BB	1090	A	C1'-O4'-C4'	-5.16	104.74	109.90
26	BB	1721	G	C1'-C2'-O2'	5.16	119.54	111.80
26	BB	2396	G	C3'-C2'-O2'	5.16	118.44	110.70
28	BD	141	HIS	CE1-NE2-CD2	-5.16	103.84	109.00
34	BJ	81	ILE	CB-CA-C	5.16	116.87	110.73
1	AA	768	A	C3'-C2'-O2'	5.16	118.44	110.70
1	AA	1450	U	C1'-C2'-O2'	5.16	116.14	108.40
15	AO	38	THR	CA-CB-OG1	5.16	117.34	109.60
26	BB	1028	A	C4'-C3'-O3'	5.16	120.74	113.00
26	BB	1171	G	O4'-C4'-C3'	5.16	109.16	104.00
26	BB	1428	C	C3'-C2'-C1'	5.16	106.66	101.50
26	BB	1918	A	C3'-C2'-O2'	-5.16	106.86	114.60
26	BB	2281	A	C4'-C3'-C2'	-5.16	97.44	102.60
26	BB	2597	G	O4'-C1'-C2'	-5.16	102.44	107.60
42	BR	49	ILE	CA-C-N	5.16	130.27	121.29
42	BR	49	ILE	C-N-CA	5.16	130.27	121.29
48	BX	41	GLU	CA-C-N	5.16	132.27	123.03
48	BX	41	GLU	C-N-CA	5.16	132.27	123.03
57	B6	7	ARG	CA-C-N	5.16	129.97	120.79
57	B6	7	ARG	C-N-CA	5.16	129.97	120.79
1	AA	446	G	C5'-C4'-O4'	5.16	117.54	109.80
1	AA	919	A	O4'-C4'-C3'	5.16	109.16	104.00
26	BB	260	G	C3'-C2'-C1'	-5.16	96.14	101.30
26	BB	335	C	C4'-C3'-C2'	-5.16	97.44	102.60
26	BB	1802	A	C4'-C3'-C2'	-5.16	97.44	102.60
26	BB	2725	A	C5'-C4'-C3'	-5.16	107.46	115.20
26	BB	2754	U	O4'-C1'-C2'	-5.16	102.44	107.60
43	BS	13	HIS	ND1-CG-CD2	5.16	111.26	106.10
44	BT	78	ARG	NE-CZ-NH2	5.16	123.84	119.20
1	AA	728	A	C1'-C2'-O2'	5.16	116.14	108.40
1	AA	864	A	P-O3'-C3'	5.16	127.94	120.20
1	AA	1198	G	N9-C1'-C2'	-5.16	104.27	112.00
1	AA	1390	U	C3'-C2'-O2'	5.16	118.44	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1524	C	C2'-C3'-O3'	-5.16	105.97	113.70
26	BB	551	G	O4'-C4'-C3'	-5.16	98.84	104.00
1	AA	199	A	O5'-C5'-C4'	-5.16	103.77	111.50
1	AA	347	G	O4'-C1'-C2'	-5.16	102.44	107.60
8	AH	77	ASN	CA-C-N	5.16	131.52	121.41
8	AH	77	ASN	C-N-CA	5.16	131.52	121.41
18	AR	36	ASN	CA-CB-CG	5.16	117.75	112.60
26	BB	33	C	C3'-C2'-C1'	5.16	106.66	101.50
26	BB	65	U	C4'-C3'-C2'	-5.16	97.44	102.60
26	BB	870	U	C3'-C2'-O2'	5.16	118.43	110.70
26	BB	2091	C	C5'-C4'-C3'	-5.16	108.27	116.00
26	BB	2348	U	C4'-C3'-C2'	-5.16	97.44	102.60
30	BF	149	ILE	O-C-N	-5.16	116.13	122.88
41	BQ	34	HIS	CA-C-N	5.16	129.90	123.14
41	BQ	34	HIS	C-N-CA	5.16	129.90	123.14
41	BQ	91	SER	CA-C-N	5.16	128.79	121.42
41	BQ	91	SER	C-N-CA	5.16	128.79	121.42
50	BZ	56	ARG	NE-CZ-NH2	-5.16	114.56	119.20
1	AA	39	G	C4'-C3'-O3'	5.15	120.73	113.00
10	AJ	171	GLN	CA-C-N	5.15	125.60	120.14
10	AJ	171	GLN	C-N-CA	5.15	125.60	120.14
29	BE	183	GLU	CB-CG-CD	5.15	121.36	112.60
1	AA	404	G	C5'-C4'-C3'	-5.15	108.27	116.00
1	AA	469	C	C3'-C2'-O2'	5.15	118.43	110.70
1	AA	917	G	O4'-C1'-C2'	-5.15	102.45	107.60
1	AA	1047	G	C5'-C4'-C3'	5.15	123.73	116.00
1	AA	1264	U	C1'-O4'-C4'	-5.15	104.75	109.90
1	AA	1435	G	O4'-C4'-C3'	5.15	109.15	104.00
21	AU	14	ALA	CA-C-N	5.15	131.39	122.32
21	AU	14	ALA	C-N-CA	5.15	131.39	122.32
26	BB	270	A	P-O5'-C5'	5.15	128.63	120.90
26	BB	786	C	P-O3'-C3'	5.15	127.93	120.20
26	BB	1091	G	C4'-C3'-C2'	5.15	107.75	102.60
26	BB	1489	C	C5'-C4'-C3'	-5.15	108.27	116.00
26	BB	1591	A	C4'-C3'-O3'	5.15	120.73	113.00
26	BB	1877	A	C5'-C4'-C3'	-5.15	108.27	116.00
26	BB	2496	C	O3'-P-O5'	5.15	111.73	104.00
45	BU	11	ARG	N-CA-C	5.15	117.48	108.52
49	BY	22	VAL	CA-CB-CG1	5.15	119.16	110.40
1	AA	968	A	C1'-O4'-C4'	-5.15	104.55	109.70
26	BB	58	G	C1'-O4'-C4'	5.15	115.05	109.90
26	BB	605	G	C3'-C2'-O2'	5.15	118.42	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1074	G	C1'-C2'-O2'	5.15	116.12	108.40
53	B2	43	PHE	CB-CG-CD1	-5.15	111.94	120.70
1	AA	1449	C	O4'-C4'-C3'	5.15	109.15	104.00
4	AD	2	G	O4'-C4'-C3'	5.15	109.15	104.00
5	AE	212	TYR	N-CA-C	-5.15	107.67	114.31
25	BA	108	A	C1'-O4'-C4'	-5.15	104.75	109.90
26	BB	1856	U	N1-C1'-C2'	-5.15	104.28	112.00
26	BB	2417	C	C4'-C3'-C2'	-5.15	97.45	102.60
29	BE	10	GLY	CA-C-O	-5.15	116.43	121.06
1	AA	686	U	C5'-C4'-C3'	-5.15	107.48	115.20
1	AA	907	A	N9-C1'-C2'	-5.15	104.28	112.00
1	AA	1343	G	C4'-C3'-C2'	-5.15	97.45	102.60
2	AB	26	A	P-O5'-C5'	5.15	128.62	120.90
6	AF	36	PHE	CA-CB-CG	5.15	118.95	113.80
26	BB	263	G	O4'-C1'-N9	5.15	116.22	108.50
26	BB	557	C	C1'-C2'-O2'	5.15	116.12	108.40
26	BB	1667	G	N9-C1'-C2'	-5.15	106.28	114.00
26	BB	2837	A	C1'-C2'-O2'	5.15	116.12	108.40
1	AA	510	A	O4'-C1'-C2'	-5.15	102.45	107.60
26	BB	734	A	O4'-C4'-C3'	5.15	109.15	104.00
26	BB	1832	C	O4'-C1'-N1	5.15	116.22	108.50
1	AA	651	C	C1'-C2'-O2'	-5.14	100.68	108.40
1	AA	1216	A	O4'-C1'-N9	5.14	116.22	108.50
6	AF	58	ARG	NE-CZ-NH2	5.14	123.83	119.20
26	BB	138	U	C3'-C2'-C1'	5.14	106.44	101.30
26	BB	452	G	C3'-C2'-C1'	5.14	106.44	101.30
26	BB	732	C	C4'-C3'-C2'	-5.14	97.46	102.60
26	BB	1212	G	O4'-C4'-C3'	5.14	111.24	106.10
26	BB	1816	C	C1'-O4'-C4'	5.14	114.84	109.70
26	BB	1993	U	O4'-C1'-N1	5.14	116.22	108.50
26	BB	2775	G	O4'-C4'-C3'	5.14	109.14	104.00
1	AA	1280	A	O4'-C1'-N9	5.14	115.91	108.20
3	AC	14	G	C3'-C2'-O2'	5.14	118.41	110.70
24	AX	64	ALA	N-CA-C	5.14	116.97	111.36
25	BA	2	G	C4'-C3'-C2'	-5.14	97.46	102.60
26	BB	431	U	O4'-C4'-C3'	5.14	109.14	104.00
26	BB	762	U	O4'-C1'-N1	5.14	115.91	108.20
26	BB	776	G	C2'-C3'-O3'	5.14	117.21	109.50
26	BB	944	C	P-O5'-C5'	5.14	128.61	120.90
26	BB	1156	A	O4'-C4'-C3'	5.14	111.24	106.10
28	BD	199	HIS	ND1-CE1-NE2	5.14	113.54	108.40
30	BF	106	LYS	CA-C-N	5.14	127.44	120.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	BF	106	LYS	C-N-CA	5.14	127.44	120.65
33	BI	11	ASN	CA-C-N	5.14	128.15	120.95
33	BI	11	ASN	C-N-CA	5.14	128.15	120.95
47	BW	71	ILE	O-C-N	5.14	128.52	122.81
52	B1	50	VAL	CA-C-N	5.14	131.36	121.54
52	B1	50	VAL	C-N-CA	5.14	131.36	121.54
26	BB	680	C	O4'-C1'-C2'	-5.14	102.46	107.60
26	BB	1584	U	P-O3'-C3'	-5.14	112.49	120.20
26	BB	1816	C	C3'-C2'-C1'	5.14	106.64	101.50
1	AA	35	G	C5'-C4'-C3'	-5.14	108.29	116.00
1	AA	298	A	C4'-C3'-C2'	-5.14	97.46	102.60
1	AA	731	G	C4'-C3'-O3'	5.14	120.71	113.00
1	AA	1217	C	P-O5'-C5'	-5.14	113.19	120.90
2	AB	35	C	C4'-C3'-C2'	5.14	107.74	102.60
9	AI	51	ILE	O-C-N	5.14	128.32	123.03
20	AT	72	TRP	CD2-CE3-CZ3	5.14	125.28	118.60
26	BB	101	A	C3'-C2'-C1'	5.14	106.64	101.50
26	BB	1923	U	O4'-C4'-C3'	5.14	109.14	104.00
26	BB	2435	A	C1'-C2'-O2'	-5.14	100.69	108.40
40	BP	37	THR	CA-C-N	5.14	127.15	120.26
40	BP	37	THR	C-N-CA	5.14	127.15	120.26
42	BR	74	GLN	CA-C-N	5.14	127.59	120.29
42	BR	74	GLN	C-N-CA	5.14	127.59	120.29
43	BS	8	ILE	CA-CB-CG1	5.14	119.14	110.40
52	B1	33	HIS	N-CA-C	-5.14	106.52	112.89
1	AA	209	U	P-O5'-C5'	5.14	128.61	120.90
26	BB	381	G	C5'-C4'-O4'	5.14	117.51	109.80
26	BB	1850	G	O4'-C4'-C3'	5.14	109.14	104.00
26	BB	2391	G	O4'-C4'-C3'	5.14	111.24	106.10
26	BB	2785	C	C4'-C3'-O3'	5.14	120.71	113.00
27	BC	170	ILE	CA-C-N	5.14	129.80	123.12
27	BC	170	ILE	C-N-CA	5.14	129.80	123.12
56	B5	28	ARG	NE-CZ-NH2	-5.14	114.58	119.20
1	AA	325	A	C1'-C2'-O2'	-5.14	100.69	108.40
1	AA	1541	U	C1'-O4'-C4'	5.14	115.04	109.90
5	AE	43	GLU	CA-C-O	-5.14	115.43	120.82
10	AJ	1	PRO	N-CD-CG	5.14	110.90	103.20
13	AM	75	ASP	CA-CB-CG	5.14	117.74	112.60
26	BB	356	G	C4'-C3'-C2'	-5.14	97.46	102.60
26	BB	888	C	C4'-C3'-C2'	-5.14	97.46	102.60
26	BB	2277	G	C1'-C2'-O2'	5.14	116.10	108.40
27	BC	175	ILE	CA-C-N	5.14	128.67	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BC	175	ILE	C-N-CA	5.14	128.67	120.55
27	BC	194	VAL	CA-CB-CG2	5.14	119.13	110.40
40	BP	45	ARG	O-C-N	-5.14	116.78	122.07
41	BQ	68	LYS	CA-C-N	5.14	127.68	120.28
41	BQ	68	LYS	C-N-CA	5.14	127.68	120.28
1	AA	101	A	C3'-C2'-C1'	-5.13	96.17	101.30
1	AA	599	C	O4'-C4'-C3'	5.13	109.14	104.00
1	AA	810	C	C3'-C2'-O2'	5.13	118.40	110.70
1	AA	887	G	C1'-O4'-C4'	-5.13	104.77	109.90
1	AA	1302	C	C5'-C4'-C3'	-5.13	108.30	116.00
5	AE	57	ASN	OD1-CG-ND2	5.13	127.73	122.60
17	AQ	89	ARG	NE-CZ-NH2	-5.13	114.58	119.20
26	BB	2140	G	O4'-C1'-N9	5.13	116.20	108.50
26	BB	2161	C	O5'-C5'-C4'	5.13	119.20	111.50
26	BB	2733	A	C1'-C2'-O2'	-5.13	100.70	108.40
26	BB	2756	U	C4'-C3'-O3'	5.13	117.10	109.40
32	BH	153	PRO	CB-CA-C	5.13	120.03	111.56
42	BR	6	GLN	N-CA-C	-5.13	105.37	111.69
18	AR	23	SER	CA-C-O	-5.13	116.04	121.94
26	BB	654	A	C4'-C3'-C2'	5.13	107.73	102.60
26	BB	1181	U	O4'-C1'-N1	5.13	116.20	108.50
26	BB	1709	U	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	1744	A	C5'-C4'-C3'	-5.13	108.30	116.00
26	BB	2793	C	C2'-C3'-O3'	-5.13	106.00	113.70
30	BF	196	VAL	N-CA-C	5.13	115.80	110.82
1	AA	197	A	C2'-C3'-O3'	5.13	117.20	109.50
1	AA	210	C	C4'-C3'-C2'	-5.13	97.47	102.60
1	AA	373	A	O4'-C4'-C3'	-5.13	98.87	104.00
1	AA	615	G	C2'-C3'-O3'	-5.13	106.00	113.70
10	AJ	5	VAL	CB-CA-C	5.13	119.06	111.26
14	AN	21	HIS	O-C-N	5.13	129.27	123.27
16	AP	28	ARG	CA-C-O	-5.13	114.07	119.97
17	AQ	83	VAL	N-CA-C	5.13	115.35	110.42
26	BB	159	G	O4'-C4'-C3'	5.13	109.13	104.00
26	BB	511	U	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	841	G	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	941	A	O3'-P-O5'	5.13	111.70	104.00
26	BB	1375	U	O5'-C5'-C4'	-5.13	103.80	111.50
48	BX	65	VAL	CA-C-N	5.13	131.34	121.54
48	BX	65	VAL	C-N-CA	5.13	131.34	121.54
1	AA	454	G	C3'-C2'-C1'	-5.13	96.17	101.30
1	AA	1201	A	C5'-C4'-O4'	5.13	116.80	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	102	G	O4'-C1'-C2'	-5.13	102.47	107.60
26	BB	1471	G	C4'-C3'-C2'	5.13	107.73	102.60
1	AA	295	C	O4'-C4'-C3'	-5.13	98.87	104.00
1	AA	550	G	C4'-C3'-O3'	-5.13	105.31	113.00
1	AA	899	C	O4'-C1'-N1	5.13	116.19	108.50
3	AC	13	A	C4'-C3'-C2'	5.13	107.73	102.60
4	AD	69	C	O4'-C1'-N1	5.13	116.19	108.50
10	AJ	126	ALA	CA-C-N	5.13	127.67	120.28
10	AJ	126	ALA	C-N-CA	5.13	127.67	120.28
11	AK	25	THR	CA-CB-OG1	-5.13	101.91	109.60
26	BB	969	G	C5'-C4'-C3'	-5.13	108.31	116.00
26	BB	1900	A	P-O3'-C3'	5.13	127.89	120.20
26	BB	1944	U	O4'-C4'-C3'	5.13	109.13	104.00
26	BB	2693	G	O4'-C1'-C2'	-5.13	102.47	107.60
33	BI	113	SER	O-C-N	-5.13	115.77	122.59
37	BM	64	ARG	CA-C-O	-5.13	115.25	120.99
41	BQ	12	THR	CA-CB-OG1	5.13	117.29	109.60
1	AA	279	A	P-O3'-C3'	5.13	127.89	120.20
1	AA	695	A	C5'-C4'-C3'	-5.13	108.31	116.00
1	AA	1187	G	O4'-C1'-N9	5.13	116.19	108.50
6	AF	142	ARG	NE-CZ-NH2	5.13	123.81	119.20
26	BB	2227	A	O4'-C4'-C3'	5.13	109.13	104.00
26	BB	2349	G	O4'-C1'-N9	5.13	116.19	108.50
26	BB	2848	G	O4'-C1'-C2'	5.13	110.93	105.80
29	BE	67	HIS	O-C-N	5.13	127.35	122.07
37	BM	99	ILE	CA-C-N	5.13	129.42	122.19
37	BM	99	ILE	C-N-CA	5.13	129.42	122.19
39	BO	62	LYS	CA-C-O	-5.13	115.76	121.81
1	AA	227	G	O4'-C1'-N9	5.12	116.19	108.50
1	AA	788	U	C5'-C4'-O4'	5.12	117.49	109.80
26	BB	177	G	C1'-C2'-O2'	5.12	119.49	111.80
1	AA	1137	C	O4'-C1'-N1	5.12	115.89	108.20
26	BB	240	C	C4'-C3'-C2'	5.12	107.72	102.60
26	BB	1208	C	C2'-C3'-O3'	5.12	121.39	113.70
26	BB	2265	U	O3'-P-O5'	5.12	111.69	104.00
26	BB	2793	C	C1'-O4'-C4'	-5.12	104.78	109.90
28	BD	221	GLY	N-CA-C	-5.12	106.58	112.83
29	BE	59	ARG	NE-CZ-NH1	-5.12	116.38	121.50
31	BG	109	ARG	CA-C-O	-5.12	115.07	120.55
1	AA	50	A	O3'-P-O5'	5.12	111.68	104.00
1	AA	564	C	N1-C1'-C2'	-5.12	104.32	112.00
1	AA	694	A	O4'-C1'-C2'	-5.12	102.48	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1379	G	C2'-C3'-O3'	5.12	121.38	113.70
4	AD	71	G	O4'-C4'-C3'	5.12	109.12	104.00
26	BB	33	C	C4'-C3'-C2'	-5.12	97.48	102.60
26	BB	143	C	P-O5'-C5'	5.12	128.58	120.90
26	BB	2224	G	C3'-C2'-C1'	5.12	106.42	101.30
26	BB	2448	A	O4'-C1'-C2'	5.12	110.92	105.80
27	BC	106	LYS	O-C-N	-5.12	116.69	122.12
1	AA	181	A	O4'-C1'-C2'	-5.12	100.68	105.80
1	AA	1431	A	C5'-C4'-C3'	-5.12	108.32	116.00
10	AJ	63	VAL	CA-C-O	-5.12	114.54	119.92
12	AL	48	ARG	NE-CZ-NH2	-5.12	114.59	119.20
26	BB	553	G	C1'-O4'-C4'	-5.12	104.78	109.90
26	BB	1947	C	C3'-C2'-C1'	5.12	106.42	101.30
1	AA	606	G	O4'-C1'-C2'	-5.12	102.48	107.60
2	AB	53	G	O4'-C1'-N9	5.12	116.18	108.50
7	AG	166	LYS	CA-C-N	5.12	126.24	119.84
7	AG	166	LYS	C-N-CA	5.12	126.24	119.84
18	AR	49	HIS	CB-CG-CD2	-5.12	124.55	131.20
26	BB	451	U	O4'-C1'-C2'	-5.12	100.68	105.80
26	BB	578	G	O3'-P-O5'	-5.12	96.32	104.00
26	BB	714	U	C2'-C3'-O3'	5.12	121.38	113.70
26	BB	734	A	C5'-C4'-C3'	-5.12	108.32	116.00
26	BB	1180	U	C4'-C3'-C2'	-5.12	97.48	102.60
26	BB	1559	U	C1'-C2'-O2'	5.12	119.48	111.80
26	BB	1597	A	C3'-C2'-C1'	5.12	106.42	101.30
26	BB	1800	C	P-O3'-C3'	5.12	127.88	120.20
26	BB	2212	A	O4'-C1'-C2'	-5.12	100.68	105.80
26	BB	2352	A	C3'-C2'-C1'	5.12	106.42	101.30
26	BB	2656	U	C3'-C2'-O2'	5.12	118.38	110.70
42	BR	59	THR	O-C-N	-5.12	116.77	122.55
1	AA	1187	G	C4'-C3'-C2'	-5.12	97.48	102.60
1	AA	1432	G	O3'-P-O5'	-5.12	96.33	104.00
26	BB	607	U	O3'-P-O5'	-5.12	96.33	104.00
26	BB	962	G	O3'-P-O5'	-5.12	96.33	104.00
26	BB	1020	A	C5'-C4'-C3'	-5.12	107.52	115.20
26	BB	1263	U	C5'-C4'-O4'	5.12	117.48	109.80
26	BB	1319	C	C5'-C4'-C3'	-5.12	108.33	116.00
26	BB	1905	C	O5'-C5'-C4'	5.12	119.17	111.50
30	BF	12	LEU	CB-CA-C	5.12	116.09	109.28
1	AA	1468	A	C5'-C4'-C3'	-5.12	108.33	116.00
9	AI	104	LYS	O-C-N	5.12	127.34	122.07
15	AO	46	SER	CA-C-N	5.12	129.64	121.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	AO	46	SER	C-N-CA	5.12	129.64	121.66
25	BA	97	C	O5'-C5'-C4'	-5.12	103.83	111.50
26	BB	390	U	N1-C1'-C2'	5.12	121.67	114.00
26	BB	889	C	P-O3'-C3'	5.12	127.87	120.20
26	BB	1508	A	O4'-C4'-C3'	5.12	109.12	104.00
26	BB	1672	A	C1'-C2'-O2'	-5.12	100.73	108.40
26	BB	1969	A	O3'-P-O5'	-5.12	96.33	104.00
26	BB	2360	G	C3'-C2'-C1'	5.12	106.42	101.30
26	BB	2697	G	C1'-O4'-C4'	-5.12	104.78	109.90
26	BB	2790	U	O4'-C1'-C2'	-5.12	100.68	105.80
33	BI	54	LEU	CA-C-O	-5.12	115.08	120.55
56	B5	29	GLN	CA-CB-CG	5.12	124.33	114.10
1	AA	436	C	O4'-C1'-C2'	-5.11	102.49	107.60
1	AA	1313	U	O4'-C1'-N1	5.11	116.17	108.50
1	AA	1354	U	O4'-C4'-C3'	5.11	109.11	104.00
1	AA	1421	G	O4'-C4'-C3'	5.11	109.11	104.00
3	AC	32	U	C4'-C3'-O3'	-5.11	105.33	113.00
8	AH	31	SER	N-CA-C	5.11	117.64	110.23
26	BB	933	A	O4'-C1'-N9	5.11	116.17	108.50
26	BB	1401	G	O3'-P-O5'	5.11	111.67	104.00
28	BD	14	HIS	CG-CD2-NE2	-5.11	102.09	107.20
28	BD	146	LYS	CA-C-N	5.11	126.23	119.84
28	BD	146	LYS	C-N-CA	5.11	126.23	119.84
46	BV	15	HIS	ND1-CG-CD2	5.11	111.21	106.10
46	BV	52	GLU	CB-CA-C	5.11	119.97	112.09
47	BW	48	VAL	O-C-N	-5.11	115.27	121.10
1	AA	977	A	O4'-C1'-N9	5.11	116.17	108.50
26	BB	1865	U	C1'-O4'-C4'	-5.11	104.59	109.70
39	BO	35	ALA	N-CA-C	5.11	117.98	111.69
10	AJ	134	VAL	O-C-N	5.11	127.09	121.83
26	BB	12	U	P-O5'-C5'	5.11	128.56	120.90
26	BB	657	U	O4'-C1'-N1	5.11	116.17	108.50
26	BB	1076	C	C2'-C3'-O3'	-5.11	106.03	113.70
26	BB	1295	C	C4'-C3'-O3'	-5.11	105.33	113.00
26	BB	2052	A	O5'-C5'-C4'	5.11	119.17	111.50
27	BC	78	PHE	CA-CB-CG	5.11	118.91	113.80
41	BQ	73	ALA	CA-C-N	5.11	128.73	120.55
41	BQ	73	ALA	C-N-CA	5.11	128.73	120.55
53	B2	63	ARG	NH1-CZ-NH2	-5.11	112.66	119.30
1	AA	1022	A	C4'-C3'-O3'	5.11	120.66	113.00
2	AB	68	C	O4'-C4'-C3'	5.11	109.11	104.00
17	AQ	2	LYS	N-CA-CB	5.11	119.12	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AU	2	ARG	CD-NE-CZ	5.11	131.55	124.40
26	BB	486	C	O3'-P-O5'	-5.11	96.34	104.00
26	BB	564	C	N1-C1'-C2'	-5.11	104.34	112.00
1	AA	643	C	C5'-C4'-O4'	5.11	117.46	109.80
6	AF	21	TRP	CE2-CD2-CG	5.11	113.33	107.20
6	AF	190	THR	CA-CB-OG1	5.11	117.26	109.60
9	AI	131	GLU	N-CA-C	-5.11	108.07	114.56
26	BB	218	A	C5'-C4'-O4'	5.11	117.46	109.80
26	BB	453	A	P-O3'-C3'	5.11	127.86	120.20
26	BB	1451	C	C5'-C4'-O4'	5.11	116.76	109.10
26	BB	1535	A	O4'-C4'-C3'	5.11	111.21	106.10
26	BB	1992	G	C4'-C3'-O3'	5.11	117.06	109.40
26	BB	2066	C	O4'-C1'-N1	5.11	116.16	108.50
26	BB	2424	C	C1'-O4'-C4'	5.11	115.01	109.90
26	BB	2513	A	O4'-C4'-C3'	-5.11	98.89	104.00
40	BP	42	LYS	N-CA-C	5.11	116.66	111.14
1	AA	129	A	C4'-C3'-C2'	-5.11	97.49	102.60
1	AA	467	U	O5'-C5'-C4'	-5.11	103.84	111.50
1	AA	686	U	C2'-C3'-O3'	5.11	117.16	109.50
1	AA	1168	U	C5'-C4'-O4'	5.11	117.46	109.80
10	AJ	85	GLN	CB-CG-CD	5.11	121.28	112.60
26	BB	1168	G	O3'-P-O5'	-5.11	96.34	104.00
26	BB	1445	G	C4'-C3'-C2'	-5.11	97.49	102.60
26	BB	1825	U	O4'-C4'-C3'	5.11	109.11	104.00
26	BB	1861	G	C4'-C3'-C2'	-5.11	97.50	102.60
26	BB	2606	C	N1-C1'-C2'	-5.11	104.34	112.00
26	BB	2694	G	C2'-C3'-O3'	-5.11	106.04	113.70
1	AA	199	A	C4'-C3'-C2'	-5.10	97.50	102.60
1	AA	711	G	C3'-C2'-O2'	5.10	118.36	110.70
1	AA	1500	A	C5'-C4'-C3'	-5.10	108.34	116.00
10	AJ	152	HIS	CB-CG-CD2	-5.10	124.56	131.20
17	AQ	1	ALA	CA-C-N	5.10	131.29	121.54
17	AQ	1	ALA	C-N-CA	5.10	131.29	121.54
26	BB	2059	A	O4'-C4'-C3'	5.10	109.10	104.00
1	AA	870	U	C3'-C2'-O2'	-5.10	106.95	114.60
4	AD	76	C	O4'-C1'-N1	5.10	115.85	108.20
21	AU	73	HIS	CB-CG-CD2	-5.10	124.57	131.20
26	BB	433	C	C3'-C2'-C1'	-5.10	96.20	101.30
26	BB	477	A	C4'-C3'-O3'	-5.10	105.35	113.00
26	BB	1298	C	O4'-C1'-C2'	5.10	112.70	107.60
26	BB	1318	U	C5'-C4'-C3'	-5.10	108.34	116.00
26	BB	2784	U	O4'-C1'-N1	5.10	116.15	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BH	134	GLY	O-C-N	-5.10	119.03	123.88
45	BU	85	ILE	CB-CA-C	5.10	117.13	110.96
48	BX	35	GLU	CB-CG-CD	5.10	121.28	112.60
49	BY	56	HIS	CB-CG-ND1	5.10	130.35	122.70
3	AC	19	A	O4'-C1'-N9	5.10	115.85	108.20
12	AL	50	PRO	CA-C-N	5.10	129.35	120.68
12	AL	50	PRO	C-N-CA	5.10	129.35	120.68
25	BA	120	U	N1-C1'-C2'	-5.10	104.35	112.00
26	BB	641	U	O4'-C4'-C3'	5.10	109.10	104.00
26	BB	1260	A	P-O5'-C5'	5.10	128.55	120.90
26	BB	2471	A	C3'-C2'-C1'	-5.10	96.40	101.50
1	AA	97	G	C4'-C3'-C2'	-5.10	97.50	102.60
1	AA	613	C	N1-C1'-C2'	-5.10	104.35	112.00
15	AO	32	VAL	N-CA-CB	5.10	116.09	110.53
23	AW	21	ALA	CA-C-O	-5.10	115.47	120.82
26	BB	55	G	C5'-C4'-O4'	5.10	117.45	109.80
26	BB	118	A	C3'-C2'-C1'	5.10	106.40	101.30
26	BB	768	G	O3'-P-O5'	-5.10	96.35	104.00
26	BB	1001	A	C3'-C2'-O2'	5.10	118.35	110.70
26	BB	1986	C	C5'-C4'-O4'	5.10	117.45	109.80
26	BB	2549	G	P-O5'-C5'	5.10	128.55	120.90
35	BK	94	LYS	N-CA-C	-5.10	108.33	114.75
58	B7	17	VAL	O-C-N	-5.10	117.39	123.05
1	AA	228	A	C1'-C2'-O2'	5.10	116.05	108.40
1	AA	531	U	C3'-C2'-O2'	-5.10	106.95	114.60
15	AO	9	LYS	CA-C-N	5.10	125.00	119.85
15	AO	9	LYS	C-N-CA	5.10	125.00	119.85
26	BB	367	G	C5'-C4'-O4'	5.10	117.45	109.80
26	BB	846	U	O3'-P-O5'	-5.10	96.35	104.00
29	BE	91	THR	CA-CB-CG2	5.10	119.17	110.50
29	BE	181	ASP	CA-C-N	5.10	130.16	121.29
29	BE	181	ASP	C-N-CA	5.10	130.16	121.29
36	BL	17	VAL	CB-CA-C	5.10	118.40	110.96
1	AA	1220	G	O4'-C4'-C3'	5.10	109.10	104.00
25	BA	10	G	P-O5'-C5'	5.10	128.54	120.90
25	BA	41	G	C2'-C3'-O3'	5.10	117.14	109.50
26	BB	1367	A	O4'-C1'-C2'	5.10	112.70	107.60
26	BB	1469	A	C4'-C3'-C2'	-5.10	97.50	102.60
26	BB	2329	U	P-O3'-C3'	5.10	127.84	120.20
1	AA	1006	G	C5'-C4'-O4'	5.09	117.44	109.80
1	AA	1017	U	O3'-P-O5'	-5.09	96.36	104.00
12	AL	121	ARG	CD-NE-CZ	5.09	131.53	124.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	AM	79	PRO	N-CA-C	5.09	119.98	114.68
26	BB	110	G	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	794	A	C5'-C4'-O4'	5.09	117.44	109.80
26	BB	1403	A	C5'-C4'-O4'	5.09	117.44	109.80
26	BB	2839	G	C5'-C4'-O4'	5.09	117.44	109.80
30	BF	191	ASP	N-CA-C	5.09	116.83	111.28
31	BG	75	GLY	O-C-N	5.09	129.13	122.71
35	BK	110	GLN	CA-C-N	5.09	128.05	120.31
35	BK	110	GLN	C-N-CA	5.09	128.05	120.31
1	AA	493	A	C3'-C2'-O2'	5.09	118.34	110.70
1	AA	1444	U	O4'-C1'-N1	5.09	116.14	108.50
26	BB	2071	A	O4'-C4'-C3'	5.09	109.09	104.00
1	AA	69	G	P-O5'-C5'	5.09	128.54	120.90
1	AA	308	C	O4'-C1'-N1	5.09	116.14	108.50
1	AA	626	G	C5'-C4'-C3'	-5.09	108.36	116.00
1	AA	641	U	C3'-C2'-O2'	-5.09	106.96	114.60
6	AF	172	VAL	CA-CB-CG2	5.09	119.06	110.40
7	AG	51	GLY	CA-C-O	-5.09	115.50	121.00
18	AR	50	HIS	CE1-NE2-CD2	-5.09	103.91	109.00
24	AX	4	LYS	N-CA-C	-5.09	105.43	111.69
26	BB	133	U	C3'-C2'-C1'	-5.09	96.21	101.30
26	BB	498	G	P-O3'-C3'	5.09	127.84	120.20
26	BB	1191	G	C5'-C4'-O4'	5.09	117.44	109.80
26	BB	1273	U	C1'-O4'-C4'	-5.09	104.81	109.90
26	BB	1374	G	O4'-C1'-N9	5.09	116.14	108.50
34	BJ	41	ARG	CA-C-N	5.09	127.41	120.54
34	BJ	41	ARG	C-N-CA	5.09	127.41	120.54
1	AA	59	A	C2'-C3'-O3'	-5.09	101.86	109.50
2	AB	43	G	C2'-C3'-O3'	5.09	121.33	113.70
6	AF	84	GLU	N-CA-C	-5.09	105.81	111.36
19	AS	67	ILE	CB-CA-C	5.09	117.22	110.91
25	BA	64	G	O4'-C1'-C2'	-5.09	102.51	107.60
25	BA	79	G	O5'-C5'-C4'	-5.09	103.86	111.50
26	BB	118	A	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	384	A	C5'-C4'-C3'	-5.09	108.37	116.00
26	BB	1155	A	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	1845	G	O4'-C1'-C2'	-5.09	102.51	107.60
26	BB	2027	G	C1'-C2'-O2'	5.09	116.03	108.40
26	BB	2511	U	C1'-C2'-O2'	5.09	116.03	108.40
26	BB	2641	G	N9-C1'-C2'	-5.09	104.36	112.00
30	BF	52	VAL	CA-C-N	5.09	129.56	122.08
30	BF	52	VAL	C-N-CA	5.09	129.56	122.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	312	C	C4'-C3'-C2'	-5.09	97.51	102.60
21	AU	44	THR	N-CA-C	5.09	118.64	112.23
26	BB	1271	G	P-O3'-C3'	5.09	127.83	120.20
39	BO	119	LEU	N-CA-C	-5.09	105.63	111.07
1	AA	868	C	C5'-C4'-C3'	-5.09	108.37	116.00
1	AA	961	U	O4'-C1'-N1	5.09	116.13	108.50
3	AC	15	G	C2'-C3'-O3'	-5.09	106.07	113.70
3	AC	51	C	O5'-C5'-C4'	-5.09	103.87	111.50
5	AE	171	ALA	CA-C-N	5.09	127.07	120.56
5	AE	171	ALA	C-N-CA	5.09	127.07	120.56
15	AO	27	PRO	CA-N-CD	-5.09	104.88	112.00
16	AP	52	ILE	CA-C-N	5.09	127.51	120.29
16	AP	52	ILE	C-N-CA	5.09	127.51	120.29
26	BB	1760	C	O3'-P-O5'	5.09	111.63	104.00
26	BB	2131	U	C5'-C4'-C3'	-5.09	108.37	116.00
26	BB	2802	G	C1'-C2'-O2'	5.09	116.03	108.40
26	BB	2865	U	O4'-C1'-C2'	5.09	112.69	107.60
1	AA	957	U	C2'-C3'-O3'	-5.08	106.07	113.70
1	AA	1426	G	C4'-C3'-C2'	-5.08	97.52	102.60
26	BB	1131	G	C5'-C4'-O4'	5.08	116.73	109.10
26	BB	1413	A	O4'-C1'-N9	5.08	116.13	108.50
26	BB	2894	G	C3'-C2'-O2'	5.08	118.33	110.70
1	AA	317	U	P-O5'-C5'	5.08	128.53	120.90
3	AC	17	U	O4'-C1'-N1	5.08	115.83	108.20
10	AJ	16	LYS	CA-C-O	-5.08	113.46	119.05
26	BB	55	G	C5'-C4'-C3'	-5.08	108.37	116.00
26	BB	322	A	P-O3'-C3'	5.08	127.83	120.20
26	BB	1047	G	C4'-C3'-O3'	-5.08	101.78	109.40
26	BB	1698	A	P-O5'-C5'	5.08	128.52	120.90
26	BB	2180	U	O4'-C1'-N1	5.08	116.12	108.50
26	BB	2637	U	C1'-O4'-C4'	5.08	114.98	109.90
26	BB	2732	G	O3'-P-O5'	-5.08	96.38	104.00
32	BH	32	LEU	CA-C-N	5.08	130.66	123.14
32	BH	32	LEU	C-N-CA	5.08	130.66	123.14
34	BJ	75	PHE	CA-CB-CG	5.08	118.88	113.80
1	AA	321	A	C4'-C3'-C2'	-5.08	97.52	102.60
1	AA	1021	A	C4'-C3'-C2'	-5.08	97.52	102.60
6	AF	135	ARG	N-CA-C	5.08	118.63	112.23
10	AJ	13	PRO	N-CA-C	5.08	118.33	111.22
25	BA	24	G	O4'-C1'-N9	-5.08	100.58	108.20
25	BA	25	U	C1'-C2'-O2'	5.08	119.42	111.80
26	BB	178	G	O4'-C1'-N9	5.08	116.12	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	404	A	O4'-C4'-C3'	5.08	111.18	106.10
26	BB	1107	G	C5'-C4'-C3'	-5.08	108.38	116.00
27	BC	224	VAL	CA-C-O	-5.08	114.73	120.67
28	BD	97	ASP	N-CA-C	-5.08	107.24	112.93
28	BD	245	THR	N-CA-CB	5.08	116.18	110.03
57	B6	3	ILE	N-CA-CB	-5.08	103.08	112.43
1	AA	119	A	O4'-C1'-C2'	-5.08	100.72	105.80
1	AA	377	G	O4'-C1'-C2'	-5.08	102.52	107.60
26	BB	200	U	O5'-C5'-C4'	5.08	119.12	111.50
26	BB	1588	G	C4'-C3'-C2'	5.08	107.68	102.60
37	BM	42	THR	O-C-N	-5.08	117.25	123.19
43	BS	114	ALA	O-C-N	5.08	127.30	122.07
12	AL	123	ARG	O-C-N	-5.08	115.87	121.66
24	AX	54	ARG	CA-C-N	5.08	127.04	120.44
24	AX	54	ARG	C-N-CA	5.08	127.04	120.44
25	BA	71	C	O5'-C5'-C4'	5.08	119.12	111.50
26	BB	799	G	C1'-C2'-O2'	5.08	116.02	108.40
26	BB	885	C	C2'-C3'-O3'	-5.08	106.08	113.70
26	BB	1321	A	C2'-C3'-O3'	5.08	121.32	113.70
26	BB	1355	G	O4'-C1'-N9	5.08	116.12	108.50
26	BB	1946	U	O5'-C5'-C4'	-5.08	103.88	111.50
26	BB	2088	A	C1'-C2'-O2'	5.08	116.02	108.40
26	BB	2598	A	O5'-C5'-C4'	-5.08	103.88	111.50
26	BB	2626	C	O4'-C4'-C3'	5.08	109.08	104.00
26	BB	2649	C	C3'-C2'-C1'	5.08	106.38	101.30
27	BC	207	VAL	CA-C-N	5.08	131.24	121.54
27	BC	207	VAL	C-N-CA	5.08	131.24	121.54
31	BG	134	GLN	CB-CA-C	5.08	117.91	109.53
34	BJ	41	ARG	N-CA-C	5.08	116.63	111.14
42	BR	74	GLN	O-C-N	-5.08	116.56	122.96
26	BB	1914	C	C4'-C3'-O3'	5.08	117.02	109.40
26	BB	2144	G	C3'-C2'-C1'	-5.08	96.22	101.30
26	BB	2891	U	C1'-C2'-O2'	-5.08	100.78	108.40
28	BD	2	VAL	CA-CB-CG2	5.08	119.03	110.40
1	AA	279	A	C5'-C4'-O4'	5.08	116.71	109.10
1	AA	1370	G	C4'-C3'-C2'	-5.08	97.53	102.60
7	AG	59	LYS	CA-C-N	5.08	128.67	120.55
7	AG	59	LYS	C-N-CA	5.08	128.67	120.55
26	BB	413	C	O4'-C1'-N1	5.08	116.11	108.50
26	BB	1152	C	O4'-C1'-N1	5.08	116.11	108.50
32	BH	117	PRO	CA-C-N	5.08	127.08	120.28
32	BH	117	PRO	C-N-CA	5.08	127.08	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BK	41	PHE	CB-CA-C	5.08	119.99	110.70
52	B1	50	VAL	CA-CB-CG2	5.08	119.03	110.40
1	AA	52	C	N1-C1'-C2'	5.07	119.61	112.00
1	AA	1139	G	C5'-C4'-C3'	5.07	122.81	115.20
1	AA	1223	C	C4'-C3'-O3'	-5.07	105.39	113.00
1	AA	1242	G	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	1388	C	C5'-C4'-C3'	-5.07	108.39	116.00
1	AA	1475	G	C2'-C3'-O3'	-5.07	106.09	113.70
7	AG	86	GLY	CA-C-N	5.07	127.04	120.44
7	AG	86	GLY	C-N-CA	5.07	127.04	120.44
9	AI	42	TRP	CA-C-N	5.07	129.26	121.45
9	AI	42	TRP	C-N-CA	5.07	129.26	121.45
18	AR	86	LEU	CA-C-N	5.07	131.23	121.54
18	AR	86	LEU	C-N-CA	5.07	131.23	121.54
26	BB	1328	A	P-O3'-C3'	5.07	127.81	120.20
26	BB	1539	U	O4'-C1'-C2'	-5.07	102.53	107.60
26	BB	1667	G	C4'-C3'-O3'	-5.07	101.79	109.40
26	BB	2218	G	C2'-C3'-O3'	-5.07	106.09	113.70
26	BB	2310	C	N1-C1'-C2'	5.07	119.61	112.00
28	BD	238	ASN	N-CA-C	5.07	117.70	110.24
40	BP	101	GLY	CA-C-N	5.07	130.74	122.07
40	BP	101	GLY	C-N-CA	5.07	130.74	122.07
45	BU	58	ALA	O-C-N	-5.07	116.37	122.15
1	AA	101	A	C4'-C3'-O3'	5.07	120.61	113.00
1	AA	422	C	C2'-C3'-O3'	5.07	117.11	109.50
26	BB	1918	A	O3'-P-O5'	-5.07	96.39	104.00
26	BB	2104	C	O4'-C1'-N1	5.07	116.11	108.50
26	BB	2201	G	C4'-C3'-C2'	5.07	107.67	102.60
26	BB	2482	A	C4'-C3'-O3'	-5.07	105.39	113.00
26	BB	2820	A	C2'-C3'-O3'	5.07	117.11	109.50
2	AB	58	A	P-O3'-C3'	5.07	127.81	120.20
26	BB	405	U	C3'-C2'-C1'	5.07	106.37	101.30
26	BB	1379	U	P-O5'-C5'	5.07	128.51	120.90
26	BB	1601	G	O3'-P-O5'	-5.07	96.39	104.00
26	BB	2323	G	C5'-C4'-C3'	-5.07	108.39	116.00
26	BB	2642	G	O4'-C4'-C3'	5.07	109.07	104.00
26	BB	2722	G	C1'-C2'-O2'	5.07	116.01	108.40
26	BB	2832	U	C4'-C3'-O3'	-5.07	101.80	109.40
30	BF	117	ARG	CD-NE-CZ	5.07	131.50	124.40
32	BH	126	THR	CA-C-N	5.07	131.23	121.54
32	BH	126	THR	C-N-CA	5.07	131.23	121.54
33	BI	126	GLY	CA-C-O	-5.07	117.24	122.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BY	36	ILE	CB-CA-C	5.07	119.61	111.29
1	AA	196	A	C3'-C2'-C1'	5.07	106.37	101.30
1	AA	1335	U	O3'-P-O5'	-5.07	96.40	104.00
16	AP	25	GLY	CA-C-N	5.07	127.07	120.28
16	AP	25	GLY	C-N-CA	5.07	127.07	120.28
25	BA	65	U	C3'-C2'-C1'	5.07	106.37	101.30
26	BB	139	U	P-O5'-C5'	5.07	128.50	120.90
26	BB	910	A	O3'-P-O5'	5.07	111.60	104.00
26	BB	2483	C	C3'-C2'-C1'	5.07	106.37	101.30
26	BB	2872	A	O5'-C5'-C4'	-5.07	103.90	111.50
32	BH	101	VAL	CA-CB-CG1	5.07	119.02	110.40
33	BI	40	THR	O-C-N	-5.07	116.11	122.24
1	AA	35	G	C1'-C2'-O2'	-5.07	100.80	108.40
19	AS	10	GLY	N-CA-C	5.07	117.21	112.04
26	BB	685	A	C3'-C2'-C1'	5.07	106.57	101.50
26	BB	762	U	C5'-C4'-C3'	-5.07	107.60	115.20
26	BB	1211	C	C2'-C3'-O3'	5.07	117.10	109.50
26	BB	2319	G	O4'-C1'-C2'	5.07	110.87	105.80
26	BB	2363	G	C3'-C2'-C1'	-5.07	96.23	101.30
26	BB	2391	G	C4'-C3'-C2'	-5.07	97.53	102.60
26	BB	2898	U	P-O5'-C5'	5.07	128.50	120.90
28	BD	228	ASP	O-C-N	5.07	128.61	122.48
36	BL	106	LYS	CA-C-O	-5.07	115.50	121.07
1	AA	454	G	C1'-O4'-C4'	5.07	114.97	109.90
1	AA	507	C	C2'-C3'-O3'	-5.07	106.10	113.70
1	AA	702	A	C2'-C3'-O3'	-5.07	101.90	109.50
1	AA	883	C	O4'-C1'-N1	5.07	116.10	108.50
1	AA	921	U	O4'-C1'-N1	5.07	116.10	108.50
1	AA	1446	A	O4'-C1'-N9	5.07	116.10	108.50
20	AT	30	HIS	CB-CG-CD2	-5.07	124.61	131.20
26	BB	276	U	C3'-C2'-O2'	5.07	118.30	110.70
26	BB	346	A	O4'-C4'-C3'	5.07	109.07	104.00
26	BB	646	U	C5'-C4'-O4'	5.07	117.40	109.80
26	BB	992	C	O4'-C1'-N1	5.07	116.10	108.50
26	BB	1070	A	C3'-C2'-O2'	-5.07	107.00	114.60
26	BB	1412	U	O4'-C4'-C3'	-5.07	98.93	104.00
26	BB	1557	C	O5'-C5'-C4'	5.07	119.10	111.50
26	BB	1945	G	P-O3'-C3'	5.07	127.80	120.20
26	BB	2125	G	C2'-C3'-O3'	5.07	121.30	113.70
26	BB	2543	G	C1'-C2'-O2'	-5.07	100.80	108.40
26	BB	2806	C	P-O3'-C3'	5.07	127.80	120.20
31	BG	132	ARG	NE-CZ-NH2	5.07	123.76	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	BZ	19	HIS	CB-CG-ND1	5.07	130.30	122.70
56	B5	26	ASN	CA-C-N	5.07	125.57	120.00
56	B5	26	ASN	C-N-CA	5.07	125.57	120.00
1	AA	188	C	P-O3'-C3'	5.06	127.80	120.20
1	AA	530	G	C3'-C2'-C1'	-5.06	96.24	101.30
12	AL	45	MET	CA-C-N	5.06	126.94	120.56
12	AL	45	MET	C-N-CA	5.06	126.94	120.56
26	BB	822	G	O4'-C1'-N9	5.06	116.09	108.50
26	BB	1923	U	C4'-C3'-O3'	-5.06	105.40	113.00
27	BC	71	ARG	O-C-N	5.06	128.84	122.92
27	BC	87	ALA	CA-C-O	-5.06	114.62	120.24
1	AA	93	U	C5'-C4'-C3'	-5.06	108.41	116.00
1	AA	587	G	C1'-O4'-C4'	-5.06	104.64	109.70
1	AA	980	C	C3'-C2'-O2'	5.06	118.29	110.70
9	AI	52	ASN	CA-C-O	-5.06	115.97	121.84
25	BA	108	A	O3'-P-O5'	-5.06	96.41	104.00
26	BB	1393	A	O4'-C1'-N9	5.06	116.09	108.50
26	BB	1584	U	O4'-C1'-N1	5.06	115.79	108.20
26	BB	1585	C	O5'-C5'-C4'	-5.06	103.91	111.50
26	BB	2012	G	O4'-C4'-C3'	5.06	109.06	104.00
26	BB	2754	U	C3'-C2'-O2'	5.06	118.29	110.70
26	BB	2865	U	O5'-C5'-C4'	5.06	119.09	111.50
1	AA	266	G	C5'-C4'-C3'	5.06	123.59	116.00
26	BB	2062	A	P-O5'-C5'	-5.06	113.31	120.90
26	BB	2110	G	O5'-C5'-C4'	5.06	119.29	111.70
26	BB	2540	C	O4'-C4'-C3'	5.06	109.06	104.00
26	BB	2822	G	C2'-C3'-O3'	-5.06	106.11	113.70
27	BC	216	THR	CA-C-N	5.06	127.02	120.44
27	BC	216	THR	C-N-CA	5.06	127.02	120.44
37	BM	71	ARG	NE-CZ-NH2	5.06	123.75	119.20
9	AI	129	SER	N-CA-C	-5.06	107.18	113.55
19	AS	31	ARG	NE-CZ-NH1	5.06	126.56	121.50
20	AT	59	GLU	N-CA-C	-5.06	100.79	109.24
25	BA	111	U	C4'-C3'-C2'	-5.06	97.54	102.60
26	BB	192	C	O4'-C4'-C3'	-5.06	98.94	104.00
26	BB	836	G	C4'-C3'-C2'	-5.06	97.54	102.60
26	BB	1149	G	O4'-C4'-C3'	5.06	109.06	104.00
26	BB	2096	C	O4'-C1'-C2'	-5.06	102.54	107.60
26	BB	2165	C	C1'-O4'-C4'	5.06	114.96	109.90
26	BB	2505	G	P-O3'-C3'	5.06	127.79	120.20
1	AA	141	G	C1'-O4'-C4'	-5.06	104.84	109.90
1	AA	435	A	O4'-C1'-N9	5.06	116.09	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	812	G	C1'-O4'-C4'	-5.06	104.84	109.90
1	AA	822	U	O4'-C4'-C3'	5.06	109.06	104.00
1	AA	939	G	C5'-C4'-C3'	-5.06	108.42	116.00
1	AA	1359	C	C4'-C3'-O3'	-5.06	105.41	113.00
2	AB	74	C	O4'-C1'-N1	5.06	115.79	108.20
6	AF	169	GLU	CA-C-N	5.06	128.46	120.07
6	AF	169	GLU	C-N-CA	5.06	128.46	120.07
7	AG	187	ARG	CA-C-O	-5.06	113.16	119.38
26	BB	225	C	O4'-C1'-C2'	-5.06	102.54	107.60
26	BB	435	C	O4'-C1'-N1	5.06	116.09	108.50
26	BB	1450	G	O4'-C1'-N9	5.06	116.09	108.50
26	BB	1546	G	O4'-C4'-C3'	5.06	109.06	104.00
26	BB	1826	G	C4'-C3'-C2'	-5.06	97.54	102.60
26	BB	2214	C	C3'-C2'-C1'	5.06	106.36	101.30
26	BB	2269	G	C3'-C2'-C1'	5.06	106.36	101.30
26	BB	2565	A	P-O3'-C3'	5.06	127.79	120.20
26	BB	2688	G	C4'-C3'-C2'	-5.06	97.54	102.60
27	BC	9	ARG	NE-CZ-NH2	-5.06	114.65	119.20
1	AA	824	G	C4'-C3'-C2'	-5.06	97.54	102.60
1	AA	965	U	O4'-C1'-C2'	-5.06	100.74	105.80
2	AB	62	U	P-O5'-C5'	5.06	128.48	120.90
5	AE	235	SER	CA-C-N	5.06	128.00	120.31
5	AE	235	SER	C-N-CA	5.06	128.00	120.31
26	BB	356	G	N9-C1'-C2'	-5.06	104.42	112.00
26	BB	789	A	C1'-O4'-C4'	5.06	114.76	109.70
26	BB	1010	A	C3'-C2'-O2'	5.06	118.28	110.70
26	BB	1534	U	C4'-C3'-C2'	-5.06	97.54	102.60
26	BB	2046	G	C4'-C3'-O3'	-5.06	105.42	113.00
26	BB	2392	A	O3'-P-O5'	-5.06	96.42	104.00
26	BB	2792	A	O4'-C1'-N9	5.06	116.08	108.50
57	B6	63	TYR	N-CA-C	-5.06	103.04	110.52
1	AA	159	G	C1'-C2'-O2'	5.05	115.98	108.40
1	AA	772	U	C3'-C2'-C1'	-5.05	96.25	101.30
1	AA	1208	C	C4'-C3'-C2'	-5.05	97.55	102.60
1	AA	1215	G	C3'-C2'-O2'	5.05	118.28	110.70
1	AA	1301	U	C3'-C2'-C1'	-5.05	96.44	101.50
14	AN	87	GLY	CA-C-O	-5.05	114.29	121.52
26	BB	854	C	C4'-C3'-C2'	-5.05	97.55	102.60
26	BB	1288	G	O3'-P-O5'	-5.05	96.42	104.00
26	BB	1587	G	C4'-C3'-O3'	5.05	120.58	113.00
26	BB	1740	G	C4'-C3'-C2'	-5.05	97.55	102.60
26	BB	1789	A	C2'-C3'-O3'	-5.05	106.12	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2473	U	C3'-C2'-C1'	-5.05	96.25	101.30
26	BB	2778	A	C4'-C3'-O3'	5.05	116.98	109.40
28	BD	12	ARG	CD-NE-CZ	5.05	131.48	124.40
30	BF	98	LYS	CA-CB-CG	-5.05	103.99	114.10
37	BM	56	ASP	CB-CA-C	5.05	118.11	109.72
1	AA	122	G	C4'-C3'-C2'	-5.05	97.55	102.60
6	AF	2	GLN	CA-C-N	5.05	131.19	121.54
6	AF	2	GLN	C-N-CA	5.05	131.19	121.54
26	BB	2346	A	C1'-O4'-C4'	-5.05	104.65	109.70
26	BB	2473	U	O4'-C1'-N1	5.05	116.08	108.50
26	BB	2567	G	C5'-C4'-C3'	-5.05	108.42	116.00
26	BB	2719	G	C5'-C4'-O4'	5.05	117.38	109.80
28	BD	86	ARG	CD-NE-CZ	5.05	131.47	124.40
1	AA	28	A	C1'-C2'-O2'	-5.05	100.82	108.40
1	AA	303	A	C1'-O4'-C4'	-5.05	104.85	109.90
1	AA	530	G	C5'-C4'-C3'	-5.05	108.42	116.00
1	AA	673	A	C1'-O4'-C4'	5.05	114.95	109.90
1	AA	866	C	C3'-C2'-O2'	5.05	118.28	110.70
26	BB	304	U	O4'-C1'-N1	5.05	116.08	108.50
26	BB	1205	A	O4'-C1'-N9	5.05	115.78	108.20
26	BB	1829	A	C4'-C3'-C2'	-5.05	97.55	102.60
33	BI	44	ILE	O-C-N	5.05	128.74	121.82
33	BI	91	PHE	CB-CA-C	5.05	117.56	109.27
1	AA	85	U	C1'-O4'-C4'	-5.05	104.65	109.70
1	AA	286	C	C5'-C4'-O4'	5.05	117.37	109.80
1	AA	802	A	C4'-C3'-C2'	-5.05	97.55	102.60
1	AA	1441	A	C3'-C2'-C1'	5.05	106.35	101.30
24	AX	5	VAL	CA-CB-CG2	5.05	118.98	110.40
26	BB	665	U	O4'-C1'-N1	5.05	116.08	108.50
26	BB	1483	G	C5'-C4'-O4'	-5.05	102.22	109.80
26	BB	1901	A	O4'-C1'-C2'	-5.05	102.55	107.60
26	BB	2598	A	C4'-C3'-C2'	-5.05	97.55	102.60
32	BH	51	PHE	CA-CB-CG	5.05	118.85	113.80
37	BM	76	VAL	CA-C-N	5.05	131.06	121.97
37	BM	76	VAL	C-N-CA	5.05	131.06	121.97
58	B7	24	ARG	NE-CZ-NH2	5.05	123.74	119.20
1	AA	1252	A	C2'-C3'-O3'	-5.05	106.13	113.70
5	AE	92	ASN	CA-C-N	5.05	130.62	122.29
5	AE	92	ASN	C-N-CA	5.05	130.62	122.29
26	BB	1855	U	O4'-C1'-C2'	-5.05	102.55	107.60
26	BB	1856	U	O4'-C1'-C2'	5.05	112.65	107.60
42	BR	46	VAL	CA-CB-CG1	5.05	118.98	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	239	U	C4'-C3'-C2'	-5.05	97.55	102.60
1	AA	449	G	C3'-C2'-O2'	5.05	118.27	110.70
22	AV	10	ILE	CA-C-N	5.05	131.18	121.54
22	AV	10	ILE	C-N-CA	5.05	131.18	121.54
22	AV	72	GLU	CA-C-N	5.05	127.00	120.44
22	AV	72	GLU	C-N-CA	5.05	127.00	120.44
26	BB	115	C	C3'-C2'-C1'	5.05	106.35	101.30
26	BB	227	A	C4'-C3'-C2'	-5.05	97.55	102.60
26	BB	345	A	C2'-C3'-O3'	5.05	117.07	109.50
26	BB	1052	C	O4'-C1'-N1	5.05	116.07	108.50
26	BB	1114	C	C4'-C3'-O3'	5.05	120.57	113.00
26	BB	1881	C	P-O5'-C5'	5.05	128.47	120.90
26	BB	2091	C	C5'-C4'-O4'	5.05	117.37	109.80
26	BB	2167	U	O4'-C4'-C3'	5.05	109.05	104.00
33	BI	74	ALA	CA-C-N	5.05	128.02	120.95
33	BI	74	ALA	C-N-CA	5.05	128.02	120.95
1	AA	249	U	C4'-C3'-O3'	-5.04	105.43	113.00
6	AF	164	THR	CA-C-N	5.04	130.48	121.75
6	AF	164	THR	C-N-CA	5.04	130.48	121.75
20	AT	7	LEU	CA-C-O	-5.04	115.56	121.46
26	BB	479	A	C1'-C2'-O2'	5.04	119.37	111.80
26	BB	569	U	O4'-C1'-N1	5.04	115.77	108.20
26	BB	655	A	C4'-C3'-O3'	5.04	116.97	109.40
26	BB	686	U	N1-C1'-C2'	-5.04	106.43	114.00
26	BB	700	G	C1'-O4'-C4'	5.04	114.94	109.90
26	BB	1061	U	P-O3'-C3'	5.04	127.77	120.20
26	BB	2591	C	C5'-C4'-C3'	-5.04	108.43	116.00
26	BB	2598	A	O4'-C1'-C2'	-5.04	102.56	107.60
1	AA	1302	C	C5'-C4'-O4'	5.04	117.37	109.80
1	AA	1320	C	C4'-C3'-C2'	-5.04	97.56	102.60
24	AX	5	VAL	N-CA-C	5.04	115.55	110.05
26	BB	67	U	N1-C1'-C2'	5.04	119.57	112.00
26	BB	473	G	C2'-C3'-O3'	-5.04	106.14	113.70
26	BB	611	C	C4'-C3'-O3'	5.04	120.57	113.00
26	BB	621	A	O4'-C1'-C2'	-5.04	102.56	107.60
26	BB	910	A	C1'-O4'-C4'	-5.04	104.86	109.90
26	BB	1358	G	C4'-C3'-C2'	-5.04	97.56	102.60
26	BB	2314	A	N9-C1'-C2'	5.04	119.56	112.00
29	BE	148	GLN	OE1-CD-NE2	-5.04	117.56	122.60
34	BJ	87	HIS	CE1-NE2-CD2	-5.04	103.96	109.00
39	BO	109	PRO	O-C-N	5.04	129.45	122.64
45	BU	101	SER	CA-CB-OG	-5.04	101.01	111.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	832	G	C5'-C4'-C3'	-5.04	108.44	116.00
33	BI	21	VAL	CA-C-O	-5.04	115.02	120.67
1	AA	1047	G	P-O5'-C5'	-5.04	113.34	120.90
6	AF	13	ILE	CA-C-N	5.04	131.04	121.97
6	AF	13	ILE	C-N-CA	5.04	131.04	121.97
13	AM	32	THR	CA-C-N	5.04	127.92	121.27
13	AM	32	THR	C-N-CA	5.04	127.92	121.27
26	BB	96	C	O4'-C1'-N1	5.04	116.06	108.50
26	BB	632	A	C3'-C2'-C1'	-5.04	96.26	101.30
26	BB	1654	A	O5'-C5'-C4'	-5.04	103.94	111.50
27	BC	19	LYS	CA-CB-CG	5.04	124.18	114.10
47	BW	67	SER	N-CA-C	-5.04	106.98	114.64
1	AA	182	A	O4'-C1'-C2'	-5.04	100.76	105.80
1	AA	190	A	C3'-C2'-O2'	-5.04	103.14	110.70
1	AA	404	G	N9-C1'-C2'	-5.04	104.44	112.00
1	AA	653	U	C4'-C3'-O3'	-5.04	101.84	109.40
1	AA	1179	A	N9-C1'-C2'	-5.04	104.44	112.00
1	AA	1489	G	C1'-C2'-O2'	5.04	115.96	108.40
5	AE	158	ASP	CA-C-N	5.04	130.13	121.87
5	AE	158	ASP	C-N-CA	5.04	130.13	121.87
26	BB	558	U	C3'-C2'-C1'	5.04	106.34	101.30
26	BB	2143	C	O4'-C4'-C3'	5.04	109.04	104.00
31	BG	75	GLY	CA-C-N	5.04	132.37	121.64
31	BG	75	GLY	C-N-CA	5.04	132.37	121.64
1	AA	122	G	O4'-C4'-C3'	5.04	109.04	104.00
1	AA	729	A	C3'-C2'-C1'	5.04	106.34	101.30
1	AA	764	C	O3'-P-O5'	5.04	111.56	104.00
4	AD	3	C	C4'-C3'-C2'	-5.04	97.56	102.60
26	BB	526	A	N9-C1'-C2'	5.04	119.56	112.00
26	BB	2718	G	C5'-C4'-O4'	5.04	117.36	109.80
1	AA	353	A	C2'-C3'-O3'	5.04	121.25	113.70
6	AF	154	GLY	CA-C-N	5.04	129.63	122.08
6	AF	154	GLY	C-N-CA	5.04	129.63	122.08
7	AG	162	GLU	CA-C-N	5.04	130.47	122.61
7	AG	162	GLU	C-N-CA	5.04	130.47	122.61
26	BB	308	G	O4'-C4'-C3'	5.04	109.03	104.00
26	BB	887	U	N1-C1'-C2'	5.04	119.55	112.00
26	BB	1350	C	C2'-C3'-O3'	-5.04	106.15	113.70
26	BB	1453	A	O5'-C5'-C4'	5.04	119.05	111.50
26	BB	1640	A	C3'-C2'-O2'	5.04	118.25	110.70
32	BH	44	HIS	CB-CG-CD2	-5.04	124.65	131.20
33	BI	56	ALA	CA-C-O	-5.04	114.41	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BK	34	ILE	CA-C-N	5.04	127.03	120.28
35	BK	34	ILE	C-N-CA	5.04	127.03	120.28
41	BQ	75	GLY	O-C-N	5.04	127.08	122.19
46	BV	21	SER	N-CA-C	5.04	117.50	111.71
50	BZ	25	LYS	CA-C-N	5.04	130.15	122.24
50	BZ	25	LYS	C-N-CA	5.04	130.15	122.24
52	B1	43	ILE	CA-C-O	-5.04	114.81	120.25
1	AA	1223	C	C3'-C2'-C1'	5.03	106.33	101.30
4	AD	26	C	C3'-C2'-C1'	5.03	106.33	101.30
6	AF	17	TRP	CA-CB-CG	5.03	123.16	113.60
8	AH	140	ILE	CA-C-N	5.03	127.96	120.31
8	AH	140	ILE	C-N-CA	5.03	127.96	120.31
18	AR	27	GLN	OE1-CD-NE2	-5.03	117.57	122.60
26	BB	141	G	O4'-C1'-N9	5.03	116.05	108.50
26	BB	223	A	O4'-C1'-N9	5.03	116.05	108.50
26	BB	883	G	C1'-O4'-C4'	5.03	114.93	109.90
26	BB	1581	G	C1'-O4'-C4'	-5.03	104.87	109.90
26	BB	2164	C	O4'-C1'-C2'	-5.03	102.57	107.60
26	BB	2230	G	C5'-C4'-O4'	5.03	117.35	109.80
26	BB	2562	U	C5'-C4'-O4'	5.03	117.35	109.80
28	BD	148	GLY	CA-C-O	5.03	124.25	118.86
32	BH	132	LEU	CA-C-O	-5.03	115.21	120.80
36	BL	8	PRO	CA-C-N	5.03	127.96	120.31
36	BL	8	PRO	C-N-CA	5.03	127.96	120.31
36	BL	48	VAL	CA-CB-CG2	5.03	118.96	110.40
42	BR	20	ARG	N-CA-C	-5.03	101.39	109.04
16	AP	100	ARG	O-C-N	-5.03	117.31	123.10
26	BB	527	C	O3'-P-O5'	-5.03	96.45	104.00
26	BB	1345	C	O5'-C5'-C4'	5.03	119.05	111.50
26	BB	1683	U	O4'-C1'-N1	5.03	116.05	108.50
26	BB	2344	U	C3'-C2'-C1'	-5.03	96.47	101.50
26	BB	2786	U	O3'-P-O5'	5.03	111.55	104.00
30	BF	168	ASP	N-CA-C	5.03	117.35	108.75
31	BG	73	VAL	CB-CA-C	5.03	118.46	110.81
34	BJ	80	LEU	N-CA-C	5.03	118.27	110.17
1	AA	622	A	O4'-C4'-C3'	5.03	109.03	104.00
1	AA	833	G	C3'-C2'-C1'	5.03	106.33	101.30
26	BB	449	A	P-O3'-C3'	5.03	127.75	120.20
26	BB	534	U	O3'-P-O5'	5.03	111.55	104.00
26	BB	1903	G	C4'-C3'-C2'	-5.03	97.57	102.60
26	BB	1919	A	C5'-C4'-C3'	-5.03	108.45	116.00
30	BF	96	VAL	CG1-CB-CG2	-5.03	99.73	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BH	72	ASN	CA-C-N	5.03	127.33	120.54
32	BH	72	ASN	C-N-CA	5.03	127.33	120.54
32	BH	162	ARG	NE-CZ-NH2	5.03	123.73	119.20
38	BN	94	THR	N-CA-C	5.03	121.52	110.80
6	AF	34	SER	CA-C-N	5.03	127.02	120.28
6	AF	34	SER	C-N-CA	5.03	127.02	120.28
26	BB	1795	C	C4'-C3'-C2'	-5.03	97.57	102.60
26	BB	1953	A	C2'-C3'-O3'	5.03	117.04	109.50
39	BO	98	PRO	CB-CA-C	5.03	116.99	111.11
1	AA	243	A	O3'-P-O5'	5.03	111.54	104.00
1	AA	1064	G	C3'-C2'-C1'	5.03	106.53	101.50
26	BB	811	U	C1'-O4'-C4'	-5.03	104.67	109.70
26	BB	1333	G	C5'-C4'-C3'	-5.03	108.46	116.00
26	BB	2097	A	C3'-C2'-C1'	-5.03	96.27	101.30
30	BF	170	ARG	O-C-N	5.03	129.69	123.15
40	BP	47	VAL	N-CA-C	5.03	115.25	110.53
45	BU	15	GLN	CA-C-N	5.03	129.23	120.68
45	BU	15	GLN	C-N-CA	5.03	129.23	120.68
47	BW	36	GLU	CA-C-N	5.03	129.87	120.87
47	BW	36	GLU	C-N-CA	5.03	129.87	120.87
1	AA	260	G	C4'-C3'-C2'	-5.03	97.58	102.60
1	AA	487	A	C1'-C2'-O2'	5.03	115.94	108.40
2	AB	4	G	O3'-P-O5'	-5.03	96.46	104.00
9	AI	98	GLU	O-C-N	5.03	127.03	121.85
10	AJ	79	VAL	N-CA-CB	-5.03	105.83	112.36
25	BA	63	C	P-O3'-C3'	5.03	127.74	120.20
26	BB	880	G	C4'-C3'-O3'	5.03	120.54	113.00
26	BB	985	C	O4'-C1'-C2'	-5.03	102.57	107.60
26	BB	1152	C	P-O5'-C5'	-5.03	113.36	120.90
26	BB	1339	G	O4'-C1'-N9	5.03	116.04	108.50
26	BB	1941	C	C4'-C3'-C2'	5.03	107.63	102.60
26	BB	2278	A	O5'-C5'-C4'	-5.03	103.96	111.50
26	BB	2654	A	C4'-C3'-C2'	5.03	107.63	102.60
34	BJ	142	MET	O-C-N	5.03	127.88	122.15
43	BS	35	PHE	CA-C-O	-5.03	115.54	120.82
58	B7	2	LYS	N-CA-CB	-5.03	103.30	111.24
1	AA	54	C	C3'-C2'-C1'	5.02	106.32	101.30
1	AA	1148	U	O4'-C1'-C2'	-5.02	102.58	107.60
26	BB	1925	C	C4'-C3'-C2'	-5.02	97.58	102.60
48	BX	70	ILE	N-CA-CB	-5.02	103.83	111.57
1	AA	1335	U	C5'-C4'-O4'	5.02	116.63	109.10
7	AG	106	PHE	CA-C-O	-5.02	114.42	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	10	G	O4'-C4'-C3'	5.02	109.02	104.00
26	BB	1318	U	O4'-C4'-C3'	5.02	109.02	104.00
26	BB	2148	G	C5'-C4'-O4'	5.02	117.33	109.80
26	BB	2157	G	O5'-C5'-C4'	5.02	119.23	111.70
26	BB	2370	G	O4'-C1'-C2'	-5.02	102.58	107.60
28	BD	74	PRO	N-CA-CB	5.02	108.11	103.39
30	BF	45	ALA	N-CA-C	-5.02	107.19	113.72
30	BF	189	THR	CA-CB-CG2	5.02	119.04	110.50
34	BJ	126	ALA	CA-C-O	-5.02	112.52	119.05
26	BB	316	C	C5'-C4'-C3'	5.02	123.53	116.00
26	BB	996	A	C1'-O4'-C4'	5.02	114.92	109.90
26	BB	1409	U	C5'-C4'-C3'	-5.02	108.47	116.00
26	BB	1665	A	C2'-C3'-O3'	5.02	121.23	113.70
26	BB	2277	G	N9-C1'-C2'	-5.02	104.47	112.00
1	AA	266	G	O5'-C5'-C4'	-5.02	103.97	111.50
1	AA	410	G	P-O3'-C3'	5.02	127.73	120.20
7	AG	157	ALA	CA-C-N	5.02	126.97	120.44
7	AG	157	ALA	C-N-CA	5.02	126.97	120.44
13	AM	37	ARG	O-C-N	5.02	128.94	123.22
26	BB	380	G	C3'-C2'-C1'	-5.02	96.28	101.30
26	BB	396	G	C5'-C4'-C3'	-5.02	108.47	116.00
26	BB	399	U	O4'-C1'-C2'	5.02	112.62	107.60
26	BB	457	A	C4'-C3'-C2'	-5.02	97.58	102.60
26	BB	585	G	C2'-C3'-O3'	-5.02	106.17	113.70
26	BB	2015	A	O5'-C5'-C4'	-5.02	103.97	111.50
26	BB	2016	U	O3'-P-O5'	-5.02	96.47	104.00
26	BB	2379	G	C4'-C3'-C2'	-5.02	97.58	102.60
26	BB	2566	A	O3'-P-O5'	-5.02	96.47	104.00
26	BB	2606	C	O4'-C1'-C2'	-5.02	102.58	107.60
27	BC	25	GLU	N-CA-CB	-5.02	102.22	110.40
35	BK	133	ARG	N-CA-C	-5.02	105.89	111.36
1	AA	230	G	C2'-C3'-O3'	-5.02	106.17	113.70
1	AA	1220	G	O5'-C5'-C4'	5.02	119.03	111.50
14	AN	22	ILE	N-CA-CB	-5.02	105.12	111.64
18	AR	57	ARG	NE-CZ-NH1	5.02	126.52	121.50
26	BB	475	C	C3'-C2'-O2'	5.02	118.23	110.70
26	BB	1495	A	O5'-C5'-C4'	-5.02	103.97	111.50
26	BB	1679	A	C1'-O4'-C4'	5.02	114.92	109.90
26	BB	1778	U	C5'-C4'-C3'	-5.02	108.47	116.00
26	BB	2117	A	C2'-C3'-O3'	-5.02	106.17	113.70
26	BB	2309	A	O4'-C4'-C3'	5.02	109.02	104.00
26	BB	2887	A	C5'-C4'-O4'	5.02	117.33	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	BJ	41	ARG	O-C-N	5.02	127.51	122.09
42	BR	108	ARG	CA-C-O	5.02	126.98	121.11
48	BX	92	VAL	CA-CB-CG1	5.02	118.93	110.40
1	AA	553	A	O4'-C1'-N9	5.02	116.02	108.50
1	AA	1201	A	C1'-O4'-C4'	-5.02	104.68	109.70
2	AB	65	C	O5'-C5'-C4'	5.02	119.02	111.50
4	AD	16	C	C3'-C2'-C1'	5.02	106.52	101.50
27	BC	181	ASP	CA-CB-CG	-5.02	107.58	112.60
31	BG	32	LYS	CB-CG-CD	5.02	122.84	111.30
31	BG	141	ASP	CA-CB-CG	5.02	117.62	112.60
42	BR	108	ARG	CB-CG-CD	5.02	122.84	111.30
56	B5	9	VAL	CA-CB-CG1	5.02	118.93	110.40
1	AA	163	C	O4'-C1'-N1	5.01	116.02	108.50
6	AF	31	ASN	CA-CB-CG	5.01	117.61	112.60
8	AH	67	ARG	CA-CB-CG	5.01	124.13	114.10
26	BB	44	A	O4'-C4'-C3'	5.01	109.01	104.00
26	BB	114	U	O5'-C5'-C4'	-5.01	103.98	111.50
26	BB	805	G	C1'-C2'-O2'	5.01	115.92	108.40
26	BB	1424	G	O4'-C1'-N9	5.01	116.02	108.50
26	BB	1502	A	O4'-C1'-N9	5.01	116.02	108.50
26	BB	1646	C	O4'-C1'-N1	5.01	116.02	108.50
26	BB	1685	C	O5'-C5'-C4'	5.01	119.02	111.50
26	BB	2053	G	C4'-C3'-O3'	-5.01	105.48	113.00
26	BB	2068	U	C5'-C4'-O4'	5.01	117.32	109.80
26	BB	2263	C	C4'-C3'-O3'	5.01	120.52	113.00
26	BB	2724	U	O4'-C4'-C3'	5.01	109.01	104.00
34	BJ	87	HIS	CB-CA-C	5.01	118.69	111.02
1	AA	445	G	C4'-C3'-C2'	-5.01	97.59	102.60
1	AA	888	G	C4'-C3'-O3'	-5.01	105.48	113.00
12	AL	77	ALA	CA-C-O	-5.01	115.11	120.42
16	AP	95	PRO	N-CD-CG	5.01	110.72	103.20
26	BB	120	U	P-O3'-C3'	5.01	127.72	120.20
26	BB	822	G	C1'-C2'-O2'	-5.01	100.88	108.40
30	BF	97	ASN	CA-C-N	5.01	127.00	120.28
30	BF	97	ASN	C-N-CA	5.01	127.00	120.28
1	AA	304	U	C4'-C3'-C2'	-5.01	97.59	102.60
1	AA	316	C	O4'-C1'-N1	5.01	116.02	108.50
1	AA	1201	A	P-O3'-C3'	5.01	127.72	120.20
8	AH	113	VAL	CA-C-N	5.01	129.09	120.72
8	AH	113	VAL	C-N-CA	5.01	129.09	120.72
26	BB	42	A	C2'-C3'-O3'	-5.01	106.18	113.70
26	BB	510	C	C2'-C3'-O3'	-5.01	106.18	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1589	U	C4'-C3'-C2'	-5.01	97.59	102.60
26	BB	2297	A	C5'-C4'-C3'	-5.01	108.48	116.00
26	BB	2744	G	O5'-C5'-C4'	-5.01	103.98	111.50
30	BF	58	LYS	CA-C-N	5.01	125.08	119.87
30	BF	58	LYS	C-N-CA	5.01	125.08	119.87
31	BG	4	HIS	CB-CG-CD2	-5.01	124.69	131.20
34	BJ	32	VAL	N-CA-CB	5.01	119.50	111.23
41	BQ	76	LYS	O-C-N	5.01	127.50	122.09
1	AA	341	C	C3'-C2'-O2'	5.01	118.21	110.70
1	AA	709	U	C3'-C2'-C1'	5.01	106.31	101.30
1	AA	872	A	C2'-C3'-O3'	5.01	117.01	109.50
4	AD	33	OMC	P-O3'-C3'	5.01	127.71	120.20
11	AK	33	VAL	O-C-N	5.01	126.95	121.94
12	AL	88	GLU	N-CA-C	-5.01	106.48	112.59
26	BB	321	U	N1-C1'-C2'	5.01	119.52	112.00
26	BB	511	U	O4'-C1'-N1	5.01	116.01	108.50
26	BB	1427	A	C4'-C3'-C2'	-5.01	97.59	102.60
26	BB	1603	A	C2'-C3'-O3'	-5.01	106.19	113.70
26	BB	2372	U	O4'-C4'-C3'	-5.01	98.99	104.00
30	BF	173	THR	OG1-CB-CG2	-5.01	99.28	109.30
38	BN	106	GLU	CA-C-O	-5.01	112.80	119.06
1	AA	1067	A	O5'-C5'-C4'	-5.01	104.19	111.70
7	AG	18	LEU	CA-C-N	5.01	131.11	121.54
7	AG	18	LEU	C-N-CA	5.01	131.11	121.54
11	AK	69	ALA	CA-C-N	5.01	130.99	121.97
11	AK	69	ALA	C-N-CA	5.01	130.99	121.97
26	BB	902	C	O3'-P-O5'	-5.01	96.49	104.00
26	BB	1306	C	C5'-C4'-O4'	5.01	117.31	109.80
49	BY	24	ARG	CA-C-N	5.01	131.10	121.54
49	BY	24	ARG	C-N-CA	5.01	131.10	121.54
1	AA	535	A	P-O3'-C3'	5.01	127.71	120.20
12	AL	101	GLY	N-CA-C	5.01	121.61	114.85
25	BA	89	U	C4'-C3'-O3'	-5.01	105.49	113.00
26	BB	287	G	C1'-O4'-C4'	5.01	114.91	109.90
26	BB	1253	A	C5'-C4'-O4'	5.01	116.61	109.10
26	BB	2046	G	C5'-C4'-C3'	-5.01	108.49	116.00
26	BB	2809	A	C5'-C4'-C3'	-5.01	108.49	116.00
1	AA	1442	G	O4'-C4'-C3'	5.00	109.00	104.00
26	BB	436	C	P-O5'-C5'	5.00	128.41	120.90
26	BB	926	G	C1'-O4'-C4'	-5.00	104.89	109.90
26	BB	1816	C	C4'-C3'-C2'	-5.00	97.59	102.60
26	BB	2228	G	C3'-C2'-O2'	5.00	118.21	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2809	A	C4'-C3'-O3'	-5.00	105.49	113.00
1	AA	30	U	C3'-C2'-C1'	5.00	106.50	101.50
1	AA	276	G	O4'-C4'-C3'	-5.00	99.00	104.00
1	AA	410	G	P-O5'-C5'	5.00	128.41	120.90
1	AA	482	A	C3'-C2'-C1'	5.00	106.30	101.30
1	AA	560	A	C3'-C2'-C1'	5.00	106.50	101.50
1	AA	1129	C	C2'-C3'-O3'	5.00	117.01	109.50
1	AA	1530	G	O4'-C1'-C2'	-5.00	102.60	107.60
17	AQ	74	ARG	N-CA-C	5.00	117.62	111.82
25	BA	106	G	O4'-C1'-N9	5.00	116.01	108.50
26	BB	251	A	C5'-C4'-O4'	5.00	117.30	109.80
26	BB	885	C	P-O5'-C5'	5.00	128.41	120.90
26	BB	1040	A	C4'-C3'-O3'	5.00	120.50	113.00
26	BB	1049	C	O5'-C5'-C4'	-5.00	103.99	111.50
26	BB	2489	U	C4'-C3'-O3'	5.00	120.50	113.00
26	BB	2747	G	O4'-C4'-C3'	-5.00	99.00	104.00
48	BX	85	LYS	N-CA-C	5.00	117.16	110.35
54	B3	53	VAL	CB-CA-C	5.00	118.22	110.82
1	AA	187	G	C2'-C3'-O3'	5.00	121.20	113.70
1	AA	1291	U	N1-C1'-C2'	-5.00	104.50	112.00
26	BB	1365	A	C5'-C4'-O4'	5.00	117.30	109.80
26	BB	2336	A	C1'-C2'-O2'	5.00	119.30	111.80

There are no chirality outliers.

All (2949) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	100	G	Sidechain
1	AA	1000	A	Sidechain
1	AA	1002	G	Sidechain
1	AA	1003	G	Sidechain
1	AA	1006	G	Sidechain
1	AA	1008	U	Sidechain
1	AA	1009	U	Sidechain
1	AA	1011	C	Sidechain
1	AA	1012	A	Sidechain
1	AA	1014	A	Sidechain
1	AA	1016	A	Sidechain
1	AA	1017	U	Sidechain
1	AA	1021	A	Sidechain
1	AA	1022	A	Sidechain
1	AA	1023	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1024	G	Sidechain
1	AA	1025	U	Sidechain
1	AA	1026	G	Sidechain
1	AA	1028	C	Sidechain
1	AA	1030	U	Sidechain
1	AA	1033	G	Sidechain
1	AA	1034	G	Sidechain
1	AA	1036	A	Sidechain
1	AA	1038	C	Sidechain
1	AA	1039	G	Sidechain
1	AA	1040	U	Sidechain
1	AA	1041	G	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	1049	U	Sidechain
1	AA	1050	G	Sidechain
1	AA	1052	U	Sidechain
1	AA	1053	G	Sidechain
1	AA	1054	C	Sidechain
1	AA	1055	A	Sidechain
1	AA	1056	U	Sidechain
1	AA	1059	C	Sidechain
1	AA	106	C	Sidechain
1	AA	1060	U	Sidechain
1	AA	1061	G	Sidechain
1	AA	1062	U	Sidechain
1	AA	1063	C	Sidechain
1	AA	1064	G	Sidechain
1	AA	1066	C	Sidechain
1	AA	1067	A	Sidechain
1	AA	1068	G	Sidechain
1	AA	107	G	Sidechain
1	AA	1070	U	Sidechain
1	AA	1071	C	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

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Mol	Chain	Res	Type	Group
1	AA	1079	G	Sidechain
1	AA	108	G	Sidechain
1	AA	1080	A	Sidechain
1	AA	1081	A	Sidechain
1	AA	1087	G	Sidechain
1	AA	1089	G	Sidechain
1	AA	1090	U	Sidechain
1	AA	1092	A	Sidechain
1	AA	1093	A	Sidechain
1	AA	1094	G	Sidechain
1	AA	1096	C	Sidechain
1	AA	1099	G	Sidechain
1	AA	11	G	Sidechain
1	AA	1100	C	Sidechain
1	AA	1106	G	Sidechain
1	AA	1108	G	Sidechain
1	AA	1109	C	Sidechain
1	AA	111	G	Sidechain
1	AA	1110	A	Sidechain
1	AA	1114	C	Sidechain
1	AA	1116	U	Sidechain
1	AA	112	G	Sidechain
1	AA	1122	U	Sidechain
1	AA	1123	U	Sidechain
1	AA	1124	G	Sidechain
1	AA	1125	U	Sidechain
1	AA	1126	U	Sidechain
1	AA	1127	G	Sidechain
1	AA	1128	C	Sidechain
1	AA	1129	C	Sidechain
1	AA	113	G	Sidechain
1	AA	1131	G	Sidechain
1	AA	1132	C	Sidechain
1	AA	1133	G	Sidechain
1	AA	1134	G	Sidechain
1	AA	1135	U	Sidechain
1	AA	1136	C	Sidechain
1	AA	1138	G	Sidechain
1	AA	1139	G	Sidechain
1	AA	1140	C	Sidechain
1	AA	1143	G	Sidechain
1	AA	1145	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1148	U	Sidechain
1	AA	1149	C	Sidechain
1	AA	1150	A	Sidechain
1	AA	1151	A	Sidechain
1	AA	1152	A	Sidechain
1	AA	1153	G	Sidechain
1	AA	1155	A	Sidechain
1	AA	1159	U	Sidechain
1	AA	116	A	Sidechain
1	AA	1161	C	Sidechain
1	AA	1162	C	Sidechain
1	AA	1164	G	Sidechain
1	AA	1165	U	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	1173	U	Sidechain
1	AA	1174	G	Sidechain
1	AA	1175	G	Sidechain
1	AA	1177	G	Sidechain
1	AA	1178	G	Sidechain
1	AA	1179	A	Sidechain
1	AA	1181	G	Sidechain
1	AA	1182	G	Sidechain
1	AA	1183	U	Sidechain
1	AA	1185	G	Sidechain
1	AA	1187	G	Sidechain
1	AA	1190	G	Sidechain
1	AA	1197	A	Sidechain
1	AA	1199	U	Sidechain
1	AA	12	U	Sidechain
1	AA	120	A	Sidechain
1	AA	1201	A	Sidechain
1	AA	1202	U	Sidechain
1	AA	1203	C	Sidechain
1	AA	1204	A	Sidechain
1	AA	1205	U	Sidechain
1	AA	1206	G	Sidechain
1	AA	1209	C	Sidechain
1	AA	121	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1211	U	Sidechain
1	AA	1213	A	Sidechain
1	AA	1214	C	Sidechain
1	AA	1215	G	Sidechain
1	AA	1216	A	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	1223	C	Sidechain
1	AA	1224	U	Sidechain
1	AA	123	U	Sidechain
1	AA	1230	C	Sidechain
1	AA	1231	G	Sidechain
1	AA	1232	U	Sidechain
1	AA	1233	G	Sidechain
1	AA	1234	C	Sidechain
1	AA	1236	A	Sidechain
1	AA	1239	A	Sidechain
1	AA	124	C	Sidechain
1	AA	1240	U	Sidechain
1	AA	1241	G	Sidechain
1	AA	1243	C	Sidechain
1	AA	1250	A	Sidechain
1	AA	1253	G	Sidechain
1	AA	1254	A	Sidechain
1	AA	1255	G	Sidechain
1	AA	1258	G	Sidechain
1	AA	126	G	Sidechain
1	AA	1260	G	Sidechain
1	AA	1264	U	Sidechain
1	AA	1266	G	Sidechain
1	AA	1269	A	Sidechain
1	AA	127	G	Sidechain
1	AA	1271	A	Sidechain
1	AA	1272	G	Sidechain
1	AA	1274	A	Sidechain
1	AA	1277	C	Sidechain
1	AA	1278	G	Sidechain
1	AA	1279	G	Sidechain
1	AA	128	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1282	C	Sidechain
1	AA	1284	C	Sidechain
1	AA	1289	A	Sidechain
1	AA	129	A	Sidechain
1	AA	1292	G	Sidechain
1	AA	1293	C	Sidechain
1	AA	1295	U	Sidechain
1	AA	1298	U	Sidechain
1	AA	130	A	Sidechain
1	AA	1300	G	Sidechain
1	AA	1301	U	Sidechain
1	AA	1302	C	Sidechain
1	AA	1303	C	Sidechain
1	AA	1304	G	Sidechain
1	AA	1305	G	Sidechain
1	AA	1308	U	Sidechain
1	AA	1309	G	Sidechain
1	AA	131	A	Sidechain
1	AA	1310	G	Sidechain
1	AA	1312	G	Sidechain
1	AA	1316	G	Sidechain
1	AA	1317	C	Sidechain
1	AA	1319	A	Sidechain
1	AA	1321	U	Sidechain
1	AA	1322	C	Sidechain
1	AA	1323	G	Sidechain
1	AA	1326	U	Sidechain
1	AA	133	U	Sidechain
1	AA	1330	U	Sidechain
1	AA	1332	A	Sidechain
1	AA	1334	G	Sidechain
1	AA	1335	U	Sidechain
1	AA	1336	C	Sidechain
1	AA	1337	G	Sidechain
1	AA	1338	G	Sidechain
1	AA	1339	A	Sidechain
1	AA	134	G	Sidechain
1	AA	1341	U	Sidechain
1	AA	1342	C	Sidechain
1	AA	1343	G	Sidechain
1	AA	1344	C	Sidechain
1	AA	1345	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1346	A	Sidechain
1	AA	1347	G	Sidechain
1	AA	1348	U	Sidechain
1	AA	1350	A	Sidechain
1	AA	1351	U	Sidechain
1	AA	1352	C	Sidechain
1	AA	1354	U	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	136	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	1365	G	Sidechain
1	AA	1366	C	Sidechain
1	AA	1367	C	Sidechain
1	AA	1368	A	Sidechain
1	AA	1369	C	Sidechain
1	AA	137	U	Sidechain
1	AA	1370	G	Sidechain
1	AA	1371	G	Sidechain
1	AA	1373	G	Sidechain
1	AA	1374	A	Sidechain
1	AA	1375	A	Sidechain
1	AA	1376	U	Sidechain
1	AA	1379	G	Sidechain
1	AA	138	G	Sidechain
1	AA	1381	U	Sidechain
1	AA	1382	C	Sidechain
1	AA	1383	C	Sidechain
1	AA	1386	G	Sidechain
1	AA	1388	C	Sidechain
1	AA	139	A	Sidechain
1	AA	1390	U	Sidechain
1	AA	1392	G	Sidechain
1	AA	1393	U	Sidechain
1	AA	1395	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1396	A	Sidechain
1	AA	140	U	Sidechain
1	AA	1403	C	Sidechain
1	AA	1404	C	Sidechain
1	AA	1405	G	Sidechain
1	AA	1408	A	Sidechain
1	AA	1409	C	Sidechain
1	AA	141	G	Sidechain
1	AA	1412	C	Sidechain
1	AA	1413	A	Sidechain
1	AA	1415	G	Sidechain
1	AA	1416	G	Sidechain
1	AA	1417	G	Sidechain
1	AA	142	G	Sidechain
1	AA	1421	G	Sidechain
1	AA	1422	G	Sidechain
1	AA	1423	G	Sidechain
1	AA	1426	G	Sidechain
1	AA	1427	C	Sidechain
1	AA	143	A	Sidechain
1	AA	1430	A	Sidechain
1	AA	1431	A	Sidechain
1	AA	1432	G	Sidechain
1	AA	1434	A	Sidechain
1	AA	1435	G	Sidechain
1	AA	1436	U	Sidechain
1	AA	1437	A	Sidechain
1	AA	1438	G	Sidechain
1	AA	144	G	Sidechain
1	AA	1440	U	Sidechain
1	AA	1445	U	Sidechain
1	AA	1446	A	Sidechain
1	AA	145	G	Sidechain
1	AA	1450	U	Sidechain
1	AA	1452	C	Sidechain
1	AA	1453	G	Sidechain
1	AA	1456	A	Sidechain
1	AA	1461	G	Sidechain
1	AA	1462	C	Sidechain
1	AA	1463	U	Sidechain
1	AA	1464	U	Sidechain
1	AA	147	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1470	U	Sidechain
1	AA	1473	G	Sidechain
1	AA	1475	G	Sidechain
1	AA	1476	A	Sidechain
1	AA	1478	U	Sidechain
1	AA	148	G	Sidechain
1	AA	1482	G	Sidechain
1	AA	1485	U	Sidechain
1	AA	1487	G	Sidechain
1	AA	1488	G	Sidechain
1	AA	1489	G	Sidechain
1	AA	1491	G	Sidechain
1	AA	1495	U	Sidechain
1	AA	1497	G	Sidechain
1	AA	1499	A	Sidechain
1	AA	1502	A	Sidechain
1	AA	1504	G	Sidechain
1	AA	1507	A	Sidechain
1	AA	1508	A	Sidechain
1	AA	151	A	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	1523	G	Sidechain
1	AA	1524	C	Sidechain
1	AA	1525	G	Sidechain
1	AA	1527	U	Sidechain
1	AA	1528	U	Sidechain
1	AA	153	C	Sidechain
1	AA	1530	G	Sidechain
1	AA	1531	A	Sidechain
1	AA	1534	A	Sidechain
1	AA	1535	C	Sidechain
1	AA	1537	U	Sidechain
1	AA	1539	C	Sidechain
1	AA	1541	U	Sidechain
1	AA	158	G	Sidechain
1	AA	159	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	16	A	Sidechain
1	AA	161	A	Sidechain
1	AA	164	G	Sidechain
1	AA	165	G	Sidechain
1	AA	167	A	Sidechain
1	AA	169	C	Sidechain
1	AA	170	U	Sidechain
1	AA	172	A	Sidechain
1	AA	178	C	Sidechain
1	AA	18	C	Sidechain
1	AA	180	U	Sidechain
1	AA	181	A	Sidechain
1	AA	182	A	Sidechain
1	AA	183	C	Sidechain
1	AA	184	G	Sidechain
1	AA	185	U	Sidechain
1	AA	187	G	Sidechain
1	AA	190	A	Sidechain
1	AA	191	G	Sidechain
1	AA	192	A	Sidechain
1	AA	193	C	Sidechain
1	AA	194	C	Sidechain
1	AA	196	A	Sidechain
1	AA	197	A	Sidechain
1	AA	198	G	Sidechain
1	AA	199	A	Sidechain
1	AA	20	U	Sidechain
1	AA	200	G	Sidechain
1	AA	202	G	Sidechain
1	AA	203	G	Sidechain
1	AA	204	G	Sidechain
1	AA	206	C	Sidechain
1	AA	208	U	Sidechain
1	AA	210	C	Sidechain
1	AA	211	G	Sidechain
1	AA	213	G	Sidechain
1	AA	214	C	Sidechain
1	AA	216	U	Sidechain
1	AA	218	U	Sidechain
1	AA	219	U	Sidechain
1	AA	220	G	Sidechain
1	AA	223	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	225	C	Sidechain
1	AA	226	G	Sidechain
1	AA	227	G	Sidechain
1	AA	230	G	Sidechain
1	AA	233	C	Sidechain
1	AA	234	C	Sidechain
1	AA	236	A	Sidechain
1	AA	238	A	Sidechain
1	AA	239	U	Sidechain
1	AA	24	U	Sidechain
1	AA	240	G	Sidechain
1	AA	241	G	Sidechain
1	AA	244	U	Sidechain
1	AA	247	G	Sidechain
1	AA	248	C	Sidechain
1	AA	249	U	Sidechain
1	AA	250	A	Sidechain
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	26	A	Sidechain
1	AA	260	G	Sidechain
1	AA	261	U	Sidechain
1	AA	262	A	Sidechain
1	AA	264	C	Sidechain
1	AA	265	G	Sidechain
1	AA	267	C	Sidechain
1	AA	27	G	Sidechain
1	AA	271	C	Sidechain
1	AA	274	A	Sidechain
1	AA	275	G	Sidechain
1	AA	276	G	Sidechain
1	AA	278	G	Sidechain
1	AA	282	A	Sidechain
1	AA	283	U	Sidechain
1	AA	285	C	Sidechain
1	AA	286	C	Sidechain
1	AA	288	A	Sidechain
1	AA	289	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	291	U	Sidechain
1	AA	292	G	Sidechain
1	AA	297	G	Sidechain
1	AA	298	A	Sidechain
1	AA	299	G	Sidechain
1	AA	3	A	Sidechain
1	AA	301	G	Sidechain
1	AA	302	G	Sidechain
1	AA	303	A	Sidechain
1	AA	307	C	Sidechain
1	AA	308	C	Sidechain
1	AA	311	C	Sidechain
1	AA	312	C	Sidechain
1	AA	313	A	Sidechain
1	AA	314	C	Sidechain
1	AA	316	C	Sidechain
1	AA	318	G	Sidechain
1	AA	319	G	Sidechain
1	AA	32	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	330	C	Sidechain
1	AA	331	G	Sidechain
1	AA	332	G	Sidechain
1	AA	333	U	Sidechain
1	AA	335	C	Sidechain
1	AA	336	A	Sidechain
1	AA	337	G	Sidechain
1	AA	338	A	Sidechain
1	AA	340	U	Sidechain
1	AA	341	C	Sidechain
1	AA	342	C	Sidechain
1	AA	348	G	Sidechain
1	AA	35	G	Sidechain
1	AA	351	G	Sidechain
1	AA	352	C	Sidechain
1	AA	354	G	Sidechain
1	AA	355	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	356	A	Sidechain
1	AA	359	G	Sidechain
1	AA	36	C	Sidechain
1	AA	361	G	Sidechain
1	AA	362	G	Sidechain
1	AA	365	U	Sidechain
1	AA	366	A	Sidechain
1	AA	367	U	Sidechain
1	AA	369	G	Sidechain
1	AA	37	U	Sidechain
1	AA	370	C	Sidechain
1	AA	372	C	Sidechain
1	AA	373	A	Sidechain
1	AA	374	A	Sidechain
1	AA	378	G	Sidechain
1	AA	380	G	Sidechain
1	AA	382	A	Sidechain
1	AA	383	A	Sidechain
1	AA	384	G	Sidechain
1	AA	386	C	Sidechain
1	AA	388	G	Sidechain
1	AA	389	A	Sidechain
1	AA	390	U	Sidechain
1	AA	391	G	Sidechain
1	AA	392	C	Sidechain
1	AA	393	A	Sidechain
1	AA	394	G	Sidechain
1	AA	396	C	Sidechain
1	AA	397	A	Sidechain
1	AA	398	U	Sidechain
1	AA	399	G	Sidechain
1	AA	4	U	Sidechain
1	AA	402	G	Sidechain
1	AA	403	C	Sidechain
1	AA	404	G	Sidechain
1	AA	406	G	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

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Mol	Chain	Res	Type	Group
1	AA	416	G	Sidechain
1	AA	417	G	Sidechain
1	AA	418	C	Sidechain
1	AA	419	C	Sidechain
1	AA	421	U	Sidechain
1	AA	423	G	Sidechain
1	AA	425	G	Sidechain
1	AA	428	G	Sidechain
1	AA	430	A	Sidechain
1	AA	432	A	Sidechain
1	AA	435	A	Sidechain
1	AA	436	C	Sidechain
1	AA	44	A	Sidechain
1	AA	441	A	Sidechain
1	AA	442	G	Sidechain
1	AA	443	C	Sidechain
1	AA	445	G	Sidechain
1	AA	446	G	Sidechain
1	AA	447	G	Sidechain
1	AA	448	A	Sidechain
1	AA	450	G	Sidechain
1	AA	455	G	Sidechain
1	AA	458	U	Sidechain
1	AA	459	A	Sidechain
1	AA	462	G	Sidechain
1	AA	465	A	Sidechain
1	AA	466	A	Sidechain
1	AA	47	C	Sidechain
1	AA	474	G	Sidechain
1	AA	475	C	Sidechain
1	AA	476	U	Sidechain
1	AA	477	C	Sidechain
1	AA	478	A	Sidechain
1	AA	479	U	Sidechain
1	AA	48	C	Sidechain
1	AA	481	G	Sidechain
1	AA	483	C	Sidechain
1	AA	484	G	Sidechain
1	AA	486	U	Sidechain
1	AA	49	U	Sidechain
1	AA	490	C	Sidechain
1	AA	491	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	492	C	Sidechain
1	AA	493	A	Sidechain
1	AA	495	A	Sidechain
1	AA	497	G	Sidechain
1	AA	499	A	Sidechain
1	AA	5	U	Sidechain
1	AA	50	A	Sidechain
1	AA	500	G	Sidechain
1	AA	502	A	Sidechain
1	AA	505	G	Sidechain
1	AA	506	G	Sidechain
1	AA	510	A	Sidechain
1	AA	511	C	Sidechain
1	AA	517	G	Sidechain
1	AA	519	C	Sidechain
1	AA	520	A	Sidechain
1	AA	523	A	Sidechain
1	AA	525	C	Sidechain
1	AA	529	G	Sidechain
1	AA	530	G	Sidechain
1	AA	533	A	Sidechain
1	AA	535	A	Sidechain
1	AA	537	G	Sidechain
1	AA	539	A	Sidechain
1	AA	54	C	Sidechain
1	AA	542	G	Sidechain
1	AA	544	G	Sidechain
1	AA	546	A	Sidechain
1	AA	547	A	Sidechain
1	AA	548	G	Sidechain
1	AA	549	C	Sidechain
1	AA	55	A	Sidechain
1	AA	550	G	Sidechain
1	AA	552	U	Sidechain
1	AA	553	A	Sidechain
1	AA	557	G	Sidechain
1	AA	558	G	Sidechain
1	AA	56	U	Sidechain
1	AA	560	A	Sidechain
1	AA	561	U	Sidechain
1	AA	562	U	Sidechain
1	AA	563	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	565	U	Sidechain
1	AA	567	G	Sidechain
1	AA	569	C	Sidechain
1	AA	57	G	Sidechain
1	AA	570	G	Sidechain
1	AA	572	A	Sidechain
1	AA	573	A	Sidechain
1	AA	574	A	Sidechain
1	AA	576	C	Sidechain
1	AA	578	C	Sidechain
1	AA	579	A	Sidechain
1	AA	58	C	Sidechain
1	AA	581	G	Sidechain
1	AA	584	G	Sidechain
1	AA	587	G	Sidechain
1	AA	591	U	Sidechain
1	AA	594	U	Sidechain
1	AA	595	A	Sidechain
1	AA	597	G	Sidechain
1	AA	599	C	Sidechain
1	AA	6	G	Sidechain
1	AA	600	A	Sidechain
1	AA	601	G	Sidechain
1	AA	603	U	Sidechain
1	AA	604	G	Sidechain
1	AA	605	U	Sidechain
1	AA	608	A	Sidechain
1	AA	609	A	Sidechain
1	AA	61	G	Sidechain
1	AA	611	C	Sidechain
1	AA	615	G	Sidechain
1	AA	616	G	Sidechain
1	AA	617	G	Sidechain
1	AA	618	C	Sidechain
1	AA	62	U	Sidechain
1	AA	620	C	Sidechain
1	AA	621	A	Sidechain
1	AA	622	A	Sidechain
1	AA	623	C	Sidechain
1	AA	625	U	Sidechain
1	AA	626	G	Sidechain
1	AA	628	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	63	C	Sidechain
1	AA	630	A	Sidechain
1	AA	632	U	Sidechain
1	AA	633	G	Sidechain
1	AA	634	C	Sidechain
1	AA	637	C	Sidechain
1	AA	638	U	Sidechain
1	AA	64	G	Sidechain
1	AA	640	A	Sidechain
1	AA	641	U	Sidechain
1	AA	646	G	Sidechain
1	AA	647	C	Sidechain
1	AA	65	A	Sidechain
1	AA	651	C	Sidechain
1	AA	652	U	Sidechain
1	AA	653	U	Sidechain
1	AA	658	C	Sidechain
1	AA	661	G	Sidechain
1	AA	663	A	Sidechain
1	AA	664	G	Sidechain
1	AA	665	A	Sidechain
1	AA	666	G	Sidechain
1	AA	668	G	Sidechain
1	AA	669	G	Sidechain
1	AA	670	G	Sidechain
1	AA	671	G	Sidechain
1	AA	673	A	Sidechain
1	AA	674	G	Sidechain
1	AA	675	A	Sidechain
1	AA	677	U	Sidechain
1	AA	678	U	Sidechain
1	AA	679	C	Sidechain
1	AA	680	C	Sidechain
1	AA	681	A	Sidechain
1	AA	682	G	Sidechain
1	AA	683	G	Sidechain
1	AA	684	U	Sidechain
1	AA	685	G	Sidechain
1	AA	686	U	Sidechain
1	AA	687	A	Sidechain
1	AA	688	G	Sidechain
1	AA	689	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	69	G	Sidechain
1	AA	692	U	Sidechain
1	AA	693	G	Sidechain
1	AA	694	A	Sidechain
1	AA	695	A	Sidechain
1	AA	697	U	Sidechain
1	AA	698	G	Sidechain
1	AA	699	C	Sidechain
1	AA	70	U	Sidechain
1	AA	703	G	Sidechain
1	AA	704	A	Sidechain
1	AA	705	G	Sidechain
1	AA	710	G	Sidechain
1	AA	711	G	Sidechain
1	AA	713	G	Sidechain
1	AA	714	G	Sidechain
1	AA	717	U	Sidechain
1	AA	718	A	Sidechain
1	AA	720	C	Sidechain
1	AA	722	G	Sidechain
1	AA	726	C	Sidechain
1	AA	727	G	Sidechain
1	AA	730	G	Sidechain
1	AA	731	G	Sidechain
1	AA	732	C	Sidechain
1	AA	733	G	Sidechain
1	AA	734	G	Sidechain
1	AA	736	C	Sidechain
1	AA	737	C	Sidechain
1	AA	740	U	Sidechain
1	AA	741	G	Sidechain
1	AA	742	G	Sidechain
1	AA	745	G	Sidechain
1	AA	746	A	Sidechain
1	AA	747	A	Sidechain
1	AA	748	G	Sidechain
1	AA	752	G	Sidechain
1	AA	753	A	Sidechain
1	AA	757	U	Sidechain
1	AA	758	C	Sidechain
1	AA	76	G	Sidechain
1	AA	760	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	761	G	Sidechain
1	AA	762	U	Sidechain
1	AA	763	G	Sidechain
1	AA	764	C	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	78	A	Sidechain
1	AA	780	A	Sidechain
1	AA	782	A	Sidechain
1	AA	783	C	Sidechain
1	AA	784	A	Sidechain
1	AA	786	G	Sidechain
1	AA	787	A	Sidechain
1	AA	788	U	Sidechain
1	AA	789	U	Sidechain
1	AA	79	G	Sidechain
1	AA	791	G	Sidechain
1	AA	794	A	Sidechain
1	AA	796	C	Sidechain
1	AA	797	C	Sidechain
1	AA	799	G	Sidechain
1	AA	800	G	Sidechain
1	AA	802	A	Sidechain
1	AA	805	C	Sidechain
1	AA	808	C	Sidechain
1	AA	809	G	Sidechain
1	AA	810	C	Sidechain
1	AA	813	U	Sidechain
1	AA	815	A	Sidechain
1	AA	816	A	Sidechain
1	AA	817	C	Sidechain
1	AA	818	G	Sidechain
1	AA	819	A	Sidechain
1	AA	82	G	Sidechain
1	AA	820	U	Sidechain
1	AA	821	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	822	U	Sidechain
1	AA	823	C	Sidechain
1	AA	824	G	Sidechain
1	AA	827	U	Sidechain
1	AA	829	G	Sidechain
1	AA	83	C	Sidechain
1	AA	832	G	Sidechain
1	AA	833	G	Sidechain
1	AA	834	U	Sidechain
1	AA	835	U	Sidechain
1	AA	838	G	Sidechain
1	AA	84	U	Sidechain
1	AA	841	C	Sidechain
1	AA	842	U	Sidechain
1	AA	843	U	Sidechain
1	AA	845	A	Sidechain
1	AA	846	G	Sidechain
1	AA	851	G	Sidechain
1	AA	852	G	Sidechain
1	AA	854	U	Sidechain
1	AA	856	C	Sidechain
1	AA	858	G	Sidechain
1	AA	859	G	Sidechain
1	AA	86	G	Sidechain
1	AA	860	A	Sidechain
1	AA	862	C	Sidechain
1	AA	864	A	Sidechain
1	AA	865	A	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	877	G	Sidechain
1	AA	878	A	Sidechain
1	AA	879	C	Sidechain
1	AA	882	C	Sidechain
1	AA	883	C	Sidechain
1	AA	884	U	Sidechain
1	AA	885	G	Sidechain
1	AA	886	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	887	G	Sidechain
1	AA	888	G	Sidechain
1	AA	889	A	Sidechain
1	AA	89	U	Sidechain
1	AA	893	C	Sidechain
1	AA	894	G	Sidechain
1	AA	897	C	Sidechain
1	AA	898	G	Sidechain
1	AA	90	C	Sidechain
1	AA	902	G	Sidechain
1	AA	904	U	Sidechain
1	AA	906	A	Sidechain
1	AA	908	A	Sidechain
1	AA	912	C	Sidechain
1	AA	913	A	Sidechain
1	AA	914	A	Sidechain
1	AA	915	A	Sidechain
1	AA	916	U	Sidechain
1	AA	917	G	Sidechain
1	AA	918	A	Sidechain
1	AA	92	U	Sidechain
1	AA	922	G	Sidechain
1	AA	926	G	Sidechain
1	AA	927	G	Sidechain
1	AA	928	G	Sidechain
1	AA	929	G	Sidechain
1	AA	930	C	Sidechain
1	AA	934	C	Sidechain
1	AA	935	A	Sidechain
1	AA	937	A	Sidechain
1	AA	939	G	Sidechain
1	AA	94	G	Sidechain
1	AA	942	G	Sidechain
1	AA	943	U	Sidechain
1	AA	944	G	Sidechain
1	AA	945	G	Sidechain
1	AA	946	A	Sidechain
1	AA	950	U	Sidechain
1	AA	954	G	Sidechain
1	AA	955	U	Sidechain
1	AA	958	A	Sidechain
1	AA	959	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	96	U	Sidechain
1	AA	960	U	Sidechain
1	AA	962	C	Sidechain
1	AA	965	U	Sidechain
1	AA	970	C	Sidechain
1	AA	971	G	Sidechain
1	AA	972	C	Sidechain
1	AA	973	G	Sidechain
1	AA	974	A	Sidechain
1	AA	975	A	Sidechain
1	AA	976	G	Sidechain
1	AA	978	A	Sidechain
1	AA	980	C	Sidechain
1	AA	981	U	Sidechain
1	AA	983	A	Sidechain
1	AA	984	C	Sidechain
1	AA	986	U	Sidechain
1	AA	987	G	Sidechain
1	AA	990	C	Sidechain
1	AA	991	U	Sidechain
1	AA	994	A	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	10	G	Sidechain
2	AB	15	A	Sidechain
2	AB	18	G	Sidechain
2	AB	19	G	Sidechain
2	AB	2	G	Sidechain
2	AB	23	A	Sidechain
2	AB	26	A	Sidechain
2	AB	27	C	Sidechain
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	40	C	Sidechain
2	AB	41	C	Sidechain
2	AB	42	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	43	G	Sidechain
2	AB	45	U	Sidechain
2	AB	47	U	Sidechain
2	AB	48	U	Sidechain
2	AB	49	G	Sidechain
2	AB	5	G	Sidechain
2	AB	50	G	Sidechain
2	AB	51	G	Sidechain
2	AB	53	G	Sidechain
2	AB	57	G	Sidechain
2	AB	58	A	Sidechain
2	AB	60	U	Sidechain
2	AB	61	C	Sidechain
2	AB	62	U	Sidechain
2	AB	63	C	Sidechain
2	AB	64	U	Sidechain
2	AB	65	C	Sidechain
2	AB	67	G	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	76	A	Sidechain
3	AC	14	G	Sidechain
3	AC	15	G	Sidechain
3	AC	16	A	Sidechain
3	AC	17	U	Sidechain
3	AC	19	A	Sidechain
3	AC	21	U	Sidechain
3	AC	24	A	Sidechain
3	AC	25	U	Sidechain
3	AC	29	G	Sidechain
3	AC	30	U	Sidechain
3	AC	31	U	Sidechain
3	AC	33	A	Sidechain
3	AC	34	U	Sidechain
3	AC	37	G	Sidechain
3	AC	40	G	Sidechain
3	AC	41	A	Sidechain
3	AC	42	U	Sidechain
3	AC	43	U	Sidechain

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Mol	Chain	Res	Type	Group
3	AC	45	G	Sidechain
3	AC	48	C	Sidechain
3	AC	49	U	Sidechain
3	AC	50	U	Sidechain
3	AC	51	C	Sidechain
3	AC	53	G	Sidechain
3	AC	54	U	Sidechain
3	AC	56	G	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	19	G	Sidechain
4	AD	20	G	Sidechain
4	AD	22	A	Sidechain
4	AD	23	G	Sidechain
4	AD	25	U	Sidechain
4	AD	28	U	Sidechain
4	AD	30	G	Sidechain
4	AD	34	U	Sidechain
4	AD	35	C	Sidechain
4	AD	37	U	Sidechain
4	AD	39	A	Sidechain
4	AD	4	G	Sidechain
4	AD	42	C	Sidechain
4	AD	43	G	Sidechain
4	AD	45	A	Sidechain
4	AD	46	G	Sidechain
4	AD	48	U	Sidechain
4	AD	49	C	Sidechain
4	AD	50	G	Sidechain
4	AD	53	G	Sidechain
4	AD	54	G	Sidechain
4	AD	57	C	Sidechain
4	AD	58	A	Sidechain
4	AD	59	A	Sidechain
4	AD	6	G	Sidechain
4	AD	60	A	Sidechain
4	AD	61	U	Sidechain

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Mol	Chain	Res	Type	Group
4	AD	64	G	Sidechain
4	AD	65	G	Sidechain
4	AD	68	C	Sidechain
4	AD	69	C	Sidechain
4	AD	7	G	Sidechain
4	AD	70	C	Sidechain
4	AD	73	A	Sidechain
4	AD	75	C	Sidechain
4	AD	76	C	Sidechain
4	AD	9	G	Sidechain
5	AE	198	VAL	Peptide
5	AE	212	TYR	Sidechain
5	AE	62	ARG	Sidechain
6	AF	129	PHE	Sidechain
6	AF	163	ARG	Sidechain
6	AF	178	ARG	Sidechain
6	AF	189	HIS	Sidechain
6	AF	192	TYR	Sidechain
6	AF	22	PHE	Sidechain
6	AF	231	ARG	Sidechain
6	AF	36	PHE	Sidechain
6	AF	41	TYR	Sidechain
6	AF	5	HIS	Peptide
6	AF	64	ARG	Sidechain
7	AG	102	TYR	Sidechain
7	AG	134	TYR	Sidechain
7	AG	183	ARG	Sidechain
7	AG	203	TYR	Sidechain
7	AG	3	TYR	Sidechain
7	AG	82	LYS	Peptide
8	AH	49	TYR	Sidechain
8	AH	53	ARG	Sidechain
9	AI	24	ARG	Sidechain
9	AI	38	ARG	Sidechain
9	AI	64	VAL	Peptide
9	AI	8	PHE	Sidechain
10	AJ	131	GLY	Peptide
10	AJ	43	TYR	Sidechain
10	AJ	52	ARG	Sidechain
10	AJ	91	ARG	Sidechain
11	AK	115	ALA	Mainchain
11	AK	44	PHE	Peptide

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Mol	Chain	Res	Type	Group
12	AL	105	ARG	Sidechain
12	AL	80	HIS	Sidechain
14	AN	117	HIS	Sidechain
14	AN	76	TYR	Sidechain
14	AN	97	ARG	Sidechain
15	AO	113	ARG	Sidechain
15	AO	30	ARG	Sidechain
15	AO	37	TYR	Peptide,Sidechain
16	AP	108	ARG	Sidechain
17	AQ	19	TYR	Sidechain
17	AQ	52	ARG	Sidechain
17	AQ	68	ARG	Sidechain
17	AQ	76	PHE	Sidechain
18	AR	79	ARG	Sidechain
19	AS	61	VAL	Mainchain
19	AS	70	ARG	Sidechain
20	AT	33	TYR	Sidechain
21	AU	10	CYS	Peptide
21	AU	22	TYR	Sidechain
21	AU	31	TYR	Sidechain
22	AV	56	HIS	Sidechain
22	AV	89	LYS	Mainchain
23	AW	50	PHE	Sidechain
24	AX	37	TYR	Sidechain
24	AX	69	LEU	Peptide
51	B0	47	ARG	Sidechain
52	B1	30	ARG	Peptide
53	B2	3	LYS	Mainchain
53	B2	43	PHE	Sidechain
53	B2	49	ARG	Peptide
53	B2	9	TYR	Sidechain
54	B3	47	TYR	Sidechain
55	B4	1	ALA	Peptide
55	B4	20	TYR	Sidechain
55	B4	38	PHE	Sidechain
55	B4	48	TYR	Sidechain
56	B5	18	PHE	Sidechain
56	B5	42	LEU	Mainchain
57	B6	44	ARG	Sidechain
57	B6	63	TYR	Sidechain
25	BA	1	U	Sidechain
25	BA	10	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BA	100	G	Sidechain
25	BA	101	A	Sidechain
25	BA	102	G	Sidechain
25	BA	104	A	Sidechain
25	BA	106	G	Sidechain
25	BA	107	G	Sidechain
25	BA	108	A	Sidechain
25	BA	11	C	Sidechain
25	BA	110	C	Sidechain
25	BA	111	U	Sidechain
25	BA	113	C	Sidechain
25	BA	119	A	Sidechain
25	BA	12	C	Sidechain
25	BA	13	G	Sidechain
25	BA	14	U	Sidechain
25	BA	16	G	Sidechain
25	BA	17	C	Sidechain
25	BA	2	G	Sidechain
25	BA	20	G	Sidechain
25	BA	23	G	Sidechain
25	BA	24	G	Sidechain
25	BA	27	C	Sidechain
25	BA	28	C	Sidechain
25	BA	29	A	Sidechain
25	BA	30	C	Sidechain
25	BA	31	C	Sidechain
25	BA	32	U	Sidechain
25	BA	33	G	Sidechain
25	BA	34	A	Sidechain
25	BA	38	C	Sidechain
25	BA	39	A	Sidechain
25	BA	40	U	Sidechain
25	BA	41	G	Sidechain
25	BA	42	C	Sidechain
25	BA	43	C	Sidechain
25	BA	48	U	Sidechain
25	BA	49	C	Sidechain
25	BA	5	U	Sidechain
25	BA	50	A	Sidechain
25	BA	51	G	Sidechain
25	BA	52	A	Sidechain
25	BA	53	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BA	55	U	Sidechain
25	BA	56	G	Sidechain
25	BA	57	A	Sidechain
25	BA	59	A	Sidechain
25	BA	6	G	Sidechain
25	BA	60	C	Sidechain
25	BA	61	G	Sidechain
25	BA	62	C	Sidechain
25	BA	64	G	Sidechain
25	BA	68	C	Sidechain
25	BA	7	G	Sidechain
25	BA	72	G	Sidechain
25	BA	73	A	Sidechain
25	BA	76	G	Sidechain
25	BA	77	U	Sidechain
25	BA	78	A	Sidechain
25	BA	79	G	Sidechain
25	BA	8	C	Sidechain
25	BA	80	U	Sidechain
25	BA	81	G	Sidechain
25	BA	83	G	Sidechain
25	BA	84	G	Sidechain
25	BA	86	G	Sidechain
25	BA	87	U	Sidechain
25	BA	88	C	Sidechain
25	BA	89	U	Sidechain
25	BA	90	C	Sidechain
25	BA	94	A	Sidechain
25	BA	95	U	Sidechain
25	BA	98	G	Sidechain
25	BA	99	A	Sidechain
26	BB	1	G	Sidechain
26	BB	10	A	Sidechain
26	BB	100	U	Sidechain
26	BB	1000	A	Sidechain
26	BB	1002	G	Sidechain
26	BB	1003	G	Sidechain
26	BB	1004	U	Sidechain
26	BB	1005	C	Sidechain
26	BB	1007	C	Sidechain
26	BB	101	A	Sidechain
26	BB	1010	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1013	C	Sidechain
26	BB	1014	A	Sidechain
26	BB	1015	U	Sidechain
26	BB	1016	G	Sidechain
26	BB	1017	G	Sidechain
26	BB	1018	U	Sidechain
26	BB	1019	U	Sidechain
26	BB	1021	A	Sidechain
26	BB	1023	U	Sidechain
26	BB	1024	G	Sidechain
26	BB	1025	G	Sidechain
26	BB	1026	G	Sidechain
26	BB	1027	A	Sidechain
26	BB	103	A	Sidechain
26	BB	1031	G	Sidechain
26	BB	1032	A	Sidechain
26	BB	1033	U	Sidechain
26	BB	1034	G	Sidechain
26	BB	1035	U	Sidechain
26	BB	1036	G	Sidechain
26	BB	1038	G	Sidechain
26	BB	104	A	Sidechain
26	BB	1040	A	Sidechain
26	BB	1041	G	Sidechain
26	BB	1042	G	Sidechain
26	BB	1044	C	Sidechain
26	BB	1047	G	Sidechain
26	BB	1048	A	Sidechain
26	BB	1049	C	Sidechain
26	BB	1051	G	Sidechain
26	BB	1055	G	Sidechain
26	BB	1056	G	Sidechain
26	BB	1057	A	Sidechain
26	BB	1058	U	Sidechain
26	BB	106	C	Sidechain
26	BB	1061	U	Sidechain
26	BB	1062	G	Sidechain
26	BB	1063	G	Sidechain
26	BB	1064	C	Sidechain
26	BB	1065	U	Sidechain
26	BB	1068	G	Sidechain
26	BB	1069	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	107	G	Sidechain
26	BB	1070	A	Sidechain
26	BB	1072	C	Sidechain
26	BB	1073	A	Sidechain
26	BB	1075	C	Sidechain
26	BB	1078	U	Sidechain
26	BB	108	G	Sidechain
26	BB	1080	A	Sidechain
26	BB	1081	U	Sidechain
26	BB	1083	U	Sidechain
26	BB	1084	A	Sidechain
26	BB	1086	A	Sidechain
26	BB	1087	G	Sidechain
26	BB	1088	A	Sidechain
26	BB	109	C	Sidechain
26	BB	1090	A	Sidechain
26	BB	1094	U	Sidechain
26	BB	1095	A	Sidechain
26	BB	1096	A	Sidechain
26	BB	1099	G	Sidechain
26	BB	11	C	Sidechain
26	BB	110	G	Sidechain
26	BB	1106	G	Sidechain
26	BB	1107	G	Sidechain
26	BB	111	A	Sidechain
26	BB	1110	G	Sidechain
26	BB	1113	U	Sidechain
26	BB	1115	G	Sidechain
26	BB	1116	G	Sidechain
26	BB	1118	C	Sidechain
26	BB	112	U	Sidechain
26	BB	1121	C	Sidechain
26	BB	1122	G	Sidechain
26	BB	1124	G	Sidechain
26	BB	1125	G	Sidechain
26	BB	1126	A	Sidechain
26	BB	1127	A	Sidechain
26	BB	1128	G	Sidechain
26	BB	1129	A	Sidechain
26	BB	1130	U	Sidechain
26	BB	1131	G	Sidechain
26	BB	1132	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1135	C	Sidechain
26	BB	1137	G	Sidechain
26	BB	1138	G	Sidechain
26	BB	1139	G	Sidechain
26	BB	1142	A	Sidechain
26	BB	1144	A	Sidechain
26	BB	1148	U	Sidechain
26	BB	1149	G	Sidechain
26	BB	115	C	Sidechain
26	BB	1150	C	Sidechain
26	BB	1152	C	Sidechain
26	BB	1153	C	Sidechain
26	BB	1154	G	Sidechain
26	BB	1155	A	Sidechain
26	BB	1156	A	Sidechain
26	BB	1158	C	Sidechain
26	BB	1159	U	Sidechain
26	BB	1160	G	Sidechain
26	BB	1161	C	Sidechain
26	BB	1163	G	Sidechain
26	BB	1164	C	Sidechain
26	BB	1165	A	Sidechain
26	BB	1166	G	Sidechain
26	BB	1169	A	Sidechain
26	BB	117	G	Sidechain
26	BB	1170	C	Sidechain
26	BB	1172	C	Sidechain
26	BB	1175	A	Sidechain
26	BB	1176	U	Sidechain
26	BB	1179	G	Sidechain
26	BB	118	A	Sidechain
26	BB	1181	U	Sidechain
26	BB	1182	G	Sidechain
26	BB	1185	G	Sidechain
26	BB	1186	G	Sidechain
26	BB	1188	U	Sidechain
26	BB	1189	A	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

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Mol	Chain	Res	Type	Group
26	BB	1197	G	Sidechain
26	BB	1200	C	Sidechain
26	BB	1201	U	Sidechain
26	BB	1202	G	Sidechain
26	BB	1206	G	Sidechain
26	BB	1209	U	Sidechain
26	BB	121	G	Sidechain
26	BB	1210	G	Sidechain
26	BB	1215	G	Sidechain
26	BB	1216	G	Sidechain
26	BB	1217	U	Sidechain
26	BB	1219	U	Sidechain
26	BB	122	G	Sidechain
26	BB	1220	G	Sidechain
26	BB	1223	G	Sidechain
26	BB	1225	G	Sidechain
26	BB	1226	A	Sidechain
26	BB	1227	G	Sidechain
26	BB	1228	G	Sidechain
26	BB	1229	C	Sidechain
26	BB	123	G	Sidechain
26	BB	1231	U	Sidechain
26	BB	1232	G	Sidechain
26	BB	1234	U	Sidechain
26	BB	1235	G	Sidechain
26	BB	1236	G	Sidechain
26	BB	1238	G	Sidechain
26	BB	1240	U	Sidechain
26	BB	1241	A	Sidechain
26	BB	1243	C	Sidechain
26	BB	1245	G	Sidechain
26	BB	1246	A	Sidechain
26	BB	1248	G	Sidechain
26	BB	1252	G	Sidechain
26	BB	1253	A	Sidechain
26	BB	1254	A	Sidechain
26	BB	1256	G	Sidechain
26	BB	1257	C	Sidechain
26	BB	1258	U	Sidechain
26	BB	1259	G	Sidechain
26	BB	1260	A	Sidechain
26	BB	1261	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1262	A	Sidechain
26	BB	1266	G	Sidechain
26	BB	1269	A	Sidechain
26	BB	127	A	Sidechain
26	BB	1270	C	Sidechain
26	BB	1271	G	Sidechain
26	BB	1273	U	Sidechain
26	BB	1274	A	Sidechain
26	BB	1275	A	Sidechain
26	BB	1276	A	Sidechain
26	BB	1277	G	Sidechain
26	BB	1278	C	Sidechain
26	BB	1279	G	Sidechain
26	BB	1281	G	Sidechain
26	BB	1282	U	Sidechain
26	BB	1283	G	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	1290	C	Sidechain
26	BB	1293	C	Sidechain
26	BB	1294	U	Sidechain
26	BB	1295	C	Sidechain
26	BB	1296	G	Sidechain
26	BB	1297	C	Sidechain
26	BB	130	C	Sidechain
26	BB	1300	G	Sidechain
26	BB	1301	A	Sidechain
26	BB	1302	A	Sidechain
26	BB	1303	G	Sidechain
26	BB	1304	A	Sidechain
26	BB	1305	C	Sidechain
26	BB	1306	C	Sidechain
26	BB	1307	A	Sidechain
26	BB	1309	G	Sidechain
26	BB	131	A	Sidechain
26	BB	1310	G	Sidechain
26	BB	1312	U	Sidechain
26	BB	1313	U	Sidechain
26	BB	1315	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1316	U	Sidechain
26	BB	1317	G	Sidechain
26	BB	1319	C	Sidechain
26	BB	1322	A	Sidechain
26	BB	1324	G	Sidechain
26	BB	1325	U	Sidechain
26	BB	1329	U	Sidechain
26	BB	133	U	Sidechain
26	BB	1332	G	Sidechain
26	BB	1334	G	Sidechain
26	BB	1336	A	Sidechain
26	BB	1337	G	Sidechain
26	BB	1339	G	Sidechain
26	BB	134	G	Sidechain
26	BB	1340	U	Sidechain
26	BB	1341	G	Sidechain
26	BB	1342	A	Sidechain
26	BB	1343	G	Sidechain
26	BB	1344	U	Sidechain
26	BB	1345	C	Sidechain
26	BB	1347	A	Sidechain
26	BB	1348	C	Sidechain
26	BB	1349	C	Sidechain
26	BB	135	U	Sidechain
26	BB	1350	C	Sidechain
26	BB	1354	A	Sidechain
26	BB	1355	G	Sidechain
26	BB	1356	G	Sidechain
26	BB	136	G	Sidechain
26	BB	1360	G	Sidechain
26	BB	1361	G	Sidechain
26	BB	1363	C	Sidechain
26	BB	1366	A	Sidechain
26	BB	1367	A	Sidechain
26	BB	1369	G	Sidechain
26	BB	137	U	Sidechain
26	BB	1374	G	Sidechain
26	BB	1377	G	Sidechain
26	BB	1378	A	Sidechain
26	BB	1380	G	Sidechain
26	BB	1381	G	Sidechain
26	BB	1383	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1384	A	Sidechain
26	BB	1386	C	Sidechain
26	BB	1389	G	Sidechain
26	BB	1390	U	Sidechain
26	BB	1393	A	Sidechain
26	BB	1395	A	Sidechain
26	BB	1397	U	Sidechain
26	BB	1398	C	Sidechain
26	BB	14	A	Sidechain
26	BB	140	C	Sidechain
26	BB	1400	U	Sidechain
26	BB	1402	U	Sidechain
26	BB	1404	C	Sidechain
26	BB	1405	U	Sidechain
26	BB	1406	U	Sidechain
26	BB	1407	G	Sidechain
26	BB	1408	G	Sidechain
26	BB	1409	U	Sidechain
26	BB	141	G	Sidechain
26	BB	1410	G	Sidechain
26	BB	1411	U	Sidechain
26	BB	1415	U	Sidechain
26	BB	1416	G	Sidechain
26	BB	1419	A	Sidechain
26	BB	142	A	Sidechain
26	BB	1420	A	Sidechain
26	BB	1421	G	Sidechain
26	BB	1422	G	Sidechain
26	BB	1424	G	Sidechain
26	BB	1425	G	Sidechain
26	BB	1428	C	Sidechain
26	BB	143	C	Sidechain
26	BB	1430	G	Sidechain
26	BB	1432	G	Sidechain
26	BB	1434	A	Sidechain
26	BB	1436	G	Sidechain
26	BB	1437	C	Sidechain
26	BB	1438	U	Sidechain
26	BB	1439	A	Sidechain
26	BB	144	A	Sidechain
26	BB	1440	U	Sidechain
26	BB	1441	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1443	U	Sidechain
26	BB	1447	C	Sidechain
26	BB	1449	G	Sidechain
26	BB	145	C	Sidechain
26	BB	1450	G	Sidechain
26	BB	1451	C	Sidechain
26	BB	1453	A	Sidechain
26	BB	1454	C	Sidechain
26	BB	1456	G	Sidechain
26	BB	1457	U	Sidechain
26	BB	146	A	Sidechain
26	BB	1460	U	Sidechain
26	BB	1461	C	Sidechain
26	BB	1462	C	Sidechain
26	BB	1470	A	Sidechain
26	BB	1471	G	Sidechain
26	BB	1472	C	Sidechain
26	BB	1473	G	Sidechain
26	BB	1474	U	Sidechain
26	BB	1475	G	Sidechain
26	BB	1476	U	Sidechain
26	BB	1477	A	Sidechain
26	BB	1478	G	Sidechain
26	BB	1479	G	Sidechain
26	BB	148	U	Sidechain
26	BB	1481	U	Sidechain
26	BB	1482	G	Sidechain
26	BB	1483	G	Sidechain
26	BB	1484	U	Sidechain
26	BB	1486	U	Sidechain
26	BB	1491	G	Sidechain
26	BB	1492	G	Sidechain
26	BB	1494	A	Sidechain
26	BB	1495	A	Sidechain
26	BB	1496	A	Sidechain
26	BB	1498	C	Sidechain
26	BB	15	G	Sidechain
26	BB	150	U	Sidechain
26	BB	1503	A	Sidechain
26	BB	1504	A	Sidechain
26	BB	1506	U	Sidechain
26	BB	1508	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1509	A	Sidechain
26	BB	1512	C	Sidechain
26	BB	1513	U	Sidechain
26	BB	1514	G	Sidechain
26	BB	1515	A	Sidechain
26	BB	1517	G	Sidechain
26	BB	1518	C	Sidechain
26	BB	1519	G	Sidechain
26	BB	152	A	Sidechain
26	BB	1521	G	Sidechain
26	BB	1523	U	Sidechain
26	BB	1524	G	Sidechain
26	BB	1525	A	Sidechain
26	BB	1526	C	Sidechain
26	BB	1527	G	Sidechain
26	BB	1528	A	Sidechain
26	BB	1529	G	Sidechain
26	BB	153	U	Sidechain
26	BB	1530	G	Sidechain
26	BB	1532	A	Sidechain
26	BB	1534	U	Sidechain
26	BB	1535	A	Sidechain
26	BB	1536	C	Sidechain
26	BB	1538	G	Sidechain
26	BB	1539	U	Sidechain
26	BB	1542	U	Sidechain
26	BB	1545	A	Sidechain
26	BB	1547	C	Sidechain
26	BB	1548	A	Sidechain
26	BB	1551	A	Sidechain
26	BB	1552	A	Sidechain
26	BB	1553	A	Sidechain
26	BB	1554	U	Sidechain
26	BB	1557	C	Sidechain
26	BB	1558	C	Sidechain
26	BB	1559	U	Sidechain
26	BB	156	A	Sidechain
26	BB	1565	C	Sidechain
26	BB	1567	G	Sidechain
26	BB	1568	G	Sidechain
26	BB	1570	A	Sidechain
26	BB	1571	A	Sidechain

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Mol	Chain	Res	Type	Group
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	1579	A	Sidechain
26	BB	1582	C	Sidechain
26	BB	1583	A	Sidechain
26	BB	1584	U	Sidechain
26	BB	1588	G	Sidechain
26	BB	159	G	Sidechain
26	BB	1591	A	Sidechain
26	BB	1592	C	Sidechain
26	BB	1595	C	Sidechain
26	BB	1596	A	Sidechain
26	BB	16	C	Sidechain
26	BB	160	A	Sidechain
26	BB	1602	U	Sidechain
26	BB	1603	A	Sidechain
26	BB	1604	C	Sidechain
26	BB	1605	C	Sidechain
26	BB	1607	C	Sidechain
26	BB	1608	A	Sidechain
26	BB	1609	A	Sidechain
26	BB	161	A	Sidechain
26	BB	1610	A	Sidechain
26	BB	1611	C	Sidechain
26	BB	1612	C	Sidechain
26	BB	1613	G	Sidechain
26	BB	1614	A	Sidechain
26	BB	1616	A	Sidechain
26	BB	1617	C	Sidechain
26	BB	1619	G	Sidechain
26	BB	1621	U	Sidechain
26	BB	1622	G	Sidechain
26	BB	1625	C	Sidechain
26	BB	1626	A	Sidechain
26	BB	1628	G	Sidechain
26	BB	1629	U	Sidechain
26	BB	1630	A	Sidechain
26	BB	1633	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1636	U	Sidechain
26	BB	1637	A	Sidechain
26	BB	1638	C	Sidechain
26	BB	1639	C	Sidechain
26	BB	164	C	Sidechain
26	BB	1640	A	Sidechain
26	BB	1641	A	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	1650	A	Sidechain
26	BB	1653	G	Sidechain
26	BB	1655	A	Sidechain
26	BB	1656	C	Sidechain
26	BB	1657	U	Sidechain
26	BB	1659	G	Sidechain
26	BB	1660	G	Sidechain
26	BB	1661	G	Sidechain
26	BB	1663	G	Sidechain
26	BB	1664	A	Sidechain
26	BB	1667	G	Sidechain
26	BB	1669	A	Sidechain
26	BB	1672	A	Sidechain
26	BB	1674	G	Sidechain
26	BB	1675	C	Sidechain
26	BB	1676	A	Sidechain
26	BB	1677	A	Sidechain
26	BB	1678	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	1685	C	Sidechain
26	BB	1686	C	Sidechain
26	BB	1687	G	Sidechain
26	BB	169	G	Sidechain
26	BB	1690	A	Sidechain
26	BB	1691	C	Sidechain
26	BB	1693	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1694	C	Sidechain
26	BB	1695	G	Sidechain
26	BB	1696	G	Sidechain
26	BB	1697	G	Sidechain
26	BB	170	U	Sidechain
26	BB	1700	A	Sidechain
26	BB	1701	A	Sidechain
26	BB	1705	A	Sidechain
26	BB	1706	C	Sidechain
26	BB	1707	G	Sidechain
26	BB	1709	U	Sidechain
26	BB	171	U	Sidechain
26	BB	1710	G	Sidechain
26	BB	1711	A	Sidechain
26	BB	1712	U	Sidechain
26	BB	1713	A	Sidechain
26	BB	1715	G	Sidechain
26	BB	1716	U	Sidechain
26	BB	1718	G	Sidechain
26	BB	1719	G	Sidechain
26	BB	1720	U	Sidechain
26	BB	1721	G	Sidechain
26	BB	1722	A	Sidechain
26	BB	1724	G	Sidechain
26	BB	1727	C	Sidechain
26	BB	1729	U	Sidechain
26	BB	173	A	Sidechain
26	BB	1733	G	Sidechain
26	BB	1734	G	Sidechain
26	BB	1735	A	Sidechain
26	BB	1737	G	Sidechain
26	BB	1738	G	Sidechain
26	BB	1739	A	Sidechain
26	BB	1740	G	Sidechain
26	BB	1743	G	Sidechain
26	BB	1744	A	Sidechain
26	BB	175	G	Sidechain
26	BB	1750	G	Sidechain
26	BB	1751	U	Sidechain
26	BB	1752	C	Sidechain
26	BB	1753	G	Sidechain
26	BB	1756	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1758	U	Sidechain
26	BB	1759	A	Sidechain
26	BB	1763	G	Sidechain
26	BB	1766	G	Sidechain
26	BB	1767	G	Sidechain
26	BB	1769	U	Sidechain
26	BB	177	G	Sidechain
26	BB	1770	G	Sidechain
26	BB	1771	C	Sidechain
26	BB	1772	A	Sidechain
26	BB	1776	G	Sidechain
26	BB	1778	U	Sidechain
26	BB	1780	A	Sidechain
26	BB	1781	U	Sidechain
26	BB	1785	A	Sidechain
26	BB	1786	A	Sidechain
26	BB	1788	C	Sidechain
26	BB	1789	A	Sidechain
26	BB	179	C	Sidechain
26	BB	1791	A	Sidechain
26	BB	1792	G	Sidechain
26	BB	1793	C	Sidechain
26	BB	1796	U	Sidechain
26	BB	1798	U	Sidechain
26	BB	1799	G	Sidechain
26	BB	18	U	Sidechain
26	BB	180	G	Sidechain
26	BB	1801	A	Sidechain
26	BB	1802	A	Sidechain
26	BB	1803	A	Sidechain
26	BB	1804	C	Sidechain
26	BB	1806	C	Sidechain
26	BB	1807	G	Sidechain
26	BB	181	A	Sidechain
26	BB	1810	A	Sidechain
26	BB	1811	G	Sidechain
26	BB	1814	G	Sidechain
26	BB	1816	C	Sidechain
26	BB	182	A	Sidechain
26	BB	1820	U	Sidechain
26	BB	1821	A	Sidechain
26	BB	1822	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1823	G	Sidechain
26	BB	1825	U	Sidechain
26	BB	1827	U	Sidechain
26	BB	1828	G	Sidechain
26	BB	1831	G	Sidechain
26	BB	1833	C	Sidechain
26	BB	1836	C	Sidechain
26	BB	1837	C	Sidechain
26	BB	1839	G	Sidechain
26	BB	1840	G	Sidechain
26	BB	1844	C	Sidechain
26	BB	1845	G	Sidechain
26	BB	1846	G	Sidechain
26	BB	1848	A	Sidechain
26	BB	185	G	Sidechain
26	BB	1850	G	Sidechain
26	BB	1857	G	Sidechain
26	BB	1858	A	Sidechain
26	BB	1859	U	Sidechain
26	BB	186	G	Sidechain
26	BB	1861	G	Sidechain
26	BB	1862	G	Sidechain
26	BB	1863	G	Sidechain
26	BB	1864	U	Sidechain
26	BB	1865	U	Sidechain
26	BB	1866	A	Sidechain
26	BB	1867	G	Sidechain
26	BB	1869	G	Sidechain
26	BB	187	G	Sidechain
26	BB	1872	A	Sidechain
26	BB	1873	G	Sidechain
26	BB	1875	G	Sidechain
26	BB	1878	G	Sidechain
26	BB	1879	C	Sidechain
26	BB	188	G	Sidechain
26	BB	1880	U	Sidechain
26	BB	1881	C	Sidechain
26	BB	1884	G	Sidechain
26	BB	1888	G	Sidechain
26	BB	1890	A	Sidechain
26	BB	1891	G	Sidechain
26	BB	1894	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1895	C	Sidechain
26	BB	1896	G	Sidechain
26	BB	1897	G	Sidechain
26	BB	190	A	Sidechain
26	BB	1900	A	Sidechain
26	BB	1902	C	Sidechain
26	BB	1903	G	Sidechain
26	BB	1904	G	Sidechain
26	BB	1905	C	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
26	BB	1918	A	Sidechain
26	BB	1919	A	Sidechain
26	BB	192	C	Sidechain
26	BB	1920	C	Sidechain
26	BB	1922	G	Sidechain
26	BB	1923	U	Sidechain
26	BB	1924	C	Sidechain
26	BB	1926	U	Sidechain
26	BB	1928	A	Sidechain
26	BB	1929	G	Sidechain
26	BB	1930	G	Sidechain
26	BB	1931	U	Sidechain
26	BB	1932	A	Sidechain
26	BB	1934	C	Sidechain
26	BB	1935	G	Sidechain
26	BB	1936	A	Sidechain
26	BB	1937	A	Sidechain
26	BB	194	G	Sidechain
26	BB	1943	U	Sidechain
26	BB	1945	G	Sidechain
26	BB	1946	U	Sidechain
26	BB	1947	C	Sidechain
26	BB	1948	G	Sidechain
26	BB	1949	G	Sidechain
26	BB	195	A	Sidechain
26	BB	1950	G	Sidechain
26	BB	1951	U	Sidechain
26	BB	1952	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1954	G	Sidechain
26	BB	1955	U	Sidechain
26	BB	1956	U	Sidechain
26	BB	1957	C	Sidechain
26	BB	1958	C	Sidechain
26	BB	1959	G	Sidechain
26	BB	1960	A	Sidechain
26	BB	1964	G	Sidechain
26	BB	1967	C	Sidechain
26	BB	1968	G	Sidechain
26	BB	1969	A	Sidechain
26	BB	1970	A	Sidechain
26	BB	1973	G	Sidechain
26	BB	1974	C	Sidechain
26	BB	1975	G	Sidechain
26	BB	1978	A	Sidechain
26	BB	1980	G	Sidechain
26	BB	1981	A	Sidechain
26	BB	1982	U	Sidechain
26	BB	1984	G	Sidechain
26	BB	1989	G	Sidechain
26	BB	1992	G	Sidechain
26	BB	1993	U	Sidechain
26	BB	1994	C	Sidechain
26	BB	1997	C	Sidechain
26	BB	1999	C	Sidechain
26	BB	2	G	Sidechain
26	BB	20	C	Sidechain
26	BB	200	U	Sidechain
26	BB	2002	G	Sidechain
26	BB	2004	G	Sidechain
26	BB	2005	A	Sidechain
26	BB	2006	C	Sidechain
26	BB	2007	U	Sidechain
26	BB	2008	C	Sidechain
26	BB	201	C	Sidechain
26	BB	2010	G	Sidechain
26	BB	2011	U	Sidechain
26	BB	2012	G	Sidechain
26	BB	2013	A	Sidechain
26	BB	2015	A	Sidechain
26	BB	2016	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	202	U	Sidechain
26	BB	2020	A	Sidechain
26	BB	2021	C	Sidechain
26	BB	2022	U	Sidechain
26	BB	2024	G	Sidechain
26	BB	2026	U	Sidechain
26	BB	2032	G	Sidechain
26	BB	2033	A	Sidechain
26	BB	2034	U	Sidechain
26	BB	2035	G	Sidechain
26	BB	2038	G	Sidechain
26	BB	2039	U	Sidechain
26	BB	204	A	Sidechain
26	BB	2040	G	Sidechain
26	BB	2041	U	Sidechain
26	BB	2043	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
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	2058	A	Sidechain
26	BB	2059	A	Sidechain
26	BB	2060	A	Sidechain
26	BB	2061	G	Sidechain
26	BB	2064	C	Sidechain
26	BB	2067	G	Sidechain
26	BB	207	A	Sidechain
26	BB	2070	A	Sidechain
26	BB	2071	A	Sidechain
26	BB	2072	C	Sidechain
26	BB	2074	U	Sidechain
26	BB	2076	U	Sidechain
26	BB	2077	A	Sidechain
26	BB	208	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2081	U	Sidechain
26	BB	2083	G	Sidechain
26	BB	2084	C	Sidechain
26	BB	2085	U	Sidechain
26	BB	2086	U	Sidechain
26	BB	2087	G	Sidechain
26	BB	2088	A	Sidechain
26	BB	2089	C	Sidechain
26	BB	2091	C	Sidechain
26	BB	2092	U	Sidechain
26	BB	2093	G	Sidechain
26	BB	2094	A	Sidechain
26	BB	2096	C	Sidechain
26	BB	2098	U	Sidechain
26	BB	2100	G	Sidechain
26	BB	2101	A	Sidechain
26	BB	2102	G	Sidechain
26	BB	2103	C	Sidechain
26	BB	2105	U	Sidechain
26	BB	2107	G	Sidechain
26	BB	2109	U	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	2119	A	Sidechain
26	BB	2123	G	Sidechain
26	BB	2124	G	Sidechain
26	BB	2125	G	Sidechain
26	BB	2127	G	Sidechain
26	BB	213	A	Sidechain
26	BB	2130	U	Sidechain
26	BB	2131	U	Sidechain
26	BB	2133	G	Sidechain
26	BB	2136	G	Sidechain
26	BB	2138	G	Sidechain
26	BB	214	G	Sidechain
26	BB	2141	G	Sidechain
26	BB	2142	A	Sidechain
26	BB	2145	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2146	C	Sidechain
26	BB	2147	A	Sidechain
26	BB	2148	G	Sidechain
26	BB	215	G	Sidechain
26	BB	2151	U	Sidechain
26	BB	2152	G	Sidechain
26	BB	2153	C	Sidechain
26	BB	2156	G	Sidechain
26	BB	2157	G	Sidechain
26	BB	2158	A	Sidechain
26	BB	2159	G	Sidechain
26	BB	216	A	Sidechain
26	BB	2162	G	Sidechain
26	BB	2163	A	Sidechain
26	BB	2164	C	Sidechain
26	BB	2165	C	Sidechain
26	BB	2166	U	Sidechain
26	BB	2168	G	Sidechain
26	BB	2169	A	Sidechain
26	BB	2170	A	Sidechain
26	BB	2171	A	Sidechain
26	BB	2172	U	Sidechain
26	BB	2174	C	Sidechain
26	BB	2176	A	Sidechain
26	BB	2177	C	Sidechain
26	BB	2178	C	Sidechain
26	BB	2179	C	Sidechain
26	BB	218	A	Sidechain
26	BB	2180	U	Sidechain
26	BB	2182	U	Sidechain
26	BB	2183	A	Sidechain
26	BB	2184	A	Sidechain
26	BB	2185	U	Sidechain
26	BB	219	A	Sidechain
26	BB	2191	A	Sidechain
26	BB	2193	G	Sidechain
26	BB	2194	U	Sidechain
26	BB	2195	U	Sidechain
26	BB	2196	C	Sidechain
26	BB	2197	U	Sidechain
26	BB	2198	A	Sidechain
26	BB	22	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	220	G	Sidechain
26	BB	2201	G	Sidechain
26	BB	2202	U	Sidechain
26	BB	2203	U	Sidechain
26	BB	2204	G	Sidechain
26	BB	2206	C	Sidechain
26	BB	2210	U	Sidechain
26	BB	2212	A	Sidechain
26	BB	2213	U	Sidechain
26	BB	2215	C	Sidechain
26	BB	2217	G	Sidechain
26	BB	2219	U	Sidechain
26	BB	222	A	Sidechain
26	BB	2221	G	Sidechain
26	BB	2228	G	Sidechain
26	BB	223	A	Sidechain
26	BB	2230	G	Sidechain
26	BB	2231	U	Sidechain
26	BB	2232	C	Sidechain
26	BB	2233	U	Sidechain
26	BB	2234	G	Sidechain
26	BB	2235	G	Sidechain
26	BB	2238	G	Sidechain
26	BB	2240	U	Sidechain
26	BB	2242	G	Sidechain
26	BB	2243	U	Sidechain
26	BB	2244	U	Sidechain
26	BB	2246	G	Sidechain
26	BB	2247	A	Sidechain
26	BB	2248	C	Sidechain
26	BB	2253	G	Sidechain
26	BB	2256	G	Sidechain
26	BB	2257	U	Sidechain
26	BB	226	A	Sidechain
26	BB	2260	C	Sidechain
26	BB	2262	U	Sidechain
26	BB	2263	C	Sidechain
26	BB	2266	A	Sidechain
26	BB	2267	A	Sidechain
26	BB	2268	A	Sidechain
26	BB	2269	G	Sidechain
26	BB	2270	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2271	G	Sidechain
26	BB	2273	A	Sidechain
26	BB	2274	A	Sidechain
26	BB	2276	G	Sidechain
26	BB	2279	G	Sidechain
26	BB	228	C	Sidechain
26	BB	2280	G	Sidechain
26	BB	2281	A	Sidechain
26	BB	2282	G	Sidechain
26	BB	2283	C	Sidechain
26	BB	2284	A	Sidechain
26	BB	2287	A	Sidechain
26	BB	2288	A	Sidechain
26	BB	229	C	Sidechain
26	BB	2290	G	Sidechain
26	BB	2294	G	Sidechain
26	BB	2295	C	Sidechain
26	BB	2296	U	Sidechain
26	BB	2297	A	Sidechain
26	BB	2299	U	Sidechain
26	BB	2303	G	Sidechain
26	BB	2304	G	Sidechain
26	BB	2306	C	Sidechain
26	BB	2308	G	Sidechain
26	BB	2309	A	Sidechain
26	BB	231	A	Sidechain
26	BB	2310	C	Sidechain
26	BB	2313	C	Sidechain
26	BB	2314	A	Sidechain
26	BB	2315	G	Sidechain
26	BB	2318	G	Sidechain
26	BB	232	G	Sidechain
26	BB	2321	U	Sidechain
26	BB	2324	U	Sidechain
26	BB	2325	G	Sidechain
26	BB	2327	A	Sidechain
26	BB	233	A	Sidechain
26	BB	2330	G	Sidechain
26	BB	2334	U	Sidechain
26	BB	2335	A	Sidechain
26	BB	2336	A	Sidechain
26	BB	2337	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2338	C	Sidechain
26	BB	2339	C	Sidechain
26	BB	2340	A	Sidechain
26	BB	2342	C	Sidechain
26	BB	2345	G	Sidechain
26	BB	2347	C	Sidechain
26	BB	2349	G	Sidechain
26	BB	235	U	Sidechain
26	BB	2350	C	Sidechain
26	BB	2353	G	Sidechain
26	BB	2355	G	Sidechain
26	BB	2356	U	Sidechain
26	BB	2357	G	Sidechain
26	BB	2358	A	Sidechain
26	BB	2361	G	Sidechain
26	BB	2363	G	Sidechain
26	BB	2365	G	Sidechain
26	BB	2367	G	Sidechain
26	BB	2368	C	Sidechain
26	BB	2369	A	Sidechain
26	BB	2370	G	Sidechain
26	BB	2371	G	Sidechain
26	BB	2374	C	Sidechain
26	BB	2375	G	Sidechain
26	BB	2376	A	Sidechain
26	BB	2379	G	Sidechain
26	BB	2381	A	Sidechain
26	BB	2382	G	Sidechain
26	BB	2383	G	Sidechain
26	BB	2384	U	Sidechain
26	BB	2386	A	Sidechain
26	BB	2387	U	Sidechain
26	BB	2388	A	Sidechain
26	BB	2389	G	Sidechain
26	BB	239	C	Sidechain
26	BB	2390	U	Sidechain
26	BB	2392	A	Sidechain
26	BB	2393	U	Sidechain
26	BB	2394	C	Sidechain
26	BB	2395	C	Sidechain
26	BB	2396	G	Sidechain
26	BB	2398	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2399	G	Sidechain
26	BB	24	G	Sidechain
26	BB	240	C	Sidechain
26	BB	2401	U	Sidechain
26	BB	2402	U	Sidechain
26	BB	2405	G	Sidechain
26	BB	2409	G	Sidechain
26	BB	241	A	Sidechain
26	BB	2411	A	Sidechain
26	BB	2412	A	Sidechain
26	BB	2413	G	Sidechain
26	BB	2414	G	Sidechain
26	BB	2415	G	Sidechain
26	BB	242	G	Sidechain
26	BB	2420	C	Sidechain
26	BB	2422	C	Sidechain
26	BB	2424	C	Sidechain
26	BB	2428	G	Sidechain
26	BB	2429	G	Sidechain
26	BB	243	U	Sidechain
26	BB	2431	U	Sidechain
26	BB	2432	A	Sidechain
26	BB	2435	A	Sidechain
26	BB	2436	G	Sidechain
26	BB	2438	U	Sidechain
26	BB	2439	A	Sidechain
26	BB	2441	U	Sidechain
26	BB	2442	C	Sidechain
26	BB	2443	C	Sidechain
26	BB	2446	G	Sidechain
26	BB	2447	G	Sidechain
26	BB	2448	A	Sidechain
26	BB	245	G	Sidechain
26	BB	2451	A	Sidechain
26	BB	2452	C	Sidechain
26	BB	2454	G	Sidechain
26	BB	2456	C	Sidechain
26	BB	2458	G	Sidechain
26	BB	2461	A	Sidechain
26	BB	2462	C	Sidechain
26	BB	2463	C	Sidechain
26	BB	2464	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2469	A	Sidechain
26	BB	2472	G	Sidechain
26	BB	2473	U	Sidechain
26	BB	2474	U	Sidechain
26	BB	2475	C	Sidechain
26	BB	2477	U	Sidechain
26	BB	2478	A	Sidechain
26	BB	248	G	Sidechain
26	BB	2480	C	Sidechain
26	BB	2481	G	Sidechain
26	BB	2484	G	Sidechain
26	BB	2485	G	Sidechain
26	BB	2486	C	Sidechain
26	BB	2487	G	Sidechain
26	BB	2488	G	Sidechain
26	BB	2489	U	Sidechain
26	BB	249	C	Sidechain
26	BB	2490	G	Sidechain
26	BB	2491	U	Sidechain
26	BB	2493	U	Sidechain
26	BB	2494	G	Sidechain
26	BB	2495	G	Sidechain
26	BB	2496	C	Sidechain
26	BB	2497	A	Sidechain
26	BB	2500	U	Sidechain
26	BB	2501	C	Sidechain
26	BB	2505	G	Sidechain
26	BB	2507	C	Sidechain
26	BB	2508	G	Sidechain
26	BB	2509	G	Sidechain
26	BB	2511	U	Sidechain
26	BB	2512	C	Sidechain
26	BB	2517	C	Sidechain
26	BB	2519	U	Sidechain
26	BB	2520	C	Sidechain
26	BB	2521	C	Sidechain
26	BB	2522	U	Sidechain
26	BB	2523	G	Sidechain
26	BB	2524	G	Sidechain
26	BB	2525	G	Sidechain
26	BB	2526	G	Sidechain
26	BB	2527	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2528	U	Sidechain
26	BB	2529	G	Sidechain
26	BB	254	G	Sidechain
26	BB	2541	A	Sidechain
26	BB	2542	A	Sidechain
26	BB	2544	G	Sidechain
26	BB	2545	G	Sidechain
26	BB	2546	U	Sidechain
26	BB	2547	A	Sidechain
26	BB	2548	U	Sidechain
26	BB	2549	G	Sidechain
26	BB	2550	G	Sidechain
26	BB	2554	U	Sidechain
26	BB	2557	G	Sidechain
26	BB	2560	A	Sidechain
26	BB	2561	U	Sidechain
26	BB	2562	U	Sidechain
26	BB	2567	G	Sidechain
26	BB	2569	G	Sidechain
26	BB	257	C	Sidechain
26	BB	2571	U	Sidechain
26	BB	2572	A	Sidechain
26	BB	2573	C	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	2581	G	Sidechain
26	BB	2582	G	Sidechain
26	BB	2583	G	Sidechain
26	BB	2584	U	Sidechain
26	BB	2585	U	Sidechain
26	BB	2586	U	Sidechain
26	BB	2589	A	Sidechain
26	BB	259	G	Sidechain
26	BB	2590	A	Sidechain
26	BB	2591	C	Sidechain
26	BB	2592	G	Sidechain
26	BB	2594	C	Sidechain
26	BB	2595	G	Sidechain
26	BB	2596	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2597	G	Sidechain
26	BB	2598	A	Sidechain
26	BB	2599	G	Sidechain
26	BB	260	G	Sidechain
26	BB	2600	A	Sidechain
26	BB	2601	C	Sidechain
26	BB	2603	G	Sidechain
26	BB	2604	U	Sidechain
26	BB	2607	G	Sidechain
26	BB	2608	G	Sidechain
26	BB	261	G	Sidechain
26	BB	2610	C	Sidechain
26	BB	2612	C	Sidechain
26	BB	2613	U	Sidechain
26	BB	2616	C	Sidechain
26	BB	2619	C	Sidechain
26	BB	262	A	Sidechain
26	BB	2621	G	Sidechain
26	BB	2624	G	Sidechain
26	BB	2625	G	Sidechain
26	BB	2626	C	Sidechain
26	BB	2628	C	Sidechain
26	BB	263	G	Sidechain
26	BB	2631	G	Sidechain
26	BB	2633	G	Sidechain
26	BB	2637	U	Sidechain
26	BB	264	C	Sidechain
26	BB	2641	G	Sidechain
26	BB	2643	G	Sidechain
26	BB	2644	G	Sidechain
26	BB	2646	C	Sidechain
26	BB	2647	U	Sidechain
26	BB	2648	G	Sidechain
26	BB	2650	U	Sidechain
26	BB	2653	U	Sidechain
26	BB	2654	A	Sidechain
26	BB	2655	G	Sidechain
26	BB	2658	C	Sidechain
26	BB	2659	G	Sidechain
26	BB	266	G	Sidechain
26	BB	2661	G	Sidechain
26	BB	2662	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2665	A	Sidechain
26	BB	2667	C	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	2674	G	Sidechain
26	BB	268	C	Sidechain
26	BB	2680	U	Sidechain
26	BB	2681	C	Sidechain
26	BB	2682	A	Sidechain
26	BB	2686	G	Sidechain
26	BB	2687	U	Sidechain
26	BB	2689	U	Sidechain
26	BB	2692	G	Sidechain
26	BB	2694	G	Sidechain
26	BB	2697	G	Sidechain
26	BB	2698	U	Sidechain
26	BB	2699	C	Sidechain
26	BB	270	A	Sidechain
26	BB	2702	G	Sidechain
26	BB	2703	C	Sidechain
26	BB	2704	C	Sidechain
26	BB	2705	A	Sidechain
26	BB	2706	A	Sidechain
26	BB	2707	U	Sidechain
26	BB	2708	G	Sidechain
26	BB	271	G	Sidechain
26	BB	2712	C	Sidechain
26	BB	2713	U	Sidechain
26	BB	2714	G	Sidechain
26	BB	2719	G	Sidechain
26	BB	2720	U	Sidechain
26	BB	2721	A	Sidechain
26	BB	2723	C	Sidechain
26	BB	2724	U	Sidechain
26	BB	2725	A	Sidechain
26	BB	2726	A	Sidechain
26	BB	2727	A	Sidechain
26	BB	2728	U	Sidechain
26	BB	2729	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	273	G	Sidechain
26	BB	2731	G	Sidechain
26	BB	2732	G	Sidechain
26	BB	2733	A	Sidechain
26	BB	2734	A	Sidechain
26	BB	2737	G	Sidechain
26	BB	2739	U	Sidechain
26	BB	2740	A	Sidechain
26	BB	2741	A	Sidechain
26	BB	2742	G	Sidechain
26	BB	2743	U	Sidechain
26	BB	2744	G	Sidechain
26	BB	2745	C	Sidechain
26	BB	2747	G	Sidechain
26	BB	2748	A	Sidechain
26	BB	2749	A	Sidechain
26	BB	2751	G	Sidechain
26	BB	2752	C	Sidechain
26	BB	2754	U	Sidechain
26	BB	2756	U	Sidechain
26	BB	276	U	Sidechain
26	BB	2760	C	Sidechain
26	BB	2763	G	Sidechain
26	BB	2765	A	Sidechain
26	BB	2766	A	Sidechain
26	BB	2767	C	Sidechain
26	BB	2768	U	Sidechain
26	BB	2769	U	Sidechain
26	BB	2771	C	Sidechain
26	BB	2772	C	Sidechain
26	BB	2773	C	Sidechain
26	BB	2775	G	Sidechain
26	BB	2777	G	Sidechain
26	BB	2778	A	Sidechain
26	BB	278	A	Sidechain
26	BB	2780	G	Sidechain
26	BB	2781	A	Sidechain
26	BB	2784	U	Sidechain
26	BB	2789	C	Sidechain
26	BB	279	A	Sidechain
26	BB	2793	C	Sidechain
26	BB	2794	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2798	U	Sidechain
26	BB	2801	G	Sidechain
26	BB	2803	G	Sidechain
26	BB	2804	U	Sidechain
26	BB	2805	C	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	2812	G	Sidechain
26	BB	2816	G	Sidechain
26	BB	2822	G	Sidechain
26	BB	2824	C	Sidechain
26	BB	2825	G	Sidechain
26	BB	283	G	Sidechain
26	BB	2830	C	Sidechain
26	BB	2833	U	Sidechain
26	BB	2835	A	Sidechain
26	BB	2836	U	Sidechain
26	BB	2837	A	Sidechain
26	BB	2838	G	Sidechain
26	BB	2841	C	Sidechain
26	BB	2842	G	Sidechain
26	BB	2844	G	Sidechain
26	BB	2845	U	Sidechain
26	BB	2846	G	Sidechain
26	BB	2847	U	Sidechain
26	BB	2848	G	Sidechain
26	BB	2849	U	Sidechain
26	BB	285	G	Sidechain
26	BB	2852	G	Sidechain
26	BB	2853	C	Sidechain
26	BB	2854	G	Sidechain
26	BB	2857	G	Sidechain
26	BB	2863	C	Sidechain
26	BB	2864	G	Sidechain
26	BB	2865	U	Sidechain
26	BB	2866	U	Sidechain
26	BB	2867	G	Sidechain
26	BB	2868	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2869	G	Sidechain
26	BB	2871	U	Sidechain
26	BB	2874	C	Sidechain
26	BB	2877	G	Sidechain
26	BB	2879	A	Sidechain
26	BB	288	U	Sidechain
26	BB	2880	C	Sidechain
26	BB	2882	A	Sidechain
26	BB	2884	U	Sidechain
26	BB	2885	G	Sidechain
26	BB	2886	A	Sidechain
26	BB	2889	C	Sidechain
26	BB	289	G	Sidechain
26	BB	2890	G	Sidechain
26	BB	2891	U	Sidechain
26	BB	2892	G	Sidechain
26	BB	2894	G	Sidechain
26	BB	2895	G	Sidechain
26	BB	2897	U	Sidechain
26	BB	2898	U	Sidechain
26	BB	2901	C	Sidechain
26	BB	2902	C	Sidechain
26	BB	2903	U	Sidechain
26	BB	291	G	Sidechain
26	BB	292	U	Sidechain
26	BB	294	A	Sidechain
26	BB	295	G	Sidechain
26	BB	297	G	Sidechain
26	BB	298	G	Sidechain
26	BB	30	G	Sidechain
26	BB	300	A	Sidechain
26	BB	301	G	Sidechain
26	BB	306	U	Sidechain
26	BB	307	G	Sidechain
26	BB	308	G	Sidechain
26	BB	311	A	Sidechain
26	BB	312	G	Sidechain
26	BB	313	G	Sidechain
26	BB	315	G	Sidechain
26	BB	317	G	Sidechain
26	BB	318	C	Sidechain
26	BB	32	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	320	A	Sidechain
26	BB	321	U	Sidechain
26	BB	322	A	Sidechain
26	BB	325	G	Sidechain
26	BB	327	G	Sidechain
26	BB	328	U	Sidechain
26	BB	329	G	Sidechain
26	BB	33	C	Sidechain
26	BB	330	A	Sidechain
26	BB	331	C	Sidechain
26	BB	332	A	Sidechain
26	BB	333	G	Sidechain
26	BB	336	C	Sidechain
26	BB	340	A	Sidechain
26	BB	341	C	Sidechain
26	BB	343	C	Sidechain
26	BB	346	A	Sidechain
26	BB	35	G	Sidechain
26	BB	350	G	Sidechain
26	BB	354	A	Sidechain
26	BB	356	G	Sidechain
26	BB	358	U	Sidechain
26	BB	359	G	Sidechain
26	BB	362	A	Sidechain
26	BB	363	G	Sidechain
26	BB	364	C	Sidechain
26	BB	366	C	Sidechain
26	BB	367	G	Sidechain
26	BB	368	A	Sidechain
26	BB	37	C	Sidechain
26	BB	370	G	Sidechain
26	BB	372	G	Sidechain
26	BB	373	U	Sidechain
26	BB	374	A	Sidechain
26	BB	375	G	Sidechain
26	BB	376	G	Sidechain
26	BB	380	G	Sidechain
26	BB	386	G	Sidechain
26	BB	388	G	Sidechain
26	BB	389	G	Sidechain
26	BB	39	G	Sidechain
26	BB	390	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	391	A	Sidechain
26	BB	392	U	Sidechain
26	BB	393	C	Sidechain
26	BB	394	C	Sidechain
26	BB	395	U	Sidechain
26	BB	396	G	Sidechain
26	BB	398	C	Sidechain
26	BB	399	U	Sidechain
26	BB	4	U	Sidechain
26	BB	400	G	Sidechain
26	BB	401	A	Sidechain
26	BB	404	A	Sidechain
26	BB	405	U	Sidechain
26	BB	406	G	Sidechain
26	BB	407	G	Sidechain
26	BB	41	C	Sidechain
26	BB	410	G	Sidechain
26	BB	411	G	Sidechain
26	BB	414	C	Sidechain
26	BB	416	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	43	G	Sidechain
26	BB	430	A	Sidechain
26	BB	436	C	Sidechain
26	BB	438	G	Sidechain
26	BB	44	A	Sidechain
26	BB	441	U	Sidechain
26	BB	442	G	Sidechain
26	BB	443	A	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	450	G	Sidechain
26	BB	451	U	Sidechain
26	BB	458	G	Sidechain
26	BB	459	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	46	G	Sidechain
26	BB	463	G	Sidechain
26	BB	464	U	Sidechain
26	BB	466	A	Sidechain
26	BB	467	G	Sidechain
26	BB	468	G	Sidechain
26	BB	470	A	Sidechain
26	BB	473	G	Sidechain
26	BB	474	G	Sidechain
26	BB	476	G	Sidechain
26	BB	477	A	Sidechain
26	BB	479	A	Sidechain
26	BB	48	G	Sidechain
26	BB	480	A	Sidechain
26	BB	481	G	Sidechain
26	BB	485	C	Sidechain
26	BB	488	G	Sidechain
26	BB	489	G	Sidechain
26	BB	49	A	Sidechain
26	BB	490	C	Sidechain
26	BB	491	G	Sidechain
26	BB	492	A	Sidechain
26	BB	493	G	Sidechain
26	BB	494	G	Sidechain
26	BB	495	G	Sidechain
26	BB	496	G	Sidechain
26	BB	498	G	Sidechain
26	BB	499	U	Sidechain
26	BB	5	A	Sidechain
26	BB	501	A	Sidechain
26	BB	504	A	Sidechain
26	BB	506	G	Sidechain
26	BB	507	A	Sidechain
26	BB	509	C	Sidechain
26	BB	51	G	Sidechain
26	BB	510	C	Sidechain
26	BB	511	U	Sidechain
26	BB	512	G	Sidechain
26	BB	515	A	Sidechain
26	BB	518	G	Sidechain
26	BB	519	U	Sidechain
26	BB	52	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	523	C	Sidechain
26	BB	524	G	Sidechain
26	BB	527	C	Sidechain
26	BB	528	A	Sidechain
26	BB	529	A	Sidechain
26	BB	530	G	Sidechain
26	BB	531	C	Sidechain
26	BB	532	A	Sidechain
26	BB	533	G	Sidechain
26	BB	534	U	Sidechain
26	BB	535	G	Sidechain
26	BB	536	G	Sidechain
26	BB	538	A	Sidechain
26	BB	54	G	Sidechain
26	BB	542	C	Sidechain
26	BB	543	G	Sidechain
26	BB	545	U	Sidechain
26	BB	546	U	Sidechain
26	BB	548	G	Sidechain
26	BB	550	C	Sidechain
26	BB	551	G	Sidechain
26	BB	553	G	Sidechain
26	BB	554	U	Sidechain
26	BB	555	G	Sidechain
26	BB	556	A	Sidechain
26	BB	558	U	Sidechain
26	BB	56	A	Sidechain
26	BB	561	G	Sidechain
26	BB	564	C	Sidechain
26	BB	566	U	Sidechain
26	BB	568	U	Sidechain
26	BB	573	U	Sidechain
26	BB	574	A	Sidechain
26	BB	575	A	Sidechain
26	BB	576	U	Sidechain
26	BB	577	G	Sidechain
26	BB	579	G	Sidechain
26	BB	58	G	Sidechain
26	BB	580	U	Sidechain
26	BB	582	A	Sidechain
26	BB	583	G	Sidechain
26	BB	585	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	587	C	Sidechain
26	BB	589	U	Sidechain
26	BB	590	A	Sidechain
26	BB	593	U	Sidechain
26	BB	596	U	Sidechain
26	BB	597	G	Sidechain
26	BB	6	A	Sidechain
26	BB	60	G	Sidechain
26	BB	601	C	Sidechain
26	BB	602	A	Sidechain
26	BB	605	G	Sidechain
26	BB	606	U	Sidechain
26	BB	607	U	Sidechain
26	BB	609	A	Sidechain
26	BB	610	C	Sidechain
26	BB	611	C	Sidechain
26	BB	612	G	Sidechain
26	BB	614	A	Sidechain
26	BB	615	U	Sidechain
26	BB	616	A	Sidechain
26	BB	617	G	Sidechain
26	BB	618	G	Sidechain
26	BB	62	U	Sidechain
26	BB	620	G	Sidechain
26	BB	621	A	Sidechain
26	BB	622	G	Sidechain
26	BB	624	C	Sidechain
26	BB	625	G	Sidechain
26	BB	628	G	Sidechain
26	BB	629	G	Sidechain
26	BB	631	A	Sidechain
26	BB	636	G	Sidechain
26	BB	637	A	Sidechain
26	BB	638	G	Sidechain
26	BB	639	U	Sidechain
26	BB	64	A	Sidechain
26	BB	640	C	Sidechain
26	BB	641	U	Sidechain
26	BB	642	U	Sidechain
26	BB	643	A	Sidechain
26	BB	645	C	Sidechain
26	BB	648	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	650	C	Sidechain
26	BB	651	G	Sidechain
26	BB	653	U	Sidechain
26	BB	654	A	Sidechain
26	BB	655	A	Sidechain
26	BB	657	U	Sidechain
26	BB	658	U	Sidechain
26	BB	659	G	Sidechain
26	BB	66	C	Sidechain
26	BB	662	G	Sidechain
26	BB	663	G	Sidechain
26	BB	665	U	Sidechain
26	BB	668	A	Sidechain
26	BB	669	G	Sidechain
26	BB	67	U	Sidechain
26	BB	670	A	Sidechain
26	BB	671	C	Sidechain
26	BB	672	C	Sidechain
26	BB	673	C	Sidechain
26	BB	674	G	Sidechain
26	BB	675	A	Sidechain
26	BB	676	A	Sidechain
26	BB	68	G	Sidechain
26	BB	682	G	Sidechain
26	BB	683	U	Sidechain
26	BB	684	G	Sidechain
26	BB	685	A	Sidechain
26	BB	686	U	Sidechain
26	BB	687	C	Sidechain
26	BB	688	U	Sidechain
26	BB	69	C	Sidechain
26	BB	690	G	Sidechain
26	BB	694	U	Sidechain
26	BB	695	G	Sidechain
26	BB	696	G	Sidechain
26	BB	698	C	Sidechain
26	BB	699	A	Sidechain
26	BB	7	G	Sidechain
26	BB	70	G	Sidechain
26	BB	700	G	Sidechain
26	BB	701	G	Sidechain
26	BB	703	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	704	G	Sidechain
26	BB	706	A	Sidechain
26	BB	707	G	Sidechain
26	BB	708	G	Sidechain
26	BB	709	U	Sidechain
26	BB	71	A	Sidechain
26	BB	710	U	Sidechain
26	BB	711	G	Sidechain
26	BB	712	G	Sidechain
26	BB	716	A	Sidechain
26	BB	717	C	Sidechain
26	BB	718	A	Sidechain
26	BB	719	C	Sidechain
26	BB	72	U	Sidechain
26	BB	720	U	Sidechain
26	BB	721	A	Sidechain
26	BB	722	A	Sidechain
26	BB	725	G	Sidechain
26	BB	726	G	Sidechain
26	BB	728	G	Sidechain
26	BB	729	G	Sidechain
26	BB	730	A	Sidechain
26	BB	733	G	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	740	C	Sidechain
26	BB	741	U	Sidechain
26	BB	744	U	Sidechain
26	BB	748	G	Sidechain
26	BB	75	G	Sidechain
26	BB	752	A	Sidechain
26	BB	754	U	Sidechain
26	BB	758	C	Sidechain
26	BB	759	G	Sidechain
26	BB	76	C	Sidechain
26	BB	762	U	Sidechain
26	BB	763	G	Sidechain
26	BB	767	U	Sidechain
26	BB	768	G	Sidechain

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Mol	Chain	Res	Type	Group
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	780	G	Sidechain
26	BB	781	A	Sidechain
26	BB	783	A	Sidechain
26	BB	784	G	Sidechain
26	BB	786	C	Sidechain
26	BB	793	A	Sidechain
26	BB	794	A	Sidechain
26	BB	796	C	Sidechain
26	BB	797	G	Sidechain
26	BB	8	C	Sidechain
26	BB	800	A	Sidechain
26	BB	801	G	Sidechain
26	BB	802	A	Sidechain
26	BB	803	U	Sidechain
26	BB	804	A	Sidechain
26	BB	805	G	Sidechain
26	BB	806	C	Sidechain
26	BB	808	G	Sidechain
26	BB	81	G	Sidechain
26	BB	810	U	Sidechain
26	BB	811	U	Sidechain
26	BB	814	C	Sidechain
26	BB	815	C	Sidechain
26	BB	816	C	Sidechain
26	BB	818	G	Sidechain
26	BB	819	A	Sidechain
26	BB	82	U	Sidechain
26	BB	820	A	Sidechain
26	BB	822	G	Sidechain
26	BB	823	C	Sidechain
26	BB	825	A	Sidechain
26	BB	826	U	Sidechain
26	BB	827	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	828	U	Sidechain
26	BB	829	A	Sidechain
26	BB	83	A	Sidechain
26	BB	831	G	Sidechain
26	BB	832	U	Sidechain
26	BB	834	G	Sidechain
26	BB	835	C	Sidechain
26	BB	838	C	Sidechain
26	BB	840	C	Sidechain
26	BB	841	G	Sidechain
26	BB	843	G	Sidechain
26	BB	844	A	Sidechain
26	BB	845	A	Sidechain
26	BB	847	U	Sidechain
26	BB	85	G	Sidechain
26	BB	850	U	Sidechain
26	BB	852	U	Sidechain
26	BB	854	C	Sidechain
26	BB	857	G	Sidechain
26	BB	858	G	Sidechain
26	BB	859	G	Sidechain
26	BB	86	G	Sidechain
26	BB	860	U	Sidechain
26	BB	862	G	Sidechain
26	BB	864	G	Sidechain
26	BB	866	A	Sidechain
26	BB	869	G	Sidechain
26	BB	87	U	Sidechain
26	BB	870	U	Sidechain
26	BB	871	U	Sidechain
26	BB	872	U	Sidechain
26	BB	874	G	Sidechain
26	BB	875	G	Sidechain
26	BB	876	C	Sidechain
26	BB	877	A	Sidechain
26	BB	88	G	Sidechain
26	BB	881	G	Sidechain
26	BB	883	G	Sidechain
26	BB	884	U	Sidechain
26	BB	889	C	Sidechain
26	BB	89	A	Sidechain
26	BB	890	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	891	G	Sidechain
26	BB	892	A	Sidechain
26	BB	893	C	Sidechain
26	BB	894	U	Sidechain
26	BB	895	U	Sidechain
26	BB	896	A	Sidechain
26	BB	897	C	Sidechain
26	BB	898	C	Sidechain
26	BB	899	A	Sidechain
26	BB	9	G	Sidechain
26	BB	900	A	Sidechain
26	BB	901	C	Sidechain
26	BB	902	C	Sidechain
26	BB	904	G	Sidechain
26	BB	905	A	Sidechain
26	BB	907	G	Sidechain
26	BB	909	A	Sidechain
26	BB	910	A	Sidechain
26	BB	914	G	Sidechain
26	BB	919	U	Sidechain
26	BB	92	U	Sidechain
26	BB	923	G	Sidechain
26	BB	924	G	Sidechain
26	BB	928	A	Sidechain
26	BB	929	U	Sidechain
26	BB	930	G	Sidechain
26	BB	931	U	Sidechain
26	BB	933	A	Sidechain
26	BB	934	U	Sidechain
26	BB	937	C	Sidechain
26	BB	938	G	Sidechain
26	BB	939	G	Sidechain
26	BB	940	G	Sidechain
26	BB	942	G	Sidechain
26	BB	943	A	Sidechain
26	BB	944	C	Sidechain
26	BB	945	A	Sidechain
26	BB	947	A	Sidechain
26	BB	949	G	Sidechain
26	BB	95	A	Sidechain
26	BB	951	C	Sidechain
26	BB	954	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	956	G	Sidechain
26	BB	957	C	Sidechain
26	BB	959	A	Sidechain
26	BB	960	A	Sidechain
26	BB	964	C	Sidechain
26	BB	968	C	Sidechain
26	BB	969	G	Sidechain
26	BB	97	C	Sidechain
26	BB	971	G	Sidechain
26	BB	973	A	Sidechain
26	BB	974	G	Sidechain
26	BB	976	G	Sidechain
26	BB	977	G	Sidechain
26	BB	98	G	Sidechain
26	BB	980	A	Sidechain
26	BB	981	A	Sidechain
26	BB	982	C	Sidechain
26	BB	983	A	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	993	G	Sidechain
26	BB	994	C	Sidechain
26	BB	995	C	Sidechain
26	BB	997	G	Sidechain
26	BB	998	C	Sidechain
26	BB	999	U	Sidechain
27	BC	134	ARG	Sidechain
27	BC	220	ALA	Peptide
28	BD	132	ARG	Sidechain
28	BD	164	VAL	Peptide
28	BD	174	ARG	Sidechain
28	BD	181	ARG	Sidechain
28	BD	220	ARG	Sidechain
28	BD	243	PRO	Peptide
28	BD	82	TYR	Sidechain
28	BD	9	SER	Peptide
28	BD	95	TYR	Sidechain
29	BE	113	SER	Peptide
29	BE	114	LYS	Peptide

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Mol	Chain	Res	Type	Group
29	BE	176	ASP	Peptide
29	BE	179	ARG	Sidechain
30	BF	162	ARG	Sidechain
30	BF	35	TYR	Sidechain
30	BF	40	ARG	Sidechain
31	BG	137	PHE	Sidechain
31	BG	142	TYR	Sidechain
31	BG	147	ARG	Sidechain
31	BG	176	PHE	Sidechain
31	BG	82	TYR	Sidechain
31	BG	91	ARG	Sidechain
32	BH	162	ARG	Sidechain
32	BH	69	ALA	Mainchain
32	BH	82	PHE	Sidechain
33	BI	139	PHE	Sidechain
34	BJ	129	PRO	Peptide
34	BJ	140	ALA	Mainchain
34	BJ	45	ARG	Sidechain
34	BJ	75	PHE	Sidechain
34	BJ	98	PHE	Sidechain
35	BK	37	PHE	Sidechain
35	BK	64	ARG	Sidechain
35	BK	7	TYR	Sidechain
36	BL	16	TYR	Sidechain
36	BL	53	TYR	Sidechain
37	BM	111	LYS	Mainchain
37	BM	26	GLY	Peptide
37	BM	31	ARG	Sidechain
37	BM	4	GLU	Peptide
37	BM	64	ARG	Sidechain
38	BN	126	ARG	Sidechain
38	BN	3	LEU	Mainchain
39	BO	44	ARG	Sidechain
39	BO	59	ARG	Sidechain
39	BO	66	ARG	Sidechain
40	BP	103	ARG	Sidechain
40	BP	123	GLU	Peptide
40	BP	22	ARG	Sidechain
40	BP	8	ARG	Sidechain
41	BQ	10	ARG	Sidechain
41	BQ	102	ARG	Sidechain
41	BQ	34	HIS	Sidechain

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Mol	Chain	Res	Type	Group
41	BQ	64	TYR	Sidechain
41	BQ	81	ARG	Sidechain
41	BQ	99	TYR	Sidechain
42	BR	102	ARG	Sidechain
42	BR	39	LEU	Mainchain
42	BR	42	PHE	Sidechain
42	BR	98	TYR	Sidechain
43	BS	12	ARG	Sidechain
43	BS	19	GLN	Sidechain
43	BS	23	TYR	Sidechain
43	BS	31	TYR	Sidechain
43	BS	46	TYR	Sidechain
43	BS	56	PHE	Sidechain
44	BT	2	TYR	Sidechain
44	BT	83	TYR	Sidechain
44	BT	84	ARG	Sidechain
44	BT	90	ARG	Sidechain
45	BU	4	ILE	Peptide
45	BU	6	LYS	Peptide
45	BU	75	PHE	Sidechain
45	BU	84	ARG	Sidechain
45	BU	88	ARG	Sidechain
46	BV	69	ARG	Sidechain
46	BV	76	ARG	Sidechain
48	BX	31	TYR	Sidechain
48	BX	65	VAL	Mainchain
48	BX	79	ARG	Sidechain
48	BX	82	TYR	Sidechain
49	BY	13	ARG	Peptide
49	BY	14	ASP	Peptide
49	BY	16	GLU	Peptide
49	BY	19	ARG	Peptide
49	BY	81	ILE	Peptide
50	BZ	10	ARG	Sidechain
50	BZ	29	LEU	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	33089	0	16619	0	0
2	AB	1627	0	844	0	0
3	AC	993	0	501	0	0
4	AD	1641	0	840	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	1296	0	0
26	BB	62351	0	31238	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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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	103793	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%)	211 (89%)	24 (10%)	3 (1%)	9 42
6	AF	230/232 (99%)	204 (89%)	20 (9%)	6 (3%)	4 25
7	AG	203/205 (99%)	182 (90%)	17 (8%)	4 (2%)	6 31
8	AH	164/166 (99%)	146 (89%)	15 (9%)	3 (2%)	6 34

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	AI	133/135 (98%)	118 (89%)	12 (9%)	3 (2%)	5	28
10	AJ	176/178 (99%)	163 (93%)	11 (6%)	2 (1%)	11	46
11	AK	127/129 (98%)	116 (91%)	9 (7%)	2 (2%)	7	38
12	AL	127/129 (98%)	118 (93%)	7 (6%)	2 (2%)	7	38
13	AM	101/103 (98%)	92 (91%)	5 (5%)	4 (4%)	2	18
14	AN	126/128 (98%)	111 (88%)	15 (12%)	0	100	100
15	AO	121/123 (98%)	103 (85%)	14 (12%)	4 (3%)	3	21
16	AP	115/117 (98%)	101 (88%)	11 (10%)	3 (3%)	4	25
17	AQ	98/100 (98%)	79 (81%)	13 (13%)	6 (6%)	1	13
18	AR	86/88 (98%)	82 (95%)	3 (4%)	1 (1%)	10	44
19	AS	80/82 (98%)	75 (94%)	4 (5%)	1 (1%)	9	42
20	AT	81/83 (98%)	66 (82%)	14 (17%)	1 (1%)	10	44
21	AU	72/74 (97%)	63 (88%)	6 (8%)	3 (4%)	2	17
22	AV	89/91 (98%)	79 (89%)	6 (7%)	4 (4%)	2	17
23	AW	84/86 (98%)	78 (93%)	4 (5%)	2 (2%)	4	27
24	AX	68/70 (97%)	53 (78%)	13 (19%)	2 (3%)	3	23
27	BC	232/234 (99%)	207 (89%)	20 (9%)	5 (2%)	5	29
28	BD	270/272 (99%)	232 (86%)	30 (11%)	8 (3%)	3	23
29	BE	207/209 (99%)	171 (83%)	31 (15%)	5 (2%)	4	27
30	BF	199/201 (99%)	171 (86%)	16 (8%)	12 (6%)	1	13
31	BG	176/178 (99%)	142 (81%)	24 (14%)	10 (6%)	1	14
32	BH	174/176 (99%)	149 (86%)	22 (13%)	3 (2%)	7	36
33	BI	147/149 (99%)	124 (84%)	21 (14%)	2 (1%)	9	40
34	BJ	162/164 (99%)	147 (91%)	13 (8%)	2 (1%)	10	44
35	BK	139/141 (99%)	126 (91%)	12 (9%)	1 (1%)	18	56
36	BL	140/142 (99%)	112 (80%)	21 (15%)	7 (5%)	1	16
37	BM	121/123 (98%)	104 (86%)	13 (11%)	4 (3%)	3	21
38	BN	142/144 (99%)	121 (85%)	17 (12%)	4 (3%)	4	24
39	BO	134/136 (98%)	116 (87%)	14 (10%)	4 (3%)	3	23
40	BP	125/127 (98%)	116 (93%)	8 (6%)	1 (1%)	16	54
41	BQ	115/117 (98%)	109 (95%)	4 (4%)	2 (2%)	7	36

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
42	BR	112/114 (98%)	88 (79%)	22 (20%)	2 (2%)	6 34
43	BS	115/117 (98%)	106 (92%)	7 (6%)	2 (2%)	7 36
44	BT	101/103 (98%)	90 (89%)	8 (8%)	3 (3%)	3 23
45	BU	108/110 (98%)	101 (94%)	4 (4%)	3 (3%)	4 24
46	BV	98/100 (98%)	78 (80%)	14 (14%)	6 (6%)	1 13
47	BW	101/103 (98%)	85 (84%)	13 (13%)	3 (3%)	3 23
48	BX	92/94 (98%)	82 (89%)	9 (10%)	1 (1%)	11 46
49	BY	82/84 (98%)	60 (73%)	18 (22%)	4 (5%)	1 16
50	BZ	75/77 (97%)	65 (87%)	6 (8%)	4 (5%)	1 15
51	B0	61/63 (97%)	55 (90%)	5 (8%)	1 (2%)	7 38
52	B1	56/58 (97%)	50 (89%)	5 (9%)	1 (2%)	6 34
53	B2	68/70 (97%)	45 (66%)	18 (26%)	5 (7%)	1 10
54	B3	54/56 (96%)	44 (82%)	9 (17%)	1 (2%)	6 32
55	B4	52/54 (96%)	45 (86%)	4 (8%)	3 (6%)	1 14
56	B5	44/46 (96%)	40 (91%)	2 (4%)	2 (4%)	2 17
57	B6	62/64 (97%)	54 (87%)	6 (10%)	2 (3%)	3 21
58	B7	36/38 (95%)	31 (86%)	4 (11%)	1 (3%)	4 24
All	All	6319/6423 (98%)	5506 (87%)	643 (10%)	170 (3%)	6 25

All (170) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
12	AL	86	LEU
13	AM	42	LEU
13	AM	57	VAL
16	AP	22	TYR
21	AU	11	ARG
28	BD	64	VAL
31	BG	35	LEU
31	BG	88	VAL
31	BG	148	VAL
35	BK	6	ALA
37	BM	71	ARG
42	BR	25	VAL
43	BS	5	ARG
46	BV	35	ALA

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Mol	Chain	Res	Type
46	BV	69	ARG
47	BW	74	ALA
49	BY	25	PHE
52	B1	51	SER
55	B4	52	LYS
5	AE	22	TRP
6	AF	145	ALA
6	AF	179	ALA
8	AH	2	HIS
8	AH	23	THR
9	AI	54	LEU
10	AJ	165	ALA
13	AM	62	ARG
13	AM	74	VAL
17	AQ	52	ARG
17	AQ	70	HIS
20	AT	50	ASN
24	AX	3	ILE
28	BD	204	LEU
29	BE	37	VAL
29	BE	173	GLN
30	BF	44	ARG
30	BF	62	GLN
30	BF	96	VAL
30	BF	120	VAL
30	BF	123	LYS
31	BG	43	ILE
31	BG	66	ILE
31	BG	141	ASP
31	BG	169	LEU
36	BL	39	LYS
39	BO	135	VAL
41	BQ	101	GLY
42	BR	63	ILE
44	BT	91	GLN
46	BV	40	LYS
47	BW	91	LYS
48	BX	71	LYS
49	BY	75	ASN
50	BZ	27	ARG
54	B3	54	ILE
6	AF	79	LYS

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Mol	Chain	Res	Type
7	AG	27	ILE
9	AI	53	LYS
9	AI	127	GLY
10	AJ	2	ARG
15	AO	122	LYS
17	AQ	32	ASP
17	AQ	37	ASP
18	AR	86	LEU
21	AU	12	PHE
22	AV	36	ARG
24	AX	26	GLY
28	BD	205	GLY
28	BD	237	ARG
29	BE	136	ASN
29	BE	151	THR
29	BE	153	GLY
31	BG	150	GLY
32	BH	94	ARG
36	BL	120	ARG
37	BM	46	ALA
37	BM	81	GLY
38	BN	44	GLY
45	BU	89	ALA
47	BW	39	ASN
50	BZ	2	ARG
50	BZ	16	ASN
55	B4	3	GLY
5	AE	64	GLY
6	AF	24	ASN
7	AG	41	GLY
8	AH	150	GLU
12	AL	3	ASN
15	AO	91	GLY
16	AP	3	ILE
17	AQ	2	LYS
17	AQ	62	ARG
21	AU	18	GLN
22	AV	5	LYS
23	AW	7	LYS
27	BC	74	ARG
27	BC	206	GLY
28	BD	254	LYS

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Mol	Chain	Res	Type
30	BF	11	ALA
30	BF	50	ALA
30	BF	64	GLY
30	BF	119	ILE
30	BF	188	MET
31	BG	99	PHE
32	BH	27	GLY
32	BH	107	GLY
33	BI	113	SER
34	BJ	30	ARG
34	BJ	33	THR
36	BL	78	THR
37	BM	72	PRO
38	BN	16	GLY
40	BP	94	TYR
45	BU	28	LYS
45	BU	65	ASP
46	BV	29	THR
51	B0	62	GLY
53	B2	16	CYS
7	AG	28	ASP
15	AO	116	TYR
16	AP	98	GLY
22	AV	31	ARG
23	AW	67	HIS
27	BC	219	GLY
28	BD	176	ARG
33	BI	11	ASN
36	BL	96	ARG
36	BL	111	LYS
38	BN	46	VAL
39	BO	79	ALA
44	BT	9	GLY
44	BT	101	ILE
46	BV	16	VAL
50	BZ	53	LYS
57	B6	26	ALA
57	B6	31	ILE
58	B7	6	SER
5	AE	12	GLY
6	AF	5	HIS
6	AF	80	GLY

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Mol	Chain	Res	Type
11	AK	70	VAL
15	AO	27	PRO
27	BC	159	GLY
30	BF	6	LYS
49	BY	51	GLY
53	B2	41	HIS
53	B2	63	ARG
55	B4	51	ALA
53	B2	54	GLY
11	AK	91	LEU
28	BD	106	PRO
28	BD	158	GLY
30	BF	82	GLY
36	BL	136	GLN
39	BO	23	GLY
39	BO	36	VAL
43	BS	7	VAL
53	B2	55	GLY
56	B5	17	GLY
7	AG	65	GLY
22	AV	10	ILE
27	BC	169	GLY
36	BL	137	PRO
38	BN	8	PRO
46	BV	75	GLY
31	BG	84	ILE
49	BY	37	VAL
19	AS	64	GLY
41	BQ	114	GLY
56	B5	44	VAL

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
5	AE	198/198 (100%)	192 (97%)	6 (3%)	36 57

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	AF	189/189 (100%)	178 (94%)	11 (6%)	18	40
7	AG	172/172 (100%)	165 (96%)	7 (4%)	27	49
8	AH	125/125 (100%)	118 (94%)	7 (6%)	19	40
9	AI	116/116 (100%)	109 (94%)	7 (6%)	17	39
10	AJ	146/146 (100%)	142 (97%)	4 (3%)	39	61
11	AK	104/104 (100%)	103 (99%)	1 (1%)	68	78
12	AL	106/106 (100%)	104 (98%)	2 (2%)	50	67
13	AM	90/90 (100%)	82 (91%)	8 (9%)	9	28
14	AN	98/98 (100%)	97 (99%)	1 (1%)	68	78
15	AO	103/103 (100%)	93 (90%)	10 (10%)	8	24
16	AP	95/95 (100%)	90 (95%)	5 (5%)	20	41
17	AQ	83/83 (100%)	81 (98%)	2 (2%)	43	64
18	AR	76/76 (100%)	74 (97%)	2 (3%)	40	62
19	AS	65/65 (100%)	64 (98%)	1 (2%)	57	72
20	AT	77/77 (100%)	75 (97%)	2 (3%)	40	62
21	AU	64/64 (100%)	60 (94%)	4 (6%)	16	37
22	AV	78/78 (100%)	73 (94%)	5 (6%)	16	37
23	AW	65/65 (100%)	63 (97%)	2 (3%)	35	56
24	AX	60/60 (100%)	56 (93%)	4 (7%)	15	36
27	BC	181/181 (100%)	175 (97%)	6 (3%)	33	55
28	BD	217/217 (100%)	207 (95%)	10 (5%)	24	45
29	BE	164/164 (100%)	154 (94%)	10 (6%)	17	38
30	BF	165/165 (100%)	158 (96%)	7 (4%)	26	48
31	BG	149/149 (100%)	140 (94%)	9 (6%)	17	39
32	BH	137/137 (100%)	129 (94%)	8 (6%)	18	40
33	BI	114/114 (100%)	110 (96%)	4 (4%)	32	53
34	BJ	122/122 (100%)	118 (97%)	4 (3%)	33	55
35	BK	109/109 (100%)	106 (97%)	3 (3%)	38	60
36	BL	116/116 (100%)	111 (96%)	5 (4%)	26	47
37	BM	104/104 (100%)	98 (94%)	6 (6%)	18	40
38	BN	103/103 (100%)	97 (94%)	6 (6%)	18	40

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
39	BO	109/109 (100%)	105 (96%)	4 (4%)	30 51
40	BP	103/103 (100%)	93 (90%)	10 (10%)	8 24
41	BQ	87/87 (100%)	85 (98%)	2 (2%)	44 64
42	BR	99/99 (100%)	91 (92%)	8 (8%)	11 31
43	BS	89/89 (100%)	86 (97%)	3 (3%)	32 54
44	BT	84/84 (100%)	80 (95%)	4 (5%)	23 44
45	BU	93/93 (100%)	91 (98%)	2 (2%)	45 64
46	BV	84/84 (100%)	76 (90%)	8 (10%)	8 25
47	BW	84/84 (100%)	80 (95%)	4 (5%)	23 44
48	BX	78/78 (100%)	74 (95%)	4 (5%)	21 42
49	BY	62/62 (100%)	60 (97%)	2 (3%)	34 56
50	BZ	67/67 (100%)	63 (94%)	4 (6%)	17 39
51	B0	55/55 (100%)	51 (93%)	4 (7%)	13 34
52	B1	48/48 (100%)	44 (92%)	4 (8%)	10 30
53	B2	62/62 (100%)	58 (94%)	4 (6%)	15 37
54	B3	47/47 (100%)	44 (94%)	3 (6%)	16 37
55	B4	48/48 (100%)	47 (98%)	1 (2%)	47 65
56	B5	38/38 (100%)	38 (100%)	0	100 100
57	B6	51/51 (100%)	45 (88%)	6 (12%)	5 18
58	B7	34/34 (100%)	32 (94%)	2 (6%)	18 39
All	All	5213/5213 (100%)	4965 (95%)	248 (5%)	24 44

All (248) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	AE	14	HIS
5	AE	69	VAL
5	AE	114	LYS
5	AE	172	ILE
5	AE	206	ILE
5	AE	234	GLU
6	AF	17	TRP
6	AF	21	TRP
6	AF	62	SER
6	AF	71	ARG

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Mol	Chain	Res	Type
6	AF	106	ARG
6	AF	124	GLU
6	AF	166	TRP
6	AF	194	VAL
6	AF	197	VAL
6	AF	215	GLN
6	AF	227	GLN
7	AG	2	ARG
7	AG	29	THR
7	AG	80	ARG
7	AG	128	VAL
7	AG	171	GLU
7	AG	176	LYS
7	AG	199	ILE
8	AH	49	TYR
8	AH	82	HIS
8	AH	96	GLN
8	AH	105	ILE
8	AH	127	TYR
8	AH	151	MET
8	AH	158	LYS
9	AI	58	HIS
9	AI	71	ILE
9	AI	77	THR
9	AI	102	MET
9	AI	103	VAL
9	AI	114	ASP
9	AI	123	ASP
10	AJ	37	THR
10	AJ	83	THR
10	AJ	138	GLU
10	AJ	142	ARG
11	AK	98	LEU
12	AL	65	THR
12	AL	129	ARG
13	AM	9	ARG
13	AM	13	PHE
13	AM	44	THR
13	AM	52	LEU
13	AM	69	THR
13	AM	79	PRO
13	AM	85	ASP

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Mol	Chain	Res	Type
13	AM	98	VAL
14	AN	93	GLU
15	AO	15	VAL
15	AO	28	GLN
15	AO	29	LYS
15	AO	32	VAL
15	AO	72	ASN
15	AO	87	LYS
15	AO	98	ARG
15	AO	118	VAL
15	AO	119	LYS
15	AO	120	ARG
16	AP	6	ILE
16	AP	20	SER
16	AP	27	THR
16	AP	76	ILE
16	AP	108	ARG
17	AQ	62	ARG
17	AQ	68	ARG
18	AR	9	LYS
18	AR	48	ASP
19	AS	4	ILE
20	AT	13	SER
20	AT	79	GLU
21	AU	18	GLN
21	AU	19	GLU
21	AU	42	ARG
21	AU	56	ARG
22	AV	9	PHE
22	AV	23	GLU
22	AV	46	LEU
22	AV	62	THR
22	AV	80	ARG
23	AW	8	LYS
23	AW	11	ILE
24	AX	1	PRO
24	AX	16	ARG
24	AX	19	LYS
24	AX	23	GLU
27	BC	18	THR
27	BC	131	LEU
27	BC	136	LEU

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Mol	Chain	Res	Type
27	BC	174	THR
27	BC	189	LEU
27	BC	193	LEU
28	BD	25	LYS
28	BD	27	LYS
28	BD	34	GLU
28	BD	58	LYS
28	BD	62	ARG
28	BD	114	GLN
28	BD	128	THR
28	BD	173	LEU
28	BD	174	ARG
28	BD	244	VAL
29	BE	45	TYR
29	BE	68	PHE
29	BE	79	LEU
29	BE	99	GLU
29	BE	129	THR
29	BE	156	PHE
29	BE	175	LEU
29	BE	180	VAL
29	BE	181	ASP
29	BE	203	VAL
30	BF	27	LEU
30	BF	57	LYS
30	BF	84	THR
30	BF	96	VAL
30	BF	134	LEU
30	BF	146	VAL
30	BF	149	ILE
31	BG	12	VAL
31	BG	32	LYS
31	BG	91	ARG
31	BG	104	THR
31	BG	112	ASP
31	BG	134	GLN
31	BG	140	ILE
31	BG	148	VAL
31	BG	168	LEU
32	BH	2	ARG
32	BH	14	VAL
32	BH	102	ILE

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Mol	Chain	Res	Type
32	BH	123	GLU
32	BH	127	GLN
32	BH	153	PRO
32	BH	166	GLU
32	BH	170	THR
33	BI	40	THR
33	BI	44	ILE
33	BI	75	LEU
33	BI	83	LYS
34	BJ	37	MET
34	BJ	54	VAL
34	BJ	87	HIS
34	BJ	150	LEU
35	BK	50	LYS
35	BK	68	PHE
35	BK	112	LYS
36	BL	39	LYS
36	BL	50	THR
36	BL	56	VAL
36	BL	85	LYS
36	BL	136	GLN
37	BM	5	GLN
37	BM	8	LEU
37	BM	31	ARG
37	BM	54	LYS
37	BM	59	LYS
37	BM	114	LYS
38	BN	57	LEU
38	BN	80	SER
38	BN	85	VAL
38	BN	86	GLU
38	BN	103	ILE
38	BN	127	VAL
39	BO	5	LYS
39	BO	31	PHE
39	BO	50	ARG
39	BO	93	VAL
40	BP	9	GLN
40	BP	10	LEU
40	BP	24	MET
40	BP	29	VAL
40	BP	48	VAL

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Mol	Chain	Res	Type
40	BP	65	LEU
40	BP	72	ASP
40	BP	80	PHE
40	BP	82	GLU
40	BP	98	LEU
41	BQ	40	ILE
41	BQ	58	ILE
42	BR	14	GLN
42	BR	17	PRO
42	BR	19	PHE
42	BR	25	VAL
42	BR	36	LYS
42	BR	49	ILE
42	BR	82	SER
42	BR	98	TYR
43	BS	8	ILE
43	BS	30	VAL
43	BS	73	ILE
44	BT	14	VAL
44	BT	24	LYS
44	BT	89	HIS
44	BT	95	ASP
45	BU	13	SER
45	BU	74	ILE
46	BV	3	ARG
46	BV	8	LEU
46	BV	30	ILE
46	BV	31	VAL
46	BV	58	VAL
46	BV	70	HIS
46	BV	79	ASP
46	BV	91	GLN
47	BW	14	THR
47	BW	46	LYS
47	BW	69	VAL
47	BW	97	SER
48	BX	9	ARG
48	BX	35	GLU
48	BX	44	HIS
48	BX	53	LYS
49	BY	37	VAL
49	BY	39	GLN

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Mol	Chain	Res	Type
50	BZ	7	THR
50	BZ	32	LEU
50	BZ	58	ILE
50	BZ	71	ARG
51	B0	6	LEU
51	B0	39	GLN
51	B0	53	VAL
51	B0	56	LEU
52	B1	6	ILE
52	B1	23	LEU
52	B1	35	VAL
52	B1	57	GLU
53	B2	1	MET
53	B2	12	ILE
53	B2	38	SER
53	B2	43	PHE
54	B3	29	VAL
54	B3	37	HIS
54	B3	54	ILE
55	B4	21	THR
57	B6	1	PRO
57	B6	4	LYS
57	B6	12	ARG
57	B6	22	LYS
57	B6	39	ARG
57	B6	43	LEU
58	B7	8	LYS
58	B7	17	VAL

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

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1541/1542 (99%)	301 (19%)	99 (6%)
2	AB	75/76 (98%)	23 (30%)	6 (8%)
25	BA	119/120 (99%)	19 (15%)	10 (8%)
26	BB	2901/2904 (99%)	572 (19%)	186 (6%)
3	AC	46/47 (97%)	18 (39%)	6 (13%)
4	AD	76/77 (98%)	17 (22%)	4 (5%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
All	All	4758/4766 (99%)	950 (19%)	311 (6%)

All (950) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	8	A
1	AA	32	A
1	AA	36	C
1	AA	47	C
1	AA	48	C
1	AA	49	U
1	AA	52	C
1	AA	53	A
1	AA	54	C
1	AA	60	A
1	AA	61	G
1	AA	83	C
1	AA	87	C
1	AA	98	A
1	AA	108	G
1	AA	122	G
1	AA	123	U
1	AA	129	A
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	198	G
1	AA	200	G
1	AA	204	G
1	AA	209	U
1	AA	210	C
1	AA	212	G
1	AA	225	C
1	AA	228	A
1	AA	229	U

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Mol	Chain	Res	Type
1	AA	244	U
1	AA	245	U
1	AA	247	G
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	289	G
1	AA	293	G
1	AA	306	A
1	AA	307	C
1	AA	308	C
1	AA	316	C
1	AA	317	U
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	365	U
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	406	G
1	AA	411	A
1	AA	413	G

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Mol	Chain	Res	Type
1	AA	415	A
1	AA	429	U
1	AA	444	G
1	AA	463	U
1	AA	464	U
1	AA	467	U
1	AA	468	A
1	AA	479	U
1	AA	481	G
1	AA	482	A
1	AA	485	U
1	AA	486	U
1	AA	496	A
1	AA	497	G
1	AA	498	A
1	AA	505	G
1	AA	508	U
1	AA	510	A
1	AA	518	C
1	AA	528	C
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	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	615	G
1	AA	631	C
1	AA	633	G
1	AA	636	U
1	AA	642	A
1	AA	650	G

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Mol	Chain	Res	Type
1	AA	653	U
1	AA	654	G
1	AA	687	A
1	AA	688	G
1	AA	695	A
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
1	AA	729	A
1	AA	755	G
1	AA	760	G
1	AA	765	G
1	AA	766	A
1	AA	777	A
1	AA	783	C
1	AA	789	U
1	AA	790	A
1	AA	791	G
1	AA	792	A
1	AA	793	U
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	842	U
1	AA	844	G
1	AA	845	A
1	AA	846	G
1	AA	853	C
1	AA	870	U

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Mol	Chain	Res	Type
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	935	A
1	AA	938	A
1	AA	939	G
1	AA	944	G
1	AA	945	G
1	AA	960	U
1	AA	961	U
1	AA	962	C
1	AA	968	A
1	AA	969	A
1	AA	973	G
1	AA	974	A
1	AA	975	A
1	AA	977	A
1	AA	978	A
1	AA	980	C
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	1014	A
1	AA	1015	G
1	AA	1026	G
1	AA	1028	C
1	AA	1030	U
1	AA	1032	G
1	AA	1049	U

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Mol	Chain	Res	Type
1	AA	1050	G
1	AA	1064	G
1	AA	1065	U
1	AA	1081	A
1	AA	1092	A
1	AA	1093	A
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1118	U
1	AA	1135	U
1	AA	1137	C
1	AA	1148	U
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	1182	G
1	AA	1183	U
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	1214	C
1	AA	1215	G
1	AA	1223	C
1	AA	1224	U
1	AA	1226	C
1	AA	1227	A
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

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Mol	Chain	Res	Type
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	1297	G
1	AA	1300	G
1	AA	1301	U
1	AA	1303	C
1	AA	1305	G
1	AA	1315	U
1	AA	1317	C
1	AA	1318	A
1	AA	1319	A
1	AA	1322	C
1	AA	1323	G
1	AA	1335	U
1	AA	1336	C
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	1368	A
1	AA	1378	C
1	AA	1394	A
1	AA	1395	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

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Mol	Chain	Res	Type
1	AA	1493	A
1	AA	1494	G
1	AA	1502	A
1	AA	1503	A
1	AA	1506	U
1	AA	1520	C
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
1	AA	1537	U
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	17	H2U
2	AB	20	H2U
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	58	A
2	AB	59	G
2	AB	60	U
2	AB	61	C
2	AB	65	C
2	AB	73	G
2	AB	74	C
2	AB	75	C
3	AC	17	U
3	AC	18	A
3	AC	19	A
3	AC	20	G
3	AC	21	U
3	AC	22	G
3	AC	23	C

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Mol	Chain	Res	Type
3	AC	25	U
3	AC	29	G
3	AC	30	U
3	AC	34	U
3	AC	40	G
3	AC	41	A
3	AC	42	U
3	AC	44	U
3	AC	45	G
3	AC	48	C
3	AC	52	U
4	AD	8	4SU
4	AD	9	G
4	AD	10	G
4	AD	17	C
4	AD	18	U
4	AD	19	G
4	AD	20	G
4	AD	21	H2U
4	AD	22	A
4	AD	38	A
4	AD	47	A
4	AD	48	U
4	AD	49	C
4	AD	50	G
4	AD	74	A
4	AD	75	C
4	AD	76	C
25	BA	9	G
25	BA	13	G
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

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Mol	Chain	Res	Type
25	BA	88	C
25	BA	90	C
25	BA	99	A
25	BA	106	G
25	BA	107	G
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	75	G
26	BB	85	G
26	BB	91	A
26	BB	92	U
26	BB	95	A
26	BB	98	G
26	BB	101	A
26	BB	102	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	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

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Mol	Chain	Res	Type
26	BB	222	A
26	BB	224	U
26	BB	225	C
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	267	C
26	BB	271	G
26	BB	277	G
26	BB	295	G
26	BB	311	A
26	BB	330	A
26	BB	332	A
26	BB	333	G
26	BB	338	G
26	BB	367	G
26	BB	370	G
26	BB	371	A
26	BB	372	G
26	BB	386	G
26	BB	387	U
26	BB	388	G
26	BB	391	A
26	BB	396	G
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	447	A

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Mol	Chain	Res	Type
26	BB	451	U
26	BB	452	G
26	BB	453	A
26	BB	454	A
26	BB	456	C
26	BB	464	U
26	BB	472	A
26	BB	479	A
26	BB	480	A
26	BB	481	G
26	BB	484	C
26	BB	489	G
26	BB	504	A
26	BB	505	A
26	BB	508	A
26	BB	509	C
26	BB	527	C
26	BB	532	A
26	BB	545	U
26	BB	546	U
26	BB	547	A
26	BB	550	C
26	BB	562	U
26	BB	563	A
26	BB	568	U
26	BB	569	U
26	BB	570	G
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	613	A
26	BB	614	A
26	BB	615	U
26	BB	621	A
26	BB	626	A
26	BB	627	A
26	BB	635	C
26	BB	637	A
26	BB	643	A

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Mol	Chain	Res	Type
26	BB	644	A
26	BB	645	C
26	BB	646	U
26	BB	654	A
26	BB	655	A
26	BB	671	C
26	BB	675	A
26	BB	686	U
26	BB	696	G
26	BB	715	A
26	BB	716	A
26	BB	718	A
26	BB	719	C
26	BB	728	G
26	BB	730	A
26	BB	732	C
26	BB	736	C
26	BB	746	PSU
26	BB	747	5MU
26	BB	748	G
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	776	G
26	BB	777	G
26	BB	782	A
26	BB	784	G
26	BB	786	C
26	BB	789	A
26	BB	793	A
26	BB	802	A
26	BB	805	G
26	BB	806	C
26	BB	812	C
26	BB	846	U
26	BB	847	U
26	BB	848	C
26	BB	859	G
26	BB	870	U

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Mol	Chain	Res	Type
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
26	BB	946	C
26	BB	961	C
26	BB	973	A
26	BB	974	G
26	BB	975	A
26	BB	980	A
26	BB	981	A
26	BB	982	C
26	BB	983	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	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	1061	U

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Mol	Chain	Res	Type
26	BB	1062	G
26	BB	1068	G
26	BB	1069	A
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	1085	A
26	BB	1087	G
26	BB	1094	U
26	BB	1098	A
26	BB	1104	C
26	BB	1109	C
26	BB	1110	G
26	BB	1112	G
26	BB	1123	C
26	BB	1128	G
26	BB	1129	A
26	BB	1130	U
26	BB	1131	G
26	BB	1132	U
26	BB	1134	A
26	BB	1135	C
26	BB	1143	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	1205	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	1253	A
26	BB	1254	A
26	BB	1255	U

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Mol	Chain	Res	Type
26	BB	1256	G
26	BB	1266	G
26	BB	1272	A
26	BB	1273	U
26	BB	1274	A
26	BB	1283	G
26	BB	1284	A
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	1323	C
26	BB	1329	U
26	BB	1330	C
26	BB	1341	G
26	BB	1342	A
26	BB	1349	C
26	BB	1354	A
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	1391	U
26	BB	1392	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	1455	G

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Mol	Chain	Res	Type
26	BB	1458	U
26	BB	1459	G
26	BB	1460	U
26	BB	1461	C
26	BB	1482	G
26	BB	1490	A
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	1566	A
26	BB	1567	G
26	BB	1568	G
26	BB	1569	A
26	BB	1578	U
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	1634	A
26	BB	1635	A
26	BB	1636	U
26	BB	1646	C
26	BB	1648	U
26	BB	1654	A
26	BB	1669	A
26	BB	1674	G
26	BB	1675	C
26	BB	1676	A
26	BB	1679	A
26	BB	1713	A
26	BB	1715	G

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Mol	Chain	Res	Type
26	BB	1716	U
26	BB	1724	G
26	BB	1730	C
26	BB	1758	U
26	BB	1761	C
26	BB	1762	A
26	BB	1763	G
26	BB	1764	C
26	BB	1773	A
26	BB	1778	U
26	BB	1779	U
26	BB	1782	U
26	BB	1786	A
26	BB	1787	A
26	BB	1800	C
26	BB	1808	A
26	BB	1809	A
26	BB	1815	A
26	BB	1825	U
26	BB	1828	G
26	BB	1829	A
26	BB	1830	C
26	BB	1831	G
26	BB	1833	C
26	BB	1851	U
26	BB	1873	G
26	BB	1899	A
26	BB	1901	A
26	BB	1912	A
26	BB	1913	A
26	BB	1914	C
26	BB	1915	3TD
26	BB	1928	A
26	BB	1930	G
26	BB	1938	A
26	BB	1941	C
26	BB	1944	U
26	BB	1945	G
26	BB	1952	A
26	BB	1954	G
26	BB	1955	U
26	BB	1956	U

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Mol	Chain	Res	Type
26	BB	1963	U
26	BB	1964	G
26	BB	1965	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
26	BB	2022	U
26	BB	2023	C
26	BB	2030	6MZ
26	BB	2031	A
26	BB	2034	U
26	BB	2040	G
26	BB	2043	C
26	BB	2055	C
26	BB	2056	G
26	BB	2059	A
26	BB	2061	G
26	BB	2069	7MG
26	BB	2077	A
26	BB	2084	C
26	BB	2095	A
26	BB	2107	G
26	BB	2111	U
26	BB	2112	G
26	BB	2118	U
26	BB	2119	A
26	BB	2127	G
26	BB	2128	G
26	BB	2130	U
26	BB	2131	U
26	BB	2132	U
26	BB	2133	G
26	BB	2134	A

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Mol	Chain	Res	Type
26	BB	2137	U
26	BB	2143	C
26	BB	2148	G
26	BB	2154	A
26	BB	2157	G
26	BB	2158	A
26	BB	2162	G
26	BB	2163	A
26	BB	2198	A
26	BB	2199	A
26	BB	2203	U
26	BB	2204	G
26	BB	2211	A
26	BB	2212	A
26	BB	2213	U
26	BB	2214	C
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	2253	G
26	BB	2254	C
26	BB	2266	A
26	BB	2270	A
26	BB	2272	U
26	BB	2282	G
26	BB	2283	C
26	BB	2287	A
26	BB	2288	A
26	BB	2306	C
26	BB	2307	G
26	BB	2312	U
26	BB	2321	U
26	BB	2322	A
26	BB	2325	G
26	BB	2335	A
26	BB	2336	A

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Mol	Chain	Res	Type
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	2383	G
26	BB	2385	C
26	BB	2386	A
26	BB	2389	G
26	BB	2390	U
26	BB	2402	U
26	BB	2403	C
26	BB	2406	A
26	BB	2407	A
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	2439	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	2478	A
26	BB	2486	C
26	BB	2491	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

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Mol	Chain	Res	Type
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	2599	G
26	BB	2602	A
26	BB	2603	G
26	BB	2606	C
26	BB	2613	U
26	BB	2614	A
26	BB	2616	C
26	BB	2628	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	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

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Mol	Chain	Res	Type
26	BB	2777	G
26	BB	2778	A
26	BB	2779	U
26	BB	2782	G
26	BB	2791	G
26	BB	2798	U
26	BB	2800	A
26	BB	2807	U
26	BB	2820	A
26	BB	2821	A
26	BB	2823	A
26	BB	2824	C
26	BB	2825	G
26	BB	2832	U
26	BB	2833	U
26	BB	2842	G
26	BB	2849	U
26	BB	2858	C
26	BB	2859	G
26	BB	2861	U
26	BB	2864	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 (311) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	5	U
1	AA	7	A
1	AA	32	A
1	AA	37	U
1	AA	39	G
1	AA	48	C
1	AA	51	A

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Mol	Chain	Res	Type
1	AA	128	G
1	AA	129	A
1	AA	164	G
1	AA	173	U
1	AA	178	C
1	AA	181	A
1	AA	187	G
1	AA	188	C
1	AA	206	C
1	AA	224	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	373	A
1	AA	410	G
1	AA	422	C
1	AA	429	U
1	AA	481	G
1	AA	485	U
1	AA	497	G
1	AA	509	A
1	AA	533	A
1	AA	552	U
1	AA	582	C
1	AA	653	U
1	AA	682	G
1	AA	700	G
1	AA	717	U
1	AA	719	C
1	AA	730	G
1	AA	764	C
1	AA	765	G
1	AA	775	G
1	AA	782	A
1	AA	790	A
1	AA	792	A

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Mol	Chain	Res	Type
1	AA	815	A
1	AA	816	A
1	AA	820	U
1	AA	840	C
1	AA	870	U
1	AA	872	A
1	AA	897	C
1	AA	899	C
1	AA	926	G
1	AA	931	C
1	AA	937	A
1	AA	944	G
1	AA	952	U
1	AA	960	U
1	AA	968	A
1	AA	974	A
1	AA	977	A
1	AA	992	U
1	AA	993	G
1	AA	1004	A
1	AA	1014	A
1	AA	1028	C
1	AA	1029	U
1	AA	1092	A
1	AA	1101	A
1	AA	1143	G
1	AA	1167	A
1	AA	1182	G
1	AA	1192	C
1	AA	1201	A
1	AA	1211	U
1	AA	1213	A
1	AA	1214	C
1	AA	1226	C
1	AA	1253	G
1	AA	1256	A
1	AA	1286	U
1	AA	1289	A
1	AA	1302	C
1	AA	1310	G
1	AA	1313	U
1	AA	1322	C

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Mol	Chain	Res	Type
1	AA	1329	A
1	AA	1335	U
1	AA	1346	A
1	AA	1347	G
1	AA	1394	A
1	AA	1491	G
1	AA	1502	A
1	AA	1536	C
2	AB	9	A
2	AB	34	C
2	AB	47	U
2	AB	58	A
2	AB	59	G
2	AB	74	C
3	AC	17	U
3	AC	22	G
3	AC	29	G
3	AC	39	U
3	AC	40	G
3	AC	52	U
4	AD	9	G
4	AD	22	A
4	AD	75	C
4	AD	76	C
25	BA	25	U
25	BA	34	A
25	BA	35	C
25	BA	41	G
25	BA	42	C
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	53	A
26	BB	57	C
26	BB	63	A
26	BB	69	C
26	BB	71	A

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Mol	Chain	Res	Type
26	BB	91	A
26	BB	94	A
26	BB	99	U
26	BB	114	U
26	BB	140	C
26	BB	196	A
26	BB	199	A
26	BB	228	C
26	BB	231	A
26	BB	241	A
26	BB	242	G
26	BB	265	A
26	BB	294	A
26	BB	332	A
26	BB	387	U
26	BB	428	A
26	BB	443	A
26	BB	451	U
26	BB	452	G
26	BB	453	A
26	BB	463	G
26	BB	479	A
26	BB	545	U
26	BB	546	U
26	BB	561	G
26	BB	568	U
26	BB	569	U
26	BB	574	A
26	BB	575	A
26	BB	603	A
26	BB	611	C
26	BB	620	G
26	BB	626	A
26	BB	628	G
26	BB	635	C
26	BB	671	C
26	BB	689	A
26	BB	714	U
26	BB	715	A
26	BB	776	G
26	BB	805	G
26	BB	847	U

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Mol	Chain	Res	Type
26	BB	870	U
26	BB	900	A
26	BB	928	A
26	BB	945	A
26	BB	974	G
26	BB	982	C
26	BB	992	C
26	BB	1012	U
26	BB	1035	U
26	BB	1040	A
26	BB	1043	C
26	BB	1061	U
26	BB	1069	A
26	BB	1083	U
26	BB	1115	G
26	BB	1129	A
26	BB	1130	U
26	BB	1133	A
26	BB	1134	A
26	BB	1135	C
26	BB	1142	A
26	BB	1155	A
26	BB	1157	G
26	BB	1200	C
26	BB	1210	G
26	BB	1239	G
26	BB	1254	A
26	BB	1284	A
26	BB	1288	G
26	BB	1329	U
26	BB	1341	G
26	BB	1349	C
26	BB	1351	C
26	BB	1383	A
26	BB	1386	C
26	BB	1391	U
26	BB	1395	A
26	BB	1451	C
26	BB	1458	U
26	BB	1460	U
26	BB	1476	U
26	BB	1493	C

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Mol	Chain	Res	Type
26	BB	1567	G
26	BB	1608	A
26	BB	1616	A
26	BB	1626	A
26	BB	1634	A
26	BB	1640	A
26	BB	1675	C
26	BB	1677	A
26	BB	1693	U
26	BB	1715	G
26	BB	1717	A
26	BB	1723	G
26	BB	1759	A
26	BB	1762	A
26	BB	1778	U
26	BB	1784	A
26	BB	1786	A
26	BB	1807	G
26	BB	1828	G
26	BB	1882	U
26	BB	1912	A
26	BB	1927	A
26	BB	1939	5MU
26	BB	1940	U
26	BB	1944	U
26	BB	1951	U
26	BB	1955	U
26	BB	2019	A
26	BB	2020	A
26	BB	2021	C
26	BB	2031	A
26	BB	2068	U
26	BB	2079	U
26	BB	2092	U
26	BB	2106	U
26	BB	2111	U
26	BB	2112	G
26	BB	2118	U
26	BB	2133	G
26	BB	2162	G
26	BB	2178	C
26	BB	2198	A

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Mol	Chain	Res	Type
26	BB	2213	U
26	BB	2223	G
26	BB	2225	A
26	BB	2236	U
26	BB	2238	G
26	BB	2249	U
26	BB	2253	G
26	BB	2272	U
26	BB	2282	G
26	BB	2287	A
26	BB	2321	U
26	BB	2336	A
26	BB	2385	C
26	BB	2402	U
26	BB	2406	A
26	BB	2425	A
26	BB	2432	A
26	BB	2434	A
26	BB	2439	A
26	BB	2440	C
26	BB	2452	C
26	BB	2515	C
26	BB	2554	U
26	BB	2567	G
26	BB	2571	U
26	BB	2581	G
26	BB	2588	G
26	BB	2602	A
26	BB	2610	C
26	BB	2613	U
26	BB	2616	C
26	BB	2628	C
26	BB	2655	G
26	BB	2663	G
26	BB	2670	A
26	BB	2756	U
26	BB	2763	G
26	BB	2765	A
26	BB	2771	C
26	BB	2777	G
26	BB	2781	A
26	BB	2791	G

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Mol	Chain	Res	Type
26	BB	2798	U
26	BB	2802	G
26	BB	2806	C
26	BB	2808	G
26	BB	2820	A
26	BB	2835	A
26	BB	2842	G
26	BB	2858	C
26	BB	2861	U
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	16	2	18,21,22	1.16	1 (5%)	19,30,33	1.97	7 (36%)
1	4OC	AA	1402	1	20,23,24	1.30	2 (10%)	25,32,35	1.15	2 (8%)
26	OMC	BB	2498	26	19,22,23	1.23	2 (10%)	25,31,34	1.70	5 (20%)
26	CH	BB	2575	26	16,21,22	1.80	5 (31%)	19,30,33	1.75	5 (26%)
2	5MU	AB	54	2	19,22,23	1.58	4 (21%)	27,32,35	1.98	9 (33%)
26	2MG	BB	1835	26	23,26,27	0.94	1 (4%)	33,38,41	1.77	9 (27%)
1	2MG	AA	1516	1	23,26,27	1.44	5 (21%)	33,38,41	1.30	5 (15%)
26	6MZ	BB	1618	26	22,25,26	1.11	1 (4%)	29,36,39	1.53	4 (13%)
1	PSU	AA	516	1	18,21,22	1.92	7 (38%)	21,30,33	3.16	13 (61%)
1	5MC	AA	1407	1	19,22,23	2.42	2 (10%)	26,32,35	1.63	9 (34%)
1	2MG	AA	1207	1	23,26,27	1.25	2 (8%)	33,38,41	1.48	4 (12%)
1	MA6	AA	1518	1	23,26,27	1.15	2 (8%)	33,38,41	1.98	11 (33%)
1	5MC	AA	967	1	19,22,23	1.55	4 (21%)	26,32,35	1.88	6 (23%)
2	H2U	AB	17	2	18,21,22	1.43	2 (11%)	19,30,33	2.19	4 (21%)
4	OMC	AD	33	4	19,22,23	0.91	0	25,31,34	1.87	5 (20%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
26	1MG	BB	745	26	23,26,27	1.48	5 (21%)	33,39,42	1.44	6 (18%)
26	6MZ	BB	2030	26	22,25,26	1.33	4 (18%)	29,36,39	2.02	6 (20%)
1	7MG	AA	527	1	23,26,27	4.04	4 (17%)	27,39,42	2.06	7 (25%)
26	PSU	BB	746	26	18,21,22	1.88	6 (33%)	21,30,33	1.34	3 (14%)
2	MIA	AB	37	2	28,31,32	2.27	6 (21%)	38,44,47	1.74	10 (26%)
4	PSU	AD	56	4	18,21,22	1.49	4 (22%)	21,30,33	1.38	2 (9%)
2	PSU	AB	55	2	18,21,22	1.56	3 (16%)	21,30,33	1.48	4 (19%)
2	H2U	AB	20	2	18,21,22	1.59	4 (22%)	19,30,33	1.72	6 (31%)
26	PSU	BB	1911	26	18,21,22	1.75	4 (22%)	21,30,33	1.29	2 (9%)
1	UR3	AA	1498	1	19,22,23	1.28	3 (15%)	26,32,35	1.42	4 (15%)
2	4SU	AB	8	2	18,21,22	1.37	3 (16%)	25,30,33	1.69	7 (28%)
26	PSU	BB	2605	26	18,21,22	2.01	5 (27%)	21,30,33	2.48	7 (33%)
2	OMC	AB	32	2	19,22,23	1.20	2 (10%)	25,31,34	1.34	4 (16%)
26	H2U	BB	2449	26	18,21,22	1.52	2 (11%)	19,30,33	1.95	5 (26%)
26	PSU	BB	1917	26	18,21,22	2.05	2 (11%)	21,30,33	1.82	5 (23%)
26	PSU	BB	2504	26	18,21,22	1.90	4 (22%)	21,30,33	1.73	6 (28%)
4	5MU	AD	55	4	19,22,23	1.46	2 (10%)	27,32,35	1.90	7 (25%)
26	5MU	BB	1939	26	19,22,23	1.55	5 (26%)	27,32,35	2.03	8 (29%)
4	4SU	AD	8	4	18,21,22	2.18	5 (27%)	25,30,33	1.74	7 (28%)
1	2MG	AA	966	1	23,26,27	1.21	3 (13%)	33,38,41	1.30	5 (15%)
26	PSU	BB	2457	26	18,21,22	2.14	5 (27%)	21,30,33	1.78	6 (28%)
26	PSU	BB	955	26	18,21,22	1.80	6 (33%)	21,30,33	1.77	6 (28%)
4	H2U	AD	21	4	18,21,22	1.60	2 (11%)	19,30,33	1.67	5 (26%)
1	MA6	AA	1519	1	23,26,27	1.11	2 (8%)	33,38,41	1.42	5 (15%)
26	OMG	BB	2251	26	23,26,27	1.26	1 (4%)	32,38,41	1.32	2 (6%)
26	OMU	BB	2552	26	19,22,23	1.33	2 (10%)	25,31,34	2.37	11 (44%)
2	7MG	AB	46	2	23,26,27	4.52	6 (26%)	27,39,42	1.98	4 (14%)
26	2MA	BB	2503	26	22,25,26	1.22	2 (9%)	32,37,40	1.68	8 (25%)
26	3TD	BB	1915	26	19,22,23	1.28	2 (10%)	23,32,35	1.47	3 (13%)
26	2MG	BB	2445	26	23,26,27	1.26	3 (13%)	33,38,41	1.22	2 (6%)
26	5MU	BB	747	26	19,22,23	1.60	4 (21%)	27,32,35	2.90	8 (29%)
26	7MG	BB	2069	26	23,26,27	3.10	6 (26%)	27,39,42	1.84	3 (11%)
26	5MC	BB	1962	26	19,22,23	1.01	1 (5%)	26,32,35	1.58	3 (11%)
26	PSU	BB	2580	26	18,21,22	2.08	6 (33%)	21,30,33	2.11	6 (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	16	2	-	0/7/38/39	0/2/2/2
1	4OC	AA	1402	1	-	0/9/29/30	0/2/2/2
26	OMC	BB	2498	26	-	0/9/27/28	0/2/2/2
26	CH	BB	2575	26	-	0/5/25/26	0/2/2/2
2	5MU	AB	54	2	-	1/7/25/26	0/2/2/2
26	2MG	BB	1835	26	-	0/9/27/28	0/3/3/3
1	2MG	AA	1516	1	-	0/9/27/28	0/3/3/3
26	6MZ	BB	1618	26	-	0/9/27/28	0/3/3/3
1	PSU	AA	516	1	-	2/7/25/26	0/2/2/2
1	5MC	AA	1407	1	-	0/7/25/26	0/2/2/2
1	2MG	AA	1207	1	-	0/9/27/28	0/3/3/3
1	MA6	AA	1518	1	-	0/11/29/30	0/3/3/3
1	5MC	AA	967	1	-	0/7/25/26	0/2/2/2
2	H2U	AB	17	2	-	1/7/38/39	0/2/2/2
4	OMC	AD	33	4	-	0/9/27/28	0/2/2/2
26	1MG	BB	745	26	-	0/7/25/26	0/3/3/3
26	6MZ	BB	2030	26	-	0/9/27/28	0/3/3/3
1	7MG	AA	527	1	-	1/7/37/38	0/3/3/3
26	PSU	BB	746	26	-	1/7/25/26	0/2/2/2
2	MIA	AB	37	2	-	2/15/33/34	0/3/3/3
4	PSU	AD	56	4	-	0/7/25/26	0/2/2/2
2	PSU	AB	55	2	-	1/7/25/26	0/2/2/2
2	H2U	AB	20	2	-	2/7/38/39	0/2/2/2
26	PSU	BB	1911	26	-	1/7/25/26	0/2/2/2
1	UR3	AA	1498	1	-	1/7/25/26	0/2/2/2
2	4SU	AB	8	2	-	5/7/25/26	0/2/2/2
26	PSU	BB	2605	26	-	2/7/25/26	0/2/2/2
2	OMC	AB	32	2	-	0/9/27/28	0/2/2/2
26	H2U	BB	2449	26	-	0/7/38/39	0/2/2/2
26	PSU	BB	1917	26	-	1/7/25/26	0/2/2/2
26	PSU	BB	2504	26	-	0/7/25/26	0/2/2/2
4	5MU	AD	55	4	-	0/7/25/26	0/2/2/2
26	5MU	BB	1939	26	-	0/7/25/26	0/2/2/2
4	4SU	AD	8	4	-	0/7/25/26	0/2/2/2
1	2MG	AA	966	1	-	0/9/27/28	0/3/3/3
26	PSU	BB	2457	26	-	0/7/25/26	0/2/2/2
26	PSU	BB	955	26	-	0/7/25/26	0/2/2/2
4	H2U	AD	21	4	-	2/7/38/39	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	MA6	AA	1519	1	-	0/11/29/30	0/3/3/3
26	OMG	BB	2251	26	-	0/9/27/28	0/3/3/3
26	OMU	BB	2552	26	-	0/9/27/28	0/2/2/2
2	7MG	AB	46	2	-	1/7/37/38	0/3/3/3
26	2MA	BB	2503	26	-	2/7/25/26	0/3/3/3
26	3TD	BB	1915	26	-	0/7/25/26	0/2/2/2
26	2MG	BB	2445	26	-	0/9/27/28	0/3/3/3
26	5MU	BB	747	26	-	0/7/25/26	0/2/2/2
26	7MG	BB	2069	26	-	0/7/37/38	0/3/3/3
26	5MC	BB	1962	26	-	1/7/25/26	0/2/2/2
26	PSU	BB	2580	26	-	0/7/25/26	0/2/2/2

All (164) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	46	7MG	C8-N9	-20.58	1.32	1.45
1	AA	527	7MG	C8-N9	-18.50	1.33	1.45
26	BB	2069	7MG	C8-N9	-13.21	1.37	1.45
1	AA	1407	5MC	C5-C4	-8.98	1.37	1.44
2	AB	37	MIA	C2-S10	-8.41	1.68	1.75
26	BB	1917	PSU	C2-N1	7.35	1.46	1.36
4	AD	8	4SU	C5-C4	-6.64	1.34	1.42
26	BB	2457	PSU	C2-N1	5.99	1.44	1.36
26	BB	2504	PSU	C6-C5	5.63	1.41	1.35
26	BB	2580	PSU	C2-N1	4.99	1.43	1.36
26	BB	955	PSU	C2-N1	4.62	1.42	1.36
26	BB	2605	PSU	C2-N3	4.35	1.44	1.37
26	BB	746	PSU	C2'-C1'	-4.21	1.48	1.53
2	AB	37	MIA	C4-N3	4.10	1.39	1.34
4	AD	8	4SU	C4-N3	4.07	1.41	1.37
26	BB	2251	OMG	O4'-C4'	-3.99	1.36	1.45
4	AD	21	H2U	C2-N3	-3.98	1.31	1.38
26	BB	2449	H2U	O4'-C4'	-3.97	1.36	1.45
1	AA	1516	2MG	CM2-N2	3.92	1.52	1.45
26	BB	2580	PSU	C1'-C5	3.88	1.59	1.50
26	BB	2575	CH	C6-N1	3.68	1.44	1.36
4	AD	21	H2U	C4-N3	-3.66	1.31	1.37
26	BB	1915	3TD	C1'-C5	3.61	1.58	1.50
26	BB	2445	2MG	C6-N1	3.57	1.45	1.38
1	AA	967	5MC	C3'-C4'	3.51	1.61	1.53
2	AB	17	H2U	C5-C4	3.49	1.57	1.50
26	BB	2504	PSU	O4'-C1'	3.45	1.48	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1207	2MG	C2-N3	3.44	1.38	1.32
26	BB	2069	7MG	C2-N1	3.41	1.45	1.37
4	AD	56	PSU	C2-N1	-3.40	1.32	1.36
2	AB	54	5MU	C2-N1	3.39	1.43	1.38
2	AB	37	MIA	C2-N1	3.34	1.39	1.34
1	AA	967	5MC	C5-C4	3.32	1.46	1.44
26	BB	1911	PSU	C2-N1	3.26	1.40	1.36
26	BB	745	1MG	C2-N1	3.26	1.43	1.37
26	BB	2605	PSU	O4'-C1'	-3.25	1.39	1.43
26	BB	2605	PSU	O4'-C4'	-3.22	1.37	1.45
2	AB	54	5MU	C3'-C2'	3.22	1.62	1.53
2	AB	17	H2U	O2'-C2'	-3.19	1.35	1.43
26	BB	2575	CH	C5-C4	3.13	1.44	1.39
26	BB	1939	5MU	C5M-C5	3.10	1.58	1.50
1	AA	516	PSU	O4'-C1'	-3.07	1.39	1.43
1	AA	966	2MG	C2-N3	3.06	1.37	1.32
26	BB	2552	OMU	C2-N1	3.06	1.43	1.38
26	BB	746	PSU	C4-C5	3.06	1.52	1.44
26	BB	2457	PSU	O4'-C1'	3.05	1.48	1.43
1	AA	516	PSU	O5'-C5'	-3.04	1.35	1.44
1	AA	516	PSU	C1'-C5	3.03	1.57	1.50
2	AB	55	PSU	C2-N1	3.02	1.40	1.36
2	AB	20	H2U	C6-C5	2.98	1.59	1.52
26	BB	2605	PSU	C1'-C5	2.96	1.57	1.50
2	AB	8	4SU	C1'-N1	2.95	1.55	1.47
26	BB	2449	H2U	C1'-N1	2.95	1.52	1.46
26	BB	2457	PSU	C2-N3	2.93	1.42	1.37
1	AA	1519	MA6	C10-N6	2.91	1.52	1.45
26	BB	2552	OMU	O4'-C1'	-2.91	1.35	1.42
26	BB	2575	CH	O2'-C2'	2.90	1.50	1.43
26	BB	2605	PSU	C4-N3	2.88	1.44	1.38
26	BB	2457	PSU	C6-N1	2.86	1.41	1.36
2	AB	32	OMC	C2-N1	2.84	1.46	1.40
2	AB	55	PSU	C1'-C5	2.82	1.56	1.50
1	AA	516	PSU	O2'-C2'	-2.82	1.36	1.43
1	AA	1207	2MG	O6-C6	-2.81	1.18	1.23
1	AA	967	5MC	C5'-C4'	2.80	1.60	1.51
26	BB	1618	6MZ	C3'-C2'	-2.80	1.45	1.53
1	AA	1402	4OC	C3'-C4'	2.80	1.60	1.53
1	AA	516	PSU	C2-N1	2.78	1.40	1.36
2	AB	37	MIA	C3'-C4'	-2.76	1.46	1.53
4	AD	55	5MU	O4'-C4'	-2.75	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2445	2MG	O4'-C1'	-2.74	1.35	1.42
1	AA	527	7MG	O3'-C3'	2.72	1.49	1.43
26	BB	747	5MU	C2-N3	2.71	1.42	1.38
26	BB	745	1MG	O6-C6	2.70	1.28	1.23
2	AB	37	MIA	O4'-C4'	-2.70	1.39	1.45
26	BB	747	5MU	C4-C5	-2.69	1.40	1.44
26	BB	2504	PSU	C2-N1	2.69	1.40	1.36
1	AA	516	PSU	C6-N1	2.69	1.40	1.36
26	BB	2503	2MA	C2'-C1'	-2.68	1.45	1.53
26	BB	955	PSU	C2'-C1'	-2.68	1.50	1.53
2	AB	16	H2U	C3'-C4'	2.67	1.59	1.53
2	AB	54	5MU	O4'-C4'	-2.67	1.39	1.45
26	BB	1939	5MU	C2-N1	2.66	1.42	1.38
26	BB	1911	PSU	O5'-C5'	-2.65	1.36	1.44
26	BB	2069	7MG	C5-N7	2.64	1.39	1.35
26	BB	2457	PSU	C4-N3	2.63	1.43	1.38
26	BB	1911	PSU	O4'-C1'	2.62	1.47	1.43
26	BB	1962	5MC	C2'-C3'	-2.61	1.46	1.53
26	BB	1917	PSU	C6-N1	2.58	1.40	1.36
26	BB	955	PSU	O3'-C3'	-2.58	1.36	1.43
26	BB	1911	PSU	C6-C5	2.54	1.38	1.35
1	AA	1407	5MC	CM5-C5	2.54	1.56	1.50
4	AD	55	5MU	O2'-C2'	-2.54	1.36	1.43
1	AA	967	5MC	O4'-C4'	-2.53	1.39	1.45
1	AA	1518	MA6	C1'-N9	2.52	1.53	1.46
26	BB	746	PSU	O2-C2	-2.51	1.18	1.23
1	AA	1402	4OC	O2-C2	-2.49	1.19	1.23
2	AB	46	7MG	C8-N7	-2.49	1.30	1.42
4	AD	8	4SU	C5'-C4'	2.48	1.59	1.51
26	BB	2030	6MZ	C2-N3	-2.48	1.29	1.33
2	AB	37	MIA	C13-C14	2.46	1.39	1.32
26	BB	2445	2MG	C2-N1	2.45	1.40	1.36
2	AB	55	PSU	C6-C5	2.44	1.38	1.35
1	AA	1498	UR3	C5'-C4'	2.42	1.58	1.51
2	AB	46	7MG	O4'-C4'	-2.42	1.39	1.45
2	AB	20	H2U	C2-N3	-2.41	1.33	1.38
26	BB	2498	OMC	C5'-C4'	2.41	1.58	1.51
1	AA	1516	2MG	O4'-C1'	2.41	1.47	1.42
4	AD	56	PSU	O4-C4	-2.40	1.19	1.23
2	AB	46	7MG	C5-N7	2.39	1.38	1.35
26	BB	955	PSU	C1'-C5	2.39	1.55	1.50
26	BB	746	PSU	O4'-C1'	2.38	1.47	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2030	6MZ	O4'-C4'	-2.36	1.39	1.45
4	AD	8	4SU	C1'-N1	2.36	1.54	1.47
26	BB	1915	3TD	C3'-C2'	-2.35	1.47	1.53
26	BB	2580	PSU	C4-C5	2.35	1.50	1.44
26	BB	2503	2MA	O4'-C4'	-2.34	1.39	1.45
1	AA	966	2MG	C5-N7	2.33	1.43	1.39
26	BB	2504	PSU	O4'-C4'	-2.32	1.39	1.45
1	AA	1498	UR3	C2-N3	2.31	1.43	1.39
2	AB	20	H2U	C5'-C4'	2.31	1.58	1.51
26	BB	1939	5MU	O2-C2	-2.30	1.19	1.23
26	BB	2575	CH	O5'-C5'	-2.30	1.37	1.44
26	BB	747	5MU	C3'-C2'	2.29	1.59	1.53
4	AD	8	4SU	O4'-C4'	2.29	1.50	1.45
26	BB	955	PSU	O4'-C4'	-2.27	1.39	1.45
1	AA	966	2MG	C4-N3	2.25	1.39	1.34
2	AB	54	5MU	C1'-N1	2.25	1.53	1.47
26	BB	745	1MG	O4'-C4'	-2.25	1.40	1.45
26	BB	1835	2MG	O5'-C5'	-2.25	1.37	1.44
2	AB	46	7MG	O2'-C2'	2.24	1.48	1.43
26	BB	2575	CH	C5'-C4'	2.23	1.58	1.51
1	AA	1519	MA6	C5-N7	2.22	1.43	1.39
2	AB	20	H2U	O4'-C1'	2.21	1.47	1.42
1	AA	1518	MA6	C5'-C4'	2.20	1.58	1.51
26	BB	2498	OMC	C1'-N1	2.20	1.53	1.47
26	BB	2069	7MG	O3'-C3'	-2.20	1.37	1.43
2	AB	8	4SU	C2-N3	2.19	1.41	1.38
1	AA	527	7MG	C2-N3	2.19	1.38	1.33
26	BB	745	1MG	C5-C6	-2.18	1.40	1.45
1	AA	1516	2MG	O2'-C2'	-2.16	1.37	1.43
1	AA	1498	UR3	C3'-C4'	2.16	1.58	1.53
26	BB	2580	PSU	C2'-C1'	-2.15	1.50	1.53
2	AB	8	4SU	C2-N1	2.15	1.41	1.38
26	BB	1939	5MU	C6-N1	2.14	1.41	1.38
26	BB	2069	7MG	C6-N1	2.13	1.42	1.38
26	BB	2580	PSU	C3'-C4'	-2.13	1.47	1.53
1	AA	1516	2MG	C5'-C4'	2.12	1.57	1.51
1	AA	1516	2MG	C2-N2	2.12	1.37	1.33
26	BB	746	PSU	O4'-C4'	-2.12	1.40	1.45
1	AA	516	PSU	C2-N3	2.11	1.40	1.37
26	BB	2030	6MZ	O3'-C3'	2.10	1.48	1.43
26	BB	747	5MU	C2'-C1'	2.09	1.60	1.53
26	BB	745	1MG	C4-N3	2.09	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	955	PSU	C2-N3	2.09	1.40	1.37
26	BB	2030	6MZ	C2-N1	2.07	1.37	1.33
26	BB	2580	PSU	O4'-C4'	-2.07	1.40	1.45
4	AD	56	PSU	O2'-C2'	2.07	1.48	1.43
26	BB	2069	7MG	C8-N7	-2.07	1.32	1.42
2	AB	32	OMC	O4'-C4'	2.07	1.49	1.45
26	BB	1939	5MU	C2-N3	2.06	1.41	1.38
1	AA	527	7MG	C5-N7	2.06	1.38	1.35
4	AD	56	PSU	C6-C5	2.04	1.37	1.35
2	AB	46	7MG	C5-C6	2.02	1.48	1.43
26	BB	746	PSU	C4-N3	2.01	1.42	1.38

All (281) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	747	5MU	C6-C5-C4	9.43	125.79	118.02
1	AA	516	PSU	C6-C5-C4	9.34	124.48	118.17
26	BB	2605	PSU	C6-C5-C4	8.84	124.14	118.17
26	BB	2069	7MG	N9-C8-N7	7.13	113.46	103.37
26	BB	747	5MU	C5M-C5-C6	-6.95	113.44	122.85
2	AB	46	7MG	N9-C8-N7	6.52	112.61	103.37
2	AB	17	H2U	N3-C2-N1	6.17	122.85	116.65
1	AA	527	7MG	N9-C8-N7	5.96	111.81	103.37
26	BB	2030	6MZ	C4-C5-C6	-5.46	112.24	116.78
26	BB	1917	PSU	C3'-C2'-C1'	5.45	108.13	101.69
4	AD	33	OMC	O2-C2-N3	-5.45	113.75	122.33
26	BB	2552	OMU	N3-C2-N1	5.42	121.95	114.89
1	AA	516	PSU	C3'-C2'-C1'	5.30	107.95	101.69
26	BB	2580	PSU	C6-N1-C2	5.29	127.60	122.69
4	AD	55	5MU	C6-C5-C4	5.22	122.32	118.02
26	BB	747	5MU	C5-C6-N1	-5.20	117.66	123.31
2	AB	54	5MU	C6-C5-C4	5.09	122.22	118.02
2	AB	37	MIA	C11-S10-C2	5.01	106.01	102.25
26	BB	1939	5MU	C5M-C5-C6	-4.71	116.48	122.85
1	AA	967	5MC	C5-C6-N1	-4.68	118.23	123.31
26	BB	2580	PSU	N1-C2-N3	-4.65	110.25	115.17
26	BB	2552	OMU	C4-N3-C2	-4.59	120.92	126.61
26	BB	1939	5MU	C6-C5-C4	4.58	121.80	118.02
1	AA	967	5MC	CM5-C5-C6	-4.57	116.66	122.85
1	AA	1518	MA6	C4-C5-C6	4.55	120.62	115.91
26	BB	1618	6MZ	C9-N6-C6	4.55	127.07	122.85
1	AA	527	7MG	C6-C5-N7	4.52	138.94	131.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2503	2MA	C6-C5-C4	-4.44	111.11	117.18
1	AA	1207	2MG	C2'-C3'-C4'	-4.44	94.03	102.61
2	AB	46	7MG	C2'-C3'-C4'	-4.38	94.14	102.61
26	BB	2030	6MZ	C9-N6-C6	4.35	126.88	122.85
26	BB	955	PSU	C3'-C2'-C1'	4.23	106.68	101.69
26	BB	1835	2MG	N1-C2-N2	4.22	120.87	116.56
26	BB	1962	5MC	C6-N1-C2	-4.22	115.33	120.95
4	AD	8	4SU	C6-N1-C2	-4.21	115.87	121.00
1	AA	1518	MA6	O4'-C1'-N9	4.16	116.09	108.09
26	BB	1939	5MU	C5-C6-N1	-4.16	118.80	123.31
26	BB	1835	2MG	C2-N3-C4	4.13	117.17	112.00
26	BB	2457	PSU	C6-N1-C2	-4.12	118.86	122.69
26	BB	2449	H2U	C5-C4-N3	4.05	120.99	116.69
2	AB	17	H2U	O4-C4-N3	4.03	126.51	120.30
4	AD	55	5MU	O4-C4-C5	4.02	129.51	124.92
26	BB	1915	3TD	C1'-C5-C4	3.95	123.61	117.61
2	AB	16	H2U	C2'-C3'-C4'	-3.93	95.01	102.61
2	AB	8	4SU	C3'-C2'-C1'	3.92	108.88	101.46
26	BB	1962	5MC	O4'-C1'-N1	3.92	117.24	108.36
4	AD	56	PSU	O2'-C2'-C1'	3.92	120.50	111.21
26	BB	2449	H2U	O2-C2-N1	3.84	127.73	123.10
26	BB	2445	2MG	C2-N1-C6	-3.84	119.91	124.55
1	AA	527	7MG	C5-C4-N9	3.82	111.22	106.33
4	AD	21	H2U	N3-C2-N1	3.78	120.44	116.65
26	BB	2503	2MA	O4'-C1'-N9	3.75	115.28	108.09
26	BB	1618	6MZ	C4-N9-C8	-3.69	101.86	105.74
26	BB	2498	OMC	O2-C2-N1	3.66	126.08	118.90
26	BB	2552	OMU	C3'-C2'-C1'	-3.66	95.80	102.81
26	BB	2030	6MZ	C5-C4-N3	3.66	131.75	126.72
1	AA	516	PSU	C5-C6-N1	-3.65	117.08	122.14
26	BB	2575	CH	C4'-O4'-C1'	-3.65	106.03	109.74
4	AD	55	5MU	C5M-C5-C6	-3.55	118.05	122.85
26	BB	747	5MU	O2-C2-N1	3.53	127.40	122.80
26	BB	1939	5MU	C4-N3-C2	-3.53	122.71	127.34
1	AA	1498	UR3	C4-N3-C2	-3.52	121.75	124.58
26	BB	2449	H2U	O4'-C1'-N1	3.47	114.03	109.30
26	BB	746	PSU	C3'-C2'-C1'	3.47	105.78	101.69
1	AA	516	PSU	O2-C2-N3	3.46	128.01	121.86
2	AB	55	PSU	C6-C5-C4	3.45	120.50	118.17
1	AA	516	PSU	N1-C2-N3	-3.44	111.53	115.17
26	BB	2580	PSU	C5-C6-N1	-3.43	117.37	122.14
1	AA	1518	MA6	C2-N1-C6	3.43	120.21	111.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2030	6MZ	C6-C5-N7	3.42	136.16	132.43
1	AA	1498	UR3	O4'-C1'-N1	3.40	116.07	108.36
2	AB	17	H2U	O2-C2-N3	-3.37	115.28	121.49
2	AB	37	MIA	C12-C13-C14	-3.35	121.00	127.01
1	AA	1519	MA6	C2-N1-C6	3.33	119.97	111.83
2	AB	46	7MG	C6-C5-N7	3.32	137.08	131.93
2	AB	16	H2U	O4'-C1'-N1	3.30	113.79	109.30
26	BB	745	1MG	C3'-C2'-C1'	3.27	107.64	101.46
2	AB	16	H2U	N3-C2-N1	3.26	119.93	116.65
2	AB	20	H2U	O2-C2-N1	3.25	127.02	123.10
26	BB	1835	2MG	C5-C4-N3	-3.24	123.23	128.39
26	BB	2030	6MZ	C2'-C1'-N9	3.18	121.20	113.30
26	BB	747	5MU	C2'-C3'-C4'	-3.18	96.47	102.61
26	BB	2552	OMU	C6-N1-C2	-3.17	117.13	121.00
1	AA	1519	MA6	N1-C6-N6	3.15	120.70	116.86
2	AB	54	5MU	C5M-C5-C6	-3.15	118.59	122.85
26	BB	2504	PSU	C4'-O4'-C1'	-3.14	100.58	108.44
26	BB	2575	CH	O4'-C1'-C2'	3.13	111.50	106.89
26	BB	955	PSU	C6-N1-C2	-3.11	119.81	122.69
4	AD	21	H2U	O4'-C4'-C5'	3.10	119.28	109.33
4	AD	33	OMC	O2-C2-N1	3.10	124.98	118.90
26	BB	1917	PSU	C6-N1-C2	-3.10	119.82	122.69
26	BB	2251	OMG	C2'-C1'-N9	-3.08	108.40	114.24
26	BB	1939	5MU	O3'-C3'-C4'	-3.07	102.27	111.08
1	AA	516	PSU	C2'-C3'-C4'	-3.03	96.75	102.61
1	AA	966	2MG	N1-C2-N2	3.03	119.65	116.56
26	BB	2552	OMU	C2'-C1'-N1	-3.01	108.53	114.24
1	AA	1518	MA6	O2'-C2'-C1'	-3.00	99.77	110.10
1	AA	966	2MG	C6-C5-N7	3.00	135.74	130.29
26	BB	2498	OMC	O2-C2-N3	-2.99	117.62	122.33
26	BB	2580	PSU	C2'-C3'-C4'	2.97	108.34	102.61
26	BB	2605	PSU	O2'-C2'-C1'	-2.94	104.22	111.21
2	AB	32	OMC	O3'-C3'-C2'	2.94	119.42	111.19
26	BB	1915	3TD	O4'-C4'-C5'	2.94	118.75	109.33
26	BB	745	1MG	C2'-C3'-C4'	-2.93	96.94	102.61
2	AB	37	MIA	C4-C5-N7	-2.92	107.24	110.58
26	BB	1911	PSU	O4'-C1'-C2'	2.91	109.17	105.15
26	BB	2552	OMU	CM2-O2'-C2'	-2.89	107.06	114.47
26	BB	1917	PSU	C2'-C3'-C4'	-2.88	97.04	102.61
26	BB	1911	PSU	C6-C5-C4	2.87	120.11	118.17
26	BB	745	1MG	C2-N1-C6	2.87	123.38	120.99
2	AB	37	MIA	N3-C4-N9	-2.85	123.38	126.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	8	4SU	O4'-C1'-C2'	-2.85	100.53	106.62
4	AD	33	OMC	C5-C4-N4	2.84	125.61	120.63
1	AA	1518	MA6	C5-C4-N3	-2.84	122.80	126.72
26	BB	1917	PSU	O2'-C2'-C1'	-2.83	104.50	111.21
2	AB	46	7MG	C6-C5-C4	-2.81	117.47	122.40
26	BB	2504	PSU	C6-C5-C4	2.79	120.06	118.17
2	AB	37	MIA	C5-C4-N9	2.79	108.85	105.81
2	AB	54	5MU	O4'-C4'-C3'	-2.79	99.62	105.15
4	AD	55	5MU	O4-C4-N3	-2.79	114.87	120.11
1	AA	1519	MA6	C2'-C1'-N9	-2.79	106.38	113.30
26	BB	2552	OMU	O4'-C4'-C3'	-2.78	99.64	105.15
1	AA	967	5MC	O2-C2-N3	-2.78	117.95	122.33
1	AA	1207	2MG	CM2-N2-C2	2.77	129.60	123.65
2	AB	54	5MU	O4-C4-C5	-2.76	121.76	124.92
1	AA	1407	5MC	O3'-C3'-C2'	2.75	120.65	111.82
4	AD	8	4SU	C5-C6-N1	2.73	126.28	121.84
1	AA	966	2MG	C6-C5-C4	-2.73	114.73	118.83
26	BB	2580	PSU	O2-C2-N3	2.70	126.67	121.86
1	AA	1516	2MG	C8-N9-C4	-2.70	100.97	106.03
1	AA	1402	4OC	CM4-N4-C4	2.69	127.72	122.45
1	AA	1516	2MG	C5-C4-N9	2.69	110.47	105.66
26	BB	2605	PSU	O2-C2-N3	2.67	126.61	121.86
2	AB	32	OMC	N1-C2-N3	-2.67	114.17	118.80
2	AB	37	MIA	N6-C6-N1	2.66	121.91	118.33
26	BB	2251	OMG	N2-C2-N3	2.66	124.87	119.67
2	AB	54	5MU	O2-C2-N1	-2.66	119.34	122.80
2	AB	20	H2U	C5'-C4'-C3'	-2.64	105.69	115.21
26	BB	2445	2MG	O4'-C4'-C3'	-2.64	99.91	105.15
1	AA	1407	5MC	O4'-C1'-C2'	-2.64	100.97	106.62
26	BB	745	1MG	C6-C5-C4	2.63	122.95	119.97
2	AB	20	H2U	O3'-C3'-C4'	2.63	118.64	111.08
1	AA	516	PSU	O2-C2-N1	-2.63	120.08	122.79
26	BB	2580	PSU	C6-C5-C4	2.63	119.95	118.17
26	BB	955	PSU	O4'-C4'-C3'	2.62	110.36	105.15
4	AD	8	4SU	C1'-N1-C2	2.62	122.29	117.59
2	AB	55	PSU	O4'-C1'-C2'	2.61	108.76	105.15
26	BB	2498	OMC	C6-C5-C4	-2.61	113.25	117.53
26	BB	955	PSU	O2-C2-N1	-2.61	120.10	122.79
2	AB	55	PSU	C6-N1-C2	-2.60	120.28	122.69
26	BB	2552	OMU	C5'-C4'-C3'	-2.59	105.88	115.21
1	AA	527	7MG	C4-C5-N7	-2.59	102.32	105.38
2	AB	8	4SU	O4'-C4'-C3'	2.59	110.29	105.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2605	PSU	O2-C2-N1	-2.59	120.12	122.79
1	AA	1516	2MG	N1-C2-N2	-2.57	113.94	116.56
4	AD	33	OMC	C1'-N1-C6	2.57	126.27	120.78
26	BB	2504	PSU	C5-C6-N1	-2.57	118.58	122.14
2	AB	32	OMC	O4'-C1'-N1	2.56	114.15	108.36
26	BB	747	5MU	O2-C2-N3	-2.55	116.79	121.49
26	BB	1618	6MZ	N9-C8-N7	2.55	117.55	113.94
2	AB	54	5MU	C2'-C1'-N1	-2.55	106.16	113.25
4	AD	21	H2U	O2-C2-N3	-2.55	116.79	121.49
1	AA	1518	MA6	C4-C5-N7	-2.54	107.67	110.58
1	AA	966	2MG	C1'-N9-C4	-2.54	118.98	126.49
26	BB	955	PSU	O3'-C3'-C4'	2.54	118.37	111.08
1	AA	527	7MG	N9-C4-N3	-2.53	121.75	125.46
26	BB	2552	OMU	O2-C2-N1	-2.53	119.51	122.80
26	BB	2503	2MA	N6-C6-N1	-2.53	113.62	117.03
4	AD	33	OMC	C6-C5-C4	2.52	121.67	117.53
26	BB	2457	PSU	O2'-C2'-C1'	-2.50	105.27	111.21
1	AA	1516	2MG	O3'-C3'-C2'	2.49	119.79	111.82
1	AA	516	PSU	C4-N3-C2	2.48	129.78	126.37
26	BB	1835	2MG	CM2-N2-C2	2.48	128.97	123.65
1	AA	967	5MC	CM5-C5-C4	2.47	124.58	120.51
1	AA	967	5MC	O4'-C1'-C2'	2.47	111.90	106.62
1	AA	516	PSU	O4-C4-C5	2.47	130.14	124.01
26	BB	1917	PSU	C6-C5-C4	2.46	119.83	118.17
1	AA	1407	5MC	O2-C2-N3	-2.45	118.47	122.33
1	AA	516	PSU	C5-C4-N3	-2.44	111.18	116.55
26	BB	2457	PSU	C6-C5-C4	2.44	119.82	118.17
26	BB	2498	OMC	C5-C4-N3	2.43	125.42	121.32
26	BB	2575	CH	C6-N1-C2	-2.43	116.34	121.03
26	BB	747	5MU	C4-N3-C2	-2.43	124.16	127.34
1	AA	1407	5MC	O2-C2-N1	2.42	123.64	118.90
4	AD	8	4SU	C3'-C2'-C1'	2.41	106.02	101.46
2	AB	16	H2U	C4'-O4'-C1'	-2.41	104.15	109.47
1	AA	1498	UR3	C5-C4-N3	2.41	118.21	115.04
26	BB	2069	7MG	O4'-C4'-C3'	-2.41	100.38	105.15
2	AB	17	H2U	C5-C4-N3	-2.40	114.13	116.69
26	BB	2575	CH	O4'-C4'-C5'	2.40	117.02	109.33
26	BB	2503	2MA	C1'-N9-C8	-2.40	121.77	127.09
4	AD	55	5MU	O4'-C4'-C3'	-2.40	100.39	105.15
2	AB	55	PSU	O4'-C4'-C5'	2.39	117.00	109.33
26	BB	1835	2MG	N2-C2-N3	-2.39	117.47	120.51
26	BB	1915	3TD	C5'-C4'-C3'	-2.37	106.67	115.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1518	MA6	O3'-C3'-C2'	2.37	119.40	111.82
26	BB	746	PSU	C2'-C3'-C4'	2.36	107.18	102.61
4	AD	8	4SU	O4'-C1'-N1	2.36	113.70	108.36
1	AA	516	PSU	O4'-C4'-C3'	2.36	109.83	105.15
2	AB	20	H2U	C4'-O4'-C1'	-2.35	104.28	109.47
26	BB	747	5MU	O4-C4-C5	2.35	127.60	124.92
4	AD	55	5MU	C4-N3-C2	-2.35	124.26	127.34
26	BB	1835	2MG	C1'-N9-C8	2.34	133.37	126.73
26	BB	2069	7MG	O4'-C1'-N9	2.34	112.48	109.30
1	AA	966	2MG	N2-C2-N3	-2.33	117.54	120.51
26	BB	2449	H2U	N3-C2-N1	-2.33	114.30	116.65
1	AA	1518	MA6	O2'-C2'-C3'	2.33	119.29	111.82
2	AB	54	5MU	C5-C6-N1	-2.33	120.78	123.31
4	AD	21	H2U	O4-C4-N3	2.33	123.89	120.30
4	AD	55	5MU	C5-C6-N1	-2.33	120.79	123.31
1	AA	1402	4OC	C1'-N1-C6	2.32	125.74	120.78
26	BB	746	PSU	C6-N1-C2	2.32	124.84	122.69
26	BB	2504	PSU	C2'-C3'-C4'	-2.32	98.13	102.61
1	AA	1519	MA6	C9-N6-C6	2.32	126.42	120.52
2	AB	16	H2U	C3'-C2'-C1'	-2.31	97.09	101.46
2	AB	8	4SU	O3'-C3'-C4'	2.31	117.71	111.08
26	BB	955	PSU	C2'-C3'-C4'	-2.29	98.18	102.61
1	AA	1518	MA6	C5-N7-C8	2.28	107.04	103.45
26	BB	2605	PSU	N1-C2-N3	-2.27	112.77	115.17
1	AA	1518	MA6	C5-C4-N9	2.27	108.29	105.81
1	AA	1407	5MC	C5-C4-N4	-2.26	118.20	121.39
26	BB	2030	6MZ	N3-C4-N9	-2.24	123.35	127.17
4	AD	8	4SU	O3'-C3'-C4'	-2.24	104.65	111.08
2	AB	54	5MU	O4-C4-N3	2.23	124.31	120.11
26	BB	1962	5MC	C1'-N1-C2	2.23	123.37	118.44
1	AA	527	7MG	C6-C5-C4	-2.22	118.49	122.40
1	AA	1207	2MG	O2'-C2'-C1'	-2.22	102.46	110.10
1	AA	516	PSU	O2'-C2'-C1'	-2.22	105.94	111.21
1	AA	1407	5MC	C1'-N1-C6	2.21	124.79	121.15
2	AB	20	H2U	O2'-C2'-C1'	2.21	117.71	110.10
1	AA	527	7MG	O4'-C4'-C3'	2.21	109.53	105.15
2	AB	37	MIA	C4-N9-C8	-2.20	103.42	105.74
1	AA	516	PSU	C6-N1-C2	2.20	124.73	122.69
26	BB	2457	PSU	O4'-C4'-C5'	2.20	116.37	109.33
26	BB	2449	H2U	O2'-C2'-C1'	2.19	117.65	110.10
26	BB	2503	2MA	C4-N9-C8	2.19	108.03	105.74
26	BB	1939	5MU	C5-C4-N3	2.19	117.22	115.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1518	MA6	N1-C2-N3	-2.18	125.28	128.58
2	AB	16	H2U	O2-C2-N3	-2.18	117.46	121.49
2	AB	8	4SU	O2-C2-N1	-2.18	119.96	122.80
26	BB	2503	2MA	CM2-C2-N3	2.18	120.39	117.13
2	AB	8	4SU	C2'-C3'-C4'	-2.18	98.40	102.61
26	BB	2552	OMU	C1'-N1-C6	2.17	125.42	120.78
2	AB	20	H2U	O2-C2-N3	-2.17	117.48	121.49
2	AB	32	OMC	O2-C2-N1	2.16	123.12	118.90
26	BB	2605	PSU	C5-C4-N3	-2.15	111.81	116.55
26	BB	745	1MG	C5-C4-N3	-2.14	124.97	128.39
1	AA	967	5MC	N4-C4-N3	-2.14	114.63	118.51
26	BB	745	1MG	CM1-N1-C6	-2.14	114.33	117.64
26	BB	1618	6MZ	C5-C6-N1	-2.13	115.86	118.15
2	AB	37	MIA	O3'-C3'-C2'	-2.13	104.99	111.82
1	AA	1407	5MC	O4'-C1'-N1	2.13	113.18	108.36
1	AA	1498	UR3	O3'-C3'-C2'	-2.12	105.02	111.82
2	AB	54	5MU	C3'-C2'-C1'	-2.12	97.45	101.46
4	AD	21	H2U	O4'-C1'-N1	-2.12	106.41	109.30
1	AA	1519	MA6	O3'-C3'-C4'	2.11	117.15	111.08
2	AB	37	MIA	C6-C5-N7	2.11	134.73	132.43
26	BB	2498	OMC	C6-N1-C2	2.11	124.03	120.46
2	AB	16	H2U	O4'-C4'-C3'	-2.11	100.97	105.15
4	AD	8	4SU	C5'-C4'-C3'	-2.11	107.63	115.21
26	BB	2552	OMU	O4'-C1'-C2'	2.10	110.21	106.59
1	AA	1207	2MG	C3'-C2'-C1'	2.10	105.44	101.46
26	BB	1939	5MU	O4-C4-C5	-2.10	122.52	124.92
2	AB	37	MIA	C5-N7-C8	2.09	106.73	103.45
1	AA	1407	5MC	C3'-C2'-C1'	2.08	105.41	101.46
26	BB	1835	2MG	C8-N9-C4	-2.08	102.12	106.03
26	BB	1939	5MU	C2'-C1'-N1	2.06	118.99	113.25
4	AD	56	PSU	N1-C2-N3	2.05	117.33	115.17
26	BB	1835	2MG	O3'-C3'-C4'	2.05	116.96	111.08
26	BB	2605	PSU	O4-C4-N3	2.05	123.96	120.11
26	BB	2504	PSU	O2'-C2'-C1'	-2.04	106.36	111.21
26	BB	2457	PSU	C5-C6-N1	2.04	124.98	122.14
26	BB	2503	2MA	C6-C5-N7	2.04	136.02	132.09
1	AA	1407	5MC	C2'-C3'-C4'	-2.03	98.69	102.61
26	BB	2504	PSU	O4-C4-C5	2.02	129.01	124.01
1	AA	1516	2MG	C5-C4-N3	-2.01	125.19	128.39
26	BB	2575	CH	O3'-C3'-C2'	2.01	118.25	111.82
26	BB	2457	PSU	O2'-C2'-C3'	2.00	118.24	111.82
26	BB	2503	2MA	C2-N1-C6	2.00	121.18	118.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	8	4SU	C1'-N1-C6	2.00	125.06	120.78
26	BB	1835	2MG	O4'-C4'-C5'	2.00	115.75	109.33

There are no chirality outliers.

All (27) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	AA	516	PSU	C2'-C1'-C5-C4
2	AB	8	4SU	C2'-C1'-N1-C2
2	AB	8	4SU	C2'-C1'-N1-C6
26	BB	746	PSU	O4'-C1'-C5-C6
26	BB	2605	PSU	C2'-C1'-C5-C4
26	BB	2503	2MA	O4'-C1'-N9-C8
26	BB	2503	2MA	O4'-C1'-N9-C4
2	AB	46	7MG	C4'-C5'-O5'-P
1	AA	527	7MG	C4'-C5'-O5'-P
2	AB	37	MIA	O4'-C4'-C5'-O5'
2	AB	20	H2U	O4'-C4'-C5'-O5'
26	BB	1962	5MC	O4'-C1'-N1-C6
1	AA	516	PSU	O4'-C1'-C5-C4
2	AB	55	PSU	O4'-C1'-C5-C4
2	AB	37	MIA	C3'-C4'-C5'-O5'
2	AB	8	4SU	C4'-C5'-O5'-P
2	AB	8	4SU	O4'-C1'-N1-C6
4	AD	21	H2U	O4'-C1'-N1-C2
2	AB	20	H2U	C3'-C4'-C5'-O5'
26	BB	1911	PSU	O4'-C1'-C5-C6
26	BB	1917	PSU	O4'-C1'-C5-C6
26	BB	2605	PSU	O4'-C1'-C5-C6
2	AB	17	H2U	O4'-C4'-C5'-O5'
4	AD	21	H2U	C2'-C1'-N1-C2
1	AA	1498	UR3	O4'-C4'-C5'-O5'
2	AB	8	4SU	O4'-C1'-N1-C2
2	AB	54	5MU	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	$\#\|Z\| > 2$
60	FME	BB	3001	59	8,9,10	1.16	2 (25%)	8,9,11	1.42	1 (12%)
59	TRP	AB	101	60,2	15,15,16	2.10	4 (26%)	17,20,22	3.07	8 (47%)

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

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	AB	101	TRP	OXT-C	-5.04	1.21	1.42
59	AB	101	TRP	CD2-CE2	3.66	1.46	1.41
59	AB	101	TRP	C-CA	2.78	1.57	1.52
59	AB	101	TRP	CH2-CZ2	2.77	1.43	1.38
60	BB	3001	FME	CB-CG	2.13	1.60	1.51
60	BB	3001	FME	CE-SD	2.10	1.91	1.78

All (9) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	AB	101	TRP	CH2-CZ3-CE3	5.63	127.18	120.24
59	AB	101	TRP	CD2-CE2-NE1	-4.96	103.39	107.52
59	AB	101	TRP	CD2-CG-CD1	-4.72	101.33	106.16
59	AB	101	TRP	CE2-CD2-CG	4.49	111.70	107.17
59	AB	101	TRP	CE3-CD2-CE2	-4.26	114.43	118.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	AB	101	TRP	CZ3-CH2-CZ2	-4.25	115.00	120.24
59	AB	101	TRP	CG-CD1-NE1	2.99	113.59	110.31
59	AB	101	TRP	CZ2-CE2-CD2	2.87	124.96	122.19
60	BB	3001	FME	O1-CN-N	-2.08	119.94	125.32

There are no chirality outliers.

All (2) torsion outliers are listed below:

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

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	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BB	2677:G	O3'	2678:C	P	1.76

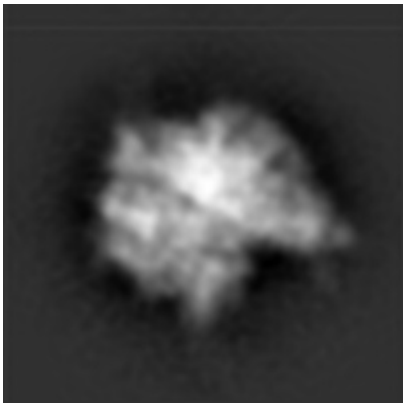
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-5364. These allow visual inspection of the internal detail of the map and identification of artifacts.

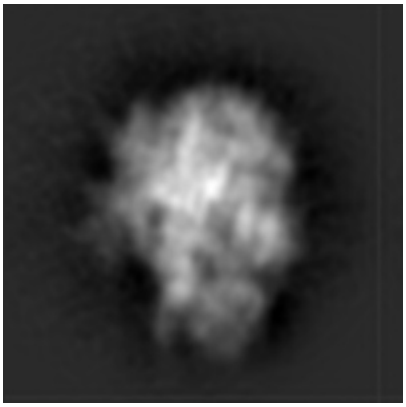
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

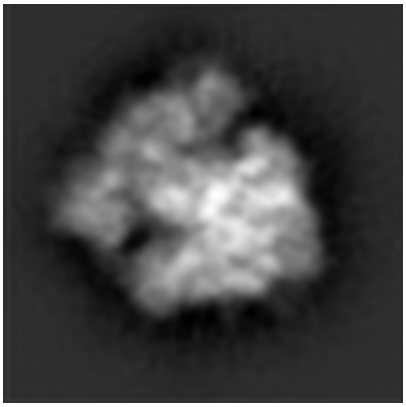
6.1.1 Primary map



X



Y

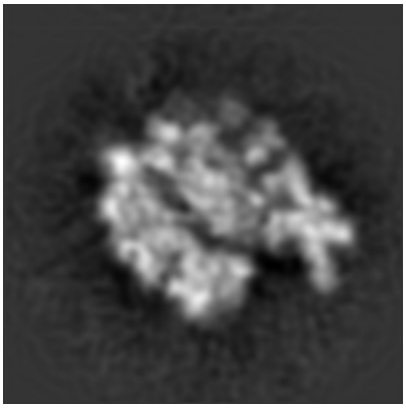


Z

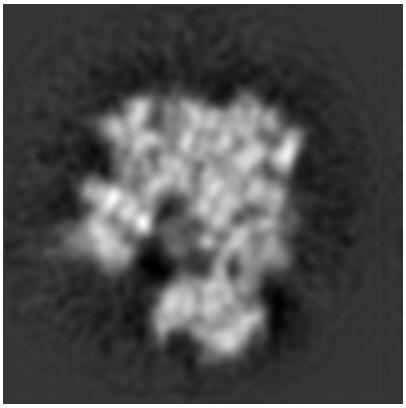
The images above show the map projected in three orthogonal directions.

6.2 Central slices

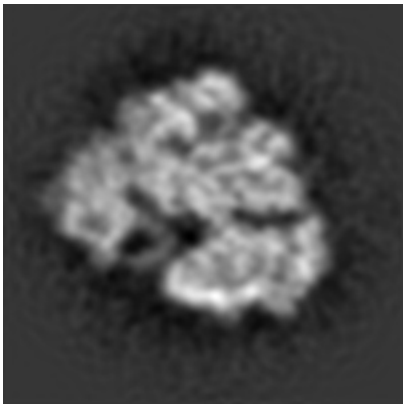
6.2.1 Primary map



X Index: 125



Y Index: 125

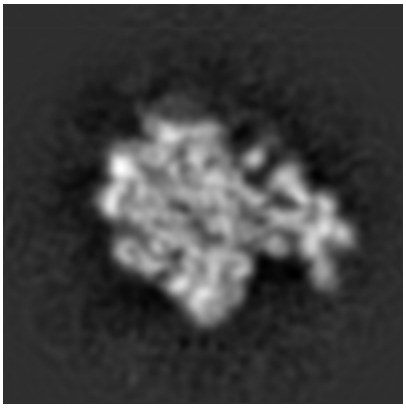


Z Index: 125

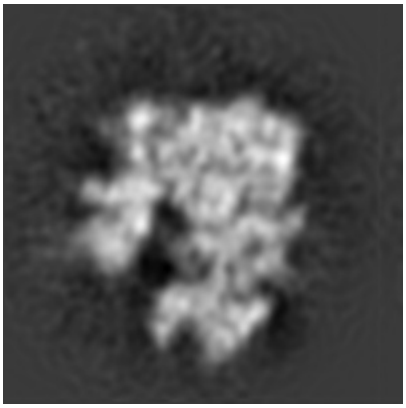
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

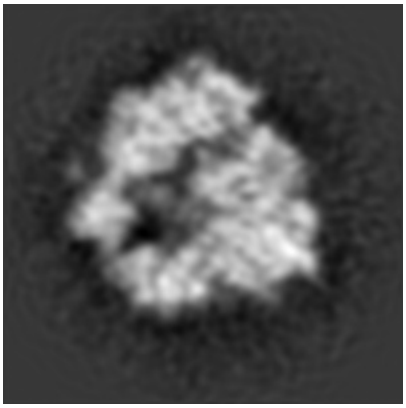
6.3.1 Primary map



X Index: 130



Y Index: 130

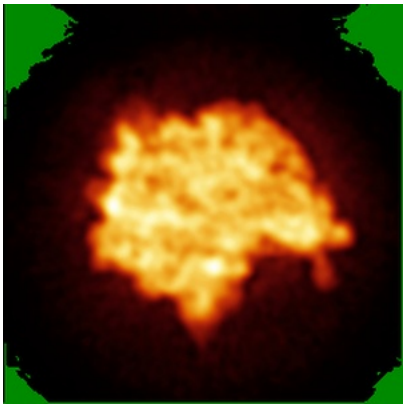


Z Index: 114

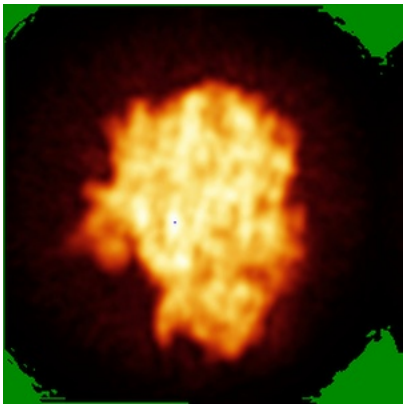
The images above show the largest variance slices of the map in three orthogonal directions.

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

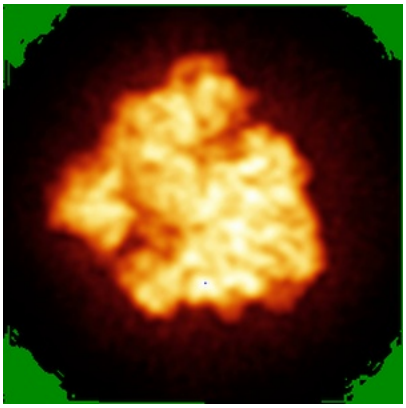
6.4.1 Primary map



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.

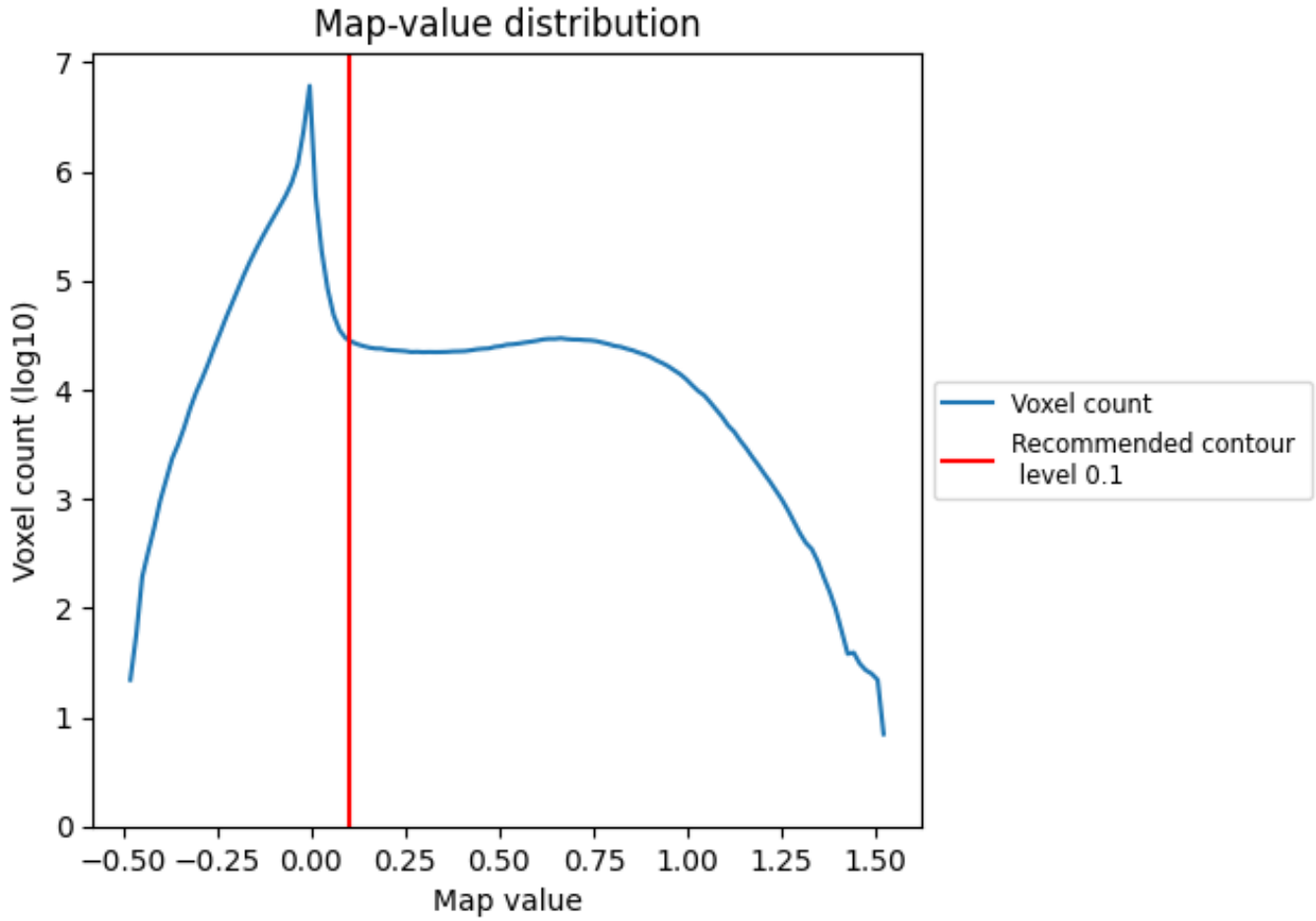
6.6 Mask visualisation (i)

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

7 Map analysis

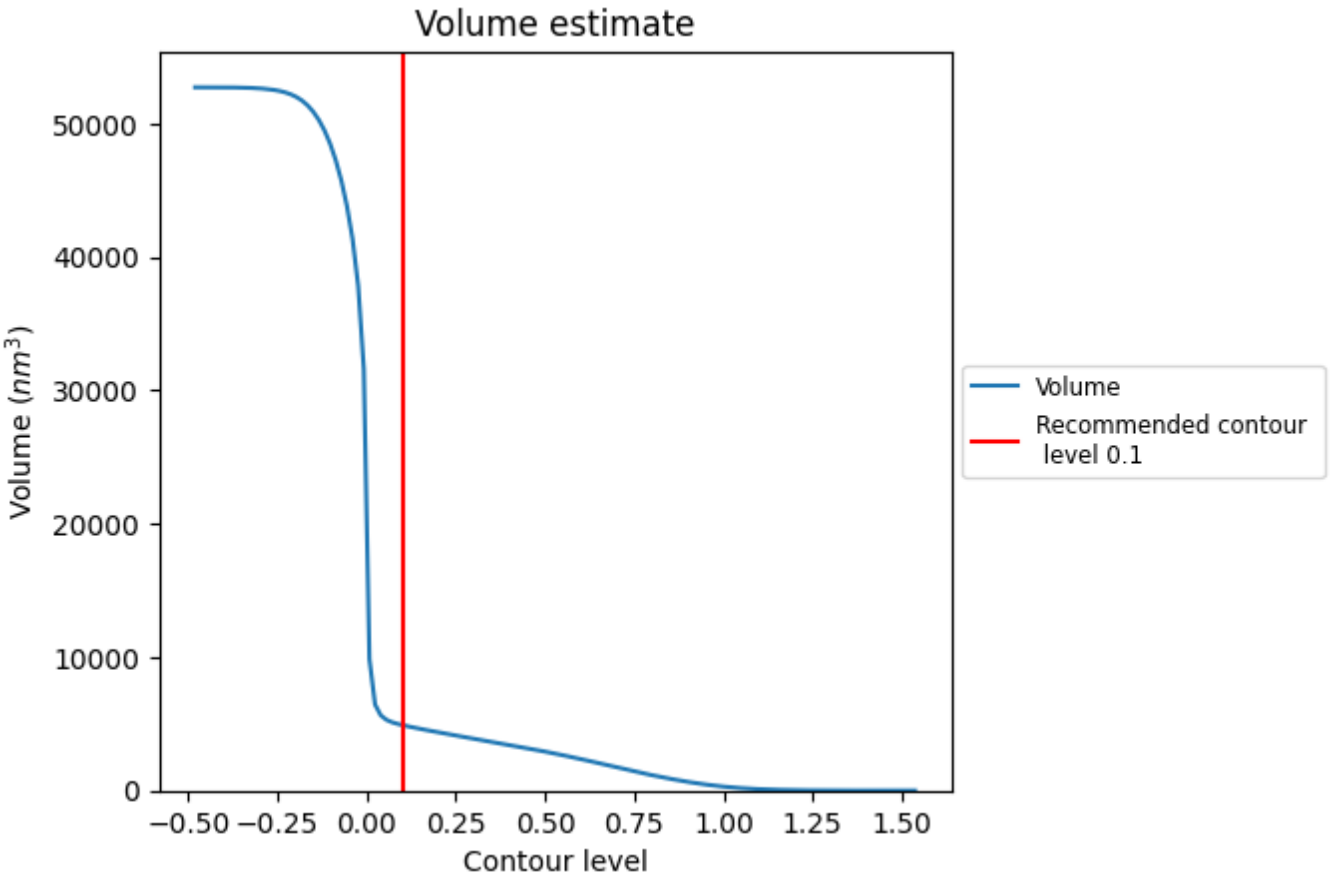
This section contains the results of statistical analysis of the map.

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.

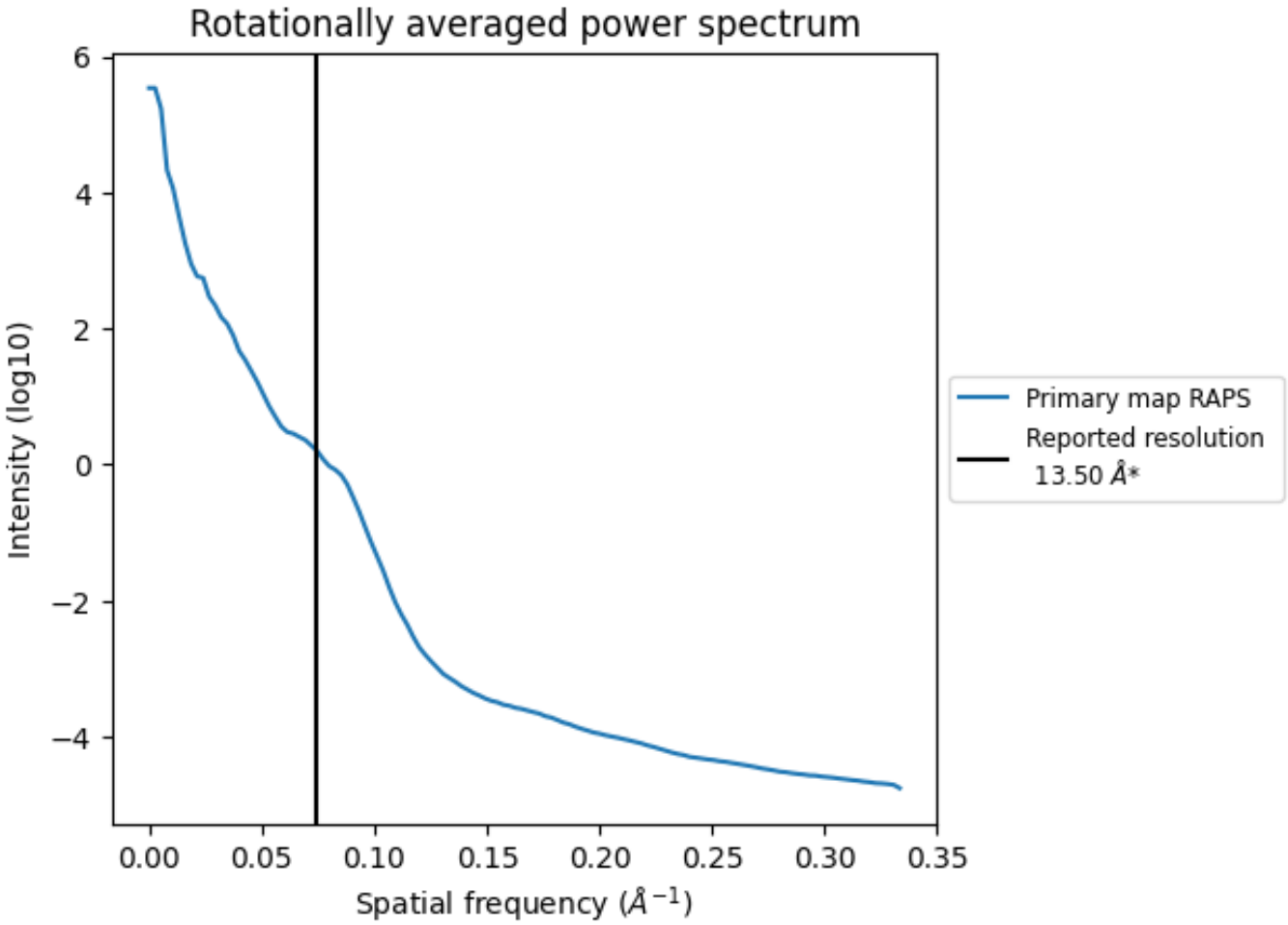
7.2 Volume estimate



The volume at the recommended contour level is 4913 nm^3; this corresponds to an approximate mass of 4438 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 0.074 Å^{-1}

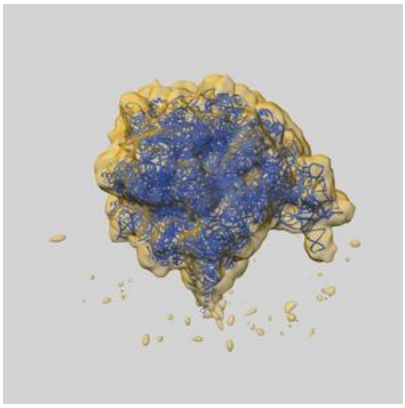
8 Fourier-Shell correlation

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

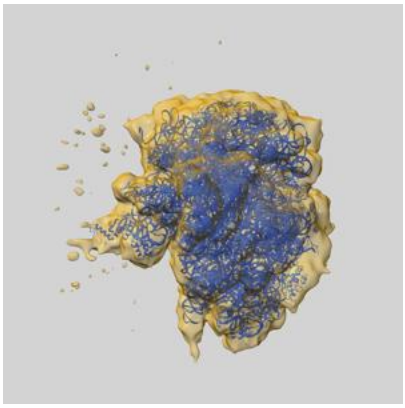
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-5364 and PDB model 4V6P. Per-residue inclusion information can be found in section 3 on page 16.

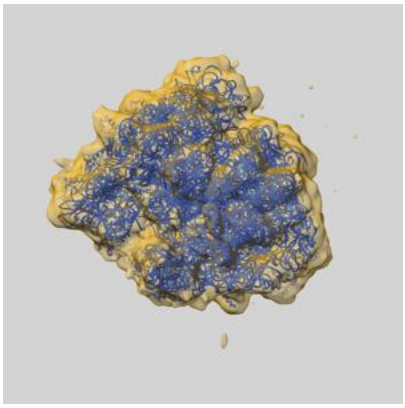
9.1 Map-model overlay



X



Y



Z

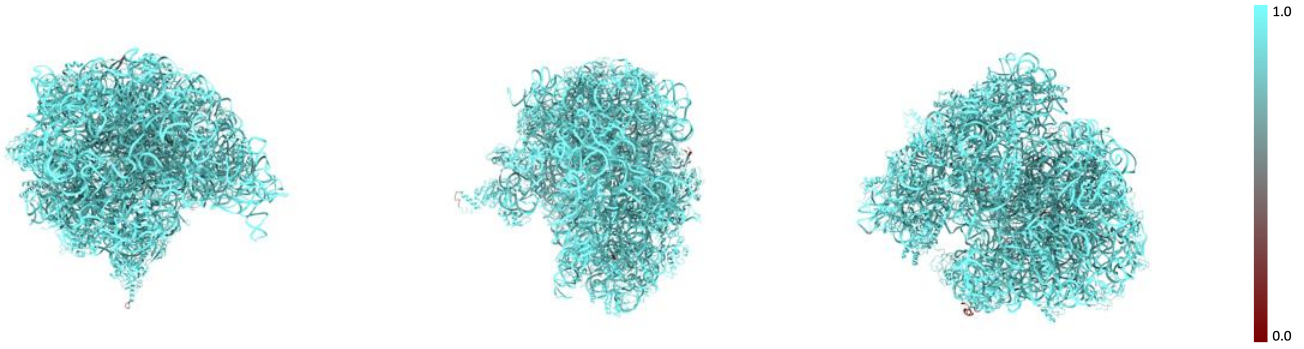
The images above show the 3D surface view of the map at the recommended contour level 0.1 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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.

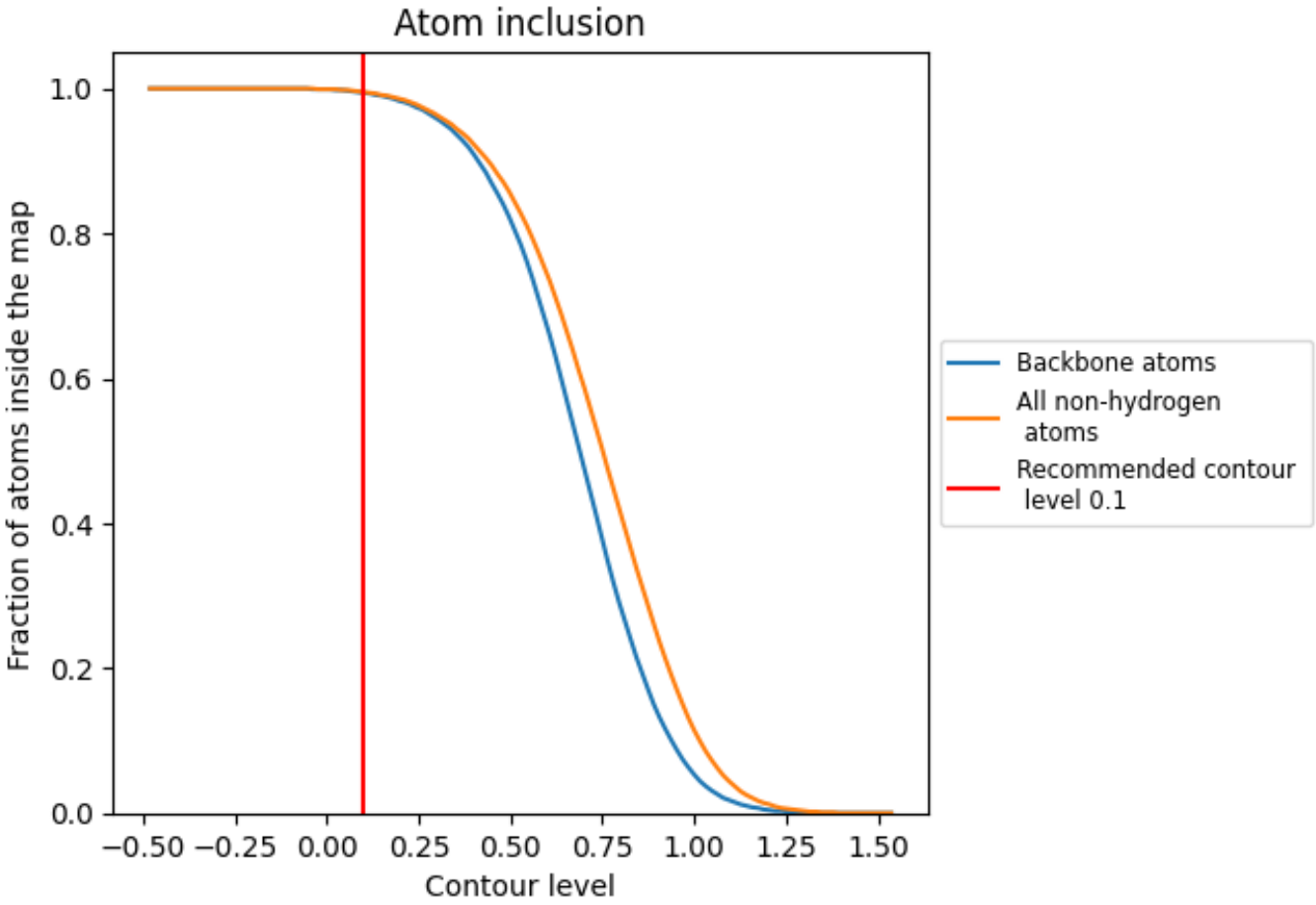
9.3 Atom inclusion mapped to coordinate model



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	0.0640
AA	0.9990	0.0780
AB	0.9570	0.0490
AC	0.9190	-0.0060
AD	0.9460	0.0460
AE	0.9900	0.0400
AF	0.9990	0.0530
AG	1.0000	0.0350
AH	1.0000	0.0530
AI	0.9780	0.0440
AJ	1.0000	0.0500
AK	0.9960	0.0360
AL	0.9990	0.0480
AM	1.0000	0.0260
AN	1.0000	0.0430
AO	0.9910	0.0130
AP	1.0000	0.0490
AQ	1.0000	0.0080
AR	1.0000	0.0430
AS	1.0000	0.0320
AT	1.0000	0.0420
AU	1.0000	0.0640
AV	0.9560	0.0190
AW	1.0000	0.0310
AX	0.9840	0.0110
B0	1.0000	0.0200
B1	1.0000	0.0440
B2	0.9980	0.0410
B3	1.0000	0.0340
B4	1.0000	0.0440
B5	1.0000	0.0120
B6	1.0000	-0.0200
B7	1.0000	0.0490
BA	1.0000	0.0900
BB	0.9990	0.0820

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Chain	Atom inclusion	Q-score
BC	0.9240	0.0270
BD	1.0000	0.0120
BE	1.0000	0.0220
BF	1.0000	0.0580
BG	1.0000	0.0490
BH	1.0000	0.0260
BI	0.9260	0.0230
BJ	0.9490	0.0530
BK	0.9800	0.0350
BL	1.0000	0.0110
BM	0.9960	0.0340
BN	1.0000	0.0120
BO	1.0000	0.0240
BP	1.0000	0.0150
BQ	0.9980	0.0620
BR	0.9940	0.0170
BS	0.9920	0.0070
BT	1.0000	0.0430
BU	1.0000	0.0100
BV	1.0000	0.0120
BW	0.9940	0.0540
BX	1.0000	0.0680
BY	0.9810	-0.0030
BZ	1.0000	0.0140