



Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Mar 2, 2017 – 12:40 pm GMT

PDB ID : 4V6I
EMDB ID: : EMD-1669
Title : Localization of the small subunit ribosomal proteins into a 6.1 Å cryo-EM map of *Saccharomyces cerevisiae* translating 80S ribosome
Authors : Armache, J.-P.; Jarasch, A.; Anger, A.M.; Villa, E.; Becker, T.; Bhushan, S.; Jossinet, F.; Habeck, M.; Dindar, G.; Franckenberg, S.; Marquez, V.; Mielke, T.; Thomm, M.; Berninghausen, O.; Beatrix, B.; Soeding, J.; Westhof, E.; Wilson, D.N.; Beckmann, R.
Deposited on : 2010-10-12
Resolution : 8.80 Å(reported)

This is a Full wwPDB/EMDatabank EM Map/Model Validation Report
for a publicly released PDB/EMDB entry.

We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

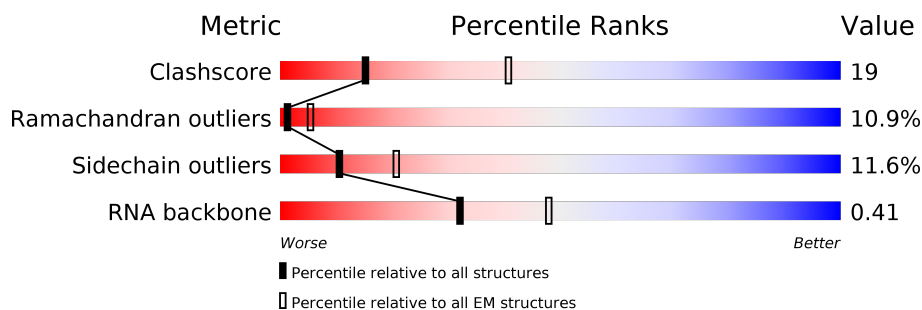
MolProbity : 4.02b-467
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : recalc29047

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 8.80 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	125131	1336
Ramachandran outliers	121729	1120
Sidechain outliers	121581	1026
RNA backbone	3398	335

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. 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 $\leq 5\%$

Mol	Chain	Length	Quality of chain
1	Aa	319	72% 19% 8% .
2	AA	252	57% 26% 10% 7%
3	AB	240	45% 23% 13% . 15%
4	AD	261	34% 23% 13% 7% 23%
5	AC	197	43% 31% 17% 8%
6	AE	254	51% 28% 12% 8%
7	AG	144	74% 17% 8% .
8	AF	225	53% 24% 9% . 12%


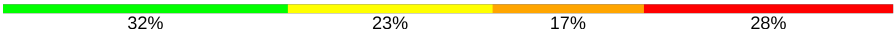



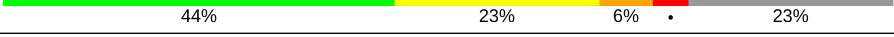





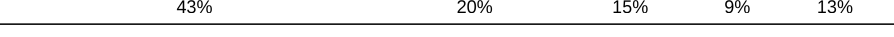

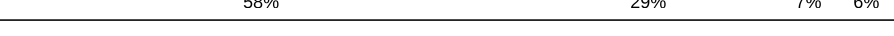

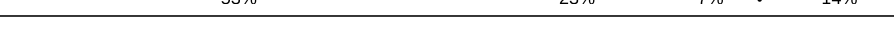

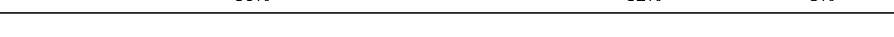
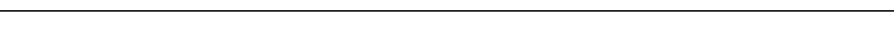

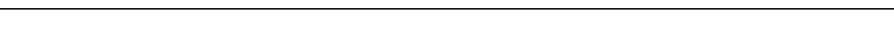
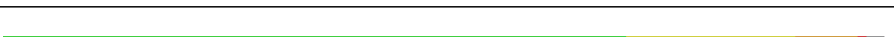

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Mol	Chain	Length	Quality of chain
9	AH	130	
10	AI	143	
11	AJ	121	
12	AK	137	
13	AL	145	
14	AM	146	
15	AN	56	
16	AO	151	
17	AQ	136	
18	AP	156	
19	AR	142	
20	AS	144	
21	AT	87	
22	AV	108	
23	AW	93	
24	AX	82	
25	AY	67	
26	AZ	63	
27	Ab	37	
28	Ac	26	
29	AU	135	
30	BA	217	
31	BB	254	
32	BC	388	
33	BD	362	




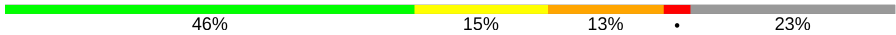



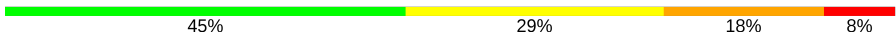
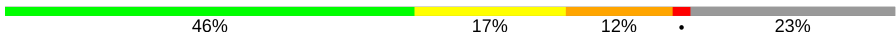
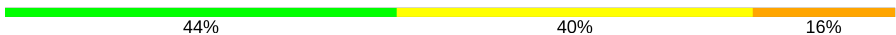




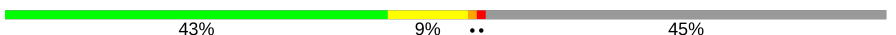
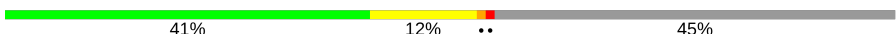
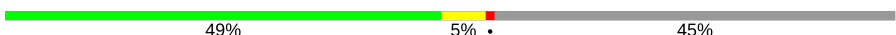
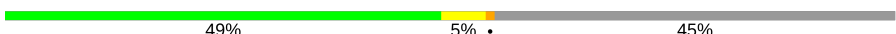


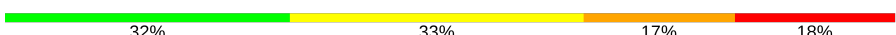




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Mol	Chain	Length	Quality of chain
34	BE	174	
35	BG	176	
36	BF	191	
37	BH	256	
38	Bs	312	
39	BJ	165	
40	BK	199	
41	BN	138	
42	BM	137	
43	BP	204	
44	BO	149	
45	BR	186	
46	BT	189	
47	BU	160	
48	BW	121	
49	BV	170	
50	BX	142	
51	BZ	155	
52	BY	123	
53	Ba	136	
54	Bd	59	
55	Bc	120	
56	Bf	105	
57	Be	244	
58	Bg	113	

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Mol	Chain	Length	Quality of chain
59	Bh	130	
60	Bi	118	
61	Bj	107	
62	Bk	100	
63	Bm	92	
64	Bl	88	
65	Bn	78	
66	Bo	51	
67	Bp	52	
68	Bq	25	
69	Br	106	
70	Bx	21	
70	By	21	
71	Bz	15	
72	Bt	106	
72	Bu	106	
73	Bv	106	
73	Bw	106	
74	BQ	297	
75	BL	170	
76	BS	167	
77	BI	221	
78	CA	1800	
79	CB	75	
80	CC	11	

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Mol	Chain	Length	Quality of chain
81	DA	3396	<div><div></div><div>6%37%38%18%</div><div></div></div>
82	DB	158	<div><div></div><div>7%35%39%18%</div><div></div></div>
83	DC	118	<div><div></div><div>24%47%29%</div><div></div></div>

2 Entry composition

There are 83 unique types of molecules in this entry. The entry contains 191627 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 protein called 40S ribosomal protein RACK1 (RACK1).

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Aa	319	Total	C	N	O	S	0	0
			2442	1544	420	469	9		

- Molecule 2 is a protein called 40S ribosomal protein rpS0 (S2p).

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AA	252	Total	C	N	O	S	0	0
			1922	1204	336	380	2		

- Molecule 3 is a protein called 40S ribosomal protein rpS3 (S3p).

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AB	204	Total	C	N	O	S	0	0
			1511	945	282	278	6		

- Molecule 4 is a protein called 40S ribosomal protein rpS4 (S4e).

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AD	200	Total	C	N	O	S	0	0
			1591	1018	288	283	2		

- Molecule 5 is a protein called 40S ribosomal protein rpS9 (S4p).

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AC	197	Total	C	N	O	S	0	0
			1521	951	298	270	2		

- Molecule 6 is a protein called 40S ribosomal protein rpS2 (S5p).

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AE	254	Total	C	N	O	S	0	0
			1936	1224	360	349	3		

- Molecule 7 is a protein called 40S ribosomal protein rpS7 (S7e).

Mol	Chain	Residues	Atoms				AltConf	Trace
7	AG	143	Total	C	N	O	0	0
			716	429	143	144		

- Molecule 8 is a protein called 40S ribosomal protein rpS5 (S7p).

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AF	199	Total	C	N	O	S	0	0
			1543	958	293	289	3		

- Molecule 9 is a protein called 40S ribosomal protein rpS22 (S8p).

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AH	130	Total	C	N	O	S	0	0
			1030	655	189	182	4		

- Molecule 10 is a protein called 40S ribosomal protein rpS16 (S9p).

Mol	Chain	Residues	Atoms				AltConf	Trace
10	AI	126	Total	C	N	O	0	0
			998	639	184	175		

- Molecule 11 is a protein called 40S ribosomal protein rpS20 (S10p).

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AJ	113	Total	C	N	O	S	0	0
			849	528	158	162	1		

- Molecule 12 is a protein called 40S ribosomal protein rpS14 (S11p).

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AK	119	Total	C	N	O	S	0	0
			833	508	157	165	3		

- Molecule 13 is a protein called 40S ribosomal protein rpS23 (S12p).

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AL	145	Total	C	N	O	S	0	0
			978	588	203	184	3		

- Molecule 14 is a protein called 40S ribosomal protein rpS18 (S13p).

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AM	140	Total	C	N	O	S	0	0
			1156	719	231	204	2		

- Molecule 15 is a protein called 40S ribosomal protein rpS29 (S14p).

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AN	48	Total	C	N	O	S	0	0
			353	209	79	61	4		

- Molecule 16 is a protein called 40S ribosomal protein rpS13 (S15p).

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AO	121	Total	C	N	O	S	0	0
			978	624	183	170	1		

- Molecule 17 is a protein called 40S ribosomal protein rpS17 (S17e).

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AQ	136	Total	C	N	O	S	0	0
			1098	682	213	201	2		

- Molecule 18 is a protein called 40S ribosomal protein rpS11 (S17p).

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AP	85	Total	C	N	O	S	0	0
			631	402	124	104	1		

- Molecule 19 is a protein called 40S ribosomal protein rpS15 (S19p).

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AR	88	Total	C	N	O	S	0	0
			676	429	123	118	6		

- Molecule 20 is a protein called 40S ribosomal protein rpS19 (S19e).

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AS	144	Total	C	N	O	S	0	0
			1120	699	209	209	3		

- Molecule 21 is a protein called 40S ribosomal protein rpS21 (S21e).

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AT	87	Total	C	N	O	S	0	0
			685	420	125	138	2		

- Molecule 22 is a protein called 40S ribosomal protein rpS25 (S25e).

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AV	85	Total	C	N	O	S	0	0
			688	437	128	122	1		

- Molecule 23 is a protein called 40S ribosomal protein rpS26 (S26e).

Mol	Chain	Residues	Atoms				AltConf	Trace
23	AW	92	Total	C	N	O	0	0
			461	276	92	93		

- Molecule 24 is a protein called 40S ribosomal protein rpS27 (S27e).

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AX	50	Total	C	N	O	S	0	0
			366	229	60	72	5		

- Molecule 25 is a protein called 40S ribosomal protein rpS28 (S28e).

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AY	60	Total	C	N	O	S	0	0
			445	276	80	87	2		

- Molecule 26 is a protein called 40S ribosomal protein rpS30 (S30e).

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AZ	63	Total	C	N	O	S	0	0
			492	307	102	81	2		

- Molecule 27 is a protein called Unknown 40S ribosomal protein XS1.

Mol	Chain	Residues	Atoms				AltConf	Trace
27	Ab	36	Total	C	N	O	0	0
			181	108	36	37		

- Molecule 28 is a protein called Unknown 40S ribosomal protein XS2.

Mol	Chain	Residues	Atoms				AltConf	Trace
28	Ac	25	Total	C	N	O	0	0
			126	75	25	26		

- Molecule 29 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AU	96	Total	C	N	O	S	0	0
			714	450	134	129	1		

- Molecule 30 is a protein called 60S ribosomal protein rpL1 (L1p).

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BA	217	Total	C	N	O	S	0	0
			1718	1097	299	312	10		

- Molecule 31 is a protein called 60S ribosomal protein rpL2 (L2p).

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BB	254	Total	C	N	O	S	0	0
			1904	1183	385	334	2		

- Molecule 32 is a protein called 60S ribosomal protein rpL3 (L3p).

Mol	Chain	Residues	Atoms					AltConf	Trace
32	BC	388	Total	C	N	O	S	0	0
			3055	1933	579	534	9		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BC	388	GLY	-	EXPRESSION TAG	UNP P14126

- Molecule 33 is a protein called 60S ribosomal protein rpL4 (L4p).

Mol	Chain	Residues	Atoms					AltConf	Trace
33	BD	329	Total	C	N	O	S	0	0
			2486	1564	480	438	4		

- Molecule 34 is a protein called 60S ribosomal protein rpL11 (L5p).

Mol	Chain	Residues	Atoms					AltConf	Trace
34	BE	168	Total	C	N	O	S	0	0
			1341	839	252	245	5		

- Molecule 35 is a protein called 60S ribosomal protein rpL6 (L6e).

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BG	176	Total	C	N	O	S	0	0
			1409	907	252	248	2		

- Molecule 36 is a protein called 60S ribosomal protein rpL9 (L6p).

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BF	191	Total	C	N	O	S	0	0
			1516	961	274	277	4		

- Molecule 37 is a protein called 60S ribosomal protein rpL8 (L7ae).

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BH	197	Total	C	N	O	S	0	0
			1505	959	269	274	3		

- Molecule 38 is a protein called 60S acidic ribosomal protein rpP0 (L10P).

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Bs	257	Total	C	N	O	S	0	0
			1976	1269	334	368	5		

- Molecule 39 is a protein called 60S ribosomal protein rpL12 (L11p).

Mol	Chain	Residues	Atoms					AltConf	Trace
39	BJ	127	Total	C	N	O	S	0	0
			954	601	174	178	1		

- Molecule 40 is a protein called 60S ribosomal protein rpL16 (L13p).

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BK	199	Total	C	N	O	S	0	0
			1570	1011	291	266	2		

- Molecule 41 is a protein called 60S ribosomal protein rpL14 (L14e).

Mol	Chain	Residues	Atoms					AltConf	Trace
41	BN	138	Total	C	N	O	S	0	0
			1068	683	201	181	3		

- Molecule 42 is a protein called 60S ribosomal protein rpL23 (L14p).

Mol	Chain	Residues	Atoms					AltConf	Trace
42	BM	131	Total	C	N	O	S	0	0
			972	611	182	172	7		

- Molecule 43 is a protein called 60S ribosomal protein rpL15 (L15e).

Mol	Chain	Residues	Atoms					AltConf	Trace
43	BP	193	Total	C	N	O	S	0	0
			1625	1016	341	266	2		

- Molecule 44 is a protein called 60S ribosomal protein rpL28 (L15p).

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BO	149	Total	C	N	O	S	0	0
			1182	754	232	192	4		

- Molecule 45 is a protein called 60S ribosomal protein rpL18 (L18e).

Mol	Chain	Residues	Atoms					AltConf	Trace
45	BR	161	Total	C	N	O	S	0	0
			1243	786	242	212	3		

- Molecule 46 is a protein called 60S ribosomal protein rpL19 (L19e).

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BT	189	Total	C	N	O	S	0	0
			1530	940	327	262	1		

- Molecule 47 is a protein called 60S ribosomal protein rpL21 (L21e).

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BU	160	Total	C	N	O	S	0	0
			1261	793	242	222	4		

- Molecule 48 is a protein called 60S ribosomal protein rpL22 (L22e).

Mol	Chain	Residues	Atoms				AltConf	Trace
48	BW	105	Total	C	N	O	0	0
			830	535	140	155		

- Molecule 49 is a protein called 60S ribosomal protein rpL17 (L22p).

Mol	Chain	Residues	Atoms					AltConf	Trace
49	BV	170	Total	C	N	O	S	0	0
			1312	814	254	243	1		

- Molecule 50 is a protein called 60S ribosomal protein rpL25 (L23p).

Mol	Chain	Residues	Atoms					AltConf	Trace
50	BX	122	Total	C	N	O	S	0	0
			978	629	172	175	2		

- Molecule 51 is a protein called 60S ribosomal protein rpL24 (L24e).

Mol	Chain	Residues	Atoms				AltConf	Trace
51	BZ	73	Total	C	N	O	0	0
			579	366	115	98		

- Molecule 52 is a protein called 60S ribosomal protein rpL26 (L24p).

Mol	Chain	Residues	Atoms					AltConf	Trace
52	BY	123	Total	C	N	O	S	0	0
			972	611	188	172	1		

- Molecule 53 is a protein called 60S ribosomal protein rpL27 (L27e).

Mol	Chain	Residues	Atoms				AltConf	Trace
53	Ba	95	Total	C	N	O	0	0
			708	455	134	119		

- Molecule 54 is a protein called 60S ribosomal protein rpL29 (L29e).

Mol	Chain	Residues	Atoms				AltConf	Trace
54	Bd	22	Total	C	N	O	0	0
			174	109	40	25		

- Molecule 55 is a protein called 60S ribosomal protein rpL35 (L29p).

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Bc	118	Total	C	N	O	S	0	0
			965	612	185	167	1		

- Molecule 56 is a protein called 60S ribosomal protein rpL30 (L30e).

Mol	Chain	Residues	Atoms					AltConf	Trace
56	Bf	105	Total	C	N	O	S	0	0
			785	501	133	150	1		

- Molecule 57 is a protein called 60S ribosomal protein rpL7 (L30p).

Mol	Chain	Residues	Atoms					AltConf	Trace
57	Be	239	Total	C	N	O	S	0	0
			1919	1235	348	335	1		

- Molecule 58 is a protein called 60S ribosomal protein rpL31 (L31e).

Mol	Chain	Residues	Atoms					AltConf	Trace
58	Bg	110	Total	C	N	O	S	0	0
			873	552	169	150	2		

- Molecule 59 is a protein called 60S ribosomal protein pL32 (L32e).

Mol	Chain	Residues	Atoms					AltConf	Trace
59	Bh	130	Total	C	N	O	S	0	0
			1043	660	208	173	2		

- Molecule 60 is a protein called 60S ribosomal protein rpL34 (L34e).

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Bi	118	Total	C	N	O	S	0	0
			926	572	188	161	5		

- Molecule 61 is a protein called 60S ribosomal protein rpL33 (L35ae).

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Bj	100	Total	C	N	O	S	0	0
			738	461	147	128	2		

- Molecule 62 is a protein called 60S ribosomal protein rpL36 (L36e).

Mol	Chain	Residues	Atoms					AltConf	Trace
62	Bk	77	Total	C	N	O	S	0	0
			619	384	129	105	1		

- Molecule 63 is a protein called 60S ribosomal protein rpL43 (L37ae).

Mol	Chain	Residues	Atoms					AltConf	Trace
63	Bm	92	Total	C	N	O	S	0	0
			703	434	139	123	7		

- Molecule 64 is a protein called 60S ribosomal protein rpL37 (L37e).

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Bl	88	Total	C	N	O	S	0	0
			678	410	148	114	6		

- Molecule 65 is a protein called 60S ribosomal protein rpL38 (L38e).

Mol	Chain	Residues	Atoms				AltConf	Trace
65	Bn	78	Total	C	N	O	0	0
			604	385	113	106		

- Molecule 66 is a protein called 60S ribosomal protein rpL39 (L39e).

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Bo	51	Total	C	N	O	S	0	0
			445	277	98	67	3		

- Molecule 67 is a protein called 60S ribosomal protein rpL40 (L40e).

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Bp	40	Total	C	N	O	S	0	0
			330	201	72	52	5		

- Molecule 68 is a protein called 60S ribosomal protein rpL41 (L41e).

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Bq	25	Total	C	N	O	S	0	0
			234	142	63	28	1		

- Molecule 69 is a protein called 60S ribosomal protein rpL42 (L44e).

Mol	Chain	Residues	Atoms					AltConf	Trace
69	Br	106	Total	C	N	O	S	0	0
			834	521	169	138	6		

- Molecule 70 is a protein called Unknown protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Bx	20	Total	C	N	O		0	0
			100	60	20	20			
70	By	20	Total	C	N	O		0	0
			100	60	20	20			

- Molecule 71 is a protein called Unknown protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	Bz	14	Total	C	N	O		0	0
			70	42	14	14			

- Molecule 72 is a protein called 60S acidic ribosomal protein rpP11 (P1).

Mol	Chain	Residues	Atoms					AltConf	Trace
72	Bt	58	Total	C	N	O		0	0
			440	281	68	91			
72	Bu	58	Total	C	N	O		0	0
			440	281	68	91			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Bt	37	ASP	VAL	CONFLICT	UNP P05318
Bu	37	ASP	VAL	CONFLICT	UNP P05318

- Molecule 73 is a protein called 60S acidic ribosomal protein (P2).

Mol	Chain	Residues	Atoms					AltConf	Trace
73	Bv	58	Total	C	N	O	S	0	0
			429	271	66	91	1		
73	Bw	58	Total	C	N	O	S	0	0
			429	271	66	91	1		

- Molecule 74 is a protein called 60S ribosomal protein rpL5 (L18p).

Mol	Chain	Residues	Atoms					AltConf	Trace
74	BQ	297	Total	C	N	O	S	0	0
			2356	1485	414	454	3		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BQ	112	ARG	LYS	CONFLICT	UNP P26321

- Molecule 75 is a protein called 60S ribosomal protein rpL13 (L13e).

Mol	Chain	Residues	Atoms					AltConf	Trace
75	BL	169	Total	C	N	O		0	0
			845	507	169	169			

- Molecule 76 is a protein called 60S ribosomal protein rpL20 (L18ae).

Mol	Chain	Residues	Atoms					AltConf	Trace
76	BS	167	Total	C	N	O	S	0	0
			1420	916	263	234	7		

- Molecule 77 is a protein called 60S ribosomal protein rpL10 (L10e).

Mol	Chain	Residues	Atoms					AltConf	Trace
77	BI	181	Total	C	N	O	S	0	0
			1444	907	281	248	8		

- Molecule 78 is a RNA chain called 18S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	CA	1721	Total	C	N	O	P	0	10
			33643	14904	5670	11348	1721		

- Molecule 79 is a RNA chain called P-SITE TRNA ASP.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	CB	75	Total	C	N	O	P	0	0
			1599	712	280	532	75		

- Molecule 80 is a RNA chain called MRNA, RNA (5'-R(P*AP*AP*AP*AP*GP*AP*CP*U P*UP*CP*A)-3').

Mol	Chain	Residues	Atoms					AltConf	Trace
80	CC	11	Total	C	N	O	P	0	0
			236	106	45	74	11		

- Molecule 81 is a RNA chain called 25S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	DA	3354	Total	C	N	O	P	0	75
			68830	30640	12220	22616	3354		

- Molecule 82 is a RNA chain called 5.8S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	DB	157	Total	C	N	O	P	0	0
			3129	1391	523	1058	157		

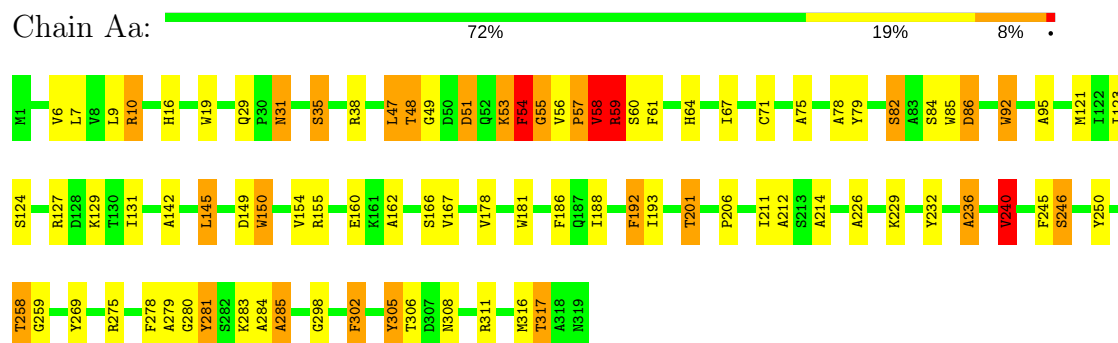
- Molecule 83 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	DC	118	Total	C	N	O	P	0	0
			2513	1122	446	827	118		

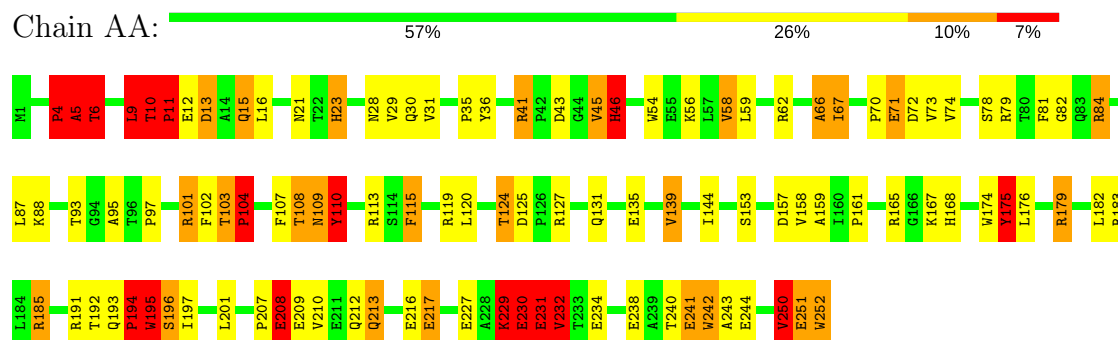
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA 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. 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. 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.

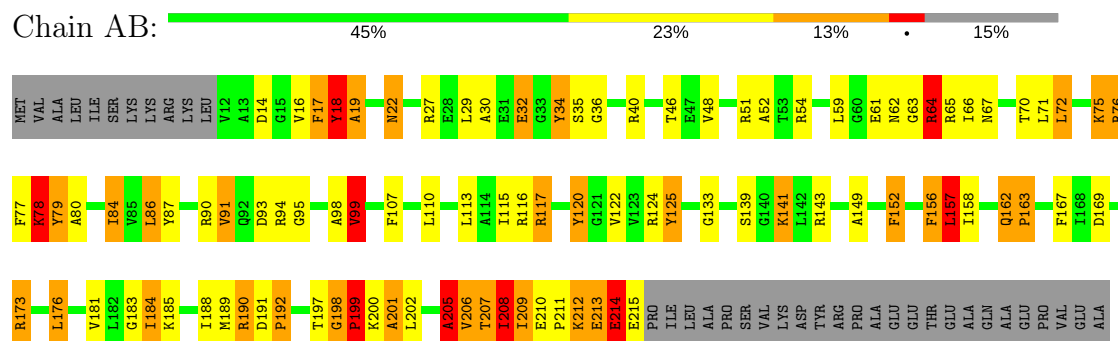
- Molecule 1: 40S ribosomal protein RACK1 (RACK1)



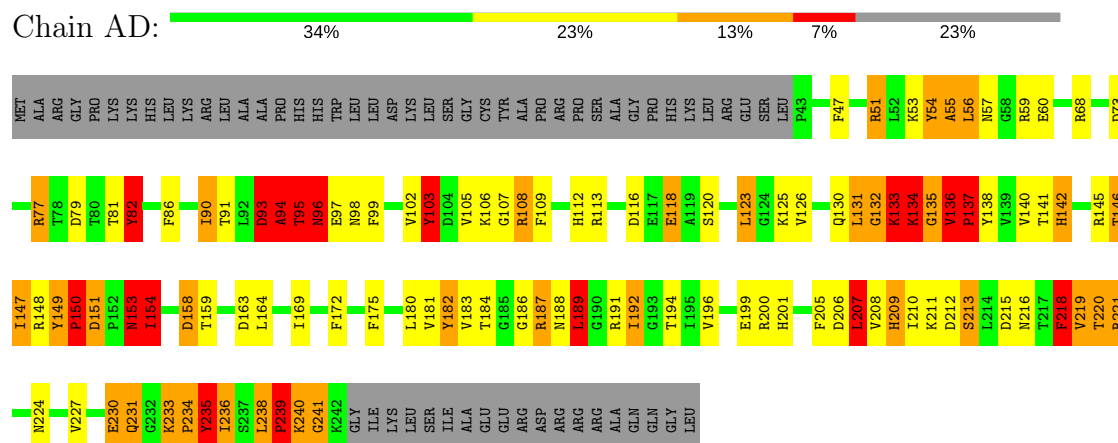
- Molecule 2: 40S ribosomal protein rpS0 (S2p)



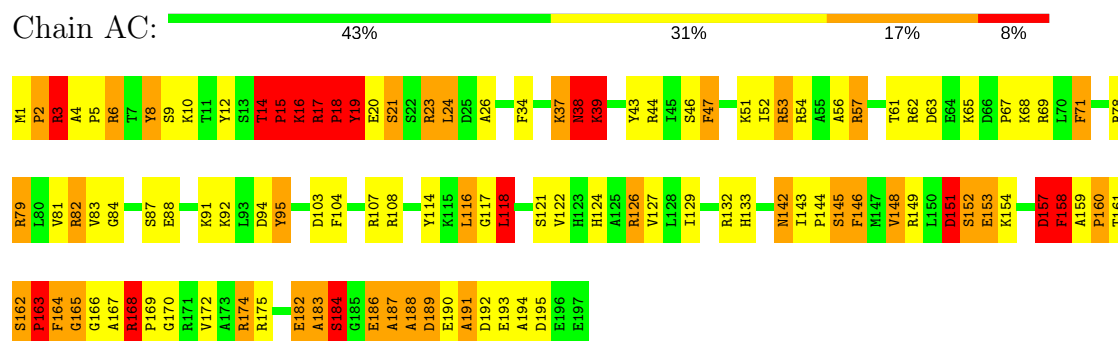
- Molecule 3: 40S ribosomal protein rpS3 (S3p)



- Molecule 4: 40S ribosomal protein rpS4 (S4e)



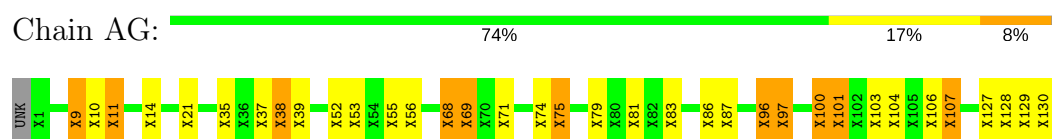
• Molecule 5: 40S ribosomal protein rpS9 (S4p)



• Molecule 6: 40S ribosomal protein rpS2 (S5p)

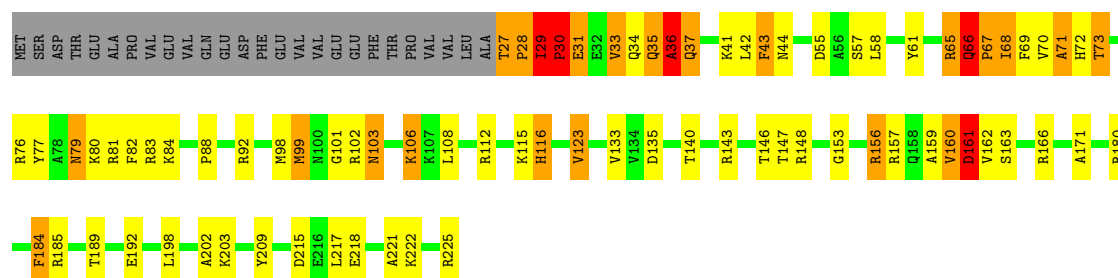


• Molecule 7: 40S ribosomal protein rpS7 (S7e)



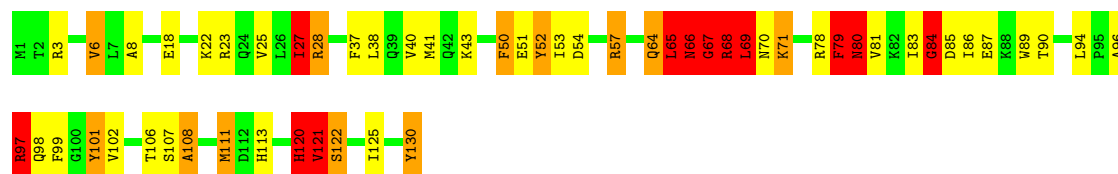
• Molecule 8: 40S ribosomal protein rpS5 (S7p)





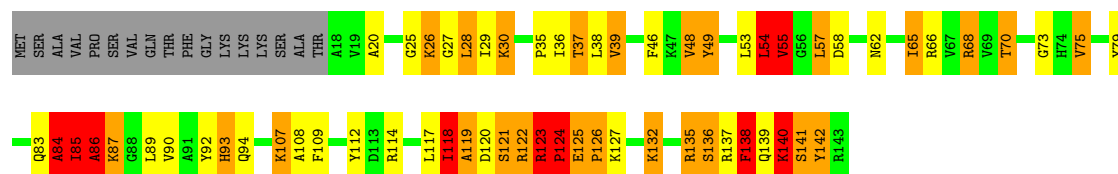
- Molecule 9: 40S ribosomal protein rpS22 (S8p)

Chain AH: 57% 25% 9% 9%



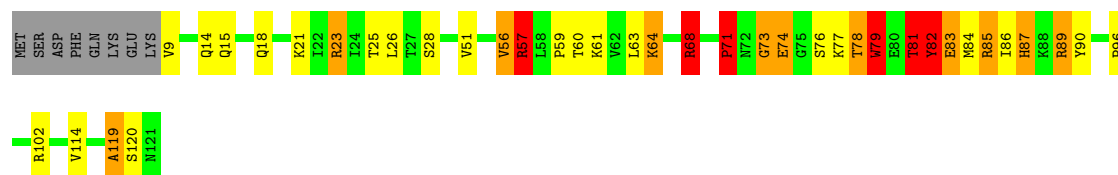
- Molecule 10: 40S ribosomal protein rpS16 (S9p)

Chain AI: 44% 20% 17% 7% 12%



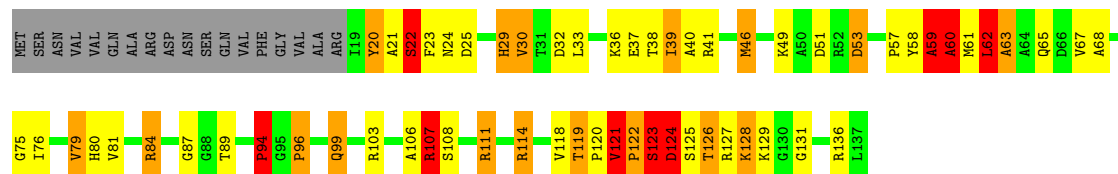
- Molecule 11: 40S ribosomal protein rpS20 (S10p)

Chain AJ: 61% 18% 9% 5% 7%

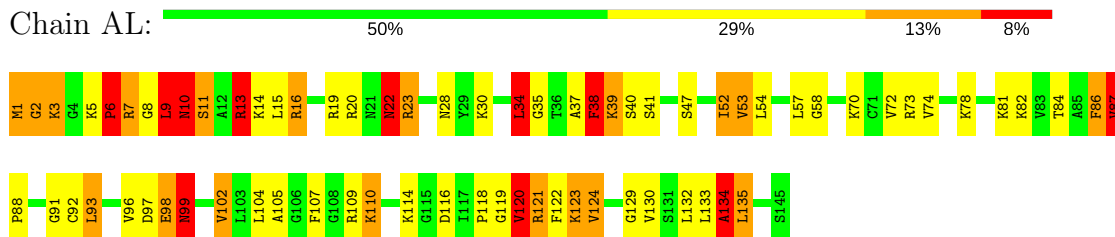


- Molecule 12: 40S ribosomal protein rpS14 (S11p)

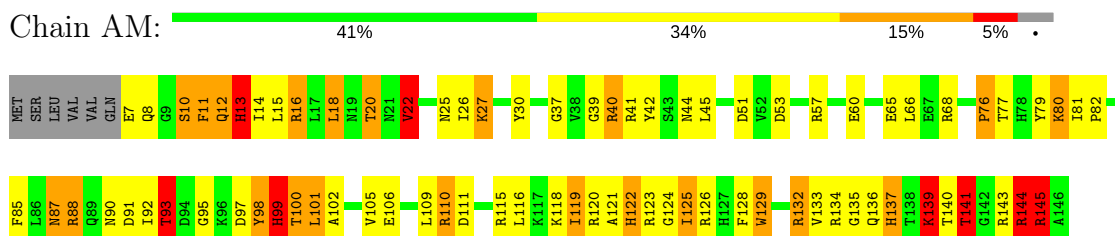
Chain AK: 42% 26% 12% 7% 13%



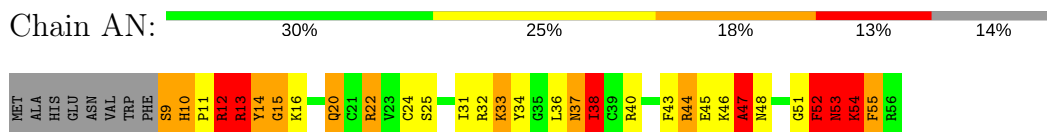
- Molecule 13: 40S ribosomal protein rpS23 (S12p)



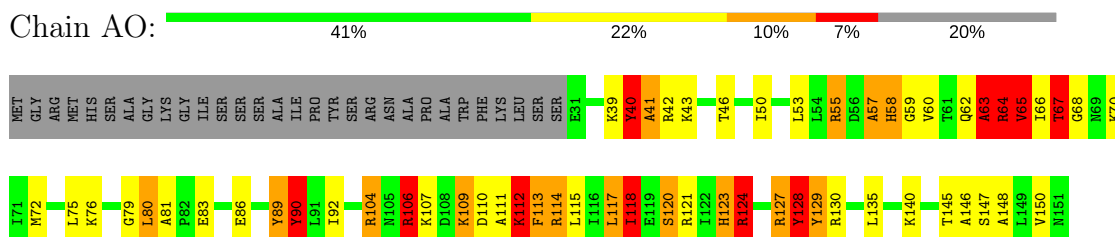
- Molecule 14: 40S ribosomal protein rpS18 (S13p)



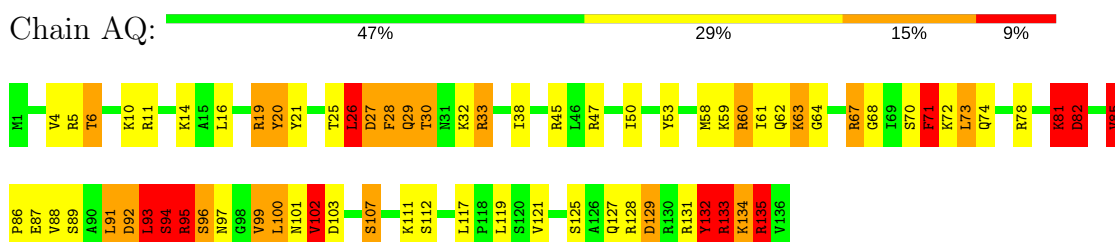
- Molecule 15: 40S ribosomal protein rpS29 (S14p)



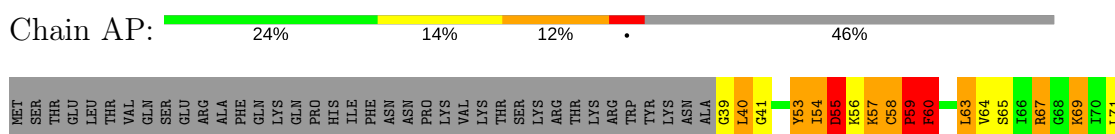
- Molecule 16: 40S ribosomal protein rpS13 (S15p)



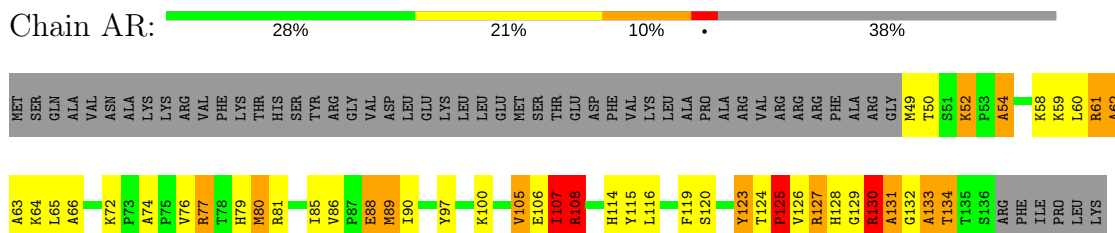
- Molecule 17: 40S ribosomal protein rpS17 (S17e)



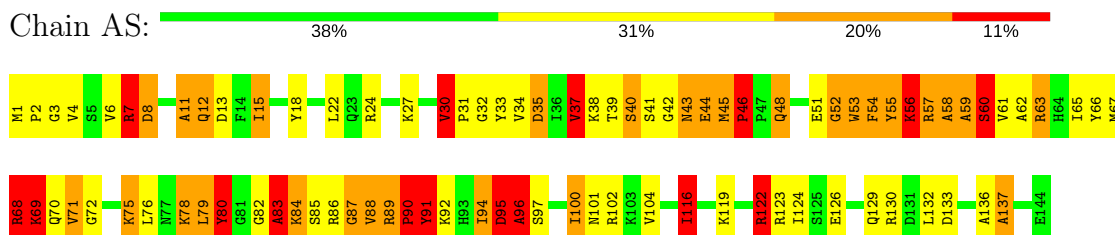
- Molecule 18: 40S ribosomal protein rpS11 (S17p)



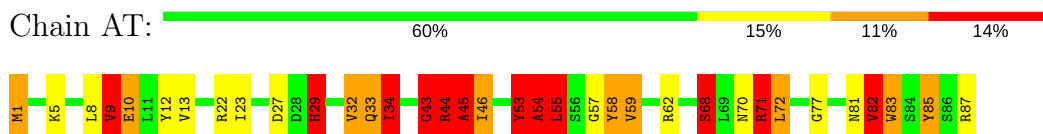
- Molecule 19: 40S ribosomal protein rpS15 (S19p)



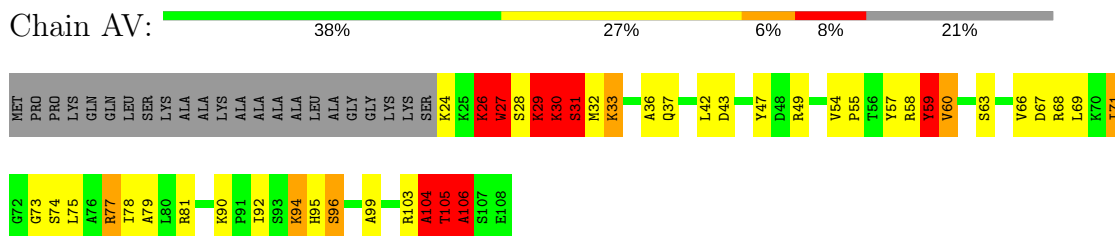
- Molecule 20: 40S ribosomal protein rpS19 (S19e)



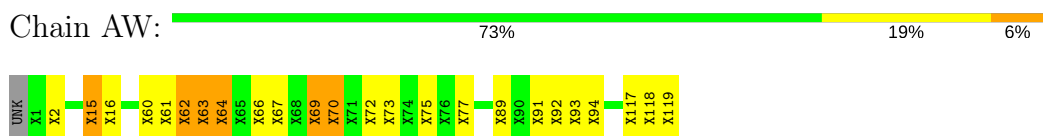
- Molecule 21: 40S ribosomal protein rpS21 (S21e)



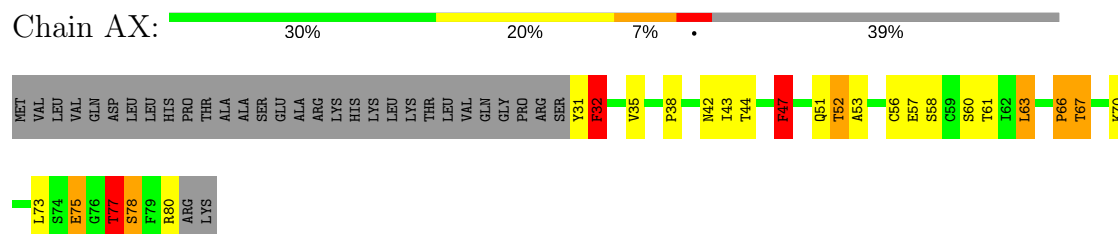
- Molecule 22: 40S ribosomal protein rpS25 (S25e)



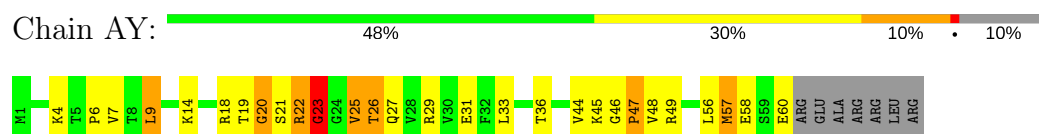
- Molecule 23: 40S ribosomal protein rpS26 (S26e)



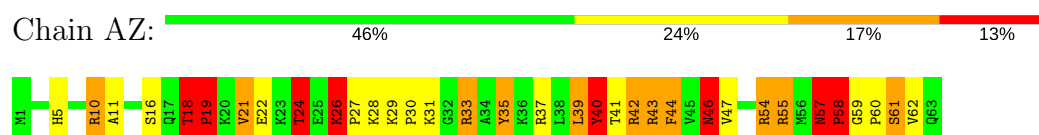
- Molecule 24: 40S ribosomal protein rpS27 (S27e)



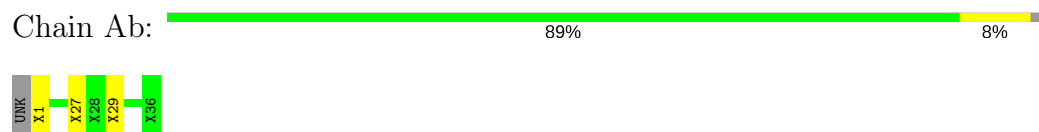
- Molecule 25: 40S ribosomal protein rpS28 (S28e)



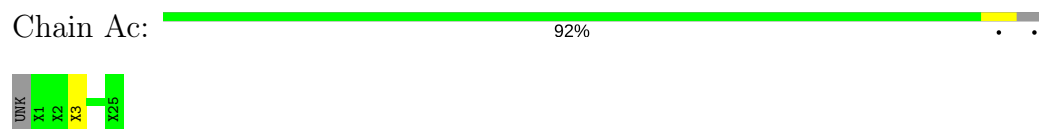
- Molecule 26: 40S ribosomal protein rpS30 (S30e)



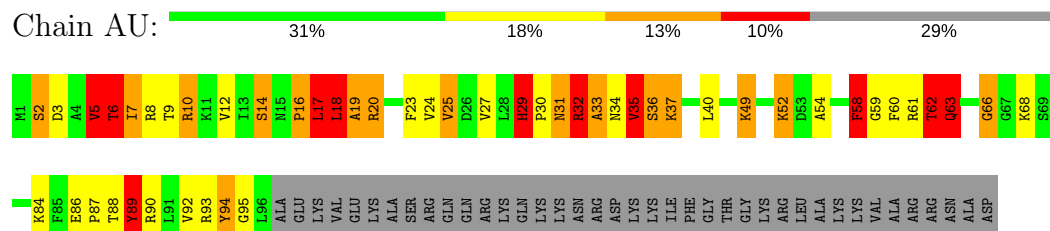
- Molecule 27: Unknown 40S ribosomal protein XS1



- Molecule 28: Unknown 40S ribosomal protein XS2

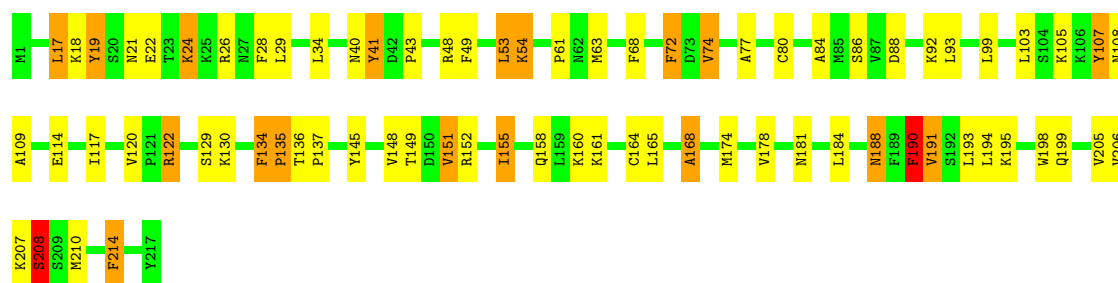


- Molecule 29: 40S ribosomal protein S24



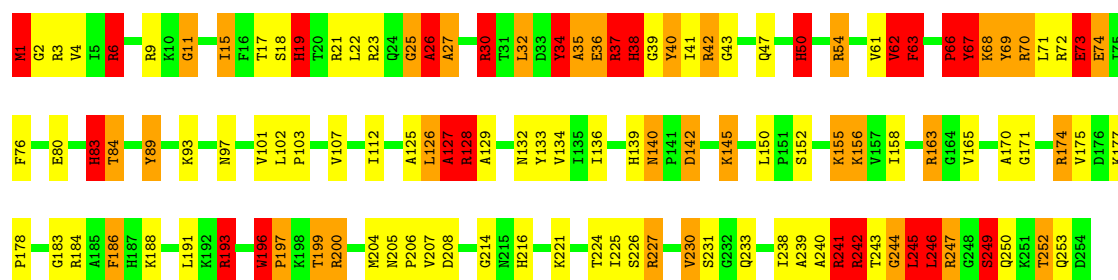
- Molecule 30: 60S ribosomal protein rpL1 (L1p)





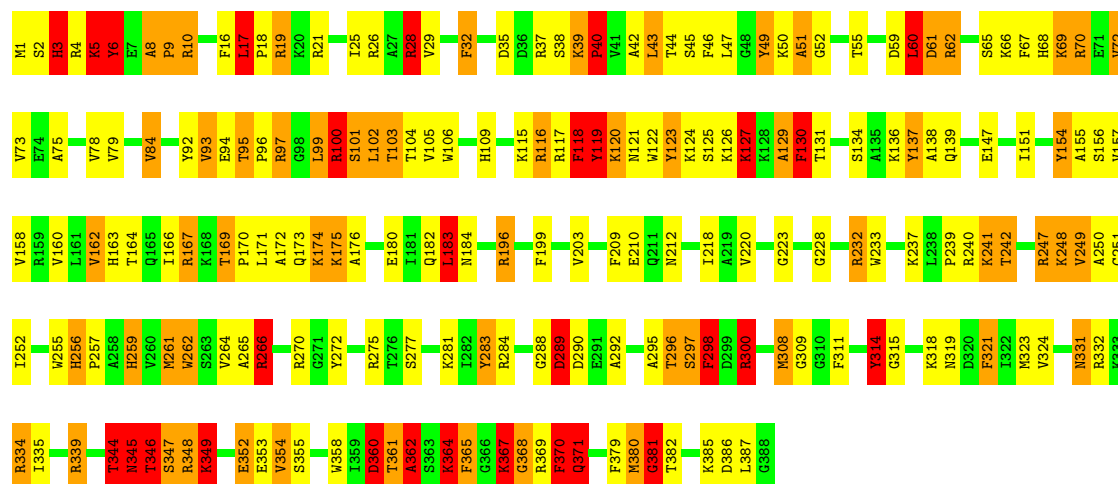
- Molecule 31: 60S ribosomal protein rpL2 (L2p)

Chain BB: 



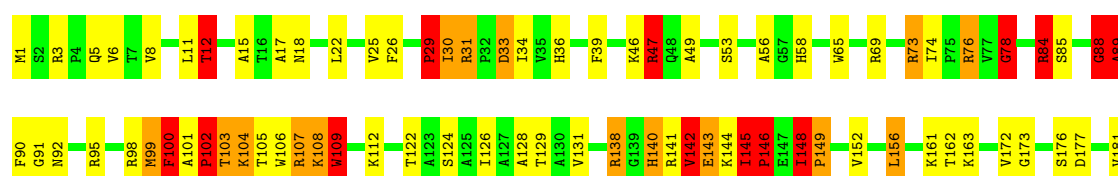
- Molecule 32: 60S ribosomal protein rpL3 (L3p)

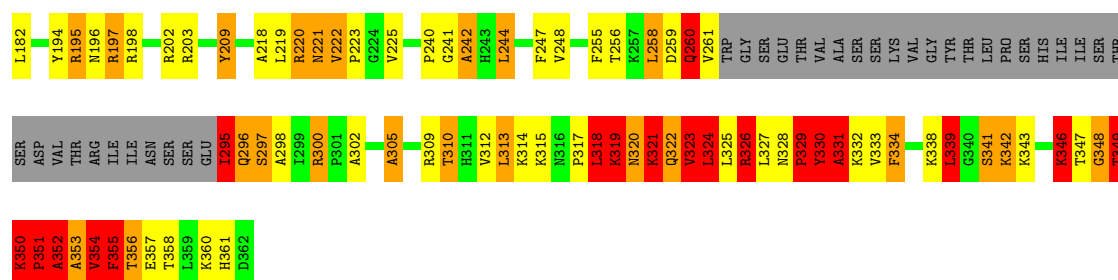
Chain BC: 



- Molecule 33: 60S ribosomal protein rpL4 (L4p)

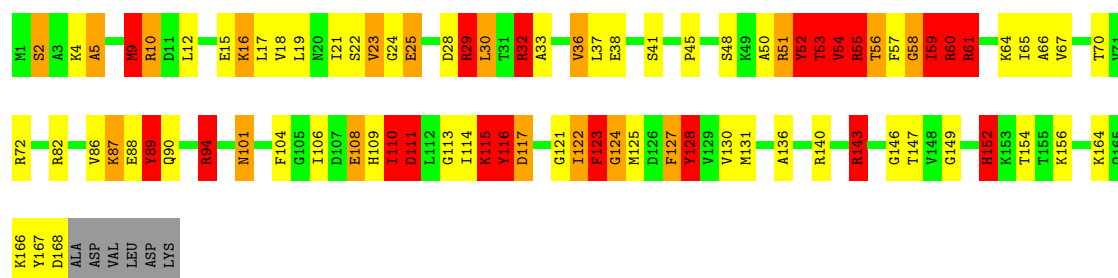
Chain BD: 





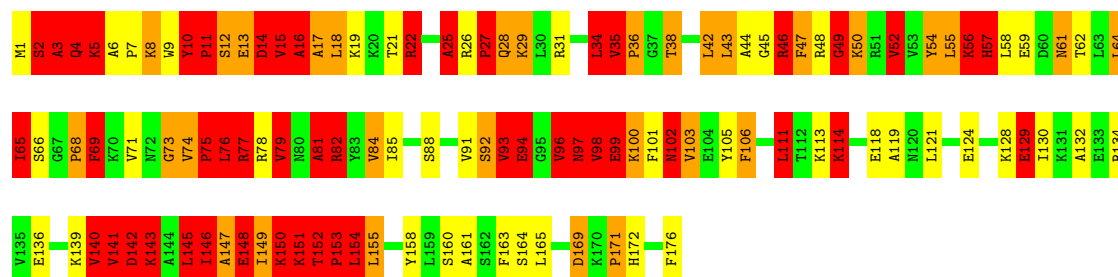
• Molecule 34: 60S ribosomal protein rpL11 (L5p)

Chain BE: 47% 28% 10% 11%



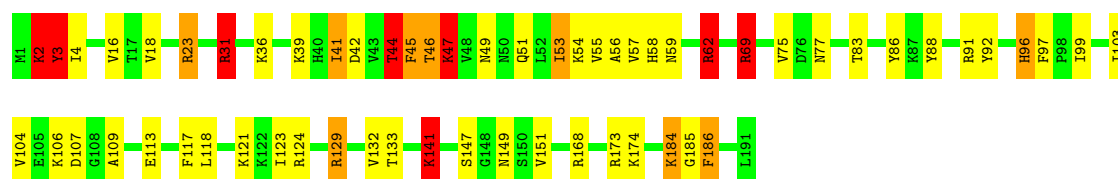
• Molecule 35: 60S ribosomal protein rpL6 (L6e)

Chain BG: 32% 23% 17% 28%



• Molecule 36: 60S ribosomal protein rpL9 (L6p)

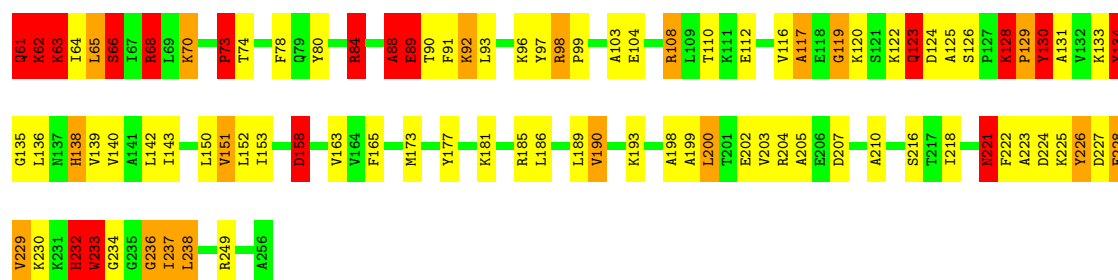
Chain BF: 69% 23% 5%



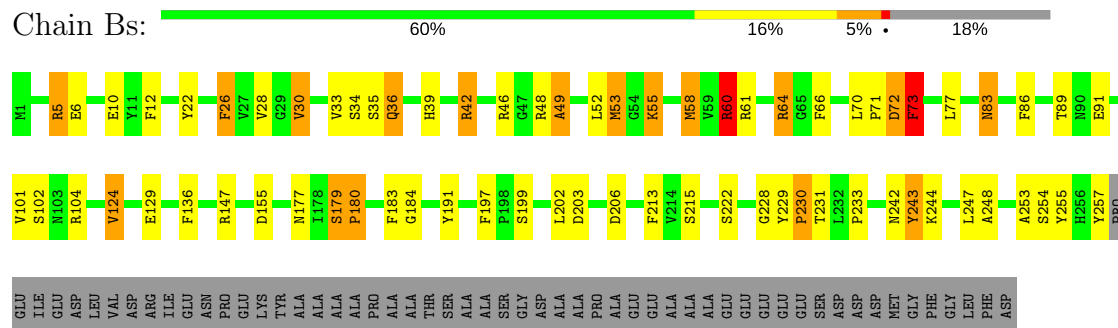
• Molecule 37: 60S ribosomal protein rpL8 (L7ae)

Chain BH: 40% 23% 7% 7% 23%

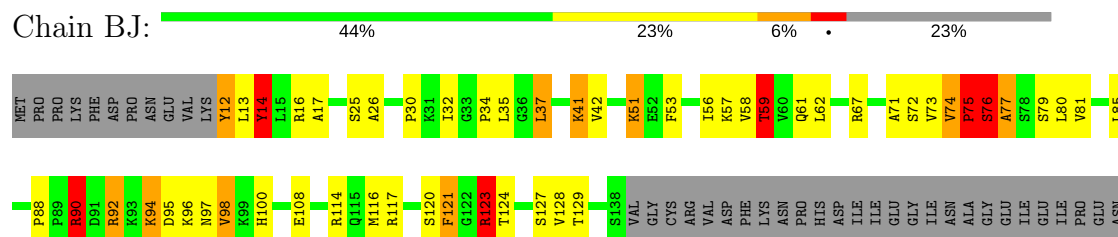




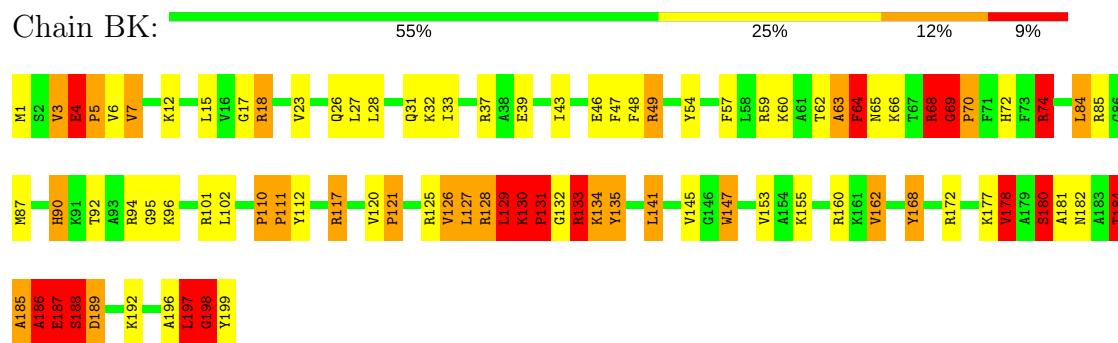
- Molecule 38: 60S acidic ribosomal protein rpP0 (L10P)



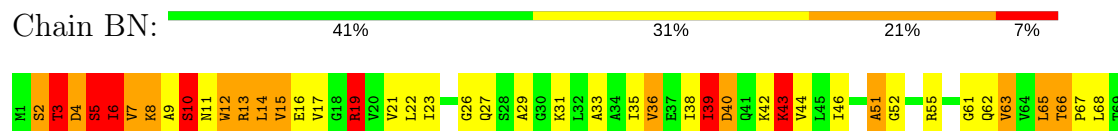
- Molecule 39: 60S ribosomal protein rpL12 (L11p)



- Molecule 40: 60S ribosomal protein rpL16 (L13p)



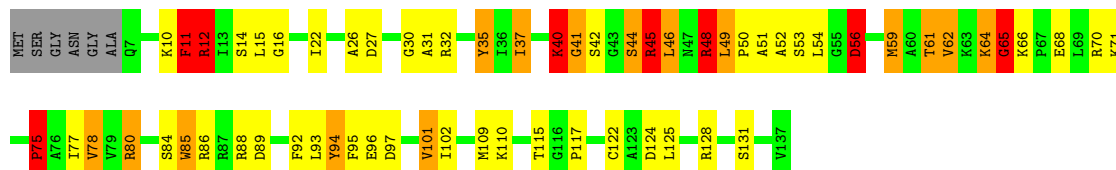
- Molecule 41: 60S ribosomal protein rpL14 (L14e)





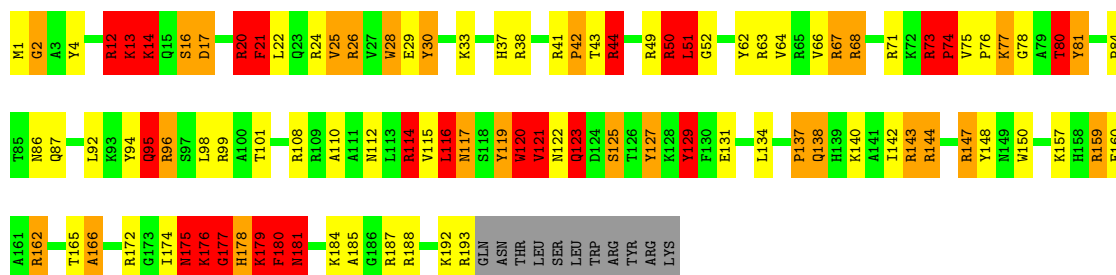
• Molecule 42: 60S ribosomal protein rpL23 (L14p)

Chain BM: 50% 29% 11% 6%



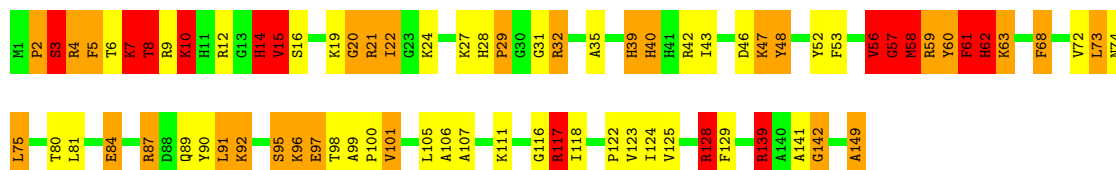
• Molecule 43: 60S ribosomal protein rpL15 (L15e)

Chain BP: 46% 25% 13% 12% 5%



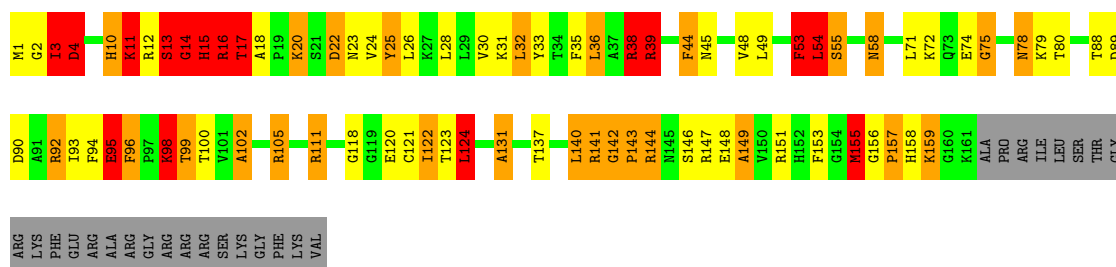
• Molecule 44: 60S ribosomal protein rpL28 (L15p)

Chain BO: 48% 24% 19% 9%

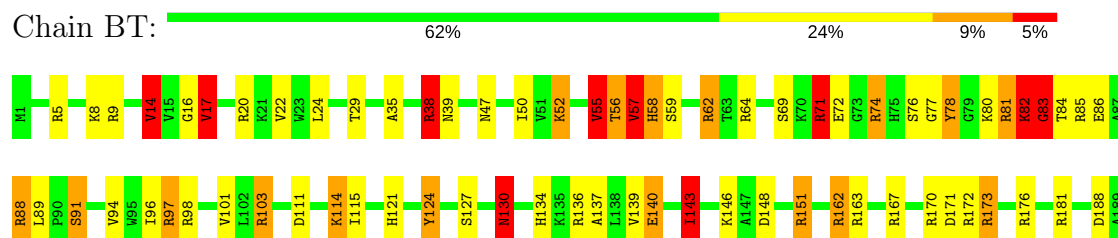


• Molecule 45: 60S ribosomal protein rpL18 (L18e)

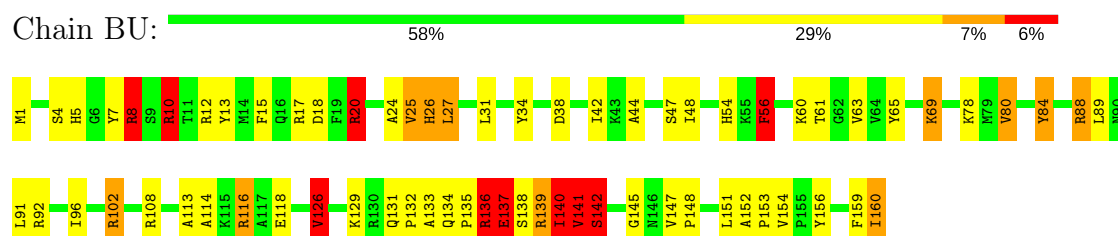
Chain BR: 43% 20% 15% 9% 13%



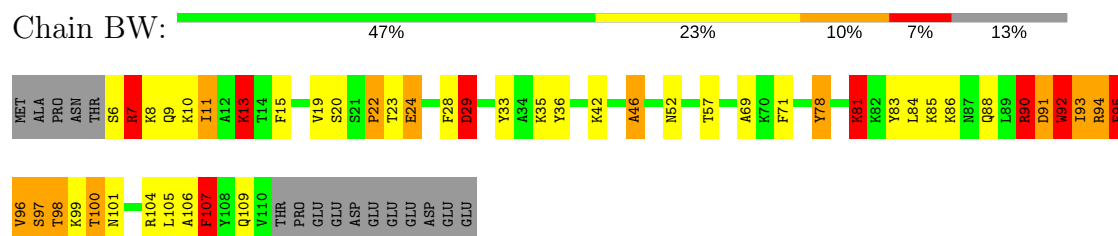
• Molecule 46: 60S ribosomal protein rpL19 (L19e)



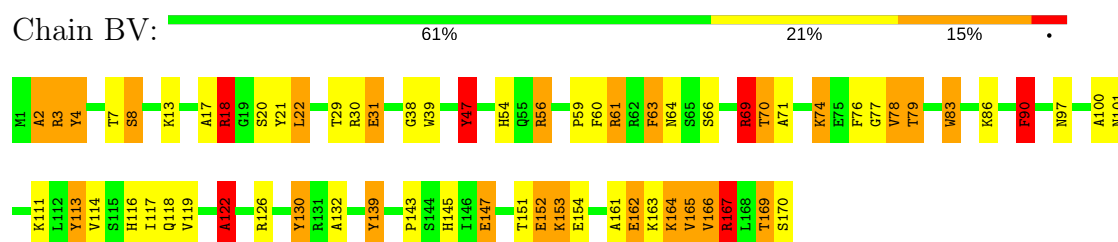
- Molecule 47: 60S ribosomal protein rpL21 (L21e)



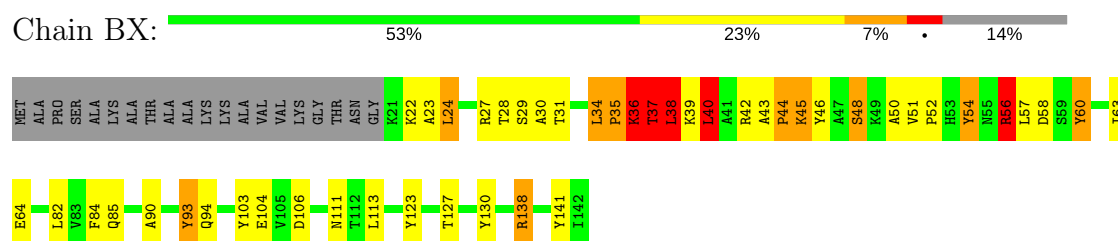
- Molecule 48: 60S ribosomal protein rpL22 (L22e)



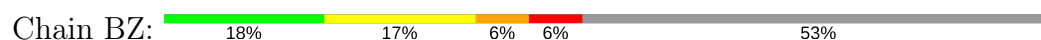
- Molecule 49: 60S ribosomal protein rpL17 (L22p)



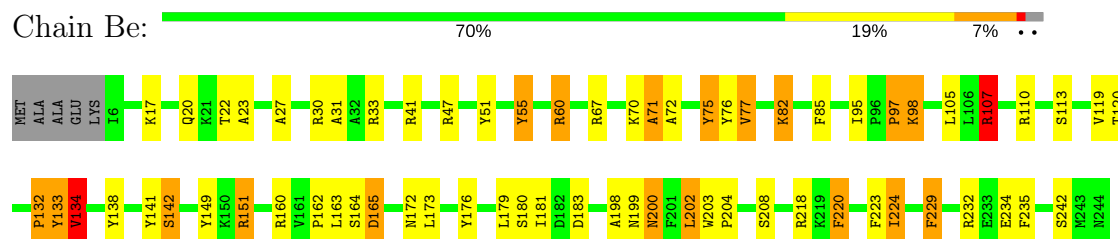
- Molecule 50: 60S ribosomal protein rpL25 (L23p)



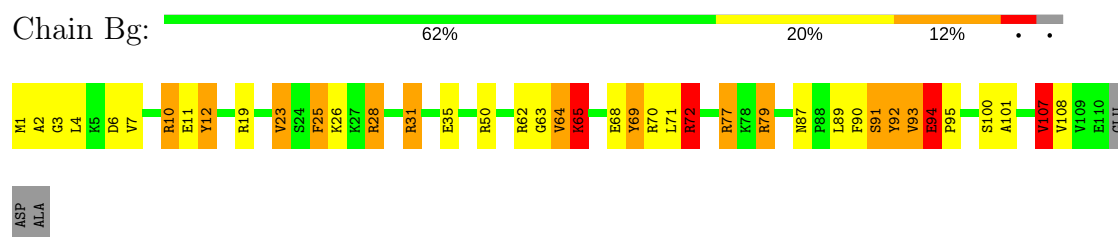
- Molecule 51: 60S ribosomal protein rpL24 (L24e)



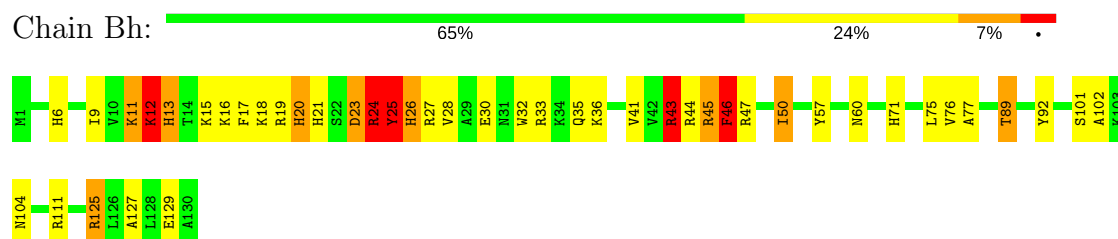
- Molecule 57: 60S ribosomal protein rpL7 (L30p)



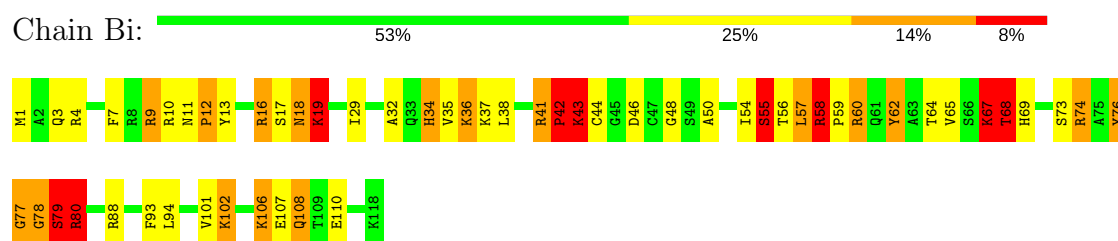
- Molecule 58: 60S ribosomal protein rpL31 (L31e)



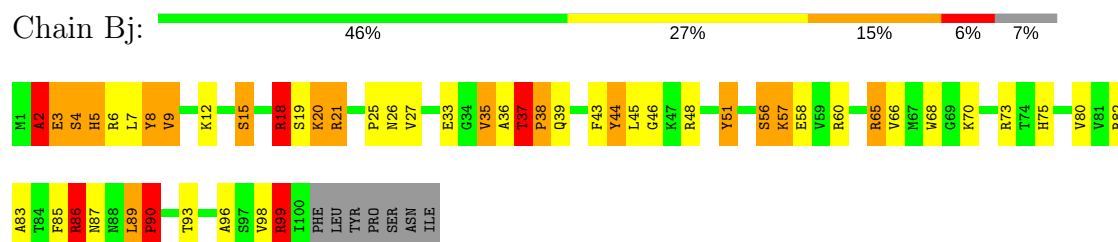
- Molecule 59: 60S ribosomal protein pL32 (L32e)



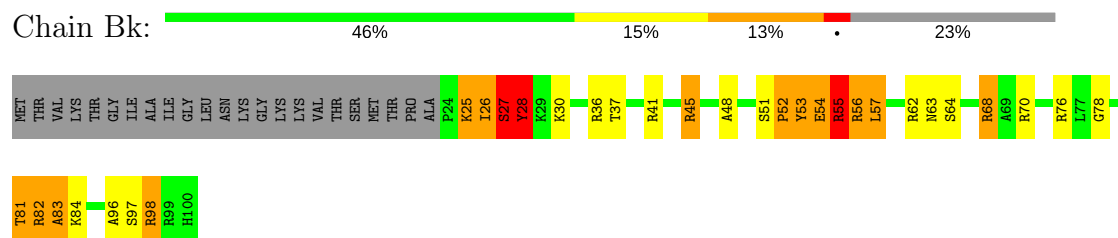
- Molecule 60: 60S ribosomal protein rpL34 (L34e)



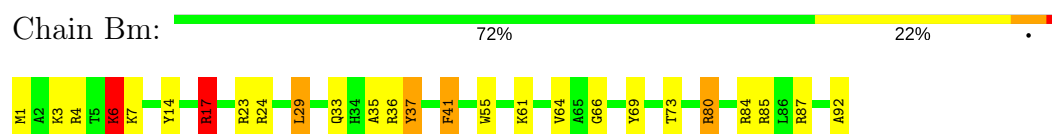
- Molecule 61: 60S ribosomal protein rpL33 (L35ae)



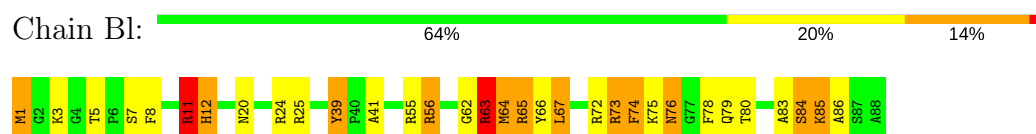
- Molecule 62: 60S ribosomal protein rpL36 (L36e)



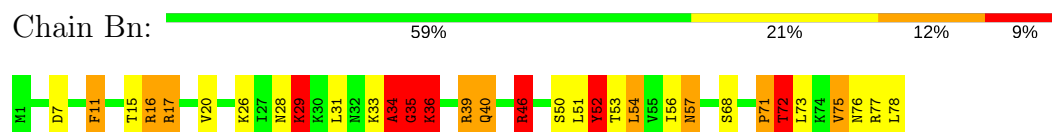
- Molecule 63: 60S ribosomal protein rpL43 (L37ae)



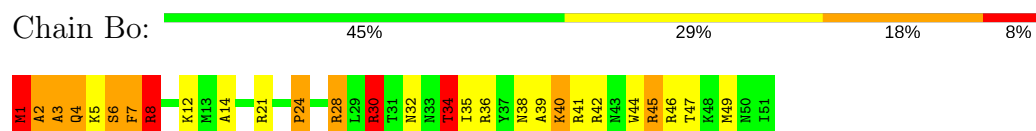
- Molecule 64: 60S ribosomal protein rpL37 (L37e)



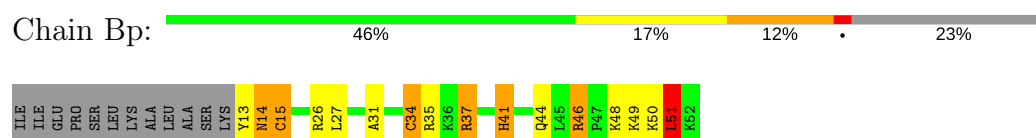
- Molecule 65: 60S ribosomal protein rpL38 (L38e)



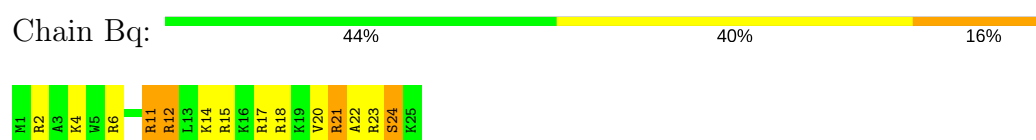
- Molecule 66: 60S ribosomal protein rpL39 (L39e)



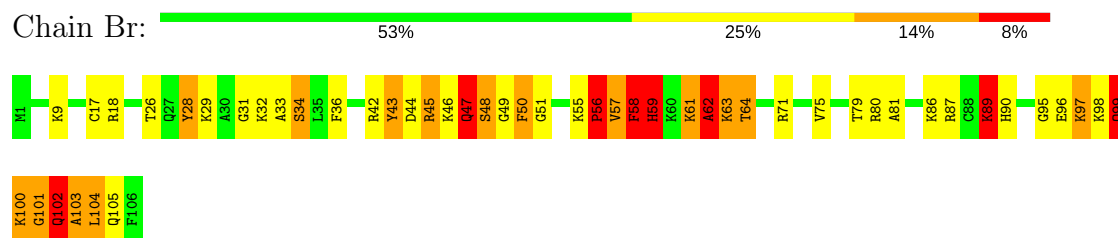
- Molecule 67: 60S ribosomal protein rpL40 (L40e)



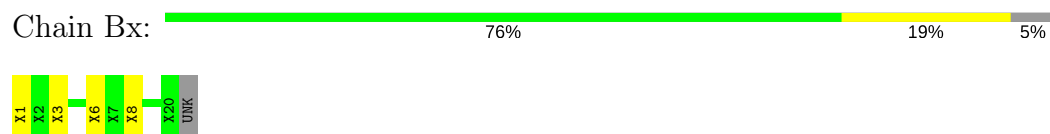
- Molecule 68: 60S ribosomal protein rpL41 (L41e)



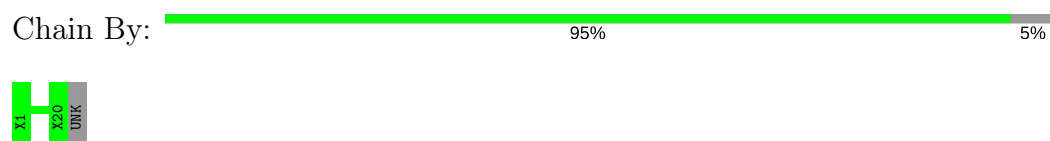
- Molecule 69: 60S ribosomal protein rpL42 (L44e)



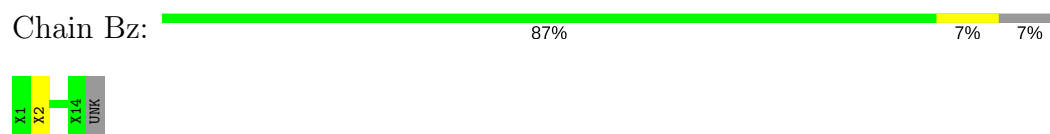
- Molecule 70: Unknown protein



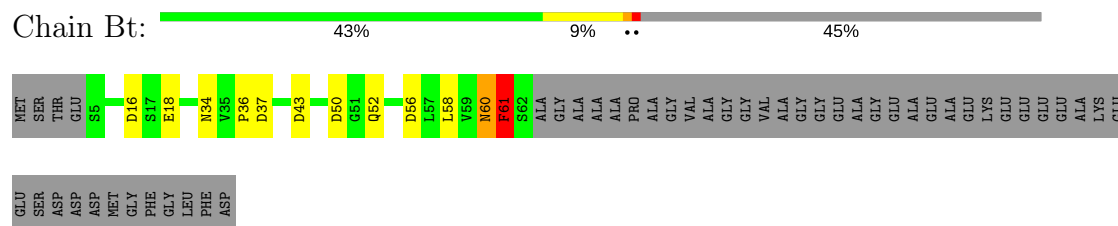
- Molecule 70: Unknown protein



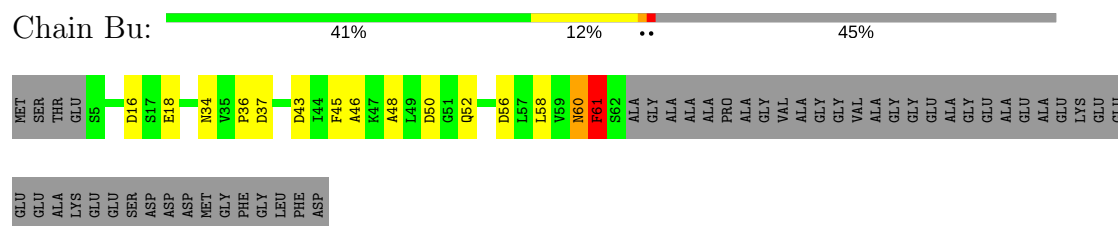
- Molecule 71: Unknown protein



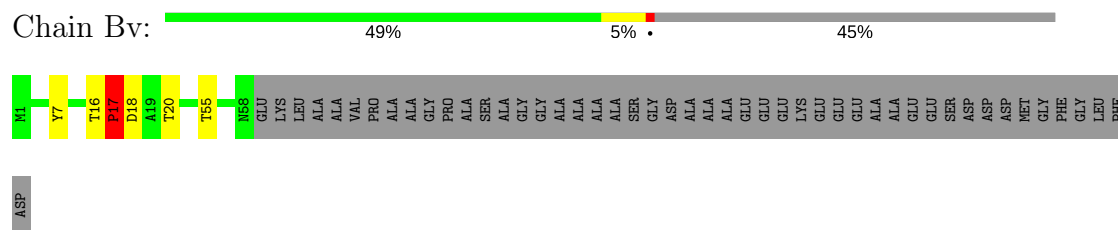
- Molecule 72: 60S acidic ribosomal protein rpP11 (P1)



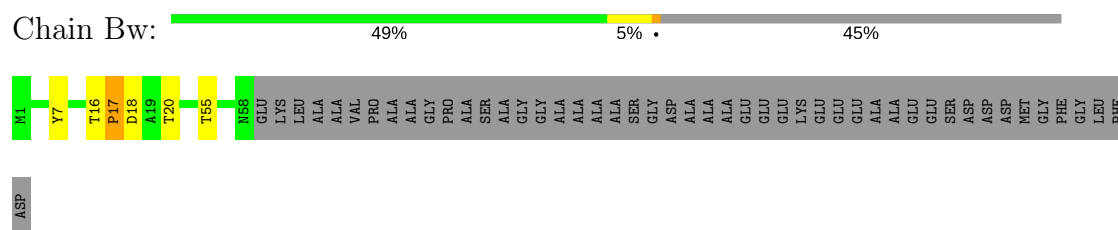
- Molecule 72: 60S acidic ribosomal protein rpP11 (P1)



- Molecule 73: 60S acidic ribosomal protein (P2)



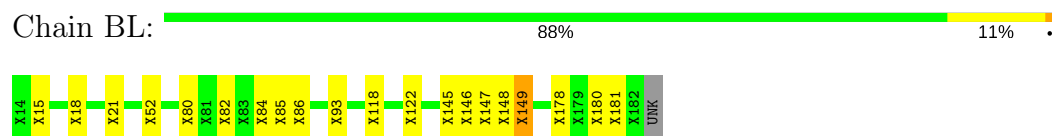
- Molecule 73: 60S acidic ribosomal protein (P2)



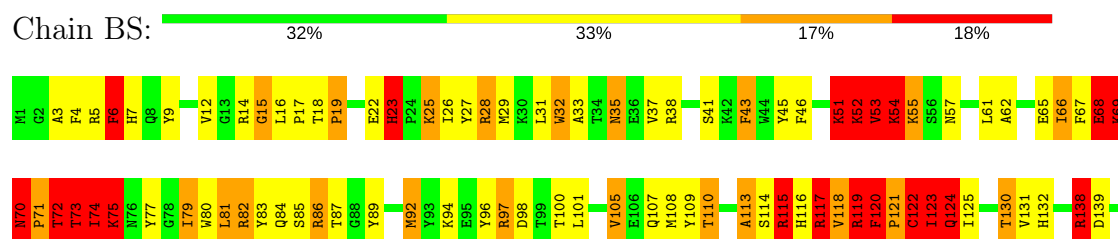
- Molecule 74: 60S ribosomal protein rpL5 (L18p)



- Molecule 75: 60S ribosomal protein rpL13 (L13e)



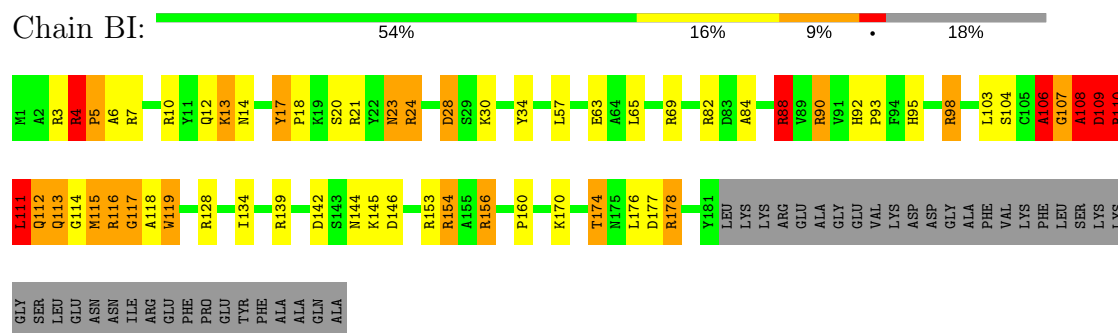
- Molecule 76: 60S ribosomal protein rpL20 (L18ae)





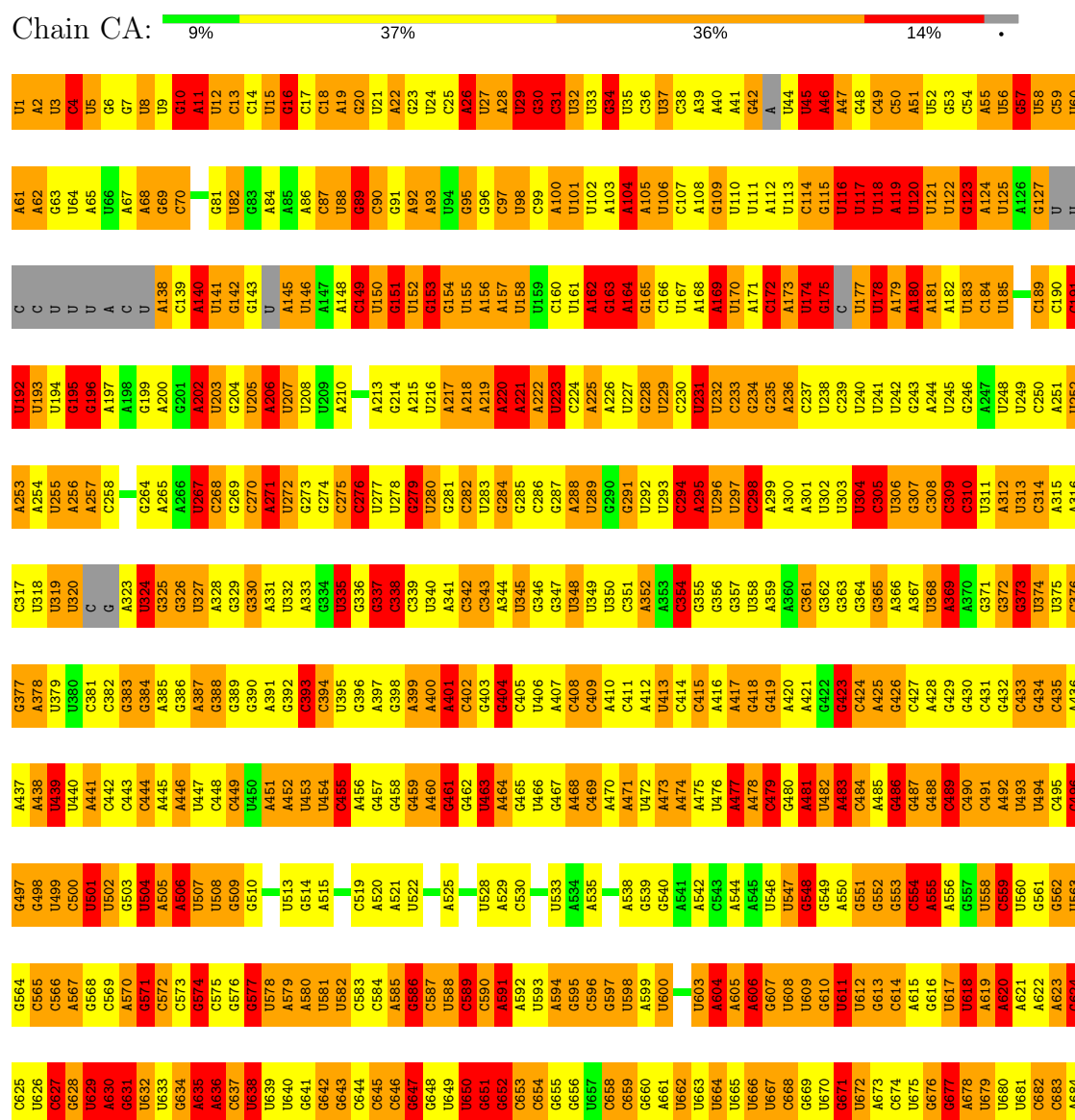
• Molecule 77: 60S ribosomal protein rpL10 (L10e)

Chain BI:

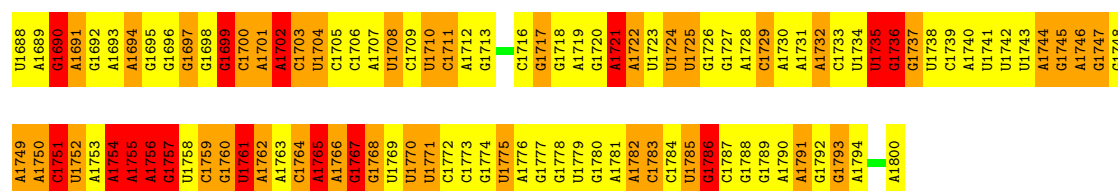


• Molecule 78: 18S rRNA

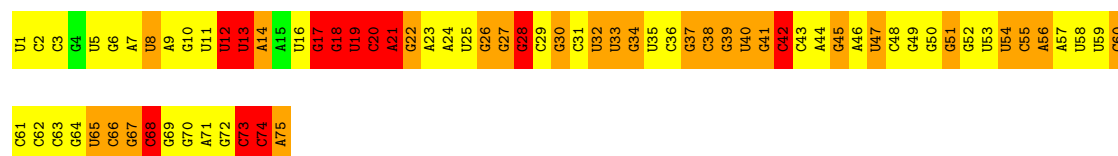
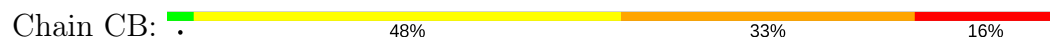
Chain CA:





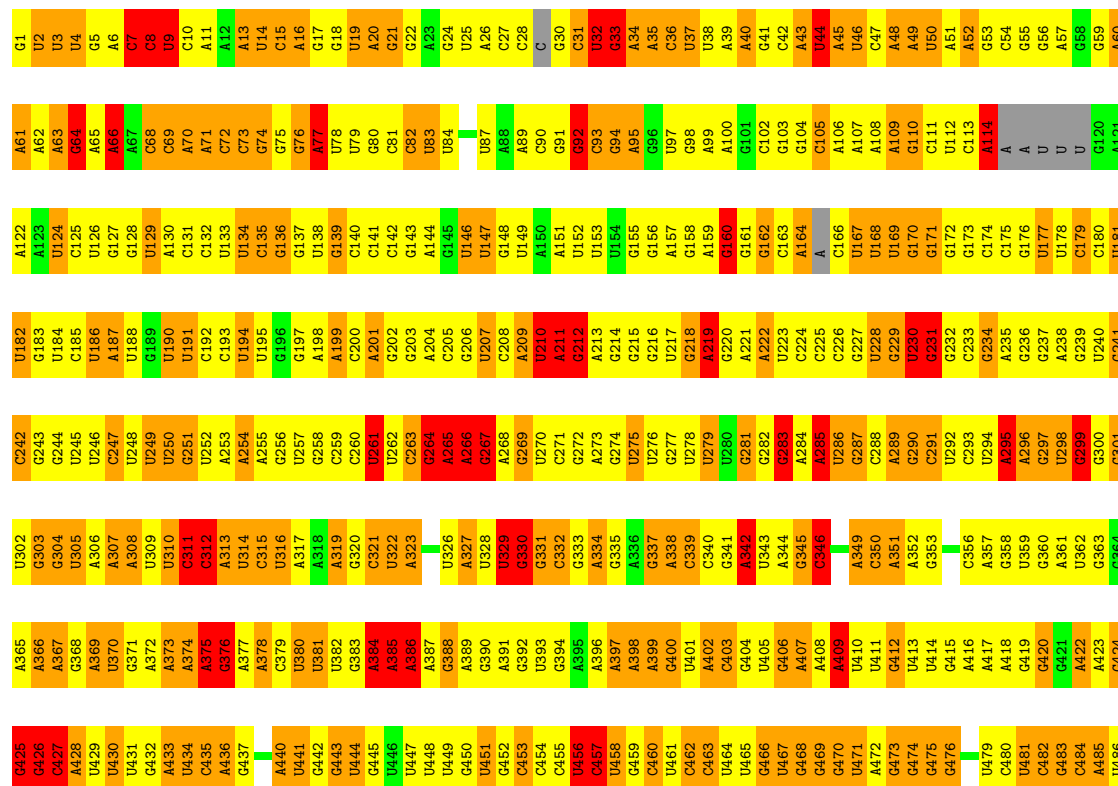
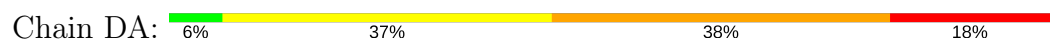
• Molecule 79: P-SITE TRNA ASP



• Molecule 80: MRNA, RNA (5'-R(P*AP*AP*AP*AP*GP*AP*CP*UP*UP*CP*A)-3')



• Molecule 81: 25S rRNA

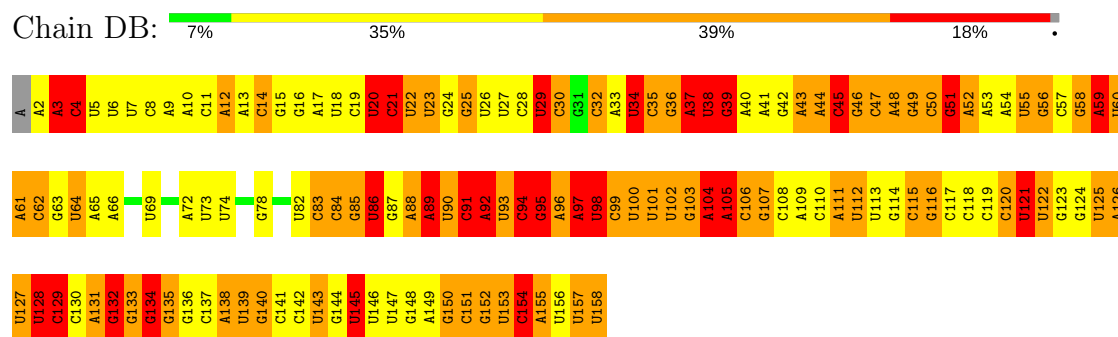




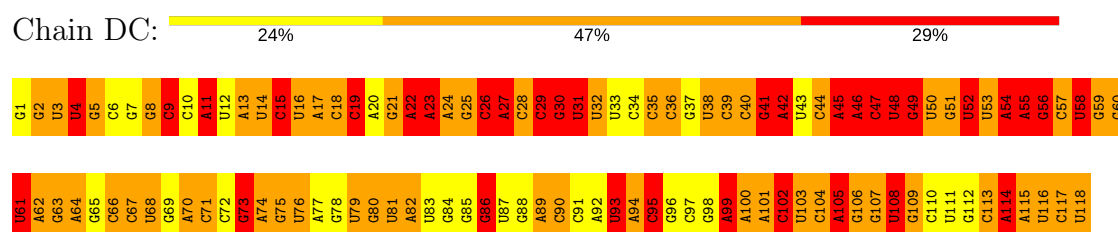

C9378	U2318	U2258	C2078	G2017	G1957	G1897	C1836	G1775	A1715	G1655	A1594	C1532	U1472
U2379	U2319	A2259	C2079	C2018	U1958	G1898	U1837	G1776	U1716	A1656	U1595	U1533	G1473
G2381	A2320	G2261	C2080	U2019	G1959	G1899	A1838	G1778	U1717	C1657	C1596	A1534	A1474
G2382	A2321	G2262	U2081	A1960	A1960	G1899	A1839	G1779	G1718	G1658	C1597	A1535	A1475
G2383	G2323	G2263	G2082	G2021	G1961	A1901	A1840	G1780	G1719	U1659	G1598	G1536	A1476
A2384	A2324	U2264	G2083	G2022	G1962	G1902	A1841	G1781	U1720	C1660	G1599	A1537	A1477
G2385	G2325	C2265	C2084	C2023	G1963	U1903	A1842	G1782	U1721	G1661	U1600	G1538	A1478
A2386	G2326	U2266	U2085	G2024	C1964	C1904	C1843	U1783	U1722	G1662	U1601	A1539	U1479
U2387	G2327	A2267	A2086	G2025	G1965	G1905	G1844	U1784	A1723	C1663	A1602	U1540	G1480
U2388	U2328	C2267	C2087	A2026	U1966	G1906	G1845	G1785	G1724	G1664	A1603	G1541	A1481
G2389	U2329	U2268	A2088	C2027	U1967	C1907	C1846	U1786	C1725	G1665	G1604	G1542	A1482
C2390	C2330	U2269	A2089	G2028	G1968	A1908	A1847	G1787	G1726	G1666	A1605	G1543	G1483
C2391	C2331	G2270	U2090	A2029	G1969	A1909	A1848	A1787	G1727	G1667	U1606	G1544	U1484
G2392	A2332	A2271	U2091	C2030	U1970	A1910	C1849	C1788	G1728	G1668	U1607	A1545	G1485
G2393	G2333	G2272	A2092	U2031	A1971	A1911	A1850	G1789	A1729	C1669	C1608	A1546	G1486
G2394	G2334	U2153	A2093	U2032	A1972	U1912	G1851	G1790	U1730	C1670	C1609	U1547	G1487
G2395	U2154	C2094	G2093	G2033	G1973	A1913	G1852	G1791	U1731	C1671	G1610	C1548	G1488
G2396	G2155	G2095	C2034	A1974	A1974	G1914	U1853	G1792	U1732	U1672	G1611	U1549	A1489
G2397	C2156	A2096	G2035	C1975	G1975	A1915	C1854	G1793	G1733	G1673	A1612	C1550	A1490
A2398	G2157	U2097	U2036	G1976	U1916	U1916	U1855	G1794	G1734	G1674	A1613	C1551	A1491
G2399	A2158	C2098	C2037	C1977	G1977	C1917	C1856	G1795	G1735	G1675	A1614	G1492	G1493
A2400	U2159	A2099	C2038	A1978	U1978	G1918	C1857	G1796	G	A1676	C1615	G1494	G1494
A2401	G2160	A2100	C2039	G1979	G1979	G1919	A1858	A1797	U1737	G1677	U1616	U1495	U1495
G2402	G2161	C2101	U2040	C1980	G1980	U1920	A1859	A1798	U1738	G1678	G1617	A1557	C1496
G2403	U2162	U2102	U2041	G1981	C1981	A1921	G1860	A1799	U1739	G1679	G1618	A1558	C1497
A2404	C2163	U2103	G2042	G1982	G1982	A1922	G1861	A1800	U1740	G1680	A	A1559	C1497
G2405	A2164	A2104	U2043	C1983	G1983	C1923	U1862	U1801	A1741	U1681	U1620	G1560	G1498
G2406	G2345	U2225	U2044	G1984	U1924	U1924	G1863	C1802	U1742	U1682	A1621	G1561	C1499
C2407	A2166	A2106	G2045	G1985	U1925	U1925	A1864	C1803	G1743	A1683	U1622	C1562	G1500
G2408	A2167	A2107	U2046	U1986	C1926	C1926	A1865	A1804	G1744	U1684	G1623	C1563	U1501
U2409	A	C2108	A2047	G1987	G1927	G1927	C1866	C1805	G1745	G1685	G1624	U1564	C1502
G2410	G2169	U2109	G2048	C1988	G1928	G1928	A1867	A1806	U1746	U1686	A1625	U1565	A1503
U2411	U2170	G2110	A2049	U1989	G1929	G1929	G1868	G1807	G1747	U1687	U1626	A1566	A1504
G2412	G2171	G2111	C2050	U1990	A1930	A1930	C1869	A1808	G1748	U1688	U1627	U1567	C1505
A2413	A2172	U2112	G2051	G1991	U1931	U1931	C1870	A1809	A1749	U1689	C1628	U1568	A1506
G2414	U2173	A2113	G2052	U1992	A1932	A1932	U1871	A1810	U1750	C1690	U1629	U1569	G1507
G2415	G2174	C2114	C2053	G1993	A1933	A1933	C1872	G1811	G1751	U1691	U1630	U1570	C1508
U2416	U2175	G2115	C2054	G1994	G1934	G1934	U1873	G1812	A1752	U1692	C1631	A1571	A1509
U2417	G2176	G2116	U2055	A1995	G1935	G1935	U1876	A1813	G1753	C1693	A1632	U1572	G1510
G2418	G2177	A2117	U2056	C1996	A1936	A1936	U1877	A1814	G1754	U1694	C1633	G1573	U1511
A2419	U2178	C2118	G2057	U1997	U1937	U1937	G1878	A1815	C1755	U1695	G1634	C1574	U1512
G2420	C2179	A2119	C2058	G1998	U1938	U1938	A1879	A1816	G1756	A1696	G1635	A1575	G1513
U2421	U2180	G2120	U2059	C1999	G1939	G1939	U1880	U1817	A1757	A1697	U	G1576	G1514
G2422	C2181	G2121	A2060	U2000	G1940	G1940	A1881	U1818	G1758	C1698	A1637	G1577	A1515
A2423	A2182	G2122	G2061	U2001	C1941	C1941	A1881	U1819	C1759	A1699	A1638	C1578	C1516
G2424	A2183	G2123	G2062	G2002	U1942	U1942	G1882	U1820	A1760	G1700	C1639	C1579	G1517
G2425	U2184	G2124	U2063	G2003	C1943	C1943	A1883	U1821	C1761	G1701	C1640	A1580	U1518
U2426	G2185	A2125	C2064	U2004	U1944	U1944	A1884	C	C1762	U1702	C1581	C1581	G1519
G2427	U2186	A2126	U2065	G2005	A1945	A1945	U1885	U1823	C1763	U1703	G1582	C1582	G1520
U2428	G2187	U2127	C2066	G2006	A1946	A1946	A1886	U1824	U1764	A1704	U1583	G1521	G1521
G2429	C2188	C2128	U2067	G2007	G1947	G1947	A1887	G1825	U1765	U1705	U1644	U1522	U1522
U2430	U2189	U2129	U2068	G2008	C1948	C1948	U1888	C1826	G1766	G1646	U1646	U1523	U1523
A2431	U2190	G2130	C2069	G2009	G1949	G1949	U1889	C1827	C1767	A1647	A1647	G1586	A1524
G2432	G2191	A2131	U2070	U2010	U1950	U1950	A1890	A1828	U1768	C1708	A1648	A1587	G1525
A2433	C2192	C2132	U2071	U2011	G1951	G1951	A1891	G1929	G1769	U1649	U1649	A1588	U1526
G2434	U2193	U2133	G2072	G2012	G1952	G1952	G1892	G1830	G1770	C1710	G1650	A1589	G1527
C2435	G2194	G2134	A2073	C2013	G1953	G1953	A1893	U1831	C1771	C1711	U1651	G1590	G1528
U2436	C2195	U2135	C2074	U2014	G1954	G1954	U1894	U1832	U1772	G1712	G1652	G1591	A1529
G2437	U2196	C2136	C2075	C2015	U1955	U1955	A1895	G1833	C1773	G1713	G1653	G1592	U1530
	C2197	U2137		U2016	A1956	A1956	A1896		C1774	A1714	A1654	A1593	C1531




- Molecule 82: 5.8S rRNA



- Molecule 83: 5S rRNA



4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of particles used	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	Not provided	Depositor
Microscope	Not provided	Depositor
Voltage (kV)	Not provided	Depositor
Electron dose ($e^-/\text{\AA}^2$)	Not provided	Depositor
Minimum defocus (nm)	Not provided	Depositor
Maximum defocus (nm)	Not provided	Depositor
Magnification	Not provided	Depositor
Image detector	Not provided	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
1	Aa	1.65	23/2495 (0.9%)	2.01	81/3391 (2.4%)
10	AI	1.94	15/1016 (1.5%)	2.50	48/1362 (3.5%)
11	AJ	1.93	13/857 (1.5%)	2.90	38/1148 (3.3%)
12	AK	1.98	14/843 (1.7%)	2.28	38/1134 (3.4%)
13	AL	2.41	23/990 (2.3%)	3.21	80/1304 (6.1%)
14	AM	1.85	23/1175 (2.0%)	2.38	47/1577 (3.0%)
15	AN	1.78	5/358 (1.4%)	2.77	29/469 (6.2%)
16	AO	1.85	10/994 (1.0%)	2.70	58/1339 (4.3%)
17	AQ	2.16	24/1109 (2.2%)	3.08	59/1483 (4.0%)
18	AP	2.29	17/646 (2.6%)	3.39	49/867 (5.7%)
19	AR	1.65	5/691 (0.7%)	2.07	20/931 (2.1%)
2	AA	1.99	33/1962 (1.7%)	2.62	83/2674 (3.1%)
20	AS	1.83	17/1138 (1.5%)	2.73	74/1527 (4.8%)
21	AT	2.06	13/694 (1.9%)	2.67	32/935 (3.4%)
22	AV	1.91	14/698 (2.0%)	2.68	44/932 (4.7%)
24	AX	1.77	5/372 (1.3%)	2.15	13/504 (2.6%)
25	AY	1.80	3/447 (0.7%)	2.08	19/601 (3.2%)
26	AZ	2.63	17/499 (3.4%)	3.77	31/660 (4.7%)
29	AU	1.93	8/725 (1.1%)	2.49	45/969 (4.6%)
3	AB	1.87	20/1530 (1.3%)	2.48	72/2049 (3.5%)
30	BA	1.42	4/1745 (0.2%)	1.78	32/2342 (1.4%)
31	BB	2.07	31/1938 (1.6%)	2.90	100/2600 (3.8%)
32	BC	2.25	65/3124 (2.1%)	3.27	171/4196 (4.1%)
33	BD	2.15	53/2531 (2.1%)	2.93	146/3414 (4.3%)
34	BE	2.08	25/1362 (1.8%)	3.17	79/1824 (4.3%)
35	BG	2.50	42/1433 (2.9%)	3.60	142/1922 (7.4%)
36	BF	1.65	9/1537 (0.6%)	2.05	27/2068 (1.3%)
37	BH	2.09	26/1527 (1.7%)	2.60	82/2052 (4.0%)
38	Bs	1.71	18/2013 (0.9%)	2.32	75/2731 (2.7%)
39	BJ	1.89	16/964 (1.7%)	2.63	44/1295 (3.4%)
4	AD	1.95	29/1620 (1.8%)	2.88	94/2182 (4.3%)
40	BK	1.93	21/1600 (1.3%)	2.78	76/2146 (3.5%)
41	BN	1.88	15/1083 (1.4%)	2.30	56/1456 (3.8%)
42	BM	1.73	12/987 (1.2%)	2.20	45/1326 (3.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
43	BP	2.03	23/1659 (1.4%)	2.68	113/2221 (5.1%)
44	BO	2.47	29/1213 (2.4%)	3.20	74/1623 (4.6%)
45	BR	2.41	29/1264 (2.3%)	3.18	68/1701 (4.0%)
46	BT	1.82	26/1547 (1.7%)	2.27	54/2060 (2.6%)
47	BU	1.78	21/1285 (1.6%)	2.44	54/1720 (3.1%)
48	BW	2.02	13/846 (1.5%)	2.75	47/1142 (4.1%)
49	BV	1.71	14/1335 (1.0%)	2.03	40/1794 (2.2%)
5	AC	2.12	34/1544 (2.2%)	3.02	112/2059 (5.4%)
50	BX	1.58	5/993 (0.5%)	2.19	41/1336 (3.1%)
51	BZ	2.29	14/590 (2.4%)	2.74	40/783 (5.1%)
52	BY	1.61	10/983 (1.0%)	1.95	25/1312 (1.9%)
53	Ba	2.24	20/722 (2.8%)	3.30	75/967 (7.8%)
54	Bd	1.63	2/177 (1.1%)	1.91	5/231 (2.2%)
55	Bc	2.06	14/974 (1.4%)	2.76	53/1294 (4.1%)
56	Bf	1.59	7/793 (0.9%)	1.92	17/1062 (1.6%)
57	Be	1.85	25/1957 (1.3%)	2.29	69/2631 (2.6%)
58	Bg	1.83	16/887 (1.8%)	2.38	32/1185 (2.7%)
59	Bh	1.80	11/1064 (1.0%)	2.30	47/1423 (3.3%)
6	AE	1.82	21/1971 (1.1%)	2.46	79/2664 (3.0%)
60	Bi	2.51	24/935 (2.6%)	3.64	59/1242 (4.8%)
61	Bj	2.79	19/751 (2.5%)	3.05	68/1004 (6.8%)
62	Bk	2.48	19/625 (3.0%)	3.48	45/826 (5.4%)
63	Bm	1.73	9/710 (1.3%)	2.09	24/944 (2.5%)
64	Bl	2.03	9/693 (1.3%)	2.42	34/915 (3.7%)
65	Bn	2.32	13/610 (2.1%)	3.37	37/813 (4.6%)
66	Bo	1.80	4/452 (0.9%)	2.23	17/598 (2.8%)
67	Bp	1.57	2/335 (0.6%)	2.25	18/442 (4.1%)
68	Bq	1.98	3/235 (1.3%)	2.32	14/300 (4.7%)
69	Br	2.01	14/846 (1.7%)	2.74	44/1113 (4.0%)
72	Bt	0.69	1/445 (0.2%)	1.49	16/606 (2.6%)
72	Bu	0.92	1/445 (0.2%)	1.63	18/606 (3.0%)
73	Bv	0.97	0/431	1.29	4/582 (0.7%)
73	Bw	0.96	0/431	1.28	4/582 (0.7%)
74	BQ	2.23	50/2404 (2.1%)	3.27	146/3236 (4.5%)
76	BS	1.92	23/1458 (1.6%)	2.70	109/1957 (5.6%)
77	BI	0.95	1/1473 (0.1%)	1.60	29/1976 (1.5%)
78	CA	2.64	1783/37406 (4.8%)	2.65	3176/57948 (5.5%)
79	CB	2.75	77/1785 (4.3%)	2.58	142/2779 (5.1%)
8	AF	1.70	13/1561 (0.8%)	1.94	47/2103 (2.2%)
80	CC	3.40	11/264 (4.2%)	3.22	29/407 (7.1%)
81	DA	2.74	3996/76832 (5.2%)	2.77	7042/119578 (5.9%)
82	DB	2.68	166/3480 (4.8%)	2.64	305/5395 (5.7%)
83	DC	2.90	156/2808 (5.6%)	3.09	331/4372 (7.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
9	AH	1.85	10/1047 (1.0%)	2.39	47/1405 (3.3%)
All	All	2.44	7406/202969 (3.6%)	2.70	14979/298347 (5.0%)

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	18
10	AI	0	14
11	AJ	0	17
12	AK	1	15
13	AL	0	14
14	AM	0	12
15	AN	0	12
16	AO	2	15
17	AQ	0	29
18	AP	0	15
19	AR	0	8
2	AA	1	30
20	AS	0	19
21	AT	0	15
22	AV	0	12
23	AW	5	20
24	AX	0	2
25	AY	0	4
26	AZ	0	25
27	Ab	0	3
28	Ac	0	1
29	AU	2	12
3	AB	0	29
30	BA	0	8
31	BB	2	45
32	BC	2	56
33	BD	2	53
34	BE	2	25
35	BG	2	57
36	BF	0	10
37	BH	0	36
38	Bs	0	18
39	BJ	1	10

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Mol	Chain	#Chirality outliers	#Planarity outliers
4	AD	0	36
40	BK	0	29
41	BN	1	13
42	BM	0	11
43	BP	4	44
44	BO	1	28
45	BR	0	31
46	BT	0	17
47	BU	1	16
48	BW	0	12
49	BV	0	20
5	AC	2	40
50	BX	0	13
51	BZ	0	18
52	BY	0	8
53	Ba	0	25
54	Bd	0	1
55	Bc	0	16
56	Bf	0	6
57	Be	1	14
58	Bg	0	13
59	Bh	0	14
6	AE	3	29
60	Bi	0	25
61	Bj	1	26
62	Bk	1	15
63	Bm	1	5
64	Bl	0	13
65	Bn	0	15
66	Bo	0	15
67	Bp	0	8
68	Bq	0	4
69	Br	0	23
7	AG	0	52
70	Bx	0	7
71	Bz	0	1
72	Bt	0	3
72	Bu	0	3
73	Bv	0	1
73	Bw	0	1
74	BQ	0	48
75	BL	6	5

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Mol	Chain	#Chirality outliers	#Planarity outliers
76	BS	1	41
77	BI	2	24
78	CA	10	22
79	CB	1	0
8	AF	0	14
80	CC	1	0
81	DA	32	15
82	DB	5	0
9	AH	0	15
All	All	96	1514

All (7406) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1261	G	C2'-C1'	59.16	2.18	1.53
79	CB	55	C	C2'-C1'	-55.11	0.92	1.53
78	CA	636	A	C2'-C1'	54.35	2.13	1.53
81	DA	3215	A	C2'-C1'	-49.15	0.99	1.53
78	CA	1190	C	O5'-C5'	-48.72	0.65	1.42
81	DA	2989	U	O4'-C1'	48.03	2.04	1.41
81	DA	1209	G	C2'-C1'	42.87	2.00	1.53
81	DA	3215	A	O4'-C1'	42.29	1.96	1.41
78	CA	1190	C	C5'-C4'	40.55	2.00	1.51
81	DA	1207	G	O4'-C1'	39.11	1.92	1.41
81	DA	3221	C	O4'-C1'	38.99	1.92	1.41
80	CC	18	C	O3'-P	38.63	2.07	1.61
81	DA	2934	A	C2'-C1'	36.86	1.93	1.53
81	DA	2648	G	C2'-C1'	35.51	1.92	1.53
81	DA	636	C	O4'-C1'	35.16	1.87	1.41
78	CA	45	U	C2'-C1'	32.91	1.89	1.53
78	CA	123	G	O4'-C1'	32.61	1.84	1.41
81	DA	1314	C	C2'-C1'	-32.07	1.18	1.53
44	BO	20	GLY	C-N	-31.71	0.61	1.34
81	DA	2174	G	C2'-C1'	-31.58	1.18	1.53
61	Bj	33	GLU	CG-CD	31.56	1.99	1.51
81	DA	2607	G	C2'-C1'	-31.35	1.18	1.53
78	CA	1583	A	C2'-C1'	-30.62	1.19	1.53
81	DA	1401	A	C2'-C1'	30.07	1.86	1.53
81	DA	1298	C	C2'-C1'	-29.58	1.20	1.53
78	CA	1393	C	C2'-C1'	29.58	1.85	1.53
78	CA	1546	G	C2'-C1'	-29.57	1.20	1.53
83	DC	26	C	C2'-C1'	-29.50	1.21	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1221	A	O4'-C1'	-28.54	1.04	1.41
81	DA	677	A	C2'-C1'	28.39	1.84	1.53
81	DA	2440	G	C2'-C1'	-28.23	1.22	1.53
83	DC	46	A	C2'-C1'	28.20	1.84	1.53
78	CA	295	A	O4'-C1'	-28.09	1.05	1.41
78	CA	306	U	C2'-C1'	28.02	1.84	1.53
78	CA	46	A	O4'-C1'	-27.93	1.05	1.41
78	CA	1255	G	O3'-P	27.90	1.94	1.61
81	DA	2166	A	O4'-C1'	27.90	1.77	1.41
81	DA	3304	U	C4'-C3'	27.83	1.83	1.53
81	DA	1802	C	O4'-C1'	27.82	1.77	1.41
81	DA	2880	U	C2'-C1'	-27.80	1.22	1.53
78	CA	1583	A	O4'-C1'	27.66	1.77	1.41
35	BG	69	PHE	CD1-CE1	27.57	1.94	1.39
78	CA	631	G	C2'-C1'	27.41	1.83	1.53
78	CA	196	G	C2'-C1'	-27.33	1.23	1.53
61	Bj	33	GLU	CD-OE2	-27.19	0.95	1.25
81	DA	636	C	C2'-C1'	-27.04	1.23	1.53
81	DA	71	A	C2'-C1'	-26.95	1.23	1.53
78	CA	591	A	O4'-C1'	26.77	1.76	1.41
32	BC	381	GLY	C-O	-26.66	0.81	1.23
81	DA	173	G	C2'-C1'	-26.59	1.24	1.53
78	CA	1602	C	O4'-C1'	26.56	1.76	1.41
81	DA	3092	C	O4'-C1'	26.53	1.76	1.41
81	DA	1055	A	C2'-C1'	26.48	1.82	1.53
78	CA	1190	C	P-OP1	-26.48	1.03	1.49
81	DA	3212	C	O4'-C1'	26.47	1.76	1.41
78	CA	990	C	C2'-C1'	-26.40	1.24	1.53
81	DA	2187	G	C2'-C1'	26.36	1.82	1.53
78	CA	1541	G	C2'-C1'	-26.27	1.24	1.53
33	BD	78	GLY	C-O	-26.26	0.81	1.23
62	Bk	25	LYS	C-O	-26.21	0.73	1.23
65	Bn	35	GLY	C-O	-26.15	0.81	1.23
78	CA	172	C	O4'-C1'	26.09	1.75	1.41
81	DA	672	A	P-O5'	-26.01	1.33	1.59
81	DA	3142	A	C2'-C1'	25.80	1.81	1.53
81	DA	242	C	C2'-C1'	-25.78	1.25	1.53
81	DA	3034	C	O4'-C1'	25.77	1.75	1.41
78	CA	46	A	C2'-C1'	25.76	1.81	1.53
78	CA	305	C	O4'-C1'	25.73	1.75	1.41
81	DA	2788	C	O4'-C1'	25.65	1.75	1.41
78	CA	900	A	C4'-O4'	-25.64	1.12	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2757	U	O4'-C1'	25.57	1.74	1.41
64	BI	39	TYR	C-O	-25.54	0.74	1.23
40	BK	184	THR	C-O	-25.49	0.74	1.23
81	DA	1429	G	C2'-C1'	-25.47	1.25	1.53
81	DA	745	C	C2'-C1'	-25.46	1.25	1.53
81	DA	3131	U	O4'-C1'	25.34	1.74	1.41
81	DA	427	C	C2'-C1'	-25.30	1.25	1.53
81	DA	3241	G	O4'-C1'	25.15	1.74	1.41
78	CA	1690	G	O4'-C1'	25.04	1.74	1.41
40	BK	69	GLY	C-O	-25.00	0.83	1.23
83	DC	102	C	O4'-C1'	24.73	1.73	1.41
78	CA	228	G	C2'-C1'	24.71	1.80	1.53
81	DA	671	U	O4'-C1'	-24.68	1.09	1.41
78	CA	140	A	C2'-C1'	24.68	1.80	1.53
32	BC	368	GLY	C-O	-24.65	0.84	1.23
74	BQ	39	GLN	C-N	24.54	1.90	1.34
57	Be	202	LEU	C-O	-24.53	0.76	1.23
32	BC	17	LEU	C-O	-24.45	0.76	1.23
78	CA	1081	A	C2'-C1'	24.42	1.80	1.53
81	DA	1820	U	O4'-C1'	24.30	1.73	1.41
81	DA	2440	G	O4'-C1'	24.30	1.73	1.41
81	DA	1298	C	O4'-C1'	24.28	1.73	1.41
81	DA	1316	C	C2'-C1'	-24.16	1.26	1.53
81	DA	1285	G	C2'-C1'	24.15	1.79	1.53
81	DA	147	U	P-O5'	-24.14	1.35	1.59
32	BC	289	ASP	C-O	-24.13	0.77	1.23
78	CA	469	C	O4'-C1'	24.11	1.73	1.41
82	DB	154	C	O4'-C1'	24.11	1.73	1.41
82	DB	105	A	C2'-C1'	-24.02	1.26	1.53
78	CA	295	A	C2'-C1'	24.02	1.79	1.53
81	DA	1975	C	O4'-C1'	24.01	1.72	1.41
74	BQ	201	GLY	C-O	-24.00	0.85	1.23
78	CA	856	A	C2'-C1'	23.98	1.79	1.53
81	DA	1623	G	C2'-C1'	-23.96	1.26	1.53
26	AZ	44	PHE	C-O	-23.95	0.77	1.23
81	DA	1314	C	O4'-C1'	23.90	1.72	1.41
81	DA	71	A	O4'-C1'	23.83	1.72	1.41
60	Bi	77	GLY	C-O	-23.77	0.85	1.23
78	CA	1348	A	C2'-C1'	-23.69	1.27	1.53
78	CA	874	C	O4'-C1'	23.62	1.72	1.41
45	BR	140	LEU	C-O	-23.61	0.78	1.23
34	BE	123	PHE	C-O	-23.59	0.78	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	331	G	C2'-C1'	23.53	1.79	1.53
81	DA	638	C	O4'-C1'	23.50	1.72	1.41
81	DA	3147	G	C2'-C1'	-23.22	1.27	1.53
9	AH	66	ASN	C-O	-23.14	0.79	1.23
78	CA	1141	G	C2'-C1'	-23.11	1.27	1.53
81	DA	2869	U	C2'-C1'	22.98	1.78	1.53
81	DA	1821	U	O4'-C1'	22.96	1.71	1.41
13	AL	7	ARG	CZ-NH1	-22.96	1.03	1.33
33	BD	84	ARG	C-O	-22.95	0.79	1.23
74	BQ	237	GLU	C-O	-22.95	0.79	1.23
81	DA	2175	U	P-O5'	-22.94	1.36	1.59
81	DA	1688	U	O4'-C1'	22.94	1.71	1.41
81	DA	1076	C	C2'-C1'	-22.87	1.28	1.53
81	DA	3004	C	C2'-C1'	-22.86	1.28	1.53
78	CA	1394	G	O4'-C1'	-22.84	1.11	1.41
79	CB	55	C	O4'-C1'	22.80	1.71	1.41
13	AL	22	ASN	C-O	-22.78	0.80	1.23
74	BQ	123	GLU	C-O	-22.77	0.80	1.23
32	BC	297	SER	C-O	-22.75	0.80	1.23
78	CA	609	U	O4'-C1'	22.72	1.71	1.41
81	DA	702	C	O4'-C1'	22.68	1.71	1.41
81	DA	2770	G	O4'-C1'	22.68	1.71	1.41
81	DA	2770	G	C2'-C1'	-22.66	1.28	1.53
78	CA	374	U	C2'-C1'	-22.65	1.28	1.53
81	DA	1620	U	C2'-C1'	-22.61	1.28	1.53
31	BB	196	TRP	C-O	-22.61	0.80	1.23
32	BC	256	HIS	C-O	-22.59	0.80	1.23
81	DA	1054	A	C2'-C1'	22.59	1.78	1.53
81	DA	3253	G	C2'-C1'	-22.46	1.28	1.53
3	AB	78	LYS	C-O	-22.44	0.80	1.23
81	DA	1866	C	O4'-C1'	22.40	1.70	1.41
78	CA	1201	G	C2'-C1'	-22.39	1.28	1.53
81	DA	2625	C	O4'-C1'	22.37	1.70	1.41
81	DA	3239	G	C2'-C1'	-22.31	1.28	1.53
81	DA	597	G	C2'-C1'	-22.28	1.28	1.53
55	Bc	104	GLN	C-O	-22.25	0.81	1.23
81	DA	3306	U	C2'-C1'	-22.24	1.28	1.53
81	DA	1871	U	C5'-C4'	-22.22	1.24	1.51
18	AP	122	ILE	C-O	-22.22	0.81	1.23
81	DA	338	A	O4'-C1'	22.18	1.70	1.41
35	BG	152	THR	C-O	-22.16	0.81	1.23
82	DB	3	A	C2'-C1'	-22.16	1.28	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
51	BZ	70	LYS	C-O	-22.11	0.81	1.23
81	DA	1971	C	O4'-C1'	22.06	1.70	1.41
81	DA	1685	C	O4'-C1'	22.05	1.70	1.41
81	DA	70	A	C2'-C1'	-22.01	1.29	1.53
60	Bi	108	GLN	C-O	-22.01	0.81	1.23
81	DA	427	C	O4'-C1'	21.99	1.70	1.41
81	DA	7	C	O4'-C1'	21.93	1.70	1.41
81	DA	1379	G	C2'-C1'	-21.90	1.29	1.53
78	CA	1200	G	O4'-C1'	21.90	1.70	1.41
78	CA	294	C	O4'-C1'	21.87	1.70	1.41
81	DA	3217	C	C2'-C1'	21.82	1.77	1.53
79	CB	41	G	C2'-C1'	-21.76	1.29	1.53
81	DA	1207	G	C2'-C1'	-21.76	1.29	1.53
60	Bi	78	GLY	C-O	-21.76	0.88	1.23
81	DA	209	A	C2'-C1'	21.75	1.77	1.53
81	DA	2634	U	C2'-C1'	-21.70	1.29	1.53
37	BH	236	GLY	C-O	-21.69	0.89	1.23
83	DC	17	A	O4'-C1'	21.64	1.69	1.41
81	DA	1859	A	C2'-C1'	21.61	1.77	1.53
53	Ba	8	GLY	C-O	-21.59	0.89	1.23
81	DA	2157	G	O4'-C1'	21.58	1.69	1.41
6	AE	7	GLN	C-O	-21.56	0.82	1.23
36	BF	2	LYS	C-O	-21.55	0.82	1.23
81	DA	2363	A	C2'-C1'	21.55	1.77	1.53
81	DA	124	U	O4'-C1'	21.52	1.69	1.41
33	BD	148	ILE	C-O	-21.52	0.82	1.23
81	DA	3245	A	C2'-C1'	-21.51	1.29	1.53
81	DA	169	U	C2'-C1'	21.48	1.76	1.53
81	DA	1682	U	C2'-C1'	21.47	1.76	1.53
81	DA	3304	U	C3'-C2'	21.43	1.76	1.52
35	BG	148	GLU	C-O	-21.43	0.82	1.23
35	BG	2	SER	C-O	-21.41	0.82	1.23
78	CA	1201	G	O4'-C1'	21.37	1.69	1.41
81	DA	2899	C	O4'-C1'	21.33	1.69	1.41
78	CA	1091	A	C2'-C1'	21.30	1.76	1.53
81	DA	2721	A	O4'-C1'	21.30	1.69	1.41
45	BR	142	GLY	C-O	-21.25	0.89	1.23
44	BO	73	LEU	C-O	21.22	1.63	1.23
81	DA	2630	C	O4'-C1'	21.22	1.69	1.41
78	CA	853	G	C2'-C1'	21.17	1.76	1.53
78	CA	1702	A	C2'-C1'	21.16	1.76	1.53
81	DA	1014	U	C2'-C1'	-21.15	1.30	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	BO	21	ARG	C-N	21.15	1.82	1.34
81	DA	2760	C	C2'-C1'	-21.12	1.30	1.53
78	CA	610	G	O4'-C1'	-21.09	1.14	1.41
82	DB	46	G	C2'-C1'	-21.08	1.30	1.53
11	AJ	81	THR	C-O	-21.05	0.83	1.23
81	DA	1747	G	C2'-C1'	-21.03	1.30	1.53
78	CA	1436	A	C2'-C1'	-21.03	1.30	1.53
21	AT	9	VAL	C-O	-21.02	0.83	1.23
10	AI	140	LYS	C-O	-20.98	0.83	1.23
81	DA	1866	C	C2'-C1'	-20.94	1.30	1.53
81	DA	672	A	C2'-C1'	-20.94	1.30	1.53
48	BW	93	ILE	C-O	-20.94	0.83	1.23
81	DA	2685	C	C2'-C1'	-20.92	1.30	1.53
81	DA	2001	U	C2'-C1'	20.89	1.76	1.53
81	DA	1808	G	C2'-C1'	-20.89	1.30	1.53
81	DA	2362	C	C2'-C1'	20.87	1.76	1.53
48	BW	90	ARG	C-O	-20.84	0.83	1.23
62	Bk	83	ALA	C-O	-20.84	0.83	1.23
81	DA	1316	C	O4'-C1'	20.83	1.68	1.41
81	DA	1572	U	O4'-C1'	20.83	1.68	1.41
81	DA	9	U	C2'-C1'	-20.83	1.30	1.53
81	DA	3006	A	C2'-C1'	-20.83	1.30	1.53
81	DA	1561	G	C2'-C1'	-20.83	1.30	1.53
81	DA	1821	U	C2'-C1'	-20.82	1.30	1.53
78	CA	573	C	C2'-O2'	-20.82	1.14	1.41
13	AL	87	VAL	C-O	-20.82	0.83	1.23
17	AQ	26	LEU	C-O	-20.81	0.83	1.23
78	CA	897	C	O4'-C1'	20.75	1.68	1.41
81	DA	798	G	O4'-C1'	-20.72	1.14	1.41
2	AA	229	LYS	C-O	-20.71	0.84	1.23
81	DA	1579	C	O4'-C1'	20.70	1.68	1.41
44	BO	142	GLY	C-O	-20.69	0.90	1.23
81	DA	3224	G	O4'-C1'	-20.67	1.14	1.41
83	DC	118	U	C2'-C1'	-20.64	1.30	1.53
78	CA	1615	C	O4'-C1'	20.64	1.68	1.41
81	DA	2948	C	O4'-C1'	20.64	1.68	1.41
81	DA	3249	C	C2'-C1'	-20.63	1.30	1.53
62	Bk	81	THR	C-O	-20.62	0.84	1.23
81	DA	2637	A	C2'-C1'	20.62	1.76	1.53
37	BH	158	ASP	C-O	-20.62	0.84	1.23
38	Bs	5	ARG	C-O	-20.61	0.84	1.23
45	BR	157	PRO	C-O	-20.59	0.82	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2699	G	C2'-C1'	-20.57	1.30	1.53
74	BQ	238	ASP	C-O	-20.56	0.84	1.23
78	CA	368	U	C2'-C1'	-20.54	1.30	1.53
81	DA	2689	A	C2'-C1'	-20.53	1.30	1.53
81	DA	656	A	C2'-C1'	-20.52	1.30	1.53
81	DA	1947	G	O4'-C1'	-20.52	1.15	1.41
81	DA	2619	G	C2'-C1'	-20.52	1.30	1.53
78	CA	1386	G	O4'-C1'	-20.50	1.15	1.41
43	BP	74	PRO	C-O	-20.48	0.82	1.23
81	DA	647	A	C2'-C1'	-20.45	1.30	1.53
81	DA	1688	U	C2'-C1'	-20.45	1.30	1.53
34	BE	89	TYR	C-O	-20.45	0.84	1.23
81	DA	2623	G	C2'-C1'	20.44	1.75	1.53
37	BH	73	PRO	C-O	-20.44	0.82	1.23
2	AA	11	PRO	C-O	-20.43	0.82	1.23
81	DA	422	A	C2'-C1'	20.42	1.75	1.53
35	BG	5	LYS	C-O	-20.39	0.84	1.23
81	DA	2674	A	C2'-C1'	-20.38	1.30	1.53
81	DA	3003	G	O4'-C1'	-20.37	1.15	1.41
78	CA	960	U	C2'-C1'	20.35	1.75	1.53
81	DA	2756	C	C2'-C1'	-20.32	1.30	1.53
82	DB	62	C	C2'-C1'	-20.32	1.30	1.53
32	BC	362	ALA	C-O	-20.31	0.84	1.23
81	DA	1174	G	C2'-C1'	-20.26	1.31	1.53
78	CA	990	C	O4'-C1'	20.22	1.68	1.41
65	Bn	34	ALA	C-O	-20.19	0.84	1.23
78	CA	955	A	C2'-C1'	20.16	1.75	1.53
78	CA	591	A	C2'-C1'	-20.12	1.31	1.53
74	BQ	197	SER	C-O	-20.11	0.85	1.23
35	BG	15	VAL	C-O	-20.10	0.85	1.23
81	DA	1059	G	C2'-C1'	-20.10	1.31	1.53
78	CA	635	A	O4'-C1'	20.10	1.67	1.41
81	DA	3330	A	C2'-C1'	-20.06	1.31	1.53
81	DA	2966	G	C2'-C1'	-20.04	1.31	1.53
57	Be	98	LYS	N-CA	-20.03	1.06	1.46
78	CA	948	G	C2'-C1'	-20.02	1.31	1.53
81	DA	2264	U	O4'-C1'	20.01	1.67	1.41
45	BR	95	GLU	C-O	-20.00	0.85	1.23
78	CA	296	U	O4'-C1'	19.97	1.67	1.41
81	DA	2496	C	C2'-C1'	-19.95	1.31	1.53
81	DA	2339	C	C2'-C1'	19.94	1.75	1.53
81	DA	993	G	C2'-C1'	-19.92	1.31	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	Bh	12	LYS	C-O	-19.90	0.85	1.23
81	DA	1396	C	O4'-C1'	19.87	1.67	1.41
81	DA	2899	C	C2'-C1'	-19.87	1.31	1.53
6	AE	92	ALA	C-O	-19.86	0.85	1.23
3	AB	205	ALA	C-O	-19.85	0.85	1.23
55	Bc	102	GLU	C-O	-19.85	0.85	1.23
78	CA	652	G	C2'-C1'	-19.83	1.31	1.53
78	CA	1580	C	O4'-C1'	19.83	1.67	1.41
81	DA	2720	G	O4'-C1'	19.79	1.67	1.41
81	DA	1115	G	O4'-C1'	19.79	1.67	1.41
81	DA	3243	A	C2'-C1'	-19.78	1.31	1.53
81	DA	2173	U	C2'-C1'	-19.77	1.31	1.53
37	BH	228	GLU	C-O	-19.77	0.85	1.23
40	BK	63	ALA	C-O	-19.75	0.85	1.23
6	AE	4	PRO	C-O	-19.75	0.83	1.23
46	BT	82	LYS	C-O	-19.75	0.85	1.23
81	DA	907	G	C2'-C1'	-19.71	1.31	1.53
81	DA	1884	A	C2'-C1'	-19.71	1.31	1.53
35	BG	8	LYS	C-O	-19.70	0.85	1.23
81	DA	70	A	O4'-C1'	19.70	1.67	1.41
82	DB	35	C	O4'-C1'	19.69	1.67	1.41
81	DA	2316	G	C2'-C1'	-19.68	1.31	1.53
1	Aa	53	LYS	C-O	-19.67	0.85	1.23
81	DA	2630	C	C2'-C1'	-19.64	1.31	1.53
82	DB	32	C	C2'-C1'	-19.64	1.31	1.53
81	DA	1333	C	O4'-C1'	19.61	1.67	1.41
81	DA	3149	G	C2'-C1'	19.60	1.75	1.53
81	DA	675	C	O4'-C1'	19.58	1.67	1.41
31	BB	249	SER	C-O	-19.57	0.86	1.23
78	CA	847	A	C2'-C1'	-19.57	1.31	1.53
82	DB	45	C	O4'-C1'	19.56	1.67	1.41
5	AC	162	SER	C-O	-19.52	0.86	1.23
81	DA	2439	A	O4'-C1'	19.51	1.67	1.41
81	DA	3244	A	C2'-C1'	-19.49	1.31	1.53
81	DA	251	G	C2'-C1'	-19.49	1.31	1.53
81	DA	1582	C	O4'-C1'	19.48	1.67	1.41
81	DA	2638	C	O4'-C1'	19.46	1.67	1.41
26	AZ	40	TYR	C-O	-19.40	0.86	1.23
81	DA	147	U	C4'-C3'	-19.38	1.31	1.53
78	CA	1452	U	C2'-C1'	-19.38	1.32	1.53
81	DA	1747	G	O4'-C1'	19.37	1.66	1.41
83	DC	53	U	O4'-C1'	19.36	1.66	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	174	U	O4'-C1'	19.35	1.66	1.41
81	DA	2487	U	C2'-C1'	19.35	1.74	1.53
44	BO	40	HIS	C-O	-19.34	0.86	1.23
81	DA	2880	U	O4'-C1'	19.32	1.66	1.41
13	AL	34	LEU	C-O	-19.30	0.86	1.23
81	DA	665	A	C2'-C1'	-19.29	1.32	1.53
81	DA	1128	U	C2'-C1'	-19.28	1.32	1.53
81	DA	2509	U	C2'-C1'	-19.27	1.32	1.53
81	DA	2948	C	C2'-C1'	-19.27	1.32	1.53
18	AP	57	LYS	C-O	-19.25	0.86	1.23
81	DA	2788	C	C2'-C1'	-19.25	1.32	1.53
81	DA	1295	G	C2'-C1'	-19.24	1.32	1.53
82	DB	50	C	C2'-C1'	19.24	1.74	1.53
45	BR	143	PRO	C-O	-19.22	0.84	1.23
78	CA	174	U	C2'-C1'	-19.21	1.32	1.53
31	BB	73	GLU	C-O	-19.21	0.86	1.23
22	AV	26	LYS	C-O	-19.17	0.86	1.23
81	DA	201	A	C2'-C1'	-19.17	1.32	1.53
17	AQ	81	LYS	C-O	-19.16	0.86	1.23
81	DA	1713	G	C2'-C1'	-19.16	1.32	1.53
61	Bj	33	GLU	CB-CG	-19.15	1.15	1.52
81	DA	2816	G	C2'-C1'	-19.14	1.32	1.53
81	DA	2231	C	C2'-C1'	-19.14	1.32	1.53
74	BQ	121	GLY	C-O	-19.11	0.93	1.23
81	DA	517	G	C2'-C1'	-19.10	1.32	1.53
81	DA	3052	G	C2'-C1'	-19.10	1.32	1.53
81	DA	203	G	C2'-C1'	-19.10	1.32	1.53
69	Br	58	PHE	C-O	-19.09	0.87	1.23
81	DA	3298	C	O4'-C1'	19.08	1.66	1.41
43	BP	80	THR	C-O	-19.07	0.87	1.23
60	Bi	79	SER	C-O	-19.05	0.87	1.23
78	CA	393	C	O4'-C1'	19.03	1.66	1.41
78	CA	1755	A	O4'-C1'	-19.01	1.17	1.41
81	DA	3236	U	C2'-C1'	-18.99	1.32	1.53
81	DA	671	U	C2'-C1'	18.98	1.74	1.53
81	DA	924	G	C2'-C1'	-18.98	1.32	1.53
81	DA	1789	G	C2'-C1'	-18.98	1.32	1.53
2	AA	10	THR	C-O	-18.97	0.87	1.23
82	DB	32	C	O4'-C1'	18.93	1.66	1.41
81	DA	514	G	C2'-C1'	-18.91	1.32	1.53
81	DA	608	A	O4'-C1'	18.91	1.66	1.41
78	CA	1112	G	C2'-C1'	-18.90	1.32	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2755	C	C2'-C1'	-18.90	1.32	1.53
81	DA	2160	G	C2'-C1'	-18.90	1.32	1.53
81	DA	518	G	O4'-C1'	18.88	1.66	1.41
18	AP	40	LEU	C-O	-18.85	0.87	1.23
78	CA	1565	C	O4'-C1'	18.84	1.66	1.41
83	DC	31	U	C2'-C1'	18.82	1.74	1.53
31	BB	252	THR	C-O	-18.82	0.87	1.23
44	BO	3	SER	C-O	-18.82	0.87	1.23
78	CA	1546	G	C3'-O3'	-18.81	1.15	1.42
81	DA	1160	C	C2'-C1'	-18.81	1.32	1.53
82	DB	154	C	C2'-C1'	-18.79	1.32	1.53
81	DA	1177	G	C2'-C1'	-18.73	1.32	1.53
81	DA	1203	A	C2'-C1'	-18.73	1.32	1.53
81	DA	3241	G	C2'-C1'	-18.72	1.32	1.53
51	BZ	51	TRP	C-O	-18.72	0.87	1.23
78	CA	1793	G	C2'-C1'	-18.69	1.32	1.53
81	DA	1802	C	C2'-C1'	-18.68	1.32	1.53
81	DA	1551	C	O4'-C1'	18.68	1.66	1.41
81	DA	1585	C	O4'-C1'	18.65	1.65	1.41
17	AQ	63	LYS	C-O	-18.64	0.88	1.23
81	DA	2438	A	O4'-C1'	18.61	1.65	1.41
78	CA	1096	C	O4'-C1'	18.60	1.65	1.41
81	DA	1743	G	C2'-C1'	-18.60	1.32	1.53
81	DA	1297	C	O4'-C1'	18.56	1.65	1.41
81	DA	560	G	C2'-C1'	18.56	1.73	1.53
81	DA	3115	C	O4'-C1'	18.56	1.65	1.41
81	DA	2231	C	O4'-C1'	18.56	1.65	1.41
31	BB	127	ALA	C-O	-18.55	0.88	1.23
81	DA	594	U	O4'-C1'	18.54	1.65	1.41
81	DA	1319	G	C2'-C1'	-18.49	1.33	1.53
61	Bj	33	GLU	CD-OE1	18.48	1.46	1.25
33	BD	89	ALA	C-O	-18.46	0.88	1.23
14	AM	99	HIS	C-O	-18.45	0.88	1.23
60	Bi	16	ARG	C-O	-18.44	0.88	1.23
81	DA	2746	A	C2'-C1'	-18.44	1.33	1.53
81	DA	242	C	O4'-C1'	18.43	1.65	1.41
81	DA	1263	A	C2'-C1'	-18.41	1.33	1.53
78	CA	280	U	O4'-C1'	18.39	1.65	1.41
81	DA	665	A	O4'-C1'	18.39	1.65	1.41
78	CA	874	C	C2'-C1'	-18.38	1.33	1.53
4	AD	90	ILE	C-O	-18.37	0.88	1.23
81	DA	3000	A	C2'-C1'	-18.37	1.33	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1086	A	C2'-C1'	-18.37	1.33	1.53
81	DA	415	G	C2'-C1'	-18.37	1.33	1.53
81	DA	777	U	C2'-C1'	-18.35	1.33	1.53
81	DA	1095	U	C4'-C3'	18.35	1.73	1.53
78	CA	1254	U	O3'-P	18.31	1.83	1.61
78	CA	1392	U	C2'-C1'	18.29	1.73	1.53
81	DA	699	A	O4'-C1'	18.27	1.65	1.41
81	DA	855	U	C2'-C1'	-18.26	1.33	1.53
81	DA	2829	U	C2'-C1'	-18.26	1.33	1.53
81	DA	185	C	C2'-C1'	-18.23	1.33	1.53
81	DA	2916	U	C2'-C1'	-18.23	1.33	1.53
81	DA	1701	C	C2'-C1'	-18.21	1.33	1.53
80	CC	18	C	O4'-C1'	18.21	1.65	1.41
81	DA	1591	G	C2'-C1'	-18.20	1.33	1.53
20	AS	90	PRO	C-O	-18.19	0.86	1.23
81	DA	2628	A	C2'-C1'	-18.19	1.33	1.53
81	DA	1552	G	C2'-C1'	-18.19	1.33	1.53
76	BS	15	GLY	C-O	-18.18	0.94	1.23
32	BC	5	LYS	C-O	-18.18	0.88	1.23
78	CA	630	A	C2'-C1'	18.17	1.73	1.53
12	AK	123	SER	C-O	-18.15	0.88	1.23
81	DA	531	G	C2'-C1'	-18.15	1.33	1.53
83	DC	42	A	O4'-C1'	18.12	1.65	1.41
81	DA	2916	U	O4'-C1'	18.12	1.65	1.41
81	DA	2756	C	O4'-C1'	18.09	1.65	1.41
53	Ba	13	VAL	C-O	-18.08	0.89	1.23
81	DA	3333	G	C2'-C1'	-18.07	1.33	1.53
33	BD	331	ALA	C-O	-18.06	0.89	1.23
78	CA	203	U	C2'-C1'	-18.04	1.33	1.53
81	DA	751	A	C2'-C1'	-18.04	1.33	1.53
32	BC	3	HIS	C-O	-18.01	0.89	1.23
81	DA	910	G	C2'-C1'	-17.99	1.33	1.53
81	DA	3002	C	O4'-C1'	17.99	1.65	1.41
78	CA	589	C	O4'-C1'	17.98	1.65	1.41
81	DA	1260	A	C2'-C1'	17.94	1.73	1.53
81	DA	2887	A	C2'-C1'	-17.93	1.33	1.53
78	CA	169	A	C2'-C1'	17.91	1.73	1.53
81	DA	317	A	C2'-C1'	-17.90	1.33	1.53
81	DA	80	G	C2'-C1'	-17.89	1.33	1.53
83	DC	49	G	O4'-C1'	17.89	1.65	1.41
81	DA	1871	U	C4'-O4'	-17.89	1.22	1.45
81	DA	2108	C	O4'-C1'	17.88	1.64	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1674	C	O4'-C1'	17.88	1.64	1.41
81	DA	3220	G	C2'-C1'	-17.87	1.33	1.53
45	BR	98	LYS	C-O	-17.86	0.89	1.23
74	BQ	128	GLU	C-O	-17.86	0.89	1.23
81	DA	3382	U	C2'-C1'	-17.85	1.33	1.53
78	CA	668	C	O4'-C1'	17.84	1.64	1.41
83	DC	54	A	O4'-C1'	17.84	1.64	1.41
81	DA	576	C	C2'-C1'	-17.84	1.33	1.53
81	DA	1432	C	C2'-C1'	17.84	1.73	1.53
43	BP	16	SER	C-O	-17.83	0.89	1.23
81	DA	1260	A	O4'-C1'	-17.82	1.18	1.41
81	DA	1637	A	C2'-C1'	-17.81	1.33	1.53
82	DB	103	G	C2'-C1'	-17.81	1.33	1.53
78	CA	1200	G	C2'-C1'	-17.81	1.33	1.53
81	DA	1678	G	O4'-C1'	-17.81	1.18	1.41
78	CA	1086	A	O4'-C1'	17.80	1.64	1.41
78	CA	280	U	C2'-C1'	-17.80	1.33	1.53
32	BC	360	ASP	C-O	-17.79	0.89	1.23
78	CA	1520	U	C5'-C4'	-17.77	1.30	1.51
81	DA	1256	G	C2'-C1'	-17.77	1.33	1.53
78	CA	219	A	C2'-C1'	17.76	1.72	1.53
81	DA	2408	U	C2'-C1'	-17.74	1.33	1.53
81	DA	386	A	O4'-C1'	17.73	1.64	1.41
81	DA	3249	C	O4'-C1'	17.73	1.64	1.41
81	DA	2407	C	O4'-C1'	17.72	1.64	1.41
81	DA	607	A	O4'-C1'	-17.70	1.18	1.41
81	DA	745	C	O4'-C1'	17.70	1.64	1.41
26	AZ	39	LEU	C-O	-17.69	0.89	1.23
81	DA	1397	C	O4'-C1'	17.69	1.64	1.41
81	DA	2182	A	C2'-C1'	-17.68	1.33	1.53
81	DA	2606	G	O4'-C1'	-17.65	1.18	1.41
81	DA	1513	G	C2'-C1'	-17.62	1.33	1.53
78	CA	651	G	C2'-C1'	-17.62	1.33	1.53
78	CA	1602	C	C2'-C1'	-17.62	1.33	1.53
78	CA	1791	A	O4'-C1'	17.61	1.64	1.41
81	DA	1889	G	C2'-C1'	-17.61	1.33	1.53
60	Bi	68	THR	C-O	-17.60	0.90	1.23
81	DA	2403	G	C2'-C1'	17.59	1.72	1.53
81	DA	3240	C	C2'-C1'	-17.59	1.34	1.53
81	DA	774	G	C2'-C1'	-17.58	1.34	1.53
78	CA	672	U	O4'-C1'	17.57	1.64	1.41
81	DA	2844	C	C2'-C1'	-17.57	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	577	C	O4'-C1'	17.57	1.64	1.41
78	CA	1180	C	O4'-C1'	17.57	1.64	1.41
81	DA	1506	A	C2'-C1'	17.56	1.72	1.53
8	AF	35	GLN	C-O	-17.56	0.90	1.23
81	DA	2623	G	O4'-C1'	-17.54	1.18	1.41
5	AC	157	ASP	C-O	-17.52	0.90	1.23
81	DA	3081	C	C2'-C1'	-17.51	1.34	1.53
74	BQ	115	LEU	C-O	-17.51	0.90	1.23
78	CA	1161	C	O4'-C1'	17.49	1.64	1.41
83	DC	27	A	O4'-C1'	17.48	1.64	1.41
81	DA	1265	U	C2'-C1'	-17.48	1.34	1.53
81	DA	1947	G	C2'-C1'	17.44	1.72	1.53
78	CA	1570	A	O4'-C1'	17.43	1.64	1.41
81	DA	3094	A	O4'-C1'	17.41	1.64	1.41
81	DA	752	C	O4'-C1'	17.39	1.64	1.41
4	AD	93	ASP	C-O	-17.39	0.90	1.23
81	DA	1939	G	C2'-C1'	-17.37	1.34	1.53
11	AJ	119	ALA	C-O	-17.35	0.90	1.23
65	Bn	71	PRO	C-O	-17.34	0.88	1.23
78	CA	172	C	C2'-C1'	-17.32	1.34	1.53
78	CA	206	A	O4'-C1'	17.32	1.64	1.41
78	CA	471	A	O4'-C1'	17.30	1.64	1.41
29	AU	36	SER	C-O	-17.29	0.90	1.23
81	DA	1633	C	O4'-C1'	17.29	1.64	1.41
78	CA	1149	G	C2'-C1'	-17.29	1.34	1.53
81	DA	2100	A	C2'-C1'	-17.28	1.34	1.53
2	AA	195	TRP	C-O	-17.27	0.90	1.23
81	DA	573	C	O4'-C1'	17.25	1.64	1.41
78	CA	354	C	O4'-C1'	17.23	1.64	1.41
83	DC	45	A	O4'-C1'	17.23	1.64	1.41
32	BC	298	PHE	C-O	-17.23	0.90	1.23
81	DA	2617	U	C2'-C1'	17.21	1.72	1.53
81	DA	1535	A	C2'-C1'	17.21	1.72	1.53
45	BR	13	SER	C-O	17.20	1.56	1.23
1	Aa	54	PHE	C-O	-17.19	0.90	1.23
81	DA	2632	G	C2'-C1'	-17.19	1.34	1.53
31	BB	62	VAL	C-O	-17.17	0.90	1.23
78	CA	369	A	C2'-C1'	17.17	1.72	1.53
81	DA	1811	G	C2'-C1'	17.16	1.72	1.53
78	CA	1336	A	O4'-C1'	17.16	1.64	1.41
81	DA	2653	C	O4'-C1'	17.16	1.64	1.41
81	DA	1552	G	O4'-C1'	17.16	1.64	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	229	G	C2'-C1'	-17.15	1.34	1.53
81	DA	233	C	C2'-C1'	17.13	1.72	1.53
81	DA	2438	A	C2'-C1'	-17.12	1.34	1.53
78	CA	686	C	O4'-C1'	17.11	1.63	1.41
81	DA	3350	C	O4'-C1'	17.11	1.63	1.41
81	DA	2971	A	C2'-C1'	17.10	1.72	1.53
16	AO	67	THR	C-O	-17.10	0.90	1.23
81	DA	1085	A	O4'-C1'	17.10	1.63	1.41
81	DA	247	C	O4'-C1'	17.08	1.63	1.41
78	CA	123	G	C2'-C1'	-17.06	1.34	1.53
43	BP	116	LEU	C-O	-17.05	0.91	1.23
78	CA	218	A	C2'-C1'	-17.05	1.34	1.53
45	BR	3	ILE	C-O	-17.03	0.91	1.23
58	Bg	107	VAL	C-O	-17.01	0.91	1.23
81	DA	3031	G	C2'-C1'	-17.01	1.34	1.53
81	DA	3103	A	O4'-C1'	16.99	1.63	1.41
81	DA	576	C	O4'-C1'	16.98	1.63	1.41
81	DA	2827	U	C2'-C1'	16.98	1.72	1.53
81	DA	2724	U	C2'-C1'	-16.95	1.34	1.53
81	DA	114	A	C2'-C1'	16.95	1.72	1.53
81	DA	110	G	C2'-C1'	-16.94	1.34	1.53
78	CA	1562	G	C2'-C1'	16.94	1.72	1.53
81	DA	1687	U	C2'-C1'	-16.94	1.34	1.53
82	DB	98	U	C2'-C1'	-16.93	1.34	1.53
81	DA	722	G	C2'-C1'	-16.90	1.34	1.53
78	CA	1405	G	C2'-C1'	16.90	1.72	1.53
37	BH	89	GLU	C-O	-16.89	0.91	1.23
83	DC	60	G	C2'-C1'	-16.87	1.34	1.53
81	DA	3110	C	C2'-C1'	-16.87	1.34	1.53
61	Bj	66	VAL	CA-CB	-16.86	1.19	1.54
78	CA	1614	A	O4'-C1'	16.86	1.63	1.41
55	Bc	94	LYS	C-O	-16.86	0.91	1.23
78	CA	1613	U	C2'-C1'	16.86	1.71	1.53
78	CA	433	C	O4'-C1'	16.85	1.63	1.41
81	DA	498	A	O4'-C1'	16.84	1.63	1.41
2	AA	251	GLU	C-O	-16.84	0.91	1.23
81	DA	1871	U	C3'-C2'	-16.82	1.34	1.52
78	CA	650	U	C2'-C1'	16.82	1.71	1.53
78	CA	1189	A	O3'-P	16.82	1.81	1.61
10	AI	119	ALA	C-O	-16.82	0.91	1.23
83	DC	2	G	C2'-C1'	16.81	1.71	1.53
78	CA	298	C	O4'-C1'	16.80	1.63	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	841	A	C2'-C1'	-16.79	1.34	1.53
81	DA	1618	G	C2'-C1'	-16.79	1.34	1.53
81	DA	3094	A	C2'-C1'	-16.79	1.34	1.53
81	DA	2942	C	O4'-C1'	16.78	1.63	1.41
81	DA	2059	U	C2'-C1'	-16.77	1.34	1.53
78	CA	1238	A	C2'-C1'	16.75	1.71	1.53
81	DA	1783	U	C2'-C1'	-16.75	1.34	1.53
81	DA	1842	A	O4'-C1'	16.74	1.63	1.41
78	CA	942	G	C2'-C1'	-16.74	1.34	1.53
81	DA	238	A	O4'-C1'	16.74	1.63	1.41
83	DC	25	G	O4'-C1'	-16.74	1.19	1.41
78	CA	894	U	O4'-C1'	16.73	1.63	1.41
81	DA	2514	U	C2'-C1'	16.73	1.71	1.53
81	DA	638	C	C2'-C1'	-16.71	1.34	1.53
81	DA	2308	C	C2'-C1'	-16.70	1.34	1.53
83	DC	48	U	C2'-C1'	-16.70	1.34	1.53
78	CA	1179	G	C2'-C1'	-16.69	1.34	1.53
78	CA	154	G	O4'-C1'	16.66	1.63	1.41
4	AD	94	ALA	C-O	-16.65	0.91	1.23
78	CA	1185	U	C2'-C1'	-16.64	1.35	1.53
81	DA	3361	G	O4'-C1'	16.63	1.63	1.41
81	DA	3350	C	C2'-C1'	-16.61	1.35	1.53
81	DA	2251	G	C2'-C1'	-16.60	1.35	1.53
81	DA	2628	A	O4'-C1'	16.59	1.63	1.41
81	DA	2172	A	C2'-C1'	-16.59	1.35	1.53
83	DC	37	G	O4'-C1'	16.59	1.63	1.41
81	DA	3255	U	C2'-C1'	-16.58	1.35	1.53
78	CA	850	A	C2'-C1'	-16.58	1.35	1.53
82	DB	44	A	C2'-C1'	-16.58	1.35	1.53
81	DA	2697	A	O4'-C1'	16.57	1.63	1.41
81	DA	1585	C	C2'-C1'	-16.56	1.35	1.53
81	DA	2873	U	C2'-C1'	-16.56	1.35	1.53
81	DA	2392	C	O4'-C1'	16.55	1.63	1.41
81	DA	3131	U	C2'-C1'	-16.55	1.35	1.53
81	DA	1277	C	C2'-C1'	-16.55	1.35	1.53
5	AC	164	PHE	C-O	-16.51	0.92	1.23
81	DA	3306	U	O4'-C1'	16.51	1.63	1.41
81	DA	599	C	O4'-C1'	16.49	1.63	1.41
78	CA	1607	G	C2'-C1'	-16.48	1.35	1.53
81	DA	1515	A	C2'-C1'	-16.47	1.35	1.53
26	AZ	18	THR	C-O	-16.47	0.92	1.23
81	DA	1007	U	C2'-C1'	-16.47	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1786	G	O4'-C1'	-16.46	1.20	1.41
81	DA	1694	U	C2'-C1'	16.46	1.71	1.53
81	DA	1908	A	C2'-C1'	-16.44	1.35	1.53
81	DA	2508	U	O4'-C1'	16.43	1.63	1.41
78	CA	1420	C	O4'-C1'	16.41	1.62	1.41
81	DA	1432	C	O4'-C1'	-16.41	1.20	1.41
78	CA	386	G	C2'-C1'	-16.41	1.35	1.53
81	DA	727	G	O4'-C1'	16.40	1.62	1.41
81	DA	3030	G	C2'-C1'	-16.39	1.35	1.53
81	DA	2735	U	C2'-C1'	-16.39	1.35	1.53
78	CA	989	U	C2'-C1'	-16.39	1.35	1.53
81	DA	2131	A	C2'-C1'	-16.38	1.35	1.53
78	CA	120	U	C3'-C2'	16.37	1.71	1.52
78	CA	338	C	C2'-C1'	-16.36	1.35	1.53
81	DA	2277	C	C2'-C1'	-16.36	1.35	1.53
81	DA	384	A	C2'-C1'	-16.35	1.35	1.53
81	DA	2376	G	O4'-C1'	16.35	1.62	1.41
81	DA	2741	C	O4'-C1'	16.31	1.62	1.41
81	DA	2308	C	O4'-C1'	16.31	1.62	1.41
81	DA	109	A	C2'-C1'	-16.29	1.35	1.53
78	CA	1652	C	O4'-C1'	16.29	1.62	1.41
81	DA	2172	A	O3'-P	-16.29	1.41	1.61
78	CA	204	G	C2'-C1'	-16.28	1.35	1.53
61	Bj	8	TYR	C-O	-16.28	0.92	1.23
78	CA	668	C	C2'-C1'	-16.27	1.35	1.53
82	DB	40	A	C2'-C1'	-16.27	1.35	1.53
78	CA	888	U	C2'-C1'	-16.27	1.35	1.53
78	CA	1282	U	C2'-C1'	-16.26	1.35	1.53
83	DC	26	C	O4'-C1'	16.26	1.62	1.41
83	DC	30	G	C2'-C1'	-16.25	1.35	1.53
78	CA	29	U	O4'-C1'	16.24	1.62	1.41
81	DA	2233	A	C2'-C1'	16.23	1.71	1.53
81	DA	3382	U	O4'-C1'	16.23	1.62	1.41
81	DA	180	C	O4'-C1'	16.21	1.62	1.41
78	CA	1564	U	O4'-C1'	16.20	1.62	1.41
81	DA	2101	C	C2'-C1'	-16.20	1.35	1.53
81	DA	742	G	C2'-C1'	16.18	1.71	1.53
81	DA	2254	U	C2'-C1'	16.17	1.71	1.53
81	DA	2721	A	C2'-C1'	-16.16	1.35	1.53
83	DC	3	U	C2'-C1'	16.15	1.71	1.53
78	CA	1111	G	C2'-C1'	-16.14	1.35	1.53
81	DA	1896	A	C2'-C1'	-16.13	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BT	71	ARG	C-O	-16.13	0.92	1.23
39	BJ	76	SER	C-O	-16.13	0.92	1.23
74	BQ	190	ILE	C-O	-16.13	0.92	1.23
81	DA	1895	A	C2'-C1'	16.12	1.71	1.53
81	DA	2297	U	C2'-C1'	-16.12	1.35	1.53
81	DA	1199	C	O4'-C1'	16.11	1.62	1.41
78	CA	1375	A	O4'-C1'	16.10	1.62	1.41
78	CA	1022	C	O4'-C1'	16.09	1.62	1.41
81	DA	220	G	C2'-C1'	16.09	1.71	1.53
81	DA	2074	C	O4'-C1'	16.09	1.62	1.41
78	CA	1209	C	O4'-C1'	16.08	1.62	1.41
81	DA	1978	A	O4'-C1'	16.07	1.62	1.41
78	CA	1386	G	C2'-C1'	16.05	1.71	1.53
81	DA	1711	C	C2'-C1'	-16.05	1.35	1.53
78	CA	312	A	O4'-C1'	16.04	1.62	1.41
78	CA	1192	C	O4'-C1'	16.04	1.62	1.41
81	DA	2506	U	O4'-C1'	16.04	1.62	1.41
35	BG	99	GLU	CA-CB	16.02	1.89	1.53
81	DA	531	G	O4'-C1'	16.02	1.62	1.41
81	DA	3001	C	O4'-C1'	16.01	1.62	1.41
78	CA	427	C	O4'-C1'	16.00	1.62	1.41
81	DA	2760	C	O4'-C1'	15.97	1.62	1.41
81	DA	27	C	O4'-C1'	15.97	1.62	1.41
81	DA	1160	C	O4'-C1'	15.95	1.62	1.41
81	DA	1329	U	O4'-C1'	15.95	1.62	1.41
76	BS	123	ILE	C-O	-15.92	0.93	1.23
78	CA	105	A	C2'-C1'	-15.91	1.35	1.53
12	AK	22	SER	C-O	-15.91	0.93	1.23
81	DA	2394	G	C2'-C1'	-15.91	1.35	1.53
81	DA	2952	G	C2'-C1'	-15.91	1.35	1.53
78	CA	1541	G	O4'-C1'	15.91	1.62	1.41
81	DA	2957	G	C2'-C1'	-15.91	1.35	1.53
81	DA	2491	A	C2'-C1'	-15.89	1.35	1.53
60	Bi	55	SER	C-O	-15.87	0.93	1.23
83	DC	71	C	O4'-C1'	15.86	1.62	1.41
35	BG	38	THR	C-O	-15.86	0.93	1.23
78	CA	1007	C	O4'-C1'	15.86	1.62	1.41
78	CA	1108	G	O4'-C1'	-15.85	1.21	1.41
78	CA	1458	G	C2'-C1'	-15.85	1.35	1.53
81	DA	3099	C	C2'-C1'	-15.85	1.35	1.53
69	Br	47	GLN	C-O	-15.85	0.93	1.23
78	CA	1666	U	C2'-C1'	15.85	1.70	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1943	C	C2'-C1'	-15.85	1.35	1.53
78	CA	1580	C	C2'-C1'	-15.85	1.35	1.53
79	CB	22	G	C2'-C1'	-15.84	1.35	1.53
81	DA	1076	C	O4'-C1'	15.84	1.62	1.41
81	DA	172	G	C2'-C1'	-15.84	1.35	1.53
81	DA	3285	C	O4'-C1'	15.84	1.62	1.41
81	DA	2476	C	O4'-C1'	15.81	1.62	1.41
81	DA	160	G	C2'-C1'	-15.80	1.35	1.53
81	DA	873	C	O4'-C1'	15.79	1.62	1.41
78	CA	1586	A	C2'-C1'	-15.79	1.35	1.53
35	BG	3	ALA	C-O	-15.77	0.93	1.23
78	CA	1300	A	C2'-C1'	15.77	1.70	1.53
81	DA	3223	A	O4'-C1'	15.76	1.62	1.41
81	DA	2677	G	C2'-C1'	15.76	1.70	1.53
81	DA	3018	C	O4'-C1'	15.76	1.62	1.41
78	CA	1752	U	C2'-C1'	-15.75	1.36	1.53
81	DA	2685	C	O4'-C1'	15.75	1.62	1.41
81	DA	1301	A	C2'-C1'	-15.75	1.36	1.53
78	CA	93	A	C2'-C1'	-15.74	1.36	1.53
82	DB	45	C	C2'-C1'	-15.73	1.36	1.53
81	DA	1366	A	C2'-C1'	-15.72	1.36	1.53
81	DA	2744	U	C2'-C1'	-15.72	1.36	1.53
33	BD	12	THR	C-O	-15.72	0.93	1.23
81	DA	962	A	O4'-C1'	-15.71	1.21	1.41
81	DA	1563	C	O4'-C1'	15.71	1.62	1.41
81	DA	3002	C	C2'-C1'	-15.71	1.36	1.53
32	BC	130	PHE	C-O	-15.70	0.93	1.23
38	Bs	72	ASP	C-O	-15.70	0.93	1.23
78	CA	444	C	O4'-C1'	15.69	1.62	1.41
81	DA	608	A	C2'-C1'	-15.68	1.36	1.53
81	DA	2922	G	C2'-C1'	-15.68	1.36	1.53
81	DA	1879	A	O4'-C1'	15.68	1.62	1.41
81	DA	928	C	C2'-C1'	-15.66	1.36	1.53
81	DA	2197	C	O4'-C1'	15.66	1.62	1.41
81	DA	2749	G	C2'-C1'	-15.65	1.36	1.53
33	BD	145	ILE	C-O	-15.65	0.93	1.23
81	DA	2885	C	C2'-C1'	-15.65	1.36	1.53
81	DA	179	C	O4'-C1'	15.64	1.61	1.41
78	CA	1772	C	C2'-C1'	-15.62	1.36	1.53
81	DA	1871	U	P-O5'	-15.61	1.44	1.59
81	DA	848	A	C2'-C1'	-15.60	1.36	1.53
81	DA	406	G	C2'-C1'	15.60	1.70	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1586	A	O3'-P	-15.60	1.42	1.61
44	BO	7	LYS	C-O	-15.59	0.93	1.23
81	DA	1685	C	C2'-C1'	-15.59	1.36	1.53
81	DA	2662	G	C2'-C1'	-15.58	1.36	1.53
81	DA	3004	C	O4'-C1'	15.57	1.61	1.41
78	CA	1585	U	C2'-C1'	15.57	1.70	1.53
81	DA	182	U	C2'-C1'	15.56	1.70	1.53
41	BN	77	ARG	N-CA	-15.55	1.15	1.46
81	DA	1704	A	O4'-C1'	-15.55	1.21	1.41
78	CA	87	C	O4'-C1'	15.54	1.61	1.41
81	DA	295	A	O4'-C1'	15.54	1.61	1.41
81	DA	1014	U	O4'-C1'	15.54	1.61	1.41
4	AD	153	ASN	C-O	-15.54	0.93	1.23
78	CA	287	G	C2'-C1'	-15.53	1.36	1.53
69	Br	89	LYS	C-O	-15.52	0.93	1.23
81	DA	3234	A	C2'-C1'	15.51	1.70	1.53
78	CA	1475	A	O4'-C1'	15.51	1.61	1.41
35	BG	27	PRO	C-O	-15.50	0.92	1.23
78	CA	310	C	O4'-C1'	15.50	1.61	1.41
81	DA	2507	C	O4'-C1'	15.49	1.61	1.41
2	AA	250	VAL	C-O	-15.49	0.94	1.23
81	DA	2624	G	C2'-C1'	-15.49	1.36	1.53
81	DA	386	A	C2'-C1'	-15.49	1.36	1.53
78	CA	1473	U	C2'-C1'	15.47	1.70	1.53
78	CA	658	C	C3'-C2'	-15.47	1.35	1.52
81	DA	2431	C	O4'-C1'	15.47	1.61	1.41
81	DA	2507	C	C2'-C1'	-15.45	1.36	1.53
81	DA	2180	G	C2'-C1'	-15.44	1.36	1.53
78	CA	1616	G	C2'-C1'	-15.44	1.36	1.53
81	DA	3245	A	O4'-C1'	15.43	1.61	1.41
78	CA	1793	G	O4'-C1'	15.42	1.61	1.41
81	DA	2420	C	O4'-C1'	15.41	1.61	1.41
81	DA	2063	U	O4'-C1'	15.40	1.61	1.41
78	CA	571	G	O4'-C1'	15.39	1.61	1.41
81	DA	1366	A	O4'-C1'	15.39	1.61	1.41
81	DA	1625	A	O4'-C1'	15.38	1.61	1.41
47	BU	126	VAL	C-O	-15.37	0.94	1.23
78	CA	1536	G	C2'-C1'	-15.37	1.36	1.53
81	DA	2248	C	O4'-C1'	15.37	1.61	1.41
78	CA	1678	A	C2'-C1'	-15.36	1.36	1.53
81	DA	2465	G	C2'-C1'	-15.36	1.36	1.53
78	CA	1771	U	C2'-C1'	-15.35	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1261	G	O4'-C1'	-15.34	1.21	1.41
81	DA	2074	C	C2'-C1'	-15.33	1.36	1.53
78	CA	1156	C	O4'-C1'	15.33	1.61	1.41
78	CA	415	C	C2'-C1'	15.32	1.70	1.53
78	CA	1123	C	O4'-C1'	15.32	1.61	1.41
81	DA	306	A	C2'-C1'	15.31	1.70	1.53
53	Ba	60	LYS	C-O	-15.30	0.94	1.23
78	CA	1209	C	C2'-C1'	-15.28	1.36	1.53
79	CB	25	U	C2'-C1'	-15.28	1.36	1.53
81	DA	877	C	C2'-C1'	-15.27	1.36	1.53
81	DA	1825	G	C2'-C1'	-15.26	1.36	1.53
81	DA	462	C	O4'-C1'	15.25	1.61	1.41
81	DA	881	C	C2'-C1'	-15.24	1.36	1.53
82	DB	115	C	O4'-C1'	15.24	1.61	1.41
81	DA	959	C	O4'-C1'	15.23	1.61	1.41
78	CA	589	C	C2'-C1'	-15.23	1.36	1.53
81	DA	1128	U	O4'-C1'	15.23	1.61	1.41
81	DA	1711	C	O4'-C1'	15.22	1.61	1.41
81	DA	1831	U	C2'-C1'	15.22	1.70	1.53
81	DA	9	U	O4'-C1'	15.22	1.61	1.41
78	CA	1384	A	O4'-C1'	15.21	1.61	1.41
78	CA	1158	C	O4'-C1'	15.21	1.61	1.41
33	BD	323	VAL	C-O	-15.20	0.94	1.23
81	DA	2316	G	O4'-C1'	15.20	1.61	1.41
81	DA	634	C	C2'-C1'	-15.18	1.36	1.53
81	DA	2353	G	C2'-C1'	-15.18	1.36	1.53
81	DA	2042	G	O4'-C1'	15.17	1.61	1.41
81	DA	517	G	O4'-C1'	15.17	1.61	1.41
81	DA	1943	C	O4'-C1'	15.16	1.61	1.41
78	CA	1476	C	O3'-P	-15.15	1.43	1.61
81	DA	2844	C	O4'-C1'	15.15	1.61	1.41
81	DA	409	A	O4'-C1'	15.14	1.61	1.41
81	DA	694	C	O4'-C1'	15.14	1.61	1.41
33	BD	321	LYS	C-O	-15.13	0.94	1.23
82	DB	61	A	C2'-C1'	-15.13	1.36	1.53
81	DA	1728	G	C2'-C1'	-15.12	1.36	1.53
81	DA	491	C	O4'-C1'	15.11	1.61	1.41
81	DA	1682	U	O4'-C1'	15.11	1.61	1.41
78	CA	1107	G	O4'-C1'	15.11	1.61	1.41
81	DA	2637	A	O4'-C1'	-15.11	1.22	1.41
81	DA	2709	C	O4'-C1'	15.08	1.61	1.41
81	DA	412	G	C2'-C1'	-15.08	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1653	G	C2'-C1'	-15.07	1.36	1.53
78	CA	1192	C	C2'-C1'	-15.07	1.36	1.53
81	DA	2646	C	O4'-C1'	15.06	1.61	1.41
81	DA	2758	A	O4'-C1'	-15.05	1.22	1.41
81	DA	1455	U	C2'-C1'	15.05	1.70	1.53
78	CA	1624	C	O4'-C1'	15.04	1.61	1.41
81	DA	2165	G	O4'-C1'	-15.02	1.22	1.41
81	DA	374	A	O4'-C1'	-15.01	1.22	1.41
78	CA	943	C	C2'-C1'	-15.01	1.36	1.53
81	DA	1571	A	C2'-C1'	14.99	1.69	1.53
81	DA	352	A	C2'-C1'	14.99	1.69	1.53
81	DA	2840	C	C2'-C1'	14.99	1.69	1.53
81	DA	1665	C	O4'-C1'	14.97	1.61	1.41
83	DC	35	C	O4'-C1'	14.97	1.61	1.41
81	DA	1257	C	C2'-C1'	-14.96	1.36	1.53
81	DA	2303	A	C2'-C1'	14.95	1.69	1.53
81	DA	560	G	O4'-C1'	-14.94	1.22	1.41
78	CA	1281	G	C2'-C1'	-14.93	1.36	1.53
81	DA	1429	G	O4'-C1'	14.91	1.61	1.41
78	CA	1477	G	C2'-C1'	-14.91	1.36	1.53
78	CA	1162	C	O4'-C1'	14.87	1.60	1.41
78	CA	831	U	C2'-C1'	14.87	1.69	1.53
81	DA	3313	U	O3'-P	-14.85	1.43	1.61
81	DA	2776	C	O4'-C1'	14.85	1.60	1.41
32	BC	266	ARG	CD-NE	14.84	1.71	1.46
81	DA	55	G	C2'-C1'	-14.84	1.37	1.53
81	DA	1665	C	C2'-C1'	-14.84	1.37	1.53
82	DB	28	C	O4'-C1'	14.83	1.60	1.41
81	DA	3304	U	C4'-O4'	14.82	1.64	1.45
81	DA	2785	A	O4'-C1'	14.82	1.60	1.41
78	CA	943	C	O4'-C1'	14.80	1.60	1.41
81	DA	2606	G	C2'-C1'	14.80	1.69	1.53
78	CA	120	U	O3'-P	14.80	1.78	1.61
78	CA	1336	A	C2'-C1'	-14.80	1.37	1.53
78	CA	1332	C	O4'-C1'	14.79	1.60	1.41
81	DA	846	A	O4'-C1'	14.79	1.60	1.41
81	DA	1627	U	C2'-C1'	14.78	1.69	1.53
78	CA	1679	G	C2'-C1'	-14.78	1.37	1.53
78	CA	151	G	C2'-C1'	-14.77	1.37	1.53
81	DA	2682	C	O4'-C1'	14.76	1.60	1.41
81	DA	1640	G	C2'-C1'	-14.76	1.37	1.53
78	CA	256	A	O4'-C1'	14.75	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
76	BS	15	GLY	N-CA	-14.74	1.24	1.46
78	CA	658	C	C4'-O4'	-14.74	1.26	1.45
81	DA	1295	G	O4'-C1'	14.74	1.60	1.41
81	DA	2108	C	C2'-C1'	-14.74	1.37	1.53
81	DA	1663	C	C2'-C1'	-14.74	1.37	1.53
78	CA	583	C	C2'-C1'	-14.72	1.37	1.53
81	DA	871	U	C2'-C1'	-14.71	1.37	1.53
81	DA	1424	C	O4'-C1'	14.71	1.60	1.41
81	DA	2798	C	C2'-C1'	-14.71	1.37	1.53
78	CA	323	A	C2'-C1'	14.70	1.69	1.53
78	CA	1375	A	C2'-C1'	-14.68	1.37	1.53
81	DA	2149	A	C2'-C1'	14.68	1.69	1.53
78	CA	1548	G	O4'-C1'	-14.67	1.22	1.41
81	DA	3041	U	C2'-C1'	-14.67	1.37	1.53
78	CA	404	G	C2'-C1'	-14.66	1.37	1.53
81	DA	2422	C	C2'-C1'	-14.66	1.37	1.53
78	CA	1762	A	O4'-C1'	14.66	1.60	1.41
78	CA	1310	U	C3'-C2'	-14.66	1.36	1.52
81	DA	972	A	C2'-C1'	-14.66	1.37	1.53
81	DA	2837	A	C2'-C1'	14.65	1.69	1.53
81	DA	202	G	C2'-C1'	-14.63	1.37	1.53
83	DC	47	C	P-O5'	-14.62	1.45	1.59
81	DA	788	C	O4'-C1'	14.62	1.60	1.41
81	DA	193	C	O4'-C1'	14.61	1.60	1.41
78	CA	39	A	C2'-C1'	-14.61	1.37	1.53
81	DA	836	A	O4'-C1'	14.61	1.60	1.41
81	DA	877	C	O4'-C1'	14.61	1.60	1.41
81	DA	2489	C	O4'-C1'	14.61	1.60	1.41
78	CA	832	U	C2'-C1'	-14.60	1.37	1.53
81	DA	1422	G	C2'-C1'	-14.60	1.37	1.53
81	DA	3050	U	O4'-C1'	14.60	1.60	1.41
78	CA	1528	U	C2'-C1'	14.58	1.69	1.53
82	DB	108	C	O4'-C1'	14.57	1.60	1.41
81	DA	3296	A	O4'-C1'	14.57	1.60	1.41
81	DA	2013	C	O4'-C1'	14.56	1.60	1.41
81	DA	2332	A	C2'-C1'	-14.56	1.37	1.53
81	DA	1725	C	O4'-C1'	14.56	1.60	1.41
81	DA	562	C	O4'-C1'	14.55	1.60	1.41
81	DA	1673	G	C2'-C1'	-14.55	1.37	1.53
81	DA	104	G	O4'-C1'	-14.54	1.22	1.41
81	DA	725	G	C2'-C1'	-14.53	1.37	1.53
81	DA	2187	G	O4'-C1'	-14.53	1.22	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	988	A	O4'-C1'	14.51	1.60	1.41
81	DA	3334	U	C2'-C1'	14.51	1.69	1.53
82	DB	21	C	O4'-C1'	14.51	1.60	1.41
78	CA	1228	G	C2'-C1'	-14.50	1.37	1.53
78	CA	1783	C	O4'-C1'	14.49	1.60	1.41
78	CA	554	C	O4'-C1'	14.49	1.60	1.41
81	DA	2684	C	O4'-C1'	14.47	1.60	1.41
81	DA	2893	C	C2'-C1'	-14.47	1.37	1.53
81	DA	3258	U	C2'-C1'	14.47	1.69	1.53
81	DA	1396	C	C2'-C1'	-14.47	1.37	1.53
78	CA	1751	C	O4'-C1'	14.46	1.60	1.41
78	CA	571	G	C2'-C1'	-14.45	1.37	1.53
81	DA	3099	C	O4'-C1'	14.44	1.60	1.41
81	DA	1531	C	O4'-C1'	14.44	1.60	1.41
78	CA	1028	C	O4'-C1'	14.43	1.60	1.41
82	DB	56	G	C2'-C1'	-14.43	1.37	1.53
81	DA	33	G	C2'-C1'	-14.43	1.37	1.53
78	CA	826	U	C2'-C1'	-14.42	1.37	1.53
81	DA	3162	C	C2'-C1'	-14.42	1.37	1.53
81	DA	2100	A	O4'-C1'	14.41	1.60	1.41
78	CA	890	C	O4'-C1'	14.40	1.60	1.41
79	CB	36	C	O4'-C1'	14.39	1.60	1.41
81	DA	3089	C	O4'-C1'	14.39	1.60	1.41
81	DA	111	C	C2'-C1'	-14.39	1.37	1.53
78	CA	1341	A	C2'-C1'	14.38	1.69	1.53
81	DA	2857	C	C2'-C1'	-14.38	1.37	1.53
82	DB	91	C	C2'-C1'	14.38	1.69	1.53
78	CA	572	C	O4'-C1'	14.37	1.60	1.41
81	DA	658	G	C2'-C1'	-14.37	1.37	1.53
78	CA	297	U	O4'-C1'	14.37	1.60	1.41
81	DA	2963	C	C2'-C1'	-14.34	1.37	1.53
45	BR	14	GLY	N-CA	-14.33	1.24	1.46
81	DA	74	G	C2'-C1'	-14.32	1.37	1.53
81	DA	3005	A	C2'-C1'	14.32	1.69	1.53
78	CA	849	C	O4'-C1'	14.32	1.60	1.41
81	DA	924	G	O4'-C1'	14.31	1.60	1.41
78	CA	1674	C	C2'-C1'	-14.30	1.37	1.53
44	BO	8	THR	C-O	-14.30	0.96	1.23
83	DC	14	U	O4'-C1'	14.30	1.60	1.41
81	DA	1000	C	O4'-C1'	14.30	1.60	1.41
83	DC	107	G	C2'-C1'	14.29	1.69	1.53
81	DA	2099	A	O3'-P	-14.28	1.44	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	750	G	C2'-C1'	-14.27	1.37	1.53
78	CA	1355	C	O4'-C1'	14.27	1.60	1.41
81	DA	1674	G	C2'-C1'	-14.27	1.37	1.53
2	AA	11	PRO	N-CD	14.26	1.67	1.47
10	AI	54	LEU	C-O	-14.26	0.96	1.23
82	DB	52	A	O4'-C1'	14.26	1.60	1.41
81	DA	656	A	O4'-C1'	14.25	1.60	1.41
81	DA	3165	A	O4'-C1'	14.25	1.60	1.41
81	DA	1142	G	C2'-C1'	-14.21	1.37	1.53
81	DA	2073	A	O4'-C1'	14.21	1.60	1.41
81	DA	2235	C	O4'-C1'	14.20	1.60	1.41
81	DA	1397	C	C2'-C1'	-14.19	1.37	1.53
81	DA	3254	G	O4'-C1'	14.19	1.60	1.41
81	DA	2385	G	C2'-C1'	-14.18	1.37	1.53
78	CA	1607	G	O4'-C1'	14.18	1.60	1.41
81	DA	1896	A	O4'-C1'	14.18	1.60	1.41
81	DA	1162	U	O4'-C1'	14.17	1.60	1.41
81	DA	2177	G	C2'-C1'	-14.17	1.37	1.53
78	CA	314	C	O4'-C1'	14.17	1.60	1.41
78	CA	268	C	C2'-C1'	-14.16	1.37	1.53
81	DA	598	A	C2'-C1'	-14.15	1.37	1.53
81	DA	1742	U	O4'-C1'	14.15	1.60	1.41
81	DA	521	A	O4'-C1'	-14.14	1.23	1.41
81	DA	1639	C	O4'-C1'	14.13	1.60	1.41
81	DA	3384	U	C2'-C1'	-14.13	1.37	1.53
81	DA	2363	A	O4'-C1'	-14.12	1.23	1.41
82	DB	107	G	C2'-C1'	-14.12	1.37	1.53
81	DA	1292	C	O4'-C1'	14.12	1.60	1.41
81	DA	2728	G	C2'-C1'	-14.12	1.37	1.53
81	DA	2345	A	C2'-C1'	-14.10	1.37	1.53
78	CA	297	U	C2'-C1'	-14.10	1.37	1.53
81	DA	2644	C	C2'-C1'	14.10	1.68	1.53
81	DA	2724	U	O4'-C1'	14.10	1.59	1.41
81	DA	2042	G	C2'-C1'	-14.09	1.37	1.53
81	DA	1879	A	C2'-C1'	-14.09	1.37	1.53
78	CA	621	A	C2'-C1'	14.09	1.68	1.53
81	DA	2141	U	O4'-C1'	14.09	1.59	1.41
81	DA	678	G	C2'-C1'	-14.09	1.37	1.53
83	DC	104	C	C2'-C1'	-14.09	1.37	1.53
81	DA	3282	U	O4'-C1'	14.07	1.59	1.41
81	DA	2634	U	O4'-C1'	14.06	1.59	1.41
81	DA	2693	C	O4'-C1'	14.06	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2730	G	C2'-C1'	-14.06	1.37	1.53
78	CA	252	U	C2'-C1'	14.05	1.68	1.53
78	CA	1384	A	C2'-C1'	-14.04	1.38	1.53
79	CB	72	G	O4'-C1'	-14.04	1.23	1.41
81	DA	3305	A	O3'-P	-14.04	1.44	1.61
81	DA	198	A	O4'-C1'	14.04	1.59	1.41
81	DA	299	G	C2'-C1'	-14.04	1.38	1.53
78	CA	1406	A	C2'-C1'	-14.02	1.38	1.53
81	DA	637	C	C2'-C1'	-14.02	1.38	1.53
45	BR	13	SER	CA-CB	14.01	1.74	1.52
81	DA	332	C	O4'-C1'	14.01	1.59	1.41
78	CA	235	G	C2'-C1'	-14.01	1.38	1.53
81	DA	436	A	O4'-C1'	14.00	1.59	1.41
81	DA	2737	C	O4'-C1'	13.99	1.59	1.41
81	DA	1055	A	O4'-C1'	13.97	1.59	1.41
78	CA	615	A	O4'-C1'	13.97	1.59	1.41
81	DA	3013	U	C2'-C1'	-13.97	1.38	1.53
79	CB	28	G	C2'-C1'	-13.97	1.38	1.53
81	DA	774	G	O4'-C1'	13.96	1.59	1.41
78	CA	1764	C	O4'-C1'	13.95	1.59	1.41
81	DA	3240	C	O4'-C1'	13.95	1.59	1.41
81	DA	3000	A	O4'-C1'	13.94	1.59	1.41
82	DB	39	G	C2'-C1'	13.93	1.68	1.53
81	DA	1169	A	C2'-C1'	-13.92	1.38	1.53
81	DA	3072	C	C2'-C1'	-13.92	1.38	1.53
81	DA	3311	C	C2'-C1'	-13.92	1.38	1.53
79	CB	45	G	C2'-C1'	-13.91	1.38	1.53
81	DA	2378	C	O4'-C1'	13.91	1.59	1.41
78	CA	346	G	O4'-C1'	13.91	1.59	1.41
81	DA	2873	U	O4'-C1'	13.91	1.59	1.41
78	CA	1441	C	O4'-C1'	13.90	1.59	1.41
81	DA	3036	G	O4'-C1'	13.90	1.59	1.41
81	DA	49	A	C2'-C1'	13.90	1.68	1.53
81	DA	2876	C	C2'-C1'	-13.90	1.38	1.53
81	DA	3352	U	C2'-C1'	-13.90	1.38	1.53
81	DA	1977	C	O4'-C1'	13.89	1.59	1.41
81	DA	2372	A	O4'-C1'	13.88	1.59	1.41
78	CA	1090	C	O4'-C1'	13.88	1.59	1.41
78	CA	314	C	C2'-C1'	-13.87	1.38	1.53
81	DA	3036	G	C2'-C1'	-13.87	1.38	1.53
81	DA	720	A	C2'-C1'	13.87	1.68	1.53
81	DA	989	A	C2'-C1'	13.87	1.68	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3365	U	O4'-C1'	13.87	1.59	1.41
78	CA	1417	A	O4'-C1'	13.85	1.59	1.41
81	DA	1420	C	O4'-C1'	13.85	1.59	1.41
81	DA	2279	A	C2'-C1'	-13.84	1.38	1.53
81	DA	2863	G	C2'-C1'	-13.84	1.38	1.53
81	DA	2511	A	C2'-C1'	-13.84	1.38	1.53
78	CA	394	C	O4'-C1'	13.82	1.59	1.41
81	DA	3312	U	C2'-C1'	-13.82	1.38	1.53
78	CA	1188	G	C2'-C1'	-13.82	1.38	1.53
81	DA	1919	G	C2'-C1'	-13.82	1.38	1.53
81	DA	1251	A	C2'-C1'	-13.81	1.38	1.53
81	DA	183	G	C2'-C1'	-13.81	1.38	1.53
78	CA	1210	C	O4'-C1'	13.80	1.59	1.41
17	AQ	82	ASP	C-O	-13.79	0.97	1.23
78	CA	435	C	O4'-C1'	13.79	1.59	1.41
81	DA	1483	G	C2'-C1'	13.79	1.68	1.53
74	BQ	129	TYR	C-O	-13.79	0.97	1.23
81	DA	671	U	C4'-C3'	13.77	1.68	1.53
43	BP	13	LYS	C-O	-13.77	0.97	1.23
78	CA	233	C	O4'-C1'	13.76	1.59	1.41
5	AC	18	PRO	C-O	-13.76	0.95	1.23
81	DA	874	U	C2'-C1'	-13.76	1.38	1.53
81	DA	2131	A	O4'-C1'	13.76	1.59	1.41
81	DA	548	G	C2'-C1'	-13.76	1.38	1.53
81	DA	702	C	C2'-C1'	-13.75	1.38	1.53
81	DA	1060	U	O4'-C1'	13.75	1.59	1.41
81	DA	761	A	O4'-C1'	13.74	1.59	1.41
81	DA	2708	C	C2'-C1'	-13.74	1.38	1.53
81	DA	1508	C	O4'-C1'	13.73	1.59	1.41
82	DB	148	G	C2'-C1'	-13.73	1.38	1.53
81	DA	109	A	O4'-C1'	13.73	1.59	1.41
78	CA	1391	A	C2'-C1'	-13.73	1.38	1.53
81	DA	54	C	C2'-C1'	-13.71	1.38	1.53
81	DA	2416	U	C2'-C1'	-13.70	1.38	1.53
82	DB	106	C	O4'-C1'	13.71	1.59	1.41
81	DA	103	G	O4'-C1'	13.70	1.59	1.41
5	AC	23	ARG	CZ-NH2	-13.70	1.15	1.33
78	CA	1746	A	O4'-C1'	13.70	1.59	1.41
78	CA	1705	C	O4'-C1'	13.70	1.59	1.41
81	DA	1916	U	C2'-C1'	-13.69	1.38	1.53
81	DA	1633	C	C2'-C1'	-13.69	1.38	1.53
78	CA	269	G	C2'-C1'	-13.69	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3022	G	C2'-C1'	-13.68	1.38	1.53
78	CA	681	U	C2'-C1'	13.68	1.68	1.53
78	CA	1733	C	O4'-C1'	13.67	1.59	1.41
78	CA	1452	U	O4'-C1'	13.67	1.59	1.41
81	DA	1679	A	O4'-C1'	13.67	1.59	1.41
78	CA	175	G	C2'-C1'	-13.66	1.38	1.53
81	DA	274	G	C2'-C1'	-13.66	1.38	1.53
81	DA	251	G	O4'-C1'	13.66	1.59	1.41
81	DA	862	U	C2'-C1'	-13.66	1.38	1.53
81	DA	624	G	C2'-C1'	-13.66	1.38	1.53
79	CB	36	C	C2'-C1'	-13.66	1.38	1.53
81	DA	1227	C	C2'-C1'	-13.65	1.38	1.53
82	DB	94	C	O4'-C1'	13.65	1.59	1.41
82	DB	102	U	C2'-C1'	-13.64	1.38	1.53
81	DA	3244	A	O4'-C1'	13.64	1.59	1.41
81	DA	2657	A	O4'-C1'	13.63	1.59	1.41
81	DA	2710	C	O4'-C1'	13.63	1.59	1.41
78	CA	160	C	O4'-C1'	13.62	1.59	1.41
78	CA	1237	G	O4'-C1'	13.62	1.59	1.41
81	DA	2209	U	C2'-C1'	-13.62	1.38	1.53
78	CA	1563	C	C2'-C1'	-13.61	1.38	1.53
81	DA	3072	C	O4'-C1'	13.61	1.59	1.41
74	BQ	129	TYR	N-CA	13.60	1.73	1.46
81	DA	1145	G	C2'-C1'	-13.60	1.38	1.53
78	CA	1643	U	C2'-C1'	13.60	1.68	1.53
81	DA	1978	A	C2'-C1'	-13.60	1.38	1.53
81	DA	580	C	O4'-C1'	13.60	1.59	1.41
81	DA	2711	C	O4'-C1'	13.58	1.59	1.41
81	DA	2665	U	C2'-C1'	13.58	1.68	1.53
81	DA	3391	A	O4'-C1'	13.57	1.59	1.41
59	Bh	20	HIS	C-O	-13.56	0.97	1.23
78	CA	1589	C	O4'-C1'	13.56	1.59	1.41
81	DA	2774	C	C2'-C1'	-13.56	1.38	1.53
78	CA	1267	G	C2'-C1'	-13.56	1.38	1.53
78	CA	68	A	C2'-C1'	-13.55	1.38	1.53
78	CA	690	G	C2'-C1'	-13.55	1.38	1.53
81	DA	2904	U	O4'-C1'	13.54	1.59	1.41
78	CA	818	C	O4'-C1'	13.54	1.59	1.41
81	DA	2050	C	O4'-C1'	13.54	1.59	1.41
78	CA	662	U	O4'-C1'	13.53	1.59	1.41
81	DA	3146	G	C2'-C1'	-13.53	1.38	1.53
78	CA	679	U	C2'-C1'	13.52	1.68	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	948	C	O4'-C1'	13.52	1.59	1.41
81	DA	1403	C	O4'-C1'	13.52	1.59	1.41
83	DC	113	C	O4'-C1'	13.52	1.59	1.41
78	CA	1625	C	O4'-C1'	13.51	1.59	1.41
81	DA	2475	G	O4'-C1'	13.51	1.59	1.41
81	DA	3299	A	O4'-C1'	-13.51	1.24	1.41
78	CA	1569	A	C2'-C1'	-13.50	1.38	1.53
78	CA	1478	G	O4'-C1'	-13.49	1.24	1.41
81	DA	2118	C	O4'-C1'	13.49	1.59	1.41
81	DA	957	C	O4'-C1'	13.49	1.59	1.41
81	DA	290	G	C2'-C1'	-13.48	1.38	1.53
81	DA	1208	U	C2'-C1'	13.48	1.68	1.53
44	BO	73	LEU	C-N	-13.48	1.03	1.34
78	CA	597	G	C2'-C1'	-13.47	1.38	1.53
81	DA	2520	A	C2'-C1'	13.47	1.68	1.53
81	DA	752	C	C2'-C1'	-13.47	1.38	1.53
81	DA	259	C	O4'-C1'	13.46	1.59	1.41
81	DA	1690	C	C2'-C1'	-13.46	1.38	1.53
81	DA	2901	G	C2'-C1'	-13.46	1.38	1.53
81	DA	2809	C	C2'-C1'	-13.45	1.38	1.53
78	CA	1379	C	O4'-C1'	13.45	1.59	1.41
81	DA	2491	A	O4'-C1'	13.45	1.59	1.41
78	CA	434	G	C2'-C1'	13.44	1.68	1.53
81	DA	1040	A	O4'-C1'	13.44	1.59	1.41
49	BV	152	GLU	C-O	-13.43	0.97	1.23
78	CA	1120	U	O4'-C1'	13.43	1.59	1.41
81	DA	2646	C	C2'-C1'	-13.43	1.38	1.53
81	DA	2462	A	O4'-C1'	13.43	1.59	1.41
81	DA	1869	C	O4'-C1'	13.42	1.59	1.41
78	CA	1007	C	C2'-C1'	-13.42	1.38	1.53
81	DA	1332	A	C2'-C1'	-13.42	1.38	1.53
81	DA	1496	C	O4'-C1'	13.42	1.59	1.41
81	DA	2295	A	C2'-C1'	-13.42	1.38	1.53
81	DA	2700	G	C2'-C1'	-13.41	1.38	1.53
78	CA	346	G	C2'-C1'	-13.41	1.38	1.53
78	CA	1280	C	O4'-C1'	13.40	1.59	1.41
81	DA	3337	G	C2'-C1'	-13.40	1.38	1.53
81	DA	2462	A	C2'-C1'	-13.40	1.38	1.53
78	CA	1623	C	O4'-C1'	13.39	1.59	1.41
81	DA	1660	C	O4'-C1'	13.39	1.59	1.41
81	DA	1660	C	C2'-C1'	-13.39	1.38	1.53
81	DA	3082	C	O4'-C1'	13.39	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1358	C	O4'-C1'	13.39	1.59	1.41
81	DA	1426	C	O3'-P	-13.38	1.45	1.61
81	DA	3298	C	C2'-C1'	-13.38	1.38	1.53
81	DA	1664	G	C2'-C1'	-13.38	1.38	1.53
33	BD	296	GLN	N-CA	13.37	1.73	1.46
81	DA	3285	C	C2'-C1'	-13.37	1.38	1.53
81	DA	2146	C	O4'-C1'	13.37	1.59	1.41
81	DA	3256	G	C2'-C1'	-13.36	1.38	1.53
81	DA	2874	G	C2'-C1'	-13.36	1.38	1.53
81	DA	1551	C	C2'-C1'	-13.36	1.38	1.53
78	CA	1677	C	O4'-C1'	13.36	1.59	1.41
81	DA	1624	G	O4'-C1'	13.35	1.59	1.41
81	DA	454	C	O4'-C1'	13.35	1.59	1.41
81	DA	1015	U	C2'-C1'	13.35	1.68	1.53
78	CA	1374	C	O4'-C1'	13.35	1.58	1.41
78	CA	32	U	C2'-C1'	13.34	1.68	1.53
78	CA	164	A	C2'-C1'	-13.34	1.38	1.53
78	CA	617	U	O4'-C1'	13.33	1.58	1.41
81	DA	405	U	C2'-C1'	-13.33	1.38	1.53
81	DA	2755	C	O4'-C1'	13.33	1.58	1.41
81	DA	2881	C	O4'-C1'	13.32	1.58	1.41
81	DA	360	G	C2'-C1'	-13.32	1.38	1.53
81	DA	1916	U	O4'-C1'	13.32	1.58	1.41
81	DA	1085	A	C2'-C1'	-13.32	1.38	1.53
81	DA	175	C	O4'-C1'	13.32	1.58	1.41
81	DA	3018	C	C2'-C1'	-13.31	1.38	1.53
78	CA	1436	A	O4'-C1'	13.31	1.58	1.41
80	CC	17	A	O4'-C1'	13.31	1.58	1.41
81	DA	2763	U	C2'-C1'	13.31	1.68	1.53
81	DA	1221	A	C2'-C1'	13.30	1.68	1.53
81	DA	1689	U	O4'-C1'	-13.30	1.24	1.41
81	DA	3371	G	C2'-C1'	-13.30	1.38	1.53
78	CA	1610	G	C2'-C1'	-13.28	1.38	1.53
81	DA	1139	G	C2'-C1'	-13.28	1.38	1.53
78	CA	1702	A	O4'-C1'	-13.27	1.24	1.41
81	DA	1525	G	O4'-C1'	13.27	1.58	1.41
81	DA	15	C	O4'-C1'	13.26	1.58	1.41
81	DA	566	G	C2'-C1'	-13.26	1.38	1.53
78	CA	181	A	O4'-C1'	13.25	1.58	1.41
78	CA	1564	U	C2'-C1'	-13.25	1.38	1.53
78	CA	338	C	O4'-C1'	13.25	1.58	1.41
79	CB	64	G	C2'-C1'	-13.24	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	361	C	O4'-C1'	13.24	1.58	1.41
81	DA	556	U	C2'-C1'	-13.24	1.38	1.53
81	DA	973	A	C2'-C1'	-13.24	1.38	1.53
81	DA	1847	A	C2'-C1'	13.24	1.68	1.53
78	CA	138	A	O4'-C1'	-13.23	1.24	1.41
81	DA	863	C	O4'-C1'	13.22	1.58	1.41
82	DB	118	C	O4'-C1'	13.21	1.58	1.41
78	CA	1478	G	P-O5'	-13.21	1.46	1.59
33	BD	349	THR	C-O	-13.20	0.98	1.23
81	DA	1870	C	C3'-O3'	13.20	1.60	1.42
81	DA	2337	C	O4'-C1'	13.20	1.58	1.41
78	CA	830	U	O4'-C1'	13.19	1.58	1.41
82	DB	59	A	C2'-C1'	-13.19	1.38	1.53
81	DA	1199	C	C2'-C1'	-13.19	1.38	1.53
34	BE	89	TYR	CA-CB	13.19	1.82	1.53
78	CA	1627	U	O4'-C1'	13.18	1.58	1.41
81	DA	513	G	C2'-C1'	-13.18	1.38	1.53
81	DA	2798	C	O4'-C1'	13.18	1.58	1.41
78	CA	606	A	C2'-C1'	-13.18	1.38	1.53
81	DA	419	G	O4'-C1'	-13.18	1.24	1.41
81	DA	3236	U	O4'-C1'	13.18	1.58	1.41
81	DA	2031	U	C2'-C1'	-13.18	1.38	1.53
81	DA	2821	C	O4'-C1'	13.18	1.58	1.41
83	DC	67	C	O4'-C1'	13.17	1.58	1.41
78	CA	632	U	O4'-C1'	13.16	1.58	1.41
78	CA	1721	A	O4'-C1'	13.16	1.58	1.41
81	DA	1572	U	C2'-C1'	-13.16	1.38	1.53
81	DA	968	G	C2'-C1'	-13.16	1.38	1.53
81	DA	1679	A	C2'-C1'	-13.16	1.38	1.53
81	DA	1917	C	O4'-C1'	13.16	1.58	1.41
81	DA	2616	C	O4'-C1'	13.15	1.58	1.41
78	CA	623	A	C2'-C1'	13.14	1.67	1.53
78	CA	1348	A	O4'-C1'	13.13	1.58	1.41
81	DA	2638	C	C2'-C1'	-13.13	1.39	1.53
81	DA	526	C	C2'-C1'	-13.11	1.39	1.53
78	CA	956	C	O4'-C1'	13.11	1.58	1.41
74	BQ	111	GLN	C-O	-13.11	0.98	1.23
79	CB	43	C	C2'-C1'	-13.11	1.39	1.53
81	DA	180	C	C2'-C1'	-13.11	1.39	1.53
81	DA	260	C	O4'-C1'	13.11	1.58	1.41
82	DB	113	U	C2'-C1'	-13.10	1.39	1.53
81	DA	2008	G	C2'-C1'	-13.10	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	317	A	O4'-C1'	13.09	1.58	1.41
81	DA	881	C	O4'-C1'	13.09	1.58	1.41
81	DA	2439	A	C2'-C1'	-13.09	1.39	1.53
81	DA	3295	A	C2'-C1'	-13.09	1.39	1.53
82	DB	98	U	P-O5'	-13.09	1.46	1.59
81	DA	2130	G	C2'-C1'	13.08	1.67	1.53
81	DA	1976	G	O4'-C1'	-13.08	1.24	1.41
81	DA	3393	U	C2'-C1'	-13.07	1.39	1.53
81	DA	113	C	O4'-C1'	13.06	1.58	1.41
82	DB	56	G	O4'-C1'	13.06	1.58	1.41
81	DA	2136	C	O4'-C1'	13.05	1.58	1.41
81	DA	2864	A	C2'-C1'	-13.05	1.39	1.53
81	DA	726	G	C2'-C1'	-13.05	1.39	1.53
81	DA	962	A	C2'-C1'	13.04	1.67	1.53
81	DA	419	G	C2'-C1'	13.04	1.67	1.53
78	CA	291	G	C2'-C1'	-13.04	1.39	1.53
81	DA	2801	A	O4'-C1'	-13.04	1.24	1.41
81	DA	1192	C	O4'-C1'	13.03	1.58	1.41
81	DA	1649	U	C2'-C1'	13.03	1.67	1.53
81	DA	775	A	C2'-C1'	-13.03	1.39	1.53
78	CA	583	C	O4'-C1'	13.02	1.58	1.41
81	DA	3303	G	C2'-C1'	-13.01	1.39	1.53
82	DB	38	U	O4'-C1'	13.01	1.58	1.41
81	DA	571	U	C2'-C1'	-13.01	1.39	1.53
81	DA	2857	C	O4'-C1'	13.01	1.58	1.41
81	DA	3312	U	O4'-C1'	13.01	1.58	1.41
78	CA	276	C	O4'-C1'	13.00	1.58	1.41
81	DA	1069	C	O4'-C1'	13.00	1.58	1.41
6	AE	92	ALA	CA-CB	12.99	1.79	1.52
34	BE	52	TYR	CB-CG	12.99	1.71	1.51
81	DA	1078	U	C2'-C1'	12.99	1.67	1.53
81	DA	2072	G	O4'-C1'	-12.97	1.24	1.41
81	DA	2608	G	C2'-C1'	-12.97	1.39	1.53
81	DA	1991	G	O4'-C1'	-12.97	1.24	1.41
81	DA	93	C	O4'-C1'	12.97	1.58	1.41
81	DA	2594	C	C2'-C1'	-12.96	1.39	1.53
78	CA	51	A	O4'-C1'	12.95	1.58	1.41
81	DA	949	C	O4'-C1'	12.95	1.58	1.41
78	CA	143	G	C2'-C1'	-12.95	1.39	1.53
81	DA	261	U	C2'-C1'	-12.95	1.39	1.53
81	DA	1940	G	O4'-C1'	12.95	1.58	1.41
78	CA	61	A	O4'-C1'	12.94	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	326	G	C4'-C3'	-12.94	1.39	1.53
81	DA	2236	G	C2'-C1'	-12.94	1.39	1.53
78	CA	922	G	C2'-C1'	-12.94	1.39	1.53
78	CA	980	G	C2'-C1'	-12.93	1.39	1.53
81	DA	2035	G	C2'-C1'	-12.93	1.39	1.53
82	DB	9	A	C2'-C1'	-12.92	1.39	1.53
78	CA	1606	C	O4'-C1'	12.92	1.58	1.41
81	DA	220	G	O4'-C1'	-12.91	1.24	1.41
82	DB	117	C	O4'-C1'	12.91	1.58	1.41
81	DA	808	A	C2'-C1'	-12.91	1.39	1.53
78	CA	99	C	O4'-C1'	12.90	1.58	1.41
81	DA	2496	C	O4'-C1'	12.90	1.58	1.41
82	DB	95	G	O4'-C1'	12.90	1.58	1.41
78	CA	826	U	O4'-C1'	12.90	1.58	1.41
81	DA	3326	G	O4'-C1'	12.89	1.58	1.41
81	DA	2272	G	O4'-C1'	-12.88	1.25	1.41
81	DA	1191	U	O4'-C1'	12.88	1.58	1.41
83	DC	103	U	O4'-C1'	12.87	1.58	1.41
81	DA	435	C	O4'-C1'	12.87	1.58	1.41
81	DA	3063	C	C2'-C1'	-12.87	1.39	1.53
78	CA	268	C	O4'-C1'	12.86	1.58	1.41
81	DA	2858	U	C2'-C1'	-12.86	1.39	1.53
78	CA	1048	G	C2'-C1'	-12.86	1.39	1.53
81	DA	1839	A	C2'-C1'	-12.85	1.39	1.53
78	CA	890	C	C2'-C1'	-12.85	1.39	1.53
81	DA	2417	U	C2'-C1'	-12.85	1.39	1.53
81	DA	3096	C	O4'-C1'	12.85	1.58	1.41
81	DA	3229	G	C2'-C1'	-12.84	1.39	1.53
78	CA	1282	U	O4'-C1'	12.84	1.58	1.41
81	DA	1827	C	O4'-C1'	12.84	1.58	1.41
78	CA	1632	C	O4'-C1'	12.83	1.58	1.41
78	CA	196	G	O4'-C1'	12.83	1.58	1.41
81	DA	648	C	O4'-C1'	12.83	1.58	1.41
81	DA	845	G	O4'-C1'	-12.83	1.25	1.41
81	DA	3223	A	C2'-C1'	-12.82	1.39	1.53
81	DA	2825	C	O4'-C1'	12.82	1.58	1.41
81	DA	558	U	C2'-C1'	-12.81	1.39	1.53
81	DA	2720	G	C2'-C1'	-12.80	1.39	1.53
78	CA	1549	C	O4'-C1'	12.80	1.58	1.41
81	DA	1701	C	O4'-C1'	12.80	1.58	1.41
81	DA	2893	C	O4'-C1'	12.80	1.58	1.41
78	CA	179	A	C2'-C1'	12.79	1.67	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	851	C	O4'-C1'	12.79	1.58	1.41
81	DA	1414	G	C2'-C1'	12.79	1.67	1.53
78	CA	1787	C	O4'-C1'	12.79	1.58	1.41
79	CB	23	A	C2'-C1'	-12.79	1.39	1.53
61	Bj	66	VAL	CB-CG2	12.78	1.79	1.52
81	DA	799	G	C2'-C1'	-12.78	1.39	1.53
81	DA	1340	G	C2'-C1'	-12.78	1.39	1.53
81	DA	1832	C	C2'-C1'	-12.78	1.39	1.53
81	DA	1897	G	C2'-C1'	-12.78	1.39	1.53
78	CA	449	C	O4'-C1'	12.78	1.58	1.41
81	DA	2681	U	O4'-C1'	12.77	1.58	1.41
78	CA	1034	C	O4'-C1'	12.77	1.58	1.41
81	DA	3148	U	O4'-C1'	12.77	1.58	1.41
81	DA	1592	G	C2'-C1'	-12.77	1.39	1.53
81	DA	3052	G	O4'-C1'	12.77	1.58	1.41
81	DA	2118	C	C2'-C1'	-12.77	1.39	1.53
51	BZ	60	LYS	C-O	-12.76	0.99	1.23
78	CA	190	C	O4'-C1'	12.75	1.58	1.41
78	CA	877	G	C2'-C1'	-12.73	1.39	1.53
79	CB	75	A	C2'-C1'	12.73	1.67	1.53
37	BH	129	PRO	N-CD	12.73	1.65	1.47
81	DA	535	G	C2'-C1'	-12.73	1.39	1.53
81	DA	2059	U	O4'-C1'	12.73	1.58	1.41
81	DA	887	G	C2'-C1'	-12.72	1.39	1.53
83	DC	117	C	O4'-C1'	12.72	1.58	1.41
81	DA	2466	G	C2'-C1'	-12.72	1.39	1.53
81	DA	847	A	C2'-C1'	-12.72	1.39	1.53
81	DA	1049	C	O4'-C1'	12.72	1.58	1.41
78	CA	110	U	O4'-C1'	12.71	1.58	1.41
81	DA	900	G	C2'-C1'	-12.71	1.39	1.53
81	DA	1791	C	C2'-C1'	-12.71	1.39	1.53
81	DA	959	C	C2'-C1'	-12.69	1.39	1.53
29	AU	70	VAL	CB-CG1	12.69	1.79	1.52
81	DA	1059	G	O4'-C1'	12.69	1.58	1.41
81	DA	1086	C	O4'-C1'	12.69	1.58	1.41
78	CA	1148	C	O4'-C1'	12.69	1.58	1.41
81	DA	1870	C	C3'-C2'	-12.68	1.38	1.52
81	DA	2648	G	O4'-C1'	-12.68	1.25	1.41
78	CA	457	G	C2'-C1'	-12.68	1.39	1.53
82	DB	119	C	O4'-C1'	12.68	1.58	1.41
81	DA	1017	C	O4'-C1'	12.68	1.58	1.41
81	DA	2277	C	O4'-C1'	12.68	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2726	C	O4'-C1'	12.67	1.58	1.41
81	DA	1650	G	C2'-C1'	-12.66	1.39	1.53
81	DA	1209	G	O4'-C1'	-12.65	1.25	1.41
81	DA	2032	U	C2'-C1'	-12.65	1.39	1.53
78	CA	872	G	C2'-C1'	-12.65	1.39	1.53
81	DA	3048	A	O4'-C1'	12.65	1.58	1.41
83	DC	114	A	C2'-C1'	-12.65	1.39	1.53
78	CA	1149	G	O4'-C1'	12.64	1.58	1.41
81	DA	496	C	O4'-C1'	12.64	1.58	1.41
81	DA	751	A	O4'-C1'	12.64	1.58	1.41
78	CA	1164	G	O4'-C1'	-12.64	1.25	1.41
81	DA	1827	C	C2'-C1'	-12.63	1.39	1.53
79	CB	61	C	O4'-C1'	12.62	1.58	1.41
78	CA	368	U	O4'-C1'	12.61	1.58	1.41
78	CA	913	G	C2'-C1'	-12.61	1.39	1.53
79	CB	41	G	O4'-C1'	12.61	1.58	1.41
81	DA	1201	C	O4'-C1'	12.61	1.58	1.41
78	CA	834	G	O4'-C1'	12.60	1.58	1.41
83	DC	54	A	C2'-C1'	-12.60	1.39	1.53
82	DB	130	C	O4'-C1'	12.60	1.58	1.41
81	DA	63	A	O4'-C1'	-12.58	1.25	1.41
79	CB	43	C	O4'-C1'	12.58	1.58	1.41
81	DA	482	C	O4'-C1'	12.58	1.57	1.41
81	DA	2296	A	C2'-C1'	12.57	1.67	1.53
81	DA	580	C	C2'-C1'	-12.57	1.39	1.53
81	DA	3089	C	C2'-C1'	-12.57	1.39	1.53
39	BJ	75	PRO	C-O	-12.56	0.98	1.23
81	DA	2972	G	C2'-C1'	-12.56	1.39	1.53
81	DA	1335	C	O4'-C1'	12.56	1.57	1.41
81	DA	457	C	O4'-C1'	12.54	1.57	1.41
34	BE	9	MET	C-O	-12.54	0.99	1.23
81	DA	634	C	O4'-C1'	12.54	1.57	1.41
78	CA	308	C	O4'-C1'	12.54	1.57	1.41
81	DA	1334	U	O4'-C1'	12.54	1.57	1.41
81	DA	3108	G	C2'-C1'	-12.54	1.39	1.53
81	DA	684	G	O4'-C1'	12.53	1.57	1.41
78	CA	443	C	O4'-C1'	12.53	1.57	1.41
81	DA	3335	A	C2'-C1'	-12.52	1.39	1.53
83	DC	46	A	O3'-P	-12.52	1.46	1.61
81	DA	808	A	O4'-C1'	12.52	1.57	1.41
81	DA	21	G	O4'-C1'	-12.52	1.25	1.41
81	DA	2918	G	C2'-C1'	-12.51	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2018	C	O4'-C1'	12.51	1.57	1.41
81	DA	3347	A	O4'-C1'	12.50	1.57	1.41
82	DB	100	U	C2'-C1'	-12.50	1.39	1.53
81	DA	1140	G	C2'-C1'	-12.50	1.39	1.53
81	DA	436	A	C2'-C1'	-12.50	1.39	1.53
81	DA	1328	C	C2'-C1'	-12.49	1.39	1.53
81	DA	1038	C	O4'-C1'	12.49	1.57	1.41
78	CA	979	A	O4'-C1'	12.48	1.57	1.41
81	DA	2459	A	C2'-C1'	-12.48	1.39	1.53
78	CA	549	G	C2'-C1'	-12.48	1.39	1.53
81	DA	2876	C	O4'-C1'	12.48	1.57	1.41
83	DC	102	C	C2'-C1'	-12.48	1.39	1.53
81	DA	1405	U	C2'-C1'	-12.47	1.39	1.53
78	CA	1571	C	C2'-C1'	-12.47	1.39	1.53
81	DA	699	A	C2'-C1'	12.47	1.67	1.53
81	DA	337	G	C2'-C1'	12.47	1.67	1.53
81	DA	1681	U	O4'-C1'	12.47	1.57	1.41
78	CA	317	C	O4'-C1'	12.46	1.57	1.41
81	DA	2257	C	O4'-C1'	-12.46	1.25	1.41
81	DA	406	G	O4'-C1'	-12.46	1.25	1.41
81	DA	1203	A	O4'-C1'	12.46	1.57	1.41
81	DA	2506	U	C2'-C1'	-12.46	1.39	1.53
83	DC	20	A	C2'-C1'	-12.46	1.39	1.53
81	DA	2067	U	C2'-C1'	12.46	1.67	1.53
81	DA	3028	G	C2'-C1'	-12.46	1.39	1.53
83	DC	47	C	O3'-P	-12.45	1.46	1.61
78	CA	406	U	C2'-C1'	-12.45	1.39	1.53
81	DA	512	U	C2'-C1'	-12.45	1.39	1.53
78	CA	851	U	C2'-C1'	-12.45	1.39	1.53
81	DA	283	G	C2'-C1'	-12.43	1.39	1.53
81	DA	1336	U	C2'-C1'	-12.43	1.39	1.53
81	DA	3242	G	C2'-C1'	12.43	1.67	1.53
81	DA	3257	C	O4'-C1'	12.42	1.57	1.41
82	DB	105	A	O4'-C1'	12.42	1.57	1.41
60	Bi	79	SER	N-CA	12.42	1.71	1.46
81	DA	1306	G	O4'-C1'	12.42	1.57	1.41
81	DA	1667	A	O4'-C1'	12.41	1.57	1.41
78	CA	107	C	O4'-C1'	12.41	1.57	1.41
81	DA	2139	A	C2'-C1'	-12.40	1.39	1.53
81	DA	1204	A	C2'-C1'	-12.40	1.39	1.53
83	DC	11	A	C2'-C1'	-12.40	1.39	1.53
81	DA	350	C	O4'-C1'	12.40	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1446	A	C2'-C1'	12.40	1.67	1.53
81	DA	360	G	O4'-C1'	12.39	1.57	1.41
78	CA	1476	C	O4'-C1'	12.38	1.57	1.41
83	DC	13	A	O4'-C1'	12.38	1.57	1.41
74	BQ	158	ARG	NE-CZ	12.38	1.49	1.33
78	CA	386	G	O4'-C1'	12.38	1.57	1.41
78	CA	1455	G	C2'-C1'	-12.38	1.39	1.53
81	DA	3084	C	O4'-C1'	12.37	1.57	1.41
81	DA	1653	G	O4'-C1'	12.37	1.57	1.41
81	DA	756	U	O4'-C1'	12.36	1.57	1.41
81	DA	2594	C	O4'-C1'	12.36	1.57	1.41
32	BC	381	GLY	N-CA	12.35	1.64	1.46
81	DA	1364	C	O4'-C1'	12.35	1.57	1.41
81	DA	2519	A	C2'-C1'	-12.35	1.39	1.53
78	CA	430	G	C2'-C1'	-12.35	1.39	1.53
81	DA	1712	G	C2'-C1'	-12.35	1.39	1.53
81	DA	2486	A	C2'-C1'	-12.33	1.39	1.53
83	DC	43	U	C2'-C1'	-12.33	1.39	1.53
78	CA	1180	C	C2'-C1'	-12.32	1.39	1.53
81	DA	1077	U	O4'-C1'	12.32	1.57	1.41
78	CA	230	C	O4'-C1'	12.32	1.57	1.41
78	CA	1759	C	C2'-C1'	-12.32	1.39	1.53
81	DA	384	A	O4'-C1'	12.32	1.57	1.41
81	DA	2582	C	O4'-C1'	12.32	1.57	1.41
81	DA	3162	C	O4'-C1'	12.32	1.57	1.41
81	DA	1478	C	C2'-C1'	-12.31	1.39	1.53
78	CA	849	C	C2'-C1'	-12.31	1.39	1.53
81	DA	3388	C	O4'-C1'	12.31	1.57	1.41
78	CA	97	C	O4'-C1'	12.30	1.57	1.41
78	CA	1573	A	C2'-C1'	12.30	1.66	1.53
81	DA	1951	C	O4'-C1'	12.30	1.57	1.41
81	DA	2445	A	O4'-C1'	12.30	1.57	1.41
15	AN	54	LYS	N-CA	12.29	1.71	1.46
81	DA	286	U	O4'-C1'	12.30	1.57	1.41
81	DA	105	C	O4'-C1'	12.29	1.57	1.41
81	DA	863	C	C2'-C1'	-12.29	1.39	1.53
81	DA	3076	C	O4'-C1'	12.29	1.57	1.41
78	CA	1340	U	C2'-C1'	12.28	1.66	1.53
81	DA	878	G	C2'-C1'	-12.28	1.39	1.53
81	DA	724	U	O4'-C1'	12.27	1.57	1.41
81	DA	3248	C	O4'-C1'	12.27	1.57	1.41
81	DA	2420	C	C2'-C1'	-12.26	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2656	A	C2'-C1'	-12.26	1.39	1.53
82	DB	128	U	O4'-C1'	12.26	1.57	1.41
81	DA	2217	U	C2'-C1'	-12.26	1.39	1.53
81	DA	2764	C	O4'-C1'	12.25	1.57	1.41
82	DB	41	A	C2'-C1'	-12.25	1.39	1.53
81	DA	1455	U	O4'-C1'	-12.24	1.25	1.41
81	DA	1117	G	C2'-C1'	-12.23	1.39	1.53
81	DA	3093	C	O4'-C1'	12.23	1.57	1.41
81	DA	1433	A	O4'-C1'	12.23	1.57	1.41
4	AD	96	ASN	C-O	-12.22	1.00	1.23
78	CA	1586	A	C3'-C2'	-12.22	1.39	1.52
81	DA	1623	G	O4'-C1'	12.22	1.57	1.41
81	DA	1196	C	O4'-C1'	12.21	1.57	1.41
78	CA	872	G	O4'-C1'	12.21	1.57	1.41
81	DA	2204	C	O4'-C1'	12.21	1.57	1.41
81	DA	1423	C	O4'-C1'	12.21	1.57	1.41
81	DA	2242	A	O4'-C1'	12.20	1.57	1.41
81	DA	1251	A	O4'-C1'	12.20	1.57	1.41
81	DA	2626	A	C2'-C1'	-12.20	1.40	1.53
81	DA	3111	U	C2'-C1'	12.20	1.66	1.53
13	AL	135	LEU	N-CA	12.19	1.70	1.46
81	DA	2708	C	O4'-C1'	12.19	1.57	1.41
81	DA	2774	C	O4'-C1'	12.18	1.57	1.41
81	DA	760	G	C2'-C1'	-12.18	1.40	1.53
78	CA	573	C	O4'-C1'	12.18	1.57	1.41
78	CA	326	G	C2'-C1'	-12.16	1.40	1.53
81	DA	2437	G	C2'-C1'	12.16	1.66	1.53
78	CA	146	U	C2'-C1'	-12.15	1.40	1.53
57	Be	132	PRO	C-O	-12.14	0.98	1.23
78	CA	162	A	O4'-C1'	12.14	1.57	1.41
81	DA	562	C	C2'-C1'	-12.14	1.40	1.53
81	DA	2619	G	O4'-C1'	12.13	1.57	1.41
81	DA	1193	A	C2'-C1'	12.12	1.66	1.53
81	DA	333	G	C2'-C1'	-12.12	1.40	1.53
78	CA	651	G	O4'-C1'	12.12	1.57	1.41
41	BN	108	ARG	CD-NE	12.12	1.67	1.46
81	DA	1	G	C2'-C1'	12.11	1.66	1.53
81	DA	912	G	C2'-C1'	-12.11	1.40	1.53
81	DA	2094	C	O4'-C1'	12.11	1.57	1.41
82	DB	37	A	C2'-C1'	12.11	1.66	1.53
81	DA	961	C	O4'-C1'	12.10	1.57	1.41
81	DA	1696	A	C2'-C1'	-12.10	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2501	U	C2'-C1'	-12.10	1.40	1.53
81	DA	3090	U	O4'-C1'	12.09	1.57	1.41
81	DA	2049	A	O4'-C1'	12.09	1.57	1.41
81	DA	641	C	O4'-C1'	12.09	1.57	1.41
81	DA	2048	G	O4'-C1'	12.09	1.57	1.41
44	BO	7	LYS	N-CA	-12.08	1.22	1.46
78	CA	1	U	OP3-P	-12.08	1.46	1.61
81	DA	202	G	O4'-C1'	12.08	1.57	1.41
78	CA	146	U	O4'-C1'	12.08	1.57	1.41
82	DB	89	A	C2'-C1'	-12.08	1.40	1.53
78	CA	164	A	C4'-C3'	-12.07	1.39	1.53
33	BD	89	ALA	CA-CB	12.06	1.77	1.52
78	CA	1291	G	C2'-C1'	-12.06	1.40	1.53
81	DA	646	A	C2'-C1'	-12.06	1.40	1.53
78	CA	1474	G	C2'-C1'	-12.06	1.40	1.53
78	CA	949	C	O4'-C1'	12.06	1.57	1.41
81	DA	2746	A	O4'-C1'	12.05	1.57	1.41
33	BD	323	VAL	N-CA	12.05	1.70	1.46
81	DA	1904	C	O4'-C1'	12.04	1.57	1.41
78	CA	672	U	C2'-C1'	-12.04	1.40	1.53
81	DA	208	C	O4'-C1'	12.04	1.57	1.41
81	DA	47	C	O4'-C1'	12.04	1.57	1.41
81	DA	226	C	O4'-C1'	12.04	1.57	1.41
78	CA	267	U	C2'-C1'	12.04	1.66	1.53
78	CA	1539	G	C2'-C1'	12.03	1.66	1.53
81	DA	2885	C	O4'-C1'	12.02	1.57	1.41
81	DA	1646	G	C2'-C1'	-12.02	1.40	1.53
81	DA	701	G	C2'-C1'	-12.02	1.40	1.53
81	DA	2244	A	O4'-C1'	-12.01	1.26	1.41
81	DA	1289	G	C2'-C1'	-12.01	1.40	1.53
81	DA	2998	U	C2'-C1'	12.01	1.66	1.53
81	DA	132	C	O4'-C1'	12.00	1.57	1.41
81	DA	515	C	O4'-C1'	12.00	1.57	1.41
78	CA	885	G	O4'-C1'	11.98	1.57	1.41
81	DA	2895	G	C2'-C1'	-11.97	1.40	1.53
57	Be	220	PHE	CB-CG	-11.97	1.31	1.51
78	CA	1226	A	O4'-C1'	11.97	1.57	1.41
81	DA	2204	C	C2'-C1'	-11.97	1.40	1.53
81	DA	2884	C	O4'-C1'	11.97	1.57	1.41
82	DB	96	A	C2'-C1'	11.97	1.66	1.53
81	DA	131	C	O4'-C1'	11.96	1.57	1.41
78	CA	1299	G	C2'-C1'	-11.96	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	DC	37	G	C2'-C1'	-11.96	1.40	1.53
78	CA	424	C	C2'-C1'	-11.95	1.40	1.53
81	DA	928	C	O4'-C1'	11.94	1.57	1.41
81	DA	1227	C	O4'-C1'	11.94	1.57	1.41
81	DA	1808	G	O4'-C1'	11.94	1.57	1.41
81	DA	787	G	C2'-C1'	-11.94	1.40	1.53
81	DA	2038	C	O4'-C1'	11.94	1.57	1.41
78	CA	105	A	O4'-C1'	11.93	1.57	1.41
78	CA	235	G	O4'-C1'	11.93	1.57	1.41
81	DA	901	G	C2'-C1'	-11.93	1.40	1.53
81	DA	838	G	O4'-C1'	-11.92	1.26	1.41
81	DA	2589	G	C2'-C1'	-11.92	1.40	1.53
81	DA	2892	A	O4'-C1'	11.92	1.57	1.41
78	CA	1144	U	O4'-C1'	11.91	1.57	1.41
83	DC	98	G	C2'-C1'	-11.91	1.40	1.53
81	DA	526	C	O4'-C1'	11.91	1.57	1.41
81	DA	606	C	O4'-C1'	11.91	1.57	1.41
81	DA	2173	U	O4'-C1'	11.91	1.57	1.41
74	BQ	201	GLY	N-CA	-11.90	1.28	1.46
82	DB	38	U	C2'-C1'	-11.90	1.40	1.53
81	DA	964	G	C2'-C1'	-11.90	1.40	1.53
81	DA	1509	A	C2'-C1'	-11.90	1.40	1.53
81	DA	15	C	C2'-C1'	-11.89	1.40	1.53
81	DA	281	G	C2'-C1'	-11.89	1.40	1.53
81	DA	1811	G	O4'-C1'	-11.89	1.26	1.41
81	DA	3063	C	O4'-C1'	11.89	1.57	1.41
32	BC	297	SER	CA-CB	11.89	1.70	1.52
79	CB	2	C	O4'-C1'	11.89	1.57	1.41
81	DA	2267	C	O4'-C1'	11.89	1.57	1.41
81	DA	3120	C	O4'-C1'	11.89	1.57	1.41
81	DA	2377	G	C2'-C1'	-11.88	1.40	1.53
81	DA	2008	G	O4'-C1'	11.88	1.57	1.41
78	CA	554	C	C2'-C1'	-11.88	1.40	1.53
81	DA	2346	C	O4'-C1'	11.87	1.57	1.41
81	DA	1713	G	O4'-C1'	11.87	1.57	1.41
81	DA	2436	U	C2'-C1'	-11.85	1.40	1.53
81	DA	2495	C	O4'-C1'	11.85	1.57	1.41
82	DB	10	A	C2'-C1'	-11.85	1.40	1.53
81	DA	385	A	O4'-C1'	11.85	1.57	1.41
78	CA	1146	G	C2'-C1'	-11.85	1.40	1.53
78	CA	858	G	C2'-C1'	11.84	1.66	1.53
81	DA	2023	C	O4'-C1'	11.84	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	484	C	O4'-C1'	11.84	1.57	1.41
81	DA	1363	A	C2'-C1'	-11.83	1.40	1.53
78	CA	393	C	C2'-C1'	-11.82	1.40	1.53
81	DA	1478	C	O4'-C1'	11.82	1.57	1.41
81	DA	68	C	C2'-C1'	-11.82	1.40	1.53
81	DA	2769	A	C2'-C1'	-11.82	1.40	1.53
79	CB	48	C	O4'-C1'	11.81	1.57	1.41
81	DA	415	G	O4'-C1'	11.81	1.57	1.41
81	DA	529	A	O4'-C1'	11.80	1.56	1.41
81	DA	909	G	O4'-C1'	11.80	1.56	1.41
81	DA	1287	A	O4'-C1'	11.80	1.56	1.41
78	CA	1078	C	O4'-C1'	11.80	1.56	1.41
81	DA	2136	C	C2'-C1'	-11.80	1.40	1.53
78	CA	950	C	O4'-C1'	11.79	1.56	1.41
78	CA	442	C	O4'-C1'	11.79	1.56	1.41
78	CA	1531	G	O4'-C1'	11.79	1.56	1.41
81	DA	2490	C	O4'-C1'	11.78	1.56	1.41
81	DA	515	C	C2'-C1'	-11.78	1.40	1.53
81	DA	765	C	C2'-C1'	-11.77	1.40	1.53
81	DA	2155	G	C2'-C1'	-11.77	1.40	1.53
3	AB	199	PRO	C-O	-11.76	0.99	1.23
81	DA	559	A	C2'-C1'	-11.76	1.40	1.53
81	DA	1526	U	C2'-C1'	-11.76	1.40	1.53
78	CA	1470	C	O4'-C1'	11.76	1.56	1.41
81	DA	1621	A	C2'-C1'	-11.76	1.40	1.53
74	BQ	197	SER	CA-CB	-11.75	1.35	1.52
78	CA	1337	A	C2'-C1'	11.75	1.66	1.53
78	CA	1584	G	O4'-C1'	-11.75	1.26	1.41
81	DA	2247	G	C2'-C1'	-11.75	1.40	1.53
81	DA	2989	U	C2'-C1'	11.74	1.66	1.53
81	DA	1564	U	C2'-C1'	-11.73	1.40	1.53
81	DA	996	A	C2'-C1'	11.73	1.66	1.53
81	DA	1004	U	O4'-C1'	11.73	1.56	1.41
81	DA	2478	C	O4'-C1'	11.73	1.56	1.41
78	CA	1288	G	C2'-C1'	-11.73	1.40	1.53
83	DC	29	C	C2'-C1'	-11.72	1.40	1.53
78	CA	36	C	O4'-C1'	11.72	1.56	1.41
81	DA	1332	A	O4'-C1'	11.72	1.56	1.41
81	DA	3331	U	C2'-C1'	11.72	1.66	1.53
82	DB	142	C	O4'-C1'	11.71	1.56	1.41
78	CA	1531	G	C2'-C1'	-11.71	1.40	1.53
78	CA	1214	U	C2'-C1'	11.71	1.66	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2366	C	O4'-C1'	11.71	1.56	1.41
78	CA	1215	C	O4'-C1'	11.70	1.56	1.41
81	DA	2230	C	O4'-C1'	11.70	1.56	1.41
83	DC	40	C	O4'-C1'	11.70	1.56	1.41
83	DC	97	C	O4'-C1'	11.70	1.56	1.41
81	DA	1222	G	C2'-C1'	11.69	1.66	1.53
81	DA	1738	C	O4'-C1'	11.69	1.56	1.41
81	DA	192	C	O4'-C1'	11.69	1.56	1.41
81	DA	2966	G	O4'-C1'	11.67	1.56	1.41
81	DA	2942	C	C2'-C1'	-11.67	1.40	1.53
78	CA	1205	C	O4'-C1'	11.67	1.56	1.41
81	DA	2445	A	C2'-C1'	-11.67	1.40	1.53
81	DA	1562	C	O4'-C1'	11.66	1.56	1.41
78	CA	1169	G	C2'-C1'	-11.66	1.40	1.53
78	CA	1735	U	O4'-C1'	11.66	1.56	1.41
81	DA	1904	C	C2'-C1'	-11.66	1.40	1.53
81	DA	743	C	C2'-C1'	-11.65	1.40	1.53
81	DA	1413	G	O4'-C1'	11.65	1.56	1.41
81	DA	3110	C	O4'-C1'	11.65	1.56	1.41
78	CA	1664	C	O4'-C1'	11.65	1.56	1.41
81	DA	2650	U	O4'-C1'	11.65	1.56	1.41
81	DA	323	A	C2'-C1'	-11.64	1.40	1.53
81	DA	1597	C	O4'-C1'	11.63	1.56	1.41
81	DA	2528	G	O4'-C1'	-11.63	1.26	1.41
78	CA	402	C	O4'-C1'	11.62	1.56	1.41
79	CB	26	G	C2'-C1'	-11.62	1.40	1.53
81	DA	1984	C	O4'-C1'	11.62	1.56	1.41
81	DA	1333	C	C2'-C1'	-11.62	1.40	1.53
81	DA	3121	U	O4'-C1'	11.62	1.56	1.41
81	DA	2744	U	O4'-C1'	11.61	1.56	1.41
78	CA	1705	C	C2'-C1'	-11.61	1.40	1.53
81	DA	265	A	O4'-C1'	-11.60	1.26	1.41
81	DA	2355	G	C2'-C1'	-11.59	1.40	1.53
79	CB	2	C	C2'-C1'	-11.58	1.40	1.53
78	CA	969	C	O4'-C1'	11.58	1.56	1.41
78	CA	1467	C	O4'-C1'	11.58	1.56	1.41
81	DA	2965	U	O4'-C1'	11.57	1.56	1.41
78	CA	1709	C	O4'-C1'	11.57	1.56	1.41
81	DA	1663	C	O4'-C1'	11.57	1.56	1.41
78	CA	641	G	C2'-C1'	-11.56	1.40	1.53
81	DA	31	C	O4'-C1'	11.56	1.56	1.41
78	CA	846	G	C2'-C1'	-11.56	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1037	C	O4'-C1'	11.56	1.56	1.41
81	DA	1211	U	C2'-C1'	-11.56	1.40	1.53
81	DA	1225	A	O4'-C1'	11.56	1.56	1.41
81	DA	2684	C	C2'-C1'	-11.56	1.40	1.53
62	Bk	82	ARG	C-O	-11.56	1.01	1.23
78	CA	1543	A	C2'-C1'	-11.55	1.40	1.53
78	CA	81	G	C2'-C1'	-11.55	1.40	1.53
78	CA	184	C	O4'-C1'	11.54	1.56	1.41
81	DA	1848	G	O4'-C1'	11.55	1.56	1.41
82	DB	35	C	C2'-C1'	-11.54	1.40	1.53
81	DA	1385	C	O4'-C1'	11.54	1.56	1.41
81	DA	1718	G	C2'-C1'	-11.54	1.40	1.53
81	DA	2421	U	O4'-C1'	11.54	1.56	1.41
78	CA	1576	A	C2'-C1'	11.54	1.66	1.53
78	CA	1088	A	C2'-C1'	11.53	1.66	1.53
81	DA	1790	G	P-O5'	-11.54	1.48	1.59
78	CA	320	U	O4'-C1'	11.53	1.56	1.41
78	CA	1786	G	O4'-C1'	11.53	1.56	1.41
81	DA	1632	A	C2'-C1'	-11.53	1.40	1.53
81	DA	536	U	O4'-C1'	11.53	1.56	1.41
78	CA	254	A	C2'-C1'	11.52	1.66	1.53
81	DA	2726	C	C2'-C1'	-11.52	1.40	1.53
81	DA	2041	U	C2'-C1'	11.52	1.66	1.53
81	DA	2950	G	C2'-C1'	11.52	1.66	1.53
78	CA	1472	C	O4'-C1'	11.52	1.56	1.41
61	Bj	20	LYS	C-O	-11.52	1.01	1.23
78	CA	1137	A	O4'-C1'	11.51	1.56	1.41
81	DA	682	U	O4'-C1'	11.51	1.56	1.41
78	CA	1339	C	C2'-C1'	-11.51	1.40	1.53
78	CA	333	A	C2'-C1'	-11.50	1.40	1.53
78	CA	1752	U	O4'-C1'	11.50	1.56	1.41
81	DA	2778	G	O4'-C1'	11.50	1.56	1.41
81	DA	2886	U	C2'-C1'	11.50	1.66	1.53
81	DA	2998	U	O4'-C1'	-11.50	1.26	1.41
81	DA	2489	C	C2'-C1'	-11.50	1.40	1.53
78	CA	1120	U	C2'-C1'	-11.49	1.40	1.53
81	DA	908	G	O4'-C1'	11.49	1.56	1.41
81	DA	776	U	C2'-C1'	-11.49	1.40	1.53
78	CA	1546	G	O3'-P	-11.48	1.47	1.61
81	DA	2275	A	C2'-C1'	-11.48	1.40	1.53
83	DC	28	C	C2'-C1'	-11.48	1.40	1.53
83	DC	17	A	C2'-C1'	-11.48	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	158	U	O4'-C1'	11.48	1.56	1.41
78	CA	669	G	C2'-C1'	-11.47	1.40	1.53
80	CC	17	A	C2'-C1'	-11.47	1.40	1.53
81	DA	1187	C	C2'-C1'	-11.47	1.40	1.53
81	DA	1581	C	O4'-C1'	11.46	1.56	1.41
79	CB	65	U	C2'-C1'	-11.46	1.40	1.53
81	DA	1306	G	C2'-C1'	-11.46	1.40	1.53
81	DA	673	U	P-O5'	-11.46	1.48	1.59
81	DA	1376	C	C2'-C1'	-11.46	1.40	1.53
81	DA	1479	U	C2'-C1'	-11.46	1.40	1.53
35	BG	153	PRO	N-CD	-11.46	1.31	1.47
78	CA	1447	C	O4'-C1'	11.46	1.56	1.41
81	DA	1574	C	O4'-C1'	11.46	1.56	1.41
81	DA	2682	C	C2'-C1'	-11.46	1.40	1.53
81	DA	2830	G	C2'-C1'	-11.46	1.40	1.53
81	DA	3365	U	C2'-C1'	-11.45	1.40	1.53
1	Aa	55	GLY	N-CA	-11.45	1.28	1.46
81	DA	747	A	C2'-C1'	-11.45	1.40	1.53
78	CA	383	G	C2'-C1'	-11.45	1.40	1.53
81	DA	1365	G	C2'-C1'	-11.44	1.40	1.53
81	DA	2963	C	O4'-C1'	11.44	1.56	1.41
81	DA	727	G	C2'-C1'	-11.44	1.40	1.53
81	DA	339	C	O4'-C1'	11.44	1.56	1.41
81	DA	2414	G	C2'-C1'	-11.44	1.40	1.53
81	DA	2675	C	O4'-C1'	11.43	1.56	1.41
81	DA	2163	C	O4'-C1'	11.43	1.56	1.41
78	CA	888	U	O4'-C1'	11.43	1.56	1.41
81	DA	2605	G	C2'-C1'	-11.43	1.40	1.53
81	DA	1132	C	C2'-C1'	-11.42	1.40	1.53
81	DA	3117	C	O4'-C1'	11.42	1.56	1.41
78	CA	1370	U	C2'-C1'	-11.42	1.40	1.53
81	DA	679	U	C2'-C1'	-11.41	1.40	1.53
81	DA	2988	C	O4'-C1'	11.41	1.56	1.41
83	DC	22	A	O4'-C1'	-11.41	1.26	1.41
78	CA	1210	C	C2'-C1'	-11.41	1.40	1.53
81	DA	2167	A	C2'-C1'	-11.40	1.40	1.53
81	DA	1089	G	C2'-C1'	-11.40	1.40	1.53
81	DA	3117	C	C2'-C1'	-11.40	1.40	1.53
81	DA	265	A	C2'-C1'	11.40	1.65	1.53
81	DA	514	G	O4'-C1'	11.40	1.56	1.41
81	DA	558	U	O4'-C1'	11.40	1.56	1.41
78	CA	682	C	O4'-C1'	11.39	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2971	A	O4'-C1'	-11.39	1.26	1.41
81	DA	781	G	C2'-C1'	-11.39	1.40	1.53
14	AM	13	HIS	N-CA	-11.39	1.23	1.46
81	DA	2841	G	C2'-C1'	-11.39	1.40	1.53
78	CA	615	A	C2'-C1'	-11.38	1.40	1.53
81	DA	3224	G	C2'-C1'	11.39	1.65	1.53
65	Bn	71	PRO	CA-CB	-11.38	1.30	1.53
78	CA	1675	C	O4'-C1'	11.38	1.56	1.41
81	DA	1416	C	O4'-C1'	11.37	1.56	1.41
81	DA	1578	C	O4'-C1'	11.37	1.56	1.41
81	DA	2961	G	C2'-C1'	-11.37	1.40	1.53
81	DA	812	G	C2'-C1'	-11.37	1.40	1.53
81	DA	3138	U	C2'-C1'	-11.37	1.40	1.53
78	CA	294	C	C2'-C1'	-11.36	1.40	1.53
81	DA	1017	C	C2'-C1'	-11.36	1.40	1.53
78	CA	249	U	C5'-C4'	11.36	1.65	1.51
81	DA	3113	A	O4'-C1'	11.36	1.56	1.41
83	DC	5	G	C2'-C1'	-11.36	1.40	1.53
81	DA	1560	G	C2'-C1'	-11.35	1.40	1.53
81	DA	2818	U	C2'-C1'	11.35	1.65	1.53
81	DA	1424	C	C2'-C1'	-11.35	1.40	1.53
78	CA	203	U	O4'-C1'	11.35	1.56	1.41
81	DA	237	G	O4'-C1'	11.34	1.56	1.41
81	DA	3149	G	O4'-C1'	-11.34	1.26	1.41
81	DA	578	A	O4'-C1'	11.34	1.56	1.41
81	DA	2225	U	O4'-C1'	11.34	1.56	1.41
81	DA	2754	G	O4'-C1'	-11.34	1.26	1.41
81	DA	753	C	O4'-C1'	11.33	1.56	1.41
81	DA	1912	U	C2'-C1'	-11.33	1.40	1.53
81	DA	2452	G	C2'-C1'	11.33	1.65	1.53
81	DA	3126	C	C2'-C1'	-11.33	1.40	1.53
78	CA	448	C	C2'-C1'	-11.32	1.40	1.53
78	CA	1407	U	O4'-C1'	11.32	1.56	1.41
81	DA	506	U	O4'-C1'	11.32	1.56	1.41
81	DA	2492	C	C2'-C1'	-11.32	1.41	1.53
81	DA	1510	G	C2'-C1'	-11.31	1.41	1.53
81	DA	1927	G	O4'-C1'	-11.31	1.26	1.41
81	DA	20	A	C2'-C1'	-11.31	1.41	1.53
81	DA	1101	G	C2'-C1'	-11.31	1.41	1.53
81	DA	1790	G	C2'-C1'	-11.31	1.41	1.53
78	CA	1135	U	C2'-C1'	-11.30	1.41	1.53
81	DA	1210	U	O4'-C1'	11.30	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1401	A	O4'-C1'	-11.30	1.26	1.41
21	AT	10	GLU	N-CA	11.30	1.69	1.46
74	BQ	128	GLU	CA-CB	11.30	1.78	1.53
81	DA	1104	G	O4'-C1'	-11.30	1.26	1.41
83	DC	43	U	O4'-C1'	11.29	1.56	1.41
81	DA	291	C	O4'-C1'	11.29	1.56	1.41
81	DA	956	U	C2'-C1'	-11.29	1.41	1.53
78	CA	1181	U	C2'-C1'	-11.29	1.41	1.53
81	DA	2705	A	O4'-C1'	-11.29	1.26	1.41
81	DA	3239	G	O4'-C1'	11.29	1.56	1.41
81	DA	2348	A	O4'-C1'	11.28	1.56	1.41
81	DA	2128	C	O4'-C1'	11.28	1.56	1.41
81	DA	2455	U	O4'-C1'	11.28	1.56	1.41
78	CA	1203	A	C2'-C1'	-11.28	1.41	1.53
82	DB	65	A	C2'-C1'	-11.28	1.41	1.53
44	BO	63	LYS	N-CA	-11.27	1.23	1.46
81	DA	3143	C	O4'-C1'	11.27	1.56	1.41
78	CA	431	C	O4'-C1'	11.27	1.56	1.41
81	DA	3025	C	O4'-C1'	11.26	1.56	1.41
81	DA	3118	C	O4'-C1'	11.26	1.56	1.41
81	DA	3355	U	C2'-C1'	11.26	1.65	1.53
82	DB	11	C	O4'-C1'	11.26	1.56	1.41
81	DA	2531	C	P-O5'	-11.25	1.48	1.59
81	DA	46	U	C2'-C1'	-11.25	1.41	1.53
65	Bn	34	ALA	N-CA	-11.25	1.23	1.46
78	CA	931	C	O4'-C1'	11.25	1.56	1.41
81	DA	2858	U	O4'-C1'	11.25	1.56	1.41
81	DA	1608	C	C2'-C1'	-11.24	1.41	1.53
81	DA	1907	C	O4'-C1'	11.24	1.56	1.41
81	DA	1539	A	O4'-C1'	11.24	1.56	1.41
81	DA	216	G	C2'-C1'	-11.23	1.41	1.53
81	DA	2407	C	C2'-C1'	-11.23	1.41	1.53
81	DA	1646	G	O4'-C1'	11.23	1.56	1.41
81	DA	407	A	C2'-C1'	-11.23	1.41	1.53
81	DA	244	G	C2'-C1'	-11.22	1.41	1.53
81	DA	861	C	O4'-C1'	11.22	1.56	1.41
81	DA	2856	G	C2'-C1'	-11.22	1.41	1.53
78	CA	1412	G	O4'-C1'	11.22	1.56	1.41
81	DA	2714	G	C2'-C1'	-11.22	1.41	1.53
82	DB	86	U	C2'-C1'	11.22	1.65	1.53
81	DA	3096	C	C2'-C1'	-11.22	1.41	1.53
78	CA	443	C	C2'-C1'	-11.21	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1264	G	C2'-C1'	-11.21	1.41	1.53
81	DA	2960	C	O4'-C1'	11.21	1.56	1.41
81	DA	1525	G	C2'-C1'	-11.21	1.41	1.53
81	DA	1225	A	C2'-C1'	-11.21	1.41	1.53
81	DA	3056	U	O4'-C1'	11.21	1.56	1.41
78	CA	889	U	O4'-C1'	11.21	1.56	1.41
81	DA	452	G	O4'-C1'	11.21	1.56	1.41
81	DA	2284	C	O4'-C1'	11.21	1.56	1.41
78	CA	1772	C	O4'-C1'	11.20	1.56	1.41
79	CB	71	A	O4'-C1'	11.20	1.56	1.41
81	DA	2305	G	C2'-C1'	-11.19	1.41	1.53
81	DA	2383	C	C2'-C1'	-11.19	1.41	1.53
81	DA	2984	C	O4'-C1'	11.19	1.56	1.41
81	DA	1638	A	C2'-C1'	-11.19	1.41	1.53
78	CA	1668	G	C2'-C1'	-11.19	1.41	1.53
81	DA	2206	G	C2'-C1'	11.19	1.65	1.53
78	CA	1649	G	C2'-C1'	11.18	1.65	1.53
53	Ba	57	HIS	CB-CG	-11.18	1.29	1.50
81	DA	945	C	O4'-C1'	11.18	1.56	1.41
78	CA	310	C	C2'-C1'	-11.18	1.41	1.53
81	DA	105	C	C2'-C1'	-11.18	1.41	1.53
78	CA	851	U	O4'-C1'	11.17	1.56	1.41
81	DA	2252	A	O4'-C1'	11.17	1.56	1.41
82	DB	118	C	C2'-C1'	-11.17	1.41	1.53
81	DA	1944	U	O4'-C1'	11.17	1.56	1.41
81	DA	2115	G	C2'-C1'	-11.17	1.41	1.53
82	DB	142	C	C2'-C1'	-11.17	1.41	1.53
81	DA	512	U	O4'-C1'	11.16	1.56	1.41
41	BN	76	ALA	C-N	11.16	1.59	1.34
81	DA	982	C	O4'-C1'	11.16	1.56	1.41
78	CA	447	U	C2'-C1'	-11.16	1.41	1.53
78	CA	374	U	O4'-C1'	11.16	1.56	1.41
81	DA	2743	A	O4'-C1'	11.16	1.56	1.41
81	DA	1496	C	C2'-C1'	-11.15	1.41	1.53
78	CA	16	G	C2'-C1'	11.15	1.65	1.53
81	DA	142	C	O4'-C1'	11.15	1.56	1.41
78	CA	1648	A	C2'-C1'	-11.14	1.41	1.53
81	DA	3233	C	O4'-C1'	11.14	1.56	1.41
81	DA	1706	C	O4'-C1'	11.13	1.56	1.41
78	CA	637	C	C2'-C1'	11.13	1.65	1.53
78	CA	1364	G	O4'-C1'	11.13	1.56	1.41
81	DA	1420	C	C2'-C1'	-11.13	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2670	G	C2'-C1'	-11.13	1.41	1.53
78	CA	191	C	O4'-C1'	11.13	1.56	1.41
78	CA	394	C	C2'-C1'	-11.13	1.41	1.53
81	DA	1677	G	O4'-C1'	-11.13	1.27	1.41
83	DC	35	C	C2'-C1'	-11.13	1.41	1.53
78	CA	202	A	C2'-C1'	-11.12	1.41	1.53
81	DA	1238	C	O4'-C1'	11.12	1.56	1.41
83	DC	15	C	O4'-C1'	11.12	1.56	1.41
81	DA	1054	A	O4'-C1'	-11.12	1.27	1.41
78	CA	38	C	C2'-C1'	-11.10	1.41	1.53
81	DA	2331	C	O4'-C1'	11.10	1.56	1.41
78	CA	287	G	O4'-C1'	11.10	1.56	1.41
78	CA	1215	C	C2'-C1'	-11.10	1.41	1.53
81	DA	81	C	C2'-C1'	-11.10	1.41	1.53
81	DA	829	U	O4'-C1'	11.10	1.56	1.41
78	CA	1463	C	O4'-C1'	11.09	1.56	1.41
81	DA	2884	C	C2'-C1'	-11.09	1.41	1.53
78	CA	1207	C	O4'-C1'	11.09	1.56	1.41
3	AB	205	ALA	N-CA	11.09	1.68	1.46
81	DA	50	U	O4'-C1'	11.09	1.56	1.41
81	DA	2796	G	C2'-C1'	11.09	1.65	1.53
78	CA	1659	A	O4'-C1'	11.08	1.56	1.41
81	DA	2676	A	O4'-C1'	11.08	1.56	1.41
81	DA	1178	G	O4'-C1'	11.07	1.56	1.41
3	AB	200	LYS	N-CA	-11.07	1.24	1.46
78	CA	1314	U	C2'-C1'	-11.07	1.41	1.53
78	CA	1380	U	C2'-C1'	-11.07	1.41	1.53
78	CA	1571	C	O4'-C1'	11.06	1.56	1.41
81	DA	327	A	O4'-C1'	11.06	1.56	1.41
81	DA	1654	A	C2'-C1'	-11.06	1.41	1.53
81	DA	2009	C	O4'-C1'	11.06	1.56	1.41
81	DA	1933	A	C2'-C1'	11.05	1.65	1.53
81	DA	2239	G	C2'-C1'	-11.05	1.41	1.53
81	DA	1615	C	C2'-C1'	-11.05	1.41	1.53
78	CA	1108	G	C2'-C1'	11.04	1.65	1.53
81	DA	3091	A	O4'-C1'	11.04	1.56	1.41
45	BR	55	SER	CB-OG	-11.04	1.27	1.42
78	CA	1326	A	O4'-C1'	11.04	1.55	1.41
81	DA	454	C	C2'-C1'	-11.03	1.41	1.53
81	DA	237	G	C2'-C1'	-11.03	1.41	1.53
81	DA	2745	G	C2'-C1'	11.03	1.65	1.53
78	CA	1162	C	C2'-C1'	-11.03	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	600	G	O4'-C1'	11.03	1.55	1.41
81	DA	2618	G	C2'-C1'	11.03	1.65	1.53
78	CA	1238	A	O4'-C1'	-11.03	1.27	1.41
81	DA	298	U	O4'-C1'	11.01	1.55	1.41
81	DA	692	A	O4'-C1'	11.01	1.55	1.41
81	DA	1882	G	C2'-C1'	-11.01	1.41	1.53
82	DB	63	G	O4'-C1'	11.01	1.55	1.41
81	DA	2722	U	O3'-P	-11.01	1.48	1.61
81	DA	744	A	O4'-C1'	11.00	1.55	1.41
78	CA	10	G	C2'-C1'	-11.00	1.41	1.53
81	DA	135	C	C2'-C1'	11.00	1.65	1.53
81	DA	627	U	C2'-C1'	-11.00	1.41	1.53
81	DA	2678	A	C2'-C1'	-10.99	1.41	1.53
78	CA	342	C	O4'-C1'	10.99	1.55	1.41
5	AC	142	ASN	CG-OD1	10.99	1.48	1.24
81	DA	1820	U	C2'-C1'	-10.98	1.41	1.53
81	DA	321	C	C2'-C1'	-10.98	1.41	1.53
79	CB	71	A	C2'-C1'	-10.97	1.41	1.53
81	DA	2699	G	O4'-C1'	10.97	1.55	1.41
81	DA	2841	G	O4'-C1'	10.97	1.55	1.41
81	DA	3330	A	O4'-C1'	10.97	1.55	1.41
81	DA	1516	C	C2'-C1'	-10.97	1.41	1.53
81	DA	2785	A	C2'-C1'	-10.96	1.41	1.53
78	CA	596	C	O4'-C1'	10.96	1.55	1.41
78	CA	980	G	O4'-C1'	10.96	1.55	1.41
81	DA	1645	U	C2'-C1'	-10.96	1.41	1.53
81	DA	2110	G	C2'-C1'	-10.95	1.41	1.53
81	DA	3304	U	C5'-C4'	10.95	1.64	1.51
78	CA	1412	G	C2'-C1'	-10.95	1.41	1.53
78	CA	1433	G	O4'-C1'	10.95	1.55	1.41
78	CA	560	U	O4'-C1'	10.95	1.55	1.41
81	DA	466	G	C2'-C1'	-10.94	1.41	1.53
81	DA	1515	A	O4'-C1'	10.94	1.55	1.41
81	DA	2393	G	O4'-C1'	-10.94	1.27	1.41
81	DA	3296	A	C2'-C1'	-10.94	1.41	1.53
81	DA	1704	A	C2'-C1'	10.93	1.65	1.53
83	DC	113	C	C2'-C1'	-10.93	1.41	1.53
79	CB	37	G	C2'-C1'	-10.93	1.41	1.53
81	DA	1927	G	C2'-C1'	10.93	1.65	1.53
16	AO	68	GLY	N-CA	10.92	1.62	1.46
81	DA	637	C	O4'-C1'	10.91	1.55	1.41
81	DA	867	G	C2'-C1'	-10.91	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1765	A	O4'-C1'	10.91	1.55	1.41
43	BP	74	PRO	CA-CB	10.90	1.75	1.53
79	CB	72	G	C2'-C1'	10.90	1.65	1.53
81	DA	200	C	O4'-C1'	10.90	1.55	1.41
81	DA	2852	C	O4'-C1'	10.90	1.55	1.41
78	CA	48	G	C2'-C1'	-10.89	1.41	1.53
78	CA	614	C	O4'-C1'	10.89	1.55	1.41
78	CA	1148	C	C2'-C1'	-10.89	1.41	1.53
81	DA	241	G	C2'-C1'	-10.89	1.41	1.53
81	DA	2416	U	O3'-P	-10.89	1.48	1.61
17	AQ	82	ASP	CA-CB	10.88	1.77	1.53
81	DA	428	A	C2'-C1'	-10.88	1.41	1.53
12	AK	125	SER	CA-CB	-10.88	1.36	1.52
78	CA	1178	G	O4'-C1'	10.88	1.55	1.41
81	DA	2590	A	C2'-C1'	-10.88	1.41	1.53
81	DA	1233	G	O4'-C1'	-10.88	1.27	1.41
81	DA	1686	U	O4'-C1'	10.88	1.55	1.41
81	DA	8	C	C2'-C1'	-10.87	1.41	1.53
81	DA	2832	C	O4'-C1'	10.87	1.55	1.41
82	DB	54	A	O4'-C1'	10.87	1.55	1.41
81	DA	2707	C	C2'-C1'	-10.87	1.41	1.53
81	DA	3140	G	C2'-C1'	10.86	1.65	1.53
81	DA	489	C	O4'-C1'	10.86	1.55	1.41
81	DA	713	U	C2'-C1'	-10.86	1.41	1.53
78	CA	1545	A	C4'-O4'	-10.86	1.31	1.45
81	DA	2531	C	O4'-C1'	-10.86	1.27	1.41
31	BB	62	VAL	CA-CB	10.85	1.77	1.54
81	DA	1250	G	C2'-C1'	10.85	1.65	1.53
81	DA	226	C	C2'-C1'	-10.85	1.41	1.53
81	DA	3132	C	O4'-C1'	10.85	1.55	1.41
81	DA	2312	A	C2'-C1'	-10.85	1.41	1.53
81	DA	49	A	O4'-C1'	-10.84	1.27	1.41
81	DA	2245	C	O4'-C1'	10.84	1.55	1.41
81	DA	2295	A	O4'-C1'	10.84	1.55	1.41
78	CA	1765	A	C2'-C1'	-10.83	1.41	1.53
81	DA	1395	G	C2'-C1'	-10.83	1.41	1.53
81	DA	833	G	C2'-C1'	-10.83	1.41	1.53
78	CA	299	A	C2'-C1'	10.83	1.65	1.53
81	DA	2212	C	O4'-C1'	10.82	1.55	1.41
78	CA	15	U	C2'-C1'	-10.82	1.41	1.53
78	CA	1178	G	C2'-C1'	-10.82	1.41	1.53
81	DA	2653	C	C2'-C1'	-10.82	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3313	U	C2'-C1'	-10.82	1.41	1.53
81	DA	654	C	C2'-C1'	-10.82	1.41	1.53
81	DA	2288	G	C2'-C1'	-10.82	1.41	1.53
78	CA	31	C	O4'-C1'	10.82	1.55	1.41
78	CA	448	C	O4'-C1'	10.82	1.55	1.41
81	DA	1626	U	C2'-C1'	-10.81	1.41	1.53
81	DA	1376	C	O4'-C1'	10.81	1.55	1.41
81	DA	255	A	C2'-C1'	10.79	1.65	1.53
81	DA	1021	G	C2'-C1'	-10.79	1.41	1.53
78	CA	965	U	O4'-C1'	10.79	1.55	1.41
78	CA	312	A	C2'-C1'	-10.79	1.41	1.53
78	CA	949	C	C2'-C1'	-10.79	1.41	1.53
78	CA	15	U	O4'-C1'	10.78	1.55	1.41
83	DC	3	U	O4'-C1'	10.78	1.55	1.41
21	AT	9	VAL	CA-CB	-10.78	1.32	1.54
80	CC	18	C	C2'-C1'	-10.78	1.41	1.53
81	DA	824	C	C2'-C1'	-10.78	1.41	1.53
81	DA	2417	U	O4'-C1'	10.77	1.55	1.41
78	CA	1203	A	O4'-C1'	10.77	1.55	1.41
81	DA	2434	U	O4'-C1'	10.77	1.55	1.41
81	DA	2149	A	O4'-C1'	-10.77	1.27	1.41
81	DA	1863	G	C2'-C1'	-10.76	1.41	1.53
81	DA	2499	U	O4'-C1'	10.76	1.55	1.41
81	DA	2673	A	P-O5'	-10.76	1.49	1.59
81	DA	111	C	O4'-C1'	10.76	1.55	1.41
81	DA	1809	A	O4'-C1'	10.76	1.55	1.41
81	DA	2832	C	C2'-C1'	-10.76	1.41	1.53
81	DA	1264	G	O4'-C1'	10.76	1.55	1.41
82	DB	112	U	C2'-C1'	10.76	1.65	1.53
79	CB	66	C	O4'-C1'	10.75	1.55	1.41
82	DB	6	U	O4'-C1'	10.75	1.55	1.41
81	DA	125	C	O4'-C1'	10.75	1.55	1.41
81	DA	2679	A	C2'-C1'	-10.75	1.41	1.53
81	DA	882	A	O4'-C1'	10.75	1.55	1.41
81	DA	2207	A	O4'-C1'	-10.74	1.27	1.41
5	AC	157	ASP	CA-CB	10.74	1.77	1.53
81	DA	1616	U	C2'-C1'	-10.74	1.41	1.53
81	DA	2515	A	O4'-C1'	10.74	1.55	1.41
81	DA	1277	C	O4'-C1'	10.73	1.55	1.41
38	Bs	242	ASN	CB-CG	-10.73	1.26	1.51
78	CA	1739	C	O4'-C1'	10.73	1.55	1.41
81	DA	1574	C	C2'-C1'	-10.72	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	108	A	C2'-C1'	-10.72	1.41	1.53
81	DA	1721	U	C2'-C1'	-10.71	1.41	1.53
81	DA	1141	C	C2'-C1'	-10.71	1.41	1.53
83	DC	15	C	C2'-C1'	-10.71	1.41	1.53
81	DA	2182	A	O4'-C1'	10.71	1.55	1.41
78	CA	1332	C	C2'-C1'	-10.71	1.41	1.53
83	DC	1	G	OP3-P	-10.70	1.48	1.61
81	DA	1190	A	C2'-C1'	-10.70	1.41	1.53
81	DA	2179	C	O4'-C1'	10.70	1.55	1.41
81	DA	1146	C	O4'-C1'	10.70	1.55	1.41
81	DA	2970	C	O4'-C1'	10.70	1.55	1.41
81	DA	1917	C	C2'-C1'	-10.69	1.41	1.53
32	BC	3	HIS	CA-CB	10.69	1.77	1.53
81	DA	2402	A	C2'-C1'	10.68	1.65	1.53
80	CC	12	A	O4'-C1'	-10.68	1.27	1.41
78	CA	202	A	O4'-C1'	10.68	1.55	1.41
81	DA	520	U	O4'-C1'	10.68	1.55	1.41
81	DA	2469	G	O4'-C1'	10.68	1.55	1.41
81	DA	2444	C	O4'-C1'	10.68	1.55	1.41
81	DA	2664	C	O4'-C1'	10.68	1.55	1.41
78	CA	469	C	C2'-C1'	10.67	1.65	1.53
81	DA	2669	G	O4'-C1'	-10.67	1.27	1.41
81	DA	13	A	O4'-C1'	10.66	1.55	1.41
81	DA	2224	A	C2'-C1'	-10.66	1.41	1.53
82	DB	4	C	C2'-C1'	-10.66	1.41	1.53
81	DA	3077	A	O4'-C1'	10.66	1.55	1.41
78	CA	1147	A	O4'-C1'	10.65	1.55	1.41
81	DA	2348	A	C2'-C1'	-10.65	1.41	1.53
81	DA	2828	G	C2'-C1'	-10.65	1.41	1.53
81	DA	1068	C	O4'-C1'	10.65	1.55	1.41
81	DA	615	U	C2'-C1'	-10.64	1.41	1.53
81	DA	650	C	O4'-C1'	10.64	1.55	1.41
81	DA	433	A	O4'-C1'	10.63	1.55	1.41
81	DA	633	C	O4'-C1'	10.63	1.55	1.41
81	DA	1119	C	O4'-C1'	10.63	1.55	1.41
81	DA	3255	U	O4'-C1'	10.63	1.55	1.41
81	DA	1691	U	O4'-C1'	10.63	1.55	1.41
78	CA	1461	C	O4'-C1'	10.63	1.55	1.41
81	DA	2917	G	C2'-C1'	-10.63	1.41	1.53
78	CA	989	U	O4'-C1'	10.62	1.55	1.41
78	CA	1199	G	C2'-C1'	10.62	1.65	1.53
81	DA	2723	U	O4'-C1'	10.62	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3042	U	O4'-C1'	10.62	1.55	1.41
37	BH	89	GLU	N-CA	10.62	1.67	1.46
81	DA	2191	U	C2'-C1'	-10.62	1.41	1.53
81	DA	518	G	C2'-C1'	-10.61	1.41	1.53
81	DA	379	C	O4'-C1'	10.61	1.55	1.41
83	DC	53	U	C2'-C1'	-10.60	1.41	1.53
81	DA	1	G	OP3-P	-10.60	1.48	1.61
79	CB	18	G	C2'-C1'	-10.59	1.41	1.53
81	DA	1560	G	O4'-C1'	10.59	1.55	1.41
81	DA	2293	C	O4'-C1'	10.59	1.55	1.41
78	CA	401	A	O4'-C1'	10.59	1.55	1.41
81	DA	2805	G	C2'-C1'	-10.59	1.41	1.53
78	CA	1128	C	O4'-C1'	10.59	1.55	1.41
81	DA	2046	U	O3'-P	-10.58	1.48	1.61
81	DA	2607	G	O4'-C1'	10.58	1.55	1.41
81	DA	2039	C	O4'-C1'	10.58	1.55	1.41
81	DA	2450	G	O4'-C1'	-10.58	1.27	1.41
81	DA	824	C	O4'-C1'	10.58	1.55	1.41
81	DA	1658	G	C2'-C1'	-10.58	1.41	1.53
81	DA	2835	U	C2'-C1'	-10.58	1.41	1.53
78	CA	1581	C	C2'-C1'	-10.58	1.41	1.53
81	DA	654	C	O4'-C1'	10.57	1.55	1.41
81	DA	1341	U	C2'-C1'	-10.57	1.41	1.53
78	CA	169	A	O4'-C1'	-10.57	1.27	1.41
81	DA	272	G	C2'-C1'	-10.57	1.41	1.53
79	CB	1	U	OP3-P	-10.56	1.48	1.61
81	DA	2360	C	C2'-C1'	-10.56	1.41	1.53
34	BE	115	LYS	CA-CB	-10.56	1.30	1.53
80	CC	12	A	OP3-P	-10.56	1.48	1.61
81	DA	1259	A	C2'-C1'	10.56	1.65	1.53
78	CA	1456	C	O4'-C1'	10.55	1.55	1.41
59	Bh	20	HIS	CA-CB	10.55	1.77	1.53
81	DA	840	C	O4'-C1'	10.55	1.55	1.41
81	DA	2863	G	O4'-C1'	10.55	1.55	1.41
78	CA	1656	U	O4'-C1'	10.54	1.55	1.41
81	DA	1669	C	O4'-C1'	10.54	1.55	1.41
81	DA	2672	G	C2'-C1'	-10.54	1.41	1.53
78	CA	852	C	O4'-C1'	10.54	1.55	1.41
81	DA	2778	G	C2'-C1'	-10.54	1.41	1.53
81	DA	2950	G	O4'-C1'	-10.54	1.27	1.41
81	DA	704	U	O3'-P	-10.54	1.48	1.61
81	DA	2775	U	C2'-C1'	10.54	1.65	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2175	U	C4'-C3'	-10.53	1.41	1.53
81	DA	2944	U	O4'-C1'	10.53	1.55	1.41
81	DA	1092	C	O4'-C1'	10.52	1.55	1.41
81	DA	8	C	O4'-C1'	10.52	1.55	1.41
81	DA	3039	C	O4'-C1'	10.52	1.55	1.41
81	DA	992	A	C2'-C1'	10.52	1.65	1.53
78	CA	899	G	C2'-C1'	-10.51	1.41	1.53
81	DA	815	G	C2'-C1'	-10.51	1.41	1.53
78	CA	1408	G	C2'-C1'	10.51	1.65	1.53
81	DA	2266	U	C2'-C1'	-10.51	1.41	1.53
81	DA	1480	G	O4'-C1'	-10.51	1.27	1.41
78	CA	1	U	P-O5'	-10.50	1.49	1.59
81	DA	84	U	C2'-C1'	-10.50	1.41	1.53
81	DA	766	U	C4'-C3'	10.50	1.64	1.53
78	CA	142	G	O4'-C1'	10.49	1.55	1.41
81	DA	435	C	C2'-C1'	-10.49	1.41	1.53
81	DA	1362	G	C2'-C1'	-10.49	1.41	1.53
81	DA	606	C	C2'-C1'	-10.49	1.41	1.53
81	DA	2651	G	C2'-C1'	-10.48	1.41	1.53
83	DC	115	A	O4'-C1'	-10.48	1.28	1.41
12	AK	125	SER	CB-OG	-10.48	1.28	1.42
78	CA	1629	G	C2'-C1'	-10.48	1.41	1.53
81	DA	816	A	O4'-C1'	10.48	1.55	1.41
78	CA	548	G	O4'-C1'	10.47	1.55	1.41
81	DA	868	C	O4'-C1'	10.47	1.55	1.41
81	DA	2202	C	C2'-C1'	-10.47	1.41	1.53
78	CA	273	G	O4'-C1'	10.46	1.55	1.41
81	DA	1036	A	C2'-C1'	10.46	1.64	1.53
79	CB	45	G	O4'-C1'	10.46	1.55	1.41
81	DA	2208	A	C2'-C1'	10.46	1.64	1.53
81	DA	1531	C	C2'-C1'	-10.46	1.41	1.53
81	DA	344	A	O4'-C1'	10.46	1.55	1.41
81	DA	1084	A	C2'-C1'	-10.46	1.41	1.53
81	DA	2662	G	O4'-C1'	10.46	1.55	1.41
78	CA	1279	C	O4'-C1'	10.45	1.55	1.41
81	DA	3375	A	O4'-C1'	10.45	1.55	1.41
81	DA	3308	C	O4'-C1'	10.45	1.55	1.41
81	DA	1499	C	O4'-C1'	10.44	1.55	1.41
81	DA	2750	U	C2'-C1'	-10.44	1.41	1.53
81	DA	263	C	O4'-C1'	10.43	1.55	1.41
81	DA	2174	G	C4'-C3'	-10.43	1.41	1.53
81	DA	3340	G	C2'-C1'	-10.43	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1233	G	C2'-C1'	10.43	1.64	1.53
81	DA	584	G	C2'-C1'	-10.43	1.41	1.53
81	DA	2819	A	C2'-C1'	-10.42	1.41	1.53
81	DA	3253	G	O4'-C1'	10.42	1.55	1.41
81	DA	1873	U	C2'-C1'	-10.42	1.41	1.53
78	CA	1228	G	O4'-C1'	10.42	1.55	1.41
78	CA	28	A	C2'-C1'	-10.42	1.41	1.53
81	DA	3006	A	O4'-C1'	10.41	1.55	1.41
81	DA	786	A	C2'-C1'	10.41	1.64	1.53
81	DA	2020	A	O4'-C1'	10.41	1.55	1.41
81	DA	1258	U	P-O5'	-10.40	1.49	1.59
81	DA	2390	A	C2'-C1'	-10.40	1.42	1.53
78	CA	1547	A	P-O5'	10.40	1.70	1.59
81	DA	2364	G	C2'-C1'	-10.40	1.42	1.53
81	DA	1586	G	C2'-C1'	-10.40	1.42	1.53
81	DA	1796	G	C2'-C1'	-10.40	1.42	1.53
78	CA	38	C	O4'-C1'	10.39	1.55	1.41
81	DA	586	C	O4'-C1'	10.39	1.55	1.41
81	DA	424	G	O4'-C1'	10.39	1.55	1.41
81	DA	2671	A	O4'-C1'	10.39	1.55	1.41
81	DA	547	G	C2'-C1'	-10.39	1.42	1.53
81	DA	793	C	O4'-C1'	10.39	1.55	1.41
37	BH	129	PRO	N-CA	-10.39	1.29	1.47
81	DA	2627	C	O4'-C1'	10.38	1.55	1.41
78	CA	1599	C	O4'-C1'	10.38	1.55	1.41
82	DB	106	C	C2'-C1'	-10.38	1.42	1.53
78	CA	1134	C	O4'-C1'	10.37	1.55	1.41
81	DA	393	U	C2'-C1'	-10.37	1.42	1.53
78	CA	39	A	O4'-C1'	10.37	1.55	1.41
81	DA	977	C	O4'-C1'	10.37	1.55	1.41
78	CA	1376	C	O4'-C1'	10.37	1.55	1.41
81	DA	1846	C	O4'-C1'	10.37	1.55	1.41
81	DA	1141	C	O4'-C1'	10.37	1.55	1.41
81	DA	193	C	C2'-C1'	-10.36	1.42	1.53
81	DA	208	C	C2'-C1'	-10.36	1.42	1.53
81	DA	254	A	O4'-C1'	10.36	1.55	1.41
4	AD	93	ASP	CA-CB	10.36	1.76	1.53
78	CA	330	G	C2'-C1'	-10.36	1.42	1.53
81	DA	2886	U	O4'-C1'	-10.36	1.28	1.41
81	DA	1671	C	O4'-C1'	10.36	1.55	1.41
78	CA	1365	C	O4'-C1'	10.35	1.55	1.41
78	CA	1195	C	O4'-C1'	10.35	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	408	A	C2'-C1'	-10.35	1.42	1.53
78	CA	1202	A	O4'-C1'	-10.34	1.28	1.41
81	DA	1745	C	O4'-C1'	10.34	1.55	1.41
81	DA	2750	U	O4'-C1'	10.34	1.55	1.41
78	CA	1327	C	O4'-C1'	10.34	1.55	1.41
81	DA	73	C	C2'-C1'	10.34	1.64	1.53
81	DA	849	C	O4'-C1'	10.34	1.55	1.41
81	DA	2800	G	C2'-C1'	10.34	1.64	1.53
81	DA	141	C	C2'-C1'	-10.33	1.42	1.53
78	CA	1090	C	C2'-C1'	-10.33	1.42	1.53
78	CA	1794	A	C2'-C1'	10.33	1.64	1.53
81	DA	82	C	O4'-C1'	10.33	1.55	1.41
81	DA	413	U	O4'-C1'	10.33	1.55	1.41
81	DA	2051	G	O4'-C1'	10.33	1.55	1.41
81	DA	1224	C	O4'-C1'	10.33	1.55	1.41
81	DA	1383	G	C2'-C1'	-10.33	1.42	1.53
81	DA	1814	A	C2'-C1'	10.33	1.64	1.53
81	DA	2174	G	C5'-C4'	10.32	1.63	1.51
81	DA	460	C	O4'-C1'	10.32	1.55	1.41
81	DA	1118	C	O4'-C1'	10.32	1.55	1.41
83	DC	9	C	O4'-C1'	10.32	1.55	1.41
81	DA	1547	G	O4'-C1'	10.31	1.55	1.41
81	DA	2738	A	C2'-C1'	-10.31	1.42	1.53
78	CA	553	G	C2'-C1'	-10.31	1.42	1.53
81	DA	2452	G	O4'-C1'	10.31	1.55	1.41
81	DA	3001	C	C2'-C1'	-10.31	1.42	1.53
4	AD	153	ASN	CA-CB	10.30	1.79	1.53
81	DA	2794	G	C2'-C1'	-10.30	1.42	1.53
81	DA	171	G	C2'-C1'	-10.30	1.42	1.53
81	DA	2207	A	C2'-C1'	10.29	1.64	1.53
81	DA	3031	G	O4'-C1'	10.29	1.55	1.41
78	CA	1373	C	O4'-C1'	10.29	1.55	1.41
81	DA	1086	C	C2'-C1'	-10.29	1.42	1.53
81	DA	1423	C	C2'-C1'	-10.29	1.42	1.53
81	DA	2104	A	O4'-C1'	10.29	1.55	1.41
78	CA	282	C	O4'-C1'	10.28	1.55	1.41
81	DA	1016	C	O4'-C1'	10.28	1.55	1.41
81	DA	2816	G	O4'-C1'	10.28	1.55	1.41
78	CA	1593	A	O4'-C1'	10.28	1.55	1.41
78	CA	847	A	O4'-C1'	10.28	1.55	1.41
78	CA	1758	U	C2'-C1'	-10.28	1.42	1.53
81	DA	3060	C	O4'-C1'	10.28	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1548	C	O4'-C1'	10.28	1.55	1.41
78	CA	1199	G	O4'-C1'	-10.27	1.28	1.41
81	DA	3321	C	O4'-C1'	10.27	1.55	1.41
81	DA	3032	A	O4'-C1'	10.27	1.55	1.41
78	CA	573	C	C2'-C1'	-10.27	1.42	1.53
78	CA	616	G	C2'-C1'	-10.27	1.42	1.53
82	DB	100	U	O4'-C1'	10.26	1.54	1.41
78	CA	1439	C	C2'-C1'	-10.26	1.42	1.53
81	DA	882	A	C2'-C1'	-10.26	1.42	1.53
81	DA	2331	C	C2'-C1'	-10.26	1.42	1.53
81	DA	2442	G	O4'-C1'	10.26	1.54	1.41
81	DA	3061	G	C2'-C1'	-10.26	1.42	1.53
78	CA	300	A	O4'-C1'	10.26	1.54	1.41
81	DA	712	G	C2'-C1'	-10.26	1.42	1.53
81	DA	3384	U	O4'-C1'	10.26	1.54	1.41
81	DA	1265	U	O4'-C1'	10.25	1.54	1.41
81	DA	321	C	O4'-C1'	10.25	1.54	1.41
81	DA	1341	U	O4'-C1'	10.25	1.54	1.41
81	DA	2861	U	C2'-C1'	-10.25	1.42	1.53
82	DB	98	U	C5'-C4'	10.25	1.63	1.51
81	DA	582	G	C2'-C1'	-10.24	1.42	1.53
34	BE	124	GLY	CA-C	-10.23	1.35	1.51
81	DA	1894	U	O4'-C1'	10.23	1.54	1.41
81	DA	3076	C	C2'-C1'	-10.22	1.42	1.53
83	DC	110	C	O4'-C1'	10.22	1.54	1.41
81	DA	1452	A	O4'-C1'	10.22	1.54	1.41
78	CA	1529	C	C2'-C1'	-10.21	1.42	1.53
81	DA	1437	C	O4'-C1'	10.21	1.54	1.41
83	DC	27	A	C2'-C1'	-10.21	1.42	1.53
81	DA	2475	G	C2'-C1'	10.21	1.64	1.53
61	Bj	8	TYR	N-CA	10.21	1.66	1.46
78	CA	109	G	C2'-C1'	-10.21	1.42	1.53
78	CA	1440	C	O4'-C1'	10.21	1.54	1.41
83	DC	32	U	C2'-C1'	-10.20	1.42	1.53
81	DA	1503	A	C2'-C1'	-10.20	1.42	1.53
78	CA	1371	A	O4'-C1'	10.20	1.54	1.41
81	DA	3339	A	C2'-C1'	-10.20	1.42	1.53
81	DA	1778	G	O4'-C1'	10.20	1.54	1.41
78	CA	855	A	C2'-C1'	-10.19	1.42	1.53
82	DB	119	C	C2'-C1'	-10.19	1.42	1.53
81	DA	319	A	C2'-C1'	-10.19	1.42	1.53
81	DA	1541	G	O4'-C1'	10.19	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3102	G	C2'-C1'	-10.19	1.42	1.53
83	DC	25	G	C2'-C1'	10.18	1.64	1.53
81	DA	652	G	C2'-C1'	-10.18	1.42	1.53
81	DA	2834	G	C2'-C1'	-10.18	1.42	1.53
81	DA	27	C	C2'-C1'	-10.18	1.42	1.53
37	BH	229	VAL	N-CA	-10.17	1.26	1.46
78	CA	587	C	C2'-C1'	-10.17	1.42	1.53
78	CA	1367	G	C2'-C1'	-10.17	1.42	1.53
81	DA	1980	C	O4'-C1'	10.17	1.54	1.41
81	DA	2809	C	O4'-C1'	10.16	1.54	1.41
78	CA	1683	C	O4'-C1'	10.16	1.54	1.41
78	CA	418	G	C2'-C1'	-10.16	1.42	1.53
81	DA	3314	A	C2'-C1'	-10.16	1.42	1.53
81	DA	1951	C	C2'-C1'	-10.15	1.42	1.53
81	DA	539	C	O4'-C1'	10.15	1.54	1.41
81	DA	802	C	C2'-C1'	-10.15	1.42	1.53
81	DA	2422	C	O4'-C1'	10.15	1.54	1.41
81	DA	1483	G	O4'-C1'	-10.15	1.28	1.41
81	DA	2898	G	O4'-C1'	10.15	1.54	1.41
81	DA	2929	C	O4'-C1'	10.15	1.54	1.41
81	DA	3341	U	C2'-C1'	-10.15	1.42	1.53
82	DB	10	A	O4'-C1'	10.14	1.54	1.41
78	CA	444	C	C2'-C1'	-10.14	1.42	1.53
81	DA	2153	U	C2'-C1'	-10.14	1.42	1.53
79	CB	29	C	O4'-C1'	10.14	1.54	1.41
81	DA	2278	C	O4'-C1'	10.14	1.54	1.41
81	DA	2025	G	O4'-C1'	-10.13	1.28	1.41
78	CA	195	G	O4'-C1'	10.13	1.54	1.41
81	DA	1239	C	C2'-C1'	-10.13	1.42	1.53
81	DA	890	C	O4'-C1'	10.13	1.54	1.41
81	DA	3301	U	O4'-C1'	10.13	1.54	1.41
78	CA	1418	G	C2'-C1'	-10.12	1.42	1.53
81	DA	1589	A	C2'-C1'	-10.12	1.42	1.53
81	DA	2829	U	O4'-C1'	10.12	1.54	1.41
78	CA	880	C	O4'-C1'	10.12	1.54	1.41
78	CA	1439	C	O4'-C1'	10.12	1.54	1.41
81	DA	3015	G	C2'-C1'	-10.12	1.42	1.53
78	CA	1679	G	O4'-C1'	10.12	1.54	1.41
81	DA	2015	C	O4'-C1'	10.11	1.54	1.41
81	DA	3082	C	C2'-C1'	-10.11	1.42	1.53
81	DA	2698	G	C2'-C1'	-10.11	1.42	1.53
78	CA	889	U	C2'-C1'	-10.10	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1299	G	O4'-C1'	10.10	1.54	1.41
78	CA	1636	C	O4'-C1'	10.10	1.54	1.41
81	DA	75	G	C2'-C1'	-10.10	1.42	1.53
83	DC	51	G	O4'-C1'	-10.10	1.28	1.41
78	CA	1686	C	O4'-C1'	10.10	1.54	1.41
81	DA	2561	A	P-OP2	10.10	1.66	1.49
81	DA	250	U	C5'-C4'	10.10	1.63	1.51
81	DA	1000	C	C2'-C1'	-10.10	1.42	1.53
81	DA	2047	A	O4'-C1'	10.10	1.54	1.41
81	DA	2230	C	C2'-C1'	-10.10	1.42	1.53
81	DA	2306	C	C2'-C1'	-10.10	1.42	1.53
78	CA	151	G	O4'-C1'	10.09	1.54	1.41
81	DA	458	U	C2'-C1'	-10.09	1.42	1.53
81	DA	1867	A	C2'-C1'	10.09	1.64	1.53
81	DA	1996	C	O4'-C1'	10.09	1.54	1.41
81	DA	2218	G	C2'-C1'	-10.09	1.42	1.53
81	DA	3101	G	C2'-C1'	-10.08	1.42	1.53
81	DA	613	G	C2'-C1'	-10.08	1.42	1.53
81	DA	2917	G	O4'-C1'	-10.08	1.28	1.41
81	DA	2179	C	C2'-C1'	-10.07	1.42	1.53
58	Bg	108	VAL	N-CA	10.07	1.66	1.46
78	CA	685	A	C2'-C1'	-10.07	1.42	1.53
81	DA	1695	U	C2'-C1'	10.07	1.64	1.53
78	CA	1197	C	O4'-C1'	10.07	1.54	1.41
78	CA	833	U	O4'-C1'	-10.07	1.28	1.41
78	CA	1653	C	O4'-C1'	10.07	1.54	1.41
78	CA	1644	C	O4'-C1'	10.06	1.54	1.41
81	DA	2696	A	C2'-C1'	-10.06	1.42	1.53
81	DA	2927	C	O4'-C1'	10.06	1.54	1.41
5	AC	163	PRO	N-CD	-10.06	1.33	1.47
78	CA	1575	G	C2'-C1'	-10.06	1.42	1.53
81	DA	2735	U	O4'-C1'	10.06	1.54	1.41
78	CA	119	A	O4'-C1'	10.06	1.54	1.41
78	CA	411	C	C2'-C1'	10.05	1.64	1.53
81	DA	2051	G	C2'-C1'	-10.05	1.42	1.53
81	DA	3039	C	C2'-C1'	-10.06	1.42	1.53
78	CA	1470	C	C2'-C1'	-10.05	1.42	1.53
82	DB	145	U	O4'-C1'	10.05	1.54	1.41
78	CA	839	U	C2'-C1'	10.04	1.64	1.53
81	DA	2210	G	C2'-C1'	-10.04	1.42	1.53
78	CA	47	A	P-O5'	-10.04	1.49	1.59
81	DA	3145	C	P-O5'	-10.04	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BD	78	GLY	N-CA	10.04	1.61	1.46
81	DA	201	A	O4'-C1'	10.04	1.54	1.41
60	Bi	78	GLY	N-CA	-10.03	1.31	1.46
81	DA	159	A	C2'-C1'	10.03	1.64	1.53
81	DA	312	C	C2'-C1'	-10.03	1.42	1.53
81	DA	81	C	O4'-C1'	10.03	1.54	1.41
78	CA	1719	A	C2'-C1'	-10.03	1.42	1.53
13	AL	35	GLY	CA-C	-10.03	1.35	1.51
82	DB	18	U	O4'-C1'	10.02	1.54	1.41
82	DB	54	A	C2'-C1'	-10.02	1.42	1.53
78	CA	834	G	C2'-C1'	-10.02	1.42	1.53
81	DA	2934	A	O4'-C1'	-10.02	1.28	1.41
78	CA	1241	G	C2'-C1'	10.01	1.64	1.53
81	DA	1645	U	O4'-C1'	10.01	1.54	1.41
81	DA	3053	G	C2'-C1'	-10.01	1.42	1.53
48	BW	90	ARG	CA-CB	10.01	1.75	1.53
78	CA	1174	C	C2'-C1'	-10.00	1.42	1.53
81	DA	3005	A	O4'-C1'	-10.00	1.28	1.41
34	BE	116	TYR	CE1-CZ	-9.99	1.25	1.38
81	DA	244	G	O4'-C1'	9.99	1.54	1.41
81	DA	918	C	O4'-C1'	9.99	1.54	1.41
81	DA	1270	A	O4'-C1'	-9.99	1.28	1.41
81	DA	3081	C	O4'-C1'	9.99	1.54	1.41
81	DA	1155	C	O4'-C1'	9.99	1.54	1.41
26	AZ	44	PHE	CA-CB	-9.98	1.31	1.53
81	DA	2812	C	O4'-C1'	9.98	1.54	1.41
81	DA	759	U	C2'-C1'	-9.98	1.42	1.53
81	DA	2228	A	C2'-C1'	9.98	1.64	1.53
81	DA	2376	G	C2'-C1'	-9.97	1.42	1.53
79	CB	62	C	O4'-C1'	9.97	1.54	1.41
81	DA	320	G	C2'-C1'	-9.97	1.42	1.53
78	CA	663	U	O4'-C1'	9.97	1.54	1.41
81	DA	302	U	C2'-C1'	-9.96	1.42	1.53
81	DA	1431	G	C2'-C1'	-9.96	1.42	1.53
78	CA	977	A	O4'-C1'	9.96	1.54	1.41
81	DA	976	U	C2'-C1'	9.96	1.64	1.53
78	CA	1124	A	C2'-C1'	9.96	1.64	1.53
78	CA	1478	G	C2'-C1'	-9.96	1.42	1.53
81	DA	640	U	O4'-C1'	9.96	1.54	1.41
81	DA	507	U	O4'-C1'	9.95	1.54	1.41
81	DA	2310	U	O4'-C1'	9.95	1.54	1.41
81	DA	643	U	C2'-C1'	-9.94	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1699	A	C2'-C1'	9.94	1.64	1.53
82	DB	8	C	O4'-C1'	9.94	1.54	1.41
82	DB	53	A	C2'-C1'	-9.94	1.42	1.53
81	DA	1590	G	C2'-C1'	-9.94	1.42	1.53
78	CA	112	A	O4'-C1'	9.93	1.54	1.41
81	DA	2317	A	O4'-C1'	9.93	1.54	1.41
25	AY	57	MET	N-CA	-9.93	1.26	1.46
78	CA	220	A	O4'-C1'	9.93	1.54	1.41
78	CA	392	G	C2'-C1'	-9.93	1.42	1.53
78	CA	1370	U	O4'-C1'	9.93	1.54	1.41
81	DA	2515	A	C2'-C1'	-9.93	1.42	1.53
81	DA	847	A	O4'-C1'	9.93	1.54	1.41
81	DA	1237	G	C2'-C1'	-9.93	1.42	1.53
81	DA	1779	C	O4'-C1'	9.93	1.54	1.41
81	DA	2830	G	O4'-C1'	9.92	1.54	1.41
78	CA	305	C	C2'-C1'	-9.92	1.42	1.53
81	DA	543	C	O4'-C1'	9.92	1.54	1.41
81	DA	1791	C	O4'-C1'	9.92	1.54	1.41
81	DA	614	C	C2'-C1'	-9.92	1.42	1.53
81	DA	1162	U	C2'-C1'	-9.92	1.42	1.53
78	CA	1788	G	C2'-C1'	-9.92	1.42	1.53
81	DA	3025	C	C2'-C1'	-9.91	1.42	1.53
81	DA	650	C	C2'-C1'	-9.91	1.42	1.53
81	DA	2748	A	C2'-C1'	9.90	1.64	1.53
81	DA	1850	A	C2'-C1'	9.90	1.64	1.53
81	DA	1610	G	C2'-C1'	-9.90	1.42	1.53
81	DA	3343	G	C2'-C1'	-9.90	1.42	1.53
82	DB	103	G	O4'-C1'	9.89	1.54	1.41
81	DA	2652	U	C2'-C1'	-9.89	1.42	1.53
81	DA	2739	A	C2'-C1'	-9.89	1.42	1.53
81	DA	178	U	O4'-C1'	9.89	1.54	1.41
81	DA	179	C	C2'-C1'	-9.89	1.42	1.53
81	DA	2400	G	C2'-C1'	-9.89	1.42	1.53
79	CB	69	G	C2'-C1'	-9.88	1.42	1.53
78	CA	950	C	C2'-C1'	-9.88	1.42	1.53
81	DA	872	U	O4'-C1'	9.88	1.54	1.41
78	CA	271	A	C2'-C1'	-9.88	1.42	1.53
81	DA	2476	C	C2'-C1'	-9.88	1.42	1.53
2	AA	10	THR	N-CA	-9.88	1.26	1.46
81	DA	1445	U	O4'-C1'	9.87	1.54	1.41
81	DA	2311	G	O4'-C1'	9.88	1.54	1.41
81	DA	2982	A	C2'-C1'	-9.87	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
74	BQ	158	ARG	CZ-NH2	9.87	1.45	1.33
78	CA	623	A	O4'-C1'	-9.87	1.28	1.41
81	DA	2306	C	O4'-C1'	9.87	1.54	1.41
81	DA	1095	U	O3'-P	-9.87	1.49	1.61
81	DA	2390	A	O4'-C1'	9.87	1.54	1.41
81	DA	1363	A	O4'-C1'	9.86	1.54	1.41
10	AI	141	SER	N-CA	-9.86	1.26	1.46
78	CA	1579	U	O4'-C1'	9.86	1.54	1.41
81	DA	668	G	C2'-C1'	-9.86	1.42	1.53
81	DA	1247	U	C2'-C1'	9.86	1.64	1.53
78	CA	435	C	C2'-C1'	-9.86	1.42	1.53
81	DA	1977	C	C2'-C1'	-9.86	1.42	1.53
81	DA	3352	U	O4'-C1'	9.86	1.54	1.41
44	BO	3	SER	CA-CB	-9.85	1.38	1.52
81	DA	1735	G	C2'-C1'	-9.85	1.42	1.53
17	AQ	82	ASP	N-CA	-9.85	1.26	1.46
78	CA	1139	A	C2'-C1'	-9.85	1.42	1.53
78	CA	1476	C	C2'-C1'	9.85	1.64	1.53
81	DA	3248	C	C2'-C1'	-9.85	1.42	1.53
81	DA	1331	U	O4'-C1'	9.85	1.54	1.41
81	DA	2304	C	C2'-C1'	-9.85	1.42	1.53
83	DC	39	C	O4'-C1'	9.85	1.54	1.41
81	DA	2673	A	O4'-C1'	9.85	1.54	1.41
81	DA	2144	A	C2'-C1'	-9.84	1.42	1.53
81	DA	714	G	C2'-C1'	-9.84	1.42	1.53
81	DA	1105	A	C2'-C1'	9.84	1.64	1.53
79	CB	73	C	O4'-C1'	9.83	1.54	1.41
81	DA	3147	G	O4'-C1'	9.83	1.54	1.41
78	CA	1624	C	C2'-C1'	-9.83	1.42	1.53
78	CA	271	A	O4'-C1'	9.83	1.54	1.41
81	DA	535	G	O4'-C1'	9.83	1.54	1.41
81	DA	1201	C	C2'-C1'	-9.83	1.42	1.53
81	DA	1336	U	O4'-C1'	9.82	1.54	1.41
78	CA	609	U	C2'-C1'	-9.82	1.42	1.53
81	DA	2609	A	O4'-C1'	9.82	1.54	1.41
11	AJ	85	ARG	CD-NE	9.82	1.63	1.46
78	CA	178	U	O3'-P	-9.82	1.49	1.61
78	CA	628	G	C2'-C1'	-9.82	1.42	1.53
81	DA	3151	U	C2'-C1'	9.82	1.64	1.53
81	DA	2264	U	C2'-C1'	-9.81	1.42	1.53
81	DA	2370	G	C2'-C1'	-9.81	1.42	1.53
78	CA	337	G	O4'-C1'	-9.81	1.28	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	743	C	O4'-C1'	9.81	1.54	1.41
81	DA	2813	A	O4'-C1'	9.81	1.54	1.41
83	DC	59	G	C2'-C1'	-9.81	1.42	1.53
83	DC	87	U	C2'-C1'	-9.81	1.42	1.53
78	CA	1726	G	C2'-C1'	-9.81	1.42	1.53
26	AZ	40	TYR	N-CA	9.80	1.66	1.46
81	DA	2583	C	O4'-C1'	9.80	1.54	1.41
81	DA	1132	C	O4'-C1'	9.80	1.54	1.41
81	DA	2676	A	C2'-C1'	-9.79	1.42	1.53
81	DA	788	C	C2'-C1'	-9.79	1.42	1.53
81	DA	2329	C	O4'-C1'	9.79	1.54	1.41
78	CA	1584	G	C2'-C1'	-9.79	1.42	1.53
78	CA	1353	U	O4'-C1'	9.79	1.54	1.41
78	CA	1692	G	C2'-C1'	-9.78	1.42	1.53
5	AC	162	SER	CA-CB	9.78	1.67	1.52
5	AC	165	GLY	N-CA	-9.78	1.31	1.46
78	CA	1774	G	C2'-C1'	-9.78	1.42	1.53
81	DA	2717	U	O4'-C1'	9.78	1.54	1.41
78	CA	223	U	C2'-C1'	9.77	1.64	1.53
81	DA	1406	A	O4'-C1'	9.77	1.54	1.41
78	CA	868	G	C2'-C1'	-9.77	1.42	1.53
78	CA	584	C	C2'-C1'	-9.77	1.42	1.53
81	DA	693	A	C2'-C1'	9.76	1.64	1.53
81	DA	1392	G	C2'-C1'	-9.76	1.42	1.53
81	DA	1545	A	C2'-C1'	-9.76	1.42	1.53
78	CA	120	U	C5'-C4'	9.76	1.63	1.51
81	DA	550	A	C2'-C1'	9.76	1.64	1.53
81	DA	1983	G	C2'-C1'	-9.76	1.42	1.53
81	DA	1867	A	O4'-C1'	-9.76	1.28	1.41
81	DA	3055	U	C2'-C1'	9.76	1.64	1.53
32	BC	298	PHE	CA-CB	9.75	1.75	1.53
8	AF	35	GLN	N-CA	-9.75	1.26	1.46
81	DA	2330	C	O4'-C1'	9.75	1.54	1.41
81	DA	1279	C	O4'-C1'	9.74	1.54	1.41
81	DA	1863	G	O4'-C1'	9.74	1.54	1.41
78	CA	1358	G	C2'-C1'	-9.74	1.42	1.53
81	DA	1312	C	O4'-C1'	9.74	1.54	1.41
81	DA	3322	A	C2'-C1'	-9.73	1.42	1.53
78	CA	1476	C	C3'-O3'	-9.73	1.28	1.42
81	DA	1631	C	O4'-C1'	9.73	1.54	1.41
81	DA	1650	G	O4'-C1'	9.73	1.54	1.41
81	DA	1246	G	C2'-C1'	-9.73	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1445	U	C2'-C1'	-9.73	1.42	1.53
81	DA	798	G	C4'-C3'	-9.72	1.42	1.53
81	DA	1179	A	C2'-C1'	9.72	1.64	1.53
81	DA	1476	G	C2'-C1'	-9.72	1.42	1.53
81	DA	1381	A	C2'-C1'	-9.71	1.42	1.53
81	DA	1618	G	O4'-C1'	9.72	1.54	1.41
81	DA	2031	U	O4'-C1'	9.72	1.54	1.41
26	AZ	39	LEU	N-CA	-9.71	1.26	1.46
81	DA	1690	C	O4'-C1'	9.71	1.54	1.41
81	DA	2711	C	C2'-C1'	-9.71	1.42	1.53
81	DA	63	A	C2'-C1'	9.71	1.64	1.53
81	DA	1154	A	C2'-C1'	9.71	1.64	1.53
81	DA	1259	A	O4'-C1'	-9.71	1.29	1.41
78	CA	197	A	O4'-C1'	9.70	1.54	1.41
81	DA	2989	U	C5'-C4'	9.70	1.62	1.51
78	CA	1309	C	O4'-C1'	9.70	1.54	1.41
78	CA	1556	A	P-O5'	-9.69	1.50	1.59
81	DA	1693	C	C2'-C1'	-9.69	1.42	1.53
81	DA	2449	A	O4'-C1'	9.69	1.54	1.41
78	CA	92	A	C4'-C3'	-9.69	1.42	1.53
60	Bi	55	SER	CA-CB	-9.68	1.38	1.52
81	DA	1575	A	C2'-C1'	9.68	1.64	1.53
81	DA	2217	U	O4'-C1'	9.68	1.54	1.41
81	DA	814	U	C2'-C1'	-9.67	1.42	1.53
60	Bi	108	GLN	CA-CB	9.67	1.75	1.53
78	CA	42	G	C2'-C1'	-9.66	1.42	1.53
83	DC	57	C	O4'-C1'	9.66	1.54	1.41
13	AL	34	LEU	N-CA	9.66	1.65	1.46
31	BB	37	ARG	C-O	-9.66	1.05	1.23
78	CA	1405	G	O4'-C1'	-9.66	1.29	1.41
43	BP	16	SER	CA-CB	9.65	1.67	1.52
78	CA	30	G	C2'-C1'	-9.65	1.42	1.53
81	DA	249	U	O4'-C1'	9.65	1.54	1.41
81	DA	520	U	C2'-C1'	-9.64	1.42	1.53
78	CA	408	C	O4'-C1'	9.64	1.54	1.41
81	DA	192	C	C2'-C1'	-9.64	1.42	1.53
83	DC	46	A	O4'-C1'	-9.64	1.29	1.41
81	DA	1072	G	C2'-C1'	-9.63	1.42	1.53
78	CA	267	U	O4'-C1'	9.63	1.54	1.41
78	CA	856	A	O4'-C1'	-9.63	1.29	1.41
81	DA	3067	C	O4'-C1'	9.63	1.54	1.41
78	CA	1174	C	O4'-C1'	9.63	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3344	A	C2'-C1'	9.62	1.64	1.53
81	DA	3146	G	O4'-C1'	9.62	1.54	1.41
78	CA	1080	U	O3'-P	-9.62	1.49	1.61
81	DA	1787	A	O4'-C1'	9.62	1.54	1.41
81	DA	2478	C	C2'-C1'	-9.61	1.42	1.53
81	DA	2592	G	O4'-C1'	9.61	1.54	1.41
78	CA	181	A	C2'-C1'	-9.60	1.42	1.53
81	DA	2368	A	C2'-C1'	-9.60	1.42	1.53
79	CB	63	C	O4'-C1'	9.60	1.54	1.41
81	DA	2228	A	O4'-C1'	-9.60	1.29	1.41
82	DB	122	U	C2'-C1'	9.60	1.64	1.53
78	CA	1716	C	O4'-C1'	9.59	1.54	1.41
81	DA	3091	A	C5'-C4'	9.59	1.62	1.51
83	DC	99	A	O4'-C1'	9.59	1.54	1.41
81	DA	1048	A	O4'-C1'	9.59	1.54	1.41
81	DA	1990	U	O4'-C1'	9.59	1.54	1.41
33	BD	12	THR	N-CA	9.59	1.65	1.46
78	CA	840	U	C2'-C1'	9.59	1.63	1.53
78	CA	1480	G	C2'-C1'	9.59	1.63	1.53
78	CA	1378	U	O4'-C1'	9.59	1.54	1.41
81	DA	1730	G	C2'-C1'	9.59	1.63	1.53
32	BC	17	LEU	CA-CB	-9.58	1.31	1.53
35	BG	152	THR	N-CA	9.58	1.65	1.46
81	DA	927	C	O4'-C1'	9.58	1.54	1.41
81	DA	1394	A	C2'-C1'	-9.58	1.42	1.53
82	DB	108	C	C2'-C1'	-9.58	1.42	1.53
81	DA	2044	U	O4'-C1'	9.58	1.54	1.41
81	DA	1948	G	C2'-C1'	-9.57	1.42	1.53
31	BB	196	TRP	CA-CB	9.57	1.75	1.53
81	DA	2908	G	C2'-C1'	-9.57	1.42	1.53
34	BE	115	LYS	CB-CG	9.57	1.78	1.52
78	CA	667	U	C2'-C1'	9.57	1.63	1.53
81	DA	2447	A	C2'-C1'	-9.57	1.42	1.53
78	CA	1545	A	C2'-C1'	9.57	1.63	1.53
81	DA	1805	C	O4'-C1'	9.56	1.54	1.41
32	BC	360	ASP	N-CA	-9.56	1.27	1.46
81	DA	2561	A	C5'-C4'	9.56	1.62	1.51
81	DA	1517	G	C2'-C1'	-9.56	1.42	1.53
81	DA	2297	U	O4'-C1'	9.56	1.54	1.41
81	DA	2298	U	C2'-C1'	-9.56	1.42	1.53
78	CA	1441	C	C2'-C1'	-9.56	1.42	1.53
81	DA	1454	A	C2'-C1'	-9.55	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1749	A	C2'-C1'	9.55	1.63	1.53
81	DA	102	C	O4'-C1'	9.55	1.54	1.41
81	DA	232	G	C2'-C1'	-9.55	1.42	1.53
81	DA	1500	G	C2'-C1'	-9.55	1.42	1.53
81	DA	1175	C	O4'-C1'	9.55	1.54	1.41
78	CA	1177	C	O4'-C1'	9.54	1.54	1.41
45	BR	140	LEU	N-CA	-9.54	1.27	1.46
81	DA	1047	A	C2'-C1'	9.54	1.63	1.53
81	DA	1609	C	O4'-C1'	9.54	1.54	1.41
81	DA	1828	A	C2'-C1'	-9.54	1.42	1.53
81	DA	2366	C	C2'-C1'	-9.54	1.42	1.53
33	BD	149	PRO	N-CD	-9.54	1.34	1.47
78	CA	956	C	C2'-C1'	-9.54	1.42	1.53
78	CA	1286	U	O4'-C1'	9.54	1.54	1.41
78	CA	1678	A	O4'-C1'	9.54	1.54	1.41
81	DA	184	U	O4'-C1'	9.54	1.54	1.41
81	DA	1119	C	C2'-C1'	-9.54	1.42	1.53
81	DA	2443	A	C2'-C1'	-9.54	1.42	1.53
81	DA	2482	U	C2'-C1'	-9.54	1.42	1.53
78	CA	303	U	O4'-C1'	9.53	1.54	1.41
81	DA	3354	U	C2'-C1'	9.53	1.63	1.53
81	DA	288	C	C2'-C1'	-9.53	1.42	1.53
81	DA	1844	C	C2'-C1'	-9.53	1.42	1.53
81	DA	926	A	C2'-C1'	-9.53	1.42	1.53
78	CA	382	C	O4'-C1'	9.52	1.54	1.41
81	DA	2087	C	O3'-P	9.52	1.72	1.61
81	DA	2839	G	C2'-C1'	-9.52	1.42	1.53
81	DA	3141	A	P-O5'	-9.52	1.50	1.59
82	DB	147	U	O4'-C1'	9.51	1.54	1.41
81	DA	43	A	O4'-C1'	-9.51	1.29	1.41
81	DA	866	A	O4'-C1'	9.51	1.54	1.41
81	DA	5	G	C2'-C1'	-9.51	1.42	1.53
81	DA	2172	A	C3'-O3'	-9.50	1.28	1.42
81	DA	1297	C	C2'-C1'	-9.50	1.43	1.53
78	CA	1651	A	O4'-C1'	9.50	1.53	1.41
81	DA	3019	U	O4'-C1'	9.49	1.53	1.41
78	CA	638	U	C2'-C1'	-9.49	1.43	1.53
81	DA	302	U	O4'-C1'	9.48	1.53	1.41
81	DA	270	U	C2'-C1'	9.48	1.63	1.53
81	DA	841	A	O4'-C1'	9.48	1.53	1.41
81	DA	2294	U	C2'-C1'	9.48	1.63	1.53
83	DC	118	U	O4'-C1'	9.48	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2383	C	O4'-C1'	9.48	1.53	1.41
78	CA	666	U	O4'-C1'	9.47	1.53	1.41
78	CA	208	U	C4'-C3'	9.47	1.63	1.53
78	CA	222	A	P-O5'	9.47	1.69	1.59
78	CA	273	G	C2'-C1'	-9.47	1.43	1.53
78	CA	1198	G	C2'-C1'	-9.47	1.43	1.53
81	DA	2398	A	O4'-C1'	9.47	1.53	1.41
81	DA	1272	C	O4'-C1'	9.47	1.53	1.41
78	CA	1119	G	C2'-C1'	-9.47	1.43	1.53
78	CA	1393	C	O4'-C1'	9.47	1.53	1.41
81	DA	927	C	C2'-C1'	-9.47	1.43	1.53
81	DA	2097	U	O4'-C1'	9.47	1.53	1.41
81	DA	790	U	C2'-C1'	-9.46	1.43	1.53
81	DA	510	G	C2'-C1'	-9.46	1.43	1.53
78	CA	1645	G	C2'-C1'	-9.46	1.43	1.53
81	DA	38	U	C2'-C1'	-9.46	1.43	1.53
81	DA	1034	U	O4'-C1'	9.46	1.53	1.41
81	DA	1614	C	O4'-C1'	9.46	1.53	1.41
81	DA	1872	C	O4'-C1'	9.46	1.53	1.41
78	CA	286	C	O4'-C1'	9.46	1.53	1.41
81	DA	3395	G	O4'-C1'	9.46	1.53	1.41
60	Bi	68	THR	CA-CB	9.45	1.77	1.53
81	DA	426	G	O4'-C1'	9.45	1.53	1.41
78	CA	1125	A	O4'-C1'	9.45	1.53	1.41
81	DA	1784	G	C2'-C1'	-9.45	1.43	1.53
81	DA	2861	U	O4'-C1'	9.45	1.53	1.41
81	DA	2867	C	O4'-C1'	9.45	1.53	1.41
82	DB	110	C	O4'-C1'	9.45	1.53	1.41
81	DA	1409	G	C2'-C1'	-9.44	1.43	1.53
81	DA	3105	U	O4'-C1'	9.44	1.53	1.41
81	DA	2053	C	O4'-C1'	9.44	1.53	1.41
81	DA	664	U	C2'-C1'	-9.44	1.43	1.53
81	DA	3387	U	C2'-C1'	9.44	1.63	1.53
81	DA	794	U	O4'-C1'	9.44	1.53	1.41
78	CA	648	G	C2'-C1'	-9.43	1.43	1.53
81	DA	1608	C	O4'-C1'	9.43	1.53	1.41
76	BS	123	ILE	N-CA	9.43	1.65	1.46
81	DA	1361	U	C2'-C1'	9.43	1.63	1.53
81	DA	2968	G	C2'-C1'	9.43	1.63	1.53
81	DA	3250	U	C2'-C1'	-9.43	1.43	1.53
81	DA	1796	G	O4'-C1'	9.43	1.53	1.41
81	DA	224	C	C2'-C1'	-9.43	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1148	G	C2'-C1'	-9.43	1.43	1.53
10	AI	120	ASP	N-CA	-9.42	1.27	1.46
78	CA	1773	C	O4'-C1'	9.42	1.53	1.41
81	DA	2205	U	O4'-C1'	9.42	1.53	1.41
81	DA	2343	C	O4'-C1'	9.42	1.53	1.41
81	DA	2736	A	C2'-C1'	9.42	1.63	1.53
13	AL	6	PRO	N-CD	-9.41	1.34	1.47
78	CA	357	G	C2'-C1'	-9.41	1.43	1.53
78	CA	1598	U	O4'-C1'	9.41	1.53	1.41
81	DA	1254	C	O4'-C1'	9.41	1.53	1.41
78	CA	240	U	C5'-C4'	9.41	1.62	1.51
81	DA	264	G	O4'-C1'	9.41	1.53	1.41
81	DA	1521	G	C2'-C1'	-9.40	1.43	1.53
33	BD	321	LYS	CA-CB	9.40	1.74	1.53
78	CA	1371	A	C2'-C1'	-9.40	1.43	1.53
81	DA	403	C	O4'-C1'	9.40	1.53	1.41
81	DA	804	C	O4'-C1'	9.40	1.53	1.41
81	DA	2200	U	C2'-C1'	-9.40	1.43	1.53
81	DA	2415	C	C2'-C1'	-9.39	1.43	1.53
81	DA	1805	C	C2'-C1'	-9.39	1.43	1.53
81	DA	3338	C	C2'-C1'	-9.39	1.43	1.53
81	DA	1415	U	C2'-C1'	-9.39	1.43	1.53
37	BH	158	ASP	CA-CB	9.39	1.74	1.53
81	DA	195	U	C2'-C1'	-9.39	1.43	1.53
81	DA	2602	G	C2'-C1'	-9.39	1.43	1.53
74	BQ	121	GLY	N-CA	-9.38	1.31	1.46
78	CA	671	G	C2'-C1'	-9.38	1.43	1.53
81	DA	340	C	O4'-C1'	9.38	1.53	1.41
81	DA	458	U	O4'-C1'	9.38	1.53	1.41
82	DB	83	C	O4'-C1'	-9.38	1.29	1.41
1	Aa	53	LYS	CA-CB	9.38	1.74	1.53
81	DA	1381	A	O4'-C1'	9.38	1.53	1.41
81	DA	614	C	O4'-C1'	9.38	1.53	1.41
78	CA	1281	G	O4'-C1'	9.37	1.53	1.41
78	CA	954	G	C2'-C1'	-9.37	1.43	1.53
81	DA	1202	A	C2'-C1'	-9.37	1.43	1.53
60	Bi	16	ARG	CA-CB	9.36	1.74	1.53
81	DA	2791	G	O4'-C1'	-9.36	1.29	1.41
83	DC	107	G	O4'-C1'	-9.36	1.29	1.41
78	CA	868	G	O4'-C1'	-9.36	1.29	1.41
78	CA	636	A	O4'-C1'	-9.36	1.29	1.41
78	CA	1291	G	O4'-C1'	9.36	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1742	U	O4'-C1'	9.36	1.53	1.41
69	Br	47	GLN	CA-CB	9.35	1.74	1.53
78	CA	14	C	O4'-C1'	9.35	1.53	1.41
12	AK	124	ASP	N-CA	-9.35	1.27	1.46
79	CB	38	C	O4'-C1'	9.35	1.53	1.41
81	DA	745	C	O3'-P	-9.35	1.50	1.61
81	DA	3088	G	O4'-C1'	9.35	1.53	1.41
82	DB	3	A	O4'-C1'	9.34	1.53	1.41
78	CA	1133	A	C2'-C1'	-9.34	1.43	1.53
32	BC	362	ALA	CA-CB	9.34	1.72	1.52
32	BC	289	ASP	CA-CB	9.33	1.74	1.53
78	CA	1071	U	C2'-C1'	-9.33	1.43	1.53
81	DA	185	C	O4'-C1'	9.33	1.53	1.41
78	CA	1399	C	O4'-C1'	9.33	1.53	1.41
78	CA	1454	G	C2'-C1'	-9.33	1.43	1.53
78	CA	1212	G	O4'-C1'	9.33	1.53	1.41
81	DA	379	C	C2'-C1'	-9.33	1.43	1.53
81	DA	914	A	C2'-C1'	9.32	1.63	1.53
81	DA	1318	A	C2'-C1'	-9.32	1.43	1.53
81	DA	1836	C	C2'-C1'	-9.32	1.43	1.53
81	DA	2658	G	C2'-C1'	-9.32	1.43	1.53
82	DB	137	C	O4'-C1'	9.32	1.53	1.41
45	BR	157	PRO	CA-CB	-9.32	1.34	1.53
78	CA	216	U	O4'-C1'	9.32	1.53	1.41
81	DA	240	U	O4'-C1'	9.32	1.53	1.41
17	AQ	63	LYS	N-CA	-9.32	1.27	1.46
78	CA	1003	A	C2'-C1'	9.31	1.63	1.53
81	DA	2688	U	O4'-C1'	9.31	1.53	1.41
57	Be	98	LYS	CA-C	9.30	1.77	1.52
78	CA	1711	C	O4'-C1'	9.30	1.53	1.41
81	DA	546	C	O4'-C1'	9.30	1.53	1.41
81	DA	874	U	O4'-C1'	9.30	1.53	1.41
81	DA	1467	A	O4'-C1'	9.30	1.53	1.41
81	DA	1273	A	O4'-C1'	9.30	1.53	1.41
81	DA	1394	A	O4'-C1'	9.30	1.53	1.41
81	DA	1416	C	C2'-C1'	-9.30	1.43	1.53
81	DA	162	G	C2'-C1'	9.29	1.63	1.53
81	DA	853	G	C2'-C1'	-9.29	1.43	1.53
81	DA	2702	A	C2'-C1'	-9.29	1.43	1.53
81	DA	3305	A	O4'-C1'	9.29	1.53	1.41
18	AP	40	LEU	CA-CB	-9.29	1.32	1.53
41	BN	76	ALA	C-O	-9.29	1.05	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1567	U	O4'-C1'	9.29	1.53	1.41
81	DA	3341	U	O4'-C1'	9.29	1.53	1.41
78	CA	1284	C	O4'-C1'	9.28	1.53	1.41
81	DA	2270	A	O4'-C1'	9.28	1.53	1.41
78	CA	427	C	C2'-C1'	-9.28	1.43	1.53
81	DA	1949	G	C2'-C1'	-9.28	1.43	1.53
81	DA	2831	G	C2'-C1'	-9.28	1.43	1.53
81	DA	497	C	O4'-C1'	9.27	1.53	1.41
81	DA	1852	G	C2'-C1'	-9.27	1.43	1.53
78	CA	361	C	C2'-C1'	-9.27	1.43	1.53
78	CA	307	G	C2'-C1'	-9.27	1.43	1.53
81	DA	3212	C	C2'-C1'	-9.27	1.43	1.53
81	DA	785	G	O4'-C1'	-9.26	1.29	1.41
78	CA	1035	G	C2'-C1'	-9.26	1.43	1.53
78	CA	1380	U	O4'-C1'	9.26	1.53	1.41
78	CA	1127	G	C2'-C1'	-9.26	1.43	1.53
34	BE	52	TYR	CA-CB	9.26	1.74	1.53
78	CA	157	A	O4'-C1'	9.26	1.53	1.41
78	CA	275	C	O4'-C1'	9.25	1.53	1.41
81	DA	295	A	C2'-C1'	-9.25	1.43	1.53
81	DA	1707	A	O4'-C1'	9.25	1.53	1.41
78	CA	414	C	O4'-C1'	9.25	1.53	1.41
81	DA	127	G	C2'-C1'	-9.25	1.43	1.53
81	DA	143	G	C2'-C1'	-9.25	1.43	1.53
76	BS	124	GLN	N-CA	-9.25	1.27	1.46
81	DA	2139	A	O4'-C1'	9.25	1.53	1.41
81	DA	3027	A	C2'-C1'	-9.25	1.43	1.53
74	BQ	158	ARG	CZ-NH1	-9.24	1.21	1.33
81	DA	311	C	C2'-C1'	-9.24	1.43	1.53
81	DA	861	C	C2'-C1'	-9.24	1.43	1.53
82	DB	65	A	O4'-C1'	9.24	1.53	1.41
78	CA	29	U	C2'-C1'	-9.24	1.43	1.53
81	DA	2034	C	O4'-C1'	9.24	1.53	1.41
81	DA	357	A	C2'-C1'	-9.23	1.43	1.53
81	DA	998	A	C2'-C1'	-9.23	1.43	1.53
81	DA	2424	A	O4'-C1'	-9.23	1.29	1.41
81	DA	2781	U	C2'-C1'	9.23	1.63	1.53
81	DA	2983	C	O4'-C1'	9.23	1.53	1.41
81	DA	16	A	C2'-C1'	-9.23	1.43	1.53
81	DA	500	C	O4'-C1'	9.23	1.53	1.41
81	DA	561	C	O4'-C1'	9.23	1.53	1.41
78	CA	560	U	C2'-C1'	-9.22	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2075	C	O4'-C1'	9.22	1.53	1.41
78	CA	555	A	C5'-C4'	-9.22	1.40	1.51
81	DA	894	G	O4'-C1'	-9.22	1.29	1.41
81	DA	1283	C	O4'-C1'	9.21	1.53	1.41
83	DC	46	A	C3'-C2'	-9.21	1.42	1.52
82	DB	57	C	C2'-C1'	-9.21	1.43	1.53
81	DA	754	G	O4'-C1'	9.21	1.53	1.41
81	DA	1320	C	O4'-C1'	9.21	1.53	1.41
81	DA	1836	C	O4'-C1'	9.21	1.53	1.41
81	DA	1985	G	C2'-C1'	-9.21	1.43	1.53
81	DA	2338	C	C2'-C1'	-9.21	1.43	1.53
81	DA	3230	G	C2'-C1'	-9.21	1.43	1.53
82	DB	151	C	O4'-C1'	9.21	1.53	1.41
78	CA	1334	U	O4'-C1'	9.21	1.53	1.41
81	DA	1282	G	C2'-C1'	-9.21	1.43	1.53
81	DA	1999	C	O4'-C1'	9.20	1.53	1.41
78	CA	546	U	O4'-C1'	9.20	1.53	1.41
40	BK	63	ALA	CA-CB	9.20	1.71	1.52
81	DA	1678	G	C2'-C1'	9.19	1.63	1.53
81	DA	649	A	C2'-C1'	-9.19	1.43	1.53
81	DA	1710	C	C2'-C1'	9.19	1.63	1.53
78	CA	819	G	C2'-C1'	-9.19	1.43	1.53
78	CA	1006	C	O4'-C1'	9.19	1.53	1.41
81	DA	1697	A	O4'-C1'	9.19	1.53	1.41
81	DA	2871	G	C2'-C1'	-9.19	1.43	1.53
81	DA	1973	G	O4'-C1'	9.19	1.53	1.41
31	BB	252	THR	N-CA	9.18	1.64	1.46
81	DA	3138	U	O4'-C1'	9.18	1.53	1.41
78	CA	1479	A	O4'-C1'	-9.18	1.29	1.41
81	DA	309	U	O4'-C1'	9.18	1.53	1.41
78	CA	1453	G	O4'-C1'	9.18	1.53	1.41
81	DA	359	U	C2'-C1'	-9.18	1.43	1.53
37	BH	237	ILE	N-CA	-9.17	1.28	1.46
81	DA	596	C	C2'-C1'	-9.17	1.43	1.53
78	CA	597	G	O4'-C1'	9.17	1.53	1.41
81	DA	633	C	C2'-C1'	-9.17	1.43	1.53
78	CA	1739	C	C2'-C1'	-9.17	1.43	1.53
78	CA	617	U	C2'-C1'	-9.16	1.43	1.53
81	DA	2318	U	O4'-C1'	9.16	1.53	1.41
81	DA	2645	G	O4'-C1'	-9.16	1.29	1.41
17	AQ	81	LYS	N-CA	-9.16	1.28	1.46
81	DA	674	G	O4'-C1'	9.16	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1963	G	O4'-C1'	-9.16	1.29	1.41
81	DA	904	A	C2'-C1'	-9.16	1.43	1.53
78	CA	1735	U	C5'-C4'	9.15	1.62	1.51
81	DA	36	C	O4'-C1'	9.15	1.53	1.41
78	CA	1532	U	O4'-C1'	9.15	1.53	1.41
81	DA	1185	C	O4'-C1'	9.15	1.53	1.41
81	DA	1434	G	C2'-C1'	-9.15	1.43	1.53
78	CA	154	G	C2'-C1'	-9.15	1.43	1.53
78	CA	226	A	C3'-C2'	-9.15	1.42	1.52
78	CA	1700	C	O4'-C1'	9.15	1.53	1.41
81	DA	1960	A	O4'-C1'	9.15	1.53	1.41
78	CA	1569	A	O4'-C1'	9.14	1.53	1.41
81	DA	1547	G	C2'-C1'	-9.14	1.43	1.53
78	CA	1706	C	O4'-C1'	9.14	1.53	1.41
81	DA	778	U	C2'-C1'	-9.13	1.43	1.53
81	DA	2323	G	C2'-C1'	9.14	1.63	1.53
78	CA	1646	C	C2'-C1'	-9.13	1.43	1.53
81	DA	1599	G	C2'-C1'	-9.13	1.43	1.53
26	AZ	18	THR	N-CA	9.11	1.64	1.46
81	DA	1612	A	C2'-C1'	9.12	1.63	1.53
81	DA	1783	U	O4'-C1'	9.12	1.53	1.41
81	DA	3029	A	C2'-C1'	-9.12	1.43	1.53
78	CA	978	A	C2'-C1'	-9.11	1.43	1.53
81	DA	3133	C	O4'-C1'	9.11	1.53	1.41
79	CB	68	C	O4'-C1'	9.11	1.53	1.41
81	DA	452	G	C2'-C1'	-9.10	1.43	1.53
81	DA	998	A	O4'-C1'	9.10	1.53	1.41
81	DA	1854	C	O4'-C1'	9.10	1.53	1.41
81	DA	2484	A	O4'-C1'	-9.10	1.29	1.41
78	CA	683	C	O4'-C1'	9.10	1.53	1.41
81	DA	2250	G	O4'-C1'	9.10	1.53	1.41
78	CA	426	G	C2'-C1'	-9.10	1.43	1.53
78	CA	1620	C	C2'-C1'	-9.10	1.43	1.53
81	DA	2666	C	C2'-C1'	-9.10	1.43	1.53
81	DA	2940	A	C2'-C1'	-9.10	1.43	1.53
78	CA	1550	A	C2'-C1'	-9.09	1.43	1.53
81	DA	1268	G	O4'-C1'	9.09	1.53	1.41
81	DA	1538	G	C2'-C1'	-9.09	1.43	1.53
81	DA	1709	C	O4'-C1'	9.09	1.53	1.41
81	DA	673	U	O3'-P	-9.09	1.50	1.61
81	DA	2144	A	O4'-C1'	-9.09	1.29	1.41
39	BJ	76	SER	CA-CB	-9.08	1.39	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1759	C	O4'-C1'	9.08	1.53	1.41
81	DA	623	U	O4'-C1'	9.08	1.53	1.41
78	CA	121	U	P-O5'	9.08	1.68	1.59
81	DA	839	C	O4'-C1'	9.08	1.53	1.41
81	DA	2278	C	C2'-C1'	-9.08	1.43	1.53
2	AA	11	PRO	N-CA	-9.08	1.31	1.47
81	DA	284	A	C2'-C1'	-9.08	1.43	1.53
81	DA	1057	A	C2'-C1'	9.08	1.63	1.53
81	DA	1334	U	C2'-C1'	-9.08	1.43	1.53
83	DC	88	G	C2'-C1'	-9.08	1.43	1.53
81	DA	2510	U	O4'-C1'	9.07	1.53	1.41
13	AL	13	ARG	CG-CD	-9.07	1.29	1.51
55	Bc	108	GLN	C-O	-9.06	1.06	1.23
81	DA	779	G	C2'-C1'	-9.06	1.43	1.53
81	DA	1001	G	C2'-C1'	-9.06	1.43	1.53
81	DA	1234	G	C2'-C1'	-9.06	1.43	1.53
81	DA	1296	C	O4'-C1'	9.06	1.53	1.41
81	DA	1582	C	C2'-C1'	-9.06	1.43	1.53
78	CA	1101	G	C2'-C1'	-9.06	1.43	1.53
83	DC	63	G	C2'-C1'	-9.06	1.43	1.53
78	CA	923	A	O4'-C1'	9.05	1.53	1.41
78	CA	1234	A	O4'-C1'	-9.05	1.29	1.41
78	CA	1471	A	C2'-C1'	9.05	1.63	1.53
81	DA	3304	U	O3'-P	9.05	1.72	1.61
2	AA	12	GLU	N-CA	9.05	1.64	1.46
81	DA	1512	U	C2'-C1'	-9.05	1.43	1.53
81	DA	1832	C	O4'-C1'	9.05	1.53	1.41
81	DA	2386	A	C2'-C1'	-9.05	1.43	1.53
81	DA	2437	G	O4'-C1'	-9.05	1.29	1.41
78	CA	960	U	O4'-C1'	9.05	1.53	1.41
81	DA	1327	C	C2'-C1'	-9.04	1.43	1.53
81	DA	3391	A	C2'-C1'	-9.04	1.43	1.53
78	CA	1751	C	C2'-C1'	-9.04	1.43	1.53
69	Br	89	LYS	N-CA	9.04	1.64	1.46
45	BR	4	ASP	N-CA	-9.03	1.28	1.46
78	CA	447	U	O4'-C1'	9.03	1.53	1.41
78	CA	1301	U	O4'-C1'	9.03	1.53	1.41
81	DA	1914	G	C2'-C1'	-9.03	1.43	1.53
81	DA	2332	A	O4'-C1'	9.03	1.53	1.41
81	DA	1169	A	O4'-C1'	9.03	1.53	1.41
78	CA	274	G	C2'-C1'	-9.02	1.43	1.53
81	DA	2080	C	O4'-C1'	9.02	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	224	C	O4'-C1'	9.02	1.53	1.41
83	DC	6	C	O4'-C1'	9.02	1.53	1.41
78	CA	158	U	C2'-C1'	-9.02	1.43	1.53
78	CA	1632	C	C2'-C1'	-9.02	1.43	1.53
81	DA	618	C	O4'-C1'	9.02	1.53	1.41
81	DA	691	A	C2'-C1'	9.02	1.63	1.53
78	CA	645	C	C2'-C1'	9.01	1.63	1.53
81	DA	956	U	O4'-C1'	9.01	1.53	1.41
81	DA	887	G	O4'-C1'	9.01	1.53	1.41
83	DC	76	U	O4'-C1'	9.01	1.53	1.41
78	CA	1376	C	C2'-C1'	-9.00	1.43	1.53
81	DA	3345	G	C2'-C1'	9.00	1.63	1.53
81	DA	2436	U	O4'-C1'	9.00	1.53	1.41
13	AL	93	LEU	N-CA	-9.00	1.28	1.46
83	DC	94	A	C2'-C1'	-9.00	1.43	1.53
81	DA	385	A	C2'-C1'	-9.00	1.43	1.53
78	CA	1211	A	C2'-C1'	-8.99	1.43	1.53
81	DA	297	G	C2'-C1'	8.99	1.63	1.53
81	DA	1730	G	O4'-C1'	-8.99	1.29	1.41
81	DA	2181	C	C2'-C1'	-8.99	1.43	1.53
81	DA	2965	U	C2'-C1'	-8.99	1.43	1.53
81	DA	678	G	O4'-C1'	-8.99	1.29	1.41
81	DA	1955	U	C2'-C1'	8.99	1.63	1.53
16	AO	67	THR	N-CA	-8.99	1.28	1.46
78	CA	1455	G	O4'-C1'	8.99	1.53	1.41
81	DA	851	C	C2'-C1'	-8.99	1.43	1.53
81	DA	840	C	C2'-C1'	-8.98	1.43	1.53
81	DA	2882	U	O4'-C1'	8.98	1.53	1.41
79	CB	74	C	O4'-C1'	8.98	1.53	1.41
81	DA	77	A	C2'-C1'	-8.98	1.43	1.53
81	DA	1708	C	O4'-C1'	8.98	1.53	1.41
78	CA	1562	G	O4'-C1'	8.97	1.53	1.41
78	CA	1467	C	C2'-C1'	-8.97	1.43	1.53
81	DA	1367	G	C2'-C1'	-8.97	1.43	1.53
81	DA	2395	G	C2'-C1'	-8.97	1.43	1.53
81	DA	2808	A	O4'-C1'	-8.96	1.30	1.41
33	BD	349	THR	N-CA	8.96	1.64	1.46
78	CA	1204	A	O4'-C1'	8.96	1.53	1.41
81	DA	1542	G	C2'-C1'	-8.96	1.43	1.53
81	DA	2066	C	O4'-C1'	8.95	1.53	1.41
78	CA	25	C	O4'-C1'	8.95	1.53	1.41
81	DA	3301	U	C2'-C1'	-8.95	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	412	G	O4'-C1'	8.95	1.53	1.41
78	CA	1774	G	O4'-C1'	8.94	1.53	1.41
81	DA	2764	C	C2'-C1'	-8.94	1.43	1.53
74	BQ	40	HIS	C-N	8.94	1.54	1.34
78	CA	1003	A	O4'-C1'	-8.94	1.30	1.41
17	AQ	81	LYS	CA-CB	8.94	1.73	1.53
81	DA	2391	G	C2'-C1'	-8.94	1.43	1.53
81	DA	3034	C	C2'-C1'	-8.94	1.43	1.53
81	DA	1614	C	C2'-C1'	-8.94	1.43	1.53
81	DA	1431	G	O4'-C1'	8.93	1.53	1.41
81	DA	2145	A	O4'-C1'	8.93	1.53	1.41
82	DB	134	G	C2'-C1'	8.93	1.63	1.53
81	DA	529	A	C2'-C1'	-8.93	1.43	1.53
78	CA	1100	G	C5'-C4'	8.93	1.62	1.51
81	DA	3085	G	C2'-C1'	-8.93	1.43	1.53
67	Bp	34	CYS	CB-SG	-8.93	1.67	1.82
69	Br	48	SER	N-CA	-8.93	1.28	1.46
81	DA	1848	G	C2'-C1'	-8.93	1.43	1.53
78	CA	1267	G	O4'-C1'	8.93	1.53	1.41
81	DA	1669	C	C2'-C1'	-8.93	1.43	1.53
81	DA	2079	G	O3'-P	-8.92	1.50	1.61
46	BT	82	LYS	N-CA	8.92	1.64	1.46
81	DA	32	U	C2'-C1'	-8.92	1.43	1.53
81	DA	1900	A	C2'-C1'	-8.92	1.43	1.53
81	DA	1615	C	O4'-C1'	8.92	1.53	1.41
80	CC	16	G	C2'-C1'	8.92	1.63	1.53
81	DA	2339	C	O4'-C1'	8.91	1.53	1.41
81	DA	2758	A	C2'-C1'	8.91	1.63	1.53
29	AU	37	LYS	N-CA	-8.91	1.28	1.46
81	DA	1080	A	O4'-C1'	-8.91	1.30	1.41
81	DA	455	C	O4'-C1'	8.90	1.53	1.41
81	DA	1147	G	O4'-C1'	-8.90	1.30	1.41
81	DA	2354	C	O4'-C1'	8.90	1.53	1.41
81	DA	3297	U	O4'-C1'	8.90	1.53	1.41
78	CA	153	G	C2'-C1'	-8.90	1.43	1.53
78	CA	994	G	O4'-C1'	-8.90	1.30	1.41
78	CA	625	C	O4'-C1'	8.90	1.53	1.41
78	CA	1534	G	P-O5'	-8.90	1.50	1.59
81	DA	902	G	C2'-C1'	-8.90	1.43	1.53
81	DA	823	C	C2'-C1'	-8.89	1.43	1.53
81	DA	947	G	C2'-C1'	-8.89	1.43	1.53
78	CA	1736	G	C2'-C1'	-8.89	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	235	A	C4'-O4'	-8.89	1.33	1.45
82	DB	129	C	O4'-C1'	8.89	1.53	1.41
81	DA	2823	G	C2'-C1'	-8.89	1.43	1.53
81	DA	11	A	O4'-C1'	8.88	1.53	1.41
81	DA	1995	A	O4'-C1'	8.88	1.53	1.41
78	CA	204	G	O4'-C1'	8.87	1.53	1.41
81	DA	2480	A	O3'-P	-8.87	1.50	1.61
45	BR	98	LYS	N-CA	8.87	1.64	1.46
81	DA	2813	A	C2'-C1'	-8.87	1.43	1.53
81	DA	61	A	C2'-C1'	-8.87	1.43	1.53
81	DA	1616	U	O4'-C1'	8.87	1.53	1.41
81	DA	2781	U	O4'-C1'	-8.87	1.30	1.41
83	DC	28	C	O4'-C1'	8.87	1.53	1.41
81	DA	2128	C	C2'-C1'	-8.86	1.43	1.53
32	BC	130	PHE	N-CA	8.86	1.64	1.46
81	DA	1588	A	O4'-C1'	-8.86	1.30	1.41
81	DA	1060	U	C2'-C1'	-8.86	1.43	1.53
81	DA	2582	C	C2'-C1'	-8.85	1.43	1.53
81	DA	1187	C	O4'-C1'	8.85	1.53	1.41
81	DA	2289	U	O4'-C1'	8.85	1.53	1.41
40	BK	70	PRO	N-CA	8.85	1.62	1.47
81	DA	1928	G	C2'-C1'	-8.84	1.43	1.53
39	BJ	76	SER	N-CA	8.84	1.64	1.46
81	DA	312	C	O4'-C1'	8.84	1.53	1.41
37	BH	228	GLU	CA-CB	8.84	1.73	1.53
81	DA	3388	C	C2'-C1'	-8.84	1.43	1.53
81	DA	2649	A	C2'-C1'	-8.83	1.43	1.53
78	CA	1550	A	O4'-C1'	8.83	1.53	1.41
81	DA	64	G	C2'-C1'	-8.83	1.43	1.53
81	DA	2071	A	O3'-P	-8.83	1.50	1.61
81	DA	2668	U	O4'-C1'	8.83	1.53	1.41
78	CA	471	A	C2'-C1'	-8.82	1.43	1.53
78	CA	1242	A	O4'-C1'	8.82	1.53	1.41
81	DA	724	U	C2'-C1'	-8.82	1.43	1.53
81	DA	1243	G	C2'-C1'	-8.82	1.43	1.53
42	BM	41	GLY	N-CA	8.82	1.59	1.46
78	CA	1558	U	C5'-C4'	-8.82	1.40	1.51
81	DA	2365	C	O4'-C1'	8.81	1.53	1.41
81	DA	796	U	O4'-C1'	8.81	1.53	1.41
81	DA	2825	C	C2'-C1'	-8.81	1.43	1.53
81	DA	1190	A	O4'-C1'	8.81	1.53	1.41
81	DA	2849	C	C2'-C1'	-8.81	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	615	U	O4'-C1'	8.80	1.53	1.41
81	DA	791	A	C2'-C1'	-8.80	1.43	1.53
78	CA	818	C	C2'-C1'	-8.80	1.43	1.53
78	CA	430	G	O4'-C1'	8.80	1.53	1.41
78	CA	1685	G	C2'-C1'	-8.80	1.43	1.53
81	DA	3143	C	C2'-C1'	-8.79	1.43	1.53
81	DA	694	C	C2'-C1'	-8.79	1.43	1.53
78	CA	1789	G	C2'-C1'	-8.78	1.43	1.53
81	DA	1307	G	C2'-C1'	-8.78	1.43	1.53
81	DA	993	G	O4'-C1'	8.77	1.53	1.41
81	DA	3091	A	P-O5'	8.77	1.68	1.59
78	CA	899	G	O4'-C1'	-8.77	1.30	1.41
81	DA	3242	G	P-O5'	-8.77	1.50	1.59
44	BO	40	HIS	CA-CB	-8.77	1.34	1.53
78	CA	124	A	O4'-C1'	8.77	1.53	1.41
81	DA	1657	C	C2'-C1'	8.76	1.62	1.53
2	AA	11	PRO	CA-CB	-8.76	1.36	1.53
81	DA	450	G	C2'-C1'	-8.76	1.43	1.53
81	DA	2285	C	O4'-C1'	8.76	1.53	1.41
78	CA	45	U	O4'-C1'	-8.76	1.30	1.41
81	DA	695	C	O4'-C1'	8.75	1.53	1.41
81	DA	2190	U	O4'-C1'	8.75	1.53	1.41
81	DA	2435	G	C2'-C1'	8.75	1.62	1.53
81	DA	3040	A	C2'-C1'	-8.75	1.43	1.53
83	DC	115	A	C2'-C1'	8.75	1.62	1.53
81	DA	1549	U	C2'-C1'	-8.75	1.43	1.53
81	DA	3137	C	C2'-C1'	-8.75	1.43	1.53
78	CA	1734	U	O4'-C1'	8.75	1.53	1.41
81	DA	679	U	O4'-C1'	8.75	1.53	1.41
81	DA	3220	G	C3'-C2'	8.75	1.62	1.52
10	AI	54	LEU	N-CA	-8.74	1.28	1.46
81	DA	146	U	C5'-C4'	8.74	1.61	1.51
78	CA	683	C	C2'-C1'	8.74	1.62	1.53
81	DA	407	A	O4'-C1'	8.74	1.53	1.41
81	DA	616	G	C2'-C1'	-8.74	1.43	1.53
81	DA	2377	G	P-O5'	-8.74	1.51	1.59
81	DA	146	U	P-O5'	-8.74	1.51	1.59
81	DA	2859	U	C2'-C1'	8.73	1.62	1.53
81	DA	2177	G	O4'-C1'	8.73	1.52	1.41
81	DA	1371	G	C2'-C1'	-8.73	1.43	1.53
82	DB	127	U	O4'-C1'	8.73	1.52	1.41
78	CA	1147	A	C2'-C1'	-8.72	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1488	G	C2'-C1'	-8.72	1.43	1.53
78	CA	1747	G	P-O5'	-8.72	1.51	1.59
81	DA	1177	G	O4'-C1'	8.72	1.52	1.41
81	DA	1039	U	O4'-C1'	8.72	1.52	1.41
82	DB	29	U	O4'-C1'	8.72	1.52	1.41
33	BD	84	ARG	NE-CZ	8.72	1.44	1.33
78	CA	1465	C	O4'-C1'	8.72	1.52	1.41
78	CA	1540	G	C2'-C1'	-8.72	1.43	1.53
81	DA	2367	A	O4'-C1'	8.71	1.52	1.41
81	DA	2713	U	O4'-C1'	8.71	1.52	1.41
81	DA	941	G	C2'-C1'	-8.70	1.43	1.53
81	DA	2723	U	C2'-C1'	-8.70	1.43	1.53
81	DA	673	U	C2'-C1'	-8.70	1.43	1.53
78	CA	337	G	C2'-C1'	8.70	1.62	1.53
78	CA	163	G	O3'-P	-8.69	1.50	1.61
81	DA	1738	C	C2'-C1'	-8.69	1.43	1.53
81	DA	2642	A	O4'-C1'	8.69	1.52	1.41
81	DA	1421	G	C2'-C1'	-8.69	1.43	1.53
81	DA	2265	C	C2'-C1'	-8.69	1.43	1.53
81	DA	2335	G	O4'-C1'	-8.69	1.30	1.41
81	DA	2486	A	O4'-C1'	8.69	1.52	1.41
81	DA	2716	U	O4'-C1'	8.69	1.52	1.41
82	DB	28	C	C2'-C1'	-8.69	1.43	1.53
81	DA	1292	C	C2'-C1'	-8.68	1.43	1.53
78	CA	1297	G	O4'-C1'	-8.68	1.30	1.41
81	DA	2621	G	C2'-C1'	-8.68	1.43	1.53
78	CA	288	A	C2'-C1'	8.68	1.62	1.53
78	CA	1543	A	O4'-C1'	8.68	1.52	1.41
83	DC	104	C	O4'-C1'	8.68	1.52	1.41
81	DA	176	G	C2'-C1'	-8.67	1.43	1.53
26	AZ	39	LEU	CA-CB	8.67	1.73	1.53
81	DA	1291	A	C2'-C1'	8.67	1.62	1.53
2	AA	252	TRP	CA-CB	8.66	1.73	1.53
43	BP	80	THR	CA-CB	8.66	1.75	1.53
78	CA	324	U	C2'-C1'	-8.66	1.43	1.53
78	CA	1087	A	P-O5'	-8.66	1.51	1.59
78	CA	1648	A	C5'-C4'	8.66	1.61	1.51
47	BU	126	VAL	N-CA	-8.66	1.29	1.46
78	CA	407	A	C2'-C1'	8.66	1.62	1.53
81	DA	604	G	C2'-C1'	8.66	1.62	1.53
81	DA	2156	C	O4'-C1'	8.65	1.52	1.41
60	Bi	56	THR	N-CA	-8.65	1.29	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	856	G	O4'-C1'	8.65	1.52	1.41
78	CA	1423	U	O4'-C1'	8.65	1.52	1.41
81	DA	3322	A	O4'-C1'	8.65	1.52	1.41
5	AC	162	SER	N-CA	-8.64	1.29	1.46
53	Ba	60	LYS	N-CA	8.64	1.63	1.46
79	CB	65	U	O4'-C1'	8.64	1.52	1.41
81	DA	2526	C	O4'-C1'	8.64	1.52	1.41
43	BP	17	ASP	N-CA	-8.64	1.29	1.46
78	CA	333	A	O4'-C1'	8.64	1.52	1.41
78	CA	664	U	C2'-C1'	-8.64	1.43	1.53
81	DA	801	A	C3'-C2'	-8.64	1.43	1.52
31	BB	73	GLU	CA-CB	8.64	1.73	1.53
78	CA	621	A	O4'-C1'	-8.64	1.30	1.41
81	DA	311	C	O4'-C1'	8.64	1.52	1.41
81	DA	425	G	C2'-C1'	-8.64	1.43	1.53
81	DA	1262	G	C2'-C1'	-8.63	1.43	1.53
81	DA	2159	U	O4'-C1'	-8.63	1.30	1.41
81	DA	2257	C	C2'-C1'	8.63	1.62	1.53
78	CA	1379	C	C2'-C1'	-8.63	1.43	1.53
78	CA	1767	G	O4'-C1'	8.63	1.52	1.41
81	DA	3220	G	O4'-C1'	8.63	1.52	1.41
44	BO	57	GLY	C-O	-8.63	1.09	1.23
82	DB	19	C	O4'-C1'	8.63	1.52	1.41
78	CA	1748	G	C2'-C1'	-8.63	1.43	1.53
81	DA	2154	U	C2'-C1'	-8.63	1.43	1.53
81	DA	326	U	O4'-C1'	8.63	1.52	1.41
81	DA	1338	C	C3'-C2'	8.62	1.62	1.52
81	DA	1392	G	O4'-C1'	8.62	1.52	1.41
81	DA	2463	G	O4'-C1'	-8.63	1.30	1.41
81	DA	541	U	C2'-C1'	8.62	1.62	1.53
81	DA	1428	A	O4'-C1'	8.62	1.52	1.41
81	DA	1864	A	C2'-C1'	8.62	1.62	1.53
81	DA	2994	A	C2'-C1'	8.62	1.62	1.53
81	DA	2430	A	O4'-C1'	8.62	1.52	1.41
51	BZ	51	TRP	N-CA	8.62	1.63	1.46
78	CA	222	A	O4'-C1'	-8.62	1.30	1.41
78	CA	1364	G	C2'-C1'	-8.62	1.43	1.53
81	DA	2151	C	O4'-C1'	8.62	1.52	1.41
81	DA	2391	G	O4'-C1'	8.61	1.52	1.41
78	CA	470	A	O4'-C1'	8.61	1.52	1.41
81	DA	990	U	O3'-P	-8.61	1.50	1.61
81	DA	1726	C	O4'-C1'	8.61	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1880	U	O4'-C1'	8.61	1.52	1.41
49	BV	170	SER	C-OXT	-8.60	1.07	1.23
81	DA	2	U	C2'-C1'	8.60	1.62	1.53
81	DA	1580	A	C2'-C1'	-8.60	1.43	1.53
81	DA	1611	G	C2'-C1'	-8.60	1.43	1.53
82	DB	92	A	C2'-C1'	-8.60	1.43	1.53
81	DA	1675	G	O4'-C1'	-8.60	1.30	1.41
81	DA	2512	C	O4'-C1'	8.60	1.52	1.41
81	DA	140	C	O4'-C1'	8.60	1.52	1.41
81	DA	1479	U	O4'-C1'	8.60	1.52	1.41
78	CA	1246	C	C2'-C1'	-8.59	1.43	1.53
81	DA	627	U	O4'-C1'	8.59	1.52	1.41
79	CB	27	G	C2'-C1'	-8.59	1.44	1.53
81	DA	3002	C	O3'-P	-8.59	1.50	1.61
78	CA	833	U	C2'-C1'	8.59	1.62	1.53
78	CA	1306	C	C3'-C2'	8.59	1.62	1.52
81	DA	273	A	C2'-C1'	-8.58	1.44	1.53
78	CA	166	C	O4'-C1'	8.58	1.52	1.41
78	CA	366	A	O4'-C1'	8.58	1.52	1.41
81	DA	1346	G	O4'-C1'	-8.58	1.30	1.41
81	DA	1702	U	O4'-C1'	-8.58	1.30	1.41
78	CA	626	U	C2'-C1'	-8.58	1.44	1.53
78	CA	1134	C	C2'-C1'	-8.57	1.44	1.53
81	DA	1050	U	C2'-C1'	8.57	1.62	1.53
81	DA	3069	G	C2'-C1'	-8.57	1.44	1.53
78	CA	42	G	O4'-C1'	8.57	1.52	1.41
81	DA	783	A	C2'-C1'	-8.57	1.44	1.53
81	DA	2199	G	C2'-C1'	-8.56	1.44	1.53
81	DA	1195	A	O4'-C1'	-8.56	1.30	1.41
13	AL	87	VAL	N-CA	8.56	1.63	1.46
78	CA	1682	U	O4'-C1'	8.56	1.52	1.41
81	DA	2618	G	O4'-C1'	-8.56	1.30	1.41
1	Aa	58	VAL	C-N	8.55	1.53	1.34
81	DA	759	U	C5'-C4'	8.55	1.61	1.51
40	BK	184	THR	N-CA	8.55	1.63	1.46
81	DA	453	C	O4'-C1'	8.55	1.52	1.41
78	CA	1591	C	O4'-C1'	8.55	1.52	1.41
81	DA	2393	G	P-O5'	-8.54	1.51	1.59
78	CA	1581	C	O4'-C1'	8.54	1.52	1.41
81	DA	472	A	O4'-C1'	8.54	1.52	1.41
78	CA	392	G	O4'-C1'	8.54	1.52	1.41
82	DB	93	U	C2'-C1'	8.54	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	108	A	O4'-C1'	8.54	1.52	1.41
81	DA	3008	A	C2'-C1'	-8.54	1.44	1.53
78	CA	610	G	C2'-C1'	8.53	1.62	1.53
78	CA	424	C	O4'-C1'	8.53	1.52	1.41
81	DA	2737	C	C2'-C1'	-8.53	1.44	1.53
82	DB	53	A	O4'-C1'	8.53	1.52	1.41
81	DA	554	A	O4'-C1'	8.53	1.52	1.41
83	DC	70	A	O4'-C1'	8.53	1.52	1.41
78	CA	1139	A	O4'-C1'	8.53	1.52	1.41
81	DA	2213	A	O4'-C1'	8.53	1.52	1.41
81	DA	995	U	O4'-C1'	8.52	1.52	1.41
81	DA	1178	G	C2'-C1'	-8.52	1.44	1.53
78	CA	1560	U	O4'-C1'	8.52	1.52	1.41
81	DA	524	U	C2'-C1'	8.52	1.62	1.53
81	DA	498	A	C2'-C1'	-8.52	1.44	1.53
81	DA	2343	C	C2'-C1'	-8.52	1.44	1.53
81	DA	649	A	O4'-C1'	8.52	1.52	1.41
81	DA	346	C	O4'-C1'	8.51	1.52	1.41
81	DA	871	U	O4'-C1'	8.51	1.52	1.41
81	DA	982	C	C2'-C1'	8.51	1.62	1.53
81	DA	1806	A	C2'-C1'	-8.51	1.44	1.53
81	DA	641	C	C2'-C1'	-8.51	1.44	1.53
81	DA	893	C	O4'-C1'	8.51	1.52	1.41
81	DA	2517	U	O4'-C1'	8.51	1.52	1.41
81	DA	2800	G	O4'-C1'	8.51	1.52	1.41
78	CA	628	G	O4'-C1'	8.50	1.52	1.41
81	DA	162	G	O4'-C1'	-8.50	1.30	1.41
81	DA	1961	G	C2'-C1'	-8.50	1.44	1.53
74	BQ	190	ILE	CA-CB	-8.49	1.35	1.54
81	DA	2680	A	C2'-C1'	-8.49	1.44	1.53
81	DA	3137	C	O4'-C1'	8.49	1.52	1.41
78	CA	570	A	O4'-C1'	-8.49	1.30	1.41
4	AD	191	ARG	NE-CZ	8.49	1.44	1.33
81	DA	985	U	C5'-C4'	8.49	1.61	1.51
81	DA	1652	G	C2'-C1'	-8.49	1.44	1.53
4	AD	241	GLY	CA-C	-8.48	1.38	1.51
81	DA	603	A	O4'-C1'	8.48	1.52	1.41
78	CA	1329	A	O4'-C1'	8.48	1.52	1.41
81	DA	951	A	O4'-C1'	8.48	1.52	1.41
81	DA	1301	A	O4'-C1'	8.48	1.52	1.41
81	DA	2359	C	O4'-C1'	8.48	1.52	1.41
81	DA	2238	G	C2'-C1'	-8.47	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	652	G	O4'-C1'	8.47	1.52	1.41
81	DA	322	U	O4'-C1'	8.47	1.52	1.41
78	CA	425	A	C2'-C1'	-8.47	1.44	1.53
78	CA	1323	C	O4'-C1'	8.47	1.52	1.41
81	DA	767	U	C2'-C1'	-8.47	1.44	1.53
81	DA	1382	G	C2'-C1'	-8.47	1.44	1.53
81	DA	3335	A	O4'-C1'	8.47	1.52	1.41
81	DA	938	C	O4'-C1'	8.46	1.52	1.41
32	BC	256	HIS	CA-CB	-8.45	1.35	1.53
81	DA	823	C	O4'-C1'	8.45	1.52	1.41
81	DA	670	C	O4'-C1'	8.45	1.52	1.41
82	DB	89	A	O4'-C1'	8.45	1.52	1.41
78	CA	233	C	C2'-C1'	-8.45	1.44	1.53
78	CA	356	G	C2'-C1'	-8.45	1.44	1.53
81	DA	675	C	C2'-C1'	8.45	1.62	1.53
81	DA	1079	A	C2'-C1'	8.45	1.62	1.53
78	CA	30	G	C4'-O4'	-8.45	1.34	1.45
81	DA	2743	A	C2'-C1'	-8.45	1.44	1.53
81	DA	917	A	C2'-C1'	-8.44	1.44	1.53
81	DA	45	A	O4'-C1'	8.44	1.52	1.41
82	DB	47	C	O4'-C1'	8.44	1.52	1.41
81	DA	667	C	O4'-C1'	8.43	1.52	1.41
78	CA	970	A	C2'-C1'	8.43	1.62	1.53
81	DA	2279	A	O3'-P	-8.43	1.51	1.61
81	DA	1508	C	C2'-C1'	-8.43	1.44	1.53
81	DA	2490	C	C2'-C1'	-8.43	1.44	1.53
81	DA	2729	U	O4'-C1'	8.43	1.52	1.41
81	DA	3126	C	O4'-C1'	8.43	1.52	1.41
78	CA	529	A	P-O5'	8.43	1.68	1.59
81	DA	790	U	C4'-C3'	-8.43	1.43	1.53
81	DA	1820	U	C5'-C4'	8.42	1.61	1.51
81	DA	1364	C	C2'-C1'	-8.42	1.44	1.53
81	DA	2087	C	O4'-C1'	8.42	1.52	1.41
1	Aa	57	PRO	CA-C	8.41	1.69	1.52
78	CA	1279	C	C2'-C1'	-8.41	1.44	1.53
78	CA	613	G	C2'-C1'	8.40	1.62	1.53
78	CA	1202	A	C2'-C1'	8.40	1.62	1.53
81	DA	3062	G	O4'-C1'	-8.40	1.30	1.41
78	CA	585	A	O4'-C1'	8.40	1.52	1.41
81	DA	16	A	O4'-C1'	8.40	1.52	1.41
81	DA	381	U	C2'-C1'	-8.40	1.44	1.53
78	CA	1754	A	C2'-C1'	-8.39	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	172	G	O4'-C1'	8.39	1.52	1.41
81	DA	1211	U	O4'-C1'	8.39	1.52	1.41
81	DA	1812	G	C2'-C1'	-8.38	1.44	1.53
81	DA	20	A	O4'-C1'	8.38	1.52	1.41
81	DA	1778	G	C2'-C1'	-8.38	1.44	1.53
78	CA	114	C	C2'-C1'	8.38	1.62	1.53
78	CA	1536	G	O4'-C1'	8.38	1.52	1.41
4	AD	91	THR	N-CA	-8.38	1.29	1.46
78	CA	1368	G	C2'-C1'	-8.38	1.44	1.53
81	DA	843	A	C2'-C1'	8.38	1.62	1.53
81	DA	3243	A	O4'-C1'	8.38	1.52	1.41
81	DA	888	A	O4'-C1'	8.38	1.52	1.41
81	DA	2846	U	O4'-C1'	8.38	1.52	1.41
46	BT	82	LYS	CA-CB	-8.37	1.35	1.53
78	CA	1243	G	C5'-C4'	8.37	1.61	1.51
81	DA	1268	G	C2'-C1'	-8.37	1.44	1.53
35	BG	27	PRO	N-CA	8.37	1.61	1.47
81	DA	2315	G	C2'-C1'	-8.37	1.44	1.53
2	AA	252	TRP	CB-CG	8.37	1.65	1.50
81	DA	2600	C	O4'-C1'	8.37	1.52	1.41
82	DB	104	A	O4'-C1'	8.37	1.52	1.41
82	DB	136	G	C2'-C1'	-8.37	1.44	1.53
81	DA	2671	A	C2'-C1'	-8.37	1.44	1.53
5	AC	18	PRO	CA-CB	-8.36	1.36	1.53
78	CA	347	G	C2'-C1'	-8.36	1.44	1.53
78	CA	1163	A	C2'-C1'	-8.36	1.44	1.53
81	DA	1421	G	O4'-C1'	8.36	1.52	1.41
81	DA	2298	U	O4'-C1'	8.36	1.52	1.41
81	DA	2849	C	O4'-C1'	8.36	1.52	1.41
81	DA	2248	C	C2'-C1'	-8.36	1.44	1.53
82	DB	94	C	C2'-C1'	-8.36	1.44	1.53
78	CA	1037	C	C2'-C1'	-8.35	1.44	1.53
81	DA	1752	A	O4'-C1'	8.35	1.52	1.41
78	CA	1592	A	C2'-C1'	-8.35	1.44	1.53
83	DC	14	U	C2'-C1'	-8.35	1.44	1.53
81	DA	2138	A	C2'-C1'	8.34	1.62	1.53
78	CA	1667	A	O4'-C1'	8.34	1.52	1.41
78	CA	1726	G	O4'-C1'	8.34	1.52	1.41
32	BC	360	ASP	CA-CB	8.34	1.72	1.53
78	CA	255	U	C5'-C4'	8.34	1.61	1.51
81	DA	776	U	O4'-C1'	8.34	1.52	1.41
78	CA	306	U	O4'-C1'	8.33	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	82	U	O4'-C1'	8.33	1.52	1.41
81	DA	2736	A	O4'-C1'	-8.33	1.30	1.41
10	AI	140	LYS	CA-CB	8.33	1.72	1.53
81	DA	750	G	O4'-C1'	8.33	1.52	1.41
81	DA	1144	U	O4'-C1'	8.33	1.52	1.41
78	CA	117	U	O4'-C1'	8.32	1.52	1.41
81	DA	2027	C	O4'-C1'	8.32	1.52	1.41
81	DA	2907	G	O4'-C1'	-8.32	1.30	1.41
81	DA	937	G	C2'-C1'	-8.32	1.44	1.53
32	BC	371	GLN	C-N	-8.32	1.15	1.34
81	DA	3132	C	C2'-C1'	-8.32	1.44	1.53
81	DA	2871	G	O4'-C1'	8.31	1.52	1.41
13	AL	87	VAL	CA-CB	-8.31	1.37	1.54
81	DA	938	C	C2'-C1'	-8.31	1.44	1.53
81	DA	1824	U	O4'-C1'	8.31	1.52	1.41
81	DA	3097	C	O4'-C1'	8.31	1.52	1.41
78	CA	368	U	O3'-P	-8.31	1.51	1.61
81	DA	1274	A	O4'-C1'	8.30	1.52	1.41
78	CA	993	A	O4'-C1'	8.30	1.52	1.41
81	DA	1133	A	C2'-C1'	-8.30	1.44	1.53
81	DA	2038	C	C2'-C1'	-8.30	1.44	1.53
81	DA	3058	U	C2'-C1'	-8.30	1.44	1.53
81	DA	3289	G	C2'-C1'	-8.30	1.44	1.53
81	DA	1034	U	C2'-C1'	-8.30	1.44	1.53
78	CA	344	A	O4'-C1'	8.29	1.52	1.41
78	CA	967	A	C2'-C1'	8.29	1.62	1.53
78	CA	1105	C	O4'-C1'	8.29	1.52	1.41
81	DA	1151	U	O4'-C1'	8.29	1.52	1.41
78	CA	1128	C	C2'-C1'	-8.29	1.44	1.53
78	CA	559	C	O4'-C1'	8.29	1.52	1.41
81	DA	2274	U	O4'-C1'	8.29	1.52	1.41
81	DA	166	C	C2'-C1'	-8.29	1.44	1.53
81	DA	2064	C	O3'-P	-8.29	1.51	1.61
81	DA	829	U	C2'-C1'	-8.28	1.44	1.53
81	DA	2197	C	C2'-C1'	8.28	1.62	1.53
78	CA	1646	C	O4'-C1'	8.28	1.52	1.41
78	CA	1389	C	O4'-C1'	-8.28	1.30	1.41
81	DA	910	G	O3'-P	-8.27	1.51	1.61
81	DA	2101	C	O4'-C1'	8.27	1.52	1.41
8	AF	36	ALA	N-CA	-8.27	1.29	1.46
81	DA	499	G	C2'-C1'	-8.27	1.44	1.53
78	CA	1359	C	O4'-C1'	8.27	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DB	21	C	C2'-C1'	-8.27	1.44	1.53
81	DA	1587	A	C2'-C1'	8.27	1.62	1.53
34	BE	123	PHE	N-CA	8.27	1.62	1.46
81	DA	1426	C	C4'-C3'	-8.27	1.44	1.53
81	DA	2712	U	C2'-C1'	8.27	1.62	1.53
78	CA	1047	G	C2'-C1'	-8.26	1.44	1.53
81	DA	103	G	C2'-C1'	8.26	1.62	1.53
81	DA	3338	C	O4'-C1'	8.26	1.52	1.41
81	DA	911	C	C2'-C1'	-8.26	1.44	1.53
81	DA	636	C	P-O5'	-8.26	1.51	1.59
81	DA	1968	G	C2'-C1'	-8.25	1.44	1.53
81	DA	2719	U	O4'-C1'	8.25	1.52	1.41
78	CA	1315	U	C2'-C1'	-8.25	1.44	1.53
78	CA	409	C	O4'-C1'	8.25	1.52	1.41
81	DA	519	A	O4'-C1'	-8.24	1.30	1.41
81	DA	1067	U	O4'-C1'	8.24	1.52	1.41
83	DC	69	G	C2'-C1'	-8.24	1.44	1.53
81	DA	2527	G	O4'-C1'	-8.23	1.30	1.41
78	CA	163	G	C4'-C3'	-8.23	1.44	1.53
81	DA	450	G	O4'-C1'	8.23	1.52	1.41
81	DA	782	U	C2'-C1'	8.23	1.62	1.53
78	CA	916	U	O4'-C1'	8.22	1.52	1.41
78	CA	1733	C	C2'-C1'	-8.22	1.44	1.53
81	DA	1695	U	O4'-C1'	-8.22	1.30	1.41
81	DA	2590	A	O4'-C1'	8.22	1.52	1.41
81	DA	3370	A	C2'-C1'	-8.22	1.44	1.53
83	DC	103	U	C2'-C1'	-8.22	1.44	1.53
36	BF	46	THR	CA-C	8.22	1.74	1.52
78	CA	596	C	C2'-C1'	-8.22	1.44	1.53
78	CA	818	C	P-OP2	8.22	1.62	1.49
78	CA	1212	G	C2'-C1'	-8.22	1.44	1.53
81	DA	858	A	O3'-P	-8.22	1.51	1.61
81	DA	1293	U	O4'-C1'	8.22	1.52	1.41
81	DA	3118	C	C2'-C1'	-8.22	1.44	1.53
81	DA	628	A	C2'-C1'	8.21	1.62	1.53
81	DA	2167	A	O4'-C1'	8.21	1.52	1.41
78	CA	1225	U	O4'-C1'	8.21	1.52	1.41
81	DA	1469	C	C2'-C1'	-8.21	1.44	1.53
78	CA	1340	U	P-O5'	-8.21	1.51	1.59
78	CA	177	U	C2'-C1'	-8.21	1.44	1.53
81	DA	555	U	C2'-C1'	8.21	1.62	1.53
78	CA	1418	G	O4'-C1'	8.21	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1647	U	C2'-C1'	-8.21	1.44	1.53
81	DA	3133	C	C2'-C1'	-8.21	1.44	1.53
81	DA	2811	A	O4'-C1'	8.20	1.52	1.41
81	DA	2954	U	O4'-C1'	8.20	1.52	1.41
57	Be	203	TRP	N-CA	8.20	1.62	1.46
81	DA	972	A	O4'-C1'	8.20	1.52	1.41
83	DC	97	C	C2'-C1'	-8.20	1.44	1.53
83	DC	1	G	O4'-C1'	8.20	1.52	1.41
81	DA	2171	G	C2'-C1'	-8.19	1.44	1.53
82	DB	30	C	C2'-C1'	-8.19	1.44	1.53
81	DA	2757	U	O3'-P	-8.19	1.51	1.61
78	CA	551	G	C2'-C1'	-8.19	1.44	1.53
78	CA	1596	C	O4'-C1'	8.19	1.52	1.41
81	DA	3088	G	C2'-C1'	-8.19	1.44	1.53
78	CA	1756	A	C2'-C1'	8.19	1.62	1.53
81	DA	2327	U	O4'-C1'	8.19	1.52	1.41
78	CA	387	A	C2'-C1'	8.18	1.62	1.53
78	CA	1339	C	O4'-C1'	8.18	1.52	1.41
81	DA	647	A	O4'-C1'	8.18	1.52	1.41
81	DA	3054	U	C2'-C1'	-8.18	1.44	1.53
81	DA	791	A	O3'-P	-8.18	1.51	1.61
81	DA	2833	A	C2'-C1'	-8.18	1.44	1.53
81	DA	1528	G	O4'-C1'	-8.18	1.31	1.41
81	DA	2006	G	C2'-C1'	-8.18	1.44	1.53
81	DA	2443	A	O4'-C1'	8.18	1.52	1.41
81	DA	268	A	C2'-C1'	8.17	1.62	1.53
81	DA	975	C	C2'-C1'	8.17	1.62	1.53
81	DA	1447	G	O4'-C1'	8.17	1.52	1.41
81	DA	2317	A	C2'-C1'	-8.17	1.44	1.53
81	DA	538	G	C2'-C1'	-8.17	1.44	1.53
83	DC	65	G	O4'-C1'	8.17	1.52	1.41
78	CA	1545	A	O4'-C1'	-8.17	1.31	1.41
78	CA	1021	C	O4'-C1'	8.17	1.52	1.41
22	AV	105	THR	CA-CB	8.16	1.74	1.53
78	CA	1419	G	C2'-C1'	-8.16	1.44	1.53
81	DA	3257	C	C2'-C1'	-8.16	1.44	1.53
81	DA	197	G	C2'-C1'	-8.16	1.44	1.53
14	AM	99	HIS	N-CA	8.16	1.62	1.46
81	DA	869	G	C2'-C1'	-8.16	1.44	1.53
81	DA	1956	A	C2'-C1'	8.16	1.62	1.53
81	DA	566	G	O4'-C1'	8.16	1.52	1.41
81	DA	463	C	O4'-C1'	8.15	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	DC	61	U	C2'-C1'	8.15	1.62	1.53
81	DA	3216	G	O4'-C1'	-8.15	1.31	1.41
81	DA	375	A	C2'-C1'	8.15	1.62	1.53
81	DA	637	C	C5'-C4'	-8.15	1.41	1.51
81	DA	159	A	O4'-C1'	8.15	1.52	1.41
81	DA	1075	A	C2'-C1'	-8.15	1.44	1.53
45	BR	140	LEU	CA-CB	8.14	1.72	1.53
81	DA	1101	G	O4'-C1'	8.14	1.52	1.41
81	DA	2509	U	O3'-P	-8.14	1.51	1.61
81	DA	1406	A	C2'-C1'	-8.14	1.44	1.53
81	DA	3054	U	O4'-C1'	8.14	1.52	1.41
78	CA	389	G	C2'-C1'	-8.14	1.44	1.53
81	DA	855	U	O3'-P	-8.14	1.51	1.61
81	DA	1129	A	C2'-C1'	-8.14	1.44	1.53
78	CA	339	C	O4'-C1'	8.14	1.52	1.41
81	DA	1327	C	O4'-C1'	8.13	1.52	1.41
81	DA	2827	U	O4'-C1'	-8.13	1.31	1.41
81	DA	532	A	C2'-C1'	-8.13	1.44	1.53
81	DA	556	U	O4'-C1'	8.13	1.52	1.41
81	DA	1183	C	O4'-C1'	8.13	1.52	1.41
81	DA	1814	A	O4'-C1'	-8.13	1.31	1.41
81	DA	1984	C	C2'-C1'	-8.13	1.44	1.53
81	DA	2797	C	O4'-C1'	8.13	1.52	1.41
78	CA	1125	A	C2'-C1'	-8.13	1.44	1.53
81	DA	1503	A	O4'-C1'	8.13	1.52	1.41
81	DA	264	G	C2'-C1'	-8.12	1.44	1.53
81	DA	2647	A	O4'-C1'	-8.12	1.31	1.41
78	CA	416	A	O4'-C1'	8.12	1.52	1.41
81	DA	2646	C	C3'-C2'	-8.12	1.43	1.52
78	CA	689	G	C2'-C1'	-8.12	1.44	1.53
78	CA	1033	C	O4'-C1'	8.12	1.52	1.41
81	DA	288	C	O4'-C1'	8.12	1.52	1.41
81	DA	2337	C	C2'-C1'	-8.12	1.44	1.53
81	DA	424	G	C2'-C1'	-8.12	1.44	1.53
81	DA	186	U	C2'-C1'	8.12	1.62	1.53
81	DA	771	A	O4'-C1'	8.11	1.52	1.41
81	DA	3130	A	O4'-C1'	-8.11	1.31	1.41
81	DA	2755	C	O3'-P	-8.11	1.51	1.61
81	DA	3314	A	O4'-C1'	8.11	1.52	1.41
78	CA	288	A	O3'-P	-8.11	1.51	1.61
81	DA	489	C	C2'-C1'	-8.11	1.44	1.53
81	DA	1451	C	O4'-C1'	8.11	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1791	C	O3'-P	-8.11	1.51	1.61
35	BG	38	THR	CA-CB	8.10	1.74	1.53
78	CA	1329	A	C2'-C1'	-8.10	1.44	1.53
81	DA	1964	C	O4'-C1'	8.10	1.52	1.41
78	CA	688	G	C2'-C1'	-8.10	1.44	1.53
78	CA	1141	G	O4'-C1'	8.10	1.52	1.41
78	CA	438	A	O4'-C1'	8.10	1.52	1.41
81	DA	755	A	C2'-C1'	-8.10	1.44	1.53
78	CA	1032	G	O4'-C1'	8.09	1.52	1.41
81	DA	1164	G	C2'-C1'	-8.09	1.44	1.53
81	DA	1229	G	O4'-C1'	-8.09	1.31	1.41
1	Aa	59	ARG	N-CA	8.09	1.62	1.46
79	CB	67	G	C2'-C1'	-8.09	1.44	1.53
81	DA	1907	C	C2'-C1'	-8.09	1.44	1.53
78	CA	223	U	C3'-C2'	-8.09	1.43	1.52
78	CA	1083	G	P-OP2	8.09	1.62	1.49
81	DA	205	C	O4'-C1'	8.08	1.52	1.41
81	DA	432	G	C2'-C1'	-8.08	1.44	1.53
81	DA	2614	G	O4'-C1'	-8.08	1.31	1.41
78	CA	1356	U	C2'-C1'	-8.08	1.44	1.53
78	CA	1028	C	C2'-C1'	-8.08	1.44	1.53
81	DA	1120	A	C2'-C1'	-8.07	1.44	1.53
81	DA	1175	C	C2'-C1'	-8.07	1.44	1.53
81	DA	1596	C	C2'-C1'	-8.07	1.44	1.53
81	DA	3222	U	O3'-P	-8.07	1.51	1.61
81	DA	2263	C	O4'-C1'	8.06	1.52	1.41
5	AC	164	PHE	N-CA	8.06	1.62	1.46
63	Bm	37	TYR	CE1-CZ	8.06	1.49	1.38
78	CA	1342	C	O4'-C1'	8.06	1.52	1.41
41	BN	108	ARG	NE-CZ	8.06	1.43	1.33
78	CA	1551	U	P-O5'	8.06	1.67	1.59
81	DA	1328	C	O4'-C1'	8.05	1.52	1.41
81	DA	2625	C	C2'-C1'	-8.05	1.44	1.53
78	CA	18	C	O4'-C1'	8.05	1.52	1.41
78	CA	635	A	C2'-C1'	-8.05	1.44	1.53
81	DA	812	G	O4'-C1'	8.05	1.52	1.41
78	CA	234	G	C2'-C1'	8.04	1.62	1.53
81	DA	3304	U	O4'-C1'	8.04	1.52	1.41
81	DA	584	G	O4'-C1'	8.04	1.52	1.41
81	DA	2787	G	C2'-C1'	-8.04	1.44	1.53
78	CA	70	C	O4'-C1'	8.04	1.52	1.41
81	DA	1413	G	C2'-C1'	-8.04	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	AM	88	ARG	CZ-NH1	8.04	1.43	1.33
81	DA	919	U	O4'-C1'	8.04	1.52	1.41
81	DA	2683	U	O3'-P	-8.04	1.51	1.61
81	DA	256	G	C2'-C1'	-8.04	1.44	1.53
78	CA	1585	U	O4'-C1'	8.03	1.52	1.41
81	DA	2987	A	O4'-C1'	8.03	1.52	1.41
81	DA	2464	U	C2'-C1'	-8.03	1.44	1.53
81	DA	2742	C	O4'-C1'	8.03	1.52	1.41
57	Be	218	ARG	CZ-NH1	8.03	1.43	1.33
83	DC	85	G	O4'-C1'	-8.03	1.31	1.41
81	DA	2387	A	O4'-C1'	8.03	1.52	1.41
78	CA	1342	C	C2'-C1'	-8.03	1.44	1.53
81	DA	1779	C	C2'-C1'	8.02	1.62	1.53
81	DA	2860	U	O4'-C1'	8.02	1.52	1.41
78	CA	1107	G	C2'-C1'	-8.02	1.44	1.53
81	DA	1982	G	C2'-C1'	-8.02	1.44	1.53
78	CA	145	A	O4'-C1'	-8.02	1.31	1.41
81	DA	1783	U	C4'-C3'	8.02	1.61	1.53
81	DA	2742	C	C2'-C1'	-8.02	1.44	1.53
78	CA	1453	G	C2'-C1'	8.01	1.62	1.53
81	DA	555	U	O4'-C1'	-8.01	1.31	1.41
81	DA	2465	G	O4'-C1'	8.01	1.52	1.41
82	DB	44	A	O3'-P	-8.01	1.51	1.61
33	BD	355	PHE	CA-CB	8.01	1.71	1.53
78	CA	837	G	O3'-P	-8.01	1.51	1.61
81	DA	1462	A	O4'-C1'	8.01	1.52	1.41
81	DA	248	U	P-O5'	-8.01	1.51	1.59
81	DA	2365	C	C2'-C1'	-8.01	1.44	1.53
81	DA	3386	G	C2'-C1'	-8.01	1.44	1.53
81	DA	3016	A	C2'-C1'	-8.01	1.44	1.53
78	CA	1383	G	C2'-C1'	-8.00	1.44	1.53
81	DA	90	C	C2'-C1'	-8.00	1.44	1.53
81	DA	510	G	O4'-C1'	8.00	1.52	1.41
81	DA	99	A	O4'-C1'	8.00	1.52	1.41
81	DA	187	A	O4'-C1'	8.00	1.52	1.41
66	Bo	4	GLN	N-CA	8.00	1.62	1.46
81	DA	3369	G	O4'-C1'	8.00	1.52	1.41
74	BQ	237	GLU	CA-CB	-8.00	1.36	1.53
81	DA	2923	U	C2'-C1'	-8.00	1.44	1.53
81	DA	3037	U	O4'-C1'	8.00	1.52	1.41
81	DA	629	U	O4'-C1'	7.99	1.52	1.41
61	Bj	20	LYS	N-CA	7.99	1.62	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	274	G	O4'-C1'	7.99	1.52	1.41
81	DA	2162	U	O3'-P	-7.99	1.51	1.61
78	CA	425	A	O4'-C1'	7.98	1.52	1.41
81	DA	1549	U	O4'-C1'	7.98	1.52	1.41
81	DA	2033	G	C2'-C1'	-7.98	1.44	1.53
81	DA	1568	U	O4'-C1'	7.98	1.52	1.41
78	CA	1703	C	O4'-C1'	7.98	1.52	1.41
81	DA	2099	A	O4'-C1'	7.98	1.52	1.41
4	AD	96	ASN	N-CA	7.97	1.62	1.46
78	CA	1001	A	O4'-C1'	7.97	1.52	1.41
81	DA	1473	G	C2'-C1'	-7.97	1.44	1.53
81	DA	3127	A	C2'-C1'	-7.97	1.44	1.53
78	CA	184	C	C2'-C1'	-7.97	1.44	1.53
78	CA	1188	G	O4'-C1'	7.97	1.52	1.41
81	DA	713	U	O4'-C1'	7.97	1.52	1.41
81	DA	68	C	O4'-C1'	7.96	1.52	1.41
81	DA	228	U	O3'-P	-7.96	1.51	1.61
81	DA	1883	A	C2'-C1'	7.96	1.62	1.53
81	DA	148	G	C4'-C3'	-7.96	1.44	1.53
81	DA	170	G	C2'-C1'	7.96	1.62	1.53
81	DA	1374	G	C2'-C1'	-7.96	1.44	1.53
82	DB	141	C	O4'-C1'	7.96	1.51	1.41
2	AA	229	LYS	CA-CB	7.96	1.71	1.53
83	DC	65	G	C2'-C1'	-7.96	1.44	1.53
81	DA	1248	C	O4'-C1'	7.95	1.51	1.41
33	BD	148	ILE	CA-CB	-7.95	1.36	1.54
78	CA	977	A	C2'-C1'	-7.95	1.44	1.53
82	DB	97	A	O3'-P	-7.95	1.51	1.61
22	AV	26	LYS	C-N	7.95	1.52	1.34
81	DA	128	G	C2'-C1'	-7.95	1.44	1.53
81	DA	1511	U	O4'-C1'	7.95	1.51	1.41
32	BC	5	LYS	N-CA	7.95	1.62	1.46
38	Bs	72	ASP	N-CA	7.95	1.62	1.46
78	CA	177	U	O4'-C1'	7.95	1.51	1.41
78	CA	344	A	C2'-C1'	-7.95	1.44	1.53
78	CA	684	A	C2'-C1'	-7.95	1.44	1.53
81	DA	420	G	C2'-C1'	7.95	1.62	1.53
81	DA	1790	G	O4'-C1'	-7.94	1.31	1.41
24	AX	78	SER	CA-CB	7.94	1.64	1.52
81	DA	3364	C	O4'-C1'	7.94	1.51	1.41
2	AA	104	PRO	CA-CB	-7.94	1.37	1.53
78	CA	1113	A	O4'-C1'	-7.94	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	547	U	O4'-C1'	7.93	1.51	1.41
81	DA	248	U	C2'-C1'	7.93	1.62	1.53
81	DA	785	G	C2'-C1'	7.93	1.62	1.53
81	DA	1535	A	O4'-C1'	-7.93	1.31	1.41
81	DA	2235	C	C2'-C1'	-7.93	1.44	1.53
78	CA	1412	G	C4'-O4'	-7.93	1.35	1.45
78	CA	1440	C	C2'-C1'	-7.93	1.44	1.53
81	DA	78	U	O4'-C1'	7.93	1.51	1.41
81	DA	1634	G	C2'-C1'	-7.93	1.44	1.53
53	Ba	14	VAL	N-CA	7.92	1.62	1.46
78	CA	48	G	O4'-C1'	7.92	1.51	1.41
81	DA	811	U	O4'-C1'	7.92	1.51	1.41
81	DA	3151	U	O4'-C1'	-7.92	1.31	1.41
82	DB	83	C	C2'-C1'	7.92	1.62	1.53
78	CA	1615	C	C4'-C3'	-7.92	1.44	1.53
81	DA	2253	G	O4'-C1'	-7.92	1.31	1.41
81	DA	166	C	O4'-C1'	7.92	1.51	1.41
32	BC	26	ARG	CD-NE	7.92	1.59	1.46
81	DA	997	A	C2'-C1'	7.92	1.62	1.53
78	CA	1777	G	C2'-C1'	-7.92	1.44	1.53
81	DA	3304	U	C3'-O3'	7.92	1.53	1.42
81	DA	1497	C	O4'-C1'	7.92	1.51	1.41
78	CA	125	U	O4'-C1'	7.91	1.51	1.41
81	DA	3161	C	O4'-C1'	7.91	1.51	1.41
78	CA	1717	G	C2'-C1'	-7.91	1.44	1.53
31	BB	249	SER	N-CA	-7.91	1.30	1.46
78	CA	1205	C	C2'-C1'	-7.91	1.44	1.53
51	BZ	61	LYS	N-CA	-7.91	1.30	1.46
78	CA	432	G	C2'-C1'	-7.91	1.44	1.53
81	DA	599	C	C2'-C1'	-7.91	1.44	1.53
81	DA	945	C	C2'-C1'	-7.91	1.44	1.53
78	CA	1110	G	C2'-C1'	-7.91	1.44	1.53
81	DA	83	U	C2'-C1'	-7.90	1.44	1.53
81	DA	1918	C	O4'-C1'	7.90	1.51	1.41
78	CA	848	C	O4'-C1'	7.90	1.51	1.41
78	CA	1757	G	C2'-C1'	-7.90	1.44	1.53
81	DA	1285	G	C3'-C2'	-7.90	1.44	1.52
81	DA	767	U	O4'-C1'	7.89	1.51	1.41
81	DA	178	U	P-O5'	-7.89	1.51	1.59
81	DA	293	C	O4'-C1'	7.89	1.51	1.41
81	DA	297	G	O4'-C1'	-7.89	1.31	1.41
81	DA	2663	G	O4'-C1'	-7.88	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2642	A	C2'-C1'	-7.88	1.44	1.53
81	DA	335	G	O4'-C1'	7.88	1.51	1.41
22	AV	26	LYS	CA-CB	-7.88	1.36	1.53
81	DA	1196	C	C2'-C1'	-7.88	1.44	1.53
81	DA	2354	C	C2'-C1'	-7.87	1.44	1.53
81	DA	2906	C	O4'-C1'	7.87	1.51	1.41
78	CA	1194	A	O4'-C1'	7.87	1.51	1.41
81	DA	3385	U	C2'-C1'	-7.87	1.44	1.53
78	CA	588	U	C5'-C4'	-7.87	1.42	1.51
78	CA	228	G	P-O5'	7.86	1.67	1.59
81	DA	866	A	C2'-C1'	-7.86	1.44	1.53
31	BB	62	VAL	N-CA	-7.86	1.30	1.46
81	DA	760	G	O4'-C1'	7.86	1.51	1.41
81	DA	1239	C	O4'-C1'	7.86	1.51	1.41
81	DA	2518	C	O4'-C1'	7.86	1.51	1.41
78	CA	1163	A	O4'-C1'	7.86	1.51	1.41
81	DA	547	G	O4'-C1'	7.86	1.51	1.41
78	CA	352	A	C2'-C1'	7.86	1.61	1.53
78	CA	1586	A	O4'-C1'	7.86	1.51	1.41
79	CB	68	C	C2'-C1'	-7.86	1.44	1.53
81	DA	2811	A	C2'-C1'	-7.86	1.44	1.53
81	DA	1078	U	O4'-C1'	7.86	1.51	1.41
78	CA	554	C	O3'-P	-7.85	1.51	1.61
78	CA	1296	A	O4'-C1'	7.85	1.51	1.41
79	CB	75	A	O4'-C1'	-7.85	1.31	1.41
78	CA	22	A	O4'-C1'	7.85	1.51	1.41
81	DA	672	A	O3'-P	-7.85	1.51	1.61
81	DA	2730	G	O4'-C1'	7.85	1.51	1.41
78	CA	51	A	C2'-C1'	-7.85	1.44	1.53
78	CA	1243	G	O4'-C1'	7.85	1.51	1.41
78	CA	106	U	C2'-C1'	-7.85	1.44	1.53
83	DC	75	G	C2'-C1'	-7.84	1.44	1.53
78	CA	1233	G	O4'-C1'	-7.83	1.31	1.41
81	DA	1213	G	C2'-C1'	-7.83	1.44	1.53
81	DA	2201	G	C2'-C1'	-7.83	1.44	1.53
81	DA	3284	G	C2'-C1'	-7.83	1.44	1.53
81	DA	1403	C	C2'-C1'	-7.83	1.44	1.53
81	DA	3238	G	C2'-C1'	-7.83	1.44	1.53
78	CA	1263	G	O4'-C1'	-7.83	1.31	1.41
81	DA	2624	G	O4'-C1'	7.83	1.51	1.41
78	CA	1083	G	O4'-C1'	7.82	1.51	1.41
81	DA	2605	G	O4'-C1'	7.82	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3246	G	C2'-C1'	-7.82	1.44	1.53
81	DA	405	U	O4'-C1'	7.81	1.51	1.41
81	DA	3374	U	C2'-C1'	-7.81	1.44	1.53
78	CA	55	A	O4'-C1'	7.81	1.51	1.41
81	DA	2654	C	O4'-C1'	7.81	1.51	1.41
81	DA	2479	C	C2'-C1'	-7.81	1.44	1.53
78	CA	97	C	C2'-C1'	-7.81	1.44	1.53
81	DA	2032	U	O4'-C1'	7.81	1.51	1.41
81	DA	1137	C	O4'-C1'	7.80	1.51	1.41
37	BH	158	ASP	N-CA	-7.80	1.30	1.46
81	DA	997	A	O4'-C1'	-7.80	1.31	1.41
81	DA	1451	C	C2'-C1'	-7.80	1.44	1.53
78	CA	156	A	C2'-C1'	7.80	1.61	1.53
81	DA	822	G	C2'-C1'	-7.80	1.44	1.53
78	CA	1146	G	O4'-C1'	7.79	1.51	1.41
83	DC	108	U	O4'-C1'	7.79	1.51	1.41
81	DA	3360	C	O4'-C1'	7.79	1.51	1.41
78	CA	442	C	C2'-C1'	-7.79	1.44	1.53
81	DA	254	A	C2'-C1'	-7.78	1.44	1.53
81	DA	1174	G	O4'-C1'	7.78	1.51	1.41
19	AR	108	ARG	NE-CZ	7.78	1.43	1.33
78	CA	127	G	C3'-C2'	-7.78	1.44	1.52
78	CA	217	A	C3'-C2'	7.78	1.61	1.52
81	DA	1516	C	O4'-C1'	7.78	1.51	1.41
81	DA	1681	U	C2'-C1'	-7.78	1.44	1.53
81	DA	3348	G	O4'-C1'	-7.78	1.31	1.41
78	CA	459	G	O4'-C1'	7.77	1.51	1.41
81	DA	2604	U	C2'-C1'	-7.77	1.44	1.53
57	Be	133	TYR	N-CA	-7.77	1.30	1.46
78	CA	56	U	C3'-O3'	7.77	1.53	1.42
78	CA	900	A	C3'-C2'	-7.76	1.44	1.52
81	DA	2362	C	C3'-C2'	-7.76	1.44	1.52
81	DA	2940	A	O4'-C1'	7.76	1.51	1.41
81	DA	3027	A	O4'-C1'	7.76	1.51	1.41
48	BW	93	ILE	CA-CB	7.76	1.72	1.54
81	DA	430	U	C2'-C1'	-7.76	1.44	1.53
81	DA	1689	U	C5'-C4'	-7.76	1.42	1.51
41	BN	108	ARG	CZ-NH1	7.76	1.43	1.33
78	CA	270	C	C2'-C1'	-7.76	1.44	1.53
78	CA	178	U	C2'-C1'	-7.76	1.44	1.53
81	DA	2446	U	O4'-C1'	7.76	1.51	1.41
81	DA	1121	U	O4'-C1'	7.75	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1077	C	C2'-C1'	-7.75	1.44	1.53
81	DA	161	G	O3'-P	-7.75	1.51	1.61
78	CA	929	A	C2'-C1'	-7.75	1.44	1.53
82	DB	7	U	C2'-C1'	-7.75	1.44	1.53
81	DA	2765	C	C2'-C1'	-7.75	1.44	1.53
81	DA	1181	U	C2'-C1'	7.75	1.61	1.53
81	DA	2135	U	O4'-C1'	7.75	1.51	1.41
81	DA	3034	C	O3'-P	-7.75	1.51	1.61
76	BS	52	LYS	CA-CB	7.74	1.71	1.53
81	DA	1571	A	O4'-C1'	-7.74	1.31	1.41
83	DC	10	C	O4'-C1'	7.74	1.51	1.41
13	AL	38	PHE	CE1-CZ	7.74	1.52	1.37
78	CA	1668	G	O4'-C1'	7.74	1.51	1.41
2	AA	195	TRP	N-CA	7.74	1.61	1.46
78	CA	1409	G	C2'-C1'	7.74	1.61	1.53
81	DA	178	U	O3'-P	-7.74	1.51	1.61
81	DA	1743	G	O4'-C1'	7.74	1.51	1.41
83	DC	117	C	C2'-C1'	-7.74	1.44	1.53
78	CA	1667	A	C2'-C1'	-7.73	1.44	1.53
81	DA	2848	G	C2'-C1'	-7.73	1.44	1.53
11	AJ	120	SER	N-CA	7.73	1.61	1.46
81	DA	2404	A	O4'-C1'	7.73	1.51	1.41
21	AT	57	GLY	N-CA	-7.72	1.34	1.46
78	CA	120	U	P-O5'	7.72	1.67	1.59
81	DA	2773	C	O4'-C1'	7.72	1.51	1.41
11	AJ	14	GLN	CD-OE1	7.72	1.41	1.24
81	DA	543	C	C2'-C1'	-7.72	1.44	1.53
81	DA	3363	U	C2'-C1'	7.72	1.61	1.53
78	CA	219	A	C5'-C4'	7.72	1.60	1.51
78	CA	1010	C	O4'-C1'	7.72	1.51	1.41
81	DA	1914	G	O4'-C1'	7.72	1.51	1.41
81	DA	2471	U	C2'-C1'	7.72	1.61	1.53
78	CA	584	C	O4'-C1'	7.72	1.51	1.41
82	DB	151	C	C5'-C4'	7.72	1.60	1.51
78	CA	855	A	C5'-C4'	7.72	1.60	1.51
79	CB	29	C	C2'-C1'	-7.72	1.44	1.53
81	DA	1042	U	C2'-C1'	-7.71	1.44	1.53
78	CA	1169	G	O4'-C1'	7.71	1.51	1.41
82	DB	101	U	O4'-C1'	7.70	1.51	1.41
81	DA	1839	A	O4'-C1'	7.70	1.51	1.41
78	CA	1400	A	O4'-C1'	7.70	1.51	1.41
78	CA	326	G	O4'-C1'	7.70	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1908	A	O4'-C1'	7.70	1.51	1.41
81	DA	1953	G	O3'-P	-7.70	1.51	1.61
81	DA	2352	A	O4'-C1'	7.70	1.51	1.41
81	DA	2887	A	O4'-C1'	7.69	1.51	1.41
81	DA	430	U	O4'-C1'	7.69	1.51	1.41
81	DA	953	G	C2'-C1'	-7.69	1.44	1.53
78	CA	239	C	C4'-C3'	7.69	1.61	1.53
81	DA	1757	A	N9-C4	-7.69	1.33	1.37
81	DA	3331	U	O4'-C1'	-7.69	1.31	1.41
74	BQ	137	ASP	N-CA	-7.69	1.30	1.46
17	AQ	63	LYS	C-N	7.68	1.46	1.33
81	DA	1726	C	C2'-C1'	-7.68	1.44	1.53
81	DA	3305	A	C2'-C1'	-7.68	1.44	1.53
83	DC	76	U	C2'-C1'	7.68	1.61	1.53
81	DA	1165	A	O4'-C1'	7.68	1.51	1.41
78	CA	1566	U	C2'-C1'	7.68	1.61	1.53
81	DA	2271	A	C2'-C1'	7.68	1.61	1.53
78	CA	1438	G	O4'-C1'	7.66	1.51	1.41
79	CB	21	A	O4'-C1'	7.66	1.51	1.41
81	DA	848	A	O4'-C1'	7.66	1.51	1.41
81	DA	1465	A	C2'-C1'	-7.66	1.45	1.53
78	CA	1480	G	O4'-C1'	-7.66	1.31	1.41
81	DA	3086	A	C2'-C1'	7.66	1.61	1.53
81	DA	54	C	O4'-C1'	7.66	1.51	1.41
81	DA	2864	A	O4'-C1'	7.66	1.51	1.41
81	DA	2667	A	C2'-C1'	-7.66	1.45	1.53
78	CA	1288	G	O4'-C1'	7.65	1.51	1.41
81	DA	2007	G	C2'-C1'	-7.65	1.45	1.53
81	DA	95	A	C2'-C1'	-7.65	1.45	1.53
81	DA	2795	U	C2'-C1'	7.65	1.61	1.53
81	DA	1389	G	C2'-C1'	-7.65	1.45	1.53
78	CA	1542	G	C2'-C1'	7.65	1.61	1.53
81	DA	3392	U	C2'-C1'	-7.65	1.45	1.53
46	BT	127	SER	CA-CB	7.63	1.64	1.52
78	CA	1075	C	O4'-C1'	7.63	1.51	1.41
78	CA	1173	C	O4'-C1'	7.63	1.51	1.41
81	DA	1082	U	O4'-C1'	7.63	1.51	1.41
81	DA	1173	U	O4'-C1'	7.63	1.51	1.41
81	DA	1972	A	O4'-C1'	-7.63	1.31	1.41
78	CA	1323	C	C2'-C1'	-7.63	1.45	1.53
81	DA	602	A	O4'-C1'	7.63	1.51	1.41
81	DA	1267	U	C2'-C1'	7.63	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
61	Bj	20	LYS	C-N	7.63	1.51	1.34
81	DA	757	C	O4'-C1'	7.62	1.51	1.41
81	DA	1018	G	O4'-C1'	7.62	1.51	1.41
40	BK	18	ARG	CZ-NH1	7.62	1.43	1.33
81	DA	2933	A	O4'-C1'	7.62	1.51	1.41
81	DA	3247	G	O4'-C1'	7.62	1.51	1.41
78	CA	687	G	O4'-C1'	7.62	1.51	1.41
81	DA	544	C	O4'-C1'	7.62	1.51	1.41
78	CA	56	U	O3'-P	7.61	1.70	1.61
81	DA	1510	G	O4'-C1'	7.61	1.51	1.41
78	CA	1461	C	C2'-C1'	-7.61	1.45	1.53
81	DA	1546	A	C2'-C1'	-7.61	1.45	1.53
74	BQ	123	GLU	CA-CB	7.61	1.70	1.53
81	DA	1784	G	O4'-C1'	7.61	1.51	1.41
83	DC	66	C	O4'-C1'	7.61	1.51	1.41
81	DA	1114	U	C2'-C1'	-7.60	1.45	1.53
81	DA	1362	G	O4'-C1'	-7.60	1.31	1.41
24	AX	47	PHE	CG-CD1	7.60	1.50	1.38
82	DB	24	G	C2'-C1'	-7.60	1.45	1.53
81	DA	323	A	O4'-C1'	7.60	1.51	1.41
81	DA	1576	G	O4'-C1'	7.60	1.51	1.41
81	DA	2780	A	C2'-C1'	-7.60	1.45	1.53
78	CA	412	A	C2'-C1'	7.59	1.61	1.53
78	CA	605	A	C2'-C1'	-7.59	1.45	1.53
78	CA	1787	C	C2'-C1'	-7.59	1.45	1.53
81	DA	45	A	C2'-C1'	-7.59	1.45	1.53
78	CA	1126	G	C2'-C1'	-7.59	1.45	1.53
81	DA	397	A	C2'-C1'	7.59	1.61	1.53
81	DA	2902	A	C2'-C1'	-7.59	1.45	1.53
78	CA	1756	A	O4'-C1'	-7.59	1.31	1.41
81	DA	1040	A	C2'-C1'	-7.59	1.45	1.53
78	CA	171	A	C2'-C1'	7.58	1.61	1.53
20	AS	46	PRO	N-CD	-7.58	1.37	1.47
78	CA	1240	U	O4'-C1'	7.58	1.51	1.41
78	CA	1627	U	C2'-C1'	-7.58	1.45	1.53
78	CA	1712	A	C2'-C1'	7.58	1.61	1.53
79	CB	17	G	O4'-C1'	7.58	1.51	1.41
4	AD	112	HIS	CB-CG	7.58	1.63	1.50
45	BR	143	PRO	CA-CB	7.58	1.68	1.53
82	DB	138	A	O4'-C1'	7.58	1.51	1.41
81	DA	167	U	O4'-C1'	-7.58	1.31	1.41
81	DA	256	G	O4'-C1'	7.58	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	885	G	C4'-C3'	-7.57	1.44	1.53
81	DA	2154	U	O4'-C1'	7.57	1.51	1.41
34	BE	104	PHE	CG-CD1	7.57	1.50	1.38
81	DA	2385	G	O4'-C1'	7.57	1.51	1.41
81	DA	3086	A	O4'-C1'	7.57	1.51	1.41
78	CA	964	U	C2'-C1'	7.57	1.61	1.53
81	DA	904	A	O4'-C1'	7.57	1.51	1.41
61	Bj	48	ARG	CZ-NH2	7.57	1.42	1.33
78	CA	1554	U	C2'-C1'	7.57	1.61	1.53
81	DA	1637	A	O4'-C1'	7.57	1.51	1.41
81	DA	2156	C	C2'-C1'	-7.57	1.45	1.53
81	DA	3306	U	P-O5'	-7.57	1.52	1.59
78	CA	1080	U	O4'-C1'	7.56	1.51	1.41
81	DA	1687	U	O4'-C1'	7.56	1.51	1.41
78	CA	928	U	C2'-C1'	7.56	1.61	1.53
78	CA	1747	G	C2'-C1'	-7.56	1.45	1.53
81	DA	227	G	C2'-C1'	-7.56	1.45	1.53
81	DA	516	A	O4'-C1'	7.56	1.51	1.41
78	CA	404	G	O4'-C1'	7.56	1.51	1.41
81	DA	344	A	C2'-C1'	-7.56	1.45	1.53
81	DA	983	A	O4'-C1'	-7.56	1.31	1.41
61	Bj	66	VAL	CB-CG1	-7.55	1.36	1.52
81	DA	1165	A	C2'-C1'	-7.55	1.45	1.53
81	DA	1996	C	C2'-C1'	7.55	1.61	1.53
78	CA	1466	G	C2'-C1'	-7.55	1.45	1.53
81	DA	1453	A	C2'-C1'	7.55	1.61	1.53
81	DA	2706	G	C2'-C1'	-7.55	1.45	1.53
74	BQ	239	ILE	N-CA	7.55	1.61	1.46
81	DA	316	U	C2'-C1'	7.55	1.61	1.53
81	DA	163	C	O4'-C1'	7.55	1.51	1.41
81	DA	418	A	C2'-C1'	7.55	1.61	1.53
81	DA	721	G	C2'-C1'	7.55	1.61	1.53
81	DA	2932	U	P-O5'	-7.55	1.52	1.59
81	DA	3092	C	C2'-C1'	7.55	1.61	1.53
78	CA	193	U	O4'-C1'	7.54	1.51	1.41
81	DA	444	U	O4'-C1'	7.54	1.51	1.41
82	DB	18	U	C2'-C1'	-7.54	1.45	1.53
32	BC	382	THR	N-CA	7.54	1.61	1.46
62	Bk	25	LYS	C-N	7.54	1.51	1.34
78	CA	301	A	O4'-C1'	7.54	1.51	1.41
78	CA	1016	C	C2'-C1'	-7.54	1.45	1.53
81	DA	638	C	C4'-C3'	-7.54	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1807	G	C2'-C1'	-7.54	1.45	1.53
51	BZ	60	LYS	N-CA	7.54	1.61	1.46
81	DA	1567	U	C2'-C1'	-7.54	1.45	1.53
78	CA	1179	G	O4'-C1'	7.54	1.51	1.41
81	DA	1502	C	O4'-C1'	7.54	1.51	1.41
78	CA	1421	A	O4'-C1'	-7.53	1.31	1.41
81	DA	3349	C	O4'-C1'	7.53	1.51	1.41
81	DA	3211	C	O4'-C1'	7.53	1.51	1.41
78	CA	1234	A	C4'-C3'	-7.53	1.44	1.53
81	DA	1180	A	O4'-C1'	-7.52	1.31	1.41
81	DA	174	C	O4'-C1'	7.52	1.51	1.41
81	DA	3308	C	C2'-C1'	-7.52	1.45	1.53
81	DA	1012	G	O4'-C1'	7.52	1.51	1.41
81	DA	1564	U	O4'-C1'	7.52	1.51	1.41
78	CA	1563	C	O4'-C1'	7.52	1.51	1.41
81	DA	1509	A	O4'-C1'	7.52	1.51	1.41
81	DA	2244	A	C2'-C1'	7.52	1.61	1.53
81	DA	2346	C	C2'-C1'	-7.52	1.45	1.53
83	DC	60	G	O3'-P	-7.52	1.52	1.61
81	DA	497	C	C2'-C1'	-7.51	1.45	1.53
81	DA	855	U	O4'-C1'	7.51	1.51	1.41
34	BE	54	VAL	C-N	-7.51	1.16	1.34
78	CA	1410	A	O4'-C1'	7.51	1.51	1.41
78	CA	4	C	O4'-C1'	7.51	1.51	1.41
78	CA	513	U	O3'-P	-7.51	1.52	1.61
81	DA	2282	U	O4'-C1'	7.51	1.51	1.41
78	CA	1127	G	O4'-C1'	7.51	1.51	1.41
81	DA	1942	U	O4'-C1'	7.51	1.51	1.41
81	DA	398	A	O4'-C1'	7.50	1.51	1.41
81	DA	1254	C	C2'-C1'	-7.50	1.45	1.53
81	DA	3375	A	C2'-C1'	-7.50	1.45	1.53
81	DA	587	U	O4'-C1'	7.50	1.51	1.41
35	BG	99	GLU	CB-CG	7.50	1.66	1.52
81	DA	1958	U	O4'-C1'	7.50	1.51	1.41
81	DA	3079	U	C2'-C1'	-7.50	1.45	1.53
78	CA	460	A	C4'-C3'	-7.50	1.45	1.53
83	DC	93	U	C2'-C1'	-7.50	1.45	1.53
78	CA	478	A	C2'-C1'	7.50	1.61	1.53
78	CA	918	U	C4'-C3'	-7.50	1.45	1.53
81	DA	3100	U	O4'-C1'	7.50	1.51	1.41
78	CA	205	U	C2'-C1'	-7.50	1.45	1.53
81	DA	891	G	C2'-C1'	-7.50	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2685	C	O3'-P	-7.49	1.52	1.61
82	DB	97	A	C2'-C1'	-7.49	1.45	1.53
81	DA	794	U	C2'-C1'	-7.49	1.45	1.53
81	DA	1143	A	C2'-C1'	-7.49	1.45	1.53
78	CA	1234	A	C2'-C1'	7.49	1.61	1.53
81	DA	170	G	O4'-C1'	7.49	1.51	1.41
81	DA	803	C	O4'-C1'	7.49	1.51	1.41
81	DA	2109	U	O4'-C1'	7.49	1.51	1.41
78	CA	1306	C	C2'-C1'	-7.48	1.45	1.53
81	DA	1197	A	O4'-C1'	7.48	1.51	1.41
81	DA	2196	C	O4'-C1'	7.48	1.51	1.41
78	CA	37	U	C2'-C1'	7.48	1.61	1.53
81	DA	327	A	C2'-C1'	-7.48	1.45	1.53
78	CA	163	G	C2'-C1'	-7.47	1.45	1.53
78	CA	1012	U	O4'-C1'	7.47	1.51	1.41
79	CB	42	C	O4'-C1'	7.47	1.51	1.41
81	DA	2289	U	C2'-C1'	-7.47	1.45	1.53
79	CB	63	C	C2'-C1'	-7.47	1.45	1.53
81	DA	62	A	O4'-C1'	7.47	1.51	1.41
81	DA	1318	A	O4'-C1'	7.47	1.51	1.41
78	CA	1176	G	C2'-C1'	-7.47	1.45	1.53
81	DA	3107	U	C2'-C1'	7.47	1.61	1.53
78	CA	232	U	C4'-O4'	-7.47	1.35	1.45
78	CA	634	G	O4'-C1'	-7.47	1.31	1.41
81	DA	857	G	C2'-C1'	-7.47	1.45	1.53
81	DA	2178	A	C2'-C1'	-7.47	1.45	1.53
81	DA	2757	U	P-O5'	-7.47	1.52	1.59
81	DA	2905	U	O4'-C1'	7.47	1.51	1.41
81	DA	3325	G	O4'-C1'	-7.47	1.31	1.41
78	CA	1032	G	C2'-C1'	-7.46	1.45	1.53
81	DA	922	U	C2'-C1'	7.46	1.61	1.53
81	DA	1016	C	C2'-C1'	-7.46	1.45	1.53
81	DA	2142	A	C2'-C1'	7.46	1.61	1.53
81	DA	1058	U	O4'-C1'	7.46	1.51	1.41
81	DA	1404	G	O3'-P	7.46	1.70	1.61
81	DA	3148	U	O3'-P	-7.46	1.52	1.61
78	CA	1367	G	O4'-C1'	7.46	1.51	1.41
81	DA	1167	U	O4'-C1'	7.46	1.51	1.41
81	DA	2396	G	C2'-C1'	-7.46	1.45	1.53
81	DA	1671	C	C2'-C1'	-7.46	1.45	1.53
42	BM	84	SER	CA-CB	7.45	1.64	1.52
2	AA	251	GLU	N-CA	7.45	1.61	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	AC	168	ARG	CA-CB	7.45	1.70	1.53
78	CA	1771	U	O4'-C1'	7.45	1.51	1.41
81	DA	2233	A	O4'-C1'	-7.45	1.31	1.41
82	DB	6	U	C2'-C1'	-7.45	1.45	1.53
78	CA	1710	U	O4'-C1'	7.45	1.51	1.41
78	CA	433	C	C2'-C1'	-7.45	1.45	1.53
81	DA	868	C	C2'-C1'	-7.45	1.45	1.53
81	DA	2915	U	O3'-P	-7.45	1.52	1.61
81	DA	2927	C	C2'-C1'	-7.45	1.45	1.53
81	DA	1950	U	O4'-C1'	7.44	1.51	1.41
81	DA	916	G	C2'-C1'	7.44	1.61	1.53
81	DA	870	G	C2'-C1'	-7.44	1.45	1.53
81	DA	2087	C	C2'-C1'	-7.44	1.45	1.53
81	DA	236	G	P-O5'	-7.44	1.52	1.59
82	DB	113	U	O4'-C1'	7.44	1.51	1.41
81	DA	2319	U	P-O5'	-7.43	1.52	1.59
81	DA	2175	U	O5'-C5'	-7.43	1.30	1.42
78	CA	413	U	O4'-C1'	7.43	1.51	1.41
81	DA	2836	C	O4'-C1'	7.43	1.51	1.41
81	DA	2697	A	C2'-C1'	-7.43	1.45	1.53
81	DA	3325	G	C2'-C1'	7.43	1.61	1.53
17	AQ	26	LEU	CA-CB	-7.42	1.36	1.53
81	DA	1069	C	C2'-C1'	-7.42	1.45	1.53
81	DA	2898	G	C2'-C1'	-7.42	1.45	1.53
82	DB	2	A	C2'-C1'	7.42	1.61	1.53
78	CA	250	C	O3'-P	-7.42	1.52	1.61
81	DA	1534	A	C2'-C1'	7.42	1.61	1.53
81	DA	554	A	C2'-C1'	-7.42	1.45	1.53
78	CA	1390	U	C2'-C1'	-7.42	1.45	1.53
82	DB	30	C	O4'-C1'	7.42	1.51	1.41
78	CA	36	C	C2'-C1'	-7.42	1.45	1.53
78	CA	155	U	C2'-C1'	7.41	1.61	1.53
78	CA	283	U	O4'-C1'	7.41	1.51	1.41
81	DA	1121	U	C2'-C1'	-7.41	1.45	1.53
81	DA	2469	G	C2'-C1'	-7.41	1.45	1.53
78	CA	409	C	C2'-C1'	-7.41	1.45	1.53
78	CA	1349	G	C2'-C1'	-7.41	1.45	1.53
81	DA	141	C	O4'-C1'	7.41	1.51	1.41
81	DA	2142	A	O4'-C1'	7.41	1.51	1.41
78	CA	1528	U	P-O5'	-7.41	1.52	1.59
81	DA	10	C	O4'-C1'	7.41	1.51	1.41
81	DA	759	U	O4'-C1'	7.41	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2272	G	C2'-C1'	7.41	1.61	1.53
81	DA	113	C	C2'-C1'	-7.41	1.45	1.53
78	CA	1544	U	C3'-O3'	-7.41	1.31	1.42
81	DA	653	A	C2'-C1'	-7.41	1.45	1.53
81	DA	2209	U	O4'-C1'	7.41	1.51	1.41
81	DA	625	G	C2'-C1'	-7.40	1.45	1.53
78	CA	1381	U	O3'-P	-7.40	1.52	1.61
26	AZ	44	PHE	C-N	7.40	1.51	1.34
81	DA	368	G	C2'-C1'	-7.40	1.45	1.53
81	DA	2518	C	C2'-C1'	-7.40	1.45	1.53
31	BB	74	GLU	N-CA	7.40	1.61	1.46
78	CA	1239	U	C2'-C1'	-7.40	1.45	1.53
78	CA	1475	A	C2'-C1'	-7.40	1.45	1.53
78	CA	27	U	C2'-C1'	7.40	1.61	1.53
78	CA	1749	A	O4'-C1'	7.40	1.51	1.41
78	CA	1356	U	O4'-C1'	7.39	1.51	1.41
82	DB	109	A	C2'-C1'	-7.39	1.45	1.53
81	DA	2171	G	O4'-C1'	7.39	1.51	1.41
35	BG	3	ALA	CA-CB	7.39	1.68	1.52
81	DA	559	A	O4'-C1'	7.39	1.51	1.41
81	DA	1628	C	C2'-C1'	-7.39	1.45	1.53
35	BG	99	GLU	N-CA	7.38	1.61	1.46
44	BO	58	MET	CA-CB	7.38	1.70	1.53
81	DA	146	U	C4'-C3'	7.38	1.61	1.53
13	AL	34	LEU	C-N	7.38	1.46	1.33
78	CA	1544	U	C2'-C1'	-7.38	1.45	1.53
81	DA	3043	C	O4'-C1'	7.38	1.51	1.41
55	Bc	104	GLN	CA-CB	-7.38	1.37	1.53
81	DA	2202	C	O4'-C1'	7.38	1.51	1.41
78	CA	922	G	O4'-C1'	7.37	1.51	1.41
81	DA	238	A	C2'-C1'	-7.37	1.45	1.53
81	DA	527	A	C2'-C1'	7.37	1.61	1.53
81	DA	906	A	O4'-C1'	-7.37	1.32	1.41
10	AI	55	VAL	N-CA	7.37	1.61	1.46
44	BO	60	TYR	CG-CD1	7.37	1.48	1.39
81	DA	1303	A	O4'-C1'	-7.37	1.32	1.41
83	DC	17	A	C5'-C4'	7.37	1.60	1.51
81	DA	1437	C	C2'-C1'	7.36	1.61	1.53
81	DA	2526	C	P-O5'	-7.36	1.52	1.59
81	DA	3099	C	C5'-C4'	7.36	1.60	1.51
78	CA	1546	G	C3'-C2'	-7.36	1.44	1.52
81	DA	5	G	O4'-C1'	7.36	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	433	A	C2'-C1'	-7.36	1.45	1.53
81	DA	1269	U	O4'-C1'	7.36	1.51	1.41
81	DA	700	C	C4'-C3'	7.36	1.61	1.53
81	DA	1228	C	O4'-C1'	7.36	1.51	1.41
45	BR	54	LEU	CA-CB	-7.35	1.36	1.53
81	DA	2704	A	C2'-C1'	7.35	1.61	1.53
81	DA	1236	G	O4'-C1'	-7.35	1.32	1.41
83	DC	80	G	C2'-C1'	-7.34	1.45	1.53
35	BG	8	LYS	N-CA	-7.34	1.31	1.46
78	CA	1690	G	C2'-C1'	-7.34	1.45	1.53
78	CA	1207	C	C2'-C1'	-7.33	1.45	1.53
81	DA	1440	G	C2'-C1'	-7.33	1.45	1.53
81	DA	3386	G	O4'-C1'	7.33	1.51	1.41
83	DC	101	A	P-O5'	-7.33	1.52	1.59
1	Aa	61	PHE	N-CA	-7.33	1.31	1.46
81	DA	643	U	O4'-C1'	7.33	1.51	1.41
81	DA	700	C	O4'-C1'	7.33	1.51	1.41
81	DA	1250	G	O4'-C1'	-7.33	1.32	1.41
78	CA	1398	U	O4'-C1'	-7.33	1.32	1.41
81	DA	261	U	O4'-C1'	7.33	1.51	1.41
81	DA	1886	A	O4'-C1'	7.33	1.51	1.41
1	Aa	54	PHE	CA-CB	-7.33	1.37	1.53
83	DC	98	G	O4'-C1'	7.33	1.51	1.41
78	CA	620	A	C2'-C1'	7.32	1.61	1.53
81	DA	2095	G	C2'-C1'	-7.32	1.45	1.53
81	DA	2822	U	O4'-C1'	7.32	1.51	1.41
78	CA	438	A	C2'-C1'	-7.32	1.45	1.53
83	DC	114	A	O4'-C1'	-7.32	1.32	1.41
81	DA	2242	A	C2'-C1'	-7.32	1.45	1.53
76	BS	159	ARG	NE-CZ	7.31	1.42	1.33
1	Aa	124	SER	CA-CB	7.31	1.64	1.52
81	DA	267	G	O4'-C1'	7.31	1.51	1.41
81	DA	2364	G	O4'-C1'	7.31	1.51	1.41
81	DA	772	U	C2'-C1'	-7.31	1.45	1.53
81	DA	1937	U	O4'-C1'	7.31	1.51	1.41
78	CA	463	U	C2'-C1'	-7.30	1.45	1.53
78	CA	1480	G	P-O5'	-7.30	1.52	1.59
79	CB	40	U	C2'-C1'	7.30	1.61	1.53
81	DA	579	G	O4'-C1'	-7.30	1.32	1.41
81	DA	2338	C	O3'-P	-7.30	1.52	1.61
81	DA	3358	U	O4'-C1'	7.30	1.51	1.41
78	CA	1310	U	C4'-O4'	-7.30	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2240	G	C2'-C1'	-7.30	1.45	1.53
78	CA	659	C	O4'-C1'	7.30	1.51	1.41
81	DA	666	A	O4'-C1'	-7.30	1.32	1.41
78	CA	183	U	O4'-C1'	7.29	1.51	1.41
79	CB	16	U	O4'-C1'	7.29	1.51	1.41
81	DA	245	U	O4'-C1'	7.29	1.51	1.41
81	DA	3008	A	O4'-C1'	7.29	1.51	1.41
78	CA	1631	A	O4'-C1'	7.29	1.51	1.41
81	DA	183	G	O3'-P	-7.29	1.52	1.61
81	DA	2881	C	C2'-C1'	-7.29	1.45	1.53
78	CA	323	A	O4'-C1'	-7.29	1.32	1.41
78	CA	1135	U	O4'-C1'	7.29	1.51	1.41
81	DA	766	U	C2'-C1'	7.29	1.61	1.53
81	DA	2583	C	C2'-C1'	-7.29	1.45	1.53
48	BW	93	ILE	N-CA	-7.28	1.31	1.46
81	DA	503	C	O4'-C1'	7.28	1.51	1.41
59	Bh	12	LYS	CA-CB	7.28	1.70	1.53
72	Bu	61	PHE	CA-CB	7.28	1.70	1.53
78	CA	1547	A	O4'-C1'	7.28	1.51	1.41
81	DA	494	G	C2'-C1'	-7.28	1.45	1.53
78	CA	892	A	O4'-C1'	7.27	1.51	1.41
81	DA	7	C	C2'-C1'	-7.27	1.45	1.53
81	DA	909	G	C2'-C1'	-7.27	1.45	1.53
81	DA	3395	G	C2'-C1'	-7.27	1.45	1.53
81	DA	252	U	C2'-C1'	-7.27	1.45	1.53
81	DA	2423	U	O4'-C1'	7.27	1.51	1.41
81	DA	2198	A	O4'-C1'	7.26	1.51	1.41
81	DA	2234	G	C2'-C1'	-7.26	1.45	1.53
81	DA	1111	U	O4'-C1'	7.26	1.51	1.41
78	CA	406	U	O4'-C1'	7.26	1.51	1.41
78	CA	866	G	P-OP2	7.26	1.61	1.49
17	AQ	63	LYS	CA-CB	7.26	1.70	1.53
78	CA	288	A	O4'-C1'	7.26	1.51	1.41
33	BD	332	LYS	N-CA	7.25	1.60	1.46
78	CA	1477	G	C3'-C2'	-7.25	1.44	1.52
78	CA	548	G	C2'-C1'	-7.25	1.45	1.53
81	DA	339	C	C2'-C1'	-7.25	1.45	1.53
81	DA	3050	U	O3'-P	-7.25	1.52	1.61
81	DA	1380	G	C2'-C1'	-7.25	1.45	1.53
81	DA	1988	C	O4'-C1'	7.25	1.51	1.41
81	DA	2851	A	O4'-C1'	7.25	1.51	1.41
81	DA	1870	C	C4'-C3'	-7.25	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	954	U	O4'-C1'	7.24	1.51	1.41
58	Bg	28	ARG	CZ-NH1	7.24	1.42	1.33
81	DA	3305	A	C3'-C2'	-7.24	1.44	1.52
74	BQ	115	LEU	N-CA	-7.24	1.31	1.46
82	DB	7	U	O4'-C1'	7.24	1.51	1.41
81	DA	1004	U	C2'-C1'	-7.24	1.45	1.53
81	DA	1056	U	P-O5'	-7.24	1.52	1.59
81	DA	3012	A	C2'-C1'	-7.24	1.45	1.53
82	DB	62	C	O4'-C1'	7.24	1.51	1.41
78	CA	331	A	O4'-C1'	7.23	1.51	1.41
81	DA	223	U	C2'-C1'	-7.23	1.45	1.53
81	DA	1462	A	C2'-C1'	-7.23	1.45	1.53
81	DA	1774	C	O4'-C1'	7.23	1.51	1.41
22	AV	81	ARG	CD-NE	7.23	1.58	1.46
78	CA	98	U	C2'-C1'	-7.23	1.45	1.53
81	DA	90	C	O4'-C1'	7.23	1.51	1.41
81	DA	247	C	C5'-C4'	7.23	1.60	1.51
81	DA	500	C	C2'-C1'	-7.23	1.45	1.53
81	DA	773	G	C2'-C1'	-7.23	1.45	1.53
81	DA	3392	U	O4'-C1'	7.23	1.51	1.41
76	BS	45	TYR	CG-CD2	7.23	1.48	1.39
53	Ba	13	VAL	C-N	7.23	1.50	1.34
34	BE	123	PHE	C-N	7.22	1.46	1.33
81	DA	1145	G	O4'-C1'	7.22	1.51	1.41
81	DA	3078	U	C2'-C1'	-7.22	1.45	1.53
81	DA	1068	C	C2'-C1'	-7.22	1.45	1.53
81	DA	1183	C	C2'-C1'	-7.22	1.45	1.53
81	DA	2835	U	O4'-C1'	7.22	1.51	1.41
78	CA	563	U	O4'-C1'	7.22	1.51	1.41
81	DA	1626	U	O4'-C1'	7.22	1.51	1.41
78	CA	1776	A	O4'-C1'	7.22	1.51	1.41
81	DA	1837	U	C2'-C1'	-7.22	1.45	1.53
81	DA	1043	C	O4'-C1'	7.21	1.51	1.41
81	DA	1797	A	C2'-C1'	-7.21	1.45	1.53
76	BS	154	VAL	CA-CB	-7.21	1.39	1.54
78	CA	62	A	O4'-C1'	7.21	1.51	1.41
81	DA	1602	A	O4'-C1'	7.21	1.51	1.41
81	DA	335	G	C2'-C1'	-7.21	1.45	1.53
81	DA	416	A	C2'-C1'	-7.21	1.45	1.53
81	DA	2457	G	C2'-C1'	-7.21	1.45	1.53
78	CA	399	A	O4'-C1'	-7.21	1.32	1.41
81	DA	1936	A	C2'-C1'	-7.21	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	3328	G	O4'-C1'	-7.21	1.32	1.41
78	CA	1547	A	C2'-C1'	-7.21	1.45	1.53
82	DB	152	G	C2'-C1'	7.21	1.61	1.53
83	DC	16	U	C2'-C1'	7.21	1.61	1.53
81	DA	244	G	P-O5'	7.20	1.67	1.59
78	CA	1349	G	O4'-C1'	7.20	1.51	1.41
81	DA	184	U	O3'-P	-7.20	1.52	1.61
81	DA	1674	G	O4'-C1'	7.20	1.51	1.41
78	CA	227	U	P-O5'	-7.20	1.52	1.59
32	BC	297	SER	N-CA	-7.19	1.31	1.46
43	BP	117	ASN	N-CA	-7.19	1.31	1.46
78	CA	1043	A	C2'-C1'	7.19	1.61	1.53
78	CA	1601	G	C2'-C1'	-7.19	1.45	1.53
81	DA	422	A	O4'-C1'	-7.19	1.32	1.41
81	DA	960	U	C2'-C1'	-7.19	1.45	1.53
60	Bi	60	ARG	CZ-NH2	7.19	1.42	1.33
79	CB	61	C	C2'-C1'	-7.19	1.45	1.53
81	DA	832	G	O4'-C1'	-7.19	1.32	1.41
81	DA	3351	U	C2'-C1'	7.19	1.61	1.53
55	Bc	103	LYS	N-CA	-7.19	1.31	1.46
81	DA	125	C	C2'-C1'	-7.18	1.45	1.53
81	DA	326	U	C2'-C1'	-7.18	1.45	1.53
2	AA	251	GLU	C-N	7.18	1.50	1.34
81	DA	981	U	C5'-C4'	7.18	1.59	1.51
81	DA	2431	C	C2'-C1'	-7.18	1.45	1.53
81	DA	2282	U	C2'-C1'	-7.18	1.45	1.53
33	BD	146	PRO	N-CA	7.18	1.59	1.47
81	DA	2680	A	O4'-C1'	7.18	1.50	1.41
78	CA	852	C	P-O5'	7.17	1.67	1.59
81	DA	162	G	O3'-P	-7.17	1.52	1.61
81	DA	310	U	O4'-C1'	7.17	1.50	1.41
81	DA	2727	A	C2'-C1'	-7.17	1.45	1.53
81	DA	2329	C	C2'-C1'	-7.17	1.45	1.53
14	AM	12	GLN	C-N	-7.17	1.17	1.34
81	DA	799	G	C2'-O2'	-7.17	1.32	1.41
78	CA	1157	A	O4'-C1'	7.17	1.50	1.41
81	DA	3129	A	C2'-C1'	-7.17	1.45	1.53
78	CA	671	G	O4'-C1'	7.17	1.50	1.41
81	DA	2728	G	O4'-C1'	7.16	1.50	1.41
81	DA	2099	A	C2'-C1'	-7.16	1.45	1.53
83	DC	48	U	O3'-P	-7.16	1.52	1.61
78	CA	951	A	O4'-C1'	-7.16	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2792	A	O4'-C1'	-7.16	1.32	1.41
78	CA	1165	G	C2'-C1'	-7.16	1.45	1.53
78	CA	1606	C	C2'-C1'	-7.16	1.45	1.53
81	DA	655	C	O4'-C1'	7.15	1.50	1.41
81	DA	2222	A	C2'-C1'	-7.15	1.45	1.53
51	BZ	47	ARG	CZ-NH1	7.15	1.42	1.33
78	CA	634	G	C2'-C1'	7.15	1.61	1.53
81	DA	2530	G	P-O5'	-7.15	1.52	1.59
81	DA	1360	C	O4'-C1'	7.15	1.50	1.41
78	CA	1609	U	O4'-C1'	7.15	1.50	1.41
78	CA	1574	G	O4'-C1'	7.14	1.50	1.41
81	DA	2616	C	C2'-C1'	-7.14	1.45	1.53
81	DA	536	U	C2'-C1'	-7.14	1.45	1.53
48	BW	98	THR	CA-C	-7.14	1.34	1.52
78	CA	837	G	C5'-C4'	7.14	1.59	1.51
45	BR	118	GLY	CA-C	-7.14	1.40	1.51
78	CA	1698	G	C2'-C1'	-7.14	1.45	1.53
81	DA	974	G	C2'-C1'	-7.14	1.45	1.53
81	DA	2356	A	C2'-C1'	-7.14	1.45	1.53
81	DA	2924	U	C2'-C1'	-7.14	1.45	1.53
81	DA	3305	A	C3'-O3'	-7.14	1.32	1.42
81	DA	171	G	O4'-C1'	7.13	1.50	1.41
78	CA	1072	C	O4'-C1'	7.13	1.50	1.41
81	DA	279	U	C2'-C1'	-7.13	1.45	1.53
58	Bg	19	ARG	CZ-NH2	7.13	1.42	1.33
78	CA	1769	U	C2'-C1'	-7.13	1.45	1.53
81	DA	2054	C	C2'-C1'	-7.13	1.45	1.53
38	Bs	5	ARG	CA-CB	-7.13	1.38	1.53
81	DA	1075	A	O4'-C1'	7.13	1.50	1.41
81	DA	1782	U	O4'-C1'	7.13	1.50	1.41
81	DA	3367	C	O4'-C1'	7.13	1.50	1.41
78	CA	208	U	P-O5'	-7.12	1.52	1.59
81	DA	894	G	C2'-C1'	7.12	1.61	1.53
81	DA	1241	U	O4'-C1'	7.12	1.50	1.41
81	DA	1372	C	O4'-C1'	7.12	1.50	1.41
81	DA	2599	U	O4'-C1'	7.12	1.50	1.41
78	CA	554	C	C3'-C2'	-7.12	1.45	1.52
81	DA	701	G	O3'-P	-7.12	1.52	1.61
81	DA	1337	A	O4'-C1'	7.12	1.50	1.41
82	DB	98	U	O4'-C1'	7.12	1.50	1.41
81	DA	1578	C	C2'-C1'	-7.12	1.45	1.53
81	DA	801	A	C3'-O3'	7.12	1.52	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1405	U	O4'-C1'	7.12	1.50	1.41
81	DA	2812	C	C2'-C1'	-7.12	1.45	1.53
45	BR	13	SER	CA-C	7.11	1.71	1.52
81	DA	2243	A	C2'-C1'	7.11	1.61	1.53
81	DA	3078	U	O4'-C1'	7.11	1.50	1.41
45	BR	95	GLU	CA-CB	-7.11	1.38	1.53
81	DA	1633	C	O3'-P	-7.11	1.52	1.61
78	CA	189	C	O4'-C1'	7.11	1.50	1.41
81	DA	2087	C	C3'-C2'	7.11	1.60	1.52
81	DA	1703	U	O4'-C1'	7.11	1.50	1.41
81	DA	1117	G	O4'-C1'	7.10	1.50	1.41
74	BQ	201	GLY	C-N	7.10	1.45	1.33
78	CA	947	U	O4'-C1'	7.10	1.50	1.41
81	DA	2985	C	O4'-C1'	7.10	1.50	1.41
81	DA	294	U	C2'-C1'	-7.10	1.45	1.53
78	CA	1240	U	C5'-C4'	7.09	1.59	1.51
81	DA	38	U	O4'-C1'	7.09	1.50	1.41
81	DA	605	U	O4'-C1'	7.09	1.50	1.41
81	DA	258	G	C5'-C4'	7.09	1.59	1.51
81	DA	2030	C	O4'-C1'	7.09	1.50	1.41
81	DA	2821	C	C2'-C1'	-7.09	1.45	1.53
81	DA	696	C	O4'-C1'	7.09	1.50	1.41
81	DA	1232	C	O4'-C1'	7.09	1.50	1.41
83	DC	86	G	O4'-C1'	7.09	1.50	1.41
20	AS	52	GLY	C-N	7.09	1.50	1.34
34	BE	55	ARG	C-O	7.09	1.36	1.23
78	CA	1553	G	C2'-C1'	-7.08	1.45	1.53
2	AA	84	ARG	NE-CZ	7.08	1.42	1.33
55	Bc	104	GLN	N-CA	7.08	1.60	1.46
76	BS	70	ASN	CA-CB	7.08	1.71	1.53
81	DA	1589	A	O4'-C1'	7.08	1.50	1.41
78	CA	1648	A	O4'-C1'	7.08	1.50	1.41
41	BN	6	ILE	N-CA	7.08	1.60	1.46
78	CA	513	U	C4'-C3'	-7.08	1.45	1.53
81	DA	722	G	O4'-C1'	7.08	1.50	1.41
81	DA	1754	G	C5'-C4'	7.08	1.59	1.51
59	Bh	21	HIS	N-CA	-7.07	1.32	1.46
78	CA	1762	A	C2'-C1'	-7.07	1.45	1.53
81	DA	969	C	C2'-C1'	7.07	1.61	1.53
12	AK	124	ASP	CG-OD1	-7.07	1.09	1.25
35	BG	5	LYS	CA-CB	-7.07	1.38	1.53
78	CA	367	A	O4'-C1'	-7.07	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1482	C	P-O5'	-7.07	1.52	1.59
33	BD	331	ALA	N-CA	7.07	1.60	1.46
82	DB	61	A	O4'-C1'	7.07	1.50	1.41
78	CA	17	C	C2'-C1'	-7.07	1.45	1.53
81	DA	834	U	O3'-P	-7.07	1.52	1.61
81	DA	416	A	O4'-C1'	7.06	1.50	1.41
81	DA	69	C	C2'-C1'	-7.06	1.45	1.53
81	DA	2517	U	C2'-C1'	-7.05	1.45	1.53
81	DA	2925	C	C2'-C1'	-7.05	1.45	1.53
81	DA	1676	A	O4'-C1'	7.05	1.50	1.41
78	CA	1769	U	O4'-C1'	7.05	1.50	1.41
81	DA	2310	U	C2'-C1'	-7.05	1.45	1.53
6	AE	4	PRO	N-CA	7.05	1.59	1.47
78	CA	351	C	C2'-C1'	7.05	1.61	1.53
81	DA	2600	C	C2'-C1'	-7.05	1.45	1.53
69	Br	89	LYS	CA-CB	-7.04	1.38	1.53
81	DA	834	U	C2'-C1'	-7.04	1.45	1.53
81	DA	332	C	C2'-C1'	-7.04	1.45	1.53
1	Aa	155	ARG	CZ-NH1	7.04	1.42	1.33
78	CA	684	A	O4'-C1'	7.04	1.50	1.41
78	CA	1374	C	C2'-C1'	-7.04	1.45	1.53
81	DA	1372	C	C2'-C1'	-7.04	1.45	1.53
81	DA	2376	G	P-O5'	-7.04	1.52	1.59
81	DA	1541	G	C2'-C1'	-7.04	1.45	1.53
81	DA	2492	C	O4'-C1'	7.04	1.50	1.41
82	DB	26	U	C2'-C1'	-7.03	1.45	1.53
78	CA	1185	U	O4'-C1'	7.03	1.50	1.41
16	AO	124	ARG	CD-NE	7.03	1.58	1.46
83	DC	46	A	C3'-O3'	-7.02	1.32	1.42
78	CA	1556	A	C3'-C2'	-7.02	1.45	1.52
78	CA	1104	U	C2'-C1'	-7.02	1.45	1.53
78	CA	1112	G	O4'-C1'	7.02	1.50	1.41
81	DA	1136	A	C2'-C1'	-7.02	1.45	1.53
81	DA	1741	A	C2'-C1'	-7.02	1.45	1.53
78	CA	919	A	O4'-C1'	7.01	1.50	1.41
81	DA	1753	G	O4'-C1'	7.01	1.50	1.41
81	DA	3313	U	P-O5'	-7.01	1.52	1.59
35	BG	3	ALA	N-CA	-7.01	1.32	1.46
35	BG	5	LYS	N-CA	7.01	1.60	1.46
78	CA	223	U	C5'-C4'	7.01	1.59	1.51
81	DA	1296	C	P-O5'	-7.01	1.52	1.59
81	DA	2223	A	C2'-C1'	-7.01	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DB	95	G	C2'-C1'	-7.01	1.45	1.53
78	CA	23	G	C2'-C1'	-7.01	1.45	1.53
81	DA	185	C	O3'-P	-7.01	1.52	1.61
81	DA	2017	G	C2'-C1'	-7.01	1.45	1.53
81	DA	780	A	O4'-C1'	7.00	1.50	1.41
83	DC	47	C	O4'-C1'	7.00	1.50	1.41
78	CA	614	C	C2'-C1'	-7.00	1.45	1.53
81	DA	660	A	C2'-C1'	-6.99	1.45	1.53
81	DA	2837	A	O4'-C1'	-6.99	1.32	1.41
32	BC	10	ARG	NE-CZ	6.99	1.42	1.33
81	DA	2473	C	C2'-C1'	6.99	1.61	1.53
78	CA	318	U	O4'-C1'	6.99	1.50	1.41
81	DA	142	C	C2'-C1'	-6.99	1.45	1.53
78	CA	974	A	O4'-C1'	6.99	1.50	1.41
81	DA	2957	G	O4'-C1'	6.99	1.50	1.41
78	CA	1009	U	C2'-C1'	-6.99	1.45	1.53
81	DA	1150	A	O4'-C1'	6.99	1.50	1.41
81	DA	2099	A	C4'-C3'	-6.99	1.45	1.53
78	CA	255	U	C2'-C1'	-6.98	1.45	1.53
6	AE	7	GLN	CA-CB	-6.98	1.38	1.53
40	BK	184	THR	C-N	6.98	1.50	1.34
78	CA	221	A	C2'-C1'	6.98	1.61	1.53
4	AD	94	ALA	CA-CB	-6.98	1.37	1.52
81	DA	3090	U	C4'-C3'	6.98	1.60	1.53
78	CA	968	U	O4'-C1'	6.98	1.50	1.41
78	CA	1341	A	O4'-C1'	-6.98	1.32	1.41
81	DA	13	A	C2'-C1'	-6.98	1.45	1.53
81	DA	1395	G	O4'-C1'	6.97	1.50	1.41
81	DA	1587	A	O4'-C1'	-6.97	1.32	1.41
81	DA	3107	U	P-O5'	-6.97	1.52	1.59
81	DA	1492	G	C2'-C1'	-6.97	1.45	1.53
82	DB	117	C	C2'-C1'	-6.97	1.45	1.53
78	CA	1164	G	C2'-C1'	6.97	1.61	1.53
81	DA	1378	U	O4'-C1'	6.97	1.50	1.41
81	DA	1721	U	O4'-C1'	6.97	1.50	1.41
81	DA	2696	A	O4'-C1'	6.97	1.50	1.41
17	AQ	94	SER	CA-CB	6.97	1.63	1.52
78	CA	1092	A	C3'-C2'	-6.97	1.45	1.52
81	DA	1346	G	C2'-C1'	6.97	1.61	1.53
81	DA	2175	U	C3'-C2'	-6.97	1.45	1.52
81	DA	534	U	C2'-C1'	6.96	1.61	1.53
81	DA	1370	G	C2'-C1'	-6.96	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1373	A	C2'-C1'	-6.96	1.45	1.53
81	DA	2222	A	O4'-C1'	6.96	1.50	1.41
81	DA	3340	G	O4'-C1'	6.96	1.50	1.41
78	CA	1753	A	C2'-C1'	-6.96	1.45	1.53
81	DA	1389	G	O4'-C1'	6.96	1.50	1.41
81	DA	2522	G	C4'-C3'	6.96	1.60	1.53
81	DA	2666	C	O4'-C1'	6.96	1.50	1.41
79	CB	31	C	C2'-C1'	-6.96	1.45	1.53
5	AC	163	PRO	N-CA	6.96	1.59	1.47
81	DA	3353	G	C2'-C1'	-6.95	1.45	1.53
81	DA	2659	G	C2'-C1'	-6.95	1.45	1.53
81	DA	2422	C	O3'-P	-6.95	1.52	1.61
81	DA	990	U	C5'-C4'	6.95	1.59	1.51
26	AZ	35	TYR	CE2-CZ	6.94	1.47	1.38
78	CA	381	C	O4'-C1'	6.94	1.50	1.41
78	CA	465	G	O4'-C1'	-6.94	1.32	1.41
1	Aa	58	VAL	CA-CB	-6.94	1.40	1.54
78	CA	1171	A	C2'-C1'	-6.94	1.45	1.53
81	DA	1438	U	O4'-C1'	6.94	1.50	1.41
81	DA	2374	C	O4'-C1'	6.94	1.50	1.41
83	DC	13	A	C2'-C1'	-6.94	1.45	1.53
81	DA	429	U	C2'-C1'	6.94	1.60	1.53
81	DA	2163	C	C2'-C1'	6.94	1.60	1.53
81	DA	2287	C	O4'-C1'	6.94	1.50	1.41
81	DA	185	C	C4'-O4'	6.94	1.54	1.45
81	DA	1021	G	O4'-C1'	6.94	1.50	1.41
81	DA	3141	A	C2'-C1'	-6.94	1.45	1.53
78	CA	1334	U	C2'-C1'	-6.94	1.45	1.53
78	CA	923	A	C2'-C1'	-6.93	1.45	1.53
78	CA	1550	A	C4'-C3'	-6.93	1.45	1.53
81	DA	984	G	C2'-C1'	6.93	1.60	1.53
81	DA	1011	A	O4'-C1'	6.93	1.50	1.41
81	DA	3047	U	O4'-C1'	6.93	1.50	1.41
81	DA	1184	A	O4'-C1'	6.93	1.50	1.41
78	CA	625	C	C2'-C1'	-6.93	1.45	1.53
81	DA	36	C	C2'-C1'	-6.93	1.45	1.53
81	DA	1575	A	O4'-C1'	-6.93	1.32	1.41
35	BG	8	LYS	CA-CB	6.93	1.69	1.53
78	CA	141	U	O3'-P	-6.93	1.52	1.61
81	DA	306	A	O4'-C1'	-6.93	1.32	1.41
81	DA	709	A	O4'-C1'	6.93	1.50	1.41
78	CA	927	C	C2'-C1'	-6.92	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	BW	94	ARG	CA-C	-6.92	1.34	1.52
78	CA	2	A	O4'-C1'	-6.92	1.32	1.41
81	DA	1793	C	C3'-C2'	-6.92	1.45	1.52
81	DA	2617	U	O4'-C1'	-6.92	1.32	1.41
32	BC	256	HIS	N-CA	6.92	1.60	1.46
81	DA	720	A	P-OP2	6.92	1.60	1.49
81	DA	1801	U	O4'-C1'	6.92	1.50	1.41
41	BN	108	ARG	CA-CB	6.92	1.69	1.53
60	Bi	16	ARG	N-CA	-6.92	1.32	1.46
81	DA	1441	G	C2'-C1'	-6.92	1.45	1.53
5	AC	157	ASP	C-N	6.92	1.50	1.34
22	AV	106	ALA	CA-CB	6.91	1.67	1.52
78	CA	858	G	C3'-C2'	-6.91	1.45	1.52
78	CA	1368	G	O4'-C1'	6.91	1.50	1.41
81	DA	2099	A	C3'-C2'	-6.91	1.45	1.52
78	CA	164	A	P-O5'	-6.91	1.52	1.59
78	CA	1546	G	P-O5'	-6.91	1.52	1.59
74	BQ	79	TYR	CG-CD2	6.91	1.48	1.39
81	DA	1690	C	O3'-P	-6.91	1.52	1.61
81	DA	3332	U	C2'-C1'	6.91	1.60	1.53
32	BC	247	ARG	CZ-NH1	6.91	1.42	1.33
78	CA	1773	C	C2'-C1'	-6.91	1.45	1.53
78	CA	100	A	C2'-C1'	6.91	1.60	1.53
81	DA	2192	C	C2'-C1'	-6.91	1.45	1.53
79	CB	70	G	C2'-C1'	-6.91	1.45	1.53
81	DA	1485	G	O4'-C1'	6.91	1.50	1.41
81	DA	2351	U	C2'-C1'	-6.90	1.45	1.53
81	DA	2954	U	C2'-C1'	-6.90	1.45	1.53
81	DA	2164	A	C2'-C1'	-6.90	1.45	1.53
81	DA	2421	U	O3'-P	-6.90	1.52	1.61
81	DA	3011	A	O4'-C1'	6.90	1.50	1.41
81	DA	2058	G	C2'-C1'	-6.90	1.45	1.53
78	CA	1550	A	C3'-O3'	6.90	1.51	1.42
81	DA	2252	A	C2'-C1'	-6.90	1.45	1.53
81	DA	2505	U	O3'-P	-6.90	1.52	1.61
58	Bg	77	ARG	NE-CZ	6.89	1.42	1.33
81	DA	659	G	O4'-C1'	6.89	1.50	1.41
81	DA	2430	A	C2'-C1'	-6.89	1.45	1.53
55	Bc	94	LYS	CA-CB	6.89	1.69	1.53
78	CA	307	G	C3'-C2'	-6.89	1.45	1.52
78	CA	1010	C	C2'-C1'	-6.89	1.45	1.53
78	CA	1156	C	C2'-C1'	-6.89	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1514	G	C2'-C1'	-6.89	1.45	1.53
78	CA	1725	U	O4'-C1'	6.89	1.50	1.41
21	AT	87	ARG	CD-NE	6.89	1.58	1.46
78	CA	883	C	C2'-C1'	-6.89	1.45	1.53
81	DA	1901	A	C2'-C1'	-6.89	1.45	1.53
83	DC	77	A	O4'-C1'	6.89	1.50	1.41
33	BD	98	ARG	NE-CZ	6.89	1.42	1.33
78	CA	1226	A	C2'-C1'	-6.89	1.45	1.53
78	CA	414	C	C2'-C1'	-6.89	1.45	1.53
81	DA	2286	U	C2'-C1'	-6.89	1.45	1.53
39	BJ	25	SER	CA-CB	6.88	1.63	1.52
81	DA	859	G	O4'-C1'	6.88	1.50	1.41
74	BQ	112	ARG	N-CA	-6.88	1.32	1.46
81	DA	1498	A	C2'-C1'	-6.88	1.45	1.53
81	DA	2979	U	O4'-C1'	6.88	1.50	1.41
78	CA	49	C	O4'-C1'	6.88	1.50	1.41
81	DA	2687	G	C2'-C1'	-6.87	1.45	1.53
82	DB	20	U	O4'-C1'	6.87	1.50	1.41
81	DA	2985	C	C2'-C1'	-6.87	1.45	1.53
78	CA	82	U	C2'-C1'	-6.87	1.45	1.53
13	AL	13	ARG	CZ-NH2	-6.87	1.24	1.33
31	BB	42	ARG	CD-NE	6.87	1.58	1.46
83	DC	77	A	C2'-C1'	6.87	1.60	1.53
78	CA	1000	C	C2'-C1'	6.86	1.60	1.53
79	CB	49	G	C2'-C1'	-6.86	1.45	1.53
12	AK	84	ARG	CZ-NH1	6.86	1.42	1.33
20	AS	12	GLN	CA-CB	-6.86	1.38	1.53
78	CA	230	C	C4'-C3'	6.86	1.60	1.53
78	CA	1785	U	C2'-C1'	-6.86	1.45	1.53
81	DA	1342	C	C2'-C1'	-6.86	1.45	1.53
81	DA	1898	G	O3'-P	-6.86	1.52	1.61
53	Ba	70	PRO	N-CD	-6.86	1.38	1.47
78	CA	40	A	O4'-C1'	6.86	1.50	1.41
81	DA	3085	G	O4'-C1'	-6.86	1.32	1.41
80	CC	14	A	O4'-C1'	6.86	1.50	1.41
78	CA	1566	U	O4'-C1'	-6.85	1.32	1.41
81	DA	3380	U	P-OP2	6.85	1.60	1.49
47	BU	12	ARG	NE-CZ	6.85	1.42	1.33
81	DA	35	A	C2'-C1'	-6.85	1.45	1.53
81	DA	932	U	O4'-C1'	6.85	1.50	1.41
81	DA	1832	C	P-O5'	-6.85	1.52	1.59
78	CA	1656	U	C2'-C1'	-6.85	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	381	U	O4'-C1'	6.85	1.50	1.41
81	DA	1819	U	C2'-C1'	6.85	1.60	1.53
78	CA	190	C	C2'-C1'	-6.85	1.45	1.53
81	DA	1873	U	O4'-C1'	6.85	1.50	1.41
81	DA	1400	G	O3'-P	-6.85	1.52	1.61
78	CA	1697	G	C2'-C1'	-6.84	1.45	1.53
31	BB	127	ALA	N-CA	6.84	1.60	1.46
78	CA	1473	U	O4'-C1'	-6.84	1.32	1.41
83	DC	67	C	C2'-C1'	-6.84	1.45	1.53
78	CA	1263	G	C2'-C1'	6.84	1.60	1.53
18	AP	122	ILE	C-N	6.84	1.49	1.34
78	CA	1544	U	O3'-P	-6.84	1.52	1.61
81	DA	1288	U	O4'-C1'	6.84	1.50	1.41
81	DA	1717	U	O3'-P	-6.84	1.52	1.61
81	DA	2853	A	C2'-C1'	-6.83	1.45	1.53
78	CA	428	A	C2'-C1'	6.83	1.60	1.53
78	CA	1339	C	O3'-P	-6.83	1.52	1.61
78	CA	586	G	C3'-C2'	-6.83	1.45	1.52
81	DA	1083	G	O4'-C1'	-6.83	1.32	1.41
81	DA	680	G	O4'-C1'	-6.83	1.32	1.41
81	DA	235	A	O4'-C1'	6.83	1.50	1.41
81	DA	629	U	C2'-C1'	-6.83	1.45	1.53
81	DA	2389	C	O4'-C1'	6.83	1.50	1.41
78	CA	918	U	O4'-C1'	6.82	1.50	1.41
78	CA	1026	A	O4'-C1'	6.82	1.50	1.41
81	DA	1565	G	C2'-C1'	-6.82	1.45	1.53
78	CA	1071	U	O4'-C1'	6.82	1.50	1.41
18	AP	107	VAL	C-N	6.82	1.47	1.34
46	BT	5	ARG	NE-CZ	6.82	1.42	1.33
81	DA	169	U	C5'-C4'	6.82	1.59	1.51
81	DA	1945	A	C2'-C1'	-6.82	1.45	1.53
78	CA	1669	U	O4'-C1'	6.81	1.50	1.41
8	AF	184	PHE	CG-CD1	6.81	1.49	1.38
79	CB	48	C	C2'-C1'	-6.81	1.45	1.53
81	DA	1853	U	C2'-C1'	6.81	1.60	1.53
81	DA	2628	A	O3'-P	-6.81	1.52	1.61
81	DA	3105	U	C2'-C1'	-6.81	1.45	1.53
78	CA	965	U	C2'-C1'	-6.81	1.45	1.53
78	CA	1081	A	O4'-C1'	-6.81	1.32	1.41
81	DA	545	U	C2'-C1'	6.81	1.60	1.53
81	DA	1077	U	C2'-C1'	-6.81	1.45	1.53
81	DA	349	A	C2'-C1'	-6.80	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	686	C	C2'-C1'	-6.80	1.45	1.53
81	DA	1856	C	C2'-C1'	-6.80	1.45	1.53
81	DA	3324	C	C2'-C1'	-6.80	1.45	1.53
81	DA	626	U	O4'-C1'	6.80	1.50	1.41
83	DC	19	C	O4'-C1'	6.80	1.50	1.41
81	DA	1108	U	O4'-C1'	6.80	1.50	1.41
81	DA	30	G	P-OP2	6.79	1.60	1.49
81	DA	726	G	C5'-C4'	6.79	1.59	1.51
81	DA	1620	U	P-OP2	6.79	1.60	1.49
81	DA	3303	G	P-O5'	-6.79	1.52	1.59
83	DC	11	A	O4'-C1'	6.79	1.50	1.41
83	DC	36	C	O4'-C1'	6.79	1.50	1.41
4	AD	60	GLU	CD-OE2	6.79	1.33	1.25
78	CA	1338	C	C4'-C3'	-6.79	1.45	1.53
78	CA	1792	G	O4'-C1'	-6.79	1.32	1.41
78	CA	1558	U	C2'-C1'	6.79	1.60	1.53
81	DA	931	C	O4'-C1'	6.79	1.50	1.41
29	AU	89	TYR	CG-CD2	6.78	1.48	1.39
81	DA	1506	A	O4'-C1'	-6.78	1.32	1.41
81	DA	2737	C	O3'-P	-6.78	1.53	1.61
5	AC	78	ARG	CZ-NH2	6.78	1.41	1.33
26	AZ	19	PRO	N-CA	6.78	1.58	1.47
81	DA	934	G	O4'-C1'	6.78	1.50	1.41
78	CA	1306	C	P-O5'	6.78	1.66	1.59
81	DA	1	G	O4'-C1'	-6.78	1.32	1.41
81	DA	1042	U	O4'-C1'	6.78	1.50	1.41
83	DC	82	A	O4'-C1'	6.78	1.50	1.41
81	DA	2251	G	O4'-C1'	6.78	1.50	1.41
81	DA	1	G	P-OP2	6.77	1.60	1.49
78	CA	670	U	O4'-C1'	6.77	1.50	1.41
81	DA	1512	U	O4'-C1'	6.77	1.50	1.41
81	DA	1752	A	C2'-C1'	-6.77	1.46	1.53
81	DA	2415	C	O4'-C1'	6.77	1.50	1.41
81	DA	2603	G	C2'-C1'	-6.77	1.46	1.53
35	BG	8	LYS	C-N	6.77	1.49	1.34
81	DA	1560	G	O3'-P	-6.77	1.53	1.61
81	DA	2621	G	O4'-C1'	6.77	1.50	1.41
20	AS	63	ARG	NE-CZ	6.77	1.41	1.33
34	BE	9	MET	CA-CB	6.77	1.68	1.53
81	DA	1654	A	O4'-C1'	6.77	1.50	1.41
81	DA	2279	A	O4'-C1'	-6.76	1.32	1.41
81	DA	561	C	C2'-C1'	-6.76	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1322	U	O4'-C1'	6.76	1.50	1.41
81	DA	1750	A	C2'-C1'	-6.76	1.46	1.53
81	DA	2631	U	C2'-C1'	-6.76	1.46	1.53
43	BP	14	LYS	N-CA	-6.76	1.32	1.46
62	Bk	83	ALA	N-CA	-6.76	1.32	1.46
81	DA	563	U	O4'-C1'	6.76	1.50	1.41
13	AL	23	ARG	N-CA	-6.76	1.32	1.46
38	Bs	55	LYS	CA-CB	6.75	1.68	1.53
81	DA	948	C	C2'-C1'	-6.75	1.46	1.53
78	CA	1087	A	O4'-C1'	6.75	1.50	1.41
78	CA	1397	U	P-O5'	-6.75	1.52	1.59
81	DA	724	U	C4'-C3'	-6.75	1.45	1.53
81	DA	1252	A	O4'-C1'	6.75	1.50	1.41
81	DA	765	C	O4'-C1'	6.75	1.50	1.41
81	DA	1415	U	O4'-C1'	6.75	1.50	1.41
81	DA	2085	U	O4'-C1'	6.75	1.50	1.41
78	CA	139	C	O4'-C1'	6.75	1.50	1.41
81	DA	374	A	C2'-C1'	6.75	1.60	1.53
81	DA	790	U	C5'-C4'	-6.75	1.43	1.51
9	AH	51	GLU	CD-OE1	6.75	1.33	1.25
81	DA	104	G	C2'-C1'	6.75	1.60	1.53
64	Bl	39	TYR	C-N	6.74	1.47	1.34
78	CA	546	U	C2'-C1'	-6.74	1.46	1.53
81	DA	279	U	O4'-C1'	6.74	1.50	1.41
81	DA	1810	A	C2'-C1'	-6.74	1.46	1.53
81	DA	3318	G	C2'-C1'	-6.74	1.46	1.53
35	BG	99	GLU	CD-OE1	6.74	1.33	1.25
47	BU	140	ILE	C-O	6.74	1.36	1.23
81	DA	138	U	O4'-C1'	6.74	1.50	1.41
81	DA	766	U	P-O5'	-6.74	1.53	1.59
78	CA	401	A	C2'-C1'	-6.74	1.46	1.53
78	CA	978	A	O4'-C1'	6.74	1.50	1.41
81	DA	393	U	O4'-C1'	6.74	1.50	1.41
81	DA	2622	C	O4'-C1'	6.74	1.50	1.41
32	BC	62	ARG	CD-NE	6.73	1.57	1.46
81	DA	233	C	O4'-C1'	6.73	1.50	1.41
81	DA	640	U	C2'-C1'	-6.73	1.46	1.53
81	DA	795	G	C2'-C1'	-6.73	1.46	1.53
81	DA	1518	U	O4'-C1'	6.73	1.50	1.41
78	CA	1778	G	C2'-C1'	-6.73	1.46	1.53
57	Be	142	SER	CA-CB	-6.73	1.42	1.52
81	DA	1082	U	C2'-C1'	6.73	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	255	U	C3'-C2'	6.73	1.60	1.52
81	DA	792	G	O4'-C1'	6.73	1.50	1.41
81	DA	1206	G	O4'-C1'	-6.73	1.32	1.41
81	DA	2194	G	O4'-C1'	-6.72	1.32	1.41
78	CA	1623	C	C2'-C1'	-6.72	1.46	1.53
81	DA	2922	G	O4'-C1'	6.72	1.50	1.41
81	DA	357	A	O4'-C1'	6.72	1.50	1.41
81	DA	3311	C	O4'-C1'	6.72	1.50	1.41
83	DC	55	A	C2'-C1'	6.72	1.60	1.53
81	DA	1009	A	C5'-C4'	6.72	1.59	1.51
78	CA	1446	A	O4'-C1'	6.71	1.50	1.41
45	BR	3	ILE	CA-CB	6.71	1.70	1.54
78	CA	160	C	C2'-C1'	-6.71	1.46	1.53
81	DA	1989	U	O3'-P	-6.71	1.53	1.61
8	AF	27	THR	N-CA	-6.71	1.32	1.46
81	DA	2851	A	C2'-C1'	-6.71	1.46	1.53
81	DA	2956	A	O3'-P	-6.71	1.53	1.61
81	DA	2996	U	P-OP2	6.71	1.60	1.49
78	CA	979	A	C2'-C1'	-6.71	1.46	1.53
78	CA	1321	A	C3'-C2'	-6.71	1.45	1.52
81	DA	2146	C	C2'-C1'	-6.71	1.46	1.53
78	CA	643	G	C2'-C1'	-6.71	1.46	1.53
81	DA	82	C	C2'-C1'	-6.70	1.46	1.53
81	DA	2054	C	O4'-C1'	6.70	1.50	1.41
35	BG	148	GLU	N-CA	-6.70	1.32	1.46
81	DA	276	U	P-O5'	-6.70	1.53	1.59
81	DA	1625	A	C2'-C1'	-6.70	1.46	1.53
81	DA	1670	C	O4'-C1'	6.70	1.50	1.41
81	DA	1893	A	C2'-C1'	-6.70	1.46	1.53
44	BO	58	MET	N-CA	6.70	1.59	1.46
78	CA	29	U	O3'-P	-6.70	1.53	1.61
81	DA	3250	U	O4'-C1'	6.70	1.50	1.41
81	DA	756	U	C2'-C1'	-6.70	1.46	1.53
4	AD	241	GLY	N-CA	6.70	1.56	1.46
78	CA	1415	U	C2'-C1'	-6.70	1.46	1.53
81	DA	2852	C	C2'-C1'	-6.70	1.46	1.53
78	CA	1078	C	C2'-C1'	-6.69	1.46	1.53
78	CA	1237	G	C3'-C2'	-6.69	1.45	1.52
81	DA	271	C	C2'-C1'	6.69	1.60	1.53
81	DA	1620	U	O4'-C1'	6.69	1.50	1.41
81	DA	3029	A	O4'-C1'	6.69	1.50	1.41
81	DA	3240	C	P-O5'	-6.69	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	DC	9	C	O3'-P	-6.69	1.53	1.61
78	CA	937	C	C2'-C1'	-6.69	1.46	1.53
81	DA	1696	A	O4'-C1'	6.69	1.50	1.41
81	DA	989	A	P-O5'	6.69	1.66	1.59
81	DA	1823	A	P-OP2	6.69	1.60	1.49
78	CA	98	U	O4'-C1'	6.68	1.50	1.41
78	CA	974	A	C2'-C1'	-6.68	1.46	1.53
81	DA	2529	A	P-O5'	-6.68	1.53	1.59
78	CA	1708	U	O4'-C1'	6.68	1.50	1.41
78	CA	177	U	P-OP2	6.68	1.60	1.49
78	CA	218	A	O4'-C1'	6.68	1.50	1.41
78	CA	1474	G	O4'-C1'	6.68	1.50	1.41
81	DA	1871	U	O3'-P	6.68	1.69	1.61
81	DA	1952	G	C2'-C1'	-6.67	1.46	1.53
81	DA	2709	C	C2'-C1'	-6.67	1.46	1.53
81	DA	3310	A	C2'-C1'	-6.67	1.46	1.53
81	DA	2256	A	C2'-C1'	6.67	1.60	1.53
5	AC	62	ARG	NE-CZ	6.67	1.41	1.33
78	CA	139	C	C2'-C1'	-6.67	1.46	1.53
81	DA	1780	G	C2'-C1'	-6.67	1.46	1.53
78	CA	1543	A	O3'-P	-6.67	1.53	1.61
22	AV	96	SER	CA-CB	6.67	1.62	1.52
78	CA	933	A	C2'-C1'	-6.66	1.46	1.53
25	AY	23	GLY	CA-C	-6.66	1.41	1.51
78	CA	1191	U	O4'-C1'	-6.66	1.32	1.41
81	DA	33	G	O4'-C1'	6.66	1.50	1.41
81	DA	2636	A	C2'-C1'	-6.66	1.46	1.53
81	DA	2865	U	O3'-P	-6.66	1.53	1.61
81	DA	663	C	P-O5'	-6.66	1.53	1.59
81	DA	1470	U	C2'-C1'	-6.66	1.46	1.53
81	DA	3139	A	C2'-C1'	-6.65	1.46	1.53
78	CA	900	A	P-O5'	-6.65	1.53	1.59
81	DA	770	G	C5'-C4'	6.65	1.59	1.51
81	DA	47	C	C2'-C1'	-6.65	1.46	1.53
81	DA	991	G	O4'-C1'	6.65	1.50	1.41
81	DA	2909	U	O4'-C1'	6.65	1.50	1.41
81	DA	3065	G	C2'-C1'	-6.65	1.46	1.53
12	AK	41	ARG	NE-CZ	6.65	1.41	1.33
78	CA	1778	G	O4'-C1'	6.65	1.50	1.41
20	AS	53	TRP	C-N	-6.65	1.18	1.34
33	BD	323	VAL	CA-CB	-6.65	1.40	1.54
79	CB	64	G	O4'-C1'	6.65	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	791	A	O4'-C1'	6.65	1.50	1.41
78	CA	1448	G	O4'-C1'	6.65	1.50	1.41
81	DA	612	U	C2'-C1'	-6.65	1.46	1.53
81	DA	2644	C	O4'-C1'	-6.65	1.33	1.41
78	CA	47	A	C4'-O4'	-6.64	1.36	1.45
78	CA	1469	A	O4'-C1'	6.64	1.50	1.41
81	DA	1661	G	C2'-C1'	-6.64	1.46	1.53
78	CA	687	G	C4'-O4'	-6.64	1.36	1.45
78	CA	853	G	O4'-C1'	-6.64	1.33	1.41
81	DA	2174	G	O4'-C1'	-6.64	1.33	1.41
81	DA	2732	G	C2'-C1'	-6.64	1.46	1.53
78	CA	1612	U	C2'-C1'	6.64	1.60	1.53
20	AS	102	ARG	CZ-NH2	-6.64	1.24	1.33
81	DA	1257	C	P-O5'	-6.64	1.53	1.59
13	AL	2	GLY	N-CA	-6.63	1.36	1.46
57	Be	75	TYR	CG-CD2	6.63	1.47	1.39
81	DA	2986	U	C2'-C1'	-6.63	1.46	1.53
81	DA	1457	U	O4'-C1'	6.63	1.50	1.41
35	BG	153	PRO	CA-C	-6.63	1.39	1.52
81	DA	769	G	C2'-C1'	-6.63	1.46	1.53
81	DA	1930	A	C2'-C1'	-6.63	1.46	1.53
82	DB	29	U	C2'-C1'	-6.63	1.46	1.53
78	CA	1264	G	O4'-C1'	6.63	1.50	1.41
81	DA	2378	C	C2'-C1'	-6.63	1.46	1.53
81	DA	2458	A	O4'-C1'	6.63	1.50	1.41
81	DA	970	A	C2'-C1'	-6.62	1.46	1.53
81	DA	1407	A	O4'-C1'	6.62	1.50	1.41
81	DA	2120	A	O4'-C1'	6.62	1.50	1.41
78	CA	599	A	O4'-C1'	6.62	1.50	1.41
78	CA	619	A	O3'-P	-6.62	1.53	1.61
81	DA	1092	C	C2'-C1'	-6.62	1.46	1.53
81	DA	1216	C	O4'-C1'	6.62	1.50	1.41
81	DA	2451	G	P-O5'	-6.62	1.53	1.59
81	DA	3035	A	P-O5'	-6.62	1.53	1.59
81	DA	750	G	P-O5'	-6.62	1.53	1.59
81	DA	1749	A	C2'-C1'	-6.62	1.46	1.53
81	DA	2627	C	P-O5'	-6.62	1.53	1.59
49	BV	39	TRP	NE1-CE2	6.62	1.46	1.37
81	DA	3149	G	C3'-C2'	-6.62	1.45	1.52
62	Bk	25	LYS	CA-CB	-6.62	1.39	1.53
81	DA	1074	U	O4'-C1'	6.62	1.50	1.41
81	DA	3382	U	O3'-P	-6.62	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	DB	132	G	C2'-C1'	6.62	1.60	1.53
81	DA	1124	U	O4'-C1'	6.62	1.50	1.41
81	DA	1716	U	C2'-C1'	6.62	1.60	1.53
78	CA	1347	U	C2'-C1'	6.62	1.60	1.53
81	DA	908	G	C2'-C1'	-6.62	1.46	1.53
82	DB	2	A	P-OP2	6.62	1.60	1.49
78	CA	997	G	C2'-C1'	-6.61	1.46	1.53
78	CA	1206	U	C2'-C1'	-6.61	1.46	1.53
78	CA	1655	A	O4'-C1'	6.61	1.50	1.41
81	DA	2911	A	C2'-C1'	-6.61	1.46	1.53
72	Bt	61	PHE	CA-CB	6.61	1.68	1.53
81	DA	673	U	O4'-C1'	6.61	1.50	1.41
81	DA	1299	U	C2'-C1'	-6.61	1.46	1.53
78	CA	1566	U	C5'-C4'	6.61	1.59	1.51
81	DA	2672	G	O3'-P	-6.61	1.53	1.61
81	DA	284	A	O4'-C1'	6.61	1.50	1.41
81	DA	842	G	C2'-C1'	-6.61	1.46	1.53
81	DA	1501	U	C2'-C1'	-6.61	1.46	1.53
81	DA	3136	G	O4'-C1'	-6.61	1.33	1.41
78	CA	57	G	P-O5'	6.61	1.66	1.59
81	DA	2766	U	C2'-C1'	-6.61	1.46	1.53
78	CA	149	C	O4'-C1'	6.61	1.50	1.41
78	CA	1505	A	C6-N6	6.61	1.39	1.33
81	DA	2664	C	C2'-C1'	-6.61	1.46	1.53
81	DA	3366	G	C2'-C1'	-6.61	1.46	1.53
33	BD	95	ARG	CZ-NH1	6.60	1.41	1.33
81	DA	813	G	C2'-C1'	-6.60	1.46	1.53
78	CA	257	A	C4'-C3'	6.60	1.60	1.53
81	DA	1168	U	C2'-C1'	6.60	1.60	1.53
81	DA	1197	A	C2'-C1'	-6.60	1.46	1.53
81	DA	2209	U	C5'-C4'	6.60	1.59	1.51
14	AM	115	ARG	NE-CZ	6.59	1.41	1.33
31	BB	63	PHE	N-CA	6.59	1.59	1.46
78	CA	1535	U	O4'-C1'	-6.59	1.33	1.41
81	DA	806	A	C2'-C1'	6.59	1.60	1.53
81	DA	2773	C	P-OP2	6.59	1.60	1.49
81	DA	3061	G	O4'-C1'	6.59	1.50	1.41
81	DA	1550	C	O4'-C1'	6.59	1.50	1.41
78	CA	257	A	C5'-C4'	6.59	1.59	1.51
78	CA	441	A	C2'-C1'	-6.59	1.46	1.53
81	DA	496	C	C2'-C1'	-6.59	1.46	1.53
82	DB	43	A	P-O5'	-6.59	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	52	U	O4'-C1'	6.59	1.50	1.41
81	DA	1245	A	C2'-C1'	6.58	1.60	1.53
33	BD	141	ARG	NE-CZ	6.58	1.41	1.33
81	DA	493	G	C2'-C1'	-6.58	1.46	1.53
78	CA	618	U	O4'-C1'	6.58	1.50	1.41
78	CA	704	C	C4'-C3'	-6.58	1.46	1.53
78	CA	998	A	O4'-C1'	6.58	1.50	1.41
81	DA	3035	A	O4'-C1'	6.58	1.50	1.41
78	CA	1776	A	C2'-C1'	-6.58	1.46	1.53
78	CA	1	U	C5'-C4'	-6.58	1.43	1.51
81	DA	637	C	O3'-P	-6.58	1.53	1.61
81	DA	2314	U	O4'-C1'	6.58	1.50	1.41
78	CA	838	G	O4'-C1'	6.58	1.50	1.41
81	DA	3394	U	O4'-C1'	6.58	1.50	1.41
78	CA	852	C	O3'-P	-6.57	1.53	1.61
81	DA	329	U	O4'-C1'	-6.57	1.33	1.41
81	DA	2342	U	O4'-C1'	6.57	1.50	1.41
78	CA	869	A	C2'-C1'	-6.57	1.46	1.53
80	CC	12	A	P-OP2	6.57	1.60	1.49
81	DA	2989	U	C3'-C2'	6.57	1.60	1.52
81	DA	3313	U	C3'-O3'	-6.57	1.32	1.42
5	AC	108	ARG	NE-CZ	6.57	1.41	1.33
78	CA	907	A	C2'-C1'	-6.57	1.46	1.53
81	DA	3114	A	O4'-C1'	6.57	1.50	1.41
78	CA	1417	A	C2'-C1'	-6.56	1.46	1.53
4	AD	97	GLU	N-CA	-6.56	1.33	1.46
78	CA	117	U	P-O5'	-6.56	1.53	1.59
78	CA	1330	G	C2'-C1'	-6.56	1.46	1.53
81	DA	286	U	C2'-C1'	-6.56	1.46	1.53
81	DA	1737	U	P-OP2	6.56	1.60	1.49
81	DA	1870	C	C2'-C1'	-6.56	1.46	1.53
81	DA	126	U	C2'-C1'	6.56	1.60	1.53
81	DA	672	A	O5'-C5'	-6.56	1.32	1.42
81	DA	1481	A	C2'-C1'	-6.56	1.46	1.53
81	DA	2290	C	O4'-C1'	6.56	1.50	1.41
81	DA	1772	U	O4'-C1'	6.56	1.50	1.41
81	DA	2184	U	C2'-C1'	-6.56	1.46	1.53
81	DA	2797	C	C2'-C1'	6.56	1.60	1.53
81	DA	538	G	O4'-C1'	6.55	1.50	1.41
81	DA	2312	A	O4'-C1'	6.55	1.50	1.41
57	Be	120	THR	CA-CB	-6.55	1.36	1.53
37	BH	89	GLU	CD-OE1	-6.55	1.18	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1720	G	O4'-C1'	-6.55	1.33	1.41
81	DA	744	A	C2'-O2'	-6.55	1.33	1.41
78	CA	257	A	C3'-C2'	-6.55	1.45	1.52
78	CA	323	A	P-OP2	6.55	1.60	1.49
78	CA	1581	C	P-O5'	-6.55	1.53	1.59
78	CA	1788	G	O4'-C1'	6.55	1.50	1.41
81	DA	25	U	O4'-C1'	6.55	1.50	1.41
81	DA	715	A	C2'-C1'	-6.55	1.46	1.53
81	DA	1449	A	O4'-C1'	6.55	1.50	1.41
81	DA	1717	U	C2'-C1'	-6.55	1.46	1.53
81	DA	2245	C	C2'-C1'	-6.55	1.46	1.53
81	DA	1403	C	P-OP2	6.54	1.60	1.49
81	DA	1679	A	O3'-P	-6.54	1.53	1.61
83	DC	5	G	O4'-C1'	6.54	1.50	1.41
81	DA	2674	A	O4'-C1'	6.54	1.50	1.41
79	CB	42	C	C2'-C1'	-6.54	1.46	1.53
81	DA	2194	G	O3'-P	-6.54	1.53	1.61
14	AM	37	GLY	CA-C	-6.54	1.41	1.51
81	DA	565	U	O4'-C1'	6.54	1.50	1.41
81	DA	697	A	O4'-C1'	6.54	1.50	1.41
78	CA	622	A	C2'-C1'	6.54	1.60	1.53
81	DA	846	A	C2'-C1'	-6.54	1.46	1.53
81	DA	2227	C	O4'-C1'	6.54	1.50	1.41
81	DA	1538	G	O3'-P	-6.54	1.53	1.61
81	DA	1115	G	C2'-C1'	6.54	1.60	1.53
81	DA	1369	A	O4'-C1'	6.54	1.50	1.41
78	CA	332	U	C4'-C3'	-6.53	1.46	1.53
81	DA	1507	G	O4'-C1'	-6.53	1.33	1.41
81	DA	1343	A	O4'-C1'	-6.53	1.33	1.41
78	CA	1365	C	C2'-C1'	-6.53	1.46	1.53
81	DA	30	G	O4'-C1'	-6.53	1.33	1.41
81	DA	747	A	C3'-C2'	-6.53	1.45	1.52
79	CB	1	U	P-OP2	6.53	1.60	1.49
81	DA	724	U	O3'-P	-6.53	1.53	1.61
81	DA	1593	A	O4'-C1'	6.53	1.50	1.41
78	CA	1654	G	C2'-C1'	-6.53	1.46	1.53
81	DA	1469	C	O4'-C1'	6.53	1.50	1.41
81	DA	1621	A	O4'-C1'	6.53	1.50	1.41
65	Bn	72	THR	N-CA	6.52	1.59	1.46
78	CA	202	A	C3'-O3'	6.52	1.51	1.42
81	DA	1727	G	O4'-C1'	6.52	1.50	1.41
81	DA	289	A	C2'-C1'	-6.52	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1912	U	O4'-C1'	6.52	1.50	1.41
78	CA	1730	A	O4'-C1'	6.52	1.50	1.41
78	CA	522	U	C4'-C3'	-6.52	1.46	1.53
55	Bc	94	LYS	N-CA	-6.51	1.33	1.46
81	DA	399	A	O4'-C1'	6.51	1.50	1.41
81	DA	87	U	O4'-C1'	6.51	1.50	1.41
81	DA	264	G	C4'-C3'	-6.51	1.46	1.53
81	DA	1166	G	C2'-C1'	6.51	1.60	1.53
81	DA	1399	A	P-OP2	6.51	1.60	1.49
81	DA	2408	U	O4'-C1'	6.51	1.50	1.41
78	CA	145	A	C2'-C1'	6.51	1.60	1.53
78	CA	983	A	O4'-C1'	6.51	1.50	1.41
37	BH	112	GLU	CG-CD	6.51	1.61	1.51
78	CA	165	G	C3'-C2'	-6.51	1.45	1.52
78	CA	1242	A	C5'-C4'	6.51	1.59	1.51
81	DA	102	C	C2'-C1'	-6.51	1.46	1.53
81	DA	737	G	C2-N3	6.51	1.38	1.32
81	DA	2719	U	O3'-P	-6.51	1.53	1.61
43	BP	16	SER	N-CA	-6.50	1.33	1.46
81	DA	1051	U	O4'-C1'	6.50	1.50	1.41
49	BV	61	ARG	CG-CD	6.50	1.68	1.51
61	Bj	9	VAL	N-CA	6.50	1.59	1.46
81	DA	80	G	O4'-C1'	6.50	1.50	1.41
81	DA	1208	U	O4'-C1'	-6.50	1.33	1.41
81	DA	1147	G	C2'-C1'	6.50	1.60	1.53
82	DB	114	G	C2'-C1'	-6.50	1.46	1.53
78	CA	1048	G	O4'-C1'	6.50	1.50	1.41
81	DA	2138	A	O4'-C1'	-6.50	1.33	1.41
82	DB	120	C	O4'-C1'	6.50	1.50	1.41
22	AV	27	TRP	N-CA	6.50	1.59	1.46
33	BD	346	LYS	CA-CB	6.50	1.68	1.53
55	Bc	94	LYS	C-N	6.50	1.49	1.34
81	DA	2341	A	O4'-C1'	6.50	1.50	1.41
78	CA	348	U	O4'-C1'	6.50	1.50	1.41
81	DA	2530	G	O4'-C1'	6.50	1.50	1.41
78	CA	1034	C	C2'-C1'	-6.49	1.46	1.53
81	DA	1208	U	O3'-P	-6.49	1.53	1.61
81	DA	1940	G	C2'-C1'	-6.49	1.46	1.53
81	DA	3363	U	O4'-C1'	6.49	1.50	1.41
78	CA	106	U	O4'-C1'	6.49	1.50	1.41
32	BC	9	PRO	CA-C	-6.49	1.39	1.52
81	DA	1135	A	C2'-C1'	-6.49	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1640	G	O3'-P	-6.49	1.53	1.61
78	CA	1204	A	C2'-C1'	-6.49	1.46	1.53
81	DA	375	A	O4'-C1'	6.49	1.50	1.41
16	AO	67	THR	C-N	6.49	1.44	1.33
81	DA	2767	U	C2'-C1'	-6.49	1.46	1.53
78	CA	434	G	O4'-C1'	-6.48	1.33	1.41
62	Bk	81	THR	CA-CB	6.48	1.70	1.53
78	CA	1770	U	C2'-C1'	6.48	1.60	1.53
81	DA	2276	G	C2'-C1'	-6.48	1.46	1.53
78	CA	1675	C	C2'-C1'	-6.48	1.46	1.53
81	DA	213	A	C2'-C1'	6.48	1.60	1.53
81	DA	783	A	O4'-C1'	-6.48	1.33	1.41
81	DA	1598	G	O4'-C1'	-6.48	1.33	1.41
81	DA	484	C	C2'-C1'	-6.48	1.46	1.53
81	DA	98	G	C2'-C1'	-6.48	1.46	1.53
34	BE	123	PHE	CA-CB	-6.48	1.39	1.53
78	CA	44	U	P-OP2	6.47	1.59	1.49
81	DA	1756	C	C3'-C2'	6.47	1.60	1.52
81	DA	2914	G	P-OP2	6.47	1.59	1.49
33	BD	84	ARG	CA-CB	-6.47	1.39	1.53
78	CA	1738	U	O4'-C1'	6.47	1.50	1.41
81	DA	2037	G	C2'-C1'	-6.47	1.46	1.53
78	CA	241	U	C5'-C4'	6.47	1.59	1.51
33	BD	78	GLY	C-N	6.47	1.44	1.33
36	BF	2	LYS	CA-CB	6.47	1.68	1.53
78	CA	225	A	C5'-C4'	6.47	1.59	1.51
78	CA	233	C	C4'-C3'	6.47	1.60	1.53
81	DA	26	A	C2'-C1'	6.47	1.60	1.53
81	DA	124	U	C2'-C1'	6.47	1.60	1.53
81	DA	218	G	C2'-C1'	6.47	1.60	1.53
81	DA	2997	G	C2'-C1'	-6.46	1.46	1.53
78	CA	1261	G	C2'-C1'	-6.46	1.46	1.53
78	CA	1446	A	P-OP2	6.46	1.59	1.49
35	BG	100	LYS	N-CA	-6.46	1.33	1.46
47	BU	156	TYR	CG-CD1	6.46	1.47	1.39
78	CA	1415	U	P-OP2	6.46	1.59	1.49
81	DA	52	A	C2'-C1'	-6.46	1.46	1.53
81	DA	369	A	C2'-C1'	6.46	1.60	1.53
81	DA	1286	A	O4'-C1'	6.46	1.50	1.41
81	DA	2361	A	O3'-P	-6.46	1.53	1.61
78	CA	1153	G	C2'-C1'	-6.46	1.46	1.53
81	DA	144	A	O4'-C1'	6.46	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	90	C	C2'-C1'	-6.45	1.46	1.53
81	DA	2770	G	P-O5'	-6.45	1.53	1.59
78	CA	319	U	O4'-C1'	6.45	1.50	1.41
78	CA	646	C	O3'-P	-6.45	1.53	1.61
46	BT	172	ARG	NE-CZ	6.45	1.41	1.33
81	DA	942	U	O4'-C1'	6.45	1.50	1.41
81	DA	1457	U	C2'-C1'	-6.45	1.46	1.53
81	DA	797	U	C2'-C1'	-6.45	1.46	1.53
8	AF	156	ARG	CD-NE	6.45	1.57	1.46
78	CA	706	A	C4'-C3'	-6.45	1.46	1.53
81	DA	603	A	C2'-C1'	-6.45	1.46	1.53
81	DA	575	G	C2'-C1'	-6.44	1.46	1.53
81	DA	1180	A	C2'-C1'	6.44	1.60	1.53
78	CA	343	C	O4'-C1'	6.44	1.50	1.41
78	CA	1018	U	C2'-C1'	-6.44	1.46	1.53
81	DA	2916	U	C4'-C3'	-6.44	1.46	1.53
81	DA	2930	A	C2'-C1'	-6.44	1.46	1.53
81	DA	3048	A	P-O5'	6.44	1.66	1.59
78	CA	1045	C	O4'-C1'	6.44	1.50	1.41
78	CA	689	G	O3'-P	-6.44	1.53	1.61
81	DA	2622	C	C2'-C1'	-6.44	1.46	1.53
60	Bi	77	GLY	C-N	6.44	1.44	1.33
81	DA	926	A	O4'-C1'	6.43	1.50	1.41
78	CA	1252	C	C4'-C3'	-6.43	1.46	1.53
81	DA	187	A	C2'-C1'	-6.43	1.46	1.53
81	DA	3299	A	C2'-C1'	6.43	1.60	1.53
78	CA	1758	U	O4'-C1'	6.43	1.50	1.41
81	DA	680	G	C2'-C1'	6.42	1.60	1.53
81	DA	1043	C	C2'-C1'	-6.42	1.46	1.53
81	DA	2919	A	O4'-C1'	6.42	1.50	1.41
81	DA	1307	G	O4'-C1'	6.42	1.50	1.41
81	DA	968	G	O4'-C1'	6.42	1.50	1.41
81	DA	1689	U	P-O5'	-6.42	1.53	1.59
81	DA	2906	C	C2'-C1'	-6.42	1.46	1.53
78	CA	1791	A	C2'-C1'	6.42	1.60	1.53
81	DA	373	A	O4'-C1'	6.42	1.50	1.41
81	DA	1360	C	C2'-C1'	-6.42	1.46	1.53
50	BX	93	TYR	CG-CD1	6.41	1.47	1.39
78	CA	822	U	C4'-O4'	6.41	1.53	1.45
78	CA	687	G	C3'-C2'	-6.41	1.45	1.52
81	DA	1837	U	O4'-C1'	6.41	1.50	1.41
81	DA	777	U	C3'-O3'	6.41	1.51	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1856	C	O4'-C1'	6.41	1.50	1.41
53	Ba	56	LYS	N-CA	-6.41	1.33	1.46
83	DC	21	G	C2'-C1'	-6.41	1.46	1.53
78	CA	120	U	C3'-O3'	6.41	1.51	1.42
81	DA	299	G	O4'-C1'	-6.41	1.33	1.41
74	BQ	243	ALA	CA-CB	6.40	1.65	1.52
81	DA	2941	A	C2'-C1'	6.40	1.60	1.53
82	DB	135	G	C2'-C1'	-6.40	1.46	1.53
45	BR	14	GLY	CA-C	-6.40	1.41	1.51
78	CA	647	G	P-O5'	-6.40	1.53	1.59
83	DC	36	C	C2'-C1'	-6.40	1.46	1.53
46	BT	71	ARG	N-CA	6.40	1.59	1.46
49	BV	153	LYS	N-CA	-6.40	1.33	1.46
78	CA	1383	G	O4'-C1'	6.40	1.50	1.41
78	CA	1398	U	C2'-C1'	-6.40	1.46	1.53
81	DA	501	A	C2'-C1'	-6.40	1.46	1.53
81	DA	1458	U	O4'-C1'	6.40	1.50	1.41
81	DA	2084	C	O4'-C1'	6.40	1.50	1.41
81	DA	2107	A	C2'-C1'	-6.40	1.46	1.53
78	CA	47	A	O5'-C5'	-6.40	1.32	1.42
81	DA	637	C	C4'-O4'	6.40	1.53	1.45
81	DA	1806	A	O4'-C1'	6.40	1.50	1.41
78	CA	17	C	O4'-C1'	6.39	1.50	1.41
81	DA	1161	G	O4'-C1'	6.39	1.50	1.41
81	DA	1953	G	C4'-C3'	-6.39	1.46	1.53
9	AH	79	PHE	CG-CD2	6.39	1.48	1.38
78	CA	145	A	P-OP2	6.39	1.59	1.49
78	CA	1594	G	C2'-C1'	-6.39	1.46	1.53
81	DA	161	G	C4'-O4'	-6.39	1.37	1.45
81	DA	223	U	O4'-C1'	6.39	1.50	1.41
81	DA	537	A	O4'-C1'	6.39	1.50	1.41
81	DA	1809	A	C2'-C1'	-6.39	1.46	1.53
82	DB	44	A	O4'-C1'	6.39	1.50	1.41
78	CA	1786	G	C2'-C1'	-6.39	1.46	1.53
81	DA	770	G	O4'-C1'	6.39	1.50	1.41
81	DA	291	C	C2'-C1'	-6.39	1.46	1.53
81	DA	974	G	C3'-O3'	6.39	1.51	1.42
81	DA	2707	C	O4'-C1'	6.39	1.50	1.41
47	BU	92	ARG	CD-NE	6.38	1.57	1.46
81	DA	818	C	C4'-C3'	-6.38	1.46	1.53
81	DA	1988	C	O3'-P	-6.38	1.53	1.61
78	CA	478	A	O4'-C1'	-6.38	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	215	A	O4'-C1'	6.38	1.50	1.41
81	DA	776	U	P-O5'	-6.38	1.53	1.59
81	DA	197	G	O4'-C1'	6.38	1.50	1.41
81	DA	1623	G	C5'-C4'	6.38	1.59	1.51
81	DA	2682	C	O3'-P	-6.38	1.53	1.61
81	DA	2262	A	O4'-C1'	6.38	1.50	1.41
12	AK	94	PRO	C-N	6.37	1.44	1.33
81	DA	1131	G	O4'-C1'	6.37	1.50	1.41
81	DA	2292	U	O4'-C1'	6.37	1.50	1.41
49	BV	90	PHE	CG-CD1	6.37	1.48	1.38
78	CA	999	U	O4'-C1'	6.37	1.50	1.41
81	DA	1113	G	O4'-C1'	-6.37	1.33	1.41
81	DA	1990	U	P-O5'	-6.36	1.53	1.59
76	BS	138	ARG	CD-NE	6.36	1.57	1.46
78	CA	963	A	C2'-C1'	-6.36	1.46	1.53
81	DA	820	A	O4'-C1'	6.36	1.50	1.41
81	DA	1838	G	O4'-C1'	6.36	1.50	1.41
81	DA	1079	A	O4'-C1'	6.36	1.50	1.41
10	AI	135	ARG	CZ-NH1	6.35	1.41	1.33
81	DA	243	G	C2'-C1'	-6.35	1.46	1.53
81	DA	2043	U	O4'-C1'	6.35	1.50	1.41
9	AH	66	ASN	CA-CB	-6.35	1.36	1.53
81	DA	1647	A	C2'-C1'	6.35	1.60	1.53
78	CA	572	C	C2'-C1'	-6.35	1.46	1.53
81	DA	747	A	C4'-C3'	-6.35	1.46	1.53
81	DA	939	U	O4'-C1'	6.35	1.49	1.41
81	DA	1126	G	C2'-C1'	-6.35	1.46	1.53
81	DA	1468	A	O4'-C1'	6.35	1.49	1.41
81	DA	1454	A	O4'-C1'	6.34	1.49	1.41
81	DA	1768	U	C2-N3	6.34	1.42	1.37
81	DA	2493	U	P-O5'	-6.34	1.53	1.59
45	BR	121	CYS	CB-SG	6.34	1.93	1.82
81	DA	2161	G	C2'-C1'	-6.34	1.46	1.53
81	DA	89	A	O4'-C1'	6.34	1.49	1.41
81	DA	2367	A	C2'-C1'	-6.34	1.46	1.53
81	DA	3233	C	C2'-C1'	-6.34	1.46	1.53
78	CA	1266	U	O4'-C1'	6.34	1.49	1.41
78	CA	1404	C	C2'-C1'	-6.34	1.46	1.53
81	DA	114	A	O4'-C1'	-6.34	1.33	1.41
78	CA	1130	G	C4'-O4'	-6.33	1.37	1.45
74	BQ	238	ASP	C-N	6.33	1.48	1.34
78	CA	886	U	O3'-P	6.33	1.68	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1528	U	O4'-C1'	-6.33	1.33	1.41
81	DA	3042	U	C2'-C1'	-6.33	1.46	1.53
81	DA	3150	A	O4'-C1'	-6.33	1.33	1.41
33	BD	326	ARG	NE-CZ	6.33	1.41	1.33
78	CA	317	C	C2'-C1'	-6.33	1.46	1.53
78	CA	562	G	C2'-C1'	-6.33	1.46	1.53
78	CA	653	C	O4'-C1'	6.33	1.49	1.41
78	CA	558	U	C2'-C1'	6.33	1.60	1.53
78	CA	1087	A	C2'-C1'	-6.33	1.46	1.53
81	DA	638	C	C3'-C2'	-6.33	1.45	1.52
81	DA	1884	A	O4'-C1'	6.33	1.49	1.41
81	DA	2668	U	O3'-P	-6.33	1.53	1.61
81	DA	2694	A	O4'-C1'	6.33	1.49	1.41
78	CA	1140	G	C4'-C3'	-6.33	1.46	1.53
25	AY	29	ARG	CZ-NH2	6.32	1.41	1.33
78	CA	1168	U	O4'-C1'	6.32	1.49	1.41
81	DA	434	U	C3'-C2'	6.32	1.59	1.52
81	DA	1944	U	C2'-C1'	-6.32	1.46	1.53
78	CA	138	A	P-OP2	6.32	1.59	1.49
78	CA	680	U	C4'-C3'	-6.32	1.46	1.53
78	CA	1283	U	C2'-C1'	6.32	1.60	1.53
44	BO	56	VAL	C-N	6.32	1.44	1.33
55	Bc	104	GLN	C-N	6.32	1.48	1.34
78	CA	1235	C	C2'-C1'	6.32	1.60	1.53
81	DA	568	G	C2'-C1'	-6.32	1.46	1.53
81	DA	1773	C	C2'-C1'	6.32	1.60	1.53
21	AT	5	LYS	C-N	6.32	1.44	1.33
81	DA	242	C	C5'-C4'	6.32	1.58	1.51
5	AC	19	TYR	N-CA	-6.31	1.33	1.46
57	Be	47	ARG	CZ-NH1	6.31	1.41	1.33
78	CA	791	A	C4'-C3'	-6.31	1.46	1.53
81	DA	1358	C	C2'-C1'	-6.31	1.46	1.53
81	DA	1447	G	C2'-C1'	-6.31	1.46	1.53
1	Aa	82	SER	CA-CB	6.31	1.62	1.52
81	DA	1120	A	O4'-C1'	6.31	1.49	1.41
81	DA	1205	A	O4'-C1'	6.31	1.49	1.41
33	BD	76	ARG	CZ-NH1	6.31	1.41	1.33
45	BR	74	GLU	CG-CD	6.31	1.61	1.51
57	Be	202	LEU	C-N	6.31	1.48	1.34
78	CA	1719	A	O4'-C1'	6.31	1.49	1.41
81	DA	2394	G	O4'-C1'	6.31	1.49	1.41
3	AB	78	LYS	CA-CB	-6.30	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	AK	22	SER	N-CA	6.30	1.58	1.46
78	CA	1167	G	C2'-C1'	6.30	1.60	1.53
59	Bh	20	HIS	N-CA	-6.30	1.33	1.46
81	DA	1288	U	O3'-P	-6.30	1.53	1.61
81	DA	2501	U	O4'-C1'	6.30	1.49	1.41
81	DA	1637	A	P-OP2	6.30	1.59	1.49
1	Aa	58	VAL	CA-C	6.30	1.69	1.52
81	DA	3256	G	O4'-C1'	6.30	1.49	1.41
78	CA	253	A	O3'-P	-6.30	1.53	1.61
78	CA	837	G	C4'-C3'	-6.30	1.46	1.53
81	DA	2363	A	P-O5'	-6.29	1.53	1.59
81	DA	2423	U	P-O5'	-6.29	1.53	1.59
81	DA	112	U	C2'-C1'	-6.29	1.46	1.53
81	DA	1008	U	C2'-C1'	6.29	1.60	1.53
78	CA	1657	U	O4'-C1'	6.29	1.49	1.41
78	CA	238	U	O3'-P	-6.29	1.53	1.61
81	DA	1339	C	O4'-C1'	6.29	1.49	1.41
81	DA	1991	G	C4'-C3'	-6.29	1.46	1.53
81	DA	2237	C	O4'-C1'	6.29	1.49	1.41
81	DA	749	C	O4'-C1'	6.29	1.49	1.41
81	DA	2284	C	C2'-C1'	-6.29	1.46	1.53
81	DA	2928	C	O3'-P	-6.29	1.53	1.61
81	DA	503	C	C2'-C1'	-6.29	1.46	1.53
81	DA	170	G	C5'-C4'	6.29	1.58	1.51
81	DA	1797	A	O4'-C1'	6.28	1.49	1.41
78	CA	616	G	O4'-C1'	6.28	1.49	1.41
78	CA	975	C	C2'-C1'	-6.28	1.46	1.53
81	DA	1748	G	O3'-P	-6.28	1.53	1.61
40	BK	172	ARG	CZ-NH1	6.28	1.41	1.33
81	DA	79	U	O4'-C1'	6.28	1.49	1.41
81	DA	2427	U	C2'-C1'	-6.28	1.46	1.53
81	DA	265	A	P-O5'	-6.28	1.53	1.59
81	DA	2048	G	C2'-C1'	-6.28	1.46	1.53
81	DA	2069	G	C2'-C1'	-6.28	1.46	1.53
78	CA	1763	A	O4'-C1'	6.28	1.49	1.41
81	DA	2022	G	C2'-C1'	-6.28	1.46	1.53
81	DA	1304	A	C2'-C1'	6.27	1.60	1.53
81	DA	440	A	C2'-C1'	-6.27	1.46	1.53
81	DA	693	A	O4'-C1'	6.27	1.49	1.41
81	DA	3057	U	C2'-C1'	-6.27	1.46	1.53
1	Aa	54	PHE	C-N	6.27	1.44	1.33
1	Aa	298	GLY	N-CA	-6.27	1.36	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
57	Be	202	LEU	N-CA	6.27	1.58	1.46
78	CA	50	C	O4'-C1'	6.27	1.49	1.41
78	CA	276	C	C2'-C1'	-6.27	1.46	1.53
81	DA	2145	A	C2'-C1'	-6.27	1.46	1.53
78	CA	1642	G	C2'-C1'	6.27	1.60	1.53
83	DC	1	G	P-OP2	6.27	1.59	1.49
78	CA	217	A	C4'-C3'	6.26	1.60	1.53
78	CA	1246	C	C4'-C3'	-6.26	1.46	1.53
81	DA	341	G	C2'-C1'	-6.26	1.46	1.53
34	BE	94	ARG	CZ-NH1	6.26	1.41	1.33
83	DC	39	C	C2'-C1'	-6.26	1.46	1.53
81	DA	800	G	C2'-C1'	6.26	1.60	1.53
81	DA	1267	U	O4'-C1'	6.26	1.49	1.41
81	DA	2162	U	C2'-C1'	-6.26	1.46	1.53
43	BP	116	LEU	N-CA	6.26	1.58	1.46
81	DA	1656	A	O4'-C1'	6.26	1.49	1.41
81	DA	2405	C	C2'-C1'	-6.26	1.46	1.53
81	DA	2152	A	C2'-C1'	-6.25	1.46	1.53
78	CA	1750	A	O4'-C1'	6.25	1.49	1.41
81	DA	2434	U	C2'-C1'	-6.25	1.46	1.53
81	DA	2905	U	C2'-C1'	-6.25	1.46	1.53
81	DA	1379	G	O4'-C1'	6.25	1.49	1.41
81	DA	1182	A	C2'-C1'	-6.25	1.46	1.53
81	DA	3074	G	O4'-C1'	6.25	1.49	1.41
81	DA	1107	C	O4'-C1'	6.25	1.49	1.41
81	DA	1870	C	O3'-P	6.25	1.68	1.61
81	DA	3065	G	P-OP2	6.25	1.59	1.49
20	AS	52	GLY	CA-C	-6.24	1.41	1.51
68	Bq	12	ARG	CZ-NH1	6.24	1.41	1.33
81	DA	43	A	P-O5'	-6.24	1.53	1.59
81	DA	1215	U	O4'-C1'	6.24	1.49	1.41
78	CA	1090	C	O3'-P	-6.24	1.53	1.61
56	Bf	35	ARG	CD-NE	6.24	1.57	1.46
78	CA	1683	C	C2'-C1'	-6.24	1.46	1.53
78	CA	1616	G	C4'-C3'	-6.24	1.46	1.53
20	AS	24	ARG	CZ-NH1	6.24	1.41	1.33
78	CA	1447	C	C2'-C1'	6.23	1.60	1.53
78	CA	1243	G	O3'-P	-6.23	1.53	1.61
81	DA	2502	A	C2'-C1'	6.23	1.60	1.53
83	DC	49	G	C2'-C1'	6.23	1.60	1.53
81	DA	3336	A	C2'-C1'	6.23	1.60	1.53
31	BB	250	GLN	N-CA	6.23	1.58	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BH	89	GLU	CA-CB	-6.23	1.40	1.53
65	Bn	35	GLY	N-CA	-6.23	1.36	1.46
81	DA	1658	G	O4'-C1'	6.23	1.49	1.41
81	DA	2382	G	C2'-C1'	-6.23	1.46	1.53
81	DA	3113	A	C2'-C1'	-6.23	1.46	1.53
31	BB	246	LEU	CA-CB	6.22	1.68	1.53
78	CA	651	G	C4'-O4'	-6.22	1.37	1.45
78	CA	959	U	O4'-C1'	-6.22	1.33	1.41
81	DA	1974	A	C4'-C3'	6.22	1.59	1.53
81	DA	949	C	C2'-C1'	-6.22	1.46	1.53
81	DA	2738	A	O4'-C1'	6.22	1.49	1.41
78	CA	1331	A	O4'-C1'	6.22	1.49	1.41
78	CA	1458	G	P-OP2	6.22	1.59	1.49
81	DA	28	C	O4'-C1'	6.22	1.49	1.41
81	DA	1166	G	O4'-C1'	6.22	1.49	1.41
81	DA	3166	C	O4'-C1'	6.22	1.49	1.41
78	CA	947	U	C2'-C1'	6.21	1.60	1.53
78	CA	1709	C	C2'-C1'	-6.21	1.46	1.53
81	DA	609	G	O4'-C1'	-6.21	1.33	1.41
78	CA	885	G	C2'-C1'	-6.21	1.46	1.53
81	DA	523	A	C2'-C1'	6.21	1.60	1.53
81	DA	2855	U	C2'-C1'	-6.21	1.46	1.53
78	CA	1033	C	C2'-C1'	-6.21	1.46	1.53
78	CA	1492	A	P-O5'	-6.21	1.53	1.59
81	DA	957	C	C2'-C1'	-6.21	1.46	1.53
81	DA	1235	U	C2'-C1'	-6.21	1.46	1.53
81	DA	146	U	O3'-P	6.21	1.68	1.61
81	DA	672	A	O4'-C1'	6.21	1.49	1.41
81	DA	2976	A	O4'-C1'	6.21	1.49	1.41
78	CA	179	A	P-O5'	-6.20	1.53	1.59
78	CA	1302	U	O3'-P	-6.20	1.53	1.61
50	BX	93	TYR	CZ-OH	6.20	1.48	1.37
81	DA	161	G	C2'-C1'	-6.20	1.46	1.53
81	DA	597	G	P-O5'	-6.20	1.53	1.59
81	DA	972	A	O3'-P	-6.20	1.53	1.61
2	AA	183	ARG	NE-CZ	6.20	1.41	1.33
81	DA	754	G	O3'-P	-6.20	1.53	1.61
81	DA	2444	C	C2'-C1'	-6.20	1.46	1.53
37	BH	134	TYR	CB-CG	6.20	1.60	1.51
78	CA	1540	G	O4'-C1'	6.20	1.49	1.41
81	DA	1751	G	O4'-C1'	6.20	1.49	1.41
83	DC	9	C	P-O5'	-6.19	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	AL	39	LYS	CB-CG	6.19	1.69	1.52
78	CA	57	G	C4'-O4'	-6.19	1.37	1.45
81	DA	1692	U	O4'-C1'	-6.19	1.33	1.41
81	DA	3160	U	O4'-C1'	6.19	1.49	1.41
51	BZ	71	ARG	N-CA	-6.19	1.33	1.46
78	CA	150	U	O3'-P	-6.19	1.53	1.61
81	DA	2075	C	C2'-C1'	-6.19	1.46	1.53
36	BF	2	LYS	C-N	6.19	1.48	1.34
78	CA	973	A	O4'-C1'	6.19	1.49	1.41
81	DA	2882	U	C2'-C1'	-6.19	1.46	1.53
78	CA	1222	C	P-O5'	-6.19	1.53	1.59
15	AN	13	ARG	CZ-NH1	6.18	1.41	1.33
55	Bc	38	ARG	CZ-NH1	6.18	1.41	1.33
81	DA	230	U	C2'-C1'	6.18	1.60	1.53
81	DA	2169	G	P-OP2	6.18	1.59	1.49
81	DA	2330	C	C2'-C1'	-6.18	1.46	1.53
81	DA	3054	U	O3'-P	-6.18	1.53	1.61
81	DA	1387	G	P-OP2	6.18	1.59	1.49
6	AE	4	PRO	CA-CB	-6.18	1.41	1.53
78	CA	1321	A	C2'-C1'	6.18	1.60	1.53
81	DA	683	U	O4'-C1'	6.18	1.49	1.41
81	DA	1202	A	O4'-C1'	6.18	1.49	1.41
37	BH	216	SER	CA-CB	6.18	1.62	1.52
81	DA	1898	G	C2'-C1'	-6.18	1.46	1.53
81	DA	285	A	C2'-C1'	6.17	1.60	1.53
81	DA	425	G	O3'-P	-6.17	1.53	1.61
82	DB	110	C	C2'-C1'	-6.17	1.46	1.53
14	AM	10	SER	CA-CB	6.17	1.62	1.52
78	CA	1021	C	C2'-C1'	-6.17	1.46	1.53
81	DA	2109	U	C2'-C1'	-6.17	1.46	1.53
81	DA	2423	U	O3'-P	-6.17	1.53	1.61
57	Be	176	TYR	CZ-OH	6.17	1.48	1.37
63	Bm	85	ARG	CZ-NH2	6.17	1.41	1.33
78	CA	658	C	O4'-C1'	6.17	1.49	1.41
81	DA	781	G	O4'-C1'	6.17	1.49	1.41
81	DA	1622	U	O4'-C1'	6.17	1.49	1.41
81	DA	2112	U	O4'-C1'	6.17	1.49	1.41
81	DA	2723	U	C3'-C2'	-6.17	1.46	1.52
78	CA	612	U	O4'-C1'	6.17	1.49	1.41
78	CA	935	U	O4'-C1'	6.17	1.49	1.41
78	CA	1145	U	O4'-C1'	6.17	1.49	1.41
78	CA	853	G	P-O5'	6.16	1.66	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1023	A	C2'-C1'	6.16	1.60	1.53
81	DA	211	A	C2'-C1'	6.16	1.60	1.53
78	CA	775	G	C4'-C3'	-6.16	1.46	1.53
81	DA	2981	U	O4'-C1'	6.16	1.49	1.41
38	Bs	129	GLU	CG-CD	6.16	1.61	1.51
44	BO	142	GLY	C-N	6.16	1.44	1.33
81	DA	2710	C	C2'-C1'	-6.16	1.46	1.53
82	DB	138	A	C2'-C1'	-6.15	1.46	1.53
57	Be	113	SER	CA-CB	6.15	1.62	1.52
78	CA	169	A	C4'-O4'	-6.15	1.37	1.45
81	DA	1400	G	C3'-O3'	-6.15	1.33	1.42
78	CA	18	C	C2'-C1'	-6.15	1.46	1.53
81	DA	257	U	P-O5'	-6.15	1.53	1.59
81	DA	636	C	O3'-P	-6.15	1.53	1.61
81	DA	681	U	O4'-C1'	6.15	1.49	1.41
81	DA	1474	A	O4'-C1'	6.15	1.49	1.41
78	CA	881	A	C4'-C3'	-6.14	1.46	1.53
81	DA	55	G	O4'-C1'	6.14	1.49	1.41
81	DA	704	U	C3'-O3'	-6.14	1.33	1.42
81	DA	2870	C	C2'-C1'	6.14	1.60	1.53
81	DA	2204	C	O3'-P	-6.14	1.53	1.61
81	DA	2903	A	C4'-C3'	-6.14	1.46	1.53
78	CA	1051	G	C2-N3	6.14	1.37	1.32
81	DA	2406	C	O4'-C1'	6.14	1.49	1.41
81	DA	1390	A	O4'-C1'	-6.14	1.33	1.41
81	DA	1142	G	O4'-C1'	6.14	1.49	1.41
81	DA	1189	C	C2'-C1'	6.14	1.60	1.53
81	DA	2201	G	O4'-C1'	6.14	1.49	1.41
81	DA	952	A	C2'-C1'	-6.13	1.46	1.53
81	DA	2024	G	C2'-C1'	-6.13	1.46	1.53
81	DA	1833	G	C2'-C1'	-6.13	1.46	1.53
78	CA	1446	A	C2'-C1'	6.13	1.60	1.53
81	DA	1505	C	C2'-C1'	-6.13	1.46	1.53
81	DA	1593	A	C2'-C1'	-6.13	1.46	1.53
78	CA	119	A	C4'-C3'	6.13	1.59	1.53
81	DA	944	C	O4'-C1'	6.13	1.49	1.41
81	DA	1285	G	O4'-C1'	6.13	1.49	1.41
81	DA	2723	U	O3'-P	6.13	1.68	1.61
78	CA	11	A	C2'-C1'	-6.13	1.46	1.53
78	CA	207	U	P-O5'	-6.12	1.53	1.59
78	CA	1403	C	O4'-C1'	6.12	1.49	1.41
81	DA	2667	A	O4'-C1'	6.12	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	BB	183	GLY	CA-C	-6.12	1.42	1.51
49	BV	31	GLU	CB-CG	6.12	1.63	1.52
78	CA	165	G	C4'-C3'	-6.12	1.46	1.53
78	CA	910	C	C2'-C1'	-6.12	1.46	1.53
81	DA	1133	A	O4'-C1'	6.12	1.49	1.41
64	Bl	73	ARG	NE-CZ	6.12	1.41	1.33
78	CA	1681	A	C2'-C1'	-6.12	1.46	1.53
81	DA	784	A	O4'-C1'	-6.12	1.33	1.41
81	DA	1408	G	C2'-C1'	-6.12	1.46	1.53
81	DA	2174	G	O3'-P	-6.12	1.53	1.61
81	DA	2099	A	C4'-O4'	-6.12	1.37	1.45
78	CA	894	U	C4'-C3'	-6.11	1.46	1.53
81	DA	777	U	O4'-C1'	6.11	1.49	1.41
78	CA	1690	G	C5'-C4'	6.11	1.58	1.51
74	BQ	79	TYR	CE2-CZ	6.11	1.46	1.38
81	DA	42	C	C4'-C3'	-6.11	1.46	1.53
81	DA	366	A	C4'-C3'	-6.11	1.46	1.53
81	DA	2273	G	C2'-C1'	-6.11	1.46	1.53
78	CA	868	G	C4'-C3'	-6.11	1.46	1.53
31	BB	174	ARG	CZ-NH1	6.11	1.41	1.33
78	CA	189	C	C2'-C1'	6.11	1.60	1.53
78	CA	1092	A	O4'-C1'	-6.11	1.33	1.41
79	CB	30	G	C2'-C1'	-6.11	1.46	1.53
81	DA	3083	G	C2'-C1'	-6.11	1.46	1.53
83	DC	87	U	O4'-C1'	6.11	1.49	1.41
35	BG	158	TYR	CZ-OH	6.11	1.48	1.37
81	DA	606	C	O3'-P	-6.11	1.53	1.61
56	Bf	23	TYR	CE2-CZ	6.10	1.46	1.38
81	DA	856	G	C2'-C1'	-6.10	1.46	1.53
78	CA	1763	A	C2'-C1'	-6.10	1.46	1.53
81	DA	328	U	O3'-P	-6.10	1.53	1.61
81	DA	2185	G	O4'-C1'	-6.10	1.33	1.41
11	AJ	82	TYR	N-CA	-6.10	1.34	1.46
32	BC	38	SER	CA-CB	6.10	1.62	1.52
78	CA	229	U	C5'-C4'	6.10	1.58	1.51
78	CA	348	U	C2'-C1'	-6.10	1.46	1.53
78	CA	1766	A	O4'-C1'	6.10	1.49	1.41
81	DA	1200	A	O4'-C1'	6.10	1.49	1.41
81	DA	1849	C	O4'-C1'	6.10	1.49	1.41
83	DC	94	A	O4'-C1'	6.10	1.49	1.41
18	AP	57	LYS	C-N	6.10	1.48	1.34
81	DA	2379	U	O4'-C1'	6.10	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1621	U	C2'-C1'	-6.09	1.46	1.53
83	DC	41	G	C2'-C1'	-6.09	1.46	1.53
81	DA	2319	U	O4'-C1'	-6.09	1.33	1.41
42	BM	32	ARG	NE-CZ	6.09	1.41	1.33
51	BZ	14	TYR	CE1-CZ	6.09	1.46	1.38
58	Bg	94	GLU	C-N	6.09	1.45	1.34
81	DA	2626	A	P-O5'	-6.09	1.53	1.59
78	CA	899	G	C4'-O4'	-6.09	1.37	1.45
81	DA	651	G	C2'-C1'	-6.09	1.46	1.53
42	BM	41	GLY	CA-C	-6.09	1.42	1.51
78	CA	1307	U	O4'-C1'	6.09	1.49	1.41
78	CA	1547	A	O5'-C5'	6.09	1.54	1.44
81	DA	539	C	C2'-C1'	-6.09	1.46	1.53
81	DA	769	G	O3'-P	-6.09	1.53	1.61
81	DA	330	G	O4'-C1'	6.08	1.49	1.41
81	DA	1641	U	P-O5'	-6.08	1.53	1.59
81	DA	1902	G	O4'-C1'	-6.08	1.33	1.41
82	DB	34	U	O4'-C1'	6.08	1.49	1.41
46	BT	167	ARG	NE-CZ	6.08	1.41	1.33
81	DA	2009	C	C2'-C1'	-6.08	1.46	1.53
81	DA	3134	A	C2'-C1'	-6.08	1.46	1.53
78	CA	101	U	O4'-C1'	6.08	1.49	1.41
81	DA	3024	A	C2'-C1'	-6.08	1.46	1.53
81	DA	2765	C	O4'-C1'	6.08	1.49	1.41
31	BB	155	LYS	N-CA	-6.08	1.34	1.46
42	BM	131	SER	CA-CB	6.08	1.62	1.52
52	BY	74	TYR	N-CA	-6.08	1.34	1.46
81	DA	3318	G	O4'-C1'	6.08	1.49	1.41
55	Bc	48	ARG	NE-CZ	6.07	1.41	1.33
78	CA	21	U	O4'-C1'	6.07	1.49	1.41
78	CA	245	U	P-O5'	-6.07	1.53	1.59
81	DA	3114	A	C2'-C1'	-6.07	1.46	1.53
78	CA	173	A	P-O5'	-6.07	1.53	1.59
78	CA	331	A	C2'-C1'	-6.07	1.46	1.53
78	CA	1296	A	C2'-C1'	-6.07	1.46	1.53
81	DA	463	C	C2'-C1'	-6.07	1.46	1.53
78	CA	173	A	O4'-C1'	-6.07	1.33	1.41
78	CA	296	U	C3'-C2'	-6.07	1.46	1.52
81	DA	2717	U	C2'-C1'	-6.07	1.46	1.53
78	CA	661	A	O3'-P	-6.07	1.53	1.61
81	DA	988	U	C4'-C3'	6.07	1.59	1.53
81	DA	1106	G	C2'-C1'	6.07	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1344	G	C2'-C1'	-6.07	1.46	1.53
1	Aa	10	ARG	CZ-NH2	6.06	1.41	1.33
81	DA	2734	A	O3'-P	-6.06	1.53	1.61
82	DB	42	G	O4'-C1'	-6.06	1.33	1.41
2	AA	10	THR	CA-CB	6.06	1.69	1.53
78	CA	886	U	C2'-C1'	6.06	1.60	1.53
81	DA	3144	G	C2'-C1'	-6.06	1.46	1.53
33	BD	261	VAL	N-CA	6.06	1.58	1.46
78	CA	325	G	C2'-C1'	-6.06	1.46	1.53
53	Ba	74	VAL	CA-CB	-6.06	1.42	1.54
1	Aa	155	ARG	CD-NE	6.05	1.56	1.46
78	CA	1451	C	C2'-C1'	-6.05	1.46	1.53
78	CA	1525	A	C5'-C4'	6.05	1.58	1.51
81	DA	3368	U	O4'-C1'	6.05	1.49	1.41
41	BN	75	GLY	C-N	6.05	1.48	1.34
78	CA	1170	G	O4'-C1'	6.05	1.49	1.41
78	CA	1090	C	C4'-O4'	-6.05	1.37	1.45
81	DA	776	U	O3'-P	-6.05	1.53	1.61
53	Ba	9	LYS	N-CA	-6.05	1.34	1.46
81	DA	313	A	O4'-C1'	-6.05	1.33	1.41
81	DA	931	C	C2'-C1'	-6.05	1.46	1.53
81	DA	1631	C	C2'-C1'	-6.05	1.46	1.53
81	DA	2779	A	C2'-C1'	-6.05	1.46	1.53
81	DA	3383	G	O4'-C1'	-6.05	1.33	1.41
68	Bq	15	ARG	CZ-NH1	6.05	1.41	1.33
83	DC	8	G	O3'-P	-6.05	1.53	1.61
78	CA	1731	A	C2'-C1'	-6.04	1.46	1.53
81	DA	3295	A	P-OP2	6.04	1.59	1.49
79	CB	38	C	C2'-C1'	-6.04	1.46	1.53
81	DA	3246	G	O3'-P	-6.04	1.53	1.61
78	CA	818	C	C5'-C4'	6.04	1.58	1.51
81	DA	2373	A	O4'-C1'	6.04	1.49	1.41
5	AC	168	ARG	C-O	-6.04	1.11	1.23
78	CA	1016	C	O4'-C1'	6.04	1.49	1.41
81	DA	835	G	C2'-C1'	-6.03	1.46	1.53
81	DA	2672	G	O4'-C1'	6.03	1.49	1.41
81	DA	2860	U	C2'-C1'	6.03	1.59	1.53
2	AA	78	SER	CA-CB	6.03	1.61	1.52
78	CA	925	G	C2'-C1'	-6.03	1.46	1.53
10	AI	119	ALA	N-CA	6.03	1.58	1.46
81	DA	922	U	O4'-C1'	6.03	1.49	1.41
81	DA	1484	U	O4'-C1'	6.03	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1573	G	O4'-C1'	6.03	1.49	1.41
2	AA	101	ARG	NE-CZ	6.02	1.40	1.33
81	DA	1474	A	C2'-C1'	-6.02	1.46	1.53
78	CA	1018	U	O4'-C1'	6.02	1.49	1.41
78	CA	1189	A	O4'-C1'	6.02	1.49	1.41
78	CA	1173	C	C2'-C1'	-6.02	1.46	1.53
78	CA	1463	C	C2'-C1'	-6.02	1.46	1.53
78	CA	1588	G	C2'-C1'	-6.02	1.46	1.53
78	CA	1676	U	O3'-P	-6.02	1.53	1.61
81	DA	260	C	C2'-C1'	-6.02	1.46	1.53
81	DA	2267	C	C2'-C1'	-6.02	1.46	1.53
81	DA	2706	G	O4'-C1'	6.02	1.49	1.41
74	BQ	133	GLU	CD-OE1	6.01	1.32	1.25
78	CA	1094	G	C2'-C1'	-6.01	1.46	1.53
81	DA	41	G	C2'-C1'	6.01	1.59	1.53
81	DA	2462	A	O3'-P	-6.01	1.53	1.61
8	AF	112	ARG	CD-NE	6.01	1.56	1.46
76	BS	84	GLN	C-N	-6.01	1.20	1.34
81	DA	181	U	O4'-C1'	6.01	1.49	1.41
81	DA	2419	A	C2'-C1'	-6.01	1.46	1.53
81	DA	3282	U	C2'-C1'	-6.01	1.46	1.53
33	BD	69	ARG	CZ-NH2	6.01	1.40	1.33
78	CA	663	U	C2'-C1'	-6.01	1.46	1.53
81	DA	34	A	C2'-C1'	-6.01	1.46	1.53
78	CA	941	A	O4'-C1'	6.00	1.49	1.41
81	DA	271	C	O4'-C1'	6.00	1.49	1.41
81	DA	2104	A	C2'-C1'	-6.00	1.46	1.53
81	DA	3041	U	O3'-P	-6.00	1.53	1.61
78	CA	542	A	O3'-P	-6.00	1.53	1.61
81	DA	298	U	C2'-C1'	-6.00	1.46	1.53
81	DA	2679	A	O3'-P	-6.00	1.53	1.61
81	DA	2961	G	O4'-C1'	6.00	1.49	1.41
78	CA	931	C	C2'-C1'	-6.00	1.46	1.53
78	CA	1550	A	C3'-C2'	6.00	1.59	1.52
81	DA	253	A	C2'-C1'	5.99	1.59	1.53
81	DA	1584	U	C2'-C1'	-5.99	1.46	1.53
82	DB	14	C	O4'-C1'	5.99	1.49	1.41
20	AS	86	ARG	CZ-NH2	5.99	1.40	1.33
32	BC	116	ARG	NE-CZ	5.99	1.40	1.33
81	DA	1818	U	C2'-C1'	-5.99	1.46	1.53
3	AB	64	ARG	CZ-NH2	5.99	1.40	1.33
47	BU	20	ARG	NE-CZ	5.99	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1377	U	O4'-C1'	5.99	1.49	1.41
81	DA	2947	G	C2'-C1'	-5.99	1.46	1.53
58	Bg	62	ARG	CZ-NH2	5.99	1.40	1.33
83	DC	29	C	C3'-O3'	5.99	1.50	1.42
81	DA	638	C	P-O5'	-5.98	1.53	1.59
36	BF	186	PHE	CG-CD2	5.98	1.47	1.38
78	CA	1244	A	O4'-C1'	5.98	1.49	1.41
81	DA	3247	G	C2'-C1'	-5.98	1.46	1.53
2	AA	127	ARG	CZ-NH1	5.98	1.40	1.33
40	BK	85	ARG	CZ-NH2	5.98	1.40	1.33
78	CA	908	U	C2'-C1'	-5.98	1.46	1.53
81	DA	890	C	C2'-C1'	-5.98	1.46	1.53
78	CA	1024	U	O4'-C1'	5.97	1.49	1.41
79	CB	14	A	O4'-C1'	5.97	1.49	1.41
81	DA	1037	C	C2'-C1'	-5.97	1.46	1.53
78	CA	910	C	O4'-C1'	5.97	1.49	1.41
78	CA	1664	C	C2'-C1'	-5.97	1.46	1.53
81	DA	173	G	P-O5'	-5.97	1.53	1.59
81	DA	1274	A	C2'-C1'	-5.97	1.46	1.53
42	BM	65	GLY	N-CA	5.97	1.55	1.46
78	CA	1261	G	C4'-C3'	-5.97	1.46	1.52
81	DA	2506	U	C3'-C2'	5.97	1.59	1.52
81	DA	219	A	C2'-C1'	-5.97	1.46	1.53
81	DA	1404	G	C4'-C3'	5.97	1.59	1.53
78	CA	642	G	C4'-O4'	-5.97	1.37	1.45
78	CA	832	U	O4'-C1'	5.97	1.49	1.41
81	DA	608	A	C5'-C4'	5.97	1.58	1.51
81	DA	802	C	C4'-C3'	-5.97	1.46	1.52
81	DA	2655	U	O4'-C1'	5.97	1.49	1.41
81	DA	1296	C	C2'-C1'	-5.96	1.46	1.53
9	AH	66	ASN	C-N	5.96	1.43	1.33
13	AL	7	ARG	CG-CD	5.96	1.66	1.51
13	AL	58	GLY	N-CA	-5.96	1.37	1.46
82	DB	103	G	O3'-P	-5.96	1.53	1.61
4	AD	90	ILE	CA-CB	5.96	1.68	1.54
62	Bk	53	TYR	CE1-CZ	5.96	1.46	1.38
78	CA	1143	A	O4'-C1'	5.96	1.49	1.41
81	DA	2322	C	O4'-C1'	5.96	1.49	1.41
38	Bs	102	SER	CA-CB	5.96	1.61	1.52
81	DA	2002	G	C2'-C1'	-5.96	1.46	1.53
81	DA	875	G	O4'-C1'	5.96	1.49	1.41
81	DA	1256	G	O3'-P	-5.96	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	AJ	89	ARG	CD-NE	5.95	1.56	1.46
61	Bj	15	SER	CA-CB	5.95	1.61	1.52
81	DA	2618	G	P-O5'	-5.95	1.53	1.59
39	BJ	75	PRO	CA-CB	-5.95	1.41	1.53
78	CA	1764	C	C2'-C1'	-5.95	1.46	1.53
81	DA	46	U	O4'-C1'	5.95	1.49	1.41
81	DA	778	U	C5'-C4'	5.95	1.58	1.51
81	DA	1384	U	O4'-C1'	-5.95	1.33	1.41
11	AJ	57	ARG	NE-CZ	5.95	1.40	1.33
48	BW	6	SER	N-CA	5.95	1.58	1.46
81	DA	257	U	O4'-C1'	5.95	1.49	1.41
81	DA	1298	C	P-O5'	-5.95	1.53	1.59
81	DA	2437	G	P-O5'	-5.95	1.53	1.59
30	BA	129	SER	CA-CB	5.95	1.61	1.52
31	BB	54	ARG	CZ-NH1	5.94	1.40	1.33
81	DA	1966	U	O4'-C1'	5.94	1.49	1.41
81	DA	2620	G	O4'-C1'	-5.94	1.33	1.41
81	DA	388	G	C2'-C1'	-5.94	1.46	1.53
81	DA	722	G	C4'-C3'	5.94	1.59	1.53
81	DA	1847	A	O4'-C1'	-5.94	1.33	1.41
78	CA	1616	G	O4'-C1'	5.94	1.49	1.41
81	DA	1716	U	O4'-C1'	5.94	1.49	1.41
81	DA	2989	U	C4'-C3'	-5.94	1.46	1.52
16	AO	90	TYR	CE2-CZ	5.94	1.46	1.38
18	AP	57	LYS	N-CA	5.94	1.58	1.46
34	BE	128	TYR	CG-CD1	5.94	1.46	1.39
78	CA	329	G	O4'-C1'	5.93	1.49	1.41
81	DA	1189	C	O4'-C1'	5.93	1.49	1.41
81	DA	2349	U	O4'-C1'	5.93	1.49	1.41
81	DA	2878	G	C2'-C1'	-5.93	1.46	1.53
4	AD	93	ASP	C-N	5.93	1.47	1.34
78	CA	944	A	O4'-C1'	-5.93	1.33	1.41
78	CA	1665	U	C2'-C1'	-5.93	1.46	1.53
81	DA	45	A	P-O5'	-5.93	1.53	1.59
47	BU	141	VAL	N-CA	5.92	1.58	1.46
52	BY	13	ARG	CZ-NH1	5.92	1.40	1.33
81	DA	2117	A	O4'-C1'	5.92	1.49	1.41
2	AA	35	PRO	CA-C	-5.92	1.41	1.52
39	BJ	77	ALA	N-CA	5.92	1.58	1.46
59	Bh	27	ARG	CD-NE	5.92	1.56	1.46
78	CA	586	G	C2'-C1'	-5.92	1.46	1.53
78	CA	1090	C	C4'-C3'	-5.92	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1138	A	C2'-C1'	-5.92	1.46	1.53
78	CA	1312	A	C2'-C1'	5.92	1.59	1.53
78	CA	1392	U	C4'-C3'	-5.92	1.46	1.52
81	DA	69	C	O4'-C1'	5.92	1.49	1.41
81	DA	1485	G	C2'-C1'	-5.92	1.46	1.53
81	DA	3090	U	C5'-C4'	5.92	1.58	1.51
20	AS	60	SER	CA-CB	5.92	1.61	1.52
81	DA	1198	C	O4'-C1'	5.92	1.49	1.41
81	DA	1920	U	C2'-C1'	-5.92	1.46	1.53
81	DA	2409	G	C2'-C1'	-5.92	1.46	1.53
81	DA	765	C	C4'-C3'	-5.92	1.46	1.52
5	AC	69	ARG	CD-NE	5.92	1.56	1.46
76	BS	70	ASN	N-CA	5.91	1.58	1.46
81	DA	504	A	O4'-C1'	5.91	1.49	1.41
81	DA	1497	C	C2'-C1'	-5.91	1.46	1.53
81	DA	31	C	C2'-C1'	-5.91	1.46	1.53
81	DA	1232	C	C2'-C1'	5.91	1.59	1.53
81	DA	1935	G	C2'-C1'	-5.91	1.46	1.53
78	CA	1075	C	C2'-C1'	-5.91	1.46	1.53
12	AK	111	ARG	CD-NE	5.91	1.56	1.46
22	AV	68	ARG	CD-NE	5.91	1.56	1.46
78	CA	275	C	C2'-C1'	5.91	1.59	1.53
81	DA	2762	A	C2'-C1'	-5.91	1.46	1.53
47	BU	118	GLU	CD-OE1	5.91	1.32	1.25
81	DA	1481	A	O4'-C1'	5.91	1.49	1.41
81	DA	203	G	O4'-C1'	5.90	1.49	1.41
81	DA	2900	A	C2'-C1'	-5.90	1.46	1.53
81	DA	3047	U	C2'-C1'	-5.90	1.46	1.53
44	BO	139	ARG	NE-CZ	5.90	1.40	1.33
78	CA	1689	A	O4'-C1'	5.90	1.49	1.41
82	DB	141	C	C2'-C1'	-5.90	1.46	1.53
14	AM	145	ARG	CZ-NH2	5.90	1.40	1.33
49	BV	20	SER	CB-OG	5.90	1.50	1.42
78	CA	1237	G	C2'-C1'	-5.90	1.46	1.53
78	CA	1306	C	O3'-P	5.90	1.68	1.61
78	CA	1369	U	O4'-C1'	5.90	1.49	1.41
81	DA	596	C	O3'-P	-5.90	1.54	1.61
19	AR	61	ARG	CZ-NH1	5.90	1.40	1.33
78	CA	4	C	O3'-P	-5.90	1.54	1.61
81	DA	653	A	O4'-C1'	5.90	1.49	1.41
81	DA	988	U	P-O5'	-5.90	1.53	1.59
20	AS	95	ASP	C-O	-5.89	1.12	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BD	84	ARG	C-N	5.89	1.47	1.34
44	BO	29	PRO	N-CD	-5.89	1.39	1.47
78	CA	288	A	C3'-C2'	-5.89	1.46	1.52
81	DA	936	A	O4'-C1'	5.89	1.49	1.41
81	DA	2400	G	O4'-C1'	5.89	1.49	1.41
81	DA	2652	U	O4'-C1'	5.89	1.49	1.41
81	DA	3359	A	C2'-C1'	-5.89	1.46	1.53
81	DA	700	C	C5'-C4'	5.89	1.58	1.51
81	DA	502	U	C2'-C1'	5.89	1.59	1.53
78	CA	326	G	C5'-C4'	5.89	1.58	1.51
81	DA	1921	A	O4'-C1'	5.89	1.49	1.41
78	CA	640	U	O4'-C1'	5.89	1.49	1.41
81	DA	356	C	C2'-C1'	5.89	1.59	1.53
81	DA	816	A	C2'-C1'	-5.88	1.46	1.53
81	DA	2925	C	O4'-C1'	5.88	1.49	1.41
82	DB	88	A	C2'-C1'	5.88	1.59	1.53
33	BD	176	SER	CA-CB	5.88	1.61	1.52
81	DA	1870	C	P-O5'	5.88	1.65	1.59
81	DA	440	A	O4'-C1'	5.88	1.49	1.41
81	DA	862	U	O4'-C1'	5.88	1.49	1.41
81	DA	304	G	O4'-C1'	-5.88	1.34	1.41
81	DA	796	U	C2'-C1'	-5.88	1.46	1.53
31	BB	197	PRO	N-CD	-5.88	1.39	1.47
81	DA	1368	U	O4'-C1'	5.88	1.49	1.41
51	BZ	70	LYS	C-N	5.87	1.47	1.34
78	CA	1306	C	O4'-C1'	5.87	1.49	1.41
81	DA	2665	U	O4'-C1'	-5.87	1.34	1.41
81	DA	3290	G	C2'-C1'	-5.87	1.46	1.53
17	AQ	89	SER	CA-CB	5.87	1.61	1.52
78	CA	873	U	O4'-C1'	5.87	1.49	1.41
78	CA	908	U	O4'-C1'	5.87	1.49	1.41
81	DA	2046	U	C3'-O3'	-5.87	1.33	1.42
58	Bg	3	GLY	N-CA	-5.87	1.37	1.46
61	Bj	18	ARG	CZ-NH2	5.87	1.40	1.33
78	CA	1601	G	P-O5'	-5.87	1.53	1.59
6	AE	168	ARG	CD-NE	5.87	1.56	1.46
18	AP	122	ILE	N-CA	5.87	1.58	1.46
81	DA	1122	U	O4'-C1'	5.87	1.49	1.41
81	DA	1380	G	O4'-C1'	5.87	1.49	1.41
81	DA	3051	U	P-O5'	-5.86	1.53	1.59
78	CA	1340	U	O3'-P	-5.86	1.54	1.61
81	DA	892	U	C2'-C1'	-5.86	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BT	151	ARG	CD-NE	5.86	1.56	1.46
81	DA	754	G	C2'-C1'	-5.86	1.47	1.53
81	DA	1923	C	C4'-C3'	-5.86	1.46	1.52
82	DB	98	U	C4'-C3'	5.86	1.59	1.53
66	Bo	36	ARG	NE-CZ	5.86	1.40	1.33
78	CA	164	A	O3'-P	-5.86	1.54	1.61
81	DA	1655	G	C2'-C1'	-5.86	1.47	1.53
46	BT	64	ARG	NE-CZ	5.86	1.40	1.33
12	AK	23	PHE	N-CA	-5.85	1.34	1.46
35	BG	5	LYS	C-N	5.85	1.47	1.34
36	BF	173	ARG	CZ-NH2	5.85	1.40	1.33
81	DA	107	A	O4'-C1'	5.85	1.49	1.41
14	AM	39	GLY	CA-C	-5.85	1.42	1.51
39	BJ	75	PRO	N-CA	5.85	1.57	1.47
58	Bg	94	GLU	N-CA	-5.85	1.34	1.46
78	CA	114	C	O4'-C1'	5.85	1.49	1.41
78	CA	1302	U	C2'-C1'	5.85	1.59	1.53
81	DA	689	U	C2'-C1'	-5.85	1.47	1.53
81	DA	3235	C	O4'-C1'	5.85	1.49	1.41
6	AE	92	ALA	C-N	5.85	1.43	1.33
78	CA	1434	U	P-O5'	-5.85	1.53	1.59
78	CA	1744	A	O4'-C1'	5.85	1.49	1.41
81	DA	2191	U	O4'-C1'	5.85	1.49	1.41
3	AB	78	LYS	N-CA	5.85	1.58	1.46
78	CA	1199	G	O3'-P	-5.85	1.54	1.61
81	DA	1111	U	C2'-C1'	-5.85	1.47	1.53
81	DA	3135	U	O3'-P	-5.85	1.54	1.61
78	CA	1550	A	C4'-O4'	-5.84	1.38	1.45
78	CA	1161	C	C2'-C1'	-5.84	1.47	1.53
78	CA	588	U	C4'-C3'	-5.84	1.46	1.52
78	CA	896	U	O4'-C1'	5.84	1.49	1.41
78	CA	1297	G	C2'-C1'	5.84	1.59	1.53
78	CA	59	C	O4'-C1'	5.84	1.49	1.41
78	CA	232	U	C5'-C4'	5.84	1.58	1.51
81	DA	3283	U	O4'-C1'	5.84	1.49	1.41
78	CA	1620	C	C4'-C3'	-5.84	1.46	1.52
81	DA	2103	U	C2'-C1'	-5.84	1.47	1.53
78	CA	1314	U	O4'-C1'	5.83	1.49	1.41
81	DA	982	C	C5'-C4'	-5.83	1.44	1.51
63	Bm	87	ARG	NE-CZ	5.83	1.40	1.33
78	CA	150	U	C4'-C3'	-5.83	1.46	1.52
78	CA	1053	G	C2-N3	5.83	1.37	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	310	U	C2'-C1'	-5.83	1.47	1.53
81	DA	2416	U	C3'-O3'	-5.83	1.33	1.42
83	DC	81	U	O4'-C1'	5.83	1.49	1.41
18	AP	41	GLY	CA-C	-5.83	1.42	1.51
33	BD	260	GLN	CA-CB	5.83	1.66	1.53
81	DA	1471	U	C2'-C1'	-5.83	1.47	1.53
81	DA	1218	U	O4'-C1'	5.83	1.49	1.41
81	DA	1751	G	C2'-C1'	-5.83	1.47	1.53
81	DA	2870	C	O3'-P	-5.83	1.54	1.61
17	AQ	11	ARG	CZ-NH1	5.83	1.40	1.33
78	CA	639	U	O4'-C1'	5.82	1.49	1.41
81	DA	17	G	C2'-C1'	-5.82	1.47	1.53
81	DA	1369	A	C2'-C1'	-5.82	1.47	1.53
81	DA	1584	U	O3'-P	-5.82	1.54	1.61
74	BQ	123	GLU	N-CA	-5.82	1.34	1.46
78	CA	379	U	O4'-C1'	5.82	1.49	1.41
78	CA	849	C	C5'-C4'	5.82	1.58	1.51
81	DA	2945	G	C2'-C1'	-5.82	1.47	1.53
81	DA	3347	A	C2'-C1'	-5.82	1.47	1.53
38	Bs	199	SER	CA-CB	5.82	1.61	1.52
69	Br	58	PHE	CA-CB	-5.82	1.41	1.53
78	CA	390	G	C2'-C1'	-5.82	1.47	1.53
81	DA	2344	U	O4'-C1'	5.82	1.49	1.41
53	Ba	75	VAL	N-CA	-5.82	1.34	1.46
79	CB	21	A	C2'-C1'	-5.82	1.47	1.53
81	DA	982	C	C4'-C3'	5.82	1.59	1.53
81	DA	992	A	O4'-C1'	-5.82	1.34	1.41
81	DA	1129	A	O4'-C1'	5.82	1.49	1.41
65	Bn	34	ALA	CA-CB	5.82	1.64	1.52
78	CA	713	A	P-O5'	-5.82	1.53	1.59
78	CA	1625	C	C2'-C1'	-5.82	1.47	1.53
78	CA	1468	U	C2'-C1'	-5.82	1.47	1.53
45	BR	13	SER	N-CA	5.81	1.57	1.46
49	BV	47	TYR	CG-CD1	5.81	1.46	1.39
78	CA	1641	C	O4'-C1'	5.81	1.49	1.41
78	CA	1671	A	O4'-C1'	5.81	1.49	1.41
81	DA	283	G	O4'-C1'	5.81	1.49	1.41
78	CA	125	U	C2'-C1'	-5.81	1.47	1.53
81	DA	52	A	O4'-C1'	5.81	1.49	1.41
81	DA	76	G	C2'-C1'	5.81	1.59	1.53
81	DA	1895	A	O4'-C1'	-5.81	1.34	1.41
81	DA	2061	G	O4'-C1'	-5.81	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	AZ	54	ARG	CZ-NH2	5.81	1.40	1.33
41	BN	128	ARG	NE-CZ	5.81	1.40	1.33
49	BV	56	ARG	NE-CZ	5.81	1.40	1.33
81	DA	540	U	O4'-C1'	5.81	1.49	1.41
81	DA	2974	U	O4'-C1'	5.81	1.49	1.41
81	DA	378	A	O4'-C1'	5.81	1.49	1.41
78	CA	1260	U	O4'-C1'	5.81	1.49	1.41
81	DA	2200	U	O4'-C1'	5.81	1.49	1.41
81	DA	2477	G	O4'-C1'	5.81	1.49	1.41
16	AO	64	ARG	N-CA	-5.80	1.34	1.46
78	CA	324	U	O4'-C1'	5.80	1.49	1.41
78	CA	560	U	C4'-C3'	-5.80	1.46	1.52
81	DA	353	G	C2'-C1'	5.80	1.59	1.53
32	BC	334	ARG	NE-CZ	5.80	1.40	1.33
81	DA	453	C	C2'-C1'	-5.80	1.47	1.53
78	CA	441	A	O4'-C1'	5.80	1.49	1.41
78	CA	1126	G	O4'-C1'	5.80	1.49	1.41
79	CB	23	A	O4'-C1'	5.80	1.49	1.41
81	DA	2771	U	P-O5'	-5.80	1.53	1.59
53	Ba	8	GLY	C-N	5.80	1.47	1.34
81	DA	2507	C	O3'-P	-5.80	1.54	1.61
82	DB	48	A	O4'-C1'	5.80	1.49	1.41
78	CA	642	G	C3'-C2'	-5.80	1.46	1.52
22	AV	104	ALA	CA-C	-5.80	1.37	1.52
39	BJ	97	ASN	N-CA	-5.80	1.34	1.46
74	BQ	237	GLU	C-N	5.80	1.47	1.34
78	CA	600	U	O4'-C1'	5.80	1.49	1.41
78	CA	1468	U	O4'-C1'	5.80	1.49	1.41
81	DA	2374	C	C2'-C1'	5.80	1.59	1.53
81	DA	2919	A	C2'-C1'	-5.80	1.47	1.53
81	DA	2923	U	O4'-C1'	5.80	1.49	1.41
81	DA	3385	U	P-O5'	5.80	1.65	1.59
35	BG	28	GLN	N-CA	5.79	1.57	1.46
78	CA	1136	U	O4'-C1'	5.79	1.49	1.41
82	DB	91	C	O4'-C1'	5.79	1.49	1.41
81	DA	231	G	C2'-C1'	5.79	1.59	1.53
81	DA	1435	A	O4'-C1'	5.79	1.49	1.41
40	BK	101	ARG	CD-NE	5.79	1.56	1.46
57	Be	234	GLU	N-CA	-5.79	1.34	1.46
74	BQ	107	ARG	CZ-NH2	5.79	1.40	1.33
78	CA	101	U	C2'-C1'	-5.79	1.47	1.53
79	CB	50	G	C2'-C1'	-5.79	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2960	C	C2'-C1'	-5.79	1.47	1.53
82	DB	60	U	C2'-C1'	5.79	1.59	1.53
18	AP	115	PHE	CB-CG	5.79	1.61	1.51
78	CA	983	A	C2'-C1'	-5.79	1.47	1.53
81	DA	898	U	O4'-C1'	5.79	1.49	1.41
82	DB	26	U	O4'-C1'	5.79	1.49	1.41
83	DC	56	G	C2'-C1'	-5.79	1.47	1.53
65	Bn	77	ARG	NE-CZ	5.78	1.40	1.33
81	DA	2320	A	C2'-C1'	-5.78	1.47	1.53
81	DA	3036	G	P-O5'	-5.78	1.53	1.59
81	DA	2521	U	O3'-P	-5.78	1.54	1.61
81	DA	2789	U	O4'-C1'	5.78	1.49	1.41
81	DA	2360	C	O4'-C1'	5.78	1.49	1.41
30	BA	26	ARG	NE-CZ	5.78	1.40	1.33
78	CA	1551	U	C4'-C3'	-5.78	1.46	1.52
81	DA	225	C	O4'-C1'	5.78	1.49	1.41
5	AC	82	ARG	NE-CZ	5.78	1.40	1.33
81	DA	756	U	O3'-P	-5.78	1.54	1.61
81	DA	2045	G	O4'-C1'	5.78	1.49	1.41
63	Bm	23	ARG	NE-CZ	5.77	1.40	1.33
65	Bn	16	ARG	CZ-NH1	5.77	1.40	1.33
78	CA	1337	A	C4'-O4'	5.77	1.53	1.45
81	DA	2902	A	O4'-C1'	5.77	1.49	1.41
83	DC	90	C	O4'-C1'	5.77	1.49	1.41
17	AQ	26	LEU	C-N	5.77	1.47	1.34
81	DA	2357	A	C2'-C1'	-5.77	1.47	1.53
46	BT	9	ARG	CZ-NH1	5.77	1.40	1.33
78	CA	1453	G	P-O5'	-5.77	1.53	1.59
78	CA	1755	A	C2'-C1'	5.77	1.59	1.53
81	DA	1270	A	C2'-C1'	5.77	1.59	1.53
81	DA	3362	A	C2'-C1'	-5.77	1.47	1.53
81	DA	745	C	P-O5'	-5.77	1.53	1.59
81	DA	315	C	O4'-C1'	5.76	1.49	1.41
81	DA	2981	U	C2'-C1'	-5.76	1.47	1.53
81	DA	3356	G	C2'-C1'	-5.76	1.47	1.53
81	DA	3199	G	C4'-C3'	5.76	1.59	1.53
78	CA	1555	A	O4'-C1'	5.76	1.49	1.41
81	DA	174	C	C2'-C1'	-5.76	1.47	1.53
81	DA	199	A	O4'-C1'	-5.76	1.34	1.41
81	DA	2607	G	O3'-P	-5.76	1.54	1.61
10	AI	136	SER	CA-CB	5.76	1.61	1.52
43	BP	144	ARG	CZ-NH1	5.76	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	175	C	C2'-C1'	-5.76	1.47	1.53
81	DA	1387	G	O4'-C1'	5.76	1.49	1.41
81	DA	2453	U	O4'-C1'	5.76	1.49	1.41
81	DA	2814	G	C2'-C1'	-5.76	1.47	1.53
43	BP	137	PRO	CA-C	-5.76	1.41	1.52
2	AA	62	ARG	CD-NE	5.76	1.56	1.46
81	DA	22	G	C2'-C1'	-5.76	1.47	1.53
81	DA	401	U	C2'-C1'	5.76	1.59	1.53
78	CA	474	A	C2'-C1'	-5.75	1.47	1.53
81	DA	2868	U	O4'-C1'	5.75	1.49	1.41
4	AD	221	ARG	NE-CZ	5.75	1.40	1.33
13	AL	38	PHE	C-N	5.75	1.47	1.34
78	CA	1167	G	O4'-C1'	-5.75	1.34	1.41
78	CA	1309	C	C4'-O4'	-5.75	1.38	1.45
81	DA	1498	A	O4'-C1'	5.75	1.49	1.41
81	DA	2739	A	O4'-C1'	5.75	1.49	1.41
32	BC	370	PHE	C-N	5.75	1.47	1.34
81	DA	1976	G	C2'-C1'	-5.75	1.47	1.53
78	CA	1598	U	C4'-C3'	-5.75	1.46	1.52
19	AR	114	HIS	CB-CG	5.75	1.60	1.50
78	CA	870	C	O4'-C1'	5.75	1.49	1.41
81	DA	2519	A	O3'-P	-5.75	1.54	1.61
81	DA	2529	A	C5'-C4'	5.75	1.58	1.51
78	CA	936	G	C4'-O4'	-5.75	1.38	1.45
81	DA	351	A	O4'-C1'	5.75	1.49	1.41
78	CA	585	A	C4'-O4'	-5.75	1.38	1.45
81	DA	1535	A	O3'-P	-5.75	1.54	1.61
6	AE	175	GLY	CA-C	-5.74	1.42	1.51
81	DA	724	U	C4'-O4'	5.74	1.53	1.45
83	DC	33	U	C2'-C1'	-5.74	1.47	1.53
47	BU	102	ARG	CD-NE	5.74	1.56	1.46
81	DA	469	G	C2'-C1'	-5.74	1.47	1.53
40	BK	135	TYR	CE2-CZ	5.74	1.46	1.38
81	DA	583	G	O4'-C1'	-5.74	1.34	1.41
81	DA	2780	A	O4'-C1'	5.74	1.49	1.41
81	DA	1689	U	C2'-C1'	5.74	1.59	1.53
81	DA	1803	C	C2'-C1'	-5.74	1.47	1.53
82	DB	127	U	C2'-C1'	-5.74	1.47	1.53
78	CA	1393	C	O3'-P	5.73	1.68	1.61
78	CA	1740	A	O4'-C1'	5.73	1.49	1.41
81	DA	1990	U	C2'-C1'	-5.73	1.47	1.53
33	BD	349	THR	CA-CB	-5.73	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
79	CB	22	G	O4'-C1'	5.73	1.49	1.41
81	DA	2938	G	O4'-C1'	5.73	1.49	1.41
39	BJ	90	ARG	CD-NE	5.73	1.56	1.46
76	BS	74	ILE	N-CA	-5.73	1.34	1.46
78	CA	1641	C	C2'-C1'	-5.73	1.47	1.53
81	DA	161	G	C3'-C2'	-5.73	1.46	1.52
81	DA	726	G	O4'-C1'	5.73	1.49	1.41
81	DA	2102	U	O4'-C1'	5.73	1.49	1.41
81	DA	2859	U	O4'-C1'	-5.73	1.34	1.41
32	BC	37	ARG	CZ-NH1	5.73	1.40	1.33
78	CA	1598	U	C4'-O4'	-5.73	1.38	1.45
81	DA	1755	C	O3'-P	-5.73	1.54	1.61
9	AH	71	LYS	N-CA	-5.73	1.34	1.46
32	BC	65	SER	CA-CB	5.73	1.61	1.52
57	Be	132	PRO	N-CA	-5.73	1.37	1.47
54	Bd	40	ARG	CZ-NH2	5.72	1.40	1.33
78	CA	1653	C	C2'-C1'	-5.72	1.47	1.53
81	DA	231	G	C3'-O3'	5.72	1.50	1.42
81	DA	1527	C	P-O5'	-5.72	1.54	1.59
12	AK	20	TYR	CG-CD1	5.72	1.46	1.39
43	BP	180	PHE	N-CA	5.72	1.57	1.46
48	BW	7	ARG	NE-CZ	5.72	1.40	1.33
81	DA	455	C	C2'-C1'	-5.72	1.47	1.53
78	CA	193	U	C2'-C1'	-5.72	1.47	1.53
78	CA	650	U	C4'-O4'	-5.72	1.38	1.45
81	DA	746	A	C2'-C1'	-5.72	1.47	1.53
81	DA	672	A	C4'-O4'	5.72	1.52	1.45
81	DA	1219	C	O4'-C1'	5.72	1.49	1.41
11	AJ	81	THR	N-CA	-5.72	1.34	1.46
81	DA	1114	U	C3'-C2'	5.72	1.59	1.52
19	AR	77	ARG	NE-CZ	5.71	1.40	1.33
21	AT	13	VAL	CB-CG2	5.71	1.64	1.52
81	DA	166	C	P-OP2	5.71	1.58	1.49
81	DA	1680	G	O3'-P	-5.71	1.54	1.61
81	DA	2824	G	O4'-C1'	-5.71	1.34	1.41
5	AC	16	LYS	CA-CB	5.71	1.66	1.53
65	Bn	52	TYR	CG-CD1	5.71	1.46	1.39
81	DA	1179	A	O4'-C1'	-5.71	1.34	1.41
54	Bd	40	ARG	CD-NE	5.71	1.56	1.46
78	CA	701	U	C4'-C3'	-5.71	1.46	1.52
81	DA	588	G	O4'-C1'	-5.71	1.34	1.41
81	DA	2096	A	O4'-C1'	5.71	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2655	U	C2'-C1'	-5.71	1.47	1.53
53	Ba	57	HIS	CA-C	-5.71	1.38	1.52
78	CA	1394	G	C4'-C3'	-5.71	1.46	1.52
78	CA	987	G	O4'-C1'	5.71	1.49	1.41
81	DA	25	U	P-O5'	-5.71	1.54	1.59
81	DA	1632	A	O4'-C1'	5.71	1.49	1.41
5	AC	162	SER	C-N	5.71	1.45	1.34
81	DA	1446	A	O3'-P	-5.71	1.54	1.61
81	DA	2646	C	C4'-C3'	-5.71	1.46	1.52
33	BD	124	SER	CA-CB	5.71	1.61	1.52
45	BR	158	HIS	N-CA	5.71	1.57	1.46
81	DA	1269	U	C2'-C1'	-5.71	1.47	1.53
81	DA	3047	U	C4'-O4'	5.70	1.52	1.45
74	BQ	197	SER	N-CA	5.70	1.57	1.46
78	CA	1573	A	C3'-C2'	-5.70	1.46	1.52
78	CA	1794	A	O4'-C1'	5.70	1.49	1.41
78	CA	1100	G	C4'-C3'	5.70	1.59	1.53
81	DA	1164	G	O4'-C1'	5.70	1.49	1.41
11	AJ	102	ARG	NE-CZ	5.70	1.40	1.33
78	CA	1570	A	O3'-P	-5.70	1.54	1.61
43	BP	29	GLU	CG-CD	5.70	1.60	1.51
81	DA	3353	G	O4'-C1'	5.69	1.49	1.41
32	BC	368	GLY	C-N	5.69	1.47	1.34
81	DA	1532	C	C2'-C1'	-5.69	1.47	1.53
81	DA	2843	U	O4'-C1'	5.69	1.49	1.41
38	Bs	104	ARG	NE-CZ	5.69	1.40	1.33
78	CA	1477	G	P-O5'	-5.69	1.54	1.59
24	AX	31	TYR	CE1-CZ	5.69	1.46	1.38
78	CA	320	U	C2'-C1'	-5.69	1.47	1.53
78	CA	719	U	C4'-C3'	-5.69	1.46	1.52
78	CA	1568	C	C2'-C1'	5.69	1.59	1.53
49	BV	69	ARG	CZ-NH2	5.68	1.40	1.33
81	DA	482	C	C2'-C1'	-5.68	1.47	1.53
81	DA	1378	U	O3'-P	-5.68	1.54	1.61
81	DA	1768	U	N3-C4	5.68	1.43	1.38
31	BB	38	HIS	CB-CG	5.68	1.60	1.50
78	CA	662	U	C2'-C1'	-5.68	1.47	1.53
81	DA	809	G	C2'-C1'	-5.68	1.47	1.53
81	DA	1596	C	O4'-C1'	5.68	1.49	1.41
78	CA	1451	C	O4'-C1'	5.68	1.49	1.41
6	AE	141	ARG	CD-NE	5.68	1.56	1.46
78	CA	1286	U	C2'-C1'	-5.68	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	BY	51	ARG	NE-CZ	5.68	1.40	1.33
74	BQ	128	GLU	C-N	5.68	1.47	1.34
78	CA	376	C	O4'-C1'	5.68	1.49	1.41
81	DA	1284	C	O4'-C1'	5.68	1.49	1.41
62	Bk	64	SER	CA-CB	5.68	1.61	1.52
78	CA	633	U	C2'-C1'	-5.68	1.47	1.53
83	DC	2	G	P-O5'	-5.68	1.54	1.59
78	CA	1175	U	C2'-C1'	-5.67	1.47	1.53
81	DA	380	U	O4'-C1'	5.67	1.49	1.41
31	BB	184	ARG	CZ-NH1	5.67	1.40	1.33
78	CA	1411	A	C2'-C1'	-5.67	1.47	1.53
81	DA	1666	G	C2'-C1'	-5.67	1.47	1.53
32	BC	277	SER	CA-CB	5.67	1.61	1.52
78	CA	178	U	C3'-O3'	-5.67	1.34	1.42
81	DA	1156	C	O4'-C1'	5.67	1.49	1.41
81	DA	2005	G	C2'-C1'	-5.67	1.47	1.53
81	DA	2664	C	C4'-C3'	5.67	1.59	1.53
78	CA	1537	C	O4'-C1'	5.67	1.49	1.41
81	DA	181	U	C2'-C1'	-5.67	1.47	1.53
81	DA	3041	U	O4'-C1'	5.67	1.49	1.41
41	BN	12	TRP	CD2-CE2	-5.67	1.34	1.41
57	Be	30	ARG	CD-NE	5.67	1.56	1.46
78	CA	385	A	O4'-C1'	5.67	1.49	1.41
78	CA	654	C	O4'-C1'	5.67	1.49	1.41
81	DA	2071	A	O4'-C1'	5.67	1.49	1.41
78	CA	1111	G	O4'-C1'	5.67	1.49	1.41
81	DA	774	G	C5'-C4'	5.67	1.58	1.51
81	DA	1941	C	C2'-C1'	-5.67	1.47	1.53
81	DA	2723	U	C3'-O3'	5.67	1.50	1.42
42	BM	48	ARG	CD-NE	5.66	1.56	1.46
81	DA	636	C	C4'-O4'	5.66	1.52	1.45
2	AA	11	PRO	C-N	5.66	1.47	1.34
38	Bs	5	ARG	C-N	5.66	1.47	1.34
81	DA	1576	G	C5'-C4'	5.66	1.58	1.51
21	AT	87	ARG	CZ-NH2	5.66	1.40	1.33
44	BO	62	HIS	C-N	-5.66	1.21	1.34
74	BQ	123	GLU	C-N	5.66	1.47	1.34
81	DA	854	G	C2'-C1'	-5.66	1.47	1.53
81	DA	2379	U	C2'-C1'	-5.66	1.47	1.53
83	DC	47	C	O5'-C5'	-5.66	1.33	1.42
8	AF	76	ARG	CD-NE	5.65	1.56	1.46
46	BT	176	ARG	CD-NE	5.65	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BU	102	ARG	CZ-NH1	5.65	1.40	1.33
81	DA	873	C	C2'-C1'	-5.65	1.47	1.53
81	DA	1134	G	O4'-C1'	-5.65	1.34	1.41
78	CA	959	U	O3'-P	-5.65	1.54	1.61
78	CA	1241	G	C4'-C3'	-5.65	1.46	1.52
81	DA	341	G	O4'-C1'	5.65	1.49	1.41
36	BF	46	THR	C-N	5.65	1.47	1.34
20	AS	91	TYR	N-CA	5.65	1.57	1.46
81	DA	1135	A	O4'-C1'	5.65	1.49	1.41
81	DA	3389	U	C5'-C4'	5.65	1.58	1.51
81	DA	100	A	O4'-C1'	5.65	1.49	1.41
83	DC	70	A	C2'-C1'	-5.65	1.47	1.53
8	AF	148	ARG	CD-NE	5.65	1.56	1.46
31	BB	245	LEU	C-O	-5.65	1.12	1.23
78	CA	1130	G	C4'-C3'	-5.65	1.47	1.52
12	AK	107	ARG	CD-NE	5.64	1.56	1.46
78	CA	1394	G	O3'-P	5.64	1.68	1.61
81	DA	2883	U	O4'-C1'	5.64	1.49	1.41
81	DA	3107	U	O4'-C1'	5.64	1.49	1.41
78	CA	179	A	C4'-O4'	5.64	1.52	1.45
78	CA	587	C	O4'-C1'	5.64	1.49	1.41
78	CA	840	U	C5'-C4'	5.64	1.58	1.51
81	DA	910	G	O4'-C1'	5.64	1.49	1.41
81	DA	2673	A	C2'-C1'	-5.64	1.47	1.53
78	CA	1558	U	O4'-C1'	-5.64	1.34	1.41
78	CA	180	A	O4'-C1'	5.64	1.49	1.41
78	CA	1318	G	C2'-C1'	-5.64	1.47	1.53
81	DA	637	C	C3'-C2'	-5.64	1.46	1.52
81	DA	1263	A	O4'-C1'	5.64	1.49	1.41
81	DA	1678	G	C4'-C3'	5.64	1.59	1.53
81	DA	1742	U	C2'-C1'	-5.64	1.47	1.53
81	DA	2689	A	O3'-P	-5.64	1.54	1.61
78	CA	1085	G	C2'-C1'	-5.64	1.47	1.53
78	CA	1113	A	C2'-C1'	5.64	1.59	1.53
81	DA	1006	A	C4'-C3'	-5.64	1.47	1.52
81	DA	1077	U	P-O5'	-5.64	1.54	1.59
69	Br	34	SER	CA-CB	5.63	1.61	1.52
81	DA	468	G	O4'-C1'	5.63	1.49	1.41
81	DA	549	U	O4'-C1'	5.63	1.49	1.41
81	DA	3313	U	O4'-C1'	5.63	1.49	1.41
6	AE	17	ARG	NE-CZ	5.63	1.40	1.33
78	CA	642	G	C2'-C1'	5.63	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1005	A	C4'-C3'	-5.63	1.47	1.52
78	CA	1195	C	C2'-C1'	-5.63	1.47	1.53
81	DA	9	U	O3'-P	-5.63	1.54	1.61
81	DA	2760	C	O3'-P	-5.63	1.54	1.61
32	BC	297	SER	C-N	5.63	1.47	1.34
81	DA	1122	U	C2'-C1'	-5.63	1.47	1.53
1	Aa	311	ARG	CZ-NH2	5.63	1.40	1.33
47	BU	126	VAL	CA-CB	5.63	1.66	1.54
76	BS	89	TYR	CE1-CZ	5.63	1.45	1.38
78	CA	1025	A	O4'-C1'	5.63	1.49	1.41
81	DA	878	G	O4'-C1'	5.63	1.49	1.41
81	DA	1204	A	O3'-P	-5.63	1.54	1.61
81	DA	1220	U	O4'-C1'	5.63	1.49	1.41
81	DA	1610	G	O4'-C1'	5.62	1.49	1.41
78	CA	563	U	C4'-C3'	-5.62	1.47	1.52
81	DA	169	U	O3'-P	-5.62	1.54	1.61
78	CA	384	G	O4'-C1'	5.62	1.49	1.41
81	DA	1067	U	C2'-C1'	-5.62	1.47	1.53
81	DA	2413	A	O4'-C1'	5.62	1.49	1.41
78	CA	164	A	C3'-C2'	-5.62	1.46	1.52
78	CA	1718	G	C2'-C1'	-5.62	1.47	1.53
81	DA	2405	C	O4'-C1'	5.62	1.49	1.41
81	DA	2928	C	O4'-C1'	5.62	1.49	1.41
1	Aa	54	PHE	N-CA	-5.62	1.35	1.46
3	AB	90	ARG	CZ-NH1	5.62	1.40	1.33
81	DA	665	A	O3'-P	-5.62	1.54	1.61
78	CA	238	U	C3'-O3'	5.61	1.50	1.42
81	DA	784	A	C2'-C1'	5.61	1.59	1.53
81	DA	2432	A	C2'-C1'	-5.61	1.47	1.53
81	DA	2810	C	O4'-C1'	5.61	1.49	1.41
10	AI	54	LEU	C-N	5.61	1.47	1.34
32	BC	242	THR	N-CA	-5.61	1.35	1.46
33	BD	324	LEU	N-CA	5.61	1.57	1.46
78	CA	1567	U	C2'-C1'	-5.61	1.47	1.53
78	CA	1768	G	O4'-C1'	5.61	1.49	1.41
81	DA	222	A	O4'-C1'	5.61	1.49	1.41
81	DA	1919	G	O4'-C1'	5.61	1.49	1.41
4	AD	148	ARG	CZ-NH2	5.61	1.40	1.33
81	DA	1832	C	O3'-P	-5.61	1.54	1.61
81	DA	2682	C	P-O5'	-5.61	1.54	1.59
81	DA	2899	C	O3'-P	-5.61	1.54	1.61
81	DA	413	U	C2'-C1'	-5.60	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2879	C	C2'-C1'	-5.60	1.47	1.53
81	DA	695	C	C2'-C1'	-5.60	1.47	1.53
81	DA	1296	C	O3'-P	-5.60	1.54	1.61
78	CA	1271	G	C2'-C1'	-5.60	1.47	1.53
81	DA	518	G	O3'-P	-5.60	1.54	1.61
83	DC	93	U	O4'-C1'	5.60	1.49	1.41
65	Bn	39	ARG	NE-CZ	5.60	1.40	1.33
81	DA	434	U	O4'-C1'	5.60	1.49	1.41
81	DA	1329	U	C2'-C1'	-5.60	1.47	1.53
81	DA	2006	G	O4'-C1'	5.60	1.49	1.41
52	BY	5	SER	CA-CB	5.59	1.61	1.52
78	CA	884	A	C4'-C3'	-5.59	1.47	1.52
81	DA	2753	G	C2'-C1'	-5.59	1.47	1.53
83	DC	107	G	P-O5'	-5.59	1.54	1.59
34	BE	152	HIS	CB-CG	5.59	1.60	1.50
78	CA	525	A	C4'-C3'	-5.59	1.47	1.52
81	DA	704	U	C4'-C3'	-5.59	1.47	1.52
33	BD	31	ARG	CZ-NH2	5.59	1.40	1.33
74	BQ	130	GLU	CA-CB	5.59	1.66	1.53
78	CA	1268	G	C2'-C1'	-5.59	1.47	1.53
81	DA	1403	C	O3'-P	-5.59	1.54	1.61
82	DB	145	U	C2'-C1'	-5.59	1.47	1.53
78	CA	1404	C	O4'-C1'	5.59	1.49	1.41
10	AI	84	ALA	CA-CB	5.58	1.64	1.52
53	Ba	53	VAL	CB-CG2	5.58	1.64	1.52
57	Be	224	ILE	CA-CB	-5.58	1.42	1.54
78	CA	773	C	O3'-P	-5.58	1.54	1.61
81	DA	2505	U	C4'-C3'	-5.58	1.47	1.52
40	BK	37	ARG	NE-CZ	5.58	1.40	1.33
78	CA	660	G	O4'-C1'	5.58	1.49	1.41
78	CA	1366	U	O4'-C1'	5.58	1.49	1.41
81	DA	972	A	C5'-C4'	5.58	1.58	1.51
79	CB	39	G	C2'-C1'	-5.58	1.47	1.53
81	DA	2018	C	C2'-C1'	-5.58	1.47	1.53
81	DA	2718	U	O4'-C1'	5.58	1.49	1.41
81	DA	3023	U	O4'-C1'	5.58	1.49	1.41
3	AB	78	LYS	C-N	5.58	1.46	1.34
14	AM	77	THR	C-N	5.58	1.46	1.34
81	DA	3013	U	O4'-C1'	5.58	1.48	1.41
45	BR	140	LEU	C-N	5.57	1.46	1.34
78	CA	714	G	P-O5'	-5.57	1.54	1.59
78	CA	1310	U	O4'-C1'	5.57	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	24	G	C2'-C1'	5.57	1.59	1.53
81	DA	842	G	O4'-C1'	5.57	1.48	1.41
78	CA	1036	A	O4'-C1'	5.57	1.48	1.41
81	DA	2389	C	P-O5'	-5.57	1.54	1.59
81	DA	3112	G	C2'-C1'	5.57	1.59	1.53
74	BQ	50	ARG	NE-CZ	5.57	1.40	1.33
81	DA	585	A	O4'-C1'	5.57	1.48	1.41
81	DA	2159	U	C2'-C1'	5.57	1.59	1.53
78	CA	120	U	C4'-C3'	5.57	1.59	1.53
78	CA	590	C	O4'-C1'	5.57	1.48	1.41
78	CA	1269	U	O4'-C1'	5.57	1.48	1.41
81	DA	2704	A	C2'-O2'	-5.57	1.34	1.41
78	CA	233	C	O5'-C5'	-5.57	1.33	1.42
78	CA	1208	A	C2'-C1'	-5.57	1.47	1.53
3	AB	215	GLU	N-CA	5.57	1.57	1.46
78	CA	143	G	O4'-C1'	5.57	1.48	1.41
81	DA	1791	C	C3'-O3'	-5.57	1.34	1.42
78	CA	1459	C	C4'-C3'	5.56	1.59	1.53
78	CA	303	U	O3'-P	-5.56	1.54	1.61
18	AP	93	TYR	CG-CD2	5.56	1.46	1.39
33	BD	260	GLN	C-N	5.56	1.46	1.34
81	DA	3104	U	C2'-C1'	5.56	1.59	1.53
3	AB	206	VAL	N-CA	5.56	1.57	1.46
81	DA	2759	U	O4'-C1'	5.56	1.48	1.41
81	DA	1795	U	C4'-O4'	-5.55	1.38	1.45
81	DA	3290	G	O4'-C1'	5.55	1.48	1.41
14	AM	16	ARG	CZ-NH2	5.55	1.40	1.33
81	DA	234	G	C3'-O3'	5.55	1.50	1.42
81	DA	2303	A	P-O5'	-5.55	1.54	1.59
52	BY	75	ARG	NE-CZ	5.55	1.40	1.33
78	CA	1160	A	O4'-C1'	5.55	1.48	1.41
81	DA	1491	A	C2'-C1'	-5.55	1.47	1.53
81	DA	1793	C	O3'-P	-5.55	1.54	1.61
83	DC	9	C	C2'-C1'	-5.55	1.47	1.53
31	BB	34	TYR	CE2-CZ	5.55	1.45	1.38
81	DA	896	A	C2'-C1'	5.55	1.59	1.53
81	DA	1339	C	P-O5'	-5.55	1.54	1.59
78	CA	1045	C	C2'-C1'	-5.55	1.47	1.53
81	DA	2232	A	O4'-C1'	5.55	1.48	1.41
78	CA	223	U	O4'-C1'	-5.55	1.34	1.41
81	DA	3217	C	O4'-C1'	-5.55	1.34	1.41
83	DC	57	C	C2'-C1'	5.55	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	AF	69	PHE	CE2-CZ	5.54	1.47	1.37
63	Bm	66	GLY	C-N	5.54	1.43	1.33
78	CA	1293	U	C2'-C1'	-5.54	1.47	1.53
81	DA	525	C	O4'-C1'	5.54	1.48	1.41
81	DA	1046	A	C2'-C1'	5.54	1.59	1.53
78	CA	465	G	C2'-C1'	-5.54	1.47	1.53
78	CA	664	U	O4'-C1'	5.54	1.48	1.41
81	DA	185	C	P-O5'	5.54	1.65	1.59
81	DA	963	G	C2'-C1'	-5.54	1.47	1.53
81	DA	1252	A	C2'-C1'	-5.54	1.47	1.53
81	DA	2245	C	O3'-P	-5.54	1.54	1.61
81	DA	2626	A	C4'-C3'	5.54	1.59	1.53
81	DA	857	G	O3'-P	-5.54	1.54	1.61
37	BH	210	ALA	N-CA	-5.54	1.35	1.46
81	DA	1152	G	C2'-C1'	-5.54	1.47	1.53
81	DA	1705	U	O4'-C1'	5.54	1.48	1.41
32	BC	18	PRO	CA-CB	-5.53	1.42	1.53
34	BE	52	TYR	CG-CD1	5.53	1.46	1.39
47	BU	141	VAL	C-O	-5.53	1.12	1.23
78	CA	1224	A	C2'-O2'	5.53	1.48	1.41
78	CA	996	U	C2'-C1'	5.53	1.59	1.53
81	DA	2980	U	O4'-C1'	5.53	1.48	1.41
62	Bk	78	GLY	CA-C	-5.53	1.43	1.51
81	DA	991	G	C2'-C1'	-5.53	1.47	1.53
78	CA	217	A	C5'-C4'	5.53	1.57	1.51
78	CA	226	A	C4'-O4'	5.53	1.52	1.45
78	CA	879	G	C2'-C1'	5.53	1.59	1.53
58	Bg	79	ARG	CD-NE	5.53	1.55	1.46
62	Bk	82	ARG	N-CA	5.53	1.57	1.46
78	CA	1184	A	C2'-C1'	5.53	1.59	1.53
81	DA	3356	G	O4'-C1'	-5.53	1.34	1.41
82	DB	92	A	O4'-C1'	5.53	1.48	1.41
2	AA	209	GLU	CB-CG	5.53	1.62	1.52
78	CA	47	A	O4'-C1'	5.52	1.48	1.41
81	DA	214	G	C2'-C1'	5.52	1.59	1.53
78	CA	1246	C	O4'-C1'	5.52	1.48	1.41
81	DA	1602	A	C2'-C1'	-5.52	1.47	1.53
81	DA	2119	A	O4'-C1'	5.52	1.48	1.41
81	DA	2783	U	O3'-P	-5.52	1.54	1.61
81	DA	2953	U	O4'-C1'	5.52	1.48	1.41
82	DB	9	A	O4'-C1'	5.52	1.48	1.41
81	DA	273	A	O4'-C1'	5.52	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	952	A	O4'-C1'	5.52	1.48	1.41
81	DA	1293	U	C2'-C1'	-5.52	1.47	1.53
81	DA	303	G	C2'-C1'	-5.52	1.47	1.53
81	DA	914	A	C3'-C2'	-5.52	1.46	1.52
81	DA	1458	U	C2'-C1'	-5.52	1.47	1.53
78	CA	250	C	C4'-C3'	5.52	1.59	1.53
81	DA	2334	U	O4'-C1'	-5.52	1.34	1.41
78	CA	837	G	C3'-C2'	5.51	1.59	1.52
78	CA	1047	G	O4'-C1'	5.51	1.48	1.41
81	DA	1387	G	C2'-C1'	-5.51	1.47	1.53
81	DA	1417	G	O4'-C1'	-5.51	1.34	1.41
81	DA	826	G	C2'-C1'	-5.51	1.47	1.53
78	CA	1136	U	C2'-C1'	5.51	1.59	1.53
81	DA	764	U	C5'-C4'	5.51	1.57	1.51
42	BM	50	PRO	N-CD	-5.51	1.40	1.47
76	BS	41	SER	CA-CB	5.51	1.61	1.52
78	CA	152	U	C2'-C1'	5.51	1.59	1.53
78	CA	1590	G	C2'-C1'	-5.51	1.47	1.53
81	DA	933	A	O3'-P	-5.51	1.54	1.61
81	DA	1823	A	O3'-P	-5.51	1.54	1.61
81	DA	7	C	O3'-P	-5.50	1.54	1.61
37	BH	135	GLY	N-CA	-5.50	1.37	1.46
46	BT	82	LYS	C-N	5.50	1.43	1.33
81	DA	2757	U	C2'-C1'	-5.50	1.47	1.53
81	DA	3393	U	O4'-C1'	5.50	1.48	1.41
78	CA	162	A	C2'-C1'	-5.50	1.47	1.53
78	CA	252	U	O3'-P	-5.50	1.54	1.61
81	DA	979	U	C4'-C3'	5.50	1.59	1.53
81	DA	1973	G	C5'-C4'	5.50	1.57	1.51
35	BG	113	LYS	N-CA	-5.50	1.35	1.46
81	DA	802	C	P-OP1	-5.50	1.39	1.49
81	DA	1338	C	C2'-C1'	5.50	1.59	1.53
81	DA	1656	A	C2'-C1'	-5.50	1.47	1.53
78	CA	1580	C	P-O5'	-5.50	1.54	1.59
81	DA	1703	U	C2'-C1'	5.50	1.59	1.53
17	AQ	82	ASP	C-N	5.50	1.46	1.34
18	AP	99	ARG	NE-CZ	5.50	1.40	1.33
78	CA	231	U	C2'-C1'	5.50	1.59	1.53
81	DA	2777	G	O4'-C1'	5.50	1.48	1.41
17	AQ	19	ARG	NE-CZ	5.49	1.40	1.33
81	DA	897	U	O4'-C1'	5.49	1.48	1.41
81	DA	1546	A	O4'-C1'	5.49	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2071	A	C3'-C2'	5.49	1.58	1.52
82	DB	58	G	O4'-C1'	-5.49	1.34	1.41
78	CA	1080	U	C3'-O3'	-5.49	1.34	1.42
83	DC	106	G	O3'-P	-5.49	1.54	1.61
40	BK	135	TYR	CB-CG	5.49	1.59	1.51
78	CA	821	U	C5'-C4'	5.49	1.57	1.51
81	DA	359	U	O4'-C1'	5.49	1.48	1.41
81	DA	2129	U	O4'-C1'	5.49	1.48	1.41
62	Bk	84	LYS	N-CA	5.49	1.57	1.46
6	AE	222	TYR	CE1-CZ	5.49	1.45	1.38
35	BG	31	ARG	NE-CZ	5.49	1.40	1.33
74	BQ	3	PHE	CB-CG	5.49	1.60	1.51
79	CB	11	U	C2'-C1'	5.49	1.59	1.53
81	DA	210	U	O3'-P	-5.48	1.54	1.61
50	BX	103	TYR	CB-CG	-5.48	1.43	1.51
78	CA	9	U	O4'-C1'	5.48	1.48	1.41
78	CA	1716	C	C2'-C1'	-5.48	1.47	1.53
81	DA	1865	A	O4'-C1'	5.48	1.48	1.41
81	DA	1939	G	O4'-C1'	5.48	1.48	1.41
81	DA	234	G	C2'-C1'	-5.48	1.47	1.53
81	DA	712	G	O4'-C1'	5.48	1.48	1.41
81	DA	2215	A	O4'-C1'	5.48	1.48	1.41
81	DA	602	A	C2'-C1'	-5.48	1.47	1.53
81	DA	2633	U	P-O5'	-5.48	1.54	1.59
83	DC	50	U	C2'-C1'	-5.48	1.47	1.53
66	Bo	30	ARG	CD-NE	5.48	1.55	1.46
81	DA	704	U	C3'-C2'	-5.48	1.46	1.52
81	DA	3313	U	C3'-C2'	-5.48	1.46	1.52
46	BT	38	ARG	NE-CZ	5.47	1.40	1.33
78	CA	1081	A	C3'-C2'	-5.47	1.46	1.52
78	CA	1317	C	O4'-C1'	5.47	1.48	1.41
81	DA	1101	G	O3'-P	-5.47	1.54	1.61
81	DA	1532	C	O4'-C1'	5.47	1.48	1.41
78	CA	1779	U	C2'-C1'	-5.47	1.47	1.53
81	DA	2962	U	C2'-C1'	-5.47	1.47	1.53
20	AS	57	ARG	CD-NE	5.47	1.55	1.46
60	Bi	55	SER	C-N	5.47	1.46	1.34
81	DA	2369	G	O3'-P	-5.47	1.54	1.61
78	CA	1506	G	C2'-C1'	-5.47	1.47	1.53
81	DA	146	U	C3'-O3'	5.47	1.49	1.42
81	DA	155	G	O3'-P	-5.47	1.54	1.61
81	DA	1471	U	O4'-C1'	5.47	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1607	U	O4'-C1'	5.47	1.48	1.41
81	DA	1750	A	O4'-C1'	5.47	1.48	1.41
78	CA	26	A	C2'-C1'	5.47	1.59	1.53
82	DB	57	C	O4'-C1'	5.47	1.48	1.41
66	Bo	8	ARG	CZ-NH1	5.47	1.40	1.33
78	CA	1403	C	C2'-C1'	-5.47	1.47	1.53
81	DA	171	G	C5'-C4'	5.47	1.57	1.51
17	AQ	71	PHE	CA-CB	5.46	1.66	1.53
35	BG	98	VAL	C-N	5.46	1.46	1.34
40	BK	185	ALA	CA-CB	5.46	1.64	1.52
81	DA	247	C	O3'-P	-5.46	1.54	1.61
81	DA	1212	A	C2'-C1'	-5.46	1.47	1.53
81	DA	2026	A	O4'-C1'	5.46	1.48	1.41
42	BM	78	VAL	CA-CB	-5.46	1.43	1.54
65	Bn	17	ARG	NE-CZ	5.46	1.40	1.33
78	CA	737	A	C4'-C3'	-5.46	1.47	1.52
78	CA	1550	A	O3'-P	-5.46	1.54	1.61
81	DA	748	U	C2'-C1'	5.46	1.59	1.53
46	BT	151	ARG	CZ-NH2	5.46	1.40	1.33
78	CA	405	C	C2'-C1'	-5.46	1.47	1.53
78	CA	90	C	O4'-C1'	5.45	1.48	1.41
78	CA	1591	C	C2'-C1'	-5.45	1.47	1.53
81	DA	1114	U	O4'-C1'	-5.45	1.34	1.41
33	BD	321	LYS	N-CA	-5.45	1.35	1.46
76	BS	162	THR	N-CA	-5.45	1.35	1.46
81	DA	172	G	C5'-C4'	5.45	1.57	1.51
78	CA	1270	G	O4'-C1'	5.45	1.48	1.41
81	DA	3252	G	O3'-P	-5.45	1.54	1.61
5	AC	9	SER	CB-OG	-5.45	1.35	1.42
81	DA	549	U	C2'-C1'	-5.45	1.47	1.53
44	BO	96	LYS	C-N	-5.45	1.21	1.34
33	BD	31	ARG	CD-NE	5.45	1.55	1.46
78	CA	1096	C	C4'-C3'	-5.45	1.47	1.52
81	DA	6	A	O4'-C1'	5.45	1.48	1.41
81	DA	2527	G	P-O5'	-5.45	1.54	1.59
47	BU	137	GLU	CD-OE1	-5.44	1.19	1.25
81	DA	915	A	C2'-C1'	-5.44	1.47	1.53
76	BS	151	PHE	CG-CD2	5.44	1.47	1.38
78	CA	713	A	O3'-P	-5.44	1.54	1.61
32	BC	18	PRO	N-CA	5.44	1.56	1.47
40	BK	94	ARG	NE-CZ	5.44	1.40	1.33
43	BP	162	ARG	CZ-NH1	5.44	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BT	62	ARG	CZ-NH1	5.44	1.40	1.33
58	Bg	70	ARG	CD-NE	5.44	1.55	1.46
62	Bk	68	ARG	CZ-NH1	5.44	1.40	1.33
78	CA	293	U	O4'-C1'	5.44	1.48	1.41
81	DA	160	G	C4'-O4'	5.44	1.52	1.45
21	AT	12	TYR	CE2-CZ	5.44	1.45	1.38
17	AQ	64	GLY	CA-C	-5.44	1.43	1.51
32	BC	257	PRO	N-CD	-5.44	1.40	1.47
47	BU	159	PHE	CG-CD1	5.44	1.47	1.38
81	DA	1770	G	O3'-P	-5.44	1.54	1.61
82	DB	27	U	O4'-C1'	5.44	1.48	1.41
81	DA	211	A	O4'-C1'	5.44	1.48	1.41
38	Bs	243	TYR	CB-CG	-5.43	1.43	1.51
78	CA	1520	U	C4'-C3'	-5.43	1.47	1.52
79	CB	27	G	O4'-C1'	5.43	1.48	1.41
56	Bf	59	TYR	CG-CD1	5.43	1.46	1.39
81	DA	911	C	O4'-C1'	5.43	1.48	1.41
8	AF	102	ARG	CZ-NH1	5.43	1.40	1.33
64	Bl	55	ARG	CZ-NH2	5.43	1.40	1.33
81	DA	2421	U	C2'-C1'	-5.43	1.47	1.53
42	BM	16	GLY	CA-C	-5.43	1.43	1.51
76	BS	86	ARG	CZ-NH2	5.43	1.40	1.33
78	CA	638	U	O4'-C1'	5.43	1.48	1.41
78	CA	1285	U	O4'-C1'	5.43	1.48	1.41
81	DA	985	U	C2'-C1'	5.43	1.59	1.53
82	DB	150	G	O3'-P	-5.43	1.54	1.61
78	CA	586	G	C4'-O4'	-5.43	1.38	1.45
39	BJ	114	ARG	CZ-NH2	5.43	1.40	1.33
43	BP	71	ARG	CZ-NH1	5.43	1.40	1.33
81	DA	886	C	C2'-C1'	-5.43	1.47	1.53
81	DA	1463	U	C2'-C1'	-5.43	1.47	1.53
81	DA	2116	G	O4'-C1'	-5.43	1.34	1.41
51	BZ	48	ARG	NE-CZ	5.42	1.40	1.33
78	CA	824	G	C2'-C1'	-5.42	1.47	1.53
78	CA	1049	U	O4'-C1'	5.42	1.48	1.41
81	DA	245	U	C4'-O4'	5.42	1.52	1.45
6	AE	224	PHE	CB-CG	5.42	1.60	1.51
78	CA	1566	U	C4'-C3'	-5.42	1.47	1.52
81	DA	236	G	C2'-C1'	5.42	1.59	1.53
81	DA	2842	U	O4'-C1'	5.42	1.48	1.41
81	DA	3059	G	C2'-C1'	-5.42	1.47	1.53
3	AB	40	ARG	CZ-NH2	5.42	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	1546	G	O4'-C1'	5.42	1.48	1.41
81	DA	2588	U	O4'-C1'	5.42	1.48	1.41
83	DC	62	A	C2'-C1'	5.42	1.59	1.53
26	AZ	55	ARG	NE-CZ	5.42	1.40	1.33
39	BJ	75	PRO	N-CD	-5.42	1.40	1.47
78	CA	1037	C	O4'-C1'	5.42	1.48	1.41
78	CA	289	U	C5'-C4'	5.42	1.57	1.51
81	DA	386	A	O3'-P	-5.42	1.54	1.61
81	DA	1217	A	O4'-C1'	5.42	1.48	1.41
57	Be	60	ARG	CD-NE	5.42	1.55	1.46
81	DA	1895	A	O3'-P	-5.42	1.54	1.61
78	CA	52	U	C2'-C1'	-5.41	1.47	1.53
81	DA	1719	G	C2'-C1'	-5.41	1.47	1.53
81	DA	1973	G	P-O5'	5.41	1.65	1.59
78	CA	501	U	C2'-C1'	-5.41	1.47	1.53
78	CA	898	A	O4'-C1'	5.41	1.48	1.41
78	CA	1175	U	O4'-C1'	5.41	1.48	1.41
81	DA	601	U	O4'-C1'	5.41	1.48	1.41
81	DA	2030	C	O3'-P	-5.41	1.54	1.61
81	DA	3087	A	O4'-C1'	5.41	1.48	1.41
83	DC	60	G	O4'-C1'	-5.41	1.34	1.41
35	BG	31	ARG	CD-NE	5.41	1.55	1.46
78	CA	1242	A	O3'-P	-5.41	1.54	1.61
78	CA	1652	C	C4'-C3'	-5.41	1.47	1.52
81	DA	61	A	O4'-C1'	5.41	1.48	1.41
81	DA	157	A	O3'-P	-5.41	1.54	1.61
81	DA	2015	C	C2'-C1'	-5.41	1.47	1.53
33	BD	300	ARG	CZ-NH2	5.41	1.40	1.33
14	AM	42	TYR	CG-CD2	-5.41	1.32	1.39
16	AO	106	ARG	NE-CZ	5.41	1.40	1.33
78	CA	733	A	C4'-C3'	-5.41	1.47	1.52
78	CA	1151	A	C2'-C1'	5.41	1.59	1.53
81	DA	2805	G	O4'-C1'	5.41	1.48	1.41
53	Ba	8	GLY	CA-C	5.40	1.60	1.51
81	DA	2195	C	O4'-C1'	5.40	1.48	1.41
81	DA	2487	U	O3'-P	5.40	1.67	1.61
81	DA	1885	U	C2'-C1'	-5.40	1.47	1.53
81	DA	2429	G	C2'-C1'	-5.40	1.47	1.53
81	DA	2464	U	O4'-C1'	5.40	1.48	1.41
81	DA	2708	C	P-O5'	-5.40	1.54	1.59
78	CA	944	A	C2'-C1'	5.40	1.59	1.53
78	CA	962	C	O4'-C1'	5.40	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	817	A	C2'-C1'	-5.40	1.47	1.53
81	DA	1934	G	C2'-C1'	-5.40	1.47	1.53
81	DA	2524	A	P-O5'	5.40	1.65	1.59
81	DA	2819	A	O4'-C1'	5.40	1.48	1.41
5	AC	3	ARG	CD-NE	5.40	1.55	1.46
11	AJ	28	SER	CA-CB	5.40	1.61	1.52
32	BC	32	PHE	CB-CG	5.40	1.60	1.51
60	Bi	4	ARG	NE-CZ	5.40	1.40	1.33
78	CA	13	C	C3'-C2'	-5.40	1.46	1.52
81	DA	1634	G	P-O5'	-5.40	1.54	1.59
81	DA	1396	C	P-O5'	-5.40	1.54	1.59
81	DA	2939	G	C2'-C1'	-5.40	1.47	1.53
52	BY	71	SER	CA-CB	5.40	1.61	1.52
81	DA	1628	C	O4'-C1'	5.40	1.48	1.41
81	DA	3068	U	O4'-C1'	5.40	1.48	1.41
22	AV	26	LYS	N-CA	5.39	1.57	1.46
78	CA	57	G	O3'-P	-5.39	1.54	1.61
50	BX	44	PRO	N-CD	-5.39	1.40	1.47
57	Be	33	ARG	CZ-NH2	5.39	1.40	1.33
81	DA	3037	U	C2'-C1'	-5.39	1.47	1.53
81	DA	3060	C	C2'-C1'	-5.39	1.47	1.53
81	DA	1718	G	O4'-C1'	5.39	1.48	1.41
82	DB	143	U	O4'-C1'	5.39	1.48	1.41
81	DA	771	A	C4'-C3'	5.39	1.59	1.53
29	AU	19	ALA	N-CA	-5.39	1.35	1.46
78	CA	1064	G	C2-N3	5.39	1.37	1.32
79	CB	60	C	O4'-C1'	5.39	1.48	1.41
78	CA	613	G	O4'-C1'	-5.38	1.34	1.41
81	DA	3028	G	O4'-C1'	5.38	1.48	1.41
81	DA	3361	G	O3'-P	-5.38	1.54	1.61
43	BP	147	ARG	CZ-NH2	5.38	1.40	1.33
78	CA	880	C	C2'-O2'	-5.38	1.34	1.41
82	DB	121	U	O4'-C1'	5.38	1.48	1.41
82	DB	132	G	O3'-P	-5.38	1.54	1.61
78	CA	358	U	O4'-C1'	5.38	1.48	1.41
78	CA	1088	A	P-O5'	-5.38	1.54	1.59
81	DA	1317	A	C2'-C1'	5.38	1.59	1.53
18	AP	39	GLY	N-CA	-5.38	1.38	1.46
78	CA	644	C	O4'-C1'	5.38	1.48	1.41
78	CA	1591	C	P-O5'	-5.38	1.54	1.59
81	DA	607	A	C4'-O4'	-5.38	1.38	1.45
81	DA	764	U	O4'-C1'	5.38	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1629	U	O4'-C1'	5.38	1.48	1.41
81	DA	1670	C	C2'-C1'	-5.38	1.47	1.53
83	DC	8	G	C2'-C1'	-5.38	1.47	1.53
81	DA	1862	U	O4'-C1'	5.38	1.48	1.41
35	BG	9	TRP	N-CA	5.37	1.57	1.46
78	CA	1450	U	O4'-C1'	5.37	1.48	1.41
81	DA	470	G	O4'-C1'	5.37	1.48	1.41
81	DA	3330	A	P-OP2	5.37	1.58	1.49
3	AB	79	TYR	N-CA	5.37	1.57	1.46
44	BO	12	ARG	NE-CZ	5.37	1.40	1.33
78	CA	241	U	O3'-P	-5.37	1.54	1.61
81	DA	367	A	O4'-C1'	5.37	1.48	1.41
81	DA	2238	G	P-O5'	5.37	1.65	1.59
31	BB	241	ARG	CD-NE	5.37	1.55	1.46
37	BH	216	SER	N-CA	-5.37	1.35	1.46
38	Bs	48	ARG	CZ-NH2	5.37	1.40	1.33
51	BZ	56	ARG	NE-CZ	5.37	1.40	1.33
53	Ba	13	VAL	CA-CB	-5.37	1.43	1.54
78	CA	887	A	O4'-C1'	5.37	1.48	1.41
81	DA	988	U	C3'-O3'	-5.37	1.34	1.42
81	DA	1820	U	C4'-O4'	5.37	1.52	1.45
81	DA	2635	A	O4'-C1'	5.37	1.48	1.41
81	DA	3243	A	C5'-C4'	5.37	1.57	1.51
38	Bs	5	ARG	N-CA	5.37	1.57	1.46
80	CC	20	U	C1'-N1	5.37	1.56	1.48
81	DA	1125	U	C2'-C1'	5.37	1.59	1.53
59	Bh	125	ARG	NE-CZ	5.36	1.40	1.33
78	CA	835	U	O4'-C1'	5.36	1.48	1.41
78	CA	1093	A	O4'-C1'	5.36	1.48	1.41
81	DA	764	U	C4'-C3'	5.36	1.59	1.53
46	BT	170	ARG	CZ-NH1	5.36	1.40	1.33
82	DB	40	A	O4'-C1'	5.36	1.48	1.41
24	AX	57	GLU	CB-CG	5.36	1.62	1.52
59	Bh	23	ASP	C-O	-5.36	1.13	1.23
78	CA	446	A	O4'-C1'	-5.36	1.34	1.41
81	DA	1926	C	C4'-O4'	-5.36	1.38	1.45
81	DA	2969	A	C2'-C1'	-5.36	1.47	1.53
48	BW	29	ASP	CA-CB	5.36	1.65	1.53
55	Bc	96	GLU	C-O	-5.36	1.13	1.23
78	CA	447	U	C3'-C2'	-5.36	1.46	1.52
78	CA	710	U	C4'-C3'	-5.36	1.47	1.52
78	CA	719	U	P-O5'	-5.36	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	930	A	C3'-C2'	5.36	1.58	1.52
81	DA	425	G	P-O5'	-5.36	1.54	1.59
81	DA	1964	C	C2'-C1'	-5.36	1.47	1.53
4	AD	59	ARG	CZ-NH2	5.36	1.40	1.33
81	DA	3396	U	C2'-C1'	5.36	1.59	1.53
33	BD	326	ARG	CZ-NH2	5.35	1.40	1.33
69	Br	59	HIS	N-CA	5.35	1.57	1.46
81	DA	2641	U	O4'-C1'	5.35	1.48	1.41
81	DA	3115	C	C2'-C1'	-5.35	1.47	1.53
48	BW	104	ARG	CZ-NH1	5.35	1.40	1.33
78	CA	119	A	C3'-C2'	-5.35	1.46	1.52
78	CA	227	U	O4'-C1'	5.35	1.48	1.41
78	CA	399	A	C2'-C1'	5.35	1.59	1.53
78	CA	1083	G	C2'-C1'	-5.35	1.47	1.53
78	CA	1319	A	C4'-C3'	-5.35	1.47	1.52
81	DA	1850	A	C4'-O4'	-5.35	1.38	1.45
57	Be	51	TYR	CZ-OH	5.35	1.47	1.37
78	CA	1221	A	P-O5'	-5.35	1.54	1.59
81	DA	2850	G	C2'-C1'	-5.35	1.47	1.53
14	AM	88	ARG	CD-NE	5.35	1.55	1.46
39	BJ	108	GLU	CD-OE2	-5.35	1.19	1.25
81	DA	2604	U	O4'-C1'	5.35	1.48	1.41
81	DA	2951	G	O4'-C1'	5.35	1.48	1.41
3	AB	79	TYR	CA-C	-5.35	1.39	1.52
48	BW	36	TYR	CE1-CZ	5.34	1.45	1.38
78	CA	244	A	P-O5'	5.34	1.65	1.59
46	BT	98	ARG	NE-CZ	5.34	1.40	1.33
78	CA	1030	A	C2'-C1'	5.34	1.59	1.53
10	AI	54	LEU	CA-CB	5.34	1.66	1.53
81	DA	707	U	C2'-C1'	-5.34	1.47	1.53
81	DA	1868	G	O4'-C1'	5.34	1.48	1.41
78	CA	1479	A	C3'-C2'	-5.34	1.46	1.52
19	AR	115	TYR	CB-CG	-5.34	1.43	1.51
74	BQ	248	ARG	N-CA	-5.34	1.35	1.46
81	DA	2082	U	O4'-C1'	5.34	1.48	1.41
5	AC	54	ARG	NE-CZ	5.34	1.40	1.33
78	CA	910	C	C4'-C3'	-5.34	1.47	1.52
78	CA	1390	U	O4'-C1'	5.34	1.48	1.41
81	DA	670	C	O3'-P	-5.34	1.54	1.61
78	CA	1091	A	O4'-C1'	-5.33	1.34	1.41
81	DA	674	G	O3'-P	-5.33	1.54	1.61
81	DA	798	G	P-O5'	-5.33	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AE	91	ARG	CD-NE	5.33	1.55	1.46
32	BC	289	ASP	C-N	5.33	1.46	1.34
78	CA	913	G	O4'-C1'	-5.33	1.34	1.41
78	CA	935	U	C4'-C3'	-5.33	1.47	1.52
81	DA	1320	C	O3'-P	-5.33	1.54	1.61
81	DA	2573	G	C2'-C1'	-5.33	1.47	1.53
74	BQ	111	GLN	N-CA	-5.33	1.35	1.46
81	DA	368	G	O4'-C1'	5.33	1.48	1.41
18	AP	116	ARG	CG-CD	5.33	1.65	1.51
32	BC	381	GLY	C-N	5.33	1.46	1.34
81	DA	160	G	C5'-C4'	5.33	1.57	1.51
78	CA	1603	U	C4'-C3'	-5.33	1.47	1.52
81	DA	2164	A	O4'-C1'	5.33	1.48	1.41
81	DA	2238	G	C5'-C4'	5.33	1.57	1.51
81	DA	3371	G	O4'-C1'	5.33	1.48	1.41
83	DC	68	U	C2'-C1'	-5.33	1.47	1.53
42	BM	128	ARG	CD-NE	5.33	1.55	1.46
78	CA	1220	C	C5'-C4'	5.33	1.57	1.51
56	Bf	35	ARG	CZ-NH1	5.32	1.40	1.33
81	DA	2387	A	C2'-C1'	-5.32	1.47	1.53
14	AM	101	LEU	CG-CD2	-5.32	1.32	1.51
40	BK	160	ARG	NE-CZ	5.32	1.40	1.33
78	CA	1479	A	C2'-C1'	5.32	1.59	1.53
61	Bj	44	TYR	CB-CG	-5.32	1.43	1.51
78	CA	34	G	C2'-C1'	5.32	1.59	1.53
81	DA	1662	G	O3'-P	-5.32	1.54	1.61
81	DA	2043	U	O3'-P	-5.32	1.54	1.61
81	DA	2992	U	O4'-C1'	5.32	1.48	1.41
81	DA	1075	A	O3'-P	-5.32	1.54	1.61
81	DA	2414	G	O4'-C1'	5.31	1.48	1.41
3	AB	91	VAL	CB-CG1	5.31	1.64	1.52
64	Bl	39	TYR	CA-CB	-5.31	1.42	1.53
81	DA	42	C	C2'-C1'	-5.31	1.47	1.53
83	DC	95	C	O4'-C1'	5.31	1.48	1.41
81	DA	2648	G	C4'-O4'	5.31	1.52	1.45
78	CA	882	U	C2'-C1'	-5.31	1.47	1.53
78	CA	1441	C	P-O5'	-5.31	1.54	1.59
5	AC	53	ARG	CD-NE	5.31	1.55	1.46
81	DA	507	U	C2'-C1'	-5.31	1.47	1.53
78	CA	1355	C	C2'-C1'	-5.31	1.47	1.53
78	CA	1673	G	O3'-P	-5.31	1.54	1.61
81	DA	685	G	C2'-C1'	-5.31	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1826	C	O3'-P	-5.31	1.54	1.61
4	AD	94	ALA	N-CA	5.30	1.56	1.46
17	AQ	133	ARG	CZ-NH1	5.30	1.40	1.33
31	BB	214	GLY	N-CA	-5.30	1.38	1.46
78	CA	1049	U	P-O5'	-5.30	1.54	1.59
82	DB	107	G	O4'-C1'	5.30	1.48	1.41
78	CA	1196	A	C2'-C1'	5.30	1.59	1.53
26	AZ	40	TYR	CA-CB	-5.30	1.42	1.53
57	Be	132	PRO	N-CD	5.30	1.55	1.47
78	CA	528	U	C3'-O3'	-5.30	1.34	1.42
81	DA	244	G	C4'-O4'	5.30	1.52	1.45
3	AB	94	ARG	NE-CZ	5.30	1.40	1.33
78	CA	1442	U	O4'-C1'	5.30	1.48	1.41
81	DA	60	A	O4'-C1'	5.30	1.48	1.41
81	DA	537	A	C2'-C1'	-5.30	1.47	1.53
81	DA	667	C	C2'-C1'	-5.30	1.47	1.53
81	DA	2879	C	O4'-C1'	5.30	1.48	1.41
47	BU	34	TYR	CE2-CZ	5.30	1.45	1.38
78	CA	1100	G	P-O5'	5.30	1.65	1.59
81	DA	975	C	O4'-C1'	5.30	1.48	1.41
35	BG	152	THR	CA-CB	-5.30	1.39	1.53
53	Ba	7	ALA	C-N	5.30	1.42	1.33
81	DA	790	U	C3'-C2'	-5.30	1.47	1.52
81	DA	2846	U	C2'-C1'	-5.30	1.47	1.53
82	DB	126	A	C2'-C1'	-5.30	1.47	1.53
3	AB	76	ARG	CD-NE	5.29	1.55	1.46
81	DA	537	A	O3'-P	-5.29	1.54	1.61
4	AD	239	PRO	N-CA	5.29	1.56	1.47
74	BQ	288	ALA	CA-CB	5.29	1.63	1.52
81	DA	1463	U	O4'-C1'	5.29	1.48	1.41
81	DA	2013	C	C2'-C1'	-5.29	1.47	1.53
81	DA	965	A	C2'-C1'	-5.29	1.47	1.53
4	AD	191	ARG	CZ-NH2	5.29	1.40	1.33
81	DA	171	G	C3'-O3'	5.29	1.49	1.42
32	BC	26	ARG	CZ-NH1	5.29	1.40	1.33
78	CA	547	U	C2'-C1'	-5.29	1.47	1.53
78	CA	1745	G	O3'-P	-5.29	1.54	1.61
81	DA	262	U	P-O5'	-5.29	1.54	1.59
81	DA	1838	G	C2'-C1'	-5.29	1.47	1.53
11	AJ	23	ARG	NE-CZ	5.29	1.40	1.33
18	AP	67	ARG	CD-NE	5.29	1.55	1.46
81	DA	467	U	O4'-C1'	5.29	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	2342	U	C2'-C1'	-5.29	1.47	1.53
81	DA	668	G	O4'-C1'	5.29	1.48	1.41
81	DA	1794	G	C3'-C2'	-5.29	1.47	1.52
14	AM	37	GLY	N-CA	-5.28	1.38	1.46
31	BB	62	VAL	C-N	5.28	1.46	1.34
78	CA	256	A	C5'-C4'	5.28	1.57	1.51
78	CA	551	G	O4'-C1'	5.28	1.48	1.41
81	DA	2503	G	C2'-C1'	-5.28	1.47	1.53
81	DA	3345	G	O3'-P	-5.28	1.54	1.61
41	BN	55	ARG	CD-NE	5.28	1.55	1.46
78	CA	1556	A	C5'-C4'	-5.28	1.45	1.51
79	CB	24	A	C2'-C1'	5.28	1.59	1.53
81	DA	10	C	C2'-C1'	-5.28	1.47	1.53
81	DA	800	G	C3'-C2'	-5.28	1.47	1.52
78	CA	64	U	O4'-C1'	5.28	1.48	1.41
78	CA	252	U	C3'-O3'	-5.28	1.34	1.42
81	DA	319	A	O4'-C1'	5.28	1.48	1.41
81	DA	466	G	O4'-C1'	5.28	1.48	1.41
81	DA	837	A	C2'-C1'	-5.28	1.47	1.53
78	CA	12	U	C2'-C1'	-5.28	1.47	1.53
79	CB	5	U	O4'-C1'	5.28	1.48	1.41
81	DA	1241	U	C2'-C1'	-5.28	1.47	1.53
46	BT	162	ARG	NE-CZ	5.28	1.40	1.33
64	Bl	65	ARG	NE-CZ	5.28	1.40	1.33
78	CA	713	A	C4'-C3'	-5.28	1.47	1.52
78	CA	1547	A	C5'-C4'	5.28	1.57	1.51
78	CA	1616	G	P-O5'	-5.28	1.54	1.59
79	CB	47	U	C2'-C1'	5.28	1.59	1.53
81	DA	758	C	O3'-P	-5.28	1.54	1.61
81	DA	2483	G	O3'-P	-5.28	1.54	1.61
81	DA	2703	A	O4'-C1'	-5.28	1.34	1.41
5	AC	149	ARG	CZ-NH1	5.27	1.40	1.33
42	BM	30	GLY	CA-C	-5.27	1.43	1.51
69	Br	51	GLY	N-CA	-5.27	1.38	1.46
78	CA	1109	G	C2'-C1'	-5.27	1.47	1.53
81	DA	1237	G	O4'-C1'	5.27	1.48	1.41
78	CA	550	A	C2'-C1'	-5.27	1.47	1.53
4	AD	235	TYR	CB-CG	-5.27	1.43	1.51
9	AH	78	ARG	CD-NE	5.27	1.55	1.46
46	BT	162	ARG	CD-NE	5.27	1.55	1.46
81	DA	2367	A	C4'-C3'	5.27	1.58	1.53
38	Bs	73	PHE	N-CA	5.27	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	BP	78	GLY	CA-C	-5.27	1.43	1.51
78	CA	539	G	O3'-P	-5.27	1.54	1.61
78	CA	555	A	C3'-C2'	-5.27	1.47	1.52
81	DA	1590	G	O4'-C1'	5.27	1.48	1.41
78	CA	216	U	C4'-O4'	5.27	1.52	1.45
3	AB	34	TYR	CE2-CZ	5.26	1.45	1.38
37	BH	226	TYR	CZ-OH	5.26	1.46	1.37
78	CA	1315	U	O4'-C1'	5.26	1.48	1.41
78	CA	1654	G	O4'-C1'	5.26	1.48	1.41
81	DA	645	A	C2'-C1'	5.26	1.59	1.53
81	DA	1130	A	O4'-C1'	5.26	1.48	1.41
81	DA	3369	G	C2'-C1'	5.26	1.59	1.53
22	AV	33	LYS	CB-CG	-5.26	1.38	1.52
32	BC	167	ARG	NE-CZ	5.26	1.39	1.33
60	Bi	48	GLY	N-CA	-5.26	1.38	1.46
78	CA	289	U	O4'-C1'	5.26	1.48	1.41
81	DA	2093	A	O3'-P	-5.26	1.54	1.61
81	DA	3243	A	C4'-C3'	5.26	1.58	1.53
78	CA	879	G	O4'-C1'	-5.26	1.34	1.41
81	DA	1262	G	O4'-C1'	5.26	1.48	1.41
57	Be	232	ARG	CA-CB	5.26	1.65	1.53
78	CA	1135	U	C4'-C3'	-5.26	1.47	1.52
81	DA	273	A	O3'-P	-5.26	1.54	1.61
40	BK	12	LYS	C-N	5.26	1.42	1.33
48	BW	71	PHE	CG-CD1	5.26	1.46	1.38
58	Bg	94	GLU	CD-OE2	5.26	1.31	1.25
78	CA	640	U	C4'-O4'	-5.26	1.38	1.45
78	CA	1289	U	O4'-C1'	5.26	1.48	1.41
81	DA	40	A	C2'-C1'	-5.25	1.47	1.53
81	DA	1465	A	O4'-C1'	5.25	1.48	1.41
81	DA	2563	G	C2'-C1'	-5.25	1.47	1.53
81	DA	1989	U	C2'-C1'	-5.25	1.47	1.53
81	DA	2241	U	P-O5'	-5.25	1.54	1.59
81	DA	2743	A	O3'-P	-5.25	1.54	1.61
83	DC	27	A	P-O5'	-5.25	1.54	1.59
4	AD	95	THR	N-CA	5.25	1.56	1.46
33	BD	203	ARG	NE-CZ	5.25	1.39	1.33
81	DA	1749	A	O4'-C1'	5.25	1.48	1.41
35	BG	149	ILE	N-CA	5.25	1.56	1.46
81	DA	2416	U	P-O5'	-5.25	1.54	1.59
51	BZ	30	ARG	CZ-NH1	5.25	1.39	1.33
81	DA	1992	U	O4'-C1'	5.25	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	AC	78	ARG	NE-CZ	5.25	1.39	1.33
14	AM	68	ARG	CZ-NH1	5.25	1.39	1.33
18	AP	56	LYS	N-CA	5.25	1.56	1.46
81	DA	1824	U	C2'-C1'	-5.25	1.47	1.53
81	DA	3097	C	C2'-C1'	-5.25	1.47	1.53
2	AA	238	GLU	CG-CD	5.25	1.59	1.51
40	BK	168	TYR	CE2-CZ	5.25	1.45	1.38
81	DA	424	G	P-O5'	-5.25	1.54	1.59
21	AT	12	TYR	CZ-OH	5.24	1.46	1.37
52	BY	65	GLY	N-CA	-5.24	1.38	1.46
81	DA	1780	G	O4'-C1'	5.24	1.48	1.41
81	DA	2470	C	C2'-C1'	-5.24	1.47	1.53
81	DA	3380	U	O4'-C1'	5.24	1.48	1.41
78	CA	633	U	O4'-C1'	5.24	1.48	1.41
81	DA	2225	U	C2'-C1'	-5.24	1.47	1.53
81	DA	3381	U	C2'-C1'	-5.24	1.47	1.53
78	CA	1691	A	O4'-C1'	5.24	1.48	1.41
81	DA	221	A	C2'-C1'	-5.24	1.47	1.53
5	AC	44	ARG	NE-CZ	5.24	1.39	1.33
15	AN	54	LYS	C-O	-5.24	1.13	1.23
56	Bf	57	GLU	CD-OE2	5.24	1.31	1.25
63	Bm	80	ARG	CZ-NH1	5.24	1.39	1.33
78	CA	822	U	P-O5'	-5.24	1.54	1.59
81	DA	1522	U	O4'-C1'	5.24	1.48	1.41
81	DA	2279	A	P-O5'	5.24	1.65	1.59
78	CA	928	U	C3'-C2'	-5.24	1.47	1.52
38	Bs	91	GLU	CD-OE1	5.24	1.31	1.25
60	Bi	80	ARG	N-CA	5.24	1.56	1.46
77	BI	119	TRP	NE1-CE2	5.24	1.44	1.37
81	DA	1323	G	O4'-C1'	-5.24	1.34	1.41
81	DA	2495	C	C2'-C1'	-5.24	1.47	1.53
81	DA	3080	G	O4'-C1'	5.24	1.48	1.41
81	DA	564	G	C2'-C1'	-5.23	1.47	1.53
81	DA	2045	G	C2'-C1'	-5.23	1.47	1.53
35	BG	76	LEU	N-CA	5.23	1.56	1.46
69	Br	45	ARG	CZ-NH1	5.23	1.39	1.33
78	CA	588	U	P-O5'	-5.23	1.54	1.59
78	CA	669	G	O4'-C1'	5.23	1.48	1.41
78	CA	857	U	C2'-C1'	-5.23	1.47	1.53
81	DA	1544	G	O4'-C1'	5.23	1.48	1.41
81	DA	2866	U	C2'-C1'	5.23	1.59	1.53
60	Bi	68	THR	N-CA	-5.23	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	365	G	C2'-C1'	-5.23	1.47	1.53
78	CA	461	G	O4'-C1'	-5.23	1.34	1.41
39	BJ	57	LYS	CA-C	-5.23	1.39	1.52
3	AB	27	ARG	NE-CZ	5.23	1.39	1.33
9	AH	69	LEU	CA-CB	5.23	1.65	1.53
81	DA	72	C	C2'-C1'	5.23	1.59	1.53
14	AM	128	PHE	CG-CD2	5.23	1.46	1.38
39	BJ	16	ARG	CZ-NH1	5.23	1.39	1.33
78	CA	854	U	O3'-P	-5.23	1.54	1.61
33	BD	313	LEU	CA-C	-5.22	1.39	1.52
37	BH	73	PRO	CA-CB	5.22	1.64	1.53
64	BI	56	ARG	CZ-NH2	5.22	1.39	1.33
81	DA	2598	G	O4'-C1'	5.22	1.48	1.41
78	CA	149	C	C2'-C1'	-5.22	1.47	1.53
78	CA	1234	A	O3'-P	-5.22	1.54	1.61
78	CA	410	A	C4'-O4'	-5.22	1.38	1.45
78	CA	497	G	P-O5'	-5.22	1.54	1.59
81	DA	1218	U	C2'-C1'	-5.22	1.47	1.53
81	DA	2591	A	C2'-C1'	-5.22	1.47	1.53
47	BU	126	VAL	C-N	5.22	1.46	1.34
74	BQ	197	SER	C-N	5.22	1.46	1.34
78	CA	25	C	C2'-C1'	-5.22	1.47	1.53
78	CA	906	A	O4'-C1'	5.22	1.48	1.41
78	CA	1039	A	C3'-C2'	-5.22	1.47	1.52
78	CA	1394	G	C2'-C1'	5.22	1.59	1.53
56	Bf	98	SER	CA-CB	5.21	1.60	1.52
64	BI	55	ARG	NE-CZ	5.21	1.39	1.33
79	CB	52	G	C2'-C1'	-5.21	1.47	1.53
81	DA	586	C	C2'-C1'	-5.21	1.47	1.53
81	DA	701	G	C5'-C4'	5.21	1.57	1.51
81	DA	3057	U	O4'-C1'	5.21	1.48	1.41
81	DA	3309	G	O4'-C1'	-5.21	1.34	1.41
74	BQ	198	TYR	N-CA	5.21	1.56	1.46
74	BQ	272	TYR	CA-CB	5.21	1.65	1.53
78	CA	376	C	C4'-C3'	-5.21	1.47	1.52
78	CA	381	C	C2'-C1'	-5.21	1.47	1.53
81	DA	988	U	C5'-C4'	5.21	1.57	1.51
81	DA	3327	G	C2'-C1'	-5.21	1.47	1.53
78	CA	1170	G	C2'-C1'	-5.21	1.47	1.53
81	DA	305	U	O4'-C1'	5.21	1.48	1.41
81	DA	363	G	O4'-C1'	-5.21	1.34	1.41
81	DA	2460	U	O4'-C1'	5.21	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BH	249	ARG	NE-CZ	5.21	1.39	1.33
78	CA	1393	C	P-O5'	-5.21	1.54	1.59
81	DA	1876	U	O4'-C1'	5.21	1.48	1.41
81	DA	2722	U	C3'-C2'	5.21	1.58	1.52
40	BK	4	GLU	CD-OE2	5.21	1.31	1.25
78	CA	238	U	C4'-C3'	-5.21	1.47	1.52
78	CA	1173	C	O3'-P	-5.21	1.54	1.61
81	DA	1895	A	P-O5'	-5.21	1.54	1.59
83	DC	6	C	P-O5'	-5.21	1.54	1.59
8	AF	35	GLN	C-N	5.21	1.46	1.34
47	BU	65	TYR	CG-CD2	5.21	1.46	1.39
78	CA	507	U	O3'-P	-5.21	1.54	1.61
81	DA	2383	C	O3'-P	-5.20	1.54	1.61
76	BS	65	GLU	CB-CG	5.20	1.62	1.52
81	DA	2649	A	O4'-C1'	5.20	1.48	1.41
2	AA	103	THR	C-N	-5.20	1.24	1.34
49	BV	59	PRO	N-CA	-5.20	1.38	1.47
62	Bk	55	ARG	CZ-NH1	5.20	1.39	1.33
81	DA	1599	G	O3'-P	-5.20	1.54	1.61
81	DA	1754	G	C2-N3	5.20	1.36	1.32
33	BD	202	ARG	NE-CZ	5.20	1.39	1.33
81	DA	1522	U	C2'-C1'	-5.20	1.47	1.53
81	DA	3147	G	O3'-P	-5.20	1.54	1.61
81	DA	3214	U	C5'-C4'	5.20	1.57	1.51
63	Bm	84	ARG	NE-CZ	5.20	1.39	1.33
81	DA	309	U	O3'-P	-5.20	1.54	1.61
81	DA	2843	U	C2'-C1'	-5.20	1.47	1.53
78	CA	891	A	C2'-C1'	-5.19	1.47	1.53
81	DA	2073	A	O3'-P	-5.19	1.54	1.61
17	AQ	112	SER	CA-CB	5.19	1.60	1.52
32	BC	17	LEU	N-CA	5.19	1.56	1.46
38	Bs	10	GLU	CG-CD	5.19	1.59	1.51
78	CA	1143	A	C2'-C1'	-5.19	1.47	1.53
6	AE	7	GLN	C-N	5.19	1.46	1.34
30	BA	48	ARG	CZ-NH1	5.19	1.39	1.33
32	BC	339	ARG	CZ-NH2	5.19	1.39	1.33
81	DA	723	U	O4'-C1'	5.19	1.48	1.41
81	DA	2656	A	O4'-C1'	5.19	1.48	1.41
81	DA	3148	U	C2'-C1'	-5.19	1.47	1.53
81	DA	3199	G	C5'-C4'	5.19	1.57	1.51
24	AX	80	ARG	CZ-NH1	5.19	1.39	1.33
53	Ba	10	VAL	N-CA	5.19	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	CA	56	U	C3'-C2'	5.19	1.58	1.52
20	AS	57	ARG	NE-CZ	5.18	1.39	1.33
53	Ba	10	VAL	CB-CG2	5.18	1.63	1.52
79	CB	8	U	O4'-C1'	5.18	1.48	1.41
81	DA	828	A	O4'-C1'	5.18	1.48	1.41
82	DB	60	U	C2'-O2'	5.18	1.48	1.41
32	BC	62	ARG	CZ-NH2	5.18	1.39	1.33
32	BC	290	ASP	CA-C	-5.18	1.39	1.52
78	CA	270	C	O4'-C1'	5.18	1.48	1.41
81	DA	249	U	C5'-C4'	5.18	1.57	1.51
81	DA	460	C	C2'-C1'	-5.18	1.47	1.53
35	BG	75	PRO	C-O	-5.18	1.12	1.23
78	CA	337	G	O3'-P	-5.18	1.54	1.61
78	CA	853	G	C5'-C4'	5.18	1.57	1.51
81	DA	1804	A	O4'-C1'	5.18	1.48	1.41
9	AH	101	TYR	CE2-CZ	5.18	1.45	1.38
35	BG	153	PRO	N-CA	5.18	1.56	1.47
41	BN	75	GLY	CA-C	-5.18	1.43	1.51
78	CA	1477	G	C5'-C4'	5.18	1.57	1.51
81	DA	389	A	C2'-C1'	-5.18	1.47	1.53
81	DA	1359	C	C2'-C1'	-5.18	1.47	1.53
81	DA	1932	A	C2'-C1'	-5.18	1.47	1.53
81	DA	3331	U	P-O5'	-5.18	1.54	1.59
21	AT	9	VAL	C-N	5.17	1.46	1.34
30	BA	43	PRO	N-CA	-5.17	1.38	1.47
46	BT	62	ARG	CZ-NH2	5.17	1.39	1.33
63	Bm	17	ARG	CZ-NH2	5.17	1.39	1.33
78	CA	1422	A	O4'-C1'	5.17	1.48	1.41
33	BD	354	VAL	C-O	-5.17	1.13	1.23
16	AO	67	THR	CA-CB	5.17	1.66	1.53
78	CA	1660	A	O4'-C1'	5.17	1.48	1.41
81	DA	559	A	O3'-P	-5.17	1.54	1.61
81	DA	994	G	O4'-C1'	5.17	1.48	1.41
81	DA	1076	C	O3'-P	-5.17	1.54	1.61
11	AJ	89	ARG	CZ-NH1	5.17	1.39	1.33
81	DA	752	C	C3'-O3'	5.17	1.49	1.42
2	AA	101	ARG	CZ-NH2	5.17	1.39	1.33
14	AM	139	LYS	N-CA	-5.17	1.36	1.46
81	DA	1018	G	C2'-C1'	5.17	1.59	1.53
81	DA	1825	G	O3'-P	-5.17	1.54	1.61
1	Aa	259	GLY	CA-C	-5.17	1.43	1.51
78	CA	1039	A	C4'-C3'	-5.17	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	1255	C	C2'-C1'	5.17	1.59	1.53
81	DA	3038	U	C2'-C1'	-5.17	1.47	1.53
44	BO	40	HIS	C-N	5.17	1.46	1.34
68	Bq	17	ARG	CZ-NH2	5.17	1.39	1.33
78	CA	1477	G	C4'-C3'	-5.17	1.47	1.52
78	CA	1423	U	C2'-C1'	-5.16	1.47	1.53
78	CA	1538	U	C4'-O4'	-5.16	1.38	1.45
81	DA	1606	U	C2'-C1'	-5.16	1.47	1.53
34	BE	143	ARG	NE-CZ	5.16	1.39	1.33
36	BF	124	ARG	CZ-NH2	5.16	1.39	1.33
45	BR	157	PRO	C-N	5.16	1.46	1.34
1	Aa	275	ARG	NE-CZ	5.16	1.39	1.33
78	CA	1600	A	C2'-C1'	5.16	1.59	1.53
81	DA	1002	A	P-O5'	-5.16	1.54	1.59
81	DA	2047	A	C2'-C1'	5.16	1.59	1.53
81	DA	3121	U	C2'-C1'	-5.16	1.47	1.53
26	AZ	18	THR	CA-CB	-5.16	1.40	1.53
78	CA	835	U	C2'-C1'	-5.16	1.47	1.53
78	CA	1584	G	C4'-O4'	-5.16	1.38	1.45
81	DA	1624	G	C5'-C4'	5.16	1.57	1.51
81	DA	3092	C	C5'-C4'	5.16	1.57	1.51
81	DA	448	U	C4'-C3'	5.16	1.58	1.53
78	CA	164	A	C5'-C4'	-5.16	1.45	1.51
78	CA	911	U	O4'-C1'	5.16	1.48	1.41
78	CA	1479	A	C3'-O3'	-5.16	1.34	1.42
81	DA	2172	A	C3'-C2'	-5.16	1.47	1.52
83	DC	73	G	O4'-C1'	5.16	1.48	1.41
81	DA	1793	C	O4'-C1'	5.15	1.48	1.41
81	DA	2909	U	C2'-C1'	-5.15	1.47	1.53
15	AN	40	ARG	CZ-NH2	5.15	1.39	1.33
46	BT	140	GLU	CG-CD	5.15	1.59	1.51
81	DA	56	G	C2'-C1'	-5.15	1.47	1.53
81	DA	281	G	O4'-C1'	5.15	1.48	1.41
81	DA	1489	A	O4'-C1'	5.15	1.48	1.41
81	DA	2173	U	C4'-C3'	5.15	1.58	1.53
49	BV	76	PHE	CG-CD1	5.15	1.46	1.38
78	CA	229	U	C2'-C1'	5.15	1.59	1.53
81	DA	1450	G	C2'-C1'	-5.15	1.47	1.53
81	DA	2531	C	N3-C4	5.15	1.37	1.33
83	DC	12	U	O4'-C1'	5.15	1.48	1.41
20	AS	96	ALA	N-CA	5.15	1.56	1.46
52	BY	7	ASP	N-CA	-5.15	1.36	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	Bh	12	LYS	N-CA	5.15	1.56	1.46
78	CA	96	G	O4'-C1'	-5.15	1.34	1.41
16	AO	64	ARG	NE-CZ	5.14	1.39	1.33
32	BC	239	PRO	N-CA	-5.14	1.38	1.47
78	CA	149	C	C4'-C3'	-5.14	1.47	1.52
78	CA	1406	A	C4'-C3'	-5.14	1.47	1.52
81	DA	1494	U	O4'-C1'	5.14	1.48	1.41
81	DA	2892	A	C2'-C1'	-5.14	1.47	1.53
81	DA	3087	A	C2'-C1'	-5.14	1.47	1.53
78	CA	1725	U	P-O5'	-5.14	1.54	1.59
81	DA	577	C	C2'-C1'	-5.14	1.47	1.53
81	DA	817	A	O4'-C1'	5.14	1.48	1.41
81	DA	1869	C	C2'-C1'	-5.14	1.47	1.53
81	DA	2327	U	C2'-C1'	-5.14	1.47	1.53
82	DB	155	A	O4'-C1'	5.14	1.48	1.41
36	BF	69	ARG	CZ-NH1	5.14	1.39	1.33
14	AM	98	TYR	CZ-OH	5.14	1.46	1.37
78	CA	646	C	C2'-C1'	-5.14	1.47	1.53
81	DA	673	U	O5'-C5'	-5.14	1.34	1.42
81	DA	1434	G	O4'-C1'	5.14	1.48	1.41
81	DA	1523	U	C2'-C1'	5.14	1.59	1.53
81	DA	2119	A	C2'-C1'	-5.14	1.47	1.53
47	BU	145	GLY	CA-C	-5.14	1.43	1.51
81	DA	2745	G	O4'-C1'	-5.14	1.34	1.41
4	AD	200	ARG	CD-NE	5.14	1.55	1.46
46	BT	71	ARG	CA-CB	-5.14	1.42	1.53
58	Bg	72	ARG	NE-CZ	5.14	1.39	1.33
81	DA	1924	U	C4'-C3'	-5.14	1.47	1.52
81	DA	1947	G	O3'-P	-5.14	1.54	1.61
81	DA	2664	C	C5'-C4'	5.14	1.57	1.51
15	AN	32	ARG	CZ-NH1	5.13	1.39	1.33
44	BO	32	ARG	CZ-NH1	5.13	1.39	1.33
69	Br	101	GLY	CA-C	-5.13	1.43	1.51
81	DA	663	C	O4'-C1'	5.13	1.48	1.41
81	DA	1157	G	C2'-C1'	-5.13	1.47	1.53
82	DB	22	U	C2'-C1'	5.13	1.58	1.53
17	AQ	60	ARG	CZ-NH2	5.13	1.39	1.33
81	DA	243	G	C4'-C3'	5.13	1.58	1.53
81	DA	799	G	O3'-P	-5.13	1.54	1.61
81	DA	3250	U	P-O5'	-5.13	1.54	1.59
78	CA	1533	C	O3'-P	-5.13	1.54	1.61
81	DA	1477	A	O4'-C1'	5.13	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	635	G	C3'-C2'	-5.13	1.47	1.52
81	DA	970	A	O4'-C1'	5.13	1.48	1.41
17	AQ	135	ARG	CZ-NH2	5.13	1.39	1.33
81	DA	2855	U	O4'-C1'	5.13	1.48	1.41
38	Bs	184	GLY	C-N	5.13	1.45	1.34
78	CA	1419	G	O4'-C1'	5.13	1.48	1.41
81	DA	1400	G	C2'-C1'	5.13	1.58	1.53
81	DA	2964	G	C2'-C1'	5.12	1.58	1.53
33	BD	198	ARG	CZ-NH2	5.12	1.39	1.33
81	DA	1755	C	C5'-C4'	5.12	1.57	1.51
41	BN	117	ARG	NE-CZ	5.12	1.39	1.33
50	BX	64	GLU	CD-OE1	5.12	1.31	1.25
81	DA	689	U	O4'-C1'	5.12	1.48	1.41
81	DA	776	U	C4'-C3'	-5.12	1.47	1.52
81	DA	1427	U	C2'-C1'	-5.12	1.47	1.53
52	BY	74	TYR	CG-CD2	5.12	1.45	1.39
78	CA	1669	U	C2'-C1'	-5.12	1.47	1.53
81	DA	195	U	O4'-C1'	5.12	1.48	1.41
81	DA	1783	U	O3'-P	-5.12	1.55	1.61
21	AT	29	HIS	N-CA	5.12	1.56	1.46
81	DA	167	U	C2'-C1'	5.12	1.58	1.53
78	CA	1355	C	O3'-P	-5.12	1.55	1.61
81	DA	2253	G	C2'-C1'	-5.12	1.47	1.53
47	BU	92	ARG	CZ-NH1	5.11	1.39	1.33
78	CA	116	U	O4'-C1'	5.11	1.48	1.41
79	CB	14	A	C2'-C1'	-5.11	1.47	1.53
78	CA	998	A	C2'-C1'	-5.11	1.47	1.53
81	DA	178	U	C4'-O4'	-5.11	1.39	1.45
81	DA	1186	G	C2'-C1'	-5.11	1.47	1.53
29	AU	8	ARG	CZ-NH2	5.11	1.39	1.33
81	DA	99	A	C2'-C1'	-5.11	1.47	1.53
81	DA	266	A	C2'-C1'	5.11	1.58	1.53
81	DA	1285	G	O3'-P	-5.11	1.55	1.61
78	CA	1472	C	C2'-C1'	5.11	1.58	1.53
81	DA	624	G	O4'-C1'	5.11	1.48	1.41
81	DA	1606	U	O4'-C1'	5.11	1.48	1.41
81	DA	2497	U	O3'-P	-5.11	1.55	1.61
26	AZ	43	ARG	CZ-NH1	5.11	1.39	1.33
78	CA	1405	G	C3'-C2'	-5.11	1.47	1.52
81	DA	740	G	C6-N1	5.11	1.43	1.39
81	DA	2503	G	O3'-P	-5.11	1.55	1.61
81	DA	2612	U	C2'-C1'	-5.11	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	AM	120	ARG	CZ-NH2	5.10	1.39	1.33
34	BE	52	TYR	CA-C	5.10	1.66	1.52
78	CA	46	A	P-O5'	-5.10	1.54	1.59
81	DA	1805	C	O3'-P	-5.10	1.55	1.61
81	DA	1529	A	C2'-C1'	-5.10	1.47	1.53
82	DB	33	A	O3'-P	-5.10	1.55	1.61
32	BC	348	ARG	CZ-NH2	5.10	1.39	1.33
43	BP	129	TYR	CZ-OH	5.10	1.46	1.37
58	Bg	72	ARG	CD-NE	5.10	1.55	1.46
78	CA	362	G	C2'-C1'	-5.10	1.47	1.53
78	CA	1677	C	O3'-P	-5.10	1.55	1.61
6	AE	19	ARG	CZ-NH2	5.10	1.39	1.33
78	CA	667	U	O3'-P	-5.10	1.55	1.61
78	CA	1665	U	O4'-C1'	5.10	1.48	1.41
81	DA	435	C	C5'-C4'	5.10	1.57	1.51
82	DB	84	C	C2'-C1'	5.10	1.58	1.53
14	AM	65	GLU	CG-CD	-5.10	1.44	1.51
32	BC	17	LEU	C-N	5.10	1.44	1.34
44	BO	7	LYS	CA-CB	5.10	1.65	1.53
78	CA	650	U	O3'-P	-5.10	1.55	1.61
78	CA	345	U	O4'-C1'	5.10	1.48	1.41
81	DA	2561	A	C3'-O3'	5.10	1.49	1.42
13	AL	107	PHE	CE1-CZ	5.09	1.47	1.37
14	AM	126	ARG	NE-CZ	5.09	1.39	1.33
78	CA	1080	U	C4'-C3'	-5.09	1.47	1.52
81	DA	1266	G	C2'-C1'	-5.09	1.47	1.53
81	DA	2510	U	P-O5'	-5.09	1.54	1.59
81	DA	1767	C	O3'-P	-5.09	1.55	1.61
6	AE	184	VAL	CB-CG2	5.09	1.63	1.52
10	AI	92	TYR	CE1-CZ	5.09	1.45	1.38
81	DA	177	U	O4'-C1'	5.09	1.48	1.41
32	BC	362	ALA	N-CA	-5.09	1.36	1.46
34	BE	89	TYR	C-N	5.09	1.45	1.34
60	Bi	17	SER	CA-C	-5.09	1.39	1.52
69	Br	95	GLY	CA-C	-5.09	1.43	1.51
81	DA	37	U	C2'-C1'	5.09	1.58	1.53
81	DA	925	A	C2'-C1'	5.09	1.58	1.53
81	DA	1109	U	O3'-P	-5.09	1.55	1.61
81	DA	2692	A	O4'-C1'	5.09	1.48	1.41
81	DA	2823	G	O4'-C1'	5.09	1.48	1.41
83	DC	10	C	O3'-P	-5.09	1.55	1.61
81	DA	483	G	C2'-C1'	-5.09	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	971	G	C2'-C1'	-5.09	1.47	1.53
49	BV	90	PHE	CB-CG	-5.09	1.42	1.51
64	Bl	39	TYR	N-CA	5.09	1.56	1.46
81	DA	1693	C	O4'-C1'	5.09	1.48	1.41
81	DA	2153	U	O4'-C1'	5.08	1.48	1.41
22	AV	74	SER	CA-CB	5.08	1.60	1.52
47	BU	139	ARG	CA-C	5.08	1.66	1.52
62	Bk	45	ARG	CZ-NH1	5.08	1.39	1.33
78	CA	660	G	C4'-O4'	5.08	1.52	1.45
78	CA	935	U	C3'-C2'	-5.08	1.47	1.52
78	CA	1553	G	C4'-C3'	-5.08	1.47	1.52
81	DA	1048	A	C2'-C1'	-5.08	1.47	1.53
78	CA	1599	C	C4'-C3'	-5.08	1.47	1.52
81	DA	11	A	C2'-C1'	-5.08	1.47	1.53
81	DA	459	G	C2'-C1'	-5.08	1.47	1.53
81	DA	1679	A	C3'-C2'	-5.08	1.47	1.52
81	DA	2826	U	O4'-C1'	5.08	1.48	1.41
81	DA	796	U	O3'-P	-5.08	1.55	1.61
81	DA	2274	U	C2'-C1'	-5.08	1.47	1.53
78	CA	1337	A	P-O5'	-5.08	1.54	1.59
81	DA	257	U	C2'-C1'	-5.08	1.47	1.53
81	DA	1754	G	C4'-C3'	5.08	1.58	1.53
81	DA	2769	A	O4'-C1'	5.08	1.48	1.41
22	AV	77	ARG	CZ-NH1	5.08	1.39	1.33
79	CB	46	A	O4'-C1'	5.08	1.48	1.41
81	DA	2326	A	O4'-C1'	5.08	1.48	1.41
81	DA	3071	U	O4'-C1'	5.08	1.48	1.41
33	BD	88	GLY	N-CA	-5.08	1.38	1.46
52	BY	34	PRO	N-CD	-5.08	1.40	1.47
78	CA	222	A	C2'-C1'	5.08	1.58	1.53
78	CA	581	U	C2'-C1'	5.08	1.58	1.53
78	CA	1241	G	O3'-P	-5.08	1.55	1.61
81	DA	1061	A	C3'-C2'	-5.08	1.47	1.52
81	DA	1920	U	O4'-C1'	5.08	1.48	1.41
78	CA	141	U	C2'-C1'	5.07	1.58	1.53
81	DA	457	C	C2'-C1'	-5.07	1.47	1.53
81	DA	594	U	O3'-P	-5.07	1.55	1.61
5	AC	95	TYR	CG-CD1	5.07	1.45	1.39
61	Bj	70	LYS	N-CA	-5.07	1.36	1.46
67	Bp	37	ARG	CZ-NH2	5.07	1.39	1.33
81	DA	19	U	C2'-C1'	-5.07	1.47	1.53
8	AF	166	ARG	CZ-NH1	5.07	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BE	41	SER	C-N	5.07	1.42	1.33
58	Bg	62	ARG	CZ-NH1	5.07	1.39	1.33
78	CA	857	U	C4'-C3'	-5.07	1.47	1.52
81	DA	2526	C	C2'-C1'	-5.07	1.47	1.53
2	AA	229	LYS	N-CA	-5.07	1.36	1.46
9	AH	101	TYR	CZ-OH	5.07	1.46	1.37
63	Bm	92	ALA	C-O	5.07	1.32	1.23
78	CA	307	G	O3'-P	-5.07	1.55	1.61
6	AE	140	ARG	NE-CZ	5.07	1.39	1.33
78	CA	574	G	C2-N3	5.07	1.36	1.32
35	BG	2	SER	CB-OG	-5.07	1.35	1.42
44	BO	31	GLY	CA-C	5.07	1.59	1.51
81	DA	2715	A	O4'-C1'	5.07	1.48	1.41
81	DA	3297	U	C2'-C1'	-5.07	1.47	1.53
46	BT	76	SER	CA-CB	5.06	1.60	1.52
51	BZ	17	ARG	CZ-NH1	5.06	1.39	1.33
78	CA	990	C	C4'-O4'	-5.06	1.39	1.45
78	CA	204	G	C5'-C4'	5.06	1.57	1.51
81	DA	937	G	O4'-C1'	5.06	1.48	1.41
81	DA	1153	A	C2'-C1'	-5.06	1.47	1.53
81	DA	2266	U	O4'-C1'	5.06	1.48	1.41
32	BC	167	ARG	CD-NE	5.06	1.55	1.46
78	CA	1039	A	C4'-O4'	5.06	1.52	1.45
78	CA	464	A	C4'-C3'	-5.06	1.47	1.52
78	CA	946	U	C4'-C3'	-5.06	1.47	1.52
41	BN	121	MET	CG-SD	5.05	1.94	1.81
81	DA	980	A	C4'-C3'	5.05	1.58	1.53
81	DA	2669	G	C2'-C1'	-5.05	1.47	1.53
81	DA	3059	G	O4'-C1'	5.05	1.48	1.41
81	DA	3302	U	C2'-C1'	-5.05	1.47	1.53
83	DC	79	U	O4'-C1'	5.05	1.48	1.41
76	BS	23	HIS	N-CA	-5.05	1.36	1.46
78	CA	909	U	O4'-C1'	5.05	1.48	1.41
81	DA	94	G	C2'-O2'	5.05	1.48	1.41
81	DA	1869	C	O3'-P	5.05	1.67	1.61
40	BK	117	ARG	CZ-NH2	5.05	1.39	1.33
78	CA	1713	G	C2'-C1'	-5.05	1.47	1.53
81	DA	2647	A	C2'-C1'	5.05	1.58	1.53
46	BT	97	ARG	CZ-NH1	5.05	1.39	1.33
76	BS	28	ARG	CZ-NH1	5.05	1.39	1.33
81	DA	2114	C	O3'-P	-5.05	1.55	1.61
1	Aa	275	ARG	CD-NE	5.05	1.55	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AA	115	PHE	CB-CG	5.05	1.59	1.51
39	BJ	90	ARG	NE-CZ	5.05	1.39	1.33
44	BO	8	THR	CA-CB	5.05	1.66	1.53
81	DA	1748	G	O4'-C1'	-5.05	1.35	1.41
81	DA	1794	G	C2'-C1'	5.05	1.58	1.53
81	DA	1930	A	O4'-C1'	5.05	1.48	1.41
81	DA	3364	C	P-O5'	-5.05	1.54	1.59
83	DC	89	A	O4'-C1'	5.04	1.48	1.41
78	CA	915	A	O4'-C1'	5.04	1.48	1.41
81	DA	940	G	C2'-C1'	-5.04	1.47	1.53
81	DA	3211	C	P-O5'	-5.04	1.54	1.59
81	DA	3339	A	O4'-C1'	5.04	1.48	1.41
4	AD	219	VAL	CA-CB	5.04	1.65	1.54
58	Bg	68	GLU	CB-CG	5.04	1.61	1.52
81	DA	3017	A	O4'-C1'	5.04	1.48	1.41
81	DA	947	G	O3'-P	-5.04	1.55	1.61
32	BC	5	LYS	CA-CB	-5.04	1.42	1.53
81	DA	659	G	C2'-C1'	-5.04	1.47	1.53
81	DA	2056	U	O4'-C1'	5.04	1.48	1.41
81	DA	130	A	O4'-C1'	5.04	1.48	1.41
81	DA	212	G	C2'-C1'	5.04	1.58	1.53
78	CA	41	A	O4'-C1'	5.04	1.48	1.41
78	CA	219	A	O3'-P	-5.04	1.55	1.61
78	CA	343	C	C2'-C1'	-5.04	1.47	1.53
78	CA	969	C	C2'-C1'	-5.04	1.47	1.53
81	DA	672	A	C3'-O3'	-5.04	1.35	1.42
81	DA	696	C	C2'-C1'	-5.04	1.47	1.53
81	DA	3201	C	O3'-P	-5.04	1.55	1.61
78	CA	210	A	P-O5'	-5.03	1.54	1.59
81	DA	1739	U	P-O5'	-5.03	1.54	1.59
81	DA	2350	C	O3'-P	-5.03	1.55	1.61
82	DB	156	U	C2'-C1'	5.03	1.58	1.53
81	DA	2328	U	C2'-C1'	-5.03	1.47	1.53
81	DA	2993	G	O4'-C1'	5.03	1.48	1.41
62	Bk	36	ARG	NE-CZ	5.03	1.39	1.33
81	DA	747	A	C3'-O3'	-5.03	1.35	1.42
81	DA	2049	A	C2'-C1'	5.03	1.58	1.53
81	DA	2472	U	O4'-C1'	5.03	1.48	1.41
37	BH	73	PRO	C-N	5.03	1.45	1.34
78	CA	1233	G	C3'-O3'	-5.03	1.35	1.42
62	Bk	25	LYS	N-CA	5.03	1.56	1.46
78	CA	1551	U	C3'-C2'	5.03	1.58	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	DA	736	A	O3'-P	-5.03	1.55	1.61
81	DA	2099	A	C3'-O3'	-5.03	1.35	1.42
81	DA	2132	C	O4'-C1'	5.03	1.48	1.41
6	AE	224	PHE	CG-CD2	5.03	1.46	1.38
13	AL	47	SER	CA-CB	5.03	1.60	1.52
21	AT	87	ARG	C-OXT	5.03	1.32	1.23
76	BS	153	LEU	CA-C	-5.03	1.39	1.52
78	CA	832	U	C4'-O4'	-5.03	1.39	1.45
78	CA	1459	C	C5'-C4'	5.03	1.57	1.51
78	CA	1535	U	P-O5'	-5.03	1.54	1.59
81	DA	408	A	O4'-C1'	5.03	1.48	1.41
81	DA	2307	G	O4'-C1'	5.03	1.48	1.41
81	DA	377	A	C2'-C1'	-5.02	1.47	1.53
81	DA	1545	A	O4'-C1'	5.02	1.48	1.41
6	AE	74	PRO	C-N	5.02	1.42	1.33
62	Bk	55	ARG	CZ-NH2	5.02	1.39	1.33
78	CA	384	G	C2'-C1'	-5.02	1.47	1.53
78	CA	1089	U	O4'-C1'	5.02	1.48	1.41
78	CA	1321	A	O3'-P	-5.02	1.55	1.61
81	DA	83	U	O4'-C1'	5.02	1.48	1.41
81	DA	1322	U	C2'-C1'	-5.02	1.47	1.53
32	BC	210	GLU	CB-CG	5.02	1.61	1.52
37	BH	68	ARG	CD-NE	5.02	1.54	1.46
78	CA	1560	U	C4'-C3'	-5.02	1.47	1.52
78	CA	1784	C	O4'-C1'	5.02	1.48	1.41
79	CB	50	G	O4'-C1'	-5.02	1.35	1.41
81	DA	1468	A	C2'-C1'	-5.02	1.47	1.53
81	DA	2608	G	O4'-C1'	5.02	1.48	1.41
81	DA	2810	C	C2'-C1'	-5.02	1.47	1.53
82	DB	47	C	O3'-P	-5.02	1.55	1.61
5	AC	132	ARG	CZ-NH2	5.02	1.39	1.33
81	DA	2988	C	C2'-C1'	5.02	1.58	1.53
4	AD	54	TYR	CZ-OH	5.01	1.46	1.37
29	AU	90	ARG	CZ-NH2	5.01	1.39	1.33
74	BQ	190	ILE	C-N	5.01	1.45	1.34
78	CA	1206	U	C4'-C3'	-5.01	1.47	1.52
81	DA	884	A	C2'-C1'	5.01	1.58	1.53
81	DA	2487	U	C3'-C2'	5.01	1.58	1.52
78	CA	514	G	C4'-C3'	-5.01	1.47	1.52
81	DA	1228	C	C2'-C1'	-5.01	1.47	1.53
81	DA	1722	U	O4'-C1'	5.01	1.48	1.41
83	DC	33	U	O4'-C1'	5.01	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	AS	80	TYR	CZ-OH	5.01	1.46	1.37
78	CA	1077	C	O4'-C1'	5.01	1.48	1.41
81	DA	1150	A	C2'-C1'	-5.01	1.47	1.53
61	Bj	3	GLU	CB-CG	5.01	1.61	1.52
78	CA	1367	G	O3'-P	-5.01	1.55	1.61
81	DA	474	G	C2'-C1'	-5.01	1.47	1.53
81	DA	2925	C	C4'-C3'	-5.01	1.47	1.52
81	DA	3355	U	O4'-C1'	5.01	1.48	1.41
78	CA	985	G	C2'-C1'	-5.01	1.47	1.53
78	CA	1605	G	C2'-C1'	-5.01	1.47	1.53
81	DA	22	G	O4'-C1'	5.01	1.48	1.41
81	DA	525	C	C2'-C1'	5.01	1.58	1.53
29	AU	10	ARG	CZ-NH2	5.01	1.39	1.33
32	BC	6	TYR	N-CA	5.01	1.56	1.46
78	CA	826	U	C4'-C3'	-5.01	1.47	1.52
81	DA	672	A	C4'-C3'	-5.01	1.47	1.52
81	DA	919	U	C2'-C1'	-5.01	1.47	1.53
81	DA	2500	A	O3'-P	-5.01	1.55	1.61
59	Bh	44	ARG	CZ-NH1	5.00	1.39	1.33
81	DA	519	A	P-O5'	-5.00	1.54	1.59
81	DA	1865	A	C2'-C1'	5.00	1.58	1.53
81	DA	1959	G	O4'-C1'	5.00	1.48	1.41
32	BC	228	GLY	CA-C	-5.00	1.43	1.51
43	BP	38	ARG	CZ-NH2	5.00	1.39	1.33
56	Bf	54	SER	CB-OG	5.00	1.48	1.42
60	Bi	16	ARG	CD-NE	5.00	1.54	1.46
81	DA	1319	G	O3'-P	-5.00	1.55	1.61
81	DA	2115	G	O4'-C1'	5.00	1.48	1.41

All (14979) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BC	266	ARG	NE-CZ-NH1	-73.84	83.38	120.30
81	DA	3305	A	P-O3'-C3'	50.10	179.82	119.70
81	DA	3047	U	P-O3'-C3'	47.61	176.83	119.70
81	DA	2046	U	P-O3'-C3'	47.25	176.40	119.70
81	DA	2071	A	P-O3'-C3'	46.20	175.13	119.70
11	AJ	14	GLN	CG-CD-OE1	-45.24	31.12	121.60
81	DA	2079	G	P-O3'-C3'	44.97	173.66	119.70
81	DA	3215	A	N9-C1'-C2'	44.22	171.49	114.00
78	CA	1677	C	P-O3'-C3'	44.20	172.74	119.70
81	DA	1221	A	O4'-C1'-N9	44.12	143.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AC	142	ASN	CB-CG-OD1	-43.56	34.48	121.60
81	DA	2480	A	P-O3'-C3'	43.30	171.66	119.70
81	DA	2362	C	O4'-C1'-N1	42.49	142.19	108.20
81	DA	2915	U	P-O3'-C3'	41.56	169.57	119.70
78	CA	46	A	O4'-C1'-N9	40.67	140.74	108.20
81	DA	2870	C	P-O3'-C3'	39.77	167.42	119.70
78	CA	29	U	P-O3'-C3'	39.75	167.40	119.70
81	DA	2208	A	P-O3'-C3'	38.89	166.37	119.70
62	Bk	25	LYS	O-C-N	-38.10	61.74	122.70
57	Be	202	LEU	O-C-N	-37.88	62.10	122.70
81	DA	1755	C	P-O3'-C3'	37.73	164.98	119.70
55	Bc	104	GLN	O-C-N	-37.62	62.51	122.70
78	CA	295	A	O4'-C1'-N9	37.49	138.20	108.20
81	DA	3222	U	P-O3'-C3'	37.41	164.59	119.70
81	DA	1432	C	O4'-C1'-N1	37.35	138.08	108.20
35	BG	5	LYS	O-C-N	-37.12	63.30	122.70
74	BQ	197	SER	O-C-N	-36.80	63.82	122.70
10	AI	54	LEU	O-C-N	-36.80	63.82	122.70
22	AV	26	LYS	O-C-N	-36.79	63.83	122.70
81	DA	855	U	P-O3'-C3'	36.76	163.81	119.70
65	Bn	71	PRO	O-C-N	-36.61	64.12	122.70
40	BK	184	THR	O-C-N	-36.55	64.23	122.70
21	AT	9	VAL	O-C-N	-36.37	64.50	122.70
18	AP	57	LYS	O-C-N	-36.28	64.66	122.70
81	DA	2279	A	P-O3'-C3'	36.19	163.12	119.70
2	AA	229	LYS	O-C-N	-36.06	65.00	122.70
45	BR	157	PRO	O-C-N	-36.06	65.00	122.70
81	DA	1771	C	P-O3'-C3'	35.90	162.78	119.70
31	BB	62	VAL	O-C-N	-35.78	65.44	122.70
60	Bi	16	ARG	O-C-N	-35.71	65.56	122.70
81	DA	858	A	P-O3'-C3'	35.62	162.45	119.70
32	BC	368	GLY	O-C-N	-35.46	65.97	122.70
44	BO	40	HIS	O-C-N	-35.43	66.01	122.70
38	Bs	5	ARG	O-C-N	-35.30	66.21	122.70
45	BR	140	LEU	O-C-N	-35.21	66.36	122.70
83	DC	48	U	P-O3'-C3'	35.17	161.90	119.70
3	AB	78	LYS	O-C-N	-35.16	66.44	122.70
78	CA	1702	A	O4'-C1'-N9	35.05	136.24	108.20
18	AP	122	ILE	O-C-N	-35.03	66.65	122.70
44	BO	3	SER	O-C-N	-34.97	66.75	122.70
81	DA	834	U	P-O3'-C3'	34.90	161.58	119.70
6	AE	7	GLN	O-C-N	-34.81	67.00	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	AZ	44	PHE	O-C-N	-34.67	67.23	122.70
74	BQ	123	GLU	O-C-N	-34.42	67.62	122.70
81	DA	3221	C	C3'-C2'-C1'	34.38	129.00	101.50
32	BC	381	GLY	O-C-N	-34.37	67.71	122.70
13	AL	34	LEU	O-C-N	-34.30	64.89	123.20
81	DA	671	U	P-O3'-C3'	34.26	160.81	119.70
76	BS	15	GLY	O-C-N	-34.08	68.17	122.70
81	DA	3382	U	P-O3'-C3'	33.95	160.43	119.70
2	AA	11	PRO	O-C-N	-33.93	68.42	122.70
17	AQ	63	LYS	O-C-N	-33.91	65.55	123.20
51	BZ	51	TRP	O-C-N	-33.78	68.66	122.70
17	AQ	26	LEU	O-C-N	-33.70	68.78	122.70
36	BF	2	LYS	O-C-N	-33.64	68.88	122.70
74	BQ	238	ASP	O-C-N	-33.62	68.91	122.70
81	DA	2174	G	P-O3'-C3'	33.44	159.83	119.70
14	AM	99	HIS	O-C-N	-33.44	69.20	122.70
81	DA	2637	A	O4'-C1'-N9	33.32	134.86	108.20
33	BD	331	ALA	O-C-N	-33.17	69.63	122.70
17	AQ	81	LYS	O-C-N	-33.16	69.64	122.70
74	BQ	237	GLU	O-C-N	-33.10	69.75	122.70
81	DA	704	U	P-O3'-C3'	33.08	159.40	119.70
78	CA	1676	U	P-O3'-C3'	33.08	159.39	119.70
81	DA	2989	U	O4'-C1'-C2'	-32.86	72.94	105.80
48	BW	93	ILE	O-C-N	-32.77	70.27	122.70
44	BO	7	LYS	O-C-N	-32.74	70.32	122.70
74	BQ	201	GLY	O-C-N	-32.66	67.67	123.20
81	DA	2257	C	O4'-C1'-N1	32.65	134.32	108.20
81	DA	1633	C	P-O3'-C3'	32.62	158.84	119.70
78	CA	636	A	C1'-O4'-C4'	32.49	135.89	109.90
74	BQ	115	LEU	O-C-N	-32.42	70.83	122.70
69	Br	58	PHE	O-C-N	-32.40	70.85	122.70
53	Ba	13	VAL	O-C-N	-32.40	70.86	122.70
33	BD	78	GLY	O-C-N	-32.28	68.32	123.20
26	AZ	40	TYR	O-C-N	-32.22	71.15	122.70
4	AD	96	ASN	O-C-N	-32.17	71.23	122.70
40	BK	63	ALA	O-C-N	-32.14	71.27	122.70
34	BE	123	PHE	O-C-N	-32.05	68.71	123.20
81	DA	2509	U	P-O3'-C3'	32.03	158.14	119.70
13	AL	134	ALA	O-C-N	-31.99	71.52	122.70
81	DA	2648	G	O4'-C1'-N9	31.96	133.77	108.20
45	BR	143	PRO	O-C-N	-31.94	71.59	122.70
32	BC	362	ALA	O-C-N	-31.93	71.60	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	AJ	119	ALA	O-C-N	-31.89	71.67	122.70
5	AC	157	ASP	O-C-N	-31.84	71.75	122.70
65	Bn	35	GLY	O-C-N	-31.80	71.82	122.70
65	Bn	35	GLY	CA-C-O	-31.79	63.37	120.60
81	DA	1256	G	P-O3'-C3'	31.79	157.85	119.70
45	BR	95	GLU	O-C-N	-31.79	71.84	122.70
81	DA	1841	A	P-O3'-C3'	31.77	157.83	119.70
9	AH	66	ASN	O-C-N	-31.75	69.23	123.20
31	BB	252	THR	O-C-N	-31.74	71.92	122.70
60	Bi	68	THR	O-C-N	-31.73	71.93	122.70
81	DA	3313	U	P-O3'-C3'	31.72	157.76	119.70
4	AD	153	ASN	O-C-N	-31.65	72.06	122.70
74	BQ	201	GLY	CA-C-O	-31.59	63.73	120.60
81	DA	2668	U	P-O3'-C3'	31.56	157.57	119.70
81	DA	2030	C	P-O3'-C3'	31.55	157.56	119.70
31	BB	249	SER	O-C-N	-31.52	72.26	122.70
35	BG	27	PRO	O-C-N	-31.48	72.32	122.70
81	DA	1989	U	P-O3'-C3'	31.45	157.44	119.70
33	BD	84	ARG	O-C-N	-31.45	72.38	122.70
32	BC	297	SER	O-C-N	-31.41	72.45	122.70
35	BG	38	THR	O-C-N	-31.39	72.47	122.70
32	BC	3	HIS	O-C-N	-31.39	72.48	122.70
81	DA	2865	U	P-O3'-C3'	31.37	157.34	119.70
32	BC	298	PHE	O-C-N	-31.33	72.57	122.70
81	DA	3341	U	P-O3'-C3'	31.27	157.22	119.70
78	CA	141	U	P-O3'-C3'	31.26	157.21	119.70
40	BK	69	GLY	CA-C-O	-31.18	64.47	120.60
81	DA	1233	G	O4'-C1'-N9	31.18	133.14	108.20
81	DA	1261	G	C1'-O4'-C4'	31.13	134.80	109.90
78	CA	1190	C	O5'-P-OP1	31.12	148.05	110.70
17	AQ	82	ASP	O-C-N	-31.06	73.01	122.70
81	DA	594	U	P-O3'-C3'	31.04	156.95	119.70
81	DA	2899	C	P-O3'-C3'	31.03	156.93	119.70
81	DA	1261	G	O4'-C1'-N9	31.02	133.02	108.20
46	BT	82	LYS	O-C-N	-31.00	70.50	123.20
33	BD	89	ALA	O-C-N	-30.99	73.11	122.70
61	Bj	8	TYR	O-C-N	-30.95	73.18	122.70
4	AD	94	ALA	O-C-N	-30.95	73.19	122.70
60	Bi	77	GLY	O-C-N	-30.88	70.70	123.20
78	CA	178	U	P-O3'-C3'	30.88	156.76	119.70
32	BC	360	ASP	O-C-N	-30.84	73.36	122.70
81	DA	3041	U	P-O3'-C3'	30.82	156.69	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1560	G	P-O3'-C3'	30.78	156.63	119.70
3	AB	205	ALA	O-C-N	-30.76	73.48	122.70
62	Bk	81	THR	CA-C-O	-30.73	55.56	120.10
81	DA	1990	U	P-O5'-C5'	30.68	169.99	120.90
81	DA	671	U	O4'-C1'-N1	30.63	132.71	108.20
81	DA	1401	A	O4'-C1'-N9	30.62	132.70	108.20
44	BO	8	THR	O-C-N	-30.58	73.78	122.70
32	BC	130	PHE	O-C-N	-30.51	73.89	122.70
74	BQ	121	GLY	CA-C-O	-30.50	65.69	120.60
38	Bs	72	ASP	O-C-N	-30.50	73.90	122.70
64	Bl	39	TYR	O-C-N	-30.34	63.45	121.10
74	BQ	121	GLY	O-C-N	-30.31	74.21	122.70
81	DA	3149	G	O4'-C1'-N9	30.25	132.40	108.20
33	BD	321	LYS	O-C-N	-30.24	74.32	122.70
20	AS	90	PRO	O-C-N	-30.22	74.34	122.70
69	Br	89	LYS	O-C-N	-30.19	74.40	122.70
78	CA	1546	G	C3'-C2'-C1'	-30.16	77.37	101.50
60	Bi	78	GLY	O-C-N	-30.15	74.46	122.70
81	DA	969	C	O4'-C1'-N1	30.12	132.29	108.20
26	AZ	39	LEU	O-C-N	-30.11	74.52	122.70
18	AP	40	LEU	O-C-N	-30.11	72.02	123.20
34	BE	9	MET	O-C-N	-30.09	74.55	122.70
46	BT	71	ARG	O-C-N	-30.04	74.63	122.70
43	BP	80	THR	O-C-N	-29.99	74.71	122.70
81	DA	2989	U	N1-C1'-C2'	29.95	152.94	114.00
74	BQ	128	GLU	O-C-N	-29.94	74.80	122.70
59	Bh	12	LYS	O-C-N	-29.90	74.87	122.70
60	Bi	78	GLY	CA-C-O	-29.84	66.88	120.60
32	BC	289	ASP	CA-C-O	-29.83	57.46	120.10
78	CA	1302	U	P-O3'-C3'	29.82	155.48	119.70
62	Bk	83	ALA	CA-C-O	-29.81	57.50	120.10
81	DA	636	C	P-O3'-C3'	29.80	155.46	119.70
81	DA	220	G	O4'-C1'-N9	29.80	132.04	108.20
33	BD	323	VAL	O-C-N	-29.79	75.04	122.70
34	BE	89	TYR	O-C-N	-29.78	75.05	122.70
2	AA	250	VAL	O-C-N	-29.76	75.09	122.70
78	CA	1386	G	O4'-C1'-N9	29.73	131.99	108.20
81	DA	1270	A	O4'-C1'-N9	29.69	131.96	108.20
45	BR	98	LYS	O-C-N	-29.67	75.23	122.70
32	BC	289	ASP	O-C-N	-29.66	75.25	122.70
60	Bi	77	GLY	CA-C-O	-29.64	67.24	120.60
79	CB	72	G	O4'-C1'-N9	29.64	131.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BU	126	VAL	O-C-N	-29.58	75.38	122.70
82	DB	44	A	P-O3'-C3'	29.55	155.15	119.70
6	AE	4	PRO	O-C-N	-29.52	75.46	122.70
60	Bi	79	SER	O-C-N	-29.52	75.47	122.70
4	AD	93	ASP	O-C-N	-29.50	75.49	122.70
81	DA	2737	C	P-O3'-C3'	29.50	155.11	119.70
60	Bi	108	GLN	O-C-N	-29.47	75.55	122.70
81	DA	1207	G	N9-C1'-C2'	29.46	152.30	114.00
43	BP	74	PRO	O-C-N	-29.44	75.59	122.70
48	BW	90	ARG	O-C-N	-29.34	75.76	122.70
81	DA	1947	G	O4'-C1'-N9	29.31	131.65	108.20
81	DA	2758	A	O4'-C1'-N9	29.31	131.65	108.20
44	BO	142	GLY	O-C-N	-29.25	73.48	123.20
74	BQ	129	TYR	O-C-N	-29.23	75.93	122.70
65	Bn	34	ALA	O-C-N	-29.19	73.58	123.20
81	DA	2956	A	P-O3'-C3'	29.19	154.72	119.70
81	DA	791	A	P-O3'-C3'	29.11	154.63	119.70
78	CA	1437	U	P-O3'-C3'	29.05	154.56	119.70
32	BC	5	LYS	O-C-N	-29.04	76.23	122.70
20	AS	102	ARG	NE-CZ-NH2	-29.04	105.78	120.30
32	BC	368	GLY	CA-C-O	-29.01	68.39	120.60
78	CA	1080	U	P-O3'-C3'	29.00	154.50	119.70
33	BD	78	GLY	CA-C-O	-28.99	68.41	120.60
81	DA	3080	G	P-O3'-C3'	28.96	154.46	119.70
35	BG	8	LYS	O-C-N	-28.96	76.36	122.70
35	BG	3	ALA	O-C-N	-28.92	76.43	122.70
35	BG	148	GLU	O-C-N	-28.92	76.43	122.70
32	BC	381	GLY	CA-C-O	-28.89	68.59	120.60
16	AO	67	THR	O-C-N	-28.82	74.20	123.20
58	Bg	107	VAL	O-C-N	-28.80	76.62	122.70
83	DC	28	C	P-O3'-C3'	28.78	154.23	119.70
6	AE	92	ALA	O-C-N	-28.75	74.32	123.20
74	BQ	190	ILE	O-C-N	-28.69	76.80	122.70
37	BH	89	GLU	O-C-N	-28.69	76.80	122.70
78	CA	837	G	P-O3'-C3'	28.62	154.04	119.70
81	DA	1259	A	O4'-C1'-N9	28.61	131.09	108.20
33	BD	148	ILE	O-C-N	-28.57	66.81	121.10
78	CA	636	A	N9-C1'-C2'	-28.56	76.87	114.00
34	BE	55	ARG	CA-C-N	28.54	179.99	117.20
81	DA	2468	A	P-O3'-C3'	28.53	153.94	119.70
62	Bk	83	ALA	O-C-N	-28.52	77.07	122.70
5	AC	162	SER	CA-C-O	-28.45	60.36	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	368	U	P-O3'-C3'	28.43	153.82	119.70
78	CA	1321	A	O4'-C1'-N9	28.37	130.89	108.20
78	CA	1235	C	O4'-C1'-N1	28.34	130.87	108.20
35	BG	152	THR	CA-C-O	-28.32	60.64	120.10
79	CB	55	C	N1-C1'-C2'	28.27	150.75	114.00
78	CA	179	A	O4'-C1'-N9	28.17	130.74	108.20
81	DA	3345	G	P-O3'-C3'	28.09	153.41	119.70
81	DA	2689	A	P-O3'-C3'	28.07	153.38	119.70
44	BO	142	GLY	CA-C-O	-28.05	70.11	120.60
81	DA	2735	U	P-O3'-C3'	27.97	153.26	119.70
45	BR	142	GLY	CA-C-O	-27.95	70.29	120.60
34	BE	123	PHE	CA-C-O	-27.93	61.46	120.10
37	BH	73	PRO	O-C-N	-27.92	78.03	122.70
78	CA	173	A	O4'-C1'-N9	27.89	130.51	108.20
32	BC	17	LEU	O-C-N	-27.89	68.11	121.10
81	DA	637	C	P-O3'-C3'	27.88	153.15	119.70
81	DA	636	C	P-O5'-C5'	27.76	165.32	120.90
81	DA	1260	A	O4'-C1'-N9	27.73	130.39	108.20
31	BB	73	GLU	O-C-N	-27.68	78.41	122.70
2	AA	195	TRP	O-C-N	-27.66	78.45	122.70
78	CA	886	U	O4'-C1'-N1	27.58	130.27	108.20
13	AL	87	VAL	O-C-N	-27.58	68.70	121.10
81	DA	2187	G	O4'-C1'-N9	27.56	130.25	108.20
53	Ba	60	LYS	O-C-N	-27.45	78.79	122.70
33	BD	12	THR	O-C-N	-27.43	76.58	123.20
81	DA	2783	U	P-O3'-C3'	27.42	152.61	119.70
35	BG	148	GLU	CA-C-O	-27.38	62.61	120.10
78	CA	1	U	O5'-P-OP2	27.29	143.45	110.70
47	BU	126	VAL	CA-C-O	-27.26	62.85	120.10
81	DA	2497	U	P-O3'-C3'	27.26	152.41	119.70
3	AB	205	ALA	CA-C-O	-27.24	62.89	120.10
31	BB	127	ALA	O-C-N	-27.23	79.14	122.70
62	Bk	25	LYS	CA-C-O	-27.22	62.95	120.10
78	CA	1755	A	O4'-C1'-N9	27.21	129.97	108.20
80	CC	18	C	OP2-P-O3'	27.21	165.06	105.20
58	Bg	107	VAL	CA-C-O	-27.18	63.02	120.10
76	BS	15	GLY	CA-C-O	-27.18	71.68	120.60
40	BK	184	THR	CA-C-O	-27.17	63.05	120.10
82	DB	132	G	P-O3'-C3'	27.12	152.24	119.70
13	AL	38	PHE	CB-CG-CD2	-27.11	101.83	120.80
81	DA	1991	G	O4'-C1'-N9	27.00	129.80	108.20
62	Bk	81	THR	O-C-N	-26.95	79.57	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	96	A	P-O3'-C3'	26.94	152.02	119.70
78	CA	452	A	O4'-C1'-N9	26.91	129.73	108.20
48	BW	90	ARG	CA-C-O	-26.89	63.63	120.10
55	Bc	94	LYS	O-C-N	-26.87	79.71	122.70
20	AS	96	ALA	O-C-N	-26.86	79.73	122.70
81	DA	2998	U	O4'-C1'-N1	26.78	129.62	108.20
55	Bc	94	LYS	CA-C-O	-26.76	63.90	120.10
33	BD	84	ARG	CA-C-O	-26.76	63.91	120.10
74	BQ	123	GLU	CA-C-O	-26.71	64.00	120.10
81	DA	2510	U	O4'-C1'-N1	26.65	129.52	108.20
78	CA	1191	U	O4'-C1'-N1	26.64	129.51	108.20
81	DA	2093	A	P-O3'-C3'	26.58	151.60	119.70
81	DA	2064	C	P-O3'-C3'	26.53	151.54	119.70
32	BC	297	SER	CA-C-O	-26.43	64.61	120.10
34	BE	89	TYR	CA-C-O	-26.38	64.71	120.10
31	BB	73	GLU	CA-C-O	-26.33	64.81	120.10
78	CA	1108	G	O4'-C1'-N9	26.31	129.25	108.20
31	BB	196	TRP	CA-C-O	-26.29	64.89	120.10
81	DA	2319	U	O4'-C1'-N1	26.29	129.23	108.20
81	DA	406	G	O4'-C1'-N9	26.28	129.22	108.20
81	DA	521	A	O4'-C1'-N9	26.25	129.20	108.20
81	DA	419	G	O4'-C1'-N9	26.23	129.18	108.20
39	BJ	75	PRO	O-C-N	-26.18	80.81	122.70
81	DA	3221	C	O4'-C1'-C2'	-26.17	79.63	105.80
78	CA	138	A	O4'-C1'-N9	26.16	129.12	108.20
16	AO	67	THR	CA-C-O	-26.14	65.20	120.10
45	BR	95	GLU	CA-C-O	-26.14	65.21	120.10
83	DC	8	G	P-O3'-C3'	26.08	150.99	119.70
32	BC	256	HIS	O-C-N	-26.07	71.57	121.10
78	CA	337	G	P-O3'-C3'	26.02	150.93	119.70
36	BF	2	LYS	CA-C-O	-25.99	65.52	120.10
78	CA	1529	C	P-O3'-C3'	25.98	150.88	119.70
17	AQ	82	ASP	CA-C-O	-25.91	65.70	120.10
78	CA	529	A	P-O3'-C3'	25.84	150.70	119.70
45	BR	140	LEU	CA-C-O	-25.83	65.85	120.10
32	BC	17	LEU	CA-C-O	-25.82	65.89	120.10
21	AT	9	VAL	CA-C-O	-25.78	65.96	120.10
60	Bi	108	GLN	CA-C-O	-25.72	66.08	120.10
31	BB	196	TRP	O-C-N	-25.72	72.23	121.10
81	DA	3224	G	O4'-C1'-N9	25.69	128.75	108.20
81	DA	3252	G	P-O3'-C3'	25.68	150.51	119.70
81	DA	3215	A	O4'-C1'-N9	-25.63	87.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	Bl	39	TYR	CA-C-O	-25.62	66.30	120.10
43	BP	80	THR	CA-C-O	-25.61	66.32	120.10
78	CA	610	G	O4'-C1'-N9	25.61	128.69	108.20
33	BD	89	ALA	CA-C-O	-25.60	66.33	120.10
81	DA	2971	A	O4'-C1'-N9	25.60	128.68	108.20
48	BW	93	ILE	CA-C-O	-25.57	66.40	120.10
81	DA	962	A	O4'-C1'-N9	25.57	128.66	108.20
17	AQ	26	LEU	CA-C-O	-25.57	66.41	120.10
37	BH	158	ASP	O-C-N	-25.55	72.55	121.10
81	DA	1571	A	P-O3'-C3'	25.52	150.32	119.70
11	AJ	119	ALA	CA-C-O	-25.52	66.52	120.10
78	CA	1190	C	C5'-C4'-O4'	-25.48	78.53	109.10
81	DA	1209	G	C1'-O4'-C4'	25.47	130.28	109.90
78	CA	45	U	O4'-C1'-N1	25.44	128.56	108.20
81	DA	537	A	P-O3'-C3'	25.42	150.20	119.70
81	DA	1075	A	P-O3'-C3'	25.35	150.12	119.70
78	CA	141	U	O4'-C1'-N1	25.33	128.46	108.20
81	DA	2114	C	P-O3'-C3'	25.30	150.06	119.70
9	AH	66	ASN	CA-C-O	-25.28	67.02	120.10
35	BG	3	ALA	CA-C-O	-25.27	67.02	120.10
31	BB	249	SER	CA-C-O	-25.27	67.04	120.10
39	BJ	76	SER	CA-C-O	-25.24	67.09	120.10
81	DA	3215	A	C1'-O4'-C4'	-25.22	89.72	109.90
81	DA	673	U	P-O3'-C3'	25.21	149.95	119.70
78	CA	1473	U	O4'-C1'-N1	25.20	128.36	108.20
78	CA	501	U	P-O3'-C3'	25.18	149.92	119.70
32	BC	256	HIS	CA-C-O	-25.13	67.33	120.10
59	Bh	12	LYS	CA-C-O	-25.12	67.36	120.10
78	CA	959	U	O4'-C1'-N1	25.12	128.29	108.20
37	BH	73	PRO	CA-C-O	-25.09	59.97	120.20
40	BK	69	GLY	O-C-N	-25.06	73.48	121.10
53	Ba	13	VAL	CA-C-O	-25.05	67.50	120.10
81	DA	383	G	P-O3'-C3'	25.03	149.74	119.70
61	Bj	8	TYR	CA-C-O	-25.01	67.58	120.10
78	CA	1551	U	P-O5'-C5'	25.01	160.91	120.90
81	DA	2760	C	P-O3'-C3'	24.95	149.64	119.70
18	AP	57	LYS	CA-C-O	-24.92	67.77	120.10
44	BO	8	THR	CA-C-O	-24.89	67.82	120.10
40	BK	185	ALA	N-CA-CB	-24.86	75.30	110.10
18	AP	122	ILE	CA-C-O	-24.85	67.91	120.10
81	DA	736	A	P-O3'-C3'	24.81	149.47	119.70
81	DA	2989	U	C3'-C2'-C1'	24.79	121.33	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	BQ	115	LEU	CA-C-O	-24.78	68.06	120.10
57	Be	202	LEU	CA-C-O	-24.77	68.08	120.10
78	CA	1341	A	O4'-C1'-N9	24.77	128.02	108.20
81	DA	995	U	P-O3'-C3'	24.75	149.40	119.70
6	AE	92	ALA	CA-C-O	-24.69	68.25	120.10
5	AC	162	SER	O-C-N	-24.66	74.24	121.10
74	BQ	128	GLU	CA-C-O	-24.64	68.36	120.10
32	BC	298	PHE	CA-C-O	-24.61	68.41	120.10
81	DA	2159	U	O4'-C1'-N1	24.61	127.89	108.20
17	AQ	63	LYS	CA-C-O	-24.59	68.47	120.10
40	BK	63	ALA	CA-C-O	-24.57	68.51	120.10
81	DA	1288	U	P-O3'-C3'	24.55	149.16	119.70
44	BO	7	LYS	CA-C-O	-24.52	68.60	120.10
78	CA	1199	G	O4'-C1'-N9	24.51	127.81	108.20
65	Bn	34	ALA	CA-C-O	-24.49	68.67	120.10
81	DA	2244	A	P-O3'-C3'	24.46	149.05	119.70
74	BQ	237	GLU	CA-C-O	-24.43	68.80	120.10
78	CA	1551	U	O5'-C5'-C4'	24.39	158.05	111.70
81	DA	838	G	O4'-C1'-N9	24.38	127.70	108.20
57	Be	220	PHE	CB-CG-CD2	-24.36	103.75	120.80
81	DA	2423	U	P-O3'-C3'	24.34	148.90	119.70
18	AP	40	LEU	CA-C-O	-24.33	69.00	120.10
78	CA	630	A	O4'-C1'-N9	24.33	127.66	108.20
78	CA	1437	U	O4'-C1'-N1	24.32	127.66	108.20
81	DA	1623	G	P-O3'-C3'	24.32	148.89	119.70
81	DA	2228	A	O4'-C1'-N9	24.27	127.61	108.20
32	BC	5	LYS	CA-C-O	-24.26	69.15	120.10
81	DA	2614	G	P-O3'-C3'	24.25	148.81	119.70
69	Br	58	PHE	CA-C-O	-24.23	69.22	120.10
80	CC	18	C	O3'-P-O5'	-24.20	58.01	104.00
81	DA	71	A	N9-C1'-C2'	24.18	145.44	114.00
32	BC	3	HIS	CA-C-O	-24.16	69.38	120.10
81	DA	674	G	P-O3'-C3'	24.14	148.66	119.70
78	CA	303	U	P-O3'-C3'	24.13	148.66	119.70
34	BE	54	VAL	O-C-N	-24.13	84.09	122.70
83	DC	46	A	P-O3'-C3'	24.13	148.65	119.70
2	AA	195	TRP	CA-C-O	-24.12	69.45	120.10
60	Bi	79	SER	CA-C-O	-24.10	69.48	120.10
44	BO	40	HIS	CA-C-O	-24.07	69.56	120.10
81	DA	1640	G	P-O3'-C3'	24.02	148.52	119.70
4	AD	93	ASP	CA-C-O	-24.00	69.69	120.10
43	BP	74	PRO	CA-C-O	-24.00	62.60	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3221	C	P-O3'-C3'	23.99	148.49	119.70
81	DA	2647	A	O4'-C1'-N9	23.97	127.38	108.20
81	DA	1603	A	O5'-P-OP1	-23.95	81.96	110.70
81	DA	1401	A	N9-C1'-C2'	-23.94	82.88	114.00
2	AA	229	LYS	CA-C-O	-23.93	69.84	120.10
33	BD	12	THR	CA-C-O	-23.93	69.86	120.10
74	BQ	238	ASP	CA-C-O	-23.91	69.89	120.10
81	DA	1770	G	P-O3'-C3'	23.90	148.38	119.70
32	BC	360	ASP	CA-C-O	-23.88	69.95	120.10
45	BR	143	PRO	CA-C-O	-23.88	62.89	120.20
81	DA	2858	U	P-O3'-C3'	23.76	148.22	119.70
74	BQ	190	ILE	CA-C-O	-23.76	70.21	120.10
14	AM	99	HIS	CA-C-O	-23.75	70.23	120.10
53	Ba	60	LYS	CA-C-O	-23.65	70.43	120.10
39	BJ	76	SER	O-C-N	-23.65	84.86	122.70
81	DA	1054	A	O4'-C1'-N9	23.64	127.11	108.20
37	BH	89	GLU	CA-C-O	-23.64	70.46	120.10
6	AE	7	GLN	CA-C-O	-23.63	70.47	120.10
69	Br	89	LYS	CA-C-O	-23.60	70.53	120.10
2	AA	11	PRO	CA-C-O	-23.60	63.56	120.20
5	AC	157	ASP	CA-C-O	-23.59	70.56	120.10
45	BR	142	GLY	O-C-N	-23.59	76.29	121.10
13	AL	87	VAL	CA-C-O	-23.58	70.59	120.10
35	BG	8	LYS	CA-C-O	-23.57	70.60	120.10
37	BH	158	ASP	CA-C-O	-23.57	70.61	120.10
78	CA	944	A	O4'-C1'-N9	23.57	127.05	108.20
78	CA	1340	U	P-O3'-C3'	23.56	147.97	119.70
81	DA	2712	U	P-O3'-C3'	23.55	147.96	119.70
60	Bi	16	ARG	CA-C-O	-23.54	70.67	120.10
81	DA	3145	C	P-O3'-C3'	23.53	147.94	119.70
81	DA	583	G	O4'-C1'-N9	23.50	127.00	108.20
81	DA	228	U	P-O3'-C3'	23.48	147.88	119.70
78	CA	1081	A	O4'-C1'-N9	23.47	126.98	108.20
81	DA	2304	C	P-O3'-C3'	23.47	147.86	119.70
38	Bs	72	ASP	CA-C-O	-23.45	70.85	120.10
26	AZ	18	THR	O-C-N	-23.40	76.64	121.10
83	DC	9	C	P-O3'-C3'	23.33	147.70	119.70
81	DA	2100	A	N9-C1'-C2'	23.32	144.32	114.00
81	DA	2736	A	O4'-C1'-N9	23.32	126.86	108.20
3	AB	78	LYS	CA-C-O	-23.31	71.15	120.10
81	DA	2439	A	P-O3'-C3'	23.29	147.64	119.70
26	AZ	39	LEU	CA-C-O	-23.26	71.25	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2421	U	P-O3'-C3'	23.23	147.58	119.70
81	DA	1717	U	P-O3'-C3'	23.22	147.56	119.70
81	DA	2619	G	P-O3'-C3'	23.22	147.56	119.70
81	DA	1678	G	O4'-C1'-N9	23.19	126.76	108.20
81	DA	1602	A	O3'-P-O5'	-23.18	59.95	104.00
74	BQ	197	SER	CA-C-O	-23.16	71.45	120.10
78	CA	174	U	N1-C1'-C2'	23.16	144.11	114.00
13	AL	34	LEU	CA-C-O	-23.14	71.50	120.10
81	DA	1261	G	N9-C1'-C2'	-23.14	83.92	114.00
26	AZ	44	PHE	CA-C-O	-23.13	71.52	120.10
81	DA	701	G	P-O3'-C3'	23.12	147.44	119.70
6	AE	4	PRO	CA-C-O	-23.09	64.78	120.20
26	AZ	40	TYR	CA-C-O	-23.09	71.61	120.10
78	CA	191	C	P-O3'-C3'	23.07	147.39	119.70
81	DA	8	C	P-O3'-C3'	23.04	147.35	119.70
32	BC	362	ALA	CA-C-O	-23.04	71.72	120.10
46	BT	82	LYS	CA-C-O	-23.03	71.73	120.10
60	Bi	68	THR	CA-C-O	-23.03	71.74	120.10
78	CA	1173	C	P-O3'-C3'	23.01	147.31	119.70
5	AC	23	ARG	NE-CZ-NH2	-22.95	108.83	120.30
31	BB	127	ALA	CA-C-O	-22.94	71.94	120.10
81	DA	1195	A	O4'-C1'-N9	22.92	126.54	108.20
81	DA	1338	C	O4'-C1'-N1	22.91	126.52	108.20
34	BE	54	VAL	C-N-CA	-22.84	64.60	121.70
81	DA	2229	A	O4'-C1'-N9	22.83	126.47	108.20
5	AC	23	ARG	NE-CZ-NH1	-22.82	108.89	120.30
81	DA	1811	G	O4'-C1'-N9	22.81	126.45	108.20
17	AQ	81	LYS	CA-C-O	-22.78	72.26	120.10
79	CB	73	C	P-O3'-C3'	22.77	147.02	119.70
2	AA	250	VAL	CA-C-O	-22.75	72.32	120.10
33	BD	145	ILE	CA-C-O	-22.75	72.33	120.10
81	DA	2272	G	O4'-C1'-N9	22.74	126.39	108.20
78	CA	387	A	O4'-C1'-N9	22.62	126.29	108.20
81	DA	2484	A	O4'-C1'-N9	22.60	126.28	108.20
78	CA	1355	C	P-O3'-C3'	22.59	146.81	119.70
10	AI	54	LEU	CA-C-O	-22.58	72.68	120.10
81	DA	3368	U	P-O3'-C3'	22.56	146.77	119.70
78	CA	928	U	O4'-C1'-N1	22.51	126.21	108.20
78	CA	1337	A	O4'-C1'-N9	22.49	126.19	108.20
81	DA	2763	U	O4'-C1'-N1	22.47	126.18	108.20
81	DA	2673	A	P-O5'-C5'	22.47	156.85	120.90
35	BG	99	GLU	N-CA-CB	22.46	151.03	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BG	69	PHE	CD1-CE1-CZ	-22.45	93.16	120.10
81	DA	2988	C	P-O3'-C3'	22.44	146.63	119.70
81	DA	1786	G	O4'-C1'-N9	22.40	126.12	108.20
81	DA	1320	C	P-O3'-C3'	22.40	146.58	119.70
81	DA	1753	G	P-O3'-C3'	22.40	146.58	119.70
34	BE	116	TYR	CG-CD1-CE1	-22.39	103.38	121.30
81	DA	1080	A	O4'-C1'-N9	22.39	126.11	108.20
45	BR	98	LYS	CA-C-O	-22.37	73.12	120.10
81	DA	2507	C	P-O3'-C3'	22.35	146.52	119.70
81	DA	310	U	P-O3'-C3'	22.34	146.51	119.70
81	DA	651	G	P-O3'-C3'	22.29	146.45	119.70
81	DA	1455	U	O4'-C1'-N1	22.29	126.03	108.20
83	DC	49	G	O5'-P-OP1	-22.29	83.95	110.70
81	DA	3246	G	P-O3'-C3'	22.28	146.43	119.70
81	DA	1620	U	P-O3'-C3'	22.26	146.42	119.70
81	DA	186	U	O4'-C1'-N1	22.24	125.99	108.20
81	DA	1261	G	O4'-C1'-C2'	-22.24	83.56	105.80
81	DA	1506	A	O4'-C1'-N9	22.21	125.97	108.20
44	BO	3	SER	CA-C-O	-22.21	73.46	120.10
81	DA	861	C	P-O3'-C3'	22.19	146.33	119.70
83	DC	41	G	P-O3'-C3'	22.15	146.28	119.70
81	DA	1427	U	P-O3'-C3'	22.15	146.28	119.70
83	DC	107	G	O4'-C1'-N9	22.14	125.91	108.20
13	AL	38	PHE	CB-CG-CD1	22.11	136.27	120.80
81	DA	21	G	O4'-C1'-N9	22.10	125.88	108.20
81	DA	3002	C	P-O3'-C3'	22.09	146.21	119.70
78	CA	856	A	O4'-C1'-N9	22.06	125.85	108.20
81	DA	1826	C	O4'-C1'-N1	22.04	125.83	108.20
81	DA	1483	G	O4'-C1'-N9	22.01	125.81	108.20
81	DA	3296	A	P-O3'-C3'	21.99	146.09	119.70
81	DA	1538	G	P-O3'-C3'	21.98	146.07	119.70
55	Bc	104	GLN	CA-C-O	-21.95	74.00	120.10
16	AO	65	VAL	CG1-CB-CG2	21.94	146.01	110.90
83	DC	50	U	P-O3'-C3'	21.93	146.01	119.70
4	AD	153	ASN	CA-C-O	-21.92	74.06	120.10
33	BD	323	VAL	CA-C-O	-21.92	74.07	120.10
79	CB	12	U	P-O3'-C3'	21.91	146.00	119.70
34	BE	9	MET	CA-C-O	-21.91	74.10	120.10
81	DA	2734	A	P-O3'-C3'	21.90	145.98	119.70
74	BQ	129	TYR	CA-C-O	-21.90	74.11	120.10
78	CA	636	A	O4'-C1'-C2'	-21.89	83.91	105.80
78	CA	661	A	P-O3'-C3'	21.89	145.97	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	94	ALA	CA-C-O	-21.86	74.20	120.10
78	CA	1	U	OP1-P-OP2	-21.85	86.82	119.60
31	BB	252	THR	CA-C-O	-21.84	74.23	120.10
78	CA	1340	U	P-O5'-C5'	21.84	155.84	120.90
81	DA	2267	C	P-O3'-C3'	21.82	145.89	119.70
81	DA	1689	U	O4'-C1'-N1	21.81	125.65	108.20
35	BG	38	THR	CA-C-O	-21.81	74.30	120.10
38	Bs	5	ARG	CA-C-O	-21.81	74.30	120.10
81	DA	1657	C	P-O3'-C3'	21.80	145.86	119.70
34	BE	116	TYR	CD1-CE1-CZ	21.75	139.38	119.80
81	DA	63	A	O4'-C1'-N9	21.75	125.60	108.20
33	BD	148	ILE	CA-C-O	-21.74	74.45	120.10
81	DA	996	A	P-O3'-C3'	21.72	145.77	119.70
26	AZ	18	THR	CA-C-O	-21.71	74.50	120.10
78	CA	1583	A	O4'-C1'-N9	-21.70	90.84	108.20
81	DA	2500	A	P-O3'-C3'	21.70	145.74	119.70
81	DA	720	A	O4'-C1'-N9	21.68	125.55	108.20
15	AN	54	LYS	CA-C-O	-21.64	74.66	120.10
74	BQ	158	ARG	NH1-CZ-NH2	-21.63	95.61	119.40
81	DA	1694	U	O4'-C1'-N1	21.62	125.50	108.20
81	DA	2462	A	P-O3'-C3'	21.61	145.63	119.70
81	DA	1206	G	O4'-C1'-N9	21.59	125.47	108.20
78	CA	1479	A	P-O3'-C3'	21.56	145.57	119.70
81	DA	1704	A	O4'-C1'-N9	21.54	125.43	108.20
81	DA	2362	C	N1-C1'-C2'	-21.52	86.02	114.00
78	CA	2	A	O4'-C1'-N9	21.48	125.39	108.20
81	DA	636	C	N1-C1'-C2'	21.46	141.90	114.00
81	DA	914	A	O4'-C1'-N9	21.46	125.37	108.20
33	BD	321	LYS	CA-C-O	-21.44	75.08	120.10
81	DA	2886	U	O4'-C1'-N1	21.42	125.34	108.20
61	Bj	20	LYS	CA-C-O	-21.42	75.12	120.10
83	DC	101	A	P-O5'-C5'	21.41	155.15	120.90
78	CA	689	G	P-O3'-C3'	21.37	145.35	119.70
81	DA	2808	A	O4'-C1'-N9	21.34	125.27	108.20
35	BG	152	THR	O-C-N	-21.33	80.57	121.10
45	BR	157	PRO	CA-C-O	-21.32	69.03	120.20
81	DA	1690	C	P-O3'-C3'	21.32	145.28	119.70
78	CA	1550	A	P-O3'-C3'	21.31	145.27	119.70
81	DA	2755	C	P-O3'-C3'	21.29	145.25	119.70
32	BC	130	PHE	CA-C-O	-21.28	75.41	120.10
53	Ba	10	VAL	CA-CB-CG2	21.23	142.75	110.90
81	DA	63	A	P-O3'-C3'	21.23	145.18	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	45	U	C1'-O4'-C4'	21.18	126.84	109.90
81	DA	1536	G	P-O3'-C3'	21.14	145.07	119.70
81	DA	2784	G	P-O3'-C3'	21.11	145.03	119.70
81	DA	1020	G	P-O3'-C3'	21.11	145.03	119.70
81	DA	419	G	P-O3'-C3'	21.08	144.99	119.70
81	DA	2047	A	O4'-C1'-N9	21.08	125.06	108.20
81	DA	1701	C	N1-C1'-C2'	21.05	141.37	114.00
81	DA	2757	U	P-O3'-C3'	21.05	144.96	119.70
1	Aa	59	ARG	N-CA-C	20.99	167.67	111.00
81	DA	1535	A	O4'-C1'-N9	20.98	124.98	108.20
81	DA	1528	G	O4'-C1'-N9	20.95	124.96	108.20
81	DA	845	G	O4'-C1'-N9	20.94	124.95	108.20
78	CA	1092	A	O4'-C1'-N9	20.93	124.95	108.20
81	DA	1823	A	P-O3'-C3'	20.93	144.81	119.70
78	CA	650	U	P-O3'-C3'	20.92	144.81	119.70
83	DC	48	U	O4'-C1'-N1	20.92	124.93	108.20
81	DA	2369	G	P-O3'-C3'	20.90	144.78	119.70
81	DA	1215	U	P-O3'-C3'	20.89	144.77	119.70
81	DA	3141	A	P-O5'-C5'	20.86	154.27	120.90
79	CB	55	C	C1'-O4'-C4'	-20.84	93.23	109.90
81	DA	2866	U	O4'-C1'-N1	20.84	124.87	108.20
81	DA	2506	U	C3'-C2'-C1'	20.81	118.15	101.50
81	DA	1208	U	O4'-C1'-N1	20.80	124.84	108.20
78	CA	474	A	P-O3'-C3'	20.80	144.66	119.70
11	AJ	85	ARG	NE-CZ-NH1	20.79	130.70	120.30
81	DA	860	G	P-O3'-C3'	20.79	144.64	119.70
81	DA	2489	C	P-O3'-C3'	20.78	144.64	119.70
81	DA	2041	U	P-O3'-C3'	20.76	144.62	119.70
81	DA	519	A	O4'-C1'-N9	20.72	124.78	108.20
81	DA	3151	U	O4'-C1'-N1	20.70	124.76	108.20
5	AC	23	ARG	NH1-CZ-NH2	20.68	142.15	119.40
81	DA	1801	U	P-O3'-C3'	20.68	144.52	119.70
81	DA	2244	A	O4'-C1'-N9	20.68	124.74	108.20
81	DA	263	C	P-O3'-C3'	20.67	144.51	119.70
81	DA	655	C	P-O3'-C3'	20.67	144.50	119.70
81	DA	1400	G	P-O3'-C3'	20.65	144.48	119.70
81	DA	2493	U	O4'-C1'-N1	20.62	124.70	108.20
57	Be	120	THR	CA-CB-CG2	-20.60	83.57	112.40
74	BQ	158	ARG	NE-CZ-NH2	20.59	130.60	120.30
81	DA	1872	C	O4'-C1'-N1	-20.55	91.76	108.20
35	BG	5	LYS	CA-C-O	-20.55	76.96	120.10
33	BD	331	ALA	CA-C-O	-20.54	76.97	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	CB	75	A	O4'-C1'-N9	20.53	124.63	108.20
20	AS	90	PRO	CA-C-O	-20.52	70.95	120.20
78	CA	1441	C	P-O5'-C5'	20.52	153.73	120.90
81	DA	1965	C	P-O3'-C3'	20.51	144.31	119.70
4	AD	96	ASN	CA-C-O	-20.51	77.04	120.10
81	DA	1955	U	O4'-C1'-N1	20.50	124.60	108.20
78	CA	1421	A	O4'-C1'-N9	20.47	124.57	108.20
81	DA	1766	G	P-O3'-C3'	20.46	144.25	119.70
51	BZ	51	TRP	CA-C-O	-20.44	77.18	120.10
78	CA	45	U	N1-C1'-C2'	-20.43	87.44	114.00
81	DA	1	G	O4'-C1'-N9	20.39	124.52	108.20
78	CA	1756	A	O4'-C1'-N9	20.38	124.51	108.20
78	CA	1476	C	P-O3'-C3'	20.38	144.16	119.70
81	DA	1754	G	P-O3'-C3'	20.38	144.16	119.70
81	DA	1791	C	P-O3'-C3'	20.38	144.15	119.70
78	CA	400	A	O4'-C1'-N9	20.37	124.50	108.20
81	DA	3242	G	O4'-C1'-N9	20.35	124.48	108.20
78	CA	37	U	O4'-C1'-N1	20.34	124.47	108.20
78	CA	1339	C	P-O3'-C3'	20.34	144.10	119.70
81	DA	3199	G	P-O3'-C3'	20.32	144.09	119.70
81	DA	2072	G	O4'-C1'-N9	20.32	124.45	108.20
78	CA	469	C	O4'-C1'-C2'	-20.30	85.50	105.80
81	DA	2434	U	P-O3'-C3'	20.30	144.06	119.70
81	DA	786	A	O4'-C1'-N9	20.29	124.43	108.20
81	DA	1627	U	O4'-C1'-N1	20.28	124.43	108.20
83	DC	29	C	P-O3'-C3'	20.28	144.04	119.70
81	DA	783	A	O4'-C1'-N9	20.28	124.42	108.20
81	DA	1378	U	P-O3'-C3'	20.27	144.03	119.70
34	BE	55	ARG	O-C-N	-20.27	90.27	122.70
83	DC	15	C	P-O3'-C3'	20.25	144.00	119.70
78	CA	1666	U	O4'-C1'-N1	20.25	124.40	108.20
61	Bj	20	LYS	O-C-N	-20.22	90.34	122.70
81	DA	1871	U	O4'-C1'-N1	20.20	124.36	108.20
78	CA	164	A	P-O5'-C5'	20.20	153.21	120.90
81	DA	2363	A	O4'-C1'-N9	20.18	124.34	108.20
83	DC	92	A	P-O3'-C3'	20.17	143.90	119.70
80	CC	12	A	O4'-C1'-N9	20.14	124.31	108.20
81	DA	2416	U	P-O3'-C3'	20.11	143.83	119.70
81	DA	1255	C	O4'-C1'-N1	20.11	124.29	108.20
40	BK	185	ALA	CB-CA-C	-20.04	80.03	110.10
81	DA	2727	A	O4'-C1'-N9	20.04	124.23	108.20
81	DA	3092	C	O4'-C1'-N1	-20.04	92.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	637	C	O4'-C1'-N1	20.03	124.23	108.20
31	BB	62	VAL	CA-C-O	-20.03	78.04	120.10
81	DA	2483	G	P-O3'-C3'	20.00	143.70	119.70
83	DC	22	A	O4'-C1'-N9	19.98	124.18	108.20
81	DA	607	A	C5'-C4'-C3'	19.95	147.92	116.00
81	DA	3122	A	O4'-C1'-N9	19.95	124.16	108.20
81	DA	2165	G	O4'-C1'-N9	19.95	124.16	108.20
81	DA	2149	A	O4'-C1'-N9	19.95	124.16	108.20
81	DA	1104	G	O4'-C1'-N9	19.94	124.15	108.20
81	DA	2623	G	O4'-C1'-N9	19.93	124.14	108.20
47	BU	116	ARG	NE-CZ-NH1	-19.90	110.35	120.30
78	CA	540	G	P-O3'-C3'	19.89	143.57	119.70
83	DC	53	U	P-O3'-C3'	19.89	143.56	119.70
81	DA	1528	G	P-O3'-C3'	19.88	143.56	119.70
22	AV	26	LYS	CA-C-O	-19.84	78.44	120.10
81	DA	3041	U	O3'-P-O5'	-19.83	66.33	104.00
81	DA	45	A	P-O5'-C5'	19.82	152.62	120.90
81	DA	1598	G	O4'-C1'-N9	19.80	124.04	108.20
81	DA	1333	C	P-O3'-C3'	19.80	143.46	119.70
81	DA	1055	A	O4'-C1'-C2'	-19.79	86.01	105.80
81	DA	2628	A	O3'-P-O5'	-19.77	66.43	104.00
16	AO	64	ARG	N-CA-CB	-19.77	75.02	110.60
46	BT	71	ARG	CA-C-O	-19.74	78.65	120.10
81	DA	262	U	O4'-C1'-N1	19.72	123.97	108.20
78	CA	1673	G	P-O3'-C3'	19.69	143.33	119.70
81	DA	2204	C	P-O3'-C3'	19.66	143.29	119.70
78	CA	1003	A	O4'-C1'-N9	19.64	123.92	108.20
78	CA	462	G	P-O3'-C3'	19.64	143.27	119.70
78	CA	1337	A	P-O5'-C5'	19.62	152.29	120.90
78	CA	1534	G	P-O5'-C5'	19.62	152.29	120.90
78	CA	1091	A	O4'-C1'-N9	19.61	123.89	108.20
81	DA	2503	G	P-O3'-C3'	19.61	143.23	119.70
81	DA	1688	U	P-O5'-C5'	19.59	152.24	120.90
81	DA	1250	G	O4'-C1'-N9	19.58	123.87	108.20
81	DA	2606	G	O4'-C1'-N9	19.56	123.85	108.20
81	DA	2275	A	O4'-C1'-N9	19.56	123.84	108.20
81	DA	2061	G	O4'-C1'-N9	19.49	123.79	108.20
82	DB	25	G	O4'-C1'-N9	19.49	123.80	108.20
81	DA	313	A	O4'-C1'-N9	19.49	123.79	108.20
81	DA	1656	A	P-O3'-C3'	19.49	143.08	119.70
81	DA	2043	U	P-O3'-C3'	19.48	143.08	119.70
81	DA	1061	A	O4'-C1'-N9	19.45	123.76	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	27	U	O4'-C1'-N1	19.45	123.76	108.20
78	CA	622	A	P-O3'-C3'	19.45	143.04	119.70
81	DA	3334	U	O4'-C1'-N1	19.44	123.75	108.20
78	CA	104	A	P-O3'-C3'	19.44	143.02	119.70
34	BE	115	LYS	CB-CA-C	-19.42	71.55	110.40
83	DC	51	G	P-O3'-C3'	19.41	142.99	119.70
81	DA	2648	G	N9-C1'-C2'	-19.40	88.77	114.00
78	CA	373	G	O4'-C1'-N9	19.36	123.68	108.20
78	CA	1222	C	O4'-C1'-N1	19.34	123.67	108.20
81	DA	1883	A	P-O3'-C3'	19.34	142.91	119.70
81	DA	728	G	P-O3'-C3'	19.34	142.91	119.70
81	DA	2067	U	O4'-C1'-N1	19.33	123.67	108.20
81	DA	2666	C	P-O3'-C3'	19.30	142.87	119.70
81	DA	2114	C	O4'-C1'-N1	19.30	123.64	108.20
37	BH	204	ARG	NE-CZ-NH1	19.27	129.94	120.30
78	CA	647	G	O4'-C1'-N9	19.27	123.61	108.20
81	DA	1021	G	P-O3'-C3'	19.20	142.74	119.70
81	DA	1876	U	P-O3'-C3'	19.20	142.74	119.70
78	CA	297	U	P-O3'-C3'	19.16	142.69	119.70
81	DA	148	G	P-O3'-C3'	19.14	142.66	119.70
82	DB	3	A	N9-C1'-C2'	19.08	138.81	114.00
81	DA	1535	A	P-O3'-C3'	19.08	142.59	119.70
81	DA	2166	A	C3'-C2'-C1'	19.05	116.74	101.50
78	CA	960	U	O4'-C1'-C2'	-19.03	86.77	105.80
78	CA	994	G	O4'-C1'-N9	19.00	123.40	108.20
81	DA	1435	A	P-O3'-C3'	19.00	142.50	119.70
65	Bn	71	PRO	CA-C-O	-18.99	74.63	120.20
33	BD	145	ILE	O-C-N	-18.96	85.08	121.10
81	DA	2934	A	C1'-O4'-C4'	18.94	125.05	109.90
81	DA	2989	U	C1'-O4'-C4'	18.93	125.05	109.90
78	CA	295	A	N9-C1'-C2'	-18.92	89.40	114.00
41	BN	108	ARG	NE-CZ-NH1	18.91	129.75	120.30
81	DA	2624	G	P-O3'-C3'	18.90	142.38	119.70
81	DA	49	A	O4'-C1'-N9	18.90	123.32	108.20
81	DA	487	U	P-O5'-C5'	18.90	151.14	120.90
81	DA	1756	C	P-O5'-C5'	18.87	151.09	120.90
81	DA	3240	C	P-O3'-C3'	18.86	142.33	119.70
78	CA	964	U	O4'-C1'-N1	18.85	123.28	108.20
81	DA	2617	U	P-O3'-C3'	18.85	142.31	119.70
78	CA	1367	G	P-O3'-C3'	18.84	142.31	119.70
78	CA	667	U	O4'-C1'-N1	18.84	123.27	108.20
81	DA	2194	G	O4'-C1'-N9	18.82	123.26	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1343	A	P-O3'-C3'	18.80	142.27	119.70
81	DA	3222	U	O4'-C1'-N1	18.80	123.24	108.20
78	CA	306	U	O4'-C1'-C2'	-18.79	87.01	105.80
81	DA	1015	U	O4'-C1'-N1	18.79	123.23	108.20
81	DA	784	A	O4'-C1'-N9	18.77	123.22	108.20
40	BK	133	ARG	NE-CZ-NH2	18.76	129.68	120.30
81	DA	2787	G	P-O3'-C3'	18.76	142.21	119.70
81	DA	104	G	P-O3'-C3'	18.74	142.19	119.70
31	BB	193	ARG	NE-CZ-NH1	18.73	129.67	120.30
78	CA	825	U	P-O3'-C3'	18.72	142.17	119.70
81	DA	1773	C	O4'-C1'-N1	18.72	123.18	108.20
81	DA	1063	G	P-O3'-C3'	18.70	142.14	119.70
81	DA	1390	A	P-O3'-C3'	18.70	142.14	119.70
78	CA	1164	G	O4'-C1'-N9	18.70	123.16	108.20
81	DA	1774	C	P-O3'-C3'	18.69	142.13	119.70
81	DA	2450	G	P-O3'-C3'	18.68	142.11	119.70
81	DA	785	G	O4'-C1'-N9	18.67	123.14	108.20
83	DC	51	G	O4'-C1'-N9	18.67	123.14	108.20
78	CA	1528	U	P-O3'-C3'	18.66	142.09	119.70
78	CA	323	A	O4'-C1'-N9	18.65	123.12	108.20
78	CA	1530	C	O4'-C1'-N1	18.63	123.10	108.20
81	DA	3245	A	N9-C1'-C2'	18.61	138.19	114.00
81	DA	1641	U	O4'-C1'-N1	18.59	123.07	108.20
81	DA	1247	U	O4'-C1'-N1	18.58	123.06	108.20
82	DB	106	C	P-O3'-C3'	18.57	141.99	119.70
81	DA	1675	G	O4'-C1'-N9	18.57	123.06	108.20
81	DA	1826	C	P-O3'-C3'	18.56	141.98	119.70
78	CA	683	C	O4'-C1'-N1	18.56	123.05	108.20
81	DA	178	U	P-O3'-C3'	18.55	141.96	119.70
81	DA	2638	C	N1-C1'-C2'	18.55	138.11	114.00
78	CA	163	G	P-O3'-C3'	18.54	141.95	119.70
83	DC	40	C	P-O3'-C3'	18.54	141.94	119.70
78	CA	139	C	P-O3'-C3'	18.52	141.92	119.70
82	DB	98	U	O5'-C5'-C4'	18.52	146.88	111.70
81	DA	2499	U	P-O5'-C5'	18.51	150.51	120.90
81	DA	663	C	P-O5'-C5'	18.49	150.49	120.90
81	DA	2376	G	P-O3'-C3'	18.47	141.86	119.70
78	CA	1491	U	P-O3'-C3'	18.45	141.84	119.70
78	CA	1394	G	O4'-C1'-N9	18.44	122.95	108.20
79	CB	67	G	P-O3'-C3'	18.43	141.82	119.70
81	DA	2322	C	P-O3'-C3'	18.42	141.81	119.70
82	DB	150	G	P-O3'-C3'	18.41	141.79	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	118	U	P-O3'-C3'	18.40	141.78	119.70
81	DA	1209	G	N9-C1'-C2'	-18.40	90.08	114.00
81	DA	1675	G	P-O3'-C3'	18.39	141.77	119.70
81	DA	1233	G	P-O3'-C3'	18.34	141.71	119.70
81	DA	1500	G	P-O3'-C3'	18.33	141.70	119.70
81	DA	2166	A	O4'-C1'-N9	-18.32	93.54	108.20
81	DA	3042	U	O5'-P-OP1	-18.32	88.72	110.70
81	DA	3299	A	O4'-C1'-N9	18.31	122.85	108.20
78	CA	1200	G	N9-C1'-C2'	18.30	137.79	114.00
78	CA	1546	G	C1'-O4'-C4'	-18.30	95.26	109.90
81	DA	7	C	P-O3'-C3'	18.30	141.66	119.70
81	DA	555	U	O4'-C1'-N1	18.29	122.83	108.20
81	DA	520	U	P-O5'-C5'	18.27	150.14	120.90
81	DA	1741	A	P-O3'-C3'	18.26	141.62	119.70
81	DA	3050	U	P-O3'-C3'	18.26	141.61	119.70
79	CB	27	G	P-O3'-C3'	18.24	141.59	119.70
81	DA	2827	U	O4'-C1'-N1	18.23	122.78	108.20
78	CA	1546	G	O4'-C1'-C2'	18.22	124.02	105.80
78	CA	1285	U	P-O3'-C3'	18.20	141.54	119.70
43	BP	2	GLY	N-CA-C	18.18	158.56	113.10
78	CA	1735	U	P-O3'-C3'	18.17	141.51	119.70
81	DA	3242	G	P-O5'-C5'	18.12	149.90	120.90
81	DA	933	A	O4'-C1'-N9	18.10	122.68	108.20
78	CA	234	G	O4'-C1'-N9	18.09	122.67	108.20
78	CA	56	U	O4'-C1'-N1	18.09	122.67	108.20
81	DA	2648	G	C1'-O4'-C4'	18.07	124.35	109.90
74	BQ	243	ALA	N-CA-CB	18.03	135.35	110.10
81	DA	983	A	O4'-C1'-N9	18.01	122.61	108.20
81	DA	3137	C	P-O3'-C3'	18.01	141.31	119.70
81	DA	780	A	P-O3'-C3'	18.00	141.30	119.70
78	CA	1388	A	P-O3'-C3'	17.99	141.28	119.70
81	DA	2437	G	O4'-C1'-N9	17.99	122.59	108.20
81	DA	2047	A	C5'-C4'-O4'	17.96	130.66	109.10
83	DC	44	C	P-O3'-C3'	17.93	141.22	119.70
81	DA	677	A	C1'-O4'-C4'	17.92	124.24	109.90
81	DA	666	A	O4'-C1'-N9	17.91	122.53	108.20
78	CA	1477	G	O4'-C1'-N9	17.91	122.53	108.20
31	BB	37	ARG	O-C-N	-17.90	94.06	122.70
81	DA	579	G	O4'-C1'-N9	17.89	122.51	108.20
83	DC	49	G	P-O5'-C5'	17.89	149.52	120.90
81	DA	2078	C	P-O3'-C3'	17.87	141.14	119.70
78	CA	219	A	P-O3'-C3'	17.86	141.13	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1233	G	P-O3'-C3'	17.85	141.12	119.70
78	CA	1478	G	O5'-P-OP1	-17.85	89.28	110.70
81	DA	518	G	P-O3'-C3'	17.85	141.12	119.70
78	CA	478	A	O4'-C1'-N9	17.84	122.47	108.20
81	DA	857	G	P-O3'-C3'	17.84	141.11	119.70
81	DA	3149	G	N9-C1'-C2'	-17.84	90.81	114.00
81	DA	3099	C	C5'-C4'-C3'	17.84	144.54	116.00
81	DA	699	A	O4'-C1'-C2'	-17.83	87.97	105.80
81	DA	1832	C	P-O3'-C3'	17.82	141.09	119.70
81	DA	385	A	P-O3'-C3'	17.79	141.05	119.70
78	CA	1568	C	O4'-C1'-N1	17.76	122.41	108.20
39	BJ	75	PRO	CA-C-O	-17.75	77.60	120.20
78	CA	891	A	P-O3'-C3'	17.75	140.99	119.70
81	DA	3300	U	P-O3'-C3'	17.73	140.97	119.70
38	Bs	243	TYR	CB-CG-CD2	-17.72	110.37	121.00
78	CA	348	U	P-O5'-C5'	17.71	149.24	120.90
78	CA	507	U	P-O3'-C3'	17.70	140.94	119.70
4	AD	148	ARG	NE-CZ-NH1	17.69	129.15	120.30
81	DA	3130	A	O4'-C1'-N9	17.69	122.35	108.20
81	DA	2682	C	O4'-C1'-N1	17.68	122.34	108.20
78	CA	1583	A	C3'-C2'-C1'	17.68	115.64	101.50
81	DA	1588	A	O4'-C1'-N9	17.67	122.34	108.20
81	DA	3001	C	P-O3'-C3'	17.66	140.90	119.70
81	DA	1292	C	P-O3'-C3'	17.65	140.88	119.70
57	Be	220	PHE	CB-CG-CD1	-17.64	108.45	120.80
78	CA	1356	U	P-O3'-C3'	17.63	140.85	119.70
78	CA	1202	A	O4'-C1'-N9	17.63	122.30	108.20
81	DA	1144	U	P-O3'-C3'	17.61	140.84	119.70
81	DA	2463	G	O4'-C1'-N9	17.61	122.29	108.20
81	DA	1060	U	N1-C1'-C2'	17.60	136.88	114.00
81	DA	3201	C	P-O3'-C3'	17.58	140.80	119.70
81	DA	1400	G	O4'-C1'-N9	17.57	122.26	108.20
80	CC	18	C	OP1-P-O3'	-17.57	66.54	105.20
78	CA	69	G	O4'-C1'-N9	17.57	122.25	108.20
78	CA	501	U	O4'-C1'-N1	17.57	122.25	108.20
39	BJ	76	SER	CB-CA-C	17.55	143.44	110.10
81	DA	374	A	O4'-C1'-N9	17.53	122.22	108.20
81	DA	2445	A	P-O5'-C5'	17.52	148.93	120.90
78	CA	402	C	O4'-C1'-N1	-17.52	94.19	108.20
81	DA	3142	A	C1'-O4'-C4'	17.52	123.91	109.90
81	DA	2685	C	P-O3'-C3'	17.51	140.71	119.70
81	DA	1229	G	O4'-C1'-N9	17.50	122.20	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1040	G	O4'-C1'-N9	17.50	122.20	108.20
74	BQ	158	ARG	O-C-N	-17.48	94.73	122.70
81	DA	778	U	O4'-C1'-N1	17.48	122.19	108.20
78	CA	1748	G	P-O3'-C3'	17.48	140.68	119.70
81	DA	1113	G	O4'-C1'-N9	17.48	122.18	108.20
78	CA	294	C	N1-C1'-C2'	17.47	136.71	114.00
14	AM	12	GLN	C-N-CA	17.46	165.34	121.70
78	CA	990	C	N1-C1'-C2'	17.45	136.68	114.00
1	Aa	59	ARG	CB-CA-C	-17.43	75.54	110.40
82	DB	33	A	O4'-C1'-N9	17.43	122.14	108.20
78	CA	438	A	P-O3'-C3'	17.41	140.59	119.70
81	DA	456	U	P-O3'-C3'	17.41	140.59	119.70
78	CA	1528	U	O4'-C1'-N1	17.40	122.12	108.20
78	CA	1389	C	O4'-C1'-N1	17.40	122.12	108.20
81	DA	1819	U	O4'-C1'-N1	17.39	122.11	108.20
78	CA	173	A	P-O5'-C5'	17.39	148.73	120.90
81	DA	1164	G	P-O3'-C3'	17.39	140.56	119.70
81	DA	2757	U	O4'-C1'-C2'	-17.36	88.44	105.80
81	DA	541	U	O4'-C1'-N1	17.34	122.08	108.20
81	DA	3331	U	O4'-C1'-N1	17.34	122.07	108.20
82	DB	99	C	O4'-C1'-N1	17.34	122.07	108.20
81	DA	3003	G	O4'-C1'-N9	17.31	122.05	108.20
81	DA	2479	C	O4'-C1'-N1	17.31	122.05	108.20
81	DA	2566	C	P-O3'-C3'	17.31	140.47	119.70
78	CA	1281	G	P-O3'-C3'	17.29	140.45	119.70
81	DA	1290	A	O4'-C1'-N9	17.29	122.03	108.20
78	CA	1479	A	O4'-C1'-N9	17.27	122.02	108.20
78	CA	1520	U	C5'-C4'-C3'	17.27	143.64	116.00
78	CA	773	C	P-O3'-C3'	17.26	140.42	119.70
81	DA	801	A	O4'-C1'-N9	17.26	122.01	108.20
78	CA	1535	U	O4'-C1'-N1	17.26	122.01	108.20
81	DA	1685	C	N1-C1'-C2'	17.26	136.43	114.00
81	DA	2669	G	O4'-C1'-N9	17.24	121.99	108.20
78	CA	1547	A	P-O3'-C3'	17.23	140.38	119.70
78	CA	163	G	O4'-C1'-N9	17.21	121.97	108.20
81	DA	3107	U	C3'-C2'-C1'	17.21	115.27	101.50
81	DA	3217	C	O4'-C1'-N1	17.21	121.97	108.20
81	DA	338	A	C3'-C2'-C1'	17.20	115.26	101.50
81	DA	1788	C	P-O3'-C3'	17.20	140.34	119.70
81	DA	1413	G	P-O3'-C3'	17.19	140.33	119.70
81	DA	1208	U	P-O3'-C3'	17.16	140.29	119.70
81	DA	1571	A	O4'-C1'-N9	17.16	121.93	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1698	G	P-O3'-C3'	17.16	140.29	119.70
81	DA	1251	A	N9-C1'-C2'	17.14	136.29	114.00
81	DA	3345	G	O4'-C1'-N9	17.14	121.91	108.20
81	DA	3092	C	O4'-C1'-C2'	-17.14	88.66	105.80
81	DA	947	G	P-O3'-C3'	17.12	140.25	119.70
34	BE	52	TYR	N-CA-C	17.12	157.22	111.00
81	DA	3010	U	O4'-C1'-N1	17.12	121.89	108.20
78	CA	1234	A	O4'-C1'-N9	17.11	121.88	108.20
81	DA	1207	G	O4'-C1'-N9	-17.08	94.54	108.20
81	DA	109	A	N9-C1'-C2'	17.08	136.20	114.00
81	DA	2648	G	P-O3'-C3'	17.07	140.18	119.70
81	DA	278	U	O4'-C1'-N1	17.06	121.85	108.20
78	CA	960	U	C1'-O4'-C4'	17.06	123.55	109.90
78	CA	1548	G	O4'-C1'-N9	17.05	121.84	108.20
81	DA	1578	C	P-O3'-C3'	17.04	140.15	119.70
81	DA	2238	G	O4'-C1'-N9	17.04	121.83	108.20
81	DA	1896	A	N9-C1'-C2'	17.04	136.15	114.00
81	DA	993	G	N9-C1'-C2'	17.03	136.14	114.00
83	DC	25	G	O4'-C1'-N9	17.03	121.82	108.20
81	DA	1268	G	P-O3'-C3'	17.03	140.13	119.70
78	CA	369	A	O4'-C1'-N9	17.02	121.82	108.20
81	DA	2880	U	N1-C1'-C2'	17.01	136.12	114.00
35	BG	27	PRO	CA-C-O	-16.99	79.42	120.20
78	CA	1057	U	P-O3'-C3'	16.99	140.09	119.70
81	DA	1346	G	O4'-C1'-N9	16.98	121.79	108.20
81	DA	1688	U	O3'-P-O5'	-16.96	71.77	104.00
81	DA	1194	G	P-O3'-C3'	16.95	140.04	119.70
81	DA	1682	U	O4'-C1'-C2'	-16.95	88.85	105.80
81	DA	2073	A	P-O3'-C3'	16.95	140.04	119.70
81	DA	2367	A	P-O3'-C3'	16.95	140.04	119.70
81	DA	3062	G	P-O3'-C3'	16.93	140.02	119.70
78	CA	1601	G	P-O3'-C3'	16.93	140.01	119.70
43	BP	127	TYR	CB-CG-CD1	-16.91	110.85	121.00
81	DA	896	A	P-O3'-C3'	16.91	139.99	119.70
81	DA	2470	C	P-O3'-C3'	16.90	139.98	119.70
78	CA	1566	U	O4'-C1'-N1	16.90	121.72	108.20
81	DA	2505	U	O4'-C1'-N1	16.89	121.71	108.20
81	DA	1217	A	P-O5'-C5'	16.89	147.92	120.90
34	BE	60	ARG	O-C-N	-16.87	95.70	122.70
81	DA	1257	C	O4'-C1'-N1	16.87	121.69	108.20
81	DA	2065	U	P-O3'-C3'	16.86	139.93	119.70
81	DA	670	C	P-O3'-C3'	16.86	139.93	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	48	U	O3'-P-O5'	16.85	136.01	104.00
81	DA	1366	A	N9-C1'-C2'	16.85	135.90	114.00
81	DA	2075	C	P-O3'-C3'	16.84	139.91	119.70
78	CA	1393	C	O4'-C1'-C2'	-16.84	88.96	105.80
81	DA	715	A	O4'-C1'-N9	16.82	121.66	108.20
81	DA	1699	A	O4'-C1'-N9	16.82	121.66	108.20
78	CA	946	U	O4'-C1'-N1	16.82	121.65	108.20
78	CA	899	G	C3'-C2'-C1'	-16.81	88.06	101.50
81	DA	675	C	C3'-C2'-C1'	16.81	114.94	101.50
81	DA	2614	G	O4'-C1'-N9	16.80	121.64	108.20
79	CB	72	G	P-O3'-C3'	16.80	139.86	119.70
81	DA	1056	U	O4'-C1'-N1	16.80	121.64	108.20
82	DB	60	U	O4'-C1'-N1	16.77	121.62	108.20
82	DB	89	A	P-O3'-C3'	16.77	139.82	119.70
78	CA	1068	C	P-O3'-C3'	16.76	139.82	119.70
78	CA	1038	U	O4'-C1'-N1	16.76	121.61	108.20
81	DA	1807	G	O4'-C1'-N9	16.75	121.60	108.20
78	CA	1702	A	C1'-O4'-C4'	16.74	123.30	109.90
78	CA	1459	C	O4'-C1'-N1	16.74	121.59	108.20
78	CA	411	C	O4'-C1'-N1	16.72	121.58	108.20
78	CA	326	G	C1'-O4'-C4'	-16.72	96.52	109.90
20	AS	95	ASP	CA-C-O	-16.71	85.00	120.10
81	DA	1639	C	P-O3'-C3'	16.71	139.76	119.70
82	DB	2	A	P-O3'-C3'	16.71	139.75	119.70
81	DA	851	C	P-O3'-C3'	16.69	139.73	119.70
81	DA	2988	C	O4'-C1'-C2'	-16.67	89.13	105.80
81	DA	2628	A	P-O3'-C3'	16.67	139.71	119.70
78	CA	245	U	P-O3'-C3'	16.66	139.70	119.70
78	CA	103	A	P-O3'-C3'	16.66	139.69	119.70
78	CA	1477	G	C3'-C2'-C1'	-16.65	88.18	101.50
81	DA	1927	G	O4'-C1'-N9	16.65	121.52	108.20
78	CA	304	U	P-O3'-C3'	16.64	139.67	119.70
81	DA	2446	U	P-O3'-C3'	16.64	139.67	119.70
81	DA	3138	U	P-O3'-C3'	16.64	139.67	119.70
81	DA	1615	C	P-O3'-C3'	16.63	139.66	119.70
78	CA	150	U	P-O3'-C3'	16.62	139.65	119.70
81	DA	311	C	C5'-C4'-C3'	16.62	142.59	116.00
78	CA	309	C	P-O3'-C3'	16.62	139.64	119.70
81	DA	2530	G	O4'-C1'-N9	16.61	121.49	108.20
82	DB	3	A	C1'-O4'-C4'	-16.61	96.62	109.90
81	DA	1602	A	OP1-P-O3'	16.60	141.72	105.20
81	DA	661	G	O4'-C1'-N9	16.60	121.48	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	167	U	O4'-C1'-N1	16.59	121.47	108.20
81	DA	2672	G	P-O3'-C3'	16.59	139.60	119.70
81	DA	468	G	P-O3'-C3'	16.58	139.60	119.70
81	DA	517	G	N9-C1'-C2'	16.58	135.55	114.00
81	DA	1209	G	O4'-C1'-C2'	-16.57	89.23	105.80
81	DA	2781	U	O4'-C1'-N1	16.57	121.45	108.20
81	DA	2187	G	N9-C1'-C2'	-16.57	92.46	114.00
81	DA	2450	G	O4'-C1'-N9	16.56	121.44	108.20
78	CA	585	A	P-O3'-C3'	16.54	139.55	119.70
78	CA	454	U	O4'-C1'-N1	16.54	121.43	108.20
78	CA	838	G	C3'-C2'-C1'	16.53	114.73	101.50
81	DA	1480	G	O4'-C1'-N9	16.53	121.43	108.20
78	CA	542	A	P-O3'-C3'	16.53	139.53	119.70
81	DA	1988	C	P-O3'-C3'	16.51	139.52	119.70
78	CA	311	U	O4'-C1'-N1	16.51	121.41	108.20
81	DA	2665	U	O4'-C1'-N1	16.51	121.41	108.20
81	DA	1967	U	O4'-C1'-N1	16.50	121.40	108.20
81	DA	3009	G	O4'-C1'-N9	16.49	121.39	108.20
81	DA	2719	U	P-O3'-C3'	16.49	139.48	119.70
78	CA	1477	G	C1'-O4'-C4'	-16.48	96.71	109.90
81	DA	2596	U	P-O3'-C3'	16.47	139.46	119.70
82	DB	86	U	O4'-C1'-N1	16.46	121.37	108.20
81	DA	261	U	O4'-C1'-N1	16.45	121.36	108.20
78	CA	833	U	O4'-C1'-N1	16.43	121.35	108.20
78	CA	713	A	P-O3'-C3'	16.43	139.42	119.70
81	DA	2899	C	N1-C1'-C2'	16.43	135.36	114.00
79	CB	13	U	O4'-C1'-N1	16.42	121.34	108.20
81	DA	2491	A	C4'-C3'-C2'	16.42	119.02	102.60
81	DA	9	U	P-O3'-C3'	16.42	139.40	119.70
78	CA	306	U	C1'-O4'-C4'	16.41	123.03	109.90
81	DA	2745	G	O4'-C1'-N9	16.41	121.33	108.20
78	CA	119	A	O3'-P-O5'	16.41	135.18	104.00
14	AM	12	GLN	O-C-N	-16.39	96.48	122.70
81	DA	2720	G	C3'-C2'-C1'	16.39	114.61	101.50
81	DA	3372	A	P-O3'-C3'	16.37	139.35	119.70
81	DA	2393	G	P-O5'-C5'	16.36	147.08	120.90
81	DA	1677	G	O4'-C1'-N9	16.36	121.29	108.20
81	DA	3383	G	O4'-C1'-N9	16.36	121.29	108.20
78	CA	234	G	P-O3'-C3'	16.36	139.33	119.70
78	CA	714	G	P-O3'-C3'	16.35	139.32	119.70
81	DA	3169	U	O4'-C1'-N1	16.35	121.28	108.20
81	DA	1974	A	P-O3'-C3'	16.34	139.30	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2627	C	O5'-P-OP2	-16.34	91.00	105.70
81	DA	1226	G	P-O3'-C3'	16.33	139.29	119.70
78	CA	1201	G	O4'-C1'-N9	-16.32	95.14	108.20
78	CA	1405	G	O4'-C1'-N9	16.31	121.25	108.20
78	CA	590	C	P-O3'-C3'	16.31	139.27	119.70
81	DA	2581	U	P-O3'-C3'	16.31	139.27	119.70
81	DA	1942	U	P-O3'-C3'	16.30	139.26	119.70
78	CA	1528	U	P-O5'-C5'	16.30	146.98	120.90
81	DA	2816	G	O4'-C1'-N9	-16.30	95.16	108.20
81	DA	1617	G	P-O3'-C3'	16.30	139.26	119.70
78	CA	894	U	P-O3'-C3'	16.28	139.24	119.70
81	DA	3247	G	O4'-C1'-N9	16.28	121.23	108.20
81	DA	2243	A	O4'-C1'-N9	16.27	121.22	108.20
81	DA	1083	G	O4'-C1'-N9	16.25	121.20	108.20
81	DA	1397	C	P-O5'-C5'	16.25	146.91	120.90
81	DA	534	U	O4'-C1'-N1	16.25	121.20	108.20
81	DA	2928	C	P-O3'-C3'	16.25	139.20	119.70
78	CA	839	U	O4'-C1'-N1	16.24	121.19	108.20
83	DC	3	U	O4'-C1'-C2'	-16.24	89.56	105.80
81	DA	1684	U	P-O3'-C3'	16.24	139.19	119.70
81	DA	3241	G	N9-C1'-C2'	16.20	135.06	114.00
81	DA	2228	A	P-O3'-C3'	16.19	139.13	119.70
78	CA	613	G	O4'-C1'-N9	16.18	121.15	108.20
81	DA	162	G	O4'-C1'-N9	16.18	121.14	108.20
78	CA	1724	U	O4'-C1'-N1	16.16	121.12	108.20
78	CA	1043	A	O4'-C1'-N9	16.16	121.12	108.20
81	DA	424	G	P-O3'-C3'	16.14	139.07	119.70
78	CA	1351	G	P-O3'-C3'	16.14	139.06	119.70
78	CA	1541	G	N9-C1'-C2'	16.13	134.97	114.00
78	CA	631	G	N9-C1'-C2'	-16.12	93.04	114.00
78	CA	1397	U	P-O5'-C5'	16.12	146.69	120.90
81	DA	1401	A	C1'-O4'-C4'	16.10	122.78	109.90
78	CA	631	G	C1'-O4'-C4'	16.10	122.78	109.90
81	DA	2046	U	O3'-P-O5'	-16.10	73.41	104.00
81	DA	3041	U	OP1-P-O3'	16.10	140.61	105.20
78	CA	299	A	O4'-C1'-N9	16.09	121.08	108.20
81	DA	1357	G	O4'-C1'-N9	16.08	121.06	108.20
81	DA	2498	U	O4'-C1'-N1	16.07	121.06	108.20
81	DA	2025	G	P-O5'-C5'	16.07	146.61	120.90
81	DA	3005	A	O4'-C1'-N9	16.06	121.05	108.20
81	DA	1867	A	O4'-C1'-N9	16.06	121.05	108.20
81	DA	2364	G	P-O3'-C3'	16.05	138.97	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2580	A	O4'-C1'-N9	16.04	121.03	108.20
46	BT	88	ARG	NE-CZ-NH2	-16.03	112.28	120.30
81	DA	297	G	O4'-C1'-N9	15.99	121.00	108.20
81	DA	1517	G	P-O3'-C3'	15.99	138.89	119.70
81	DA	2934	A	N9-C1'-C2'	-15.99	93.22	114.00
34	BE	55	ARG	C-N-CA	15.98	161.65	121.70
81	DA	1661	G	O4'-C1'-N9	15.98	120.98	108.20
78	CA	218	A	P-O3'-C3'	15.97	138.87	119.70
81	DA	677	A	O4'-C1'-C2'	-15.97	89.83	105.80
82	DB	122	U	O4'-C1'-N1	15.96	120.97	108.20
78	CA	1559	A	O4'-C1'-N9	15.95	120.96	108.20
81	DA	1947	G	P-O3'-C3'	15.92	138.80	119.70
78	CA	1754	A	P-O3'-C3'	15.92	138.80	119.70
81	DA	680	G	O4'-C1'-N9	15.90	120.92	108.20
78	CA	1436	A	N9-C1'-C2'	15.90	134.67	114.00
81	DA	1871	U	C5'-C4'-O4'	-15.88	90.04	109.10
17	AQ	94	SER	N-CA-CB	15.88	134.32	110.50
33	BD	354	VAL	O-C-N	-15.86	97.33	122.70
81	DA	1750	A	P-O3'-C3'	15.85	138.72	119.70
81	DA	1686	U	O4'-C1'-C2'	-15.85	89.95	105.80
81	DA	2170	U	O4'-C1'-N1	15.85	120.88	108.20
81	DA	2970	C	P-O3'-C3'	15.85	138.71	119.70
81	DA	2315	G	P-O3'-C3'	15.84	138.71	119.70
81	DA	2362	C	C1'-O4'-C4'	15.84	122.57	109.90
83	DC	8	G	O4'-C1'-N9	15.84	120.87	108.20
81	DA	3051	U	P-O3'-C3'	15.83	138.70	119.70
78	CA	867	G	O4'-C1'-N9	15.83	120.87	108.20
78	CA	336	G	O4'-C1'-N9	15.82	120.86	108.20
81	DA	166	C	P-O3'-C3'	15.82	138.69	119.70
78	CA	853	G	O4'-C1'-N9	15.82	120.85	108.20
78	CA	1089	U	O4'-C1'-N1	15.81	120.85	108.20
6	AE	92	ALA	CB-CA-C	-15.81	86.39	110.10
81	DA	1006	A	O4'-C1'-N9	15.80	120.84	108.20
81	DA	2060	A	P-O3'-C3'	15.79	138.65	119.70
81	DA	1695	U	O4'-C1'-N1	15.78	120.83	108.20
81	DA	1232	C	P-O3'-C3'	15.78	138.64	119.70
78	CA	1584	G	C3'-C2'-C1'	-15.78	88.88	101.50
78	CA	631	G	O4'-C1'-C2'	-15.75	90.05	105.80
81	DA	2637	A	N9-C1'-C2'	-15.75	93.53	114.00
81	DA	73	C	P-O3'-C3'	15.75	138.59	119.70
81	DA	984	G	O4'-C1'-N9	15.74	120.79	108.20
79	CB	64	G	P-O3'-C3'	15.73	138.58	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3054	U	P-O3'-C3'	15.73	138.58	119.70
81	DA	3304	U	C5'-C4'-C3'	-15.73	90.84	116.00
81	DA	1567	U	P-O3'-C3'	15.72	138.57	119.70
81	DA	1748	G	P-O3'-C3'	15.71	138.55	119.70
81	DA	3090	U	C3'-C2'-C1'	15.70	114.06	101.50
81	DA	2530	G	P-O3'-C3'	15.70	138.54	119.70
81	DA	1870	C	P-O3'-C3'	15.69	138.53	119.70
81	DA	1395	G	P-O3'-C3'	15.67	138.51	119.70
81	DA	1972	A	P-O3'-C3'	15.67	138.51	119.70
81	DA	2969	A	P-O3'-C3'	15.66	138.50	119.70
81	DA	1622	U	O4'-C1'-N1	15.66	120.73	108.20
81	DA	1391	C	C5'-C4'-C3'	15.65	141.04	116.00
81	DA	1975	C	O4'-C1'-C2'	-15.65	90.15	105.80
78	CA	1478	G	O4'-C1'-C2'	15.64	121.68	107.60
78	CA	1548	G	C3'-C2'-C1'	-15.64	88.99	101.50
81	DA	2708	C	P-O3'-C3'	15.63	138.46	119.70
81	DA	2837	A	O4'-C1'-N9	15.63	120.70	108.20
81	DA	1483	G	P-O3'-C3'	15.63	138.46	119.70
83	DC	60	G	O4'-C1'-C2'	15.62	121.66	107.60
78	CA	1419	G	O4'-C1'-N9	15.61	120.69	108.20
81	DA	884	A	O4'-C1'-N9	15.61	120.68	108.20
82	DB	93	U	P-O3'-C3'	15.60	138.42	119.70
81	DA	2859	U	O4'-C1'-N1	15.60	120.68	108.20
81	DA	425	G	P-O3'-C3'	15.59	138.41	119.70
81	DA	2629	U	O4'-C1'-N1	15.59	120.67	108.20
81	DA	328	U	P-O3'-C3'	15.59	138.40	119.70
81	DA	2207	A	O4'-C1'-N9	15.59	120.67	108.20
83	DC	85	G	O4'-C1'-N9	15.59	120.67	108.20
83	DC	26	C	N1-C1'-C2'	15.57	134.25	114.00
78	CA	222	A	O4'-C1'-N9	15.57	120.66	108.20
81	DA	1668	G	O4'-C1'-N9	15.57	120.66	108.20
4	AD	145	ARG	NE-CZ-NH1	15.56	128.08	120.30
81	DA	2530	G	O3'-P-O5'	-15.56	74.44	104.00
78	CA	820	U	O4'-C1'-N1	15.55	120.64	108.20
81	DA	1281	G	O4'-C1'-N9	15.53	120.62	108.20
81	DA	959	C	P-O3'-C3'	15.53	138.33	119.70
81	DA	2934	A	O4'-C1'-N9	15.50	120.60	108.20
78	CA	304	U	O4'-C1'-N1	15.46	120.56	108.20
78	CA	1584	G	P-O5'-C5'	15.45	145.62	120.90
81	DA	2508	U	C3'-C2'-C1'	15.44	113.85	101.50
81	DA	374	A	P-O3'-C3'	15.43	138.22	119.70
81	DA	1943	C	P-O3'-C3'	15.43	138.22	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	BO	57	GLY	CA-C-O	-15.41	92.85	120.60
81	DA	1698	C	O4'-C1'-N1	15.40	120.52	108.20
81	DA	2783	U	O4'-C1'-N1	15.38	120.51	108.20
81	DA	3216	G	O4'-C1'-N9	15.38	120.51	108.20
81	DA	1748	G	O4'-C1'-N9	15.37	120.50	108.20
78	CA	868	G	O4'-C1'-N9	15.37	120.50	108.20
81	DA	76	G	O4'-C1'-N9	15.37	120.50	108.20
81	DA	3374	U	P-O3'-C3'	15.37	138.14	119.70
78	CA	1472	C	P-O3'-C3'	15.36	138.13	119.70
81	DA	437	G	P-O3'-C3'	15.35	138.12	119.70
81	DA	3332	U	O4'-C1'-N1	15.35	120.48	108.20
81	DA	3354	U	O4'-C1'-N1	15.34	120.47	108.20
78	CA	1601	G	C1'-O4'-C4'	-15.34	97.63	109.90
78	CA	174	U	P-O5'-C5'	15.32	145.41	120.90
81	DA	1045	C	O4'-C1'-N1	15.31	120.45	108.20
81	DA	602	A	P-O3'-C3'	15.31	138.07	119.70
78	CA	634	G	O4'-C1'-N9	15.30	120.44	108.20
81	DA	2175	U	C5'-C4'-C3'	-15.30	91.52	116.00
81	DA	1625	A	P-O5'-C5'	15.29	145.37	120.90
81	DA	169	U	N1-C1'-C2'	-15.28	94.13	114.00
81	DA	2041	U	O4'-C1'-N1	15.28	120.42	108.20
81	DA	2066	C	P-O3'-C3'	15.28	138.04	119.70
79	CB	40	U	P-O3'-C3'	15.28	138.04	119.70
81	DA	990	U	O4'-C1'-N1	15.27	120.41	108.20
81	DA	2531	C	C5'-C4'-C3'	15.27	140.43	116.00
83	DC	113	C	P-O5'-C5'	15.26	145.32	120.90
78	CA	161	U	P-O3'-C3'	15.26	138.01	119.70
81	DA	1401	A	O4'-C1'-C2'	-15.23	90.57	105.80
81	DA	3386	G	P-O3'-C3'	15.22	137.97	119.70
81	DA	1429	G	O4'-C1'-N9	-15.19	96.05	108.20
81	DA	1579	C	C3'-C2'-C1'	15.19	113.65	101.50
81	DA	2712	U	O4'-C1'-N1	15.19	120.35	108.20
81	DA	1005	G	O4'-C1'-N9	15.18	120.34	108.20
81	DA	989	A	O4'-C1'-N9	15.17	120.34	108.20
78	CA	1507	G	P-O3'-C3'	15.17	137.90	119.70
81	DA	618	C	P-O3'-C3'	15.17	137.90	119.70
81	DA	2623	G	N9-C1'-C2'	-15.17	94.28	114.00
81	DA	2266	U	P-O3'-C3'	15.16	137.89	119.70
81	DA	1115	G	C3'-C2'-C1'	15.15	113.62	101.50
81	DA	2531	C	C5'-C4'-O4'	-15.14	90.93	109.10
55	Bc	108	GLN	O-C-N	-15.13	98.49	122.70
81	DA	3131	U	N1-C1'-C2'	15.13	133.67	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1273	A	P-O3'-C3'	15.12	137.84	119.70
81	DA	401	U	O4'-C1'-N1	15.11	120.29	108.20
81	DA	1236	G	O4'-C1'-N9	15.11	120.29	108.20
81	DA	1	G	P-O3'-C3'	15.10	137.82	119.70
81	DA	1391	C	O4'-C1'-N1	15.10	120.28	108.20
82	DB	38	U	N1-C1'-C2'	15.10	133.63	114.00
2	AA	10	THR	C-N-CD	-15.10	87.39	120.60
78	CA	844	A	N1-C6-N6	15.09	127.65	118.60
78	CA	1189	A	P-O3'-C3'	15.09	137.80	119.70
81	DA	721	G	O4'-C1'-N9	15.09	120.27	108.20
81	DA	1014	U	N1-C1'-C2'	15.08	133.61	114.00
78	CA	1647	U	P-O3'-C3'	15.07	137.78	119.70
81	DA	899	U	P-O3'-C3'	15.07	137.78	119.70
83	DC	83	U	P-O3'-C3'	15.06	137.77	119.70
78	CA	1381	U	P-O3'-C3'	15.05	137.76	119.70
78	CA	610	G	C3'-C2'-C1'	-15.05	89.46	101.50
81	DA	1579	C	P-O3'-C3'	15.04	137.75	119.70
81	DA	1198	C	P-O3'-C3'	15.04	137.75	119.70
81	DA	1293	U	P-O3'-C3'	15.03	137.74	119.70
81	DA	1291	A	P-O3'-C3'	15.02	137.73	119.70
81	DA	894	G	O4'-C1'-N9	15.01	120.21	108.20
81	DA	2501	U	P-O3'-C3'	15.01	137.71	119.70
57	Be	220	PHE	N-CA-CB	-15.00	83.59	110.60
81	DA	2046	U	O4'-C1'-N1	15.00	120.20	108.20
81	DA	530	G	O4'-C1'-N9	15.00	120.20	108.20
81	DA	3145	C	O4'-C1'-N1	14.99	120.19	108.20
32	BC	6	TYR	CB-CG-CD2	14.99	130.00	121.00
81	DA	887	G	P-O3'-C3'	14.98	137.68	119.70
81	DA	2889	C	P-O3'-C3'	14.98	137.68	119.70
81	DA	3306	U	N1-C1'-C2'	14.98	133.48	114.00
81	DA	933	A	P-O3'-C3'	14.97	137.67	119.70
78	CA	646	C	P-O3'-C3'	14.96	137.65	119.70
81	DA	2578	U	P-O3'-C3'	14.95	137.64	119.70
16	AO	40	TYR	CB-CG-CD1	14.94	129.97	121.00
81	DA	2303	A	N9-C1'-C2'	-14.94	94.58	114.00
81	DA	906	A	O4'-C1'-N9	14.94	120.15	108.20
81	DA	550	A	O4'-C1'-N9	14.93	120.14	108.20
78	CA	265	A	P-O3'-C3'	14.91	137.59	119.70
78	CA	1476	C	O4'-C1'-C2'	-14.90	90.89	105.80
5	AC	114	TYR	CB-CG-CD1	-14.90	112.06	121.00
81	DA	2803	A	O4'-C1'-N9	14.90	120.12	108.20
81	DA	1790	G	O4'-C1'-N9	14.89	120.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BE	51	ARG	O-C-N	-14.88	98.89	122.70
81	DA	1825	G	P-O3'-C3'	14.88	137.55	119.70
81	DA	3003	G	C3'-C2'-C1'	-14.88	89.60	101.50
81	DA	512	U	N1-C1'-C2'	14.87	133.33	114.00
82	DB	137	C	P-O3'-C3'	14.86	137.54	119.70
81	DA	705	A	O4'-C1'-N9	14.86	120.09	108.20
81	DA	2445	A	P-O3'-C3'	14.86	137.53	119.70
81	DA	1527	C	P-O3'-C3'	14.85	137.52	119.70
81	DA	2463	G	P-O3'-C3'	14.85	137.52	119.70
81	DA	2683	U	P-O3'-C3'	14.85	137.51	119.70
78	CA	631	G	O4'-C1'-N9	14.84	120.07	108.20
78	CA	1357	A	P-O3'-C3'	14.83	137.50	119.70
81	DA	3136	G	O4'-C1'-N9	14.83	120.06	108.20
78	CA	680	U	O4'-C1'-N1	14.82	120.06	108.20
81	DA	1686	U	C3'-C2'-C1'	14.82	113.36	101.50
81	DA	2186	U	P-O3'-C3'	14.82	137.48	119.70
81	DA	2824	G	P-O3'-C3'	14.81	137.47	119.70
83	DC	16	U	O4'-C1'-N1	14.80	120.04	108.20
78	CA	1409	G	P-O3'-C3'	14.80	137.46	119.70
81	DA	1831	U	N1-C1'-C2'	-14.80	94.76	114.00
81	DA	2513	U	P-O3'-C3'	14.79	137.45	119.70
78	CA	1238	A	O4'-C1'-N9	14.79	120.03	108.20
81	DA	664	U	O4'-C1'-N1	14.79	120.03	108.20
81	DA	160	G	O4'-C1'-C2'	14.78	120.90	107.60
11	AJ	85	ARG	NH1-CZ-NH2	-14.78	103.15	119.40
78	CA	515	A	P-O3'-C3'	14.78	137.43	119.70
81	DA	472	A	P-O3'-C3'	14.77	137.43	119.70
81	DA	2544	U	P-O3'-C3'	14.77	137.42	119.70
81	DA	2487	U	O4'-C1'-C2'	-14.77	91.03	105.80
81	DA	2494	A	O4'-C1'-N9	14.77	120.02	108.20
81	DA	3231	U	P-O3'-C3'	14.77	137.42	119.70
11	AJ	23	ARG	NE-CZ-NH2	-14.76	112.92	120.30
81	DA	338	A	P-O3'-C3'	14.76	137.41	119.70
81	DA	1078	U	O4'-C1'-C2'	-14.76	91.04	105.80
81	DA	3004	C	N1-C1'-C2'	14.75	133.18	114.00
78	CA	1297	G	O4'-C1'-N9	14.75	120.00	108.20
81	DA	1702	U	O4'-C1'-N1	14.75	120.00	108.20
81	DA	799	G	O4'-C1'-N9	14.74	120.00	108.20
78	CA	1615	C	C3'-C2'-C1'	14.74	113.29	101.50
81	DA	3214	U	P-O3'-C3'	14.74	137.39	119.70
81	DA	2710	C	P-O3'-C3'	14.73	137.38	119.70
78	CA	281	G	P-O3'-C3'	14.73	137.38	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	772	U	O4'-C1'-N1	14.73	119.98	108.20
81	DA	2080	C	P-O3'-C3'	14.73	137.38	119.70
16	AO	104	ARG	NE-CZ-NH2	-14.72	112.94	120.30
81	DA	1222	G	O4'-C1'-N9	14.72	119.97	108.20
81	DA	567	G	O4'-C1'-N9	14.71	119.97	108.20
81	DA	581	U	O4'-C1'-N1	14.71	119.97	108.20
78	CA	630	A	N9-C1'-C2'	-14.71	94.88	114.00
81	DA	636	C	O4'-C1'-C2'	-14.71	91.09	105.80
81	DA	1054	A	N9-C1'-C2'	-14.71	94.88	114.00
78	CA	1401	A	P-O3'-C3'	14.71	137.35	119.70
81	DA	326	U	P-O3'-C3'	14.70	137.34	119.70
81	DA	729	C	P-O3'-C3'	14.70	137.34	119.70
78	CA	1547	A	O5'-P-OP1	14.69	128.32	110.70
81	DA	2593	A	P-O3'-C3'	14.68	137.32	119.70
81	DA	1055	A	N9-C1'-C2'	-14.68	94.92	114.00
81	DA	2698	G	P-O3'-C3'	14.68	137.31	119.70
81	DA	2377	G	P-O5'-C5'	14.67	144.38	120.90
81	DA	70	A	N9-C1'-C2'	14.67	133.07	114.00
78	CA	254	A	O4'-C1'-N9	14.66	119.93	108.20
81	DA	3221	C	O4'-C1'-N1	-14.66	96.47	108.20
78	CA	965	U	N1-C1'-C2'	14.66	133.05	114.00
81	DA	2283	G	P-O3'-C3'	14.66	137.29	119.70
81	DA	3167	A	O4'-C1'-N9	14.65	119.92	108.20
81	DA	638	C	C5'-C4'-O4'	14.65	126.67	109.10
81	DA	2869	U	C1'-O4'-C4'	14.64	121.61	109.90
81	DA	1013	G	O4'-C1'-N9	14.64	119.91	108.20
44	BO	57	GLY	CA-C-N	14.64	149.40	117.20
81	DA	2186	U	O4'-C1'-N1	14.64	119.91	108.20
78	CA	190	C	P-O3'-C3'	14.63	137.26	119.70
81	DA	2194	G	P-O3'-C3'	14.63	137.26	119.70
78	CA	1743	U	O4'-C1'-N1	14.63	119.90	108.20
81	DA	1768	U	P-O3'-C3'	14.61	137.23	119.70
78	CA	504	U	P-O3'-C3'	14.60	137.22	119.70
81	DA	1692	U	P-O3'-C3'	14.60	137.22	119.70
81	DA	1203	A	N9-C1'-C2'	14.59	132.96	114.00
57	Be	98	LYS	N-CA-CB	14.57	136.83	110.60
81	DA	331	G	C1'-O4'-C4'	14.57	121.56	109.90
81	DA	996	A	O4'-C1'-N9	14.56	119.85	108.20
81	DA	2546	C	P-O3'-C3'	14.56	137.17	119.70
81	DA	2860	U	P-O3'-C3'	14.56	137.17	119.70
81	DA	1076	C	P-O3'-C3'	14.55	137.17	119.70
81	DA	2726	C	P-O3'-C3'	14.55	137.16	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	185	C	P-O3'-C3'	14.55	137.16	119.70
81	DA	1965	C	O4'-C1'-N1	14.55	119.84	108.20
78	CA	1480	G	O4'-C1'-N9	14.55	119.84	108.20
81	DA	1575	A	O4'-C1'-N9	14.55	119.84	108.20
81	DA	723	U	O4'-C1'-N1	14.54	119.83	108.20
58	Bg	10	ARG	NE-CZ-NH1	14.52	127.56	120.30
81	DA	2	U	O4'-C1'-N1	14.51	119.81	108.20
78	CA	460	A	O4'-C1'-N9	14.50	119.80	108.20
78	CA	1604	U	O4'-C1'-N1	14.50	119.80	108.20
81	DA	2231	C	N1-C1'-C2'	14.50	132.85	114.00
41	BN	19	ARG	NE-CZ-NH1	14.49	127.55	120.30
81	DA	752	C	P-O3'-C3'	14.49	137.09	119.70
81	DA	1789	G	O4'-C1'-C2'	14.48	120.63	107.60
81	DA	1585	C	P-O3'-C3'	14.47	137.07	119.70
81	DA	1778	G	P-O3'-C3'	14.47	137.07	119.70
81	DA	2350	C	P-O3'-C3'	14.47	137.06	119.70
81	DA	1704	A	P-O3'-C3'	14.47	137.06	119.70
34	BE	55	ARG	CA-C-O	-14.46	89.73	120.10
81	DA	796	U	P-O3'-C3'	14.46	137.05	119.70
81	DA	1207	G	O4'-C1'-C2'	-14.45	91.35	105.80
82	DB	16	G	O4'-C1'-N9	14.45	119.76	108.20
78	CA	899	G	O4'-C1'-N9	14.45	119.76	108.20
34	BE	60	ARG	C-N-CA	-14.45	85.58	121.70
81	DA	2708	C	P-O5'-C5'	14.45	144.02	120.90
65	Bn	34	ALA	N-CA-CB	14.45	130.32	110.10
81	DA	149	U	P-O5'-C5'	14.45	144.01	120.90
2	AA	252	TRP	CA-CB-CG	14.44	141.14	113.70
81	DA	1262	G	P-O3'-C3'	14.44	137.03	119.70
81	DA	3142	A	O4'-C1'-N9	14.44	119.75	108.20
81	DA	1622	U	P-O3'-C3'	14.44	137.02	119.70
81	DA	1078	U	O4'-C1'-N1	14.43	119.75	108.20
78	CA	1359	C	P-O3'-C3'	14.43	137.01	119.70
32	BC	362	ALA	CB-CA-C	-14.42	88.47	110.10
78	CA	1544	U	C3'-C2'-C1'	-14.40	89.98	101.50
81	DA	2648	G	O4'-C1'-C2'	-14.40	91.40	105.80
81	DA	997	A	O4'-C1'-N9	14.40	119.72	108.20
81	DA	1627	U	N1-C1'-C2'	-14.40	95.28	114.00
81	DA	678	G	O4'-C1'-C2'	14.39	120.56	107.60
81	DA	282	G	P-O3'-C3'	14.39	136.97	119.70
78	CA	57	G	O3'-P-O5'	-14.39	76.67	104.00
81	DA	3258	U	O4'-C1'-N1	14.38	119.71	108.20
81	DA	1774	C	O4'-C1'-N1	14.38	119.71	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2354	C	P-O3'-C3'	-14.38	102.44	119.70
81	DA	798	G	P-O3'-C3'	14.38	136.95	119.70
81	DA	1706	C	P-O3'-C3'	14.38	136.95	119.70
81	DA	3300	U	O4'-C1'-N1	14.38	119.70	108.20
78	CA	1573	A	O4'-C1'-N9	14.37	119.70	108.20
76	BS	73	THR	O-C-N	-14.36	99.72	122.70
31	BB	40	TYR	CB-CG-CD1	14.36	129.62	121.00
34	BE	61	ARG	CB-CA-C	-14.36	81.68	110.40
78	CA	140	A	N9-C1'-C2'	-14.35	95.34	114.00
81	DA	2757	U	C5'-C4'-O4'	14.35	126.32	109.10
81	DA	1500	G	O4'-C1'-N9	14.34	119.67	108.20
81	DA	417	A	O4'-C1'-N9	14.34	119.67	108.20
81	DA	2480	A	O3'-P-O5'	-14.31	76.81	104.00
81	DA	2632	G	O4'-C1'-N9	14.31	119.65	108.20
81	DA	473	G	O4'-C1'-N9	14.31	119.64	108.20
78	CA	662	U	P-O5'-C5'	14.30	143.79	120.90
81	DA	766	U	O4'-C1'-N1	14.30	119.64	108.20
45	BR	54	LEU	CB-CG-CD1	-14.30	86.69	111.00
78	CA	172	C	P-O3'-C3'	14.29	136.85	119.70
81	DA	276	U	P-O5'-C5'	14.27	143.74	120.90
81	DA	2410	U	P-O3'-C3'	14.27	136.83	119.70
81	DA	3320	A	O4'-C1'-N9	14.27	119.62	108.20
3	AB	212	LYS	CA-C-O	-14.27	90.13	120.10
78	CA	1398	U	C1'-O4'-C4'	-14.27	98.48	109.90
81	DA	2209	U	P-O3'-C3'	14.27	136.82	119.70
62	Bk	55	ARG	NE-CZ-NH2	14.26	127.43	120.30
78	CA	117	U	P-O5'-C5'	14.26	143.72	120.90
81	DA	1390	A	O4'-C1'-N9	14.26	119.61	108.20
81	DA	2197	C	O4'-C1'-C2'	-14.26	91.54	105.80
16	AO	64	ARG	NE-CZ-NH2	-14.26	113.17	120.30
78	CA	500	C	P-O3'-C3'	14.25	136.80	119.70
78	CA	205	U	P-O3'-C3'	14.25	136.80	119.70
78	CA	1602	C	C3'-C2'-C1'	14.25	112.90	101.50
47	BU	136	ARG	NE-CZ-NH1	14.25	127.42	120.30
81	DA	699	A	C3'-C2'-C1'	14.24	112.89	101.50
81	DA	3107	U	O4'-C1'-C2'	-14.24	91.56	105.80
81	DA	636	C	C3'-C2'-C1'	14.23	112.89	101.50
81	DA	2625	C	C3'-C2'-C1'	14.23	112.89	101.50
81	DA	298	U	P-O3'-C3'	14.23	136.78	119.70
81	DA	1534	A	P-O3'-C3'	14.22	136.76	119.70
81	DA	2369	G	O4'-C1'-N9	14.21	119.57	108.20
78	CA	898	A	P-O3'-C3'	14.21	136.75	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	278	U	P-O3'-C3'	14.21	136.75	119.70
81	DA	434	U	P-O3'-C3'	-14.20	102.66	119.70
83	DC	49	G	C3'-C2'-C1'	14.20	112.86	101.50
81	DA	1991	G	C3'-C2'-C1'	-14.19	90.14	101.50
81	DA	675	C	O4'-C1'-C2'	-14.19	91.61	105.80
81	DA	1414	G	O4'-C1'-N9	14.19	119.55	108.20
81	DA	2166	A	O4'-C1'-C2'	-14.19	91.61	105.80
81	DA	134	U	O4'-C1'-N1	14.19	119.55	108.20
80	CC	18	C	C3'-C2'-C1'	14.17	112.84	101.50
81	DA	3389	U	O4'-C1'-N1	14.17	119.53	108.20
81	DA	1831	U	O4'-C1'-N1	14.16	119.53	108.20
78	CA	295	A	C3'-C2'-C1'	-14.16	90.17	101.50
81	DA	1587	A	O4'-C1'-N9	14.16	119.53	108.20
81	DA	1088	U	P-O3'-C3'	14.15	136.68	119.70
78	CA	1381	U	O4'-C1'-N1	14.15	119.52	108.20
20	AS	60	SER	CB-CA-C	14.14	136.97	110.10
81	DA	409	A	C3'-C2'-C1'	14.14	112.81	101.50
82	DB	63	G	P-O3'-C3'	14.13	136.66	119.70
78	CA	1658	G	O4'-C1'-N9	14.13	119.50	108.20
78	CA	1761	U	P-O3'-C3'	14.12	136.65	119.70
78	CA	1337	A	N9-C1'-C2'	-14.12	95.65	114.00
81	DA	1966	U	P-O3'-C3'	14.12	136.64	119.70
81	DA	2508	U	O4'-C1'-N1	14.11	119.49	108.20
81	DA	303	G	P-O3'-C3'	14.10	136.62	119.70
8	AF	225	ARG	NE-CZ-NH1	14.10	127.35	120.30
81	DA	2172	A	C3'-C2'-C1'	-14.09	90.22	101.50
78	CA	1570	A	C3'-C2'-C1'	14.09	112.77	101.50
81	DA	265	A	P-O5'-C5'	14.09	143.44	120.90
78	CA	894	U	O4'-C1'-C2'	-14.08	91.72	105.80
78	CA	1690	G	C5'-C4'-C3'	14.08	138.53	116.00
82	DB	3	A	P-O3'-C3'	14.07	136.59	119.70
81	DA	3242	G	N9-C1'-C2'	-14.06	95.72	114.00
81	DA	927	C	P-O3'-C3'	14.06	136.57	119.70
78	CA	1367	G	P-O5'-C5'	14.05	143.38	120.90
81	DA	943	U	P-O3'-C3'	14.05	136.56	119.70
81	DA	1644	C	P-O3'-C3'	14.05	136.56	119.70
81	DA	1662	G	P-O3'-C3'	14.05	136.56	119.70
81	DA	1095	U	P-O3'-C3'	14.04	136.55	119.70
78	CA	1141	G	C1'-O4'-C4'	-14.04	98.67	109.90
81	DA	677	A	O4'-C1'-N9	14.03	119.42	108.20
81	DA	1685	C	P-O3'-C3'	14.03	136.53	119.70
81	DA	2339	C	C1'-O4'-C4'	14.03	121.12	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	70	C	P-O3'-C3'	14.02	136.53	119.70
81	DA	1634	G	P-O3'-C3'	14.02	136.53	119.70
78	CA	1572	G	O4'-C1'-N9	14.02	119.42	108.20
81	DA	1384	U	O4'-C1'-N1	14.02	119.41	108.20
35	BG	69	PHE	CE1-CZ-CE2	14.01	145.22	120.00
83	DC	54	A	N9-C1'-C2'	14.01	132.21	114.00
81	DA	1237	G	P-O3'-C3'	14.00	136.50	119.70
81	DA	1064	A	P-O3'-C3'	13.99	136.49	119.70
81	DA	71	A	O4'-C1'-N9	-13.99	97.01	108.20
78	CA	1702	A	N9-C1'-C2'	-13.99	95.81	114.00
81	DA	275	U	O4'-C1'-N1	13.99	119.39	108.20
81	DA	1902	G	O4'-C1'-N9	13.98	119.38	108.20
78	CA	1113	A	O4'-C1'-N9	13.98	119.38	108.20
74	BQ	252	ALA	CB-CA-C	-13.97	89.14	110.10
78	CA	36	C	P-O3'-C3'	13.97	136.47	119.70
81	DA	2187	G	C1'-O4'-C4'	13.97	121.08	109.90
81	DA	1207	G	C3'-C2'-C1'	13.97	112.68	101.50
78	CA	1405	G	N9-C1'-C2'	-13.97	95.84	114.00
9	AH	69	LEU	N-CA-CB	13.96	138.32	110.40
81	DA	1572	U	C3'-C2'-C1'	13.96	112.67	101.50
78	CA	1475	A	P-O3'-C3'	-13.95	102.96	119.70
81	DA	1859	A	O4'-C1'-C2'	-13.95	91.85	105.80
78	CA	621	A	O4'-C1'-N9	13.94	119.35	108.20
81	DA	2451	G	P-O5'-C5'	13.94	143.20	120.90
78	CA	1393	C	N1-C1'-C2'	-13.93	95.89	114.00
40	BK	101	ARG	NE-CZ-NH1	13.93	127.26	120.30
78	CA	228	G	C1'-O4'-C4'	13.92	121.03	109.90
78	CA	1196	A	O4'-C1'-N9	13.92	119.33	108.20
81	DA	2527	G	O4'-C1'-N9	13.91	119.33	108.20
78	CA	1603	U	O4'-C1'-N1	13.91	119.33	108.20
81	DA	639	G	P-O3'-C3'	13.90	136.38	119.70
74	BQ	242	SER	CA-C-O	-13.90	90.91	120.10
82	DB	134	G	P-O3'-C3'	13.90	136.38	119.70
78	CA	1541	G	C1'-O4'-C4'	-13.89	98.78	109.90
5	AC	53	ARG	NE-CZ-NH1	13.89	127.24	120.30
81	DA	3050	U	C3'-C2'-C1'	13.88	112.61	101.50
78	CA	1338	C	C5'-C4'-C3'	13.87	138.20	116.00
81	DA	72	C	P-O3'-C3'	13.87	136.34	119.70
78	CA	959	U	P-O3'-C3'	13.87	136.34	119.70
81	DA	151	A	P-O3'-C3'	13.87	136.34	119.70
81	DA	843	A	O4'-C1'-N9	13.86	119.28	108.20
78	CA	336	G	P-O3'-C3'	-13.85	103.08	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1546	G	C5'-C4'-C3'	-13.85	93.83	116.00
78	CA	1489	U	P-O3'-C3'	13.84	136.31	119.70
81	DA	229	G	P-O3'-C3'	13.84	136.31	119.70
81	DA	258	G	O4'-C1'-N9	13.84	119.27	108.20
81	DA	1185	C	P-O3'-C3'	13.84	136.31	119.70
49	BV	61	ARG	NE-CZ-NH1	13.83	127.22	120.30
78	CA	46	A	O3'-P-O5'	-13.83	77.72	104.00
81	DA	1789	G	C1'-O4'-C4'	-13.83	98.83	109.90
78	CA	229	U	O4'-C1'-N1	13.83	119.26	108.20
78	CA	1305	U	P-O3'-C3'	13.82	136.29	119.70
81	DA	2509	U	O4'-C1'-N1	13.82	119.25	108.20
31	BB	38	HIS	N-CA-CB	-13.82	85.73	110.60
35	BG	99	GLU	N-CA-C	-13.82	73.69	111.00
58	Bg	19	ARG	NE-CZ-NH1	13.82	127.21	120.30
13	AL	109	ARG	NE-CZ-NH2	-13.81	113.39	120.30
81	DA	1790	G	O4'-C1'-C2'	13.81	120.03	107.60
35	BG	98	VAL	C-N-CA	13.81	156.22	121.70
81	DA	1871	U	O5'-C5'-C4'	13.80	137.93	111.70
81	DA	2999	U	O4'-C1'-N1	13.80	119.24	108.20
81	DA	3385	U	O4'-C1'-N1	13.80	119.24	108.20
81	DA	734	C	P-O3'-C3'	13.80	136.26	119.70
81	DA	3062	G	O4'-C1'-N9	13.79	119.23	108.20
81	DA	1181	U	O4'-C1'-N1	13.79	119.23	108.20
78	CA	53	G	P-O3'-C3'	13.79	136.24	119.70
78	CA	374	U	N1-C1'-C2'	13.79	131.92	114.00
78	CA	1022	C	C3'-C2'-C1'	13.79	112.53	101.50
81	DA	3304	U	O4'-C4'-C3'	-13.78	90.22	104.00
78	CA	1453	G	P-O5'-C5'	13.78	142.95	120.90
78	CA	69	G	P-O3'-C3'	13.77	136.23	119.70
81	DA	1785	U	O4'-C1'-N1	13.77	119.21	108.20
81	DA	1870	C	C5'-C4'-C3'	13.76	138.01	116.00
81	DA	2025	G	O4'-C1'-N9	13.76	119.21	108.20
81	DA	2206	G	O4'-C1'-C2'	-13.75	92.05	105.80
81	DA	2993	G	P-O3'-C3'	13.75	136.20	119.70
83	DC	30	G	O4'-C1'-N9	13.75	119.20	108.20
81	DA	1055	A	P-O5'-C5'	13.75	142.90	120.90
1	Aa	38	ARG	NE-CZ-NH2	-13.74	113.43	120.30
81	DA	1795	U	O4'-C1'-N1	13.74	119.19	108.20
78	CA	1615	C	O4'-C1'-N1	-13.73	97.21	108.20
81	DA	1052	U	O4'-C1'-N1	13.73	119.19	108.20
81	DA	1323	G	O4'-C1'-N9	13.73	119.19	108.20
81	DA	2157	G	C3'-C2'-C1'	13.73	112.48	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2754	G	P-O3'-C3'	13.73	136.17	119.70
81	DA	1623	G	C5'-C4'-C3'	13.72	137.96	116.00
81	DA	3231	U	O4'-C1'-N1	13.72	119.18	108.20
81	DA	1651	U	O4'-C1'-N1	13.72	119.18	108.20
78	CA	1340	U	O4'-C1'-N1	13.71	119.17	108.20
81	DA	1939	G	P-O3'-C3'	13.71	136.15	119.70
81	DA	2031	U	P-O3'-C3'	13.71	136.15	119.70
34	BE	61	ARG	N-CA-CB	-13.71	85.93	110.60
82	DB	90	U	O4'-C1'-N1	13.70	119.16	108.20
78	CA	400	A	P-O3'-C3'	13.70	136.14	119.70
81	DA	2535	A	N1-C6-N6	13.70	126.82	118.60
83	DC	52	U	O4'-C1'-N1	13.69	119.15	108.20
81	DA	248	U	O4'-C1'-N1	13.68	119.15	108.20
78	CA	1310	U	C5'-C4'-C3'	-13.68	94.11	116.00
81	DA	2157	G	O4'-C1'-N9	-13.68	97.26	108.20
81	DA	442	G	P-O3'-C3'	13.67	136.11	119.70
81	DA	2363	A	N9-C1'-C2'	-13.66	96.24	114.00
81	DA	2469	G	C5'-C4'-C3'	13.66	137.86	116.00
81	DA	2618	G	O4'-C1'-N9	13.65	119.12	108.20
81	DA	2233	A	O4'-C1'-N9	13.65	119.12	108.20
81	DA	346	C	O4'-C1'-N1	-13.64	97.29	108.20
78	CA	1563	C	N1-C1'-C2'	13.64	131.73	114.00
82	DB	46	G	C1'-O4'-C4'	-13.63	98.99	109.90
33	BD	354	VAL	CA-C-N	13.63	147.19	117.20
78	CA	1690	G	O4'-C1'-C2'	-13.63	92.17	105.80
81	DA	975	C	P-O3'-C3'	13.63	136.06	119.70
78	CA	4	C	P-O3'-C3'	13.63	136.06	119.70
3	AB	18	TYR	CB-CG-CD1	-13.62	112.83	121.00
81	DA	647	A	N9-C1'-C2'	13.61	131.70	114.00
81	DA	640	U	P-O3'-C3'	13.61	136.03	119.70
81	DA	2157	G	P-O3'-C3'	13.61	136.03	119.70
82	DB	45	C	P-O3'-C3'	13.60	136.02	119.70
29	AU	70	VAL	CA-CB-CG1	-13.60	90.50	110.90
81	DA	3381	U	P-O3'-C3'	13.60	136.02	119.70
83	DC	116	U	O4'-C1'-N1	13.60	119.08	108.20
81	DA	1702	U	P-O3'-C3'	13.59	136.01	119.70
81	DA	2476	C	N1-C1'-C2'	13.59	131.67	114.00
78	CA	894	U	O3'-P-O5'	-13.58	78.19	104.00
40	BK	185	ALA	N-CA-C	13.57	147.64	111.00
78	CA	989	U	N1-C1'-C2'	13.56	131.63	114.00
33	BD	355	PHE	N-CA-CB	13.56	135.00	110.60
78	CA	713	A	O3'-P-O5'	-13.55	78.25	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	BW	98	THR	CA-CB-CG2	13.55	131.37	112.40
81	DA	2435	G	P-O3'-C3'	13.55	135.96	119.70
9	AH	23	ARG	NE-CZ-NH2	-13.55	113.53	120.30
78	CA	831	U	C3'-C2'-C1'	-13.54	90.67	101.50
81	DA	768	C	O4'-C1'-N1	13.54	119.03	108.20
81	DA	2844	C	N1-C1'-C2'	13.54	131.60	114.00
78	CA	1210	C	N1-C1'-C2'	13.54	131.60	114.00
83	DC	38	U	O4'-C1'-N1	13.54	119.03	108.20
81	DA	2435	G	N9-C1'-C2'	-13.54	96.40	114.00
81	DA	1115	G	O4'-C1'-C2'	-13.53	92.27	105.80
83	DC	31	U	O4'-C1'-N1	13.53	119.03	108.20
34	BE	55	ARG	N-CA-C	13.53	147.53	111.00
78	CA	462	G	O4'-C1'-N9	13.53	119.02	108.20
81	DA	3212	C	C3'-C2'-C1'	13.53	112.32	101.50
81	DA	3309	G	O4'-C1'-N9	13.53	119.02	108.20
78	CA	555	A	P-O3'-C3'	13.52	135.92	119.70
78	CA	839	U	C1'-O4'-C4'	13.51	120.71	109.90
81	DA	2928	C	O4'-C1'-N1	13.51	119.01	108.20
78	CA	141	U	N1-C1'-C2'	-13.51	96.44	114.00
82	DB	55	U	O4'-C1'-N1	13.51	119.01	108.20
81	DA	316	U	O4'-C1'-N1	13.51	119.01	108.20
81	DA	1630	U	O4'-C1'-N1	13.49	119.00	108.20
81	DA	160	G	C1'-O4'-C4'	-13.49	99.11	109.90
81	DA	352	A	O4'-C1'-N9	13.49	118.99	108.20
78	CA	1614	A	O4'-C1'-C2'	-13.48	92.31	105.80
81	DA	135	C	O4'-C1'-N1	13.48	118.99	108.20
81	DA	1972	A	O4'-C1'-N9	13.48	118.99	108.20
81	DA	1885	U	O4'-C1'-N1	13.48	118.98	108.20
81	DA	2367	A	N9-C1'-C2'	13.48	131.53	114.00
83	DC	21	G	O4'-C1'-N9	13.48	118.98	108.20
2	AA	11	PRO	CA-N-CD	-13.48	92.63	111.50
78	CA	652	G	N9-C1'-C2'	13.47	131.51	114.00
82	DB	158	U	O4'-C1'-N1	13.47	118.98	108.20
78	CA	1702	A	P-O3'-C3'	13.47	135.86	119.70
81	DA	1989	U	O4'-C1'-N1	13.47	118.97	108.20
81	DA	3232	G	O4'-C1'-N9	13.47	118.98	108.20
78	CA	1068	C	O4'-C1'-N1	13.46	118.97	108.20
81	DA	2637	A	P-O3'-C3'	13.45	135.84	119.70
78	CA	177	U	P-O3'-C3'	13.45	135.84	119.70
83	DC	3	U	P-O3'-C3'	13.45	135.84	119.70
74	BQ	12	TYR	CB-CG-CD1	13.45	129.07	121.00
81	DA	2181	C	O4'-C1'-N1	13.44	118.95	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2504	U	O4'-C1'-N1	13.44	118.95	108.20
44	BO	62	HIS	CA-C-N	-13.44	87.63	117.20
78	CA	1601	G	O4'-C1'-N9	13.43	118.95	108.20
81	DA	1542	G	O4'-C1'-N9	13.43	118.95	108.20
81	DA	2495	C	P-O3'-C3'	13.43	135.81	119.70
78	CA	481	A	P-O3'-C3'	13.43	135.81	119.70
78	CA	1478	G	C3'-C2'-C1'	-13.42	90.77	101.50
78	CA	183	U	P-O3'-C3'	13.41	135.80	119.70
81	DA	3136	G	P-O3'-C3'	13.41	135.79	119.70
1	Aa	54	PHE	C-N-CA	13.41	150.46	122.30
78	CA	302	U	O4'-C1'-N1	13.41	118.93	108.20
81	DA	220	G	C1'-O4'-C4'	13.40	120.62	109.90
81	DA	449	U	O4'-C1'-N1	13.40	118.92	108.20
81	DA	338	A	O4'-C1'-C2'	-13.40	92.40	105.80
81	DA	3086	A	P-O3'-C3'	13.40	135.78	119.70
78	CA	312	A	O4'-C1'-N9	-13.39	97.48	108.20
78	CA	920	U	P-O3'-C3'	13.39	135.77	119.70
62	Bk	76	ARG	NE-CZ-NH1	13.39	127.00	120.30
81	DA	1506	A	N9-C1'-C2'	-13.39	96.59	114.00
82	DB	134	G	O4'-C1'-N9	13.38	118.91	108.20
4	AD	148	ARG	NE-CZ-NH2	-13.38	113.61	120.30
78	CA	609	U	O4'-C1'-N1	-13.37	97.51	108.20
81	DA	2484	A	P-O3'-C3'	13.36	135.73	119.70
1	Aa	58	VAL	CA-C-O	-13.35	92.06	120.10
5	AC	8	TYR	CB-CG-CD2	-13.35	112.99	121.00
16	AO	64	ARG	CB-CA-C	13.35	137.11	110.40
78	CA	326	G	O4'-C4'-C3'	13.35	117.35	104.00
45	BR	13	SER	CA-C-O	-13.35	92.07	120.10
60	Bi	41	ARG	NE-CZ-NH1	13.34	126.97	120.30
81	DA	1507	G	O4'-C1'-N9	13.34	118.87	108.20
81	DA	2175	U	C3'-C2'-C1'	13.34	112.17	101.50
81	DA	124	U	O4'-C1'-C2'	-13.34	92.46	105.80
78	CA	169	A	C1'-O4'-C4'	13.33	120.57	109.90
81	DA	993	G	C1'-O4'-C4'	-13.33	99.23	109.90
78	CA	152	U	O4'-C1'-N1	13.33	118.86	108.20
76	BS	52	LYS	CB-CA-C	-13.33	83.75	110.40
78	CA	1387	G	P-O5'-C5'	13.33	142.22	120.90
81	DA	161	G	P-O3'-C3'	13.32	135.69	119.70
2	AA	11	PRO	N-CA-CB	13.30	119.27	103.30
81	DA	3020	U	O4'-C1'-N1	13.30	118.84	108.20
81	DA	169	U	O4'-C1'-N1	13.30	118.84	108.20
81	DA	266	A	O4'-C1'-N9	13.30	118.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1648	A	O4'-C1'-N9	13.30	118.84	108.20
78	CA	455	C	O4'-C1'-N1	13.29	118.83	108.20
81	DA	608	A	P-O3'-C3'	13.29	135.65	119.70
78	CA	1622	G	O4'-C1'-N9	13.29	118.83	108.20
81	DA	331	G	O4'-C1'-C2'	-13.28	92.52	105.80
81	DA	1790	G	C1'-O4'-C4'	-13.29	99.27	109.90
78	CA	558	U	N1-C1'-C2'	13.28	131.26	114.00
81	DA	1403	C	P-O3'-C3'	13.28	135.63	119.70
83	DC	114	A	O4'-C1'-C2'	13.28	119.55	107.60
78	CA	368	U	N1-C1'-C2'	13.28	131.26	114.00
78	CA	350	U	O4'-C1'-N1	13.27	118.82	108.20
81	DA	1698	C	N1-C1'-C2'	-13.27	96.75	114.00
81	DA	2001	U	O4'-C1'-N1	13.27	118.82	108.20
81	DA	1263	A	N9-C1'-C2'	13.27	131.25	114.00
78	CA	312	A	P-O3'-C3'	13.26	135.62	119.70
81	DA	1694	U	N1-C1'-C2'	-13.26	96.76	114.00
82	DB	90	U	P-O3'-C3'	13.25	135.60	119.70
81	DA	531	G	C3'-C2'-C1'	13.25	112.10	101.50
78	CA	1653	C	P-O3'-C3'	13.24	135.59	119.70
81	DA	2177	G	C3'-C2'-C1'	13.24	112.09	101.50
81	DA	2768	U	O4'-C1'-N1	13.24	118.79	108.20
81	DA	3224	G	P-O3'-C3'	13.23	135.58	119.70
81	DA	1034	U	P-O3'-C3'	13.23	135.58	119.70
81	DA	2770	G	O4'-C1'-N9	-13.22	97.62	108.20
78	CA	123	G	O3'-P-O5'	-13.22	78.88	104.00
78	CA	1386	G	N9-C1'-C2'	-13.22	96.81	114.00
83	DC	46	A	N9-C1'-C2'	-13.22	96.81	114.00
81	DA	2493	U	P-O5'-C5'	13.21	142.04	120.90
81	DA	3306	U	C5'-C4'-O4'	13.22	124.96	109.10
81	DA	3394	U	P-O3'-C3'	13.21	135.56	119.70
78	CA	1137	A	P-O3'-C3'	13.21	135.55	119.70
81	DA	1250	G	N9-C1'-C2'	-13.21	96.83	114.00
81	DA	2165	G	P-O3'-C3'	13.20	135.54	119.70
83	DC	114	A	P-O3'-C3'	13.20	135.54	119.70
78	CA	178	U	O3'-P-O5'	-13.20	78.92	104.00
78	CA	1792	G	O4'-C1'-N9	13.19	118.75	108.20
81	DA	2801	A	O4'-C1'-N9	13.19	118.75	108.20
78	CA	1453	G	O4'-C1'-C2'	-13.18	92.62	105.80
81	DA	1687	U	N1-C1'-C2'	13.18	131.13	114.00
81	DA	2950	G	O4'-C1'-N9	13.17	118.74	108.20
78	CA	1527	C	P-O3'-C3'	13.17	135.50	119.70
81	DA	2390	A	P-O5'-C5'	13.17	141.97	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2770	G	N9-C1'-C2'	13.17	131.12	114.00
81	DA	2716	U	P-O3'-C3'	13.17	135.50	119.70
78	CA	1356	U	P-O5'-C5'	13.16	141.96	120.90
78	CA	607	G	P-O3'-C3'	13.16	135.50	119.70
81	DA	3234	A	O4'-C1'-N9	13.16	118.73	108.20
78	CA	1549	C	P-O3'-C3'	13.16	135.49	119.70
81	DA	1746	U	O4'-C1'-N1	13.15	118.72	108.20
81	DA	1569	U	P-O3'-C3'	13.15	135.48	119.70
78	CA	1720	G	O4'-C1'-N9	13.15	118.72	108.20
81	DA	1056	U	P-O5'-C5'	13.14	141.93	120.90
78	CA	1190	C	O5'-C5'-C4'	13.13	136.65	111.70
78	CA	1584	G	O4'-C1'-C2'	13.13	119.42	107.60
81	DA	2217	U	O4'-C1'-N1	13.13	118.71	108.20
82	DB	50	C	C1'-O4'-C4'	13.13	120.40	109.90
78	CA	897	C	O4'-C1'-C2'	-13.12	92.68	105.80
81	DA	690	A	P-O3'-C3'	13.12	135.44	119.70
81	DA	1963	G	O4'-C1'-N9	13.11	118.69	108.20
81	DA	2591	A	O4'-C1'-N9	13.11	118.69	108.20
39	BJ	76	SER	N-CA-CB	13.11	130.16	110.50
81	DA	209	A	C1'-O4'-C4'	13.11	120.38	109.90
81	DA	1826	C	N1-C1'-C2'	-13.10	96.97	114.00
81	DA	2368	A	O4'-C1'-N9	13.10	118.68	108.20
78	CA	1579	U	P-O5'-C5'	13.10	141.85	120.90
81	DA	800	G	O4'-C1'-N9	13.10	118.68	108.20
50	BX	93	TYR	CB-CG-CD2	13.09	128.85	121.00
78	CA	967	A	O4'-C1'-N9	13.09	118.67	108.20
81	DA	155	G	P-O3'-C3'	13.09	135.41	119.70
43	BP	148	TYR	CB-CG-CD1	-13.09	113.15	121.00
81	DA	414	U	O4'-C1'-N1	13.09	118.67	108.20
82	DB	103	G	N9-C1'-C2'	13.09	131.02	114.00
81	DA	1679	A	C5'-C4'-C3'	13.09	136.94	116.00
81	DA	2081	U	O4'-C1'-N1	13.09	118.67	108.20
78	CA	1547	A	OP1-P-OP2	-13.09	99.97	119.60
81	DA	1793	C	P-O3'-C3'	13.09	135.40	119.70
81	DA	531	G	N9-C1'-C2'	13.08	131.01	114.00
81	DA	2361	A	P-O3'-C3'	13.08	135.39	119.70
35	BG	153	PRO	N-CA-CB	-13.07	87.61	103.30
78	CA	465	G	O4'-C1'-N9	13.07	118.66	108.20
81	DA	1499	C	P-O3'-C3'	13.07	135.38	119.70
81	DA	3090	U	P-O3'-C3'	13.07	135.38	119.70
81	DA	2475	G	O4'-C1'-C2'	-13.06	92.74	105.80
83	DC	45	A	P-O3'-C3'	-13.05	104.04	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Aa	58	VAL	CA-C-N	13.04	145.89	117.20
81	DA	1561	G	C1'-O4'-C4'	-13.04	99.47	109.90
81	DA	3034	C	O4'-C1'-C2'	-13.04	92.76	105.80
78	CA	677	G	O4'-C1'-N9	13.03	118.63	108.20
81	DA	3304	U	C5'-C4'-O4'	-13.03	93.46	109.10
81	DA	608	A	N9-C1'-C2'	13.03	130.94	114.00
78	CA	453	U	O4'-C1'-N1	13.03	118.62	108.20
81	DA	1282	G	P-O3'-C3'	13.03	135.33	119.70
81	DA	3282	U	N1-C1'-C2'	13.02	130.92	114.00
81	DA	2770	G	C3'-C2'-C1'	13.01	111.91	101.50
37	BH	236	GLY	CA-C-O	-13.01	97.18	120.60
79	CB	55	C	O4'-C1'-N1	-13.01	97.79	108.20
81	DA	309	U	P-O3'-C3'	13.00	135.29	119.70
81	DA	3051	U	O4'-C1'-N1	12.99	118.60	108.20
78	CA	1746	A	P-O3'-C3'	12.99	135.28	119.70
78	CA	546	U	P-O3'-C3'	12.98	135.28	119.70
81	DA	2815	G	P-O3'-C3'	12.98	135.28	119.70
78	CA	853	G	N9-C1'-C2'	-12.98	97.13	114.00
78	CA	681	U	O4'-C1'-N1	12.98	118.58	108.20
81	DA	3149	G	C3'-C2'-C1'	-12.98	91.12	101.50
78	CA	1302	U	O4'-C1'-N1	12.97	118.58	108.20
81	DA	702	C	C3'-C2'-C1'	12.97	111.88	101.50
40	BK	48	PHE	CB-CG-CD1	-12.97	111.72	120.80
78	CA	1426	C	P-O3'-C3'	12.97	135.26	119.70
82	DB	95	G	P-O3'-C3'	12.96	135.26	119.70
81	DA	1446	A	P-O3'-C3'	12.96	135.25	119.70
78	CA	374	U	C1'-O4'-C4'	-12.96	99.53	109.90
81	DA	1938	U	O4'-C1'-N1	12.96	118.57	108.20
81	DA	3051	U	C5'-C4'-C3'	12.96	136.73	116.00
81	DA	2799	A	P-O3'-C3'	12.95	135.24	119.70
81	DA	3000	A	P-O3'-C3'	12.95	135.24	119.70
82	DB	153	U	O4'-C1'-N1	12.94	118.55	108.20
32	BC	100	ARG	NE-CZ-NH2	-12.94	113.83	120.30
81	DA	3325	G	O4'-C1'-N9	12.94	118.55	108.20
78	CA	591	A	N9-C1'-C2'	12.94	130.82	114.00
78	CA	492	A	N1-C6-N6	12.94	126.36	118.60
78	CA	1791	A	O4'-C1'-C2'	-12.94	92.86	105.80
81	DA	353	G	O4'-C1'-N9	12.93	118.55	108.20
81	DA	2757	U	N1-C1'-C2'	12.93	130.81	114.00
81	DA	1948	G	P-O3'-C3'	12.93	135.22	119.70
21	AT	54	ALA	O-C-N	-12.93	102.01	122.70
78	CA	1478	G	P-O5'-C5'	12.93	141.59	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1831	U	C1'-O4'-C4'	12.93	120.24	109.90
78	CA	178	U	O4'-C4'-C3'	-12.92	91.08	104.00
82	DB	152	G	O4'-C1'-N9	12.92	118.53	108.20
78	CA	1537	C	P-O3'-C3'	12.91	135.20	119.70
81	DA	658	G	O4'-C1'-C2'	12.90	119.21	107.60
81	DA	1055	A	C1'-O4'-C4'	12.90	120.22	109.90
81	DA	1717	U	O4'-C1'-N1	12.90	118.52	108.20
81	DA	1832	C	P-O5'-C5'	12.90	141.54	120.90
81	DA	2208	A	O4'-C1'-C2'	-12.90	92.90	105.80
81	DA	3141	A	P-O3'-C3'	12.89	135.17	119.70
78	CA	1612	U	O4'-C1'-N1	12.89	118.51	108.20
35	BG	3	ALA	N-CA-CB	-12.88	92.06	110.10
81	DA	860	G	O4'-C1'-N9	12.88	118.51	108.20
81	DA	1791	C	O3'-P-O5'	-12.88	79.52	104.00
81	DA	2514	U	O4'-C1'-C2'	-12.88	92.92	105.80
81	DA	2405	C	O4'-C1'-N1	12.88	118.50	108.20
5	AC	183	ALA	N-CA-CB	-12.87	92.08	110.10
82	DB	98	U	O5'-P-OP1	-12.87	94.12	105.70
81	DA	1332	A	N9-C1'-C2'	12.87	130.73	114.00
81	DA	1221	A	N9-C1'-C2'	-12.86	97.28	114.00
81	DA	785	G	P-O3'-C3'	12.86	135.13	119.70
78	CA	32	U	N1-C1'-C2'	-12.85	97.29	114.00
78	CA	1263	G	O4'-C1'-N9	12.85	118.48	108.20
81	DA	1674	G	O4'-C1'-N9	12.85	118.48	108.20
81	DA	1682	U	P-O3'-C3'	12.85	135.12	119.70
78	CA	1562	G	O4'-C1'-C2'	-12.85	92.95	105.80
81	DA	969	C	N1-C1'-C2'	-12.85	97.29	114.00
81	DA	2683	U	O4'-C1'-N1	12.85	118.48	108.20
81	DA	304	G	O4'-C1'-N9	12.85	118.48	108.20
78	CA	1214	U	O4'-C1'-N1	12.84	118.47	108.20
83	DC	70	A	P-O3'-C3'	12.84	135.11	119.70
81	DA	2406	C	O4'-C1'-N1	12.83	118.47	108.20
81	DA	745	C	N1-C1'-C2'	12.83	130.68	114.00
78	CA	1613	U	O4'-C1'-N1	12.82	118.46	108.20
81	DA	3330	A	O5'-P-OP2	-12.82	94.16	105.70
79	CB	30	G	P-O3'-C3'	12.82	135.08	119.70
81	DA	1324	U	O4'-C1'-N1	12.82	118.45	108.20
82	DB	2	A	O4'-C1'-N9	12.82	118.46	108.20
78	CA	948	G	C1'-O4'-C4'	-12.82	99.65	109.90
78	CA	485	A	N1-C6-N6	12.81	126.29	118.60
81	DA	1637	A	P-O3'-C3'	12.81	135.07	119.70
81	DA	2334	U	O4'-C1'-N1	12.81	118.45	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	760	G	C1'-O4'-C4'	-12.80	99.66	109.90
78	CA	140	A	C1'-O4'-C4'	12.80	120.14	109.90
78	CA	824	G	P-O3'-C3'	12.80	135.06	119.70
78	CA	1398	U	O4'-C1'-C2'	12.79	119.11	107.60
81	DA	71	A	P-O3'-C3'	12.79	135.04	119.70
81	DA	1805	C	P-O3'-C3'	12.79	135.04	119.70
51	BZ	56	ARG	NE-CZ-NH2	-12.79	113.91	120.30
83	DC	16	U	P-O3'-C3'	12.78	135.04	119.70
38	Bs	179	SER	C-N-CD	-12.78	92.48	120.60
81	DA	1825	G	C3'-C2'-C1'	-12.78	91.28	101.50
81	DA	2403	G	O4'-C1'-C2'	-12.78	93.03	105.80
81	DA	3383	G	P-O3'-C3'	12.77	135.03	119.70
52	BY	13	ARG	NE-CZ-NH2	12.77	126.69	120.30
81	DA	2163	C	O4'-C1'-C2'	-12.77	93.03	105.80
81	DA	3189	G	P-O3'-C3'	12.77	135.03	119.70
81	DA	1678	G	N9-C1'-C2'	-12.77	97.40	114.00
81	DA	3034	C	C3'-C2'-C1'	12.77	111.72	101.50
78	CA	667	U	P-O3'-C3'	12.77	135.02	119.70
5	AC	95	TYR	CB-CG-CD2	-12.76	113.34	121.00
78	CA	822	U	O4'-C1'-N1	12.75	118.40	108.20
82	DB	149	A	P-O3'-C3'	12.75	135.00	119.70
78	CA	1580	C	N1-C1'-C2'	12.75	130.58	114.00
81	DA	1277	C	P-O3'-C3'	12.75	135.00	119.70
83	DC	7	G	P-O3'-C3'	12.75	135.00	119.70
81	DA	935	U	O4'-C1'-N1	12.74	118.39	108.20
81	DA	1208	U	C5'-C4'-C3'	12.74	136.38	116.00
49	BV	162	GLU	O-C-N	-12.74	102.32	122.70
81	DA	1303	A	O4'-C1'-N9	12.73	118.39	108.20
81	DA	3361	G	O4'-C1'-C2'	-12.73	93.07	105.80
81	DA	209	A	N9-C1'-C2'	-12.73	97.45	114.00
81	DA	3163	A	P-O3'-C3'	12.72	134.97	119.70
81	DA	783	A	P-O3'-C3'	12.72	134.96	119.70
81	DA	2174	G	O3'-P-O5'	-12.72	79.83	104.00
16	AO	104	ARG	NE-CZ-NH1	12.72	126.66	120.30
81	DA	2741	C	C3'-C2'-C1'	12.72	111.67	101.50
81	DA	2677	G	O4'-C1'-C2'	-12.71	93.09	105.80
83	DC	47	C	O5'-P-OP2	-12.71	94.27	105.70
32	BC	156	SER	N-CA-CB	12.70	129.55	110.50
76	BS	160	PRO	CA-C-N	12.69	152.64	117.10
81	DA	566	G	P-O3'-C3'	12.70	134.93	119.70
81	DA	894	G	P-O3'-C3'	12.69	134.93	119.70
81	DA	1569	U	O4'-C1'-N1	12.69	118.36	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2502	A	O4'-C1'-N9	12.69	118.36	108.20
78	CA	267	U	O4'-C1'-C2'	-12.69	93.11	105.80
81	DA	2437	G	P-O3'-C3'	12.69	134.93	119.70
78	CA	1420	C	C3'-C2'-C1'	12.69	111.65	101.50
81	DA	798	G	O4'-C1'-N9	12.69	118.35	108.20
81	DA	1221	A	O4'-C1'-C2'	12.69	119.02	107.60
81	DA	2682	C	P-O3'-C3'	12.69	134.92	119.70
81	DA	3361	G	P-O3'-C3'	12.69	134.92	119.70
81	DA	1859	A	N9-C1'-C2'	-12.67	97.53	114.00
78	CA	327	U	O4'-C1'-N1	12.67	118.34	108.20
81	DA	673	U	O4'-C1'-N1	12.67	118.34	108.20
81	DA	2998	U	N1-C1'-C2'	-12.67	97.53	114.00
81	DA	1362	G	O4'-C1'-N9	12.66	118.33	108.20
81	DA	2627	C	C5'-C4'-C3'	-12.66	95.74	116.00
81	DA	1209	G	P-O3'-C3'	12.66	134.90	119.70
63	Bm	85	ARG	NE-CZ-NH2	-12.66	113.97	120.30
78	CA	838	G	O4'-C1'-C2'	-12.66	93.14	105.80
81	DA	545	U	O4'-C1'-N1	12.65	118.32	108.20
81	DA	3091	A	P-O3'-C3'	12.65	134.88	119.70
32	BC	344	THR	N-CA-CB	12.65	134.33	110.30
81	DA	2172	A	C1'-O4'-C4'	-12.65	99.78	109.90
83	DC	21	G	C3'-C2'-C1'	-12.64	91.39	101.50
32	BC	284	ARG	NE-CZ-NH2	-12.64	113.98	120.30
78	CA	719	U	P-O3'-C3'	12.64	134.86	119.70
78	CA	123	G	O4'-C1'-C2'	-12.63	93.17	105.80
78	CA	1395	G	P-O3'-C3'	12.63	134.86	119.70
81	DA	2086	A	P-O3'-C3'	12.63	134.86	119.70
81	DA	3091	A	O4'-C1'-C2'	-12.63	93.17	105.80
81	DA	2160	G	N9-C1'-C2'	12.63	130.42	114.00
78	CA	219	A	O4'-C1'-N9	12.63	118.30	108.20
38	Bs	42	ARG	NE-CZ-NH1	12.62	126.61	120.30
78	CA	729	G	P-O3'-C3'	12.62	134.84	119.70
81	DA	1309	U	O4'-C1'-N1	12.62	118.30	108.20
81	DA	1740	U	O4'-C1'-N1	12.62	118.30	108.20
81	DA	3302	U	O4'-C1'-N1	12.61	118.29	108.20
78	CA	885	G	N9-C1'-C2'	12.61	130.39	114.00
39	BJ	76	SER	N-CA-C	-12.60	76.97	111.00
78	CA	1670	G	O4'-C1'-N9	12.60	118.28	108.20
78	CA	957	G	O4'-C1'-N9	12.60	118.28	108.20
78	CA	1348	A	N9-C1'-C2'	12.60	130.38	114.00
81	DA	491	C	P-O3'-C3'	12.59	134.81	119.70
81	DA	1335	C	P-O3'-C3'	12.59	134.81	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2754	G	O4'-C1'-N9	12.59	118.27	108.20
11	AJ	85	ARG	CD-NE-CZ	12.59	141.22	123.60
78	CA	970	A	O4'-C1'-N9	12.58	118.27	108.20
67	Bp	31	ALA	N-CA-CB	12.58	127.71	110.10
81	DA	1180	A	O4'-C1'-N9	12.58	118.26	108.20
78	CA	1058	U	P-O3'-C3'	12.58	134.79	119.70
81	DA	2176	U	N1-C1'-C2'	12.58	130.35	114.00
81	DA	2402	A	O4'-C1'-N9	12.57	118.26	108.20
47	BU	142	SER	N-CA-CB	12.56	129.35	110.50
81	DA	3357	U	P-O3'-C3'	12.56	134.77	119.70
81	DA	1776	G	O4'-C1'-N9	12.56	118.25	108.20
81	DA	65	A	P-O3'-C3'	12.56	134.77	119.70
78	CA	1108	G	N9-C1'-C2'	-12.56	97.67	114.00
81	DA	1926	C	O4'-C1'-N1	12.55	118.24	108.20
78	CA	894	U	O4'-C1'-N1	12.55	118.24	108.20
81	DA	1820	U	O4'-C1'-C2'	-12.55	93.25	105.80
81	DA	1842	A	O4'-C1'-C2'	-12.55	93.25	105.80
81	DA	2796	G	O4'-C1'-N9	12.55	118.24	108.20
81	DA	20	A	P-O3'-C3'	12.54	134.75	119.70
81	DA	3348	G	O4'-C1'-N9	12.54	118.23	108.20
78	CA	529	A	P-O5'-C5'	-12.54	100.84	120.90
81	DA	768	C	P-O3'-C3'	12.54	134.74	119.70
78	CA	874	C	N1-C1'-C2'	12.53	130.29	114.00
78	CA	1736	G	O4'-C1'-N9	12.53	118.23	108.20
81	DA	422	A	C1'-O4'-C4'	12.53	119.93	109.90
81	DA	1160	C	P-O3'-C3'	12.53	134.74	119.70
81	DA	2348	A	N9-C1'-C2'	12.52	130.28	114.00
78	CA	651	G	N9-C1'-C2'	12.52	130.28	114.00
81	DA	3349	C	P-O3'-C3'	12.52	134.73	119.70
81	DA	3107	U	N1-C1'-C2'	12.52	130.28	114.00
81	DA	1316	C	N1-C1'-C2'	12.52	130.27	114.00
78	CA	505	A	N1-C6-N6	12.52	126.11	118.60
83	DC	42	A	C3'-C2'-C1'	12.51	111.51	101.50
78	CA	1364	G	P-O3'-C3'	12.51	134.71	119.70
81	DA	2001	U	O4'-C1'-C2'	-12.50	93.30	105.80
81	DA	2672	G	O3'-P-O5'	-12.49	80.26	104.00
81	DA	2525	G	P-O3'-C3'	12.48	134.68	119.70
78	CA	1393	C	C1'-O4'-C4'	12.48	119.89	109.90
78	CA	650	U	C1'-O4'-C4'	12.47	119.88	109.90
81	DA	2107	A	P-O3'-C3'	12.47	134.67	119.70
81	DA	2363	A	P-O3'-C3'	12.47	134.66	119.70
81	DA	2916	U	C5'-C4'-C3'	12.47	135.95	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	102	C	C3'-C2'-C1'	12.47	111.47	101.50
78	CA	951	A	O4'-C1'-N9	12.47	118.17	108.20
53	Ba	55	LYS	C-N-CA	12.46	152.85	121.70
81	DA	1455	U	C1'-O4'-C4'	12.46	119.87	109.90
81	DA	665	A	O4'-C1'-N9	-12.46	98.23	108.20
4	AD	108	ARG	NE-CZ-NH2	-12.45	114.07	120.30
81	DA	634	C	N1-C1'-C2'	12.45	130.19	114.00
10	AI	138	PHE	CB-CG-CD1	12.45	129.51	120.80
81	DA	2141	U	O4'-C1'-N1	-12.45	98.24	108.20
81	DA	2192	C	P-O3'-C3'	12.45	134.64	119.70
82	DB	65	A	P-O3'-C3'	12.45	134.63	119.70
53	Ba	9	LYS	N-CA-CB	-12.44	88.21	110.60
81	DA	70	A	C3'-C2'-C1'	12.44	111.45	101.50
81	DA	689	U	O4'-C1'-N1	12.44	118.15	108.20
78	CA	295	A	C1'-O4'-C4'	12.43	119.84	109.90
81	DA	1007	U	C1'-O4'-C4'	-12.43	99.96	109.90
83	DC	69	G	P-O3'-C3'	12.42	134.61	119.70
81	DA	1008	U	P-O3'-C3'	12.42	134.60	119.70
32	BC	130	PHE	N-CA-C	-12.41	77.49	111.00
78	CA	478	A	P-O3'-C3'	12.41	134.59	119.70
78	CA	1009	U	P-O3'-C3'	12.40	134.59	119.70
81	DA	169	U	C1'-O4'-C4'	12.40	119.82	109.90
78	CA	1386	G	C3'-C2'-C1'	-12.40	91.58	101.50
81	DA	637	C	C3'-C2'-C1'	12.40	111.42	101.50
81	DA	1073	U	O4'-C1'-N1	12.40	118.12	108.20
81	DA	2280	A	P-O3'-C3'	12.40	134.58	119.70
82	DB	58	G	P-O3'-C3'	12.40	134.58	119.70
81	DA	2479	C	C3'-C2'-C1'	-12.39	91.58	101.50
78	CA	583	C	N1-C1'-C2'	12.39	130.11	114.00
81	DA	916	G	P-O3'-C3'	12.39	134.57	119.70
78	CA	858	G	O4'-C1'-N9	12.39	118.11	108.20
78	CA	1453	G	O4'-C1'-N9	12.38	118.11	108.20
32	BC	6	TYR	CB-CG-CD1	-12.38	113.57	121.00
81	DA	2254	U	C1'-O4'-C4'	12.38	119.81	109.90
78	CA	1396	U	P-O3'-C3'	12.38	134.55	119.70
81	DA	2294	U	O4'-C1'-N1	12.38	118.10	108.20
78	CA	1419	G	C3'-C2'-C1'	-12.36	91.61	101.50
81	DA	2988	C	C3'-C2'-C1'	12.36	111.39	101.50
81	DA	769	G	P-O3'-C3'	12.36	134.53	119.70
81	DA	1730	G	O4'-C1'-N9	12.35	118.08	108.20
78	CA	689	G	O4'-C1'-N9	12.35	118.08	108.20
78	CA	1433	G	O4'-C1'-C2'	-12.35	93.45	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1314	C	C3'-C2'-C1'	12.34	111.37	101.50
81	DA	448	U	P-O3'-C3'	12.34	134.51	119.70
78	CA	1086	A	N9-C1'-C2'	12.34	130.03	114.00
74	BQ	136	GLU	O-C-N	12.33	142.44	122.70
81	DA	1757	A	P-O3'-C3'	12.33	134.50	119.70
78	CA	483	A	N1-C6-N6	12.33	126.00	118.60
78	CA	1348	A	C1'-O4'-C4'	-12.32	100.04	109.90
81	DA	2631	U	P-O3'-C3'	12.32	134.49	119.70
81	DA	1235	U	P-O3'-C3'	12.31	134.48	119.70
29	AU	62	THR	CA-CB-CG2	-12.31	95.16	112.40
81	DA	1879	A	P-O3'-C3'	12.31	134.47	119.70
81	DA	2072	G	P-O3'-C3'	12.30	134.46	119.70
78	CA	1635	A	N1-C6-N6	12.30	125.98	118.60
81	DA	2185	G	O4'-C1'-N9	12.30	118.04	108.20
81	DA	2627	C	C3'-C2'-C1'	12.29	111.33	101.50
78	CA	1190	C	O4'-C1'-N1	12.29	118.03	108.20
81	DA	1673	G	P-O3'-C3'	12.29	134.45	119.70
81	DA	2907	G	O4'-C1'-N9	12.29	118.03	108.20
78	CA	1027	A	O4'-C1'-N9	12.29	118.03	108.20
78	CA	1338	C	P-O3'-C3'	12.28	134.44	119.70
78	CA	1458	G	C1'-O4'-C4'	-12.28	100.08	109.90
81	DA	3252	G	O4'-C1'-N9	12.28	118.02	108.20
81	DA	2527	G	C3'-C2'-C1'	-12.28	91.68	101.50
81	DA	2617	U	N1-C1'-C2'	-12.28	98.04	114.00
81	DA	2757	U	C4'-C3'-C2'	-12.28	90.32	102.60
81	DA	2763	U	N1-C1'-C2'	-12.27	98.05	114.00
78	CA	513	U	P-O3'-C3'	12.27	134.42	119.70
81	DA	1871	U	P-O5'-C5'	12.27	140.52	120.90
78	CA	81	G	C1'-O4'-C4'	-12.26	100.09	109.90
81	DA	1410	U	O4'-C1'-N1	12.26	118.01	108.20
81	DA	2067	U	N1-C1'-C2'	-12.26	98.06	114.00
81	DA	2676	A	P-O3'-C3'	12.26	134.42	119.70
81	DA	2632	G	P-O3'-C3'	-12.26	104.99	119.70
64	Bl	63	ARG	CB-CG-CD	12.26	143.47	111.60
81	DA	70	A	O4'-C1'-N9	-12.26	98.39	108.20
81	DA	606	C	P-O3'-C3'	12.26	134.41	119.70
82	DB	33	A	P-O3'-C3'	12.26	134.41	119.70
55	Bc	70	TYR	CB-CG-CD1	12.25	128.35	121.00
83	DC	45	A	O4'-C1'-C2'	-12.25	93.55	105.80
81	DA	982	C	O4'-C1'-C2'	-12.24	93.56	105.80
81	DA	2452	G	O4'-C1'-C2'	-12.24	93.56	105.80
82	DB	32	C	N1-C1'-C2'	12.24	129.91	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	108	U	P-O5'-C5'	12.24	140.49	120.90
13	AL	1	MET	C-N-CA	12.24	148.00	122.30
3	AB	34	TYR	CB-CG-CD2	-12.23	113.66	121.00
20	AS	102	ARG	NH1-CZ-NH2	12.23	132.86	119.40
81	DA	1209	G	O4'-C1'-N9	12.23	117.98	108.20
81	DA	2510	U	P-O5'-C5'	12.23	140.47	120.90
81	DA	1998	G	O4'-C1'-N9	12.23	117.98	108.20
39	BJ	92	ARG	NE-CZ-NH2	-12.22	114.19	120.30
78	CA	49	C	P-O3'-C3'	-12.22	105.04	119.70
81	DA	2934	A	O4'-C1'-C2'	-12.22	93.58	105.80
35	BG	75	PRO	N-CA-C	12.22	143.87	112.10
78	CA	355	G	O4'-C1'-N9	12.22	117.97	108.20
81	DA	2540	A	N1-C6-N6	12.22	125.93	118.60
81	DA	1127	G	O4'-C1'-N9	12.22	117.97	108.20
78	CA	1608	U	O4'-C1'-N1	12.21	117.97	108.20
81	DA	672	A	C1'-O4'-C4'	-12.21	100.14	109.90
78	CA	489	C	O4'-C1'-N1	12.20	117.96	108.20
81	DA	2818	U	O4'-C1'-N1	12.20	117.96	108.20
31	BB	245	LEU	CA-C-N	12.20	144.04	117.20
81	DA	1298	C	P-O3'-C3'	12.20	134.34	119.70
81	DA	1298	C	N1-C1'-C2'	12.19	129.85	114.00
69	Br	104	LEU	C-N-CA	12.19	152.18	121.70
81	DA	3212	C	O4'-C1'-C2'	-12.19	93.61	105.80
83	DC	61	U	O4'-C1'-N1	12.19	117.95	108.20
81	DA	2254	U	O4'-C1'-C2'	-12.19	93.61	105.80
81	DA	740	G	N1-C6-O6	12.19	127.21	119.90
81	DA	1847	A	P-O3'-C3'	12.19	134.33	119.70
81	DA	3203	U	P-O3'-C3'	12.19	134.32	119.70
26	AZ	54	ARG	NE-CZ-NH2	-12.19	114.21	120.30
20	AS	96	ALA	CA-C-N	12.18	144.00	117.20
63	Bm	36	ARG	NE-CZ-NH2	12.18	126.39	120.30
81	DA	680	G	P-O3'-C3'	12.18	134.32	119.70
78	CA	1584	G	P-O3'-C3'	12.18	134.31	119.70
78	CA	1107	G	C3'-C2'-C1'	12.17	111.24	101.50
79	CB	11	U	P-O3'-C3'	12.17	134.30	119.70
78	CA	630	A	P-O3'-C3'	12.16	134.30	119.70
78	CA	1419	G	C5'-C4'-C3'	12.16	135.46	116.00
81	DA	157	A	P-O3'-C3'	12.16	134.29	119.70
81	DA	3103	A	C3'-C2'-C1'	12.16	111.23	101.50
81	DA	2840	C	O4'-C1'-C2'	-12.16	93.64	105.80
81	DA	2633	U	P-O5'-C5'	12.15	140.35	120.90
78	CA	1129	U	O4'-C1'-N1	12.15	117.92	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	594	A	O4'-C1'-N9	12.15	117.92	108.20
82	DB	139	U	O4'-C1'-N1	12.15	117.92	108.20
81	DA	136	G	C5'-C4'-C3'	12.14	135.43	116.00
81	DA	1885	U	P-O3'-C3'	12.14	134.27	119.70
78	CA	955	A	O4'-C1'-N9	12.14	117.91	108.20
81	DA	1668	G	P-O3'-C3'	12.14	134.27	119.70
81	DA	2175	U	O5'-C5'-C4'	-12.14	88.64	111.70
82	DB	91	C	O4'-C1'-C2'	-12.14	93.66	105.80
81	DA	2779	A	P-O3'-C3'	12.14	134.26	119.70
82	DB	121	U	P-O3'-C3'	12.14	134.26	119.70
81	DA	451	U	O4'-C1'-N1	12.13	117.91	108.20
33	BD	194	TYR	CB-CG-CD2	-12.13	113.72	121.00
81	DA	2001	U	C1'-O4'-C4'	12.13	119.60	109.90
81	DA	182	U	O4'-C1'-N1	12.13	117.90	108.20
81	DA	1789	G	C3'-C2'-C1'	-12.13	91.80	101.50
81	DA	2436	U	O3'-P-O5'	-12.12	80.96	104.00
81	DA	623	U	P-O3'-C3'	12.12	134.25	119.70
81	DA	408	A	P-O3'-C3'	12.12	134.24	119.70
81	DA	3387	U	O4'-C1'-N1	12.12	117.90	108.20
79	CB	25	U	P-O3'-C3'	12.11	134.24	119.70
81	DA	2869	U	O4'-C1'-C2'	-12.12	93.69	105.80
81	DA	2663	G	P-O3'-C3'	12.11	134.23	119.70
78	CA	1181	U	O4'-C1'-N1	12.11	117.89	108.20
78	CA	393	C	P-O3'-C3'	12.11	134.23	119.70
81	DA	250	U	P-O3'-C3'	12.11	134.23	119.70
81	DA	2763	U	O4'-C1'-C2'	-12.10	93.70	105.80
81	DA	2323	G	O4'-C1'-N9	12.10	117.88	108.20
82	DB	131	A	O4'-C1'-N9	12.10	117.88	108.20
76	BS	160	PRO	O-C-N	-12.10	98.12	121.10
78	CA	630	A	C1'-O4'-C4'	12.10	119.58	109.90
81	DA	1191	U	O4'-C1'-C2'	-12.10	93.70	105.80
83	DC	111	U	O4'-C1'-N1	12.10	117.88	108.20
81	DA	688	G	P-O3'-C3'	12.09	134.21	119.70
26	AZ	33	ARG	NE-CZ-NH1	12.09	126.35	120.30
78	CA	1322	A	O5'-C5'-C4'	12.09	134.66	111.70
81	DA	1955	U	N1-C1'-C2'	-12.09	98.29	114.00
78	CA	1633	A	N1-C6-N6	12.08	125.85	118.60
78	CA	1701	A	P-O3'-C3'	12.08	134.20	119.70
81	DA	2511	A	P-O5'-C5'	12.08	140.23	120.90
78	CA	932	U	O4'-C1'-N1	12.08	117.86	108.20
78	CA	882	U	O4'-C1'-N1	12.08	117.86	108.20
81	DA	2179	C	P-O3'-C3'	12.08	134.19	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1293	U	O4'-C1'-N1	12.07	117.86	108.20
81	DA	149	U	P-O3'-C3'	12.07	134.18	119.70
81	DA	2263	C	P-O3'-C3'	12.07	134.18	119.70
81	DA	73	C	O4'-C1'-N1	12.07	117.85	108.20
53	Ba	10	VAL	C-N-CA	12.06	151.86	121.70
78	CA	140	A	O4'-C1'-C2'	-12.06	93.74	105.80
81	DA	2644	C	O4'-C1'-N1	12.06	117.85	108.20
81	DA	330	G	O4'-C1'-N9	12.05	117.84	108.20
82	DB	93	U	O4'-C1'-N1	12.05	117.84	108.20
78	CA	1096	C	C3'-C2'-C1'	12.05	111.14	101.50
78	CA	931	C	P-O5'-C5'	12.04	140.17	120.90
81	DA	1467	A	O4'-C1'-N9	12.04	117.83	108.20
81	DA	1659	U	O4'-C1'-N1	12.04	117.83	108.20
81	DA	1579	C	O4'-C1'-C2'	-12.04	93.76	105.80
78	CA	632	U	O4'-C1'-C2'	-12.02	93.78	105.80
79	CB	40	U	O4'-C1'-N1	12.02	117.82	108.20
81	DA	1811	G	N9-C1'-C2'	-12.02	98.37	114.00
78	CA	32	U	O4'-C1'-N1	12.02	117.82	108.20
81	DA	1388	U	O4'-C1'-N1	12.02	117.81	108.20
81	DA	1478	C	P-O3'-C3'	12.02	134.12	119.70
60	Bi	62	TYR	CB-CG-CD1	-12.02	113.79	121.00
81	DA	508	U	O4'-C1'-N1	12.02	117.81	108.20
81	DA	310	U	O3'-P-O5'	-12.01	81.18	104.00
31	BB	34	TYR	CB-CG-CD2	-12.01	113.80	121.00
81	DA	124	U	C3'-C2'-C1'	12.01	111.11	101.50
78	CA	887	A	C3'-C2'-C1'	12.00	111.10	101.50
81	DA	1179	A	O4'-C1'-N9	12.00	117.80	108.20
78	CA	1078	C	N1-C1'-C2'	12.00	129.60	114.00
79	CB	72	G	N9-C1'-C2'	-12.00	98.40	114.00
81	DA	2420	C	C3'-C2'-C1'	12.00	111.10	101.50
29	AU	62	THR	CA-C-O	-11.99	94.91	120.10
78	CA	1648	A	O5'-C5'-C4'	11.99	134.49	111.70
81	DA	738	A	N1-C6-N6	11.99	125.80	118.60
78	CA	347	G	P-O3'-C3'	-11.99	105.31	119.70
78	CA	976	G	O4'-C1'-N9	11.99	117.79	108.20
81	DA	2116	G	O4'-C1'-N9	11.99	117.79	108.20
78	CA	1478	G	O4'-C1'-N9	11.98	117.79	108.20
81	DA	1551	C	N1-C1'-C2'	11.98	129.58	114.00
81	DA	199	A	O4'-C1'-N9	11.98	117.79	108.20
81	DA	830	A	O4'-C1'-N9	11.98	117.78	108.20
82	DB	58	G	O4'-C1'-N9	11.98	117.78	108.20
53	Ba	57	HIS	N-CA-CB	11.98	132.16	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	68	ARG	NE-CZ-NH2	-11.98	114.31	120.30
78	CA	88	U	P-O3'-C3'	11.98	134.07	119.70
78	CA	620	A	P-O3'-C3'	11.96	134.06	119.70
78	CA	1417	A	C3'-C2'-C1'	11.96	111.07	101.50
83	DC	112	G	O4'-C1'-N9	11.97	117.77	108.20
78	CA	1087	A	P-O3'-C3'	11.96	134.06	119.70
81	DA	2840	C	O4'-C1'-N1	11.96	117.77	108.20
83	DC	46	A	O4'-C1'-C2'	-11.96	93.84	105.80
81	DA	3142	A	N9-C1'-C2'	-11.96	98.46	114.00
81	DA	588	G	O4'-C1'-N9	11.96	117.76	108.20
79	CB	37	G	P-O3'-C3'	11.95	134.04	119.70
81	DA	2157	G	O4'-C1'-C2'	-11.95	93.85	105.80
81	DA	1300	G	O4'-C1'-N9	11.95	117.76	108.20
81	DA	3244	A	N9-C1'-C2'	11.95	129.53	114.00
81	DA	2697	A	C3'-C2'-C1'	11.95	111.06	101.50
77	BI	107	GLY	C-N-CA	11.93	151.53	121.70
81	DA	664	U	O5'-P-OP1	-11.93	94.96	105.70
78	CA	842	C	P-O3'-C3'	11.92	134.01	119.70
81	DA	1694	U	P-O3'-C3'	11.92	134.00	119.70
81	DA	2279	A	O3'-P-O5'	-11.91	81.36	104.00
81	DA	1004	U	N1-C1'-C2'	11.91	129.48	114.00
81	DA	3288	G	P-O3'-C3'	11.91	133.99	119.70
81	DA	1688	U	O4'-C1'-N1	-11.91	98.67	108.20
78	CA	1478	G	C1'-O4'-C4'	-11.90	100.38	109.90
81	DA	1297	C	P-O3'-C3'	11.90	133.98	119.70
81	DA	1314	C	O4'-C1'-N1	-11.90	98.68	108.20
81	DA	1405	U	N1-C1'-C2'	11.90	129.47	114.00
81	DA	1898	G	O4'-C1'-N9	11.90	117.72	108.20
81	DA	1535	A	N9-C1'-C2'	-11.90	98.53	114.00
81	DA	1432	C	N1-C1'-C2'	-11.89	98.54	114.00
47	BU	88	ARG	NE-CZ-NH1	11.89	126.25	120.30
74	BQ	145	PHE	CB-CG-CD1	-11.89	112.48	120.80
81	DA	2163	C	C3'-C2'-C1'	11.89	111.01	101.50
81	DA	3283	U	P-O3'-C3'	11.89	133.97	119.70
78	CA	46	A	N9-C1'-C2'	-11.88	98.55	114.00
81	DA	1623	G	C5'-C4'-O4'	-11.88	94.84	109.10
78	CA	1501	C	O4'-C1'-N1	11.88	117.70	108.20
81	DA	382	U	O4'-C1'-N1	11.88	117.70	108.20
81	DA	164	A	N1-C6-N6	11.87	125.72	118.60
83	DC	60	G	C1'-O4'-C4'	-11.87	100.40	109.90
81	DA	2108	C	C3'-C2'-C1'	11.86	110.99	101.50
83	DC	46	A	O5'-C5'-C4'	11.86	134.24	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	571	G	N9-C1'-C2'	11.86	129.42	114.00
81	DA	1113	G	P-O3'-C3'	-11.86	105.47	119.70
83	DC	115	A	O4'-C1'-N9	11.86	117.69	108.20
74	BQ	79	TYR	CB-CG-CD2	11.86	128.11	121.00
81	DA	1876	U	O4'-C1'-N1	11.86	117.68	108.20
81	DA	2693	C	P-O3'-C3'	11.85	133.92	119.70
81	DA	2265	C	P-O3'-C3'	-11.85	105.48	119.70
81	DA	2760	C	C5'-C4'-C3'	11.85	134.96	116.00
2	AA	110	TYR	CB-CG-CD2	-11.85	113.89	121.00
81	DA	1853	U	O4'-C1'-N1	11.85	117.68	108.20
78	CA	446	A	O4'-C1'-N9	11.85	117.68	108.20
81	DA	730	C	P-O3'-C3'	11.85	133.91	119.70
83	DC	44	C	O4'-C1'-N1	11.85	117.68	108.20
12	AK	124	ASP	CB-CG-OD1	-11.84	107.64	118.30
81	DA	2374	C	O4'-C1'-C2'	-11.84	93.96	105.80
81	DA	3304	U	P-O3'-C3'	11.84	133.91	119.70
81	DA	441	U	O4'-C1'-N1	11.84	117.67	108.20
56	Bf	27	TYR	CB-CG-CD1	11.83	128.10	121.00
81	DA	1937	U	P-O3'-C3'	11.83	133.89	119.70
81	DA	1766	G	O4'-C1'-N9	11.82	117.66	108.20
81	DA	2755	C	C3'-C2'-C1'	11.82	110.96	101.50
81	DA	1329	U	C3'-C2'-C1'	11.82	110.96	101.50
78	CA	1080	U	O4'-C1'-N1	11.82	117.65	108.20
78	CA	650	U	O5'-P-OP1	11.81	124.87	110.70
78	CA	1062	A	N1-C6-N6	11.81	125.69	118.60
81	DA	671	U	C3'-C2'-C1'	-11.81	92.05	101.50
78	CA	235	G	C1'-O4'-C4'	-11.80	100.46	109.90
81	DA	2651	G	P-O3'-C3'	11.81	133.87	119.70
78	CA	1628	U	P-O3'-C3'	11.80	133.86	119.70
35	BG	75	PRO	CA-C-O	-11.80	91.88	120.20
81	DA	1188	U	O4'-C1'-N1	11.80	117.64	108.20
43	BP	180	PHE	CB-CG-CD1	-11.79	112.54	120.80
78	CA	312	A	C3'-C2'-C1'	11.79	110.93	101.50
78	CA	461	G	O4'-C1'-N9	11.79	117.63	108.20
81	DA	2173	U	N1-C1'-C2'	11.79	129.33	114.00
41	BN	108	ARG	CB-CG-CD	11.78	142.22	111.60
81	DA	2423	U	O4'-C1'-N1	11.78	117.62	108.20
81	DA	1245	A	O4'-C1'-N9	11.77	117.62	108.20
81	DA	1298	C	P-O5'-C5'	11.77	139.74	120.90
78	CA	947	U	O4'-C1'-N1	11.77	117.62	108.20
81	DA	147	U	P-O3'-C3'	11.77	133.82	119.70
82	DB	85	G	O4'-C1'-N9	-11.77	98.78	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2917	G	O4'-C1'-C2'	11.76	118.19	107.60
81	DA	518	G	P-O5'-C5'	11.76	139.72	120.90
81	DA	1693	C	O4'-C1'-N1	11.76	117.61	108.20
81	DA	2547	A	N1-C6-N6	11.76	125.66	118.60
82	DB	78	G	P-O3'-C3'	11.76	133.81	119.70
81	DA	932	U	O4'-C1'-N1	11.76	117.60	108.20
21	AT	62	ARG	NE-CZ-NH2	-11.75	114.42	120.30
78	CA	1236	A	O4'-C1'-N9	11.75	117.60	108.20
81	DA	638	C	P-O5'-C5'	11.75	139.70	120.90
81	DA	1744	G	O4'-C1'-N9	11.75	117.60	108.20
81	DA	1739	U	O4'-C1'-N1	11.75	117.60	108.20
78	CA	213	A	P-O3'-C3'	-11.75	105.61	119.70
78	CA	666	U	N1-C1'-C2'	11.75	129.27	114.00
78	CA	1063	U	P-O3'-C3'	11.75	133.80	119.70
78	CA	786	C	P-O3'-C3'	11.75	133.79	119.70
81	DA	742	G	O4'-C1'-N9	11.74	117.60	108.20
78	CA	1570	A	O4'-C1'-C2'	-11.74	94.06	105.80
29	AU	36	SER	C-N-CA	11.74	151.05	121.70
61	Bj	89	LEU	CA-C-N	11.74	149.97	117.10
81	DA	156	G	P-O3'-C3'	11.73	133.78	119.70
81	DA	597	G	C1'-O4'-C4'	-11.73	100.51	109.90
81	DA	431	U	O4'-C1'-N1	11.73	117.59	108.20
61	Bj	37	THR	CA-C-O	-11.73	95.47	120.10
78	CA	689	G	C3'-C2'-C1'	-11.73	92.12	101.50
78	CA	1606	C	P-O5'-C5'	11.73	139.66	120.90
81	DA	3248	C	P-O3'-C3'	11.73	133.78	119.70
81	DA	1306	G	P-O3'-C3'	11.72	133.77	119.70
16	AO	130	ARG	NE-CZ-NH1	11.72	126.16	120.30
81	DA	873	C	C3'-C2'-C1'	11.71	110.87	101.50
81	DA	1686	U	P-O5'-C5'	11.71	139.64	120.90
81	DA	3240	C	P-O5'-C5'	11.71	139.64	120.90
81	DA	2307	G	P-O3'-C3'	11.71	133.75	119.70
81	DA	1338	C	C1'-O4'-C4'	11.71	119.27	109.90
81	DA	1002	A	P-O5'-C5'	11.71	139.63	120.90
81	DA	2663	G	O4'-C1'-N9	11.71	117.56	108.20
81	DA	3328	G	O4'-C1'-N9	11.71	117.56	108.20
78	CA	1533	C	O4'-C1'-N1	11.70	117.56	108.20
81	DA	2386	A	P-O3'-C3'	11.70	133.74	119.70
81	DA	185	C	C1'-O4'-C4'	-11.70	100.54	109.90
81	DA	1242	G	O4'-C1'-N9	11.69	117.55	108.20
82	DB	131	A	P-O3'-C3'	11.69	133.73	119.70
76	BS	166	LYS	CB-CA-C	-11.69	87.02	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1971	C	O4'-C1'-C2'	-11.69	94.11	105.80
81	DA	3382	U	N1-C1'-C2'	11.69	129.19	114.00
81	DA	3092	C	C3'-C2'-C1'	11.68	110.84	101.50
82	DB	128	U	O4'-C1'-C2'	-11.68	94.12	105.80
78	CA	1545	A	O4'-C1'-N9	11.68	117.54	108.20
81	DA	2137	U	O4'-C1'-N1	11.68	117.54	108.20
78	CA	1412	G	O4'-C1'-N9	-11.67	98.86	108.20
81	DA	3303	G	P-O3'-C3'	11.67	133.71	119.70
78	CA	1586	A	O3'-P-O5'	11.66	126.15	104.00
81	DA	1481	A	P-O3'-C3'	11.66	133.69	119.70
81	DA	974	G	O4'-C1'-N9	11.66	117.52	108.20
81	DA	2917	G	C1'-O4'-C4'	-11.65	100.58	109.90
78	CA	1480	G	O5'-P-OP2	-11.65	95.21	105.70
81	DA	1866	C	C3'-C2'-C1'	11.65	110.82	101.50
81	DA	3106	A	P-O3'-C3'	-11.65	105.72	119.70
81	DA	1744	G	P-O3'-C3'	11.65	133.68	119.70
81	DA	1057	A	O4'-C1'-N9	11.64	117.52	108.20
81	DA	212	G	O4'-C1'-N9	11.64	117.51	108.20
81	DA	1595	U	O4'-C1'-N1	11.64	117.51	108.20
81	DA	1790	G	C3'-C2'-C1'	-11.64	92.19	101.50
81	DA	2504	U	N1-C1'-C2'	-11.64	98.87	114.00
81	DA	572	A	P-O3'-C3'	11.63	133.66	119.70
81	DA	2771	U	O4'-C1'-N1	11.63	117.51	108.20
81	DA	1406	A	P-O3'-C3'	11.63	133.66	119.70
81	DA	735	A	N1-C6-N6	11.63	125.58	118.60
81	DA	1947	G	N9-C1'-C2'	-11.63	98.88	114.00
81	DA	2569	A	N1-C6-N6	11.63	125.58	118.60
82	DB	156	U	O4'-C1'-N1	11.63	117.50	108.20
78	CA	1565	C	C3'-C2'-C1'	11.63	110.80	101.50
78	CA	1589	C	C3'-C2'-C1'	11.63	110.80	101.50
81	DA	2623	G	C1'-O4'-C4'	11.63	119.20	109.90
43	BP	127	TYR	CB-CG-CD2	11.62	127.97	121.00
81	DA	2049	A	C3'-C2'-C1'	11.62	110.80	101.50
39	BJ	67	ARG	NE-CZ-NH2	-11.62	114.49	120.30
78	CA	392	G	P-O3'-C3'	11.62	133.64	119.70
81	DA	2619	G	N9-C1'-C2'	11.61	129.09	114.00
76	BS	70	ASN	N-CA-CB	11.61	131.50	110.60
81	DA	1877	U	P-O3'-C3'	11.61	133.63	119.70
81	DA	1603	A	O5'-P-OP2	11.61	124.63	110.70
81	DA	2579	G	O4'-C1'-N9	11.61	117.48	108.20
81	DA	2177	G	O4'-C1'-N9	11.61	117.48	108.20
78	CA	1066	C	O4'-C1'-N1	11.60	117.48	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	306	A	N9-C1'-C2'	-11.60	98.92	114.00
78	CA	900	A	O4'-C4'-C3'	11.60	115.60	104.00
78	CA	1404	C	P-O3'-C3'	11.60	133.61	119.70
81	DA	474	G	P-O3'-C3'	11.60	133.62	119.70
78	CA	1680	G	P-O3'-C3'	11.59	133.61	119.70
81	DA	2372	A	C3'-C2'-C1'	11.59	110.78	101.50
81	DA	1757	A	O5'-C5'-C4'	11.59	133.72	111.70
5	AC	8	TYR	CB-CG-CD1	11.59	127.95	121.00
81	DA	1551	C	P-O3'-C3'	11.59	133.60	119.70
47	BU	140	ILE	O-C-N	-11.58	104.17	122.70
81	DA	2339	C	O4'-C1'-C2'	-11.58	94.22	105.80
78	CA	1585	U	O4'-C1'-C2'	-11.58	94.22	105.80
81	DA	1810	A	P-O3'-C3'	11.58	133.60	119.70
81	DA	2070	U	O4'-C1'-N1	11.58	117.46	108.20
81	DA	3387	U	O4'-C1'-C2'	-11.58	94.22	105.80
78	CA	1753	A	P-O3'-C3'	11.58	133.59	119.70
74	BQ	242	SER	N-CA-CB	11.57	127.86	110.50
78	CA	588	U	O5'-P-OP2	-11.57	95.28	105.70
81	DA	3385	U	P-O3'-C3'	11.57	133.59	119.70
81	DA	1437	C	O4'-C1'-C2'	-11.56	94.24	105.80
78	CA	301	A	P-O3'-C3'	11.56	133.57	119.70
81	DA	3142	A	O4'-C1'-C2'	-11.56	94.24	105.80
80	CC	22	A	N1-C6-N6	11.55	125.53	118.60
81	DA	49	A	P-O3'-C3'	11.56	133.57	119.70
81	DA	626	U	O4'-C1'-N1	11.55	117.44	108.20
81	DA	235	A	O4'-C1'-N9	11.55	117.44	108.20
78	CA	567	A	N1-C6-N6	11.54	125.53	118.60
81	DA	1556	C	P-O3'-C3'	11.54	133.55	119.70
83	DC	27	A	C3'-C2'-C1'	11.54	110.74	101.50
78	CA	296	U	O4'-C1'-C2'	-11.54	94.26	105.80
78	CA	689	G	O4'-C1'-C2'	11.54	117.99	107.60
81	DA	595	G	O4'-C1'-N9	11.54	117.43	108.20
78	CA	640	U	O4'-C1'-N1	11.53	117.43	108.20
81	DA	3303	G	C1'-O4'-C4'	-11.53	100.67	109.90
81	DA	513	G	O4'-C1'-N9	11.53	117.42	108.20
81	DA	769	G	O4'-C1'-N9	11.53	117.42	108.20
81	DA	2057	G	O4'-C1'-N9	11.53	117.42	108.20
81	DA	3006	A	N9-C1'-C2'	11.53	128.98	114.00
78	CA	1162	C	N1-C1'-C2'	11.52	128.98	114.00
81	DA	2854	U	O4'-C1'-N1	11.52	117.42	108.20
74	BQ	242	SER	CA-C-N	11.52	142.54	117.20
78	CA	1133	A	C1'-O4'-C4'	-11.52	100.69	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1632	A	P-O5'-C5'	11.52	139.33	120.90
81	DA	1817	G	O4'-C1'-N9	11.52	117.41	108.20
78	CA	1099	U	P-O3'-C3'	11.52	133.52	119.70
3	AB	18	TYR	CB-CG-CD2	11.51	127.91	121.00
49	BV	162	GLU	C-N-CA	11.51	150.48	121.70
78	CA	912	U	O4'-C1'-N1	11.51	117.41	108.20
81	DA	198	A	C3'-C2'-C1'	11.51	110.71	101.50
81	DA	3051	U	O4'-C4'-C3'	-11.51	92.49	104.00
83	DC	2	G	N9-C1'-C2'	-11.51	99.04	114.00
31	BB	252	THR	N-CA-C	-11.50	79.96	111.00
81	DA	1214	U	P-O3'-C3'	11.50	133.50	119.70
81	DA	740	G	P-O3'-C3'	11.50	133.50	119.70
81	DA	2422	C	P-O3'-C3'	11.50	133.50	119.70
81	DA	2479	C	C1'-O4'-C4'	-11.50	100.70	109.90
82	DB	39	G	O4'-C1'-C2'	-11.50	94.30	105.80
45	BR	96	PHE	N-CA-CB	-11.49	89.91	110.60
78	CA	1546	G	O4'-C4'-C3'	-11.49	92.51	104.00
81	DA	853	G	O4'-C1'-N9	11.49	117.39	108.20
81	DA	2880	U	C1'-O4'-C4'	-11.49	100.71	109.90
34	BE	53	THR	N-CA-C	11.49	142.03	111.00
78	CA	1338	C	O5'-C5'-C4'	11.49	133.53	111.70
81	DA	1570	U	O4'-C1'-N1	11.48	117.39	108.20
83	DC	29	C	C3'-C2'-C1'	11.48	110.69	101.50
81	DA	2720	G	N9-C1'-C2'	11.48	128.93	114.00
76	BS	46	PHE	CB-CG-CD1	-11.48	112.76	120.80
78	CA	288	A	O4'-C1'-C2'	-11.48	94.32	105.80
81	DA	1152	G	P-O3'-C3'	11.47	133.47	119.70
81	DA	2652	U	N1-C1'-C2'	11.47	128.91	114.00
83	DC	93	U	P-O3'-C3'	11.47	133.46	119.70
78	CA	318	U	P-O3'-C3'	11.46	133.45	119.70
81	DA	1783	U	O4'-C1'-N1	11.45	117.36	108.20
81	DA	3047	U	C3'-C2'-C1'	11.45	110.66	101.50
78	CA	1087	A	O3'-P-O5'	-11.44	82.26	104.00
81	DA	246	U	O4'-C1'-N1	11.44	117.36	108.20
78	CA	1548	G	C1'-O4'-C4'	-11.44	100.75	109.90
81	DA	104	G	O4'-C1'-N9	11.44	117.35	108.20
81	DA	1649	U	O4'-C1'-N1	11.44	117.35	108.20
81	DA	2755	C	O3'-P-O5'	-11.44	82.27	104.00
32	BC	344	THR	CA-C-O	-11.43	96.09	120.10
76	BS	45	TYR	CB-CG-CD1	11.43	127.86	121.00
78	CA	623	A	N9-C1'-C2'	-11.43	99.14	114.00
78	CA	1554	U	O4'-C1'-N1	11.42	117.34	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	CB	28	G	O4'-C1'-N9	11.42	117.33	108.20
6	AE	70	ASP	O-C-N	-11.42	104.43	122.70
81	DA	842	G	P-O3'-C3'	11.41	133.40	119.70
81	DA	518	G	C3'-C2'-C1'	11.41	110.63	101.50
81	DA	1039	U	P-O3'-C3'	11.41	133.39	119.70
44	BO	21	ARG	C-N-CA	11.41	150.22	121.70
81	DA	2491	A	O4'-C4'-C3'	-11.40	92.59	104.00
78	CA	354	C	C3'-C2'-C1'	11.40	110.62	101.50
78	CA	508	U	P-O5'-C5'	11.40	139.14	120.90
81	DA	1561	G	O4'-C1'-C2'	11.39	117.85	107.60
78	CA	1444	A	O4'-C1'-N9	11.39	117.31	108.20
78	CA	1503	A	N1-C6-N6	11.39	125.43	118.60
78	CA	1081	A	C1'-O4'-C4'	11.39	119.01	109.90
78	CA	29	U	N1-C1'-C2'	11.38	128.80	114.00
81	DA	782	U	O4'-C1'-N1	11.38	117.31	108.20
81	DA	1821	U	N1-C1'-C2'	11.38	128.80	114.00
78	CA	497	G	P-O5'-C5'	11.38	139.11	120.90
45	BR	54	LEU	CB-CG-CD2	11.38	130.35	111.00
78	CA	1066	C	P-O3'-C3'	11.38	133.36	119.70
81	DA	2031	U	O4'-C1'-N1	11.38	117.30	108.20
81	DA	352	A	O4'-C1'-C2'	-11.38	94.42	105.80
81	DA	1258	U	O4'-C1'-N1	11.38	117.30	108.20
81	DA	103	G	O4'-C1'-C2'	-11.38	94.42	105.80
78	CA	947	U	O4'-C1'-C2'	-11.37	94.43	105.80
1	Aa	38	ARG	NE-CZ-NH1	11.37	125.98	120.30
78	CA	1267	G	P-O3'-C3'	11.37	133.34	119.70
83	DC	46	A	C1'-O4'-C4'	11.36	118.99	109.90
79	CB	41	G	N9-C1'-C2'	11.36	128.77	114.00
81	DA	310	U	O4'-C1'-N1	11.36	117.29	108.20
81	DA	858	A	O3'-P-O5'	-11.36	82.42	104.00
81	DA	2040	U	P-O3'-C3'	11.36	133.33	119.70
2	AA	241	GLU	N-CA-CB	11.36	131.04	110.60
78	CA	196	G	C1'-O4'-C4'	-11.35	100.82	109.90
78	CA	29	U	C3'-C2'-C1'	11.35	110.58	101.50
81	DA	708	G	P-O3'-C3'	11.35	133.32	119.70
81	DA	1814	A	O4'-C1'-N9	11.35	117.28	108.20
81	DA	1820	U	O4'-C4'-C3'	-11.35	92.65	104.00
78	CA	235	G	N9-C1'-C2'	11.35	128.75	114.00
81	DA	469	G	P-O3'-C3'	11.35	133.32	119.70
81	DA	2258	U	O4'-C1'-N1	11.34	117.28	108.20
81	DA	402	A	P-O3'-C3'	11.34	133.31	119.70
78	CA	297	U	N1-C1'-C2'	11.34	128.74	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1785	U	O4'-C1'-N1	11.34	117.27	108.20
81	DA	968	G	P-O3'-C3'	11.33	133.30	119.70
78	CA	226	A	C1'-O4'-C4'	-11.33	100.83	109.90
78	CA	1091	A	C1'-O4'-C4'	11.33	118.97	109.90
81	DA	1001	G	C3'-C2'-C1'	-11.33	92.44	101.50
81	DA	1582	C	N1-C1'-C2'	11.33	128.73	114.00
81	DA	2041	U	O4'-C1'-C2'	-11.33	94.47	105.80
83	DC	30	G	P-O3'-C3'	11.32	133.29	119.70
78	CA	1630	U	O4'-C1'-N1	11.32	117.26	108.20
15	AN	53	ASN	C-N-CA	-11.32	93.40	121.70
82	DB	38	U	C3'-C2'-C1'	11.32	110.56	101.50
81	DA	429	U	P-O3'-C3'	11.32	133.28	119.70
81	DA	3395	G	P-O3'-C3'	11.32	133.28	119.70
81	DA	1552	G	N9-C1'-C2'	11.31	128.70	114.00
81	DA	1820	U	P-O3'-C3'	11.31	133.28	119.70
81	DA	3111	U	O4'-C1'-N1	11.31	117.25	108.20
81	DA	3296	A	C5'-C4'-C3'	11.31	134.10	116.00
81	DA	3389	U	C5'-C4'-C3'	11.31	134.10	116.00
32	BC	196	ARG	NE-CZ-NH2	-11.31	114.65	120.30
81	DA	230	U	O4'-C1'-N1	11.31	117.25	108.20
81	DA	2563	G	O4'-C1'-N9	11.31	117.25	108.20
81	DA	2816	G	C1'-O4'-C4'	-11.30	100.86	109.90
82	DB	84	C	O4'-C1'-N1	11.30	117.24	108.20
81	DA	3221	C	P-O5'-C5'	11.30	138.98	120.90
81	DA	2684	C	P-O3'-C3'	11.30	133.26	119.70
78	CA	46	A	C3'-C2'-C1'	-11.30	92.46	101.50
81	DA	580	C	N1-C1'-C2'	11.30	128.68	114.00
81	DA	2672	G	O4'-C1'-N9	11.29	117.24	108.20
81	DA	1666	G	P-O3'-C3'	11.29	133.24	119.70
82	DB	134	G	N9-C1'-C2'	-11.28	99.33	114.00
82	DB	153	U	P-O3'-C3'	11.28	133.24	119.70
10	AI	66	ARG	NE-CZ-NH2	-11.28	114.66	120.30
79	CB	13	U	P-O3'-C3'	11.28	133.24	119.70
81	DA	320	G	O4'-C1'-N9	11.28	117.22	108.20
81	DA	779	G	O4'-C1'-N9	11.28	117.22	108.20
81	DA	2437	G	N9-C1'-C2'	-11.28	99.34	114.00
81	DA	2795	U	O4'-C1'-N1	11.28	117.22	108.20
78	CA	275	C	P-O3'-C3'	11.28	133.23	119.70
81	DA	1847	A	O4'-C1'-N9	11.28	117.22	108.20
13	AL	93	LEU	N-CA-CB	-11.27	87.86	110.40
78	CA	1580	C	C3'-C2'-C1'	11.27	110.52	101.50
78	CA	1583	A	N9-C1'-C2'	11.27	128.65	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2509	U	O3'-P-O5'	-11.26	82.60	104.00
81	DA	218	G	O4'-C1'-N9	11.26	117.21	108.20
81	DA	1339	C	P-O5'-C5'	11.26	138.91	120.90
81	DA	299	G	P-O5'-C5'	11.25	138.91	120.90
81	DA	2014	U	O4'-C1'-N1	11.25	117.20	108.20
78	CA	826	U	C1'-O4'-C4'	-11.25	100.90	109.90
69	Br	104	LEU	O-C-N	-11.25	104.70	122.70
78	CA	579	A	N1-C6-N6	11.24	125.35	118.60
4	AD	153	ASN	CB-CA-C	-11.24	87.92	110.40
78	CA	1130	G	O4'-C1'-N9	11.24	117.19	108.20
78	CA	1582	U	O4'-C1'-N1	11.24	117.19	108.20
81	DA	2439	A	C3'-C2'-C1'	11.24	110.49	101.50
78	CA	824	G	O4'-C1'-N9	11.23	117.18	108.20
29	AU	62	THR	CA-C-N	11.23	141.90	117.20
78	CA	44	U	P-O3'-C3'	11.23	133.17	119.70
24	AX	32	PHE	CB-CG-CD2	-11.22	112.94	120.80
31	BB	84	THR	C-N-CA	11.22	145.87	122.30
81	DA	638	C	O4'-C1'-N1	11.22	117.18	108.20
81	DA	1540	U	O4'-C1'-N1	11.22	117.18	108.20
81	DA	3056	U	C3'-C2'-C1'	11.22	110.48	101.50
81	DA	3104	U	O4'-C1'-N1	11.22	117.18	108.20
32	BC	137	TYR	CB-CG-CD2	-11.22	114.27	121.00
78	CA	45	U	O4'-C1'-C2'	-11.21	94.59	105.80
78	CA	1106	U	O4'-C1'-N1	11.21	117.17	108.20
81	DA	1316	C	C3'-C2'-C1'	11.21	110.47	101.50
81	DA	1869	C	O3'-P-O5'	11.21	125.29	104.00
81	DA	594	U	O4'-C1'-C2'	-11.20	94.60	105.80
78	CA	1208	A	O4'-C1'-N9	11.20	117.16	108.20
81	DA	1535	A	C1'-O4'-C4'	11.20	118.86	109.90
81	DA	2466	G	N9-C1'-C2'	11.20	128.56	114.00
78	CA	528	U	P-O3'-C3'	11.20	133.14	119.70
81	DA	604	G	O4'-C1'-N9	11.20	117.16	108.20
81	DA	3214	U	O4'-C1'-N1	11.20	117.16	108.20
81	DA	1756	C	O4'-C1'-N1	11.19	117.15	108.20
81	DA	2375	G	O4'-C1'-C2'	-11.19	94.61	105.80
81	DA	3050	U	N1-C1'-C2'	11.19	128.55	114.00
78	CA	652	G	C1'-O4'-C4'	-11.19	100.95	109.90
78	CA	1221	A	P-O5'-C5'	11.19	138.80	120.90
81	DA	3334	U	P-O3'-C3'	11.18	133.12	119.70
53	Ba	16	GLY	O-C-N	-11.18	104.81	122.70
81	DA	3313	U	C5'-C4'-C3'	-11.18	98.12	116.00
81	DA	3334	U	N1-C1'-C2'	-11.16	99.49	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	786	A	N9-C1'-C2'	-11.16	99.49	114.00
81	DA	24	G	O4'-C1'-N9	11.16	117.12	108.20
78	CA	1578	U	O4'-C1'-N1	11.15	117.12	108.20
78	CA	856	A	C1'-O4'-C4'	11.15	118.82	109.90
78	CA	1069	A	N1-C6-N6	11.15	125.29	118.60
81	DA	409	A	O4'-C1'-C2'	-11.15	94.65	105.80
49	BV	139	TYR	CB-CG-CD2	-11.14	114.31	121.00
81	DA	1409	G	O3'-P-O5'	-11.14	82.83	104.00
81	DA	2887	A	N9-C1'-C2'	11.14	128.48	114.00
78	CA	284	G	O4'-C1'-N9	11.14	117.11	108.20
40	BK	64	PHE	CB-CG-CD1	-11.14	113.00	120.80
81	DA	1338	C	C3'-C2'-C1'	11.14	110.41	101.50
14	AM	88	ARG	NE-CZ-NH2	11.13	125.87	120.30
81	DA	3219	G	O4'-C1'-N9	11.13	117.11	108.20
83	DC	2	G	O4'-C1'-C2'	-11.13	94.67	105.80
81	DA	1178	G	C3'-C2'-C1'	11.13	110.40	101.50
78	CA	194	U	O4'-C1'-N1	11.13	117.10	108.20
78	CA	628	G	P-O3'-C3'	11.12	133.05	119.70
78	CA	1642	G	O4'-C1'-N9	11.12	117.10	108.20
78	CA	220	A	P-O3'-C3'	11.11	133.04	119.70
81	DA	1851	G	P-O3'-C3'	11.12	133.04	119.70
81	DA	1455	U	P-O3'-C3'	11.11	133.03	119.70
16	AO	112	LYS	N-CA-CB	-11.11	90.61	110.60
38	Bs	61	ARG	NE-CZ-NH1	11.11	125.85	120.30
78	CA	1394	G	P-O3'-C3'	-11.11	106.37	119.70
81	DA	2041	U	N1-C1'-C2'	-11.11	99.56	114.00
81	DA	2830	G	P-O3'-C3'	11.11	133.03	119.70
78	CA	1547	A	O5'-P-OP2	11.10	124.02	110.70
81	DA	560	G	N9-C1'-C2'	-11.10	99.57	114.00
78	CA	25	C	P-O3'-C3'	11.10	133.02	119.70
78	CA	659	C	P-O3'-C3'	-11.10	106.38	119.70
81	DA	298	U	N1-C1'-C2'	11.10	128.43	114.00
78	CA	1301	U	O3'-P-O5'	-11.10	82.92	104.00
81	DA	839	C	P-O3'-C3'	11.10	133.01	119.70
81	DA	3042	U	O5'-P-OP2	11.09	124.01	110.70
83	DC	31	U	P-O3'-C3'	11.09	133.01	119.70
78	CA	1392	U	O4'-C1'-N1	11.09	117.07	108.20
78	CA	172	C	N1-C1'-C2'	11.09	128.42	114.00
78	CA	1584	G	C1'-O4'-C4'	-11.09	101.03	109.90
81	DA	1609	C	C3'-C2'-C1'	11.09	110.37	101.50
78	CA	296	U	C3'-C2'-C1'	11.08	110.37	101.50
78	CA	1187	U	O4'-C1'-N1	11.08	117.07	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	316	U	P-O3'-C3'	11.08	133.00	119.70
81	DA	1275	C	O4'-C1'-N1	11.08	117.07	108.20
78	CA	514	G	O5'-P-OP2	-11.08	95.73	105.70
81	DA	773	G	O4'-C1'-N9	11.08	117.06	108.20
81	DA	265	A	O4'-C1'-N9	11.08	117.06	108.20
81	DA	337	G	N9-C1'-C2'	-11.08	99.60	114.00
78	CA	15	U	N1-C1'-C2'	11.08	128.40	114.00
35	BG	100	LYS	N-CA-CB	-11.08	90.66	110.60
78	CA	489	C	P-O3'-C3'	11.08	132.99	119.70
78	CA	1530	C	P-O3'-C3'	11.08	132.99	119.70
42	BM	128	ARG	NE-CZ-NH1	-11.07	114.76	120.30
78	CA	580	A	N1-C6-N6	11.07	125.25	118.60
81	DA	986	U	O4'-C1'-N1	11.07	117.06	108.20
81	DA	2994	A	O4'-C1'-N9	11.07	117.06	108.20
78	CA	650	U	N1-C1'-C2'	-11.07	99.61	114.00
78	CA	1375	A	C3'-C2'-C1'	11.07	110.36	101.50
81	DA	2000	U	O4'-C1'-N1	11.07	117.06	108.20
81	DA	635	G	C5'-C4'-C3'	-11.07	98.28	116.00
81	DA	673	U	P-O5'-C5'	11.07	138.61	120.90
29	AU	36	SER	CA-C-O	-11.06	96.86	120.10
81	DA	834	U	O4'-C1'-N1	11.06	117.05	108.20
81	DA	681	U	N1-C1'-C2'	11.06	128.38	114.00
78	CA	309	C	O4'-C1'-N1	11.06	117.05	108.20
4	AD	239	PRO	CB-CA-C	11.05	139.64	112.00
76	BS	46	PHE	CB-CG-CD2	11.05	128.54	120.80
81	DA	1508	C	C3'-C2'-C1'	11.05	110.34	101.50
81	DA	2136	C	N1-C1'-C2'	11.05	128.37	114.00
81	DA	1692	U	O4'-C1'-N1	11.05	117.04	108.20
79	CB	50	G	O4'-C1'-N9	11.05	117.04	108.20
81	DA	1081	U	O4'-C1'-N1	11.05	117.04	108.20
81	DA	2720	G	P-O3'-C3'	11.05	132.96	119.70
81	DA	3217	C	C1'-O4'-C4'	11.05	118.74	109.90
29	AU	72	PHE	CB-CG-CD1	11.04	128.53	120.80
81	DA	1280	C	O4'-C1'-N1	11.04	117.04	108.20
44	BO	73	LEU	CA-C-N	11.04	141.49	117.20
78	CA	894	U	C1'-O4'-C4'	11.04	118.73	109.90
3	AB	212	LYS	CA-C-N	11.04	141.48	117.20
78	CA	1337	A	C1'-O4'-C4'	11.04	118.73	109.90
81	DA	571	U	N1-C1'-C2'	11.04	128.35	114.00
78	CA	1375	A	N9-C1'-C2'	11.03	128.34	114.00
81	DA	516	A	C3'-C2'-C1'	11.04	110.33	101.50
78	CA	1613	U	N1-C1'-C2'	-11.03	99.66	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2089	A	P-O3'-C3'	11.02	132.93	119.70
81	DA	2760	C	C3'-C2'-C1'	11.02	110.32	101.50
81	DA	740	G	C5-C6-O6	-11.02	121.99	128.60
78	CA	178	U	O4'-C1'-N1	11.02	117.01	108.20
81	DA	2607	G	N9-C1'-C2'	11.02	128.32	114.00
12	AK	60	ALA	N-CA-CB	11.02	125.52	110.10
81	DA	1914	G	N9-C1'-C2'	11.01	128.32	114.00
81	DA	2578	U	O4'-C1'-N1	11.01	117.01	108.20
81	DA	3167	A	P-O5'-C5'	11.01	138.52	120.90
82	DB	106	C	C3'-C2'-C1'	11.01	110.31	101.50
81	DA	3212	C	P-O3'-C3'	-11.01	106.49	119.70
6	AE	24	ARG	NE-CZ-NH2	11.01	125.81	120.30
81	DA	1320	C	O4'-C1'-N1	11.01	117.01	108.20
81	DA	3243	A	P-O5'-C5'	11.01	138.51	120.90
81	DA	1005	G	N9-C1'-C2'	-11.01	99.69	114.00
78	CA	588	U	P-O3'-C3'	11.00	132.90	119.70
78	CA	1767	G	P-O3'-C3'	11.00	132.90	119.70
78	CA	490	C	P-O3'-C3'	11.00	132.90	119.70
81	DA	1884	A	C5'-C4'-O4'	-10.99	95.91	109.10
81	DA	2392	C	O3'-P-O5'	-10.99	83.12	104.00
81	DA	3255	U	N1-C1'-C2'	10.99	128.29	114.00
81	DA	572	A	O4'-C1'-N9	10.99	116.99	108.20
81	DA	2677	G	O4'-C1'-N9	10.99	116.99	108.20
81	DA	2049	A	O4'-C1'-C2'	-10.98	94.82	105.80
81	DA	255	A	N9-C1'-C2'	-10.98	99.72	114.00
81	DA	1110	U	O4'-C1'-N1	10.98	116.98	108.20
81	DA	2408	U	N1-C1'-C2'	10.98	128.28	114.00
78	CA	1065	A	N1-C6-N6	10.98	125.19	118.60
13	AL	10	ASN	O-C-N	-10.98	105.14	122.70
79	CB	71	A	P-O3'-C3'	10.98	132.87	119.70
81	DA	1652	G	P-O3'-C3'	10.98	132.87	119.70
78	CA	629	U	P-O3'-C3'	10.97	132.87	119.70
81	DA	2208	A	N9-C1'-C2'	-10.97	99.73	114.00
81	DA	2253	G	O4'-C1'-N9	10.97	116.98	108.20
78	CA	486	G	N1-C6-O6	10.97	126.48	119.90
81	DA	2917	G	C3'-C2'-C1'	-10.97	92.72	101.50
81	DA	303	G	O4'-C1'-N9	10.97	116.98	108.20
78	CA	1735	U	C3'-C2'-C1'	10.97	110.27	101.50
83	DC	48	U	OP1-P-O3'	-10.97	81.07	105.20
47	BU	139	ARG	C-N-CA	10.96	149.11	121.70
78	CA	1768	G	P-O5'-C5'	10.96	138.44	120.90
43	BP	13	LYS	CB-CA-C	10.96	132.31	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1794	A	O4'-C1'-C2'	-10.96	94.84	105.80
81	DA	2444	C	P-O3'-C3'	-10.96	106.55	119.70
38	Bs	55	LYS	CA-CB-CG	10.95	137.49	113.40
81	DA	2303	A	C5'-C4'-C3'	10.95	133.52	116.00
81	DA	3336	A	O4'-C1'-N9	10.95	116.96	108.20
82	DB	69	U	P-O3'-C3'	10.95	132.84	119.70
83	DC	72	C	O4'-C1'-N1	10.95	116.96	108.20
79	CB	36	C	N1-C1'-C2'	10.95	128.23	114.00
81	DA	369	A	P-O3'-C3'	10.95	132.84	119.70
81	DA	1297	C	O4'-C1'-C2'	-10.95	94.85	105.80
24	AX	32	PHE	CB-CG-CD1	10.94	128.46	120.80
57	Be	98	LYS	CA-C-O	10.94	143.08	120.10
11	AJ	85	ARG	NE-CZ-NH2	10.94	125.77	120.30
81	DA	852	U	O4'-C1'-N1	10.94	116.95	108.20
81	DA	2440	G	N9-C1'-C2'	10.94	128.22	114.00
81	DA	2705	A	N9-C1'-C2'	-10.94	99.78	114.00
78	CA	510	G	P-O3'-C3'	10.94	132.82	119.70
81	DA	1990	U	C3'-C2'-C1'	10.94	110.25	101.50
81	DA	2487	U	O4'-C1'-N1	10.94	116.95	108.20
78	CA	46	A	P-O5'-C5'	10.93	138.39	120.90
81	DA	1123	U	O4'-C1'-N1	10.93	116.95	108.20
81	DA	1819	U	P-O3'-C3'	10.93	132.82	119.70
81	DA	3374	U	N1-C1'-C2'	10.93	128.21	114.00
83	DC	49	G	O4'-C1'-N9	-10.93	99.45	108.20
78	CA	1379	C	P-O3'-C3'	-10.93	106.59	119.70
81	DA	3242	G	C1'-O4'-C4'	10.93	118.64	109.90
81	DA	1506	A	C1'-O4'-C4'	10.92	118.64	109.90
78	CA	1220	C	O4'-C1'-N1	10.92	116.94	108.20
81	DA	1257	C	P-O3'-C3'	10.92	132.80	119.70
2	AA	66	ALA	CB-CA-C	-10.92	93.72	110.10
81	DA	3306	U	O4'-C1'-N1	10.92	116.93	108.20
78	CA	580	A	P-O3'-C3'	10.91	132.80	119.70
81	DA	1895	A	C1'-O4'-C4'	10.91	118.63	109.90
81	DA	1686	U	C1'-O4'-C4'	10.91	118.63	109.90
81	DA	311	C	C5'-C4'-O4'	-10.91	96.01	109.10
78	CA	1477	G	O5'-P-OP1	10.91	123.79	110.70
78	CA	92	A	C5'-C4'-C3'	10.90	133.44	116.00
81	DA	492	U	O4'-C1'-N1	10.90	116.92	108.20
81	DA	2561	A	O5'-P-OP2	-10.90	95.89	105.70
78	CA	1079	U	O4'-C1'-N1	10.89	116.91	108.20
81	DA	419	G	N9-C1'-C2'	-10.89	99.85	114.00
81	DA	1285	G	O4'-C1'-C2'	-10.89	94.91	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1895	A	N9-C1'-C2'	-10.88	99.85	114.00
78	CA	1305	U	O3'-P-O5'	10.88	124.67	104.00
81	DA	1	G	N9-C1'-C2'	-10.88	99.86	114.00
81	DA	2705	A	O4'-C1'-N9	10.88	116.90	108.20
44	BO	58	MET	N-CA-CB	10.88	130.18	110.60
82	DB	105	A	N9-C1'-C2'	10.88	128.14	114.00
81	DA	983	A	N9-C1'-C2'	-10.88	99.86	114.00
81	DA	2500	A	O4'-C1'-N9	10.87	116.90	108.20
78	CA	1737	G	O4'-C1'-N9	10.87	116.90	108.20
81	DA	1583	A	P-O3'-C3'	10.87	132.75	119.70
83	DC	14	U	C3'-C2'-C1'	10.87	110.20	101.50
78	CA	1643	U	O4'-C1'-N1	10.87	116.90	108.20
78	CA	660	G	O4'-C1'-N9	10.86	116.89	108.20
78	CA	1658	G	P-O3'-C3'	10.87	132.74	119.70
40	BK	63	ALA	CB-CA-C	-10.86	93.81	110.10
81	DA	1050	U	O4'-C1'-N1	10.86	116.89	108.20
81	DA	1331	U	O4'-C1'-N1	-10.86	99.51	108.20
81	DA	3355	U	O4'-C1'-C2'	-10.86	94.94	105.80
78	CA	123	G	N9-C1'-C2'	10.86	128.11	114.00
81	DA	1319	G	O4'-C1'-C2'	10.86	117.37	107.60
83	DC	2	G	C1'-O4'-C4'	10.86	118.58	109.90
81	DA	1627	U	O4'-C1'-C2'	-10.85	94.95	105.80
81	DA	574	U	O4'-C1'-N1	10.85	116.88	108.20
81	DA	1277	C	C1'-O4'-C4'	-10.85	101.22	109.90
83	DC	23	A	P-O3'-C3'	10.85	132.72	119.70
4	AD	235	TYR	CB-CG-CD1	-10.85	114.49	121.00
81	DA	598	A	C4'-C3'-C2'	-10.85	91.75	102.60
76	BS	159	ARG	NE-CZ-NH1	10.85	125.72	120.30
78	CA	1562	G	C1'-O4'-C4'	10.85	118.58	109.90
78	CA	435	C	N1-C1'-C2'	10.84	128.10	114.00
78	CA	346	G	N9-C1'-C2'	10.84	128.09	114.00
81	DA	1487	G	O4'-C1'-N9	10.84	116.87	108.20
81	DA	277	G	O4'-C1'-N9	10.84	116.87	108.20
81	DA	3108	G	P-O3'-C3'	10.84	132.71	119.70
81	DA	2319	U	C3'-C2'-C1'	-10.84	92.83	101.50
16	AO	65	VAL	CB-CA-C	-10.83	90.82	111.40
81	DA	2203	U	O4'-C1'-N1	10.83	116.86	108.20
81	DA	2513	U	O4'-C1'-N1	10.83	116.86	108.20
81	DA	551	A	O4'-C1'-N9	10.83	116.86	108.20
81	DA	594	U	C3'-C2'-C1'	10.83	110.16	101.50
81	DA	1699	A	O4'-C1'-C2'	-10.82	94.98	105.80
81	DA	2466	G	C1'-O4'-C4'	-10.82	101.24	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	460	A	P-O3'-C3'	10.82	132.68	119.70
81	DA	1170	A	P-O3'-C3'	10.82	132.68	119.70
82	DB	126	A	O4'-C1'-N9	10.82	116.85	108.20
81	DA	524	U	O4'-C1'-N1	10.81	116.85	108.20
78	CA	16	G	C1'-O4'-C4'	10.81	118.55	109.90
79	CB	42	C	P-O3'-C3'	10.81	132.68	119.70
78	CA	1548	G	O4'-C1'-C2'	10.81	117.33	107.60
32	BC	379	PHE	CB-CG-CD1	-10.81	113.23	120.80
78	CA	1264	G	O4'-C1'-N9	10.81	116.85	108.20
78	CA	1611	A	N9-C1'-C2'	-10.81	99.95	114.00
81	DA	553	U	O4'-C1'-N1	10.81	116.85	108.20
81	DA	1847	A	N9-C1'-C2'	-10.81	99.95	114.00
81	DA	1890	U	O4'-C1'-N1	10.81	116.84	108.20
81	DA	1572	U	P-O3'-C3'	10.80	132.67	119.70
81	DA	3018	C	O3'-P-O5'	-10.80	83.47	104.00
38	Bs	242	ASN	CB-CG-OD1	10.80	143.20	121.60
81	DA	1870	C	C4'-C3'-O3'	10.80	134.60	113.00
5	AC	168	ARG	O-C-N	-10.80	100.58	121.10
49	BV	152	GLU	O-C-N	-10.80	105.42	122.70
81	DA	1861	G	O4'-C1'-N9	10.80	116.84	108.20
81	DA	1562	C	P-O3'-C3'	10.80	132.66	119.70
81	DA	1526	U	P-O3'-C3'	10.80	132.66	119.70
22	AV	104	ALA	N-CA-CB	10.79	125.21	110.10
81	DA	420	G	O4'-C1'-N9	10.79	116.83	108.20
5	AC	149	ARG	NE-CZ-NH1	10.79	125.69	120.30
81	DA	596	C	P-O3'-C3'	10.79	132.65	119.70
81	DA	1078	U	C1'-O4'-C4'	10.79	118.53	109.90
81	DA	1459	C	O4'-C1'-N1	10.79	116.83	108.20
17	AQ	47	ARG	NE-CZ-NH2	-10.79	114.91	120.30
81	DA	2138	A	O4'-C1'-N9	10.78	116.83	108.20
83	DC	25	G	N9-C1'-C2'	-10.78	99.98	114.00
83	DC	115	A	N9-C1'-C2'	-10.79	99.98	114.00
78	CA	1394	G	N9-C1'-C2'	-10.78	99.98	114.00
81	DA	764	U	O4'-C1'-N1	10.78	116.83	108.20
78	CA	1141	G	N9-C1'-C2'	10.78	128.01	114.00
81	DA	1585	C	N1-C1'-C2'	10.78	128.01	114.00
81	DA	2688	U	O4'-C1'-N1	10.78	116.82	108.20
81	DA	1257	C	C4'-C3'-C2'	-10.78	91.82	102.60
81	DA	1314	C	N1-C1'-C2'	10.78	128.01	114.00
81	DA	2717	U	P-O3'-C3'	10.77	132.63	119.70
81	DA	1319	G	P-O3'-C3'	10.77	132.62	119.70
81	DA	1681	U	P-O5'-C5'	10.77	138.13	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1340	U	N1-C1'-C2'	-10.77	100.00	114.00
78	CA	1548	G	P-O3'-C3'	10.77	132.62	119.70
5	AC	53	ARG	NE-CZ-NH2	-10.76	114.92	120.30
78	CA	1580	C	O4'-C1'-N1	-10.76	99.59	108.20
81	DA	2467	G	P-O3'-C3'	10.76	132.61	119.70
81	DA	588	G	P-O3'-C3'	10.75	132.60	119.70
78	CA	1466	G	P-O3'-C3'	10.75	132.60	119.70
79	CB	58	U	O4'-C1'-N1	10.75	116.80	108.20
82	DB	62	C	N1-C1'-C2'	10.75	127.98	114.00
44	BO	21	ARG	O-C-N	-10.75	105.50	122.70
78	CA	369	A	N9-C1'-C2'	-10.75	100.03	114.00
43	BP	178	HIS	CA-CB-CG	10.74	131.86	113.60
43	BP	180	PHE	CB-CG-CD2	10.74	128.32	120.80
81	DA	2898	G	P-O3'-C3'	10.74	132.59	119.70
83	DC	60	G	C3'-C2'-C1'	-10.74	92.90	101.50
78	CA	1441	C	P-O3'-C3'	10.74	132.59	119.70
78	CA	1506	G	O4'-C1'-N9	10.74	116.79	108.20
78	CA	597	G	P-O3'-C3'	10.73	132.58	119.70
81	DA	3125	U	P-O3'-C3'	10.73	132.58	119.70
83	DC	29	C	P-O5'-C5'	10.73	138.07	120.90
81	DA	2141	U	C3'-C2'-C1'	10.73	110.08	101.50
81	DA	825	U	O4'-C1'-N1	10.72	116.78	108.20
32	BC	345	ASN	N-CA-CB	10.72	129.90	110.60
43	BP	30	TYR	CB-CG-CD1	10.72	127.43	121.00
61	Bj	73	ARG	NE-CZ-NH2	-10.72	114.94	120.30
78	CA	626	U	O4'-C1'-N1	10.72	116.78	108.20
78	CA	1452	U	O3'-P-O5'	-10.72	83.63	104.00
81	DA	9	U	O3'-P-O5'	-10.72	83.63	104.00
81	DA	573	C	P-O5'-C5'	10.72	138.05	120.90
37	BH	80	TYR	CB-CG-CD2	10.72	127.43	121.00
38	Bs	248	ALA	N-CA-CB	-10.72	95.10	110.10
81	DA	1482	A	P-O3'-C3'	10.72	132.56	119.70
81	DA	2197	C	O4'-C1'-N1	-10.71	99.63	108.20
79	CB	56	A	P-O5'-C5'	10.71	138.04	120.90
78	CA	1347	U	O4'-C1'-N1	10.71	116.77	108.20
78	CA	155	U	N1-C1'-C2'	-10.71	100.08	114.00
78	CA	1452	U	N1-C1'-C2'	10.71	127.92	114.00
78	CA	1688	U	O4'-C1'-N1	10.71	116.77	108.20
81	DA	1343	A	O4'-C1'-N9	10.71	116.77	108.20
12	AK	123	SER	N-CA-CB	10.71	126.56	110.50
81	DA	512	U	C3'-C2'-C1'	10.71	110.06	101.50
81	DA	1755	C	O3'-P-O5'	-10.71	83.66	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3107	U	C1'-O4'-C4'	10.71	118.46	109.90
35	BG	25	ALA	CB-CA-C	-10.70	94.05	110.10
78	CA	10	G	C5'-C4'-C3'	-10.70	98.88	116.00
4	AD	219	VAL	CB-CA-C	10.70	131.73	111.40
78	CA	116	U	P-O3'-C3'	-10.70	106.86	119.70
81	DA	1732	U	O4'-C1'-N1	10.70	116.76	108.20
78	CA	926	A	O4'-C1'-N9	10.69	116.75	108.20
81	DA	598	A	O4'-C1'-N9	10.69	116.75	108.20
78	CA	1238	A	C1'-O4'-C4'	10.69	118.45	109.90
81	DA	1871	U	C4'-C3'-O3'	10.69	134.38	113.00
81	DA	2469	G	P-O3'-C3'	10.69	132.53	119.70
81	DA	3034	C	P-O3'-C3'	10.69	132.53	119.70
81	DA	665	A	N9-C1'-C2'	10.69	127.90	114.00
82	DB	16	G	P-O3'-C3'	10.69	132.53	119.70
81	DA	1792	C	P-O3'-C3'	10.69	132.53	119.70
13	AL	87	VAL	CB-CA-C	10.69	131.70	111.40
33	BD	89	ALA	CB-CA-C	-10.68	94.08	110.10
32	BC	275	ARG	NE-CZ-NH1	10.68	125.64	120.30
33	BD	310	THR	CA-CB-CG2	-10.68	97.44	112.40
78	CA	649	U	O4'-C1'-N1	10.68	116.75	108.20
81	DA	362	U	O4'-C1'-N1	10.68	116.75	108.20
81	DA	162	G	C1'-O4'-C4'	10.68	118.44	109.90
81	DA	1525	G	P-O3'-C3'	10.68	132.51	119.70
81	DA	2416	U	P-O5'-C5'	10.68	137.98	120.90
74	BQ	15	ARG	NE-CZ-NH1	-10.67	114.96	120.30
78	CA	429	G	O4'-C1'-N9	10.67	116.74	108.20
81	DA	2487	U	P-O5'-C5'	10.67	137.98	120.90
78	CA	1736	G	P-O3'-C3'	10.67	132.51	119.70
78	CA	352	A	O4'-C1'-N9	10.67	116.74	108.20
81	DA	1088	U	O4'-C1'-N1	10.67	116.74	108.20
81	DA	821	U	O4'-C1'-N1	10.67	116.73	108.20
78	CA	1677	C	O5'-C5'-C4'	10.67	131.97	111.70
81	DA	1624	G	O4'-C1'-C2'	-10.67	95.13	105.80
81	DA	2281	A	P-O3'-C3'	10.67	132.50	119.70
81	DA	1439	U	O4'-C1'-N1	10.66	116.73	108.20
81	DA	1627	U	C1'-O4'-C4'	10.66	118.43	109.90
12	AK	59	ALA	N-CA-CB	10.66	125.02	110.10
78	CA	689	G	C1'-O4'-C4'	-10.65	101.38	109.90
79	CB	34	G	N1-C6-O6	10.65	126.29	119.90
82	DB	98	U	C5'-C4'-O4'	10.65	121.88	109.10
42	BM	94	TYR	CB-CG-CD1	-10.65	114.61	121.00
78	CA	1357	A	O4'-C1'-N9	10.65	116.72	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1317	A	O4'-C1'-N9	10.65	116.72	108.20
81	DA	2763	U	C1'-O4'-C4'	10.65	118.42	109.90
81	DA	1296	C	P-O5'-C5'	10.65	137.94	120.90
32	BC	232	ARG	NE-CZ-NH2	-10.65	114.98	120.30
81	DA	220	G	N9-C1'-C2'	-10.65	100.16	114.00
78	CA	874	C	C3'-C2'-C1'	10.64	110.01	101.50
81	DA	1338	C	C5'-C4'-O4'	-10.64	96.33	109.10
78	CA	1725	U	P-O5'-C5'	10.64	137.92	120.90
81	DA	1001	G	O4'-C1'-N9	10.64	116.71	108.20
81	DA	1215	U	O4'-C1'-N1	10.64	116.71	108.20
81	DA	2340	U	O4'-C1'-N1	10.64	116.71	108.20
82	DB	111	A	O4'-C1'-N9	10.64	116.71	108.20
8	AF	185	ARG	NE-CZ-NH1	10.63	125.62	120.30
60	Bi	67	LYS	CD-CE-NZ	10.63	136.16	111.70
81	DA	204	A	O4'-C1'-N9	10.63	116.71	108.20
81	DA	604	G	N9-C1'-C2'	-10.63	100.18	114.00
81	DA	2818	U	N1-C1'-C2'	-10.63	100.18	114.00
34	BE	52	TYR	C-N-CA	10.63	148.27	121.70
60	Bi	79	SER	N-CA-C	-10.63	82.30	111.00
81	DA	1775	G	O4'-C1'-N9	10.63	116.70	108.20
81	DA	2963	C	P-O3'-C3'	10.63	132.46	119.70
81	DA	2487	U	C1'-O4'-C4'	10.63	118.40	109.90
17	AQ	59	LYS	CB-CA-C	10.62	131.65	110.40
17	AQ	67	ARG	NE-CZ-NH1	10.62	125.61	120.30
81	DA	275	U	P-O3'-C3'	-10.62	106.95	119.70
81	DA	1360	C	P-O3'-C3'	10.62	132.45	119.70
1	Aa	305	TYR	CB-CG-CD1	10.62	127.37	121.00
83	DC	3	U	C1'-O4'-C4'	10.62	118.40	109.90
81	DA	3003	G	O4'-C1'-C2'	10.62	117.16	107.60
21	AT	45	ALA	N-CA-CB	10.62	124.96	110.10
78	CA	1453	G	P-O3'-C3'	10.62	132.44	119.70
81	DA	1633	C	O3'-P-O5'	-10.62	83.83	104.00
81	DA	1551	C	C3'-C2'-C1'	10.62	109.99	101.50
78	CA	1167	G	O4'-C1'-N9	10.61	116.69	108.20
14	AM	12	GLN	CA-C-N	10.61	140.54	117.20
78	CA	1133	A	N9-C1'-C2'	10.61	127.79	114.00
40	BK	63	ALA	N-CA-CB	-10.61	95.25	110.10
81	DA	832	G	O4'-C1'-N9	10.61	116.69	108.20
81	DA	2789	U	O4'-C1'-N1	10.61	116.69	108.20
13	AL	10	ASN	CB-CA-C	10.61	131.61	110.40
78	CA	305	C	O4'-C1'-C2'	-10.61	95.19	105.80
83	DC	46	A	O4'-C1'-N9	10.61	116.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2873	U	C3'-C2'-C1'	10.61	109.98	101.50
78	CA	1462	G	P-O3'-C3'	10.60	132.43	119.70
81	DA	74	G	O4'-C1'-N9	10.60	116.68	108.20
78	CA	1544	U	O4'-C1'-N1	10.60	116.68	108.20
81	DA	2208	A	C1'-O4'-C4'	-10.60	101.42	109.90
78	CA	174	U	C3'-C2'-C1'	10.60	109.98	101.50
31	BB	66	PRO	C-N-CA	10.60	148.19	121.70
81	DA	2382	G	O4'-C1'-N9	10.59	116.67	108.20
40	BK	101	ARG	NE-CZ-NH2	-10.59	115.01	120.30
78	CA	218	A	O4'-C1'-C2'	10.59	117.13	107.60
61	Bj	21	ARG	CA-C-N	10.58	140.48	117.20
81	DA	2699	G	P-O5'-C5'	10.58	137.84	120.90
55	Bc	41	LEU	CD1-CG-CD2	10.58	142.24	110.50
79	CB	74	C	P-O3'-C3'	10.58	132.40	119.70
81	DA	1607	U	P-O3'-C3'	10.58	132.39	119.70
81	DA	2827	U	N1-C1'-C2'	-10.58	100.25	114.00
83	DC	4	U	O4'-C1'-N1	10.58	116.66	108.20
78	CA	1295	G	O4'-C1'-N9	10.58	116.66	108.20
81	DA	577	C	O4'-C1'-C2'	-10.57	95.22	105.80
81	DA	1842	A	N9-C1'-C2'	-10.57	100.25	114.00
81	DA	1414	G	C1'-O4'-C4'	10.57	118.36	109.90
77	BI	106	ALA	N-CA-C	10.57	139.54	111.00
81	DA	1009	A	O5'-C5'-C4'	10.57	131.78	111.70
81	DA	3094	A	N9-C1'-C2'	10.57	127.74	114.00
13	AL	5	LYS	O-C-N	-10.57	101.02	121.10
78	CA	306	U	C3'-C2'-C1'	10.57	109.95	101.50
81	DA	1576	G	O4'-C1'-N9	10.56	116.65	108.20
81	DA	2759	U	C5'-C4'-C3'	10.56	132.90	116.00
81	DA	261	U	C1'-O4'-C4'	-10.56	101.45	109.90
81	DA	388	G	O4'-C1'-N9	10.56	116.65	108.20
81	DA	1411	C	P-O3'-C3'	10.56	132.37	119.70
81	DA	2514	U	O4'-C1'-N1	10.56	116.65	108.20
81	DA	3049	A	P-O3'-C3'	-10.56	107.03	119.70
78	CA	287	G	N9-C1'-C2'	10.56	127.73	114.00
78	CA	1066	C	P-O5'-C5'	10.56	137.79	120.90
81	DA	1970	U	O4'-C1'-N1	10.56	116.65	108.20
78	CA	171	A	P-O3'-C3'	10.55	132.37	119.70
81	DA	741	U	P-O3'-C3'	10.55	132.37	119.70
4	AD	154	ILE	N-CA-CB	10.55	135.07	110.80
83	DC	75	G	P-O3'-C3'	10.55	132.36	119.70
81	DA	2567	C	P-O3'-C3'	-10.55	107.04	119.70
74	BQ	136	GLU	CA-C-N	-10.55	93.99	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1806	A	P-O3'-C3'	10.55	132.36	119.70
78	CA	1420	C	O4'-C1'-C2'	-10.55	95.25	105.80
81	DA	1957	G	O4'-C1'-N9	10.54	116.64	108.20
78	CA	650	U	O4'-C1'-C2'	-10.54	95.26	105.80
4	AD	109	PHE	CB-CG-CD2	10.54	128.18	120.80
78	CA	893	U	O4'-C1'-N1	10.54	116.63	108.20
81	DA	969	C	C1'-O4'-C4'	10.54	118.33	109.90
4	AD	238	LEU	CB-CA-C	-10.54	90.18	110.20
81	DA	3363	U	O4'-C1'-C2'	-10.54	95.26	105.80
78	CA	871	G	P-O3'-C3'	10.54	132.34	119.70
81	DA	2563	G	P-O3'-C3'	10.54	132.34	119.70
78	CA	1023	A	O4'-C1'-N9	10.53	116.62	108.20
82	DB	132	G	N9-C1'-C2'	-10.53	100.31	114.00
31	BB	128	ARG	NE-CZ-NH2	10.53	125.56	120.30
76	BS	6	PHE	CB-CG-CD1	10.52	128.17	120.80
78	CA	307	G	P-O3'-C3'	10.52	132.33	119.70
81	DA	1575	A	N9-C1'-C2'	-10.52	100.32	114.00
81	DA	1760	A	N1-C6-N6	10.52	124.91	118.60
81	DA	1213	G	O4'-C1'-N9	10.52	116.61	108.20
81	DA	1612	A	O4'-C1'-N9	10.52	116.61	108.20
81	DA	3233	C	P-O5'-C5'	10.52	137.73	120.90
47	BU	136	ARG	NE-CZ-NH2	-10.51	115.04	120.30
81	DA	671	U	C5'-C4'-C3'	10.51	132.82	116.00
81	DA	1890	U	P-O5'-C5'	10.51	137.72	120.90
81	DA	2451	G	P-O3'-C3'	10.51	132.31	119.70
74	BQ	238	ASP	N-CA-CB	10.51	129.51	110.60
81	DA	1527	C	O4'-C1'-N1	10.51	116.60	108.20
81	DA	3370	A	P-O3'-C3'	10.51	132.31	119.70
78	CA	374	U	C3'-C2'-C1'	-10.50	93.10	101.50
81	DA	2228	A	N9-C1'-C2'	-10.50	100.35	114.00
74	BQ	172	TYR	CB-CG-CD2	10.50	127.30	121.00
81	DA	955	U	O4'-C1'-N1	10.50	116.60	108.20
8	AF	112	ARG	NE-CZ-NH2	-10.50	115.05	120.30
78	CA	466	U	O4'-C1'-N1	10.50	116.60	108.20
78	CA	496	G	N1-C6-O6	10.50	126.20	119.90
81	DA	3253	G	P-O5'-C5'	10.50	137.70	120.90
32	BC	67	PHE	CB-CG-CD2	10.50	128.15	120.80
78	CA	182	A	O4'-C1'-N9	10.50	116.60	108.20
81	DA	1638	A	O4'-C1'-N9	10.50	116.60	108.20
78	CA	482	U	O4'-C1'-N1	10.50	116.60	108.20
81	DA	2303	A	C1'-O4'-C4'	10.50	118.30	109.90
81	DA	743	C	N1-C1'-C2'	10.49	127.64	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2118	C	N1-C1'-C2'	10.49	127.64	114.00
78	CA	1186	U	O4'-C1'-N1	10.49	116.59	108.20
78	CA	1350	U	P-O3'-C3'	10.49	132.29	119.70
81	DA	1591	G	C1'-O4'-C4'	-10.49	101.51	109.90
34	BE	61	ARG	N-CA-C	10.48	139.31	111.00
81	DA	1621	A	O4'-C1'-N9	10.48	116.59	108.20
81	DA	3333	G	O4'-C1'-C2'	10.48	117.04	107.60
81	DA	556	U	P-O3'-C3'	10.48	132.28	119.70
81	DA	1341	U	P-O3'-C3'	10.48	132.27	119.70
6	AE	81	MET	CB-CA-C	-10.48	89.45	110.40
81	DA	486	U	O3'-P-O5'	10.47	123.90	104.00
47	BU	140	ILE	C-N-CA	-10.47	95.52	121.70
81	DA	1577	G	O4'-C1'-N9	10.47	116.58	108.20
81	DA	2471	U	O4'-C1'-N1	10.47	116.58	108.20
78	CA	231	U	O4'-C1'-N1	10.47	116.58	108.20
81	DA	2393	G	O4'-C1'-N9	10.46	116.57	108.20
12	AK	59	ALA	CB-CA-C	-10.46	94.41	110.10
47	BU	126	VAL	N-CA-C	10.46	139.25	111.00
78	CA	54	C	P-O5'-C5'	10.46	137.64	120.90
81	DA	475	G	P-O3'-C3'	10.46	132.25	119.70
78	CA	874	C	O4'-C1'-N1	-10.46	99.83	108.20
81	DA	752	C	N1-C1'-C2'	10.46	127.60	114.00
81	DA	1888	U	O4'-C1'-N1	10.46	116.57	108.20
69	Br	89	LYS	CB-CA-C	10.46	131.31	110.40
81	DA	2528	G	N9-C1'-C2'	-10.46	100.41	114.00
81	DA	2254	U	O4'-C1'-N1	10.45	116.56	108.20
78	CA	589	C	N1-C1'-C2'	10.45	127.59	114.00
81	DA	1542	G	P-O3'-C3'	10.45	132.24	119.70
83	DC	94	A	P-O3'-C3'	10.45	132.24	119.70
78	CA	267	U	C3'-C2'-C1'	10.45	109.86	101.50
78	CA	650	U	O4'-C1'-N1	10.45	116.56	108.20
81	DA	672	A	O5'-C5'-C4'	-10.45	91.85	111.70
81	DA	2376	G	P-O5'-C5'	10.45	137.62	120.90
81	DA	2612	U	O4'-C1'-N1	10.45	116.56	108.20
44	BO	117	ARG	NE-CZ-NH2	-10.44	115.08	120.30
82	DB	132	G	O4'-C1'-N9	10.44	116.55	108.20
81	DA	1624	G	O4'-C1'-N9	10.44	116.55	108.20
82	DB	52	A	O4'-C1'-C2'	-10.44	95.36	105.80
78	CA	434	G	P-O3'-C3'	10.43	132.22	119.70
78	CA	1735	U	O4'-C1'-C2'	-10.43	95.37	105.80
13	AL	1	MET	N-CA-CB	-10.43	91.83	110.60
78	CA	1185	U	N1-C1'-C2'	10.43	127.56	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1425	A	N1-C6-N6	10.43	124.86	118.60
15	AN	14	TYR	CB-CG-CD1	10.43	127.26	121.00
81	DA	697	A	P-O3'-C3'	10.43	132.22	119.70
81	DA	2279	A	O4'-C1'-C2'	10.43	116.99	107.60
81	DA	3238	G	O4'-C1'-N9	10.43	116.54	108.20
78	CA	1605	G	O4'-C1'-N9	10.43	116.54	108.20
81	DA	56	G	O4'-C1'-N9	10.43	116.54	108.20
81	DA	1688	U	N1-C1'-C2'	10.43	127.55	114.00
76	BS	120	PHE	N-CA-CB	10.42	129.36	110.60
81	DA	2754	G	N9-C1'-C2'	-10.42	100.46	114.00
55	Bc	109	ILE	N-CA-CB	10.41	134.76	110.80
81	DA	1754	G	O4'-C4'-C3'	-10.41	93.59	104.00
82	DB	97	A	P-O3'-C3'	10.41	132.19	119.70
14	AM	68	ARG	NE-CZ-NH1	-10.41	115.10	120.30
81	DA	2634	U	N1-C1'-C2'	10.41	127.53	114.00
81	DA	2992	U	P-O3'-C3'	10.41	132.19	119.70
81	DA	765	C	C3'-C2'-C1'	10.40	109.82	101.50
81	DA	3123	A	O4'-C1'-N9	10.40	116.52	108.20
81	DA	3355	U	C1'-O4'-C4'	10.40	118.22	109.90
15	AN	54	LYS	O-C-N	10.40	139.34	122.70
57	Be	97	PRO	C-N-CA	10.40	147.71	121.70
81	DA	2526	C	O4'-C1'-N1	10.40	116.52	108.20
78	CA	1698	G	O4'-C1'-N9	10.40	116.52	108.20
81	DA	1916	U	P-O5'-C5'	10.40	137.54	120.90
16	AO	40	TYR	CB-CG-CD2	-10.40	114.76	121.00
81	DA	702	C	O4'-C1'-N1	-10.40	99.88	108.20
81	DA	2483	G	O4'-C1'-N9	10.40	116.52	108.20
43	BP	159	ARG	NE-CZ-NH1	10.39	125.50	120.30
82	DB	20	U	P-O3'-C3'	10.39	132.17	119.70
81	DA	1054	A	C1'-O4'-C4'	10.39	118.21	109.90
81	DA	3004	C	C1'-O4'-C4'	-10.39	101.59	109.90
74	BQ	176	SER	N-CA-CB	10.39	126.08	110.50
78	CA	169	A	N9-C1'-C2'	-10.39	100.49	114.00
78	CA	1570	A	N9-C1'-C2'	-10.39	100.49	114.00
81	DA	242	C	C3'-C2'-C1'	10.39	109.81	101.50
81	DA	1116	G	P-O3'-C3'	10.39	132.16	119.70
81	DA	2788	C	N1-C1'-C2'	10.38	127.50	114.00
81	DA	2798	C	N1-C1'-C2'	10.38	127.49	114.00
81	DA	1698	C	O4'-C1'-C2'	-10.38	95.42	105.80
78	CA	299	A	N9-C1'-C2'	-10.38	100.51	114.00
81	DA	1933	A	O4'-C1'-N9	10.37	116.50	108.20
81	DA	698	U	O4'-C1'-N1	10.37	116.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1883	A	O4'-C1'-N9	10.37	116.50	108.20
81	DA	2040	U	O4'-C1'-N1	10.37	116.50	108.20
78	CA	838	G	C1'-O4'-C4'	10.37	118.19	109.90
81	DA	607	A	C1'-O4'-C4'	-10.37	101.61	109.90
81	DA	1523	U	O4'-C1'-N1	10.37	116.50	108.20
81	DA	1870	C	O4'-C1'-N1	10.37	116.50	108.20
78	CA	661	A	O4'-C1'-N9	10.37	116.49	108.20
78	CA	399	A	O4'-C1'-N9	10.37	116.49	108.20
78	CA	627	C	O4'-C1'-N1	10.37	116.49	108.20
81	DA	2889	C	O4'-C1'-N1	10.36	116.49	108.20
52	BY	3	LYS	N-CA-CB	10.36	129.25	110.60
81	DA	2681	U	O4'-C1'-N1	10.36	116.49	108.20
61	Bj	89	LEU	O-C-N	-10.36	101.41	121.10
78	CA	123	G	C3'-C2'-C1'	10.36	109.79	101.50
51	BZ	67	VAL	CA-C-N	10.36	139.99	117.20
78	CA	1366	U	P-O3'-C3'	10.36	132.13	119.70
4	AD	86	PHE	CB-CG-CD1	10.36	128.05	120.80
78	CA	1200	G	C1'-O4'-C4'	-10.36	101.62	109.90
78	CA	1343	U	P-O3'-C3'	10.35	132.12	119.70
81	DA	464	U	O4'-C1'-N1	10.35	116.48	108.20
82	DB	45	C	N1-C1'-C2'	10.35	127.46	114.00
30	BA	190	PHE	CB-CA-C	10.35	131.09	110.40
81	DA	3099	C	O3'-P-O5'	-10.35	84.34	104.00
78	CA	1394	G	C4'-C3'-C2'	-10.35	92.25	102.60
83	DC	49	G	O4'-C1'-C2'	-10.35	95.45	105.80
74	BQ	248	ARG	NE-CZ-NH1	10.34	125.47	120.30
81	DA	2070	U	P-O3'-C3'	10.34	132.11	119.70
81	DA	3126	C	P-O3'-C3'	10.34	132.11	119.70
81	DA	625	G	O4'-C1'-N9	10.34	116.47	108.20
81	DA	1641	U	P-O5'-C5'	10.34	137.44	120.90
78	CA	1743	U	P-O3'-C3'	10.34	132.11	119.70
81	DA	1784	G	O4'-C1'-N9	10.34	116.47	108.20
81	DA	3313	U	C3'-C2'-C1'	-10.34	93.23	101.50
2	AA	10	THR	N-CA-CB	10.34	129.94	110.30
78	CA	255	U	C4'-C3'-C2'	-10.34	92.27	102.60
81	DA	775	A	O4'-C1'-N9	10.33	116.46	108.20
81	DA	2149	A	C1'-O4'-C4'	10.33	118.16	109.90
83	DC	50	U	P-O5'-C5'	10.33	137.42	120.90
81	DA	1005	G	C4'-C3'-C2'	-10.32	92.28	102.60
82	DB	38	U	P-O3'-C3'	10.32	132.09	119.70
81	DA	2451	G	O4'-C1'-N9	10.32	116.46	108.20
81	DA	1131	G	P-O3'-C3'	10.32	132.08	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	57	G	O4'-C1'-N9	10.32	116.45	108.20
78	CA	1080	U	O3'-P-O5'	-10.32	84.40	104.00
78	CA	1400	A	O4'-C1'-N9	-10.32	99.95	108.20
81	DA	2698	G	O4'-C1'-N9	10.32	116.45	108.20
78	CA	163	G	O3'-P-O5'	-10.31	84.40	104.00
81	DA	872	U	P-O3'-C3'	10.31	132.08	119.70
78	CA	268	C	N1-C1'-C2'	10.31	127.41	114.00
81	DA	1253	U	O4'-C1'-N1	10.31	116.45	108.20
81	DA	1534	A	O4'-C1'-N9	10.31	116.45	108.20
81	DA	2816	G	P-O3'-C3'	10.31	132.07	119.70
78	CA	1103	U	O4'-C1'-N1	10.30	116.44	108.20
78	CA	1546	G	C4'-C3'-C2'	10.30	112.91	102.60
53	Ba	9	LYS	N-CA-C	10.30	138.81	111.00
81	DA	521	A	N9-C1'-C2'	-10.30	100.61	114.00
81	DA	1074	U	P-O5'-C5'	10.30	137.38	120.90
81	DA	3241	G	O4'-C1'-N9	-10.30	99.96	108.20
82	DB	122	U	P-O5'-C5'	10.30	137.38	120.90
13	AL	39	LYS	N-CA-CB	10.30	129.14	110.60
81	DA	2492	C	C3'-C2'-C1'	10.30	109.74	101.50
81	DA	2690	G	O4'-C1'-N9	10.30	116.44	108.20
81	DA	2510	U	O4'-C1'-C2'	-10.29	95.50	105.80
79	CB	47	U	O4'-C1'-N1	10.29	116.43	108.20
41	BN	39	ILE	CG1-CB-CG2	10.29	134.04	111.40
78	CA	629	U	O4'-C1'-N1	10.29	116.43	108.20
81	DA	1695	U	N1-C1'-C2'	-10.29	100.62	114.00
78	CA	984	G	O4'-C1'-N9	10.28	116.43	108.20
78	CA	1375	A	O4'-C1'-N9	-10.29	99.97	108.20
81	DA	1087	G	O4'-C1'-N9	10.29	116.43	108.20
81	DA	992	A	N9-C1'-C2'	-10.28	100.64	114.00
81	DA	3307	A	O4'-C1'-N9	10.28	116.42	108.20
83	DC	26	C	C1'-O4'-C4'	-10.28	101.68	109.90
56	Bf	27	TYR	CB-CG-CD2	-10.28	114.83	121.00
81	DA	3352	U	N1-C1'-C2'	10.28	127.36	114.00
13	AL	6	PRO	N-CD-CG	10.27	118.61	103.20
40	BK	130	LYS	CA-C-O	-10.27	98.53	120.10
47	BU	17	ARG	NE-CZ-NH2	10.27	125.44	120.30
78	CA	280	U	N1-C1'-C2'	10.27	127.36	114.00
78	CA	1573	A	N9-C1'-C2'	-10.27	100.65	114.00
81	DA	1640	G	O3'-P-O5'	-10.27	84.48	104.00
81	DA	1715	A	O4'-C1'-N9	10.27	116.42	108.20
81	DA	566	G	N9-C1'-C2'	10.27	127.34	114.00
81	DA	2607	G	C1'-O4'-C4'	-10.27	101.69	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Bi	43	LYS	N-CA-CB	10.26	129.07	110.60
81	DA	671	U	O3'-P-O5'	-10.26	84.50	104.00
81	DA	2445	A	N9-C1'-C2'	10.26	127.34	114.00
13	AL	134	ALA	C-N-CA	-10.26	96.05	121.70
81	DA	299	G	O4'-C1'-N9	10.26	116.41	108.20
81	DA	2406	C	C3'-C2'-C1'	10.26	109.71	101.50
78	CA	593	U	O4'-C1'-N1	10.26	116.41	108.20
78	CA	1192	C	N1-C1'-C2'	10.26	127.33	114.00
81	DA	3066	U	O4'-C1'-N1	10.26	116.40	108.20
81	DA	1697	A	P-O3'-C3'	10.25	132.00	119.70
78	CA	1081	A	O4'-C1'-C2'	-10.25	95.55	105.80
81	DA	109	A	C3'-C2'-C1'	10.25	109.70	101.50
81	DA	848	A	P-O3'-C3'	10.25	132.00	119.70
81	DA	1695	U	P-O3'-C3'	10.25	132.00	119.70
81	DA	855	U	O3'-P-O5'	-10.25	84.53	104.00
78	CA	194	U	P-O3'-C3'	10.24	131.99	119.70
35	BG	99	GLU	CA-CB-CG	10.24	135.93	113.40
35	BG	14	ASP	C-N-CA	10.24	147.30	121.70
78	CA	880	C	O4'-C1'-N1	10.24	116.39	108.20
81	DA	1422	G	C1'-O4'-C4'	-10.24	101.71	109.90
5	AC	164	PHE	C-N-CA	10.23	143.79	122.30
79	CB	25	U	O4'-C1'-N1	10.23	116.39	108.20
81	DA	384	A	P-O3'-C3'	10.23	131.98	119.70
81	DA	2999	U	P-O3'-C3'	10.23	131.98	119.70
81	DA	1259	A	P-O3'-C3'	10.23	131.98	119.70
81	DA	2339	C	O4'-C1'-N1	10.23	116.39	108.20
81	DA	250	U	C1'-O4'-C4'	10.23	118.08	109.90
81	DA	2362	C	O4'-C1'-C2'	-10.23	95.57	105.80
81	DA	2899	C	C1'-O4'-C4'	-10.23	101.72	109.90
81	DA	834	U	O3'-P-O5'	-10.22	84.58	104.00
81	DA	1134	G	O4'-C1'-N9	10.22	116.38	108.20
81	DA	774	G	C1'-O4'-C4'	-10.22	101.72	109.90
50	BX	93	TYR	CB-CG-CD1	-10.22	114.87	121.00
81	DA	2740	A	O4'-C1'-N9	10.22	116.37	108.20
81	DA	1001	G	P-O3'-C3'	-10.21	107.44	119.70
74	BQ	40	HIS	CA-C-N	-10.21	94.74	117.20
81	DA	522	A	O4'-C1'-N9	10.21	116.37	108.20
78	CA	1447	C	O4'-C1'-C2'	-10.21	95.59	105.80
81	DA	187	A	P-O5'-C5'	10.21	137.23	120.90
41	BN	77	ARG	N-CA-CB	10.20	128.96	110.60
78	CA	831	U	O4'-C1'-N1	10.20	116.36	108.20
78	CA	1326	A	P-O3'-C3'	10.20	131.94	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1084	A	P-O3'-C3'	10.20	131.94	119.70
81	DA	1296	C	O4'-C1'-N1	10.20	116.36	108.20
40	BK	48	PHE	CB-CG-CD2	10.20	127.94	120.80
59	Bh	20	HIS	C-N-CA	10.20	147.20	121.70
78	CA	1310	U	O5'-C5'-C4'	10.20	131.08	111.70
81	DA	1138	U	O4'-C1'-N1	10.20	116.36	108.20
81	DA	971	G	O4'-C1'-N9	10.20	116.36	108.20
81	DA	1771	C	O3'-P-O5'	-10.20	84.63	104.00
81	DA	1513	G	O4'-C1'-C2'	10.19	116.77	107.60
81	DA	2941	A	N9-C1'-C2'	-10.20	100.75	114.00
35	BG	49	GLY	N-CA-C	10.19	138.58	113.10
38	Bs	136	PHE	CB-CG-CD2	-10.19	113.67	120.80
78	CA	782	U	P-O3'-C3'	10.19	131.93	119.70
78	CA	1265	G	O4'-C1'-N9	10.19	116.35	108.20
81	DA	2426	U	O4'-C1'-N1	10.19	116.35	108.20
81	DA	3242	G	O4'-C1'-C2'	-10.19	95.61	105.80
82	DB	151	C	C3'-C2'-C1'	10.19	109.65	101.50
16	AO	124	ARG	NE-CZ-NH1	-10.19	115.21	120.30
78	CA	856	A	N9-C1'-C2'	-10.19	100.76	114.00
13	AL	23	ARG	CB-CA-C	10.19	130.77	110.40
78	CA	1340	U	C5'-C4'-O4'	10.19	121.32	109.10
74	BQ	30	TYR	CB-CG-CD2	-10.18	114.89	121.00
78	CA	123	G	P-O3'-C3'	10.18	131.92	119.70
81	DA	903	U	O4'-C1'-N1	10.18	116.34	108.20
81	DA	1996	C	O4'-C1'-C2'	-10.18	95.62	105.80
82	DB	49	G	O4'-C1'-N9	10.18	116.34	108.20
81	DA	2153	U	P-O5'-C5'	10.18	137.18	120.90
10	AI	138	PHE	CB-CG-CD2	-10.17	113.68	120.80
81	DA	678	G	P-O3'-C3'	10.17	131.91	119.70
81	DA	1321	G	P-O3'-C3'	10.17	131.91	119.70
78	CA	1617	U	O4'-C1'-N1	10.17	116.34	108.20
78	CA	1280	C	P-O3'-C3'	10.17	131.90	119.70
78	CA	32	U	O4'-C1'-C2'	-10.17	95.63	105.80
41	BN	108	ARG	NE-CZ-NH2	-10.16	115.22	120.30
43	BP	30	TYR	CB-CG-CD2	-10.16	114.90	121.00
78	CA	418	G	O4'-C1'-N9	10.16	116.33	108.20
81	DA	1948	G	C5'-C4'-C3'	10.16	132.26	116.00
12	AK	124	ASP	CB-CG-OD2	10.16	127.45	118.30
81	DA	2036	U	O4'-C1'-N1	10.16	116.33	108.20
81	DA	2280	A	P-O5'-C5'	10.16	137.16	120.90
35	BG	132	ALA	N-CA-CB	-10.16	95.88	110.10
78	CA	609	U	C3'-C2'-C1'	10.16	109.63	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1614	C	O4'-C1'-N1	10.16	116.33	108.20
81	DA	1720	U	O4'-C1'-N1	10.16	116.33	108.20
81	DA	2736	A	N9-C1'-C2'	-10.16	100.79	114.00
14	AM	120	ARG	N-CA-CB	10.16	128.88	110.60
21	AT	12	TYR	CB-CG-CD1	10.16	127.09	121.00
79	CB	5	U	O4'-C1'-N1	10.15	116.32	108.20
81	DA	74	G	C5'-C4'-C3'	10.15	132.24	116.00
81	DA	922	U	O4'-C1'-N1	-10.15	100.08	108.20
81	DA	725	G	P-O3'-C3'	10.15	131.88	119.70
78	CA	252	U	C1'-O4'-C4'	10.15	118.02	109.90
81	DA	1624	G	P-O3'-C3'	10.15	131.88	119.70
79	CB	11	U	O4'-C1'-N1	10.14	116.31	108.20
81	DA	450	G	P-O3'-C3'	10.14	131.87	119.70
38	Bs	197	PHE	CB-CG-CD1	-10.14	113.70	120.80
81	DA	249	U	P-O3'-C3'	10.14	131.87	119.70
81	DA	751	A	O4'-C1'-N9	10.14	116.31	108.20
81	DA	1542	G	C3'-C2'-C1'	-10.14	93.39	101.50
81	DA	3391	A	P-O3'-C3'	10.14	131.87	119.70
78	CA	630	A	O4'-C1'-C2'	-10.14	95.66	105.80
81	DA	2840	C	N1-C1'-C2'	-10.14	100.82	114.00
81	DA	306	A	P-O3'-C3'	10.14	131.86	119.70
81	DA	1986	U	O4'-C1'-N1	10.14	116.31	108.20
81	DA	1829	G	O4'-C1'-N9	10.13	116.31	108.20
81	DA	1947	G	C3'-C2'-C1'	-10.14	93.39	101.50
78	CA	1545	A	C3'-C2'-C1'	-10.13	93.39	101.50
81	DA	605	U	O4'-C1'-N1	10.13	116.31	108.20
81	DA	2124	G	O4'-C1'-N9	10.13	116.31	108.20
81	DA	3218	A	O4'-C1'-N9	10.13	116.31	108.20
78	CA	488	G	O4'-C1'-N9	10.13	116.30	108.20
81	DA	1408	G	P-O3'-C3'	10.13	131.86	119.70
81	DA	169	U	O4'-C1'-C2'	-10.13	95.67	105.80
81	DA	1397	C	C3'-C2'-C1'	10.13	109.60	101.50
81	DA	2475	G	C1'-O4'-C4'	10.12	118.00	109.90
81	DA	2491	A	N9-C1'-C2'	10.12	127.16	114.00
78	CA	635	A	O4'-C1'-C2'	-10.12	95.68	105.80
81	DA	2968	G	O4'-C1'-N9	10.12	116.30	108.20
11	AJ	84	MET	CB-CA-C	-10.12	90.16	110.40
81	DA	435	C	C3'-C2'-C1'	10.12	109.60	101.50
81	DA	2013	C	C3'-C2'-C1'	10.12	109.59	101.50
81	DA	2231	C	C3'-C2'-C1'	10.12	109.59	101.50
81	DA	1071	U	O4'-C1'-N1	10.11	116.29	108.20
81	DA	1168	U	O4'-C1'-N1	10.12	116.29	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1263	A	O4'-C1'-C2'	10.11	116.70	107.60
78	CA	1337	A	C4'-C3'-C2'	10.11	112.71	102.60
81	DA	2487	U	C3'-C2'-C1'	10.11	109.59	101.50
78	CA	1113	A	N9-C1'-C2'	-10.11	100.86	114.00
78	CA	1461	C	O4'-C1'-N1	10.11	116.29	108.20
81	DA	2025	G	C4'-C3'-C2'	-10.11	92.49	102.60
74	BQ	253	PHE	CB-CG-CD1	-10.11	113.73	120.80
20	AS	97	SER	N-CA-CB	10.10	125.65	110.50
81	DA	1684	U	O4'-C1'-N1	-10.10	100.12	108.20
81	DA	2345	A	C1'-O4'-C4'	-10.10	101.82	109.90
81	DA	1564	U	N1-C1'-C2'	10.10	127.13	114.00
35	BG	75	PRO	CA-C-N	10.09	139.40	117.20
78	CA	1085	G	O4'-C1'-N9	10.09	116.27	108.20
81	DA	2520	A	O4'-C1'-N9	10.09	116.28	108.20
81	DA	2870	C	C3'-C2'-C1'	10.09	109.58	101.50
39	BJ	16	ARG	NE-CZ-NH1	10.09	125.35	120.30
81	DA	730	C	O4'-C1'-N1	10.09	116.27	108.20
81	DA	2613	U	P-O3'-C3'	10.09	131.81	119.70
17	AQ	82	ASP	N-CA-CB	10.09	128.75	110.60
42	BM	86	ARG	NE-CZ-NH1	10.09	125.34	120.30
81	DA	3022	G	N9-C1'-C2'	10.09	127.11	114.00
76	BS	151	PHE	CB-CG-CD2	-10.08	113.74	120.80
83	DC	16	U	O3'-P-O5'	10.08	123.16	104.00
78	CA	1000	C	O4'-C1'-N1	10.08	116.26	108.20
81	DA	789	A	P-O3'-C3'	10.08	131.79	119.70
81	DA	2760	C	N1-C1'-C2'	10.08	127.10	114.00
81	DA	1401	A	C4'-C3'-C2'	-10.08	92.52	102.60
81	DA	2381	G	P-O3'-C3'	10.07	131.79	119.70
48	BW	107	PHE	CB-CG-CD1	10.07	127.85	120.80
81	DA	209	A	O4'-C1'-N9	10.07	116.26	108.20
81	DA	1003	A	O4'-C1'-N9	10.07	116.26	108.20
83	DC	83	U	O4'-C1'-N1	10.07	116.26	108.20
1	Aa	54	PHE	CB-CA-C	10.07	130.54	110.40
78	CA	1225	U	P-O3'-C3'	10.07	131.78	119.70
78	CA	1508	U	P-O3'-C3'	10.07	131.78	119.70
81	DA	62	A	P-O3'-C3'	10.07	131.78	119.70
81	DA	806	A	O4'-C1'-C2'	-10.07	95.73	105.80
81	DA	1055	A	P-O3'-C3'	10.07	131.78	119.70
78	CA	1770	U	O4'-C1'-N1	10.06	116.25	108.20
78	CA	591	A	P-O3'-C3'	10.06	131.78	119.70
81	DA	1076	C	N1-C1'-C2'	10.06	127.07	114.00
81	DA	2788	C	C3'-C2'-C1'	10.06	109.55	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	124	G	P-O3'-C3'	10.06	131.77	119.70
81	DA	71	A	C3'-C2'-C1'	10.05	109.54	101.50
81	DA	813	G	O4'-C1'-N9	10.05	116.24	108.20
2	AA	252	TRP	N-CA-CB	10.05	128.69	110.60
40	BK	133	ARG	CD-NE-CZ	10.05	137.67	123.60
81	DA	995	U	O4'-C1'-N1	10.05	116.24	108.20
81	DA	1690	C	O4'-C1'-N1	10.05	116.24	108.20
81	DA	2757	U	P-O5'-C5'	10.05	136.98	120.90
81	DA	1339	C	O4'-C1'-N1	10.04	116.24	108.20
30	BA	122	ARG	NE-CZ-NH1	-10.04	115.28	120.30
8	AF	30	PRO	CA-N-CD	-10.04	97.45	111.50
77	BI	106	ALA	CA-C-N	10.04	136.27	116.20
81	DA	2169	G	O4'-C1'-N9	10.04	116.23	108.20
81	DA	2562	A	N1-C6-N6	10.04	124.62	118.60
81	DA	1990	U	O3'-P-O5'	-10.04	84.93	104.00
79	CB	43	C	N1-C1'-C2'	10.03	127.04	114.00
81	DA	1758	G	N1-C6-O6	10.03	125.92	119.90
81	DA	2700	G	C1'-O4'-C4'	-10.03	101.88	109.90
2	AA	195	TRP	N-CA-C	-10.03	83.92	111.00
81	DA	2917	G	O4'-C1'-N9	10.03	116.22	108.20
82	DB	112	U	C1'-O4'-C4'	10.03	117.92	109.90
38	Bs	243	TYR	CB-CA-C	-10.03	90.35	110.40
83	DC	29	C	C4'-C3'-C2'	-10.03	92.57	102.60
81	DA	2446	U	N1-C1'-C2'	10.02	127.03	114.00
78	CA	1015	U	O4'-C1'-N1	-10.02	100.19	108.20
81	DA	1390	A	C5'-C4'-C3'	10.02	132.03	116.00
81	DA	186	U	P-O3'-C3'	10.01	131.72	119.70
81	DA	1872	C	C3'-C2'-C1'	10.01	109.51	101.50
81	DA	2491	A	C5'-C4'-C3'	10.01	132.02	116.00
81	DA	2966	G	N9-C1'-C2'	10.01	127.02	114.00
5	AC	162	SER	N-CA-C	10.01	138.03	111.00
53	Ba	42	LEU	CB-CA-C	-10.01	91.18	110.20
78	CA	156	A	O4'-C1'-N9	10.01	116.21	108.20
78	CA	1632	C	N1-C1'-C2'	10.01	127.01	114.00
81	DA	3217	C	P-O3'-C3'	10.01	131.71	119.70
78	CA	943	C	N1-C1'-C2'	10.01	127.01	114.00
78	CA	1061	A	N1-C6-N6	10.01	124.60	118.60
81	DA	1688	U	C3'-C2'-C1'	10.01	109.50	101.50
81	DA	1228	C	O4'-C1'-N1	10.00	116.20	108.20
81	DA	1712	G	P-O3'-C3'	10.00	131.70	119.70
81	DA	1428	A	O4'-C1'-C2'	-10.00	95.80	105.80
81	DA	1513	G	C1'-O4'-C4'	-10.00	101.90	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1944	U	P-O3'-C3'	10.00	131.70	119.70
48	BW	107	PHE	CB-CG-CD2	-9.99	113.80	120.80
76	BS	9	TYR	CB-CG-CD1	9.99	127.00	121.00
81	DA	2063	U	O4'-C1'-C2'	-9.99	95.81	105.80
81	DA	2224	A	P-O3'-C3'	9.99	131.69	119.70
81	DA	1709	C	C3'-C2'-C1'	9.99	109.49	101.50
81	DA	2665	U	N1-C1'-C2'	-9.99	101.01	112.00
82	DB	132	G	C5'-C4'-C3'	9.99	131.98	116.00
30	BA	152	ARG	NE-CZ-NH2	-9.99	115.31	120.30
43	BP	123	GLN	N-CA-C	9.99	137.96	111.00
78	CA	996	U	O4'-C1'-N1	9.98	116.19	108.20
81	DA	2165	G	N9-C1'-C2'	-9.98	101.02	112.00
60	Bi	9	ARG	NE-CZ-NH2	-9.98	115.31	120.30
50	BX	54	TYR	CB-CG-CD2	-9.98	115.01	121.00
81	DA	2801	A	O4'-C1'-C2'	9.98	116.58	107.60
78	CA	1096	C	O4'-C1'-C2'	-9.97	95.83	105.80
78	CA	1525	A	P-O3'-C3'	9.97	131.66	119.70
81	DA	43	A	C3'-C2'-C1'	-9.97	93.53	101.50
81	DA	329	U	O4'-C1'-N1	9.96	116.17	108.20
81	DA	1681	U	C3'-C2'-C1'	9.96	109.47	101.50
83	DC	55	A	O4'-C1'-C2'	-9.96	95.84	105.80
81	DA	2115	G	P-O5'-C5'	-9.96	104.97	120.90
81	DA	3211	C	C5'-C4'-C3'	9.96	131.94	116.00
81	DA	586	C	P-O3'-C3'	9.96	131.65	119.70
81	DA	1321	G	O4'-C1'-N9	9.96	116.16	108.20
81	DA	2566	C	O4'-C1'-N1	9.96	116.16	108.20
78	CA	440	U	O4'-C1'-N1	9.95	116.16	108.20
81	DA	1400	G	N9-C1'-C2'	-9.95	101.06	112.00
81	DA	2130	G	O4'-C1'-N9	9.95	116.16	108.20
78	CA	120	U	P-O5'-C5'	9.95	136.81	120.90
78	CA	224	C	O4'-C1'-N1	9.95	116.16	108.20
81	DA	2335	G	O4'-C1'-N9	9.94	116.16	108.20
81	DA	559	A	O4'-C1'-N9	9.94	116.15	108.20
81	DA	612	U	O4'-C1'-N1	9.94	116.15	108.20
81	DA	1734	G	O4'-C1'-N9	9.94	116.15	108.20
78	CA	32	U	C1'-O4'-C4'	9.94	117.85	109.90
44	BO	87	ARG	NE-CZ-NH2	-9.94	115.33	120.30
78	CA	295	A	C5'-C4'-C3'	9.94	131.90	116.00
78	CA	648	G	C5'-C4'-C3'	9.94	131.90	116.00
81	DA	93	C	C3'-C2'-C1'	9.94	109.45	101.50
35	BG	163	PHE	CB-CG-CD1	9.94	127.76	120.80
79	CB	32	U	O4'-C1'-N1	9.94	116.15	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	111	C	N1-C1'-C2'	9.94	126.92	114.00
81	DA	3350	C	N1-C1'-C2'	9.94	126.92	114.00
78	CA	1342	C	P-O3'-C3'	9.93	131.62	119.70
37	BH	204	ARG	NE-CZ-NH2	-9.93	115.33	120.30
78	CA	49	C	O4'-C1'-N1	9.93	116.15	108.20
81	DA	576	C	C3'-C2'-C1'	9.93	109.45	101.50
81	DA	609	G	O4'-C1'-N9	9.93	116.15	108.20
82	DB	154	C	C3'-C2'-C1'	9.93	109.45	101.50
81	DA	2689	A	C3'-C2'-C1'	9.93	109.45	101.50
81	DA	994	G	P-O3'-C3'	9.93	131.61	119.70
81	DA	2567	C	O4'-C1'-N1	9.93	116.14	108.20
81	DA	2679	A	P-O3'-C3'	9.93	131.62	119.70
82	DB	51	G	P-O3'-C3'	9.93	131.61	119.70
17	AQ	135	ARG	NE-CZ-NH1	9.92	125.26	120.30
29	AU	62	THR	N-CA-CB	9.92	129.15	110.30
78	CA	932	U	N1-C1'-C2'	-9.92	101.09	112.00
81	DA	287	G	O4'-C1'-N9	9.92	116.14	108.20
81	DA	1844	C	O4'-C1'-N1	9.92	116.14	108.20
81	DA	2508	U	O4'-C1'-C2'	-9.92	95.88	105.80
81	DA	2736	A	P-O3'-C3'	9.92	131.61	119.70
46	BT	162	ARG	NE-CZ-NH1	-9.92	115.34	120.30
78	CA	868	G	C3'-C2'-C1'	-9.92	93.56	101.50
81	DA	3055	U	O4'-C1'-N1	9.92	116.14	108.20
78	CA	839	U	O4'-C1'-C2'	-9.92	95.88	105.80
78	CA	971	A	O4'-C1'-N9	9.92	116.13	108.20
81	DA	292	U	O4'-C1'-N1	9.92	116.13	108.20
81	DA	2693	C	C3'-C2'-C1'	9.92	109.43	101.50
50	BX	60	TYR	CG-CD1-CE1	-9.91	113.37	121.30
81	DA	1249	G	O4'-C1'-N9	9.91	116.13	108.20
78	CA	349	U	O4'-C1'-N1	9.91	116.13	108.20
81	DA	2630	C	C3'-C2'-C1'	9.91	109.43	101.50
78	CA	990	C	C1'-O4'-C4'	-9.91	101.97	109.90
78	CA	831	U	N1-C1'-C2'	-9.91	101.10	112.00
18	AP	99	ARG	NE-CZ-NH1	9.91	125.25	120.30
79	CB	71	A	N9-C1'-C2'	9.91	126.88	114.00
81	DA	2378	C	N1-C1'-C2'	9.91	126.88	114.00
81	DA	3054	U	O3'-P-O5'	-9.91	85.18	104.00
81	DA	1079	A	O4'-C1'-C2'	-9.90	95.90	105.80
81	DA	2576	G	N1-C6-O6	9.90	125.84	119.90
81	DA	3296	A	N9-C1'-C2'	9.90	126.87	114.00
10	AI	84	ALA	N-CA-CB	9.90	123.96	110.10
81	DA	1362	G	O4'-C1'-C2'	9.90	116.51	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BC	250	ALA	CB-CA-C	-9.90	95.26	110.10
78	CA	423	G	O4'-C1'-N9	9.90	116.12	108.20
81	DA	3193	C	P-O3'-C3'	9.90	131.58	119.70
83	DC	109	G	O4'-C1'-N9	9.90	116.12	108.20
4	AD	239	PRO	CA-N-CD	-9.89	97.65	111.50
78	CA	476	U	P-O3'-C3'	9.89	131.57	119.70
81	DA	2625	C	O4'-C1'-C2'	-9.89	95.91	105.80
81	DA	461	U	O4'-C1'-N1	9.89	116.11	108.20
81	DA	819	U	O4'-C1'-N1	9.89	116.11	108.20
81	DA	1862	U	O4'-C1'-N1	9.89	116.11	108.20
72	Bt	60	ASN	CB-CA-C	-9.88	90.63	110.40
78	CA	252	U	O4'-C1'-C2'	-9.88	95.92	105.80
78	CA	1222	C	P-O3'-C3'	9.88	131.56	119.70
81	DA	2477	G	O4'-C1'-N9	9.88	116.11	108.20
74	BQ	198	TYR	CB-CG-CD2	9.88	126.93	121.00
81	DA	2447	A	P-O3'-C3'	9.88	131.56	119.70
81	DA	2520	A	N9-C1'-C2'	-9.88	101.13	112.00
81	DA	3220	G	O4'-C1'-N9	9.88	116.10	108.20
81	DA	2132	C	O4'-C1'-N1	9.87	116.10	108.20
78	CA	842	C	O4'-C1'-N1	9.87	116.10	108.20
81	DA	2618	G	P-O3'-C3'	9.87	131.54	119.70
81	DA	2645	G	O4'-C1'-N9	9.87	116.09	108.20
78	CA	16	G	N9-C1'-C2'	-9.87	101.15	112.00
82	DB	46	G	N9-C1'-C2'	9.87	126.83	114.00
81	DA	2596	U	O4'-C1'-N1	9.86	116.09	108.20
81	DA	924	G	C3'-C2'-C1'	9.86	109.39	101.50
1	Aa	48	THR	C-N-CA	-9.86	101.60	122.30
18	AP	57	LYS	N-CA-C	-9.86	84.38	111.00
61	Bj	21	ARG	CA-C-O	-9.86	99.40	120.10
78	CA	1551	U	O5'-P-OP2	9.86	122.53	110.70
81	DA	2948	C	N1-C1'-C2'	9.86	126.82	114.00
78	CA	1741	U	O4'-C1'-N1	9.85	116.08	108.20
81	DA	1850	A	O4'-C1'-N9	9.85	116.08	108.20
4	AD	235	TYR	CA-C-O	-9.85	99.42	120.10
5	AC	82	ARG	NE-CZ-NH1	9.85	125.22	120.30
22	AV	105	THR	CA-C-O	-9.85	99.42	120.10
78	CA	1254	U	P-O3'-C3'	-9.85	107.88	119.70
81	DA	677	A	P-O5'-C5'	9.85	136.66	120.90
13	AL	34	LEU	N-CA-C	-9.85	84.41	111.00
81	DA	1513	G	N9-C1'-C2'	9.85	126.80	114.00
81	DA	1728	G	O4'-C1'-C2'	9.85	116.46	107.60
81	DA	1777	U	P-O3'-C3'	9.85	131.52	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2775	U	O4'-C1'-N1	9.84	116.08	108.20
78	CA	887	A	P-O3'-C3'	9.84	131.51	119.70
78	CA	1547	A	C5'-C4'-C3'	9.84	131.75	116.00
82	DB	50	C	O4'-C1'-N1	9.84	116.07	108.20
81	DA	1992	U	O4'-C1'-N1	9.83	116.07	108.20
20	AS	91	TYR	CB-CG-CD2	-9.83	115.10	121.00
78	CA	105	A	N9-C1'-C2'	9.83	126.78	114.00
78	CA	1479	A	C3'-C2'-C1'	-9.83	93.64	101.50
81	DA	3253	G	N9-C1'-C2'	9.83	126.78	114.00
1	Aa	61	PHE	CB-CG-CD2	9.83	127.68	120.80
81	DA	1682	U	C1'-O4'-C4'	9.83	117.76	109.90
81	DA	2403	G	O4'-C1'-N9	9.83	116.06	108.20
81	DA	2682	C	O4'-C4'-C3'	-9.83	94.17	104.00
69	Br	104	LEU	CA-C-N	9.82	138.81	117.20
81	DA	1984	C	P-O3'-C3'	9.82	131.49	119.70
78	CA	1449	U	O4'-C1'-N1	9.82	116.06	108.20
32	BC	379	PHE	CB-CG-CD2	9.82	127.67	120.80
40	BK	46	GLU	N-CA-CB	9.82	128.27	110.60
78	CA	1338	C	P-O5'-C5'	-9.82	105.19	120.90
81	DA	2988	C	C1'-O4'-C4'	9.82	117.75	109.90
82	DB	151	C	P-O3'-C3'	9.82	131.48	119.70
78	CA	95	G	O4'-C1'-N9	9.81	116.05	108.20
78	CA	221	A	O4'-C1'-N9	9.81	116.05	108.20
79	CB	41	G	C1'-O4'-C4'	-9.81	102.05	109.90
81	DA	1044	U	O4'-C1'-N1	9.81	116.05	108.20
81	DA	2657	A	O4'-C1'-C2'	-9.81	95.99	105.80
81	DA	2233	A	N9-C1'-C2'	-9.81	101.21	112.00
78	CA	845	G	N1-C6-O6	9.80	125.78	119.90
81	DA	985	U	O4'-C1'-N1	9.80	116.04	108.20
82	DB	144	G	P-O3'-C3'	9.80	131.47	119.70
32	BC	365	PHE	CB-CG-CD1	-9.80	113.94	120.80
81	DA	1859	A	O4'-C1'-N9	9.80	116.04	108.20
81	DA	3313	U	O4'-C1'-N1	9.80	116.04	108.20
81	DA	973	A	C1'-O4'-C4'	-9.80	102.06	109.90
81	DA	1404	G	C4'-C3'-C2'	-9.80	92.80	102.60
81	DA	2531	C	C1'-O4'-C4'	9.80	117.74	109.90
78	CA	900	A	O5'-P-OP2	-9.79	96.89	105.70
78	CA	1790	A	P-O3'-C3'	-9.79	107.95	119.70
81	DA	562	C	P-O3'-C3'	9.79	131.45	119.70
81	DA	1873	U	N1-C1'-C2'	9.79	126.73	114.00
81	DA	1981	G	O4'-C1'-N9	9.80	116.04	108.20
81	DA	3085	G	O4'-C1'-C2'	9.79	116.42	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	Bh	127	ALA	N-CA-CB	-9.79	96.39	110.10
78	CA	1462	G	O4'-C1'-N9	9.79	116.03	108.20
81	DA	688	G	O4'-C1'-N9	9.79	116.03	108.20
81	DA	2682	C	O4'-C1'-C2'	-9.79	96.01	105.80
10	AI	112	TYR	CB-CG-CD2	-9.79	115.13	121.00
78	CA	1301	U	P-O3'-C3'	9.79	131.44	119.70
20	AS	56	LYS	CB-CA-C	9.78	129.96	110.40
81	DA	593	C	O4'-C1'-N1	9.78	116.03	108.20
81	DA	2901	G	O4'-C1'-C2'	9.78	116.40	107.60
81	DA	1404	G	O4'-C1'-N9	9.78	116.02	108.20
81	DA	2140	U	O4'-C1'-N1	9.78	116.02	108.20
69	Br	47	GLN	C-N-CA	9.78	146.15	121.70
81	DA	1794	G	O4'-C1'-N9	9.78	116.02	108.20
81	DA	513	G	P-O3'-C3'	9.78	131.43	119.70
81	DA	1221	A	C3'-C2'-C1'	-9.78	93.68	101.50
78	CA	437	A	O4'-C1'-N9	9.78	116.02	108.20
81	DA	3239	G	N9-C1'-C2'	9.78	126.71	114.00
40	BK	178	VAL	CA-CB-CG1	9.77	125.56	110.90
78	CA	852	C	P-O3'-C3'	9.77	131.43	119.70
78	CA	1233	G	C1'-O4'-C4'	9.77	117.72	109.90
81	DA	3247	G	P-O3'-C3'	9.77	131.43	119.70
16	AO	113	PHE	CB-CG-CD2	9.77	127.64	120.80
78	CA	1647	U	O4'-C1'-N1	9.77	116.01	108.20
78	CA	1049	U	P-O5'-C5'	9.77	136.52	120.90
78	CA	484	C	O4'-C1'-N1	9.76	116.01	108.20
81	DA	295	A	C3'-C2'-C1'	9.76	109.31	101.50
81	DA	2149	A	N9-C1'-C2'	-9.76	101.26	112.00
78	CA	1672	G	O4'-C1'-N9	9.76	116.01	108.20
81	DA	1686	U	P-O3'-C3'	9.76	131.41	119.70
81	DA	1951	C	P-O3'-C3'	9.76	131.41	119.70
81	DA	3254	G	P-O3'-C3'	-9.76	107.99	119.70
81	DA	3045	G	O4'-C1'-N9	9.76	116.00	108.20
42	BM	64	LYS	CB-CA-C	9.75	129.91	110.40
79	CB	19	U	O4'-C1'-N1	9.75	116.00	108.20
81	DA	1017	C	P-O3'-C3'	9.75	131.40	119.70
81	DA	1870	C	C4'-C3'-C2'	9.75	112.35	102.60
18	AP	40	LEU	CB-CA-C	9.75	128.72	110.20
81	DA	1818	U	O4'-C1'-N1	9.75	116.00	108.20
81	DA	1832	C	O4'-C1'-N1	9.75	116.00	108.20
81	DA	2546	C	O4'-C1'-N1	9.75	116.00	108.20
76	BS	117	ARG	N-CA-CB	9.75	128.14	110.60
78	CA	552	G	O4'-C1'-N9	9.75	116.00	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1623	G	O4'-C1'-N9	9.75	116.00	108.20
82	DB	125	U	O4'-C1'-N1	9.75	116.00	108.20
81	DA	1230	G	O4'-C1'-N9	9.74	116.00	108.20
81	DA	7	C	C3'-C2'-C1'	9.74	109.29	101.50
81	DA	126	U	O4'-C1'-N1	9.74	115.99	108.20
78	CA	284	G	C5'-C4'-C3'	9.74	131.58	116.00
81	DA	160	G	C3'-C2'-C1'	-9.74	93.71	101.50
83	DC	56	G	O4'-C1'-N9	9.74	115.99	108.20
79	CB	11	U	N1-C1'-C2'	-9.74	101.29	112.00
81	DA	2786	G	O4'-C1'-N9	9.74	115.99	108.20
81	DA	2180	G	O4'-C1'-C2'	9.73	116.36	107.60
66	Bo	21	ARG	NE-CZ-NH1	9.73	125.17	120.30
78	CA	222	A	P-O3'-C3'	9.73	131.38	119.70
78	CA	1427	A	N1-C6-N6	9.73	124.44	118.60
81	DA	179	C	C1'-O4'-C4'	-9.73	102.12	109.90
81	DA	720	A	OP1-P-OP2	-9.73	105.00	119.60
81	DA	741	U	O4'-C1'-N1	9.73	115.98	108.20
81	DA	1895	A	O4'-C1'-N9	9.73	115.98	108.20
81	DA	466	G	P-O3'-C3'	9.72	131.37	119.70
78	CA	623	A	O4'-C1'-N9	9.72	115.98	108.20
78	CA	1053	G	P-O3'-C3'	9.72	131.37	119.70
81	DA	599	C	C3'-C2'-C1'	9.72	109.28	101.50
82	DB	120	C	P-O3'-C3'	9.72	131.36	119.70
78	CA	1091	A	N9-C1'-C2'	-9.72	101.31	112.00
81	DA	721	G	N9-C1'-C2'	-9.72	101.31	112.00
81	DA	2748	A	C1'-O4'-C4'	9.72	117.67	109.90
81	DA	1770	G	N1-C6-O6	9.71	125.73	119.90
43	BP	13	LYS	C-N-CA	9.71	145.98	121.70
78	CA	280	U	C3'-C2'-C1'	9.71	109.27	101.50
78	CA	1091	A	O4'-C1'-C2'	-9.71	96.09	105.80
81	DA	1474	A	P-O3'-C3'	9.71	131.35	119.70
82	DB	50	C	O4'-C1'-C2'	-9.71	96.09	105.80
83	DC	21	G	C1'-O4'-C4'	-9.71	102.14	109.90
51	BZ	70	LYS	CA-C-O	-9.71	99.72	120.10
81	DA	1430	U	O4'-C1'-N1	9.71	115.97	108.20
78	CA	503	G	N1-C6-O6	9.70	125.72	119.90
81	DA	113	C	C3'-C2'-C1'	9.70	109.26	101.50
32	BC	300	ARG	NE-CZ-NH2	-9.70	115.45	120.30
81	DA	547	G	P-O3'-C3'	9.70	131.34	119.70
37	BH	84	ARG	NE-CZ-NH1	9.70	125.15	120.30
81	DA	1222	G	C1'-O4'-C4'	9.70	117.66	109.90
40	BK	128	ARG	C-N-CA	9.70	145.94	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3076	C	N1-C1'-C2'	9.70	126.60	114.00
40	BK	128	ARG	O-C-N	-9.69	107.19	122.70
81	DA	736	A	N1-C6-N6	9.69	124.42	118.60
78	CA	1451	C	N1-C1'-C2'	9.69	126.60	114.00
81	DA	1747	G	P-O5'-C5'	9.69	136.40	120.90
15	AN	47	ALA	C-N-CA	9.69	145.92	121.70
78	CA	93	A	O4'-C1'-C2'	9.69	116.32	107.60
67	Bp	34	CYS	CB-CA-C	-9.68	91.03	110.40
78	CA	151	G	C5'-C4'-C3'	-9.68	100.51	116.00
78	CA	299	A	C1'-O4'-C4'	9.68	117.65	109.90
81	DA	147	U	C5'-C4'-C3'	9.68	131.48	116.00
81	DA	2674	A	C1'-O4'-C4'	-9.68	102.16	109.90
81	DA	2531	C	O4'-C1'-N1	9.68	115.94	108.20
8	AF	29	ILE	CB-CA-C	9.67	130.94	111.60
61	Bj	20	LYS	N-CA-C	-9.67	84.88	111.00
81	DA	2901	G	O4'-C1'-N9	9.67	115.94	108.20
78	CA	386	G	N9-C1'-C2'	9.67	126.57	114.00
81	DA	298	U	C3'-C2'-C1'	9.67	109.23	101.50
83	DC	102	C	O4'-C1'-N1	-9.67	100.47	108.20
81	DA	2388	U	O4'-C1'-N1	9.66	115.93	108.20
29	AU	94	TYR	CB-CG-CD1	-9.66	115.20	121.00
78	CA	1623	C	P-O3'-C3'	9.66	131.30	119.70
81	DA	1287	A	O4'-C1'-C2'	-9.66	96.14	105.80
81	DA	2264	U	N1-C1'-C2'	9.66	126.56	114.00
81	DA	2656	A	N9-C1'-C2'	9.66	126.56	114.00
72	Bu	60	ASN	CB-CA-C	-9.66	91.08	110.40
81	DA	2041	U	C1'-O4'-C4'	9.66	117.63	109.90
81	DA	635	G	P-O5'-C5'	-9.66	105.44	120.90
78	CA	227	U	P-O3'-C3'	-9.66	108.11	119.70
79	CB	44	A	O4'-C1'-N9	9.66	115.93	108.20
81	DA	1291	A	O4'-C1'-N9	9.66	115.93	108.20
81	DA	2791	G	O4'-C1'-N9	9.66	115.93	108.20
74	BQ	12	TYR	CB-CG-CD2	-9.66	115.20	121.00
81	DA	1782	U	C5'-C4'-C3'	-9.66	100.55	116.00
14	AM	120	ARG	NE-CZ-NH1	9.66	125.13	120.30
81	DA	211	A	O4'-C1'-C2'	-9.66	96.14	105.80
79	CB	7	A	P-O3'-C3'	9.65	131.28	119.70
32	BC	123	TYR	N-CA-CB	9.65	127.97	110.60
81	DA	236	G	O4'-C1'-N9	9.65	115.92	108.20
82	DB	41	A	O4'-C1'-C2'	9.65	116.28	107.60
81	DA	3168	A	O4'-C1'-N9	9.65	115.92	108.20
42	BM	64	LYS	O-C-N	-9.65	106.80	123.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1169	A	N9-C1'-C2'	9.65	126.54	114.00
81	DA	3245	A	C1'-O4'-C4'	-9.65	102.18	109.90
2	AA	179	ARG	NE-CZ-NH2	-9.64	115.48	120.30
57	Be	41	ARG	NE-CZ-NH2	-9.64	115.48	120.30
78	CA	221	A	P-O3'-C3'	9.64	131.28	119.70
81	DA	250	U	C5'-C4'-C3'	9.64	131.43	116.00
81	DA	3283	U	O4'-C1'-N1	9.64	115.92	108.20
78	CA	1220	C	C5'-C4'-C3'	9.64	131.42	116.00
81	DA	831	G	O4'-C1'-N9	9.64	115.91	108.20
81	DA	3221	C	C4'-C3'-C2'	-9.64	92.96	102.60
20	AS	53	TRP	CA-C-N	-9.63	96.01	117.20
81	DA	3251	U	O4'-C1'-N1	9.63	115.91	108.20
78	CA	1432	U	P-O3'-C3'	9.63	131.25	119.70
37	BH	158	ASP	CB-CA-C	-9.63	91.15	110.40
78	CA	658	C	P-O3'-C3'	9.62	131.25	119.70
81	DA	672	A	O3'-P-O5'	-9.62	85.72	104.00
74	BQ	260	PHE	CB-CG-CD2	9.62	127.54	120.80
39	BJ	90	ARG	NE-CZ-NH2	-9.62	115.49	120.30
76	BS	156	ARG	NE-CZ-NH2	-9.62	115.49	120.30
78	CA	432	G	O4'-C1'-N9	9.61	115.89	108.20
78	CA	836	U	O4'-C1'-N1	9.62	115.89	108.20
78	CA	899	G	C1'-O4'-C4'	-9.62	102.21	109.90
81	DA	2428	U	O4'-C1'-N1	9.62	115.89	108.20
83	DC	71	C	O4'-C1'-C2'	-9.61	96.19	105.80
4	AD	86	PHE	CB-CG-CD2	-9.61	114.07	120.80
17	AQ	63	LYS	N-CA-C	9.61	136.95	111.00
72	Bt	60	ASN	O-C-N	-9.61	107.33	122.70
78	CA	961	U	O4'-C1'-N1	9.61	115.89	108.20
81	DA	3320	A	P-O3'-C3'	9.61	131.23	119.70
83	DC	32	U	N1-C1'-C2'	9.61	126.49	114.00
26	AZ	58	PRO	CA-N-CD	-9.61	98.05	111.50
4	AD	235	TYR	CB-CA-C	-9.60	91.19	110.40
81	DA	607	A	N9-C1'-C2'	-9.60	101.44	112.00
81	DA	3148	U	P-O3'-C3'	9.60	131.22	119.70
81	DA	1802	C	O4'-C1'-C2'	-9.60	96.20	105.80
81	DA	1948	G	O4'-C1'-N9	9.60	115.88	108.20
82	DB	46	G	C3'-C2'-C1'	-9.60	93.82	101.50
4	AD	93	ASP	N-CA-CB	-9.60	93.33	110.60
78	CA	1592	A	O4'-C1'-N9	9.60	115.88	108.20
57	Be	51	TYR	CB-CG-CD2	-9.60	115.24	121.00
78	CA	953	G	O4'-C1'-N9	9.60	115.88	108.20
37	BH	89	GLU	OE1-CD-OE2	-9.59	111.79	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	955	A	O4'-C1'-C2'	-9.59	96.21	105.80
78	CA	288	A	N9-C1'-C2'	-9.59	101.45	112.00
81	DA	392	G	O4'-C1'-N9	9.59	115.87	108.20
5	AC	62	ARG	NE-CZ-NH2	-9.59	115.51	120.30
78	CA	626	U	P-O3'-C3'	9.59	131.20	119.70
81	DA	1128	U	N1-C1'-C2'	9.59	126.46	114.00
81	DA	854	G	P-O3'-C3'	9.58	131.20	119.70
81	DA	1786	G	C3'-C2'-C1'	-9.58	93.83	101.50
81	DA	2375	G	P-O3'-C3'	9.58	131.20	119.70
55	Bc	67	ARG	NE-CZ-NH2	-9.58	115.51	120.30
81	DA	363	G	O4'-C1'-N9	9.58	115.86	108.20
81	DA	1358	C	N1-C1'-C2'	9.58	126.45	114.00
78	CA	1765	A	N9-C1'-C2'	9.58	126.45	114.00
74	BQ	158	ARG	NE-CZ-NH1	9.58	125.09	120.30
78	CA	1520	U	C4'-C3'-O3'	-9.57	89.29	109.40
79	CB	26	G	O4'-C1'-N9	9.57	115.86	108.20
82	DB	116	G	O4'-C1'-N9	9.57	115.86	108.20
78	CA	81	G	N9-C1'-C2'	9.57	126.44	114.00
78	CA	913	G	O4'-C1'-N9	9.57	115.86	108.20
78	CA	54	C	O4'-C1'-N1	9.57	115.86	108.20
79	CB	2	C	N1-C1'-C2'	9.57	126.44	114.00
81	DA	25	U	P-O5'-C5'	9.57	136.21	120.90
81	DA	30	G	O4'-C1'-N9	9.57	115.86	108.20
22	AV	106	ALA	N-CA-CB	9.57	123.49	110.10
78	CA	921	U	O4'-C1'-N1	9.57	115.86	108.20
60	Bi	55	SER	CA-C-O	-9.57	100.01	120.10
81	DA	2231	C	O4'-C1'-N1	-9.57	100.55	108.20
83	DC	79	U	O4'-C1'-N1	9.57	115.85	108.20
78	CA	154	G	C3'-C2'-C1'	9.56	109.15	101.50
81	DA	299	G	C5'-C4'-C3'	9.56	131.30	116.00
81	DA	3048	A	C3'-C2'-C1'	9.56	109.15	101.50
81	DA	736	A	P-O5'-C5'	9.56	136.20	120.90
8	AF	27	THR	CB-CA-C	9.56	137.41	111.60
13	AL	7	ARG	NE-CZ-NH2	-9.56	115.52	120.30
81	DA	1624	G	C3'-C2'-C1'	9.56	109.14	101.50
81	DA	3237	U	O4'-C1'-N1	9.56	115.85	108.20
81	DA	816	A	O4'-C1'-N9	-9.56	100.56	108.20
78	CA	165	G	O4'-C1'-N9	9.55	115.84	108.20
81	DA	2016	U	O4'-C1'-N1	9.55	115.84	108.20
81	DA	2176	U	C1'-O4'-C4'	9.55	117.54	109.90
81	DA	576	C	N1-C1'-C2'	9.55	126.42	114.00
82	DB	4	C	O4'-C1'-N1	9.55	115.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	218	PHE	C-N-CA	9.55	145.57	121.70
38	Bs	180	PRO	CB-CA-C	-9.55	88.13	112.00
81	DA	1448	U	O4'-C1'-N1	9.55	115.84	108.20
55	Bc	89	ARG	NE-CZ-NH1	9.54	125.07	120.30
78	CA	1235	C	C3'-C2'-C1'	-9.54	93.86	101.50
78	CA	1700	C	P-O3'-C3'	9.54	131.15	119.70
81	DA	317	A	N9-C1'-C2'	9.54	126.41	114.00
81	DA	2803	A	N9-C1'-C2'	-9.55	101.50	112.00
78	CA	93	A	O4'-C1'-N9	9.54	115.83	108.20
81	DA	687	U	P-O3'-C3'	9.54	131.15	119.70
78	CA	1123	C	C3'-C2'-C1'	9.54	109.13	101.50
81	DA	1533	U	O4'-C1'-N1	9.54	115.83	108.20
81	DA	1586	G	P-O3'-C3'	9.54	131.15	119.70
29	AU	5	VAL	N-CA-CB	9.54	132.49	111.50
78	CA	315	A	O4'-C1'-N9	9.54	115.83	108.20
81	DA	506	U	P-O3'-C3'	9.54	131.15	119.70
81	DA	734	C	O4'-C1'-N1	9.54	115.83	108.20
81	DA	314	U	O4'-C1'-N1	9.54	115.83	108.20
81	DA	1677	G	C3'-C2'-C1'	-9.54	93.87	101.50
43	BP	180	PHE	O-C-N	-9.53	107.45	122.70
81	DA	177	U	P-O3'-C3'	-9.53	108.26	119.70
81	DA	3169	U	P-O3'-C3'	9.53	131.14	119.70
26	AZ	54	ARG	NE-CZ-NH1	9.53	125.06	120.30
81	DA	2130	G	O4'-C1'-C2'	-9.53	96.27	105.80
78	CA	457	G	C1'-O4'-C4'	-9.53	102.28	109.90
81	DA	2334	U	P-O3'-C3'	9.53	131.13	119.70
81	DA	1686	U	O4'-C1'-N1	9.53	115.82	108.20
81	DA	1724	U	O4'-C1'-N1	9.53	115.82	108.20
81	DA	1446	A	N9-C1'-C2'	-9.52	101.53	112.00
81	DA	2372	A	O4'-C1'-N9	-9.52	100.58	108.20
78	CA	651	G	C5'-C4'-C3'	9.52	131.23	116.00
81	DA	2697	A	P-O3'-C3'	9.52	131.12	119.70
81	DA	2991	A	O4'-C1'-N9	9.52	115.82	108.20
78	CA	849	C	C1'-O4'-C4'	-9.52	102.29	109.90
39	BJ	14	TYR	CB-CA-C	9.52	129.43	110.40
78	CA	1565	C	O4'-C1'-C2'	-9.52	96.28	105.80
81	DA	1256	G	O3'-P-O5'	-9.52	85.92	104.00
78	CA	1288	G	P-O3'-C3'	9.51	131.12	119.70
81	DA	2794	G	P-O3'-C3'	9.51	131.12	119.70
78	CA	177	U	O4'-C1'-N1	9.51	115.81	108.20
78	CA	607	G	O4'-C1'-N9	9.51	115.81	108.20
37	BH	232	HIS	N-CA-CB	9.51	127.72	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1712	A	O4'-C1'-N9	9.51	115.81	108.20
81	DA	2444	C	C4'-C3'-C2'	-9.51	93.09	102.60
81	DA	2915	U	O3'-P-O5'	9.51	122.07	104.00
81	DA	3215	A	O4'-C1'-C2'	-9.51	96.29	105.80
53	Ba	85	TYR	CB-CG-CD2	-9.51	115.30	121.00
81	DA	774	G	N9-C1'-C2'	9.51	126.36	114.00
81	DA	1100	U	O4'-C1'-N1	9.51	115.81	108.20
6	AE	98	PHE	CB-CG-CD1	-9.50	114.15	120.80
78	CA	1419	G	O3'-P-O5'	-9.50	85.94	104.00
81	DA	693	A	P-O3'-C3'	9.50	131.10	119.70
81	DA	2062	G	O4'-C1'-N9	9.50	115.80	108.20
78	CA	86	A	P-O3'-C3'	9.50	131.10	119.70
78	CA	610	G	O4'-C1'-C2'	9.50	116.15	107.60
81	DA	833	G	O4'-C1'-N9	9.50	115.80	108.20
81	DA	3035	A	O4'-C1'-N9	9.50	115.80	108.20
78	CA	1088	A	O4'-C1'-N9	9.49	115.80	108.20
5	AC	194	ALA	C-N-CA	9.49	145.43	121.70
78	CA	679	U	P-O3'-C3'	-9.49	108.31	119.70
78	CA	1201	G	C3'-C2'-C1'	9.49	109.09	101.50
81	DA	628	A	O4'-C1'-N9	9.49	115.79	108.20
81	DA	1680	G	O4'-C1'-N9	9.49	115.80	108.20
81	DA	758	C	O4'-C1'-N1	9.49	115.79	108.20
82	DB	45	C	C3'-C2'-C1'	9.49	109.09	101.50
78	CA	955	A	C1'-O4'-C4'	9.49	117.49	109.90
81	DA	147	U	O5'-P-OP2	-9.49	97.16	105.70
81	DA	3351	U	O4'-C1'-N1	9.49	115.79	108.20
81	DA	161	G	O4'-C1'-N9	9.49	115.79	108.20
81	DA	658	G	C1'-O4'-C4'	-9.49	102.31	109.90
81	DA	2591	A	P-O3'-C3'	9.49	131.08	119.70
35	BG	158	TYR	CB-CG-CD1	9.48	126.69	121.00
81	DA	113	C	N1-C1'-C2'	9.48	126.33	114.00
78	CA	1615	C	O4'-C1'-C2'	-9.48	96.32	105.80
13	AL	6	PRO	CA-N-CD	-9.48	98.23	111.50
78	CA	288	A	C1'-O4'-C4'	9.48	117.48	109.90
81	DA	2152	A	C5'-C4'-C3'	9.48	131.16	116.00
52	BY	27	ARG	NE-CZ-NH1	9.47	125.04	120.30
81	DA	570	A	O4'-C1'-N9	9.47	115.78	108.20
82	DB	28	C	P-O3'-C3'	-9.47	108.33	119.70
81	DA	250	U	O4'-C1'-N1	9.47	115.78	108.20
81	DA	672	A	P-O5'-C5'	9.47	136.06	120.90
57	Be	176	TYR	CB-CG-CD2	9.47	126.68	121.00
81	DA	1767	C	O4'-C1'-N1	9.47	115.78	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BG	101	PHE	N-CA-CB	9.47	127.64	110.60
79	CB	33	U	O4'-C1'-N1	9.47	115.77	108.20
37	BH	84	ARG	NE-CZ-NH2	-9.47	115.57	120.30
37	BH	128	LYS	C-N-CD	-9.46	99.78	120.60
81	DA	2026	A	P-O5'-C5'	9.46	136.04	120.90
31	BB	66	PRO	O-C-N	9.46	137.84	122.70
81	DA	1299	U	O4'-C1'-N1	9.46	115.77	108.20
81	DA	3010	U	C1'-O4'-C4'	9.46	117.47	109.90
31	BB	196	TRP	CB-CA-C	-9.46	91.48	110.40
81	DA	1393	A	P-O3'-C3'	9.46	131.05	119.70
81	DA	1675	G	O4'-C1'-C2'	9.46	116.11	107.60
81	DA	1788	C	O4'-C1'-N1	9.46	115.77	108.20
78	CA	10	G	C3'-C2'-C1'	9.46	109.07	101.50
81	DA	557	A	O4'-C1'-N9	9.46	115.77	108.20
81	DA	3324	C	C5'-C4'-C3'	9.46	131.13	116.00
81	DA	1839	A	N9-C1'-C2'	9.46	126.29	114.00
78	CA	230	C	C3'-C2'-C1'	9.46	109.06	101.50
81	DA	2209	U	O4'-C1'-N1	9.46	115.77	108.20
81	DA	2677	G	P-O3'-C3'	9.46	131.05	119.70
81	DA	2875	U	O4'-C1'-N1	9.46	115.76	108.20
45	BR	96	PHE	CB-CG-CD1	-9.45	114.18	120.80
81	DA	1767	C	P-O3'-C3'	9.45	131.04	119.70
3	AB	75	LYS	CB-CA-C	-9.45	91.50	110.40
45	BR	105	ARG	NE-CZ-NH2	9.45	125.03	120.30
78	CA	1502	G	P-O3'-C3'	9.45	131.04	119.70
19	AR	54	ALA	N-CA-CB	9.44	123.32	110.10
34	BE	116	TYR	CE1-CZ-CE2	-9.45	104.69	119.80
58	Bg	93	VAL	N-CA-CB	9.45	132.28	111.50
78	CA	647	G	O5'-P-OP2	-9.45	97.20	105.70
81	DA	2731	U	O4'-C1'-N1	9.45	115.76	108.20
81	DA	3103	A	O4'-C1'-C2'	-9.45	96.35	105.80
81	DA	1677	G	O4'-C1'-C2'	9.44	116.10	107.60
6	AE	7	GLN	CB-CA-C	9.44	129.28	110.40
78	CA	1549	C	C3'-C2'-C1'	9.44	109.05	101.50
78	CA	1230	A	P-O5'-C5'	9.44	136.00	120.90
78	CA	1614	A	C3'-C2'-C1'	9.44	109.05	101.50
81	DA	259	C	C3'-C2'-C1'	9.44	109.05	101.50
81	DA	2019	U	O4'-C1'-N1	9.44	115.75	108.20
78	CA	1672	G	P-O3'-C3'	9.44	131.02	119.70
81	DA	44	U	P-O3'-C3'	-9.44	108.38	119.70
81	DA	471	U	O4'-C1'-N1	9.44	115.75	108.20
81	DA	750	G	P-O3'-C3'	9.44	131.02	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	384	A	N9-C1'-C2'	9.43	126.27	114.00
81	DA	1008	U	O4'-C1'-N1	9.43	115.75	108.20
81	DA	2131	A	C1'-O4'-C4'	-9.43	102.35	109.90
83	DC	22	A	P-O3'-C3'	9.43	131.02	119.70
78	CA	1440	C	P-O3'-C3'	-9.43	108.38	119.70
81	DA	294	U	O4'-C1'-N1	9.43	115.75	108.20
81	DA	2266	U	C3'-C2'-C1'	9.43	109.05	101.50
81	DA	269	G	O4'-C1'-N9	9.43	115.75	108.20
81	DA	1055	A	C3'-C2'-C1'	9.43	109.05	101.50
78	CA	1583	A	P-O3'-C3'	9.43	131.01	119.70
78	CA	924	A	O4'-C1'-N9	9.43	115.74	108.20
81	DA	1493	G	N9-C1'-C2'	-9.43	101.63	112.00
59	Bh	20	HIS	CB-CA-C	-9.42	91.55	110.40
81	DA	709	A	P-O3'-C3'	9.42	131.01	119.70
81	DA	2248	C	C3'-C2'-C1'	9.42	109.04	101.50
81	DA	3041	U	O4'-C1'-N1	9.42	115.74	108.20
78	CA	24	U	O4'-C1'-N1	9.42	115.74	108.20
81	DA	1397	C	N1-C1'-C2'	9.42	126.25	114.00
81	DA	48	A	O4'-C1'-N9	9.42	115.74	108.20
81	DA	671	U	C4'-C3'-C2'	-9.42	93.18	102.60
78	CA	837	G	O4'-C1'-N9	9.42	115.73	108.20
81	DA	810	A	O4'-C1'-N9	9.42	115.73	108.20
78	CA	639	U	O4'-C1'-N1	9.41	115.73	108.20
78	CA	656	G	O4'-C1'-N9	9.41	115.73	108.20
81	DA	328	U	O4'-C1'-N1	9.41	115.73	108.20
81	DA	2085	U	C5'-C4'-C3'	9.41	131.06	116.00
37	BH	222	PHE	CB-CG-CD1	-9.41	114.21	120.80
78	CA	1650	U	O4'-C1'-N1	9.41	115.73	108.20
81	DA	234	G	O4'-C1'-N9	9.41	115.73	108.20
52	BY	40	ARG	NE-CZ-NH1	9.41	125.00	120.30
20	AS	123	ARG	NE-CZ-NH1	9.41	125.00	120.30
78	CA	497	G	N1-C6-O6	9.41	125.54	119.90
81	DA	845	G	C3'-C2'-C1'	-9.41	93.97	101.50
81	DA	1302	A	O4'-C1'-N9	9.40	115.72	108.20
81	DA	1889	G	C1'-O4'-C4'	-9.40	102.38	109.90
33	BD	318	LEU	C-N-CA	9.40	145.20	121.70
78	CA	1601	G	N9-C1'-C2'	9.40	126.22	114.00
82	DB	4	C	C5'-C4'-C3'	9.40	131.04	116.00
82	DB	43	A	O4'-C1'-N9	9.40	115.72	108.20
78	CA	38	C	C3'-C2'-C1'	9.40	109.02	101.50
81	DA	728	G	N1-C6-O6	9.40	125.54	119.90
81	DA	1700	G	O4'-C1'-N9	9.40	115.72	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1798	A	O4'-C1'-N9	9.40	115.72	108.20
81	DA	2769	A	P-O3'-C3'	-9.40	108.42	119.70
81	DA	3390	G	C5'-C4'-C3'	9.40	131.03	116.00
81	DA	2837	A	N9-C1'-C2'	-9.39	101.67	112.00
78	CA	1158	C	O4'-C1'-C2'	-9.39	96.41	105.80
61	Bj	8	TYR	CB-CG-CD2	9.39	126.64	121.00
78	CA	63	G	O4'-C1'-N9	9.39	115.71	108.20
81	DA	916	G	O4'-C1'-N9	9.39	115.71	108.20
78	CA	175	G	O4'-C1'-N9	9.39	115.71	108.20
78	CA	960	U	N1-C1'-C2'	-9.39	101.67	112.00
81	DA	2098	C	P-O3'-C3'	9.39	130.97	119.70
81	DA	850	U	O4'-C1'-N1	9.39	115.71	108.20
81	DA	1983	G	P-O3'-C3'	9.39	130.97	119.70
83	DC	31	U	N1-C1'-C2'	-9.39	101.67	112.00
78	CA	841	U	C5'-C4'-C3'	9.39	131.02	116.00
81	DA	1699	A	C1'-O4'-C4'	9.39	117.41	109.90
81	DA	2971	A	P-O3'-C3'	9.38	130.96	119.70
48	BW	93	ILE	CB-CA-C	-9.38	92.83	111.60
78	CA	1536	G	N9-C1'-C2'	9.38	126.20	114.00
81	DA	1769	G	N1-C6-O6	9.38	125.53	119.90
81	DA	2516	U	O4'-C1'-N1	9.38	115.71	108.20
81	DA	1759	C	O4'-C1'-N1	9.38	115.70	108.20
81	DA	1830	G	O4'-C1'-N9	9.38	115.70	108.20
81	DA	1909	A	O4'-C1'-N9	9.38	115.70	108.20
78	CA	1613	U	C1'-O4'-C4'	9.38	117.40	109.90
81	DA	606	C	N1-C1'-C2'	9.38	126.19	114.00
81	DA	1904	C	N1-C1'-C2'	9.38	126.19	114.00
78	CA	636	A	O4'-C1'-N9	9.38	115.70	108.20
81	DA	2255	A	O4'-C1'-N9	9.37	115.70	108.20
3	AB	54	ARG	NE-CZ-NH2	-9.37	115.61	120.30
35	BG	76	LEU	CD1-CG-CD2	9.37	138.62	110.50
78	CA	415	C	C1'-O4'-C4'	9.37	117.40	109.90
81	DA	960	U	N1-C1'-C2'	9.37	126.18	114.00
83	DC	33	U	O4'-C1'-N1	9.37	115.70	108.20
33	BD	330	TYR	CB-CG-CD2	-9.37	115.38	121.00
78	CA	1134	C	N1-C1'-C2'	9.37	126.18	114.00
78	CA	1649	G	N9-C1'-C2'	-9.37	101.69	112.00
81	DA	276	U	O4'-C1'-N1	9.37	115.69	108.20
81	DA	3107	U	C4'-C3'-C2'	-9.37	93.23	102.60
81	DA	3344	A	O4'-C1'-N9	9.37	115.69	108.20
78	CA	283	U	O4'-C1'-N1	9.36	115.69	108.20
78	CA	434	G	O4'-C1'-N9	9.36	115.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	997	A	N9-C1'-C2'	-9.36	101.70	112.00
81	DA	1688	U	P-O3'-C3'	9.36	130.94	119.70
81	DA	2163	C	C5'-C4'-C3'	9.36	130.98	116.00
81	DA	2617	U	C1'-O4'-C4'	9.36	117.39	109.90
81	DA	3050	U	P-O5'-C5'	9.36	135.88	120.90
78	CA	1602	C	O4'-C1'-N1	-9.36	100.71	108.20
81	DA	2476	C	C5'-C4'-C3'	9.36	130.97	116.00
78	CA	714	G	P-O5'-C5'	9.36	135.87	120.90
81	DA	1893	A	O4'-C1'-N9	9.36	115.69	108.20
81	DA	3363	U	O4'-C1'-N1	9.36	115.68	108.20
65	Bn	7	ASP	CB-CG-OD2	-9.35	109.88	118.30
68	Bq	11	ARG	NE-CZ-NH2	-9.35	115.62	120.30
81	DA	1335	C	C3'-C2'-C1'	9.35	108.98	101.50
78	CA	1385	G	O4'-C1'-N9	9.35	115.68	108.20
81	DA	2381	G	O4'-C1'-N9	9.35	115.68	108.20
82	DB	128	U	P-O3'-C3'	9.35	130.92	119.70
82	DB	154	C	N1-C1'-C2'	9.35	126.15	114.00
81	DA	2238	G	C5'-C4'-O4'	-9.35	97.88	109.10
81	DA	742	G	N9-C1'-C2'	-9.35	101.72	112.00
81	DA	640	U	O4'-C1'-N1	9.34	115.67	108.20
44	BO	60	TYR	N-CA-CB	9.34	127.42	110.60
78	CA	179	A	C1'-O4'-C4'	9.34	117.37	109.90
78	CA	1409	G	O4'-C1'-N9	9.34	115.67	108.20
81	DA	370	U	O4'-C1'-N1	9.34	115.67	108.20
81	DA	2172	A	O4'-C1'-C2'	9.34	116.01	107.60
78	CA	1391	A	O4'-C1'-N9	9.34	115.67	108.20
81	DA	1613	A	O4'-C1'-N9	9.34	115.67	108.20
61	Bj	3	GLU	N-CA-CB	9.34	127.41	110.60
78	CA	469	C	C3'-C2'-C1'	9.34	108.97	101.50
81	DA	2362	C	C4'-C3'-C2'	9.34	111.94	102.60
3	AB	79	TYR	CB-CG-CD2	-9.33	115.40	121.00
35	BG	77	ARG	CD-NE-CZ	-9.33	110.53	123.60
78	CA	448	C	P-O3'-C3'	9.33	130.90	119.70
81	DA	736	A	C5'-C4'-C3'	9.33	130.93	116.00
81	DA	2657	A	C3'-C2'-C1'	9.33	108.97	101.50
78	CA	1161	C	O4'-C1'-C2'	-9.33	96.47	105.80
78	CA	848	C	O4'-C1'-N1	9.32	115.66	108.20
78	CA	879	G	O4'-C1'-N9	9.32	115.66	108.20
3	AB	34	TYR	CB-CG-CD1	9.32	126.59	121.00
22	AV	106	ALA	CB-CA-C	-9.32	96.12	110.10
78	CA	855	A	C1'-O4'-C4'	-9.32	102.44	109.90
78	CA	1534	G	P-O3'-C3'	-9.32	108.52	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	958	C	O4'-C1'-N1	9.32	115.66	108.20
81	DA	2536	A	N1-C6-N6	9.32	124.19	118.60
81	DA	2269	U	O4'-C1'-C2'	-9.32	96.48	105.80
78	CA	1479	A	N9-C1'-C2'	-9.32	101.75	112.00
78	CA	393	C	C3'-C2'-C1'	9.31	108.95	101.50
78	CA	564	G	N1-C6-O6	9.31	125.49	119.90
81	DA	2877	G	O4'-C1'-N9	9.31	115.65	108.20
44	BO	7	LYS	N-CA-CB	9.31	127.36	110.60
61	Bj	2	ALA	CA-C-O	-9.31	100.55	120.10
78	CA	16	G	O4'-C1'-N9	9.31	115.65	108.20
81	DA	997	A	P-O3'-C3'	-9.31	108.53	119.70
81	DA	3167	A	C3'-C2'-C1'	9.31	108.95	101.50
81	DA	3071	U	O4'-C1'-N1	9.31	115.64	108.20
78	CA	989	U	C1'-O4'-C4'	-9.30	102.46	109.90
22	AV	29	LYS	CA-C-N	9.30	137.67	117.20
81	DA	26	A	O4'-C1'-N9	9.30	115.64	108.20
78	CA	672	U	O3'-P-O5'	-9.30	86.33	104.00
81	DA	3222	U	O3'-P-O5'	-9.30	86.33	104.00
82	DB	105	A	P-O3'-C3'	9.30	130.86	119.70
81	DA	1401	A	O4'-C4'-C3'	-9.30	94.70	104.00
43	BP	63	ARG	NE-CZ-NH2	-9.29	115.65	120.30
81	DA	3258	U	N1-C1'-C2'	-9.29	101.78	112.00
78	CA	1662	G	O4'-C1'-N9	9.29	115.63	108.20
78	CA	1599	C	C3'-C2'-C1'	9.29	108.93	101.50
81	DA	253	A	C1'-O4'-C4'	9.29	117.33	109.90
81	DA	2004	U	O4'-C1'-N1	9.29	115.63	108.20
78	CA	891	A	O4'-C1'-N9	9.29	115.63	108.20
78	CA	1765	A	C3'-C2'-C1'	9.29	108.93	101.50
81	DA	2944	U	C3'-C2'-C1'	9.29	108.93	101.50
83	DC	3	U	P-O5'-C5'	9.29	135.76	120.90
81	DA	554	A	P-O3'-C3'	9.29	130.84	119.70
34	BE	53	THR	CA-CB-CG2	9.28	125.40	112.40
46	BT	81	ARG	NE-CZ-NH1	9.28	124.94	120.30
78	CA	1409	G	C1'-O4'-C4'	9.28	117.33	109.90
81	DA	2363	A	C1'-O4'-C4'	9.28	117.33	109.90
81	DA	1754	G	N1-C6-O6	9.28	125.47	119.90
81	DA	3010	U	O4'-C1'-C2'	-9.28	96.52	105.80
78	CA	1583	A	C1'-O4'-C4'	-9.28	102.48	109.90
81	DA	786	A	O4'-C1'-C2'	-9.28	96.52	105.80
81	DA	1737	U	OP1-P-OP2	-9.28	105.68	119.60
81	DA	1701	C	C1'-O4'-C4'	-9.28	102.48	109.90
47	BU	141	VAL	CA-CB-CG1	9.27	124.81	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	114	A	C1'-O4'-C4'	9.27	117.32	109.90
81	DA	1819	U	N1-C1'-C2'	-9.27	101.80	112.00
81	DA	2236	G	P-O3'-C3'	9.27	130.82	119.70
81	DA	2283	G	C2'-C3'-O3'	9.27	129.90	109.50
58	Bg	107	VAL	C-N-CA	-9.27	98.53	121.70
81	DA	1711	C	N1-C1'-C2'	9.27	126.05	114.00
81	DA	2242	A	O4'-C1'-N9	-9.27	100.79	108.20
81	DA	1251	A	P-O3'-C3'	9.26	130.82	119.70
81	DA	1987	G	O4'-C1'-N9	9.26	115.61	108.20
81	DA	2114	C	O3'-P-O5'	9.26	121.60	104.00
81	DA	777	U	C1'-O4'-C4'	-9.26	102.49	109.90
81	DA	2886	U	N1-C1'-C2'	-9.26	101.81	112.00
81	DA	2475	G	C3'-C2'-C1'	9.26	108.90	101.50
43	BP	166	ALA	CB-CA-C	-9.25	96.22	110.10
78	CA	487	G	N1-C6-O6	9.25	125.45	119.90
81	DA	1238	C	C5'-C4'-C3'	9.25	130.80	116.00
81	DA	2421	U	O4'-C1'-N1	9.25	115.60	108.20
82	DB	82	U	O4'-C1'-N1	9.25	115.60	108.20
78	CA	196	G	N9-C1'-C2'	9.25	126.02	114.00
78	CA	1241	G	C1'-O4'-C4'	9.25	117.30	109.90
81	DA	2084	C	O4'-C1'-N1	9.25	115.60	108.20
81	DA	2646	C	C3'-C2'-C1'	-9.25	94.10	101.50
78	CA	154	G	O4'-C1'-N9	-9.25	100.80	108.20
81	DA	82	C	C3'-C2'-C1'	9.25	108.90	101.50
81	DA	1687	U	C5'-C4'-C3'	9.25	130.80	116.00
81	DA	2350	C	O4'-C1'-N1	9.25	115.60	108.20
81	DA	3168	A	P-O3'-C3'	9.25	130.80	119.70
21	AT	53	TYR	N-CA-C	-9.24	86.04	111.00
78	CA	1545	A	N9-C1'-C2'	-9.24	101.83	112.00
81	DA	3132	C	N1-C1'-C2'	9.24	126.02	114.00
74	BQ	137	ASP	N-CA-C	9.24	135.95	111.00
81	DA	1871	U	O5'-P-OP1	-9.24	97.38	105.70
83	DC	8	G	C3'-C2'-C1'	-9.24	94.11	101.50
83	DC	12	U	P-O3'-C3'	9.24	130.79	119.70
81	DA	798	G	O4'-C1'-C2'	9.24	115.92	107.60
81	DA	3286	G	O4'-C1'-N9	9.24	115.59	108.20
5	AC	15	PRO	CA-N-CD	-9.24	98.57	111.50
35	BG	15	VAL	CA-C-O	-9.24	100.70	120.10
40	BK	184	THR	N-CA-C	-9.24	86.06	111.00
78	CA	1365	C	P-O3'-C3'	9.24	130.78	119.70
81	DA	2064	C	O4'-C1'-N1	9.24	115.59	108.20
81	DA	3282	U	C3'-C2'-C1'	9.24	108.89	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AO	128	TYR	CB-CG-CD1	-9.23	115.46	121.00
81	DA	1530	U	O4'-C1'-N1	9.23	115.59	108.20
81	DA	3048	A	O5'-C5'-C4'	9.23	129.24	111.70
81	DA	3050	U	C5'-C4'-C3'	-9.23	101.23	116.00
81	DA	3303	G	N9-C1'-C2'	9.23	126.00	114.00
4	AD	108	ARG	NE-CZ-NH1	9.23	124.91	120.30
81	DA	2621	G	P-O5'-C5'	9.23	135.66	120.90
78	CA	1398	U	P-O5'-C5'	-9.22	106.14	120.90
57	Be	138	TYR	CB-CG-CD2	-9.22	115.47	121.00
81	DA	231	G	N9-C1'-C2'	-9.22	101.86	112.00
81	DA	1282	G	O4'-C1'-N9	9.22	115.58	108.20
81	DA	1788	C	C5'-C4'-C3'	9.22	130.75	116.00
81	DA	3011	A	P-O5'-C5'	-9.22	106.15	120.90
81	DA	2424	A	O4'-C1'-N9	9.21	115.57	108.20
81	DA	835	G	O4'-C1'-N9	9.21	115.57	108.20
78	CA	1775	U	O4'-C1'-N1	9.21	115.57	108.20
81	DA	1314	C	C1'-O4'-C4'	-9.21	102.53	109.90
81	DA	745	C	C1'-O4'-C4'	-9.21	102.53	109.90
81	DA	2901	G	C3'-C2'-C1'	-9.21	94.13	101.50
38	Bs	42	ARG	CB-CA-C	9.21	128.82	110.40
78	CA	1240	U	O4'-C1'-N1	9.21	115.57	108.20
81	DA	129	U	O4'-C1'-N1	9.21	115.57	108.20
81	DA	1387	G	OP1-P-OP2	-9.21	105.79	119.60
81	DA	2854	U	P-O3'-C3'	9.20	130.74	119.70
78	CA	106	U	O4'-C1'-N1	9.20	115.56	108.20
78	CA	466	U	P-O3'-C3'	-9.20	108.66	119.70
78	CA	1558	U	O4'-C1'-N1	9.20	115.56	108.20
81	DA	1716	U	P-O3'-C3'	9.20	130.74	119.70
81	DA	1988	C	O4'-C1'-N1	9.20	115.56	108.20
81	DA	2876	C	N1-C1'-C2'	9.20	125.96	114.00
42	BM	64	LYS	CA-C-N	9.20	134.60	116.20
43	BP	99	ARG	NE-CZ-NH2	9.20	124.90	120.30
78	CA	1112	G	C1'-O4'-C4'	-9.20	102.54	109.90
81	DA	233	C	O4'-C1'-C2'	-9.20	96.60	105.80
81	DA	732	C	O4'-C1'-N1	9.20	115.56	108.20
81	DA	759	U	O4'-C1'-N1	9.20	115.56	108.20
81	DA	2169	G	OP1-P-OP2	-9.20	105.80	119.60
43	BP	16	SER	CB-CA-C	-9.20	92.63	110.10
81	DA	2762	A	P-O3'-C3'	9.20	130.73	119.70
81	DA	3125	U	O4'-C1'-N1	9.19	115.56	108.20
81	DA	2869	U	P-O3'-C3'	-9.19	108.67	119.70
81	DA	331	G	N9-C1'-C2'	-9.19	101.89	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3224	G	N9-C1'-C2'	-9.19	101.89	112.00
83	DC	20	A	O4'-C1'-C2'	9.19	115.87	107.60
78	CA	87	C	P-O3'-C3'	-9.19	108.68	119.70
78	CA	1542	G	O4'-C1'-N9	9.19	115.55	108.20
81	DA	3224	G	C3'-C2'-C1'	-9.19	94.15	101.50
81	DA	3325	G	C5'-C4'-C3'	9.19	130.70	116.00
81	DA	2142	A	O4'-C1'-C2'	-9.18	96.62	105.80
43	BP	180	PHE	CA-C-N	9.18	137.39	117.20
74	BQ	158	ARG	C-N-CA	9.18	144.64	121.70
78	CA	228	G	N9-C1'-C2'	-9.18	101.90	112.00
33	BD	12	THR	N-CA-C	-9.18	86.23	111.00
11	AJ	85	ARG	CB-CG-CD	9.17	135.45	111.60
78	CA	44	U	OP1-P-OP2	-9.17	105.84	119.60
81	DA	257	U	O4'-C1'-N1	9.17	115.54	108.20
81	DA	1304	A	O4'-C1'-N9	9.17	115.54	108.20
81	DA	1432	C	C1'-O4'-C4'	9.17	117.23	109.90
81	DA	2627	C	P-O3'-C3'	-9.17	108.70	119.70
30	BA	41	TYR	CB-CG-CD2	-9.17	115.50	121.00
39	BJ	14	TYR	CB-CG-CD2	9.17	126.50	121.00
78	CA	1721	A	O4'-C1'-C2'	-9.17	96.63	105.80
81	DA	2957	G	P-O3'-C3'	-9.17	108.70	119.70
83	DC	31	U	C1'-O4'-C4'	9.17	117.23	109.90
83	DC	54	A	P-O3'-C3'	-9.17	108.70	119.70
4	AD	113	ARG	NE-CZ-NH2	-9.16	115.72	120.30
56	Bf	85	PHE	CB-CG-CD1	9.16	127.21	120.80
78	CA	1406	A	C1'-O4'-C4'	-9.16	102.57	109.90
78	CA	1424	A	P-O3'-C3'	9.16	130.70	119.70
81	DA	3115	C	O4'-C1'-C2'	-9.16	96.64	105.80
82	DB	36	G	O4'-C1'-N9	9.16	115.53	108.20
81	DA	597	G	O4'-C1'-C2'	9.16	115.84	107.60
82	DB	122	U	C1'-O4'-C4'	9.16	117.23	109.90
78	CA	47	A	O4'-C1'-N9	9.16	115.53	108.20
81	DA	529	A	N9-C1'-C2'	9.16	125.90	114.00
81	DA	2243	A	N9-C1'-C2'	-9.16	101.93	112.00
81	DA	902	G	P-O3'-C3'	9.16	130.69	119.70
81	DA	3249	C	N1-C1'-C2'	9.16	125.90	114.00
78	CA	503	G	P-O3'-C3'	9.15	130.68	119.70
81	DA	1006	A	C5'-C4'-O4'	9.15	120.08	109.10
1	Aa	53	LYS	C-N-CA	9.15	144.57	121.70
79	CB	54	U	O4'-C1'-N1	9.15	115.52	108.20
81	DA	1974	A	C5'-C4'-C3'	9.15	130.64	116.00
81	DA	2421	U	C3'-C2'-C1'	9.15	108.82	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Bi	55	SER	C-N-CA	9.15	144.57	121.70
81	DA	1634	G	P-O5'-C5'	9.15	135.54	120.90
61	Bj	9	VAL	N-CA-CB	9.15	131.62	111.50
81	DA	1039	U	O4'-C1'-C2'	-9.15	96.65	105.80
81	DA	1094	U	O4'-C1'-N1	9.15	115.52	108.20
81	DA	1216	C	P-O3'-C3'	-9.15	108.72	119.70
74	BQ	40	HIS	C-N-CA	-9.14	98.84	121.70
83	DC	32	U	O4'-C1'-N1	9.14	115.52	108.20
81	DA	608	A	C3'-C2'-C1'	9.14	108.81	101.50
81	DA	1288	U	O3'-P-O5'	-9.14	86.63	104.00
61	Bj	73	ARG	NE-CZ-NH1	9.14	124.87	120.30
78	CA	682	C	O4'-C1'-N1	9.14	115.51	108.20
81	DA	3296	A	O4'-C1'-N9	-9.14	100.89	108.20
81	DA	1400	G	O3'-P-O5'	-9.14	86.64	104.00
31	BB	38	HIS	N-CA-C	9.14	135.67	111.00
61	Bj	12	LYS	CB-CA-C	-9.14	92.13	110.40
78	CA	1392	U	O4'-C1'-C2'	-9.14	96.66	105.80
81	DA	813	G	P-O3'-C3'	9.14	130.66	119.70
81	DA	2988	C	O3'-P-O5'	9.14	121.36	104.00
22	AV	26	LYS	N-CA-CB	9.13	127.04	110.60
78	CA	227	U	O4'-C1'-N1	9.13	115.51	108.20
31	BB	42	ARG	NE-CZ-NH2	-9.13	115.73	120.30
81	DA	1694	U	O4'-C1'-C2'	-9.13	96.67	105.80
6	AE	24	ARG	CA-CB-CG	9.13	133.49	113.40
31	BB	89	TYR	CB-CG-CD1	-9.13	115.52	121.00
78	CA	566	C	O4'-C1'-N1	9.13	115.50	108.20
5	AC	82	ARG	NE-CZ-NH2	-9.13	115.74	120.30
20	AS	90	PRO	CA-N-CD	-9.13	98.72	111.50
81	DA	3035	A	O4'-C1'-C2'	-9.13	96.67	105.80
83	DC	27	A	O4'-C1'-N9	-9.13	100.90	108.20
81	DA	132	C	O4'-C1'-C2'	-9.13	96.67	105.80
81	DA	562	C	N1-C1'-C2'	9.13	125.87	114.00
81	DA	1802	C	N1-C1'-C2'	9.13	125.87	114.00
81	DA	3041	U	C1'-O4'-C4'	-9.13	102.60	109.90
81	DA	701	G	O4'-C1'-N9	9.12	115.50	108.20
81	DA	3074	G	P-O5'-C5'	9.12	135.50	120.90
81	DA	2862	U	O4'-C1'-N1	9.12	115.50	108.20
81	DA	3219	G	P-O3'-C3'	9.12	130.65	119.70
78	CA	138	A	OP1-P-OP2	-9.12	105.92	119.60
81	DA	1260	A	P-O5'-C5'	-9.12	106.31	120.90
81	DA	1661	G	P-O3'-C3'	9.12	130.64	119.70
78	CA	668	C	N1-C1'-C2'	9.12	125.85	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1666	U	O4'-C1'-C2'	-9.12	96.68	105.80
79	CB	1	U	P-O3'-C3'	9.12	130.64	119.70
81	DA	1147	G	O4'-C1'-N9	9.12	115.49	108.20
81	DA	1591	G	O4'-C1'-C2'	9.12	115.81	107.60
81	DA	1600	U	O4'-C1'-N1	9.12	115.49	108.20
78	CA	1233	G	O4'-C1'-N9	9.11	115.49	108.20
81	DA	2344	U	O4'-C1'-N1	9.11	115.49	108.20
81	DA	2515	A	P-O3'-C3'	9.11	130.63	119.70
32	BC	35	ASP	CB-CG-OD1	9.11	126.50	118.30
61	Bj	89	LEU	CB-CA-C	-9.11	92.89	110.20
78	CA	1756	A	C3'-C2'-C1'	-9.11	94.21	101.50
79	CB	24	A	O4'-C1'-N9	9.11	115.49	108.20
78	CA	1478	G	O3'-P-O5'	9.11	121.30	104.00
81	DA	1338	C	N1-C1'-C2'	-9.11	101.98	112.00
81	DA	1506	A	O4'-C1'-C2'	-9.11	96.69	105.80
81	DA	3321	C	P-O3'-C3'	9.11	130.63	119.70
78	CA	179	A	O4'-C4'-C3'	-9.10	94.90	104.00
78	CA	387	A	N9-C1'-C2'	-9.10	101.99	112.00
78	CA	1112	G	N9-C1'-C2'	9.10	125.83	114.00
81	DA	183	G	O4'-C1'-C2'	9.10	115.79	107.60
81	DA	2189	U	C1'-O4'-C4'	9.10	117.18	109.90
49	BV	165	VAL	CA-C-O	-9.10	101.00	120.10
81	DA	3311	C	P-O3'-C3'	9.09	130.61	119.70
30	BA	41	TYR	CB-CG-CD1	9.09	126.45	121.00
78	CA	1343	U	O4'-C1'-N1	9.09	115.47	108.20
79	CB	22	G	N9-C1'-C2'	9.09	125.82	114.00
78	CA	1725	U	O4'-C1'-N1	9.09	115.47	108.20
78	CA	364	G	O4'-C1'-N9	9.09	115.47	108.20
81	DA	1379	G	C1'-O4'-C4'	-9.09	102.63	109.90
81	DA	521	A	P-O5'-C5'	9.09	135.44	120.90
81	DA	1625	A	O4'-C1'-N9	-9.09	100.93	108.20
82	DB	91	C	C1'-O4'-C4'	9.09	117.17	109.90
83	DC	50	U	O4'-C1'-N1	9.09	115.47	108.20
43	BP	44	ARG	NE-CZ-NH1	9.08	124.84	120.30
53	Ba	74	VAL	CA-CB-CG2	-9.08	97.28	110.90
83	DC	90	C	O4'-C1'-N1	9.08	115.47	108.20
83	DC	98	G	P-O3'-C3'	9.08	130.60	119.70
81	DA	2305	G	P-O5'-C5'	9.08	135.43	120.90
2	AA	185	ARG	NE-CZ-NH2	-9.08	115.76	120.30
78	CA	501	U	C5'-C4'-O4'	-9.08	98.21	109.10
13	AL	13	ARG	CG-CD-NE	9.07	130.85	111.80
78	CA	218	A	N9-C1'-C2'	9.07	125.80	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1458	G	O4'-C1'-C2'	9.07	115.77	107.60
81	DA	311	C	O4'-C4'-C3'	-9.07	94.92	104.00
81	DA	1703	U	O4'-C1'-C2'	-9.07	96.72	105.80
81	DA	1362	G	C3'-C2'-C1'	-9.07	94.24	101.50
81	DA	2403	G	N9-C1'-C2'	-9.07	102.02	112.00
76	BS	113	ALA	N-CA-CB	-9.07	97.40	110.10
78	CA	1242	A	P-O3'-C3'	9.07	130.58	119.70
81	DA	3310	A	P-O3'-C3'	-9.07	108.82	119.70
81	DA	1818	U	P-O3'-C3'	9.07	130.58	119.70
33	BD	242	ALA	N-CA-CB	9.06	122.79	110.10
78	CA	558	U	P-O3'-C3'	9.06	130.58	119.70
81	DA	1446	A	O4'-C1'-C2'	-9.06	96.73	105.80
81	DA	2322	C	O4'-C1'-N1	9.06	115.45	108.20
81	DA	2509	U	C4'-C3'-C2'	-9.06	93.54	102.60
81	DA	1814	A	N9-C1'-C2'	-9.06	102.03	112.00
78	CA	1529	C	O4'-C1'-N1	9.06	115.45	108.20
13	AL	135	LEU	C-N-CA	9.05	144.34	121.70
81	DA	2630	C	P-O3'-C3'	-9.06	108.83	119.70
11	AJ	85	ARG	CB-CA-C	-9.05	92.29	110.40
35	BG	75	PRO	N-CA-CB	9.05	114.17	103.30
78	CA	325	G	N9-C1'-C2'	-9.05	102.04	112.00
81	DA	2842	U	O4'-C1'-N1	9.05	115.44	108.20
81	DA	198	A	O4'-C1'-C2'	-9.05	96.75	105.80
81	DA	898	U	O4'-C1'-N1	9.05	115.44	108.20
81	DA	1341	U	N1-C1'-C2'	9.05	125.77	114.00
78	CA	105	A	O4'-C1'-N9	-9.05	100.96	108.20
81	DA	2592	G	P-O3'-C3'	9.05	130.56	119.70
78	CA	1458	G	N9-C1'-C2'	9.05	125.76	114.00
81	DA	182	U	C1'-O4'-C4'	9.04	117.14	109.90
81	DA	2705	A	P-O3'-C3'	9.04	130.55	119.70
81	DA	42	C	O3'-P-O5'	-9.04	86.82	104.00
81	DA	252	U	O4'-C1'-N1	9.04	115.43	108.20
81	DA	1446	A	C1'-O4'-C4'	9.04	117.13	109.90
79	CB	44	A	P-O3'-C3'	9.04	130.55	119.70
81	DA	2824	G	O4'-C1'-N9	9.04	115.43	108.20
81	DA	636	C	C4'-C3'-C2'	9.04	111.64	102.60
81	DA	2211	U	O4'-C1'-N1	9.04	115.43	108.20
81	DA	1825	G	O4'-C1'-N9	9.04	115.43	108.20
43	BP	2	GLY	CA-C-O	-9.03	104.34	120.60
62	Bk	82	ARG	CA-C-O	-9.03	101.13	120.10
81	DA	1207	G	P-O5'-C5'	9.04	135.35	120.90
81	DA	1399	A	OP1-P-OP2	-9.04	106.05	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3005	A	N9-C1'-C2'	-9.04	102.06	112.00
22	AV	58	ARG	NE-CZ-NH2	-9.03	115.78	120.30
35	BG	10	TYR	CB-CA-C	-9.03	92.34	110.40
83	DC	22	A	C3'-C2'-C1'	-9.03	94.27	101.50
78	CA	166	C	O4'-C1'-N1	-9.03	100.97	108.20
78	CA	893	U	P-O5'-C5'	9.03	135.35	120.90
78	CA	1464	G	O4'-C1'-N9	9.03	115.42	108.20
78	CA	1772	C	P-O5'-C5'	9.03	135.35	120.90
81	DA	1825	G	C1'-O4'-C4'	-9.03	102.68	109.90
78	CA	662	U	O4'-C4'-C3'	-9.03	94.97	104.00
58	Bg	12	TYR	CB-CG-CD1	-9.03	115.58	121.00
78	CA	1355	C	O3'-P-O5'	-9.03	86.85	104.00
78	CA	1656	U	O4'-C1'-N1	9.02	115.42	108.20
78	CA	1498	G	N1-C6-O6	9.02	125.31	119.90
53	Ba	27	LYS	C-N-CD	-9.02	100.75	120.60
78	CA	218	A	C1'-O4'-C4'	-9.02	102.69	109.90
78	CA	281	G	O4'-C1'-N9	9.02	115.42	108.20
78	CA	646	C	C3'-C2'-C1'	-9.02	94.29	101.50
78	CA	1124	A	O4'-C1'-N9	9.02	115.41	108.20
81	DA	459	G	O4'-C1'-N9	9.02	115.41	108.20
81	DA	637	C	O5'-P-OP2	-9.02	97.58	105.70
81	DA	1288	U	O4'-C1'-N1	9.02	115.41	108.20
81	DA	2744	U	N1-C1'-C2'	9.02	125.72	114.00
78	CA	96	G	P-O3'-C3'	9.02	130.52	119.70
81	DA	2452	G	N9-C1'-C2'	-9.01	102.08	112.00
57	Be	27	ALA	CB-CA-C	-9.01	96.58	110.10
81	DA	2071	A	C1'-O4'-C4'	9.01	117.11	109.90
16	AO	63	ALA	C-N-CA	9.01	144.23	121.70
16	AO	75	LEU	N-CA-CB	9.01	128.42	110.40
78	CA	288	A	P-O3'-C3'	9.01	130.51	119.70
59	Bh	17	PHE	CB-CG-CD2	9.01	127.11	120.80
81	DA	1789	G	O4'-C1'-N9	9.01	115.41	108.20
2	AA	174	TRP	CB-CG-CD2	-9.01	114.89	126.60
74	BQ	40	HIS	O-C-N	9.00	137.10	122.70
81	DA	2233	A	C1'-O4'-C4'	9.00	117.10	109.90
81	DA	3093	C	P-O3'-C3'	9.00	130.50	119.70
79	CB	34	G	C5-C6-O6	-9.00	123.20	128.60
81	DA	479	U	P-O3'-C3'	9.00	130.50	119.70
81	DA	814	U	O4'-C1'-N1	9.00	115.40	108.20
81	DA	2043	U	O4'-C1'-N1	9.00	115.40	108.20
81	DA	3366	G	O4'-C1'-N9	9.00	115.40	108.20
82	DB	2	A	OP1-P-OP2	-9.00	106.10	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	540	U	O4'-C1'-N1	9.00	115.40	108.20
61	Bj	8	TYR	N-CA-C	-9.00	86.71	111.00
78	CA	662	U	O4'-C1'-C2'	-9.00	96.80	105.80
81	DA	1591	G	P-O3'-C3'	9.00	130.50	119.70
81	DA	2573	G	N1-C6-O6	9.00	125.30	119.90
81	DA	249	U	O4'-C1'-N1	8.99	115.40	108.20
29	AU	72	PHE	CB-CG-CD2	-8.99	114.50	120.80
3	AB	72	LEU	O-C-N	-8.99	108.31	122.70
78	CA	145	A	OP1-P-OP2	-8.99	106.11	119.60
78	CA	617	U	N1-C1'-C2'	8.99	125.69	114.00
31	BB	193	ARG	NH1-CZ-NH2	-8.99	109.52	119.40
35	BG	76	LEU	CB-CA-C	-8.99	93.12	110.20
57	Be	132	PRO	O-C-N	-8.99	108.32	122.70
81	DA	637	C	P-O5'-C5'	-8.99	106.52	120.90
81	DA	1429	G	N9-C1'-C2'	8.99	125.68	114.00
81	DA	1821	U	C3'-C2'-C1'	8.99	108.69	101.50
81	DA	1897	G	P-O3'-C3'	8.99	130.49	119.70
83	DC	31	U	O4'-C1'-C2'	-8.99	96.81	105.80
81	DA	2028	U	O4'-C1'-N1	8.99	115.39	108.20
81	DA	2700	G	P-O3'-C3'	8.99	130.48	119.70
78	CA	948	G	O4'-C1'-C2'	8.98	115.69	107.60
81	DA	1864	A	O4'-C1'-N9	8.98	115.39	108.20
81	DA	3099	C	P-O3'-C3'	8.98	130.48	119.70
81	DA	375	A	O4'-C1'-C2'	-8.98	96.82	105.80
81	DA	683	U	O4'-C1'-N1	8.98	115.39	108.20
81	DA	2209	U	C5'-C4'-C3'	8.98	130.37	116.00
81	DA	739	G	N1-C6-O6	8.98	125.29	119.90
81	DA	1426	C	O4'-C1'-N1	8.98	115.38	108.20
81	DA	1	G	OP1-P-OP2	-8.98	106.14	119.60
81	DA	1414	G	O4'-C1'-C2'	-8.98	96.82	105.80
81	DA	2200	U	O4'-C1'-N1	8.98	115.38	108.20
81	DA	3241	G	O3'-P-O5'	-8.98	86.94	104.00
32	BC	5	LYS	CB-CA-C	8.97	128.35	110.40
41	BN	115	PHE	N-CA-CB	-8.97	94.45	110.60
81	DA	2681	U	O4'-C1'-C2'	-8.97	96.83	105.80
81	DA	1033	U	O4'-C1'-N1	8.97	115.38	108.20
81	DA	2179	C	C3'-C2'-C1'	8.97	108.68	101.50
81	DA	3012	A	P-O3'-C3'	-8.97	108.93	119.70
34	BE	89	TYR	CB-CA-C	-8.97	92.46	110.40
78	CA	646	C	O3'-P-O5'	8.97	121.04	104.00
82	DB	100	U	N1-C1'-C2'	8.97	125.66	114.00
78	CA	591	A	O4'-C1'-C2'	-8.97	96.83	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1702	A	O4'-C1'-C2'	-8.97	96.83	105.80
81	DA	737	G	P-O3'-C3'	8.97	130.46	119.70
81	DA	2942	C	C3'-C2'-C1'	8.97	108.68	101.50
81	DA	1438	U	O3'-P-O5'	-8.97	86.96	104.00
81	DA	1508	C	N1-C1'-C2'	8.97	125.66	114.00
67	Bp	26	ARG	NE-CZ-NH2	-8.97	115.82	120.30
81	DA	2708	C	N1-C1'-C2'	8.97	125.66	114.00
78	CA	547	U	O4'-C1'-N1	8.96	115.37	108.20
78	CA	886	U	C3'-C2'-C1'	-8.96	94.33	101.50
81	DA	1178	G	N9-C1'-C2'	8.96	125.65	114.00
81	DA	1800	A	O4'-C1'-N9	8.97	115.37	108.20
81	DA	2392	C	O4'-C1'-C2'	-8.97	96.83	105.80
81	DA	1754	G	C5'-C4'-C3'	8.96	130.34	116.00
81	DA	2561	A	OP1-P-OP2	-8.96	106.15	119.60
78	CA	142	G	C3'-C2'-C1'	8.96	108.67	101.50
78	CA	1057	U	O4'-C1'-N1	8.96	115.37	108.20
78	CA	1663	G	O4'-C1'-N9	8.96	115.37	108.20
81	DA	233	C	O4'-C1'-N1	8.96	115.37	108.20
81	DA	1285	G	C3'-C2'-C1'	8.96	108.67	101.50
34	BE	123	PHE	N-CA-C	-8.96	86.81	111.00
62	Bk	82	ARG	C-N-CA	8.96	144.09	121.70
78	CA	844	A	C5-C6-N6	-8.96	116.53	123.70
78	CA	1551	U	C5'-C4'-C3'	8.96	130.33	116.00
81	DA	2377	G	P-O3'-C3'	8.96	130.45	119.70
78	CA	354	C	O4'-C1'-C2'	-8.96	96.84	105.80
78	CA	1341	A	N9-C1'-C2'	-8.95	102.15	112.00
82	DB	148	G	O4'-C1'-N9	8.96	115.36	108.20
82	DB	86	U	N1-C1'-C2'	-8.95	102.15	112.00
9	AH	101	TYR	CB-CG-CD1	-8.95	115.63	121.00
39	BJ	123	ARG	NE-CZ-NH1	-8.95	115.83	120.30
81	DA	540	U	P-O3'-C3'	8.95	130.44	119.70
3	AB	22	ASN	N-CA-CB	8.95	126.70	110.60
81	DA	3055	U	C1'-O4'-C4'	8.95	117.06	109.90
81	DA	3241	G	O4'-C1'-C2'	-8.95	96.85	105.80
41	BN	125	LYS	N-CA-CB	8.94	126.70	110.60
81	DA	2594	C	N1-C1'-C2'	8.94	125.63	114.00
78	CA	163	G	C2'-C3'-O3'	8.94	129.17	109.50
81	DA	1768	U	O4'-C1'-N1	8.94	115.35	108.20
81	DA	2788	C	O3'-P-O5'	-8.94	87.02	104.00
81	DA	2073	A	C3'-C2'-C1'	8.94	108.65	101.50
78	CA	866	G	OP1-P-OP2	-8.94	106.20	119.60
81	DA	7	C	N1-C1'-C2'	8.94	125.61	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	961	C	C3'-C2'-C1'	8.94	108.65	101.50
32	BC	17	LEU	CB-CA-C	8.93	127.17	110.20
77	BI	119	TRP	CA-CB-CG	8.93	130.67	113.70
78	CA	228	G	O4'-C1'-C2'	-8.93	96.87	105.80
78	CA	145	A	O4'-C1'-N9	8.93	115.35	108.20
78	CA	854	U	O4'-C1'-N1	8.93	115.35	108.20
81	DA	2996	U	OP1-P-OP2	-8.93	106.20	119.60
81	DA	3065	G	OP1-P-OP2	-8.93	106.20	119.60
78	CA	1446	A	OP1-P-OP2	-8.93	106.20	119.60
81	DA	1319	G	C1'-O4'-C4'	-8.93	102.75	109.90
81	DA	1831	U	O4'-C1'-C2'	-8.93	96.87	105.80
81	DA	2492	C	P-O3'-C3'	8.93	130.42	119.70
82	DB	156	U	P-O3'-C3'	8.93	130.42	119.70
55	Bc	104	GLN	CB-CA-C	8.93	128.26	110.40
81	DA	597	G	O4'-C1'-N9	8.93	115.34	108.20
81	DA	1866	C	N1-C1'-C2'	8.93	125.61	114.00
78	CA	1746	A	OP1-P-O3'	8.92	124.83	105.20
81	DA	2693	C	O4'-C1'-C2'	-8.92	96.88	105.80
81	DA	2790	A	P-O3'-C3'	-8.92	109.00	119.70
81	DA	2872	A	O4'-C1'-N9	8.92	115.33	108.20
81	DA	2607	G	C3'-C2'-C1'	-8.92	94.37	101.50
78	CA	289	U	O4'-C1'-N1	8.92	115.33	108.20
78	CA	378	A	O4'-C1'-N9	8.92	115.33	108.20
81	DA	2681	U	O3'-P-O5'	-8.92	87.06	104.00
78	CA	949	C	P-O3'-C3'	8.91	130.40	119.70
19	AR	130	ARG	CB-CA-C	-8.91	92.58	110.40
35	BG	169	ASP	CB-CA-C	-8.91	92.58	110.40
78	CA	304	U	C5'-C4'-C3'	8.91	130.26	116.00
81	DA	1685	C	C3'-C2'-C1'	8.91	108.63	101.50
78	CA	1586	A	C1'-O4'-C4'	-8.91	102.77	109.90
78	CA	1083	G	OP1-P-OP2	-8.91	106.24	119.60
81	DA	3221	C	O5'-C5'-C4'	-8.91	94.77	111.70
4	AD	164	LEU	CB-CA-C	-8.91	93.28	110.20
83	DC	9	C	O4'-C1'-N1	8.91	115.33	108.20
78	CA	415	C	O4'-C1'-N1	8.91	115.33	108.20
81	DA	2646	C	O4'-C4'-C3'	-8.90	95.09	104.00
78	CA	222	A	O4'-C4'-C3'	-8.90	95.10	104.00
81	DA	3380	U	OP1-P-OP2	-8.90	106.24	119.60
59	Bh	27	ARG	NE-CZ-NH2	-8.90	115.85	120.30
78	CA	191	C	O4'-C1'-C2'	-8.90	96.90	105.80
81	DA	1884	A	N9-C1'-C2'	8.90	125.57	114.00
47	BU	140	ILE	N-CA-C	-8.90	86.97	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	BQ	238	ASP	CB-CG-OD1	8.90	126.31	118.30
78	CA	293	U	P-O3'-C3'	8.90	130.38	119.70
78	CA	1017	U	O4'-C1'-N1	8.90	115.32	108.20
78	CA	323	A	OP1-P-OP2	-8.90	106.25	119.60
81	DA	1649	U	O4'-C1'-C2'	-8.90	96.90	105.80
81	DA	73	C	O4'-C1'-C2'	-8.89	96.91	105.80
82	DB	114	G	O4'-C1'-N9	8.89	115.31	108.20
78	CA	577	G	N1-C6-O6	8.89	125.23	119.90
78	CA	1275	A	N1-C6-N6	8.89	123.93	118.60
16	AO	67	THR	N-CA-C	8.89	135.00	111.00
78	CA	120	U	O4'-C1'-N1	8.89	115.31	108.20
81	DA	1070	U	O4'-C1'-N1	8.89	115.31	108.20
81	DA	2685	C	N1-C1'-C2'	8.89	125.55	114.00
81	DA	2773	C	OP1-P-OP2	-8.89	106.27	119.60
74	BQ	136	GLU	C-N-CA	-8.88	99.49	121.70
78	CA	561	G	O4'-C1'-N9	8.89	115.31	108.20
78	CA	1090	C	N1-C1'-C2'	8.89	125.55	114.00
81	DA	209	A	O4'-C1'-C2'	-8.88	96.92	105.80
81	DA	2509	U	O4'-C4'-C3'	-8.88	95.12	104.00
81	DA	3036	G	N9-C1'-C2'	8.88	125.55	114.00
81	DA	3107	U	P-O5'-C5'	8.88	135.11	120.90
11	AJ	82	TYR	CB-CG-CD1	8.88	126.33	121.00
40	BK	178	VAL	CA-C-N	8.88	136.73	117.20
45	BR	143	PRO	CA-N-CD	8.88	124.13	111.70
51	BZ	56	ARG	NE-CZ-NH1	8.88	124.74	120.30
81	DA	1562	C	C3'-C2'-C1'	8.88	108.60	101.50
81	DA	3055	U	O4'-C1'-C2'	-8.88	96.92	105.80
81	DA	1773	C	P-O3'-C3'	8.88	130.35	119.70
81	DA	3303	G	C3'-C2'-C1'	-8.87	94.40	101.50
81	DA	1437	C	C3'-C2'-C1'	8.87	108.60	101.50
81	DA	3236	U	P-O3'-C3'	8.87	130.34	119.70
34	BE	58	GLY	O-C-N	-8.87	108.51	122.70
78	CA	481	A	O4'-C1'-N9	8.87	115.29	108.20
78	CA	1458	G	C3'-C2'-C1'	-8.87	94.41	101.50
79	CB	61	C	N1-C1'-C2'	8.87	125.53	114.00
81	DA	814	U	P-O3'-C3'	8.86	130.34	119.70
81	DA	1214	U	O4'-C1'-N1	8.86	115.29	108.20
81	DA	1663	C	P-O3'-C3'	8.87	130.34	119.70
81	DA	2446	U	P-O5'-C5'	8.87	135.09	120.90
81	DA	613	G	O4'-C1'-N9	8.86	115.29	108.20
81	DA	672	A	P-O3'-C3'	8.86	130.33	119.70
81	DA	1258	U	P-O3'-C3'	8.86	130.34	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	683	C	O4'-C1'-C2'	-8.86	96.94	105.80
81	DA	495	G	P-O3'-C3'	8.86	130.33	119.70
81	DA	2661	G	P-O3'-C3'	8.86	130.33	119.70
33	BD	321	LYS	CB-CA-C	-8.86	92.69	110.40
81	DA	1408	G	O4'-C1'-N9	8.86	115.29	108.20
49	BV	139	TYR	CB-CG-CD1	8.86	126.31	121.00
81	DA	1975	C	P-O3'-C3'	-8.86	109.07	119.70
78	CA	1476	C	C1'-O4'-C4'	8.85	116.98	109.90
78	CA	1785	U	P-O3'-C3'	8.85	130.32	119.70
81	DA	3010	U	C5'-C4'-C3'	8.85	130.16	116.00
81	DA	1621	A	O3'-P-O5'	-8.85	87.19	104.00
81	DA	924	G	O4'-C1'-N9	-8.85	101.12	108.20
81	DA	2149	A	P-O3'-C3'	8.85	130.32	119.70
80	CC	12	A	OP1-P-OP2	-8.85	106.33	119.60
81	DA	521	A	C5'-C4'-C3'	8.84	130.15	116.00
78	CA	177	U	OP1-P-OP2	-8.84	106.34	119.60
81	DA	595	G	P-O3'-C3'	-8.84	109.09	119.70
81	DA	3355	U	O4'-C1'-N1	8.84	115.27	108.20
78	CA	993	A	P-O5'-C5'	8.84	135.04	120.90
81	DA	3385	U	C5'-C4'-O4'	-8.84	98.49	109.10
78	CA	1600	A	O4'-C1'-N9	8.84	115.27	108.20
21	AT	12	TYR	CB-CG-CD2	-8.84	115.70	121.00
72	Bu	60	ASN	O-C-N	-8.84	108.56	122.70
81	DA	1433	A	O4'-C1'-C2'	-8.84	96.96	105.80
81	DA	2629	U	P-O5'-C5'	8.84	135.04	120.90
81	DA	3384	U	O4'-C1'-N1	8.84	115.27	108.20
78	CA	645	C	O4'-C1'-C2'	-8.84	96.97	105.80
78	CA	1750	A	P-O3'-C3'	8.84	130.30	119.70
81	DA	273	A	O3'-P-O5'	-8.84	87.21	104.00
33	BD	84	ARG	CB-CA-C	8.83	128.07	110.40
81	DA	30	G	OP1-P-OP2	-8.83	106.35	119.60
81	DA	3255	U	P-O5'-C5'	8.83	135.03	120.90
1	Aa	278	PHE	CB-CG-CD2	8.83	126.98	120.80
81	DA	3244	A	C1'-O4'-C4'	-8.83	102.83	109.90
78	CA	1508	U	O4'-C1'-N1	8.83	115.26	108.20
78	CA	164	A	N9-C1'-C2'	8.82	125.47	114.00
78	CA	1297	G	C3'-C2'-C1'	-8.82	94.44	101.50
81	DA	66	A	O4'-C1'-C2'	-8.82	96.98	105.80
81	DA	673	U	C5'-C4'-O4'	8.82	119.69	109.10
78	CA	1565	C	P-O5'-C5'	8.82	135.01	120.90
81	DA	1298	C	C1'-O4'-C4'	-8.82	102.84	109.90
78	CA	1690	G	O4'-C4'-C3'	-8.82	95.18	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	BZ	40	PHE	CB-CG-CD1	-8.82	114.63	120.80
78	CA	393	C	N1-C1'-C2'	8.82	125.46	114.00
78	CA	1665	U	O4'-C1'-N1	8.82	115.25	108.20
81	DA	1403	C	OP1-P-OP2	-8.82	106.38	119.60
15	AN	32	ARG	NE-CZ-NH1	8.81	124.71	120.30
33	BD	354	VAL	C-N-CA	-8.81	99.66	121.70
72	Bt	60	ASN	CA-C-N	8.81	136.59	117.20
78	CA	685	A	P-O3'-C3'	8.81	130.28	119.70
81	DA	1287	A	C3'-C2'-C1'	8.81	108.55	101.50
81	DA	3374	U	O4'-C1'-N1	8.81	115.25	108.20
78	CA	538	A	P-O3'-C3'	8.81	130.27	119.70
17	AQ	53	TYR	CB-CG-CD1	-8.81	115.71	121.00
60	Bi	60	ARG	NE-CZ-NH1	8.81	124.70	120.30
81	DA	1198	C	O4'-C1'-C2'	-8.81	96.99	105.80
78	CA	283	U	O4'-C1'-C2'	-8.81	96.99	105.80
81	DA	3346	U	O4'-C1'-N1	8.81	115.25	108.20
82	DB	121	U	O4'-C1'-N1	8.81	115.25	108.20
30	BA	208	SER	N-CA-CB	8.81	123.71	110.50
76	BS	82	ARG	NE-CZ-NH2	-8.81	115.90	120.30
78	CA	1458	G	OP1-P-OP2	-8.81	106.39	119.60
38	Bs	34	SER	N-CA-CB	8.80	123.71	110.50
78	CA	1393	C	P-O3'-C3'	-8.80	109.14	119.70
79	CB	51	G	O4'-C1'-N9	8.80	115.24	108.20
81	DA	1375	G	O4'-C1'-N9	8.80	115.24	108.20
81	DA	2487	U	C5'-C4'-O4'	-8.80	98.54	109.10
78	CA	164	A	C1'-O4'-C4'	-8.80	102.86	109.90
78	CA	236	A	C1'-O4'-C4'	8.80	116.94	109.90
78	CA	885	G	C5'-C4'-C3'	-8.80	101.92	116.00
78	CA	1133	A	C3'-C2'-C1'	-8.80	94.46	101.50
81	DA	821	U	P-O3'-C3'	-8.80	109.14	119.70
38	Bs	191	TYR	CB-CG-CD2	-8.80	115.72	121.00
43	BP	13	LYS	CA-C-O	-8.80	101.62	120.10
81	DA	2135	U	O4'-C1'-N1	8.80	115.24	108.20
83	DC	2	G	P-O5'-C5'	8.80	134.98	120.90
81	DA	919	U	N1-C1'-C2'	8.80	125.44	114.00
81	DA	1779	C	O4'-C1'-C2'	-8.80	97.00	105.80
83	DC	18	C	O4'-C1'-N1	8.80	115.24	108.20
31	BB	245	LEU	CA-C-O	-8.79	101.64	120.10
81	DA	1192	C	O4'-C1'-C2'	-8.79	97.01	105.80
81	DA	1496	C	N1-C1'-C2'	8.79	125.43	114.00
81	DA	2466	G	O5'-C5'-C4'	8.79	128.40	111.70
81	DA	2532	U	O4'-C1'-N1	8.79	115.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AS	12	GLN	N-CA-CB	-8.79	94.78	110.60
83	DC	42	A	O4'-C1'-C2'	-8.79	97.01	105.80
81	DA	1525	G	N9-C1'-C2'	8.79	125.42	114.00
81	DA	1997	U	O4'-C1'-N1	8.79	115.23	108.20
81	DA	722	G	C3'-C2'-C1'	8.79	108.53	101.50
83	DC	17	A	N9-C1'-C2'	8.79	125.42	114.00
82	DB	122	U	O4'-C1'-C2'	-8.78	97.02	105.80
5	AC	19	TYR	N-CA-CB	8.78	126.41	110.60
35	BG	5	LYS	CB-CA-C	8.78	127.97	110.40
78	CA	1570	A	O4'-C1'-N9	-8.78	101.17	108.20
81	DA	3	U	O4'-C1'-N1	8.78	115.23	108.20
81	DA	1010	G	O4'-C1'-N9	8.78	115.23	108.20
81	DA	1620	U	OP1-P-OP2	-8.78	106.43	119.60
82	DB	59	A	P-O3'-C3'	8.78	130.24	119.70
33	BD	31	ARG	NE-CZ-NH1	8.78	124.69	120.30
78	CA	668	C	C3'-C2'-C1'	8.78	108.52	101.50
40	BK	180	SER	N-CA-CB	8.78	123.67	110.50
78	CA	1340	U	C5'-C4'-C3'	8.78	130.05	116.00
81	DA	337	G	O4'-C1'-C2'	-8.78	97.02	105.80
81	DA	672	A	O4'-C1'-N9	8.78	115.22	108.20
81	DA	1698	C	C1'-O4'-C4'	8.78	116.92	109.90
57	Be	55	TYR	CB-CG-CD1	-8.78	115.73	121.00
81	DA	3044	G	O4'-C1'-N9	8.78	115.22	108.20
81	DA	3140	G	O4'-C1'-N9	8.78	115.22	108.20
35	BG	141	VAL	O-C-N	-8.77	108.66	122.70
81	DA	319	A	O4'-C1'-N9	8.77	115.22	108.20
81	DA	1120	A	P-O3'-C3'	8.77	130.22	119.70
81	DA	3002	C	C3'-C2'-C1'	8.77	108.51	101.50
78	CA	587	C	O3'-P-O5'	8.76	120.65	104.00
78	CA	1379	C	N1-C1'-C2'	8.76	125.39	114.00
81	DA	4	U	O4'-C1'-N1	8.76	115.21	108.20
81	DA	2520	A	C1'-O4'-C4'	8.76	116.91	109.90
78	CA	1576	A	C1'-O4'-C4'	8.76	116.91	109.90
81	DA	452	G	P-O3'-C3'	8.76	130.21	119.70
81	DA	2899	C	C3'-C2'-C1'	8.76	108.51	101.50
81	DA	575	G	O4'-C1'-N9	8.76	115.21	108.20
81	DA	1689	U	C4'-C3'-C2'	-8.76	93.84	102.60
83	DC	12	U	O4'-C1'-N1	8.76	115.21	108.20
33	BD	305	ALA	CB-CA-C	-8.76	96.97	110.10
81	DA	186	U	P-O5'-C5'	8.76	134.91	120.90
78	CA	712	G	P-O3'-C3'	-8.75	109.20	119.70
78	CA	1070	C	O4'-C1'-N1	8.75	115.20	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1820	U	N1-C1'-C2'	8.75	125.38	114.00
81	DA	2800	G	C1'-O4'-C4'	8.75	116.90	109.90
78	CA	467	G	P-O5'-C5'	8.75	134.90	120.90
81	DA	2469	G	O3'-P-O5'	-8.75	87.37	104.00
78	CA	1490	C	C5'-C4'-C3'	8.75	130.00	116.00
83	DC	118	U	N1-C1'-C2'	8.75	125.37	114.00
43	BP	122	ASN	N-CA-C	8.75	134.62	111.00
78	CA	1282	U	N1-C1'-C2'	8.75	125.37	114.00
78	CA	899	G	O4'-C1'-C2'	8.74	115.47	107.60
81	DA	518	G	O3'-P-O5'	-8.74	87.39	104.00
57	Be	98	LYS	CA-CB-CG	8.74	132.63	113.40
20	AS	96	ALA	N-CA-CB	8.74	122.34	110.10
2	AA	252	TRP	CB-CA-C	-8.74	92.92	110.40
10	AI	68	ARG	NE-CZ-NH1	-8.74	115.93	120.30
79	CB	59	U	O4'-C1'-N1	8.74	115.19	108.20
81	DA	2894	C	O4'-C1'-N1	8.74	115.19	108.20
32	BC	199	PHE	N-CA-CB	8.74	126.33	110.60
81	DA	502	U	O4'-C1'-N1	8.74	115.19	108.20
81	DA	1994	G	P-O3'-C3'	8.74	130.19	119.70
81	DA	1414	G	P-O3'-C3'	-8.74	109.22	119.70
81	DA	1719	G	O4'-C1'-N9	8.74	115.19	108.20
81	DA	37	U	O4'-C1'-N1	8.73	115.19	108.20
55	Bc	38	ARG	NE-CZ-NH2	-8.73	115.93	120.30
78	CA	499	U	O4'-C1'-N1	8.73	115.18	108.20
81	DA	2473	C	O4'-C1'-N1	8.73	115.18	108.20
78	CA	572	C	N1-C1'-C2'	8.73	125.34	114.00
81	DA	573	C	C3'-C2'-C1'	8.73	108.48	101.50
81	DA	2968	G	N9-C1'-C2'	-8.73	102.40	112.00
78	CA	88	U	O4'-C1'-N1	8.72	115.18	108.20
81	DA	1241	U	P-O3'-C3'	8.72	130.17	119.70
78	CA	1530	C	C5'-C4'-O4'	-8.72	98.63	109.10
81	DA	962	A	C1'-O4'-C4'	8.72	116.88	109.90
83	DC	37	G	C3'-C2'-C1'	8.72	108.48	101.50
81	DA	598	A	P-O3'-C3'	-8.72	109.24	119.70
34	BE	111	ASP	N-CA-CB	8.72	126.29	110.60
81	DA	1605	A	O4'-C1'-N9	8.72	115.18	108.20
83	DC	49	G	C2'-C3'-O3'	8.72	128.68	109.50
78	CA	120	U	O5'-C5'-C4'	8.72	128.26	111.70
78	CA	1436	A	C5'-C4'-C3'	8.71	129.94	116.00
62	Bk	27	SER	N-CA-CB	8.71	123.57	110.50
62	Bk	82	ARG	N-CA-CB	-8.71	94.92	110.60
78	CA	170	U	O4'-C1'-N1	8.71	115.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	469	C	C1'-O4'-C4'	8.71	116.87	109.90
20	AS	24	ARG	NE-CZ-NH1	8.71	124.65	120.30
78	CA	1505	A	N1-C6-N6	8.71	123.83	118.60
81	DA	691	A	O4'-C1'-N9	8.71	115.17	108.20
46	BT	124	TYR	CB-CG-CD2	-8.71	115.78	121.00
81	DA	3107	U	P-O3'-C3'	8.71	130.15	119.70
78	CA	1744	A	P-O3'-C3'	8.71	130.15	119.70
81	DA	1078	U	N1-C1'-C2'	-8.71	102.42	112.00
78	CA	851	U	N1-C1'-C2'	8.70	125.31	114.00
81	DA	733	G	N1-C6-O6	8.70	125.12	119.90
81	DA	802	C	O5'-P-OP1	-8.70	97.87	105.70
81	DA	2681	U	P-O3'-C3'	8.70	130.14	119.70
3	AB	78	LYS	N-CA-CB	8.70	126.25	110.60
78	CA	1452	U	P-O3'-C3'	8.70	130.14	119.70
81	DA	1234	G	C1'-O4'-C4'	-8.70	102.94	109.90
78	CA	1562	G	N9-C1'-C2'	-8.69	102.44	112.00
81	DA	2710	C	C3'-C2'-C1'	8.70	108.46	101.50
6	AE	66	PHE	CB-CG-CD2	-8.69	114.72	120.80
78	CA	1339	C	O3'-P-O5'	-8.69	87.48	104.00
83	DC	1	G	N9-C1'-C2'	-8.69	102.44	112.00
32	BC	102	LEU	CB-CA-C	8.69	126.71	110.20
78	CA	1666	U	C1'-O4'-C4'	8.69	116.85	109.90
81	DA	240	U	N1-C1'-C2'	8.69	125.30	114.00
78	CA	151	G	C1'-O4'-C4'	-8.69	102.95	109.90
78	CA	306	U	N1-C1'-C2'	-8.69	102.44	112.00
78	CA	1623	C	C3'-C2'-C1'	8.69	108.45	101.50
81	DA	974	G	C5'-C4'-C3'	8.69	129.90	116.00
81	DA	2229	A	P-O3'-C3'	8.69	130.13	119.70
13	AL	86	PHE	CB-CG-CD2	8.69	126.88	120.80
81	DA	2260	U	O4'-C1'-N1	8.69	115.15	108.20
4	AD	150	PRO	N-CA-CB	8.69	113.72	103.30
81	DA	206	G	O4'-C1'-N9	8.69	115.15	108.20
81	DA	2221	G	C3'-C2'-C1'	8.68	108.45	101.50
78	CA	1415	U	OP1-P-OP2	-8.68	106.58	119.60
81	DA	50	U	O4'-C1'-C2'	-8.68	97.12	105.80
81	DA	2514	U	C1'-O4'-C4'	8.68	116.85	109.90
81	DA	254	A	C3'-C2'-C1'	8.68	108.45	101.50
78	CA	30	G	C5'-C4'-C3'	8.68	129.89	116.00
83	DC	1	G	OP1-P-OP2	-8.68	106.58	119.60
15	AN	47	ALA	O-C-N	-8.68	108.81	122.70
78	CA	866	G	O4'-C1'-N9	8.68	115.14	108.20
78	CA	1761	U	O4'-C1'-N1	8.68	115.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2529	A	P-O3'-C3'	8.68	130.11	119.70
81	DA	528	U	O4'-C1'-N1	8.67	115.14	108.20
18	AP	108	PRO	C-N-CA	8.67	143.38	121.70
33	BD	148	ILE	CB-CA-C	8.67	128.95	111.60
78	CA	298	C	C3'-C2'-C1'	8.67	108.44	101.50
78	CA	1274	C	O4'-C1'-N1	8.67	115.14	108.20
78	CA	1617	U	N1-C1'-C2'	-8.67	102.46	112.00
81	DA	1571	A	C1'-O4'-C4'	8.67	116.84	109.90
81	DA	1612	A	N9-C1'-C2'	-8.67	102.46	112.00
78	CA	1495	C	O4'-C1'-N1	8.67	115.14	108.20
81	DA	1174	G	C1'-O4'-C4'	-8.67	102.96	109.90
81	DA	2534	G	N1-C6-O6	8.67	125.10	119.90
82	DB	126	A	P-O3'-C3'	8.67	130.10	119.70
43	BP	81	TYR	CB-CG-CD2	-8.67	115.80	121.00
78	CA	447	U	C1'-O4'-C4'	-8.67	102.97	109.90
81	DA	162	G	O4'-C1'-C2'	-8.67	97.13	105.80
81	DA	1561	G	P-O5'-C5'	8.67	134.76	120.90
81	DA	1599	G	O4'-C1'-N9	8.67	115.13	108.20
81	DA	2099	A	O3'-P-O5'	8.67	120.47	104.00
81	DA	2086	A	C5'-C4'-C3'	8.66	129.86	116.00
78	CA	1729	C	O4'-C1'-N1	8.66	115.13	108.20
78	CA	1746	A	C1'-O4'-C4'	8.66	116.83	109.90
81	DA	1041	U	O4'-C1'-N1	8.66	115.13	108.20
81	DA	1057	A	P-O3'-C3'	8.66	130.10	119.70
81	DA	2616	C	N1-C1'-C2'	8.66	125.27	114.00
81	DA	404	G	O4'-C1'-N9	8.66	115.13	108.20
81	DA	1171	G	P-O3'-C3'	8.66	130.09	119.70
1	Aa	10	ARG	NE-CZ-NH2	-8.66	115.97	120.30
17	AQ	67	ARG	NE-CZ-NH2	-8.66	115.97	120.30
34	BE	61	ARG	O-C-N	-8.66	108.84	122.70
52	BY	51	ARG	NE-CZ-NH1	-8.66	115.97	120.30
81	DA	1306	G	N9-C1'-C2'	8.66	125.26	114.00
81	DA	1901	A	N9-C1'-C2'	8.66	125.26	114.00
81	DA	2509	U	C5'-C4'-C3'	8.66	129.86	116.00
81	DA	3099	C	O4'-C4'-C3'	-8.66	95.34	104.00
78	CA	240	U	P-O3'-C3'	-8.66	109.31	119.70
81	DA	2624	G	N9-C1'-C2'	8.66	125.26	114.00
81	DA	3214	U	C5'-C4'-C3'	8.66	129.85	116.00
83	DC	76	U	O4'-C1'-C2'	-8.66	97.14	105.80
79	CB	1	U	OP1-P-OP2	-8.65	106.62	119.60
81	DA	490	A	C4'-C3'-C2'	-8.65	93.95	102.60
78	CA	498	G	N1-C6-O6	8.65	125.09	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1787	C	C3'-C2'-C1'	8.65	108.42	101.50
81	DA	672	A	C3'-C2'-C1'	-8.65	94.58	101.50
81	DA	2501	U	O4'-C1'-N1	8.65	115.12	108.20
82	DB	105	A	C1'-O4'-C4'	-8.65	102.98	109.90
78	CA	1041	G	O4'-C1'-N9	8.65	115.12	108.20
78	CA	213	A	N1-C6-N6	8.65	123.79	118.60
78	CA	369	A	C1'-O4'-C4'	8.65	116.82	109.90
81	DA	2267	C	C3'-C2'-C1'	8.65	108.42	101.50
43	BP	12	ARG	NE-CZ-NH2	-8.64	115.98	120.30
78	CA	609	U	O4'-C1'-C2'	-8.64	97.16	105.80
81	DA	112	U	O4'-C1'-N1	8.64	115.12	108.20
81	DA	238	A	C3'-C2'-C1'	8.64	108.42	101.50
81	DA	2425	G	O4'-C1'-N9	8.64	115.11	108.20
78	CA	1472	C	O4'-C1'-C2'	-8.64	97.16	105.80
68	Bq	20	VAL	CA-CB-CG1	8.64	123.86	110.90
78	CA	1563	C	C1'-O4'-C4'	-8.64	102.99	109.90
63	Bm	69	TYR	CB-CG-CD1	-8.64	115.82	121.00
74	BQ	79	TYR	CB-CG-CD1	-8.64	115.82	121.00
78	CA	1121	C	O4'-C1'-N1	8.64	115.11	108.20
81	DA	2206	G	P-O3'-C3'	8.64	130.07	119.70
38	Bs	197	PHE	CB-CG-CD2	8.64	126.85	120.80
76	BS	120	PHE	CB-CG-CD1	-8.64	114.75	120.80
78	CA	1642	G	N9-C1'-C2'	-8.64	102.50	112.00
79	CB	29	C	O3'-P-O5'	-8.64	87.59	104.00
78	CA	192	U	O4'-C1'-N1	8.64	115.11	108.20
81	DA	2494	A	P-O3'-C3'	8.63	130.06	119.70
83	DC	27	A	O4'-C1'-C2'	-8.63	97.17	105.80
81	DA	2949	U	O4'-C1'-N1	8.63	115.11	108.20
81	DA	1524	A	P-O3'-C3'	8.63	130.06	119.70
81	DA	3005	A	C1'-O4'-C4'	8.63	116.81	109.90
78	CA	272	U	O4'-C1'-N1	8.63	115.10	108.20
81	DA	1775	G	P-O3'-C3'	-8.63	109.35	119.70
81	DA	1806	A	C3'-C2'-C1'	8.63	108.40	101.50
81	DA	1850	A	N9-C1'-C2'	-8.63	102.51	112.00
81	DA	2510	U	O4'-C4'-C3'	-8.63	95.37	104.00
81	DA	2435	G	O4'-C1'-N9	8.63	115.10	108.20
81	DA	375	A	C1'-O4'-C4'	8.62	116.80	109.90
81	DA	1234	G	C5'-C4'-C3'	-8.62	102.21	116.00
81	DA	2111	G	O4'-C1'-N9	8.62	115.10	108.20
76	BS	159	ARG	NE-CZ-NH2	-8.62	115.99	120.30
78	CA	68	A	C1'-O4'-C4'	-8.62	103.00	109.90
78	CA	407	A	O4'-C1'-N9	8.62	115.09	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	560	G	O4'-C1'-N9	8.62	115.09	108.20
78	CA	1324	G	O4'-C1'-N9	-8.62	101.31	108.20
81	DA	531	G	P-O3'-C3'	8.62	130.04	119.70
81	DA	1193	A	N9-C1'-C2'	-8.62	102.52	112.00
81	DA	2133	U	O4'-C1'-N1	8.62	115.09	108.20
81	DA	2883	U	O4'-C1'-N1	8.62	115.09	108.20
83	DC	78	G	O4'-C1'-N9	8.62	115.09	108.20
82	DB	54	A	P-O3'-C3'	8.61	130.04	119.70
78	CA	216	U	O4'-C1'-N1	8.61	115.09	108.20
81	DA	2990	G	O4'-C1'-N9	8.61	115.09	108.20
26	AZ	33	ARG	NE-CZ-NH2	-8.61	116.00	120.30
49	BV	64	ASN	N-CA-CB	-8.61	95.10	110.60
58	Bg	19	ARG	NE-CZ-NH2	-8.61	116.00	120.30
76	BS	74	ILE	N-CA-C	-8.61	87.76	111.00
79	CB	55	C	C4'-C3'-C2'	-8.61	93.99	102.60
81	DA	1828	A	O4'-C1'-N9	8.61	115.09	108.20
81	DA	1898	G	P-O3'-C3'	8.61	130.03	119.70
78	CA	573	C	N1-C1'-C2'	8.61	125.19	114.00
47	BU	159	PHE	CB-CG-CD1	8.61	126.82	120.80
81	DA	1828	A	P-O3'-C3'	8.61	130.03	119.70
78	CA	161	U	O4'-C1'-N1	8.60	115.08	108.20
16	AO	63	ALA	CA-C-N	-8.60	98.28	117.20
78	CA	1102	G	O4'-C1'-N9	8.60	115.08	108.20
78	CA	1339	C	C1'-O4'-C4'	-8.60	103.02	109.90
78	CA	1528	U	C1'-O4'-C4'	8.60	116.78	109.90
81	DA	511	G	O4'-C1'-N9	8.60	115.08	108.20
81	DA	526	C	N1-C1'-C2'	8.60	125.18	114.00
81	DA	273	A	P-O3'-C3'	8.60	130.02	119.70
81	DA	1412	G	O4'-C1'-N9	8.60	115.08	108.20
13	AL	5	LYS	CA-C-N	8.60	141.17	117.10
81	DA	2378	C	C3'-C2'-C1'	8.60	108.38	101.50
35	BG	15	VAL	N-CA-CB	-8.60	92.59	111.50
81	DA	2001	U	N1-C1'-C2'	-8.60	102.55	112.00
81	DA	3063	C	C3'-C2'-C1'	8.60	108.38	101.50
81	DA	2768	U	P-O3'-C3'	-8.59	109.39	119.70
81	DA	419	G	C1'-O4'-C4'	8.59	116.77	109.90
15	AN	53	ASN	N-CA-C	-8.59	87.81	111.00
81	DA	1651	U	C4'-C3'-C2'	-8.59	94.01	102.60
81	DA	2099	A	P-O5'-C5'	8.59	134.64	120.90
81	DA	3105	U	N1-C1'-C2'	8.59	125.17	114.00
81	DA	3345	G	N9-C1'-C2'	-8.59	102.55	112.00
82	DB	47	C	O4'-C1'-N1	8.59	115.07	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1441	C	O3'-P-O5'	-8.59	87.68	104.00
81	DA	597	G	C3'-C2'-C1'	-8.59	94.63	101.50
83	DC	27	A	C5'-C4'-C3'	-8.59	102.26	116.00
81	DA	2638	C	O4'-C1'-C2'	-8.59	97.22	105.80
81	DA	2699	G	N9-C1'-C2'	8.59	125.16	114.00
51	BZ	60	LYS	CA-C-O	-8.58	102.07	120.10
81	DA	2368	A	O3'-P-O5'	-8.58	87.69	104.00
20	AS	91	TYR	CB-CG-CD1	8.58	126.15	121.00
81	DA	836	A	O4'-C1'-C2'	-8.58	97.22	105.80
81	DA	2632	G	O4'-C4'-C3'	-8.58	95.42	104.00
78	CA	1011	G	O4'-C1'-N9	8.58	115.06	108.20
81	DA	3014	U	O4'-C1'-N1	8.58	115.06	108.20
81	DA	547	G	N9-C1'-C2'	8.58	125.15	114.00
81	DA	2241	U	O4'-C1'-N1	8.58	115.06	108.20
81	DA	2496	C	N1-C1'-C2'	8.58	125.15	114.00
81	DA	2992	U	O4'-C1'-N1	8.58	115.06	108.20
19	AR	127	ARG	NE-CZ-NH1	8.57	124.59	120.30
33	BD	300	ARG	NE-CZ-NH2	-8.57	116.01	120.30
78	CA	463	U	O4'-C1'-N1	8.57	115.06	108.20
79	CB	53	U	O4'-C1'-N1	8.57	115.06	108.20
81	DA	1615	C	N1-C1'-C2'	8.57	125.15	114.00
81	DA	2265	C	O4'-C1'-N1	8.57	115.06	108.20
81	DA	2620	G	O4'-C1'-N9	8.57	115.06	108.20
81	DA	631	U	O4'-C1'-N1	8.57	115.06	108.20
81	DA	1049	C	C3'-C2'-C1'	8.57	108.36	101.50
81	DA	2403	G	C1'-O4'-C4'	8.57	116.76	109.90
81	DA	2699	G	C1'-O4'-C4'	-8.57	103.04	109.90
82	DB	151	C	O5'-C5'-C4'	8.57	127.98	111.70
78	CA	1468	U	O4'-C1'-N1	8.57	115.05	108.20
81	DA	2570	U	P-O3'-C3'	8.57	129.98	119.70
81	DA	3258	U	C1'-O4'-C4'	8.57	116.75	109.90
81	DA	210	U	O4'-C1'-N1	8.56	115.05	108.20
81	DA	1470	U	O4'-C1'-N1	8.56	115.05	108.20
81	DA	2308	C	C3'-C2'-C1'	8.56	108.35	101.50
81	DA	3218	A	O4'-C1'-C2'	-8.56	97.24	105.80
50	BX	60	TYR	CB-CG-CD2	-8.56	115.86	121.00
78	CA	1065	A	P-O3'-C3'	8.56	129.97	119.70
6	AE	66	PHE	CB-CG-CD1	8.56	126.79	120.80
78	CA	1644	C	P-O3'-C3'	8.55	129.96	119.70
81	DA	1738	C	C3'-C2'-C1'	8.55	108.34	101.50
43	BP	81	TYR	CB-CG-CD1	8.55	126.13	121.00
78	CA	1292	G	O4'-C1'-N9	8.55	115.04	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	72	C	O4'-C1'-N1	8.55	115.04	108.20
81	DA	556	U	N1-C1'-C2'	8.55	125.12	114.00
81	DA	1382	G	C4'-C3'-C2'	-8.55	94.05	102.60
81	DA	2626	A	N9-C1'-C2'	8.55	125.11	114.00
81	DA	3234	A	C1'-O4'-C4'	8.55	116.74	109.90
78	CA	1156	C	N1-C1'-C2'	8.55	125.11	114.00
32	BC	137	TYR	CG-CD2-CE2	-8.55	114.46	121.30
78	CA	606	A	C1'-O4'-C4'	-8.55	103.06	109.90
78	CA	840	U	P-O3'-C3'	-8.55	109.44	119.70
81	DA	3234	A	N9-C1'-C2'	-8.55	102.60	112.00
21	AT	9	VAL	C-N-CA	-8.54	100.34	121.70
81	DA	360	G	N9-C1'-C2'	8.54	125.11	114.00
81	DA	2165	G	C3'-C2'-C1'	-8.54	94.67	101.50
81	DA	2989	U	P-O5'-C5'	8.54	134.57	120.90
81	DA	3253	G	C1'-O4'-C4'	-8.54	103.06	109.90
81	DA	1669	C	P-O5'-C5'	8.54	134.56	120.90
38	Bs	39	HIS	CB-CA-C	8.54	127.48	110.40
81	DA	1699	A	C5'-C4'-C3'	8.54	129.66	116.00
81	DA	2793	G	O4'-C1'-N9	8.54	115.03	108.20
83	DC	21	G	N9-C1'-C2'	8.54	125.10	114.00
78	CA	1687	U	O4'-C1'-N1	8.54	115.03	108.20
83	DC	40	C	C3'-C2'-C1'	8.54	108.33	101.50
78	CA	1136	U	O4'-C1'-N1	8.53	115.03	108.20
81	DA	203	G	C1'-O4'-C4'	-8.54	103.07	109.90
81	DA	356	C	O4'-C1'-N1	8.54	115.03	108.20
53	Ba	10	VAL	N-CA-C	8.53	134.04	111.00
78	CA	1151	A	O4'-C1'-N9	8.53	115.03	108.20
81	DA	2188	A	P-O3'-C3'	8.53	129.94	119.70
81	DA	2802	A	P-O3'-C3'	8.53	129.94	119.70
78	CA	101	U	O4'-C1'-N1	8.53	115.03	108.20
32	BC	119	TYR	CB-CG-CD2	-8.53	115.88	121.00
81	DA	166	C	N1-C1'-C2'	8.53	125.09	114.00
81	DA	1062	A	O4'-C1'-N9	8.53	115.02	108.20
81	DA	1401	A	C5'-C4'-C3'	8.53	129.65	116.00
81	DA	524	U	N1-C1'-C2'	-8.53	102.62	112.00
66	Bo	44	TRP	CB-CG-CD2	-8.52	115.52	126.60
78	CA	1427	A	C5'-C4'-C3'	8.52	129.64	116.00
81	DA	1823	A	OP1-P-OP2	-8.52	106.81	119.60
78	CA	533	U	P-O3'-C3'	-8.52	109.47	119.70
81	DA	1811	G	C1'-O4'-C4'	8.52	116.72	109.90
78	CA	1753	A	O4'-C1'-N9	8.52	115.02	108.20
78	CA	678	A	C3'-C2'-C1'	8.52	108.32	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	842	C	C6-N1-C2	-8.52	116.89	120.30
78	CA	1058	U	O4'-C1'-N1	8.52	115.02	108.20
4	AD	145	ARG	NE-CZ-NH2	-8.52	116.04	120.30
10	AI	107	LYS	CG-CD-CE	8.52	137.45	111.90
78	CA	1394	G	O4'-C1'-C2'	8.52	115.26	107.60
81	DA	2674	A	N9-C1'-C2'	8.52	125.07	114.00
81	DA	3089	C	N1-C1'-C2'	8.52	125.07	114.00
74	BQ	129	TYR	CB-CG-CD2	-8.51	115.89	121.00
81	DA	492	U	P-O3'-C3'	8.51	129.92	119.70
81	DA	1645	U	N1-C1'-C2'	8.51	125.07	114.00
81	DA	2056	U	O4'-C1'-N1	8.51	115.01	108.20
81	DA	2704	A	C3'-C2'-C1'	8.51	108.31	101.50
78	CA	1043	A	N9-C1'-C2'	-8.51	102.64	112.00
81	DA	3373	U	P-O3'-C3'	8.51	129.91	119.70
83	DC	118	U	C1'-O4'-C4'	-8.51	103.09	109.90
78	CA	1589	C	O4'-C1'-C2'	-8.51	97.29	105.80
81	DA	1222	G	P-O5'-C5'	8.51	134.51	120.90
81	DA	2244	A	N9-C1'-C2'	-8.51	102.64	112.00
81	DA	1825	G	O4'-C1'-C2'	8.51	115.25	107.60
81	DA	2242	A	C3'-C2'-C1'	8.51	108.30	101.50
83	DC	61	U	N1-C1'-C2'	-8.51	102.64	112.00
21	AT	29	HIS	N-CA-CB	8.50	125.91	110.60
72	Bt	60	ASN	N-CA-CB	-8.50	95.29	110.60
78	CA	1492	A	C5'-C4'-C3'	8.50	129.60	116.00
81	DA	444	U	P-O3'-C3'	8.50	129.91	119.70
81	DA	1687	U	O4'-C4'-C3'	-8.50	95.50	104.00
81	DA	663	C	C5'-C4'-C3'	8.50	129.60	116.00
81	DA	2434	U	N1-C1'-C2'	8.50	125.05	114.00
33	BD	145	ILE	N-CA-CB	-8.50	91.26	110.80
37	BH	62	LYS	N-CA-CB	8.49	125.89	110.60
43	BP	116	LEU	CA-C-O	-8.49	102.26	120.10
60	Bi	106	LYS	N-CA-CB	8.49	125.89	110.60
32	BC	3	HIS	CB-CA-C	-8.49	93.42	110.40
47	BU	139	ARG	N-CA-C	-8.49	88.07	111.00
78	CA	202	A	C3'-C2'-C1'	8.49	108.29	101.50
78	CA	1044	U	O4'-C1'-N1	-8.49	101.41	108.20
78	CA	1538	U	O4'-C1'-N1	8.49	115.00	108.20
81	DA	2770	G	C1'-O4'-C4'	-8.49	103.11	109.90
78	CA	900	A	O5'-C5'-C4'	8.49	127.83	111.70
81	DA	756	U	C3'-C2'-C1'	8.49	108.29	101.50
81	DA	2169	G	P-O3'-C3'	8.49	129.89	119.70
81	DA	2574	G	N1-C6-O6	8.49	124.99	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3013	U	P-O5'-C5'	8.49	134.48	120.90
78	CA	1779	U	O4'-C1'-N1	8.49	114.99	108.20
81	DA	2579	G	N1-C6-O6	8.49	124.99	119.90
36	BF	3	TYR	CB-CG-CD2	8.48	126.09	121.00
81	DA	3254	G	O4'-C1'-C2'	-8.48	97.31	105.80
43	BP	68	ARG	NE-CZ-NH2	-8.48	116.06	120.30
81	DA	1220	U	P-O3'-C3'	8.48	129.88	119.70
81	DA	1623	G	O4'-C4'-C3'	-8.48	95.52	104.00
81	DA	2487	U	O5'-P-OP1	-8.48	98.07	105.70
81	DA	427	C	N1-C1'-C2'	8.48	125.02	114.00
81	DA	865	U	O4'-C1'-N1	8.48	114.98	108.20
81	DA	1657	C	C1'-O4'-C4'	8.48	116.68	109.90
83	DC	53	U	C3'-C2'-C1'	8.48	108.28	101.50
81	DA	405	U	N1-C1'-C2'	8.47	125.02	114.00
45	BR	111	ARG	NE-CZ-NH2	-8.47	116.06	120.30
78	CA	1337	A	O5'-C5'-C4'	-8.47	95.61	111.70
78	CA	1578	U	P-O3'-C3'	8.47	129.86	119.70
81	DA	678	G	C3'-C2'-C1'	-8.47	94.72	101.50
81	DA	1783	U	C5'-C4'-O4'	-8.47	98.94	109.10
77	BI	119	TRP	N-CA-CB	8.46	125.83	110.60
78	CA	34	G	O4'-C1'-N9	8.46	114.97	108.20
81	DA	201	A	N9-C1'-C2'	8.47	125.01	114.00
81	DA	3217	C	O4'-C1'-C2'	-8.46	97.33	105.80
2	AA	101	ARG	CB-CA-C	8.46	127.32	110.40
12	AK	20	TYR	CB-CG-CD1	-8.46	115.92	121.00
81	DA	3050	U	O4'-C1'-C2'	-8.46	97.34	105.80
81	DA	1647	A	C3'-C2'-C1'	8.46	108.27	101.50
81	DA	2515	A	C5'-C4'-C3'	8.46	129.54	116.00
81	DA	2468	A	O4'-C1'-N9	8.46	114.97	108.20
81	DA	3236	U	N1-C1'-C2'	8.46	125.00	114.00
61	Bj	20	LYS	CA-C-N	8.46	135.81	117.20
78	CA	852	C	C3'-C2'-C1'	8.46	108.27	101.50
78	CA	1161	C	C3'-C2'-C1'	8.46	108.27	101.50
78	CA	1050	G	N1-C6-O6	8.45	124.97	119.90
78	CA	1238	A	N9-C1'-C2'	-8.46	102.70	112.00
81	DA	2704	A	O4'-C1'-C2'	-8.46	97.34	105.80
81	DA	3219	G	P-O5'-C5'	8.45	134.43	120.90
57	Be	176	TYR	CB-CG-CD1	-8.45	115.93	121.00
78	CA	486	G	C5-C6-O6	-8.45	123.53	128.60
78	CA	1438	G	O5'-C5'-C4'	8.45	127.76	111.70
81	DA	957	C	C3'-C2'-C1'	8.45	108.26	101.50
81	DA	2073	A	O4'-C1'-C2'	-8.45	97.35	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
66	Bo	12	LYS	CA-CB-CG	-8.45	94.81	113.40
78	CA	1214	U	O4'-C1'-C2'	-8.45	97.35	105.80
78	CA	1220	C	N1-C1'-C2'	-8.45	102.71	112.00
78	CA	1550	A	O3'-P-O5'	-8.45	87.95	104.00
81	DA	3313	U	C1'-O4'-C4'	-8.45	103.14	109.90
81	DA	3387	U	N1-C1'-C2'	-8.45	102.71	112.00
31	BB	34	TYR	CB-CG-CD1	8.45	126.07	121.00
78	CA	119	A	P-O3'-C3'	8.45	129.84	119.70
81	DA	1089	G	O4'-C1'-N9	8.45	114.96	108.20
69	Br	63	LYS	N-CA-CB	8.44	125.80	110.60
45	BR	95	GLU	CB-CA-C	8.44	127.28	110.40
81	DA	2466	G	O4'-C1'-N9	-8.44	101.45	108.20
49	BV	21	TYR	CB-CG-CD2	-8.44	115.94	121.00
78	CA	1064	G	N1-C6-O6	8.44	124.96	119.90
81	DA	169	U	P-O3'-C3'	8.44	129.83	119.70
38	Bs	35	SER	N-CA-CB	8.44	123.16	110.50
76	BS	82	ARG	NE-CZ-NH1	8.44	124.52	120.30
78	CA	292	U	O4'-C1'-N1	8.44	114.95	108.20
81	DA	2065	U	O4'-C1'-N1	8.44	114.95	108.20
17	AQ	21	TYR	CB-CG-CD2	-8.43	115.94	121.00
81	DA	638	C	O4'-C4'-C3'	-8.43	95.57	104.00
78	CA	638	U	N1-C1'-C2'	8.43	124.96	114.00
78	CA	1534	G	O4'-C1'-N9	8.43	114.94	108.20
81	DA	637	C	C5'-C4'-O4'	-8.43	98.98	109.10
15	AN	14	TYR	CB-CG-CD2	-8.43	115.94	121.00
32	BC	297	SER	CB-CA-C	-8.43	94.09	110.10
53	Ba	8	GLY	CA-C-O	-8.43	105.43	120.60
81	DA	1061	A	C1'-O4'-C4'	-8.43	103.16	109.90
81	DA	2011	U	O4'-C1'-N1	8.43	114.94	108.20
82	DB	96	A	O4'-C1'-N9	8.43	114.94	108.20
34	BE	52	TYR	CA-CB-CG	8.42	129.40	113.40
41	BN	40	ASP	N-CA-CB	8.42	125.76	110.60
81	DA	80	G	C1'-O4'-C4'	-8.42	103.16	109.90
81	DA	757	C	O4'-C1'-N1	8.42	114.94	108.20
81	DA	1346	G	N9-C1'-C2'	-8.42	102.74	112.00
38	Bs	213	PHE	CB-CG-CD1	-8.42	114.91	120.80
81	DA	813	G	P-O5'-C5'	8.42	134.37	120.90
81	DA	3077	A	C3'-C2'-C1'	8.42	108.23	101.50
81	DA	2466	G	C4'-C3'-C2'	-8.42	94.18	102.60
81	DA	2505	U	C1'-O4'-C4'	8.42	116.63	109.90
81	DA	1660	C	N1-C1'-C2'	8.41	124.94	114.00
81	DA	3247	G	O4'-C4'-C3'	-8.41	95.59	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	49	G	P-O3'-C3'	8.41	129.80	119.70
82	DB	152	G	C5'-C4'-C3'	-8.41	102.54	116.00
59	Bh	24	ARG	NE-CZ-NH2	-8.41	116.09	120.30
78	CA	834	G	N9-C1'-C2'	8.41	124.94	114.00
81	DA	3311	C	P-O5'-C5'	8.41	134.36	120.90
57	Be	110	ARG	NE-CZ-NH2	-8.41	116.09	120.30
78	CA	213	A	O4'-C1'-N9	8.41	114.93	108.20
78	CA	287	G	P-O3'-C3'	8.41	129.79	119.70
78	CA	823	G	N1-C6-O6	8.41	124.95	119.90
78	CA	1289	U	P-O3'-C3'	8.41	129.79	119.70
78	CA	1752	U	N1-C1'-C2'	8.41	124.93	114.00
81	DA	2735	U	C1'-O4'-C4'	-8.41	103.17	109.90
20	AS	95	ASP	CA-C-N	8.41	135.70	117.20
48	BW	15	PHE	CB-CG-CD1	-8.41	114.91	120.80
78	CA	53	G	O4'-C1'-N9	8.41	114.93	108.20
78	CA	1338	C	C2'-C3'-O3'	8.41	128.00	109.50
78	CA	1783	C	P-O3'-C3'	8.41	129.79	119.70
81	DA	1633	C	N1-C1'-C2'	8.41	124.93	114.00
81	DA	2748	A	O4'-C1'-C2'	-8.41	97.39	105.80
81	DA	3006	A	C1'-O4'-C4'	-8.41	103.17	109.90
19	AR	130	ARG	CD-NE-CZ	8.40	135.37	123.60
78	CA	383	G	O4'-C1'-N9	8.40	114.92	108.20
81	DA	2800	G	O4'-C1'-C2'	-8.40	97.39	105.80
22	AV	105	THR	CB-CA-C	-8.40	88.91	111.60
79	CB	20	C	O4'-C1'-N1	8.40	114.92	108.20
1	Aa	59	ARG	NE-CZ-NH1	8.40	124.50	120.30
78	CA	114	C	O4'-C1'-N1	8.40	114.92	108.20
78	CA	298	C	O3'-P-O5'	-8.40	88.04	104.00
78	CA	1539	G	C1'-O4'-C4'	8.40	116.62	109.90
78	CA	1677	C	C5'-C4'-O4'	8.40	119.18	109.10
81	DA	1154	A	C1'-O4'-C4'	8.40	116.62	109.90
81	DA	2765	C	O4'-C1'-N1	8.40	114.92	108.20
81	DA	3239	G	C1'-O4'-C4'	-8.40	103.18	109.90
31	BB	23	ARG	NE-CZ-NH2	-8.40	116.10	120.30
78	CA	29	U	O4'-C1'-C2'	-8.40	97.40	105.80
81	DA	2760	C	O3'-P-O5'	-8.40	88.04	104.00
81	DA	626	U	C5'-C4'-C3'	-8.40	102.57	116.00
57	Be	132	PRO	C-N-CA	8.39	142.69	121.70
74	BQ	190	ILE	CB-CA-C	8.39	128.39	111.60
78	CA	1333	C	O4'-C1'-N1	8.39	114.92	108.20
81	DA	533	A	O4'-C1'-N9	8.39	114.91	108.20
5	AC	114	TYR	CB-CG-CD2	8.39	126.03	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BF	3	TYR	CB-CG-CD1	-8.39	115.97	121.00
45	BR	3	ILE	CA-C-O	-8.39	102.48	120.10
81	DA	1403	C	N1-C1'-C2'	8.39	124.91	114.00
81	DA	2628	A	C5'-C4'-C3'	8.39	129.42	116.00
34	BE	116	TYR	CB-CG-CD2	8.39	126.03	121.00
81	DA	1055	A	O3'-P-O5'	-8.39	88.07	104.00
81	DA	2577	C	O4'-C1'-N1	8.38	114.91	108.20
81	DA	2634	U	C1'-O4'-C4'	-8.38	103.19	109.90
81	DA	2766	U	P-O5'-C5'	8.38	134.31	120.90
14	AM	22	VAL	N-CA-CB	8.38	129.94	111.50
81	DA	31	C	O4'-C1'-N1	8.38	114.90	108.20
81	DA	702	C	N1-C1'-C2'	8.38	124.89	114.00
81	DA	992	A	O4'-C1'-N9	8.38	114.91	108.20
83	DC	13	A	P-O3'-C3'	-8.38	109.64	119.70
16	AO	130	ARG	NE-CZ-NH2	-8.38	116.11	120.30
68	Bq	17	ARG	NE-CZ-NH1	8.38	124.49	120.30
78	CA	1259	U	O4'-C1'-N1	8.38	114.90	108.20
81	DA	2464	U	P-O3'-C3'	8.38	129.75	119.70
81	DA	2935	U	O4'-C1'-N1	8.38	114.90	108.20
81	DA	1620	U	N1-C1'-C2'	8.38	124.89	114.00
81	DA	2581	U	O4'-C1'-N1	8.38	114.90	108.20
32	BC	122	TRP	N-CA-CB	8.37	125.67	110.60
39	BJ	14	TYR	CB-CG-CD1	-8.37	115.98	121.00
78	CA	120	U	C4'-C3'-C2'	-8.37	94.23	102.60
81	DA	2275	A	C3'-C2'-C1'	-8.37	94.80	101.50
22	AV	31	SER	O-C-N	-8.37	109.31	122.70
78	CA	664	U	P-O3'-C3'	8.37	129.74	119.70
81	DA	1007	U	C3'-C2'-C1'	-8.37	94.81	101.50
81	DA	2487	U	P-O3'-C3'	-8.37	109.66	119.70
2	AA	251	GLU	CA-C-O	-8.37	102.53	120.10
81	DA	406	G	N9-C1'-C2'	-8.37	102.80	112.00
81	DA	1441	G	O4'-C1'-N9	8.37	114.89	108.20
81	DA	2334	U	O3'-P-O5'	8.37	119.89	104.00
81	DA	259	C	O4'-C1'-C2'	-8.36	97.44	105.80
81	DA	843	A	N9-C1'-C2'	-8.36	102.80	112.00
26	AZ	55	ARG	NE-CZ-NH2	-8.36	116.12	120.30
81	DA	1387	G	O4'-C1'-N9	8.36	114.89	108.20
81	DA	2486	A	P-O3'-C3'	8.36	129.74	119.70
83	DC	1	G	O4'-C1'-C2'	-8.36	97.44	105.80
44	BO	56	VAL	CA-C-O	-8.36	102.54	120.10
81	DA	161	G	C3'-C2'-C1'	-8.36	94.81	101.50
81	DA	3090	U	P-O5'-C5'	8.36	134.27	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	96	G	O4'-C1'-N9	8.36	114.89	108.20
18	AP	53	TYR	O-C-N	-8.36	109.33	122.70
81	DA	2724	U	P-O3'-C3'	-8.36	109.67	119.70
31	BB	6	ARG	NE-CZ-NH2	-8.35	116.12	120.30
34	BE	53	THR	CA-C-O	-8.35	102.56	120.10
81	DA	627	U	P-O5'-C5'	8.35	134.27	120.90
78	CA	288	A	O4'-C1'-N9	8.35	114.88	108.20
81	DA	924	G	N9-C1'-C2'	8.35	124.86	114.00
81	DA	2224	A	O4'-C1'-N9	8.35	114.88	108.20
81	DA	2644	C	C1'-O4'-C4'	8.35	116.58	109.90
32	BC	93	VAL	CA-CB-CG1	-8.35	98.38	110.90
35	BG	76	LEU	N-CA-CB	8.35	127.09	110.40
69	Br	62	ALA	O-C-N	-8.35	109.35	122.70
81	DA	159	A	N9-C1'-C2'	-8.35	102.82	112.00
81	DA	1036	A	N9-C1'-C2'	-8.35	102.82	112.00
83	DC	39	C	N1-C1'-C2'	8.35	124.85	114.00
81	DA	1872	C	C1'-O4'-C4'	-8.35	103.22	109.90
50	BX	38	LEU	CB-CA-C	8.34	126.05	110.20
81	DA	829	U	N1-C1'-C2'	8.34	124.85	114.00
81	DA	2647	A	N9-C1'-C2'	-8.34	102.82	112.00
78	CA	624	G	O4'-C1'-N9	8.34	114.87	108.20
78	CA	1639	C	O4'-C1'-N1	8.34	114.87	108.20
81	DA	1939	G	N9-C1'-C2'	8.34	124.84	114.00
81	DA	1969	G	O4'-C1'-N9	8.34	114.87	108.20
81	DA	2195	C	C5'-C4'-C3'	-8.34	102.66	116.00
81	DA	2898	G	C3'-C2'-C1'	8.34	108.17	101.50
22	AV	26	LYS	CB-CA-C	8.34	127.08	110.40
53	Ba	9	LYS	C-N-CA	8.34	142.54	121.70
56	Bf	50	VAL	CB-CA-C	8.34	127.24	111.40
81	DA	2493	U	P-O3'-C3'	8.34	129.70	119.70
10	AI	135	ARG	NE-CZ-NH2	8.33	124.47	120.30
81	DA	1076	C	O3'-P-O5'	-8.33	88.17	104.00
78	CA	871	G	O4'-C1'-N9	8.33	114.87	108.20
78	CA	905	A	O5'-P-OP1	8.33	120.70	110.70
78	CA	1300	A	C1'-O4'-C4'	8.33	116.57	109.90
83	DC	55	A	N9-C1'-C2'	-8.33	102.83	112.00
35	BG	75	PRO	CA-N-CD	-8.33	99.84	111.50
51	BZ	8	PHE	CB-CG-CD2	8.33	126.63	120.80
81	DA	415	G	C1'-O4'-C4'	-8.33	103.24	109.90
81	DA	1572	U	O4'-C1'-C2'	-8.33	97.47	105.80
81	DA	2928	C	C5'-C4'-C3'	-8.33	102.67	116.00
12	AK	123	SER	CA-C-O	-8.33	102.61	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	646	C	C1'-O4'-C4'	-8.33	103.24	109.90
83	DC	3	U	N1-C1'-C2'	-8.32	102.84	112.00
78	CA	472	U	O4'-C1'-N1	8.32	114.86	108.20
78	CA	611	U	O4'-C1'-N1	8.32	114.86	108.20
78	CA	1539	G	O4'-C1'-C2'	-8.32	97.48	105.80
81	DA	3056	U	O4'-C1'-C2'	-8.32	97.48	105.80
82	DB	122	U	N1-C1'-C2'	-8.32	102.84	112.00
5	AC	168	ARG	CA-C-N	8.32	140.40	117.10
81	DA	2422	C	O4'-C1'-N1	8.32	114.86	108.20
81	DA	2505	U	O4'-C1'-C2'	-8.32	97.48	105.80
35	BG	38	THR	CB-CA-C	-8.32	89.14	111.60
81	DA	1517	G	O4'-C1'-N9	8.32	114.86	108.20
33	BD	69	ARG	NE-CZ-NH1	8.32	124.46	120.30
78	CA	598	U	O4'-C1'-N1	8.32	114.85	108.20
78	CA	1328	G	O4'-C1'-N9	8.32	114.85	108.20
81	DA	3305	A	OP1-P-O3'	8.32	123.50	105.20
78	CA	1546	G	N9-C1'-C2'	8.31	124.81	114.00
82	DB	5	U	O4'-C1'-N1	8.31	114.85	108.20
78	CA	255	U	O4'-C1'-N1	8.31	114.85	108.20
78	CA	576	G	N1-C6-O6	8.31	124.89	119.90
81	DA	2891	U	O4'-C1'-N1	8.31	114.85	108.20
81	DA	2284	C	C3'-C2'-C1'	8.31	108.15	101.50
30	BA	151	VAL	N-CA-CB	8.31	129.77	111.50
35	BG	8	LYS	N-CA-C	8.31	133.43	111.00
55	Bc	81	ARG	NE-CZ-NH2	-8.31	116.15	120.30
60	Bi	41	ARG	CA-C-N	8.31	140.36	117.10
78	CA	885	G	O4'-C1'-C2'	-8.31	97.49	105.80
78	CA	1767	G	O4'-C1'-N9	-8.31	101.56	108.20
68	Bq	2	ARG	NE-CZ-NH1	-8.31	116.15	120.30
78	CA	444	C	C3'-C2'-C1'	8.31	108.14	101.50
44	BO	73	LEU	CA-C-O	-8.30	102.66	120.10
78	CA	660	G	P-O5'-C5'	-8.30	107.61	120.90
81	DA	874	U	C1'-O4'-C4'	-8.30	103.26	109.90
81	DA	2025	G	N9-C1'-C2'	-8.30	102.86	112.00
81	DA	2045	G	O3'-P-O5'	-8.30	88.22	104.00
81	DA	2178	A	P-O3'-C3'	8.31	129.67	119.70
81	DA	3281	U	O4'-C1'-N1	8.31	114.84	108.20
82	DB	63	G	O4'-C1'-C2'	-8.30	97.50	105.80
45	BR	3	ILE	C-N-CA	8.30	142.45	121.70
81	DA	2420	C	P-O3'-C3'	8.30	129.66	119.70
78	CA	916	U	N1-C1'-C2'	8.30	124.79	114.00
78	CA	1158	C	C3'-C2'-C1'	8.30	108.14	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	740	G	O4'-C1'-N9	8.30	114.84	108.20
81	DA	3393	U	O4'-C1'-N1	8.30	114.84	108.20
35	BG	61	ASN	N-CA-CB	8.30	125.54	110.60
81	DA	1295	G	C1'-O4'-C4'	-8.30	103.26	109.90
81	DA	1943	C	N1-C1'-C2'	8.30	124.79	114.00
81	DA	1649	U	N1-C1'-C2'	-8.30	102.88	112.00
3	AB	72	LEU	N-CA-CB	8.29	126.99	110.40
66	Bo	41	ARG	CA-C-O	-8.29	102.68	120.10
74	BQ	242	SER	C-N-CA	-8.29	100.97	121.70
78	CA	177	U	C3'-C2'-C1'	8.29	108.14	101.50
81	DA	1755	C	C4'-C3'-O3'	8.29	129.59	113.00
81	DA	2573	G	O4'-C1'-N9	8.29	114.84	108.20
81	DA	3073	A	O3'-P-O5'	-8.29	88.24	104.00
78	CA	1577	A	O4'-C1'-N9	8.29	114.83	108.20
81	DA	763	G	O4'-C1'-N9	8.29	114.83	108.20
83	DC	102	C	O4'-C1'-C2'	-8.29	97.51	105.80
78	CA	1591	C	O5'-P-OP2	-8.29	98.24	105.70
81	DA	2100	A	C3'-C2'-C1'	8.29	108.13	101.50
51	BZ	51	TRP	CB-CA-C	8.29	126.98	110.40
78	CA	347	G	O4'-C1'-N9	8.29	114.83	108.20
78	CA	1382	A	O4'-C1'-N9	8.29	114.83	108.20
81	DA	1002	A	C4'-C3'-C2'	-8.28	94.32	102.60
81	DA	1608	C	N1-C1'-C2'	8.29	124.77	114.00
81	DA	2218	G	C1'-O4'-C4'	-8.29	103.27	109.90
81	DA	3030	G	N9-C1'-C2'	8.28	124.77	114.00
82	DB	133	G	O4'-C1'-N9	8.28	114.83	108.20
24	AX	77	THR	N-CA-CB	8.28	126.03	110.30
37	BH	131	ALA	N-CA-CB	8.28	121.69	110.10
81	DA	429	U	O4'-C1'-N1	8.28	114.82	108.20
81	DA	2072	G	C5'-C4'-C3'	-8.28	102.75	116.00
81	DA	2323	G	N9-C1'-C2'	-8.28	102.89	112.00
81	DA	2565	U	O4'-C1'-N1	8.28	114.83	108.20
81	DA	432	G	P-O3'-C3'	8.28	129.64	119.70
81	DA	1877	U	O4'-C1'-N1	8.28	114.82	108.20
45	BR	143	PRO	N-CA-CB	-8.28	93.37	103.30
78	CA	1731	A	P-O3'-C3'	8.28	129.63	119.70
82	DB	52	A	P-O5'-C5'	8.28	134.14	120.90
78	CA	280	U	C1'-O4'-C4'	-8.27	103.28	109.90
81	DA	1703	U	O4'-C1'-N1	8.27	114.82	108.20
81	DA	3149	G	C1'-O4'-C4'	8.27	116.52	109.90
78	CA	70	C	C3'-C2'-C1'	8.27	108.12	101.50
78	CA	1509	C	N3-C4-N4	8.27	123.79	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	170	G	O4'-C1'-C2'	-8.27	97.53	105.80
81	DA	1050	U	C1'-O4'-C4'	8.27	116.52	109.90
83	DC	38	U	P-O5'-C5'	8.27	134.13	120.90
78	CA	451	A	P-O3'-C3'	8.27	129.62	119.70
81	DA	1417	G	O4'-C1'-N9	8.27	114.82	108.20
81	DA	2669	G	O4'-C1'-C2'	8.27	115.04	107.60
81	DA	1007	U	C5'-C4'-O4'	8.27	119.02	109.10
82	DB	153	U	N1-C1'-C2'	-8.27	102.90	112.00
78	CA	179	A	P-O5'-C5'	8.27	134.13	120.90
78	CA	1009	U	O4'-C1'-N1	8.27	114.81	108.20
81	DA	671	U	C4'-C3'-O3'	8.27	129.53	113.00
81	DA	1216	C	C4'-C3'-C2'	-8.27	94.33	102.60
81	DA	1879	A	N9-C1'-C2'	8.27	124.75	114.00
81	DA	2030	C	O4'-C1'-N1	8.27	114.81	108.20
81	DA	2807	U	O4'-C1'-N1	8.27	114.81	108.20
32	BC	17	LEU	N-CA-C	-8.26	88.69	111.00
81	DA	800	G	N9-C1'-C2'	-8.26	102.91	112.00
81	DA	993	G	C3'-C2'-C1'	-8.26	94.89	101.50
81	DA	1819	U	C1'-O4'-C4'	8.26	116.51	109.90
81	DA	3325	G	C1'-O4'-C4'	8.26	116.51	109.90
14	AM	110	ARG	NE-CZ-NH1	-8.26	116.17	120.30
34	BE	10	ARG	N-CA-CB	8.26	125.47	110.60
81	DA	3095	U	P-O3'-C3'	8.26	129.61	119.70
76	BS	41	SER	CB-CA-C	-8.26	94.41	110.10
81	DA	531	G	O4'-C1'-N9	-8.26	101.59	108.20
81	DA	2206	G	N9-C1'-C2'	-8.26	102.91	112.00
81	DA	1285	G	P-O3'-C3'	8.26	129.61	119.70
78	CA	200	A	P-O3'-C3'	8.26	129.61	119.70
78	CA	1439	C	P-O3'-C3'	-8.26	109.79	119.70
81	DA	481	U	O4'-C1'-N1	8.26	114.81	108.20
81	DA	1256	G	C1'-O4'-C4'	-8.26	103.29	109.90
81	DA	1361	U	O4'-C1'-C2'	-8.26	97.54	105.80
81	DA	2869	U	O4'-C1'-N1	8.26	114.81	108.20
81	DA	3035	A	P-O3'-C3'	8.26	129.61	119.70
81	DA	3344	A	C1'-O4'-C4'	8.26	116.50	109.90
33	BD	84	ARG	N-CA-CB	8.25	125.45	110.60
81	DA	577	C	C3'-C2'-C1'	8.25	108.10	101.50
81	DA	1199	C	C3'-C2'-C1'	8.25	108.10	101.50
81	DA	2020	A	O4'-C1'-C2'	-8.25	97.55	105.80
81	DA	2370	G	O4'-C1'-N9	8.25	114.80	108.20
81	DA	331	G	C3'-C2'-C1'	8.25	108.10	101.50
81	DA	596	C	C5'-C4'-C3'	8.25	129.20	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1361	U	C1'-O4'-C4'	8.25	116.50	109.90
31	BB	246	LEU	N-CA-C	-8.25	88.73	111.00
77	BI	4	ARG	NE-CZ-NH1	8.25	124.42	120.30
78	CA	679	U	C1'-O4'-C4'	8.25	116.50	109.90
81	DA	624	G	P-O3'-C3'	8.25	129.60	119.70
81	DA	1985	G	O4'-C1'-N9	8.25	114.80	108.20
81	DA	2544	U	O4'-C1'-N1	8.25	114.80	108.20
83	DC	114	A	P-O5'-C5'	8.25	134.09	120.90
78	CA	257	A	O4'-C1'-N9	8.24	114.80	108.20
78	CA	857	U	O4'-C1'-N1	8.24	114.80	108.20
78	CA	1173	C	O4'-C1'-N1	8.24	114.80	108.20
81	DA	948	C	C3'-C2'-C1'	8.24	108.09	101.50
59	Bh	21	HIS	CA-CB-CG	8.24	127.61	113.60
1	Aa	53	LYS	CB-CA-C	-8.24	93.92	110.40
26	AZ	18	THR	CB-CA-C	8.24	133.85	111.60
45	BR	39	ARG	N-CA-CB	8.24	125.43	110.60
60	Bi	16	ARG	CB-CA-C	-8.24	93.92	110.40
81	DA	1624	G	C5'-C4'-O4'	-8.24	99.21	109.10
81	DA	3231	U	C5'-C4'-C3'	-8.24	102.82	116.00
83	DC	102	C	N1-C1'-C2'	8.24	124.71	114.00
59	Bh	17	PHE	CB-CG-CD1	-8.24	115.03	120.80
78	CA	1441	C	N1-C1'-C2'	8.24	124.71	114.00
81	DA	361	A	O4'-C1'-N9	8.24	114.79	108.20
81	DA	2741	C	O4'-C1'-C2'	-8.24	97.56	105.80
1	Aa	212	ALA	N-CA-CB	8.23	121.63	110.10
81	DA	401	U	N1-C1'-C2'	-8.23	102.94	112.00
81	DA	1251	A	C1'-O4'-C4'	-8.23	103.31	109.90
78	CA	574	G	N1-C6-O6	8.23	124.84	119.90
78	CA	1337	A	C5'-C4'-O4'	-8.23	99.22	109.10
81	DA	1688	U	O4'-C1'-C2'	-8.23	97.57	105.80
81	DA	1757	A	C5-C6-N1	-8.23	113.58	117.70
65	Bn	40	GLN	N-CA-C	8.23	133.22	111.00
81	DA	495	G	O4'-C1'-N9	8.23	114.78	108.20
81	DA	899	U	O4'-C1'-N1	8.23	114.78	108.20
3	AB	27	ARG	NE-CZ-NH1	-8.23	116.19	120.30
78	CA	304	U	N1-C1'-C2'	8.23	124.69	114.00
78	CA	591	A	O3'-P-O5'	-8.23	88.37	104.00
81	DA	2656	A	P-O3'-C3'	8.23	129.57	119.70
81	DA	3287	U	P-O3'-C3'	8.23	129.57	119.70
44	BO	42	ARG	NE-CZ-NH2	8.22	124.41	120.30
55	Bc	94	LYS	N-CA-CB	8.22	125.41	110.60
78	CA	1086	A	O4'-C1'-N9	-8.22	101.62	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BJ	123	ARG	CA-CB-CG	8.22	131.49	113.40
78	CA	1301	U	O4'-C1'-C2'	-8.22	97.58	105.80
79	CB	12	U	O4'-C1'-N1	8.22	114.78	108.20
81	DA	707	U	O4'-C1'-N1	8.22	114.78	108.20
79	CB	67	G	O4'-C1'-N9	8.22	114.78	108.20
81	DA	3166	C	O4'-C1'-N1	8.22	114.78	108.20
81	DA	1976	G	C5'-C4'-C3'	8.22	129.15	116.00
81	DA	2562	A	O4'-C1'-N9	8.22	114.78	108.20
81	DA	2978	U	O4'-C1'-N1	8.22	114.78	108.20
35	BG	96	VAL	N-CA-C	-8.22	88.81	111.00
72	Bu	60	ASN	CA-C-N	8.22	135.28	117.20
78	CA	8	U	O4'-C1'-N1	8.22	114.78	108.20
81	DA	914	A	N9-C1'-C2'	-8.22	102.96	112.00
81	DA	2150	G	C5'-C4'-C3'	-8.22	102.86	116.00
81	DA	3311	C	N1-C1'-C2'	8.22	124.68	114.00
78	CA	1049	U	O4'-C1'-N1	8.21	114.77	108.20
78	CA	256	A	O4'-C1'-C2'	-8.21	97.59	105.80
81	DA	2628	A	O4'-C4'-C3'	-8.21	95.79	104.00
81	DA	3102	G	O4'-C1'-N9	8.21	114.77	108.20
78	CA	1022	C	O4'-C1'-C2'	-8.21	97.59	105.80
78	CA	1260	U	O4'-C1'-N1	8.21	114.77	108.20
78	CA	1310	U	C3'-C2'-C1'	8.21	108.07	101.50
17	AQ	30	THR	CA-CB-CG2	-8.21	100.91	112.40
81	DA	1528	G	C3'-C2'-C1'	-8.21	94.93	101.50
81	DA	2194	G	C5'-C4'-C3'	-8.21	102.87	116.00
81	DA	2675	C	C3'-C2'-C1'	8.21	108.07	101.50
4	AD	153	ASN	N-CA-CB	-8.21	95.83	110.60
81	DA	1762	C	O4'-C1'-N1	8.20	114.76	108.20
81	DA	1827	C	C3'-C2'-C1'	8.21	108.06	101.50
42	BM	97	ASP	CB-CG-OD1	8.20	125.68	118.30
78	CA	169	A	O4'-C1'-N9	8.20	114.76	108.20
78	CA	1350	U	O4'-C1'-N1	8.20	114.76	108.20
81	DA	519	A	P-O5'-C5'	8.20	134.03	120.90
81	DA	790	U	C1'-O4'-C4'	-8.20	103.34	109.90
81	DA	1956	A	O4'-C1'-N9	8.20	114.76	108.20
81	DA	2950	G	P-O3'-C3'	8.20	129.54	119.70
81	DA	2967	A	O4'-C1'-N9	8.20	114.76	108.20
81	DA	3326	G	O4'-C1'-C2'	-8.20	97.60	105.80
36	BF	88	TYR	CB-CG-CD1	8.20	125.92	121.00
83	DC	32	U	P-O3'-C3'	8.20	129.54	119.70
81	DA	1689	U	P-O3'-C3'	8.20	129.53	119.70
81	DA	3373	U	P-O5'-C5'	8.20	134.02	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AE	70	ASP	CA-C-N	8.19	135.23	117.20
81	DA	275	U	C4'-C3'-C2'	-8.19	94.41	102.60
81	DA	1291	A	O4'-C1'-C2'	-8.19	97.61	105.80
81	DA	2588	U	O4'-C1'-N1	8.19	114.75	108.20
81	DA	161	G	O3'-P-O5'	-8.19	88.44	104.00
53	Ba	13	VAL	CB-CA-C	8.19	126.96	111.40
78	CA	988	A	O4'-C1'-C2'	-8.19	97.61	105.80
78	CA	1380	U	O3'-P-O5'	-8.19	88.44	104.00
81	DA	97	U	O4'-C1'-N1	8.19	114.75	108.20
81	DA	973	A	O4'-C1'-N9	8.19	114.75	108.20
82	DB	23	U	O4'-C1'-N1	8.19	114.75	108.20
78	CA	16	G	O4'-C1'-C2'	-8.19	97.61	105.80
78	CA	1067	C	P-O3'-C3'	8.19	129.52	119.70
81	DA	2319	U	P-O3'-C3'	8.19	129.52	119.70
78	CA	1476	C	OP1-P-O3'	-8.19	87.19	105.20
81	DA	2465	G	N9-C1'-C2'	8.19	124.64	114.00
5	AC	169	PRO	C-N-CA	8.18	139.49	122.30
81	DA	892	U	O4'-C1'-N1	8.18	114.75	108.20
81	DA	2308	C	N1-C1'-C2'	8.18	124.64	114.00
81	DA	2806	U	O4'-C1'-N1	8.18	114.75	108.20
78	CA	1336	A	N9-C1'-C2'	8.18	124.64	114.00
81	DA	229	G	O4'-C1'-C2'	8.18	114.96	107.60
81	DA	855	U	O4'-C1'-N1	8.18	114.74	108.20
81	DA	2448	G	O4'-C1'-N9	8.18	114.75	108.20
14	AM	128	PHE	CB-CG-CD2	8.18	126.53	120.80
78	CA	1599	C	O4'-C1'-C2'	-8.18	97.62	105.80
81	DA	877	C	N1-C1'-C2'	8.18	124.63	114.00
81	DA	3337	G	O4'-C1'-N9	8.18	114.74	108.20
45	BR	14	GLY	N-CA-C	8.18	133.54	113.10
78	CA	894	U	O4'-C4'-C3'	-8.17	95.83	104.00
78	CA	1078	C	O4'-C1'-N1	8.17	114.74	108.20
81	DA	2496	C	O4'-C1'-N1	8.17	114.74	108.20
78	CA	1111	G	C1'-O4'-C4'	-8.17	103.37	109.90
5	AC	38	ASN	N-CA-CB	8.17	125.30	110.60
81	DA	666	A	O4'-C1'-C2'	8.17	114.95	107.60
81	DA	1283	C	C3'-C2'-C1'	8.17	108.03	101.50
81	DA	2492	C	C4'-C3'-C2'	-8.17	94.43	102.60
34	BE	9	MET	CB-CA-C	-8.16	94.07	110.40
78	CA	649	U	C3'-C2'-C1'	-8.16	94.97	101.50
81	DA	2099	A	OP1-P-O3'	-8.16	87.24	105.20
78	CA	1784	C	P-O3'-C3'	8.16	129.50	119.70
81	DA	3357	U	O4'-C1'-N1	8.16	114.73	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2797	C	O4'-C1'-C2'	-8.16	97.64	105.80
81	DA	2130	G	C4'-C3'-C2'	-8.16	94.44	102.60
18	AP	93	TYR	CG-CD1-CE1	-8.16	114.78	121.30
60	Bi	68	THR	CB-CA-C	-8.16	89.58	111.60
81	DA	83	U	O4'-C1'-N1	8.16	114.72	108.20
81	DA	1679	A	N9-C1'-C2'	8.16	124.60	114.00
78	CA	1640	C	O4'-C1'-N1	8.15	114.72	108.20
81	DA	2737	C	N1-C1'-C2'	8.15	124.60	114.00
78	CA	1727	G	O4'-C1'-N9	8.15	114.72	108.20
81	DA	1316	C	O4'-C1'-N1	-8.15	101.68	108.20
81	DA	3048	A	O4'-C1'-C2'	-8.15	97.65	105.80
10	AI	119	ALA	CA-C-O	-8.15	102.98	120.10
82	DB	3	A	C3'-C2'-C1'	-8.15	94.98	101.50
78	CA	1234	A	C3'-C2'-C1'	-8.15	94.98	101.50
14	AM	110	ARG	NE-CZ-NH2	8.15	124.37	120.30
81	DA	2827	U	C1'-O4'-C4'	8.15	116.42	109.90
81	DA	2830	G	O4'-C1'-N9	8.15	114.72	108.20
81	DA	1842	A	P-O5'-C5'	8.14	133.93	120.90
81	DA	807	A	O4'-C1'-N9	8.14	114.71	108.20
81	DA	1966	U	O4'-C1'-N1	8.14	114.71	108.20
81	DA	2465	G	P-O5'-C5'	-8.14	107.87	120.90
81	DA	2942	C	N1-C1'-C2'	8.14	124.59	114.00
81	DA	3387	U	C1'-O4'-C4'	8.14	116.42	109.90
81	DA	3337	G	C1'-O4'-C4'	-8.14	103.39	109.90
46	BT	86	GLU	CB-CA-C	8.14	126.68	110.40
78	CA	591	A	O4'-C4'-C3'	-8.14	95.86	104.00
81	DA	2148	U	P-O3'-C3'	8.14	129.47	119.70
81	DA	2380	U	O4'-C1'-N1	8.14	114.71	108.20
81	DA	2440	G	C1'-O4'-C4'	-8.14	103.39	109.90
81	DA	330	G	P-O5'-C5'	-8.14	107.88	120.90
81	DA	1125	U	O4'-C1'-N1	8.14	114.71	108.20
12	AK	107	ARG	NE-CZ-NH2	-8.13	116.23	120.30
81	DA	2093	A	O3'-P-O5'	-8.14	88.54	104.00
83	DC	88	G	O4'-C1'-N9	8.14	114.71	108.20
47	BU	156	TYR	CB-CG-CD1	8.13	125.88	121.00
81	DA	184	U	O4'-C1'-C2'	-8.13	97.67	105.80
81	DA	1637	A	OP1-P-OP2	-8.13	107.40	119.60
81	DA	3115	C	O4'-C1'-N1	-8.13	101.69	108.20
78	CA	655	G	O4'-C1'-N9	8.13	114.70	108.20
81	DA	1260	A	N9-C1'-C2'	-8.13	103.06	112.00
81	DA	2332	A	C1'-O4'-C4'	-8.13	103.40	109.90
17	AQ	60	ARG	NE-CZ-NH1	8.13	124.36	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	Bn	72	THR	N-CA-CB	8.13	125.74	110.30
78	CA	1394	G	C5'-C4'-O4'	8.13	118.85	109.10
81	DA	1637	A	C1'-O4'-C4'	-8.13	103.40	109.90
81	DA	2172	A	P-O3'-C3'	8.13	129.45	119.70
81	DA	2510	U	C4'-C3'-C2'	-8.13	94.47	102.60
78	CA	470	A	O4'-C1'-C2'	-8.13	97.67	105.80
50	BX	48	SER	N-CA-CB	8.12	122.69	110.50
45	BR	143	PRO	CB-CA-C	-8.12	91.69	112.00
78	CA	7	G	O4'-C1'-N9	8.12	114.70	108.20
57	Be	23	ALA	CB-CA-C	8.12	122.28	110.10
57	Be	51	TYR	CB-CG-CD1	8.12	125.87	121.00
78	CA	303	U	O4'-C1'-C2'	-8.12	97.68	105.80
78	CA	1475	A	O4'-C1'-C2'	-8.12	97.68	105.80
74	BQ	198	TYR	N-CA-CB	8.12	125.22	110.60
81	DA	1576	G	O5'-C5'-C4'	8.12	127.13	111.70
81	DA	2616	C	C3'-C2'-C1'	8.12	107.99	101.50
2	AA	113	ARG	NE-CZ-NH1	8.12	124.36	120.30
81	DA	2535	A	O4'-C1'-N9	8.12	114.69	108.20
16	AO	109	LYS	CB-CA-C	8.11	126.62	110.40
43	BP	17	ASP	CB-CG-OD2	-8.11	111.00	118.30
78	CA	61	A	C3'-C2'-C1'	8.11	107.99	101.50
81	DA	681	U	C3'-C2'-C1'	8.11	107.99	101.50
81	DA	1437	C	C1'-O4'-C4'	8.11	116.39	109.90
81	DA	2376	G	O4'-C1'-C2'	-8.11	97.69	105.80
81	DA	2431	C	C3'-C2'-C1'	8.11	107.99	101.50
16	AO	106	ARG	NE-CZ-NH1	8.11	124.36	120.30
17	AQ	33	ARG	NE-CZ-NH2	-8.11	116.25	120.30
78	CA	1473	U	C1'-O4'-C4'	8.11	116.39	109.90
81	DA	311	C	O4'-C1'-C2'	-8.11	97.69	105.80
81	DA	498	A	C3'-C2'-C1'	8.11	107.99	101.50
81	DA	2241	U	P-O3'-C3'	8.11	129.43	119.70
82	DB	112	U	O4'-C1'-N1	8.11	114.69	108.20
81	DA	2279	A	O5'-C5'-C4'	8.11	127.11	111.70
5	AC	16	LYS	CA-CB-CG	8.11	131.24	113.40
67	Bp	34	CYS	O-C-N	-8.11	109.73	122.70
81	DA	49	A	N9-C1'-C2'	-8.11	103.08	112.00
83	DC	77	A	O4'-C1'-C2'	-8.11	97.69	105.80
47	BU	135	PRO	N-CA-CB	8.10	113.02	103.30
76	BS	165	LEU	CB-CG-CD2	8.10	124.78	111.00
81	DA	2564	G	N1-C6-O6	8.10	124.76	119.90
81	DA	3061	G	P-O5'-C5'	8.10	133.87	120.90
65	Bn	36	LYS	N-CA-C	-8.10	89.12	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1649	G	C1'-O4'-C4'	8.10	116.38	109.90
78	CA	1689	A	P-O3'-C3'	8.10	129.42	119.70
78	CA	363	G	O4'-C1'-N9	8.10	114.68	108.20
78	CA	568	G	N1-C6-O6	8.10	124.76	119.90
81	DA	2498	U	N1-C1'-C2'	-8.10	103.09	112.00
78	CA	1522	U	P-O3'-C3'	8.10	129.42	119.70
81	DA	1547	G	C3'-C2'-C1'	8.10	107.98	101.50
81	DA	2444	C	O4'-C1'-C2'	-8.10	97.70	105.80
81	DA	2914	G	O4'-C1'-N9	8.10	114.68	108.20
8	AF	35	GLN	CA-C-O	-8.10	103.10	120.10
78	CA	1149	G	N9-C1'-C2'	8.10	124.52	114.00
81	DA	217	U	O4'-C1'-N1	8.10	114.68	108.20
81	DA	2914	G	OP1-P-OP2	-8.10	107.46	119.60
81	DA	1948	G	C5'-C4'-O4'	-8.09	99.39	109.10
1	Aa	86	ASP	CB-CG-OD1	8.09	125.58	118.30
39	BJ	59	THR	N-CA-CB	8.09	125.67	110.30
61	Bj	37	THR	CA-C-N	8.09	139.76	117.10
74	BQ	158	ARG	CD-NE-CZ	8.09	134.93	123.60
78	CA	852	C	O4'-C1'-C2'	-8.09	97.71	105.80
81	DA	1790	G	P-O5'-C5'	8.09	133.85	120.90
78	CA	368	U	C1'-O4'-C4'	-8.09	103.43	109.90
78	CA	683	C	C5'-C4'-O4'	-8.09	99.39	109.10
78	CA	1010	C	O4'-C1'-N1	-8.09	101.73	108.20
78	CA	1051	G	N1-C6-O6	8.09	124.75	119.90
81	DA	1563	C	O4'-C1'-C2'	-8.09	97.71	105.80
22	AV	104	ALA	CA-C-O	-8.09	103.12	120.10
33	BD	103	THR	N-CA-CB	8.09	125.67	110.30
81	DA	2533	G	N1-C6-O6	8.09	124.75	119.90
78	CA	507	U	O4'-C1'-N1	8.08	114.67	108.20
82	DB	37	A	C1'-O4'-C4'	8.08	116.37	109.90
46	BT	98	ARG	NE-CZ-NH1	-8.08	116.26	120.30
78	CA	117	U	O4'-C1'-N1	8.08	114.66	108.20
78	CA	1029	U	O4'-C1'-N1	8.08	114.66	108.20
81	DA	3240	C	C1'-O4'-C4'	-8.08	103.44	109.90
81	DA	3365	U	P-O3'-C3'	8.08	129.40	119.70
81	DA	18	G	O4'-C1'-N9	8.08	114.66	108.20
81	DA	3053	G	O4'-C1'-N9	8.08	114.66	108.20
74	BQ	55	PHE	C-N-CA	8.08	141.89	121.70
78	CA	1541	G	O4'-C1'-N9	-8.08	101.74	108.20
81	DA	664	U	C3'-C2'-C1'	-8.07	95.04	101.50
81	DA	3142	A	P-O3'-C3'	8.07	129.39	119.70
81	DA	1010	G	P-O3'-C3'	8.07	129.38	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AO	106	ARG	CB-CA-C	-8.07	94.27	110.40
81	DA	2240	G	O4'-C1'-N9	8.07	114.65	108.20
58	Bg	91	SER	CB-CA-C	-8.07	94.77	110.10
74	BQ	197	SER	CB-CA-C	8.07	125.43	110.10
78	CA	504	U	O4'-C1'-N1	8.07	114.65	108.20
79	CB	16	U	P-O3'-C3'	8.07	129.38	119.70
81	DA	2455	U	O4'-C1'-C2'	-8.07	97.73	105.80
83	DC	57	C	O4'-C1'-C2'	-8.06	97.73	105.80
6	AE	82	ASN	N-CA-CB	8.06	125.11	110.60
72	Bt	36	PRO	CA-N-CD	-8.06	100.21	111.50
78	CA	1735	U	O5'-C5'-C4'	8.06	127.02	111.70
81	DA	14	U	O4'-C1'-N1	8.06	114.65	108.20
81	DA	200	C	O4'-C1'-C2'	-8.06	97.73	105.80
81	DA	342	A	O4'-C1'-N9	8.06	114.65	108.20
82	DB	151	C	C5'-C4'-C3'	-8.06	103.10	116.00
81	DA	241	G	P-O5'-C5'	8.06	133.80	120.90
81	DA	737	G	N1-C6-O6	8.06	124.74	119.90
81	DA	788	C	P-O3'-C3'	8.06	129.38	119.70
58	Bg	93	VAL	C-N-CA	8.06	141.85	121.70
81	DA	1833	G	O4'-C1'-N9	8.06	114.65	108.20
82	DB	132	G	C1'-O4'-C4'	8.06	116.35	109.90
78	CA	1680	G	C1'-O4'-C4'	8.06	116.34	109.90
81	DA	177	U	C4'-C3'-C2'	-8.06	94.54	102.60
81	DA	3085	G	O4'-C1'-N9	8.06	114.64	108.20
5	AC	175	ARG	NE-CZ-NH1	-8.05	116.27	120.30
47	BU	84	TYR	CB-CG-CD2	-8.06	116.17	121.00
81	DA	202	G	N9-C1'-C2'	8.05	124.47	114.00
82	DB	127	U	N1-C1'-C2'	8.06	124.47	114.00
53	Ba	44	ALA	C-N-CA	-8.05	105.39	122.30
78	CA	1241	G	O4'-C1'-C2'	-8.05	97.75	105.80
78	CA	1428	G	N1-C6-O6	8.05	124.73	119.90
83	DC	28	C	O4'-C1'-N1	8.05	114.64	108.20
81	DA	2487	U	N1-C1'-C2'	-8.05	103.14	112.00
33	BD	328	ASN	C-N-CD	-8.05	102.89	120.60
78	CA	146	U	C3'-C2'-C1'	8.05	107.94	101.50
81	DA	837	A	O4'-C1'-N9	8.05	114.64	108.20
81	DA	2503	G	O3'-P-O5'	-8.05	88.71	104.00
81	DA	3148	U	O4'-C1'-C2'	-8.05	97.75	105.80
4	AD	240	LYS	C-N-CA	-8.05	105.40	122.30
35	BG	163	PHE	CB-CG-CD2	-8.04	115.17	120.80
76	BS	52	LYS	N-CA-C	8.05	132.72	111.00
78	CA	12	U	O4'-C1'-N1	8.04	114.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	570	A	O4'-C1'-N9	8.04	114.64	108.20
78	CA	839	U	N1-C1'-C2'	-8.05	103.15	112.00
78	CA	1431	C	O4'-C1'-N1	8.04	114.64	108.20
81	DA	40	A	O4'-C1'-N9	8.04	114.64	108.20
81	DA	2408	U	C1'-O4'-C4'	-8.04	103.47	109.90
81	DA	3151	U	C1'-O4'-C4'	8.04	116.34	109.90
43	BP	16	SER	CA-C-O	-8.04	103.21	120.10
72	Bu	36	PRO	CA-N-CD	-8.04	100.24	111.50
77	BI	111	LEU	CB-CA-C	-8.04	94.92	110.20
78	CA	638	U	O4'-C1'-N1	8.04	114.63	108.20
78	CA	684	A	C4'-C3'-C2'	-8.04	94.56	102.60
81	DA	1816	A	O4'-C1'-N9	8.04	114.63	108.20
81	DA	1856	C	C3'-C2'-C1'	8.04	107.93	101.50
81	DA	2216	G	P-O3'-C3'	8.04	129.34	119.70
81	DA	2303	A	O4'-C1'-N9	8.04	114.63	108.20
81	DA	2010	U	O4'-C1'-N1	8.04	114.63	108.20
81	DA	2998	U	C1'-O4'-C4'	8.04	116.33	109.90
82	DB	98	U	C4'-C3'-C2'	8.04	110.64	102.60
81	DA	2823	G	O4'-C1'-N9	8.03	114.63	108.20
83	DC	18	C	C4'-C3'-C2'	-8.03	94.57	102.60
37	BH	226	TYR	CB-CG-CD1	-8.03	116.18	121.00
81	DA	1653	G	C3'-C2'-C1'	8.03	107.92	101.50
81	DA	2136	C	C3'-C2'-C1'	8.03	107.92	101.50
2	AA	5	ALA	CA-C-N	8.03	134.86	117.20
78	CA	942	G	O4'-C1'-N9	8.03	114.62	108.20
78	CA	1794	A	C1'-O4'-C4'	8.03	116.32	109.90
81	DA	1082	U	O4'-C1'-C2'	-8.03	97.77	105.80
81	DA	2964	G	O4'-C1'-N9	8.03	114.62	108.20
81	DA	3047	U	O4'-C1'-N1	8.03	114.62	108.20
81	DA	3325	G	N9-C1'-C2'	-8.03	103.17	112.00
81	DA	966	U	O4'-C1'-N1	8.03	114.62	108.20
81	DA	2989	U	O5'-P-OP2	-8.03	98.48	105.70
37	BH	223	ALA	N-CA-CB	-8.02	98.87	110.10
81	DA	675	C	P-O3'-C3'	8.02	129.33	119.70
81	DA	2541	U	O4'-C1'-N1	8.02	114.62	108.20
20	AS	53	TRP	CB-CG-CD1	-8.02	116.57	127.00
78	CA	660	G	O4'-C4'-C3'	-8.02	95.98	104.00
78	CA	1783	C	O3'-P-O5'	-8.02	88.76	104.00
81	DA	977	C	O4'-C1'-N1	8.02	114.62	108.20
81	DA	1391	C	O4'-C4'-C3'	-8.02	95.98	104.00
81	DA	1761	C	O4'-C1'-N1	8.02	114.62	108.20
81	DA	2323	G	O4'-C1'-C2'	-8.02	97.78	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1109	U	C1'-O4'-C4'	8.02	116.31	109.90
81	DA	1420	C	N1-C1'-C2'	8.02	124.42	114.00
78	CA	1342	C	C5'-C4'-C3'	8.02	128.82	116.00
81	DA	1725	C	N1-C1'-C2'	8.01	124.42	114.00
81	DA	941	G	O4'-C1'-N9	8.01	114.61	108.20
2	AA	252	TRP	CD1-CG-CD2	-8.01	99.89	106.30
49	BV	100	ALA	N-CA-CB	8.01	121.31	110.10
78	CA	480	G	O4'-C1'-N9	8.01	114.61	108.20
81	DA	316	U	N1-C1'-C2'	-8.01	103.19	112.00
81	DA	779	G	C4'-C3'-C2'	-8.01	94.59	102.60
81	DA	2351	U	O4'-C1'-N1	8.01	114.61	108.20
81	DA	2506	U	P-O3'-C3'	-8.01	110.09	119.70
81	DA	251	G	P-O5'-C5'	-8.01	108.09	120.90
81	DA	1049	C	P-O5'-C5'	8.01	133.71	120.90
81	DA	3288	G	O4'-C1'-N9	8.01	114.60	108.20
67	Bp	41	HIS	CA-CB-CG	8.00	127.20	113.60
81	DA	1090	G	O4'-C1'-N9	8.00	114.60	108.20
81	DA	2271	A	C1'-O4'-C4'	8.00	116.30	109.90
81	DA	3122	A	P-O3'-C3'	8.00	129.30	119.70
43	BP	17	ASP	CB-CG-OD1	8.00	125.50	118.30
59	Bh	13	HIS	CB-CA-C	8.00	126.40	110.40
81	DA	3333	G	C1'-O4'-C4'	-8.00	103.50	109.90
5	AC	95	TYR	CG-CD1-CE1	-8.00	114.90	121.30
78	CA	1297	G	N9-C1'-C2'	-8.00	103.20	112.00
78	CA	1700	C	C3'-C2'-C1'	8.00	107.90	101.50
81	DA	2115	G	N9-C1'-C2'	8.00	124.40	114.00
81	DA	2181	C	C5'-C4'-O4'	-8.00	99.50	109.10
81	DA	3295	A	C5'-C4'-C3'	-8.00	103.20	116.00
83	DC	100	A	O3'-P-O5'	-8.00	88.80	104.00
78	CA	670	U	P-O3'-C3'	8.00	129.29	119.70
78	CA	988	A	C3'-C2'-C1'	7.99	107.89	101.50
81	DA	3164	C	O4'-C1'-N1	7.99	114.59	108.20
83	DC	74	A	O4'-C1'-N9	7.99	114.59	108.20
78	CA	684	A	C1'-O4'-C4'	-7.99	103.51	109.90
81	DA	2072	G	C4'-C3'-C2'	-7.99	94.61	102.60
21	AT	54	ALA	C-N-CA	7.99	141.67	121.70
39	BJ	75	PRO	CA-C-N	7.99	134.78	117.20
51	BZ	67	VAL	N-CA-CB	7.99	129.07	111.50
81	DA	186	U	C1'-O4'-C4'	7.99	116.29	109.90
81	DA	2486	A	C5'-C4'-C3'	7.99	128.78	116.00
81	DA	2545	C	O4'-C1'-N1	7.99	114.59	108.20
81	DA	984	G	C1'-O4'-C4'	7.99	116.29	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1161	C	N1-C1'-C2'	7.99	124.38	114.00
62	Bk	81	THR	CB-CA-C	-7.98	90.04	111.60
78	CA	1560	U	C3'-C2'-C1'	7.98	107.89	101.50
81	DA	3361	G	C5'-C4'-O4'	7.98	118.68	109.10
9	AH	57	ARG	N-CA-CB	7.98	124.97	110.60
81	DA	541	U	N1-C1'-C2'	-7.98	103.22	112.00
82	DB	97	A	C5'-C4'-C3'	7.98	128.77	116.00
43	BP	172	ARG	NE-CZ-NH2	-7.98	116.31	120.30
78	CA	1399	C	O4'-C1'-N1	-7.98	101.82	108.20
40	BK	57	PHE	CB-CG-CD1	7.98	126.38	120.80
72	Bu	60	ASN	N-CA-CB	-7.98	96.24	110.60
78	CA	1267	G	N9-C1'-C2'	7.98	124.37	114.00
78	CA	1300	A	O4'-C1'-N9	7.98	114.58	108.20
78	CA	1437	U	C5'-C4'-O4'	-7.98	99.53	109.10
81	DA	2253	G	O4'-C1'-C2'	7.98	114.78	107.60
65	Bn	17	ARG	NE-CZ-NH2	-7.98	116.31	120.30
5	AC	164	PHE	N-CA-C	-7.97	89.47	111.00
31	BB	35	ALA	CB-CA-C	7.97	122.06	110.10
74	BQ	130	GLU	N-CA-CB	7.97	124.95	110.60
81	DA	1667	A	O4'-C1'-C2'	-7.97	97.83	105.80
81	DA	2175	U	O4'-C1'-C2'	-7.97	97.83	105.80
81	DA	2415	C	C4'-C3'-C2'	-7.97	94.63	102.60
65	Bn	71	PRO	N-CA-CB	7.97	112.87	103.30
81	DA	3113	A	O4'-C1'-N9	-7.97	101.82	108.20
74	BQ	107	ARG	NE-CZ-NH2	-7.97	116.31	120.30
78	CA	285	G	C1'-O4'-C4'	-7.97	103.52	109.90
78	CA	506	A	N1-C6-N6	7.97	123.38	118.60
81	DA	1855	U	O4'-C1'-N1	7.97	114.58	108.20
36	BF	186	PHE	CB-CG-CD2	7.97	126.38	120.80
78	CA	1507	G	O4'-C1'-N9	7.97	114.58	108.20
81	DA	2988	C	C5'-C4'-C3'	7.97	128.75	116.00
20	AS	52	GLY	CA-C-N	-7.97	99.67	117.20
35	BG	169	ASP	CA-CB-CG	-7.97	95.87	113.40
81	DA	773	G	P-O5'-C5'	7.97	133.65	120.90
5	AC	157	ASP	N-CA-CB	-7.97	96.26	110.60
78	CA	559	C	O4'-C1'-N1	7.97	114.57	108.20
78	CA	1477	G	P-O3'-C3'	-7.97	110.14	119.70
81	DA	1130	A	P-O3'-C3'	7.97	129.26	119.70
81	DA	1149	G	O4'-C1'-N9	7.97	114.57	108.20
81	DA	2563	G	N1-C6-O6	7.97	124.68	119.90
81	DA	3037	U	O4'-C1'-N1	7.97	114.57	108.20
81	DA	3100	U	C5'-C4'-C3'	7.97	128.75	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3212	C	P-O5'-C5'	-7.97	108.15	120.90
78	CA	1003	A	N9-C1'-C2'	-7.96	103.24	112.00
81	DA	925	A	O4'-C1'-N9	7.96	114.57	108.20
81	DA	932	U	P-O3'-C3'	7.96	129.26	119.70
81	DA	972	A	N9-C1'-C2'	7.96	124.35	114.00
81	DA	1956	A	N9-C1'-C2'	-7.96	103.24	112.00
17	AQ	93	LEU	C-N-CA	-7.96	101.80	121.70
78	CA	591	A	C5'-C4'-C3'	7.96	128.74	116.00
81	DA	1492	G	P-O3'-C3'	7.96	129.25	119.70
81	DA	2050	C	O4'-C1'-C2'	-7.96	97.84	105.80
81	DA	2628	A	N9-C1'-C2'	7.96	124.35	114.00
83	DC	46	A	C3'-C2'-C1'	-7.96	95.13	101.50
34	BE	59	ILE	N-CA-C	7.96	132.49	111.00
81	DA	306	A	O4'-C1'-N9	7.96	114.57	108.20
81	DA	1422	G	O4'-C1'-C2'	7.96	114.76	107.60
34	BE	52	TYR	N-CA-CB	-7.96	96.28	110.60
81	DA	456	U	O4'-C1'-N1	7.96	114.57	108.20
81	DA	674	G	C5'-C4'-C3'	-7.96	103.27	116.00
81	DA	2174	G	C4'-C3'-O3'	7.96	128.91	113.00
81	DA	3193	C	P-O5'-C5'	7.96	133.63	120.90
81	DA	3344	A	N9-C1'-C2'	-7.96	103.25	112.00
76	BS	70	ASN	CA-C-N	7.95	139.37	117.10
81	DA	1575	A	C4'-C3'-C2'	-7.95	94.65	102.60
81	DA	1867	A	C1'-O4'-C4'	7.95	116.26	109.90
53	Ba	10	VAL	CB-CA-C	-7.95	96.29	111.40
78	CA	613	G	C1'-O4'-C4'	7.95	116.26	109.90
81	DA	938	C	O4'-C1'-N1	7.95	114.56	108.20
78	CA	388	G	O4'-C1'-N9	7.95	114.56	108.20
78	CA	1191	U	C3'-C2'-C1'	-7.95	95.14	101.50
78	CA	942	G	N9-C1'-C2'	7.95	124.33	114.00
81	DA	884	A	N9-C1'-C2'	-7.95	103.26	112.00
16	AO	42	ARG	C-N-CA	7.94	141.56	121.70
81	DA	27	C	C3'-C2'-C1'	7.94	107.86	101.50
81	DA	3249	C	C1'-O4'-C4'	-7.94	103.55	109.90
78	CA	1496	U	O4'-C1'-N1	7.94	114.56	108.20
81	DA	1076	C	C1'-O4'-C4'	-7.94	103.55	109.90
81	DA	1509	A	N9-C1'-C2'	7.94	124.33	114.00
81	DA	1576	G	C5'-C4'-C3'	7.94	128.71	116.00
81	DA	2800	G	C3'-C2'-C1'	7.94	107.85	101.50
34	BE	61	ARG	CA-C-N	7.94	134.67	117.20
40	BK	130	LYS	CA-C-N	7.94	139.33	117.10
78	CA	280	U	O4'-C1'-N1	-7.94	101.85	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	326	G	P-O3'-C3'	-7.94	110.17	119.70
81	DA	2442	G	O4'-C1'-C2'	-7.94	97.86	105.80
81	DA	2916	U	C3'-C2'-C1'	7.94	107.85	101.50
81	DA	3295	A	OP1-P-OP2	-7.94	107.69	119.60
81	DA	982	C	P-O3'-C3'	7.94	129.23	119.70
35	BG	143	LYS	N-CA-CB	7.94	124.89	110.60
81	DA	2045	G	O4'-C1'-N9	7.94	114.55	108.20
81	DA	2345	A	N9-C1'-C2'	7.94	124.32	114.00
81	DA	635	G	C3'-C2'-C1'	-7.94	95.15	101.50
78	CA	730	G	C5'-C4'-C3'	7.93	128.69	116.00
81	DA	3145	C	P-O5'-C5'	7.93	133.60	120.90
78	CA	1665	U	P-O3'-C3'	-7.93	110.18	119.70
82	DB	6	U	N1-C1'-C2'	7.93	124.31	114.00
3	AB	205	ALA	N-CA-C	-7.93	89.59	111.00
78	CA	401	A	O4'-C1'-C2'	-7.93	97.87	105.80
78	CA	1677	C	P-O5'-C5'	7.93	133.59	120.90
81	DA	510	G	N9-C1'-C2'	7.93	124.31	114.00
81	DA	1495	U	O4'-C1'-N1	7.93	114.54	108.20
5	AC	26	ALA	N-CA-CB	7.93	121.20	110.10
81	DA	2230	C	C3'-C2'-C1'	7.93	107.84	101.50
82	DB	98	U	P-O3'-C3'	-7.93	110.19	119.70
78	CA	637	C	C1'-O4'-C4'	7.93	116.24	109.90
78	CA	1638	G	N1-C6-O6	7.93	124.66	119.90
80	CC	16	G	N9-C1'-C2'	-7.93	103.28	112.00
81	DA	436	A	P-O3'-C3'	7.93	129.21	119.70
42	BM	94	TYR	CB-CG-CD2	7.92	125.75	121.00
81	DA	238	A	O4'-C1'-C2'	-7.92	97.88	105.80
83	DC	55	A	C1'-O4'-C4'	7.92	116.24	109.90
45	BR	155	MET	N-CA-CB	7.92	124.86	110.60
74	BQ	15	ARG	NE-CZ-NH2	7.92	124.26	120.30
81	DA	181	U	P-O5'-C5'	-7.92	108.23	120.90
81	DA	2044	U	P-O3'-C3'	7.92	129.20	119.70
81	DA	2229	A	P-O5'-C5'	7.92	133.57	120.90
60	Bi	41	ARG	O-C-N	-7.92	106.06	121.10
78	CA	171	A	N9-C1'-C2'	-7.92	103.29	112.00
81	DA	1611	G	O4'-C1'-N9	7.92	114.54	108.20
81	DA	2462	A	O3'-P-O5'	-7.92	88.95	104.00
83	DC	10	C	O4'-C1'-N1	7.92	114.53	108.20
81	DA	930	U	O4'-C1'-N1	7.92	114.53	108.20
81	DA	2506	U	P-O5'-C5'	7.92	133.56	120.90
76	BS	6	PHE	CB-CG-CD2	-7.91	115.26	120.80
81	DA	501	A	O4'-C1'-N9	7.91	114.53	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1199	C	N1-C1'-C2'	7.91	124.29	114.00
81	DA	2187	G	O4'-C1'-C2'	-7.91	97.89	105.80
83	DC	116	U	P-O3'-C3'	7.91	129.20	119.70
56	Bf	59	TYR	CB-CG-CD1	7.91	125.75	121.00
81	DA	2253	G	C3'-C2'-C1'	-7.91	95.17	101.50
81	DA	2886	U	P-O3'-C3'	7.91	129.19	119.70
81	DA	2249	G	O4'-C1'-N9	7.91	114.53	108.20
17	AQ	82	ASP	CB-CA-C	-7.91	94.59	110.40
40	BK	135	TYR	CB-CG-CD2	-7.91	116.26	121.00
78	CA	305	C	C3'-C2'-C1'	7.91	107.82	101.50
81	DA	463	C	C3'-C2'-C1'	7.91	107.83	101.50
81	DA	2358	A	O4'-C1'-N9	7.91	114.52	108.20
82	DB	59	A	O4'-C1'-N9	7.91	114.52	108.20
82	DB	64	U	O4'-C1'-N1	7.91	114.53	108.20
60	Bi	60	ARG	NE-CZ-NH2	-7.90	116.35	120.30
81	DA	624	G	N9-C1'-C2'	7.90	124.27	114.00
78	CA	1241	G	N9-C1'-C2'	-7.90	103.31	112.00
78	CA	1684	U	O4'-C1'-N1	7.90	114.52	108.20
81	DA	607	A	C4'-C3'-C2'	-7.90	94.70	102.60
81	DA	2625	C	O4'-C1'-N1	-7.90	101.88	108.20
78	CA	1764	C	C3'-C2'-C1'	7.90	107.82	101.50
64	Bl	63	ARG	N-CA-CB	7.90	124.81	110.60
81	DA	1203	A	C1'-O4'-C4'	-7.90	103.58	109.90
81	DA	1989	U	O3'-P-O5'	7.90	119.00	104.00
4	AD	221	ARG	N-CA-CB	7.89	124.81	110.60
78	CA	288	A	O3'-P-O5'	-7.89	89.00	104.00
81	DA	2886	U	C1'-O4'-C4'	7.89	116.22	109.90
2	AA	6	THR	O-C-N	-7.89	110.07	122.70
78	CA	768	C	P-O3'-C3'	7.89	129.17	119.70
78	CA	277	U	O4'-C1'-N1	7.89	114.51	108.20
81	DA	2704	A	O4'-C1'-N9	7.89	114.51	108.20
43	BP	175	ASN	O-C-N	-7.89	110.08	122.70
81	DA	1812	G	O4'-C1'-N9	7.89	114.51	108.20
81	DA	2406	C	C5'-C4'-O4'	-7.89	99.63	109.10
81	DA	3144	G	P-O3'-C3'	7.89	129.17	119.70
8	AF	28	PRO	N-CD-CG	7.89	115.03	103.20
78	CA	1339	C	C5'-C4'-O4'	7.89	118.57	109.10
74	BQ	242	SER	CB-CA-C	7.89	125.08	110.10
81	DA	529	A	C3'-C2'-C1'	7.89	107.81	101.50
1	Aa	10	ARG	NE-CZ-NH1	7.88	124.24	120.30
6	AE	174	ARG	C-N-CA	-7.88	105.74	122.30
16	AO	112	LYS	CB-CA-C	-7.88	94.63	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	331	ALA	N-CA-CB	-7.88	99.06	110.10
81	DA	799	G	C3'-C2'-C1'	7.88	107.81	101.50
81	DA	2172	A	C5'-C4'-O4'	7.88	118.56	109.10
81	DA	3058	U	C5'-C4'-C3'	7.88	128.62	116.00
78	CA	1601	G	O4'-C1'-C2'	7.88	114.69	107.60
81	DA	207	U	O4'-C1'-N1	7.88	114.50	108.20
81	DA	1563	C	C5'-C4'-O4'	7.88	118.56	109.10
81	DA	2175	U	C4'-C3'-C2'	-7.88	94.72	102.60
81	DA	3334	U	C1'-O4'-C4'	7.88	116.21	109.90
35	BG	148	GLU	CB-CA-C	7.88	126.16	110.40
78	CA	1295	G	C3'-C2'-C1'	-7.88	95.20	101.50
81	DA	1177	G	N9-C1'-C2'	7.88	124.24	114.00
78	CA	662	U	O4'-C1'-N1	7.88	114.50	108.20
81	DA	1230	G	P-O3'-C3'	7.88	129.15	119.70
81	DA	1976	G	O4'-C1'-C2'	7.88	114.69	107.60
33	BD	29	PRO	O-C-N	-7.88	110.10	122.70
81	DA	984	G	P-O3'-C3'	7.88	129.15	119.70
78	CA	367	A	O4'-C1'-N9	7.88	114.50	108.20
78	CA	1002	G	O4'-C1'-N9	7.88	114.50	108.20
78	CA	1600	A	P-O3'-C3'	7.88	129.15	119.70
81	DA	1208	U	N1-C1'-C2'	-7.88	103.34	112.00
81	DA	1391	C	C5'-C4'-O4'	-7.88	99.65	109.10
46	BT	35	ALA	N-CA-CB	7.87	121.12	110.10
81	DA	1216	C	O4'-C1'-N1	7.87	114.50	108.20
81	DA	3283	U	O3'-P-O5'	-7.87	89.04	104.00
14	AM	141	THR	N-CA-CB	7.87	125.26	110.30
18	AP	82	ARG	NE-CZ-NH1	7.87	124.23	120.30
20	AS	63	ARG	NE-CZ-NH1	-7.87	116.36	120.30
81	DA	352	A	N9-C1'-C2'	-7.87	103.34	112.00
43	BP	21	PHE	CB-CG-CD2	-7.87	115.29	120.80
81	DA	791	A	O3'-P-O5'	-7.87	89.05	104.00
81	DA	1347	U	O4'-C1'-N1	7.87	114.50	108.20
81	DA	1549	U	O4'-C1'-N1	7.87	114.50	108.20
81	DA	2511	A	C4'-C3'-C2'	-7.87	94.73	102.60
22	AV	105	THR	CA-C-N	7.87	134.51	117.20
31	BB	246	LEU	N-CA-CB	7.87	126.14	110.40
38	Bs	222	SER	CA-CB-OG	7.87	132.44	111.20
81	DA	346	C	C3'-C2'-C1'	7.87	107.80	101.50
81	DA	552	G	O4'-C1'-N9	7.87	114.50	108.20
81	DA	1949	G	P-O3'-C3'	7.87	129.14	119.70
81	DA	2901	G	C1'-O4'-C4'	-7.87	103.61	109.90
81	DA	1036	A	O4'-C1'-N9	7.87	114.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1722	U	O4'-C1'-N1	7.87	114.49	108.20
60	Bi	62	TYR	CB-CG-CD2	7.86	125.72	121.00
81	DA	89	A	O4'-C1'-C2'	-7.86	97.94	105.80
81	DA	249	U	O4'-C4'-C3'	-7.86	96.14	104.00
78	CA	30	G	O4'-C4'-C3'	-7.86	96.14	104.00
81	DA	747	A	O4'-C1'-N9	7.86	114.49	108.20
81	DA	2604	U	O4'-C1'-N1	7.86	114.49	108.20
81	DA	2997	G	P-O3'-C3'	7.86	129.13	119.70
81	DA	3091	A	O5'-C5'-C4'	7.86	126.63	111.70
78	CA	603	U	O4'-C1'-N1	7.86	114.49	108.20
11	AJ	85	ARG	N-CA-CB	7.86	124.74	110.60
37	BH	227	ASP	CB-CG-OD1	-7.86	111.23	118.30
43	BP	74	PRO	CB-CA-C	-7.86	92.36	112.00
78	CA	1274	C	C2-N1-C1'	7.86	127.44	118.80
81	DA	572	A	O3'-P-O5'	-7.86	89.07	104.00
82	DB	37	A	N9-C1'-C2'	-7.86	103.36	112.00
78	CA	160	C	P-O3'-C3'	7.85	129.12	119.70
81	DA	1467	A	O4'-C1'-C2'	-7.85	97.95	105.80
78	CA	1761	U	C3'-C2'-C1'	7.85	107.78	101.50
81	DA	255	A	O4'-C1'-N9	7.85	114.48	108.20
20	AS	55	TYR	CB-CG-CD1	7.85	125.71	121.00
78	CA	1239	U	O4'-C1'-N1	7.85	114.48	108.20
81	DA	263	C	C4'-C3'-C2'	-7.85	94.75	102.60
81	DA	1400	G	C3'-C2'-C1'	-7.85	95.22	101.50
22	AV	29	LYS	CB-CA-C	7.85	126.09	110.40
81	DA	521	A	C4'-C3'-C2'	-7.85	94.75	102.60
81	DA	2338	C	P-O3'-C3'	7.85	129.12	119.70
9	AH	87	GLU	N-CA-CB	7.84	124.72	110.60
30	BA	54	LYS	N-CA-CB	7.84	124.72	110.60
81	DA	1364	C	C5'-C4'-C3'	7.84	128.55	116.00
81	DA	3325	G	C5'-C4'-O4'	-7.84	99.69	109.10
81	DA	248	U	C2'-C3'-O3'	7.84	126.75	109.50
81	DA	838	G	O4'-C1'-C2'	7.84	114.66	107.60
17	AQ	19	ARG	NE-CZ-NH2	-7.84	116.38	120.30
32	BC	314	TYR	CB-CG-CD1	-7.84	116.30	121.00
35	BG	4	GLN	N-CA-CB	7.84	124.72	110.60
81	DA	2476	C	P-O3'-C3'	7.84	129.11	119.70
34	BE	52	TYR	CB-CA-C	-7.84	94.72	110.40
78	CA	869	A	C1'-O4'-C4'	-7.84	103.63	109.90
81	DA	305	U	O4'-C1'-N1	7.84	114.47	108.20
78	CA	928	U	N1-C1'-C2'	-7.84	103.38	112.00
81	DA	2689	A	N9-C1'-C2'	7.84	124.19	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	107	G	N9-C1'-C2'	-7.84	103.38	112.00
35	BG	13	GLU	C-N-CA	7.84	141.29	121.70
78	CA	267	U	C1'-O4'-C4'	7.84	116.17	109.90
40	BK	4	GLU	C-N-CD	-7.83	103.37	120.60
81	DA	1638	A	C3'-C2'-C1'	-7.83	95.23	101.50
81	DA	2248	C	N1-C1'-C2'	7.83	124.18	114.00
82	DB	106	C	N1-C1'-C2'	7.83	124.18	114.00
15	AN	40	ARG	NE-CZ-NH2	7.83	124.22	120.30
78	CA	172	C	O4'-C1'-C2'	-7.83	97.97	105.80
81	DA	1725	C	O4'-C1'-C2'	-7.83	97.97	105.80
78	CA	490	C	O4'-C1'-N1	7.83	114.46	108.20
78	CA	843	U	O4'-C1'-N1	7.83	114.46	108.20
81	DA	1128	U	C1'-O4'-C4'	-7.83	103.64	109.90
81	DA	1294	A	O4'-C1'-N9	7.83	114.46	108.20
81	DA	2874	G	C1'-O4'-C4'	-7.83	103.64	109.90
81	DA	1539	A	P-O3'-C3'	7.83	129.09	119.70
81	DA	2264	U	O4'-C1'-C2'	-7.83	97.97	105.80
81	DA	2422	C	N1-C1'-C2'	7.83	124.17	114.00
81	DA	311	C	P-O3'-C3'	-7.83	110.31	119.70
81	DA	1234	G	O4'-C1'-N9	7.83	114.46	108.20
81	DA	2767	U	O4'-C1'-N1	7.83	114.46	108.20
35	BG	96	VAL	CB-CA-C	-7.82	96.53	111.40
55	Bc	48	ARG	NE-CZ-NH2	-7.82	116.39	120.30
81	DA	995	U	O4'-C1'-C2'	-7.82	97.98	105.80
81	DA	1265	U	N1-C1'-C2'	7.82	124.17	114.00
81	DA	1670	C	O4'-C1'-N1	7.82	114.46	108.20
81	DA	1713	G	N9-C1'-C2'	7.82	124.17	114.00
81	DA	3396	U	O4'-C1'-N1	7.82	114.46	108.20
78	CA	1394	G	O4'-C4'-C3'	7.82	112.36	106.10
36	BF	42	ASP	CB-CG-OD2	-7.82	111.26	118.30
40	BK	180	SER	C-N-CA	-7.82	102.15	121.70
78	CA	1085	G	C3'-C2'-C1'	-7.82	95.25	101.50
78	CA	1355	C	O4'-C1'-C2'	-7.82	97.98	105.80
78	CA	1733	C	C3'-C2'-C1'	7.82	107.75	101.50
81	DA	896	A	O4'-C1'-N9	7.82	114.45	108.20
47	BU	8	ARG	N-CA-CB	7.82	124.67	110.60
81	DA	430	U	N1-C1'-C2'	7.82	124.16	114.00
81	DA	1114	U	C4'-C3'-C2'	-7.82	94.78	102.60
81	DA	1267	U	O4'-C1'-C2'	-7.82	97.98	105.80
83	DC	17	A	O4'-C1'-N9	-7.82	101.95	108.20
78	CA	61	A	O4'-C1'-C2'	-7.82	97.98	105.80
78	CA	1088	A	N9-C1'-C2'	-7.82	103.40	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	454	C	N1-C1'-C2'	7.82	124.16	114.00
81	DA	748	U	O4'-C1'-N1	7.82	114.45	108.20
81	DA	1649	U	C1'-O4'-C4'	7.82	116.15	109.90
81	DA	1773	C	O4'-C1'-C2'	-7.82	97.98	105.80
81	DA	2789	U	P-O3'-C3'	-7.82	110.32	119.70
83	DC	50	U	N1-C1'-C2'	7.82	124.16	114.00
12	AK	22	SER	CA-C-O	-7.81	103.69	120.10
78	CA	896	U	P-O3'-C3'	7.81	129.08	119.70
78	CA	1299	G	P-O3'-C3'	7.81	129.08	119.70
81	DA	9	U	N1-C1'-C2'	7.81	124.16	114.00
81	DA	854	G	O4'-C1'-N9	7.81	114.45	108.20
61	Bj	65	ARG	NE-CZ-NH1	-7.81	116.39	120.30
78	CA	569	C	O4'-C1'-N1	7.81	114.45	108.20
81	DA	1737	U	O4'-C1'-N1	7.81	114.45	108.20
81	DA	2736	A	C4'-C3'-C2'	-7.81	94.79	102.60
38	Bs	248	ALA	N-CA-C	7.81	132.09	111.00
81	DA	1129	A	P-O3'-C3'	7.81	129.07	119.70
81	DA	1641	U	P-O3'-C3'	7.81	129.07	119.70
81	DA	2952	G	C1'-O4'-C4'	-7.81	103.65	109.90
81	DA	3330	A	OP1-P-OP2	-7.81	107.89	119.60
32	BC	345	ASN	C-N-CA	-7.81	102.18	121.70
81	DA	369	A	N9-C1'-C2'	-7.81	103.41	112.00
81	DA	465	U	O4'-C1'-N1	7.81	114.45	108.20
81	DA	3313	U	C5'-C4'-O4'	7.81	118.47	109.10
32	BC	19	ARG	NE-CZ-NH2	-7.80	116.40	120.30
34	BE	60	ARG	NE-CZ-NH2	-7.80	116.40	120.30
78	CA	54	C	C4'-C3'-C2'	-7.80	94.80	102.60
81	DA	2066	C	C3'-C2'-C1'	7.80	107.74	101.50
81	DA	2673	A	N9-C1'-C2'	7.80	124.14	114.00
34	BE	115	LYS	N-CA-CB	7.80	124.65	110.60
78	CA	851	U	C1'-O4'-C4'	-7.80	103.66	109.90
81	DA	214	G	N9-C1'-C2'	-7.80	103.42	112.00
81	DA	1207	G	O3'-P-O5'	-7.80	89.17	104.00
81	DA	3321	C	O4'-C1'-N1	7.80	114.44	108.20
81	DA	158	G	P-O3'-C3'	-7.80	110.34	119.70
81	DA	2416	U	C1'-O4'-C4'	-7.80	103.66	109.90
15	AN	43	PHE	CB-CG-CD1	7.80	126.26	120.80
74	BQ	236	LEU	N-CA-CB	7.80	126.00	110.40
81	DA	573	C	O4'-C1'-C2'	-7.80	98.00	105.80
81	DA	1819	U	P-O5'-C5'	7.80	133.38	120.90
13	AL	1	MET	N-CA-C	7.80	132.05	111.00
78	CA	1383	G	P-O3'-C3'	7.80	129.06	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	72	C	C5'-C4'-C3'	7.80	128.48	116.00
40	BK	135	TYR	CB-CG-CD1	7.80	125.68	121.00
62	Bk	82	ARG	O-C-N	-7.80	110.23	122.70
81	DA	1869	C	C4'-C3'-C2'	-7.79	94.81	102.60
81	DA	792	G	O4'-C1'-N9	7.79	114.44	108.20
81	DA	2489	C	N1-C1'-C2'	7.79	124.13	114.00
82	DB	140	G	O4'-C1'-N9	7.79	114.44	108.20
33	BD	354	VAL	N-CA-CB	7.79	128.64	111.50
81	DA	406	G	C1'-O4'-C4'	7.79	116.13	109.90
81	DA	2238	G	O5'-C5'-C4'	7.79	126.51	111.70
81	DA	3241	G	C3'-C2'-C1'	7.79	107.73	101.50
50	BX	85	GLN	N-CA-CB	7.79	124.62	110.60
81	DA	1563	C	O4'-C1'-N1	7.79	114.43	108.20
64	Bl	39	TYR	N-CA-C	-7.79	89.97	111.00
81	DA	2079	G	O3'-P-O5'	7.79	118.80	104.00
78	CA	1324	G	C1'-O4'-C4'	-7.79	103.67	109.90
81	DA	2	U	N1-C1'-C2'	-7.79	103.44	112.00
78	CA	496	G	C5-C6-O6	-7.78	123.93	128.60
78	CA	886	U	O4'-C1'-C2'	-7.78	98.02	105.80
81	DA	647	A	C3'-C2'-C1'	7.78	107.73	101.50
81	DA	1420	C	C3'-C2'-C1'	7.78	107.73	101.50
83	DC	48	U	C1'-O4'-C4'	-7.78	103.67	109.90
37	BH	63	LYS	O-C-N	-7.78	110.25	122.70
81	DA	3330	A	P-O3'-C3'	-7.78	110.36	119.70
48	BW	96	VAL	N-CA-C	-7.78	89.99	111.00
74	BQ	198	TYR	CB-CG-CD1	-7.78	116.33	121.00
78	CA	275	C	O4'-C1'-C2'	-7.78	98.02	105.80
78	CA	1736	G	C5'-C4'-C3'	7.78	128.45	116.00
81	DA	2737	C	P-O5'-C5'	7.78	133.35	120.90
81	DA	2858	U	N1-C1'-C2'	7.78	124.11	114.00
78	CA	217	A	N9-C1'-C2'	-7.78	103.44	112.00
78	CA	1233	G	N9-C1'-C2'	-7.78	103.44	112.00
81	DA	309	U	O3'-P-O5'	-7.78	89.22	104.00
81	DA	767	U	O4'-C1'-C2'	-7.78	98.02	105.80
81	DA	1114	U	O4'-C1'-N1	7.78	114.42	108.20
81	DA	1890	U	P-O3'-C3'	7.78	129.03	119.70
78	CA	1500	C	O4'-C1'-N1	7.78	114.42	108.20
81	DA	2721	A	O4'-C1'-N9	-7.78	101.98	108.20
82	DB	120	C	O4'-C1'-C2'	-7.78	98.02	105.80
78	CA	395	U	O4'-C1'-N1	7.77	114.42	108.20
56	Bf	68	TYR	CB-CG-CD2	-7.77	116.34	121.00
78	CA	64	U	O4'-C1'-N1	7.77	114.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2864	A	O4'-C1'-N9	7.77	114.42	108.20
81	DA	2507	C	C5'-C4'-C3'	-7.77	103.57	116.00
32	BC	360	ASP	CB-CA-C	-7.77	94.87	110.40
79	CB	12	U	C4'-C3'-C2'	-7.77	94.83	102.60
81	DA	2421	U	O4'-C1'-C2'	-7.77	98.03	105.80
81	DA	2461	A	O4'-C1'-N9	7.77	114.41	108.20
81	DA	2968	G	C1'-O4'-C4'	7.77	116.11	109.90
78	CA	1133	A	O4'-C1'-N9	7.77	114.41	108.20
11	AJ	87	HIS	N-CA-CB	7.76	124.58	110.60
15	AN	53	ASN	O-C-N	-7.76	110.28	122.70
35	BG	100	LYS	N-CA-C	-7.76	90.03	111.00
43	BP	44	ARG	N-CA-C	7.76	131.96	111.00
43	BP	94	TYR	CB-CG-CD1	7.76	125.66	121.00
76	BS	66	ILE	N-CA-CB	7.76	128.66	110.80
78	CA	82	U	O4'-C1'-N1	7.76	114.41	108.20
38	Bs	36	GLN	CA-CB-CG	7.76	130.48	113.40
81	DA	2895	G	P-O5'-C5'	7.76	133.32	120.90
78	CA	1280	C	C3'-C2'-C1'	7.76	107.71	101.50
81	DA	3211	C	O4'-C1'-N1	7.76	114.41	108.20
81	DA	2316	G	C1'-O4'-C4'	-7.76	103.69	109.90
81	DA	2892	A	C3'-C2'-C1'	7.76	107.71	101.50
45	BR	142	GLY	N-CA-C	-7.76	93.71	113.10
78	CA	189	C	O4'-C1'-C2'	-7.76	98.04	105.80
81	DA	2746	A	N9-C1'-C2'	7.76	124.08	114.00
33	BD	194	TYR	CZ-CE2-CD2	7.75	126.78	119.80
61	Bj	2	ALA	N-CA-CB	7.75	120.96	110.10
81	DA	3236	U	C5'-C4'-C3'	-7.75	103.59	116.00
52	BY	10	SER	N-CA-CB	7.75	122.13	110.50
78	CA	1338	C	N1-C1'-C2'	7.75	124.08	114.00
78	CA	1548	G	O3'-P-O5'	7.75	118.73	104.00
81	DA	2630	C	N1-C1'-C2'	7.75	124.08	114.00
31	BB	36	GLU	N-CA-CB	7.75	124.55	110.60
81	DA	2664	C	N1-C1'-C2'	7.75	124.08	114.00
81	DA	754	G	O4'-C1'-N9	7.75	114.40	108.20
53	Ba	62	VAL	CB-CA-C	-7.75	96.68	111.40
78	CA	303	U	C3'-C2'-C1'	7.75	107.70	101.50
78	CA	495	C	O4'-C1'-N1	7.75	114.40	108.20
81	DA	110	G	C1'-O4'-C4'	-7.75	103.70	109.90
81	DA	882	A	N9-C1'-C2'	7.75	124.07	114.00
81	DA	2173	U	C5'-C4'-C3'	7.75	128.40	116.00
81	DA	1331	U	N1-C1'-C2'	7.75	124.07	114.00
41	BN	55	ARG	NE-CZ-NH1	7.74	124.17	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
66	Bo	28	ARG	NE-CZ-NH1	-7.74	116.43	120.30
81	DA	2916	U	P-O3'-C3'	-7.74	110.41	119.70
22	AV	29	LYS	C-N-CA	-7.74	102.34	121.70
55	Bc	31	LEU	CB-CA-C	7.74	124.91	110.20
78	CA	427	C	N1-C1'-C2'	7.74	124.06	114.00
78	CA	1114	G	O4'-C1'-N9	7.74	114.39	108.20
61	Bj	21	ARG	CB-CA-C	7.74	125.88	110.40
35	BG	97	ASN	N-CA-CB	7.74	124.53	110.60
51	BZ	67	VAL	O-C-N	-7.74	110.32	122.70
78	CA	1090	C	C2'-C3'-O3'	7.74	126.52	109.50
81	DA	1763	U	O4'-C1'-N1	7.74	114.39	108.20
65	Bn	29	LYS	CB-CA-C	-7.73	94.93	110.40
78	CA	1124	A	N9-C1'-C2'	-7.73	103.49	112.00
81	DA	443	G	O4'-C1'-N9	7.73	114.39	108.20
81	DA	600	G	P-O3'-C3'	7.73	128.98	119.70
81	DA	2722	U	O4'-C1'-N1	7.73	114.39	108.20
78	CA	1510	U	O4'-C1'-N1	7.73	114.38	108.20
81	DA	3364	C	P-O5'-C5'	7.73	133.27	120.90
78	CA	304	U	C3'-C2'-C1'	7.73	107.68	101.50
81	DA	973	A	C4'-C3'-C2'	-7.73	94.87	102.60
81	DA	2575	G	N1-C6-O6	7.73	124.54	119.90
81	DA	2720	G	O4'-C1'-C2'	-7.73	98.07	105.80
53	Ba	8	GLY	C-N-CA	7.73	141.02	121.70
78	CA	291	G	C1'-O4'-C4'	-7.73	103.72	109.90
78	CA	1681	A	O4'-C1'-N9	7.73	114.38	108.20
78	CA	1755	A	C3'-C2'-C1'	-7.73	95.32	101.50
81	DA	763	G	N1-C6-O6	7.73	124.54	119.90
82	DB	74	U	P-O3'-C3'	7.73	128.97	119.70
82	DB	98	U	P-O5'-C5'	7.73	133.26	120.90
78	CA	124	A	C3'-C2'-C1'	7.72	107.68	101.50
81	DA	3140	G	O4'-C1'-C2'	-7.72	98.08	105.80
81	DA	3120	C	P-O3'-C3'	-7.72	110.43	119.70
78	CA	1602	C	C1'-O4'-C4'	-7.72	103.72	109.90
81	DA	181	U	O4'-C1'-N1	7.72	114.38	108.20
78	CA	53	G	O3'-P-O5'	7.72	118.67	104.00
81	DA	1063	G	O4'-C1'-N9	7.72	114.38	108.20
81	DA	1772	U	O4'-C1'-N1	7.72	114.38	108.20
81	DA	3019	U	N1-C1'-C2'	7.72	124.03	114.00
81	DA	3137	C	O4'-C1'-N1	7.72	114.38	108.20
82	DB	52	A	C3'-C2'-C1'	7.72	107.68	101.50
81	DA	2267	C	O4'-C1'-N1	7.72	114.38	108.20
81	DA	2313	A	O4'-C1'-C2'	-7.72	98.08	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	26	C	O4'-C1'-N1	-7.72	102.03	108.20
50	BX	54	TYR	N-CA-CB	7.72	124.49	110.60
53	Ba	71	PHE	CB-CG-CD1	7.72	126.20	120.80
81	DA	693	A	C1'-O4'-C4'	7.72	116.07	109.90
81	DA	1206	G	C1'-O4'-C4'	-7.72	103.73	109.90
81	DA	3146	G	P-O3'-C3'	7.72	128.96	119.70
2	AA	195	TRP	CB-CA-C	7.71	125.83	110.40
32	BC	296	THR	N-CA-CB	7.71	124.96	110.30
35	BG	158	TYR	CB-CG-CD2	-7.71	116.37	121.00
81	DA	1728	G	C1'-O4'-C4'	-7.71	103.73	109.90
78	CA	157	A	C3'-C2'-C1'	7.71	107.67	101.50
81	DA	329	U	C3'-C2'-C1'	-7.71	95.33	101.50
9	AH	130	TYR	CB-CG-CD1	-7.71	116.38	121.00
78	CA	920	U	O4'-C1'-N1	7.71	114.37	108.20
78	CA	1258	U	O4'-C1'-N1	7.71	114.37	108.20
81	DA	521	A	O5'-C5'-C4'	-7.71	97.06	111.70
81	DA	536	U	N1-C1'-C2'	7.71	124.02	114.00
81	DA	1046	A	N9-C1'-C2'	-7.71	103.52	112.00
81	DA	1208	U	C1'-O4'-C4'	7.71	116.07	109.90
5	AC	168	ARG	NE-CZ-NH1	7.71	124.15	120.30
19	AR	133	ALA	N-CA-CB	7.71	120.89	110.10
78	CA	1580	C	P-O5'-C5'	7.71	133.23	120.90
80	CC	18	C	P-O3'-C3'	-7.71	110.45	119.70
81	DA	3031	G	N9-C1'-C2'	7.71	124.02	114.00
81	DA	3230	G	C4'-C3'-C2'	-7.71	94.89	102.60
83	DC	47	C	P-O3'-C3'	-7.71	110.45	119.70
49	BV	152	GLU	C-N-CA	7.71	140.96	121.70
81	DA	158	G	C4'-C3'-C2'	-7.70	94.90	102.60
81	DA	341	G	P-O3'-C3'	7.70	128.94	119.70
81	DA	1754	G	C2'-C3'-O3'	7.70	126.45	109.50
82	DB	32	C	C3'-C2'-C1'	7.70	107.66	101.50
44	BO	9	ARG	NE-CZ-NH2	-7.70	116.45	120.30
81	DA	1505	C	P-O3'-C3'	7.70	128.94	119.70
81	DA	2539	C	O4'-C1'-N1	7.70	114.36	108.20
81	DA	3090	U	O5'-C5'-C4'	7.70	126.33	111.70
81	DA	3304	U	C2'-C3'-O3'	7.70	126.44	109.50
35	BG	98	VAL	CA-CB-CG1	7.70	122.45	110.90
48	BW	97	SER	N-CA-CB	-7.70	98.95	110.50
51	BZ	69	LYS	C-N-CA	7.70	140.95	121.70
81	DA	175	C	P-O5'-C5'	-7.70	108.58	120.90
83	DC	82	A	P-O3'-C3'	-7.70	110.46	119.70
81	DA	2957	G	C1'-O4'-C4'	-7.70	103.74	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AC	107	ARG	NE-CZ-NH1	7.70	124.15	120.30
57	Be	200	ASN	N-CA-C	-7.70	90.22	111.00
81	DA	447	U	P-O3'-C3'	7.70	128.94	119.70
81	DA	997	A	C1'-O4'-C4'	7.69	116.06	109.90
81	DA	1194	G	O4'-C1'-N9	7.69	114.35	108.20
78	CA	1649	G	O4'-C1'-C2'	-7.69	98.11	105.80
81	DA	672	A	O4'-C4'-C3'	-7.69	96.31	104.00
81	DA	2611	U	O4'-C1'-N1	7.69	114.35	108.20
81	DA	3135	U	O4'-C1'-N1	7.69	114.35	108.20
78	CA	1344	A	O4'-C1'-N9	7.69	114.35	108.20
81	DA	1679	A	O3'-P-O5'	-7.69	89.39	104.00
38	Bs	5	ARG	CB-CA-C	7.69	125.77	110.40
40	BK	128	ARG	CA-C-N	7.69	134.11	117.20
56	Bf	58	TYR	CB-CG-CD2	7.69	125.61	121.00
79	CB	26	G	O4'-C1'-C2'	7.69	114.52	107.60
81	DA	2106	A	P-O3'-C3'	7.69	128.93	119.70
81	DA	3067	C	O4'-C1'-C2'	-7.69	98.11	105.80
83	DC	18	C	P-O3'-C3'	7.69	128.92	119.70
81	DA	2895	G	O4'-C1'-C2'	7.68	114.52	107.60
42	BM	48	ARG	NE-CZ-NH1	7.68	124.14	120.30
78	CA	647	G	O4'-C1'-C2'	-7.68	98.12	105.80
81	DA	1167	U	O4'-C1'-N1	7.68	114.34	108.20
81	DA	1409	G	O4'-C1'-N9	7.68	114.35	108.20
81	DA	1941	C	O4'-C1'-N1	7.68	114.35	108.20
81	DA	1180	A	C1'-O4'-C4'	7.68	116.05	109.90
11	AJ	14	GLN	OE1-CD-NE2	7.68	139.56	121.90
60	Bi	19	LYS	N-CA-C	-7.68	90.27	111.00
78	CA	1052	U	O4'-C1'-N1	7.68	114.34	108.20
81	DA	2118	C	C3'-C2'-C1'	7.68	107.64	101.50
81	DA	2466	G	O4'-C1'-C2'	7.68	114.51	107.60
81	DA	2724	U	N1-C1'-C2'	7.68	123.98	114.00
6	AE	126	ARG	CB-CA-C	7.68	125.76	110.40
57	Be	71	ALA	N-CA-CB	7.68	120.85	110.10
78	CA	1450	U	O4'-C1'-N1	7.68	114.34	108.20
78	CA	887	A	P-O5'-C5'	-7.68	108.62	120.90
78	CA	1747	G	O4'-C1'-N9	7.68	114.34	108.20
81	DA	1652	G	O4'-C1'-N9	7.68	114.34	108.20
81	DA	2119	A	P-O3'-C3'	7.68	128.91	119.70
81	DA	2310	U	N1-C1'-C2'	7.68	123.98	114.00
6	AE	207	LEU	CB-CG-CD2	7.67	124.05	111.00
76	BS	155	TYR	N-CA-CB	7.67	124.41	110.60
78	CA	818	C	OP1-P-OP2	-7.67	108.09	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	881	A	O4'-C1'-N9	7.67	114.34	108.20
78	CA	955	A	N9-C1'-C2'	-7.67	103.56	112.00
81	DA	1698	C	C4'-C3'-C2'	-7.67	94.92	102.60
81	DA	1882	G	O4'-C1'-C2'	7.67	114.51	107.60
81	DA	2952	G	O4'-C1'-C2'	7.67	114.51	107.60
53	Ba	54	THR	N-CA-CB	7.67	124.88	110.30
81	DA	175	C	O4'-C1'-N1	7.67	114.34	108.20
81	DA	661	G	N9-C1'-C2'	-7.67	103.56	112.00
81	DA	1856	C	O4'-C1'-N1	7.67	114.34	108.20
42	BM	64	LYS	C-N-CA	-7.67	106.19	122.30
55	Bc	116	TYR	CZ-CE2-CD2	7.67	126.70	119.80
61	Bj	38	PRO	N-CA-C	7.67	132.05	112.10
81	DA	1777	U	O4'-C1'-N1	7.67	114.34	108.20
47	BU	84	TYR	CB-CG-CD1	-7.67	116.40	121.00
81	DA	989	A	C1'-O4'-C4'	7.67	116.03	109.90
81	DA	1058	U	P-O5'-C5'	7.67	133.17	120.90
81	DA	1745	C	O4'-C1'-N1	7.67	114.33	108.20
81	DA	2899	C	O4'-C1'-N1	-7.67	102.06	108.20
56	Bf	85	PHE	CB-CG-CD2	-7.67	115.43	120.80
78	CA	1427	A	P-O5'-C5'	-7.67	108.63	120.90
78	CA	313	U	O4'-C1'-N1	7.66	114.33	108.20
81	DA	565	U	O4'-C1'-N1	7.66	114.33	108.20
81	DA	1038	C	O4'-C1'-C2'	-7.66	98.14	105.80
81	DA	2059	U	N1-C1'-C2'	7.66	123.96	114.00
4	AD	97	GLU	N-CA-CB	7.66	124.39	110.60
66	Bo	30	ARG	NE-CZ-NH2	-7.66	116.47	120.30
81	DA	301	G	O4'-C1'-N9	7.66	114.33	108.20
81	DA	436	A	C3'-C2'-C1'	7.66	107.63	101.50
81	DA	637	C	C4'-C3'-C2'	7.66	110.26	102.60
53	Ba	13	VAL	N-CA-CB	7.66	128.35	111.50
81	DA	633	C	N1-C1'-C2'	7.66	123.96	114.00
81	DA	801	A	P-O3'-C3'	-7.66	110.51	119.70
81	DA	1333	C	C3'-C2'-C1'	7.66	107.63	101.50
83	DC	112	G	P-O3'-C3'	-7.66	110.51	119.70
81	DA	1725	C	C3'-C2'-C1'	7.66	107.62	101.50
32	BC	344	THR	C-N-CA	-7.66	102.56	121.70
40	BK	134	LYS	N-CA-C	-7.66	90.33	111.00
42	BM	64	LYS	N-CA-C	-7.66	90.33	111.00
81	DA	2245	C	C3'-C2'-C1'	7.66	107.62	101.50
81	DA	2937	G	O4'-C1'-N9	7.66	114.33	108.20
81	DA	1854	C	O4'-C1'-C2'	-7.65	98.15	105.80
81	DA	2268	U	O4'-C1'-N1	7.65	114.32	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	893	U	P-O3'-C3'	-7.65	110.52	119.70
78	CA	123	G	O4'-C4'-C3'	-7.65	96.35	104.00
78	CA	236	A	O4'-C1'-N9	7.65	114.32	108.20
78	CA	1087	A	C5'-C4'-O4'	7.65	118.28	109.10
78	CA	164	A	O5'-P-OP1	7.65	119.88	110.70
78	CA	588	U	P-O5'-C5'	-7.65	108.66	120.90
81	DA	3220	G	P-O5'-C5'	7.65	133.14	120.90
5	AC	18	PRO	C-N-CA	7.65	140.82	121.70
81	DA	1462	A	O3'-P-O5'	-7.65	89.47	104.00
81	DA	3108	G	C1'-O4'-C4'	-7.65	103.78	109.90
51	BZ	67	VAL	CA-C-O	-7.65	104.04	120.10
81	DA	739	G	O4'-C1'-N9	7.65	114.32	108.20
81	DA	1037	C	C3'-C2'-C1'	7.65	107.62	101.50
78	CA	950	C	N1-C1'-C2'	7.64	123.94	114.00
78	CA	1144	U	C5'-C4'-C3'	-7.64	103.77	116.00
3	AB	78	LYS	CB-CA-C	7.64	125.69	110.40
6	AE	30	THR	CA-CB-CG2	-7.64	101.70	112.40
10	AI	142	TYR	CB-CG-CD2	7.64	125.59	121.00
59	Bh	24	ARG	CD-NE-CZ	-7.64	112.90	123.60
78	CA	827	C	O4'-C1'-N1	7.64	114.31	108.20
81	DA	678	G	C1'-O4'-C4'	-7.64	103.79	109.90
81	DA	1698	C	C5'-C4'-O4'	-7.64	99.93	109.10
81	DA	2776	C	C3'-C2'-C1'	7.64	107.61	101.50
44	BO	15	VAL	N-CA-CB	7.64	128.31	111.50
81	DA	2172	A	C5'-C4'-C3'	-7.64	103.78	116.00
81	DA	3361	G	C2'-C3'-O3'	7.64	126.31	109.50
37	BH	228	GLU	CB-CA-C	-7.64	95.12	110.40
83	DC	43	U	N1-C1'-C2'	7.64	123.93	114.00
78	CA	868	G	O4'-C1'-C2'	7.64	114.47	107.60
81	DA	1265	U	C1'-O4'-C4'	-7.64	103.79	109.90
81	DA	1512	U	O4'-C1'-N1	7.64	114.31	108.20
83	DC	32	U	C1'-O4'-C4'	-7.64	103.79	109.90
74	BQ	128	GLU	CB-CA-C	-7.63	95.13	110.40
78	CA	1459	C	C4'-C3'-C2'	7.63	110.23	102.60
81	DA	728	G	C5-C6-O6	-7.63	124.02	128.60
81	DA	858	A	C5'-C4'-C3'	-7.63	103.79	116.00
81	DA	2922	G	N9-C1'-C2'	7.63	123.92	114.00
81	DA	3308	C	C3'-C2'-C1'	7.63	107.61	101.50
36	BF	141	LYS	N-CA-CB	7.63	124.34	110.60
81	DA	425	G	P-O5'-C5'	7.63	133.11	120.90
81	DA	1690	C	O3'-P-O5'	-7.63	89.50	104.00
12	AK	67	VAL	CB-CA-C	7.63	125.90	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	Bg	79	ARG	N-CA-CB	7.63	124.33	110.60
61	Bj	21	ARG	C-N-CA	-7.63	102.62	121.70
82	DB	39	G	C5'-C4'-O4'	-7.63	99.94	109.10
78	CA	1577	A	N9-C1'-C2'	-7.63	103.61	112.00
81	DA	962	A	N9-C1'-C2'	-7.63	103.61	112.00
4	AD	235	TYR	CA-C-N	7.63	133.98	117.20
32	BC	256	HIS	CB-CA-C	7.63	125.66	110.40
34	BE	87	LYS	N-CA-CB	7.63	124.33	110.60
78	CA	1214	U	C1'-O4'-C4'	7.63	116.00	109.90
81	DA	1730	G	N9-C1'-C2'	-7.63	103.61	112.00
50	BX	27	ARG	NE-CZ-NH1	7.63	124.11	120.30
78	CA	383	G	C1'-O4'-C4'	-7.63	103.80	109.90
81	DA	1	G	C1'-O4'-C4'	7.63	116.00	109.90
81	DA	1784	G	P-O5'-C5'	7.63	133.10	120.90
82	DB	57	C	P-O3'-C3'	7.63	128.85	119.70
78	CA	1460	A	O4'-C1'-N9	7.62	114.30	108.20
78	CA	1755	A	O4'-C1'-C2'	7.62	114.46	107.60
78	CA	1783	C	O4'-C1'-C2'	-7.62	98.17	105.80
81	DA	2002	G	O4'-C1'-N9	7.62	114.30	108.20
4	AD	130	GLN	CA-C-N	-7.62	100.43	117.20
81	DA	1219	C	O4'-C1'-C2'	-7.62	98.18	105.80
81	DA	1495	U	N1-C1'-C2'	7.62	123.91	114.00
81	DA	1972	A	C5'-C4'-C3'	7.62	128.20	116.00
83	DC	9	C	O3'-P-O5'	-7.62	89.52	104.00
81	DA	1289	G	O4'-C1'-N9	7.62	114.30	108.20
81	DA	1562	C	C5'-C4'-C3'	-7.62	103.81	116.00
81	DA	1869	C	O4'-C1'-C2'	-7.62	98.18	105.80
78	CA	20	G	O4'-C1'-N9	7.62	114.30	108.20
78	CA	1107	G	N9-C1'-C2'	7.62	123.90	114.00
78	CA	1596	C	O4'-C1'-N1	7.62	114.30	108.20
81	DA	2486	A	O3'-P-O5'	7.62	118.48	104.00
57	Be	120	THR	CA-CB-OG1	7.62	124.99	109.00
78	CA	1321	A	N9-C1'-C2'	-7.62	103.62	112.00
78	CA	1649	G	O4'-C1'-N9	7.62	114.29	108.20
81	DA	2195	C	C4'-C3'-C2'	-7.62	94.98	102.60
81	DA	2874	G	N9-C1'-C2'	7.62	123.90	114.00
6	AE	241	ASP	N-CA-CB	7.61	124.30	110.60
10	AI	140	LYS	N-CA-C	-7.61	90.44	111.00
36	BF	117	PHE	CB-CG-CD1	-7.61	115.47	120.80
61	Bj	8	TYR	CB-CG-CD1	-7.61	116.43	121.00
78	CA	1141	G	C3'-C2'-C1'	-7.61	95.41	101.50
78	CA	1087	A	C5'-C4'-C3'	-7.61	103.82	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	Bl	74	PHE	CB-CG-CD2	-7.61	115.47	120.80
81	DA	520	U	O4'-C1'-N1	7.61	114.29	108.20
81	DA	1206	G	C4'-C3'-C2'	-7.61	94.99	102.60
81	DA	2208	A	C5'-C4'-C3'	-7.61	103.82	116.00
81	DA	3099	C	N1-C1'-C2'	7.61	123.89	114.00
81	DA	3385	U	O5'-C5'-C4'	7.61	126.16	111.70
22	AV	31	SER	C-N-CA	7.61	140.72	121.70
15	AN	43	PHE	CB-CG-CD2	-7.61	115.47	120.80
81	DA	1516	C	P-O3'-C3'	7.61	128.83	119.70
81	DA	2664	C	C3'-C2'-C1'	7.61	107.59	101.50
39	BJ	16	ARG	NE-CZ-NH2	-7.61	116.50	120.30
78	CA	1554	U	N1-C1'-C2'	-7.61	103.64	112.00
81	DA	183	G	C1'-O4'-C4'	-7.61	103.81	109.90
81	DA	1391	C	P-O3'-C3'	7.61	128.82	119.70
81	DA	1788	C	C4'-C3'-C2'	-7.61	94.99	102.60
55	Bc	81	ARG	CB-CA-C	-7.60	95.19	110.40
81	DA	160	G	P-O5'-C5'	-7.60	108.74	120.90
81	DA	535	G	P-O3'-C3'	7.60	128.82	119.70
81	DA	2735	U	C4'-C3'-C2'	-7.60	95.00	102.60
79	CB	75	A	N9-C1'-C2'	-7.60	103.64	112.00
81	DA	2229	A	C5'-C4'-O4'	-7.60	99.98	109.10
45	BR	53	PHE	CB-CG-CD1	-7.60	115.48	120.80
78	CA	1511	U	O4'-C1'-N1	7.60	114.28	108.20
35	BG	77	ARG	NE-CZ-NH1	-7.59	116.50	120.30
78	CA	369	A	O4'-C1'-C2'	-7.59	98.20	105.80
78	CA	641	G	C1'-O4'-C4'	-7.59	103.82	109.90
81	DA	513	G	O4'-C1'-C2'	7.59	114.43	107.60
81	DA	2915	U	C4'-C3'-C2'	-7.59	95.00	102.60
78	CA	1180	C	C3'-C2'-C1'	7.59	107.57	101.50
81	DA	1246	G	O4'-C1'-N9	7.59	114.28	108.20
32	BC	61	ASP	CB-CG-OD2	-7.59	111.47	118.30
45	BR	98	LYS	N-CA-C	-7.59	90.50	111.00
81	DA	1947	G	C1'-O4'-C4'	7.59	115.97	109.90
81	DA	393	U	N1-C1'-C2'	7.59	123.86	114.00
81	DA	1710	C	O4'-C1'-N1	7.59	114.27	108.20
81	DA	2339	C	C3'-C2'-C1'	7.59	107.57	101.50
81	DA	2496	C	O3'-P-O5'	-7.59	89.58	104.00
81	DA	2669	G	C3'-C2'-C1'	-7.59	95.43	101.50
81	DA	1060	U	C3'-C2'-C1'	7.58	107.57	101.50
78	CA	1352	G	O4'-C1'-N9	7.58	114.27	108.20
81	DA	1453	A	O4'-C1'-N9	7.58	114.27	108.20
81	DA	2884	C	N1-C1'-C2'	7.58	123.86	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	13	A	C3'-C2'-C1'	7.58	107.57	101.50
74	BQ	128	GLU	N-CA-CB	-7.58	96.95	110.60
74	BQ	243	ALA	CB-CA-C	-7.58	98.73	110.10
78	CA	398	G	O4'-C1'-N9	7.58	114.27	108.20
81	DA	788	C	C3'-C2'-C1'	7.58	107.56	101.50
81	DA	848	A	O4'-C1'-N9	7.58	114.27	108.20
81	DA	228	U	O4'-C1'-N1	7.58	114.26	108.20
81	DA	2719	U	O4'-C1'-N1	7.58	114.26	108.20
1	Aa	59	ARG	N-CA-CB	-7.58	96.96	110.60
24	AX	47	PHE	CB-CG-CD2	-7.58	115.50	120.80
78	CA	1505	A	C5-C6-N1	-7.58	113.91	117.70
81	DA	390	G	O4'-C1'-N9	7.58	114.26	108.20
81	DA	671	U	C5'-C4'-O4'	-7.58	100.01	109.10
78	CA	1791	A	C3'-C2'-C1'	7.58	107.56	101.50
81	DA	7	C	O4'-C1'-C2'	-7.58	98.22	105.80
81	DA	135	C	C1'-O4'-C4'	7.58	115.96	109.90
81	DA	1609	C	P-O3'-C3'	7.58	128.79	119.70
78	CA	173	A	P-O3'-C3'	-7.58	110.61	119.70
81	DA	1357	G	P-O5'-C5'	7.58	133.02	120.90
82	DB	40	A	C1'-O4'-C4'	-7.58	103.84	109.90
5	AC	5	PRO	N-CA-CB	7.57	112.39	103.30
29	AU	33	ALA	CB-CA-C	-7.57	98.74	110.10
35	BG	77	ARG	CB-CA-C	-7.57	95.25	110.40
38	Bs	72	ASP	N-CA-C	-7.57	90.55	111.00
78	CA	338	C	N1-C1'-C2'	7.57	123.84	114.00
78	CA	1772	C	N1-C1'-C2'	7.57	123.84	114.00
78	CA	1782	A	P-O3'-C3'	-7.57	110.61	119.70
78	CA	496	G	O3'-P-O5'	-7.57	89.61	104.00
78	CA	1558	U	O4'-C4'-C3'	7.57	112.16	106.10
81	DA	2879	C	P-O5'-C5'	7.57	133.01	120.90
81	DA	3299	A	C5'-C4'-O4'	-7.57	100.01	109.10
81	DA	2530	G	C3'-C2'-C1'	-7.57	95.44	101.50
78	CA	368	U	C3'-C2'-C1'	-7.57	95.44	101.50
78	CA	1555	A	O4'-C1'-N9	7.57	114.25	108.20
78	CA	1570	A	C5'-C4'-C3'	7.57	128.11	116.00
81	DA	1483	G	C3'-C2'-C1'	-7.57	95.44	101.50
6	AE	197	TYR	CB-CG-CD1	-7.57	116.46	121.00
81	DA	1405	U	O4'-C1'-N1	7.57	114.25	108.20
38	Bs	22	TYR	CB-CG-CD1	-7.57	116.46	121.00
33	BD	296	GLN	N-CA-CB	7.56	124.22	110.60
81	DA	907	G	P-O3'-C3'	7.56	128.78	119.70
78	CA	1054	U	O4'-C1'-N1	7.56	114.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	418	A	O4'-C1'-N9	7.56	114.25	108.20
81	DA	1795	U	N1-C1'-C2'	-7.56	103.68	112.00
81	DA	2502	A	C1'-O4'-C4'	7.56	115.95	109.90
81	DA	241	G	C3'-C2'-C1'	-7.56	95.45	101.50
81	DA	1560	G	O3'-P-O5'	-7.56	89.63	104.00
81	DA	2728	G	P-O3'-C3'	7.56	128.77	119.70
20	AS	45	MET	CA-C-N	7.56	138.27	117.10
78	CA	485	A	P-O3'-C3'	7.56	128.77	119.70
78	CA	1542	G	N9-C1'-C2'	-7.56	103.68	112.00
81	DA	708	G	O4'-C1'-N9	7.56	114.25	108.20
9	AH	108	ALA	N-CA-CB	7.56	120.68	110.10
32	BC	209	PHE	CB-CG-CD2	-7.56	115.51	120.80
32	BC	364	LYS	N-CA-CB	-7.56	97.00	110.60
81	DA	1603	A	OP1-P-OP2	-7.56	108.26	119.60
78	CA	113	U	O4'-C1'-N1	7.56	114.25	108.20
81	DA	3296	A	C2'-C3'-O3'	7.56	126.12	109.50
13	AL	135	LEU	CA-C-N	-7.55	100.58	117.20
35	BG	96	VAL	CA-CB-CG1	-7.55	99.57	110.90
81	DA	960	U	O4'-C1'-N1	7.55	114.24	108.20
81	DA	1794	G	N9-C1'-C2'	-7.55	103.69	112.00
42	BM	40	LYS	O-C-N	-7.55	110.36	123.20
55	Bc	6	ALA	CB-CA-C	7.55	121.43	110.10
81	DA	1664	G	C1'-O4'-C4'	-7.55	103.86	109.90
81	DA	1144	U	C3'-C2'-C1'	7.55	107.54	101.50
12	AK	59	ALA	CA-C-O	-7.55	104.24	120.10
61	Bj	85	PHE	CA-C-N	-7.55	100.59	117.20
81	DA	940	G	O4'-C1'-N9	7.55	114.24	108.20
81	DA	1848	G	O4'-C1'-N9	-7.55	102.16	108.20
80	CC	18	C	O4'-C1'-N1	-7.55	102.16	108.20
81	DA	2163	C	C1'-O4'-C4'	7.55	115.94	109.90
81	DA	2761	G	C5'-C4'-C3'	7.55	128.08	116.00
59	Bh	12	LYS	N-CA-CB	-7.55	97.02	110.60
79	CB	17	G	C3'-C2'-C1'	7.55	107.54	101.50
81	DA	3111	U	N1-C1'-C2'	-7.55	103.70	112.00
81	DA	2482	U	O4'-C1'-N1	7.54	114.24	108.20
59	Bh	20	HIS	CA-C-O	-7.54	104.26	120.10
78	CA	1579	U	P-O3'-C3'	-7.54	110.65	119.70
81	DA	2148	U	O4'-C1'-N1	7.54	114.23	108.20
81	DA	3192	U	P-O5'-C5'	7.54	132.97	120.90
78	CA	195	G	P-O3'-C3'	7.54	128.75	119.70
81	DA	1212	A	O4'-C1'-N9	7.54	114.23	108.20
81	DA	2774	C	P-O3'-C3'	-7.54	110.65	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3023	U	O4'-C1'-N1	7.54	114.23	108.20
78	CA	1222	C	C5'-C4'-C3'	-7.54	103.94	116.00
78	CA	377	G	N9-C1'-C2'	-7.54	103.71	112.00
81	DA	1754	G	C3'-C2'-C1'	-7.54	95.47	101.50
81	DA	2227	C	O4'-C1'-N1	7.54	114.23	108.20
81	DA	2434	U	C3'-C2'-C1'	7.54	107.53	101.50
78	CA	520	A	P-O3'-C3'	-7.54	110.66	119.70
78	CA	837	G	O3'-P-O5'	-7.54	89.68	104.00
81	DA	889	U	O4'-C1'-N1	7.54	114.23	108.20
78	CA	855	A	O4'-C1'-C2'	7.53	114.38	107.60
81	DA	489	C	C3'-C2'-C1'	7.53	107.53	101.50
82	DB	41	A	C3'-C2'-C1'	-7.53	95.47	101.50
44	BO	139	ARG	NE-CZ-NH1	7.53	124.07	120.30
81	DA	1701	C	C5'-C4'-C3'	7.53	128.05	116.00
35	BG	31	ARG	NE-CZ-NH1	7.53	124.07	120.30
43	BP	63	ARG	NE-CZ-NH1	7.53	124.07	120.30
81	DA	1210	U	C3'-C2'-C1'	7.53	107.53	101.50
81	DA	2130	G	C5'-C4'-C3'	-7.53	103.95	116.00
39	BJ	77	ALA	C-N-CA	7.53	140.52	121.70
78	CA	1610	G	C1'-O4'-C4'	-7.53	103.88	109.90
81	DA	3304	U	O4'-C1'-C2'	-7.53	98.27	105.80
43	BP	129	TYR	CB-CG-CD2	-7.53	116.48	121.00
78	CA	31	C	C3'-C2'-C1'	7.53	107.52	101.50
78	CA	207	U	O4'-C1'-N1	7.53	114.22	108.20
78	CA	637	C	C3'-C2'-C1'	7.53	107.52	101.50
81	DA	606	C	C3'-C2'-C1'	-7.53	95.48	101.50
81	DA	2139	A	N9-C1'-C2'	7.53	123.78	114.00
17	AQ	25	THR	C-N-CA	7.53	140.52	121.70
81	DA	178	U	O4'-C1'-N1	7.53	114.22	108.20
81	DA	1216	C	O4'-C1'-C2'	-7.53	98.28	105.80
81	DA	2615	G	O4'-C1'-N9	7.53	114.22	108.20
81	DA	3147	G	N9-C1'-C2'	7.53	123.78	114.00
14	AM	126	ARG	N-CA-CB	7.52	124.14	110.60
81	DA	744	A	C5'-C4'-C3'	7.52	128.04	116.00
81	DA	2486	A	C2'-C3'-O3'	7.52	126.05	109.50
81	DA	3121	U	O4'-C1'-C2'	-7.52	98.28	105.80
78	CA	1790	A	O4'-C1'-N9	7.52	114.22	108.20
81	DA	720	A	C5'-C4'-C3'	7.52	128.03	116.00
81	DA	1447	G	O4'-C1'-N9	-7.52	102.18	108.20
81	DA	1475	A	C4'-C3'-C2'	-7.52	95.08	102.60
81	DA	2165	G	O4'-C1'-C2'	7.52	114.37	107.60
78	CA	1492	A	P-O5'-C5'	7.52	132.93	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1072	G	P-O3'-C3'	7.52	128.72	119.70
82	DB	88	A	N9-C1'-C2'	-7.52	103.73	112.00
81	DA	53	G	O4'-C1'-N9	7.52	114.22	108.20
81	DA	1757	A	C5'-C4'-O4'	7.52	118.12	109.10
81	DA	1869	C	C3'-C2'-C1'	7.52	107.52	101.50
78	CA	38	C	P-O5'-C5'	7.52	132.93	120.90
78	CA	497	G	C5-C6-O6	-7.52	124.09	128.60
51	BZ	23	ARG	NE-CZ-NH2	-7.52	116.54	120.30
81	DA	160	G	O4'-C1'-N9	7.52	114.21	108.20
78	CA	223	U	N1-C1'-C2'	-7.51	103.73	112.00
81	DA	491	C	C3'-C2'-C1'	7.51	107.51	101.50
81	DA	1472	U	O4'-C1'-N1	7.51	114.21	108.20
64	Bl	62	GLY	N-CA-C	7.51	131.88	113.10
81	DA	1621	A	P-O3'-C3'	7.51	128.71	119.70
37	BH	73	PRO	CA-N-CD	-7.51	100.99	111.50
81	DA	515	C	N1-C1'-C2'	7.51	123.76	114.00
81	DA	623	U	O4'-C1'-N1	7.51	114.21	108.20
81	DA	996	A	C1'-O4'-C4'	7.51	115.91	109.90
81	DA	1296	C	O3'-P-O5'	-7.51	89.73	104.00
81	DA	1360	C	C1'-O4'-C4'	-7.51	103.89	109.90
58	Bg	6	ASP	N-CA-CB	7.51	124.11	110.60
78	CA	269	G	C1'-O4'-C4'	-7.51	103.90	109.90
81	DA	359	U	O4'-C1'-N1	7.51	114.20	108.20
81	DA	647	A	P-O3'-C3'	7.51	128.71	119.70
81	DA	1765	U	P-O3'-C3'	7.51	128.71	119.70
81	DA	3305	A	O3'-P-O5'	-7.51	89.74	104.00
37	BH	130	TYR	CB-CG-CD1	7.50	125.50	121.00
81	DA	330	G	O4'-C1'-C2'	-7.50	98.30	105.80
81	DA	568	G	O4'-C1'-N9	7.50	114.20	108.20
81	DA	706	A	O4'-C1'-N9	7.50	114.20	108.20
81	DA	2574	G	O4'-C1'-N9	7.50	114.20	108.20
22	AV	33	LYS	CA-CB-CG	-7.50	96.89	113.40
76	BS	71	PRO	N-CA-C	7.50	131.60	112.10
83	DC	49	G	O5'-C5'-C4'	-7.50	97.45	111.70
78	CA	37	U	N1-C1'-C2'	-7.50	103.75	112.00
78	CA	947	U	C1'-O4'-C4'	7.50	115.90	109.90
81	DA	1233	G	C3'-C2'-C1'	-7.50	95.50	101.50
81	DA	1258	U	C5'-C4'-C3'	-7.50	104.00	116.00
81	DA	1565	G	O4'-C1'-N9	7.50	114.20	108.20
82	DB	37	A	P-O3'-C3'	7.50	128.70	119.70
81	DA	264	G	O4'-C1'-C2'	-7.50	98.30	105.80
81	DA	847	A	P-O3'-C3'	7.50	128.70	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2640	A	C5'-C4'-O4'	7.50	118.10	109.10
81	DA	2759	U	O4'-C1'-C2'	-7.50	98.31	105.80
50	BX	29	SER	N-CA-CB	7.49	121.74	110.50
50	BX	56	ARG	NE-CZ-NH1	7.49	124.05	120.30
78	CA	27	U	O3'-P-O5'	7.49	118.22	104.00
78	CA	509	G	N1-C6-O6	7.49	124.39	119.90
81	DA	241	G	O4'-C1'-C2'	7.49	114.34	107.60
81	DA	535	G	N9-C1'-C2'	7.49	123.73	114.00
81	DA	798	G	C5'-C4'-C3'	7.49	127.97	116.00
81	DA	1279	C	C3'-C2'-C1'	7.49	107.49	101.50
81	DA	1842	A	O4'-C1'-N9	-7.49	102.21	108.20
81	DA	2153	U	N1-C1'-C2'	7.49	123.73	114.00
81	DA	1216	C	C3'-C2'-C1'	7.48	107.49	101.50
81	DA	2587	U	O4'-C1'-N1	7.48	114.19	108.20
83	DC	105	A	O4'-C1'-N9	7.48	114.19	108.20
46	BT	98	ARG	NE-CZ-NH2	7.48	124.04	120.30
76	BS	123	ILE	O-C-N	-7.48	110.73	122.70
78	CA	185	U	O4'-C1'-N1	7.48	114.19	108.20
78	CA	553	G	C1'-O4'-C4'	-7.48	103.91	109.90
81	DA	178	U	P-O5'-C5'	7.48	132.87	120.90
81	DA	516	A	P-O5'-C5'	7.48	132.87	120.90
81	DA	3236	U	C1'-O4'-C4'	-7.48	103.92	109.90
82	DB	37	A	O4'-C1'-N9	7.48	114.19	108.20
78	CA	30	G	O4'-C1'-N9	-7.48	102.22	108.20
78	CA	831	U	C4'-C3'-C2'	7.48	110.08	102.60
78	CA	1108	G	P-O3'-C3'	7.48	128.68	119.70
78	CA	1770	U	N1-C1'-C2'	-7.48	103.77	112.00
81	DA	605	U	O4'-C1'-C2'	-7.48	98.32	105.80
81	DA	270	U	C1'-O4'-C4'	7.48	115.88	109.90
33	BD	297	SER	N-CA-CB	-7.48	99.28	110.50
49	BV	83	TRP	CG-CD2-CE3	-7.48	127.17	133.90
78	CA	477	A	C3'-C2'-C1'	7.48	107.48	101.50
78	CA	1674	C	C3'-C2'-C1'	7.48	107.48	101.50
78	CA	1	U	O4'-C1'-N1	7.47	114.18	108.20
81	DA	2325	G	O4'-C1'-N9	7.47	114.18	108.20
81	DA	2648	G	O4'-C4'-C3'	-7.47	96.53	104.00
78	CA	571	G	O4'-C1'-N9	-7.47	102.22	108.20
78	CA	1362	U	P-O3'-C3'	7.47	128.67	119.70
81	DA	73	C	C1'-O4'-C4'	7.47	115.88	109.90
81	DA	1631	C	C3'-C2'-C1'	7.47	107.48	101.50
81	DA	1695	U	C1'-O4'-C4'	7.47	115.88	109.90
81	DA	2681	U	C4'-C3'-C2'	-7.47	95.13	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	905	U	O4'-C1'-N1	7.47	114.18	108.20
81	DA	1085	A	O4'-C1'-C2'	-7.47	98.33	105.80
59	Bh	27	ARG	CB-CA-C	-7.47	95.46	110.40
78	CA	1678	A	P-O5'-C5'	7.47	132.85	120.90
81	DA	31	C	C3'-C2'-C1'	7.47	107.47	101.50
81	DA	704	U	C2'-C3'-O3'	7.47	125.93	109.50
81	DA	767	U	O4'-C4'-C3'	-7.47	96.53	104.00
81	DA	1601	U	O4'-C1'-N1	7.47	114.18	108.20
81	DA	2536	A	C5'-C4'-C3'	7.47	127.95	116.00
81	DA	2989	U	O4'-C1'-N1	7.47	114.18	108.20
81	DA	3113	A	C3'-C2'-C1'	7.47	107.48	101.50
78	CA	1440	C	C3'-C2'-C1'	7.47	107.47	101.50
41	BN	11	ASN	C-N-CA	7.47	140.37	121.70
81	DA	2543	U	O4'-C1'-N1	7.47	114.17	108.20
45	BR	157	PRO	CA-N-CD	-7.46	101.05	111.50
81	DA	214	G	O4'-C1'-C2'	-7.46	98.33	105.80
78	CA	172	C	C3'-C2'-C1'	7.46	107.47	101.50
35	BG	78	ARG	NE-CZ-NH2	-7.46	116.57	120.30
67	Bp	37	ARG	NE-CZ-NH2	-7.46	116.57	120.30
38	Bs	101	VAL	CG1-CB-CG2	7.46	122.83	110.90
81	DA	1270	A	C3'-C2'-C1'	-7.46	95.53	101.50
81	DA	2085	U	O4'-C1'-N1	7.46	114.17	108.20
5	AC	172	VAL	CG1-CB-CG2	7.46	122.83	110.90
78	CA	880	C	C3'-C2'-C1'	7.46	107.47	101.50
81	DA	1057	A	N9-C1'-C2'	-7.46	103.80	112.00
81	DA	1383	G	O4'-C1'-N9	7.46	114.17	108.20
82	DB	104	A	C3'-C2'-C1'	7.46	107.47	101.50
20	AS	52	GLY	O-C-N	7.46	134.63	122.70
74	BQ	39	GLN	O-C-N	-7.46	110.77	122.70
78	CA	502	U	O4'-C1'-N1	7.46	114.17	108.20
81	DA	251	G	C5'-C4'-C3'	7.46	127.93	116.00
81	DA	1018	G	O4'-C1'-C2'	-7.46	98.34	105.80
81	DA	1429	G	P-O3'-C3'	7.46	128.65	119.70
81	DA	2406	C	C1'-O4'-C4'	7.46	115.86	109.90
60	Bi	42	PRO	O-C-N	-7.46	110.77	122.70
3	AB	78	LYS	N-CA-C	-7.45	90.88	111.00
33	BD	354	VAL	CA-C-O	-7.45	104.45	120.10
45	BR	14	GLY	C-N-CA	7.45	140.33	121.70
68	Bq	21	ARG	NE-CZ-NH1	7.45	124.03	120.30
78	CA	1749	A	O4'-C1'-C2'	-7.45	98.35	105.80
81	DA	2854	U	C5'-C4'-C3'	-7.45	104.08	116.00
81	DA	3348	G	C5'-C4'-C3'	7.45	127.92	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	341	SER	CB-CA-C	-7.45	95.94	110.10
78	CA	199	G	P-O3'-C3'	7.45	128.64	119.70
81	DA	907	G	C1'-O4'-C4'	-7.45	103.94	109.90
81	DA	2452	G	C1'-O4'-C4'	7.45	115.86	109.90
29	AU	63	GLN	N-CA-CB	7.45	124.01	110.60
78	CA	1295	G	C5'-C4'-C3'	7.45	127.92	116.00
81	DA	874	U	N1-C1'-C2'	7.45	123.69	114.00
81	DA	2162	U	O4'-C1'-N1	7.45	114.16	108.20
81	DA	2873	U	N1-C1'-C2'	7.45	123.68	114.00
81	DA	2945	G	O4'-C1'-N9	7.45	114.16	108.20
81	DA	1755	C	O4'-C1'-N1	7.45	114.16	108.20
81	DA	3003	G	P-O3'-C3'	7.45	128.64	119.70
57	Be	208	SER	N-CA-CB	7.45	121.67	110.50
78	CA	1674	C	P-O5'-C5'	7.45	132.82	120.90
81	DA	2481	G	C3'-C2'-C1'	7.45	107.46	101.50
43	BP	21	PHE	CB-CG-CD1	7.45	126.01	120.80
81	DA	864	G	O4'-C1'-N9	7.45	114.16	108.20
81	DA	1758	G	C5-C6-O6	-7.45	124.13	128.60
81	DA	1889	G	C4'-C3'-C2'	-7.45	95.16	102.60
83	DC	100	A	P-O3'-C3'	7.45	128.63	119.70
83	DC	57	C	C3'-C2'-C1'	7.44	107.45	101.50
44	BO	21	ARG	NE-CZ-NH2	-7.44	116.58	120.30
57	Be	85	PHE	CB-CG-CD1	7.44	126.01	120.80
78	CA	204	G	C1'-O4'-C4'	-7.44	103.94	109.90
78	CA	643	G	O4'-C1'-N9	7.44	114.16	108.20
81	DA	1250	G	P-O3'-C3'	-7.44	110.77	119.70
81	DA	186	U	N1-C1'-C2'	-7.44	103.81	112.00
81	DA	841	A	C1'-O4'-C4'	-7.44	103.95	109.90
81	DA	869	G	O4'-C1'-N9	7.44	114.15	108.20
81	DA	1409	G	C3'-C2'-C1'	-7.44	95.55	101.50
83	DC	58	U	O4'-C1'-N1	7.44	114.15	108.20
81	DA	1786	G	P-O3'-C3'	-7.44	110.77	119.70
26	AZ	5	HIS	N-CA-CB	7.44	123.99	110.60
31	BB	21	ARG	NE-CZ-NH1	7.44	124.02	120.30
78	CA	645	C	O4'-C1'-N1	7.44	114.15	108.20
81	DA	838	G	N9-C1'-C2'	-7.44	103.82	112.00
81	DA	1420	C	P-O3'-C3'	7.44	128.62	119.70
82	DB	87	G	P-O3'-C3'	7.44	128.63	119.70
9	AH	107	SER	N-CA-CB	7.44	121.65	110.50
81	DA	1035	G	O4'-C1'-N9	7.44	114.15	108.20
44	BO	21	ARG	CA-C-N	7.43	133.56	117.20
79	CB	68	C	N1-C1'-C2'	7.43	123.66	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1295	G	P-O3'-C3'	-7.43	110.78	119.70
81	DA	1378	U	P-O5'-C5'	7.43	132.80	120.90
81	DA	2625	C	P-O3'-C3'	7.43	128.62	119.70
81	DA	2245	C	N1-C1'-C2'	7.43	123.66	114.00
83	DC	53	U	O4'-C1'-N1	-7.43	102.25	108.20
78	CA	573	C	C3'-C2'-O2'	-7.43	91.76	113.30
78	CA	1460	A	P-O3'-C3'	7.43	128.61	119.70
81	DA	2971	A	O4'-C1'-C2'	-7.43	98.37	105.80
55	Bc	41	LEU	CA-C-N	7.43	137.90	117.10
55	Bc	67	ARG	NE-CZ-NH1	7.43	124.01	120.30
81	DA	1826	C	C4'-C3'-C2'	-7.43	95.17	102.60
83	DC	67	C	N1-C1'-C2'	7.43	123.66	114.00
18	AP	99	ARG	NE-CZ-NH2	-7.42	116.59	120.30
78	CA	253	A	C5'-C4'-O4'	7.42	118.01	109.10
78	CA	869	A	C4'-C3'-C2'	-7.42	95.17	102.60
81	DA	1082	U	C3'-C2'-C1'	7.42	107.44	101.50
78	CA	411	C	N1-C1'-C2'	-7.42	103.83	112.00
81	DA	2101	C	P-O3'-C3'	-7.42	110.79	119.70
58	Bg	31	ARG	NE-CZ-NH2	-7.42	116.59	120.30
78	CA	46	A	C5'-C4'-C3'	-7.42	104.13	116.00
81	DA	2052	G	O4'-C1'-N9	7.42	114.14	108.20
36	BF	62	ARG	NE-CZ-NH1	7.42	124.01	120.30
2	AA	250	VAL	CA-CB-CG2	7.42	122.03	110.90
40	BK	199	TYR	CB-CG-CD2	-7.42	116.55	121.00
81	DA	1562	C	C4'-C3'-C2'	-7.42	95.18	102.60
81	DA	2465	G	C1'-O4'-C4'	-7.42	103.97	109.90
81	DA	2684	C	C3'-C2'-C1'	7.42	107.44	101.50
78	CA	1602	C	O4'-C1'-C2'	-7.42	98.38	105.80
81	DA	530	G	P-O3'-C3'	-7.42	110.80	119.70
81	DA	2376	G	O3'-P-O5'	-7.42	89.91	104.00
6	AE	25	ARG	NE-CZ-NH1	7.42	124.01	120.30
78	CA	416	A	O4'-C1'-C2'	-7.42	98.39	105.80
78	CA	1406	A	O4'-C1'-N9	7.42	114.13	108.20
81	DA	32	U	P-O3'-C3'	7.42	128.60	119.70
1	Aa	56	VAL	O-C-N	-7.41	107.01	121.10
45	BR	124	LEU	CB-CG-CD1	7.41	123.60	111.00
60	Bi	80	ARG	N-CA-CB	7.41	123.94	110.60
81	DA	490	A	O4'-C1'-N9	7.41	114.13	108.20
81	DA	1631	C	N1-C1'-C2'	7.41	123.64	114.00
81	DA	1958	U	O4'-C1'-N1	7.41	114.13	108.20
78	CA	155	U	P-O3'-C3'	7.41	128.59	119.70
81	DA	312	C	C3'-C2'-C1'	7.41	107.43	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	9	C	P-O5'-C5'	7.41	132.76	120.90
78	CA	1086	A	P-O3'-C3'	-7.41	110.81	119.70
81	DA	270	U	O4'-C1'-N1	7.41	114.13	108.20
81	DA	2257	C	C3'-C2'-C1'	-7.41	95.57	101.50
81	DA	2463	G	N9-C1'-C2'	-7.41	103.85	112.00
78	CA	1136	U	C3'-C2'-C1'	7.41	107.43	101.50
81	DA	2160	G	C1'-O4'-C4'	-7.41	103.97	109.90
81	DA	3327	G	P-O3'-C3'	7.41	128.59	119.70
68	Bq	2	ARG	NE-CZ-NH2	7.41	124.00	120.30
81	DA	3013	U	C1'-O4'-C4'	-7.41	103.97	109.90
3	AB	40	ARG	NE-CZ-NH2	-7.41	116.60	120.30
3	AB	152	PHE	N-CA-CB	7.41	123.93	110.60
32	BC	196	ARG	NE-CZ-NH1	7.41	124.00	120.30
49	BV	21	TYR	CB-CG-CD1	7.41	125.44	121.00
78	CA	1271	G	O4'-C1'-N9	7.41	114.12	108.20
81	DA	162	G	C5'-C4'-O4'	-7.41	100.21	109.10
81	DA	1488	G	O4'-C1'-C2'	7.41	114.27	107.60
81	DA	2707	C	C5'-C4'-C3'	-7.41	104.15	116.00
15	AN	38	ILE	N-CA-CB	7.40	127.83	110.80
78	CA	256	A	P-O5'-C5'	7.40	132.75	120.90
81	DA	1316	C	C1'-O4'-C4'	-7.40	103.98	109.90
81	DA	3215	A	C1'-C2'-O2'	-7.40	88.39	110.60
59	Bh	44	ARG	NE-CZ-NH1	7.40	124.00	120.30
78	CA	1213	G	O4'-C1'-N9	7.40	114.12	108.20
81	DA	1267	U	O4'-C1'-N1	7.40	114.12	108.20
81	DA	3100	U	P-O5'-C5'	7.40	132.74	120.90
82	DB	91	C	O4'-C1'-N1	7.40	114.12	108.20
2	AA	185	ARG	N-CA-CB	7.40	123.92	110.60
17	AQ	29	GLN	N-CA-CB	7.40	123.92	110.60
78	CA	1377	U	O4'-C1'-N1	7.40	114.12	108.20
81	DA	1891	A	O4'-C1'-N9	7.40	114.12	108.20
81	DA	3337	G	O4'-C1'-C2'	7.40	114.26	107.60
52	BY	90	VAL	CG1-CB-CG2	7.40	122.74	110.90
81	DA	3131	U	O4'-C1'-C2'	-7.40	98.40	105.80
81	DA	266	A	C5'-C4'-O4'	7.40	117.98	109.10
81	DA	2895	G	C1'-O4'-C4'	-7.40	103.98	109.90
78	CA	825	U	O4'-C1'-N1	7.40	114.12	108.20
8	AF	99	MET	CG-SD-CE	-7.39	88.37	100.20
9	AH	85	ASP	CB-CG-OD1	-7.39	111.64	118.30
81	DA	676	G	N9-C1'-C2'	-7.39	103.87	112.00
81	DA	1087	G	P-O3'-C3'	-7.39	110.83	119.70
1	Aa	61	PHE	CB-CG-CD1	-7.39	115.62	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	BQ	123	GLU	CB-CA-C	-7.39	95.61	110.40
78	CA	179	A	O4'-C1'-C2'	-7.39	98.41	105.80
78	CA	1155	G	O4'-C1'-N9	7.39	114.11	108.20
78	CA	1222	C	C4'-C3'-C2'	-7.39	95.21	102.60
81	DA	1760	A	O4'-C1'-N9	7.39	114.11	108.20
81	DA	3372	A	O3'-P-O5'	7.39	118.04	104.00
81	DA	720	A	N9-C1'-C2'	-7.39	103.87	112.00
78	CA	564	G	C5-C6-O6	-7.39	124.17	128.60
81	DA	268	A	O4'-C1'-C2'	-7.39	98.41	105.80
43	BP	42	PRO	O-C-N	-7.38	110.89	122.70
78	CA	659	C	P-O5'-C5'	7.38	132.72	120.90
81	DA	139	G	O4'-C1'-N9	7.38	114.11	108.20
81	DA	1867	A	N9-C1'-C2'	-7.38	103.88	112.00
81	DA	2763	U	P-O5'-C5'	7.38	132.71	120.90
8	AF	65	ARG	NE-CZ-NH2	-7.38	116.61	120.30
31	BB	30	ARG	NE-CZ-NH1	7.38	123.99	120.30
81	DA	2249	G	O3'-P-O5'	7.38	118.03	104.00
81	DA	848	A	C1'-O4'-C4'	-7.38	104.00	109.90
81	DA	1342	C	O4'-C1'-N1	7.38	114.11	108.20
78	CA	903	U	P-O5'-C5'	-7.38	109.09	120.90
17	AQ	92	ASP	N-CA-C	-7.38	91.08	111.00
35	BG	78	ARG	NE-CZ-NH1	7.38	123.99	120.30
59	Bh	92	TYR	CB-CG-CD1	7.38	125.43	121.00
78	CA	44	U	O4'-C1'-N1	7.38	114.10	108.20
18	AP	119	VAL	CB-CA-C	7.38	125.41	111.40
35	BG	152	THR	N-CA-C	-7.37	91.09	111.00
78	CA	402	C	C3'-C2'-C1'	7.37	107.40	101.50
78	CA	1677	C	O4'-C1'-N1	7.37	114.10	108.20
81	DA	2576	G	C5-C6-O6	-7.37	124.18	128.60
82	DB	72	A	O3'-P-O5'	-7.37	89.99	104.00
33	BD	89	ALA	N-CA-CB	-7.37	99.78	110.10
78	CA	1751	C	N1-C1'-C2'	7.37	123.58	114.00
81	DA	766	U	P-O3'-C3'	7.37	128.54	119.70
81	DA	1620	U	C5'-C4'-O4'	-7.37	100.25	109.10
81	DA	1699	A	O4'-C4'-C3'	-7.37	96.63	104.00
78	CA	254	A	C1'-O4'-C4'	7.37	115.79	109.90
78	CA	371	G	O4'-C1'-N9	7.37	114.09	108.20
81	DA	190	U	O4'-C1'-N1	7.37	114.09	108.20
81	DA	1743	G	N9-C1'-C2'	7.37	123.58	114.00
81	DA	2783	U	N1-C1'-C2'	-7.37	103.89	112.00
81	DA	1250	G	C4'-C3'-C2'	-7.37	95.23	102.60
83	DC	55	A	C3'-C2'-C1'	7.37	107.39	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	10	C	C5'-C4'-C3'	7.37	127.78	116.00
81	DA	2439	A	N9-C1'-C2'	7.37	123.58	114.00
81	DA	2987	A	C5'-C4'-C3'	-7.37	104.21	116.00
81	DA	149	U	O5'-P-OP1	7.36	119.54	110.70
3	AB	143	ARG	NE-CZ-NH1	-7.36	116.62	120.30
81	DA	238	A	P-O5'-C5'	7.36	132.68	120.90
81	DA	311	C	C3'-C2'-C1'	7.36	107.39	101.50
81	DA	381	U	O4'-C1'-N1	7.36	114.09	108.20
81	DA	424	G	C3'-C2'-C1'	7.36	107.39	101.50
81	DA	2720	G	O4'-C1'-N9	-7.36	102.31	108.20
83	DC	114	A	O5'-C5'-C4'	7.36	125.68	111.70
63	Bm	37	TYR	CB-CG-CD1	-7.36	116.59	121.00
81	DA	1105	A	C1'-O4'-C4'	7.36	115.79	109.90
82	DB	108	C	C3'-C2'-C1'	7.36	107.39	101.50
78	CA	191	C	C3'-C2'-C1'	7.35	107.38	101.50
81	DA	1570	U	P-O3'-C3'	7.35	128.52	119.70
81	DA	2520	A	O4'-C1'-C2'	-7.35	98.45	105.80
40	BK	178	VAL	CA-C-O	-7.35	104.66	120.10
78	CA	87	C	O4'-C1'-C2'	-7.35	98.45	105.80
78	CA	1228	G	N9-C1'-C2'	7.35	123.56	114.00
81	DA	885	U	P-O5'-C5'	7.35	132.66	120.90
81	DA	1278	A	P-O3'-C3'	7.35	128.52	119.70
81	DA	3382	U	O3'-P-O5'	-7.35	90.03	104.00
81	DA	669	U	O4'-C1'-N1	7.35	114.08	108.20
59	Bh	43	ARG	NE-CZ-NH2	-7.35	116.62	120.30
78	CA	684	A	C3'-C2'-C1'	7.35	107.38	101.50
80	CC	19	U	C2-N1-C1'	7.35	126.52	117.70
81	DA	1422	G	C3'-C2'-C1'	-7.35	95.62	101.50
81	DA	2067	U	O4'-C1'-C2'	-7.35	98.45	105.80
81	DA	2372	A	O4'-C1'-C2'	-7.35	98.45	105.80
81	DA	2450	G	O3'-P-O5'	-7.35	90.04	104.00
78	CA	1661	U	O4'-C1'-N1	7.35	114.08	108.20
78	CA	1497	U	O4'-C1'-N1	7.35	114.08	108.20
13	AL	40	SER	N-CA-C	-7.34	91.17	111.00
78	CA	828	U	O4'-C1'-N1	7.34	114.08	108.20
78	CA	1280	C	O4'-C1'-C2'	-7.34	98.46	105.80
81	DA	1679	A	O4'-C4'-C3'	-7.34	96.66	104.00
81	DA	2316	G	N9-C1'-C2'	7.34	123.55	114.00
82	DB	97	A	OP1-P-O3'	7.34	121.35	105.20
81	DA	247	C	O4'-C1'-C2'	-7.34	98.46	105.80
81	DA	682	U	O4'-C1'-C2'	-7.34	98.46	105.80
81	DA	1438	U	O4'-C1'-N1	7.34	114.07	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2275	A	C1'-O4'-C4'	-7.34	104.03	109.90
81	DA	2945	G	O4'-C1'-C2'	7.34	114.21	107.60
49	BV	122	ALA	CB-CA-C	7.34	121.11	110.10
66	Bo	41	ARG	CA-C-N	7.34	133.34	117.20
36	BF	31	ARG	NE-CZ-NH2	-7.34	116.63	120.30
78	CA	1245	G	O4'-C1'-N9	7.34	114.07	108.20
78	CA	1724	U	O3'-P-O5'	-7.34	90.06	104.00
81	DA	242	C	C1'-O4'-C4'	-7.34	104.03	109.90
81	DA	1379	G	O4'-C1'-C2'	7.34	114.20	107.60
30	BA	54	LYS	CB-CA-C	7.33	125.07	110.40
34	BE	52	TYR	CD1-CG-CD2	-7.33	109.83	117.90
81	DA	1742	U	C3'-C2'-C1'	7.33	107.37	101.50
81	DA	1996	C	C1'-O4'-C4'	7.33	115.77	109.90
4	AD	77	ARG	NE-CZ-NH1	7.33	123.97	120.30
78	CA	1426	C	N3-C4-C5	-7.33	118.97	121.90
78	CA	47	A	P-O5'-C5'	7.33	132.63	120.90
78	CA	608	U	O4'-C1'-N1	7.33	114.06	108.20
81	DA	658	G	C3'-C2'-C1'	-7.33	95.64	101.50
78	CA	1505	A	C4-C5-C6	7.33	120.67	117.00
81	DA	1690	C	O5'-P-OP2	-7.33	99.10	105.70
29	AU	72	PHE	N-CA-C	7.33	130.78	111.00
62	Bk	41	ARG	NE-CZ-NH2	-7.33	116.64	120.30
81	DA	1111	U	O4'-C1'-N1	7.33	114.06	108.20
81	DA	1154	A	O4'-C1'-N9	7.33	114.06	108.20
81	DA	1162	U	O3'-P-O5'	-7.33	90.08	104.00
9	AH	28	ARG	CD-NE-CZ	7.33	133.86	123.60
81	DA	489	C	N1-C1'-C2'	7.33	123.53	114.00
78	CA	26	A	O4'-C1'-N9	7.33	114.06	108.20
78	CA	127	G	O4'-C1'-N9	7.33	114.06	108.20
81	DA	2494	A	P-O5'-C5'	7.33	132.62	120.90
81	DA	2646	C	N1-C1'-C2'	7.33	123.52	114.00
81	DA	2667	A	P-O3'-C3'	-7.33	110.91	119.70
81	DA	3096	C	N1-C1'-C2'	7.33	123.52	114.00
78	CA	840	U	P-O5'-C5'	7.32	132.62	120.90
78	CA	956	C	N1-C1'-C2'	7.32	123.52	114.00
81	DA	3011	A	C3'-C2'-C1'	7.32	107.36	101.50
81	DA	693	A	O4'-C1'-C2'	-7.32	98.48	105.80
81	DA	975	C	O4'-C1'-N1	7.32	114.06	108.20
81	DA	2211	U	P-O3'-C3'	7.32	128.49	119.70
78	CA	858	G	N9-C1'-C2'	-7.32	103.95	112.00
78	CA	1545	A	O3'-P-O5'	-7.32	90.09	104.00
81	DA	1126	G	O4'-C1'-N9	7.32	114.06	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	309	U	C5'-C4'-C3'	7.32	127.71	116.00
1	Aa	57	PRO	CB-CA-C	7.32	130.29	112.00
22	AV	27	TRP	N-CA-CB	7.32	123.77	110.60
33	BD	353	ALA	N-CA-C	7.32	130.76	111.00
81	DA	43	A	N9-C1'-C2'	-7.32	103.95	112.00
81	DA	1219	C	O4'-C1'-N1	7.32	114.05	108.20
3	AB	117	ARG	NE-CZ-NH1	-7.32	116.64	120.30
78	CA	1246	C	P-O3'-C3'	7.32	128.48	119.70
81	DA	218	G	N9-C1'-C2'	-7.32	103.95	112.00
81	DA	1994	G	O4'-C1'-N9	7.32	114.05	108.20
81	DA	1769	G	C5-C6-O6	-7.31	124.21	128.60
81	DA	3097	C	P-O3'-C3'	7.31	128.48	119.70
78	CA	1433	G	C3'-C2'-C1'	7.31	107.35	101.50
81	DA	607	A	O4'-C1'-N9	7.31	114.05	108.20
81	DA	686	G	O4'-C1'-N9	7.31	114.05	108.20
81	DA	3215	A	P-O3'-C3'	7.31	128.48	119.70
81	DA	3281	U	P-O3'-C3'	7.31	128.47	119.70
78	CA	1476	C	O4'-C4'-C3'	-7.31	96.69	104.00
80	CC	17	A	N9-C1'-C2'	7.31	123.50	114.00
81	DA	2637	A	C3'-C2'-C1'	-7.31	95.65	101.50
81	DA	2709	C	C3'-C2'-C1'	7.31	107.35	101.50
17	AQ	63	LYS	CB-CA-C	-7.31	95.78	110.40
81	DA	1206	G	P-O5'-C5'	7.31	132.59	120.90
81	DA	1713	G	C1'-O4'-C4'	-7.31	104.05	109.90
40	BK	112	TYR	CB-CG-CD2	-7.30	116.62	121.00
78	CA	1722	A	C5'-C4'-C3'	7.30	127.69	116.00
81	DA	2528	G	C1'-O4'-C4'	7.30	115.74	109.90
83	DC	48	U	O4'-C1'-C2'	7.30	114.17	107.60
29	AU	63	GLN	CB-CA-C	-7.30	95.80	110.40
78	CA	908	U	O4'-C1'-N1	7.30	114.04	108.20
74	BQ	158	ARG	CA-C-N	7.30	133.26	117.20
78	CA	508	U	P-O3'-C3'	7.30	128.46	119.70
81	DA	41	G	O4'-C1'-N9	7.30	114.04	108.20
81	DA	1535	A	O3'-P-O5'	-7.30	90.13	104.00
81	DA	1662	G	P-O5'-C5'	7.30	132.58	120.90
78	CA	582	U	O4'-C1'-N1	7.30	114.04	108.20
78	CA	1367	G	O5'-C5'-C4'	7.30	125.57	111.70
78	CA	1557	U	O4'-C1'-N1	7.30	114.04	108.20
81	DA	758	C	C4'-C3'-C2'	-7.30	95.30	102.60
81	DA	2351	U	P-O3'-C3'	-7.30	110.94	119.70
81	DA	3131	U	O3'-P-O5'	-7.30	90.13	104.00
43	BP	51	LEU	C-N-CA	7.30	137.63	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	179	A	P-O3'-C3'	7.30	128.46	119.70
81	DA	2723	U	C3'-C2'-C1'	7.30	107.34	101.50
5	AC	157	ASP	CB-CA-C	-7.30	95.81	110.40
38	Bs	61	ARG	NE-CZ-NH2	-7.30	116.65	120.30
81	DA	2439	A	O4'-C1'-N9	-7.30	102.36	108.20
63	Bm	6	LYS	N-CA-CB	7.29	123.73	110.60
4	AD	205	PHE	CB-CG-CD2	-7.29	115.69	120.80
36	BF	2	LYS	N-CA-CB	-7.29	97.47	110.60
81	DA	601	U	O4'-C1'-N1	7.29	114.03	108.20
81	DA	1175	C	P-O3'-C3'	7.29	128.45	119.70
81	DA	2872	A	P-O3'-C3'	-7.29	110.95	119.70
81	DA	3230	G	C1'-O4'-C4'	-7.29	104.06	109.90
40	BK	112	TYR	CB-CG-CD1	7.29	125.38	121.00
72	Bu	45	PHE	CB-CG-CD2	-7.29	115.70	120.80
78	CA	1095	U	O4'-C1'-N1	7.29	114.03	108.20
81	DA	2067	U	C5'-C4'-O4'	7.29	117.85	109.10
81	DA	3034	C	O4'-C1'-N1	-7.29	102.37	108.20
81	DA	3126	C	N1-C1'-C2'	7.29	123.48	114.00
83	DC	35	C	N1-C1'-C2'	7.29	123.48	114.00
78	CA	1	U	O5'-P-OP1	-7.29	99.14	105.70
81	DA	2406	C	P-O5'-C5'	7.29	132.56	120.90
81	DA	445	G	O4'-C1'-N9	7.29	114.03	108.20
21	AT	71	ARG	NE-CZ-NH2	7.29	123.94	120.30
78	CA	1124	A	C1'-O4'-C4'	7.29	115.73	109.90
81	DA	513	G	C1'-O4'-C4'	-7.29	104.07	109.90
81	DA	1624	G	O5'-C5'-C4'	7.29	125.54	111.70
81	DA	2579	G	C5-C6-O6	-7.29	124.23	128.60
81	DA	2988	C	C4'-C3'-C2'	-7.29	95.31	102.60
81	DA	3308	C	N1-C1'-C2'	7.29	123.47	114.00
82	DB	102	U	O4'-C1'-N1	7.29	114.03	108.20
78	CA	565	C	O4'-C1'-N1	7.28	114.03	108.20
81	DA	2512	C	C5'-C4'-C3'	-7.28	104.35	116.00
81	DA	2688	U	O4'-C1'-C2'	-7.28	98.52	105.80
4	AD	158	ASP	CB-CG-OD2	-7.28	111.75	118.30
81	DA	525	C	O4'-C1'-C2'	-7.28	98.52	105.80
38	Bs	147	ARG	NE-CZ-NH1	7.28	123.94	120.30
44	BO	20	GLY	O-C-N	-7.28	111.05	122.70
78	CA	840	U	O4'-C1'-N1	7.28	114.02	108.20
4	AD	213	SER	N-CA-CB	7.28	121.42	110.50
78	CA	671	G	O4'-C1'-N9	7.28	114.02	108.20
81	DA	765	C	N1-C1'-C2'	7.28	123.46	114.00
81	DA	2273	G	O4'-C1'-N9	7.28	114.02	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	Be	223	PHE	CB-CG-CD1	-7.28	115.71	120.80
78	CA	1151	A	N9-C1'-C2'	-7.28	103.99	112.00
83	DC	18	C	O3'-P-O5'	7.28	117.83	104.00
20	AS	35	ASP	CB-CA-C	-7.28	95.85	110.40
78	CA	519	C	P-O3'-C3'	7.28	128.43	119.70
78	CA	845	G	C5-C6-O6	-7.28	124.23	128.60
78	CA	954	G	O4'-C1'-N9	7.28	114.02	108.20
14	AM	115	ARG	NE-CZ-NH2	-7.27	116.66	120.30
81	DA	2673	A	P-O3'-C3'	7.27	128.43	119.70
80	CC	13	A	P-O3'-C3'	7.27	128.43	119.70
57	Be	98	LYS	CA-C-N	-7.27	96.74	117.10
4	AD	68	ARG	NH1-CZ-NH2	7.27	127.40	119.40
29	AU	72	PHE	O-C-N	-7.27	110.84	123.20
32	BC	162	VAL	CA-CB-CG1	7.27	121.80	110.90
76	BS	89	TYR	CG-CD1-CE1	7.27	127.12	121.30
78	CA	1305	U	O4'-C1'-N1	7.27	114.02	108.20
81	DA	2626	A	P-O5'-C5'	7.27	132.53	120.90
81	DA	3010	U	C5'-C4'-O4'	-7.27	100.38	109.10
2	AA	174	TRP	CB-CG-CD1	7.27	136.45	127.00
40	BK	188	SER	N-CA-C	7.27	130.62	111.00
81	DA	386	A	P-O3'-C3'	7.27	128.42	119.70
81	DA	2031	U	P-O5'-C5'	7.27	132.53	120.90
81	DA	673	U	C5'-C4'-C3'	-7.26	104.38	116.00
81	DA	1065	A	P-O3'-C3'	-7.26	110.98	119.70
78	CA	1316	G	C1'-O4'-C4'	-7.26	104.09	109.90
81	DA	2045	G	P-O3'-C3'	7.26	128.41	119.70
81	DA	2376	G	N9-C1'-C2'	7.26	123.44	114.00
12	AK	126	THR	N-CA-CB	7.26	124.09	110.30
81	DA	427	C	C3'-C2'-C1'	7.26	107.31	101.50
81	DA	2901	G	N9-C1'-C2'	7.26	123.44	114.00
42	BM	66	LYS	CA-C-N	7.26	137.42	117.10
81	DA	1396	C	O4'-C1'-C2'	-7.26	98.54	105.80
81	DA	2732	G	O4'-C1'-N9	7.26	114.00	108.20
81	DA	2950	G	N9-C1'-C2'	-7.26	104.02	112.00
48	BW	90	ARG	N-CA-CB	-7.25	97.54	110.60
81	DA	2071	A	O3'-P-O5'	-7.25	90.22	104.00
5	AC	151	ASP	CB-CG-OD2	-7.25	111.77	118.30
25	AY	57	MET	N-CA-CB	-7.25	97.55	110.60
30	BA	191	VAL	N-CA-CB	7.25	127.46	111.50
78	CA	324	U	O4'-C1'-N1	7.25	114.00	108.20
81	DA	2792	A	O4'-C1'-N9	7.25	114.00	108.20
78	CA	1354	G	O4'-C1'-N9	7.25	114.00	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1415	U	N1-C1'-C2'	7.25	123.43	114.00
81	DA	1046	A	O4'-C1'-N9	7.25	114.00	108.20
81	DA	3167	A	C5'-C4'-C3'	-7.25	104.40	116.00
78	CA	1723	U	O4'-C1'-N1	7.25	114.00	108.20
81	DA	2181	C	P-O5'-C5'	-7.25	109.30	120.90
78	CA	1164	G	C3'-C2'-C1'	-7.25	95.70	101.50
81	DA	804	C	C3'-C2'-C1'	7.25	107.30	101.50
56	Bf	98	SER	N-CA-CB	7.25	121.37	110.50
81	DA	916	G	C1'-O4'-C4'	7.25	115.70	109.90
81	DA	2134	G	O4'-C1'-N9	7.25	114.00	108.20
81	DA	2175	U	P-O5'-C5'	7.25	132.49	120.90
78	CA	604	A	C3'-C2'-C1'	7.25	107.30	101.50
2	AA	10	THR	CA-C-O	-7.24	104.89	120.10
16	AO	124	ARG	N-CA-CB	-7.24	97.56	110.60
35	BG	171	PRO	N-CA-C	-7.24	93.27	112.10
49	BV	71	ALA	N-CA-CB	7.24	120.24	110.10
78	CA	774	A	P-O5'-C5'	7.24	132.49	120.90
78	CA	1425	A	P-O3'-C3'	7.24	128.39	119.70
81	DA	2136	C	O4'-C1'-N1	-7.24	102.41	108.20
83	DC	57	C	C1'-O4'-C4'	7.24	115.69	109.90
78	CA	635	A	O4'-C1'-N9	-7.24	102.41	108.20
78	CA	1055	U	P-O3'-C3'	7.24	128.39	119.70
78	CA	1728	A	P-O3'-C3'	7.24	128.39	119.70
81	DA	765	C	C5'-C4'-O4'	7.24	117.79	109.10
81	DA	2103	U	O4'-C1'-N1	7.24	113.99	108.20
81	DA	3047	U	C4'-C3'-C2'	-7.24	95.36	102.60
81	DA	3135	U	P-O3'-C3'	7.24	128.39	119.70
78	CA	1274	C	C6-N1-C1'	-7.24	112.11	120.80
78	CA	1458	G	O4'-C1'-N9	7.24	113.99	108.20
78	CA	1705	C	N1-C1'-C2'	7.24	123.41	114.00
78	CA	1746	A	O4'-C1'-N9	-7.24	102.41	108.20
81	DA	1049	C	N1-C1'-C2'	7.24	123.41	114.00
81	DA	1344	G	C5'-C4'-C3'	7.24	127.58	116.00
81	DA	1694	U	C4'-C3'-C2'	-7.24	95.36	102.60
81	DA	2750	U	P-O3'-C3'	-7.24	111.01	119.70
81	DA	2791	G	O4'-C1'-C2'	7.24	114.11	107.60
81	DA	2673	A	C3'-C2'-C1'	7.24	107.29	101.50
1	Aa	279	ALA	CB-CA-C	7.24	120.95	110.10
30	BA	29	LEU	CB-CG-CD1	-7.24	98.70	111.00
77	BI	154	ARG	NE-CZ-NH2	-7.24	116.68	120.30
78	CA	586	G	C1'-O4'-C4'	-7.24	104.11	109.90
81	DA	406	G	O4'-C1'-C2'	-7.24	98.56	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Bi	94	LEU	CB-CA-C	7.23	123.94	110.20
81	DA	2152	A	P-O3'-C3'	-7.23	111.02	119.70
36	BF	86	TYR	CB-CG-CD1	-7.23	116.66	121.00
78	CA	503	G	C5-C6-O6	-7.23	124.26	128.60
78	CA	942	G	C3'-C2'-C1'	-7.23	95.71	101.50
78	CA	1436	A	C1'-O4'-C4'	-7.23	104.12	109.90
78	CA	1604	U	C1'-O4'-C4'	-7.23	104.12	109.90
81	DA	1975	C	C1'-O4'-C4'	7.23	115.68	109.90
78	CA	156	A	N9-C1'-C2'	-7.23	104.05	112.00
81	DA	543	C	C3'-C2'-C1'	7.23	107.28	101.50
81	DA	2438	A	C5'-C4'-C3'	7.23	127.57	116.00
2	AA	81	PHE	CB-CG-CD1	7.23	125.86	120.80
43	BP	114	ARG	NE-CZ-NH2	-7.23	116.69	120.30
55	Bc	104	GLN	N-CA-C	-7.23	91.49	111.00
66	Bo	7	PHE	C-N-CA	7.23	139.77	121.70
76	BS	151	PHE	C-N-CD	-7.23	104.70	120.60
81	DA	1085	A	N9-C1'-C2'	7.23	123.40	114.00
81	DA	2928	C	O4'-C1'-C2'	-7.23	98.57	105.80
81	DA	1234	G	O4'-C1'-C2'	7.23	114.10	107.60
3	AB	208	ILE	C-N-CA	-7.22	103.64	121.70
29	AU	14	SER	CB-CA-C	7.22	123.83	110.10
76	BS	154	VAL	CA-C-N	7.22	133.09	117.20
78	CA	1101	G	C1'-O4'-C4'	-7.22	104.12	109.90
81	DA	80	G	N9-C1'-C2'	7.22	123.39	114.00
81	DA	1388	U	C5'-C4'-C3'	-7.22	104.44	116.00
81	DA	1427	U	C3'-C2'-C1'	7.22	107.28	101.50
81	DA	2048	G	C3'-C2'-C1'	7.22	107.28	101.50
81	DA	1471	U	O4'-C1'-N1	7.22	113.98	108.20
81	DA	3037	U	C5'-C4'-C3'	-7.22	104.44	116.00
81	DA	3213	A	P-O3'-C3'	7.22	128.37	119.70
81	DA	3358	U	O4'-C1'-N1	7.22	113.98	108.20
81	DA	510	G	P-O3'-C3'	7.22	128.37	119.70
69	Br	80	ARG	NE-CZ-NH1	7.22	123.91	120.30
78	CA	480	G	N1-C6-O6	7.22	124.23	119.90
78	CA	1472	C	C3'-C2'-C1'	7.22	107.27	101.50
4	AD	90	ILE	C-N-CA	7.22	139.74	121.70
17	AQ	26	LEU	CB-CA-C	7.22	123.91	110.20
81	DA	170	G	O4'-C1'-N9	7.22	113.97	108.20
78	CA	994	G	N9-C1'-C2'	-7.21	104.06	112.00
78	CA	1164	G	N9-C1'-C2'	-7.21	104.06	112.00
81	DA	748	U	N1-C1'-C2'	-7.21	104.06	112.00
81	DA	1716	U	C3'-C2'-C1'	7.21	107.27	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2188	A	C4'-C3'-C2'	-7.21	95.39	102.60
81	DA	3199	G	P-O5'-C5'	7.21	132.44	120.90
81	DA	1424	C	C3'-C2'-C1'	7.21	107.27	101.50
81	DA	1686	U	O4'-C4'-C3'	-7.21	96.79	104.00
81	DA	2443	A	P-O3'-C3'	7.21	128.36	119.70
78	CA	1241	G	O4'-C1'-N9	7.21	113.97	108.20
83	DC	41	G	P-O5'-C5'	7.21	132.44	120.90
13	AL	39	LYS	CA-CB-CG	7.21	129.26	113.40
41	BN	39	ILE	CA-CB-CG2	-7.21	96.48	110.90
81	DA	1447	G	O4'-C1'-C2'	-7.21	98.59	105.80
81	DA	2983	C	O4'-C1'-C2'	-7.21	98.59	105.80
60	Bi	77	GLY	C-N-CA	7.21	137.44	122.30
81	DA	55	G	C1'-O4'-C4'	-7.21	104.13	109.90
81	DA	692	A	O4'-C1'-C2'	-7.21	98.59	105.80
81	DA	2640	A	O4'-C1'-N9	7.21	113.97	108.20
37	BH	61	GLN	CA-C-N	7.21	133.06	117.20
43	BP	120	TRP	N-CA-CB	-7.21	97.63	110.60
81	DA	1689	U	O3'-P-O5'	7.21	117.69	104.00
81	DA	1926	C	O5'-C5'-C4'	7.21	125.39	111.70
81	DA	2333	C	C3'-C2'-C1'	7.21	107.27	101.50
81	DA	2445	A	C3'-C2'-C1'	7.21	107.27	101.50
81	DA	514	G	C1'-O4'-C4'	-7.21	104.14	109.90
81	DA	1391	C	P-O5'-C5'	7.21	132.43	120.90
51	BZ	14	TYR	CB-CG-CD2	-7.20	116.68	121.00
81	DA	3309	G	C5'-C4'-C3'	7.20	127.53	116.00
74	BQ	266	ALA	CB-CA-C	-7.20	99.30	110.10
81	DA	645	A	O4'-C1'-C2'	-7.20	98.60	105.80
81	DA	998	A	P-O5'-C5'	7.20	132.42	120.90
81	DA	2269	U	P-O3'-C3'	7.20	128.34	119.70
33	BD	255	PHE	CB-CG-CD2	-7.20	115.76	120.80
78	CA	597	G	C3'-C2'-C1'	7.20	107.26	101.50
78	CA	1078	C	C1'-O4'-C4'	-7.20	104.14	109.90
79	CB	66	C	P-O3'-C3'	7.20	128.34	119.70
81	DA	2633	U	C4'-C3'-C2'	-7.20	95.40	102.60
81	DA	3032	A	O4'-C1'-C2'	-7.20	98.60	105.80
12	AK	38	THR	N-CA-CB	7.20	123.98	110.30
78	CA	447	U	O3'-P-O5'	7.20	117.68	104.00
81	DA	1059	G	C1'-O4'-C4'	-7.20	104.14	109.90
81	DA	1484	U	P-O3'-C3'	7.20	128.34	119.70
81	DA	1933	A	C1'-O4'-C4'	7.20	115.66	109.90
67	Bp	34	CYS	N-CA-CB	-7.20	97.64	110.60
82	DB	41	A	C1'-O4'-C4'	-7.20	104.14	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BT	85	ARG	NE-CZ-NH2	-7.19	116.70	120.30
31	BB	89	TYR	CB-CG-CD2	7.19	125.31	121.00
78	CA	1236	A	C5'-C4'-C3'	7.19	127.51	116.00
81	DA	2718	U	O4'-C1'-N1	7.19	113.95	108.20
81	DA	3301	U	P-O3'-C3'	7.19	128.33	119.70
82	DB	57	C	O4'-C1'-N1	7.19	113.95	108.20
20	AS	60	SER	N-CA-CB	-7.19	99.71	110.50
81	DA	1189	C	O4'-C1'-C2'	-7.19	98.61	105.80
81	DA	1638	A	O4'-C1'-C2'	7.19	114.07	107.60
11	AJ	82	TYR	CB-CG-CD2	-7.19	116.69	121.00
78	CA	219	A	O4'-C1'-C2'	-7.19	98.61	105.80
78	CA	1173	C	P-O5'-C5'	-7.19	109.40	120.90
78	CA	111	U	O4'-C1'-N1	7.19	113.95	108.20
78	CA	1397	U	O4'-C1'-N1	-7.19	102.45	108.20
81	DA	1573	G	O4'-C1'-N9	7.18	113.95	108.20
81	DA	2766	U	O4'-C1'-N1	7.18	113.95	108.20
81	DA	3287	U	O4'-C1'-N1	7.18	113.95	108.20
82	DB	93	U	C1'-O4'-C4'	7.18	115.65	109.90
37	BH	98	ARG	NE-CZ-NH2	-7.18	116.71	120.30
49	BV	130	TYR	CB-CG-CD1	-7.18	116.69	121.00
78	CA	932	U	P-O5'-C5'	-7.18	109.41	120.90
80	CC	12	A	C3'-C2'-C1'	-7.18	95.75	101.50
81	DA	2362	C	OP2-P-O3'	7.18	121.00	105.20
83	DC	54	A	C1'-O4'-C4'	-7.18	104.15	109.90
37	BH	222	PHE	CB-CG-CD2	7.18	125.83	120.80
41	BN	95	ALA	N-CA-CB	7.18	120.15	110.10
74	BQ	21	ARG	NE-CZ-NH1	7.18	123.89	120.30
78	CA	294	C	O4'-C1'-C2'	-7.18	98.62	105.80
81	DA	1770	G	C5-C6-O6	-7.18	124.29	128.60
29	AU	35	VAL	O-C-N	-7.18	111.21	122.70
76	BS	75	LYS	C-N-CA	7.18	139.65	121.70
78	CA	323	A	C1'-O4'-C4'	7.18	115.64	109.90
78	CA	1008	G	O4'-C1'-N9	7.18	113.94	108.20
78	CA	1563	C	P-O3'-C3'	7.18	128.32	119.70
81	DA	696	C	C3'-C2'-C1'	7.18	107.24	101.50
82	DB	89	A	C3'-C2'-C1'	7.18	107.24	101.50
5	AC	18	PRO	CA-C-O	-7.18	102.97	120.20
8	AF	76	ARG	NE-CZ-NH2	-7.17	116.71	120.30
35	BG	5	LYS	N-CA-CB	7.17	123.52	110.60
78	CA	1284	C	P-O5'-C5'	-7.17	109.42	120.90
81	DA	599	C	P-O5'-C5'	7.17	132.38	120.90
81	DA	1291	A	N9-C1'-C2'	-7.17	104.11	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1967	U	P-O3'-C3'	-7.17	111.09	119.70
81	DA	3215	A	C3'-C2'-C1'	-7.17	95.76	101.50
21	AT	9	VAL	CB-CA-C	7.17	125.03	111.40
81	DA	2855	U	O4'-C1'-N1	7.17	113.94	108.20
81	DA	3369	G	P-O5'-C5'	7.17	132.38	120.90
14	AM	79	TYR	CB-CG-CD2	-7.17	116.70	121.00
78	CA	140	A	O4'-C1'-N9	7.17	113.94	108.20
78	CA	917	U	O4'-C1'-N1	7.17	113.94	108.20
81	DA	801	A	O3'-P-O5'	7.17	117.62	104.00
81	DA	2324	A	O4'-C1'-N9	7.17	113.94	108.20
34	BE	52	TYR	CB-CG-CD1	7.17	125.30	121.00
78	CA	1610	G	O4'-C1'-C2'	7.17	114.05	107.60
81	DA	153	U	C5'-C4'-C3'	7.17	127.47	116.00
81	DA	1115	G	O4'-C1'-N9	-7.17	102.47	108.20
81	DA	2296	A	C1'-O4'-C4'	7.17	115.63	109.90
81	DA	2504	U	P-O3'-C3'	-7.17	111.10	119.70
20	AS	33	TYR	CB-CG-CD2	7.17	125.30	121.00
81	DA	534	U	N1-C1'-C2'	-7.17	104.12	112.00
31	BB	62	VAL	CB-CA-C	-7.17	97.79	111.40
31	BB	128	ARG	NE-CZ-NH1	-7.17	116.72	120.30
61	Bj	37	THR	N-CA-CB	7.17	123.91	110.30
78	CA	1470	C	P-O3'-C3'	7.17	128.30	119.70
2	AA	109	ASN	N-CA-CB	7.16	123.50	110.60
76	BS	123	ILE	CB-CA-C	7.16	125.93	111.60
81	DA	1253	U	P-O3'-C3'	7.16	128.29	119.70
81	DA	2897	A	C3'-C2'-C1'	7.16	107.23	101.50
81	DA	3002	C	O4'-C1'-C2'	-7.16	98.64	105.80
82	DB	115	C	C3'-C2'-C1'	7.16	107.23	101.50
44	BO	57	GLY	O-C-N	-7.16	111.24	122.70
47	BU	63	VAL	CA-CB-CG2	-7.16	100.16	110.90
78	CA	676	G	O4'-C1'-N9	7.16	113.93	108.20
81	DA	1944	U	N1-C1'-C2'	7.16	123.31	114.00
78	CA	121	U	O5'-C5'-C4'	7.16	125.30	111.70
78	CA	1533	C	O3'-P-O5'	7.16	117.60	104.00
81	DA	2797	C	P-O3'-C3'	7.16	128.29	119.70
78	CA	56	U	C3'-C2'-C1'	-7.16	95.77	101.50
81	DA	2112	U	O4'-C1'-N1	7.16	113.93	108.20
83	DC	59	G	C3'-C2'-C1'	-7.16	95.77	101.50
76	BS	73	THR	N-CA-CB	7.16	123.89	110.30
76	BS	161	PRO	C-N-CA	7.16	139.59	121.70
81	DA	434	U	O4'-C1'-N1	7.16	113.92	108.20
81	DA	2535	A	C5-C6-N6	-7.16	117.97	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2653	C	N1-C1'-C2'	7.16	123.30	114.00
81	DA	3147	G	P-O3'-C3'	7.16	128.28	119.70
81	DA	3165	A	C3'-C2'-C1'	7.16	107.22	101.50
33	BD	350	LYS	C-N-CD	-7.15	104.87	120.60
40	BK	133	ARG	NH1-CZ-NH2	-7.15	111.53	119.40
81	DA	959	C	N1-C1'-C2'	7.15	123.30	114.00
81	DA	2433	U	O4'-C1'-N1	7.15	113.92	108.20
78	CA	1156	C	C3'-C2'-C1'	7.15	107.22	101.50
81	DA	2366	C	N1-C1'-C2'	7.15	123.30	114.00
53	Ba	13	VAL	CG1-CB-CG2	7.15	122.34	110.90
78	CA	1459	C	C5'-C4'-C3'	7.15	127.44	116.00
78	CA	1273	G	N1-C6-O6	7.15	124.19	119.90
78	CA	1474	G	N9-C1'-C2'	7.15	123.29	114.00
81	DA	2489	C	C3'-C2'-C1'	7.15	107.22	101.50
81	DA	2986	U	O4'-C1'-N1	7.15	113.92	108.20
78	CA	1181	U	C1'-O4'-C4'	-7.15	104.18	109.90
78	CA	10	G	O4'-C1'-N9	7.14	113.92	108.20
81	DA	166	C	OP1-P-OP2	-7.14	108.88	119.60
81	DA	426	G	C3'-C2'-C1'	7.14	107.22	101.50
81	DA	648	C	O4'-C1'-C2'	-7.14	98.66	105.80
81	DA	1237	G	N9-C1'-C2'	7.14	123.29	114.00
81	DA	1853	U	N1-C1'-C2'	-7.14	104.14	112.00
81	DA	2438	A	P-O3'-C3'	7.14	128.27	119.70
42	BM	85	TRP	CE2-CD2-CG	-7.14	101.59	107.30
81	DA	517	G	C1'-O4'-C4'	-7.14	104.19	109.90
81	DA	775	A	C1'-O4'-C4'	-7.14	104.19	109.90
81	DA	2486	A	O4'-C1'-N9	7.14	113.91	108.20
16	AO	65	VAL	CA-CB-CG1	-7.14	100.19	110.90
78	CA	635	A	N9-C1'-C2'	7.14	123.28	114.00
2	AA	5	ALA	CB-CA-C	-7.14	99.39	110.10
81	DA	598	A	C1'-O4'-C4'	-7.14	104.19	109.90
81	DA	1006	A	P-O3'-C3'	-7.14	111.13	119.70
78	CA	483	A	C4-C5-C6	7.14	120.57	117.00
78	CA	1342	C	O4'-C1'-N1	7.14	113.91	108.20
29	AU	6	THR	C-N-CA	7.13	139.54	121.70
81	DA	1629	U	O4'-C1'-N1	7.13	113.91	108.20
81	DA	544	C	O4'-C1'-N1	7.13	113.91	108.20
20	AS	137	ALA	CB-CA-C	-7.13	99.40	110.10
40	BK	132	GLY	N-CA-C	-7.13	95.27	113.10
81	DA	1277	C	N1-C1'-C2'	7.13	123.27	114.00
81	DA	1730	G	C1'-O4'-C4'	7.13	115.61	109.90
33	BD	296	GLN	O-C-N	-7.13	111.29	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BG	31	ARG	NE-CZ-NH2	-7.13	116.74	120.30
37	BH	66	SER	N-CA-CB	7.13	121.19	110.50
81	DA	1332	A	C3'-C2'-C1'	7.13	107.20	101.50
81	DA	1742	U	O4'-C1'-C2'	-7.13	98.67	105.80
81	DA	1908	A	N9-C1'-C2'	7.13	123.27	114.00
81	DA	2144	A	O4'-C1'-N9	7.13	113.90	108.20
81	DA	2438	A	P-O5'-C5'	-7.13	109.49	120.90
81	DA	3240	C	N1-C1'-C2'	7.13	123.27	114.00
5	AC	142	ASN	OD1-CG-ND2	7.13	138.29	121.90
78	CA	189	C	O4'-C1'-N1	7.13	113.90	108.20
81	DA	166	C	C4'-C3'-C2'	-7.13	95.47	102.60
81	DA	1884	A	C3'-C2'-C1'	7.13	107.20	101.50
81	DA	110	G	O4'-C1'-C2'	7.12	114.01	107.60
81	DA	227	G	C3'-C2'-C1'	7.12	107.20	101.50
81	DA	1124	U	P-O3'-C3'	7.12	128.25	119.70
81	DA	729	C	O4'-C1'-N1	7.12	113.90	108.20
81	DA	587	U	N1-C1'-C2'	7.12	123.26	114.00
46	BT	81	ARG	C-N-CA	7.12	139.50	121.70
81	DA	146	U	O5'-C5'-C4'	7.12	125.23	111.70
81	DA	216	G	O4'-C1'-N9	7.12	113.90	108.20
81	DA	2606	G	C1'-O4'-C4'	7.12	115.60	109.90
81	DA	2702	A	O4'-C1'-C2'	-7.12	98.68	105.80
81	DA	386	A	O4'-C4'-C3'	-7.12	96.88	104.00
81	DA	1566	A	O4'-C1'-N9	7.12	113.89	108.20
81	DA	2029	A	O4'-C1'-N9	7.12	113.89	108.20
81	DA	1477	A	P-O3'-C3'	7.12	128.24	119.70
13	AL	135	LEU	CA-C-O	7.12	135.04	120.10
46	BT	17	VAL	CG1-CB-CG2	-7.12	99.52	110.90
78	CA	120	U	P-O3'-C3'	-7.12	111.16	119.70
78	CA	273	G	C3'-C2'-C1'	7.12	107.19	101.50
78	CA	1437	U	C1'-O4'-C4'	7.12	115.59	109.90
81	DA	1378	U	O3'-P-O5'	-7.12	90.48	104.00
81	DA	2402	A	N9-C1'-C2'	-7.12	104.17	112.00
81	DA	2657	A	C1'-O4'-C4'	7.12	115.59	109.90
78	CA	1478	G	O5'-C5'-C4'	-7.11	98.18	111.70
79	CB	56	A	O4'-C1'-N9	7.11	113.89	108.20
81	DA	1788	C	C5'-C4'-O4'	-7.11	100.56	109.10
81	DA	2947	G	O4'-C1'-N9	7.11	113.89	108.20
14	AM	144	ARG	NE-CZ-NH2	7.11	123.86	120.30
78	CA	589	C	P-O3'-C3'	-7.11	111.17	119.70
78	CA	1585	U	C1'-O4'-C4'	7.11	115.59	109.90
81	DA	875	G	O4'-C1'-C2'	-7.11	98.69	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1077	U	C3'-C2'-C1'	7.11	107.19	101.50
81	DA	1078	U	O4'-C4'-C3'	-7.11	96.89	104.00
81	DA	1291	A	C1'-O4'-C4'	7.11	115.59	109.90
5	AC	129	ILE	CB-CA-C	7.11	125.82	111.60
78	CA	1746	A	O3'-P-O5'	-7.11	90.49	104.00
81	DA	3337	G	C3'-C2'-C1'	-7.11	95.81	101.50
78	CA	217	A	O4'-C1'-N9	7.11	113.89	108.20
18	AP	109	VAL	CB-CA-C	-7.11	97.90	111.40
65	Bn	40	GLN	N-CA-CB	-7.11	97.81	110.60
81	DA	3143	C	P-O3'-C3'	7.11	128.23	119.70
8	AF	28	PRO	N-CA-CB	7.10	111.83	103.30
78	CA	93	A	C1'-O4'-C4'	-7.10	104.22	109.90
78	CA	1233	G	C2'-C3'-O3'	7.10	125.13	109.50
81	DA	808	A	N9-C1'-C2'	7.10	123.23	114.00
81	DA	1217	A	C3'-C2'-C1'	7.10	107.18	101.50
6	AE	30	THR	N-CA-C	7.10	130.17	111.00
81	DA	1404	G	O3'-P-O5'	7.10	117.49	104.00
81	DA	1427	U	O4'-C1'-N1	7.10	113.88	108.20
78	CA	773	C	O3'-P-O5'	-7.10	90.51	104.00
81	DA	76	G	N9-C1'-C2'	-7.10	104.19	112.00
81	DA	1315	U	P-O5'-C5'	7.10	132.26	120.90
81	DA	1901	A	O4'-C1'-N9	7.10	113.88	108.20
82	DB	103	G	C1'-O4'-C4'	-7.10	104.22	109.90
33	BD	194	TYR	CG-CD2-CE2	-7.10	115.62	121.30
51	BZ	51	TRP	N-CA-CB	7.10	123.38	110.60
81	DA	297	G	N9-C1'-C2'	-7.10	104.19	112.00
81	DA	1324	U	O3'-P-O5'	7.10	117.48	104.00
81	DA	3303	G	O4'-C1'-N9	7.10	113.88	108.20
78	CA	471	A	C3'-C2'-C1'	7.10	107.18	101.50
81	DA	548	G	O4'-C1'-C2'	7.10	113.99	107.60
81	DA	1258	U	C5'-C4'-O4'	7.10	117.61	109.10
34	BE	9	MET	CA-C-N	7.09	132.81	117.20
51	BZ	8	PHE	CB-CG-CD1	-7.09	115.83	120.80
81	DA	933	A	C2'-C3'-O3'	7.09	125.11	109.50
1	Aa	121	MET	CG-SD-CE	-7.09	88.85	100.20
81	DA	2349	U	O4'-C1'-N1	7.09	113.87	108.20
38	Bs	58	MET	CG-SD-CE	-7.09	88.85	100.20
78	CA	572	C	O4'-C1'-C2'	-7.09	98.71	105.80
78	CA	1402	G	O4'-C1'-N9	7.09	113.87	108.20
81	DA	798	G	C3'-C2'-C1'	-7.09	95.83	101.50
6	AE	27	PRO	O-C-N	7.09	134.04	122.70
81	DA	232	G	O4'-C1'-N9	7.09	113.87	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AO	67	THR	C-N-CA	-7.09	107.42	122.30
78	CA	373	G	P-O5'-C5'	7.09	132.24	120.90
78	CA	1680	G	O3'-P-O5'	-7.09	90.54	104.00
81	DA	3165	A	O4'-C1'-C2'	-7.09	98.71	105.80
81	DA	2146	C	C5'-C4'-C3'	-7.08	104.67	116.00
78	CA	307	G	C1'-O4'-C4'	-7.08	104.23	109.90
78	CA	444	C	N1-C1'-C2'	7.08	123.21	114.00
81	DA	2026	A	O4'-C1'-N9	7.08	113.87	108.20
81	DA	2996	U	O4'-C1'-N1	7.08	113.87	108.20
81	DA	2504	U	C1'-O4'-C4'	7.08	115.56	109.90
47	BU	88	ARG	NE-CZ-NH2	-7.08	116.76	120.30
81	DA	2071	A	O4'-C1'-C2'	-7.08	98.72	105.80
81	DA	2837	A	C1'-O4'-C4'	7.08	115.56	109.90
81	DA	1786	G	N9-C1'-C2'	-7.08	104.21	112.00
69	Br	34	SER	N-CA-CB	7.08	121.12	110.50
81	DA	725	G	O4'-C1'-C2'	7.08	113.97	107.60
81	DA	2637	A	C4'-C3'-C2'	-7.08	95.52	102.60
78	CA	1704	U	O4'-C1'-N1	7.08	113.86	108.20
81	DA	1950	U	O4'-C1'-N1	7.08	113.86	108.20
13	AL	99	ASN	N-CA-CB	7.07	123.33	110.60
15	AN	44	ARG	NE-CZ-NH2	-7.07	116.76	120.30
22	AV	32	MET	CB-CA-C	7.07	124.55	110.40
43	BP	121	VAL	N-CA-C	7.07	130.10	111.00
78	CA	895	G	O4'-C1'-N9	7.07	113.86	108.20
81	DA	1239	C	P-O5'-C5'	7.07	132.22	120.90
81	DA	1579	C	P-O5'-C5'	7.07	132.22	120.90
81	DA	2465	G	P-O3'-C3'	-7.07	111.21	119.70
81	DA	1598	G	P-O5'-C5'	7.07	132.21	120.90
81	DA	3214	U	C1'-O4'-C4'	7.07	115.56	109.90
82	DB	35	C	O4'-C1'-C2'	-7.07	98.73	105.80
72	Bt	61	PHE	CB-CA-C	-7.07	96.26	110.40
78	CA	153	G	P-O3'-C3'	7.07	128.18	119.70
78	CA	205	U	O4'-C1'-N1	7.07	113.86	108.20
78	CA	855	A	C4'-C3'-C2'	-7.07	95.53	102.60
81	DA	1699	A	P-O3'-C3'	7.07	128.18	119.70
78	CA	500	C	O4'-C1'-N1	7.07	113.85	108.20
81	DA	3081	C	C3'-C2'-C1'	7.07	107.15	101.50
81	DA	3232	G	N9-C1'-C2'	-7.07	104.23	112.00
16	AO	64	ARG	CD-NE-CZ	-7.07	113.71	123.60
78	CA	577	G	C5-C6-O6	-7.07	124.36	128.60
81	DA	2747	A	C3'-C2'-C1'	7.07	107.15	101.50
81	DA	3069	G	O4'-C1'-N9	7.07	113.85	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	352	ALA	N-CA-CB	7.06	119.99	110.10
81	DA	306	A	O3'-P-O5'	7.06	117.42	104.00
81	DA	524	U	O4'-C1'-C2'	-7.06	98.74	105.80
38	Bs	244	LYS	CB-CA-C	-7.06	96.28	110.40
52	BY	111	LEU	C-N-CA	7.06	139.36	121.70
76	BS	6	PHE	N-CA-CB	7.06	123.31	110.60
78	CA	197	A	O4'-C1'-C2'	-7.06	98.74	105.80
78	CA	1425	A	O4'-C1'-N9	7.06	113.85	108.20
81	DA	1400	G	O4'-C4'-C3'	-7.06	96.94	104.00
81	DA	2981	U	O4'-C1'-N1	7.06	113.85	108.20
81	DA	1531	C	C3'-C2'-C1'	7.06	107.15	101.50
81	DA	1567	U	N1-C1'-C2'	7.06	123.18	114.00
81	DA	2967	A	P-O3'-C3'	7.06	128.17	119.70
55	Bc	102	GLU	C-N-CA	7.06	139.35	121.70
35	BG	9	TRP	C-N-CA	7.06	139.34	121.70
74	BQ	237	GLU	N-CA-CB	7.06	123.30	110.60
79	CB	74	C	O4'-C1'-C2'	-7.06	98.74	105.80
81	DA	1358	C	P-O5'-C5'	7.06	132.19	120.90
81	DA	1826	C	P-O5'-C5'	7.06	132.19	120.90
81	DA	2407	C	N1-C1'-C2'	7.06	123.18	114.00
82	DB	120	C	O4'-C1'-N1	7.06	113.85	108.20
37	BH	80	TYR	CG-CD2-CE2	7.06	126.94	121.30
9	AH	78	ARG	NE-CZ-NH1	7.05	123.83	120.30
22	AV	105	THR	C-N-CA	-7.05	104.06	121.70
79	CB	47	U	N1-C1'-C2'	-7.05	104.24	112.00
81	DA	700	C	O4'-C1'-C2'	-7.05	98.75	105.80
81	DA	1101	G	P-O3'-C3'	7.05	128.16	119.70
81	DA	2210	G	O4'-C1'-N9	7.05	113.84	108.20
81	DA	2684	C	P-O5'-C5'	-7.05	109.61	120.90
81	DA	177	U	C1'-O4'-C4'	-7.05	104.26	109.90
81	DA	373	A	O4'-C4'-C3'	7.05	111.74	106.10
76	BS	70	ASN	CA-CB-CG	7.05	128.91	113.40
78	CA	219	A	C1'-O4'-C4'	7.05	115.54	109.90
78	CA	574	G	C5'-C4'-C3'	7.05	127.28	116.00
65	Bn	39	ARG	NE-CZ-NH2	-7.05	116.78	120.30
81	DA	193	C	C3'-C2'-C1'	7.05	107.14	101.50
80	CC	21	C	O4'-C1'-N1	7.05	113.84	108.20
81	DA	3048	A	P-O5'-C5'	-7.05	109.62	120.90
3	AB	214	GLU	O-C-N	-7.05	111.43	122.70
8	AF	65	ARG	NE-CZ-NH1	7.05	123.82	120.30
48	BW	90	ARG	CB-CA-C	-7.05	96.31	110.40
81	DA	2080	C	O4'-C1'-C2'	-7.05	98.75	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	857	G	P-O5'-C5'	7.04	132.17	120.90
81	DA	1050	U	O4'-C1'-C2'	-7.04	98.75	105.80
81	DA	1640	G	O4'-C1'-C2'	7.04	113.94	107.60
81	DA	1879	A	O4'-C1'-N9	-7.04	102.56	108.20
44	BO	8	THR	N-CA-C	7.04	130.02	111.00
81	DA	835	G	C3'-C2'-C1'	7.04	107.14	101.50
81	DA	2278	C	P-O3'-C3'	7.04	128.15	119.70
81	DA	2606	G	N9-C1'-C2'	-7.04	104.25	112.00
11	AJ	81	THR	CA-C-N	-7.04	101.71	117.20
18	AP	93	TYR	CB-CG-CD2	-7.04	116.78	121.00
41	BN	5	SER	CA-C-O	-7.04	105.31	120.10
78	CA	239	C	P-O5'-C5'	7.04	132.17	120.90
78	CA	662	U	C3'-C2'-C1'	7.04	107.13	101.50
81	DA	3298	C	C4'-C3'-C2'	7.04	109.64	102.60
3	AB	184	ILE	N-CA-CB	7.04	126.99	110.80
72	Bt	61	PHE	CB-CG-CD2	-7.04	115.87	120.80
74	BQ	180	PHE	CB-CG-CD1	7.04	125.73	120.80
81	DA	1680	G	P-O3'-C3'	7.04	128.15	119.70
81	DA	2972	G	O4'-C1'-C2'	7.04	113.93	107.60
31	BB	70	ARG	NE-CZ-NH1	7.04	123.82	120.30
45	BR	94	PHE	C-N-CA	7.04	139.29	121.70
69	Br	79	THR	O-C-N	-7.04	111.44	122.70
81	DA	255	A	C1'-O4'-C4'	7.04	115.53	109.90
81	DA	871	U	N1-C1'-C2'	7.04	123.15	114.00
81	DA	1840	U	O4'-C1'-N1	7.04	113.83	108.20
6	AE	27	PRO	C-N-CA	7.03	139.28	121.70
81	DA	302	U	N1-C1'-C2'	7.03	123.14	114.00
81	DA	738	A	C4-C5-C6	7.03	120.52	117.00
81	DA	1672	U	O4'-C1'-N1	7.03	113.83	108.20
78	CA	482	U	C4'-C3'-C2'	-7.03	95.57	102.60
81	DA	1806	A	N9-C1'-C2'	7.03	123.14	114.00
81	DA	2703	A	O4'-C1'-N9	7.03	113.83	108.20
78	CA	494	U	O4'-C1'-N1	7.03	113.83	108.20
78	CA	1300	A	O4'-C1'-C2'	-7.03	98.77	105.80
81	DA	994	G	C3'-C2'-C1'	7.03	107.12	101.50
81	DA	1160	C	C3'-C2'-C1'	7.03	107.12	101.50
82	DB	56	G	P-O3'-C3'	7.03	128.13	119.70
3	AB	14	ASP	CB-CG-OD2	-7.03	111.97	118.30
47	BU	136	ARG	N-CA-CB	7.03	123.25	110.60
52	BY	25	SER	N-CA-CB	-7.03	99.96	110.50
78	CA	264	G	P-O3'-C3'	7.03	128.13	119.70
81	DA	1568	U	C3'-C2'-C1'	7.03	107.12	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1802	C	C3'-C2'-C1'	7.03	107.12	101.50
81	DA	1869	C	P-O5'-C5'	7.03	132.14	120.90
9	AH	101	TYR	CB-CG-CD2	7.03	125.22	121.00
43	BP	43	THR	C-N-CA	7.03	139.26	121.70
81	DA	1166	G	O4'-C1'-C2'	-7.03	98.78	105.80
81	DA	2476	C	O4'-C1'-C2'	-7.03	98.78	105.80
81	DA	731	U	O4'-C1'-N1	7.02	113.82	108.20
81	DA	1359	C	C1'-O4'-C4'	-7.02	104.28	109.90
81	DA	1721	U	N1-C1'-C2'	7.02	123.13	114.00
81	DA	2087	C	OP2-P-O3'	7.02	120.65	105.20
9	AH	69	LEU	N-CA-C	-7.02	92.04	111.00
22	AV	27	TRP	CB-CG-CD2	-7.02	117.47	126.60
60	Bi	64	THR	C-N-CA	7.02	139.26	121.70
81	DA	1414	G	N9-C1'-C2'	-7.02	104.28	112.00
83	DC	97	C	C3'-C2'-C1'	7.02	107.12	101.50
15	AN	12	ARG	NE-CZ-NH2	7.02	123.81	120.30
78	CA	663	U	C1'-O4'-C4'	-7.02	104.28	109.90
79	CB	31	C	O4'-C1'-N1	7.02	113.82	108.20
81	DA	769	G	N1-C6-O6	7.02	124.11	119.90
81	DA	1557	A	P-O3'-C3'	7.02	128.12	119.70
5	AC	168	ARG	CA-CB-CG	7.02	128.84	113.40
32	BC	157	VAL	C-N-CA	7.02	139.25	121.70
45	BR	13	SER	N-CA-CB	-7.02	99.97	110.50
78	CA	1322	A	C1'-O4'-C4'	7.02	115.52	109.90
78	CA	1386	G	P-O3'-C3'	7.02	128.12	119.70
81	DA	1823	A	O4'-C1'-N9	7.02	113.82	108.20
81	DA	1951	C	N1-C1'-C2'	7.02	123.13	114.00
81	DA	2462	A	N9-C1'-C2'	7.02	123.13	114.00
82	DB	91	C	C3'-C2'-C1'	7.02	107.12	101.50
67	Bp	46	ARG	N-CA-C	-7.02	92.06	111.00
81	DA	1561	G	O3'-P-O5'	7.02	117.33	104.00
38	Bs	73	PHE	CB-CG-CD1	-7.02	115.89	120.80
81	DA	730	C	N3-C4-C5	-7.02	119.09	121.90
78	CA	1094	G	O4'-C1'-N9	7.01	113.81	108.20
81	DA	43	A	O4'-C1'-N9	7.01	113.81	108.20
81	DA	2646	C	C4'-C3'-C2'	7.01	109.61	102.60
82	DB	45	C	O4'-C1'-C2'	-7.01	98.78	105.80
83	DC	17	A	C4'-C3'-C2'	7.01	109.61	102.60
45	BR	33	TYR	CB-CG-CD2	-7.01	116.79	121.00
81	DA	192	C	N1-C1'-C2'	7.01	123.12	114.00
81	DA	1371	G	O4'-C1'-N9	7.01	113.81	108.20
9	AH	121	VAL	CB-CA-C	-7.01	98.08	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	Be	72	ALA	N-CA-CB	7.01	119.92	110.10
81	DA	321	C	N1-C1'-C2'	7.01	123.12	114.00
81	DA	2067	U	C4'-C3'-C2'	-7.01	95.59	102.60
81	DA	2866	U	C1'-O4'-C4'	7.01	115.51	109.90
55	Bc	85	THR	C-N-CA	7.01	139.22	121.70
78	CA	1530	C	C5'-C4'-C3'	7.01	127.22	116.00
81	DA	105	C	P-O3'-C3'	7.01	128.11	119.70
81	DA	320	G	C1'-O4'-C4'	-7.01	104.29	109.90
81	DA	1550	C	C3'-C2'-C1'	7.01	107.11	101.50
81	DA	990	U	P-O3'-C3'	7.01	128.11	119.70
33	BD	109	TRP	N-CA-CB	7.01	123.21	110.60
61	Bj	82	ARG	N-CA-CB	7.01	123.21	110.60
78	CA	92	A	O4'-C4'-C3'	7.01	111.70	106.10
78	CA	588	U	C4'-C3'-C2'	-7.01	95.59	102.60
81	DA	87	U	O4'-C1'-N1	7.01	113.81	108.20
81	DA	419	G	C3'-C2'-C1'	-7.01	95.89	101.50
81	DA	1261	G	OP1-P-O3'	7.01	120.61	105.20
81	DA	1539	A	C3'-C2'-C1'	7.01	107.11	101.50
81	DA	1692	U	C5'-C4'-C3'	7.01	127.21	116.00
81	DA	2239	G	O4'-C1'-N9	7.01	113.81	108.20
83	DC	20	A	C3'-C2'-C1'	-7.01	95.90	101.50
53	Ba	9	LYS	CB-CA-C	-7.00	96.39	110.40
78	CA	487	G	C5-C6-O6	-7.00	124.40	128.60
4	AD	207	LEU	C-N-CA	7.00	139.21	121.70
31	BB	76	PHE	CB-CG-CD1	7.00	125.70	120.80
33	BD	339	LEU	CB-CG-CD2	7.00	122.91	111.00
74	BQ	39	GLN	CA-C-N	7.00	132.61	117.20
78	CA	486	G	O4'-C1'-N9	7.00	113.80	108.20
78	CA	942	G	C1'-O4'-C4'	-7.00	104.30	109.90
78	CA	1288	G	C1'-O4'-C4'	-7.00	104.30	109.90
78	CA	592	A	O4'-C1'-N9	7.00	113.80	108.20
78	CA	1745	G	O4'-C1'-N9	7.00	113.80	108.20
81	DA	2707	C	C1'-O4'-C4'	-7.00	104.30	109.90
81	DA	233	C	C1'-O4'-C4'	7.00	115.50	109.90
78	CA	178	U	C5'-C4'-O4'	-7.00	100.70	109.10
81	DA	2681	U	C3'-C2'-C1'	7.00	107.10	101.50
76	BS	159	ARG	CA-C-N	7.00	136.69	117.10
78	CA	233	C	N1-C1'-C2'	7.00	123.10	114.00
81	DA	1157	G	O4'-C1'-N9	7.00	113.80	108.20
81	DA	1295	G	N9-C1'-C2'	7.00	123.10	114.00
81	DA	2130	G	N9-C1'-C2'	-7.00	104.30	112.00
4	AD	120	SER	N-CA-CB	7.00	120.99	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AY	25	VAL	CG1-CB-CG2	7.00	122.09	110.90
32	BC	104	THR	N-CA-CB	6.99	123.59	110.30
78	CA	970	A	N9-C1'-C2'	-6.99	104.31	112.00
78	CA	1546	G	C1'-C2'-O2'	6.99	131.58	110.60
81	DA	2826	U	O4'-C1'-N1	6.99	113.80	108.20
78	CA	678	A	O4'-C1'-N9	6.99	113.79	108.20
83	DC	1	G	C1'-O4'-C4'	6.99	115.49	109.90
63	Bm	35	ALA	N-CA-CB	6.99	119.89	110.10
78	CA	1179	G	N9-C1'-C2'	6.99	123.09	114.00
78	CA	1307	U	O5'-C5'-C4'	6.99	124.98	111.70
78	CA	1316	G	P-O3'-C3'	6.99	128.09	119.70
81	DA	1085	A	P-O3'-C3'	-6.99	111.31	119.70
83	DC	85	G	C3'-C2'-C1'	-6.99	95.91	101.50
32	BC	308	MET	CA-CB-CG	-6.99	101.42	113.30
38	Bs	180	PRO	CA-N-CD	-6.99	101.72	111.50
48	BW	36	TYR	CB-CG-CD1	6.99	125.19	121.00
81	DA	1716	U	O4'-C1'-C2'	-6.99	98.81	105.80
81	DA	3363	U	C1'-O4'-C4'	6.99	115.49	109.90
81	DA	3110	C	N1-C1'-C2'	6.99	123.08	114.00
2	AA	5	ALA	O-C-N	-6.99	111.52	122.70
81	DA	1382	G	C3'-C2'-C1'	6.99	107.09	101.50
81	DA	1665	C	N1-C1'-C2'	6.99	123.08	114.00
81	DA	1824	U	O4'-C1'-N1	6.99	113.79	108.20
81	DA	2515	A	N9-C1'-C2'	6.99	123.08	114.00
83	DC	99	A	O4'-C1'-C2'	-6.99	98.81	105.80
16	AO	76	LYS	N-CA-CB	6.98	123.17	110.60
78	CA	1006	C	C3'-C2'-C1'	6.98	107.09	101.50
81	DA	3042	U	O4'-C1'-N1	6.98	113.79	108.20
82	DB	91	C	N1-C1'-C2'	-6.98	104.32	112.00
62	Bk	70	ARG	NE-CZ-NH1	6.98	123.79	120.30
78	CA	584	C	C1'-O4'-C4'	-6.98	104.31	109.90
81	DA	337	G	O4'-C1'-N9	6.98	113.78	108.20
81	DA	1000	C	N1-C1'-C2'	6.98	123.08	114.00
81	DA	1968	G	O4'-C1'-N9	6.98	113.79	108.20
81	DA	2963	C	C4'-C3'-C2'	-6.98	95.62	102.60
64	Bl	63	ARG	NE-CZ-NH1	6.98	123.79	120.30
78	CA	283	U	C3'-C2'-C1'	6.98	107.08	101.50
78	CA	1534	G	C5'-C4'-C3'	-6.98	104.83	116.00
81	DA	427	C	C1'-O4'-C4'	-6.98	104.31	109.90
81	DA	2538	U	O4'-C1'-N1	6.98	113.78	108.20
81	DA	2617	U	O3'-P-O5'	6.98	117.26	104.00
78	CA	1498	G	C5-C6-O6	-6.98	124.41	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	802	C	C3'-C2'-C1'	6.98	107.08	101.50
81	DA	2479	C	C5'-C4'-O4'	6.98	117.47	109.10
78	CA	1215	C	N1-C1'-C2'	6.98	123.07	114.00
81	DA	3199	G	C5'-C4'-C3'	6.98	127.16	116.00
81	DA	3334	U	O4'-C1'-C2'	-6.98	98.82	105.80
78	CA	788	A	P-O3'-C3'	6.98	128.07	119.70
81	DA	969	C	C5'-C4'-O4'	-6.97	100.73	109.10
81	DA	2032	U	O3'-P-O5'	-6.97	90.75	104.00
81	DA	2685	C	C1'-O4'-C4'	-6.97	104.32	109.90
82	DB	49	G	O3'-P-O5'	-6.97	90.75	104.00
53	Ba	29	HIS	CA-CB-CG	6.97	125.45	113.60
61	Bj	99	ARG	NE-CZ-NH2	-6.97	116.81	120.30
78	CA	253	A	O4'-C1'-N9	6.97	113.78	108.20
78	CA	900	A	C5'-C4'-O4'	-6.97	100.73	109.10
81	DA	1433	A	O4'-C1'-N9	-6.97	102.62	108.20
81	DA	2597	U	P-O3'-C3'	6.97	128.07	119.70
81	DA	2822	U	O4'-C1'-N1	6.97	113.78	108.20
78	CA	1037	C	O4'-C1'-N1	6.97	113.78	108.20
78	CA	1244	A	O4'-C1'-N9	6.97	113.78	108.20
44	BO	56	VAL	CB-CA-C	-6.97	98.16	111.40
81	DA	1705	U	O4'-C1'-N1	6.97	113.78	108.20
81	DA	523	A	O4'-C1'-N9	6.97	113.77	108.20
5	AC	107	ARG	NE-CZ-NH2	-6.97	116.82	120.30
12	AK	60	ALA	CB-CA-C	-6.97	99.65	110.10
81	DA	571	U	O4'-C1'-N1	6.97	113.77	108.20
81	DA	1676	A	O4'-C1'-C2'	-6.97	98.83	105.80
81	DA	1868	G	P-O3'-C3'	-6.97	111.34	119.70
81	DA	2531	C	O4'-C4'-C3'	-6.97	97.03	104.00
78	CA	1499	G	N1-C6-O6	6.96	124.08	119.90
78	CA	1532	U	O4'-C1'-N1	6.96	113.77	108.20
81	DA	1232	C	O4'-C1'-C2'	-6.96	98.83	105.80
78	CA	621	A	C1'-O4'-C4'	6.96	115.47	109.90
78	CA	1181	U	C3'-C2'-C1'	-6.96	95.93	101.50
78	CA	641	G	N9-C1'-C2'	6.96	123.05	114.00
81	DA	1365	G	O4'-C1'-N9	6.96	113.77	108.20
82	DB	20	U	P-O5'-C5'	6.96	132.04	120.90
3	AB	51	ARG	NE-CZ-NH1	6.96	123.78	120.30
45	BR	31	LYS	CB-CA-C	6.96	124.32	110.40
78	CA	394	C	C3'-C2'-C1'	6.96	107.07	101.50
81	DA	487	U	O5'-P-OP1	-6.96	99.44	105.70
81	DA	1718	G	C1'-O4'-C4'	-6.96	104.33	109.90
10	AI	84	ALA	CB-CA-C	-6.96	99.67	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	968	U	O4'-C1'-N1	6.96	113.77	108.20
82	DB	44	A	O3'-P-O5'	-6.96	90.78	104.00
40	BK	74	ARG	NE-CZ-NH2	-6.96	116.82	120.30
81	DA	1764	U	O4'-C1'-N1	6.96	113.76	108.20
81	DA	2439	A	C5'-C4'-O4'	6.96	117.45	109.10
78	CA	849	C	N1-C1'-C2'	6.95	123.04	114.00
81	DA	1641	U	C5'-C4'-C3'	-6.95	104.88	116.00
81	DA	2687	G	P-O3'-C3'	6.95	128.04	119.70
81	DA	523	A	N9-C1'-C2'	-6.95	104.35	112.00
1	Aa	281	TYR	CB-CG-CD2	-6.95	116.83	121.00
62	Bk	28	TYR	O-C-N	-6.95	111.58	122.70
78	CA	1321	A	P-O3'-C3'	-6.95	111.36	119.70
78	CA	1385	G	N9-C1'-C2'	-6.95	104.36	112.00
81	DA	1895	A	O4'-C1'-C2'	-6.95	98.85	105.80
81	DA	2529	A	O4'-C1'-N9	6.95	113.76	108.20
81	DA	2698	G	C4'-C3'-C2'	-6.95	95.65	102.60
81	DA	3363	U	P-O5'-C5'	6.95	132.02	120.90
61	Bj	2	ALA	CA-C-N	6.95	132.49	117.20
81	DA	787	G	P-O3'-C3'	6.95	128.04	119.70
81	DA	1297	C	O4'-C4'-C3'	-6.95	97.05	104.00
81	DA	1429	G	C1'-O4'-C4'	-6.95	104.34	109.90
81	DA	2167	A	C3'-C2'-C1'	6.95	107.06	101.50
78	CA	555	A	C1'-O4'-C4'	-6.95	104.34	109.90
81	DA	2013	C	O4'-C1'-C2'	-6.95	98.85	105.80
33	BD	140	HIS	CA-CB-CG	-6.95	101.79	113.60
37	BH	198	ALA	N-CA-CB	6.95	119.83	110.10
48	BW	91	ASP	N-CA-CB	6.95	123.10	110.60
74	BQ	240	TYR	CB-CG-CD2	6.95	125.17	121.00
76	BS	165	LEU	CB-CA-C	-6.95	97.00	110.20
81	DA	792	G	P-O3'-C3'	6.95	128.03	119.70
81	DA	1582	C	O4'-C1'-C2'	-6.95	98.86	105.80
81	DA	2977	G	O4'-C1'-N9	6.95	113.76	108.20
3	AB	167	PHE	CB-CG-CD2	-6.94	115.94	120.80
53	Ba	60	LYS	CA-CB-CG	6.94	128.68	113.40
78	CA	1426	C	O4'-C1'-N1	6.94	113.75	108.20
81	DA	277	G	P-O3'-C3'	6.94	128.03	119.70
78	CA	615	A	N9-C1'-C2'	6.94	123.03	114.00
78	CA	1393	C	O4'-C1'-N1	6.94	113.75	108.20
81	DA	954	U	O4'-C1'-N1	6.94	113.75	108.20
81	DA	1243	G	C1'-O4'-C4'	-6.94	104.35	109.90
81	DA	2175	U	N1-C1'-C2'	6.94	123.03	114.00
78	CA	1700	C	P-O5'-C5'	6.94	132.01	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	836	A	O5'-C5'-C4'	6.94	124.89	111.70
81	DA	2390	A	C3'-C2'-C1'	6.94	107.05	101.50
81	DA	3136	G	C3'-C2'-C1'	-6.94	95.95	101.50
44	BO	40	HIS	CB-CA-C	6.94	124.28	110.40
78	CA	1301	U	O4'-C1'-N1	6.94	113.75	108.20
6	AE	24	ARG	CB-CG-CD	6.94	129.64	111.60
78	CA	1411	A	O4'-C1'-N9	6.94	113.75	108.20
81	DA	851	C	C3'-C2'-C1'	6.94	107.05	101.50
81	DA	996	A	N9-C1'-C2'	-6.94	104.37	112.00
81	DA	2697	A	O4'-C1'-C2'	-6.94	98.86	105.80
18	AP	41	GLY	N-CA-C	-6.93	95.76	113.10
81	DA	429	U	O4'-C1'-C2'	-6.93	98.86	105.80
81	DA	1247	U	N1-C1'-C2'	-6.93	104.37	112.00
81	DA	1584	U	O4'-C1'-N1	6.93	113.75	108.20
81	DA	3249	C	C5'-C4'-O4'	6.93	117.42	109.10
10	AI	109	PHE	CB-CG-CD1	6.93	125.65	120.80
81	DA	1882	G	C1'-O4'-C4'	-6.93	104.36	109.90
78	CA	1337	A	C2'-C3'-O3'	6.93	124.79	113.70
81	DA	1172	G	O4'-C1'-N9	6.93	113.75	108.20
81	DA	1845	G	O4'-C1'-N9	6.93	113.75	108.20
81	DA	3385	U	P-O5'-C5'	-6.93	109.81	120.90
33	BD	347	THR	C-N-CA	6.93	136.85	122.30
78	CA	51	A	C3'-C2'-C1'	6.93	107.04	101.50
78	CA	978	A	P-O3'-C3'	6.93	128.01	119.70
81	DA	1882	G	O4'-C1'-N9	6.93	113.74	108.20
81	DA	2770	G	P-O5'-C5'	6.93	131.99	120.90
81	DA	3369	G	C3'-C2'-C1'	6.93	107.04	101.50
74	BQ	36	LEU	CB-CA-C	-6.93	97.04	110.20
81	DA	1295	G	C5'-C4'-C3'	-6.93	104.92	116.00
62	Bk	83	ALA	CB-CA-C	-6.93	99.71	110.10
74	BQ	232	ASP	CB-CG-OD1	6.93	124.53	118.30
77	BI	178	ARG	NE-CZ-NH1	6.93	123.76	120.30
78	CA	1024	U	O4'-C1'-N1	6.93	113.74	108.20
81	DA	198	A	O4'-C1'-N9	-6.93	102.66	108.20
55	Bc	110	ALA	CA-C-N	-6.92	101.97	117.20
78	CA	830	U	O4'-C1'-N1	6.92	113.74	108.20
78	CA	967	A	N9-C1'-C2'	-6.92	104.38	112.00
79	CB	26	G	C1'-O4'-C4'	-6.92	104.36	109.90
80	CC	16	G	O4'-C1'-C2'	-6.92	98.88	105.80
81	DA	1413	G	N9-C1'-C2'	6.92	123.00	114.00
81	DA	1599	G	P-O3'-C3'	6.92	128.01	119.70
32	BC	240	ARG	NE-CZ-NH2	-6.92	116.84	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BV	18	ARG	NE-CZ-NH2	-6.92	116.84	120.30
78	CA	465	G	O4'-C1'-C2'	6.92	113.83	107.60
79	CB	26	G	C3'-C2'-C1'	-6.92	95.96	101.50
81	DA	946	U	O4'-C1'-N1	6.92	113.74	108.20
81	DA	2402	A	O4'-C1'-C2'	-6.92	98.88	105.80
81	DA	2666	C	N1-C1'-C2'	6.92	123.00	114.00
34	BE	32	ARG	NE-CZ-NH2	-6.92	116.84	120.30
41	BN	19	ARG	NH1-CZ-NH2	-6.92	111.79	119.40
81	DA	2176	U	O4'-C1'-N1	6.92	113.73	108.20
81	DA	3086	A	O4'-C1'-C2'	-6.92	98.88	105.80
82	DB	157	U	O4'-C1'-N1	6.92	113.73	108.20
57	Be	60	ARG	NE-CZ-NH2	-6.92	116.84	120.30
78	CA	1090	C	P-O3'-C3'	6.92	128.00	119.70
81	DA	485	A	O4'-C1'-N9	6.92	113.73	108.20
81	DA	1294	A	C4'-C3'-C2'	-6.92	95.68	102.60
82	DB	129	C	O4'-C1'-N1	6.92	113.73	108.20
40	BK	197	LEU	CB-CA-C	6.92	123.34	110.20
81	DA	857	G	O4'-C1'-N9	6.91	113.73	108.20
81	DA	1980	C	O4'-C1'-N1	6.91	113.73	108.20
81	DA	2158	A	O4'-C1'-N9	6.91	113.73	108.20
15	AN	14	TYR	N-CA-CB	6.91	123.04	110.60
35	BG	2	SER	CA-C-N	-6.91	101.99	117.20
81	DA	3146	G	C4'-C3'-C2'	-6.91	95.69	102.60
46	BT	82	LYS	N-CA-C	-6.91	92.34	111.00
81	DA	420	G	N9-C1'-C2'	-6.91	104.40	112.00
81	DA	2617	U	O4'-C1'-N1	6.91	113.73	108.20
32	BC	119	TYR	CB-CG-CD1	6.91	125.15	121.00
78	CA	1555	A	C3'-C2'-C1'	6.91	107.03	101.50
78	CA	1736	G	P-O5'-C5'	6.91	131.96	120.90
81	DA	103	G	C1'-O4'-C4'	6.91	115.43	109.90
78	CA	836	U	C3'-C2'-C1'	6.91	107.03	101.50
81	DA	595	G	O4'-C1'-C2'	-6.91	98.89	105.80
81	DA	1078	U	P-O3'-C3'	-6.91	111.41	119.70
33	BD	58	HIS	CA-CB-CG	6.91	125.34	113.60
38	Bs	243	TYR	CG-CD1-CE1	-6.91	115.78	121.30
81	DA	312	C	P-O5'-C5'	6.91	131.95	120.90
83	DC	100	A	C5'-C4'-C3'	6.91	127.05	116.00
38	Bs	180	PRO	N-CA-C	6.90	130.05	112.10
78	CA	307	G	O4'-C1'-N9	6.90	113.72	108.20
81	DA	1907	C	P-O3'-C3'	6.90	127.98	119.70
82	DB	104	A	O4'-C1'-N9	-6.90	102.68	108.20
13	AL	135	LEU	N-CA-C	6.90	129.64	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	217	A	C4'-C3'-C2'	-6.90	95.70	102.60
78	CA	1477	G	P-O5'-C5'	6.90	131.94	120.90
81	DA	366	A	C1'-O4'-C4'	-6.90	104.38	109.90
81	DA	3093	C	O4'-C1'-N1	-6.90	102.68	108.20
82	DB	42	G	O4'-C1'-N9	6.90	113.72	108.20
74	BQ	180	PHE	CB-CG-CD2	-6.90	115.97	120.80
78	CA	88	U	C4'-C3'-C2'	-6.90	95.70	102.60
81	DA	3095	U	O4'-C1'-N1	6.90	113.72	108.20
81	DA	3295	A	O3'-P-O5'	6.90	117.10	104.00
81	DA	3335	A	P-O3'-C3'	6.90	127.98	119.70
41	BN	62	GLN	CB-CA-C	6.90	124.19	110.40
40	BK	64	PHE	CB-CG-CD2	-6.89	115.97	120.80
43	BP	121	VAL	CA-C-N	6.89	132.36	117.20
78	CA	335	U	O4'-C1'-N1	6.89	113.71	108.20
78	CA	1375	A	P-O5'-C5'	6.89	131.93	120.90
78	CA	1380	U	N1-C1'-C2'	6.89	122.96	114.00
81	DA	790	U	O5'-C5'-C4'	6.89	124.80	111.70
74	BQ	153	THR	CA-CB-CG2	-6.89	102.75	112.40
81	DA	3235	C	O4'-C1'-N1	6.89	113.71	108.20
8	AF	123	VAL	N-CA-CB	-6.89	96.34	111.50
35	BG	66	SER	N-CA-CB	6.89	120.83	110.50
37	BH	140	VAL	CA-CB-CG2	6.89	121.23	110.90
78	CA	1569	A	C1'-O4'-C4'	-6.89	104.39	109.90
74	BQ	241	THR	C-N-CA	6.89	138.92	121.70
5	AC	168	ARG	CB-CA-C	-6.89	96.62	110.40
78	CA	289	U	C3'-C2'-C1'	6.89	107.01	101.50
81	DA	1382	G	C5'-C4'-C3'	-6.89	104.98	116.00
81	DA	2966	G	C1'-O4'-C4'	-6.89	104.39	109.90
81	DA	422	A	O4'-C1'-N9	6.88	113.71	108.20
81	DA	3220	G	C3'-C2'-C1'	6.88	107.01	101.50
5	AC	146	PHE	CB-CG-CD1	-6.88	115.98	120.80
78	CA	386	G	C1'-O4'-C4'	-6.88	104.39	109.90
3	AB	65	ARG	NE-CZ-NH1	6.88	123.74	120.30
44	BO	149	ALA	CB-CA-C	-6.88	99.78	110.10
46	BT	82	LYS	N-CA-CB	-6.88	98.21	110.60
69	Br	100	LYS	C-N-CA	-6.88	107.85	122.30
78	CA	897	C	P-O3'-C3'	6.88	127.96	119.70
81	DA	376	G	O4'-C1'-N9	6.88	113.70	108.20
81	DA	1747	G	O3'-P-O5'	-6.88	90.93	104.00
81	DA	1766	G	P-O5'-C5'	-6.88	109.89	120.90
81	DA	2757	U	C2'-C3'-O3'	6.88	124.71	113.70
81	DA	3149	G	O4'-C4'-C3'	-6.88	97.12	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3071	U	N1-C1'-C2'	6.88	122.94	114.00
33	BD	100	PHE	CB-CG-CD2	6.88	125.62	120.80
20	AS	59	ALA	CB-CA-C	-6.88	99.78	110.10
83	DC	69	G	O4'-C1'-N9	6.88	113.70	108.20
78	CA	96	G	O4'-C1'-N9	6.88	113.70	108.20
81	DA	2162	U	C5'-C4'-C3'	-6.88	105.00	116.00
12	AK	32	ASP	CB-CG-OD1	6.87	124.49	118.30
29	AU	29	HIS	CB-CA-C	-6.87	96.65	110.40
43	BP	80	THR	CB-CA-C	-6.87	93.04	111.60
81	DA	43	A	C1'-O4'-C4'	-6.87	104.40	109.90
81	DA	1239	C	N1-C1'-C2'	6.87	122.94	114.00
81	DA	2452	G	P-O3'-C3'	6.87	127.95	119.70
81	DA	3250	U	P-O5'-C5'	6.87	131.90	120.90
83	DC	42	A	N9-C1'-C2'	6.87	122.94	114.00
81	DA	422	A	N9-C1'-C2'	-6.87	104.44	112.00
81	DA	1766	G	N1-C6-O6	6.87	124.02	119.90
81	DA	1826	C	O4'-C4'-C3'	-6.87	97.13	104.00
81	DA	2922	G	C1'-O4'-C4'	-6.87	104.40	109.90
81	DA	3092	C	C1'-O4'-C4'	6.87	115.40	109.90
78	CA	690	G	O4'-C1'-N9	6.87	113.70	108.20
81	DA	897	U	O4'-C1'-N1	6.87	113.70	108.20
81	DA	2381	G	C5'-C4'-C3'	-6.87	105.01	116.00
81	DA	2874	G	C5'-C4'-C3'	-6.87	105.01	116.00
20	AS	45	MET	O-C-N	-6.87	108.05	121.10
39	BJ	123	ARG	NE-CZ-NH2	6.87	123.73	120.30
61	Bj	39	GLN	CG-CD-OE1	6.87	135.34	121.60
78	CA	1624	C	C3'-C2'-C1'	6.87	106.99	101.50
81	DA	1180	A	C2'-C3'-O3'	6.87	124.69	113.70
81	DA	1907	C	C3'-C2'-C1'	6.87	107.00	101.50
81	DA	1972	A	C4'-C3'-C2'	-6.87	95.73	102.60
83	DC	26	C	P-O3'-C3'	6.87	127.94	119.70
37	BH	221	ASN	CA-CB-CG	6.87	128.51	113.40
78	CA	1657	U	O4'-C1'-N1	6.87	113.69	108.20
81	DA	3052	G	C1'-O4'-C4'	-6.87	104.41	109.90
26	AZ	10	ARG	NE-CZ-NH1	-6.87	116.87	120.30
81	DA	322	U	O4'-C1'-N1	6.87	113.69	108.20
81	DA	1115	G	C1'-O4'-C4'	6.87	115.39	109.90
81	DA	1366	A	C3'-C2'-C1'	6.87	106.99	101.50
82	DB	21	C	C3'-C2'-C1'	6.87	106.99	101.50
36	BF	91	ARG	NE-CZ-NH1	6.86	123.73	120.30
52	BY	2	ALA	CB-CA-C	6.86	120.39	110.10
53	Ba	57	HIS	CA-C-N	-6.86	102.47	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	Bf	65	THR	N-CA-CB	6.86	123.34	110.30
78	CA	658	C	O4'-C1'-N1	-6.86	102.71	108.20
78	CA	659	C	O5'-P-OP1	6.86	118.94	110.70
81	DA	172	G	O5'-P-OP1	-6.86	99.52	105.70
81	DA	835	G	P-O5'-C5'	6.86	131.88	120.90
81	DA	1368	U	O4'-C1'-N1	6.86	113.69	108.20
81	DA	2633	U	O5'-C5'-C4'	-6.86	98.66	111.70
81	DA	2962	U	O4'-C1'-N1	6.86	113.69	108.20
13	AL	120	VAL	N-CA-C	-6.86	92.47	111.00
81	DA	70	A	P-O3'-C3'	6.86	127.94	119.70
81	DA	2860	U	O4'-C1'-C2'	-6.86	98.94	105.80
29	AU	35	VAL	CA-C-N	6.86	132.29	117.20
69	Br	103	ALA	N-CA-C	6.86	129.52	111.00
81	DA	239	G	P-O3'-C3'	-6.86	111.47	119.70
82	DB	3	A	O4'-C1'-C2'	6.86	113.77	107.60
13	AL	86	PHE	CB-CG-CD1	-6.86	116.00	120.80
78	CA	119	A	C4'-C3'-O3'	6.86	126.72	113.00
81	DA	664	U	P-O3'-C3'	-6.86	111.47	119.70
81	DA	2055	U	O4'-C1'-N1	6.86	113.69	108.20
78	CA	1682	U	P-O5'-C5'	6.86	131.87	120.90
30	BA	41	TYR	CD1-CE1-CZ	6.86	125.97	119.80
78	CA	1703	C	O4'-C1'-C2'	-6.86	98.94	105.80
81	DA	1181	U	N1-C1'-C2'	-6.86	104.46	112.00
83	DC	4	U	O4'-C1'-C2'	-6.86	98.94	105.80
11	AJ	114	VAL	CB-CA-C	-6.85	98.38	111.40
43	BP	117	ASN	N-CA-C	6.85	129.50	111.00
78	CA	1659	A	C3'-C2'-C1'	6.85	106.98	101.50
83	DC	63	G	O4'-C1'-N9	6.85	113.68	108.20
4	AD	218	PHE	N-CA-CB	6.85	122.93	110.60
78	CA	318	U	N1-C1'-C2'	6.85	122.91	114.00
78	CA	685	A	C1'-O4'-C4'	-6.85	104.42	109.90
78	CA	1535	U	C5'-C4'-C3'	-6.85	105.04	116.00
81	DA	687	U	O4'-C1'-N1	6.85	113.68	108.20
81	DA	733	G	C5-C6-O6	-6.85	124.49	128.60
81	DA	885	U	O4'-C1'-N1	6.85	113.68	108.20
81	DA	943	U	O4'-C1'-N1	6.85	113.68	108.20
33	BD	194	TYR	CB-CG-CD1	6.85	125.11	121.00
78	CA	1424	A	C5'-C4'-C3'	-6.85	105.04	116.00
81	DA	949	C	O4'-C1'-C2'	-6.85	98.95	105.80
81	DA	3067	C	P-O5'-C5'	-6.85	109.94	120.90
19	AR	123	TYR	CB-CG-CD1	6.85	125.11	121.00
78	CA	295	A	O5'-C5'-C4'	-6.85	98.69	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	304	U	O4'-C1'-C2'	-6.85	98.95	105.80
78	CA	833	U	C3'-C2'-C1'	-6.85	96.02	101.50
78	CA	1437	U	C5'-C4'-C3'	6.85	126.96	116.00
78	CA	1632	C	C3'-C2'-C1'	6.85	106.98	101.50
35	BG	79	VAL	CG1-CB-CG2	6.84	121.85	110.90
50	BX	30	ALA	N-CA-CB	6.84	119.68	110.10
81	DA	912	G	P-O3'-C3'	6.84	127.91	119.70
81	DA	1791	C	O4'-C1'-N1	6.84	113.68	108.20
81	DA	2707	C	C4'-C3'-C2'	-6.84	95.76	102.60
83	DC	29	C	C5'-C4'-O4'	-6.84	100.89	109.10
31	BB	1	MET	CB-CA-C	6.84	124.08	110.40
79	CB	22	G	C1'-O4'-C4'	-6.84	104.43	109.90
69	Br	64	THR	N-CA-CB	6.84	123.30	110.30
78	CA	294	C	P-O3'-C3'	6.84	127.91	119.70
78	CA	1570	A	P-O5'-C5'	-6.84	109.95	120.90
81	DA	847	A	N9-C1'-C2'	6.84	122.89	114.00
78	CA	173	A	N9-C1'-C2'	-6.84	104.48	112.00
78	CA	1345	A	C3'-C2'-C1'	6.84	106.97	101.50
81	DA	2100	A	C1'-O4'-C4'	-6.84	104.43	109.90
78	CA	326	G	C5'-C4'-C3'	6.84	126.94	116.00
78	CA	1712	A	N9-C1'-C2'	-6.84	104.48	112.00
81	DA	1335	C	O4'-C1'-C2'	-6.84	98.96	105.80
74	BQ	199	ILE	N-CA-CB	6.84	126.53	110.80
78	CA	1319	A	O4'-C1'-N9	6.84	113.67	108.20
81	DA	339	C	C5'-C4'-C3'	-6.84	105.06	116.00
81	DA	1015	U	C1'-O4'-C4'	6.84	115.37	109.90
81	DA	1427	U	P-O5'-C5'	-6.83	109.96	120.90
81	DA	626	U	C4'-C3'-C2'	-6.83	95.77	102.60
81	DA	1620	U	C1'-O4'-C4'	-6.83	104.43	109.90
6	AE	31	GLU	CB-CA-C	6.83	124.06	110.40
78	CA	491	C	O4'-C1'-N1	6.83	113.67	108.20
81	DA	846	A	C3'-C2'-C1'	6.83	106.96	101.50
81	DA	1003	A	N9-C1'-C2'	-6.83	104.48	112.00
78	CA	1060	U	O4'-C1'-N1	6.83	113.66	108.20
81	DA	548	G	C1'-O4'-C4'	-6.83	104.44	109.90
81	DA	1217	A	P-O3'-C3'	6.83	127.90	119.70
83	DC	54	A	P-O5'-C5'	6.83	131.83	120.90
5	AC	12	TYR	CB-CG-CD2	-6.83	116.90	121.00
43	BP	67	ARG	N-CA-CB	6.83	122.89	110.60
81	DA	2069	G	O4'-C1'-N9	6.83	113.66	108.20
8	AF	148	ARG	CG-CD-NE	-6.83	97.46	111.80
50	BX	138	ARG	NE-CZ-NH1	-6.83	116.89	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2189	U	O4'-C1'-N1	6.83	113.66	108.20
10	AI	92	TYR	CB-CG-CD2	-6.83	116.91	121.00
69	Br	62	ALA	N-CA-C	-6.83	92.57	111.00
78	CA	437	A	P-O3'-C3'	6.83	127.89	119.70
10	AI	20	ALA	N-CA-CB	6.82	119.65	110.10
81	DA	224	C	N1-C1'-C2'	6.82	122.87	114.00
82	DB	29	U	N1-C1'-C2'	6.82	122.87	114.00
43	BP	96	ARG	NE-CZ-NH1	6.82	123.71	120.30
78	CA	893	U	C4'-C3'-C2'	-6.82	95.78	102.60
78	CA	1312	A	O4'-C1'-N9	6.82	113.66	108.20
78	CA	1636	C	O4'-C1'-C2'	-6.82	98.98	105.80
81	DA	1516	C	O4'-C1'-N1	6.82	113.66	108.20
31	BB	76	PHE	CZ-CE2-CD2	-6.82	111.92	120.10
78	CA	368	U	O3'-P-O5'	-6.82	91.05	104.00
79	CB	75	A	C1'-O4'-C4'	6.82	115.35	109.90
81	DA	181	U	P-O3'-C3'	6.82	127.88	119.70
81	DA	1039	U	O4'-C1'-N1	6.82	113.65	108.20
81	DA	2335	G	O4'-C1'-C2'	6.82	113.74	107.60
82	DB	96	A	C1'-O4'-C4'	6.82	115.35	109.90
78	CA	925	G	O4'-C1'-N9	6.82	113.65	108.20
78	CA	1067	C	C2'-C3'-O3'	6.82	124.61	113.70
44	BO	149	ALA	N-CA-CB	6.81	119.64	110.10
78	CA	1063	U	O4'-C1'-N1	6.81	113.65	108.20
81	DA	2499	U	C3'-C2'-C1'	6.81	106.95	101.50
81	DA	2593	A	O4'-C1'-N9	6.81	113.65	108.20
6	AE	98	PHE	CB-CG-CD2	6.81	125.57	120.80
63	Bm	73	THR	N-CA-CB	6.81	123.25	110.30
78	CA	1168	U	O4'-C1'-N1	6.81	113.65	108.20
47	BU	56	PHE	CB-CA-C	6.81	124.02	110.40
78	CA	29	U	C5'-C4'-C3'	-6.81	105.10	116.00
81	DA	1532	C	O4'-C1'-N1	6.81	113.65	108.20
50	BX	27	ARG	NE-CZ-NH2	-6.81	116.89	120.30
78	CA	636	A	P-O3'-C3'	6.81	127.87	119.70
79	CB	24	A	P-O3'-C3'	6.81	127.87	119.70
81	DA	768	C	O4'-C4'-C3'	-6.81	97.19	104.00
81	DA	1827	C	O4'-C1'-N1	6.81	113.65	108.20
78	CA	253	A	O4'-C1'-C2'	6.81	113.73	107.60
81	DA	400	G	O4'-C1'-N9	6.81	113.65	108.20
81	DA	2505	U	O4'-C4'-C3'	-6.81	97.19	104.00
81	DA	193	C	N1-C1'-C2'	6.81	122.85	114.00
81	DA	2353	G	C1'-O4'-C4'	-6.81	104.45	109.90
17	AQ	132	TYR	CB-CG-CD2	-6.80	116.92	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	AU	17	LEU	CB-CA-C	-6.80	97.27	110.20
81	DA	424	G	P-O5'-C5'	6.80	131.79	120.90
81	DA	2152	A	C5'-C4'-O4'	-6.80	100.94	109.10
81	DA	2226	U	O4'-C1'-N1	6.80	113.64	108.20
20	AS	1	MET	CB-CA-C	6.80	124.00	110.40
81	DA	887	G	N9-C1'-C2'	6.80	122.84	114.00
81	DA	2506	U	N1-C1'-C2'	6.80	122.84	114.00
60	Bi	32	ALA	N-CA-CB	6.80	119.62	110.10
78	CA	1567	U	O4'-C1'-N1	6.80	113.64	108.20
81	DA	1089	G	C1'-O4'-C4'	-6.80	104.46	109.90
32	BC	334	ARG	NE-CZ-NH1	6.80	123.70	120.30
81	DA	527	A	O4'-C1'-C2'	-6.80	99.00	105.80
81	DA	836	A	C3'-C2'-C1'	6.80	106.94	101.50
13	AL	92	CYS	CA-C-N	-6.80	102.25	117.20
78	CA	215	A	O5'-C5'-C4'	-6.80	98.78	111.70
81	DA	1324	U	P-O3'-C3'	6.80	127.86	119.70
81	DA	2785	A	C5'-C4'-C3'	-6.80	105.12	116.00
81	DA	2906	C	P-O3'-C3'	-6.80	111.54	119.70
25	AY	48	VAL	CB-CA-C	6.80	124.31	111.40
78	CA	33	U	O4'-C1'-N1	6.80	113.64	108.20
78	CA	1209	C	C3'-C2'-C1'	6.80	106.94	101.50
81	DA	988	U	C1'-O4'-C4'	6.80	115.34	109.90
81	DA	2295	A	N9-C1'-C2'	6.80	122.83	114.00
69	Br	47	GLN	CA-C-O	-6.79	105.83	120.10
81	DA	1484	U	C3'-C2'-C1'	6.79	106.94	101.50
81	DA	1878	G	O4'-C1'-N9	6.79	113.64	108.20
19	AR	123	TYR	CB-CG-CD2	-6.79	116.92	121.00
78	CA	1290	U	O4'-C1'-N1	6.79	113.64	108.20
78	CA	1437	U	O3'-P-O5'	6.79	116.91	104.00
78	CA	1690	G	C5'-C4'-O4'	-6.79	100.95	109.10
81	DA	45	A	C4'-C3'-C2'	-6.79	95.81	102.60
81	DA	1020	G	O4'-C1'-N9	6.79	113.64	108.20
81	DA	1690	C	O4'-C4'-C3'	-6.79	97.21	104.00
13	AL	73	ARG	NE-CZ-NH1	6.79	123.70	120.30
78	CA	303	U	O4'-C1'-N1	6.79	113.63	108.20
78	CA	1221	A	P-O3'-C3'	6.79	127.85	119.70
81	DA	984	G	O4'-C1'-C2'	-6.79	99.01	105.80
81	DA	1073	U	P-O3'-C3'	-6.79	111.55	119.70
81	DA	2369	G	N9-C1'-C2'	-6.79	104.53	112.00
81	DA	2542	U	O4'-C1'-N1	6.79	113.63	108.20
81	DA	2908	G	C1'-O4'-C4'	-6.79	104.47	109.90
81	DA	2990	G	N9-C1'-C2'	-6.79	104.53	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3321	C	O4'-C1'-C2'	-6.79	99.01	105.80
32	BC	97	ARG	N-CA-CB	6.79	122.82	110.60
81	DA	977	C	N1-C1'-C2'	6.79	122.83	114.00
78	CA	947	U	C3'-C2'-C1'	6.79	106.93	101.50
81	DA	3299	A	N9-C1'-C2'	-6.79	104.53	112.00
20	AS	91	TYR	N-CA-C	6.79	129.32	111.00
81	DA	345	G	C1'-O4'-C4'	-6.79	104.47	109.90
81	DA	577	C	O4'-C1'-N1	-6.79	102.77	108.20
81	DA	2745	G	P-O5'-C5'	6.79	131.76	120.90
77	BI	153	ARG	NE-CZ-NH1	6.79	123.69	120.30
78	CA	605	A	C1'-O4'-C4'	-6.79	104.47	109.90
78	CA	1075	C	C3'-C2'-C1'	6.79	106.93	101.50
6	AE	82	ASN	N-CA-C	-6.78	92.69	111.00
33	BD	355	PHE	CA-C-O	-6.78	105.85	120.10
43	BP	26	ARG	NE-CZ-NH2	-6.78	116.91	120.30
78	CA	435	C	C5'-C4'-C3'	-6.78	105.15	116.00
78	CA	1050	G	O4'-C1'-N9	6.78	113.63	108.20
78	CA	1564	U	C3'-C2'-C1'	6.78	106.93	101.50
81	DA	2297	U	C3'-C2'-C1'	6.78	106.93	101.50
81	DA	929	A	O4'-C1'-N9	6.78	113.63	108.20
81	DA	2170	U	O4'-C1'-C2'	-6.78	99.02	105.80
82	DB	117	C	C3'-C2'-C1'	6.78	106.93	101.50
78	CA	1645	G	C1'-O4'-C4'	-6.78	104.47	109.90
81	DA	2251	G	N9-C1'-C2'	6.78	122.82	114.00
81	DA	2672	G	O4'-C4'-C3'	-6.78	97.22	104.00
81	DA	2385	G	C1'-O4'-C4'	-6.78	104.48	109.90
35	BG	147	ALA	C-N-CA	6.78	138.65	121.70
78	CA	117	U	O4'-C1'-C2'	-6.78	99.02	105.80
78	CA	885	G	C3'-C2'-C1'	6.78	106.92	101.50
78	CA	1324	G	C5'-C4'-C3'	6.78	126.84	116.00
81	DA	491	C	O4'-C1'-C2'	-6.78	99.02	105.80
81	DA	514	G	P-O3'-C3'	6.78	127.83	119.70
81	DA	1283	C	O4'-C1'-C2'	-6.78	99.02	105.80
81	DA	1617	G	O4'-C1'-N9	6.78	113.62	108.20
81	DA	2485	A	O4'-C1'-N9	6.78	113.62	108.20
81	DA	3316	A	P-O3'-C3'	6.78	127.83	119.70
81	DA	1647	A	C1'-O4'-C4'	6.77	115.32	109.90
81	DA	927	C	N1-C1'-C2'	6.77	122.80	114.00
1	Aa	186	PHE	CB-CG-CD2	-6.77	116.06	120.80
81	DA	32	U	C1'-O4'-C4'	-6.77	104.48	109.90
81	DA	2049	A	C1'-O4'-C4'	6.77	115.32	109.90
81	DA	2785	A	N9-C1'-C2'	6.77	122.80	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3081	C	C1'-O4'-C4'	-6.77	104.48	109.90
81	DA	3365	U	C3'-C2'-C1'	6.77	106.92	101.50
82	DB	43	A	O5'-P-OP2	-6.77	99.61	105.70
43	BP	166	ALA	N-CA-C	6.77	129.27	111.00
44	BO	57	GLY	C-N-CA	-6.77	104.78	121.70
77	BI	115	MET	C-N-CA	6.77	138.62	121.70
78	CA	434	G	N9-C1'-C2'	-6.77	104.56	112.00
78	CA	1506	G	P-O5'-C5'	-6.77	110.07	120.90
82	DB	12	A	N9-C1'-C2'	-6.77	104.56	112.00
26	AZ	44	PHE	N-CA-CB	6.76	122.77	110.60
78	CA	868	G	C1'-O4'-C4'	-6.76	104.49	109.90
81	DA	104	G	C5'-C4'-C3'	6.76	126.82	116.00
81	DA	776	U	O4'-C1'-N1	6.76	113.61	108.20
81	DA	2207	A	N9-C1'-C2'	-6.76	104.56	112.00
81	DA	2721	A	C3'-C2'-C1'	6.76	106.91	101.50
81	DA	3165	A	P-O3'-C3'	6.76	127.82	119.70
82	DB	92	A	O4'-C1'-N9	6.76	113.61	108.20
31	BB	70	ARG	CB-CA-C	-6.76	96.87	110.40
81	DA	1276	U	N1-C1'-C2'	6.76	122.79	114.00
81	DA	2183	A	O4'-C1'-N9	6.76	113.61	108.20
57	Be	149	TYR	CB-CG-CD2	-6.76	116.94	121.00
78	CA	574	G	C5-C6-O6	-6.76	124.54	128.60
81	DA	849	C	O4'-C1'-C2'	-6.76	99.04	105.80
81	DA	1377	G	O4'-C1'-N9	6.76	113.61	108.20
41	BN	100	ALA	N-CA-CB	6.76	119.56	110.10
63	Bm	29	LEU	CB-CA-C	6.76	123.04	110.20
78	CA	1199	G	C1'-O4'-C4'	6.76	115.31	109.90
78	CA	1479	A	C5'-C4'-C3'	6.76	126.81	116.00
81	DA	635	G	P-O3'-C3'	-6.76	111.59	119.70
81	DA	1320	C	O4'-C1'-C2'	-6.76	99.04	105.80
81	DA	1754	G	C5-C6-O6	-6.76	124.54	128.60
43	BP	143	ARG	NE-CZ-NH2	-6.76	116.92	120.30
78	CA	667	U	C1'-O4'-C4'	6.76	115.31	109.90
78	CA	1412	G	C3'-C2'-C1'	6.76	106.91	101.50
78	CA	1752	U	C1'-O4'-C4'	-6.76	104.49	109.90
81	DA	2534	G	P-O3'-C3'	6.76	127.81	119.70
81	DA	3141	A	O5'-C5'-C4'	-6.76	98.86	111.70
83	DC	53	U	O3'-P-O5'	6.76	116.84	104.00
32	BC	69	LYS	C-N-CA	6.76	138.59	121.70
37	BH	227	ASP	CB-CG-OD2	6.76	124.38	118.30
78	CA	1141	G	O4'-C1'-C2'	6.76	113.68	107.60
81	DA	106	A	O4'-C1'-N9	6.76	113.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2668	U	O4'-C1'-C2'	-6.76	99.04	105.80
81	DA	2755	C	O4'-C1'-N1	6.76	113.61	108.20
81	DA	3050	U	O3'-P-O5'	-6.76	91.16	104.00
78	CA	1564	U	N1-C1'-C2'	6.75	122.78	114.00
81	DA	230	U	O4'-C1'-C2'	-6.75	99.05	105.80
81	DA	1773	C	C1'-O4'-C4'	-6.75	104.50	109.90
81	DA	2820	A	O4'-C1'-N9	6.75	113.60	108.20
81	DA	3093	C	O4'-C1'-C2'	-6.75	99.05	105.80
83	DC	30	G	C3'-C2'-C1'	-6.75	96.10	101.50
78	CA	37	U	O4'-C1'-C2'	-6.75	99.05	105.80
78	CA	174	U	P-O3'-C3'	6.75	127.81	119.70
81	DA	3130	A	O4'-C1'-C2'	6.75	113.68	107.60
47	BU	140	ILE	CA-C-N	6.75	132.05	117.20
81	DA	2394	G	C1'-O4'-C4'	-6.75	104.50	109.90
11	AJ	68	ARG	CB-CA-C	6.75	123.90	110.40
53	Ba	15	ARG	C-N-CA	-6.75	108.12	122.30
60	Bi	67	LYS	N-CA-CB	6.75	122.75	110.60
81	DA	1050	U	P-O5'-C5'	6.75	131.70	120.90
78	CA	1353	U	N1-C1'-C2'	6.75	122.77	114.00
78	CA	1509	C	C5-C4-N4	-6.75	115.48	120.20
79	CB	12	U	P-O5'-C5'	-6.75	110.10	120.90
81	DA	608	A	C5'-C4'-O4'	6.75	117.20	109.10
81	DA	2071	A	C2'-C3'-O3'	-6.75	94.65	109.50
4	AD	82	TYR	N-CA-C	6.75	129.22	111.00
34	BE	90	GLN	N-CA-C	-6.75	92.79	111.00
43	BP	175	ASN	CB-CA-C	-6.75	96.91	110.40
43	BP	181	ASN	N-CA-CB	6.75	122.74	110.60
63	Bm	6	LYS	CA-CB-CG	6.75	128.24	113.40
78	CA	253	A	C3'-C2'-C1'	-6.75	96.10	101.50
78	CA	1110	G	O4'-C1'-N9	6.75	113.60	108.20
78	CA	1197	C	O4'-C1'-N1	6.75	113.60	108.20
81	DA	274	G	N9-C1'-C2'	6.75	122.77	114.00
81	DA	677	A	C2'-C3'-O3'	6.75	124.50	113.70
81	DA	2123	G	O4'-C1'-N9	6.75	113.60	108.20
34	BE	61	ARG	CA-CB-CG	6.75	128.24	113.40
81	DA	2115	G	C1'-O4'-C4'	-6.75	104.50	109.90
38	Bs	83	ASN	CB-CA-C	6.74	123.89	110.40
81	DA	356	C	P-O3'-C3'	6.74	127.79	119.70
81	DA	1258	U	O4'-C1'-C2'	-6.74	99.06	105.80
81	DA	1286	A	O4'-C1'-C2'	-6.74	99.06	105.80
83	DC	5	G	O4'-C1'-N9	-6.74	102.81	108.20
78	CA	1337	A	O4'-C4'-C3'	-6.74	97.26	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	48	A	P-O3'-C3'	-6.74	111.61	119.70
78	CA	492	A	C5-C6-N6	-6.74	118.31	123.70
78	CA	1355	C	O4'-C1'-N1	6.74	113.59	108.20
5	AC	157	ASP	CB-CG-OD2	-6.74	112.23	118.30
33	BD	203	ARG	NE-CZ-NH1	-6.74	116.93	120.30
43	BP	166	ALA	N-CA-CB	-6.74	100.67	110.10
46	BT	114	LYS	CB-CA-C	6.74	123.88	110.40
78	CA	1673	G	O4'-C1'-N9	6.74	113.59	108.20
81	DA	3161	C	C3'-C2'-C1'	6.74	106.89	101.50
83	DC	29	C	O4'-C1'-N1	6.74	113.59	108.20
5	AC	78	ARG	NE-CZ-NH1	6.74	123.67	120.30
13	AL	104	LEU	CB-CG-CD2	6.74	122.45	111.00
78	CA	474	A	O4'-C1'-N9	6.74	113.59	108.20
78	CA	1283	U	O4'-C1'-N1	6.74	113.59	108.20
81	DA	1860	G	O4'-C1'-N9	6.74	113.59	108.20
81	DA	1876	U	C4'-C3'-C2'	-6.74	95.86	102.60
59	Bh	92	TYR	CB-CG-CD2	-6.73	116.96	121.00
78	CA	289	U	O5'-C5'-C4'	6.73	124.50	111.70
81	DA	2782	U	O4'-C1'-N1	6.73	113.59	108.20
81	DA	3122	A	O4'-C1'-C2'	-6.73	99.07	105.80
81	DA	19	U	O4'-C1'-N1	6.73	113.59	108.20
81	DA	254	A	O4'-C1'-C2'	-6.73	99.07	105.80
81	DA	995	U	C3'-C2'-C1'	6.73	106.89	101.50
82	DB	121	U	O4'-C1'-C2'	-6.73	99.07	105.80
83	DC	87	U	N1-C1'-C2'	6.73	122.75	114.00
50	BX	106	ASP	CB-CG-OD2	-6.73	112.24	118.30
78	CA	1104	U	O4'-C1'-N1	6.73	113.58	108.20
81	DA	1297	C	C4'-C3'-C2'	-6.73	95.87	102.60
81	DA	1815	U	O4'-C1'-N1	6.73	113.58	108.20
82	DB	48	A	C5'-C4'-C3'	-6.73	105.23	116.00
78	CA	1381	U	N1-C1'-C2'	-6.73	104.60	112.00
78	CA	1607	G	C3'-C2'-C1'	6.73	106.88	101.50
81	DA	255	A	O4'-C1'-C2'	-6.73	99.07	105.80
81	DA	1258	U	C1'-O4'-C4'	6.73	115.28	109.90
81	DA	2237	C	O4'-C1'-N1	6.73	113.58	108.20
32	BC	51	ALA	CB-CA-C	-6.73	100.01	110.10
40	BK	130	LYS	N-CA-CB	6.73	122.71	110.60
53	Ba	55	LYS	CA-CB-CG	6.73	128.20	113.40
78	CA	173	A	O4'-C4'-C3'	-6.73	97.27	104.00
78	CA	385	A	O4'-C1'-N9	6.73	113.58	108.20
78	CA	853	G	O4'-C1'-C2'	-6.73	99.07	105.80
78	CA	890	C	N1-C1'-C2'	6.73	122.75	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1656	U	C5'-C4'-C3'	6.73	126.77	116.00
81	DA	846	A	O4'-C1'-C2'	-6.73	99.07	105.80
81	DA	2102	U	C3'-C2'-C1'	6.73	106.88	101.50
81	DA	2392	C	P-O3'-C3'	6.73	127.77	119.70
42	BM	48	ARG	CB-CA-C	-6.73	96.95	110.40
81	DA	678	G	P-O5'-C5'	6.73	131.66	120.90
41	BN	115	PHE	CB-CG-CD1	6.72	125.51	120.80
74	BQ	145	PHE	CB-CG-CD2	-6.72	116.09	120.80
78	CA	314	C	C1'-O4'-C4'	-6.72	104.52	109.90
78	CA	1452	U	C1'-O4'-C4'	-6.72	104.52	109.90
78	CA	377	G	O4'-C1'-N9	6.72	113.58	108.20
81	DA	1069	C	C3'-C2'-C1'	6.72	106.88	101.50
33	BD	349	THR	CB-CA-C	6.72	129.75	111.60
40	BK	198	GLY	N-CA-C	6.72	129.90	113.10
41	BN	98	SER	N-CA-CB	6.72	120.58	110.50
49	BV	113	TYR	CB-CG-CD1	-6.72	116.97	121.00
77	BI	106	ALA	O-C-N	-6.72	111.78	123.20
81	DA	159	A	O4'-C1'-C2'	-6.72	99.08	105.80
32	BC	344	THR	CA-C-N	6.72	131.98	117.20
78	CA	576	G	C5-C6-O6	-6.72	124.57	128.60
81	DA	1475	A	P-O3'-C3'	6.72	127.76	119.70
78	CA	1793	G	C1'-O4'-C4'	-6.71	104.53	109.90
81	DA	486	U	C5'-C4'-C3'	6.71	126.74	116.00
81	DA	82	C	O4'-C1'-N1	6.71	113.57	108.20
81	DA	462	C	O4'-C1'-C2'	-6.71	99.09	105.80
81	DA	735	A	OP2-P-O3'	6.71	119.96	105.20
81	DA	2270	A	O4'-C1'-C2'	-6.71	99.09	105.80
74	BQ	249	ALA	CA-C-N	6.71	131.96	117.20
78	CA	92	A	C1'-O4'-C4'	-6.71	104.53	109.90
81	DA	2504	U	C4'-C3'-C2'	6.71	109.31	102.60
39	BJ	117	ARG	NE-CZ-NH2	-6.71	116.95	120.30
45	BR	38	ARG	NE-CZ-NH1	6.71	123.65	120.30
81	DA	879	U	O4'-C1'-N1	6.71	113.57	108.20
10	AI	122	ARG	NE-CZ-NH2	-6.71	116.95	120.30
78	CA	386	G	P-O3'-C3'	6.71	127.75	119.70
81	DA	702	C	O4'-C1'-C2'	-6.71	99.09	105.80
83	DC	75	G	O4'-C1'-N9	6.71	113.56	108.20
38	Bs	55	LYS	CB-CA-C	-6.71	96.99	110.40
78	CA	468	A	N9-C1'-C2'	6.70	122.71	114.00
81	DA	143	G	O4'-C1'-N9	6.70	113.56	108.20
81	DA	647	A	O4'-C1'-N9	-6.70	102.84	108.20
81	DA	1550	C	O4'-C1'-C2'	-6.70	99.10	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3150	A	O5'-P-OP1	6.70	118.75	110.70
81	DA	146	U	O3'-P-O5'	6.70	116.73	104.00
81	DA	628	A	P-O3'-C3'	6.70	127.74	119.70
81	DA	1567	U	C4'-C3'-C2'	-6.70	95.90	102.60
81	DA	1989	U	C5'-C4'-C3'	-6.70	105.28	116.00
81	DA	3246	G	C5'-C4'-C3'	6.70	126.72	116.00
8	AF	27	THR	N-CA-CB	-6.70	97.57	110.30
43	BP	120	TRP	N-CA-C	6.70	129.09	111.00
78	CA	433	C	C3'-C2'-C1'	6.70	106.86	101.50
81	DA	3248	C	C3'-C2'-C1'	6.70	106.86	101.50
10	AI	37	THR	CA-CB-CG2	-6.70	103.02	112.40
11	AJ	89	ARG	N-CA-CB	6.70	122.66	110.60
33	BD	148	ILE	N-CA-C	-6.70	92.92	111.00
76	BS	66	ILE	N-CA-C	6.70	129.09	111.00
78	CA	343	C	O4'-C1'-N1	6.70	113.56	108.20
81	DA	1178	G	P-O5'-C5'	-6.70	110.18	120.90
81	DA	1206	G	N9-C1'-C2'	-6.70	104.63	112.00
81	DA	2509	U	N1-C1'-C2'	6.70	122.71	114.00
20	AS	37	VAL	N-CA-CB	6.70	126.23	111.50
81	DA	2609	A	C3'-C2'-C1'	6.70	106.86	101.50
6	AE	69	ILE	C-N-CA	6.70	138.44	121.70
78	CA	1335	U	O4'-C1'-N1	6.70	113.56	108.20
78	CA	1682	U	O4'-C1'-N1	6.70	113.56	108.20
81	DA	1301	A	N9-C1'-C2'	6.70	122.70	114.00
81	DA	2352	A	C3'-C2'-C1'	6.70	106.86	101.50
81	DA	2471	U	P-O5'-C5'	6.70	131.61	120.90
82	DB	11	C	C3'-C2'-C1'	6.70	106.86	101.50
5	AC	18	PRO	CA-N-CD	-6.69	102.13	111.50
66	Bo	7	PHE	CB-CG-CD1	6.69	125.49	120.80
78	CA	1400	A	C3'-C2'-C1'	6.69	106.86	101.50
78	CA	1690	G	C4'-C3'-C2'	6.69	109.29	102.60
81	DA	681	U	O4'-C1'-N1	6.69	113.56	108.20
81	DA	1784	G	C4'-C3'-C2'	-6.69	95.91	102.60
20	AS	68	ARG	C-N-CA	6.69	138.43	121.70
78	CA	569	C	N3-C4-N4	6.69	122.69	118.00
81	DA	30	G	P-O3'-C3'	6.69	127.73	119.70
81	DA	795	G	O4'-C1'-N9	6.69	113.56	108.20
81	DA	1597	C	C3'-C2'-C1'	6.69	106.85	101.50
81	DA	2151	C	O4'-C1'-N1	6.69	113.55	108.20
81	DA	2643	A	O4'-C1'-N9	6.69	113.55	108.20
81	DA	2897	A	P-O3'-C3'	6.69	127.73	119.70
41	BN	63	VAL	N-CA-C	-6.69	92.93	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1446	A	O4'-C1'-C2'	-6.69	99.11	105.80
81	DA	506	U	O4'-C1'-C2'	-6.69	99.11	105.80
81	DA	1776	G	P-O3'-C3'	-6.69	111.67	119.70
81	DA	2287	C	O4'-C1'-C2'	-6.69	99.11	105.80
81	DA	3253	G	P-O3'-C3'	6.69	127.73	119.70
81	DA	880	G	O4'-C1'-N9	6.69	113.55	108.20
81	DA	1772	U	P-O3'-C3'	6.69	127.73	119.70
81	DA	2050	C	N1-C1'-C2'	6.69	122.70	114.00
81	DA	3026	G	O4'-C1'-N9	6.69	113.55	108.20
44	BO	128	ARG	NE-CZ-NH2	-6.69	116.96	120.30
61	Bj	45	LEU	N-CA-CB	6.69	123.77	110.40
78	CA	1277	G	N9-C1'-C2'	-6.69	104.64	112.00
78	CA	1339	C	O4'-C1'-N1	6.69	113.55	108.20
78	CA	1722	A	P-O3'-C3'	6.69	127.72	119.70
81	DA	1084	A	O4'-C1'-N9	6.69	113.55	108.20
81	DA	2673	A	O4'-C1'-N9	-6.69	102.85	108.20
81	DA	3147	G	C1'-O4'-C4'	-6.69	104.55	109.90
81	DA	3149	G	P-O3'-C3'	-6.69	111.67	119.70
81	DA	3109	G	O4'-C1'-N9	6.69	113.55	108.20
58	Bg	25	PHE	N-CA-CB	6.68	122.63	110.60
78	CA	1201	G	C1'-O4'-C4'	-6.68	104.55	109.90
81	DA	1789	G	O3'-P-O5'	6.68	116.70	104.00
38	Bs	72	ASP	N-CA-CB	-6.68	98.57	110.60
78	CA	288	A	C5'-C4'-C3'	6.68	126.69	116.00
78	CA	850	A	O4'-C1'-N9	6.68	113.55	108.20
81	DA	720	A	C1'-O4'-C4'	6.68	115.25	109.90
81	DA	2304	C	N1-C1'-C2'	6.68	122.69	114.00
81	DA	113	C	P-O5'-C5'	6.68	131.59	120.90
81	DA	805	G	O4'-C1'-N9	6.68	113.54	108.20
81	DA	1831	U	O3'-P-O5'	-6.68	91.31	104.00
81	DA	2114	C	C5'-C4'-C3'	-6.68	105.31	116.00
81	DA	2629	U	C5'-C4'-C3'	6.68	126.69	116.00
6	AE	253	ARG	NE-CZ-NH1	6.68	123.64	120.30
40	BK	128	ARG	N-CA-CB	6.68	122.62	110.60
66	Bo	1	MET	CG-SD-CE	-6.68	89.52	100.20
78	CA	118	U	O4'-C1'-N1	6.68	113.54	108.20
81	DA	735	A	P-O3'-C3'	6.68	127.71	119.70
81	DA	2087	C	N1-C1'-C2'	6.68	122.68	114.00
81	DA	2319	U	P-O5'-C5'	6.68	131.58	120.90
81	DA	2570	U	O4'-C1'-N1	6.68	113.54	108.20
81	DA	3079	U	N1-C1'-C2'	6.68	122.68	114.00
5	AC	163	PRO	N-CA-CB	-6.67	95.26	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	AH	120	HIS	N-CA-CB	6.67	122.61	110.60
61	Bj	89	LEU	CA-C-O	-6.67	106.08	120.10
81	DA	595	G	O4'-C4'-C3'	-6.67	97.33	104.00
81	DA	1640	G	C1'-O4'-C4'	-6.67	104.56	109.90
81	DA	732	C	O3'-P-O5'	-6.67	91.32	104.00
81	DA	1685	C	C1'-O4'-C4'	-6.67	104.56	109.90
81	DA	2498	U	C4'-C3'-C2'	-6.67	95.93	102.60
35	BG	16	ALA	N-CA-CB	6.67	119.44	110.10
53	Ba	12	VAL	CB-CA-C	6.67	124.08	111.40
13	AL	3	LYS	N-CA-CB	-6.67	98.59	110.60
81	DA	2180	G	O4'-C1'-N9	6.67	113.54	108.20
81	DA	2218	G	O4'-C1'-N9	6.67	113.54	108.20
81	DA	3248	C	N1-C1'-C2'	6.67	122.67	114.00
83	DC	1	G	O4'-C1'-N9	6.67	113.54	108.20
17	AQ	135	ARG	NE-CZ-NH2	-6.67	116.97	120.30
33	BD	261	VAL	N-CA-C	6.67	129.00	111.00
81	DA	2665	U	O4'-C1'-C2'	-6.67	99.13	105.80
81	DA	3302	U	O3'-P-O5'	-6.67	91.33	104.00
68	Bq	6	ARG	NE-CZ-NH1	6.67	123.63	120.30
81	DA	263	C	O4'-C1'-C2'	-6.67	99.13	105.80
81	DA	803	C	C1'-O4'-C4'	-6.67	104.57	109.90
78	CA	116	U	O4'-C1'-N1	6.67	113.53	108.20
78	CA	1415	U	O4'-C1'-N1	6.67	113.53	108.20
81	DA	699	A	C5'-C4'-C3'	6.67	126.66	116.00
81	DA	1074	U	O4'-C1'-N1	6.67	113.53	108.20
81	DA	2573	G	C5-C6-O6	-6.67	124.60	128.60
51	BZ	62	GLY	C-N-CA	6.66	138.36	121.70
78	CA	1357	A	C4'-C3'-C2'	-6.66	95.94	102.60
81	DA	1842	A	C1'-O4'-C4'	6.66	115.23	109.90
31	BB	133	TYR	CB-CG-CD2	-6.66	117.00	121.00
78	CA	323	A	O4'-C1'-C2'	-6.66	99.14	105.80
42	BM	41	GLY	N-CA-C	6.66	129.75	113.10
78	CA	16	G	C5'-C4'-C3'	6.66	126.66	116.00
13	AL	38	PHE	CD1-CE1-CZ	-6.66	112.11	120.10
78	CA	663	U	O4'-C1'-N1	6.66	113.53	108.20
81	DA	152	U	C5'-C4'-C3'	6.66	126.65	116.00
2	AA	11	PRO	C-N-CA	-6.66	105.06	121.70
78	CA	30	G	N9-C1'-C2'	6.66	122.65	114.00
78	CA	303	U	C5'-C4'-C3'	-6.66	105.35	116.00
78	CA	633	U	N1-C1'-C2'	6.66	122.65	114.00
81	DA	1077	U	N1-C1'-C2'	6.66	122.65	114.00
81	DA	1639	C	O4'-C1'-C2'	-6.66	99.14	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1596	C	P-O3'-C3'	6.65	127.69	119.70
81	DA	2482	U	C1'-O4'-C4'	-6.65	104.58	109.90
81	DA	422	A	O4'-C1'-C2'	-6.65	99.15	105.80
81	DA	628	A	N9-C1'-C2'	-6.65	104.68	112.00
81	DA	1920	U	O4'-C1'-N1	6.65	113.52	108.20
81	DA	2474	G	P-O3'-C3'	6.65	127.68	119.70
81	DA	3317	U	O4'-C1'-N1	6.65	113.52	108.20
35	BG	57	HIS	CB-CA-C	6.65	123.70	110.40
81	DA	753	C	O4'-C1'-N1	6.65	113.52	108.20
81	DA	1496	C	O3'-P-O5'	-6.65	91.36	104.00
81	DA	1805	C	C3'-C2'-C1'	6.65	106.82	101.50
81	DA	2663	G	O3'-P-O5'	6.65	116.64	104.00
81	DA	3019	U	O4'-C1'-C2'	-6.65	99.15	105.80
33	BD	69	ARG	NE-CZ-NH2	-6.65	116.98	120.30
81	DA	386	A	C5'-C4'-C3'	6.65	126.64	116.00
83	DC	97	C	N1-C1'-C2'	6.65	122.64	114.00
8	AF	102	ARG	N-CA-CB	6.65	122.57	110.60
45	BR	140	LEU	CB-CA-C	-6.65	97.57	110.20
78	CA	89	G	O4'-C1'-N9	6.65	113.52	108.20
78	CA	1090	C	C1'-O4'-C4'	-6.65	104.58	109.90
78	CA	1325	A	O4'-C1'-N9	6.65	113.52	108.20
81	DA	895	A	O4'-C1'-N9	6.65	113.52	108.20
81	DA	953	G	O4'-C1'-N9	6.65	113.52	108.20
81	DA	997	A	C5'-C4'-C3'	6.65	126.64	116.00
81	DA	1122	U	P-O3'-C3'	6.65	127.68	119.70
82	DB	154	C	O4'-C1'-N1	-6.65	102.88	108.20
26	AZ	39	LEU	N-CA-CB	6.65	123.69	110.40
81	DA	476	G	O4'-C1'-N9	6.65	113.52	108.20
81	DA	2765	C	P-O3'-C3'	-6.65	111.72	119.70
82	DB	10	A	N9-C1'-C2'	6.65	122.64	114.00
33	BD	323	VAL	CB-CA-C	6.64	124.02	111.40
81	DA	32	U	P-O5'-C5'	6.64	131.53	120.90
81	DA	278	U	P-O3'-C3'	6.64	127.67	119.70
81	DA	1565	G	C5'-C4'-C3'	6.64	126.63	116.00
81	DA	2872	A	N9-C1'-C2'	-6.64	104.69	112.00
54	Bd	53	ALA	N-CA-CB	6.64	119.40	110.10
81	DA	2672	G	C3'-C2'-C1'	-6.64	96.19	101.50
81	DA	2244	A	C5'-C4'-O4'	-6.64	101.13	109.10
82	DB	95	G	C3'-C2'-C1'	6.64	106.81	101.50
81	DA	1292	C	C3'-C2'-C1'	6.64	106.81	101.50
55	Bc	104	GLN	N-CA-CB	6.64	122.55	110.60
78	CA	1088	A	O4'-C1'-C2'	-6.64	99.16	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1569	A	C5'-C4'-C3'	-6.64	105.38	116.00
78	CA	169	A	C5'-C4'-C3'	6.64	126.62	116.00
78	CA	1180	C	N1-C1'-C2'	6.64	122.63	114.00
81	DA	598	A	C5'-C4'-C3'	-6.64	105.38	116.00
81	DA	1391	C	C1'-O4'-C4'	6.64	115.21	109.90
78	CA	248	U	P-O3'-C3'	6.63	127.66	119.70
78	CA	896	U	N1-C1'-C2'	6.63	122.62	114.00
78	CA	1381	U	C5'-C4'-C3'	6.63	126.61	116.00
78	CA	1677	C	O4'-C1'-C2'	-6.63	99.17	105.80
81	DA	3243	A	N9-C1'-C2'	6.63	122.62	114.00
81	DA	3324	C	C5'-C4'-O4'	-6.63	101.14	109.10
81	DA	724	U	C3'-C2'-C1'	6.63	106.81	101.50
24	AX	67	THR	N-CA-CB	6.63	122.90	110.30
41	BN	12	TRP	CA-CB-CG	6.63	126.30	113.70
78	CA	219	A	N9-C1'-C2'	-6.63	104.70	112.00
78	CA	288	A	O4'-C4'-C3'	-6.63	97.37	104.00
78	CA	479	C	N3-C4-N4	6.63	122.64	118.00
78	CA	982	U	O4'-C1'-N1	6.63	113.51	108.20
82	DB	39	G	N9-C1'-C2'	-6.63	104.71	112.00
48	BW	83	TYR	CB-CG-CD2	-6.63	117.02	121.00
78	CA	45	U	O3'-P-O5'	-6.63	91.40	104.00
81	DA	3383	G	C3'-C2'-C1'	-6.63	96.20	101.50
35	BG	129	GLU	N-CA-CB	6.63	122.53	110.60
74	BQ	187	THR	N-CA-CB	6.63	122.89	110.30
78	CA	1000	C	O4'-C1'-C2'	-6.63	99.17	105.80
79	CB	35	U	O4'-C1'-N1	6.63	113.50	108.20
81	DA	1378	U	O4'-C1'-N1	6.63	113.50	108.20
81	DA	1871	U	O4'-C4'-C3'	6.63	111.40	106.10
81	DA	2987	A	C3'-C2'-C1'	6.63	106.80	101.50
31	BB	152	SER	CB-CA-C	-6.63	97.51	110.10
33	BD	352	ALA	CB-CA-C	-6.63	100.16	110.10
60	Bi	41	ARG	CB-CA-C	-6.63	97.15	110.40
78	CA	162	A	C3'-C2'-C1'	6.63	106.80	101.50
78	CA	573	C	C3'-C2'-C1'	6.63	106.80	101.50
78	CA	853	G	C1'-O4'-C4'	6.63	115.20	109.90
81	DA	1664	G	O4'-C1'-N9	6.63	113.50	108.20
81	DA	2182	A	C1'-O4'-C4'	-6.63	104.60	109.90
81	DA	2505	U	N1-C1'-C2'	-6.63	104.71	112.00
81	DA	2619	G	C1'-O4'-C4'	-6.63	104.60	109.90
81	DA	3243	A	C1'-O4'-C4'	-6.63	104.60	109.90
81	DA	3307	A	C4'-C3'-C2'	-6.63	95.97	102.60
81	DA	3341	U	N1-C1'-C2'	6.63	122.61	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2757	U	O4'-C4'-C3'	-6.62	97.38	104.00
32	BC	266	ARG	CD-NE-CZ	6.62	132.87	123.60
76	BS	156	ARG	NE-CZ-NH1	6.62	123.61	120.30
78	CA	100	A	N9-C1'-C2'	-6.62	104.71	112.00
78	CA	596	C	O4'-C1'-N1	6.62	113.50	108.20
81	DA	2604	U	N1-C1'-C2'	6.62	122.61	114.00
57	Be	235	PHE	CB-CG-CD2	-6.62	116.17	120.80
74	BQ	250	ASP	CB-CG-OD1	-6.62	112.34	118.30
78	CA	606	A	C5'-C4'-O4'	6.62	117.05	109.10
81	DA	1064	A	C1'-O4'-C4'	6.62	115.20	109.90
81	DA	2781	U	C3'-C2'-C1'	-6.62	96.20	101.50
2	AA	5	ALA	C-N-CA	-6.62	105.15	121.70
10	AI	86	ALA	CB-CA-C	-6.62	100.17	110.10
57	Be	75	TYR	N-CA-CB	6.62	122.52	110.60
5	AC	62	ARG	NH1-CZ-NH2	6.62	126.68	119.40
11	AJ	102	ARG	CB-CA-C	-6.62	97.16	110.40
32	BC	382	THR	N-CA-C	-6.62	93.13	111.00
33	BD	313	LEU	CB-CA-C	-6.62	97.62	110.20
45	BR	33	TYR	CB-CG-CD1	6.62	124.97	121.00
76	BS	67	PHE	C-N-CA	6.62	138.25	121.70
81	DA	739	G	P-O3'-C3'	-6.62	111.76	119.70
81	DA	1115	G	P-O3'-C3'	6.62	127.64	119.70
81	DA	2303	A	O4'-C1'-C2'	-6.62	99.18	105.80
37	BH	129	PRO	N-CA-CB	6.62	111.24	103.30
81	DA	691	A	C1'-O4'-C4'	6.62	115.19	109.90
81	DA	2264	U	O4'-C4'-C3'	-6.62	97.38	104.00
81	DA	3299	A	C1'-O4'-C4'	6.62	115.19	109.90
63	Bm	4	ARG	CB-CA-C	-6.62	97.17	110.40
78	CA	225	A	P-O3'-C3'	-6.62	111.76	119.70
78	CA	892	A	O4'-C1'-C2'	-6.62	99.19	105.80
78	CA	1298	U	C3'-C2'-C1'	6.62	106.79	101.50
16	AO	89	TYR	CB-CG-CD1	6.61	124.97	121.00
78	CA	1279	C	N1-C1'-C2'	6.61	122.60	114.00
79	CB	28	G	C4'-C3'-C2'	-6.61	95.99	102.60
81	DA	1086	C	N1-C1'-C2'	6.61	122.60	114.00
81	DA	1226	G	O4'-C1'-N9	6.61	113.49	108.20
81	DA	519	A	N9-C1'-C2'	-6.61	104.73	112.00
81	DA	2181	C	O3'-P-O5'	6.61	116.56	104.00
50	BX	35	PRO	CA-N-CD	-6.61	102.25	111.50
77	BI	113	GLN	N-CA-CB	6.61	122.50	110.60
78	CA	435	C	C3'-C2'-C1'	6.61	106.79	101.50
78	CA	658	C	C4'-C3'-O3'	6.61	126.22	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1434	U	P-O3'-C3'	6.61	127.63	119.70
81	DA	35	A	O4'-C1'-N9	6.61	113.49	108.20
81	DA	49	A	C1'-O4'-C4'	6.61	115.19	109.90
81	DA	337	G	C1'-O4'-C4'	6.61	115.19	109.90
81	DA	3009	G	C5'-C4'-C3'	6.61	126.58	116.00
81	DA	168	U	O4'-C1'-N1	6.61	113.49	108.20
78	CA	164	A	O4'-C4'-C3'	6.61	111.39	106.10
78	CA	320	U	C3'-C2'-C1'	6.61	106.78	101.50
81	DA	2370	G	O3'-P-O5'	-6.61	91.45	104.00
81	DA	2504	U	C2'-C3'-O3'	6.61	124.27	113.70
81	DA	3211	C	P-O5'-C5'	6.61	131.47	120.90
2	AA	113	ARG	NE-CZ-NH2	-6.61	117.00	120.30
32	BC	99	LEU	CB-CG-CD2	6.61	122.23	111.00
81	DA	290	G	C1'-O4'-C4'	-6.61	104.61	109.90
81	DA	873	C	O4'-C1'-C2'	-6.61	99.19	105.80
81	DA	1262	G	N9-C1'-C2'	6.61	122.59	114.00
81	DA	3392	U	O4'-C1'-N1	6.61	113.48	108.20
33	BD	99	MET	C-N-CA	6.60	138.21	121.70
59	Bh	127	ALA	CB-CA-C	6.60	120.01	110.10
81	DA	1001	G	C1'-O4'-C4'	-6.60	104.62	109.90
69	Br	42	ARG	NE-CZ-NH2	6.60	123.60	120.30
78	CA	856	A	O4'-C1'-C2'	-6.60	99.20	105.80
78	CA	1789	G	O4'-C1'-N9	6.60	113.48	108.20
81	DA	180	C	C3'-C2'-C1'	6.60	106.78	101.50
81	DA	1045	C	C3'-C2'-C1'	-6.60	96.22	101.50
81	DA	2474	G	O4'-C1'-N9	6.60	113.48	108.20
81	DA	2756	C	P-O3'-C3'	6.60	127.62	119.70
81	DA	2757	U	O5'-C5'-C4'	6.60	124.24	111.70
81	DA	3081	C	N1-C1'-C2'	6.60	122.58	114.00
6	AE	120	GLU	N-CA-CB	6.60	122.48	110.60
19	AR	61	ARG	NE-CZ-NH2	-6.60	117.00	120.30
81	DA	2338	C	O4'-C1'-N1	6.60	113.48	108.20
81	DA	2537	U	O4'-C1'-N1	6.60	113.48	108.20
39	BJ	53	PHE	CB-CG-CD2	-6.60	116.18	120.80
78	CA	465	G	C3'-C2'-C1'	-6.60	96.22	101.50
78	CA	1480	G	C5'-C4'-C3'	-6.60	105.44	116.00
81	DA	3107	U	O4'-C4'-C3'	6.60	111.38	106.10
79	CB	72	G	C2'-C3'-O3'	6.60	124.26	113.70
81	DA	245	U	O4'-C1'-N1	6.60	113.48	108.20
81	DA	490	A	C5'-C4'-C3'	-6.60	105.44	116.00
81	DA	2251	G	C1'-O4'-C4'	-6.60	104.62	109.90
81	DA	3001	C	O4'-C1'-C2'	-6.60	99.20	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3248	C	O3'-P-O5'	-6.60	91.47	104.00
5	AC	54	ARG	NE-CZ-NH2	-6.60	117.00	120.30
81	DA	2728	G	C1'-O4'-C4'	-6.60	104.62	109.90
12	AK	125	SER	N-CA-CB	6.59	120.39	110.50
37	BH	177	TYR	CG-CD1-CE1	-6.59	116.02	121.30
80	CC	21	C	P-O5'-C5'	-6.59	110.35	120.90
81	DA	2142	A	C1'-O4'-C4'	6.59	115.18	109.90
25	AY	25	VAL	N-CA-C	-6.59	93.20	111.00
47	BU	135	PRO	CA-N-CD	-6.59	102.27	111.50
55	Bc	81	ARG	NE-CZ-NH1	6.59	123.60	120.30
78	CA	195	G	C3'-C2'-C1'	6.59	106.77	101.50
78	CA	357	G	O4'-C1'-N9	6.59	113.47	108.20
78	CA	949	C	O3'-P-O5'	-6.59	91.48	104.00
78	CA	1302	U	O4'-C1'-C2'	-6.59	99.21	105.80
78	CA	1406	A	O4'-C1'-C2'	6.59	113.53	107.60
81	DA	1697	A	C3'-C2'-C1'	6.59	106.77	101.50
29	AU	19	ALA	N-CA-CB	6.59	119.33	110.10
31	BB	42	ARG	NE-CZ-NH1	6.59	123.59	120.30
59	Bh	111	ARG	NE-CZ-NH2	-6.59	117.01	120.30
60	Bi	18	ASN	N-CA-CB	6.59	122.46	110.60
78	CA	158	U	C1'-O4'-C4'	-6.59	104.63	109.90
81	DA	1248	C	O4'-C1'-N1	6.59	113.47	108.20
81	DA	2776	C	P-O3'-C3'	-6.59	111.79	119.70
81	DA	3246	G	O3'-P-O5'	-6.59	91.48	104.00
3	AB	157	LEU	N-CA-CB	6.59	123.58	110.40
78	CA	1429	G	O4'-C1'-N9	6.59	113.47	108.20
81	DA	578	A	C3'-C2'-C1'	6.59	106.77	101.50
81	DA	2756	C	O4'-C4'-C3'	-6.59	97.41	104.00
81	DA	3235	C	C3'-C2'-C1'	6.59	106.77	101.50
81	DA	3356	G	O4'-C1'-N9	6.59	113.47	108.20
51	BZ	60	LYS	O-C-N	-6.59	112.16	122.70
78	CA	358	U	O4'-C1'-N1	6.59	113.47	108.20
78	CA	1067	C	O4'-C1'-N1	6.59	113.47	108.20
81	DA	213	A	O4'-C1'-N9	6.59	113.47	108.20
81	DA	1939	G	C1'-O4'-C4'	-6.59	104.63	109.90
81	DA	2536	A	O4'-C1'-N9	6.59	113.47	108.20
78	CA	237	C	P-O3'-C3'	6.58	127.60	119.70
55	Bc	105	ARG	C-N-CA	6.58	138.16	121.70
78	CA	853	G	P-O5'-C5'	-6.58	110.37	120.90
81	DA	1384	U	P-O3'-C3'	6.58	127.60	119.70
81	DA	3361	G	C3'-C2'-C1'	6.58	106.77	101.50
83	DC	1	G	O3'-P-O5'	-6.58	91.49	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AM	122	HIS	N-CA-CB	6.58	122.44	110.60
35	BG	38	THR	CA-CB-CG2	-6.58	103.19	112.40
76	BS	68	GLU	N-CA-C	6.58	128.77	111.00
78	CA	298	C	O4'-C1'-C2'	-6.58	99.22	105.80
78	CA	1145	U	O4'-C1'-N1	6.58	113.47	108.20
79	CB	50	G	O4'-C1'-C2'	6.58	113.52	107.60
81	DA	9	U	C1'-O4'-C4'	-6.58	104.64	109.90
81	DA	2651	G	N9-C1'-C2'	6.58	122.56	114.00
81	DA	2799	A	O4'-C1'-N9	6.58	113.47	108.20
2	AA	31	VAL	N-CA-CB	6.58	125.98	111.50
52	BY	4	GLN	N-CA-CB	6.58	122.44	110.60
76	BS	74	ILE	CB-CA-C	6.58	124.76	111.60
81	DA	2902	A	O4'-C1'-N9	6.58	113.46	108.20
81	DA	3349	C	N1-C1'-C2'	6.58	122.55	114.00
46	BT	146	LYS	CB-CA-C	-6.58	97.24	110.40
49	BV	113	TYR	CB-CG-CD2	6.58	124.95	121.00
78	CA	447	U	P-O5'-C5'	6.58	131.43	120.90
78	CA	1556	A	O4'-C1'-C2'	-6.58	99.22	105.80
81	DA	201	A	C1'-O4'-C4'	-6.58	104.64	109.90
81	DA	982	C	C4'-C3'-C2'	-6.58	96.02	102.60
81	DA	1002	A	P-O3'-C3'	6.58	127.59	119.70
74	BQ	239	ILE	N-CA-C	6.58	128.76	111.00
74	BQ	282	ARG	NE-CZ-NH1	6.58	123.59	120.30
78	CA	987	G	O4'-C1'-N9	6.58	113.46	108.20
81	DA	2346	C	N1-C1'-C2'	6.58	122.55	114.00
43	BP	64	VAL	CA-CB-CG2	6.58	120.76	110.90
81	DA	2471	U	N1-C1'-C2'	-6.58	104.77	112.00
81	DA	3149	G	OP2-P-O3'	6.58	119.67	105.20
78	CA	120	U	O3'-P-O5'	6.57	116.49	104.00
78	CA	424	C	N1-C1'-C2'	6.57	122.55	114.00
80	CC	18	C	N1-C1'-C2'	6.57	122.55	114.00
20	AS	8	ASP	CB-CG-OD1	6.57	124.21	118.30
81	DA	271	C	O4'-C1'-C2'	-6.57	99.23	105.80
81	DA	1054	A	O4'-C1'-C2'	-6.57	99.23	105.80
81	DA	1257	C	OP1-P-O3'	6.57	119.66	105.20
25	AY	56	LEU	CB-CG-CD2	6.57	122.17	111.00
43	BP	188	ARG	NE-CZ-NH1	6.57	123.58	120.30
81	DA	582	G	C1'-O4'-C4'	-6.57	104.64	109.90
81	DA	656	A	C1'-O4'-C4'	-6.57	104.64	109.90
81	DA	1505	C	O4'-C1'-N1	6.57	113.46	108.20
81	DA	2924	U	O4'-C1'-N1	6.57	113.46	108.20
81	DA	3246	G	N9-C1'-C2'	6.57	122.54	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	25	G	C3'-C2'-C1'	-6.57	96.24	101.50
83	DC	81	U	O4'-C1'-N1	6.57	113.46	108.20
32	BC	321	PHE	CB-CG-CD1	6.57	125.40	120.80
74	BQ	239	ILE	CB-CA-C	6.57	124.74	111.60
78	CA	100	A	P-O3'-C3'	6.57	127.58	119.70
81	DA	3306	U	O4'-C1'-C2'	-6.57	99.23	105.80
33	BD	247	PHE	CB-CG-CD2	-6.57	116.20	120.80
78	CA	299	A	O4'-C1'-C2'	-6.57	99.23	105.80
81	DA	1346	G	C1'-O4'-C4'	6.57	115.15	109.90
81	DA	1699	A	O3'-P-O5'	-6.57	91.52	104.00
81	DA	3389	U	O4'-C1'-C2'	-6.57	99.23	105.80
35	BG	28	GLN	N-CA-CB	6.57	122.42	110.60
78	CA	875	G	C1'-O4'-C4'	-6.57	104.65	109.90
78	CA	1455	G	O5'-P-OP1	-6.57	99.79	105.70
78	CA	1691	A	C5'-C4'-C3'	6.57	126.50	116.00
81	DA	9	U	C5'-C4'-C3'	6.57	126.51	116.00
81	DA	1337	A	O4'-C1'-N9	6.57	113.45	108.20
18	AP	81	HIS	CA-CB-CG	6.56	124.76	113.60
13	AL	84	THR	N-CA-C	-6.56	93.28	111.00
78	CA	215	A	O4'-C1'-C2'	-6.56	99.24	105.80
78	CA	1095	U	P-O5'-C5'	6.56	131.40	120.90
79	CB	22	G	O4'-C1'-C2'	6.56	113.51	107.60
81	DA	2099	A	N9-C1'-C2'	6.56	122.53	114.00
81	DA	2269	U	O4'-C1'-N1	6.56	113.45	108.20
81	DA	2790	A	O4'-C1'-N9	6.56	113.45	108.20
31	BB	26	ALA	N-CA-CB	6.56	119.28	110.10
81	DA	3093	C	C3'-C2'-C1'	6.56	106.75	101.50
18	AP	100	TYR	CG-CD2-CE2	-6.56	116.05	121.30
46	BT	136	ARG	NE-CZ-NH2	6.56	123.58	120.30
78	CA	672	U	O4'-C1'-C2'	-6.56	99.24	105.80
81	DA	702	C	P-O3'-C3'	6.56	127.57	119.70
81	DA	1690	C	C3'-C2'-C1'	-6.56	96.25	101.50
81	DA	2994	A	C1'-O4'-C4'	6.56	115.15	109.90
78	CA	1503	A	O4'-C1'-N9	6.56	113.45	108.20
79	CB	66	C	C3'-C2'-C1'	6.56	106.75	101.50
81	DA	665	A	C1'-O4'-C4'	-6.56	104.65	109.90
81	DA	1107	C	O4'-C1'-N1	6.56	113.45	108.20
82	DB	74	U	C5'-C4'-C3'	6.56	126.49	116.00
74	BQ	55	PHE	O-C-N	6.55	133.19	122.70
78	CA	171	A	O4'-C1'-N9	6.55	113.44	108.20
81	DA	2626	A	C5'-C4'-C3'	6.55	126.49	116.00
10	AI	79	TYR	CB-CG-CD2	-6.55	117.07	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
72	Bu	61	PHE	CB-CA-C	-6.55	97.29	110.40
81	DA	837	A	C5'-C4'-O4'	-6.55	101.24	109.10
81	DA	2334	U	C4'-C3'-C2'	-6.55	96.05	102.60
83	DC	113	C	C3'-C2'-C1'	6.55	106.74	101.50
76	BS	123	ILE	CA-CB-CG1	6.55	123.45	111.00
81	DA	1363	A	N9-C1'-C2'	6.55	122.52	114.00
81	DA	1694	U	C1'-O4'-C4'	6.55	115.14	109.90
81	DA	2181	C	C4'-C3'-C2'	-6.55	96.05	102.60
81	DA	2844	C	C3'-C2'-C1'	6.55	106.74	101.50
81	DA	2944	U	C1'-O4'-C4'	6.55	115.14	109.90
55	Bc	75	TYR	CB-CG-CD1	6.55	124.93	121.00
78	CA	972	G	O4'-C1'-N9	6.55	113.44	108.20
81	DA	622	A	P-O3'-C3'	6.55	127.56	119.70
81	DA	3148	U	C5'-C4'-C3'	-6.55	105.52	116.00
81	DA	3229	G	C1'-O4'-C4'	-6.55	104.66	109.90
51	BZ	69	LYS	N-CA-C	6.55	128.68	111.00
81	DA	2047	A	C1'-O4'-C4'	-6.55	104.66	109.90
81	DA	3253	G	O4'-C1'-C2'	6.55	113.49	107.60
78	CA	295	A	O4'-C4'-C3'	-6.55	97.45	104.00
78	CA	880	C	O4'-C1'-C2'	-6.55	99.25	105.80
81	DA	1387	G	P-O3'-C3'	-6.55	111.84	119.70
81	DA	3031	G	C1'-O4'-C4'	-6.55	104.66	109.90
83	DC	6	C	O4'-C1'-C2'	-6.55	99.25	105.80
78	CA	490	C	N3-C4-N4	6.54	122.58	118.00
78	CA	1746	A	O4'-C1'-C2'	-6.54	99.25	105.80
81	DA	1238	C	P-O3'-C3'	6.54	127.55	119.70
81	DA	2645	G	C3'-C2'-C1'	-6.54	96.26	101.50
57	Be	229	PHE	CB-CG-CD1	6.54	125.38	120.80
76	BS	161	PRO	CB-CA-C	6.54	128.36	112.00
78	CA	107	C	C3'-C2'-C1'	6.54	106.73	101.50
81	DA	1803	C	O4'-C1'-N1	6.54	113.44	108.20
81	DA	1849	C	O4'-C1'-C2'	-6.54	99.26	105.80
81	DA	2407	C	C3'-C2'-C1'	6.54	106.73	101.50
48	BW	95	PHE	CB-CG-CD2	6.54	125.38	120.80
78	CA	119	A	C4'-C3'-C2'	-6.54	96.06	102.60
79	CB	9	A	P-O3'-C3'	6.54	127.55	119.70
81	DA	94	G	O4'-C1'-N9	6.54	113.43	108.20
81	DA	1283	C	O4'-C1'-N1	6.54	113.43	108.20
47	BU	116	ARG	CB-CA-C	-6.54	97.32	110.40
74	BQ	129	TYR	CB-CG-CD1	6.54	124.92	121.00
81	DA	458	U	N1-C1'-C2'	6.54	122.50	114.00
20	AS	123	ARG	NE-CZ-NH2	-6.54	117.03	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BG	99	GLU	CB-CA-C	-6.54	97.32	110.40
41	BN	40	ASP	N-CA-C	-6.54	93.34	111.00
78	CA	606	A	O4'-C1'-N9	-6.54	102.97	108.20
81	DA	798	G	O3'-P-O5'	-6.54	91.58	104.00
81	DA	1101	G	O3'-P-O5'	-6.54	91.58	104.00
81	DA	693	A	C3'-C2'-C1'	6.54	106.73	101.50
81	DA	2303	A	C4'-C3'-C2'	6.54	109.14	102.60
10	AI	30	LYS	N-CA-CB	6.54	122.36	110.60
41	BN	106	ARG	NE-CZ-NH2	-6.54	117.03	120.30
77	BI	109	ASP	CB-CG-OD1	-6.54	112.42	118.30
81	DA	64	G	P-O3'-C3'	6.54	127.54	119.70
81	DA	3166	C	C3'-C2'-C1'	6.54	106.73	101.50
20	AS	66	TYR	CB-CG-CD2	-6.53	117.08	121.00
32	BC	369	ARG	NE-CZ-NH2	-6.53	117.03	120.30
44	BO	56	VAL	CA-C-N	6.53	129.27	116.20
78	CA	690	G	C3'-C2'-C1'	-6.53	96.27	101.50
81	DA	1151	U	C3'-C2'-C1'	6.53	106.73	101.50
81	DA	2414	G	O4'-C1'-N9	6.53	113.43	108.20
81	DA	2625	C	O3'-P-O5'	-6.53	91.59	104.00
81	DA	3240	C	O4'-C1'-N1	6.53	113.43	108.20
34	BE	116	TYR	CB-CG-CD1	-6.53	117.08	121.00
78	CA	1501	C	P-O5'-C5'	6.53	131.35	120.90
59	Bh	12	LYS	N-CA-C	-6.53	93.37	111.00
81	DA	1347	U	O4'-C1'-C2'	-6.53	99.27	105.80
81	DA	3160	U	O4'-C1'-N1	6.53	113.42	108.20
78	CA	838	G	C4'-C3'-C2'	-6.53	96.07	102.60
81	DA	2240	G	C3'-C2'-C1'	-6.53	96.28	101.50
81	DA	2876	C	P-O3'-C3'	-6.53	111.86	119.70
81	DA	3359	A	P-O5'-C5'	6.53	131.35	120.90
5	AC	146	PHE	N-CA-CB	6.53	122.35	110.60
20	AS	53	TRP	CA-C-O	6.53	133.81	120.10
32	BC	52	GLY	N-CA-C	-6.53	96.78	113.10
37	BH	129	PRO	N-CA-C	-6.53	95.13	112.10
78	CA	839	U	O3'-P-O5'	-6.53	91.60	104.00
78	CA	874	C	O4'-C1'-C2'	-6.53	99.27	105.80
78	CA	1065	A	C5-C6-N1	-6.53	114.44	117.70
78	CA	1576	A	O4'-C1'-C2'	-6.53	99.27	105.80
81	DA	356	C	O4'-C1'-C2'	-6.53	99.27	105.80
81	DA	1896	A	P-O3'-C3'	6.53	127.53	119.70
78	CA	1584	G	O4'-C1'-N9	-6.53	102.98	108.20
81	DA	1314	C	P-O5'-C5'	6.53	131.34	120.90
81	DA	1818	U	C4'-C3'-C2'	-6.53	96.08	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2478	C	N1-C1'-C2'	6.53	122.48	114.00
81	DA	2752	U	C3'-C2'-C1'	6.53	106.72	101.50
3	AB	107	PHE	CB-CG-CD2	6.52	125.37	120.80
2	AA	79	ARG	O-C-N	6.52	133.14	122.70
62	Bk	84	LYS	N-CA-C	6.52	128.61	111.00
69	Br	87	ARG	NE-CZ-NH2	-6.52	117.04	120.30
78	CA	1056	U	O4'-C1'-N1	6.52	113.42	108.20
78	CA	1500	C	N3-C4-C5	-6.52	119.29	121.90
78	CA	1764	C	N1-C1'-C2'	6.52	122.48	114.00
81	DA	2931	C	P-O3'-C3'	-6.52	111.87	119.70
81	DA	3211	C	O4'-C1'-C2'	-6.52	99.28	105.80
83	DC	93	U	C4'-C3'-C2'	-6.52	96.08	102.60
81	DA	51	A	O4'-C1'-N9	6.52	113.42	108.20
78	CA	141	U	C4'-C3'-C2'	-6.52	96.08	102.60
78	CA	1408	G	O4'-C1'-N9	6.52	113.42	108.20
81	DA	191	U	O4'-C1'-N1	6.52	113.42	108.20
81	DA	667	C	O4'-C1'-N1	6.52	113.42	108.20
81	DA	2863	G	N9-C1'-C2'	6.52	122.48	114.00
81	DA	3389	U	O4'-C4'-C3'	-6.52	97.48	104.00
78	CA	713	A	C5'-C4'-C3'	6.52	126.43	116.00
78	CA	1066	C	O4'-C4'-C3'	-6.52	97.48	104.00
78	CA	1447	C	C3'-C2'-C1'	6.52	106.72	101.50
81	DA	1079	A	N9-C1'-C2'	-6.52	104.83	112.00
81	DA	1859	A	P-O3'-C3'	6.52	127.52	119.70
81	DA	3343	G	O4'-C1'-N9	6.52	113.41	108.20
78	CA	1284	C	P-O3'-C3'	6.52	127.52	119.70
65	Bn	71	PRO	CA-N-CD	-6.51	102.38	111.50
78	CA	1237	G	C3'-C2'-C1'	6.51	106.71	101.50
78	CA	1434	U	N1-C1'-C2'	6.51	122.47	114.00
78	CA	1476	C	P-O5'-C5'	6.51	131.32	120.90
78	CA	1553	G	O4'-C1'-N9	6.51	113.41	108.20
81	DA	110	G	O4'-C1'-N9	6.51	113.41	108.20
81	DA	1457	U	N1-C1'-C2'	6.51	122.47	114.00
81	DA	1955	U	O4'-C1'-C2'	-6.51	99.29	105.80
3	AB	162	GLN	N-CA-CB	-6.51	98.88	110.60
78	CA	572	C	C3'-C2'-C1'	6.51	106.71	101.50
78	CA	925	G	C3'-C2'-C1'	-6.51	96.29	101.50
78	CA	1202	A	C3'-C2'-C1'	-6.51	96.29	101.50
81	DA	1454	A	C3'-C2'-C1'	6.51	106.71	101.50
81	DA	2900	A	O4'-C1'-N9	6.51	113.41	108.20
18	AP	114	ALA	N-CA-CB	6.51	119.21	110.10
78	CA	1570	A	C1'-O4'-C4'	6.51	115.11	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2507	C	O4'-C1'-C2'	-6.51	99.29	105.80
81	DA	2934	A	P-O3'-C3'	6.51	127.51	119.70
78	CA	220	A	C3'-C2'-C1'	6.51	106.71	101.50
78	CA	1335	U	C3'-C2'-C1'	6.51	106.71	101.50
79	CB	13	U	P-O5'-C5'	-6.51	110.49	120.90
79	CB	56	A	C5'-C4'-C3'	-6.51	105.59	116.00
31	BB	227	ARG	CB-CA-C	-6.51	97.39	110.40
45	BR	25	TYR	CD1-CE1-CZ	6.51	125.66	119.80
53	Ba	31	GLU	N-CA-C	-6.51	93.43	111.00
64	Bl	63	ARG	C-N-CA	6.51	137.97	121.70
78	CA	1188	G	N9-C1'-C2'	6.51	122.46	114.00
78	CA	1315	U	O4'-C1'-N1	6.51	113.41	108.20
80	CC	12	A	O4'-C1'-C2'	6.51	113.46	107.60
81	DA	520	U	N1-C1'-C2'	6.51	122.46	114.00
82	DB	138	A	C3'-C2'-C1'	6.51	106.70	101.50
81	DA	939	U	O4'-C1'-N1	6.50	113.40	108.20
78	CA	310	C	C3'-C2'-C1'	6.50	106.70	101.50
78	CA	340	U	O4'-C1'-N1	6.50	113.40	108.20
78	CA	553	G	O4'-C1'-N9	6.50	113.40	108.20
78	CA	1018	U	O4'-C1'-N1	6.50	113.40	108.20
78	CA	1427	A	C4-C5-C6	6.50	120.25	117.00
78	CA	1429	G	N1-C6-O6	6.50	123.80	119.90
79	CB	28	G	C1'-O4'-C4'	-6.50	104.70	109.90
81	DA	2337	C	N1-C1'-C2'	6.50	122.45	114.00
40	BK	37	ARG	NE-CZ-NH2	-6.50	117.05	120.30
78	CA	465	G	C1'-O4'-C4'	-6.50	104.70	109.90
81	DA	239	G	O4'-C1'-N9	6.50	113.40	108.20
81	DA	263	C	O3'-P-O5'	6.50	116.35	104.00
81	DA	2279	A	O5'-P-OP1	6.50	118.50	110.70
83	DC	51	G	O4'-C1'-C2'	6.50	113.45	107.60
4	AD	96	ASN	N-CA-C	-6.50	93.45	111.00
45	BR	141	ARG	C-N-CA	6.50	135.95	122.30
41	BN	12	TRP	N-CA-C	-6.50	93.45	111.00
81	DA	1224	C	C1'-O4'-C4'	-6.50	104.70	109.90
81	DA	2991	A	P-O3'-C3'	6.50	127.50	119.70
4	AD	90	ILE	CA-C-O	-6.50	106.46	120.10
18	AP	59	PRO	C-N-CA	6.50	137.94	121.70
78	CA	1240	U	P-O3'-C3'	6.50	127.50	119.70
78	CA	1282	U	C3'-C2'-C1'	6.50	106.70	101.50
81	DA	432	G	O4'-C1'-N9	6.50	113.40	108.20
59	Bh	129	GLU	CB-CA-C	-6.50	97.41	110.40
78	CA	1791	A	O4'-C1'-N9	-6.50	103.00	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	746	A	P-O3'-C3'	6.50	127.49	119.70
81	DA	1691	U	O4'-C1'-C2'	-6.50	99.31	105.80
81	DA	1884	A	O4'-C1'-N9	6.50	113.40	108.20
78	CA	1492	A	O5'-C5'-C4'	6.49	124.04	111.70
81	DA	698	U	P-O3'-C3'	6.49	127.49	119.70
81	DA	1869	C	N1-C1'-C2'	6.49	122.44	114.00
81	DA	3126	C	C3'-C2'-C1'	6.49	106.69	101.50
22	AV	29	LYS	N-CA-CB	6.49	122.29	110.60
41	BN	136	ALA	CB-CA-C	-6.49	100.36	110.10
46	BT	84	THR	CA-CB-CG2	6.49	121.49	112.40
3	AB	141	LYS	N-CA-CB	6.49	122.28	110.60
13	AL	9	LEU	C-N-CA	6.49	137.93	121.70
39	BJ	12	TYR	O-C-N	-6.49	112.31	122.70
60	Bi	67	LYS	CG-CD-CE	6.49	131.37	111.90
78	CA	994	G	C3'-C2'-C1'	-6.49	96.31	101.50
78	CA	1602	C	N1-C1'-C2'	6.49	122.44	114.00
81	DA	211	A	C3'-C2'-C1'	6.49	106.69	101.50
81	DA	1239	C	O4'-C1'-N1	6.49	113.39	108.20
5	AC	126	ARG	N-CA-CB	-6.49	98.92	110.60
31	BB	200	ARG	NE-CZ-NH2	6.49	123.54	120.30
43	BP	121	VAL	CB-CA-C	-6.49	99.07	111.40
81	DA	1256	G	O4'-C1'-C2'	6.49	113.44	107.60
31	BB	163	ARG	NE-CZ-NH2	-6.49	117.06	120.30
78	CA	1351	G	O4'-C1'-N9	6.49	113.39	108.20
18	AP	100	TYR	CB-CG-CD2	-6.49	117.11	121.00
50	BX	34	LEU	CA-C-N	6.49	135.26	117.10
78	CA	1067	C	C5'-C4'-O4'	6.49	116.88	109.10
81	DA	1250	G	C1'-O4'-C4'	6.49	115.09	109.90
81	DA	2236	G	C1'-O4'-C4'	-6.49	104.71	109.90
81	DA	2316	G	C3'-C2'-C1'	6.49	106.69	101.50
81	DA	2898	G	O4'-C1'-N9	-6.49	103.01	108.20
81	DA	3223	A	C3'-C2'-C1'	6.49	106.69	101.50
83	DC	19	C	P-O3'-C3'	6.49	127.48	119.70
78	CA	169	A	O4'-C1'-C2'	-6.48	99.32	105.80
78	CA	1643	U	C1'-O4'-C4'	6.48	115.09	109.90
78	CA	1774	G	P-O3'-C3'	6.48	127.48	119.70
81	DA	1464	G	O4'-C1'-N9	6.48	113.39	108.20
9	AH	23	ARG	NH1-CZ-NH2	6.48	126.53	119.40
37	BH	73	PRO	N-CA-CB	-6.48	95.47	102.60
78	CA	661	A	C4'-C3'-C2'	-6.48	96.12	102.60
78	CA	1676	U	O3'-P-O5'	6.48	116.32	104.00
81	DA	1034	U	N1-C1'-C2'	6.48	122.43	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2402	A	C1'-O4'-C4'	6.48	115.09	109.90
81	DA	3354	U	C1'-O4'-C4'	6.48	115.08	109.90
8	AF	29	ILE	N-CA-C	-6.48	93.50	111.00
19	AR	61	ARG	NE-CZ-NH1	6.48	123.54	120.30
31	BB	35	ALA	N-CA-CB	6.48	119.17	110.10
33	BD	260	GLN	C-N-CA	6.48	137.90	121.70
57	Be	203	TRP	CB-CG-CD2	-6.48	118.17	126.60
78	CA	427	C	C3'-C2'-C1'	6.48	106.69	101.50
81	DA	826	G	O4'-C1'-N9	6.48	113.38	108.20
81	DA	1976	G	O5'-C5'-C4'	6.48	124.01	111.70
82	DB	28	C	O4'-C1'-C2'	-6.48	99.32	105.80
82	DB	135	G	O4'-C1'-N9	6.48	113.39	108.20
83	DC	47	C	OP2-P-O3'	-6.48	90.94	105.20
78	CA	1276	U	O4'-C1'-N1	6.48	113.38	108.20
81	DA	1410	U	P-O3'-C3'	-6.48	111.92	119.70
81	DA	3094	A	O4'-C1'-N9	-6.48	103.02	108.20
9	AH	27	ILE	CB-CA-C	6.48	124.56	111.60
44	BO	59	ARG	N-CA-CB	6.48	122.26	110.60
76	BS	70	ASN	CA-C-O	-6.48	106.50	120.10
81	DA	6	A	P-O3'-C3'	6.48	127.47	119.70
81	DA	636	C	O4'-C4'-C3'	-6.48	97.52	104.00
81	DA	2858	U	C5'-C4'-C3'	-6.48	105.64	116.00
83	DC	62	A	O4'-C1'-N9	6.48	113.38	108.20
81	DA	435	C	P-O3'-C3'	6.48	127.47	119.70
81	DA	2252	A	C3'-C2'-C1'	6.48	106.68	101.50
81	DA	3235	C	P-O5'-C5'	6.48	131.26	120.90
12	AK	58	TYR	CB-CG-CD1	6.47	124.89	121.00
20	AS	94	ILE	N-CA-C	-6.47	93.52	111.00
40	BK	187	GLU	CA-C-N	6.47	131.44	117.20
78	CA	434	G	C1'-O4'-C4'	6.47	115.08	109.90
78	CA	1693	A	P-O3'-C3'	6.47	127.47	119.70
81	DA	2246	G	C5'-C4'-C3'	-6.47	105.64	116.00
82	DB	29	U	P-O5'-C5'	6.47	131.26	120.90
83	DC	49	G	C5'-C4'-O4'	6.47	116.87	109.10
32	BC	275	ARG	NE-CZ-NH2	-6.47	117.06	120.30
44	BO	118	ILE	CA-C-O	-6.47	106.51	120.10
44	BO	128	ARG	NE-CZ-NH1	6.47	123.54	120.30
78	CA	579	A	C4-C5-C6	6.47	120.24	117.00
81	DA	2450	G	C3'-C2'-C1'	-6.47	96.32	101.50
59	Bh	23	ASP	CA-C-N	-6.47	102.96	117.20
78	CA	1184	A	O4'-C1'-N9	6.47	113.38	108.20
83	DC	103	U	O4'-C1'-C2'	-6.47	99.33	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BG	59	GLU	N-CA-C	-6.47	93.53	111.00
37	BH	65	LEU	C-N-CA	6.47	137.87	121.70
42	BM	70	ARG	N-CA-CB	6.47	122.25	110.60
81	DA	1247	U	C1'-O4'-C4'	6.47	115.08	109.90
81	DA	2497	U	O4'-C1'-N1	6.47	113.38	108.20
82	DB	115	C	O4'-C1'-C2'	-6.47	99.33	105.80
78	CA	642	G	O4'-C1'-N9	6.47	113.37	108.20
81	DA	1360	C	O4'-C4'-C3'	6.47	111.28	106.10
81	DA	2320	A	O4'-C1'-N9	6.47	113.38	108.20
6	AE	8	GLN	N-CA-CB	-6.47	98.96	110.60
20	AS	45	MET	CG-SD-CE	-6.47	89.86	100.20
69	Br	97	LYS	N-CA-CB	6.47	122.24	110.60
78	CA	234	G	O3'-P-O5'	6.47	116.29	104.00
78	CA	839	U	O4'-C4'-C3'	-6.47	97.53	104.00
78	CA	1509	C	O4'-C1'-N1	6.47	113.37	108.20
81	DA	1707	A	O4'-C1'-C2'	-6.47	99.33	105.80
81	DA	1925	U	O4'-C1'-C2'	-6.47	99.33	105.80
81	DA	1963	G	P-O5'-C5'	6.47	131.25	120.90
81	DA	2511	A	O4'-C1'-N9	6.47	113.37	108.20
81	DA	2769	A	C1'-O4'-C4'	-6.47	104.73	109.90
78	CA	116	U	C4'-C3'-C2'	-6.46	96.14	102.60
78	CA	1246	C	C1'-O4'-C4'	-6.46	104.73	109.90
78	CA	1708	U	O4'-C1'-N1	6.46	113.37	108.20
81	DA	1331	U	O4'-C1'-C2'	-6.46	99.34	105.80
81	DA	2781	U	N1-C1'-C2'	-6.46	104.89	112.00
81	DA	3054	U	C3'-C2'-C1'	6.46	106.67	101.50
55	Bc	70	TYR	CB-CG-CD2	-6.46	117.12	121.00
81	DA	177	U	O4'-C1'-N1	6.46	113.37	108.20
81	DA	1955	U	C1'-O4'-C4'	6.46	115.07	109.90
81	DA	3314	A	O5'-P-OP2	6.46	118.46	110.70
83	DC	36	C	N1-C1'-C2'	6.46	122.40	114.00
78	CA	318	U	C3'-C2'-C1'	6.46	106.67	101.50
81	DA	2054	C	O4'-C1'-N1	6.46	113.37	108.20
83	DC	48	U	C2'-C3'-O3'	-6.46	95.29	109.50
10	AI	114	ARG	NE-CZ-NH2	-6.46	117.07	120.30
81	DA	538	G	P-O3'-C3'	6.46	127.45	119.70
81	DA	750	G	C2'-C3'-O3'	6.46	124.04	113.70
81	DA	3122	A	C3'-C2'-C1'	-6.46	96.33	101.50
81	DA	3395	G	C3'-C2'-C1'	6.46	106.67	101.50
81	DA	640	U	C4'-C3'-C2'	-6.46	96.14	102.60
32	BC	289	ASP	CB-CA-C	-6.46	97.49	110.40
32	BC	370	PHE	O-C-N	-6.46	112.37	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	36	C	C3'-C2'-C1'	6.46	106.67	101.50
78	CA	491	C	N3-C4-C5	-6.46	119.32	121.90
78	CA	1062	A	C4-C5-C6	6.46	120.23	117.00
81	DA	258	G	N9-C1'-C2'	-6.46	104.90	112.00
81	DA	931	C	O4'-C1'-N1	6.46	113.37	108.20
81	DA	1105	A	O4'-C1'-C2'	-6.46	99.34	105.80
78	CA	1479	A	O5'-P-OP2	-6.46	99.89	105.70
81	DA	2970	C	O4'-C1'-C2'	-6.46	99.34	105.80
78	CA	651	G	C3'-C2'-C1'	6.45	106.66	101.50
81	DA	975	C	C3'-C2'-C1'	6.45	106.66	101.50
81	DA	1186	G	O4'-C1'-N9	6.45	113.36	108.20
81	DA	1311	G	O4'-C1'-N9	6.45	113.36	108.20
81	DA	2751	G	C4'-C3'-C2'	-6.45	96.15	102.60
81	DA	3022	G	O4'-C1'-N9	6.45	113.36	108.20
6	AE	6	ALA	C-N-CA	6.45	137.82	121.70
53	Ba	12	VAL	N-CA-C	-6.45	93.58	111.00
46	BT	171	ASP	CB-CG-OD2	-6.45	112.50	118.30
78	CA	223	U	C1'-O4'-C4'	6.45	115.06	109.90
78	CA	886	U	C2'-C3'-O3'	6.45	124.02	113.70
81	DA	1382	G	O3'-P-O5'	6.45	116.25	104.00
81	DA	2506	U	O4'-C1'-C2'	-6.45	99.35	105.80
78	CA	309	C	O4'-C1'-C2'	-6.45	99.35	105.80
78	CA	1504	G	O4'-C1'-N9	6.45	113.36	108.20
81	DA	1493	G	C1'-O4'-C4'	-6.45	104.74	109.90
81	DA	1760	A	C5-C6-N1	-6.45	114.48	117.70
81	DA	2980	U	O4'-C1'-N1	6.45	113.36	108.20
42	BM	35	TYR	CB-CA-C	6.45	123.29	110.40
78	CA	206	A	O4'-C1'-C2'	-6.45	99.35	105.80
78	CA	1654	G	O4'-C1'-N9	6.45	113.36	108.20
81	DA	265	A	O5'-C5'-C4'	-6.45	99.45	111.70
81	DA	727	G	P-O3'-C3'	6.45	127.44	119.70
81	DA	1338	C	C2'-C3'-O3'	-6.45	95.32	109.50
81	DA	2576	G	P-O3'-C3'	-6.45	111.96	119.70
31	BB	1	MET	CG-SD-CE	-6.44	89.89	100.20
81	DA	1542	G	C1'-O4'-C4'	-6.44	104.75	109.90
81	DA	2228	A	C1'-O4'-C4'	6.44	115.06	109.90
9	AH	130	TYR	CB-CG-CD2	6.44	124.87	121.00
12	AK	114	ARG	NE-CZ-NH1	6.44	123.52	120.30
36	BF	107	ASP	CB-CG-OD1	6.44	124.10	118.30
81	DA	703	G	O4'-C1'-N9	6.44	113.36	108.20
81	DA	1223	A	O4'-C1'-N9	6.44	113.35	108.20
14	AM	99	HIS	N-CA-C	-6.44	93.61	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	Be	98	LYS	CB-CA-C	-6.44	97.52	110.40
81	DA	517	G	O4'-C1'-N9	-6.44	103.05	108.20
81	DA	1114	U	O4'-C4'-C3'	-6.44	97.56	104.00
81	DA	2175	U	O4'-C1'-N1	6.44	113.35	108.20
81	DA	2194	G	C3'-C2'-C1'	-6.44	96.35	101.50
4	AD	134	LYS	CA-C-N	6.44	129.08	116.20
39	BJ	90	ARG	NE-CZ-NH1	6.44	123.52	120.30
78	CA	121	U	O4'-C1'-N1	6.44	113.35	108.20
81	DA	135	C	O4'-C1'-C2'	-6.44	99.36	105.80
81	DA	332	C	C3'-C2'-C1'	6.44	106.65	101.50
81	DA	863	C	N1-C1'-C2'	6.44	122.37	114.00
81	DA	1773	C	N1-C1'-C2'	-6.44	104.92	112.00
81	DA	2873	U	P-O3'-C3'	-6.44	111.97	119.70
3	AB	173	ARG	NE-CZ-NH2	-6.44	117.08	120.30
5	AC	127	VAL	CG1-CB-CG2	6.44	121.20	110.90
19	AR	74	ALA	N-CA-CB	6.44	119.11	110.10
81	DA	949	C	C3'-C2'-C1'	6.44	106.65	101.50
81	DA	1297	C	O4'-C1'-N1	6.44	113.35	108.20
78	CA	1035	G	O4'-C1'-N9	6.43	113.35	108.20
81	DA	505	G	O4'-C1'-N9	6.43	113.35	108.20
81	DA	1114	U	N1-C1'-C2'	6.43	122.37	114.00
81	DA	1548	C	C3'-C2'-C1'	6.43	106.65	101.50
81	DA	2013	C	C5'-C4'-C3'	-6.43	105.70	116.00
81	DA	2183	A	C4'-C3'-C2'	-6.43	96.17	102.60
81	DA	2378	C	O4'-C1'-C2'	-6.43	99.37	105.80
81	DA	2515	A	O3'-P-O5'	-6.43	91.77	104.00
81	DA	2673	A	O5'-C5'-C4'	-6.43	99.47	111.70
81	DA	3163	A	O4'-C1'-N9	6.43	113.35	108.20
10	AI	87	LYS	N-CA-C	6.43	128.37	111.00
33	BD	319	LYS	N-CA-CB	6.43	122.18	110.60
45	BR	111	ARG	NE-CZ-NH1	6.43	123.52	120.30
74	BQ	258	LYS	N-CA-CB	6.43	122.18	110.60
78	CA	610	G	N9-C1'-C2'	-6.43	104.92	112.00
78	CA	1443	U	O4'-C1'-N1	6.43	113.35	108.20
81	DA	50	U	C1'-O4'-C4'	6.43	115.05	109.90
82	DB	39	G	C1'-O4'-C4'	6.43	115.05	109.90
32	BC	67	PHE	CB-CG-CD1	-6.43	116.30	120.80
32	BC	349	LYS	N-CA-CB	6.43	122.18	110.60
83	DC	104	C	O4'-C1'-N1	6.43	113.34	108.20
1	Aa	54	PHE	CA-C-O	-6.43	106.60	120.10
3	AB	124	ARG	NE-CZ-NH2	-6.43	117.08	120.30
78	CA	1744	A	O4'-C1'-N9	6.43	113.34	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1426	C	C4'-C3'-O3'	-6.43	95.90	109.40
81	DA	2256	A	O4'-C1'-N9	6.43	113.34	108.20
78	CA	1651	A	O4'-C1'-N9	6.43	113.34	108.20
78	CA	1681	A	C5'-C4'-C3'	6.43	126.28	116.00
83	DC	83	U	C4'-C3'-C2'	-6.43	96.17	102.60
57	Be	134	VAL	N-CA-CB	6.43	125.64	111.50
78	CA	1495	C	N3-C4-C5	-6.43	119.33	121.90
81	DA	222	A	C3'-C2'-C1'	6.43	106.64	101.50
81	DA	1285	G	C1'-O4'-C4'	6.43	115.04	109.90
81	DA	1759	C	N3-C4-C5	-6.43	119.33	121.90
69	Br	9	LYS	N-CA-CB	6.42	122.16	110.60
78	CA	1114	G	C4'-C3'-C2'	-6.42	96.18	102.60
81	DA	59	G	N9-C1'-C2'	-6.42	104.93	112.00
81	DA	344	A	P-O3'-C3'	-6.42	111.99	119.70
81	DA	637	C	N1-C1'-C2'	6.42	122.35	114.00
81	DA	1678	G	C3'-C2'-C1'	-6.42	96.36	101.50
81	DA	1776	G	C4'-C3'-C2'	-6.42	96.17	102.60
81	DA	3090	U	O4'-C1'-C2'	-6.42	99.38	105.80
5	AC	161	THR	CA-CB-CG2	-6.42	103.41	112.40
78	CA	575	C	N3-C4-N4	6.42	122.50	118.00
78	CA	1487	A	P-O3'-C3'	6.42	127.41	119.70
79	CB	70	G	O4'-C1'-N9	6.42	113.34	108.20
81	DA	643	U	N1-C1'-C2'	6.42	122.35	114.00
8	AF	66	GLN	N-CA-CB	6.42	122.16	110.60
24	AX	38	PRO	N-CA-CB	6.42	111.01	103.30
37	BH	61	GLN	N-CA-CB	6.42	122.16	110.60
61	Bj	56	SER	N-CA-C	-6.42	93.66	111.00
81	DA	3085	G	C1'-O4'-C4'	-6.42	104.76	109.90
81	DA	208	C	C3'-C2'-C1'	6.42	106.64	101.50
81	DA	2167	A	N9-C1'-C2'	6.42	122.34	114.00
18	AP	108	PRO	CB-CA-C	-6.42	95.95	112.00
31	BB	186	PHE	CB-CG-CD1	-6.42	116.31	120.80
32	BC	370	PHE	C-N-CA	6.42	137.75	121.70
78	CA	522	U	O5'-C5'-C4'	6.42	123.89	111.70
81	DA	1625	A	N9-C1'-C2'	6.42	122.34	114.00
81	DA	2393	G	O5'-C5'-C4'	-6.42	99.50	111.70
81	DA	3003	G	C1'-O4'-C4'	-6.42	104.77	109.90
81	DA	2211	U	C5'-C4'-C3'	6.42	126.27	116.00
81	DA	3364	C	P-O3'-C3'	6.42	127.40	119.70
33	BD	322	GLN	N-CA-C	6.42	128.32	111.00
81	DA	694	C	P-O3'-C3'	6.42	127.40	119.70
81	DA	3330	A	C4'-C3'-C2'	-6.42	96.19	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AL	20	ARG	NE-CZ-NH2	-6.41	117.09	120.30
78	CA	171	A	C1'-O4'-C4'	6.41	115.03	109.90
78	CA	406	U	N1-C1'-C2'	6.41	122.34	114.00
78	CA	948	G	N9-C1'-C2'	6.41	122.34	114.00
78	CA	1158	C	P-O5'-C5'	6.41	131.16	120.90
78	CA	1506	G	O3'-P-O5'	-6.41	91.81	104.00
78	CA	1623	C	N1-C1'-C2'	6.41	122.34	114.00
81	DA	1104	G	C3'-C2'-C1'	-6.41	96.37	101.50
81	DA	1383	G	C4'-C3'-C2'	-6.41	96.19	102.60
81	DA	518	G	O4'-C1'-C2'	-6.41	99.39	105.80
81	DA	2729	U	C3'-C2'-C1'	6.41	106.63	101.50
34	BE	82	ARG	NE-CZ-NH2	-6.41	117.09	120.30
37	BH	80	TYR	CB-CG-CD1	-6.41	117.15	121.00
53	Ba	17	ARG	N-CA-CB	6.41	122.14	110.60
78	CA	164	A	O4'-C1'-N9	-6.41	103.07	108.20
78	CA	1501	C	N3-C4-C5	-6.41	119.34	121.90
78	CA	1544	U	OP1-P-O3'	-6.41	91.10	105.20
78	CA	1766	A	P-O3'-C3'	6.41	127.39	119.70
81	DA	77	A	P-O3'-C3'	6.41	127.39	119.70
81	DA	1185	C	O4'-C1'-N1	6.41	113.33	108.20
81	DA	2091	U	P-O3'-C3'	-6.41	112.01	119.70
44	BO	68	PHE	CB-CG-CD2	-6.41	116.31	120.80
62	Bk	37	THR	N-CA-CB	6.41	122.47	110.30
78	CA	1500	C	N3-C4-N4	6.41	122.49	118.00
81	DA	494	G	O4'-C1'-N9	6.41	113.33	108.20
81	DA	1866	C	P-O3'-C3'	-6.41	112.01	119.70
81	DA	2966	G	O4'-C1'-N9	-6.41	103.07	108.20
81	DA	3150	A	O5'-C5'-C4'	6.41	123.88	111.70
32	BC	345	ASN	CA-C-O	-6.41	106.65	120.10
61	Bj	48	ARG	CB-CA-C	-6.41	97.59	110.40
78	CA	1172	G	P-O3'-C3'	6.41	127.39	119.70
14	AM	10	SER	N-CA-CB	6.41	120.11	110.50
78	CA	1023	A	P-O3'-C3'	6.41	127.39	119.70
81	DA	654	C	N1-C1'-C2'	6.41	122.33	114.00
81	DA	1480	G	O4'-C1'-C2'	6.41	113.36	107.60
81	DA	3166	C	P-O5'-C5'	6.41	131.15	120.90
17	AQ	91	LEU	N-CA-C	-6.40	93.71	111.00
72	Bt	60	ASN	CA-C-O	-6.40	106.65	120.10
81	DA	1975	C	C3'-C2'-C1'	6.40	106.62	101.50
81	DA	2793	G	C5'-C4'-C3'	6.40	126.25	116.00
78	CA	852	C	C2'-C3'-O3'	6.40	123.94	113.70
81	DA	426	G	P-O3'-C3'	6.40	127.38	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2237	C	O3'-P-O5'	6.40	116.16	104.00
81	DA	3248	C	O4'-C1'-N1	6.40	113.32	108.20
10	AI	121	SER	N-CA-C	-6.40	93.72	111.00
25	AY	47	PRO	CA-N-CD	-6.40	102.54	111.50
59	Bh	46	PHE	CB-CG-CD1	-6.40	116.32	120.80
60	Bi	93	PHE	CB-CG-CD2	-6.40	116.32	120.80
78	CA	500	C	N3-C4-N4	6.40	122.48	118.00
78	CA	690	G	C1'-O4'-C4'	-6.40	104.78	109.90
78	CA	1347	U	N1-C1'-C2'	-6.40	104.96	112.00
81	DA	3191	G	P-O3'-C3'	-6.40	112.02	119.70
43	BP	180	PHE	N-CA-C	-6.40	93.72	111.00
81	DA	2392	C	C3'-C2'-C1'	6.40	106.62	101.50
16	AO	64	ARG	NE-CZ-NH1	6.40	123.50	120.30
61	Bj	37	THR	CA-CB-OG1	6.40	122.44	109.00
81	DA	907	G	O4'-C1'-C2'	6.40	113.36	107.60
81	DA	1620	U	O4'-C1'-C2'	6.40	113.36	107.60
81	DA	3111	U	C1'-O4'-C4'	6.40	115.02	109.90
81	DA	3145	C	O5'-C5'-C4'	-6.40	99.55	111.70
81	DA	3256	G	N9-C1'-C2'	6.40	122.32	114.00
31	BB	241	ARG	NE-CZ-NH2	-6.40	117.10	120.30
81	DA	1287	A	C1'-O4'-C4'	6.40	115.02	109.90
31	BB	128	ARG	N-CA-C	-6.39	93.73	111.00
36	BF	47	LYS	N-CA-CB	6.39	122.11	110.60
38	Bs	222	SER	N-CA-CB	-6.39	100.91	110.50
54	Bd	40	ARG	NE-CZ-NH1	6.39	123.50	120.30
78	CA	4	C	O4'-C1'-N1	-6.39	103.08	108.20
78	CA	1332	C	N1-C1'-C2'	6.39	122.31	114.00
78	CA	1794	A	N9-C1'-C2'	-6.39	104.97	112.00
81	DA	74	G	C5'-C4'-O4'	-6.39	101.43	109.10
81	DA	1148	G	O4'-C1'-N9	6.39	113.31	108.20
81	DA	2727	A	C1'-O4'-C4'	-6.39	104.78	109.90
78	CA	230	C	O4'-C1'-C2'	-6.39	99.41	105.80
78	CA	1479	A	P-O5'-C5'	-6.39	110.67	120.90
81	DA	843	A	P-O5'-C5'	-6.39	110.67	120.90
81	DA	2027	C	O4'-C1'-C2'	-6.39	99.41	105.80
43	BP	150	TRP	CG-CD2-CE3	-6.39	128.15	133.90
78	CA	1065	A	C4-C5-C6	6.39	120.19	117.00
57	Be	202	LEU	C-N-CA	-6.39	105.72	121.70
81	DA	582	G	C5'-C4'-C3'	-6.39	105.78	116.00
81	DA	527	A	O4'-C1'-N9	6.39	113.31	108.20
81	DA	2059	U	C1'-O4'-C4'	-6.39	104.79	109.90
52	BY	40	ARG	NE-CZ-NH2	-6.39	117.11	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	645	C	C1'-O4'-C4'	6.39	115.01	109.90
78	CA	1220	C	C1'-O4'-C4'	6.39	115.01	109.90
81	DA	1177	G	C1'-O4'-C4'	-6.39	104.79	109.90
12	AK	107	ARG	NH1-CZ-NH2	6.38	126.42	119.40
13	AL	87	VAL	N-CA-C	-6.38	93.76	111.00
78	CA	351	C	O4'-C1'-N1	6.38	113.31	108.20
78	CA	595	G	P-O3'-C3'	6.38	127.36	119.70
78	CA	850	A	C3'-C2'-C1'	6.38	106.61	101.50
79	CB	56	A	N9-C1'-C2'	-6.38	104.98	112.00
81	DA	2439	A	O4'-C1'-C2'	-6.38	99.42	105.80
81	DA	2857	C	N1-C1'-C2'	6.38	122.30	114.00
46	BT	71	ARG	CA-C-N	6.38	131.24	117.20
78	CA	203	U	O4'-C1'-N1	6.38	113.31	108.20
78	CA	339	C	C4'-C3'-C2'	-6.38	96.22	102.60
81	DA	1060	U	C5'-C4'-C3'	6.38	126.21	116.00
81	DA	2226	U	P-O5'-C5'	6.38	131.11	120.90
81	DA	2507	C	P-O5'-C5'	-6.38	110.69	120.90
81	DA	2989	U	OP1-P-OP2	-6.38	110.03	119.60
1	Aa	150	TRP	CA-CB-CG	6.38	125.83	113.70
22	AV	63	SER	CB-CA-C	6.38	122.23	110.10
44	BO	62	HIS	CA-C-O	-6.38	106.70	120.10
61	Bj	20	LYS	CB-CA-C	6.38	123.16	110.40
81	DA	1447	G	C4'-C3'-C2'	-6.38	96.22	102.60
81	DA	1918	C	C3'-C2'-C1'	6.38	106.61	101.50
45	BR	149	ALA	N-CA-CB	6.38	119.03	110.10
81	DA	554	A	N9-C1'-C2'	6.38	122.29	114.00
81	DA	1820	U	P-O5'-C5'	6.38	131.11	120.90
81	DA	1841	A	O4'-C1'-N9	6.38	113.30	108.20
83	DC	75	G	C1'-O4'-C4'	-6.38	104.80	109.90
78	CA	275	C	O4'-C1'-N1	6.38	113.30	108.20
81	DA	700	C	P-O3'-C3'	6.38	127.36	119.70
81	DA	2535	A	C4-C5-C6	6.38	120.19	117.00
81	DA	2971	A	N9-C1'-C2'	-6.38	104.98	112.00
33	BD	297	SER	C-N-CA	6.38	137.64	121.70
58	Bg	28	ARG	CG-CD-NE	-6.38	98.41	111.80
61	Bj	2	ALA	N-CA-C	6.38	128.22	111.00
78	CA	70	C	C5'-C4'-C3'	6.38	126.20	116.00
33	BD	177	ASP	CB-CG-OD2	-6.38	112.56	118.30
81	DA	2708	C	C3'-C2'-C1'	6.38	106.60	101.50
83	DC	14	U	P-O3'-C3'	-6.38	112.05	119.70
5	AC	43	TYR	CG-CD2-CE2	6.37	126.40	121.30
33	BD	108	LYS	C-N-CA	6.37	137.63	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	Be	202	LEU	N-CA-C	-6.37	93.79	111.00
78	CA	1310	U	P-O5'-C5'	6.37	131.10	120.90
78	CA	1638	G	O4'-C1'-N9	6.37	113.30	108.20
78	CA	1786	G	C3'-C2'-C1'	6.37	106.60	101.50
81	DA	319	A	C1'-O4'-C4'	-6.37	104.80	109.90
81	DA	662	U	C2'-C3'-O3'	6.37	123.90	113.70
81	DA	776	U	C1'-O4'-C4'	-6.37	104.80	109.90
81	DA	1772	U	C3'-C2'-C1'	6.37	106.60	101.50
81	DA	611	A	P-O3'-C3'	-6.37	112.05	119.70
81	DA	1245	A	P-O3'-C3'	6.37	127.35	119.70
81	DA	1509	A	P-O5'-C5'	6.37	131.09	120.90
81	DA	3050	U	C4'-C3'-C2'	-6.37	96.23	102.60
82	DB	98	U	C5'-C4'-C3'	-6.37	105.81	116.00
34	BE	146	GLY	N-CA-C	-6.37	97.17	113.10
43	BP	17	ASP	N-CA-C	6.37	128.20	111.00
81	DA	1009	A	P-O5'-C5'	-6.37	110.71	120.90
81	DA	1990	U	O4'-C1'-C2'	-6.37	99.43	105.80
81	DA	3304	U	O4'-C1'-N1	-6.37	103.10	108.20
69	Br	28	TYR	CB-CG-CD1	-6.37	117.18	121.00
81	DA	2848	G	O4'-C1'-N9	6.37	113.30	108.20
83	DC	5	G	C1'-O4'-C4'	-6.37	104.81	109.90
39	BJ	81	VAL	CA-CB-CG2	-6.37	101.35	110.90
78	CA	975	C	O4'-C1'-N1	6.37	113.29	108.20
81	DA	203	G	P-O3'-C3'	-6.37	112.06	119.70
81	DA	1151	U	N1-C1'-C2'	6.37	122.28	114.00
81	DA	3336	A	N9-C1'-C2'	-6.37	105.00	112.00
4	AD	96	ASN	C-N-CA	6.36	137.61	121.70
13	AL	73	ARG	NE-CZ-NH2	-6.36	117.12	120.30
36	BF	83	THR	CA-CB-CG2	-6.36	103.49	112.40
42	BM	66	LYS	O-C-N	-6.36	109.01	121.10
48	BW	104	ARG	NE-CZ-NH2	-6.36	117.12	120.30
81	DA	1081	U	N1-C1'-C2'	6.36	122.27	114.00
81	DA	2764	C	C3'-C2'-C1'	6.36	106.59	101.50
4	AD	216	ASN	C-N-CA	6.36	137.60	121.70
78	CA	60	U	O4'-C1'-N1	-6.36	103.11	108.20
81	DA	859	G	O4'-C1'-C2'	-6.36	99.44	105.80
81	DA	1632	A	C5'-C4'-C3'	6.36	126.18	116.00
81	DA	2475	G	P-O3'-C3'	6.36	127.33	119.70
1	Aa	85	TRP	N-CA-CB	6.36	122.05	110.60
43	BP	148	TYR	CB-CG-CD2	6.36	124.82	121.00
60	Bi	43	LYS	N-CA-C	-6.36	93.83	111.00
65	Bn	54	LEU	CB-CG-CD2	6.36	121.81	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
72	Bu	60	ASN	CA-C-O	-6.36	106.75	120.10
78	CA	361	C	N1-C1'-C2'	6.36	122.27	114.00
78	CA	423	G	C4'-C3'-C2'	-6.36	96.24	102.60
79	CB	14	A	O4'-C1'-N9	6.36	113.29	108.20
81	DA	375	A	C3'-C2'-C1'	6.36	106.59	101.50
81	DA	2661	G	O4'-C1'-N9	6.36	113.29	108.20
82	DB	116	G	P-O5'-C5'	6.36	131.08	120.90
53	Ba	31	GLU	N-CA-CB	6.36	122.05	110.60
64	Bl	73	ARG	NE-CZ-NH2	6.36	123.48	120.30
78	CA	884	A	O3'-P-O5'	-6.36	91.92	104.00
81	DA	146	U	C4'-C3'-O3'	6.36	125.72	113.00
81	DA	3372	A	C4'-C3'-C2'	-6.36	96.24	102.60
1	Aa	53	LYS	CA-C-O	-6.36	106.75	120.10
33	BD	102	PRO	CA-N-CD	-6.36	102.60	111.50
35	BG	119	ALA	CB-CA-C	-6.36	100.56	110.10
55	Bc	102	GLU	CA-C-O	-6.36	106.75	120.10
78	CA	436	A	O4'-C1'-N9	6.36	113.29	108.20
78	CA	438	A	N9-C1'-C2'	6.36	122.27	114.00
81	DA	816	A	O4'-C1'-C2'	-6.36	99.44	105.80
81	DA	839	C	O4'-C1'-N1	6.36	113.28	108.20
81	DA	911	C	P-O5'-C5'	6.36	131.07	120.90
81	DA	1236	G	P-O3'-C3'	6.36	127.33	119.70
81	DA	1596	C	O4'-C1'-N1	6.36	113.29	108.20
81	DA	3314	A	OP1-P-OP2	-6.36	110.06	119.60
81	DA	3321	C	C3'-C2'-C1'	6.36	106.59	101.50
32	BC	381	GLY	N-CA-C	-6.36	97.21	113.10
78	CA	1372	U	O4'-C1'-N1	6.36	113.28	108.20
81	DA	1621	A	O4'-C4'-C3'	-6.36	97.64	104.00
81	DA	1866	C	O4'-C1'-C2'	-6.36	99.44	105.80
81	DA	2100	A	C5'-C4'-C3'	6.36	126.17	116.00
81	DA	2305	G	O4'-C1'-N9	6.36	113.28	108.20
81	DA	2379	U	O4'-C1'-N1	6.36	113.28	108.20
8	AF	35	GLN	C-N-CA	6.35	137.59	121.70
81	DA	1771	C	O4'-C1'-N1	6.35	113.28	108.20
4	AD	109	PHE	CB-CG-CD1	-6.35	116.35	120.80
74	BQ	248	ARG	NE-CZ-NH2	-6.35	117.12	120.30
78	CA	155	U	C5'-C4'-O4'	6.35	116.72	109.10
78	CA	1611	A	C3'-C2'-C1'	6.35	106.58	101.50
81	DA	1972	A	P-O5'-C5'	-6.35	110.74	120.90
81	DA	2639	G	C1'-O4'-C4'	-6.35	104.82	109.90
81	DA	3243	A	P-O3'-C3'	6.35	127.32	119.70
37	BH	185	ARG	NE-CZ-NH2	-6.35	117.12	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1842	A	C5'-C4'-C3'	6.35	126.16	116.00
81	DA	2244	A	C1'-O4'-C4'	6.35	114.98	109.90
78	CA	964	U	C5'-C4'-O4'	6.35	116.72	109.10
78	CA	985	G	O4'-C1'-N9	6.35	113.28	108.20
81	DA	2528	G	O4'-C1'-N9	6.35	113.28	108.20
4	AD	130	GLN	C-N-CA	6.35	137.57	121.70
10	AI	66	ARG	NE-CZ-NH1	6.35	123.47	120.30
18	AP	82	ARG	NE-CZ-NH2	-6.35	117.13	120.30
32	BC	272	TYR	CB-CG-CD2	-6.35	117.19	121.00
69	Br	81	ALA	CB-CA-C	-6.35	100.58	110.10
78	CA	348	U	C3'-C2'-C1'	6.35	106.58	101.50
78	CA	495	C	N3-C4-C5	-6.35	119.36	121.90
81	DA	84	U	O4'-C1'-N1	6.35	113.28	108.20
81	DA	485	A	P-O3'-C3'	6.35	127.32	119.70
81	DA	2681	U	O4'-C4'-C3'	-6.35	97.65	104.00
81	DA	3015	G	O4'-C1'-N9	6.35	113.28	108.20
78	CA	1738	U	O4'-C1'-N1	6.35	113.28	108.20
31	BB	62	VAL	CA-CB-CG1	6.34	120.42	110.90
76	BS	115	ARG	NE-CZ-NH2	-6.34	117.13	120.30
78	CA	577	G	O4'-C1'-N9	6.34	113.28	108.20
78	CA	1794	A	C3'-C2'-C1'	6.34	106.58	101.50
80	CC	22	A	O4'-C1'-N9	6.34	113.28	108.20
81	DA	423	A	O4'-C1'-N9	6.34	113.28	108.20
81	DA	742	G	C1'-O4'-C4'	6.34	114.97	109.90
81	DA	1334	U	C3'-C2'-C1'	6.34	106.58	101.50
81	DA	2177	G	P-O3'-C3'	-6.34	112.09	119.70
83	DC	107	G	C1'-O4'-C4'	6.34	114.98	109.90
63	Bm	64	VAL	CA-CB-CG2	6.34	120.41	110.90
78	CA	449	C	C3'-C2'-C1'	6.34	106.57	101.50
81	DA	1977	C	N1-C1'-C2'	6.34	122.25	114.00
81	DA	2021	G	O4'-C1'-N9	6.34	113.27	108.20
81	DA	2061	G	C3'-C2'-C1'	-6.34	96.43	101.50
81	DA	3001	C	C3'-C2'-C1'	6.34	106.57	101.50
43	BP	95	GLN	N-CA-CB	6.34	122.01	110.60
58	Bg	101	ALA	CB-CA-C	-6.34	100.59	110.10
81	DA	728	G	O4'-C1'-N9	6.34	113.27	108.20
81	DA	2502	A	O4'-C1'-C2'	-6.34	99.46	105.80
66	Bo	34	THR	N-CA-CB	6.34	122.34	110.30
81	DA	384	A	P-O5'-C5'	6.34	131.04	120.90
81	DA	768	C	N3-C4-C5	-6.34	119.36	121.90
81	DA	1526	U	P-O5'-C5'	-6.34	110.76	120.90
81	DA	1702	U	C3'-C2'-C1'	-6.34	96.43	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BB	107	VAL	CG1-CB-CG2	-6.34	100.76	110.90
45	BR	18	ALA	CB-CA-C	-6.34	100.59	110.10
78	CA	1178	G	N9-C1'-C2'	6.34	122.24	114.00
81	DA	1688	U	OP1-P-O3'	6.33	119.14	105.20
81	DA	1756	C	N3-C4-N4	6.33	122.43	118.00
6	AE	139	ILE	N-CA-CB	6.33	125.37	110.80
9	AH	90	THR	CA-CB-CG2	-6.33	103.53	112.40
60	Bi	102	LYS	N-CA-CB	6.33	122.00	110.60
78	CA	589	C	C1'-O4'-C4'	-6.33	104.83	109.90
81	DA	1882	G	C3'-C2'-C1'	-6.33	96.43	101.50
78	CA	268	C	C3'-C2'-C1'	6.33	106.56	101.50
78	CA	1246	C	N1-C1'-C2'	6.33	122.23	114.00
78	CA	1580	C	P-O3'-C3'	6.33	127.30	119.70
78	CA	1591	C	O4'-C1'-N1	6.33	113.27	108.20
81	DA	1177	G	P-O3'-C3'	6.33	127.30	119.70
81	DA	1771	C	N3-C4-C5	-6.33	119.37	121.90
42	BM	11	PHE	N-CA-CB	6.33	122.00	110.60
66	Bo	14	ALA	CB-CA-C	-6.33	100.61	110.10
81	DA	2860	U	O4'-C1'-N1	6.33	113.26	108.20
83	DC	45	A	C5'-C4'-C3'	-6.33	105.87	116.00
3	AB	79	TYR	CB-CG-CD1	6.33	124.80	121.00
81	DA	1866	C	O4'-C1'-N1	-6.33	103.14	108.20
81	DA	2444	C	C3'-C2'-C1'	6.33	106.56	101.50
81	DA	2637	A	C1'-O4'-C4'	6.33	114.96	109.90
78	CA	1413	U	O4'-C1'-N1	-6.33	103.14	108.20
81	DA	1824	U	C4'-C3'-C2'	-6.33	96.27	102.60
81	DA	2375	G	C1'-O4'-C4'	-6.33	104.84	109.90
16	AO	57	ALA	N-CA-CB	6.33	118.96	110.10
32	BC	35	ASP	CB-CG-OD2	-6.33	112.61	118.30
55	Bc	110	ALA	N-CA-C	6.33	128.08	111.00
58	Bg	89	LEU	CB-CG-CD1	-6.33	100.25	111.00
78	CA	110	U	C3'-C2'-C1'	6.33	106.56	101.50
78	CA	368	U	O4'-C4'-C3'	-6.33	97.67	104.00
78	CA	1537	C	O4'-C1'-N1	-6.33	103.14	108.20
81	DA	2130	G	C1'-O4'-C4'	6.33	114.96	109.90
81	DA	2310	U	O4'-C1'-N1	6.33	113.26	108.20
18	AP	69	LYS	CD-CE-NZ	6.32	126.24	111.70
21	AT	12	TYR	CG-CD2-CE2	6.32	126.36	121.30
81	DA	665	A	C3'-C2'-C1'	6.32	106.56	101.50
81	DA	1142	G	N9-C1'-C2'	6.32	122.22	114.00
81	DA	2024	G	C4'-C3'-C2'	-6.32	96.28	102.60
81	DA	2443	A	N9-C1'-C2'	6.32	122.22	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2963	C	C1'-O4'-C4'	-6.32	104.84	109.90
42	BM	37	ILE	CA-CB-CG1	6.32	123.01	111.00
55	Bc	39	PRO	C-N-CA	6.32	137.51	121.70
78	CA	1239	U	O4'-C4'-C3'	-6.32	97.68	104.00
83	DC	66	C	C3'-C2'-C1'	6.32	106.56	101.50
32	BC	382	THR	N-CA-CB	6.32	122.31	110.30
79	CB	52	G	O4'-C1'-N9	6.32	113.26	108.20
81	DA	63	A	N9-C1'-C2'	-6.32	105.05	112.00
81	DA	171	G	P-O5'-C5'	6.32	131.01	120.90
81	DA	339	C	N1-C1'-C2'	6.32	122.22	114.00
81	DA	376	G	C3'-C2'-C1'	-6.32	96.44	101.50
81	DA	638	C	O3'-P-O5'	-6.32	91.99	104.00
81	DA	2859	U	N1-C1'-C2'	-6.32	105.05	112.00
81	DA	3167	A	O5'-C5'-C4'	6.32	123.71	111.70
82	DB	97	A	O4'-C1'-N9	6.32	113.25	108.20
5	AC	57	ARG	NE-CZ-NH1	6.32	123.46	120.30
33	BD	221	ASN	CB-CA-C	-6.32	97.77	110.40
37	BH	222	PHE	N-CA-C	-6.32	93.94	111.00
69	Br	101	GLY	C-N-CA	-6.32	105.91	121.70
74	BQ	122	VAL	N-CA-C	-6.32	93.94	111.00
78	CA	1254	U	OP1-P-O3'	6.32	119.10	105.20
81	DA	846	A	O4'-C1'-N9	-6.32	103.15	108.20
81	DA	1781	C	O4'-C1'-C2'	-6.32	99.48	105.80
31	BB	40	TYR	CB-CA-C	6.32	123.03	110.40
78	CA	408	C	C3'-C2'-C1'	6.32	106.55	101.50
78	CA	888	U	N1-C1'-C2'	6.32	122.21	114.00
78	CA	1437	U	N1-C1'-C2'	-6.32	105.05	112.00
81	DA	3009	G	C3'-C2'-C1'	-6.32	96.45	101.50
3	AB	77	PHE	N-CA-C	-6.31	93.95	111.00
69	Br	87	ARG	NE-CZ-NH1	6.31	123.46	120.30
78	CA	497	G	O4'-C1'-N9	6.31	113.25	108.20
78	CA	1120	U	P-O3'-C3'	-6.31	112.12	119.70
81	DA	93	C	O4'-C1'-C2'	-6.31	99.49	105.80
81	DA	1771	C	OP1-P-O3'	6.31	119.09	105.20
81	DA	2259	A	O4'-C1'-N9	6.31	113.25	108.20
81	DA	3006	A	O4'-C1'-N9	-6.31	103.15	108.20
59	Bh	24	ARG	N-CA-CB	-6.31	99.24	110.60
81	DA	1542	G	O4'-C1'-C2'	6.31	113.28	107.60
81	DA	2146	C	C3'-C2'-C1'	6.31	106.55	101.50
81	DA	3008	A	O3'-P-O5'	-6.31	92.01	104.00
74	BQ	238	ASP	CB-CG-OD2	-6.31	112.62	118.30
81	DA	350	C	O4'-C1'-C2'	-6.31	99.49	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	822	G	O4'-C1'-N9	6.31	113.25	108.20
81	DA	2024	G	O3'-P-O5'	6.31	115.99	104.00
82	DB	18	U	N1-C1'-C2'	6.31	122.20	114.00
5	AC	79	ARG	NE-CZ-NH2	-6.31	117.15	120.30
57	Be	107	ARG	NE-CZ-NH1	6.31	123.45	120.30
78	CA	905	A	OP1-P-OP2	-6.31	110.14	119.60
78	CA	1461	C	C3'-C2'-C1'	6.31	106.55	101.50
81	DA	1192	C	P-O3'-C3'	6.31	127.27	119.70
81	DA	2171	G	P-O3'-C3'	-6.31	112.13	119.70
38	Bs	53	MET	N-CA-CB	-6.31	99.25	110.60
74	BQ	286	VAL	N-CA-C	-6.31	93.97	111.00
81	DA	3200	G	P-O3'-C3'	6.31	127.27	119.70
58	Bg	10	ARG	NH1-CZ-NH2	-6.30	112.46	119.40
81	DA	679	U	P-O5'-C5'	6.30	130.99	120.90
81	DA	1147	G	N9-C1'-C2'	-6.30	105.07	112.00
81	DA	1179	A	C1'-O4'-C4'	6.30	114.94	109.90
13	AL	11	SER	N-CA-CB	6.30	119.95	110.50
81	DA	910	G	N9-C1'-C2'	6.30	122.19	114.00
81	DA	1792	C	P-O5'-C5'	-6.30	110.82	120.90
81	DA	2174	G	C1'-O4'-C4'	6.30	114.94	109.90
81	DA	2677	G	C1'-O4'-C4'	6.30	114.94	109.90
83	DC	2	G	O5'-C5'-C4'	-6.30	99.72	111.70
10	AI	46	PHE	CB-CG-CD1	-6.30	116.39	120.80
13	AL	87	VAL	CA-CB-CG1	-6.30	101.45	110.90
55	Bc	96	GLU	CA-C-N	6.30	131.06	117.20
68	Bq	21	ARG	NE-CZ-NH2	-6.30	117.15	120.30
78	CA	573	C	P-O3'-C3'	6.30	127.26	119.70
78	CA	1474	G	C1'-O4'-C4'	-6.30	104.86	109.90
81	DA	383	G	O4'-C1'-N9	6.30	113.24	108.20
81	DA	803	C	P-O3'-C3'	-6.30	112.14	119.70
81	DA	959	C	C3'-C2'-C1'	6.30	106.54	101.50
81	DA	1522	U	P-O3'-C3'	6.30	127.26	119.70
82	DB	116	G	P-O3'-C3'	-6.30	112.14	119.70
48	BW	98	THR	N-CA-CB	6.30	122.27	110.30
69	Br	103	ALA	C-N-CA	6.30	137.45	121.70
78	CA	1053	G	N3-C2-N2	6.30	124.31	119.90
81	DA	3028	G	N9-C1'-C2'	6.30	122.19	114.00
81	DA	3306	U	C1'-O4'-C4'	-6.30	104.86	109.90
78	CA	895	G	P-O3'-C3'	6.30	127.26	119.70
78	CA	1411	A	C5'-C4'-O4'	-6.30	101.54	109.10
78	CA	1424	A	C3'-C2'-C1'	6.30	106.54	101.50
33	BD	296	GLN	CA-C-N	6.30	131.05	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	BO	68	PHE	CB-CG-CD1	6.30	125.21	120.80
78	CA	1064	G	C5-C6-O6	-6.30	124.82	128.60
81	DA	310	U	O4'-C1'-C2'	-6.30	99.50	105.80
81	DA	329	U	O4'-C1'-C2'	6.29	113.27	107.60
81	DA	2677	G	C4'-C3'-C2'	-6.29	96.31	102.60
8	AF	106	LYS	CB-CG-CD	6.29	127.96	111.60
15	AN	31	ILE	N-CA-CB	6.29	125.27	110.80
78	CA	1506	G	N1-C6-O6	6.29	123.68	119.90
78	CA	1579	U	C5'-C4'-C3'	-6.29	105.93	116.00
79	CB	74	C	C3'-C2'-C1'	6.29	106.53	101.50
81	DA	1178	G	O4'-C1'-N9	-6.29	103.17	108.20
81	DA	3066	U	N1-C1'-C2'	-6.29	105.08	112.00
81	DA	3084	C	O4'-C1'-C2'	-6.29	99.51	105.80
17	AQ	100	LEU	CB-CA-C	-6.29	98.25	110.20
31	BB	249	SER	C-N-CA	-6.29	105.97	121.70
74	BQ	185	PHE	CB-CG-CD1	6.29	125.20	120.80
78	CA	485	A	C5-C6-N6	-6.29	118.67	123.70
78	CA	1269	U	O4'-C1'-N1	6.29	113.23	108.20
78	CA	1323	C	C1'-O4'-C4'	-6.29	104.87	109.90
81	DA	2454	G	P-O3'-C3'	6.29	127.25	119.70
81	DA	2973	G	O4'-C1'-N9	6.29	113.23	108.20
5	AC	14	THR	CA-C-N	6.29	134.71	117.10
30	BA	86	SER	N-CA-CB	6.29	119.94	110.50
38	Bs	73	PHE	CB-CG-CD2	6.29	125.20	120.80
78	CA	842	C	N3-C4-N4	6.29	122.40	118.00
81	DA	614	C	P-O5'-C5'	6.29	130.96	120.90
81	DA	615	U	N1-C1'-C2'	6.29	122.18	114.00
81	DA	1139	G	N9-C1'-C2'	6.29	122.18	114.00
81	DA	2843	U	O4'-C1'-N1	6.29	113.23	108.20
21	AT	43	GLY	O-C-N	-6.29	112.64	122.70
38	Bs	66	PHE	CB-CG-CD1	6.29	125.20	120.80
81	DA	59	G	O4'-C1'-N9	6.29	113.23	108.20
81	DA	317	A	C1'-O4'-C4'	-6.29	104.87	109.90
81	DA	770	G	O4'-C1'-N9	6.29	113.23	108.20
81	DA	2581	U	C5'-C4'-C3'	6.29	126.06	116.00
53	Ba	29	HIS	CB-CA-C	-6.29	97.83	110.40
34	BE	15	GLU	CA-CB-CG	6.29	127.23	113.40
47	BU	84	TYR	CG-CD2-CE2	-6.29	116.27	121.30
78	CA	99	C	C3'-C2'-C1'	6.29	106.53	101.50
81	DA	541	U	P-O3'-C3'	-6.29	112.16	119.70
81	DA	856	G	P-O5'-C5'	6.29	130.96	120.90
81	DA	1478	C	C1'-O4'-C4'	-6.29	104.87	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1538	G	O3'-P-O5'	-6.29	92.06	104.00
81	DA	2576	G	O4'-C1'-N9	6.29	113.23	108.20
81	DA	3330	A	C3'-C2'-C1'	6.29	106.53	101.50
83	DC	72	C	C5'-C4'-O4'	-6.29	101.56	109.10
43	BP	180	PHE	CA-CB-CG	6.28	128.98	113.90
78	CA	672	U	N1-C1'-C2'	6.28	122.17	114.00
78	CA	1132	A	O4'-C1'-N9	6.28	113.23	108.20
78	CA	1294	G	C1'-O4'-C4'	-6.28	104.87	109.90
82	DB	47	C	P-O3'-C3'	6.28	127.24	119.70
82	DB	101	U	C4'-C3'-C2'	-6.28	96.32	102.60
82	DB	102	U	N1-C1'-C2'	6.28	122.17	114.00
4	AD	138	TYR	N-CA-C	-6.28	94.04	111.00
77	BI	106	ALA	C-N-CA	6.28	135.49	122.30
78	CA	1503	A	C4-C5-C6	6.28	120.14	117.00
3	AB	18	TYR	CB-CA-C	6.28	122.96	110.40
78	CA	308	C	C3'-C2'-C1'	6.28	106.53	101.50
78	CA	500	C	N3-C4-C5	-6.28	119.39	121.90
78	CA	947	U	P-O3'-C3'	-6.28	112.16	119.70
78	CA	1575	G	C1'-O4'-C4'	-6.28	104.88	109.90
81	DA	1309	U	P-O3'-C3'	6.28	127.24	119.70
81	DA	1473	G	O4'-C1'-N9	6.28	113.22	108.20
81	DA	1808	G	C1'-O4'-C4'	-6.28	104.88	109.90
81	DA	2746	A	C1'-O4'-C4'	-6.28	104.88	109.90
81	DA	2939	G	O4'-C1'-N9	6.28	113.22	108.20
81	DA	2950	G	C2'-C3'-O3'	6.28	123.75	113.70
81	DA	3012	A	O4'-C1'-N9	6.28	113.22	108.20
78	CA	528	U	O3'-P-O5'	-6.28	92.07	104.00
81	DA	2965	U	N1-C1'-C2'	6.28	122.16	114.00
81	DA	124	U	O3'-P-O5'	-6.28	92.07	104.00
81	DA	542	G	O4'-C1'-N9	6.28	113.22	108.20
81	DA	1899	G	O4'-C1'-N9	6.28	113.22	108.20
81	DA	2437	G	P-O5'-C5'	6.28	130.94	120.90
81	DA	3112	G	N9-C1'-C2'	-6.28	105.09	112.00
82	DB	50	C	N1-C1'-C2'	-6.28	105.09	112.00
4	AD	135	GLY	C-N-CA	6.28	137.39	121.70
56	Bf	50	VAL	CA-CB-CG1	-6.28	101.49	110.90
78	CA	377	G	O4'-C1'-C2'	-6.28	99.52	105.80
61	Bj	5	HIS	N-CA-CB	6.27	121.89	110.60
78	CA	1111	G	O4'-C1'-C2'	6.27	113.25	107.60
78	CA	1286	U	C3'-C2'-C1'	6.27	106.52	101.50
78	CA	1647	U	C1'-O4'-C4'	-6.27	104.88	109.90
81	DA	1105	A	N9-C1'-C2'	-6.27	105.10	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1379	G	P-O3'-C3'	6.27	127.23	119.70
81	DA	1580	A	C1'-O4'-C4'	-6.27	104.88	109.90
81	DA	1956	A	C1'-O4'-C4'	6.27	114.92	109.90
81	DA	136	G	P-O3'-C3'	6.27	127.23	119.70
81	DA	162	G	C4'-C3'-C2'	-6.27	96.33	102.60
81	DA	1284	C	C3'-C2'-C1'	6.27	106.52	101.50
81	DA	1963	G	C3'-C2'-C1'	-6.27	96.48	101.50
81	DA	3150	A	C4'-C3'-C2'	-6.27	96.33	102.60
78	CA	45	U	C4'-C3'-C2'	6.27	108.87	102.60
78	CA	1532	U	O4'-C1'-C2'	-6.27	99.53	105.80
81	DA	194	U	O4'-C1'-N1	6.27	113.22	108.20
81	DA	1632	A	C4'-C3'-C2'	-6.27	96.33	102.60
3	AB	18	TYR	C-N-CA	6.27	137.38	121.70
5	AC	88	GLU	CB-CA-C	6.27	122.94	110.40
59	Bh	11	LYS	C-N-CA	6.27	137.37	121.70
81	DA	961	C	O4'-C1'-C2'	-6.27	99.53	105.80
81	DA	1647	A	O4'-C1'-C2'	-6.27	99.53	105.80
81	DA	1679	A	C3'-C2'-C1'	6.27	106.52	101.50
81	DA	2703	A	P-O3'-C3'	6.27	127.22	119.70
78	CA	138	A	C3'-C2'-C1'	-6.27	96.49	101.50
78	CA	402	C	O4'-C1'-C2'	-6.27	99.53	105.80
78	CA	1609	U	N1-C1'-C2'	6.27	122.15	114.00
81	DA	983	A	OP1-P-OP2	-6.27	110.20	119.60
81	DA	2105	G	O4'-C1'-N9	6.27	113.21	108.20
81	DA	2440	G	P-O3'-C3'	-6.27	112.18	119.70
81	DA	2787	G	O4'-C1'-C2'	6.27	113.24	107.60
2	AA	241	GLU	OE1-CD-OE2	6.27	130.82	123.30
26	AZ	57	ASN	N-CA-C	-6.27	94.08	111.00
45	BR	14	GLY	O-C-N	-6.26	112.68	122.70
46	BT	148	ASP	CB-CG-OD2	-6.26	112.66	118.30
81	DA	982	C	O4'-C1'-N1	6.26	113.21	108.20
81	DA	1879	A	C3'-C2'-C1'	6.26	106.51	101.50
81	DA	2235	C	N1-C1'-C2'	6.26	122.14	114.00
81	DA	2366	C	P-O3'-C3'	6.26	127.22	119.70
83	DC	72	C	P-O3'-C3'	6.26	127.22	119.70
48	BW	98	THR	CA-C-N	-6.26	103.42	117.20
78	CA	234	G	C5'-C4'-O4'	-6.26	101.58	109.10
81	DA	2823	G	N9-C1'-C2'	6.26	122.14	114.00
5	AC	83	VAL	CA-CB-CG2	-6.26	101.51	110.90
81	DA	2680	A	P-O3'-C3'	-6.26	112.19	119.70
9	AH	28	ARG	CB-CA-C	-6.26	97.88	110.40
18	AP	110	HIS	C-N-CA	6.26	137.35	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BN	10	SER	N-CA-CB	6.26	119.89	110.50
78	CA	146	U	N1-C1'-C2'	6.26	122.14	114.00
81	DA	13	A	C3'-C2'-C1'	6.26	106.51	101.50
81	DA	474	G	O4'-C1'-N9	6.26	113.21	108.20
81	DA	1756	C	C3'-C2'-C1'	6.26	106.51	101.50
81	DA	2240	G	C1'-O4'-C4'	-6.26	104.89	109.90
81	DA	2628	A	C4'-C3'-C2'	6.26	108.86	102.60
82	DB	40	A	N9-C1'-C2'	6.26	122.14	114.00
82	DB	56	G	C3'-C2'-C1'	6.26	106.51	101.50
83	DC	48	U	C5'-C4'-C3'	-6.26	105.98	116.00
51	BZ	71	ARG	CA-C-N	-6.26	103.43	117.20
78	CA	37	U	C3'-C2'-C1'	6.26	106.51	101.50
78	CA	121	U	C5'-C4'-C3'	6.26	126.01	116.00
81	DA	739	G	C5-C6-O6	-6.26	124.84	128.60
81	DA	873	C	P-O5'-C5'	-6.26	110.89	120.90
81	DA	1941	C	C5'-C4'-C3'	6.26	126.01	116.00
81	DA	2278	C	O4'-C1'-N1	6.26	113.21	108.20
81	DA	2679	A	O4'-C1'-C2'	6.26	113.23	107.60
83	DC	13	A	N9-C1'-C2'	6.26	122.14	114.00
78	CA	345	U	O4'-C1'-N1	6.26	113.21	108.20
78	CA	1601	G	C2'-C3'-O3'	6.26	123.71	113.70
81	DA	786	A	C1'-O4'-C4'	6.26	114.91	109.90
81	DA	1209	G	C5'-C4'-C3'	6.26	126.01	116.00
81	DA	2735	U	N1-C1'-C2'	6.26	122.13	114.00
81	DA	2829	U	O3'-P-O5'	-6.26	92.11	104.00
3	AB	120	TYR	CB-CG-CD2	-6.25	117.25	121.00
78	CA	1659	A	O4'-C1'-C2'	-6.25	99.55	105.80
81	DA	229	G	C1'-O4'-C4'	-6.25	104.90	109.90
81	DA	2728	G	N9-C1'-C2'	6.25	122.13	114.00
78	CA	1051	G	C5-C6-O6	-6.25	124.85	128.60
81	DA	3250	U	O4'-C1'-N1	6.25	113.20	108.20
81	DA	3380	U	O4'-C1'-N1	6.25	113.20	108.20
48	BW	10	LYS	N-CA-CB	6.25	121.85	110.60
78	CA	842	C	C4'-C3'-C2'	-6.25	96.35	102.60
78	CA	1580	C	C1'-O4'-C4'	-6.25	104.90	109.90
81	DA	636	C	C5'-C4'-C3'	-6.25	106.00	116.00
81	DA	1483	G	N9-C1'-C2'	-6.25	105.12	112.00
81	DA	3053	G	O4'-C1'-C2'	6.25	113.23	107.60
78	CA	1471	A	N9-C1'-C2'	-6.25	105.12	112.00
78	CA	1614	A	C1'-O4'-C4'	6.25	114.90	109.90
68	Bq	14	LYS	CB-CA-C	6.25	122.90	110.40
78	CA	705	U	P-O5'-C5'	-6.25	110.90	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	992	A	O4'-C1'-N9	6.25	113.20	108.20
78	CA	1088	A	C1'-O4'-C4'	6.25	114.90	109.90
81	DA	436	A	N9-C1'-C2'	6.25	122.12	114.00
81	DA	1137	C	O4'-C1'-C2'	-6.25	99.55	105.80
81	DA	1793	C	O4'-C1'-C2'	-6.25	99.55	105.80
81	DA	1947	G	O3'-P-O5'	-6.25	92.13	104.00
81	DA	2279	A	C1'-O4'-C4'	-6.25	104.90	109.90
81	DA	2424	A	C3'-C2'-C1'	-6.25	96.50	101.50
82	DB	25	G	C3'-C2'-C1'	-6.25	96.50	101.50
40	BK	187	GLU	CB-CA-C	6.25	122.89	110.40
81	DA	516	A	O4'-C1'-C2'	-6.25	99.55	105.80
81	DA	858	A	O4'-C1'-N9	6.25	113.20	108.20
81	DA	1007	U	O4'-C1'-C2'	6.25	113.22	107.60
81	DA	1061	A	P-O3'-C3'	-6.25	112.20	119.70
81	DA	1299	U	P-O5'-C5'	6.25	130.90	120.90
81	DA	1971	C	N1-C1'-C2'	6.25	122.12	114.00
76	BS	23	HIS	CA-CB-CG	6.25	124.22	113.60
81	DA	1668	G	N9-C1'-C2'	-6.25	105.13	112.00
81	DA	491	C	C5'-C4'-O4'	6.24	116.59	109.10
81	DA	768	C	C5'-C4'-C3'	6.24	125.99	116.00
81	DA	913	A	C3'-C2'-C1'	6.24	106.49	101.50
81	DA	1329	U	O4'-C1'-C2'	-6.24	99.56	105.80
81	DA	1688	U	O4'-C4'-C3'	-6.24	97.76	104.00
81	DA	2085	U	O4'-C1'-C2'	-6.24	99.56	105.80
35	BG	54	TYR	CB-CG-CD1	-6.24	117.25	121.00
78	CA	1075	C	O4'-C1'-N1	-6.24	103.21	108.20
13	AL	7	ARG	NE-CZ-NH1	6.24	123.42	120.30
42	BM	80	ARG	NE-CZ-NH1	6.24	123.42	120.30
51	BZ	31	PHE	N-CA-CB	6.24	121.83	110.60
81	DA	2567	C	N3-C4-C5	-6.24	119.40	121.90
34	BE	115	LYS	CB-CG-CD	6.24	127.82	111.60
34	BE	127	PHE	N-CA-C	-6.24	94.16	111.00
52	BY	114	ASP	N-CA-CB	6.24	121.83	110.60
78	CA	305	C	C5'-C4'-O4'	6.24	116.58	109.10
78	CA	574	G	O4'-C1'-N9	6.24	113.19	108.20
78	CA	1019	A	O4'-C1'-N9	6.24	113.19	108.20
81	DA	2097	U	N1-C1'-C2'	6.24	122.11	114.00
81	DA	3364	C	C3'-C2'-C1'	6.24	106.49	101.50
53	Ba	85	TYR	CB-CG-CD1	6.24	124.74	121.00
1	Aa	35	SER	CB-CA-C	6.24	121.95	110.10
64	Bl	1	MET	CG-SD-CE	-6.24	90.22	100.20
81	DA	1139	G	C1'-O4'-C4'	-6.24	104.91	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3388	C	P-O3'-C3'	6.24	127.18	119.70
74	BQ	158	ARG	CG-CD-NE	6.23	124.89	111.80
78	CA	488	G	N1-C6-O6	6.23	123.64	119.90
34	BE	143	ARG	NE-CZ-NH2	-6.23	117.18	120.30
52	BY	74	TYR	CD1-CE1-CZ	-6.23	114.19	119.80
81	DA	1411	C	C4'-C3'-C2'	-6.23	96.37	102.60
81	DA	2309	A	O4'-C1'-N9	6.23	113.19	108.20
81	DA	3297	U	C4'-C3'-C2'	-6.23	96.37	102.60
83	DC	28	C	N1-C1'-C2'	6.23	122.10	114.00
33	BD	320	ASN	C-N-CA	6.23	137.28	121.70
81	DA	3356	G	P-O3'-C3'	-6.23	112.22	119.70
82	DB	150	G	O4'-C1'-N9	6.23	113.18	108.20
6	AE	243	TYR	N-CA-CB	6.23	121.81	110.60
78	CA	255	U	C5'-C4'-O4'	-6.23	101.62	109.10
78	CA	1551	U	O4'-C4'-C3'	6.23	111.08	106.10
81	DA	1535	A	O4'-C1'-C2'	-6.23	99.57	105.80
81	DA	1655	G	O4'-C1'-N9	6.23	113.18	108.20
81	DA	3381	U	O4'-C1'-N1	6.23	113.18	108.20
78	CA	431	C	C3'-C2'-C1'	6.23	106.48	101.50
78	CA	1793	G	C3'-C2'-C1'	6.23	106.48	101.50
81	DA	380	U	O4'-C1'-N1	6.23	113.18	108.20
81	DA	2784	G	N9-C1'-C2'	-6.23	105.15	112.00
81	DA	2213	A	C3'-C2'-C1'	6.23	106.48	101.50
38	Bs	147	ARG	NE-CZ-NH2	-6.22	117.19	120.30
57	Be	33	ARG	NE-CZ-NH1	-6.22	117.19	120.30
78	CA	294	C	C3'-C2'-C1'	6.22	106.48	101.50
81	DA	886	C	O4'-C1'-N1	6.22	113.18	108.20
81	DA	2464	U	C1'-O4'-C4'	-6.22	104.92	109.90
81	DA	2712	U	C1'-O4'-C4'	6.22	114.88	109.90
33	BD	255	PHE	CB-CG-CD1	6.22	125.16	120.80
78	CA	969	C	C3'-C2'-C1'	6.22	106.48	101.50
78	CA	1511	U	P-O3'-C3'	-6.22	112.23	119.70
81	DA	685	G	C5'-C4'-C3'	-6.22	106.05	116.00
81	DA	2003	G	O4'-C1'-N9	6.22	113.18	108.20
81	DA	2039	C	O4'-C1'-N1	6.22	113.18	108.20
81	DA	2247	G	C1'-O4'-C4'	-6.22	104.92	109.90
81	DA	2540	A	C4-C5-C6	6.22	120.11	117.00
81	DA	3085	G	C3'-C2'-C1'	-6.22	96.52	101.50
81	DA	3331	U	N1-C1'-C2'	-6.22	105.16	112.00
78	CA	498	G	O4'-C1'-N9	6.22	113.18	108.20
78	CA	591	A	O4'-C1'-N9	-6.22	103.22	108.20
32	BC	21	ARG	NE-CZ-NH2	-6.22	117.19	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	Bs	247	LEU	C-N-CA	6.22	137.25	121.70
78	CA	853	G	C4'-C3'-C2'	-6.22	96.38	102.60
78	CA	1149	G	C1'-O4'-C4'	-6.22	104.92	109.90
81	DA	632	G	O4'-C1'-N9	6.22	113.17	108.20
81	DA	815	G	C1'-O4'-C4'	-6.22	104.92	109.90
81	DA	1097	G	P-O3'-C3'	6.22	127.16	119.70
82	DB	118	C	N1-C1'-C2'	6.22	122.08	114.00
6	AE	4	PRO	CB-CA-C	6.22	127.55	112.00
81	DA	1773	C	C5'-C4'-O4'	6.22	116.56	109.10
81	DA	2657	A	O4'-C1'-N9	-6.22	103.22	108.20
10	AI	112	TYR	N-CA-CB	6.22	121.79	110.60
22	AV	29	LYS	O-C-N	-6.22	112.75	122.70
78	CA	498	G	P-O3'-C3'	-6.22	112.24	119.70
78	CA	1000	C	C1'-O4'-C4'	6.22	114.87	109.90
81	DA	767	U	P-O3'-C3'	-6.22	112.24	119.70
81	DA	1858	A	O4'-C1'-N9	6.22	113.17	108.20
81	DA	2181	C	O5'-C5'-C4'	6.22	123.51	111.70
81	DA	3298	C	O4'-C1'-C2'	-6.22	99.58	105.80
83	DC	47	C	O4'-C1'-N1	6.22	113.17	108.20
20	AS	54	PHE	CB-CG-CD2	6.21	125.15	120.80
50	BX	31	THR	CA-CB-CG2	-6.21	103.70	112.40
74	BQ	111	GLN	CA-C-O	-6.21	107.05	120.10
78	CA	1539	G	O4'-C1'-N9	6.21	113.17	108.20
78	CA	1615	C	N1-C1'-C2'	6.21	122.08	114.00
81	DA	709	A	C3'-C2'-C1'	6.21	106.47	101.50
81	DA	724	U	O4'-C1'-N1	6.21	113.17	108.20
81	DA	1535	A	C3'-C2'-C1'	-6.21	96.53	101.50
81	DA	1689	U	C5'-C4'-C3'	6.21	125.94	116.00
81	DA	2153	U	C1'-O4'-C4'	-6.21	104.93	109.90
81	DA	2470	C	C5'-C4'-C3'	6.21	125.94	116.00
40	BK	111	PRO	N-CA-CB	6.21	110.75	103.30
57	Be	67	ARG	NE-CZ-NH1	6.21	123.41	120.30
59	Bh	25	TYR	CB-CA-C	-6.21	97.98	110.40
81	DA	1343	A	N9-C1'-C2'	6.21	122.08	114.00
83	DC	27	A	N9-C1'-C2'	6.21	122.07	114.00
83	DC	58	U	O4'-C1'-C2'	-6.21	99.59	105.80
10	AI	119	ALA	CB-CA-C	6.21	119.42	110.10
81	DA	1425	U	O4'-C1'-N1	6.21	113.17	108.20
81	DA	2864	A	O3'-P-O5'	-6.21	92.20	104.00
25	AY	47	PRO	N-CA-CB	6.21	110.75	103.30
40	BK	186	ALA	CA-C-O	-6.21	107.06	120.10
41	BN	55	ARG	NE-CZ-NH2	-6.21	117.20	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	Bk	53	TYR	CG-CD1-CE1	-6.21	116.33	121.30
78	CA	297	U	C3'-C2'-C1'	6.21	106.47	101.50
81	DA	237	G	O4'-C4'-C3'	-6.21	97.79	104.00
81	DA	338	A	O4'-C1'-N9	-6.21	103.23	108.20
81	DA	1240	A	O4'-C1'-N9	6.21	113.17	108.20
81	DA	1288	U	O4'-C1'-C2'	-6.21	99.59	105.80
81	DA	2044	U	O4'-C1'-C2'	-6.21	99.59	105.80
81	DA	2144	A	O4'-C1'-C2'	6.21	113.19	107.60
62	Bk	98	ARG	CB-CA-C	6.21	122.81	110.40
78	CA	458	G	O4'-C1'-C2'	6.21	113.19	107.60
78	CA	1373	C	O4'-C1'-C2'	-6.21	99.59	105.80
81	DA	133	U	O4'-C1'-N1	6.21	113.17	108.20
81	DA	136	G	C5'-C4'-O4'	6.21	116.55	109.10
81	DA	2335	G	C3'-C2'-C1'	-6.21	96.53	101.50
81	DA	2723	U	P-O5'-C5'	-6.21	110.97	120.90
81	DA	820	A	O4'-C1'-N9	6.21	113.16	108.20
81	DA	1669	C	C3'-C2'-C1'	6.21	106.46	101.50
8	AF	73	THR	N-CA-CB	6.20	122.09	110.30
78	CA	1196	A	O4'-C1'-C2'	-6.20	99.60	105.80
78	CA	1507	G	N1-C6-O6	6.20	123.62	119.90
78	CA	1567	U	N1-C1'-C2'	6.20	122.06	114.00
78	CA	1652	C	O4'-C1'-C2'	-6.20	99.60	105.80
81	DA	180	C	O4'-C1'-C2'	-6.20	99.60	105.80
81	DA	285	A	O4'-C1'-C2'	-6.20	99.60	105.80
81	DA	2292	U	O4'-C1'-N1	6.20	113.16	108.20
81	DA	360	G	C3'-C2'-C1'	6.20	106.46	101.50
81	DA	2631	U	O4'-C1'-N1	6.20	113.16	108.20
83	DC	68	U	O4'-C1'-N1	6.20	113.16	108.20
40	BK	133	ARG	NE-CZ-NH1	-6.20	117.20	120.30
78	CA	1771	U	N1-C1'-C2'	6.20	122.06	114.00
83	DC	98	G	C3'-C2'-C1'	6.20	106.46	101.50
1	Aa	56	VAL	CA-C-N	6.20	134.46	117.10
67	Bp	41	HIS	N-CA-CB	6.20	121.76	110.60
78	CA	284	G	C4'-C3'-C2'	-6.20	96.40	102.60
81	DA	251	G	C3'-C2'-C1'	6.20	106.46	101.50
81	DA	488	U	C5'-C4'-C3'	6.20	125.92	116.00
81	DA	514	G	N9-C1'-C2'	6.20	122.06	114.00
81	DA	1820	U	O4'-C1'-N1	6.20	113.16	108.20
32	BC	256	HIS	N-CA-C	-6.20	94.27	111.00
65	Bn	39	ARG	N-CA-C	6.20	127.73	111.00
78	CA	1470	C	N1-C1'-C2'	6.20	122.06	114.00
81	DA	934	G	O4'-C1'-N9	6.20	113.16	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2294	U	O4'-C1'-C2'	-6.20	99.60	105.80
9	AH	68	ARG	NE-CZ-NH1	6.20	123.40	120.30
38	Bs	183	PHE	CB-CG-CD2	6.20	125.14	120.80
38	Bs	229	TYR	N-CA-CB	6.20	121.75	110.60
41	BN	109	ARG	NE-CZ-NH1	6.20	123.40	120.30
78	CA	1499	G	O4'-C1'-N9	6.20	113.16	108.20
81	DA	578	A	O4'-C1'-C2'	-6.20	99.60	105.80
81	DA	2271	A	O4'-C1'-N9	6.20	113.16	108.20
35	BG	25	ALA	N-CA-CB	6.19	118.77	110.10
78	CA	460	A	O5'-C5'-C4'	6.19	123.47	111.70
78	CA	1144	U	C5'-C4'-O4'	6.19	116.53	109.10
81	DA	578	A	P-O5'-C5'	-6.19	110.99	120.90
78	CA	413	U	O4'-C1'-N1	6.19	113.15	108.20
81	DA	442	G	O4'-C1'-N9	6.19	113.15	108.20
81	DA	1166	G	C3'-C2'-C1'	6.19	106.45	101.50
81	DA	1329	U	P-O3'-C3'	6.19	127.13	119.70
81	DA	3351	U	C1'-O4'-C4'	6.19	114.85	109.90
83	DC	83	U	P-O5'-C5'	6.19	130.81	120.90
78	CA	646	C	O4'-C1'-C2'	6.19	113.17	107.60
81	DA	675	C	C1'-O4'-C4'	6.19	114.85	109.90
81	DA	844	G	P-O3'-C3'	-6.19	112.27	119.70
81	DA	1933	A	N9-C1'-C2'	-6.19	105.19	112.00
4	AD	196	VAL	CB-CA-C	-6.19	99.64	111.40
81	DA	2944	U	O4'-C1'-C2'	-6.19	99.61	105.80
3	AB	91	VAL	CG1-CB-CG2	6.19	120.80	110.90
6	AE	23	ASN	N-CA-CB	6.19	121.74	110.60
43	BP	44	ARG	NH1-CZ-NH2	-6.19	112.59	119.40
78	CA	1	U	P-O5'-C5'	-6.19	111.00	120.90
81	DA	240	U	O3'-P-O5'	6.19	115.76	104.00
81	DA	1170	A	O4'-C1'-N9	6.19	113.15	108.20
81	DA	2495	C	O4'-C1'-C2'	-6.19	99.61	105.80
81	DA	2873	U	C5'-C4'-C3'	-6.19	106.10	116.00
81	DA	3069	G	C5'-C4'-C3'	6.19	125.90	116.00
10	AI	87	LYS	CB-CA-C	-6.19	98.03	110.40
81	DA	932	U	C1'-O4'-C4'	6.19	114.85	109.90
81	DA	1625	A	O4'-C1'-C2'	-6.19	99.61	105.80
81	DA	2887	A	C1'-O4'-C4'	-6.19	104.95	109.90
13	AL	123	LYS	N-CA-C	6.18	127.70	111.00
34	BE	168	ASP	CB-CG-OD1	6.18	123.86	118.30
44	BO	8	THR	CA-CB-OG1	6.18	121.99	109.00
56	Bf	23	TYR	CB-CG-CD1	-6.18	117.29	121.00
57	Be	198	ALA	N-CA-CB	6.18	118.76	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	503	G	O4'-C1'-N9	6.18	113.15	108.20
78	CA	1626	U	O4'-C1'-N1	6.18	113.15	108.20
81	DA	1015	U	N1-C1'-C2'	-6.18	105.20	112.00
81	DA	1527	C	P-O5'-C5'	6.18	130.79	120.90
81	DA	1804	A	P-O3'-C3'	6.18	127.12	119.70
81	DA	1804	A	O4'-C1'-C2'	-6.18	99.62	105.80
35	BG	94	GLU	N-CA-CB	6.18	121.73	110.60
76	BS	73	THR	CA-CB-OG1	6.18	121.98	109.00
78	CA	575	C	O4'-C1'-N1	6.18	113.15	108.20
81	DA	267	G	O4'-C1'-N9	-6.18	103.25	108.20
33	BD	258	LEU	C-N-CA	6.18	137.15	121.70
35	BG	45	GLY	N-CA-C	-6.18	97.65	113.10
14	AM	126	ARG	NE-CZ-NH2	-6.18	117.21	120.30
20	AS	69	LYS	CB-CA-C	6.18	122.76	110.40
41	BN	15	VAL	N-CA-CB	6.18	125.10	111.50
78	CA	448	C	O4'-C1'-N1	6.18	113.14	108.20
81	DA	124	U	C5'-C4'-O4'	6.18	116.52	109.10
81	DA	1806	A	P-O5'-C5'	6.18	130.79	120.90
81	DA	3255	U	C1'-O4'-C4'	-6.18	104.96	109.90
6	AE	68	ILE	N-CA-C	-6.18	94.32	111.00
78	CA	120	U	C5'-C4'-C3'	-6.18	106.12	116.00
81	DA	1774	C	C5'-C4'-C3'	6.18	125.89	116.00
6	AE	28	ARG	N-CA-CB	6.18	121.72	110.60
61	Bj	60	ARG	N-CA-C	-6.18	94.32	111.00
74	BQ	289	LYS	N-CA-C	-6.18	94.32	111.00
78	CA	1453	G	C1'-O4'-C4'	6.18	114.84	109.90
78	CA	1461	C	C5'-C4'-O4'	-6.18	101.69	109.10
78	CA	1604	U	C5'-C4'-C3'	-6.18	106.12	116.00
81	DA	232	G	P-O5'-C5'	-6.18	111.02	120.90
81	DA	2209	U	O4'-C4'-C3'	-6.18	97.82	104.00
81	DA	2245	C	O4'-C1'-C2'	-6.18	99.62	105.80
16	AO	123	HIS	C-N-CA	6.17	137.14	121.70
40	BK	68	ARG	NE-CZ-NH2	-6.17	117.21	120.30
65	Bn	78	LEU	CB-CG-CD2	6.17	121.50	111.00
77	BI	110	ARG	CA-C-N	6.17	130.79	117.20
78	CA	505	A	C5-C6-N6	-6.17	118.76	123.70
78	CA	1721	A	C3'-C2'-C1'	6.17	106.44	101.50
81	DA	173	G	O4'-C1'-C2'	6.17	113.16	107.60
37	BH	233	TRP	N-CA-C	6.17	127.67	111.00
81	DA	147	U	O5'-P-OP1	-6.17	100.14	105.70
81	DA	1916	U	N1-C1'-C2'	6.17	122.03	114.00
65	Bn	52	TYR	C-N-CA	6.17	137.13	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1281	G	C1'-O4'-C4'	-6.17	104.96	109.90
81	DA	1035	G	P-O3'-C3'	-6.17	112.29	119.70
81	DA	1210	U	O4'-C1'-C2'	-6.17	99.63	105.80
81	DA	2148	U	C3'-C2'-C1'	6.17	106.44	101.50
81	DA	2630	C	O4'-C1'-C2'	-6.17	99.63	105.80
81	DA	2988	C	O4'-C1'-N1	6.17	113.14	108.20
78	CA	495	C	N3-C4-N4	6.17	122.32	118.00
78	CA	1651	A	O4'-C1'-C2'	-6.17	99.63	105.80
81	DA	248	U	C4'-C3'-C2'	-6.17	96.43	102.60
33	BD	330	TYR	CB-CG-CD1	6.17	124.70	121.00
36	BF	184	LYS	N-CA-CB	6.17	121.70	110.60
78	CA	276	C	C3'-C2'-C1'	6.17	106.44	101.50
78	CA	404	G	C1'-O4'-C4'	-6.17	104.97	109.90
81	DA	1520	G	O4'-C1'-N9	6.17	113.13	108.20
6	AE	1	MET	CG-SD-CE	-6.17	90.33	100.20
31	BB	69	TYR	CB-CG-CD2	-6.17	117.30	121.00
81	DA	1049	C	O4'-C1'-C2'	-6.17	99.63	105.80
81	DA	1856	C	P-O3'-C3'	6.17	127.10	119.70
83	DC	11	A	C1'-O4'-C4'	-6.17	104.97	109.90
83	DC	32	U	O4'-C1'-C2'	6.17	113.15	107.60
72	Bu	48	ALA	CB-CA-C	-6.17	100.85	110.10
81	DA	2101	C	O4'-C1'-N1	6.17	113.13	108.20
81	DA	3343	G	C3'-C2'-C1'	-6.17	96.57	101.50
5	AC	3	ARG	CA-C-N	6.16	130.76	117.20
10	AI	122	ARG	N-CA-C	-6.16	94.36	111.00
42	BM	65	GLY	CA-C-N	6.16	130.76	117.20
64	Bl	75	LYS	N-CA-CB	6.16	121.69	110.60
76	BS	89	TYR	CD1-CE1-CZ	-6.16	114.25	119.80
78	CA	271	A	N9-C1'-C2'	6.16	122.01	114.00
78	CA	369	A	C5'-C4'-O4'	6.16	116.50	109.10
78	CA	589	C	C5'-C4'-O4'	6.16	116.50	109.10
81	DA	1609	C	O4'-C1'-N1	6.16	113.13	108.20
81	DA	2958	A	P-O3'-C3'	-6.16	112.30	119.70
81	DA	3188	G	P-O5'-C5'	6.16	130.76	120.90
48	BW	95	PHE	CB-CA-C	6.16	122.72	110.40
81	DA	1754	G	O4'-C1'-N9	6.16	113.13	108.20
17	AQ	6	THR	N-CA-C	-6.16	94.36	111.00
76	BS	121	PRO	N-CA-C	6.16	128.12	112.10
81	DA	27	C	N1-C1'-C2'	6.16	122.01	114.00
81	DA	1897	G	C1'-O4'-C4'	-6.16	104.97	109.90
81	DA	2916	U	N1-C1'-C2'	6.16	122.01	114.00
81	DA	694	C	O3'-P-O5'	-6.16	92.30	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BM	42	SER	C-N-CA	6.16	135.23	122.30
42	BM	65	GLY	CA-C-O	-6.16	109.52	120.60
58	Bg	65	LYS	N-CA-CB	-6.16	99.52	110.60
78	CA	1345	A	O4'-C1'-C2'	-6.16	99.64	105.80
81	DA	1086	C	C3'-C2'-C1'	6.16	106.43	101.50
81	DA	1314	C	P-O3'-C3'	-6.16	112.31	119.70
74	BQ	202	GLY	N-CA-C	-6.16	97.71	113.10
78	CA	252	U	N1-C1'-C2'	-6.16	105.23	112.00
78	CA	509	G	P-O3'-C3'	6.16	127.09	119.70
78	CA	680	U	C4'-C3'-C2'	-6.16	96.44	102.60
81	DA	973	A	N9-C1'-C2'	-6.16	105.23	112.00
81	DA	1343	A	C3'-C2'-C1'	-6.16	96.58	101.50
81	DA	1409	G	C1'-O4'-C4'	-6.16	104.98	109.90
81	DA	2165	G	O3'-P-O5'	6.16	115.69	104.00
81	DA	2250	G	O4'-C1'-C2'	-6.16	99.64	105.80
81	DA	2267	C	O4'-C1'-C2'	-6.16	99.64	105.80
81	DA	2478	C	P-O3'-C3'	6.16	127.09	119.70
81	DA	2664	C	C5'-C4'-C3'	6.16	125.85	116.00
81	DA	3051	U	C5'-C4'-O4'	-6.16	101.71	109.10
18	AP	81	HIS	N-CA-CB	6.15	121.68	110.60
81	DA	3010	U	C4'-C3'-C2'	-6.15	96.45	102.60
78	CA	105	A	C3'-C2'-C1'	6.15	106.42	101.50
78	CA	904	G	C1'-O4'-C4'	-6.15	104.98	109.90
78	CA	999	U	O3'-P-O5'	-6.15	92.31	104.00
81	DA	606	C	C1'-O4'-C4'	-6.15	104.98	109.90
81	DA	1384	U	N1-C1'-C2'	-6.15	105.23	112.00
81	DA	2127	U	P-O3'-C3'	-6.15	112.32	119.70
11	AJ	83	GLU	C-N-CA	6.15	137.08	121.70
57	Be	165	ASP	CB-CA-C	-6.15	98.10	110.40
81	DA	900	G	C1'-O4'-C4'	-6.15	104.98	109.90
74	BQ	55	PHE	CA-C-N	-6.15	103.67	117.20
81	DA	1206	G	C5'-C4'-O4'	6.15	116.48	109.10
81	DA	1700	G	P-O3'-C3'	6.15	127.08	119.70
9	AH	67	GLY	C-N-CA	-6.15	106.33	121.70
78	CA	626	U	N1-C1'-C2'	6.15	121.99	114.00
78	CA	1454	G	C1'-O4'-C4'	-6.15	104.98	109.90
81	DA	756	U	N1-C1'-C2'	6.15	121.99	114.00
81	DA	1815	U	P-O3'-C3'	6.15	127.08	119.70
81	DA	3107	U	C5'-C4'-C3'	6.15	125.83	116.00
81	DA	3119	U	O4'-C1'-N1	6.15	113.12	108.20
10	AI	26	LYS	N-CA-CB	6.15	121.66	110.60
30	BA	22	GLU	N-CA-C	6.15	127.59	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1370	U	N1-C1'-C2'	6.15	121.99	114.00
81	DA	2411	U	O4'-C1'-N1	6.15	113.12	108.20
6	AE	56	ILE	CA-CB-CG2	-6.14	98.61	110.90
31	BB	3	ARG	CB-CA-C	-6.14	98.11	110.40
42	BM	56	ASP	CB-CG-OD2	-6.14	112.77	118.30
78	CA	1399	C	C5'-C4'-C3'	6.14	125.83	116.00
81	DA	2437	G	C1'-O4'-C4'	6.14	114.81	109.90
2	AA	244	GLU	OE1-CD-OE2	6.14	130.67	123.30
20	AS	104	VAL	CA-CB-CG1	6.14	120.11	110.90
78	CA	1596	C	C3'-C2'-C1'	6.14	106.41	101.50
81	DA	608	A	C1'-O4'-C4'	-6.14	104.99	109.90
81	DA	812	G	O3'-P-O5'	-6.14	92.33	104.00
81	DA	2455	U	C3'-C2'-C1'	6.14	106.42	101.50
53	Ba	70	PRO	N-CA-CB	6.14	110.67	103.30
78	CA	420	A	O4'-C1'-N9	6.14	113.11	108.20
78	CA	1028	C	C3'-C2'-C1'	6.14	106.41	101.50
78	CA	1387	G	O4'-C1'-N9	6.14	113.11	108.20
81	DA	1563	C	O4'-C4'-C3'	-6.14	97.86	104.00
81	DA	2745	G	N9-C1'-C2'	-6.14	105.25	112.00
13	AL	23	ARG	N-CA-CB	-6.14	99.55	110.60
50	BX	93	TYR	N-CA-CB	6.14	121.65	110.60
52	BY	51	ARG	NH1-CZ-NH2	6.14	126.15	119.40
76	BS	150	LYS	CA-C-N	6.14	130.71	117.20
76	BS	159	ARG	CA-C-O	-6.14	107.21	120.10
81	DA	418	A	N9-C1'-C2'	-6.14	105.25	112.00
81	DA	2572	C	N3-C4-N4	6.14	122.30	118.00
81	DA	2818	U	C1'-O4'-C4'	6.14	114.81	109.90
81	DA	3062	G	C3'-C2'-C1'	-6.14	96.59	101.50
81	DA	3306	U	C5'-C4'-C3'	-6.14	106.18	116.00
83	DC	39	C	C3'-C2'-C1'	6.14	106.41	101.50
22	AV	30	LYS	N-CA-CB	6.14	121.65	110.60
81	DA	1284	C	C1'-O4'-C4'	6.14	114.81	109.90
81	DA	1940	G	C3'-C2'-C1'	6.14	106.41	101.50
13	AL	121	ARG	N-CA-C	-6.14	94.43	111.00
64	Bl	41	ALA	N-CA-CB	6.14	118.69	110.10
78	CA	471	A	O4'-C1'-C2'	-6.14	99.66	105.80
78	CA	963	A	C3'-C2'-C1'	6.14	106.41	101.50
81	DA	39	A	C3'-C2'-C1'	6.14	106.41	101.50
81	DA	1685	C	O4'-C1'-C2'	-6.14	99.66	105.80
81	DA	2925	C	C3'-C2'-C1'	6.14	106.41	101.50
12	AK	128	LYS	C-N-CA	6.13	137.03	121.70
25	AY	56	LEU	N-CA-C	-6.13	94.44	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BD	74	ILE	N-CA-C	-6.13	94.44	111.00
78	CA	505	A	O4'-C1'-N9	6.13	113.11	108.20
81	DA	45	A	C3'-C2'-C1'	6.13	106.41	101.50
81	DA	2491	A	O4'-C1'-N9	6.13	113.11	108.20
13	AL	123	LYS	CA-C-N	6.13	130.69	117.20
78	CA	1069	A	C4-C5-C6	6.13	120.07	117.00
81	DA	746	A	C1'-O4'-C4'	-6.13	104.99	109.90
81	DA	1744	G	C3'-C2'-C1'	-6.13	96.59	101.50
4	AD	194	THR	N-CA-CB	6.13	121.95	110.30
35	BG	26	ARG	NE-CZ-NH1	6.13	123.37	120.30
39	BJ	123	ARG	CB-CA-C	-6.13	98.14	110.40
43	BP	181	ASN	N-CA-C	6.13	127.56	111.00
61	Bj	39	GLN	CG-CD-NE2	-6.13	101.98	116.70
81	DA	751	A	C1'-O4'-C4'	-6.13	104.99	109.90
14	AM	22	VAL	CA-CB-CG2	6.13	120.09	110.90
47	BU	12	ARG	NE-CZ-NH2	-6.13	117.23	120.30
81	DA	1046	A	P-O3'-C3'	6.13	127.06	119.70
81	DA	1362	G	C1'-O4'-C4'	-6.13	105.00	109.90
81	DA	548	G	N9-C1'-C2'	6.13	121.97	114.00
81	DA	739	G	N3-C2-N2	6.13	124.19	119.90
81	DA	3392	U	O3'-P-O5'	-6.13	92.36	104.00
9	AH	37	PHE	CB-CG-CD2	6.13	125.09	120.80
15	AN	12	ARG	NE-CZ-NH1	-6.13	117.24	120.30
17	AQ	28	PHE	CB-CG-CD2	6.13	125.09	120.80
78	CA	1558	U	C5'-C4'-C3'	-6.13	106.20	116.00
81	DA	1035	G	O4'-C1'-C2'	-6.13	99.67	105.80
81	DA	2710	C	O4'-C1'-C2'	-6.13	99.67	105.80
53	Ba	43	VAL	CA-CB-CG2	-6.12	101.71	110.90
78	CA	1625	C	C3'-C2'-C1'	6.12	106.40	101.50
81	DA	136	G	C3'-C2'-C1'	-6.12	96.60	101.50
78	CA	323	A	N9-C1'-C2'	-6.12	105.27	112.00
78	CA	988	A	O4'-C1'-N9	-6.12	103.30	108.20
78	CA	1053	G	N1-C6-O6	6.12	123.57	119.90
79	CB	65	U	O4'-C1'-N1	6.12	113.10	108.20
81	DA	43	A	C4'-C3'-C2'	6.12	108.72	102.60
81	DA	519	A	O3'-P-O5'	6.12	115.63	104.00
81	DA	2564	G	O4'-C1'-N9	6.12	113.10	108.20
82	DB	39	G	O4'-C1'-N9	6.12	113.10	108.20
83	DC	9	C	O4'-C4'-C3'	-6.12	97.88	104.00
76	BS	70	ASN	CB-CA-C	-6.12	98.16	110.40
78	CA	1187	U	O4'-C1'-C2'	-6.12	99.68	105.80
81	DA	729	C	N3-C4-C5	-6.12	119.45	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1046	A	C1'-O4'-C4'	6.12	114.80	109.90
81	DA	1217	A	C4'-C3'-C2'	-6.12	96.48	102.60
81	DA	1522	U	O4'-C1'-N1	6.12	113.10	108.20
81	DA	2257	C	N1-C1'-C2'	-6.12	105.27	112.00
82	DB	134	G	C1'-O4'-C4'	6.12	114.80	109.90
38	Bs	30	VAL	CA-CB-CG1	6.12	120.08	110.90
81	DA	3371	G	P-O3'-C3'	-6.12	112.36	119.70
33	BD	156	LEU	CB-CG-CD2	6.12	121.40	111.00
35	BG	17	ALA	N-CA-C	6.12	127.52	111.00
46	BT	91	SER	N-CA-CB	6.12	119.68	110.50
47	BU	12	ARG	NE-CZ-NH1	6.12	123.36	120.30
60	Bi	41	ARG	N-CA-CB	-6.12	99.59	110.60
78	CA	1194	A	C3'-C2'-C1'	6.12	106.39	101.50
81	DA	738	A	P-O3'-C3'	6.12	127.04	119.70
81	DA	1993	G	O4'-C1'-N9	6.12	113.09	108.20
2	AA	102	PHE	CZ-CE2-CD2	-6.12	112.76	120.10
35	BG	35	VAL	CA-CB-CG1	6.12	120.08	110.90
78	CA	56	U	N1-C1'-C2'	-6.12	105.27	112.00
78	CA	1042	G	O4'-C1'-N9	6.12	113.09	108.20
81	DA	595	G	C1'-O4'-C4'	6.12	114.79	109.90
81	DA	871	U	C1'-O4'-C4'	-6.12	105.01	109.90
81	DA	2571	U	O4'-C1'-N1	6.12	113.09	108.20
29	AU	72	PHE	CA-C-N	6.12	128.43	116.20
33	BD	58	HIS	N-CA-CB	6.12	121.61	110.60
62	Bk	53	TYR	CB-CG-CD2	-6.12	117.33	121.00
78	CA	285	G	C5'-C4'-C3'	-6.12	106.22	116.00
81	DA	2398	A	O4'-C1'-C2'	-6.12	99.68	105.80
81	DA	2568	C	N3-C4-C5	-6.12	119.45	121.90
2	AA	251	GLU	CB-CA-C	-6.11	98.17	110.40
12	AK	20	TYR	N-CA-CB	6.11	121.61	110.60
78	CA	858	G	O4'-C1'-C2'	-6.11	99.69	105.80
78	CA	1607	G	C1'-O4'-C4'	-6.11	105.01	109.90
81	DA	638	C	O4'-C1'-C2'	-6.11	99.69	105.80
81	DA	752	C	C1'-O4'-C4'	-6.11	105.01	109.90
81	DA	1396	C	C5'-C4'-C3'	-6.11	106.22	116.00
81	DA	1423	C	N1-C1'-C2'	6.11	121.95	114.00
81	DA	2499	U	N1-C1'-C2'	6.11	121.95	114.00
81	DA	3327	G	O4'-C1'-N9	6.11	113.09	108.20
31	BB	84	THR	N-CA-CB	6.11	121.91	110.30
78	CA	1547	A	P-O5'-C5'	6.11	130.68	120.90
81	DA	1586	G	C1'-O4'-C4'	-6.11	105.01	109.90
31	BB	145	LYS	CB-CA-C	-6.11	98.18	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2440	G	O4'-C4'-C3'	-6.11	97.89	104.00
81	DA	2464	U	C5'-C4'-O4'	6.11	116.43	109.10
4	AD	230	GLU	CB-CA-C	-6.11	98.18	110.40
81	DA	657	A	O4'-C1'-N9	6.11	113.09	108.20
53	Ba	24	VAL	C-N-CA	6.11	136.97	121.70
61	Bj	20	LYS	C-N-CA	6.11	136.97	121.70
78	CA	1421	A	C3'-C2'-C1'	-6.11	96.61	101.50
81	DA	2547	A	C4-C5-C6	6.11	120.05	117.00
4	AD	240	LYS	N-CA-CB	6.11	121.59	110.60
29	AU	70	VAL	N-CA-C	-6.11	94.52	111.00
78	CA	620	A	O4'-C1'-N9	6.11	113.08	108.20
78	CA	1595	U	O4'-C1'-N1	6.11	113.08	108.20
78	CA	1754	A	O4'-C1'-C2'	6.11	113.09	107.60
81	DA	1790	G	O5'-C5'-C4'	-6.11	100.10	111.70
81	DA	2660	G	O4'-C1'-N9	6.11	113.08	108.20
81	DA	2776	C	O4'-C1'-C2'	-6.11	99.69	105.80
76	BS	15	GLY	N-CA-C	6.10	128.36	113.10
81	DA	306	A	C1'-O4'-C4'	6.10	114.78	109.90
81	DA	1089	G	O4'-C1'-C2'	6.10	113.09	107.60
81	DA	2627	C	N1-C1'-C2'	6.10	121.94	114.00
83	DC	47	C	O5'-P-OP1	6.10	118.03	110.70
49	BV	166	VAL	CA-C-N	6.10	130.62	117.20
78	CA	680	U	O4'-C1'-C2'	-6.10	99.70	105.80
82	DB	44	A	C1'-O4'-C4'	-6.10	105.02	109.90
82	DB	56	G	C1'-O4'-C4'	-6.10	105.02	109.90
81	DA	2603	G	O4'-C1'-N9	6.10	113.08	108.20
2	AA	62	ARG	NE-CZ-NH2	-6.10	117.25	120.30
78	CA	1285	U	O4'-C1'-N1	6.10	113.08	108.20
81	DA	752	C	O5'-P-OP1	6.10	118.02	110.70
81	DA	799	G	P-O3'-C3'	6.10	127.02	119.70
81	DA	1278	A	C3'-C2'-C1'	6.10	106.38	101.50
81	DA	2236	G	O4'-C1'-C2'	6.10	113.09	107.60
81	DA	2435	G	P-O5'-C5'	-6.10	111.14	120.90
60	Bi	36	LYS	CA-CB-CG	6.10	126.81	113.40
76	BS	139	ASP	CB-CG-OD2	-6.10	112.81	118.30
78	CA	418	G	C1'-O4'-C4'	-6.10	105.02	109.90
78	CA	827	C	N3-C4-C5	-6.10	119.46	121.90
81	DA	645	A	O4'-C1'-N9	6.10	113.08	108.20
81	DA	2181	C	P-O3'-C3'	6.10	127.02	119.70
83	DC	89	A	P-O3'-C3'	6.10	127.02	119.70
78	CA	1274	C	N3-C4-N4	6.10	122.27	118.00
2	AA	231	GLU	C-N-CA	6.09	136.94	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AB	181	VAL	N-CA-CB	6.09	124.91	111.50
35	BG	111	LEU	CB-CG-CD2	6.09	121.36	111.00
38	Bs	215	SER	N-CA-CB	6.09	119.64	110.50
78	CA	591	A	P-O5'-C5'	-6.09	111.15	120.90
81	DA	701	G	C3'-C2'-C1'	-6.09	96.62	101.50
81	DA	832	G	C3'-C2'-C1'	-6.09	96.62	101.50
81	DA	2835	U	N1-C1'-C2'	6.09	121.92	114.00
50	BX	37	THR	N-CA-CB	6.09	121.88	110.30
78	CA	901	G	P-O5'-C5'	6.09	130.65	120.90
81	DA	902	G	O4'-C1'-N9	6.09	113.07	108.20
39	BJ	77	ALA	CB-CA-C	-6.09	100.96	110.10
78	CA	1791	A	C4'-C3'-C2'	-6.09	96.51	102.60
81	DA	261	U	O4'-C1'-C2'	6.09	113.08	107.60
81	DA	1873	U	O4'-C1'-N1	6.09	113.07	108.20
81	DA	1928	G	O4'-C1'-N9	6.09	113.07	108.20
81	DA	2094	C	O4'-C1'-C2'	-6.09	99.71	105.80
81	DA	1797	A	P-O3'-C3'	6.09	127.01	119.70
81	DA	2208	A	C4'-C3'-C2'	-6.09	96.51	102.60
33	BD	90	PHE	N-CA-C	-6.09	94.57	111.00
46	BT	103	ARG	CD-NE-CZ	-6.09	115.08	123.60
81	DA	2185	G	C3'-C2'-C1'	-6.09	96.63	101.50
83	DC	91	C	O4'-C1'-N1	6.09	113.07	108.20
81	DA	2390	A	O4'-C1'-N9	-6.08	103.33	108.20
5	AC	168	ARG	NE-CZ-NH2	-6.08	117.26	120.30
32	BC	241	LYS	N-CA-CB	6.08	121.55	110.60
33	BD	355	PHE	CA-C-N	6.08	130.59	117.20
78	CA	1368	G	P-O5'-C5'	-6.08	111.17	120.90
79	CB	64	G	N9-C1'-C2'	6.08	121.91	114.00
81	DA	1079	A	C3'-C2'-C1'	6.08	106.37	101.50
81	DA	1478	C	C5'-C4'-C3'	-6.08	106.27	116.00
81	DA	2172	A	O4'-C1'-N9	6.08	113.07	108.20
81	DA	2566	C	N3-C4-C5	-6.08	119.47	121.90
43	BP	14	LYS	N-CA-CB	-6.08	99.65	110.60
78	CA	1555	A	OP1-P-O3'	6.08	118.58	105.20
79	CB	47	U	O4'-C1'-C2'	-6.08	99.72	105.80
81	DA	3357	U	N1-C1'-C2'	6.08	121.91	114.00
17	AQ	6	THR	N-CA-CB	6.08	121.85	110.30
20	AS	95	ASP	CA-CB-CG	-6.08	100.03	113.40
81	DA	434	U	C4'-C3'-C2'	-6.08	96.52	102.60
81	DA	1057	A	C1'-O4'-C4'	6.08	114.76	109.90
81	DA	1428	A	C5'-C4'-O4'	6.08	116.40	109.10
33	BD	349	THR	CA-C-O	-6.08	107.33	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1352	G	P-O3'-C3'	6.08	127.00	119.70
81	DA	3019	U	O4'-C1'-N1	6.08	113.06	108.20
81	DA	3344	A	O4'-C1'-C2'	-6.08	99.72	105.80
14	AM	111	ASP	CB-CG-OD2	-6.08	112.83	118.30
81	DA	1221	A	C1'-C2'-O2'	6.08	128.83	110.60
81	DA	2061	G	C5'-C4'-C3'	6.08	125.72	116.00
81	DA	2499	U	P-O3'-C3'	6.08	126.99	119.70
81	DA	2650	U	C3'-C2'-C1'	6.08	106.36	101.50
60	Bi	46	ASP	CB-CG-OD1	6.08	123.77	118.30
78	CA	172	C	P-O5'-C5'	-6.08	111.18	120.90
78	CA	588	U	C5'-C4'-O4'	-6.08	101.81	109.10
81	DA	226	C	N1-C1'-C2'	6.08	121.90	114.00
81	DA	624	G	C1'-O4'-C4'	-6.08	105.04	109.90
81	DA	664	U	C1'-O4'-C4'	-6.08	105.04	109.90
81	DA	2916	U	O3'-P-O5'	-6.08	92.45	104.00
83	DC	108	U	C3'-C2'-C1'	6.08	106.36	101.50
58	Bg	93	VAL	CA-CB-CG1	6.07	120.01	110.90
78	CA	457	G	O4'-C1'-C2'	6.07	113.07	107.60
78	CA	484	C	N3-C4-C5	-6.07	119.47	121.90
78	CA	505	A	C4-C5-C6	6.07	120.04	117.00
78	CA	1349	G	C1'-O4'-C4'	-6.07	105.04	109.90
78	CA	1605	G	C3'-C2'-C1'	-6.07	96.64	101.50
81	DA	2707	C	O3'-P-O5'	6.07	115.54	104.00
83	DC	18	C	C5'-C4'-O4'	-6.07	101.81	109.10
78	CA	1281	G	N9-C1'-C2'	6.07	121.89	114.00
18	AP	60	PHE	CB-CG-CD1	6.07	125.05	120.80
57	Be	77	VAL	N-CA-CB	6.07	124.85	111.50
81	DA	1422	G	N9-C1'-C2'	6.07	121.89	114.00
82	DB	87	G	O4'-C1'-N9	6.07	113.06	108.20
36	BF	109	ALA	N-CA-CB	6.07	118.60	110.10
81	DA	3198	U	P-O3'-C3'	-6.07	112.42	119.70
9	AH	65	LEU	N-CA-CB	6.07	122.53	110.40
20	AS	58	ALA	N-CA-CB	-6.07	101.61	110.10
39	BJ	121	PHE	N-CA-CB	-6.07	99.68	110.60
69	Br	58	PHE	N-CA-CB	6.07	121.52	110.60
78	CA	351	C	O4'-C1'-C2'	-6.07	99.73	105.80
78	CA	625	C	O4'-C1'-N1	6.07	113.05	108.20
81	DA	1543	G	C5'-C4'-O4'	6.07	116.38	109.10
81	DA	1757	A	N1-C6-N6	6.07	122.24	118.60
81	DA	2336	U	P-O5'-C5'	-6.07	111.19	120.90
81	DA	2620	G	C5'-C4'-C3'	6.07	125.71	116.00
81	DA	2756	C	C4'-C3'-C2'	-6.07	96.53	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3225	C	P-O3'-C3'	6.07	126.98	119.70
78	CA	1391	A	N9-C1'-C2'	6.07	121.89	114.00
81	DA	1154	A	N9-C1'-C2'	-6.07	105.33	112.00
81	DA	3078	U	P-O3'-C3'	6.07	126.98	119.70
81	DA	3223	A	C5'-C4'-C3'	6.07	125.70	116.00
14	AM	105	VAL	CA-CB-CG2	-6.06	101.80	110.90
66	Bo	30	ARG	N-CA-CB	6.06	121.52	110.60
81	DA	1549	U	N1-C1'-C2'	6.06	121.88	114.00
81	DA	2155	G	C1'-O4'-C4'	-6.06	105.05	109.90
4	AD	95	THR	N-CA-C	6.06	127.37	111.00
76	BS	12	VAL	CA-CB-CG1	-6.06	101.81	110.90
78	CA	1543	A	O4'-C1'-N9	-6.06	103.35	108.20
81	DA	1469	C	C1'-O4'-C4'	-6.06	105.05	109.90
81	DA	1946	A	C1'-O4'-C4'	6.06	114.75	109.90
81	DA	2784	G	O4'-C1'-N9	6.06	113.05	108.20
32	BC	352	GLU	N-CA-CB	6.06	121.51	110.60
78	CA	1393	C	C3'-C2'-C1'	6.06	106.35	101.50
35	BG	54	TYR	N-CA-CB	6.06	121.51	110.60
74	BQ	159	VAL	CB-CA-C	-6.06	99.89	111.40
78	CA	575	C	N3-C4-C5	-6.06	119.48	121.90
81	DA	537	A	O4'-C1'-N9	6.06	113.05	108.20
81	DA	1140	G	C1'-O4'-C4'	-6.06	105.05	109.90
81	DA	1915	A	O4'-C1'-N9	6.06	113.05	108.20
81	DA	2534	G	O4'-C1'-N9	6.06	113.05	108.20
19	AR	125	PRO	CB-CA-C	6.06	127.14	112.00
22	AV	31	SER	N-CA-CB	-6.06	101.41	110.50
78	CA	1226	A	O3'-P-O5'	-6.06	92.49	104.00
81	DA	2812	C	C3'-C2'-C1'	6.06	106.35	101.50
81	DA	3068	U	P-O3'-C3'	6.06	126.97	119.70
81	DA	1321	G	C4'-C3'-C2'	-6.06	96.54	102.60
82	DB	47	C	C5'-C4'-O4'	6.06	116.37	109.10
33	BD	318	LEU	N-CA-CB	6.05	122.51	110.40
78	CA	115	G	O4'-C1'-N9	6.05	113.04	108.20
78	CA	229	U	O4'-C1'-C2'	-6.05	99.75	105.80
78	CA	1050	G	C5-C6-O6	-6.05	124.97	128.60
81	DA	1693	C	P-O3'-C3'	-6.05	112.44	119.70
81	DA	1796	G	O4'-C1'-N9	-6.05	103.36	108.20
81	DA	1944	U	O4'-C1'-C2'	-6.05	99.75	105.80
81	DA	2597	U	O4'-C1'-N1	6.05	113.04	108.20
78	CA	119	A	O4'-C1'-C2'	-6.05	99.75	105.80
78	CA	223	U	O5'-P-OP1	6.05	117.96	110.70
83	DC	20	A	C1'-O4'-C4'	-6.05	105.06	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AO	146	ALA	C-N-CA	6.05	136.83	121.70
81	DA	729	C	N3-C4-N4	6.05	122.24	118.00
81	DA	1602	A	OP2-P-O3'	-6.05	91.89	105.20
83	DC	99	A	C3'-C2'-C1'	6.05	106.34	101.50
3	AB	181	VAL	CA-CB-CG2	6.05	119.97	110.90
37	BH	89	GLU	CB-CA-C	6.05	122.50	110.40
48	BW	81	LYS	CA-CB-CG	6.05	126.71	113.40
53	Ba	16	GLY	CA-C-N	6.05	130.51	117.20
78	CA	888	U	C5'-C4'-C3'	6.05	125.68	116.00
81	DA	110	G	C3'-C2'-C1'	-6.05	96.66	101.50
81	DA	616	G	C1'-O4'-C4'	-6.05	105.06	109.90
81	DA	1870	C	N1-C1'-C2'	6.05	121.86	114.00
81	DA	2520	A	P-O5'-C5'	-6.05	111.22	120.90
81	DA	2738	A	C4'-C3'-C2'	-6.05	96.55	102.60
35	BG	114	LYS	N-CA-CB	6.05	121.49	110.60
31	BB	247	ARG	C-N-CA	6.05	135.00	122.30
65	Bn	29	LYS	C-N-CA	-6.05	106.58	121.70
66	Bo	3	ALA	CB-CA-C	-6.05	101.03	110.10
79	CB	69	G	O4'-C1'-N9	6.05	113.04	108.20
80	CC	22	A	C4-C5-C6	6.05	120.02	117.00
81	DA	369	A	O4'-C1'-C2'	-6.05	99.75	105.80
81	DA	2058	G	O4'-C1'-N9	6.05	113.04	108.20
8	AF	99	MET	CA-CB-CG	6.04	123.58	113.30
38	Bs	42	ARG	CD-NE-CZ	-6.04	115.14	123.60
78	CA	171	A	O3'-P-O5'	6.04	115.49	104.00
78	CA	1003	A	C3'-C2'-C1'	-6.04	96.66	101.50
81	DA	1007	U	O4'-C1'-N1	6.04	113.03	108.20
81	DA	1558	A	P-O3'-C3'	-6.04	112.45	119.70
81	DA	2972	G	C1'-O4'-C4'	-6.04	105.06	109.90
82	DB	54	A	C3'-C2'-C1'	6.04	106.33	101.50
4	AD	81	THR	C-N-CA	6.04	136.81	121.70
15	AN	15	GLY	C-N-CA	6.04	136.80	121.70
78	CA	528	U	C5'-C4'-C3'	6.04	125.67	116.00
78	CA	1226	A	O4'-C1'-C2'	-6.04	99.76	105.80
81	DA	1662	G	O3'-P-O5'	-6.04	92.52	104.00
78	CA	884	A	P-O3'-C3'	6.04	126.95	119.70
3	AB	199	PRO	CA-C-O	-6.04	105.71	120.20
32	BC	49	TYR	CB-CG-CD2	-6.04	117.38	121.00
33	BD	92	ASN	CB-CA-C	6.04	122.48	110.40
78	CA	923	A	C3'-C2'-C1'	6.04	106.33	101.50
78	CA	1086	A	OP2-P-O3'	6.04	118.48	105.20
81	DA	1199	C	C1'-O4'-C4'	-6.04	105.07	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1446	A	O3'-P-O5'	-6.04	92.53	104.00
81	DA	2802	A	C3'-C2'-C1'	6.04	106.33	101.50
35	BG	73	GLY	N-CA-C	6.04	128.19	113.10
78	CA	491	C	C2-N3-C4	6.04	122.92	119.90
5	AC	146	PHE	CB-CA-C	6.04	122.47	110.40
78	CA	1179	G	C1'-O4'-C4'	-6.04	105.07	109.90
81	DA	334	A	O4'-C1'-N9	6.04	113.03	108.20
81	DA	1333	C	O4'-C1'-C2'	-6.04	99.77	105.80
81	DA	1983	G	O4'-C1'-N9	6.04	113.03	108.20
81	DA	2531	C	C4'-C3'-C2'	-6.04	96.56	102.60
3	AB	124	ARG	NE-CZ-NH1	6.03	123.32	120.30
13	AL	73	ARG	N-CA-CB	6.03	121.46	110.60
35	BG	100	LYS	CB-CA-C	6.03	122.47	110.40
78	CA	203	U	C3'-C2'-C1'	6.03	106.33	101.50
78	CA	1158	C	O4'-C1'-N1	-6.03	103.37	108.20
79	CB	60	C	O4'-C1'-N1	6.03	113.03	108.20
81	DA	765	C	C4'-C3'-C2'	-6.03	96.57	102.60
81	DA	844	G	O4'-C1'-N9	6.03	113.03	108.20
81	DA	2435	G	C5'-C4'-C3'	6.03	125.66	116.00
12	AK	107	ARG	NE-CZ-NH1	-6.03	117.28	120.30
29	AU	40	LEU	CB-CG-CD1	6.03	121.25	111.00
81	DA	815	G	O4'-C1'-N9	6.03	113.03	108.20
81	DA	2423	U	C5'-C4'-C3'	-6.03	106.35	116.00
59	Bh	25	TYR	N-CA-CB	6.03	121.46	110.60
61	Bj	75	HIS	N-CA-C	-6.03	94.72	111.00
78	CA	1453	G	C5'-C4'-C3'	-6.03	106.35	116.00
81	DA	2721	A	O4'-C1'-C2'	-6.03	99.77	105.80
81	DA	2993	G	C3'-C2'-C1'	6.03	106.33	101.50
81	DA	3234	A	O4'-C1'-C2'	-6.03	99.77	105.80
74	BQ	72	ASP	CA-CB-CG	-6.03	100.14	113.40
81	DA	164	A	C4-C5-C6	6.03	120.02	117.00
81	DA	452	G	N9-C1'-C2'	6.03	121.84	114.00
20	AS	86	ARG	CD-NE-CZ	-6.03	115.16	123.60
26	AZ	26	LYS	C-N-CD	-6.03	107.34	120.60
33	BD	76	ARG	NE-CZ-NH1	6.03	123.31	120.30
47	BU	116	ARG	CG-CD-NE	-6.03	99.14	111.80
78	CA	587	C	P-O3'-C3'	-6.03	112.47	119.70
78	CA	642	G	N9-C1'-C2'	-6.03	105.37	112.00
78	CA	840	U	C1'-O4'-C4'	6.03	114.72	109.90
81	DA	252	U	P-O3'-C3'	6.03	126.93	119.70
81	DA	2569	A	C4-C5-C6	6.03	120.01	117.00
8	AF	27	THR	CA-CB-OG1	6.03	121.65	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AS	122	ARG	NE-CZ-NH1	6.03	123.31	120.30
41	BN	39	ILE	CB-CG1-CD1	6.03	130.77	113.90
78	CA	479	C	N3-C4-C5	-6.03	119.49	121.90
78	CA	1067	C	N3-C4-C5	-6.03	119.49	121.90
50	BX	30	ALA	CB-CA-C	-6.02	101.06	110.10
81	DA	771	A	C4'-C3'-C2'	-6.02	96.58	102.60
81	DA	837	A	C5'-C4'-C3'	6.02	125.64	116.00
81	DA	1843	C	O4'-C1'-N1	6.02	113.02	108.20
81	DA	3360	C	O4'-C1'-N1	6.02	113.02	108.20
83	DC	17	A	C5'-C4'-C3'	6.02	125.64	116.00
65	Bn	29	LYS	N-CA-CB	6.02	121.44	110.60
78	CA	880	C	P-O5'-C5'	6.02	130.54	120.90
81	DA	79	U	N1-C1'-C2'	6.02	121.83	114.00
81	DA	2284	C	N1-C1'-C2'	6.02	121.83	114.00
78	CA	896	U	O4'-C1'-N1	6.02	113.02	108.20
81	DA	279	U	P-O5'-C5'	6.02	130.53	120.90
81	DA	593	C	P-O3'-C3'	6.02	126.92	119.70
78	CA	1643	U	O4'-C1'-C2'	-6.02	99.78	105.80
81	DA	1042	U	O4'-C1'-N1	6.02	113.02	108.20
81	DA	2174	G	O4'-C4'-C3'	-6.02	97.98	104.00
81	DA	2176	U	C5'-C4'-O4'	-6.02	101.88	109.10
1	Aa	317	THR	N-CA-C	-6.02	94.75	111.00
5	AC	164	PHE	CB-CA-C	6.02	122.44	110.40
37	BH	228	GLU	CA-C-O	-6.02	107.46	120.10
78	CA	493	U	O4'-C1'-N1	6.02	113.02	108.20
78	CA	897	C	C3'-C2'-C1'	6.02	106.31	101.50
78	CA	924	A	P-O3'-C3'	6.02	126.92	119.70
81	DA	2532	U	P-O3'-C3'	-6.02	112.48	119.70
40	BK	147	TRP	C-N-CA	-6.02	106.66	121.70
63	Bm	6	LYS	CB-CA-C	6.02	122.43	110.40
78	CA	1580	C	O5'-C5'-C4'	6.02	123.13	111.70
81	DA	2323	G	C1'-O4'-C4'	6.02	114.71	109.90
50	BX	60	TYR	CD1-CE1-CZ	6.01	125.21	119.80
74	BQ	185	PHE	CB-CG-CD2	-6.01	116.59	120.80
78	CA	482	U	P-O5'-C5'	-6.01	111.28	120.90
78	CA	966	A	O4'-C1'-N9	6.01	113.01	108.20
78	CA	1016	C	N1-C1'-C2'	6.01	121.82	114.00
78	CA	1433	G	C1'-O4'-C4'	6.01	114.71	109.90
81	DA	815	G	C3'-C2'-C1'	-6.01	96.69	101.50
81	DA	1826	C	O5'-C5'-C4'	6.01	123.13	111.70
81	DA	2480	A	C5'-C4'-C3'	6.01	125.62	116.00
57	Be	107	ARG	N-CA-CB	6.01	121.42	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	Bm	24	ARG	NE-CZ-NH1	-6.01	117.29	120.30
74	BQ	237	GLU	CB-CA-C	6.01	122.43	110.40
78	CA	178	U	N1-C1'-C2'	-6.01	105.39	112.00
78	CA	1476	C	O5'-C5'-C4'	-6.01	100.28	111.70
62	Bk	82	ARG	CA-C-N	6.01	130.43	117.20
81	DA	839	C	C5'-C4'-C3'	6.01	125.62	116.00
81	DA	1058	U	O4'-C1'-N1	6.01	113.01	108.20
81	DA	2648	G	C4'-C3'-C2'	-6.01	96.59	102.60
81	DA	3235	C	O5'-C5'-C4'	6.01	123.12	111.70
82	DB	12	A	C1'-O4'-C4'	6.01	114.71	109.90
83	DC	35	C	O4'-C1'-C2'	-6.01	99.79	105.80
32	BC	365	PHE	CA-CB-CG	6.01	128.32	113.90
33	BD	354	VAL	CB-CA-C	-6.01	99.98	111.40
81	DA	1972	A	O5'-C5'-C4'	6.01	123.12	111.70
44	BO	20	GLY	C-N-CA	6.01	136.72	121.70
32	BC	266	ARG	CG-CD-NE	6.01	124.41	111.80
81	DA	1844	C	P-O3'-C3'	6.01	126.91	119.70
12	AK	99	GLN	CB-CA-C	-6.00	98.39	110.40
17	AQ	132	TYR	N-CA-C	-6.00	94.79	111.00
18	AP	115	PHE	CB-CG-CD1	6.00	125.00	120.80
35	BG	22	ARG	N-CA-CB	6.00	121.41	110.60
38	Bs	244	LYS	N-CA-CB	6.00	121.41	110.60
78	CA	1651	A	C3'-C2'-C1'	6.00	106.30	101.50
31	BB	30	ARG	NE-CZ-NH2	-6.00	117.30	120.30
40	BK	196	ALA	N-CA-CB	6.00	118.50	110.10
42	BM	10	LYS	N-CA-CB	6.00	121.41	110.60
48	BW	46	ALA	N-CA-CB	6.00	118.51	110.10
81	DA	105	C	O3'-P-O5'	-6.00	92.59	104.00
81	DA	433	A	C3'-C2'-C1'	6.00	106.30	101.50
81	DA	1418	A	O4'-C1'-N9	6.00	113.00	108.20
81	DA	2753	G	P-O3'-C3'	6.00	126.90	119.70
62	Bk	25	LYS	CB-CA-C	6.00	122.40	110.40
76	BS	29	MET	N-CA-CB	6.00	121.40	110.60
78	CA	485	A	C4-C5-C6	6.00	120.00	117.00
78	CA	1696	G	O4'-C1'-N9	6.00	113.00	108.20
81	DA	1072	G	C1'-O4'-C4'	-6.00	105.10	109.90
81	DA	1130	A	C3'-C2'-C1'	6.00	106.30	101.50
81	DA	1412	G	N9-C1'-C2'	-6.00	105.40	112.00
81	DA	2654	C	O4'-C1'-N1	6.00	113.00	108.20
83	DC	102	C	P-O3'-C3'	6.00	126.90	119.70
35	BG	98	VAL	CG1-CB-CG2	-6.00	101.30	110.90
65	Bn	72	THR	N-CA-C	-6.00	94.80	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	336	G	C4'-C3'-C2'	-6.00	96.60	102.60
1	Aa	181	TRP	CD1-CG-CD2	6.00	111.10	106.30
6	AE	95	ARG	NE-CZ-NH1	6.00	123.30	120.30
33	BD	356	THR	N-CA-C	6.00	127.19	111.00
78	CA	637	C	O4'-C1'-C2'	-6.00	99.80	105.80
78	CA	831	U	P-O3'-C3'	6.00	126.90	119.70
79	CB	57	A	O4'-C1'-N9	6.00	113.00	108.20
81	DA	205	C	O4'-C1'-N1	6.00	113.00	108.20
81	DA	3346	U	P-O5'-C5'	6.00	130.50	120.90
29	AU	63	GLN	CB-CG-CD	6.00	127.19	111.60
48	BW	90	ARG	CA-CB-CG	6.00	126.59	113.40
50	BX	24	LEU	CB-CA-C	6.00	121.59	110.20
81	DA	1974	A	O4'-C1'-N9	6.00	113.00	108.20
46	BT	173	ARG	NE-CZ-NH1	6.00	123.30	120.30
74	BQ	243	ALA	C-N-CA	6.00	136.69	121.70
78	CA	1607	G	N9-C1'-C2'	6.00	121.79	114.00
2	AA	10	THR	CA-CB-CG2	-5.99	104.01	112.40
32	BC	127	LYS	N-CA-CB	5.99	121.39	110.60
55	Bc	40	SER	N-CA-CB	-5.99	101.51	110.50
79	CB	21	A	O4'-C1'-N9	5.99	113.00	108.20
81	DA	2653	C	O4'-C1'-C2'	-5.99	99.81	105.80
81	DA	2767	U	N1-C1'-C2'	5.99	121.79	114.00
81	DA	3035	A	C5'-C4'-C3'	-5.99	106.41	116.00
43	BP	108	ARG	NE-CZ-NH2	-5.99	117.30	120.30
44	BO	8	THR	CB-CA-C	-5.99	95.42	111.60
81	DA	2	U	P-O3'-C3'	-5.99	112.51	119.70
2	AA	67	ILE	CA-C-N	5.99	133.88	117.10
78	CA	171	A	O4'-C1'-C2'	-5.99	99.81	105.80
78	CA	498	G	C5-C6-O6	-5.99	125.01	128.60
78	CA	644	C	C4'-C3'-C2'	-5.99	96.61	102.60
78	CA	651	G	O4'-C1'-N9	-5.99	103.41	108.20
78	CA	1336	A	O4'-C1'-N9	-5.99	103.41	108.20
78	CA	1456	C	C3'-C2'-C1'	5.99	106.29	101.50
81	DA	183	G	C3'-C2'-C1'	-5.99	96.71	101.50
81	DA	420	G	P-O3'-C3'	5.99	126.89	119.70
81	DA	1748	G	N9-C1'-C2'	-5.99	105.41	112.00
81	DA	2190	U	C4'-C3'-C2'	-5.99	96.61	102.60
18	AP	60	PHE	CB-CA-C	-5.99	98.42	110.40
81	DA	199	A	N9-C1'-C2'	-5.99	105.41	112.00
81	DA	249	U	C5'-C4'-C3'	5.99	125.58	116.00
81	DA	701	G	O3'-P-O5'	-5.99	92.62	104.00
81	DA	2190	U	O4'-C1'-C2'	-5.99	99.81	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2879	C	O4'-C1'-N1	5.99	112.99	108.20
81	DA	3236	U	P-O5'-C5'	5.99	130.48	120.90
4	AD	130	GLN	CA-C-O	5.99	132.67	120.10
31	BB	230	VAL	CG1-CB-CG2	-5.99	101.32	110.90
81	DA	674	G	C3'-C2'-C1'	5.99	106.29	101.50
81	DA	2626	A	O4'-C1'-C2'	5.99	112.99	107.60
1	Aa	269	TYR	CB-CG-CD1	-5.99	117.41	121.00
41	BN	63	VAL	N-CA-CB	5.99	124.67	111.50
81	DA	877	C	C3'-C2'-C1'	5.99	106.29	101.50
81	DA	1235	U	N1-C1'-C2'	5.99	121.78	114.00
81	DA	2503	G	O4'-C4'-C3'	-5.99	98.02	104.00
81	DA	3371	G	C1'-O4'-C4'	-5.99	105.11	109.90
82	DB	136	G	O4'-C1'-N9	5.99	112.99	108.20
18	AP	55	ASP	O-C-N	-5.98	113.13	122.70
33	BD	342	LYS	CA-C-O	-5.98	107.53	120.10
45	BR	153	PHE	CB-CG-CD1	5.98	124.99	120.80
46	BT	94	VAL	CA-CB-CG2	-5.98	101.92	110.90
74	BQ	129	TYR	CA-C-N	5.98	130.37	117.20
78	CA	1763	A	P-O3'-C3'	5.98	126.88	119.70
81	DA	838	G	P-O5'-C5'	-5.98	111.33	120.90
81	DA	1968	G	C5'-C4'-C3'	5.98	125.57	116.00
81	DA	2211	U	N1-C1'-C2'	-5.98	105.42	112.00
33	BD	56	ALA	CB-CA-C	5.98	119.07	110.10
78	CA	1353	U	P-O3'-C3'	5.98	126.88	119.70
81	DA	2061	G	P-O3'-C3'	-5.98	112.52	119.70
81	DA	2531	C	N3-C4-N4	5.98	122.19	118.00
82	DB	146	U	O4'-C1'-N1	5.98	112.99	108.20
83	DC	12	U	N1-C1'-C2'	5.98	121.78	114.00
5	AC	15	PRO	C-N-CA	-5.98	106.75	121.70
5	AC	81	VAL	CA-CB-CG2	-5.98	101.93	110.90
78	CA	588	U	O4'-C1'-N1	5.98	112.98	108.20
78	CA	1745	G	C5'-C4'-O4'	5.98	116.28	109.10
81	DA	69	C	O4'-C1'-N1	5.98	112.98	108.20
81	DA	1561	G	C3'-C2'-C1'	-5.98	96.72	101.50
81	DA	1622	U	O4'-C4'-C3'	-5.98	98.02	104.00
81	DA	2788	C	O4'-C1'-N1	-5.98	103.42	108.20
78	CA	1722	A	O4'-C1'-N9	5.98	112.98	108.20
81	DA	1219	C	C1'-O4'-C4'	5.98	114.68	109.90
81	DA	3042	U	C3'-C2'-C1'	5.98	106.28	101.50
34	BE	16	LYS	N-CA-CB	5.98	121.36	110.60
46	BT	22	VAL	CB-CA-C	-5.98	100.04	111.40
59	Bh	102	ALA	CB-CA-C	-5.98	101.13	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1144	U	C3'-C2'-C1'	5.98	106.28	101.50
81	DA	2030	C	O4'-C1'-C2'	-5.98	99.82	105.80
81	DA	2904	U	O4'-C1'-C2'	-5.98	99.82	105.80
82	DB	11	C	O4'-C1'-C2'	-5.98	99.82	105.80
82	DB	154	C	O4'-C1'-C2'	-5.98	99.82	105.80
8	AF	135	ASP	CB-CG-OD2	-5.98	112.92	118.30
78	CA	629	U	C5'-C4'-O4'	5.98	116.27	109.10
78	CA	1304	G	O4'-C1'-N9	5.98	112.98	108.20
78	CA	1570	A	P-O3'-C3'	5.98	126.87	119.70
81	DA	172	G	O4'-C4'-C3'	-5.98	98.02	104.00
83	DC	38	U	C5'-C4'-C3'	5.98	125.56	116.00
1	Aa	59	ARG	NE-CZ-NH2	-5.97	117.31	120.30
81	DA	998	A	C5'-C4'-C3'	5.97	125.56	116.00
81	DA	1474	A	C5'-C4'-C3'	-5.97	106.44	116.00
81	DA	1790	G	C5'-C4'-C3'	-5.97	106.44	116.00
81	DA	2718	U	P-O3'-C3'	5.97	126.87	119.70
81	DA	2916	U	O5'-C5'-C4'	5.97	123.05	111.70
82	DB	22	U	O4'-C1'-N1	5.97	112.98	108.20
2	AA	175	TYR	N-CA-CB	5.97	121.35	110.60
51	BZ	30	ARG	NE-CZ-NH1	5.97	123.29	120.30
61	Bj	85	PHE	C-N-CA	5.97	136.63	121.70
81	DA	2961	G	C1'-O4'-C4'	-5.97	105.12	109.90
52	BY	11	ASP	CB-CG-OD2	5.97	123.67	118.30
60	Bi	108	GLN	CB-CA-C	-5.97	98.46	110.40
78	CA	164	A	C4'-C3'-C2'	-5.97	96.63	102.60
21	AT	32	VAL	CA-C-N	-5.97	104.07	117.20
78	CA	579	A	O4'-C1'-N9	5.97	112.97	108.20
81	DA	683	U	O4'-C1'-C2'	-5.97	99.83	105.80
81	DA	1263	A	O4'-C1'-N9	-5.97	103.42	108.20
81	DA	1996	C	C3'-C2'-C1'	5.97	106.28	101.50
81	DA	2503	G	O4'-C1'-N9	5.97	112.98	108.20
81	DA	2792	A	N9-C1'-C2'	-5.97	105.43	112.00
83	DC	51	G	C5'-C4'-C3'	-5.97	106.45	116.00
58	Bg	35	GLU	N-CA-CB	5.97	121.34	110.60
81	DA	627	U	C3'-C2'-C1'	5.97	106.27	101.50
81	DA	676	G	O4'-C1'-C2'	-5.97	99.83	105.80
33	BD	138	ARG	NE-CZ-NH1	-5.97	117.32	120.30
79	CB	25	U	C1'-O4'-C4'	-5.97	105.13	109.90
81	DA	455	C	N1-C1'-C2'	5.97	121.76	114.00
81	DA	1819	U	O4'-C1'-C2'	-5.97	99.83	105.80
81	DA	2053	C	O4'-C1'-N1	5.97	112.97	108.20
81	DA	2328	U	O4'-C1'-N1	5.97	112.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AA	15	GLN	N-CA-CB	5.96	121.34	110.60
2	AA	81	PHE	N-CA-CB	5.96	121.33	110.60
32	BC	61	ASP	N-CA-CB	5.96	121.34	110.60
36	BF	47	LYS	CB-CA-C	-5.96	98.47	110.40
69	Br	102	GLN	N-CA-C	-5.96	94.90	111.00
78	CA	1635	A	C4-C5-C6	5.96	119.98	117.00
78	CA	1756	A	P-O3'-C3'	5.96	126.86	119.70
81	DA	1338	C	P-O3'-C3'	-5.96	112.54	119.70
81	DA	1412	G	P-O5'-C5'	-5.96	111.36	120.90
81	DA	1537	A	P-O3'-C3'	5.96	126.86	119.70
81	DA	2235	C	C5'-C4'-C3'	5.96	125.54	116.00
19	AR	80	MET	CG-SD-CE	-5.96	90.66	100.20
78	CA	468	A	P-O3'-C3'	5.96	126.86	119.70
78	CA	1666	U	C5'-C4'-O4'	5.96	116.25	109.10
78	CA	1753	A	C4'-C3'-C2'	-5.96	96.64	102.60
81	DA	737	G	N3-C2-N2	5.96	124.07	119.90
31	BB	245	LEU	O-C-N	-5.96	113.16	122.70
78	CA	500	C	O3'-P-O5'	5.96	115.33	104.00
78	CA	648	G	C3'-C2'-C1'	5.96	106.27	101.50
78	CA	934	C	O4'-C1'-C2'	-5.96	99.84	105.80
79	CB	13	U	C5'-C4'-C3'	-5.96	106.46	116.00
81	DA	723	U	C5'-C4'-O4'	-5.96	101.95	109.10
81	DA	1746	U	P-O3'-C3'	5.96	126.85	119.70
81	DA	2072	G	O3'-P-O5'	5.96	115.33	104.00
81	DA	2619	G	C5'-C4'-C3'	5.96	125.54	116.00
81	DA	2938	G	O4'-C1'-C2'	-5.96	99.84	105.80
17	AQ	89	SER	N-CA-CB	5.96	119.44	110.50
35	BG	9	TRP	N-CA-CB	-5.96	99.87	110.60
63	Bm	41	PHE	CB-CG-CD1	5.96	124.97	120.80
81	DA	2020	A	C3'-C2'-C1'	5.96	106.27	101.50
81	DA	2216	G	O4'-C1'-N9	5.96	112.97	108.20
82	DB	4	C	C3'-C2'-C1'	-5.96	96.73	101.50
10	AI	86	ALA	N-CA-C	5.96	127.09	111.00
42	BM	124	ASP	CB-CG-OD2	-5.96	112.94	118.30
57	Be	30	ARG	NE-CZ-NH1	5.96	123.28	120.30
74	BQ	54	ARG	N-CA-C	5.96	127.09	111.00
76	BS	26	ILE	CB-CA-C	5.96	123.52	111.60
78	CA	223	U	C5'-C4'-O4'	-5.96	101.95	109.10
78	CA	911	U	O4'-C1'-N1	5.96	112.97	108.20
81	DA	243	G	N9-C1'-C2'	-5.96	105.44	112.00
81	DA	735	A	C4-C5-C6	5.96	119.98	117.00
81	DA	1243	G	O4'-C1'-N9	5.96	112.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2277	C	O4'-C1'-N1	5.96	112.97	108.20
81	DA	2569	A	O4'-C1'-N9	5.96	112.97	108.20
57	Be	23	ALA	C-N-CA	5.96	136.59	121.70
78	CA	836	U	C1'-O4'-C4'	5.96	114.67	109.90
78	CA	1118	G	O4'-C1'-N9	5.96	112.96	108.20
81	DA	92	G	C5'-C4'-O4'	5.96	116.25	109.10
81	DA	506	U	O4'-C1'-N1	5.96	112.97	108.20
81	DA	1578	C	C3'-C2'-C1'	5.96	106.27	101.50
81	DA	2956	A	O3'-P-O5'	5.96	115.32	104.00
81	DA	3013	U	N1-C1'-C2'	5.96	121.74	114.00
82	DB	121	U	C1'-O4'-C4'	5.96	114.67	109.90
83	DC	76	U	C3'-C2'-C1'	5.96	106.27	101.50
81	DA	246	U	C4'-C3'-C2'	-5.96	96.64	102.60
81	DA	1791	C	OP1-P-O3'	5.96	118.30	105.20
6	AE	153	SER	N-CA-CB	5.95	119.43	110.50
33	BD	318	LEU	O-C-N	-5.95	113.18	122.70
62	Bk	70	ARG	NE-CZ-NH2	-5.95	117.32	120.30
78	CA	672	U	C3'-C2'-C1'	5.95	106.26	101.50
78	CA	1394	G	C1'-O4'-C4'	-5.95	105.14	109.90
78	CA	1666	U	N1-C1'-C2'	-5.95	105.45	112.00
81	DA	241	G	C5'-C4'-O4'	-5.95	101.96	109.10
81	DA	2374	C	C5'-C4'-C3'	-5.95	106.47	116.00
81	DA	2688	U	P-O3'-C3'	5.95	126.84	119.70
81	DA	2682	C	P-O5'-C5'	5.95	130.42	120.90
40	BK	128	ARG	N-CA-C	5.95	127.07	111.00
41	BN	62	GLN	CG-CD-OE1	-5.95	109.70	121.60
78	CA	338	C	P-O5'-C5'	-5.95	111.38	120.90
78	CA	1326	A	C3'-C2'-C1'	5.95	106.26	101.50
78	CA	1709	C	C3'-C2'-C1'	5.95	106.26	101.50
81	DA	1399	A	P-O3'-C3'	-5.95	112.56	119.70
81	DA	1981	G	P-O3'-C3'	-5.95	112.56	119.70
81	DA	2729	U	P-O5'-C5'	-5.95	111.38	120.90
5	AC	16	LYS	CB-CA-C	-5.95	98.50	110.40
9	AH	108	ALA	N-CA-C	-5.95	94.94	111.00
78	CA	1039	A	O4'-C1'-N9	5.95	112.96	108.20
78	CA	1303	U	C5'-C4'-O4'	5.95	116.24	109.10
81	DA	2229	A	C1'-O4'-C4'	5.95	114.66	109.90
81	DA	2443	A	C4'-C3'-C2'	-5.95	96.65	102.60
81	DA	2827	U	O4'-C1'-C2'	-5.95	99.85	105.80
81	DA	3257	C	C5'-C4'-O4'	5.95	116.24	109.10
81	DA	3389	U	P-O5'-C5'	5.95	130.42	120.90
78	CA	1425	A	C5-C6-N1	-5.95	114.73	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	671	U	N1-C1'-C2'	-5.95	105.46	112.00
81	DA	680	G	N9-C1'-C2'	-5.95	105.46	112.00
81	DA	2592	G	C3'-C2'-C1'	5.95	106.26	101.50
36	BF	88	TYR	CB-CG-CD2	-5.95	117.43	121.00
62	Bk	55	ARG	NH1-CZ-NH2	-5.95	112.86	119.40
76	BS	32	TRP	CA-CB-CG	5.95	125.00	113.70
81	DA	2027	C	O4'-C1'-N1	5.95	112.96	108.20
81	DA	2122	G	O4'-C1'-N9	5.95	112.96	108.20
78	CA	460	A	C1'-O4'-C4'	-5.94	105.14	109.90
78	CA	1091	A	P-O3'-C3'	-5.94	112.57	119.70
81	DA	1823	A	C5'-C4'-C3'	-5.94	106.49	116.00
81	DA	2238	G	P-O5'-C5'	-5.94	111.39	120.90
81	DA	2709	C	O4'-C1'-C2'	-5.94	99.86	105.80
81	DA	3050	U	C2'-C3'-O3'	5.94	123.21	113.70
83	DC	47	C	C4'-C3'-O3'	-5.94	96.92	109.40
4	AD	240	LYS	N-CA-C	-5.94	94.95	111.00
33	BD	145	ILE	CA-CB-CG2	5.94	122.78	110.90
46	BT	8	LYS	CB-CA-C	-5.94	98.52	110.40
81	DA	1227	C	O4'-C1'-N1	5.94	112.95	108.20
81	DA	2274	U	O4'-C1'-N1	5.94	112.95	108.20
78	CA	966	A	N9-C1'-C2'	-5.94	105.47	112.00
81	DA	131	C	C3'-C2'-C1'	5.94	106.25	101.50
81	DA	244	G	C1'-O4'-C4'	-5.94	105.15	109.90
81	DA	799	G	C1'-O4'-C4'	5.94	114.65	109.90
81	DA	1292	C	O4'-C1'-C2'	-5.94	99.86	105.80
81	DA	2350	C	O4'-C1'-C2'	-5.94	99.86	105.80
81	DA	2665	U	C3'-C2'-C1'	-5.94	96.75	101.50
81	DA	2882	U	C5'-C4'-C3'	5.94	125.50	116.00
78	CA	488	G	P-O3'-C3'	5.94	126.83	119.70
78	CA	1131	A	P-O3'-C3'	5.94	126.83	119.70
6	AE	174	ARG	O-C-N	-5.94	113.11	123.20
78	CA	507	U	O3'-P-O5'	-5.94	92.72	104.00
78	CA	569	C	N3-C4-C5	-5.94	119.53	121.90
78	CA	1645	G	O4'-C1'-N9	5.94	112.95	108.20
81	DA	785	G	C1'-O4'-C4'	5.94	114.65	109.90
81	DA	808	A	O3'-P-O5'	-5.94	92.72	104.00
78	CA	1339	C	C4'-C3'-C2'	-5.94	96.66	102.60
35	BG	151	LYS	N-CA-CB	5.93	121.28	110.60
43	BP	77	LYS	N-CA-CB	5.93	121.28	110.60
48	BW	78	TYR	CB-CG-CD1	-5.93	117.44	121.00
55	Bc	116	TYR	CG-CD2-CE2	-5.93	116.55	121.30
74	BQ	240	TYR	CB-CG-CD1	-5.93	117.44	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	297	U	C5'-C4'-C3'	5.93	125.49	116.00
81	DA	646	A	N9-C1'-C2'	5.93	121.71	114.00
81	DA	916	G	N9-C1'-C2'	-5.93	105.47	112.00
81	DA	2500	A	O3'-P-O5'	-5.93	92.72	104.00
83	DC	29	C	N1-C1'-C2'	5.93	121.72	114.00
5	AC	149	ARG	NH1-CZ-NH2	-5.93	112.88	119.40
46	BT	124	TYR	CG-CD1-CE1	-5.93	116.55	121.30
64	Bl	72	ARG	NE-CZ-NH2	-5.93	117.33	120.30
81	DA	617	G	O4'-C1'-N9	5.93	112.94	108.20
81	DA	1768	U	N3-C4-O4	5.93	123.55	119.40
5	AC	17	ARG	C-N-CD	-5.93	107.55	120.60
33	BD	302	ALA	CB-CA-C	-5.93	101.20	110.10
81	DA	1290	A	N9-C1'-C2'	-5.93	105.48	112.00
31	BB	40	TYR	CB-CG-CD2	-5.93	117.44	121.00
31	BB	63	PHE	CB-CG-CD1	-5.93	116.65	120.80
41	BN	5	SER	N-CA-CB	5.93	119.39	110.50
45	BR	102	ALA	N-CA-CB	5.93	118.40	110.10
55	Bc	41	LEU	CA-CB-CG	-5.93	101.66	115.30
78	CA	1653	C	C3'-C2'-C1'	5.93	106.24	101.50
81	DA	1193	A	P-O3'-C3'	-5.93	112.58	119.70
81	DA	1262	G	OP1-P-OP2	-5.93	110.70	119.60
81	DA	1653	G	N9-C1'-C2'	5.93	121.71	114.00
81	DA	2270	A	C3'-C2'-C1'	5.93	106.24	101.50
81	DA	2317	A	C3'-C2'-C1'	5.93	106.24	101.50
61	Bj	86	ARG	NE-CZ-NH1	5.93	123.26	120.30
81	DA	243	G	O4'-C1'-C2'	5.93	112.94	107.60
81	DA	699	A	C5'-C4'-O4'	5.93	116.21	109.10
81	DA	727	G	C3'-C2'-C1'	5.93	106.24	101.50
81	DA	2146	C	N1-C1'-C2'	5.93	121.71	114.00
81	DA	3080	G	C3'-C2'-C1'	5.93	106.24	101.50
78	CA	1719	A	C5'-C4'-C3'	5.93	125.48	116.00
81	DA	544	C	O4'-C1'-C2'	-5.93	99.87	105.80
81	DA	2546	C	N3-C4-C5	-5.93	119.53	121.90
81	DA	2711	C	C3'-C2'-C1'	5.93	106.24	101.50
81	DA	3289	G	O4'-C1'-N9	5.93	112.94	108.20
55	Bc	96	GLU	N-CA-CB	5.92	121.26	110.60
78	CA	1637	C	C2-N1-C1'	5.92	125.32	118.80
81	DA	1932	A	O4'-C1'-N9	5.92	112.94	108.20
81	DA	2534	G	C5-C6-O6	-5.92	125.05	128.60
81	DA	3298	C	N1-C1'-C2'	5.92	121.70	114.00
9	AH	97	ARG	NE-CZ-NH1	5.92	123.26	120.30
24	AX	75	GLU	N-CA-C	-5.92	95.01	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	979	A	C3'-C2'-C1'	5.92	106.24	101.50
78	CA	1401	A	O4'-C1'-N9	5.92	112.94	108.20
81	DA	2129	U	O4'-C1'-N1	5.92	112.94	108.20
81	DA	3303	G	O4'-C1'-C2'	5.92	112.93	107.60
30	BA	24	LYS	CB-CA-C	5.92	122.24	110.40
34	BE	168	ASP	CB-CG-OD2	-5.92	112.97	118.30
81	DA	253	A	N9-C1'-C2'	-5.92	105.49	112.00
10	AI	120	ASP	N-CA-CB	5.92	121.25	110.60
40	BK	87	MET	CG-SD-CE	-5.92	90.73	100.20
49	BV	165	VAL	CA-C-N	5.92	130.22	117.20
76	BS	9	TYR	CB-CG-CD2	-5.92	117.45	121.00
81	DA	281	G	O4'-C1'-N9	5.92	112.94	108.20
81	DA	1886	A	C3'-C2'-C1'	5.92	106.23	101.50
81	DA	2455	U	O3'-P-O5'	-5.92	92.75	104.00
81	DA	3117	C	N1-C1'-C2'	5.92	121.69	114.00
35	BG	176	PHE	CB-CG-CD1	5.92	124.94	120.80
78	CA	257	A	C5'-C4'-C3'	5.92	125.47	116.00
78	CA	313	U	N1-C1'-C2'	-5.92	105.49	112.00
81	DA	942	U	O4'-C1'-N1	5.92	112.93	108.20
81	DA	1234	G	P-O5'-C5'	-5.92	111.43	120.90
81	DA	1956	A	O4'-C1'-C2'	-5.92	99.88	105.80
81	DA	2147	A	P-O3'-C3'	-5.92	112.60	119.70
81	DA	2633	U	O3'-P-O5'	5.92	115.24	104.00
5	AC	189	ASP	C-N-CA	5.92	136.49	121.70
13	AL	110	LYS	N-CA-C	-5.92	95.03	111.00
14	AM	99	HIS	N-CA-CB	-5.92	99.95	110.60
43	BP	179	LYS	CB-CA-C	5.92	122.23	110.40
78	CA	1069	A	C5-C6-N1	-5.92	114.74	117.70
53	Ba	57	HIS	CB-CG-CD2	-5.91	112.47	130.80
65	Bn	17	ARG	NE-CZ-NH1	5.91	123.26	120.30
62	Bk	28	TYR	CB-CG-CD2	5.91	124.55	121.00
78	CA	1600	A	N9-C1'-C2'	-5.91	105.50	112.00
81	DA	2369	G	O4'-C1'-C2'	-5.91	99.89	105.80
17	AQ	21	TYR	CB-CG-CD1	5.91	124.55	121.00
20	AS	87	GLY	C-N-CA	5.91	136.48	121.70
21	AT	44	ARG	CA-CB-CG	5.91	126.40	113.40
32	BC	346	THR	N-CA-CB	5.91	121.53	110.30
78	CA	948	G	C3'-C2'-C1'	-5.91	96.77	101.50
81	DA	214	G	C1'-O4'-C4'	5.91	114.63	109.90
81	DA	1017	C	N1-C1'-C2'	5.91	121.69	114.00
81	DA	1269	U	P-O3'-C3'	5.91	126.79	119.70
81	DA	2037	G	O4'-C1'-N9	5.91	112.93	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3042	U	C5'-C4'-O4'	5.91	116.19	109.10
20	AS	11	ALA	CB-CA-C	-5.91	101.24	110.10
48	BW	100	THR	N-CA-C	-5.91	95.05	111.00
55	Bc	95	PHE	CB-CG-CD2	5.91	124.94	120.80
78	CA	783	G	C5'-C4'-C3'	5.91	125.45	116.00
78	CA	846	G	P-O5'-C5'	-5.91	111.44	120.90
78	CA	1104	U	N1-C1'-C2'	5.91	121.68	114.00
78	CA	1356	U	N1-C1'-C2'	5.91	121.68	114.00
78	CA	1400	A	C1'-O4'-C4'	-5.91	105.17	109.90
78	CA	1721	A	C1'-O4'-C4'	5.91	114.63	109.90
81	DA	539	C	O4'-C1'-N1	5.91	112.93	108.20
81	DA	1016	C	C3'-C2'-C1'	5.91	106.23	101.50
81	DA	3002	C	O4'-C4'-C3'	-5.91	98.09	104.00
81	DA	3047	U	O4'-C1'-C2'	-5.91	99.89	105.80
82	DB	59	A	N9-C1'-C2'	5.91	121.68	114.00
77	BI	119	TRP	CB-CA-C	-5.91	98.58	110.40
81	DA	1368	U	O4'-C1'-C2'	-5.91	99.89	105.80
57	Be	138	TYR	CB-CG-CD1	5.91	124.54	121.00
81	DA	728	G	P-O5'-C5'	-5.91	111.45	120.90
81	DA	1323	G	C3'-C2'-C1'	-5.91	96.78	101.50
81	DA	1602	A	P-O3'-C3'	5.91	126.79	119.70
81	DA	2563	G	C5-C6-O6	-5.91	125.06	128.60
81	DA	2691	A	C5'-C4'-C3'	5.91	125.45	116.00
81	DA	2697	A	C5'-C4'-C3'	-5.91	106.55	116.00
78	CA	637	C	O4'-C1'-N1	5.90	112.92	108.20
78	CA	1635	A	C5-C6-N6	-5.90	118.98	123.70
81	DA	1293	U	O3'-P-O5'	-5.90	92.78	104.00
81	DA	1814	A	C3'-C2'-C1'	-5.90	96.78	101.50
81	DA	2535	A	O4'-C4'-C3'	-5.90	98.10	104.00
82	DB	62	C	O4'-C1'-C2'	5.90	112.91	107.60
18	AP	40	LEU	N-CA-C	-5.90	95.06	111.00
30	BA	107	TYR	CB-CG-CD1	5.90	124.54	121.00
35	BG	92	SER	C-N-CA	5.90	136.46	121.70
49	BV	126	ARG	NE-CZ-NH1	5.90	123.25	120.30
63	Bm	4	ARG	NE-CZ-NH2	-5.90	117.35	120.30
81	DA	2479	C	P-O3'-C3'	-5.90	112.62	119.70
39	BJ	76	SER	CA-CB-OG	5.90	127.13	111.20
51	BZ	68	ALA	N-CA-CB	5.90	118.36	110.10
78	CA	417	A	O4'-C1'-N9	-5.90	103.48	108.20
78	CA	1635	A	O4'-C1'-N9	5.90	112.92	108.20
81	DA	2214	A	O4'-C1'-N9	5.90	112.92	108.20
81	DA	2293	C	C3'-C2'-C1'	5.90	106.22	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	AU	49	LYS	N-CA-C	-5.90	95.07	111.00
81	DA	1407	A	C3'-C2'-C1'	5.90	106.22	101.50
81	DA	1784	G	O4'-C4'-C3'	-5.90	98.10	104.00
78	CA	152	U	P-O3'-C3'	-5.90	112.62	119.70
78	CA	1673	G	O3'-P-O5'	-5.90	92.79	104.00
81	DA	1871	U	C1'-O4'-C4'	-5.90	105.18	109.90
16	AO	110	ASP	CB-CG-OD1	5.90	123.61	118.30
72	Bu	60	ASN	C-N-CA	-5.90	106.96	121.70
79	CB	29	C	O4'-C1'-N1	5.90	112.92	108.20
81	DA	1144	U	C2'-C3'-O3'	5.90	123.13	113.70
78	CA	189	C	N1-C1'-C2'	-5.89	105.52	112.00
78	CA	1157	A	C3'-C2'-C1'	5.89	106.22	101.50
81	DA	63	A	P-O5'-C5'	-5.89	111.47	120.90
81	DA	252	U	C5'-C4'-C3'	5.89	125.43	116.00
81	DA	276	U	P-O3'-C3'	-5.89	112.63	119.70
81	DA	1478	C	C4'-C3'-C2'	-5.89	96.71	102.60
81	DA	2345	A	O4'-C1'-C2'	5.89	112.91	107.60
81	DA	3245	A	C3'-C2'-C1'	-5.89	96.78	101.50
82	DB	143	U	O4'-C1'-N1	5.89	112.92	108.20
83	DC	89	A	O4'-C1'-C2'	-5.89	99.91	105.80
31	BB	83	HIS	CB-CA-C	-5.89	98.61	110.40
37	BH	229	VAL	CB-CA-C	-5.89	100.20	111.40
40	BK	127	LEU	N-CA-CB	5.89	122.19	110.40
78	CA	30	G	O3'-P-O5'	-5.89	92.81	104.00
78	CA	560	U	O3'-P-O5'	-5.89	92.81	104.00
81	DA	1263	A	C1'-O4'-C4'	-5.89	105.19	109.90
81	DA	1534	A	N9-C1'-C2'	-5.89	105.52	112.00
37	BH	88	ALA	N-CA-CB	5.89	118.35	110.10
78	CA	150	U	C2'-C3'-O3'	5.89	123.13	113.70
78	CA	1640	C	N3-C4-N4	5.89	122.12	118.00
81	DA	2617	U	O4'-C1'-C2'	-5.89	99.91	105.80
81	DA	3099	C	C5'-C4'-O4'	-5.89	102.03	109.10
81	DA	3335	A	N9-C1'-C2'	5.89	121.66	114.00
42	BM	85	TRP	CB-CG-CD2	-5.89	118.94	126.60
78	CA	1534	G	C5'-C4'-O4'	5.89	116.17	109.10
81	DA	1907	C	N1-C1'-C2'	5.89	121.66	114.00
81	DA	2449	A	O4'-C1'-C2'	-5.89	99.91	105.80
8	AF	76	ARG	NE-CZ-NH1	5.89	123.24	120.30
14	AM	53	ASP	CB-CG-OD1	-5.89	113.00	118.30
74	BQ	12	TYR	CD1-CE1-CZ	-5.89	114.50	119.80
78	CA	1428	G	C5-C6-O6	-5.89	125.07	128.60
81	DA	751	A	O3'-P-O5'	-5.89	92.81	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2798	C	C3'-C2'-C1'	5.89	106.21	101.50
81	DA	3212	C	O5'-C5'-C4'	5.89	122.88	111.70
83	DC	34	C	O4'-C1'-N1	5.89	112.91	108.20
6	AE	196	VAL	CA-CB-CG1	-5.88	102.07	110.90
12	AK	37	GLU	N-CA-CB	5.88	121.19	110.60
29	AU	89	TYR	CA-CB-CG	5.88	124.58	113.40
53	Ba	91	ALA	CB-CA-C	-5.88	101.27	110.10
74	BQ	260	PHE	CB-CG-CD1	-5.88	116.68	120.80
81	DA	1706	C	C3'-C2'-C1'	5.88	106.21	101.50
81	DA	1943	C	C3'-C2'-C1'	5.88	106.21	101.50
81	DA	2477	G	C5'-C4'-O4'	5.88	116.16	109.10
81	DA	2774	C	N1-C1'-C2'	5.88	121.65	114.00
81	DA	2837	A	O4'-C1'-C2'	-5.88	99.92	105.80
83	DC	103	U	C3'-C2'-C1'	5.88	106.21	101.50
40	BK	162	VAL	CG1-CB-CG2	5.88	120.31	110.90
49	BV	113	TYR	CA-CB-CG	5.88	124.58	113.40
78	CA	483	A	C5-C6-N6	-5.88	118.99	123.70
81	DA	275	U	C3'-C2'-C1'	5.88	106.21	101.50
81	DA	2074	C	N1-C1'-C2'	5.88	121.65	114.00
81	DA	2296	A	O4'-C1'-N9	5.88	112.91	108.20
17	AQ	81	LYS	CB-CA-C	-5.88	98.64	110.40
32	BC	118	PHE	CA-CB-CG	5.88	128.01	113.90
37	BH	61	GLN	O-C-N	-5.88	113.29	122.70
43	BP	193	ARG	NE-CZ-NH2	-5.88	117.36	120.30
79	CB	10	G	C5'-C4'-C3'	-5.88	106.59	116.00
81	DA	820	A	P-O3'-C3'	-5.88	112.64	119.70
81	DA	1518	U	O4'-C1'-N1	5.88	112.91	108.20
81	DA	1622	U	O4'-C1'-C2'	-5.88	99.92	105.80
81	DA	1883	A	O4'-C1'-C2'	-5.88	99.92	105.80
81	DA	2599	U	O4'-C1'-N1	5.88	112.91	108.20
81	DA	2704	A	C1'-O4'-C4'	5.88	114.61	109.90
82	DB	130	C	P-O5'-C5'	5.88	130.31	120.90
78	CA	854	U	C5'-C4'-O4'	5.88	116.16	109.10
79	CB	6	G	N9-C1'-C2'	5.88	121.64	114.00
81	DA	1018	G	O4'-C1'-N9	5.88	112.90	108.20
81	DA	2124	G	C3'-C2'-C1'	-5.88	96.80	101.50
24	AX	53	ALA	N-CA-CB	5.88	118.33	110.10
63	Bm	17	ARG	N-CA-CB	-5.88	100.02	110.60
69	Br	26	THR	CA-CB-CG2	-5.88	104.17	112.40
81	DA	715	A	C3'-C2'-C1'	-5.88	96.80	101.50
81	DA	1716	U	C1'-O4'-C4'	5.88	114.60	109.90
81	DA	2210	G	C5'-C4'-C3'	5.88	125.40	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	60	U	N1-C1'-C2'	-5.88	105.54	112.00
82	DB	134	G	P-O5'-C5'	-5.88	111.50	120.90
37	BH	62	LYS	N-CA-C	-5.88	95.14	111.00
78	CA	226	A	P-O5'-C5'	5.88	130.30	120.90
78	CA	571	G	C3'-C2'-C1'	5.88	106.20	101.50
78	CA	1070	C	N3-C4-C5	-5.88	119.55	121.90
81	DA	2313	A	P-O5'-C5'	-5.88	111.50	120.90
81	DA	2356	A	O4'-C1'-N9	5.88	112.90	108.20
9	AH	69	LEU	CA-CB-CG	5.87	128.81	115.30
20	AS	69	LYS	N-CA-CB	5.87	121.17	110.60
76	BS	92	MET	CG-SD-CE	-5.87	90.80	100.20
78	CA	1201	G	N9-C1'-C2'	5.87	121.64	114.00
81	DA	1477	A	C5'-C4'-C3'	-5.87	106.60	116.00
17	AQ	58	MET	CG-SD-CE	-5.87	90.80	100.20
29	AU	71	GLY	C-N-CA	5.87	136.38	121.70
78	CA	567	A	C4-C5-C6	5.87	119.94	117.00
78	CA	1438	G	O4'-C1'-N9	5.87	112.90	108.20
81	DA	178	U	O4'-C1'-C2'	-5.87	99.93	105.80
81	DA	500	C	O4'-C1'-N1	5.87	112.90	108.20
81	DA	2443	A	C3'-C2'-C1'	5.87	106.20	101.50
81	DA	736	A	C4-C5-C6	5.87	119.94	117.00
81	DA	2047	A	P-O3'-C3'	5.87	126.75	119.70
82	DB	86	U	C1'-O4'-C4'	5.87	114.60	109.90
6	AE	100	ALA	N-CA-CB	5.87	118.31	110.10
55	Bc	95	PHE	CB-CG-CD1	-5.87	116.69	120.80
78	CA	204	G	P-O3'-C3'	-5.87	112.66	119.70
78	CA	213	A	C5-C6-N1	-5.87	114.77	117.70
81	DA	329	U	C1'-O4'-C4'	-5.87	105.20	109.90
81	DA	838	G	C5'-C4'-O4'	-5.87	102.06	109.10
81	DA	3094	A	C1'-O4'-C4'	-5.87	105.21	109.90
78	CA	385	A	P-O3'-C3'	-5.87	112.66	119.70
81	DA	2839	G	O4'-C1'-N9	5.87	112.89	108.20
22	AV	59	TYR	N-CA-CB	5.87	121.16	110.60
43	BP	71	ARG	NE-CZ-NH2	5.87	123.23	120.30
47	BU	159	PHE	CB-CG-CD2	-5.87	116.69	120.80
62	Bk	81	THR	C-N-CA	-5.87	107.04	121.70
76	BS	120	PHE	CA-C-O	-5.87	107.78	120.10
78	CA	225	A	OP1-P-OP2	-5.87	110.80	119.60
81	DA	313	A	N9-C1'-C2'	-5.87	105.55	112.00
81	DA	528	U	P-O3'-C3'	-5.87	112.66	119.70
32	BC	9	PRO	N-CD-CG	5.86	111.99	103.20
32	BC	18	PRO	N-CD-CG	-5.86	94.41	103.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	BZ	60	LYS	N-CA-C	-5.86	95.17	111.00
81	DA	63	A	C3'-C2'-C1'	-5.86	96.81	101.50
81	DA	524	U	C4'-C3'-C2'	-5.86	96.74	102.60
81	DA	599	C	O4'-C1'-C2'	-5.86	99.94	105.80
81	DA	697	A	C3'-C2'-C1'	5.86	106.19	101.50
81	DA	3391	A	O3'-P-O5'	-5.86	92.86	104.00
81	DA	164	A	C5-C6-N1	-5.86	114.77	117.70
81	DA	1416	C	C3'-C2'-C1'	5.86	106.19	101.50
81	DA	1633	C	C5'-C4'-O4'	5.86	116.13	109.10
14	AM	93	THR	N-CA-CB	5.86	121.44	110.30
61	Bj	33	GLU	OE1-CD-OE2	5.86	130.33	123.30
78	CA	1408	G	C2'-C3'-O3'	5.86	123.08	113.70
81	DA	1817	G	C5'-C4'-O4'	5.86	116.13	109.10
81	DA	2281	A	O4'-C1'-N9	5.86	112.89	108.20
81	DA	2742	C	P-O5'-C5'	5.86	130.28	120.90
81	DA	3232	G	P-O3'-C3'	-5.86	112.67	119.70
5	AC	39	LYS	N-CA-CB	5.86	121.15	110.60
62	Bk	56	ARG	NE-CZ-NH1	-5.86	117.37	120.30
81	DA	682	U	N1-C1'-C2'	5.86	121.62	114.00
81	DA	2190	U	O4'-C1'-N1	5.86	112.89	108.20
33	BD	326	ARG	NE-CZ-NH2	-5.86	117.37	120.30
78	CA	206	A	C3'-C2'-C1'	5.86	106.19	101.50
78	CA	535	A	O5'-C5'-C4'	5.86	122.83	111.70
78	CA	1389	C	N1-C1'-C2'	5.86	121.61	114.00
81	DA	163	C	C5'-C4'-C3'	-5.86	106.63	116.00
81	DA	1059	G	N9-C1'-C2'	5.86	121.62	114.00
81	DA	2407	C	P-O5'-C5'	5.86	130.27	120.90
81	DA	2514	U	N1-C1'-C2'	-5.86	105.56	112.00
81	DA	2622	C	C1'-O4'-C4'	-5.86	105.21	109.90
83	DC	82	A	O4'-C1'-N9	5.86	112.89	108.20
5	AC	3	ARG	O-C-N	-5.86	113.33	122.70
48	BW	91	ASP	C-N-CA	5.86	136.34	121.70
78	CA	409	C	O4'-C1'-N1	5.86	112.88	108.20
81	DA	162	G	P-O5'-C5'	5.86	130.27	120.90
81	DA	700	C	C1'-O4'-C4'	5.86	114.58	109.90
81	DA	1244	A	P-O3'-C3'	5.86	126.73	119.70
81	DA	2417	U	N1-C1'-C2'	5.86	121.61	114.00
81	DA	2579	G	OP2-P-O3'	5.86	118.08	105.20
83	DC	117	C	O4'-C1'-N1	5.86	112.88	108.20
57	Be	85	PHE	CB-CG-CD2	-5.85	116.70	120.80
78	CA	386	G	C3'-C2'-C1'	5.85	106.18	101.50
78	CA	522	U	P-O5'-C5'	-5.85	111.53	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2190	U	P-O3'-C3'	5.85	126.72	119.70
81	DA	2495	C	O4'-C1'-N1	5.85	112.88	108.20
25	AY	20	GLY	N-CA-C	-5.85	98.47	113.10
55	Bc	96	GLU	CA-C-O	-5.85	107.81	120.10
79	CB	13	U	C2'-C3'-O3'	5.85	123.06	113.70
81	DA	68	C	C1'-O4'-C4'	-5.85	105.22	109.90
43	BP	131	GLU	N-CA-CB	5.85	121.13	110.60
76	BS	156	ARG	N-CA-CB	5.85	121.13	110.60
78	CA	681	U	P-O3'-C3'	5.85	126.72	119.70
81	DA	2	U	O4'-C1'-C2'	-5.85	99.95	105.80
81	DA	72	C	C5'-C4'-C3'	-5.85	106.64	116.00
81	DA	677	A	C5'-C4'-O4'	5.85	116.12	109.10
81	DA	1514	G	O4'-C1'-N9	5.85	112.88	108.20
78	CA	1289	U	O4'-C1'-N1	5.85	112.88	108.20
81	DA	2545	C	N3-C4-C5	-5.85	119.56	121.90
4	AD	240	LYS	O-C-N	-5.85	113.26	123.20
5	AC	15	PRO	N-CA-CB	5.85	110.32	103.30
13	AL	123	LYS	O-C-N	-5.85	113.34	122.70
43	BP	74	PRO	CA-N-CD	5.85	119.89	111.70
43	BP	134	LEU	N-CA-CB	5.85	122.09	110.40
81	DA	458	U	O4'-C1'-N1	5.85	112.88	108.20
81	DA	967	A	O4'-C1'-C2'	-5.85	99.95	105.80
81	DA	1171	G	O4'-C1'-N9	5.85	112.88	108.20
81	DA	1769	G	O4'-C1'-N9	5.85	112.88	108.20
81	DA	1824	U	P-O5'-C5'	5.85	130.25	120.90
81	DA	2218	G	O4'-C1'-C2'	5.85	112.86	107.60
81	DA	3372	A	C3'-C2'-C1'	5.85	106.18	101.50
4	AD	218	PHE	CG-CD2-CE2	5.85	127.23	120.80
78	CA	151	G	O4'-C1'-N9	5.85	112.88	108.20
78	CA	304	U	C1'-O4'-C4'	5.85	114.58	109.90
81	DA	2527	G	O4'-C1'-C2'	5.85	112.86	107.60
76	BS	67	PHE	CB-CA-C	-5.84	98.71	110.40
81	DA	603	A	C3'-C2'-C1'	5.84	106.17	101.50
81	DA	726	G	N9-C1'-C2'	5.84	121.60	114.00
81	DA	1211	U	C1'-O4'-C4'	-5.84	105.22	109.90
81	DA	2046	U	C3'-C2'-C1'	-5.84	96.82	101.50
81	DA	3019	U	C3'-C2'-C1'	5.84	106.18	101.50
78	CA	872	G	P-O3'-C3'	5.84	126.71	119.70
79	CB	8	U	C1'-O4'-C4'	5.84	114.57	109.90
81	DA	839	C	O4'-C1'-C2'	-5.84	99.96	105.80
81	DA	1427	U	O3'-P-O5'	5.84	115.10	104.00
32	BC	4	ARG	N-CA-C	-5.84	95.22	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	Ba	76	ASN	N-CA-CB	5.84	121.11	110.60
59	Bh	104	ASN	CA-CB-CG	-5.84	100.55	113.40
78	CA	1237	G	O4'-C1'-C2'	-5.84	99.96	105.80
81	DA	720	A	O4'-C1'-C2'	-5.84	99.96	105.80
81	DA	1072	G	O4'-C1'-C2'	5.84	112.86	107.60
81	DA	1894	U	O3'-P-O5'	-5.84	92.90	104.00
81	DA	2452	G	C3'-C2'-C1'	5.84	106.17	101.50
64	Bl	64	MET	CG-SD-CE	-5.84	90.86	100.20
78	CA	98	U	O4'-C1'-N1	5.84	112.87	108.20
78	CA	1154	G	P-O3'-C3'	5.84	126.71	119.70
78	CA	1291	G	N9-C1'-C2'	5.84	121.59	114.00
78	CA	1566	U	C5'-C4'-C3'	5.84	125.34	116.00
81	DA	732	C	N3-C4-C5	-5.84	119.56	121.90
81	DA	738	A	C5-C6-N6	-5.84	119.03	123.70
81	DA	801	A	O5'-P-OP1	-5.84	100.44	105.70
81	DA	3060	C	P-O3'-C3'	-5.84	112.69	119.70
38	Bs	101	VAL	CA-CB-CG2	-5.84	102.14	110.90
74	BQ	60	ILE	CA-CB-CG1	5.84	122.09	111.00
81	DA	1376	C	N1-C1'-C2'	5.84	121.59	114.00
81	DA	1777	U	P-O5'-C5'	5.84	130.24	120.90
81	DA	3083	G	O4'-C1'-N9	5.84	112.87	108.20
9	AH	8	ALA	N-CA-CB	5.84	118.27	110.10
31	BB	76	PHE	CB-CG-CD2	-5.84	116.71	120.80
32	BC	130	PHE	CB-CG-CD1	5.84	124.89	120.80
78	CA	229	U	P-O5'-C5'	-5.84	111.56	120.90
78	CA	401	A	P-O3'-C3'	5.84	126.70	119.70
78	CA	1562	G	P-O3'-C3'	-5.84	112.70	119.70
81	DA	269	G	P-O3'-C3'	5.84	126.70	119.70
82	DB	134	G	C4'-C3'-C2'	-5.84	96.76	102.60
32	BC	298	PHE	CB-CA-C	-5.83	98.73	110.40
16	AO	117	LEU	N-CA-CB	5.83	122.07	110.40
16	AO	118	ILE	CB-CA-C	5.83	123.27	111.60
32	BC	281	LYS	CA-CB-CG	5.83	126.23	113.40
47	BU	8	ARG	CB-CA-C	-5.83	98.73	110.40
81	DA	373	A	C3'-C2'-C1'	5.83	106.17	101.50
81	DA	1001	G	O4'-C1'-C2'	5.83	112.85	107.60
81	DA	2376	G	O5'-P-OP2	-5.83	100.45	105.70
81	DA	2577	C	N3-C4-C5	-5.83	119.57	121.90
81	DA	2621	G	P-O3'-C3'	5.83	126.70	119.70
5	AC	16	LYS	O-C-N	-5.83	113.37	122.70
78	CA	1005	A	O4'-C1'-N9	-5.83	103.53	108.20
81	DA	2354	C	C5'-C4'-C3'	-5.83	106.67	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3296	A	P-O5'-C5'	5.83	130.23	120.90
78	CA	232	U	P-O3'-C3'	-5.83	112.70	119.70
78	CA	642	G	O4'-C1'-C2'	-5.83	99.97	105.80
81	DA	263	C	C3'-C2'-C1'	5.83	106.16	101.50
81	DA	626	U	P-O3'-C3'	-5.83	112.70	119.70
81	DA	869	G	O3'-P-O5'	-5.83	92.92	104.00
81	DA	2020	A	O4'-C1'-N9	5.83	112.86	108.20
81	DA	2632	G	C3'-C2'-C1'	-5.83	96.84	101.50
81	DA	3078	U	O4'-C1'-N1	-5.83	103.54	108.20
78	CA	1341	A	C4'-C3'-C2'	-5.83	96.77	102.60
81	DA	523	A	O4'-C1'-C2'	-5.83	99.97	105.80
81	DA	662	U	O3'-P-O5'	-5.83	92.93	104.00
81	DA	1257	C	C1'-O4'-C4'	-5.83	105.24	109.90
81	DA	1374	G	O4'-C1'-N9	5.83	112.86	108.20
81	DA	1677	G	C1'-O4'-C4'	-5.83	105.24	109.90
19	AR	130	ARG	NE-CZ-NH1	5.83	123.21	120.30
78	CA	506	A	P-O3'-C3'	5.83	126.69	119.70
81	DA	1260	A	OP1-P-OP2	-5.83	110.86	119.60
81	DA	3311	C	C1'-O4'-C4'	-5.83	105.24	109.90
11	AJ	23	ARG	NH1-CZ-NH2	5.83	125.81	119.40
65	Bn	75	VAL	N-CA-CB	5.83	124.32	111.50
81	DA	1728	G	C3'-C2'-C1'	-5.83	96.84	101.50
81	DA	2880	U	O4'-C1'-N1	-5.83	103.54	108.20
1	Aa	31	ASN	N-CA-C	-5.82	95.28	111.00
6	AE	143	TYR	CB-CG-CD2	5.82	124.49	121.00
42	BM	128	ARG	NE-CZ-NH2	5.82	123.21	120.30
53	Ba	74	VAL	CA-CB-CG1	-5.82	102.16	110.90
61	Bj	99	ARG	NE-CZ-NH1	5.82	123.21	120.30
81	DA	843	A	C1'-O4'-C4'	5.82	114.56	109.90
78	CA	205	U	C4'-C3'-C2'	-5.82	96.78	102.60
78	CA	342	C	O4'-C1'-C2'	-5.82	99.98	105.80
78	CA	867	G	N9-C1'-C2'	-5.82	105.60	112.00
78	CA	1073	G	O4'-C1'-N9	5.82	112.86	108.20
78	CA	1775	U	O3'-P-O5'	5.82	115.06	104.00
81	DA	2647	A	O3'-P-O5'	-5.82	92.94	104.00
4	AD	132	GLY	C-N-CA	5.82	136.25	121.70
17	AQ	28	PHE	CB-CG-CD1	-5.82	116.72	120.80
57	Be	203	TRP	CB-CG-CD1	5.82	134.57	127.00
59	Bh	20	HIS	CA-CB-CG	5.82	123.50	113.60
78	CA	1639	C	N3-C4-N4	5.82	122.07	118.00
81	DA	2174	G	C5'-C4'-O4'	-5.82	102.12	109.10
82	DB	27	U	P-O3'-C3'	5.82	126.69	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2377	G	C4'-C3'-C2'	5.82	108.42	102.60
53	Ba	96	VAL	CA-CB-CG1	5.82	119.63	110.90
56	Bf	59	TYR	CB-CG-CD2	-5.82	117.51	121.00
78	CA	891	A	C4'-C3'-C2'	-5.82	96.78	102.60
78	CA	1113	A	C3'-C2'-C1'	-5.82	96.85	101.50
81	DA	1058	U	O4'-C1'-C2'	-5.82	99.98	105.80
81	DA	1537	A	C3'-C2'-C1'	5.82	106.15	101.50
81	DA	1923	C	O4'-C1'-N1	5.82	112.85	108.20
81	DA	3075	G	O4'-C1'-N9	5.82	112.86	108.20
12	AK	106	ALA	N-CA-CB	5.82	118.24	110.10
22	AV	30	LYS	CA-CB-CG	5.82	126.19	113.40
43	BP	16	SER	N-CA-CB	-5.82	101.78	110.50
64	Bl	3	LYS	N-CA-C	-5.82	95.30	111.00
78	CA	254	A	O4'-C1'-C2'	-5.82	99.98	105.80
78	CA	1294	G	O4'-C1'-N9	5.82	112.85	108.20
78	CA	1644	C	O4'-C1'-C2'	-5.82	99.98	105.80
81	DA	467	U	O4'-C1'-N1	5.82	112.85	108.20
81	DA	1206	G	O5'-C5'-C4'	-5.82	100.65	111.70
81	DA	1627	U	P-O3'-C3'	-5.82	112.72	119.70
81	DA	2039	C	O4'-C1'-C2'	-5.82	99.98	105.80
81	DA	2240	G	P-O3'-C3'	-5.82	112.72	119.70
81	DA	2327	U	O4'-C1'-N1	5.82	112.85	108.20
81	DA	3143	C	O4'-C1'-C2'	-5.82	99.98	105.80
20	AS	66	TYR	CG-CD1-CE1	-5.81	116.65	121.30
78	CA	1655	A	P-O3'-C3'	-5.81	112.72	119.70
81	DA	645	A	C1'-O4'-C4'	5.81	114.55	109.90
81	DA	1783	U	C4'-C3'-O3'	5.81	124.63	113.00
38	Bs	26	PHE	N-CA-CB	5.81	121.06	110.60
67	Bp	46	ARG	NE-CZ-NH2	-5.81	117.39	120.30
73	Bv	17	PRO	CA-N-CD	-5.81	103.36	111.50
78	CA	255	U	O4'-C1'-C2'	-5.81	99.99	105.80
78	CA	842	C	N3-C4-C5	-5.81	119.58	121.90
81	DA	2535	A	O3'-P-O5'	-5.81	92.96	104.00
81	DA	2885	C	N1-C1'-C2'	5.81	121.56	114.00
81	DA	3130	A	C3'-C2'-C1'	-5.81	96.85	101.50
2	AA	110	TYR	CG-CD2-CE2	-5.81	116.65	121.30
5	AC	15	PRO	N-CA-C	5.81	127.21	112.10
5	AC	167	ALA	N-CA-CB	5.81	118.23	110.10
33	BD	313	LEU	CB-CG-CD1	-5.81	101.12	111.00
81	DA	640	U	O4'-C1'-C2'	-5.81	99.99	105.80
81	DA	2437	G	O4'-C1'-C2'	-5.81	99.99	105.80
81	DA	3383	G	C5'-C4'-C3'	5.81	125.30	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	38	U	O4'-C1'-C2'	-5.81	99.99	105.80
78	CA	296	U	N1-C1'-C2'	5.81	121.55	114.00
78	CA	560	U	N1-C1'-C2'	5.81	121.55	114.00
78	CA	1657	U	O3'-P-O5'	-5.81	92.96	104.00
81	DA	1152	G	C2'-C3'-O3'	5.81	123.00	113.70
81	DA	1691	U	P-O3'-C3'	-5.81	112.73	119.70
81	DA	1717	U	C5'-C4'-C3'	5.81	125.30	116.00
81	DA	2577	C	C4'-C3'-C2'	-5.81	96.79	102.60
5	AC	153	GLU	N-CA-CB	5.81	121.05	110.60
64	BI	85	LYS	N-CA-C	-5.81	95.32	111.00
78	CA	145	A	P-O3'-C3'	5.81	126.67	119.70
78	CA	496	G	O4'-C1'-N9	5.81	112.85	108.20
78	CA	845	G	O4'-C1'-N9	5.81	112.85	108.20
78	CA	892	A	O4'-C1'-N9	5.81	112.84	108.20
81	DA	1152	G	O4'-C1'-C2'	5.81	112.83	107.60
6	AE	11	ARG	NE-CZ-NH2	-5.81	117.40	120.30
8	AF	43	PHE	N-CA-CB	5.81	121.05	110.60
78	CA	1615	C	O3'-P-O5'	-5.81	92.97	104.00
81	DA	1748	G	C3'-C2'-C1'	-5.81	96.86	101.50
81	DA	2511	A	C5'-C4'-C3'	-5.81	106.71	116.00
2	AA	229	LYS	N-CA-CB	-5.80	100.15	110.60
14	AM	125	ILE	N-CA-CB	5.80	124.15	110.80
78	CA	164	A	P-O3'-C3'	5.80	126.67	119.70
78	CA	224	C	C3'-C2'-C1'	5.80	106.14	101.50
78	CA	1472	C	C1'-O4'-C4'	5.80	114.54	109.90
81	DA	1536	G	C3'-C2'-C1'	5.80	106.14	101.50
81	DA	2663	G	N9-C1'-C2'	-5.80	105.62	112.00
82	DB	73	U	C5'-C4'-C3'	-5.80	106.71	116.00
83	DC	2	G	O4'-C1'-N9	5.80	112.84	108.20
78	CA	190	C	N1-C1'-C2'	5.80	121.54	114.00
81	DA	1755	C	N3-C4-N4	5.80	122.06	118.00
34	BE	90	GLN	N-CA-CB	5.80	121.04	110.60
78	CA	1061	A	C5-C6-N1	-5.80	114.80	117.70
81	DA	1102	A	C3'-C2'-C1'	5.80	106.14	101.50
81	DA	1799	A	P-O3'-C3'	5.80	126.66	119.70
81	DA	2536	A	C5-C6-N1	-5.80	114.80	117.70
81	DA	3125	U	C4'-C3'-C2'	-5.80	96.80	102.60
4	AD	151	ASP	N-CA-CB	5.80	121.04	110.60
36	BF	56	ALA	CB-CA-C	-5.80	101.40	110.10
53	Ba	44	ALA	CB-CA-C	-5.80	101.40	110.10
78	CA	965	U	C5'-C4'-O4'	5.80	116.06	109.10
78	CA	1616	G	N9-C1'-C2'	5.80	121.54	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1009	A	O4'-C1'-N9	5.80	112.84	108.20
81	DA	2228	A	P-O5'-C5'	5.80	130.18	120.90
4	AD	47	PHE	CG-CD1-CE1	-5.80	114.42	120.80
47	BU	1	MET	C-N-CA	5.80	134.48	122.30
78	CA	670	U	C1'-O4'-C4'	-5.80	105.26	109.90
81	DA	1183	C	O4'-C1'-N1	5.80	112.84	108.20
81	DA	1701	C	P-O3'-C3'	-5.80	112.74	119.70
14	AM	129	TRP	CZ3-CH2-CZ2	-5.80	114.64	121.60
33	BD	313	LEU	CD1-CG-CD2	5.80	127.89	110.50
51	BZ	51	TRP	CA-CB-CG	5.80	124.71	113.70
76	BS	108	MET	N-CA-CB	5.80	121.03	110.60
78	CA	1144	U	N1-C1'-C2'	5.80	121.54	114.00
81	DA	2796	G	C1'-O4'-C4'	5.80	114.54	109.90
81	DA	328	U	N1-C1'-C2'	-5.79	105.63	112.00
81	DA	1967	U	O4'-C1'-C2'	-5.79	100.00	105.80
81	DA	2618	G	C2'-C3'-O3'	5.79	122.97	113.70
25	AY	48	VAL	N-CA-C	-5.79	95.36	111.00
78	CA	1123	C	O4'-C1'-C2'	-5.79	100.01	105.80
78	CA	1603	U	N1-C1'-C2'	-5.79	105.63	112.00
81	DA	225	C	O4'-C1'-N1	5.79	112.83	108.20
81	DA	1343	A	O3'-P-O5'	5.79	115.01	104.00
81	DA	1440	G	O4'-C1'-N9	5.79	112.83	108.20
81	DA	1513	G	C3'-C2'-C1'	-5.79	96.87	101.50
81	DA	1578	C	O4'-C1'-N1	5.79	112.83	108.20
81	DA	1972	A	O3'-P-O5'	5.79	115.01	104.00
81	DA	3111	U	O4'-C1'-C2'	-5.79	100.01	105.80
82	DB	124	G	P-O5'-C5'	5.79	130.17	120.90
25	AY	22	ARG	C-N-CA	-5.79	110.14	122.30
57	Be	119	VAL	CB-CA-C	-5.79	100.40	111.40
81	DA	573	C	C5'-C4'-O4'	5.79	116.05	109.10
81	DA	3221	C	N1-C1'-C2'	5.79	121.53	114.00
81	DA	3248	C	O4'-C4'-C3'	-5.79	98.21	104.00
3	AB	120	TYR	CB-CG-CD1	5.79	124.47	121.00
78	CA	1633	A	C4-C5-C6	5.79	119.89	117.00
81	DA	1673	G	C1'-O4'-C4'	-5.79	105.27	109.90
65	Bn	77	ARG	N-CA-CB	5.79	121.02	110.60
72	Bt	61	PHE	N-CA-CB	5.79	121.02	110.60
78	CA	142	G	O4'-C1'-C2'	-5.79	100.01	105.80
78	CA	1638	G	C5-C6-O6	-5.79	125.13	128.60
79	CB	19	U	P-O5'-C5'	5.79	130.16	120.90
81	DA	657	A	C4'-C3'-C2'	-5.79	96.81	102.60
81	DA	1000	C	P-O3'-C3'	-5.79	112.75	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2572	C	N3-C4-C5	-5.79	119.58	121.90
81	DA	2705	A	C3'-C2'-C1'	-5.79	96.87	101.50
81	DA	2775	U	C1'-O4'-C4'	5.79	114.53	109.90
2	AA	194	PRO	C-N-CA	5.79	136.17	121.70
17	AQ	85	VAL	CA-CB-CG1	5.79	119.58	110.90
41	BN	51	ALA	N-CA-CB	5.79	118.20	110.10
66	Bo	8	ARG	NE-CZ-NH1	5.79	123.19	120.30
78	CA	1711	C	O4'-C1'-N1	5.79	112.83	108.20
81	DA	882	A	C3'-C2'-C1'	5.79	106.13	101.50
83	DC	31	U	P-O5'-C5'	5.79	130.16	120.90
35	BG	48	ARG	CG-CD-NE	-5.79	99.65	111.80
48	BW	15	PHE	CB-CG-CD2	5.79	124.85	120.80
78	CA	27	U	C4'-C3'-C2'	-5.79	96.81	102.60
78	CA	492	A	C4-C5-C6	5.79	119.89	117.00
81	DA	2506	U	C5'-C4'-C3'	-5.79	106.74	116.00
81	DA	2989	U	O4'-C4'-C3'	-5.79	98.22	104.00
33	BD	102	PRO	N-CA-C	5.78	127.14	112.10
58	Bg	28	ARG	CD-NE-CZ	-5.78	115.50	123.60
61	Bj	5	HIS	C-N-CA	5.78	136.16	121.70
61	Bj	45	LEU	C-N-CA	5.78	134.45	122.30
78	CA	1101	G	C4'-C3'-C2'	-5.78	96.82	102.60
78	CA	1306	C	O5'-C5'-C4'	5.78	122.69	111.70
78	CA	1412	G	N9-C1'-C2'	5.78	121.52	114.00
81	DA	173	G	C1'-O4'-C4'	-5.78	105.27	109.90
81	DA	353	G	N9-C1'-C2'	-5.78	105.64	112.00
81	DA	798	G	O4'-C4'-C3'	5.78	110.73	106.10
81	DA	954	U	O4'-C1'-C2'	-5.78	100.02	105.80
81	DA	1192	C	C3'-C2'-C1'	5.78	106.13	101.50
81	DA	2953	U	O4'-C1'-N1	5.78	112.83	108.20
46	BT	143	ILE	CA-CB-CG1	5.78	121.99	111.00
78	CA	1053	G	O4'-C1'-N9	5.78	112.83	108.20
78	CA	1425	A	C5'-C4'-C3'	5.78	125.25	116.00
81	DA	779	G	C1'-O4'-C4'	-5.78	105.27	109.90
81	DA	2208	A	C4'-C3'-O3'	5.78	124.56	113.00
1	Aa	58	VAL	CG1-CB-CG2	5.78	120.15	110.90
6	AE	197	TYR	CA-CB-CG	-5.78	102.42	113.40
9	AH	120	HIS	CB-CA-C	5.78	121.96	110.40
45	BR	78	ASN	N-CA-CB	5.78	121.00	110.60
78	CA	81	G	O4'-C4'-C3'	5.78	110.72	106.10
78	CA	993	A	C3'-C2'-C1'	5.78	106.12	101.50
78	CA	1419	G	O4'-C4'-C3'	-5.78	98.22	104.00
80	CC	21	C	O5'-P-OP2	-5.78	100.50	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	563	U	O4'-C1'-N1	5.78	112.82	108.20
81	DA	677	A	O3'-P-O5'	5.78	114.98	104.00
81	DA	1786	G	C4'-C3'-C2'	-5.78	96.82	102.60
81	DA	2109	U	O4'-C1'-N1	5.78	112.83	108.20
33	BD	342	LYS	CB-CA-C	5.78	121.96	110.40
49	BV	167	ARG	O-C-N	-5.78	113.45	122.70
78	CA	941	A	P-O3'-C3'	5.78	126.64	119.70
14	AM	145	ARG	NE-CZ-NH2	-5.78	117.41	120.30
32	BC	240	ARG	N-CA-CB	5.78	121.00	110.60
78	CA	975	C	P-O5'-C5'	-5.78	111.66	120.90
81	DA	3332	U	N1-C1'-C2'	-5.78	105.64	112.00
81	DA	3356	G	C5'-C4'-C3'	5.78	125.25	116.00
1	Aa	58	VAL	CA-CB-CG2	-5.78	102.24	110.90
3	AB	163	PRO	N-CD-CG	5.78	111.86	103.20
35	BG	143	LYS	CB-CA-C	-5.78	98.85	110.40
41	BN	131	VAL	CA-CB-CG2	5.78	119.56	110.90
68	Bq	17	ARG	NE-CZ-NH2	-5.78	117.41	120.30
78	CA	1437	U	O4'-C4'-C3'	-5.78	98.22	104.00
81	DA	282	G	O4'-C1'-N9	5.78	112.82	108.20
81	DA	769	G	C5-C6-O6	-5.78	125.13	128.60
81	DA	2484	A	C3'-C2'-C1'	-5.78	96.88	101.50
74	BQ	112	ARG	NE-CZ-NH2	-5.77	117.41	120.30
78	CA	302	U	C4'-C3'-C2'	-5.77	96.83	102.60
78	CA	1351	G	P-O5'-C5'	-5.77	111.66	120.90
78	CA	1695	G	O4'-C1'-N9	5.77	112.82	108.20
81	DA	978	G	P-O5'-C5'	5.77	130.14	120.90
33	BD	85	SER	N-CA-CB	-5.77	101.84	110.50
78	CA	448	C	P-O5'-C5'	5.77	130.13	120.90
78	CA	1724	U	C1'-O4'-C4'	5.77	114.52	109.90
81	DA	170	G	P-O3'-C3'	-5.77	112.77	119.70
81	DA	376	G	C1'-O4'-C4'	-5.77	105.28	109.90
81	DA	1739	U	P-O5'-C5'	5.77	130.14	120.90
81	DA	3146	G	C3'-C2'-C1'	5.77	106.12	101.50
15	AN	22	ARG	CB-CA-C	5.77	121.94	110.40
57	Be	20	GLN	N-CA-CB	5.77	120.99	110.60
37	BH	63	LYS	C-N-CA	-5.77	107.28	121.70
41	BN	137	LYS	N-CA-CB	5.77	120.99	110.60
48	BW	107	PHE	N-CA-C	5.77	126.58	111.00
78	CA	1769	U	O4'-C1'-N1	5.77	112.81	108.20
81	DA	974	G	C5'-C4'-O4'	-5.77	102.18	109.10
81	DA	2271	A	O4'-C1'-C2'	-5.77	100.03	105.80
81	DA	2540	A	C5-C6-N6	-5.77	119.08	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3365	U	C5'-C4'-C3'	-5.77	106.77	116.00
12	AK	121	VAL	CA-C-N	5.77	133.25	117.10
17	AQ	73	LEU	N-CA-C	-5.77	95.43	111.00
25	AY	60	GLU	N-CA-C	-5.77	95.43	111.00
78	CA	1220	C	C3'-C2'-C1'	5.77	106.11	101.50
81	DA	1458	U	O4'-C1'-N1	5.77	112.81	108.20
81	DA	1873	U	P-O5'-C5'	5.77	130.13	120.90
81	DA	2574	G	C5-C6-O6	-5.77	125.14	128.60
51	BZ	65	GLU	CB-CA-C	5.77	121.93	110.40
78	CA	1338	C	O4'-C1'-N1	5.77	112.81	108.20
32	BC	344	THR	CA-CB-CG2	-5.76	104.33	112.40
78	CA	1719	A	P-O3'-C3'	5.76	126.62	119.70
81	DA	1608	C	C1'-O4'-C4'	-5.76	105.29	109.90
78	CA	146	U	C1'-O4'-C4'	-5.76	105.29	109.90
81	DA	1638	A	C1'-O4'-C4'	-5.76	105.29	109.90
26	AZ	21	VAL	C-N-CA	5.76	136.10	121.70
78	CA	29	U	C5'-C4'-O4'	5.76	116.01	109.10
78	CA	1007	C	N1-C1'-C2'	5.76	121.49	114.00
78	CA	1148	C	P-O3'-C3'	-5.76	112.79	119.70
78	CA	1711	C	O4'-C1'-C2'	-5.76	100.04	105.80
81	DA	212	G	O4'-C1'-C2'	-5.76	100.04	105.80
81	DA	2603	G	P-O3'-C3'	-5.76	112.78	119.70
32	BC	17	LEU	N-CA-CB	5.76	121.92	110.40
78	CA	918	U	P-O5'-C5'	5.76	130.12	120.90
78	CA	1068	C	C4'-C3'-C2'	-5.76	96.84	102.60
81	DA	2587	U	P-O5'-C5'	-5.76	111.69	120.90
60	Bi	76	TYR	CB-CG-CD1	5.76	124.45	121.00
78	CA	489	C	N3-C4-C5	-5.76	119.60	121.90
78	CA	1772	C	C3'-C2'-C1'	5.76	106.11	101.50
81	DA	664	U	N1-C1'-C2'	5.76	121.49	114.00
81	DA	1984	C	C3'-C2'-C1'	5.76	106.11	101.50
81	DA	2147	A	O4'-C1'-N9	5.76	112.81	108.20
81	DA	2151	C	P-O3'-C3'	-5.76	112.79	119.70
81	DA	2306	C	N1-C1'-C2'	5.76	121.48	114.00
81	DA	2446	U	C5'-C4'-O4'	5.76	116.01	109.10
35	BG	164	SER	N-CA-CB	5.76	119.14	110.50
43	BP	140	LYS	N-CA-CB	5.76	120.96	110.60
77	BI	174	THR	N-CA-CB	5.76	121.24	110.30
78	CA	337	G	O4'-C1'-N9	5.76	112.80	108.20
78	CA	448	C	C3'-C2'-C1'	5.76	106.11	101.50
78	CA	728	U	P-O5'-C5'	-5.76	111.69	120.90
78	CA	1203	A	C1'-O4'-C4'	-5.76	105.29	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1707	A	O4'-C1'-N9	5.76	112.81	108.20
81	DA	1234	G	C3'-C2'-C1'	-5.76	96.89	101.50
81	DA	2591	A	O3'-P-O5'	-5.76	93.06	104.00
81	DA	3389	U	C1'-O4'-C4'	5.76	114.50	109.90
6	AE	174	ARG	CA-CB-CG	5.75	126.06	113.40
78	CA	1762	A	C3'-C2'-C1'	5.75	106.10	101.50
81	DA	1976	G	C5'-C4'-O4'	-5.75	102.19	109.10
81	DA	2625	C	C5'-C4'-C3'	-5.75	106.79	116.00
65	Bn	68	SER	O-C-N	5.75	131.91	122.70
78	CA	168	A	O4'-C1'-N9	5.75	112.80	108.20
78	CA	257	A	O3'-P-O5'	5.75	114.93	104.00
78	CA	619	A	P-O3'-C3'	5.75	126.60	119.70
78	CA	1527	C	O3'-P-O5'	-5.75	93.07	104.00
82	DB	149	A	O4'-C1'-N9	5.75	112.80	108.20
14	AM	98	TYR	CZ-CE2-CD2	5.75	124.98	119.80
17	AQ	70	SER	N-CA-CB	5.75	119.13	110.50
78	CA	235	G	C5'-C4'-C3'	-5.75	106.80	116.00
79	CB	74	C	C1'-O4'-C4'	5.75	114.50	109.90
81	DA	1897	G	O4'-C1'-N9	5.75	112.80	108.20
81	DA	2217	U	P-O3'-C3'	-5.75	112.80	119.70
81	DA	2963	C	C3'-C2'-C1'	5.75	106.10	101.50
83	DC	47	C	P-O5'-C5'	5.75	130.10	120.90
76	BS	37	VAL	CB-CA-C	-5.75	100.47	111.40
81	DA	163	C	O4'-C1'-N1	5.75	112.80	108.20
81	DA	173	G	N9-C1'-C2'	5.75	121.47	114.00
81	DA	1552	G	O4'-C1'-N9	-5.75	103.60	108.20
81	DA	2391	G	P-O3'-C3'	5.75	126.60	119.70
81	DA	3222	U	C5'-C4'-C3'	5.75	125.20	116.00
12	AK	62	LEU	N-CA-CB	5.75	121.90	110.40
78	CA	907	A	O4'-C1'-N9	5.75	112.80	108.20
81	DA	352	A	C1'-O4'-C4'	5.75	114.50	109.90
81	DA	2141	U	N1-C1'-C2'	5.75	121.47	114.00
81	DA	3328	G	N9-C1'-C2'	-5.75	105.68	112.00
1	Aa	92	TRP	CB-CG-CD2	-5.75	119.13	126.60
25	AY	57	MET	N-CA-C	5.75	126.52	111.00
32	BC	16	PHE	CB-CA-C	5.75	121.89	110.40
32	BC	241	LYS	C-N-CA	-5.75	107.33	121.70
39	BJ	73	VAL	N-CA-C	-5.75	95.49	111.00
43	BP	78	GLY	N-CA-C	-5.75	98.73	113.10
78	CA	1676	U	O4'-C1'-N1	5.75	112.80	108.20
81	DA	1477	A	C3'-C2'-C1'	5.75	106.10	101.50
6	AE	74	PRO	N-CA-C	5.75	127.04	112.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BH	189	LEU	N-CA-CB	5.75	121.89	110.40
43	BP	73	ARG	NE-CZ-NH2	5.75	123.17	120.30
78	CA	48	G	C3'-C2'-C1'	5.75	106.10	101.50
81	DA	185	C	N1-C1'-C2'	5.75	121.47	114.00
81	DA	668	G	C1'-O4'-C4'	-5.75	105.30	109.90
25	AY	25	VAL	C-N-CA	5.74	136.06	121.70
78	CA	662	U	N1-C1'-C2'	5.74	121.47	114.00
78	CA	1189	A	OP1-P-O3'	5.74	117.83	105.20
78	CA	1419	G	C1'-O4'-C4'	-5.74	105.31	109.90
81	DA	855	U	C1'-O4'-C4'	-5.74	105.31	109.90
81	DA	881	C	N1-C1'-C2'	5.74	121.47	114.00
81	DA	3012	A	O4'-C4'-C3'	-5.74	98.26	104.00
33	BD	89	ALA	N-CA-C	-5.74	95.50	111.00
78	CA	1621	U	P-O3'-C3'	-5.74	112.81	119.70
81	DA	1675	G	C3'-C2'-C1'	-5.74	96.91	101.50
81	DA	1731	A	O4'-C1'-N9	5.74	112.79	108.20
81	DA	2160	G	O4'-C1'-C2'	5.74	112.77	107.60
2	AA	46	HIS	N-CA-C	-5.74	95.50	111.00
2	AA	119	ARG	CD-NE-CZ	5.74	131.64	123.60
30	BA	107	TYR	CB-CG-CD2	-5.74	117.56	121.00
76	BS	155	TYR	CB-CG-CD2	-5.74	117.56	121.00
78	CA	1149	G	O4'-C1'-N9	-5.74	103.61	108.20
78	CA	1633	A	C5-C6-N6	-5.74	119.11	123.70
81	DA	77	A	C1'-O4'-C4'	-5.74	105.31	109.90
81	DA	543	C	N1-C1'-C2'	5.74	121.46	114.00
81	DA	2743	A	P-O3'-C3'	5.74	126.59	119.70
1	Aa	154	VAL	N-CA-C	-5.74	95.50	111.00
38	Bs	22	TYR	CB-CG-CD2	5.74	124.44	121.00
78	CA	1333	C	C3'-C2'-C1'	5.74	106.09	101.50
81	DA	424	G	O3'-P-O5'	-5.74	93.10	104.00
81	DA	635	G	C5'-C4'-O4'	5.74	115.99	109.10
81	DA	671	U	OP2-P-O3'	5.74	117.82	105.20
81	DA	767	U	C1'-O4'-C4'	5.74	114.49	109.90
81	DA	2718	U	O3'-P-O5'	-5.74	93.10	104.00
82	DB	46	G	P-O3'-C3'	5.74	126.59	119.70
83	DC	89	A	O4'-C1'-N9	5.74	112.79	108.20
2	AA	208	GLU	N-CA-C	-5.74	95.51	111.00
61	Bj	21	ARG	N-CA-CB	5.74	120.93	110.60
74	BQ	39	GLN	C-N-CA	5.74	136.04	121.70
81	DA	2032	U	O4'-C1'-N1	5.74	112.79	108.20
81	DA	2190	U	C3'-C2'-C1'	5.74	106.09	101.50
18	AP	109	VAL	CA-CB-CG2	-5.74	102.30	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BC	240	ARG	N-CA-C	-5.74	95.51	111.00
52	BY	50	ILE	CA-CB-CG1	5.74	121.90	111.00
81	DA	550	A	O4'-C1'-C2'	-5.74	100.06	105.80
81	DA	1145	G	C1'-O4'-C4'	-5.74	105.31	109.90
81	DA	2634	U	C5'-C4'-O4'	5.74	115.98	109.10
81	DA	2700	G	O4'-C1'-C2'	5.74	112.76	107.60
81	DA	2756	C	C1'-O4'-C4'	-5.74	105.31	109.90
81	DA	2928	C	O3'-P-O5'	5.74	114.90	104.00
33	BD	346	LYS	O-C-N	-5.73	113.53	122.70
76	BS	100	THR	N-CA-CB	5.73	121.19	110.30
81	DA	1137	C	C3'-C2'-C1'	5.73	106.09	101.50
81	DA	1189	C	O4'-C1'-N1	5.73	112.79	108.20
81	DA	2536	A	P-O3'-C3'	-5.73	112.82	119.70
81	DA	2671	A	O3'-P-O5'	-5.73	93.11	104.00
30	BA	48	ARG	NE-CZ-NH2	-5.73	117.43	120.30
78	CA	10	G	P-O3'-C3'	-5.73	112.82	119.70
81	DA	428	A	C1'-O4'-C4'	-5.73	105.31	109.90
81	DA	1200	A	C3'-C2'-C1'	5.73	106.09	101.50
81	DA	3323	A	O4'-C1'-N9	5.73	112.79	108.20
47	BU	8	ARG	NE-CZ-NH1	5.73	123.17	120.30
78	CA	153	G	C5'-C4'-C3'	5.73	125.17	116.00
78	CA	485	A	O4'-C1'-N9	5.73	112.78	108.20
81	DA	760	G	O4'-C1'-C2'	5.73	112.76	107.60
81	DA	2650	U	P-O3'-C3'	5.73	126.58	119.70
81	DA	2823	G	P-O3'-C3'	-5.73	112.82	119.70
82	DB	98	U	O4'-C4'-C3'	-5.73	98.27	104.00
20	AS	30	VAL	CA-C-N	5.73	133.14	117.10
61	Bj	93	THR	N-CA-CB	5.73	121.18	110.30
81	DA	2518	C	C3'-C2'-C1'	5.73	106.08	101.50
38	Bs	191	TYR	CG-CD1-CE1	-5.73	116.72	121.30
78	CA	568	G	N3-C2-N2	5.73	123.91	119.90
78	CA	829	A	O4'-C1'-N9	5.73	112.78	108.20
81	DA	2	U	C1'-O4'-C4'	5.73	114.48	109.90
81	DA	296	A	C3'-C2'-C1'	5.73	106.08	101.50
81	DA	771	A	C3'-C2'-C1'	5.73	106.08	101.50
81	DA	1741	A	O4'-C1'-N9	5.73	112.78	108.20
81	DA	2159	U	N1-C1'-C2'	-5.73	105.70	112.00
81	DA	3121	U	C5'-C4'-C3'	5.73	125.16	116.00
81	DA	3143	C	C3'-C2'-C1'	5.73	106.08	101.50
82	DB	85	G	N9-C1'-C2'	-5.73	105.70	112.00
12	AK	62	LEU	CB-CG-CD1	5.73	120.73	111.00
78	CA	264	G	P-O5'-C5'	-5.73	111.74	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	333	G	O4'-C1'-N9	5.73	112.78	108.20
81	DA	513	G	N9-C1'-C2'	5.73	121.44	114.00
81	DA	1684	U	C3'-C2'-C1'	5.73	106.08	101.50
81	DA	1786	G	O4'-C1'-C2'	5.73	112.75	107.60
6	AE	126	ARG	N-CA-CB	-5.72	100.30	110.60
14	AM	119	ILE	CB-CA-C	-5.72	100.15	111.60
78	CA	1462	G	C4'-C3'-C2'	-5.72	96.88	102.60
81	DA	1528	G	N9-C1'-C2'	-5.72	105.70	112.00
81	DA	1651	U	O4'-C1'-C2'	-5.72	100.08	105.80
81	DA	1864	A	O4'-C1'-C2'	-5.72	100.08	105.80
3	AB	99	VAL	CA-CB-CG2	5.72	119.48	110.90
30	BA	188	ASN	O-C-N	5.72	131.86	122.70
78	CA	88	U	C5'-C4'-C3'	-5.72	106.84	116.00
78	CA	1612	U	C1'-O4'-C4'	5.72	114.48	109.90
78	CA	1758	U	O4'-C1'-N1	5.72	112.78	108.20
81	DA	796	U	N1-C1'-C2'	5.72	121.44	114.00
81	DA	1077	U	O4'-C1'-C2'	-5.72	100.08	105.80
78	CA	232	U	O5'-P-OP2	-5.72	100.55	105.70
78	CA	1642	G	C1'-O4'-C4'	5.72	114.48	109.90
78	CA	1736	G	O4'-C4'-C3'	-5.72	98.28	104.00
81	DA	320	G	O4'-C1'-C2'	5.72	112.75	107.60
81	DA	862	U	N1-C1'-C2'	5.72	121.44	114.00
81	DA	3057	U	O4'-C1'-N1	5.72	112.78	108.20
83	DC	1	G	C5'-C4'-C3'	5.72	125.15	116.00
1	Aa	127	ARG	NE-CZ-NH2	-5.72	117.44	120.30
5	AC	158	PHE	N-CA-CB	5.72	120.89	110.60
22	AV	36	ALA	N-CA-CB	5.72	118.11	110.10
65	Bn	39	ARG	C-N-CA	-5.72	107.40	121.70
77	BI	108	ALA	N-CA-C	5.72	126.44	111.00
81	DA	126	U	C1'-O4'-C4'	5.72	114.47	109.90
81	DA	623	U	C2'-C3'-O3'	5.72	122.85	113.70
81	DA	1193	A	O4'-C1'-C2'	-5.72	100.08	105.80
81	DA	1244	A	O4'-C1'-N9	5.72	112.78	108.20
81	DA	3354	U	P-O3'-C3'	5.72	126.56	119.70
82	DB	92	A	C1'-O4'-C4'	-5.72	105.33	109.90
3	AB	199	PRO	O-C-N	-5.72	113.55	122.70
81	DA	599	C	C5'-C4'-O4'	5.72	115.96	109.10
81	DA	2338	C	C5'-C4'-C3'	5.72	125.15	116.00
5	AC	116	LEU	CB-CG-CD2	5.72	120.72	111.00
6	AE	213	ALA	N-CA-CB	5.72	118.10	110.10
74	BQ	208	MET	CG-SD-CE	-5.72	91.06	100.20
76	BS	167	THR	N-CA-CB	5.72	121.16	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	229	U	N1-C1'-C2'	5.72	121.43	114.00
78	CA	774	A	O5'-C5'-C4'	5.72	122.56	111.70
81	DA	26	A	N9-C1'-C2'	-5.72	105.71	112.00
81	DA	775	A	O4'-C1'-C2'	5.72	112.74	107.60
81	DA	1752	A	P-O5'-C5'	-5.72	111.75	120.90
81	DA	3124	G	O4'-C1'-N9	5.72	112.77	108.20
81	DA	3330	A	C1'-O4'-C4'	-5.72	105.33	109.90
83	DC	50	U	O3'-P-O5'	5.72	114.86	104.00
20	AS	83	ALA	N-CA-CB	5.71	118.10	110.10
37	BH	236	GLY	O-C-N	5.71	131.84	122.70
46	BT	167	ARG	NE-CZ-NH2	5.71	123.16	120.30
81	DA	17	G	O4'-C1'-N9	5.71	112.77	108.20
81	DA	3002	C	C5'-C4'-C3'	-5.71	106.86	116.00
2	AA	6	THR	CA-C-N	5.71	129.77	117.20
13	AL	105	ALA	CB-CA-C	-5.71	101.53	110.10
49	BV	69	ARG	NE-CZ-NH2	-5.71	117.44	120.30
51	BZ	31	PHE	CB-CG-CD2	-5.71	116.80	120.80
65	Bn	52	TYR	CB-CG-CD1	5.71	124.43	121.00
78	CA	9	U	O4'-C1'-N1	5.71	112.77	108.20
78	CA	1340	U	O4'-C1'-C2'	-5.71	100.09	105.80
78	CA	1341	A	C1'-O4'-C4'	5.71	114.47	109.90
81	DA	2418	G	P-O3'-C3'	-5.71	112.84	119.70
13	AL	92	CYS	O-C-N	5.71	131.84	122.70
14	AM	120	ARG	NE-CZ-NH2	-5.71	117.44	120.30
16	AO	76	LYS	CB-CA-C	-5.71	98.98	110.40
32	BC	183	LEU	N-CA-CB	5.71	121.82	110.40
42	BM	61	THR	CA-CB-CG2	-5.71	104.40	112.40
47	BU	24	ALA	N-CA-CB	5.71	118.10	110.10
74	BQ	289	LYS	N-CA-CB	5.71	120.88	110.60
76	BS	151	PHE	CB-CG-CD1	5.71	124.80	120.80
81	DA	2575	G	O4'-C1'-N9	5.71	112.77	108.20
81	DA	3313	U	O5'-P-OP2	-5.71	100.56	105.70
6	AE	175	GLY	N-CA-C	-5.71	98.82	113.10
76	BS	72	THR	CA-C-N	5.71	129.76	117.20
78	CA	122	U	N1-C1'-C2'	-5.71	105.72	112.00
81	DA	1565	G	P-O5'-C5'	5.71	130.04	120.90
81	DA	1819	U	C5'-C4'-O4'	-5.71	102.25	109.10
81	DA	2486	A	O4'-C1'-C2'	-5.71	100.09	105.80
81	DA	2858	U	C1'-O4'-C4'	-5.71	105.33	109.90
81	DA	3043	C	O4'-C1'-N1	5.71	112.77	108.20
33	BD	300	ARG	NH1-CZ-NH2	5.71	125.68	119.40
81	DA	486	U	P-O3'-C3'	-5.71	112.85	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	682	U	O4'-C1'-N1	5.71	112.77	108.20
81	DA	848	A	N9-C1'-C2'	5.71	121.42	114.00
81	DA	2082	U	O4'-C1'-N1	5.71	112.77	108.20
36	BF	104	VAL	CA-CB-CG2	-5.71	102.34	110.90
76	BS	69	LYS	CA-C-N	5.71	129.75	117.20
78	CA	1581	C	C1'-O4'-C4'	-5.71	105.33	109.90
81	DA	1626	U	N1-C1'-C2'	5.71	121.42	114.00
81	DA	1895	A	P-O3'-C3'	5.71	126.55	119.70
81	DA	2938	G	C3'-C2'-C1'	5.71	106.07	101.50
50	BX	90	ALA	N-CA-CB	5.71	118.09	110.10
81	DA	329	U	O5'-C5'-C4'	5.71	122.54	111.70
8	AF	161	ASP	CB-CA-C	-5.70	98.99	110.40
9	AH	80	ASN	C-N-CA	5.70	135.96	121.70
55	Bc	99	GLN	N-CA-CB	5.70	120.87	110.60
78	CA	1032	G	C5'-C4'-C3'	5.70	125.13	116.00
81	DA	1499	C	C3'-C2'-C1'	5.70	106.06	101.50
81	DA	2087	C	P-O3'-C3'	-5.70	112.86	119.70
81	DA	2431	C	O4'-C1'-C2'	-5.70	100.10	105.80
81	DA	2444	C	O3'-P-O5'	5.70	114.84	104.00
78	CA	648	G	C1'-O4'-C4'	-5.70	105.34	109.90
78	CA	1745	G	P-O3'-C3'	5.70	126.54	119.70
81	DA	371	G	O4'-C1'-N9	5.70	112.76	108.20
1	Aa	123	ILE	N-CA-C	-5.70	95.61	111.00
14	AM	145	ARG	NE-CZ-NH1	5.70	123.15	120.30
22	AV	90	LYS	O-C-N	-5.70	110.27	121.10
42	BM	122	CYS	CB-CA-C	-5.70	99.00	110.40
78	CA	956	C	C3'-C2'-C1'	5.70	106.06	101.50
81	DA	614	C	O4'-C1'-N1	5.70	112.76	108.20
81	DA	2769	A	C5'-C4'-C3'	-5.70	106.88	116.00
50	BX	111	ASN	CA-CB-CG	-5.70	100.86	113.40
81	DA	1176	C	O4'-C1'-N1	5.70	112.76	108.20
81	DA	1712	G	C1'-O4'-C4'	-5.70	105.34	109.90
81	DA	2568	C	O4'-C1'-N1	5.70	112.76	108.20
81	DA	2701	U	O4'-C1'-N1	5.70	112.76	108.20
81	DA	3027	A	C3'-C2'-C1'	5.70	106.06	101.50
81	DA	1305	U	O4'-C1'-N1	5.70	112.76	108.20
81	DA	2974	U	O4'-C1'-N1	5.70	112.76	108.20
35	BG	82	ARG	NE-CZ-NH2	5.70	123.15	120.30
78	CA	223	U	C3'-C2'-C1'	5.70	106.06	101.50
78	CA	1208	A	O4'-C1'-C2'	5.70	112.73	107.60
78	CA	1677	C	O3'-P-O5'	5.70	114.82	104.00
79	CB	12	U	C5'-C4'-C3'	-5.70	106.89	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1061	A	OP1-P-OP2	-5.70	111.06	119.60
81	DA	1174	G	N9-C1'-C2'	5.70	121.41	114.00
78	CA	1566	U	N1-C1'-C2'	-5.69	105.74	112.00
78	CA	1576	A	N9-C1'-C2'	-5.69	105.74	112.00
81	DA	737	G	C5'-C4'-C3'	5.69	125.11	116.00
29	AU	88	THR	N-CA-CB	5.69	121.12	110.30
74	BQ	46	THR	N-CA-C	-5.69	95.63	111.00
78	CA	585	A	C3'-C2'-C1'	5.69	106.05	101.50
78	CA	1500	C	P-O3'-C3'	-5.69	112.87	119.70
81	DA	2683	U	C4'-C3'-C2'	-5.69	96.91	102.60
82	DB	147	U	O4'-C1'-N1	5.69	112.75	108.20
78	CA	1173	C	O5'-C5'-C4'	5.69	122.51	111.70
78	CA	1378	U	C3'-C2'-C1'	5.69	106.05	101.50
81	DA	894	G	N9-C1'-C2'	-5.69	105.74	112.00
81	DA	1804	A	O4'-C1'-N9	5.69	112.75	108.20
81	DA	2507	C	O4'-C1'-N1	5.69	112.75	108.20
81	DA	2562	A	C5-C6-N6	-5.69	119.15	123.70
83	DC	36	C	O4'-C1'-N1	5.69	112.75	108.20
9	AH	54	ASP	CB-CG-OD2	-5.69	113.18	118.30
11	AJ	26	LEU	CB-CA-C	-5.69	99.39	110.20
35	BG	96	VAL	CG1-CB-CG2	5.69	120.00	110.90
39	BJ	116	MET	CG-SD-CE	5.69	109.30	100.20
78	CA	1702	A	C5'-C4'-O4'	-5.69	102.27	109.10
81	DA	166	C	C5'-C4'-O4'	5.69	115.93	109.10
81	DA	376	G	N9-C1'-C2'	-5.69	105.74	112.00
81	DA	630	A	P-O5'-C5'	5.69	130.00	120.90
81	DA	1622	U	OP1-P-O3'	5.69	117.72	105.20
81	DA	2471	U	O4'-C1'-C2'	-5.69	100.11	105.80
33	BD	351	PRO	CA-N-CD	-5.69	103.54	111.50
45	BR	16	ARG	NE-CZ-NH1	5.69	123.14	120.30
78	CA	592	A	N9-C1'-C2'	-5.69	105.74	112.00
78	CA	1544	U	C1'-O4'-C4'	-5.69	105.35	109.90
81	DA	160	G	C5'-C4'-O4'	5.69	115.93	109.10
81	DA	733	G	O4'-C1'-N9	5.69	112.75	108.20
81	DA	964	G	C1'-O4'-C4'	-5.69	105.35	109.90
81	DA	1574	C	C3'-C2'-C1'	5.69	106.05	101.50
81	DA	1739	U	C3'-C2'-C1'	5.69	106.05	101.50
81	DA	1794	G	P-O5'-C5'	-5.69	111.80	120.90
81	DA	2638	C	C3'-C2'-C1'	5.69	106.05	101.50
81	DA	2659	G	O4'-C1'-N9	5.69	112.75	108.20
81	DA	278	U	O4'-C1'-C2'	-5.69	100.11	105.80
81	DA	2510	U	C5'-C4'-O4'	5.69	115.92	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AN	47	ALA	CA-C-N	5.68	129.71	117.20
38	Bs	5	ARG	NE-CZ-NH2	-5.68	117.46	120.30
44	BO	62	HIS	CB-CA-C	5.68	121.77	110.40
48	BW	35	LYS	N-CA-CB	5.68	120.83	110.60
57	Be	71	ALA	CB-CA-C	-5.68	101.57	110.10
62	Bk	82	ARG	CB-CA-C	-5.68	99.03	110.40
78	CA	221	A	O4'-C1'-C2'	-5.68	100.12	105.80
78	CA	927	C	C3'-C2'-C1'	5.68	106.05	101.50
78	CA	1640	C	N3-C4-C5	-5.68	119.63	121.90
78	CA	1784	C	C3'-C2'-C1'	5.68	106.05	101.50
81	DA	483	G	O4'-C1'-N9	5.68	112.75	108.20
81	DA	762	U	O4'-C1'-N1	5.68	112.75	108.20
81	DA	1689	U	N1-C1'-C2'	-5.68	105.75	112.00
81	DA	1894	U	O4'-C1'-C2'	-5.68	100.11	105.80
5	AC	12	TYR	CB-CG-CD1	5.68	124.41	121.00
34	BE	164	LYS	N-CA-CB	5.68	120.83	110.60
35	BG	79	VAL	CB-CA-C	-5.68	100.61	111.40
60	Bi	106	LYS	C-N-CA	5.68	135.91	121.70
78	CA	475	A	C5'-C4'-C3'	-5.68	106.91	116.00
78	CA	1004	U	O4'-C1'-N1	5.68	112.75	108.20
31	BB	97	ASN	N-CA-C	-5.68	95.66	111.00
36	BF	184	LYS	CB-CA-C	-5.68	99.04	110.40
3	AB	70	THR	C-N-CA	5.68	135.90	121.70
4	AD	103	TYR	C-N-CA	5.68	135.90	121.70
8	AF	30	PRO	N-CA-C	5.68	126.87	112.10
9	AH	106	THR	CA-CB-CG2	5.68	120.35	112.40
34	BE	5	ALA	N-CA-CB	5.68	118.05	110.10
41	BN	13	ARG	C-N-CA	5.68	135.90	121.70
51	BZ	26	SER	N-CA-CB	5.68	119.02	110.50
76	BS	122	CYS	CB-CA-C	-5.68	99.04	110.40
78	CA	616	G	N9-C1'-C2'	5.68	121.38	114.00
78	CA	821	U	O4'-C1'-N1	5.68	112.74	108.20
78	CA	1150	G	O4'-C1'-N9	5.68	112.74	108.20
81	DA	343	U	O4'-C1'-N1	5.68	112.74	108.20
81	DA	638	C	C4'-C3'-C2'	5.68	108.28	102.60
81	DA	1704	A	N9-C1'-C2'	-5.68	105.75	112.00
81	DA	2303	A	P-O3'-C3'	-5.68	112.88	119.70
81	DA	2479	C	O4'-C1'-C2'	5.68	112.71	107.60
81	DA	2927	C	P-O3'-C3'	-5.68	112.88	119.70
83	DC	68	U	C3'-C2'-C1'	-5.68	96.96	101.50
2	AA	87	LEU	CB-CA-C	-5.68	99.41	110.20
2	AA	250	VAL	CA-CB-CG1	-5.68	102.38	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
76	BS	123	ILE	C-N-CA	5.68	135.90	121.70
78	CA	162	A	N9-C1'-C2'	5.68	121.38	114.00
78	CA	901	G	O4'-C1'-N9	5.68	112.74	108.20
81	DA	1755	C	P-O5'-C5'	5.68	129.98	120.90
81	DA	2316	G	C4'-C3'-C2'	-5.68	96.92	102.60
26	AZ	46	ASN	N-CA-CB	5.68	120.82	110.60
53	Ba	20	GLY	N-CA-C	5.68	127.29	113.10
78	CA	169	A	C5'-C4'-O4'	-5.68	102.29	109.10
78	CA	629	U	C1'-O4'-C4'	-5.68	105.36	109.90
78	CA	1454	G	C5'-C4'-O4'	5.68	115.91	109.10
81	DA	1808	G	C3'-C2'-C1'	5.68	106.04	101.50
81	DA	2206	G	O4'-C1'-N9	5.68	112.74	108.20
1	Aa	236	ALA	N-CA-CB	5.67	118.05	110.10
53	Ba	14	VAL	N-CA-CB	5.67	123.99	111.50
55	Bc	109	ILE	N-CA-C	-5.67	95.68	111.00
73	Bv	7	TYR	CB-CA-C	-5.67	99.05	110.40
78	CA	37	U	C4'-C3'-C2'	-5.67	96.92	102.60
78	CA	1634	C	N3-C4-C5	-5.67	119.63	121.90
81	DA	529	A	P-O3'-C3'	5.67	126.51	119.70
81	DA	2494	A	O4'-C4'-C3'	-5.67	98.33	104.00
82	DB	148	G	P-O3'-C3'	5.67	126.51	119.70
5	AC	17	ARG	N-CA-C	-5.67	95.68	111.00
76	BS	81	LEU	CA-CB-CG	5.67	128.35	115.30
78	CA	441	A	P-O3'-C3'	5.67	126.51	119.70
16	AO	128	TYR	CB-CG-CD2	5.67	124.40	121.00
32	BC	21	ARG	N-CA-CB	5.67	120.81	110.60
81	DA	990	U	C3'-C2'-C1'	-5.67	96.96	101.50
81	DA	1564	U	O3'-P-O5'	-5.67	93.22	104.00
81	DA	1639	C	C3'-C2'-C1'	5.67	106.04	101.50
81	DA	3346	U	O3'-P-O5'	5.67	114.78	104.00
10	AI	84	ALA	C-N-CA	5.67	135.88	121.70
78	CA	158	U	N1-C1'-C2'	5.67	121.37	114.00
78	CA	1197	C	C3'-C2'-C1'	5.67	106.04	101.50
83	DC	5	G	C5'-C4'-O4'	5.67	115.90	109.10
10	AI	124	PRO	N-CA-CB	-5.67	96.36	102.60
11	AJ	15	GLN	N-CA-C	-5.67	95.70	111.00
12	AK	121	VAL	CA-C-O	-5.67	108.20	120.10
35	BG	146	ILE	CA-CB-CG1	5.67	121.77	111.00
44	BO	58	MET	CB-CA-C	-5.67	99.06	110.40
78	CA	153	G	C3'-C2'-C1'	5.67	106.03	101.50
78	CA	683	C	P-O3'-C3'	-5.67	112.90	119.70
78	CA	1532	U	P-O3'-C3'	-5.67	112.90	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	840	C	P-O3'-C3'	5.67	126.50	119.70
81	DA	1054	A	C4'-C3'-C2'	-5.67	96.93	102.60
81	DA	1665	C	C1'-O4'-C4'	-5.67	105.36	109.90
81	DA	2394	G	O4'-C1'-N9	5.67	112.73	108.20
81	DA	2439	A	C4'-C3'-C2'	-5.67	96.93	102.60
45	BR	157	PRO	N-CA-CB	5.67	110.10	103.30
58	Bg	69	TYR	CB-CG-CD2	5.67	124.40	121.00
79	CB	8	U	O4'-C1'-N1	5.67	112.73	108.20
81	DA	174	C	O4'-C1'-N1	5.67	112.73	108.20
82	DB	30	C	O4'-C1'-N1	5.67	112.73	108.20
31	BB	19	HIS	CB-CA-C	5.67	121.73	110.40
32	BC	272	TYR	CB-CG-CD1	5.67	124.40	121.00
78	CA	1061	A	C4-C5-C6	5.67	119.83	117.00
78	CA	1462	G	N9-C1'-C2'	-5.67	105.77	112.00
81	DA	523	A	C1'-O4'-C4'	5.67	114.43	109.90
16	AO	41	ALA	N-CA-C	-5.66	95.71	111.00
18	AP	108	PRO	CA-N-CD	-5.66	103.57	111.50
20	AS	79	LEU	C-N-CA	5.66	135.86	121.70
37	BH	177	TYR	CB-CG-CD2	-5.66	117.60	121.00
78	CA	1273	G	O4'-C1'-N9	5.66	112.73	108.20
81	DA	158	G	P-O5'-C5'	-5.66	111.84	120.90
81	DA	1823	A	O3'-P-O5'	-5.66	93.24	104.00
81	DA	3116	G	O4'-C1'-N9	5.66	112.73	108.20
82	DB	33	A	O3'-P-O5'	-5.66	93.24	104.00
41	BN	3	THR	CA-CB-CG2	5.66	120.33	112.40
3	AB	212	LYS	C-N-CA	-5.66	107.55	121.70
14	AM	91	ASP	CB-CG-OD2	5.66	123.39	118.30
29	AU	87	PRO	C-N-CA	5.66	135.85	121.70
50	BX	111	ASN	CB-CA-C	-5.66	99.08	110.40
53	Ba	9	LYS	CA-C-N	5.66	129.65	117.20
78	CA	288	A	C3'-C2'-C1'	5.66	106.03	101.50
81	DA	676	G	O4'-C1'-N9	5.66	112.73	108.20
81	DA	2307	G	N9-C1'-C2'	-5.66	105.77	112.00
81	DA	2647	A	P-O5'-C5'	-5.66	111.84	120.90
40	BK	5	PRO	CA-N-CD	-5.66	103.58	111.50
47	BU	18	ASP	CB-CG-OD2	-5.66	113.21	118.30
78	CA	100	A	O4'-C1'-C2'	-5.66	100.14	105.80
78	CA	384	G	O4'-C1'-N9	5.66	112.73	108.20
78	CA	652	G	C5'-C4'-C3'	5.66	125.05	116.00
78	CA	1441	C	C3'-C2'-C1'	5.66	106.03	101.50
81	DA	341	G	C2'-C3'-O3'	5.66	122.75	113.70
81	DA	1667	A	P-O3'-C3'	5.66	126.49	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2468	A	C2'-C3'-O3'	5.66	122.75	113.70
81	DA	3039	C	N1-C1'-C2'	5.66	121.36	114.00
12	AK	25	ASP	CB-CG-OD1	5.66	123.39	118.30
42	BM	62	VAL	CA-CB-CG1	-5.66	102.42	110.90
81	DA	131	C	O4'-C1'-C2'	-5.66	100.14	105.80
81	DA	912	G	O4'-C1'-C2'	5.66	112.69	107.60
10	AI	142	TYR	CA-CB-CG	5.66	124.14	113.40
78	CA	39	A	C1'-O4'-C4'	-5.66	105.38	109.90
78	CA	272	U	C4'-C3'-C2'	-5.66	96.94	102.60
78	CA	407	A	N9-C1'-C2'	-5.66	105.78	112.00
79	CB	72	G	C1'-O4'-C4'	5.66	114.42	109.90
81	DA	861	C	O4'-C1'-N1	5.66	112.72	108.20
81	DA	1664	G	C3'-C2'-C1'	-5.66	96.98	101.50
81	DA	2101	C	C1'-O4'-C4'	-5.66	105.38	109.90
83	DC	52	U	C4'-C3'-C2'	-5.66	96.94	102.60
74	BQ	23	ARG	NE-CZ-NH2	5.65	123.13	120.30
78	CA	152	U	C4'-C3'-C2'	-5.65	96.95	102.60
81	DA	240	U	O4'-C1'-C2'	-5.65	100.15	105.80
81	DA	248	U	P-O3'-C3'	5.65	126.48	119.70
1	Aa	226	ALA	CB-CA-C	-5.65	101.62	110.10
34	BE	110	ILE	CA-CB-CG1	5.65	121.74	111.00
40	BK	18	ARG	NE-CZ-NH2	5.65	123.13	120.30
78	CA	943	C	C1'-O4'-C4'	-5.65	105.38	109.90
81	DA	462	C	P-O5'-C5'	5.65	129.94	120.90
81	DA	638	C	O5'-C5'-C4'	5.65	122.44	111.70
81	DA	3211	C	P-O3'-C3'	5.65	126.48	119.70
13	AL	22	ASN	N-CA-CB	5.65	120.77	110.60
24	AX	52	THR	CA-CB-CG2	-5.65	104.49	112.40
39	BJ	80	LEU	N-CA-CB	5.65	121.70	110.40
46	BT	111	ASP	CB-CG-OD2	-5.65	113.22	118.30
50	BX	34	LEU	CA-C-O	-5.65	108.23	120.10
53	Ba	15	ARG	N-CA-CB	5.65	120.77	110.60
62	Bk	36	ARG	NE-CZ-NH2	-5.65	117.47	120.30
76	BS	67	PHE	CB-CG-CD2	-5.65	116.84	120.80
78	CA	1332	C	C3'-C2'-C1'	5.65	106.02	101.50
81	DA	2737	C	O4'-C1'-C2'	-5.65	100.15	105.80
81	DA	3354	U	O4'-C1'-C2'	-5.65	100.15	105.80
30	BA	84	ALA	N-CA-CB	5.65	118.01	110.10
81	DA	2828	G	P-O3'-C3'	-5.65	112.92	119.70
77	BI	98	ARG	NE-CZ-NH2	-5.65	117.48	120.30
78	CA	223	U	C5'-C4'-C3'	5.65	125.04	116.00
78	CA	1062	A	C5-C6-N6	-5.65	119.18	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	797	U	O3'-P-O5'	-5.65	93.27	104.00
81	DA	912	G	C1'-O4'-C4'	-5.65	105.38	109.90
81	DA	1662	G	O4'-C1'-N9	5.65	112.72	108.20
81	DA	2084	C	O4'-C1'-C2'	-5.65	100.15	105.80
81	DA	2193	U	P-O3'-C3'	-5.65	112.92	119.70
33	BD	329	PRO	C-N-CA	5.65	135.82	121.70
81	DA	363	G	C3'-C2'-C1'	-5.65	96.98	101.50
81	DA	430	U	O4'-C1'-N1	5.65	112.72	108.20
81	DA	570	A	P-O3'-C3'	5.65	126.47	119.70
81	DA	2447	A	O4'-C1'-N9	5.65	112.72	108.20
81	DA	2639	G	O4'-C1'-N9	5.65	112.72	108.20
81	DA	3081	C	C4'-C3'-C2'	-5.65	96.95	102.60
81	DA	3382	U	C1'-O4'-C4'	-5.65	105.38	109.90
82	DB	86	U	O4'-C1'-C2'	-5.65	100.15	105.80
26	AZ	43	ARG	NE-CZ-NH2	-5.64	117.48	120.30
37	BH	123	GLN	N-CA-C	5.64	126.24	111.00
40	BK	130	LYS	C-N-CA	-5.64	98.30	122.00
81	DA	183	G	O4'-C1'-N9	5.64	112.72	108.20
81	DA	460	C	C3'-C2'-C1'	5.64	106.02	101.50
81	DA	1872	C	C5'-C4'-C3'	5.64	125.03	116.00
5	AC	184	SER	N-CA-CB	5.64	118.96	110.50
12	AK	58	TYR	C-N-CA	5.64	135.81	121.70
31	BB	242	ARG	NE-CZ-NH1	5.64	123.12	120.30
76	BS	51	LYS	C-N-CA	5.64	135.81	121.70
78	CA	1359	C	O4'-C1'-C2'	-5.64	100.16	105.80
81	DA	1746	U	O3'-P-O5'	-5.64	93.28	104.00
81	DA	2098	C	O4'-C1'-N1	5.64	112.71	108.20
81	DA	2162	U	P-O5'-C5'	5.64	129.93	120.90
35	BG	10	TYR	CB-CG-CD1	-5.64	117.61	121.00
78	CA	439	U	O4'-C1'-C2'	-5.64	100.16	105.80
78	CA	838	G	N9-C1'-C2'	-5.64	105.80	112.00
78	CA	1732	A	O4'-C1'-N9	5.64	112.71	108.20
22	AV	81	ARG	NE-CZ-NH1	5.64	123.12	120.30
46	BT	181	ARG	NE-CZ-NH1	5.64	123.12	120.30
69	Br	43	TYR	CB-CG-CD1	5.64	124.38	121.00
78	CA	1598	U	O4'-C1'-N1	-5.64	103.69	108.20
81	DA	1040	A	O4'-C1'-C2'	-5.64	100.16	105.80
81	DA	1205	A	P-O3'-C3'	5.64	126.47	119.70
81	DA	1544	G	O4'-C1'-N9	5.64	112.71	108.20
81	DA	2994	A	N9-C1'-C2'	-5.64	105.80	112.00
81	DA	3248	C	O4'-C1'-C2'	-5.64	100.16	105.80
81	DA	1127	G	C3'-C2'-C1'	-5.64	96.99	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1168	U	O4'-C1'-C2'	-5.64	100.16	105.80
81	DA	1392	G	P-O5'-C5'	-5.64	111.88	120.90
81	DA	2331	C	N1-C1'-C2'	5.64	121.33	114.00
1	Aa	178	VAL	N-CA-C	-5.64	95.78	111.00
31	BB	193	ARG	NE-CZ-NH2	-5.64	117.48	120.30
37	BH	123	GLN	C-N-CA	5.64	135.79	121.70
49	BV	78	VAL	N-CA-C	-5.64	95.78	111.00
78	CA	565	C	P-O3'-C3'	5.64	126.46	119.70
81	DA	329	U	C2'-C3'-O3'	5.64	122.72	113.70
81	DA	1108	U	O4'-C1'-N1	5.64	112.71	108.20
81	DA	2033	G	O4'-C1'-N9	5.64	112.71	108.20
10	AI	57	LEU	C-N-CA	5.63	135.79	121.70
43	BP	101	THR	CA-CB-CG2	-5.63	104.51	112.40
44	BO	60	TYR	CG-CD1-CE1	-5.63	116.79	121.30
78	CA	367	A	O3'-P-O5'	5.63	114.71	104.00
78	CA	1586	A	OP1-P-O3'	-5.63	92.80	105.20
81	DA	711	A	O4'-C1'-N9	5.63	112.71	108.20
81	DA	964	G	C3'-C2'-C1'	-5.63	96.99	101.50
81	DA	1592	G	C1'-O4'-C4'	-5.63	105.39	109.90
81	DA	1637	A	N9-C1'-C2'	5.63	121.33	114.00
81	DA	2620	G	P-O5'-C5'	5.63	129.91	120.90
3	AB	27	ARG	NE-CZ-NH2	5.63	123.12	120.30
10	AI	107	LYS	N-CA-C	-5.63	95.79	111.00
13	AL	119	GLY	N-CA-C	-5.63	99.02	113.10
81	DA	420	G	C1'-O4'-C4'	5.63	114.41	109.90
81	DA	1211	U	N1-C1'-C2'	5.63	121.32	114.00
81	DA	1693	C	O4'-C4'-C3'	-5.63	98.37	104.00
81	DA	1754	G	C5'-C4'-O4'	-5.63	102.34	109.10
81	DA	2072	G	N9-C1'-C2'	-5.63	105.80	112.00
11	AJ	28	SER	N-CA-CB	5.63	118.95	110.50
36	BF	97	PHE	CB-CG-CD2	-5.63	116.86	120.80
78	CA	679	U	O4'-C1'-C2'	-5.63	100.17	105.80
45	BR	153	PHE	CB-CG-CD2	-5.63	116.86	120.80
78	CA	979	A	O4'-C1'-C2'	-5.63	100.17	105.80
81	DA	836	A	P-O3'-C3'	-5.63	112.94	119.70
81	DA	1571	A	O3'-P-O5'	5.63	114.70	104.00
81	DA	1590	G	N9-C1'-C2'	5.63	121.32	114.00
81	DA	3054	U	O4'-C1'-N1	5.63	112.70	108.20
35	BG	1	MET	C-N-CA	5.63	135.77	121.70
78	CA	282	C	C3'-C2'-C1'	5.63	106.00	101.50
78	CA	296	U	P-O5'-C5'	-5.63	111.89	120.90
81	DA	981	U	P-O3'-C3'	-5.63	112.95	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1525	G	C3'-C2'-C1'	5.63	106.00	101.50
81	DA	1585	C	C3'-C2'-C1'	5.63	106.00	101.50
81	DA	2716	U	O4'-C1'-N1	5.63	112.70	108.20
81	DA	3115	C	C3'-C2'-C1'	5.63	106.00	101.50
21	AT	58	TYR	CB-CA-C	5.63	121.65	110.40
78	CA	1677	C	C4'-C3'-C2'	-5.63	96.97	102.60
81	DA	171	G	O4'-C4'-C3'	-5.63	98.37	104.00
81	DA	386	A	O4'-C1'-C2'	-5.63	100.17	105.80
81	DA	2138	A	N9-C1'-C2'	-5.63	105.81	112.00
26	AZ	10	ARG	NE-CZ-NH2	-5.62	117.49	120.30
33	BD	322	GLN	CA-C-N	5.62	129.58	117.20
78	CA	723	G	P-O3'-C3'	-5.62	112.95	119.70
78	CA	1215	C	C3'-C2'-C1'	5.62	106.00	101.50
78	CA	1250	U	P-O5'-C5'	-5.62	111.90	120.90
81	DA	1733	G	O4'-C1'-N9	5.62	112.70	108.20
81	DA	3285	C	P-O3'-C3'	-5.62	112.95	119.70
1	Aa	246	SER	CB-CA-C	5.62	120.78	110.10
4	AD	136	VAL	CG1-CB-CG2	5.62	119.90	110.90
6	AE	81	MET	CA-CB-CG	5.62	122.86	113.30
31	BB	21	ARG	NE-CZ-NH2	-5.62	117.49	120.30
33	BD	348	GLY	N-CA-C	5.62	127.16	113.10
44	BO	95	SER	N-CA-CB	5.62	118.93	110.50
53	Ba	82	PRO	CA-N-CD	-5.62	103.63	111.50
72	Bu	61	PHE	N-CA-CB	5.62	120.72	110.60
78	CA	506	A	O4'-C1'-N9	5.62	112.70	108.20
78	CA	588	U	OP1-P-OP2	5.62	128.04	119.60
81	DA	184	U	O4'-C1'-N1	5.62	112.70	108.20
81	DA	1559	A	P-O3'-C3'	5.62	126.45	119.70
81	DA	1718	G	N9-C1'-C2'	5.62	121.31	114.00
81	DA	1770	G	N3-C2-N2	5.62	123.84	119.90
81	DA	2182	A	N9-C1'-C2'	5.62	121.31	114.00
81	DA	2523	A	C5'-C4'-C3'	-5.62	107.00	116.00
81	DA	3086	A	O4'-C1'-N9	5.62	112.70	108.20
11	AJ	102	ARG	NE-CZ-NH2	-5.62	117.49	120.30
15	AN	45	GLU	C-N-CA	5.62	135.75	121.70
33	BD	351	PRO	C-N-CA	-5.62	107.64	121.70
62	Bk	53	TYR	CB-CA-C	5.62	121.64	110.40
78	CA	364	G	C1'-O4'-C4'	-5.62	105.40	109.90
81	DA	231	G	P-O5'-C5'	5.62	129.90	120.90
81	DA	1101	G	C5'-C4'-O4'	5.62	115.85	109.10
81	DA	2066	C	O4'-C1'-N1	5.62	112.70	108.20
81	DA	2131	A	N9-C1'-C2'	5.62	121.31	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2296	A	N9-C1'-C2'	-5.62	105.82	112.00
81	DA	2762	A	O4'-C1'-N9	5.62	112.70	108.20
78	CA	1419	G	N9-C1'-C2'	5.62	121.31	114.00
1	Aa	142	ALA	N-CA-CB	5.62	117.97	110.10
35	BG	48	ARG	NE-CZ-NH1	5.62	123.11	120.30
39	BJ	17	ALA	N-CA-CB	5.62	117.97	110.10
52	BY	75	ARG	NE-CZ-NH1	5.62	123.11	120.30
68	Bq	18	ARG	N-CA-CB	-5.62	100.49	110.60
81	DA	1327	C	N1-C1'-C2'	5.62	121.30	114.00
81	DA	1831	U	C3'-C2'-C1'	5.62	105.99	101.50
81	DA	1896	A	C1'-O4'-C4'	-5.62	105.41	109.90
81	DA	3052	G	C3'-C2'-C1'	5.62	105.99	101.50
81	DA	3120	C	O4'-C1'-C2'	-5.62	100.18	105.80
83	DC	30	G	C1'-O4'-C4'	-5.62	105.41	109.90
33	BD	325	LEU	C-N-CA	5.62	135.74	121.70
78	CA	1409	G	C3'-C2'-C1'	5.62	105.99	101.50
81	DA	735	A	O4'-C1'-N9	5.62	112.69	108.20
81	DA	2674	A	C3'-C2'-C1'	-5.62	97.01	101.50
37	BH	226	TYR	CB-CG-CD2	5.62	124.37	121.00
53	Ba	49	TYR	CA-C-N	5.62	132.83	117.10
81	DA	2196	C	C5'-C4'-C3'	-5.62	107.02	116.00
81	DA	2759	U	C3'-C2'-C1'	5.62	105.99	101.50
9	AH	28	ARG	NE-CZ-NH1	5.61	123.11	120.30
14	AM	132	ARG	N-CA-CB	5.61	120.70	110.60
21	AT	59	VAL	O-C-N	-5.61	113.72	122.70
55	Bc	108	GLN	CA-C-N	5.61	129.55	117.20
78	CA	1478	G	O5'-P-OP2	5.61	117.44	110.70
81	DA	730	C	N3-C4-N4	5.61	121.93	118.00
81	DA	1756	C	N3-C4-C5	-5.61	119.66	121.90
81	DA	2563	G	O4'-C4'-C3'	-5.61	98.39	104.00
35	BG	169	ASP	CB-CG-OD1	-5.61	113.25	118.30
81	DA	1201	C	N1-C1'-C2'	5.61	121.30	114.00
73	Bw	7	TYR	CB-CA-C	-5.61	99.18	110.40
78	CA	1290	U	P-O3'-C3'	5.61	126.43	119.70
81	DA	2206	G	C2'-C3'-O3'	5.61	122.68	113.70
81	DA	2908	G	O4'-C1'-C2'	5.61	112.65	107.60
81	DA	2925	C	N1-C1'-C2'	5.61	121.29	114.00
35	BG	145	LEU	N-CA-CB	5.61	121.62	110.40
47	BU	17	ARG	NE-CZ-NH1	-5.61	117.50	120.30
78	CA	102	U	O4'-C1'-N1	5.61	112.69	108.20
78	CA	634	G	C3'-C2'-C1'	-5.61	97.01	101.50
81	DA	1163	A	O4'-C1'-N9	5.61	112.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1297	C	O3'-P-O5'	-5.61	93.34	104.00
81	DA	1883	A	C1'-O4'-C4'	5.61	114.39	109.90
16	AO	135	LEU	CA-C-N	5.61	132.80	117.10
64	Bl	39	TYR	CB-CA-C	5.61	121.61	110.40
78	CA	1225	U	O4'-C1'-C2'	-5.61	100.19	105.80
78	CA	1244	A	C1'-O4'-C4'	-5.61	105.41	109.90
78	CA	1440	C	C5'-C4'-C3'	-5.61	107.03	116.00
78	CA	1700	C	O4'-C1'-C2'	-5.61	100.19	105.80
81	DA	1227	C	C3'-C2'-C1'	5.61	105.99	101.50
81	DA	2781	U	O3'-P-O5'	5.61	114.65	104.00
5	AC	161	THR	N-CA-C	-5.61	95.87	111.00
5	AC	191	ALA	N-CA-C	5.61	126.14	111.00
19	AR	62	ALA	C-N-CA	5.61	135.72	121.70
81	DA	527	A	C3'-C2'-C1'	5.61	105.98	101.50
81	DA	803	C	C5'-C4'-O4'	-5.61	102.37	109.10
81	DA	3312	U	C5'-C4'-O4'	5.61	115.83	109.10
78	CA	1408	G	O4'-C4'-C3'	5.60	110.58	106.10
81	DA	1847	A	C1'-O4'-C4'	5.60	114.38	109.90
82	DB	46	G	O4'-C1'-C2'	5.60	112.64	107.60
58	Bg	95	PRO	CA-N-CD	-5.60	103.66	111.50
77	BI	154	ARG	NE-CZ-NH1	5.60	123.10	120.30
78	CA	994	G	O4'-C1'-C2'	5.60	112.64	107.60
78	CA	1409	G	P-O5'-C5'	5.60	129.87	120.90
81	DA	1297	C	C3'-C2'-C1'	5.60	105.98	101.50
81	DA	2034	C	O4'-C1'-N1	5.60	112.68	108.20
81	DA	2629	U	C5'-C4'-O4'	-5.60	102.38	109.10
81	DA	3098	G	P-O5'-C5'	-5.60	111.94	120.90
83	DC	82	A	C5'-C4'-C3'	-5.60	107.04	116.00
35	BG	58	LEU	CB-CG-CD1	5.60	120.52	111.00
46	BT	64	ARG	CB-CA-C	-5.60	99.20	110.40
53	Ba	65	ARG	CB-CA-C	-5.60	99.20	110.40
61	Bj	85	PHE	O-C-N	5.60	131.66	122.70
78	CA	435	C	O3'-P-O5'	5.60	114.64	104.00
78	CA	487	G	O4'-C1'-N9	5.60	112.68	108.20
78	CA	1447	C	C1'-O4'-C4'	5.60	114.38	109.90
78	CA	1505	A	O4'-C1'-N9	5.60	112.68	108.20
78	CA	1639	C	N3-C4-C5	-5.60	119.66	121.90
81	DA	338	A	C5'-C4'-C3'	-5.60	107.04	116.00
81	DA	740	G	N1-C2-N3	-5.60	120.54	123.90
81	DA	1408	G	C4'-C3'-C2'	-5.60	97.00	102.60
81	DA	1458	U	P-O3'-C3'	-5.60	112.98	119.70
81	DA	2319	U	C5'-C4'-C3'	5.60	124.96	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3324	C	P-O3'-C3'	5.60	126.42	119.70
6	AE	128	GLY	N-CA-C	-5.60	99.11	113.10
64	Bl	78	PHE	CB-CG-CD1	5.60	124.72	120.80
78	CA	922	G	N9-C1'-C2'	5.60	121.28	114.00
78	CA	1507	G	N1-C2-N3	-5.60	120.54	123.90
79	CB	64	G	C1'-O4'-C4'	-5.60	105.42	109.90
64	Bl	67	LEU	C-N-CA	5.60	135.69	121.70
72	Bt	60	ASN	C-N-CA	-5.60	107.71	121.70
78	CA	1390	U	C5'-C4'-C3'	5.60	124.95	116.00
81	DA	3359	A	O4'-C1'-N9	5.60	112.68	108.20
53	Ba	10	VAL	CG1-CB-CG2	-5.59	101.95	110.90
55	Bc	49	LYS	CB-CA-C	-5.59	99.21	110.40
78	CA	164	A	C5'-C4'-C3'	-5.59	107.05	116.00
78	CA	1380	U	O4'-C1'-N1	5.59	112.68	108.20
78	CA	1633	A	O4'-C1'-N9	5.59	112.68	108.20
81	DA	262	U	C4'-C3'-C2'	-5.59	97.00	102.60
81	DA	685	G	O4'-C1'-N9	5.59	112.68	108.20
81	DA	1050	U	N1-C1'-C2'	-5.59	105.85	112.00
81	DA	2188	A	O4'-C1'-N9	5.59	112.67	108.20
81	DA	2508	U	C1'-O4'-C4'	5.59	114.38	109.90
32	BC	26	ARG	CD-NE-CZ	-5.59	115.77	123.60
8	AF	70	VAL	N-CA-C	-5.59	95.90	111.00
32	BC	137	TYR	CZ-CE2-CD2	5.59	124.83	119.80
34	BE	51	ARG	CA-C-N	-5.59	104.90	117.20
78	CA	112	A	C3'-C2'-C1'	5.59	105.97	101.50
81	DA	677	A	OP2-P-O3'	-5.59	92.90	105.20
81	DA	1267	U	C1'-O4'-C4'	5.59	114.37	109.90
81	DA	1894	U	O4'-C1'-N1	5.59	112.67	108.20
81	DA	2459	A	C1'-O4'-C4'	-5.59	105.43	109.90
81	DA	3298	C	O4'-C4'-C3'	-5.59	98.41	104.00
82	DB	149	A	C5'-C4'-C3'	5.59	124.95	116.00
83	DC	25	G	C4'-C3'-C2'	-5.59	97.01	102.60
32	BC	311	PHE	N-CA-CB	5.59	120.66	110.60
35	BG	111	LEU	O-C-N	-5.59	113.76	122.70
46	BT	130	ASN	N-CA-CB	5.59	120.66	110.60
56	Bf	85	PHE	CA-CB-CG	5.59	127.31	113.90
78	CA	101	U	N1-C1'-C2'	5.59	121.27	114.00
81	DA	1971	C	O4'-C4'-C3'	-5.59	98.41	104.00
81	DA	2794	G	C1'-O4'-C4'	-5.59	105.43	109.90
81	DA	3244	A	P-O5'-C5'	-5.59	111.96	120.90
43	BP	41	ARG	NE-CZ-NH1	5.59	123.09	120.30
52	BY	114	ASP	CB-CA-C	5.59	121.58	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	415	C	O4'-C1'-C2'	-5.59	100.21	105.80
78	CA	1724	U	C2'-C3'-O3'	-5.59	97.21	109.50
81	DA	2623	G	P-O3'-C3'	5.59	126.41	119.70
81	DA	2788	C	O4'-C1'-C2'	-5.59	100.21	105.80
81	DA	3223	A	O4'-C1'-C2'	-5.59	100.21	105.80
32	BC	347	SER	N-CA-CB	5.59	118.88	110.50
45	BR	32	LEU	CB-CG-CD2	5.59	120.50	111.00
60	Bi	68	THR	N-CA-C	5.59	126.08	111.00
78	CA	179	A	N9-C1'-C2'	-5.59	105.86	112.00
81	DA	1093	A	O4'-C1'-N9	5.59	112.67	108.20
81	DA	1357	G	O3'-P-O5'	5.59	114.61	104.00
81	DA	1500	G	C4'-C3'-C2'	-5.59	97.01	102.60
81	DA	109	A	C1'-O4'-C4'	-5.58	105.43	109.90
81	DA	2629	U	C4'-C3'-C2'	-5.58	97.02	102.60
77	BI	106	ALA	N-CA-CB	-5.58	102.28	110.10
78	CA	1238	A	O4'-C1'-C2'	-5.58	100.22	105.80
81	DA	1924	U	C3'-C2'-C1'	5.58	105.97	101.50
81	DA	2311	G	C3'-C2'-C1'	5.58	105.97	101.50
81	DA	2315	G	N9-C1'-C2'	5.58	121.26	114.00
81	DA	2960	C	N1-C1'-C2'	5.58	121.26	114.00
32	BC	131	THR	CB-CA-C	5.58	126.67	111.60
55	Bc	10	ARG	NE-CZ-NH1	5.58	123.09	120.30
74	BQ	24	ARG	NE-CZ-NH1	-5.58	117.51	120.30
81	DA	533	A	N9-C1'-C2'	-5.58	105.86	112.00
81	DA	1180	A	P-O5'-C5'	-5.58	111.97	120.90
81	DA	1268	G	N9-C1'-C2'	5.58	121.26	114.00
81	DA	1758	G	C2'-C3'-O3'	5.58	122.63	113.70
81	DA	1800	A	N9-C1'-C2'	-5.58	105.86	112.00
81	DA	2127	U	O4'-C1'-N1	5.58	112.67	108.20
81	DA	2539	C	N3-C4-N4	5.58	121.91	118.00
83	DC	107	G	P-O3'-C3'	-5.58	113.00	119.70
38	Bs	64	ARG	NE-CZ-NH1	5.58	123.09	120.30
78	CA	930	A	P-O3'-C3'	-5.58	113.00	119.70
81	DA	1597	C	O4'-C1'-C2'	-5.58	100.22	105.80
81	DA	1711	C	C1'-O4'-C4'	-5.58	105.44	109.90
81	DA	3333	G	N9-C1'-C2'	5.58	121.25	114.00
34	BE	61	ARG	NE-CZ-NH2	-5.58	117.51	120.30
45	BR	16	ARG	NE-CZ-NH2	-5.58	117.51	120.30
78	CA	687	G	O4'-C1'-C2'	-5.58	100.22	105.80
78	CA	769	A	P-O3'-C3'	5.58	126.39	119.70
78	CA	1022	C	O4'-C1'-N1	-5.58	103.74	108.20
78	CA	1545	A	C5'-C4'-C3'	-5.58	107.08	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	520	U	O4'-C4'-C3'	-5.58	98.42	104.00
81	DA	582	G	C5'-C4'-O4'	5.58	115.80	109.10
81	DA	730	C	C6-N1-C2	-5.58	118.07	120.30
81	DA	1597	C	O3'-P-O5'	5.58	114.60	104.00
38	Bs	33	VAL	CB-CA-C	-5.58	100.80	111.40
53	Ba	19	ALA	C-N-CA	5.58	134.01	122.30
78	CA	251	A	P-O3'-C3'	5.58	126.39	119.70
16	AO	124	ARG	CD-NE-CZ	5.58	131.41	123.60
35	BG	65	ILE	N-CA-CB	-5.58	97.98	110.80
41	BN	70	PHE	N-CA-CB	5.58	120.64	110.60
78	CA	1554	U	C1'-O4'-C4'	5.58	114.36	109.90
80	CC	19	U	O4'-C1'-N1	5.58	112.66	108.20
81	DA	693	A	N9-C1'-C2'	-5.58	105.87	112.00
81	DA	1962	G	O3'-P-O5'	5.58	114.59	104.00
81	DA	2844	C	P-O3'-C3'	5.58	126.39	119.70
81	DA	2951	G	O4'-C1'-C2'	-5.58	100.22	105.80
82	DB	111	A	P-O3'-C3'	-5.58	113.01	119.70
22	AV	59	TYR	CB-CG-CD1	-5.57	117.66	121.00
31	BB	34	TYR	N-CA-CB	5.57	120.63	110.60
44	BO	10	LYS	N-CA-C	5.57	126.05	111.00
78	CA	57	G	C3'-C2'-C1'	-5.57	97.04	101.50
78	CA	960	U	C3'-C2'-C1'	5.57	105.96	101.50
78	CA	992	A	C5'-C4'-C3'	-5.57	107.08	116.00
78	CA	1337	A	O4'-C1'-C2'	-5.57	100.23	105.80
81	DA	1931	U	O4'-C1'-N1	5.57	112.66	108.20
81	DA	2114	C	C3'-C2'-C1'	-5.57	97.04	101.50
78	CA	182	A	C4'-C3'-C2'	-5.57	97.03	102.60
78	CA	1549	C	N1-C1'-C2'	5.57	121.24	114.00
78	CA	1558	U	O5'-C5'-C4'	5.57	122.29	111.70
81	DA	2266	U	O4'-C1'-N1	5.57	112.66	108.20
81	DA	2857	C	C1'-O4'-C4'	-5.57	105.44	109.90
81	DA	2972	G	O4'-C1'-N9	5.57	112.66	108.20
2	AA	4	PRO	O-C-N	-5.57	113.79	122.70
18	AP	99	ARG	CB-CA-C	5.57	121.54	110.40
24	AX	66	PRO	CA-C-N	5.57	129.46	117.20
35	BG	140	VAL	C-N-CA	5.57	135.63	121.70
38	Bs	28	VAL	C-N-CA	5.57	134.00	122.30
40	BK	47	PHE	CG-CD1-CE1	-5.57	114.67	120.80
41	BN	117	ARG	NE-CZ-NH2	-5.57	117.51	120.30
81	DA	306	A	C4'-C3'-C2'	-5.57	97.03	102.60
81	DA	3010	U	O3'-P-O5'	5.57	114.58	104.00
78	CA	178	U	C1'-O4'-C4'	5.57	114.36	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	BX	45	LYS	CB-CA-C	-5.57	99.26	110.40
76	BS	52	LYS	N-CA-CB	-5.57	100.58	110.60
81	DA	639	G	C4'-C3'-C2'	-5.57	97.03	102.60
81	DA	750	G	O4'-C4'-C3'	-5.57	98.43	104.00
81	DA	1582	C	O3'-P-O5'	-5.57	93.42	104.00
78	CA	419	G	N9-C1'-C2'	-5.57	105.88	112.00
81	DA	320	G	C3'-C2'-C1'	-5.57	97.05	101.50
81	DA	1144	U	O4'-C1'-N1	-5.57	103.75	108.20
81	DA	1175	C	O3'-P-O5'	5.57	114.57	104.00
81	DA	1674	G	O4'-C4'-C3'	-5.57	98.44	104.00
81	DA	2342	U	O4'-C1'-N1	5.57	112.65	108.20
81	DA	2698	G	O3'-P-O5'	5.57	114.57	104.00
26	AZ	29	LYS	N-CA-CB	5.56	120.62	110.60
74	BQ	10	SER	N-CA-CB	5.56	118.85	110.50
74	BQ	142	PHE	C-N-CA	5.56	135.61	121.70
78	CA	1595	U	O4'-C4'-C3'	5.56	110.55	106.10
81	DA	2840	C	C1'-O4'-C4'	5.56	114.35	109.90
82	DB	19	C	O4'-C1'-N1	5.56	112.65	108.20
82	DB	129	C	O4'-C1'-C2'	-5.56	100.24	105.80
83	DC	59	G	O4'-C1'-N9	5.56	112.65	108.20
1	Aa	47	LEU	CB-CA-C	-5.56	99.63	110.20
1	Aa	245	PHE	CB-CG-CD2	-5.56	116.91	120.80
21	AT	85	TYR	CG-CD2-CE2	-5.56	116.85	121.30
78	CA	310	C	N1-C1'-C2'	5.56	121.23	114.00
78	CA	1226	A	O4'-C1'-N9	5.56	112.65	108.20
78	CA	1609	U	C5'-C4'-C3'	-5.56	107.10	116.00
79	CB	49	G	O4'-C1'-N9	5.56	112.65	108.20
81	DA	1863	G	C3'-C2'-C1'	5.56	105.95	101.50
21	AT	12	TYR	N-CA-CB	-5.56	100.59	110.60
59	Bh	71	HIS	CB-CA-C	-5.56	99.28	110.40
78	CA	306	U	C5'-C4'-C3'	-5.56	107.10	116.00
81	DA	552	G	C5'-C4'-O4'	5.56	115.77	109.10
81	DA	1013	G	P-O3'-C3'	-5.56	113.03	119.70
81	DA	1382	G	P-O5'-C5'	5.56	129.79	120.90
81	DA	2332	A	N9-C1'-C2'	5.56	121.23	114.00
81	DA	2528	G	O4'-C4'-C3'	-5.56	98.44	104.00
82	DB	127	U	O4'-C1'-N1	5.56	112.65	108.20
83	DC	61	U	C1'-O4'-C4'	5.56	114.35	109.90
2	AA	242	TRP	CE2-CD2-CG	-5.56	102.85	107.30
13	AL	39	LYS	CG-CD-CE	5.56	128.57	111.90
32	BC	290	ASP	N-CA-C	-5.56	95.99	111.00
57	Be	224	ILE	CG1-CB-CG2	5.56	123.63	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	Bv	16	THR	CB-CA-C	-5.56	96.59	111.60
78	CA	242	U	P-O3'-C3'	5.56	126.37	119.70
81	DA	1145	G	N9-C1'-C2'	5.56	121.23	114.00
81	DA	1331	U	C3'-C2'-C1'	5.56	105.94	101.50
81	DA	1623	G	N9-C1'-C2'	5.56	121.22	114.00
81	DA	1941	C	O3'-P-O5'	-5.56	93.44	104.00
81	DA	1973	G	O5'-C5'-C4'	5.56	122.26	111.70
81	DA	2422	C	C5'-C4'-C3'	-5.56	107.11	116.00
81	DA	2427	U	O4'-C1'-N1	5.56	112.64	108.20
62	Bk	97	SER	N-CA-CB	5.56	118.83	110.50
67	Bp	27	LEU	CB-CA-C	5.56	120.76	110.20
78	CA	1669	U	P-O3'-C3'	5.56	126.37	119.70
81	DA	599	C	P-O3'-C3'	5.56	126.37	119.70
12	AK	58	TYR	CB-CG-CD2	-5.55	117.67	121.00
16	AO	140	LYS	N-CA-CB	5.55	120.60	110.60
31	BB	50	HIS	CA-CB-CG	-5.55	104.16	113.60
60	Bi	46	ASP	N-CA-C	5.55	126.00	111.00
81	DA	173	G	O4'-C4'-C3'	-5.55	98.44	104.00
81	DA	1039	U	C1'-O4'-C4'	5.55	114.34	109.90
81	DA	2244	A	C3'-C2'-C1'	-5.55	97.06	101.50
81	DA	980	A	P-O3'-C3'	-5.55	113.04	119.70
81	DA	1415	U	N1-C1'-C2'	5.55	121.22	114.00
41	BN	43	LYS	CB-CA-C	5.55	121.50	110.40
56	Bf	94	GLU	OE1-CD-OE2	5.55	129.96	123.30
76	BS	45	TYR	CG-CD2-CE2	5.55	125.74	121.30
78	CA	1136	U	N1-C1'-C2'	-5.55	105.89	112.00
81	DA	547	G	P-O5'-C5'	-5.55	112.02	120.90
81	DA	1409	G	P-O3'-C3'	5.55	126.36	119.70
81	DA	1787	A	C3'-C2'-C1'	5.55	105.94	101.50
81	DA	2777	G	C3'-C2'-C1'	5.55	105.94	101.50
81	DA	2898	G	P-O5'-C5'	5.55	129.78	120.90
19	AR	120	SER	N-CA-CB	5.55	118.83	110.50
53	Ba	75	VAL	CA-CB-CG1	-5.55	102.58	110.90
81	DA	713	U	N1-C1'-C2'	5.55	121.21	114.00
81	DA	3018	C	N1-C1'-C2'	5.55	121.21	114.00
81	DA	3252	G	O3'-P-O5'	-5.55	93.45	104.00
45	BR	16	ARG	CA-CB-CG	5.55	125.61	113.40
50	BX	63	ILE	N-CA-C	-5.55	96.02	111.00
78	CA	844	A	C4-C5-C6	5.55	119.77	117.00
78	CA	1239	U	P-O3'-C3'	5.55	126.36	119.70
81	DA	2063	U	O4'-C1'-N1	5.55	112.64	108.20
18	AP	74	THR	OG1-CB-CG2	5.55	122.76	110.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AX	70	LYS	CB-CA-C	-5.55	99.31	110.40
52	BY	73	VAL	N-CA-C	-5.55	96.02	111.00
61	Bj	5	HIS	N-CA-C	-5.55	96.03	111.00
78	CA	340	U	C5'-C4'-O4'	5.55	115.76	109.10
78	CA	1274	C	N3-C4-C5	-5.55	119.68	121.90
78	CA	1463	C	O3'-P-O5'	-5.55	93.46	104.00
81	DA	176	G	O4'-C1'-N9	5.55	112.64	108.20
81	DA	216	G	O4'-C1'-C2'	5.55	112.59	107.60
81	DA	230	U	O3'-P-O5'	5.55	114.54	104.00
81	DA	1478	C	N1-C1'-C2'	5.55	121.21	114.00
81	DA	2153	U	P-O3'-C3'	5.55	126.36	119.70
81	DA	3257	C	C3'-C2'-C1'	5.55	105.94	101.50
78	CA	600	U	P-O3'-C3'	5.54	126.35	119.70
81	DA	648	C	C3'-C2'-C1'	5.54	105.94	101.50
14	AM	53	ASP	CB-CG-OD2	5.54	123.29	118.30
76	BS	138	ARG	C-N-CA	-5.54	107.84	121.70
78	CA	1047	G	P-O3'-C3'	5.54	126.35	119.70
78	CA	1284	C	O5'-P-OP2	-5.54	100.71	105.70
81	DA	635	G	O3'-P-O5'	5.54	114.53	104.00
81	DA	938	C	O3'-P-O5'	-5.54	93.47	104.00
81	DA	1381	A	P-O3'-C3'	-5.54	113.05	119.70
81	DA	1990	U	O4'-C1'-N1	5.54	112.64	108.20
1	Aa	61	PHE	CB-CA-C	-5.54	99.32	110.40
39	BJ	88	PRO	CA-C-N	5.54	132.61	117.10
47	BU	38	ASP	CB-CG-OD2	-5.54	113.31	118.30
78	CA	256	A	C3'-C2'-C1'	5.54	105.93	101.50
78	CA	913	G	C5'-C4'-O4'	-5.54	102.45	109.10
81	DA	182	U	C3'-C2'-C1'	-5.54	97.07	101.50
81	DA	1478	C	C3'-C2'-C1'	5.54	105.93	101.50
81	DA	3344	A	P-O3'-C3'	5.54	126.35	119.70
82	DB	65	A	N9-C1'-C2'	5.54	121.20	114.00
4	AD	96	ASN	CB-CA-C	5.54	121.47	110.40
4	AD	147	ILE	N-CA-C	-5.54	96.05	111.00
42	BM	97	ASP	N-CA-CB	5.54	120.57	110.60
47	BU	154	VAL	CA-CB-CG2	-5.54	102.59	110.90
69	Br	89	LYS	N-CA-C	-5.54	96.05	111.00
78	CA	483	A	C8-N9-C4	-5.54	103.58	105.80
78	CA	568	G	C5-C6-O6	-5.54	125.28	128.60
79	CB	27	G	C4'-C3'-C2'	-5.54	97.06	102.60
81	DA	564	G	O4'-C1'-N9	5.54	112.63	108.20
81	DA	2235	C	O4'-C1'-C2'	-5.54	100.26	105.80
81	DA	2367	A	O4'-C1'-N9	5.54	112.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	Bq	11	ARG	NE-CZ-NH1	5.54	123.07	120.30
78	CA	1637	C	N3-C4-C5	-5.54	119.69	121.90
81	DA	2513	U	C2'-C3'-O3'	5.54	122.56	113.70
32	BC	59	ASP	CB-CG-OD2	-5.54	113.32	118.30
35	BG	46	ARG	C-N-CA	5.54	135.54	121.70
63	Bm	55	TRP	CB-CG-CD2	-5.54	119.40	126.60
78	CA	114	C	O4'-C1'-C2'	-5.54	100.26	105.80
78	CA	880	C	O4'-C4'-C3'	5.54	110.53	106.10
78	CA	1236	A	P-O3'-C3'	-5.54	113.06	119.70
81	DA	1666	G	O4'-C1'-N9	5.54	112.63	108.20
81	DA	2170	U	C1'-O4'-C4'	5.54	114.33	109.90
82	DB	98	U	O4'-C1'-C2'	5.54	112.58	107.60
26	AZ	37	ARG	NE-CZ-NH2	-5.53	117.53	120.30
29	AU	36	SER	N-CA-C	5.53	125.94	111.00
78	CA	490	C	N3-C4-C5	-5.53	119.69	121.90
81	DA	638	C	C1'-O4'-C4'	-5.53	105.47	109.90
81	DA	1853	U	C1'-O4'-C4'	5.53	114.33	109.90
83	DC	26	C	C4'-C3'-C2'	-5.53	97.07	102.60
15	AN	40	ARG	NE-CZ-NH1	-5.53	117.53	120.30
25	AY	49	ARG	N-CA-C	-5.53	96.06	111.00
5	AC	145	SER	N-CA-CB	5.53	118.80	110.50
8	AF	112	ARG	NE-CZ-NH1	5.53	123.07	120.30
34	BE	29	ARG	CB-CG-CD	5.53	125.98	111.60
43	BP	75	VAL	N-CA-C	-5.53	96.06	111.00
78	CA	412	A	N9-C1'-C2'	-5.53	105.92	112.00
78	CA	1080	U	C5'-C4'-O4'	5.53	115.74	109.10
81	DA	1916	U	C3'-C2'-C1'	5.53	105.92	101.50
81	DA	2770	G	C5'-C4'-C3'	-5.53	107.15	116.00
81	DA	3140	G	C1'-O4'-C4'	5.53	114.33	109.90
81	DA	583	G	O4'-C4'-C3'	-5.53	98.47	104.00
81	DA	618	C	O4'-C1'-C2'	-5.53	100.27	105.80
81	DA	2100	A	O5'-C5'-C4'	-5.53	101.19	111.70
81	DA	2747	A	O4'-C1'-N9	5.53	112.62	108.20
81	DA	3100	U	O4'-C1'-N1	5.53	112.62	108.20
18	AP	111	VAL	N-CA-CB	5.53	123.66	111.50
30	BA	72	PHE	CB-CG-CD1	-5.53	116.93	120.80
32	BC	364	LYS	CA-CB-CG	5.53	125.56	113.40
33	BD	29	PRO	CA-C-N	5.53	129.36	117.20
78	CA	661	A	C3'-C2'-C1'	5.53	105.92	101.50
78	CA	933	A	O4'-C1'-N9	5.53	112.62	108.20
81	DA	629	U	O4'-C1'-N1	5.53	112.62	108.20
81	DA	1166	G	N9-C1'-C2'	-5.53	105.92	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1419	A	P-O3'-C3'	-5.53	113.07	119.70
81	DA	2904	U	N1-C1'-C2'	5.53	121.19	114.00
81	DA	3285	C	C3'-C2'-C1'	5.53	105.92	101.50
3	AB	122	VAL	CA-CB-CG2	-5.53	102.61	110.90
17	AQ	53	TYR	CG-CD1-CE1	-5.53	116.88	121.30
44	BO	39	HIS	C-N-CA	5.53	135.51	121.70
78	CA	67	A	P-O3'-C3'	5.53	126.33	119.70
78	CA	576	G	O4'-C1'-N9	5.53	112.62	108.20
78	CA	1466	G	N9-C1'-C2'	5.53	121.18	114.00
81	DA	185	C	C5'-C4'-O4'	-5.53	102.47	109.10
81	DA	1105	A	O4'-C1'-N9	5.53	112.62	108.20
81	DA	1612	A	C1'-O4'-C4'	5.53	114.32	109.90
81	DA	2294	U	C1'-O4'-C4'	5.53	114.32	109.90
81	DA	2630	C	O5'-C5'-C4'	5.53	122.20	111.70
35	BG	61	ASN	CB-CA-C	-5.52	99.35	110.40
78	CA	1206	U	N1-C1'-C2'	5.52	121.18	114.00
78	CA	1491	U	O3'-P-O5'	-5.52	93.50	104.00
81	DA	1515	A	N9-C1'-C2'	5.52	121.18	114.00
81	DA	1657	C	C3'-C2'-C1'	5.52	105.92	101.50
10	AI	85	ILE	C-N-CA	5.52	135.50	121.70
10	AI	122	ARG	C-N-CA	5.52	135.50	121.70
78	CA	1045	C	C1'-O4'-C4'	-5.52	105.48	109.90
78	CA	1427	A	C1'-O4'-C4'	5.52	114.32	109.90
79	CB	36	C	C1'-O4'-C4'	-5.52	105.48	109.90
81	DA	124	U	O4'-C1'-N1	-5.52	103.78	108.20
81	DA	1230	G	N9-C1'-C2'	-5.52	105.92	112.00
81	DA	1329	U	N1-C1'-C2'	5.52	121.18	114.00
81	DA	1717	U	C1'-O4'-C4'	5.52	114.32	109.90
81	DA	1754	G	N3-C2-N2	5.52	123.77	119.90
81	DA	1770	G	O4'-C1'-N9	5.52	112.62	108.20
81	DA	1958	U	O4'-C1'-C2'	-5.52	100.28	105.80
81	DA	2061	G	O4'-C4'-C3'	-5.52	98.48	104.00
81	DA	2251	G	C5'-C4'-C3'	5.52	124.84	116.00
81	DA	2439	A	C1'-O4'-C4'	-5.52	105.48	109.90
81	DA	2467	G	P-O5'-C5'	-5.52	112.06	120.90
81	DA	2965	U	C3'-C2'-C1'	5.52	105.92	101.50
83	DC	30	G	C4'-C3'-C2'	-5.52	97.08	102.60
62	Bk	28	TYR	N-CA-CB	-5.52	100.66	110.60
81	DA	2410	U	C5'-C4'-C3'	-5.52	107.17	116.00
21	AT	82	VAL	N-CA-C	-5.52	96.10	111.00
60	Bi	50	ALA	CB-CA-C	5.52	118.38	110.10
78	CA	567	A	C5-C6-N6	-5.52	119.28	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1107	G	P-O3'-C3'	5.52	126.32	119.70
81	DA	144	A	P-O3'-C3'	5.52	126.32	119.70
81	DA	1614	C	P-O3'-C3'	-5.52	113.08	119.70
81	DA	2281	A	C2'-C3'-O3'	5.52	122.53	113.70
81	DA	2423	U	C4'-C3'-C2'	-5.52	97.08	102.60
78	CA	243	G	P-O3'-C3'	5.52	126.32	119.70
78	CA	412	A	O4'-C1'-N9	5.52	112.61	108.20
78	CA	615	A	C3'-C2'-C1'	5.52	105.91	101.50
78	CA	1084	A	P-O5'-C5'	-5.52	112.07	120.90
79	CB	12	U	C3'-C2'-C1'	5.52	105.91	101.50
79	CB	47	U	C1'-O4'-C4'	5.52	114.31	109.90
81	DA	1429	G	O4'-C1'-C2'	5.52	112.57	107.60
81	DA	1622	U	C1'-O4'-C4'	5.52	114.31	109.90
81	DA	1770	G	P-O5'-C5'	5.52	129.73	120.90
81	DA	2645	G	C5'-C4'-C3'	-5.52	107.17	116.00
41	BN	62	GLN	C-N-CA	5.52	135.49	121.70
78	CA	1209	C	C1'-O4'-C4'	-5.52	105.49	109.90
78	CA	1319	A	C1'-O4'-C4'	5.52	114.31	109.90
3	AB	19	ALA	N-CA-CB	5.51	117.82	110.10
5	AC	174	ARG	NE-CZ-NH2	-5.51	117.54	120.30
22	AV	105	THR	O-C-N	-5.51	113.88	122.70
24	AX	63	LEU	N-CA-C	-5.51	96.11	111.00
31	BB	72	ARG	C-N-CA	5.51	135.49	121.70
47	BU	13	TYR	CG-CD1-CE1	5.51	125.71	121.30
53	Ba	27	LYS	CA-CB-CG	5.51	125.53	113.40
78	CA	1172	G	O4'-C1'-N9	5.51	112.61	108.20
81	DA	3224	G	O4'-C1'-C2'	5.51	112.56	107.60
78	CA	1108	G	C3'-C2'-C1'	-5.51	97.09	101.50
79	CB	25	U	C4'-C3'-C2'	-5.51	97.09	102.60
81	DA	2486	A	O4'-C4'-C3'	-5.51	98.49	104.00
81	DA	2764	C	N1-C1'-C2'	5.51	121.17	114.00
3	AB	169	ASP	CB-CG-OD2	-5.51	113.34	118.30
10	AI	137	ARG	CB-CA-C	-5.51	99.38	110.40
33	BD	313	LEU	N-CA-C	5.51	125.88	111.00
33	BD	346	LYS	CA-CB-CG	5.51	125.52	113.40
50	BX	34	LEU	C-N-CD	-5.51	108.47	120.60
78	CA	173	A	C5'-C4'-C3'	5.51	124.82	116.00
78	CA	999	U	O4'-C1'-N1	-5.51	103.79	108.20
81	DA	39	A	O4'-C1'-C2'	-5.51	100.29	105.80
81	DA	108	A	P-O3'-C3'	5.51	126.31	119.70
81	DA	2638	C	C5'-C4'-C3'	5.51	124.82	116.00
9	AH	52	TYR	CG-CD1-CE1	-5.51	116.89	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AL	1	MET	CG-SD-CE	-5.51	91.39	100.20
59	Bh	32	TRP	CG-CD2-CE3	-5.51	128.94	133.90
78	CA	253	A	C1'-O4'-C4'	-5.51	105.49	109.90
78	CA	1437	U	O4'-C1'-C2'	-5.51	100.29	105.80
78	CA	1637	C	N3-C4-N4	5.51	121.86	118.00
78	CA	1762	A	O4'-C1'-C2'	-5.51	100.29	105.80
81	DA	126	U	O4'-C1'-C2'	-5.51	100.29	105.80
81	DA	229	G	N9-C1'-C2'	5.51	121.16	114.00
81	DA	822	G	P-O3'-C3'	5.51	126.31	119.70
81	DA	2130	G	O3'-P-O5'	5.51	114.47	104.00
53	Ba	22	LYS	CB-CA-C	5.51	121.42	110.40
64	Bl	63	ARG	CD-NE-CZ	5.51	131.31	123.60
81	DA	1497	C	O4'-C1'-N1	5.51	112.61	108.20
81	DA	2172	A	O4'-C4'-C3'	-5.51	98.49	104.00
81	DA	2684	C	N1-C1'-C2'	5.51	121.16	114.00
18	AP	74	THR	CA-CB-CG2	-5.51	104.69	112.40
33	BD	146	PRO	CA-N-CD	-5.51	103.79	111.50
78	CA	143	G	N9-C1'-C2'	5.51	121.16	114.00
78	CA	1051	G	O4'-C1'-N9	5.51	112.61	108.20
81	DA	467	U	P-O3'-C3'	5.51	126.31	119.70
81	DA	790	U	P-O5'-C5'	5.51	129.71	120.90
81	DA	1104	G	P-O3'-C3'	5.51	126.31	119.70
81	DA	2861	U	N1-C1'-C2'	5.51	121.16	114.00
82	DB	94	C	N1-C1'-C2'	5.51	121.16	114.00
43	BP	123	GLN	CA-C-N	5.50	129.31	117.20
50	BX	36	LYS	CB-CA-C	-5.50	99.39	110.40
81	DA	3218	A	P-O3'-C3'	5.50	126.31	119.70
74	BQ	201	GLY	N-CA-C	5.50	126.86	113.10
76	BS	152	PRO	CA-N-CD	-5.50	103.80	111.50
78	CA	56	U	C2'-C3'-O3'	5.50	122.51	113.70
78	CA	1055	U	O4'-C1'-N1	5.50	112.60	108.20
81	DA	749	C	O4'-C1'-N1	5.50	112.60	108.20
81	DA	976	U	N1-C1'-C2'	-5.50	105.95	112.00
81	DA	1047	A	O4'-C1'-N9	5.50	112.60	108.20
81	DA	2205	U	O4'-C1'-N1	5.50	112.60	108.20
81	DA	2249	G	C4'-C3'-C2'	-5.50	97.10	102.60
81	DA	2689	A	O4'-C1'-N9	-5.50	103.80	108.20
81	DA	2763	U	P-O3'-C3'	5.50	126.31	119.70
81	DA	2969	A	O3'-P-O5'	5.50	114.46	104.00
82	DB	11	C	C4'-C3'-C2'	-5.50	97.10	102.60
82	DB	61	A	C1'-O4'-C4'	-5.50	105.50	109.90
3	AB	17	PHE	CB-CG-CD2	-5.50	116.95	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BP	176	LYS	N-CA-C	-5.50	96.15	111.00
57	Be	76	TYR	CB-CG-CD1	-5.50	117.70	121.00
78	CA	174	U	O4'-C1'-N1	-5.50	103.80	108.20
78	CA	563	U	C3'-C2'-C1'	5.50	105.90	101.50
78	CA	1092	A	P-O5'-C5'	5.50	129.70	120.90
81	DA	1018	G	C1'-O4'-C4'	5.50	114.30	109.90
81	DA	1273	A	C3'-C2'-C1'	5.50	105.90	101.50
82	DB	100	U	C5'-C4'-C3'	-5.50	107.20	116.00
13	AL	97	ASP	N-CA-CB	5.50	120.50	110.60
57	Be	31	ALA	CB-CA-C	-5.50	101.85	110.10
65	Bn	56	ILE	C-N-CA	5.50	135.45	121.70
76	BS	27	TYR	CB-CG-CD1	-5.50	117.70	121.00
78	CA	1391	A	C5'-C4'-O4'	5.50	115.70	109.10
81	DA	1218	U	O4'-C1'-N1	5.50	112.60	108.20
81	DA	2385	G	O4'-C1'-N9	5.50	112.60	108.20
81	DA	2912	G	O4'-C1'-N9	5.50	112.60	108.20
1	Aa	240	VAL	C-N-CA	5.50	135.45	121.70
2	AA	31	VAL	CA-CB-CG1	5.50	119.15	110.90
18	AP	93	TYR	CB-CG-CD1	-5.50	117.70	121.00
30	BA	54	LYS	CB-CG-CD	5.50	125.90	111.60
67	Bp	44	GLN	N-CA-C	-5.50	96.15	111.00
78	CA	1307	U	P-O5'-C5'	-5.50	112.10	120.90
81	DA	1233	G	N9-C1'-C2'	-5.50	105.95	112.00
13	AL	2	GLY	CA-C-N	-5.50	105.11	117.20
31	BB	40	TYR	N-CA-CB	5.50	120.49	110.60
58	Bg	50	ARG	N-CA-CB	5.50	120.50	110.60
58	Bg	87	ASN	CB-CA-C	5.50	121.39	110.40
78	CA	396	G	O4'-C1'-N9	5.50	112.60	108.20
78	CA	1061	A	P-O3'-C3'	5.50	126.30	119.70
81	DA	363	G	O4'-C1'-C2'	5.50	112.55	107.60
81	DA	735	A	C5-C6-N6	-5.50	119.30	123.70
81	DA	1290	A	O4'-C4'-C3'	-5.50	98.50	104.00
81	DA	2137	U	P-O5'-C5'	-5.50	112.11	120.90
81	DA	2153	U	C4'-C3'-C2'	-5.50	97.10	102.60
81	DA	2265	C	C5'-C4'-C3'	5.50	124.79	116.00
6	AE	197	TYR	N-CA-CB	5.50	120.49	110.60
37	BH	150	LEU	CB-CG-CD2	-5.50	101.66	111.00
43	BP	110	ALA	N-CA-CB	5.50	117.79	110.10
74	BQ	141	PRO	N-CA-C	5.50	126.39	112.10
78	CA	293	U	O4'-C1'-N1	5.50	112.60	108.20
14	AM	80	LYS	N-CA-CB	5.49	120.49	110.60
21	AT	72	LEU	CB-CG-CD1	5.49	120.34	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BB	4	VAL	CA-CB-CG2	-5.49	102.66	110.90
41	BN	109	ARG	NE-CZ-NH2	-5.49	117.55	120.30
59	Bh	6	HIS	CA-CB-CG	5.49	122.94	113.60
67	Bp	34	CYS	C-N-CA	-5.49	107.97	121.70
78	CA	1010	C	P-O5'-C5'	-5.49	112.11	120.90
81	DA	1162	U	P-O3'-C3'	5.49	126.29	119.70
81	DA	2834	G	O4'-C1'-N9	5.49	112.59	108.20
83	DC	92	A	O4'-C1'-N9	5.49	112.59	108.20
78	CA	1257	U	O4'-C1'-N1	5.49	112.59	108.20
81	DA	2072	G	P-O5'-C5'	5.49	129.69	120.90
81	DA	2471	U	C4'-C3'-C2'	-5.49	97.11	102.60
81	DA	2734	A	C4'-C3'-C2'	-5.49	97.11	102.60
81	DA	2967	A	O3'-P-O5'	-5.49	93.57	104.00
81	DA	3151	U	N1-C1'-C2'	-5.49	105.96	112.00
20	AS	12	GLN	CG-CD-NE2	-5.49	103.52	116.70
41	BN	43	LYS	CA-CB-CG	5.49	125.48	113.40
63	Bm	4	ARG	NE-CZ-NH1	5.49	123.05	120.30
78	CA	448	C	C1'-O4'-C4'	-5.49	105.51	109.90
78	CA	586	G	O4'-C4'-C3'	5.49	110.49	106.10
81	DA	264	G	P-O5'-C5'	5.49	129.68	120.90
81	DA	1752	A	N9-C1'-C2'	5.49	121.14	114.00
81	DA	2087	C	P-O5'-C5'	5.49	129.69	120.90
83	DC	45	A	P-O5'-C5'	5.49	129.69	120.90
17	AQ	107	SER	CB-CA-C	5.49	120.53	110.10
32	BC	371	GLN	N-CA-CB	5.49	120.48	110.60
33	BD	103	THR	N-CA-C	-5.49	96.18	111.00
64	Bl	8	PHE	CB-CG-CD1	-5.49	116.96	120.80
67	Bp	34	CYS	N-CA-C	5.49	125.82	111.00
81	DA	2176	U	O3'-P-O5'	-5.49	93.57	104.00
81	DA	2269	U	C1'-O4'-C4'	5.49	114.29	109.90
81	DA	2700	G	C4'-C3'-C2'	-5.49	97.11	102.60
81	DA	3242	G	O4'-C4'-C3'	-5.49	98.51	104.00
4	AD	103	TYR	CB-CA-C	-5.49	99.42	110.40
62	Bk	48	ALA	C-N-CA	5.49	133.82	122.30
78	CA	1492	A	P-O3'-C3'	5.49	126.28	119.70
81	DA	1277	C	C5'-C4'-O4'	-5.49	102.52	109.10
81	DA	1699	A	N9-C1'-C2'	-5.49	105.97	112.00
81	DA	2674	A	O4'-C1'-C2'	5.49	112.54	107.60
2	AA	72	ASP	CB-CG-OD1	-5.49	113.36	118.30
5	AC	14	THR	CA-C-O	-5.49	108.58	120.10
32	BC	241	LYS	CB-CA-C	5.49	121.37	110.40
76	BS	71	PRO	C-N-CA	5.49	135.41	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1324	G	C5'-C4'-O4'	5.49	115.68	109.10
81	DA	969	C	O3'-P-O5'	-5.49	93.58	104.00
81	DA	1119	C	N1-C1'-C2'	5.49	121.13	114.00
81	DA	2363	A	C4'-C3'-C2'	-5.49	97.11	102.60
81	DA	2462	A	O4'-C1'-C2'	-5.49	100.31	105.80
81	DA	2887	A	C3'-C2'-C1'	5.49	105.89	101.50
83	DC	7	G	O4'-C1'-N9	5.49	112.59	108.20
78	CA	964	U	O4'-C1'-C2'	-5.48	100.32	105.80
78	CA	1068	C	N3-C4-C5	-5.48	119.71	121.90
78	CA	1301	U	P-O5'-C5'	-5.48	112.13	120.90
81	DA	2885	C	C1'-O4'-C4'	-5.48	105.51	109.90
81	DA	3085	G	C5'-C4'-C3'	5.48	124.77	116.00
81	DA	3345	G	C3'-C2'-C1'	-5.48	97.11	101.50
13	AL	122	PHE	N-CA-C	5.48	125.80	111.00
33	BD	358	THR	C-N-CA	5.48	135.41	121.70
78	CA	14	C	C1'-O4'-C4'	-5.48	105.52	109.90
78	CA	150	U	O4'-C1'-N1	5.48	112.59	108.20
81	DA	623	U	O4'-C1'-C2'	-5.48	100.32	105.80
81	DA	1578	C	O4'-C1'-C2'	-5.48	100.32	105.80
81	DA	1697	A	O4'-C1'-C2'	-5.48	100.32	105.80
81	DA	2035	G	C1'-O4'-C4'	-5.48	105.52	109.90
81	DA	3000	A	P-O5'-C5'	5.48	129.67	120.90
82	DB	101	U	O4'-C1'-N1	5.48	112.59	108.20
83	DC	87	U	O4'-C1'-N1	5.48	112.59	108.20
48	BW	83	TYR	CB-CG-CD1	5.48	124.29	121.00
78	CA	295	A	C5'-C4'-O4'	-5.48	102.52	109.10
78	CA	1264	G	O4'-C1'-C2'	-5.48	100.32	105.80
81	DA	2207	A	C1'-O4'-C4'	5.48	114.28	109.90
81	DA	2646	C	O3'-P-O5'	-5.48	93.59	104.00
81	DA	2706	G	P-O3'-C3'	5.48	126.28	119.70
81	DA	3385	U	C4'-C3'-C2'	-5.48	97.12	102.60
82	DB	62	C	C1'-O4'-C4'	-5.48	105.52	109.90
37	BH	104	GLU	OE1-CD-OE2	5.48	129.88	123.30
78	CA	320	U	N1-C1'-C2'	5.48	121.12	114.00
81	DA	596	C	O5'-C5'-C4'	-5.48	101.29	111.70
81	DA	837	A	O5'-C5'-C4'	5.48	122.11	111.70
81	DA	993	G	P-O3'-C3'	5.48	126.28	119.70
13	AL	2	GLY	N-CA-C	-5.48	99.41	113.10
33	BD	209	TYR	CB-CG-CD1	-5.48	117.71	121.00
78	CA	1092	A	C3'-C2'-C1'	5.48	105.88	101.50
81	DA	36	C	P-O3'-C3'	5.48	126.27	119.70
81	DA	71	A	C1'-O4'-C4'	-5.48	105.52	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1585	C	C5'-C4'-O4'	5.48	115.67	109.10
81	DA	1833	G	O4'-C4'-C3'	-5.48	98.52	104.00
81	DA	1914	G	C1'-O4'-C4'	-5.48	105.52	109.90
81	DA	2007	G	O4'-C1'-N9	5.48	112.58	108.20
81	DA	2661	G	C4'-C3'-C2'	-5.48	97.12	102.60
81	DA	3149	G	O3'-P-O5'	-5.48	93.59	104.00
81	DA	3250	U	N1-C1'-C2'	5.48	121.12	114.00
82	DB	152	G	C4'-C3'-C2'	-5.48	97.12	102.60
43	BP	20	ARG	O-C-N	-5.48	113.94	122.70
78	CA	1207	C	O4'-C1'-C2'	-5.48	100.32	105.80
78	CA	1545	A	O5'-P-OP1	5.48	117.27	110.70
81	DA	273	A	C5'-C4'-C3'	5.48	124.76	116.00
81	DA	878	G	N9-C1'-C2'	5.48	121.12	114.00
81	DA	2705	A	O4'-C1'-C2'	5.48	112.53	107.60
81	DA	3257	C	P-O3'-C3'	-5.48	113.13	119.70
43	BP	150	TRP	CE2-CD2-CE3	5.47	125.27	118.70
76	BS	32	TRP	CB-CG-CD2	-5.47	119.48	126.60
78	CA	394	C	N1-C1'-C2'	5.47	121.12	114.00
81	DA	319	A	P-O3'-C3'	-5.47	113.13	119.70
81	DA	533	A	O4'-C1'-C2'	-5.47	100.33	105.80
81	DA	2047	A	C2'-C3'-O3'	5.47	122.46	113.70
81	DA	2457	G	P-O3'-C3'	5.47	126.27	119.70
81	DA	2536	A	C4-C5-C6	5.47	119.74	117.00
13	AL	22	ASN	CA-C-O	-5.47	108.61	120.10
20	AS	12	GLN	OE1-CD-NE2	5.47	134.49	121.90
44	BO	60	TYR	N-CA-C	-5.47	96.22	111.00
78	CA	553	G	O4'-C1'-C2'	5.47	112.53	107.60
78	CA	918	U	C3'-C2'-C1'	5.47	105.88	101.50
78	CA	978	A	C2'-C3'-O3'	5.47	122.46	113.70
81	DA	454	C	C3'-C2'-C1'	5.47	105.88	101.50
81	DA	790	U	C5'-C4'-C3'	-5.47	107.24	116.00
81	DA	2337	C	O4'-C1'-C2'	-5.47	100.33	105.80
81	DA	2345	A	C5'-C4'-C3'	-5.47	107.24	116.00
81	DA	2369	G	C4'-C3'-C2'	-5.47	97.13	102.60
81	DA	3336	A	P-O3'-C3'	5.47	126.27	119.70
19	AR	130	ARG	NE-CZ-NH2	-5.47	117.56	120.30
78	CA	660	G	O4'-C1'-C2'	-5.47	100.33	105.80
78	CA	1220	C	O4'-C1'-C2'	-5.47	100.33	105.80
81	DA	503	C	O4'-C1'-N1	5.47	112.58	108.20
81	DA	1006	A	O3'-P-O5'	-5.47	93.61	104.00
81	DA	1767	C	N3-C4-N4	5.47	121.83	118.00
81	DA	3006	A	O4'-C1'-C2'	5.47	112.52	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	CB	45	G	C3'-C2'-C1'	5.47	105.87	101.50
81	DA	1823	A	C4'-C3'-C2'	-5.47	97.13	102.60
35	BG	169	ASP	O-C-N	5.47	131.44	122.70
78	CA	122	U	P-O3'-C3'	5.47	126.26	119.70
78	CA	566	C	N3-C4-C5	-5.47	119.71	121.90
78	CA	648	G	N9-C1'-C2'	5.47	121.11	114.00
80	CC	20	U	O3'-P-O5'	5.47	114.39	104.00
81	DA	109	A	P-O3'-C3'	5.47	126.26	119.70
81	DA	293	C	O4'-C1'-N1	5.47	112.57	108.20
81	DA	672	A	OP1-P-O3'	5.47	117.23	105.20
81	DA	1050	U	P-O3'-C3'	5.47	126.26	119.70
81	DA	2528	G	P-O5'-C5'	-5.47	112.15	120.90
81	DA	2547	A	C5-C6-N1	-5.47	114.97	117.70
81	DA	2778	G	C3'-C2'-C1'	5.47	105.87	101.50
32	BC	284	ARG	NE-CZ-NH1	5.46	123.03	120.30
61	Bj	45	LEU	CA-C-N	-5.46	105.27	116.20
78	CA	927	C	P-O3'-C3'	5.46	126.26	119.70
78	CA	1202	A	P-O3'-C3'	5.46	126.26	119.70
81	DA	192	C	C3'-C2'-C1'	5.46	105.87	101.50
81	DA	1239	C	C3'-C2'-C1'	5.46	105.87	101.50
81	DA	1453	A	P-O3'-C3'	5.46	126.26	119.70
81	DA	1762	C	N3-C4-N4	5.46	121.83	118.00
83	DC	4	U	C1'-O4'-C4'	5.46	114.27	109.90
83	DC	82	A	O4'-C1'-C2'	-5.46	100.34	105.80
58	Bg	72	ARG	NE-CZ-NH2	5.46	123.03	120.30
78	CA	287	G	C1'-O4'-C4'	-5.46	105.53	109.90
78	CA	1278	G	O4'-C1'-N9	5.46	112.57	108.20
81	DA	1259	A	N9-C1'-C2'	-5.46	105.99	112.00
81	DA	1293	U	O4'-C4'-C3'	-5.46	98.54	104.00
81	DA	1792	C	C3'-C2'-C1'	5.46	105.87	101.50
81	DA	2415	C	O4'-C1'-N1	5.46	112.57	108.20
33	BD	242	ALA	CB-CA-C	-5.46	101.91	110.10
78	CA	346	G	O3'-P-O5'	-5.46	93.62	104.00
78	CA	1189	A	O3'-P-O5'	-5.46	93.62	104.00
81	DA	636	C	C4'-C3'-O3'	5.46	123.92	113.00
81	DA	737	G	C5-C6-O6	-5.46	125.32	128.60
81	DA	787	G	C1'-O4'-C4'	-5.46	105.53	109.90
81	DA	2738	A	C1'-O4'-C4'	-5.46	105.53	109.90
81	DA	3054	U	P-O5'-C5'	5.46	129.64	120.90
9	AH	6	VAL	CA-CB-CG1	-5.46	102.71	110.90
14	AM	93	THR	CA-CB-CG2	5.46	120.04	112.40
56	Bf	68	TYR	CB-CG-CD1	5.46	124.28	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bj	39	GLN	CB-CA-C	-5.46	99.48	110.40
78	CA	596	C	O4'-C1'-C2'	-5.46	100.34	105.80
81	DA	184	U	OP2-P-O3'	5.46	117.21	105.20
81	DA	1404	G	P-O5'-C5'	-5.46	112.16	120.90
81	DA	2297	U	N1-C1'-C2'	5.46	121.10	114.00
82	DB	142	C	N1-C1'-C2'	5.46	121.10	114.00
6	AE	178	ILE	CA-CB-CG1	5.46	121.37	111.00
78	CA	255	U	C3'-C2'-C1'	5.46	105.87	101.50
78	CA	852	C	C1'-O4'-C4'	5.46	114.27	109.90
78	CA	952	A	O4'-C1'-N9	5.46	112.57	108.20
78	CA	1746	A	C4'-C3'-C2'	5.46	108.06	102.60
81	DA	547	G	C1'-O4'-C4'	-5.46	105.53	109.90
81	DA	1755	C	N3-C4-C5	-5.46	119.72	121.90
81	DA	1782	U	C3'-C2'-C1'	5.46	105.87	101.50
18	AP	111	VAL	N-CA-C	-5.46	96.27	111.00
20	AS	3	GLY	CA-C-N	-5.46	105.19	117.20
44	BO	139	ARG	NE-CZ-NH2	-5.46	117.57	120.30
78	CA	1209	C	N1-C1'-C2'	5.46	121.09	114.00
78	CA	1292	G	C3'-C2'-C1'	-5.46	97.13	101.50
78	CA	1685	G	O4'-C1'-N9	5.46	112.57	108.20
79	CB	73	C	C3'-C2'-C1'	5.46	105.86	101.50
81	DA	640	U	C5'-C4'-C3'	-5.46	107.27	116.00
81	DA	761	A	C1'-O4'-C4'	-5.46	105.53	109.90
81	DA	934	G	N9-C1'-C2'	5.46	121.09	114.00
81	DA	2283	G	C4'-C3'-C2'	5.46	108.06	102.60
81	DA	2412	G	O4'-C1'-N9	5.46	112.56	108.20
81	DA	2999	U	C4'-C3'-C2'	-5.46	97.14	102.60
81	DA	3009	G	C5'-C4'-O4'	-5.46	102.55	109.10
18	AP	75	VAL	CA-CB-CG1	5.46	119.08	110.90
30	BA	120	VAL	CA-CB-CG2	5.46	119.08	110.90
81	DA	559	A	O4'-C4'-C3'	-5.46	98.55	104.00
82	DB	24	G	O4'-C1'-N9	5.46	112.56	108.20
83	DC	107	G	O3'-P-O5'	5.46	114.36	104.00
4	AD	219	VAL	CA-CB-CG1	5.45	119.08	110.90
5	AC	71	PHE	CB-CG-CD1	5.45	124.62	120.80
53	Ba	13	VAL	C-N-CA	-5.45	108.07	121.70
59	Bh	46	PHE	CB-CG-CD2	5.45	124.62	120.80
78	CA	407	A	C1'-O4'-C4'	5.45	114.26	109.90
78	CA	469	C	O4'-C1'-N1	-5.45	103.84	108.20
78	CA	1656	U	O5'-C5'-C4'	5.45	122.06	111.70
81	DA	908	G	C3'-C2'-C1'	5.45	105.86	101.50
81	DA	1549	U	O3'-P-O5'	-5.45	93.64	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2146	C	O4'-C1'-C2'	-5.45	100.35	105.80
81	DA	3361	G	C1'-O4'-C4'	-5.45	105.54	109.90
82	DB	141	C	O4'-C1'-N1	5.45	112.56	108.20
5	AC	127	VAL	CA-CB-CG1	-5.45	102.72	110.90
81	DA	84	U	N1-C1'-C2'	5.45	121.09	114.00
81	DA	1859	A	C1'-O4'-C4'	5.45	114.26	109.90
81	DA	2736	A	C5'-C4'-C3'	5.45	124.72	116.00
82	DB	123	G	O4'-C1'-N9	5.45	112.56	108.20
13	AL	86	PHE	CA-CB-CG	5.45	126.98	113.90
22	AV	105	THR	CA-CB-OG1	5.45	120.45	109.00
78	CA	172	C	C1'-O4'-C4'	-5.45	105.54	109.90
78	CA	499	U	C4'-C3'-C2'	-5.45	97.15	102.60
78	CA	1409	G	C4'-C3'-C2'	5.45	108.05	102.60
81	DA	396	A	P-O3'-C3'	5.45	126.24	119.70
81	DA	838	G	C3'-C2'-C1'	-5.45	97.14	101.50
81	DA	1046	A	O4'-C1'-C2'	-5.45	100.35	105.80
81	DA	1148	G	C3'-C2'-C1'	-5.45	97.14	101.50
81	DA	1396	C	P-O5'-C5'	5.45	129.62	120.90
81	DA	3301	U	C4'-C3'-C2'	-5.45	97.15	102.60
13	AL	109	ARG	NH1-CZ-NH2	5.45	125.39	119.40
21	AT	81	ASN	C-N-CA	5.45	135.32	121.70
68	Bq	15	ARG	N-CA-CB	5.45	120.41	110.60
78	CA	480	G	C5-C6-O6	-5.45	125.33	128.60
78	CA	1090	C	O3'-P-O5'	-5.45	93.65	104.00
81	DA	9	U	O4'-C4'-C3'	-5.45	98.55	104.00
81	DA	598	A	P-O5'-C5'	5.45	129.62	120.90
81	DA	2041	U	C4'-C3'-C2'	-5.45	97.15	102.60
29	AU	61	ARG	C-N-CA	5.45	135.32	121.70
51	BZ	31	PHE	CB-CG-CD1	5.45	124.61	120.80
78	CA	1637	C	O4'-C1'-N1	5.45	112.56	108.20
81	DA	754	G	C1'-O4'-C4'	-5.45	105.54	109.90
81	DA	983	A	O4'-C4'-C3'	-5.45	98.55	104.00
81	DA	2436	U	P-O3'-C3'	5.45	126.24	119.70
81	DA	2722	U	C2'-C3'-O3'	5.45	122.42	113.70
81	DA	2994	A	O4'-C1'-C2'	-5.45	100.35	105.80
81	DA	3026	G	C4'-C3'-C2'	-5.45	97.15	102.60
31	BB	126	LEU	CB-CA-C	-5.45	99.85	110.20
37	BH	207	ASP	N-CA-C	-5.45	96.30	111.00
63	Bm	85	ARG	NE-CZ-NH1	5.45	123.02	120.30
78	CA	1173	C	OP1-P-OP2	-5.45	111.43	119.60
78	CA	1506	G	N3-C2-N2	5.45	123.71	119.90
81	DA	31	C	O4'-C1'-C2'	-5.45	100.36	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1488	G	C1'-O4'-C4'	-5.45	105.54	109.90
81	DA	1810	A	O4'-C1'-N9	5.45	112.56	108.20
81	DA	2272	G	C1'-O4'-C4'	5.45	114.26	109.90
81	DA	2940	A	O3'-P-O5'	5.45	114.35	104.00
81	DA	3213	A	C1'-O4'-C4'	5.45	114.26	109.90
81	DA	837	A	P-O5'-C5'	-5.44	112.19	120.90
81	DA	2110	G	O4'-C1'-N9	5.44	112.56	108.20
18	AP	109	VAL	CG1-CB-CG2	5.44	119.61	110.90
33	BD	65	TRP	CH2-CZ2-CE2	-5.44	111.96	117.40
44	BO	73	LEU	C-N-CA	5.44	135.31	121.70
48	BW	71	PHE	CB-CG-CD1	-5.44	116.99	120.80
77	BI	107	GLY	CA-C-N	-5.44	105.23	117.20
81	DA	2126	A	P-O3'-C3'	-5.44	113.17	119.70
81	DA	2280	A	C3'-C2'-C1'	5.44	105.86	101.50
81	DA	2622	C	O4'-C1'-N1	-5.44	103.85	108.20
81	DA	3034	C	C2'-C3'-O3'	5.44	122.41	113.70
20	AS	18	TYR	CB-CG-CD2	-5.44	117.74	121.00
42	BM	44	SER	C-N-CA	5.44	135.30	121.70
61	Bj	27	VAL	CA-CB-CG2	-5.44	102.74	110.90
78	CA	1134	C	C1'-O4'-C4'	-5.44	105.55	109.90
81	DA	2034	C	O4'-C1'-C2'	-5.44	100.36	105.80
81	DA	2162	U	C5'-C4'-O4'	5.44	115.63	109.10
35	BG	43	LEU	CB-CA-C	-5.44	99.87	110.20
39	BJ	129	THR	CA-CB-CG2	-5.44	104.78	112.40
74	BQ	53	VAL	C-N-CA	5.44	135.30	121.70
78	CA	1459	C	C1'-O4'-C4'	5.44	114.25	109.90
81	DA	910	G	C5'-C4'-O4'	5.44	115.63	109.10
81	DA	1336	U	O3'-P-O5'	-5.44	93.67	104.00
81	DA	1339	C	P-O3'-C3'	5.44	126.23	119.70
11	AJ	81	THR	C-N-CA	5.44	135.29	121.70
13	AL	2	GLY	CA-C-O	5.44	130.39	120.60
30	BA	148	VAL	CA-CB-CG1	-5.44	102.74	110.90
35	BG	29	LYS	N-CA-CB	5.44	120.39	110.60
37	BH	90	THR	N-CA-CB	5.44	120.63	110.30
47	BU	18	ASP	CB-CG-OD1	5.44	123.19	118.30
62	Bk	82	ARG	NE-CZ-NH1	-5.44	117.58	120.30
78	CA	386	G	O3'-P-O5'	5.44	114.33	104.00
81	DA	977	C	O4'-C1'-C2'	-5.44	100.36	105.80
81	DA	990	U	O3'-P-O5'	-5.44	93.67	104.00
81	DA	1411	C	O4'-C1'-N1	5.44	112.55	108.20
81	DA	1591	G	N9-C1'-C2'	5.44	121.07	114.00
81	DA	2540	A	O4'-C1'-N9	5.44	112.55	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2708	C	C1'-O4'-C4'	-5.44	105.55	109.90
82	DB	104	A	P-O3'-C3'	5.44	126.23	119.70
78	CA	461	G	O3'-P-O5'	-5.44	93.67	104.00
78	CA	1439	C	O4'-C1'-N1	5.44	112.55	108.20
78	CA	1760	G	P-O5'-C5'	-5.44	112.20	120.90
81	DA	3010	U	O4'-C4'-C3'	-5.44	98.56	104.00
81	DA	3144	G	O4'-C1'-N9	5.44	112.55	108.20
81	DA	3322	A	C3'-C2'-C1'	5.44	105.85	101.50
11	AJ	79	TRP	N-CA-CB	5.43	120.38	110.60
30	BA	205	VAL	CA-CB-CG1	5.43	119.05	110.90
78	CA	304	U	C4'-C3'-C2'	-5.43	97.17	102.60
78	CA	1085	G	C1'-O4'-C4'	-5.43	105.55	109.90
78	CA	1379	C	OP2-P-O3'	5.43	117.15	105.20
81	DA	307	A	N9-C1'-C2'	-5.43	106.02	112.00
81	DA	1231	A	O4'-C1'-N9	5.43	112.55	108.20
81	DA	1850	A	O4'-C1'-C2'	-5.43	100.37	105.80
1	Aa	38	ARG	CD-NE-CZ	5.43	131.21	123.60
6	AE	177	GLY	O-C-N	-5.43	114.01	122.70
29	AU	59	GLY	N-CA-C	-5.43	99.52	113.10
74	BQ	249	ALA	CA-C-O	-5.43	108.69	120.10
78	CA	530	C	P-O5'-C5'	-5.43	112.21	120.90
78	CA	846	G	C1'-O4'-C4'	-5.43	105.55	109.90
78	CA	1392	U	P-O5'-C5'	5.43	129.59	120.90
81	DA	1057	A	C2'-C3'-O3'	5.43	122.39	113.70
81	DA	2540	A	C5-C6-N1	-5.43	114.98	117.70
81	DA	2633	U	N1-C1'-C2'	5.43	121.06	114.00
76	BS	53	VAL	N-CA-C	5.43	125.67	111.00
77	BI	24	ARG	NE-CZ-NH1	5.43	123.02	120.30
78	CA	189	C	C1'-O4'-C4'	5.43	114.25	109.90
81	DA	216	G	C1'-O4'-C4'	-5.43	105.56	109.90
81	DA	498	A	P-O5'-C5'	5.43	129.59	120.90
81	DA	2196	C	O4'-C1'-N1	5.43	112.55	108.20
81	DA	3284	G	N9-C1'-C2'	5.43	121.06	114.00
20	AS	90	PRO	N-CD-CG	5.43	111.34	103.20
38	Bs	230	PRO	CA-C-N	5.43	129.14	117.20
42	BM	88	ARG	NE-CZ-NH2	-5.43	117.59	120.30
48	BW	91	ASP	CA-C-N	-5.43	105.25	117.20
51	BZ	62	GLY	O-C-N	-5.43	114.01	122.70
55	Bc	112	PRO	N-CA-C	5.43	126.21	112.10
78	CA	1412	G	C5'-C4'-C3'	5.43	124.69	116.00
78	CA	1656	U	C3'-C2'-C1'	5.43	105.84	101.50
80	CC	22	A	C5-C6-N6	-5.43	119.36	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	969	C	P-O3'-C3'	5.43	126.22	119.70
81	DA	1796	G	C3'-C2'-C1'	5.43	105.84	101.50
81	DA	2370	G	P-O3'-C3'	5.43	126.22	119.70
81	DA	2382	G	O4'-C1'-C2'	5.43	112.49	107.60
81	DA	3212	C	O4'-C1'-N1	-5.43	103.86	108.20
81	DA	3219	G	C1'-O4'-C4'	5.43	114.24	109.90
82	DB	40	A	O4'-C1'-C2'	5.43	112.49	107.60
32	BC	249	VAL	N-CA-CB	-5.43	99.56	111.50
81	DA	248	U	P-O5'-C5'	5.43	129.59	120.90
82	DB	8	C	O4'-C1'-N1	5.43	112.54	108.20
62	Bk	52	PRO	CA-N-CD	-5.43	103.90	111.50
72	Bu	46	ALA	CB-CA-C	-5.43	101.96	110.10
78	CA	393	C	O4'-C1'-N1	-5.43	103.86	108.20
81	DA	1714	A	O4'-C1'-N9	5.43	112.54	108.20
81	DA	1853	U	O4'-C1'-C2'	-5.43	100.37	105.80
81	DA	2797	C	O4'-C1'-N1	5.43	112.54	108.20
69	Br	57	VAL	C-N-CA	5.42	135.26	121.70
78	CA	1210	C	C1'-O4'-C4'	-5.42	105.56	109.90
79	CB	19	U	P-O3'-C3'	5.42	126.21	119.70
81	DA	309	U	O4'-C1'-N1	5.42	112.54	108.20
81	DA	736	A	O3'-P-O5'	-5.42	93.69	104.00
81	DA	1298	C	O4'-C1'-C2'	-5.42	100.38	105.80
81	DA	1419	A	N9-C1'-C2'	-5.42	106.03	112.00
81	DA	1462	A	O4'-C1'-N9	5.42	112.54	108.20
81	DA	2022	G	O4'-C1'-N9	5.42	112.54	108.20
81	DA	2194	G	P-O5'-C5'	-5.42	112.22	120.90
41	BN	106	ARG	NE-CZ-NH1	5.42	123.01	120.30
78	CA	216	U	C3'-C2'-C1'	5.42	105.84	101.50
81	DA	220	G	C5'-C4'-O4'	-5.42	102.59	109.10
81	DA	736	A	C4'-C3'-O3'	5.42	123.85	113.00
81	DA	2100	A	P-O5'-C5'	5.42	129.58	120.90
81	DA	2481	G	O4'-C1'-C2'	-5.42	100.38	105.80
3	AB	167	PHE	CB-CG-CD1	5.42	124.60	120.80
5	AC	114	TYR	CG-CD1-CE1	-5.42	116.96	121.30
9	AH	38	LEU	CB-CA-C	-5.42	99.90	110.20
14	AM	12	GLN	N-CA-C	-5.42	96.36	111.00
20	AS	8	ASP	CA-CB-CG	5.42	125.33	113.40
34	BE	53	THR	C-N-CA	5.42	135.25	121.70
78	CA	153	G	N9-C1'-C2'	5.42	121.05	114.00
78	CA	1234	A	C5'-C4'-O4'	5.42	115.61	109.10
81	DA	1301	A	C1'-O4'-C4'	-5.42	105.56	109.90
81	DA	1964	C	O4'-C1'-N1	5.42	112.54	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	17	A	O5'-C5'-C4'	5.42	122.00	111.70
44	BO	129	PHE	CB-CG-CD2	-5.42	117.01	120.80
78	CA	519	C	P-O5'-C5'	5.42	129.57	120.90
78	CA	1482	C	O5'-P-OP2	-5.42	100.82	105.70
81	DA	260	C	C5'-C4'-O4'	5.42	115.60	109.10
81	DA	1179	A	N9-C1'-C2'	-5.42	106.04	112.00
5	AC	47	PHE	CB-CG-CD2	-5.42	117.01	120.80
16	AO	111	ALA	C-N-CA	5.42	135.25	121.70
63	Bm	41	PHE	N-CA-CB	-5.42	100.84	110.60
74	BQ	116	ASP	N-CA-C	5.42	125.63	111.00
78	CA	1503	A	C5-C6-N1	-5.42	114.99	117.70
81	DA	62	A	C2'-C3'-O3'	5.42	122.37	113.70
81	DA	275	U	C5'-C4'-C3'	-5.42	107.33	116.00
81	DA	1220	U	C2'-C3'-O3'	5.42	122.37	113.70
81	DA	1868	G	O4'-C1'-N9	5.42	112.53	108.20
81	DA	2787	G	C1'-O4'-C4'	-5.42	105.56	109.90
81	DA	2909	U	O4'-C1'-N1	5.42	112.54	108.20
6	AE	99	LYS	N-CA-CB	5.42	120.35	110.60
22	AV	67	ASP	CB-CG-OD2	-5.42	113.42	118.30
33	BD	353	ALA	CB-CA-C	-5.42	101.97	110.10
35	BG	106	PHE	N-CA-C	5.42	125.62	111.00
58	Bg	26	LYS	N-CA-CB	5.42	120.35	110.60
73	Bw	16	THR	C-N-CD	-5.42	108.69	120.60
78	CA	565	C	N3-C4-C5	-5.42	119.73	121.90
78	CA	824	G	N1-C2-N3	-5.42	120.65	123.90
81	DA	384	A	C3'-C2'-C1'	5.42	105.83	101.50
81	DA	2080	C	O5'-P-OP2	-5.42	100.83	105.70
81	DA	2164	A	P-O5'-C5'	5.42	129.57	120.90
81	DA	2821	C	N1-C1'-C2'	5.42	121.04	114.00
81	DA	3236	U	O3'-P-O5'	-5.42	93.71	104.00
83	DC	92	A	O3'-P-O5'	5.42	114.29	104.00
81	DA	1706	C	O4'-C1'-C2'	-5.42	100.39	105.80
29	AU	18	LEU	N-CA-C	-5.41	96.38	111.00
33	BD	78	GLY	N-CA-C	-5.41	99.56	113.10
53	Ba	21	LYS	N-CA-C	-5.41	96.38	111.00
65	Bn	11	PHE	CG-CD1-CE1	-5.41	114.85	120.80
81	DA	75	G	O4'-C1'-N9	5.41	112.53	108.20
81	DA	2547	A	O4'-C1'-N9	5.41	112.53	108.20
81	DA	3122	A	O4'-C4'-C3'	-5.41	98.59	104.00
83	DC	34	C	C3'-C2'-C1'	5.41	105.83	101.50
34	BE	59	ILE	C-N-CA	5.41	135.23	121.70
78	CA	49	C	O4'-C1'-C2'	-5.41	100.39	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2706	G	C5'-C4'-C3'	-5.41	107.34	116.00
82	DB	28	C	O4'-C1'-N1	5.41	112.53	108.20
30	BA	208	SER	CB-CA-C	5.41	120.38	110.10
33	BD	309	ARG	NE-CZ-NH1	5.41	123.01	120.30
35	BG	124	GLU	N-CA-CB	5.41	120.34	110.60
78	CA	483	A	C5-C6-N1	-5.41	115.00	117.70
78	CA	521	A	C5'-C4'-C3'	5.41	124.66	116.00
78	CA	840	U	N1-C1'-C2'	-5.41	106.05	112.00
78	CA	1578	U	C3'-C2'-C1'	-5.41	97.17	101.50
81	DA	627	U	N1-C1'-C2'	5.41	121.03	114.00
83	DC	48	U	O5'-C5'-C4'	5.41	121.98	111.70
53	Ba	28	PRO	CB-CA-C	-5.41	98.48	112.00
78	CA	773	C	C5'-C4'-C3'	5.41	124.66	116.00
81	DA	281	G	N9-C1'-C2'	5.41	121.03	114.00
81	DA	1064	A	C5'-C4'-C3'	5.41	124.65	116.00
78	CA	110	U	N1-C1'-C2'	5.41	121.03	114.00
78	CA	868	G	O3'-P-O5'	-5.41	93.73	104.00
81	DA	519	A	C4'-C3'-C2'	-5.41	97.19	102.60
81	DA	922	U	C5'-C4'-O4'	5.41	115.59	109.10
81	DA	1820	U	C5'-C4'-C3'	5.41	124.65	116.00
81	DA	1953	G	P-O5'-C5'	-5.41	112.25	120.90
81	DA	2032	U	P-O5'-C5'	5.41	129.55	120.90
78	CA	1306	C	OP2-P-O3'	5.41	117.09	105.20
78	CA	1648	A	C3'-C2'-C1'	5.41	105.82	101.50
81	DA	213	A	C1'-O4'-C4'	5.41	114.22	109.90
81	DA	1681	U	O4'-C1'-C2'	-5.41	100.39	105.80
81	DA	2751	G	C5'-C4'-O4'	5.41	115.59	109.10
81	DA	3097	C	O3'-P-O5'	5.41	114.27	104.00
81	DA	3367	C	C3'-C2'-C1'	5.41	105.83	101.50
18	AP	55	ASP	C-N-CA	-5.40	108.19	121.70
34	BE	136	ALA	CB-CA-C	-5.40	101.99	110.10
35	BG	153	PRO	CA-N-CD	5.40	119.27	111.70
81	DA	1519	G	O4'-C1'-N9	5.40	112.52	108.20
5	AC	62	ARG	CA-CB-CG	5.40	125.28	113.40
6	AE	242	ILE	N-CA-C	-5.40	96.41	111.00
77	BI	88	ARG	NE-CZ-NH2	-5.40	117.60	120.30
78	CA	446	A	N9-C1'-C2'	-5.40	106.06	112.00
78	CA	1427	A	C5'-C4'-O4'	-5.40	102.62	109.10
79	CB	66	C	O4'-C1'-C2'	-5.40	100.40	105.80
81	DA	583	G	N9-C1'-C2'	-5.40	106.06	112.00
81	DA	1326	A	O4'-C1'-N9	5.40	112.52	108.20
81	DA	1854	C	P-O3'-C3'	-5.40	113.22	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1946	A	O3'-P-O5'	-5.40	93.74	104.00
81	DA	2547	A	C5-C6-N6	-5.40	119.38	123.70
83	DC	107	G	C3'-C2'-C1'	-5.40	97.18	101.50
50	BX	35	PRO	N-CD-CG	5.40	111.30	103.20
81	DA	1058	U	N1-C1'-C2'	5.40	121.02	114.00
81	DA	2041	U	P-O5'-C5'	-5.40	112.26	120.90
81	DA	2394	G	P-O5'-C5'	-5.40	112.26	120.90
81	DA	3040	A	O4'-C1'-N9	5.40	112.52	108.20
81	DA	3046	A	O4'-C1'-N9	5.40	112.52	108.20
82	DB	134	G	O4'-C1'-C2'	-5.40	100.40	105.80
81	DA	3094	A	O3'-P-O5'	-5.40	93.74	104.00
3	AB	185	LYS	CB-CA-C	-5.40	99.61	110.40
40	BK	72	HIS	N-CA-CB	5.40	120.31	110.60
47	BU	114	ALA	N-CA-CB	5.40	117.66	110.10
78	CA	319	U	O4'-C1'-N1	5.40	112.52	108.20
78	CA	667	U	O4'-C1'-C2'	-5.40	100.40	105.80
78	CA	1720	G	N9-C1'-C2'	-5.40	106.06	112.00
81	DA	230	U	C1'-O4'-C4'	5.40	114.22	109.90
81	DA	413	U	O4'-C1'-C2'	-5.40	100.40	105.80
81	DA	462	C	C3'-C2'-C1'	5.40	105.82	101.50
81	DA	1308	A	O4'-C1'-N9	5.40	112.52	108.20
81	DA	2270	A	P-O3'-C3'	5.40	126.18	119.70
81	DA	2653	C	C3'-C2'-C1'	5.40	105.82	101.50
64	Bl	66	TYR	CB-CG-CD2	-5.40	117.76	121.00
78	CA	554	C	C3'-C2'-C1'	5.40	105.82	101.50
81	DA	10	C	O4'-C1'-N1	5.40	112.52	108.20
81	DA	466	G	C1'-O4'-C4'	-5.40	105.58	109.90
81	DA	699	A	N9-C1'-C2'	-5.40	106.06	112.00
81	DA	2438	A	O4'-C4'-C3'	-5.40	98.60	104.00
81	DA	3325	G	P-O3'-C3'	-5.40	113.22	119.70
16	AO	112	LYS	CA-CB-CG	5.39	125.27	113.40
31	BB	22	LEU	CB-CA-C	-5.39	99.95	110.20
38	Bs	55	LYS	N-CA-CB	5.39	120.31	110.60
57	Be	183	ASP	CB-CG-OD1	5.39	123.16	118.30
76	BS	45	TYR	CD1-CG-CD2	-5.39	111.97	117.90
78	CA	1066	C	N3-C4-C5	-5.39	119.74	121.90
81	DA	278	U	C4'-C3'-C2'	-5.39	97.20	102.60
81	DA	858	A	N9-C1'-C2'	-5.39	106.07	112.00
29	AU	10	ARG	N-CA-CB	5.39	120.31	110.60
29	AU	89	TYR	CB-CG-CD2	5.39	124.24	121.00
44	BO	7	LYS	N-CA-C	5.39	125.56	111.00
52	BY	56	VAL	N-CA-C	-5.39	96.44	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Bi	74	ARG	CD-NE-CZ	5.39	131.15	123.60
73	Bw	16	THR	CB-CA-C	-5.39	97.04	111.60
74	BQ	158	ARG	N-CA-CB	5.39	120.31	110.60
78	CA	50	C	C4'-C3'-C2'	-5.39	97.21	102.60
78	CA	730	G	P-O5'-C5'	5.39	129.53	120.90
78	CA	1195	C	C3'-C2'-C1'	5.39	105.81	101.50
81	DA	928	C	C1'-O4'-C4'	-5.39	105.59	109.90
81	DA	2201	G	O4'-C1'-N9	5.39	112.52	108.20
81	DA	2871	G	C3'-C2'-C1'	5.39	105.81	101.50
83	DC	17	A	O4'-C1'-C2'	-5.39	100.41	105.80
2	AA	41	ARG	NE-CZ-NH2	-5.39	117.61	120.30
53	Ba	21	LYS	CB-CA-C	-5.39	99.62	110.40
81	DA	310	U	C5'-C4'-O4'	-5.39	102.63	109.10
18	AP	122	ILE	N-CA-C	-5.39	96.45	111.00
22	AV	78	ILE	CA-CB-CG1	-5.39	100.76	111.00
69	Br	47	GLN	CB-CA-C	-5.39	99.62	110.40
78	CA	373	G	C3'-C2'-C1'	-5.39	97.19	101.50
78	CA	1784	C	O4'-C1'-N1	5.39	112.51	108.20
81	DA	59	G	O4'-C1'-C2'	-5.39	100.41	105.80
81	DA	1876	U	O4'-C1'-C2'	-5.39	100.41	105.80
81	DA	2410	U	O4'-C1'-N1	5.39	112.51	108.20
78	CA	492	A	O4'-C1'-N9	5.39	112.51	108.20
81	DA	1791	C	C1'-O4'-C4'	-5.39	105.59	109.90
81	DA	3100	U	O4'-C1'-C2'	-5.39	100.41	105.80
44	BO	125	VAL	N-CA-C	-5.39	96.46	111.00
48	BW	22	PRO	N-CD-CG	5.39	111.28	103.20
78	CA	1677	C	C3'-C2'-C1'	5.39	105.81	101.50
78	CA	1703	C	O4'-C1'-N1	5.39	112.51	108.20
81	DA	1572	U	O4'-C1'-N1	-5.39	103.89	108.20
22	AV	37	GLN	N-CA-CB	5.38	120.29	110.60
29	AU	58	PHE	CB-CG-CD2	-5.38	117.03	120.80
39	BJ	79	SER	N-CA-CB	5.38	118.58	110.50
78	CA	411	C	O4'-C1'-C2'	-5.38	100.42	105.80
78	CA	1282	U	C1'-O4'-C4'	-5.38	105.59	109.90
78	CA	1359	C	O4'-C1'-N1	5.38	112.51	108.20
81	DA	222	A	O3'-P-O5'	5.38	114.23	104.00
81	DA	265	A	P-O3'-C3'	5.38	126.16	119.70
81	DA	1173	U	O4'-C1'-N1	5.38	112.51	108.20
81	DA	2174	G	O4'-C1'-N9	5.38	112.51	108.20
81	DA	340	C	C3'-C2'-C1'	5.38	105.81	101.50
81	DA	450	G	C2'-C3'-O3'	5.38	122.31	113.70
81	DA	804	C	C4'-C3'-C2'	-5.38	97.22	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2607	G	O4'-C4'-C3'	-5.38	98.62	104.00
81	DA	3088	G	P-O3'-C3'	5.38	126.16	119.70
1	Aa	285	ALA	N-CA-CB	5.38	117.63	110.10
4	AD	218	PHE	N-CA-C	-5.38	96.47	111.00
20	AS	45	MET	N-CA-CB	-5.38	100.91	110.60
49	BV	139	TYR	N-CA-C	-5.38	96.47	111.00
64	Bl	24	ARG	NE-CZ-NH2	-5.38	117.61	120.30
81	DA	113	C	O4'-C1'-C2'	-5.38	100.42	105.80
81	DA	158	G	OP1-P-OP2	-5.38	111.53	119.60
81	DA	985	U	C5'-C4'-O4'	-5.38	102.64	109.10
83	DC	46	A	P-O5'-C5'	5.38	129.51	120.90
24	AX	47	PHE	CB-CG-CD1	5.38	124.57	120.80
31	BB	67	TYR	N-CA-C	5.38	125.53	111.00
49	BV	13	LYS	CB-CA-C	5.38	121.16	110.40
79	CB	61	C	C3'-C2'-C1'	5.38	105.80	101.50
83	DC	16	U	C4'-C3'-C2'	-5.38	97.22	102.60
32	BC	249	VAL	O-C-N	-5.38	114.09	122.70
46	BT	55	VAL	CB-CA-C	5.38	121.62	111.40
63	Bm	33	GLN	CB-CA-C	-5.38	99.64	110.40
78	CA	671	G	O3'-P-O5'	-5.38	93.78	104.00
81	DA	1211	U	O4'-C1'-N1	5.38	112.50	108.20
81	DA	1319	G	P-O5'-C5'	5.38	129.50	120.90
81	DA	1564	U	O4'-C1'-N1	5.38	112.50	108.20
81	DA	2517	U	C3'-C2'-C1'	5.38	105.80	101.50
20	AS	90	PRO	N-CA-CB	5.38	109.75	103.30
35	BG	16	ALA	CA-C-N	-5.38	105.37	117.20
48	BW	104	ARG	NE-CZ-NH1	5.38	122.99	120.30
59	Bh	45	ARG	CD-NE-CZ	5.38	131.13	123.60
78	CA	167	U	O4'-C1'-N1	5.38	112.50	108.20
78	CA	1680	G	O4'-C1'-N9	5.38	112.50	108.20
81	DA	2593	A	C1'-O4'-C4'	5.38	114.20	109.90
2	AA	229	LYS	CB-CA-C	-5.38	99.65	110.40
40	BK	178	VAL	C-N-CA	-5.38	108.26	121.70
81	DA	1666	G	C4'-C3'-C2'	-5.38	97.22	102.60
81	DA	2725	U	O4'-C1'-N1	5.38	112.50	108.20
6	AE	43	ARG	N-CA-C	5.37	125.51	111.00
55	Bc	86	ARG	N-CA-C	5.37	125.51	111.00
60	Bi	17	SER	N-CA-CB	5.37	118.56	110.50
78	CA	342	C	C3'-C2'-C1'	5.37	105.80	101.50
81	DA	2569	A	C5-C6-N1	-5.37	115.01	117.70
81	DA	2633	U	C3'-C2'-C1'	5.37	105.80	101.50
10	AI	65	ILE	CB-CA-C	-5.37	100.86	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	207	U	C4'-C3'-C2'	-5.37	97.23	102.60
78	CA	580	A	C5-C6-N6	-5.37	119.40	123.70
78	CA	645	C	C5'-C4'-O4'	-5.37	102.65	109.10
78	CA	905	A	P-O5'-C5'	5.37	129.50	120.90
78	CA	1692	G	O4'-C1'-N9	5.37	112.50	108.20
81	DA	1132	C	N1-C1'-C2'	5.37	120.98	114.00
81	DA	1663	C	C3'-C2'-C1'	5.37	105.80	101.50
81	DA	2206	G	C3'-C2'-C1'	5.37	105.80	101.50
81	DA	2423	U	N1-C1'-C2'	5.37	120.98	114.00
81	DA	2636	A	N9-C1'-C2'	5.37	120.98	114.00
42	BM	65	GLY	O-C-N	-5.37	114.11	122.70
44	BO	60	TYR	CD1-CE1-CZ	5.37	124.63	119.80
81	DA	1091	A	O4'-C1'-N9	5.37	112.50	108.20
81	DA	2161	G	O4'-C1'-N9	5.37	112.50	108.20
81	DA	2907	G	C3'-C2'-C1'	-5.37	97.20	101.50
1	Aa	206	PRO	N-CD-CG	5.37	111.25	103.20
26	AZ	18	THR	CA-C-N	5.37	132.13	117.10
33	BD	98	ARG	NE-CZ-NH2	-5.37	117.62	120.30
33	BD	145	ILE	CA-C-N	5.37	132.13	117.10
46	BT	139	VAL	CB-CA-C	5.37	121.60	111.40
59	Bh	33	ARG	NE-CZ-NH2	-5.37	117.62	120.30
78	CA	889	U	N1-C1'-C2'	5.37	120.98	114.00
81	DA	295	A	O4'-C1'-C2'	-5.37	100.43	105.80
81	DA	541	U	O4'-C1'-C2'	-5.37	100.43	105.80
81	DA	645	A	O3'-P-O5'	-5.37	93.80	104.00
81	DA	1483	G	C1'-O4'-C4'	5.37	114.19	109.90
81	DA	1918	C	C4'-C3'-C2'	-5.37	97.23	102.60
81	DA	1940	G	O4'-C1'-C2'	-5.37	100.43	105.80
81	DA	2216	G	C3'-C2'-C1'	5.37	105.79	101.50
81	DA	3246	G	C5'-C4'-O4'	5.37	115.54	109.10
83	DC	47	C	O4'-C4'-C3'	-5.37	98.63	104.00
1	Aa	316	MET	N-CA-CB	5.37	120.26	110.60
22	AV	77	ARG	CD-NE-CZ	-5.37	116.09	123.60
78	CA	934	C	N1-C1'-C2'	-5.37	106.10	112.00
78	CA	1239	U	P-O5'-C5'	5.37	129.49	120.90
81	DA	2184	U	C5'-C4'-C3'	5.37	124.58	116.00
81	DA	2689	A	C1'-O4'-C4'	-5.37	105.61	109.90
81	DA	2870	C	C5'-C4'-C3'	-5.37	107.42	116.00
81	DA	3072	C	C1'-O4'-C4'	-5.37	105.61	109.90
2	AA	182	LEU	CB-CG-CD1	-5.36	101.88	111.00
38	Bs	244	LYS	O-C-N	5.36	131.28	122.70
50	BX	94	GLN	N-CA-CB	5.36	120.25	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	Bh	23	ASP	N-CA-C	5.36	125.48	111.00
59	Bh	24	ARG	NH1-CZ-NH2	5.36	125.30	119.40
81	DA	103	G	C3'-C2'-C1'	5.36	105.79	101.50
81	DA	1220	U	C3'-C2'-C1'	5.36	105.79	101.50
81	DA	1501	U	O4'-C1'-N1	5.36	112.49	108.20
81	DA	1871	U	C4'-C3'-C2'	-5.36	97.24	102.60
81	DA	2569	A	C5-C6-N6	-5.36	119.41	123.70
81	DA	2634	U	P-O5'-C5'	5.36	129.48	120.90
81	DA	3347	A	C3'-C2'-C1'	5.36	105.79	101.50
78	CA	1101	G	O5'-C5'-C4'	5.36	121.89	111.70
17	AQ	61	ILE	CB-CA-C	5.36	122.32	111.60
37	BH	89	GLU	N-CA-C	-5.36	96.53	111.00
41	BN	6	ILE	N-CA-C	5.36	125.47	111.00
64	Bl	65	ARG	CB-CA-C	-5.36	99.68	110.40
78	CA	1587	A	P-O5'-C5'	5.36	129.48	120.90
78	CA	1699	G	O4'-C1'-N9	5.36	112.49	108.20
79	CB	71	A	C3'-C2'-C1'	5.36	105.79	101.50
81	DA	186	U	O4'-C1'-C2'	-5.36	100.44	105.80
81	DA	1692	U	O4'-C1'-C2'	5.36	112.42	107.60
81	DA	2138	A	C1'-O4'-C4'	5.36	114.19	109.90
81	DA	3296	A	C5'-C4'-O4'	5.36	115.53	109.10
81	DA	3348	G	N9-C1'-C2'	-5.36	106.10	112.00
81	DA	3387	U	C4'-C3'-C2'	-5.36	97.24	102.60
31	BB	156	LYS	CB-CA-C	-5.36	99.68	110.40
48	BW	90	ARG	NE-CZ-NH2	5.36	122.98	120.30
78	CA	1645	G	C3'-C2'-C1'	-5.36	97.21	101.50
81	DA	487	U	OP1-P-OP2	-5.36	111.56	119.60
81	DA	2626	A	C3'-C2'-C1'	-5.36	97.21	101.50
81	DA	3131	U	C3'-C2'-C1'	5.36	105.79	101.50
46	BT	72	GLU	C-N-CA	5.36	133.55	122.30
78	CA	107	C	O4'-C1'-C2'	-5.36	100.44	105.80
78	CA	1298	U	O4'-C1'-N1	-5.36	103.91	108.20
81	DA	1476	G	C1'-O4'-C4'	-5.36	105.61	109.90
81	DA	1999	C	O4'-C1'-C2'	-5.36	100.44	105.80
3	AB	76	ARG	CA-CB-CG	5.36	125.18	113.40
3	AB	125	TYR	CB-CG-CD2	-5.36	117.79	121.00
6	AE	108	ASN	CB-CG-OD1	-5.36	110.89	121.60
10	AI	142	TYR	CB-CG-CD1	-5.36	117.79	121.00
81	DA	734	C	N3-C4-N4	5.36	121.75	118.00
81	DA	938	C	P-O3'-C3'	5.36	126.13	119.70
3	AB	201	ALA	N-CA-C	-5.35	96.55	111.00
79	CB	28	G	O3'-P-O5'	5.35	114.17	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	32	U	N1-C1'-C2'	5.35	120.96	114.00
81	DA	1816	A	P-O3'-C3'	5.35	126.12	119.70
32	BC	37	ARG	NE-CZ-NH1	-5.35	117.62	120.30
32	BC	130	PHE	CB-CG-CD2	-5.35	117.05	120.80
43	BP	66	VAL	CA-CB-CG2	-5.35	102.87	110.90
55	Bc	48	ARG	NE-CZ-NH1	5.35	122.98	120.30
78	CA	468	A	C5'-C4'-C3'	-5.35	107.44	116.00
78	CA	1213	G	C4'-C3'-C2'	-5.35	97.25	102.60
78	CA	1765	A	O4'-C1'-C2'	-5.35	100.45	105.80
80	CC	21	C	N3-C4-C5	-5.35	119.76	121.90
81	DA	435	C	C5'-C4'-O4'	5.35	115.52	109.10
81	DA	1006	A	O4'-C4'-C3'	-5.35	98.65	104.00
81	DA	1382	G	C1'-O4'-C4'	-5.35	105.62	109.90
6	AE	49	LYS	CA-CB-CG	5.35	125.17	113.40
11	AJ	119	ALA	C-N-CA	-5.35	108.32	121.70
74	BQ	252	ALA	N-CA-CB	5.35	117.59	110.10
78	CA	1617	U	O4'-C4'-C3'	5.35	110.38	106.10
81	DA	1238	C	O4'-C1'-C2'	-5.35	100.45	105.80
81	DA	1583	A	C3'-C2'-C1'	5.35	105.78	101.50
81	DA	2684	C	C4'-C3'-C2'	-5.35	97.25	102.60
81	DA	3232	G	C4'-C3'-C2'	-5.35	97.25	102.60
38	Bs	177	ASN	N-CA-CB	5.35	120.23	110.60
40	BK	188	SER	C-N-CA	5.35	135.07	121.70
69	Br	44	ASP	CB-CG-OD1	5.35	123.11	118.30
78	CA	1560	U	P-O5'-C5'	-5.35	112.34	120.90
78	CA	219	A	C5'-C4'-C3'	-5.35	107.44	116.00
81	DA	253	A	O4'-C1'-C2'	-5.35	100.45	105.80
81	DA	862	U	C1'-O4'-C4'	-5.35	105.62	109.90
81	DA	1005	G	O4'-C4'-C3'	-5.35	98.65	104.00
81	DA	1411	C	C3'-C2'-C1'	5.35	105.78	101.50
81	DA	1897	G	O4'-C1'-C2'	5.35	112.41	107.60
81	DA	2195	C	O4'-C1'-N1	5.35	112.48	108.20
81	DA	3338	C	N1-C1'-C2'	5.35	120.95	114.00
11	AJ	119	ALA	N-CA-C	-5.35	96.57	111.00
78	CA	1550	A	C5'-C4'-O4'	5.35	115.52	109.10
81	DA	241	G	C1'-O4'-C4'	-5.35	105.62	109.90
81	DA	2809	C	N1-C1'-C2'	5.35	120.95	114.00
82	DB	150	G	P-O5'-C5'	-5.35	112.35	120.90
2	AA	74	VAL	CA-CB-CG2	-5.34	102.88	110.90
16	AO	55	ARG	NE-CZ-NH1	-5.34	117.63	120.30
32	BC	259	HIS	CA-CB-CG	5.34	122.68	113.60
33	BD	323	VAL	CA-CB-CG2	-5.34	102.88	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bj	26	ASN	N-CA-CB	5.34	120.22	110.60
64	Bl	5	THR	N-CA-CB	5.34	120.45	110.30
68	Bq	22	ALA	N-CA-CB	-5.34	102.62	110.10
78	CA	174	U	C1'-O4'-C4'	-5.34	105.62	109.90
78	CA	1260	U	C1'-O4'-C4'	5.34	114.18	109.90
81	DA	1796	G	C5'-C4'-C3'	5.34	124.55	116.00
81	DA	2410	U	C4'-C3'-C2'	-5.34	97.26	102.60
32	BC	62	ARG	NE-CZ-NH2	5.34	122.97	120.30
81	DA	270	U	O4'-C1'-C2'	-5.34	100.46	105.80
1	Aa	92	TRP	CB-CG-CD1	5.34	133.94	127.00
32	BC	119	TYR	C-N-CA	5.34	135.05	121.70
38	Bs	255	TYR	CD1-CE1-CZ	5.34	124.61	119.80
78	CA	1207	C	N1-C1'-C2'	5.34	120.94	114.00
81	DA	1737	U	C5'-C4'-O4'	5.34	115.51	109.10
81	DA	2086	A	O4'-C1'-N9	5.34	112.47	108.20
29	AU	58	PHE	N-CA-CB	-5.34	100.99	110.60
37	BH	63	LYS	CB-CA-C	5.34	121.08	110.40
76	BS	115	ARG	CD-NE-CZ	-5.34	116.12	123.60
81	DA	674	G	C4'-C3'-C2'	-5.34	97.26	102.60
81	DA	677	A	N9-C1'-C2'	-5.34	106.13	112.00
81	DA	1324	U	C5'-C4'-C3'	-5.34	107.46	116.00
81	DA	1883	A	N9-C1'-C2'	-5.34	106.13	112.00
81	DA	2662	G	C1'-O4'-C4'	-5.34	105.63	109.90
78	CA	1543	A	N9-C1'-C2'	-5.34	106.13	112.00
81	DA	399	A	C5'-C4'-C3'	-5.34	107.46	116.00
81	DA	1015	U	O4'-C1'-C2'	-5.34	100.46	105.80
81	DA	1404	G	C5'-C4'-C3'	-5.34	107.46	116.00
62	Bk	25	LYS	N-CA-C	-5.34	96.59	111.00
78	CA	138	A	O4'-C1'-C2'	5.34	112.40	107.60
78	CA	283	U	C1'-O4'-C4'	5.34	114.17	109.90
81	DA	1262	G	C5'-C4'-C3'	-5.34	107.46	116.00
32	BC	47	LEU	N-CA-CB	5.33	121.07	110.40
78	CA	888	U	O4'-C1'-N1	5.33	112.47	108.20
78	CA	1070	C	N3-C4-N4	5.33	121.73	118.00
81	DA	1929	G	O4'-C1'-N9	5.33	112.47	108.20
64	Bl	5	THR	CA-C-N	5.33	132.03	117.10
78	CA	1647	U	N1-C1'-C2'	5.33	120.93	114.00
81	DA	1762	C	N3-C4-C5	-5.33	119.77	121.90
81	DA	1892	G	O3'-P-O5'	-5.33	93.87	104.00
81	DA	2829	U	N1-C1'-C2'	5.33	120.93	114.00
5	AC	157	ASP	C-N-CA	5.33	135.03	121.70
31	BB	245	LEU	C-N-CA	-5.33	108.37	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BN	2	SER	C-N-CA	-5.33	108.37	121.70
81	DA	666	A	C3'-C2'-C1'	-5.33	97.23	101.50
81	DA	913	A	C5'-C4'-O4'	5.33	115.50	109.10
81	DA	2918	G	C1'-O4'-C4'	-5.33	105.64	109.90
81	DA	3365	U	N1-C1'-C2'	5.33	120.93	114.00
83	DC	71	C	C3'-C2'-C1'	5.33	105.77	101.50
34	BE	30	LEU	CB-CG-CD2	5.33	120.06	111.00
41	BN	5	SER	N-CA-C	5.33	125.39	111.00
78	CA	1283	U	O4'-C1'-C2'	-5.33	100.47	105.80
81	DA	1887	A	C3'-C2'-C1'	5.33	105.76	101.50
81	DA	2630	C	P-O5'-C5'	-5.33	112.37	120.90
81	DA	2635	A	P-O3'-C3'	5.33	126.10	119.70
81	DA	2966	G	C3'-C2'-C1'	5.33	105.76	101.50
81	DA	3086	A	C3'-C2'-C1'	5.33	105.76	101.50
36	BF	107	ASP	CB-CG-OD2	-5.33	113.50	118.30
78	CA	1655	A	O4'-C1'-C2'	-5.33	100.47	105.80
81	DA	549	U	O4'-C1'-N1	5.33	112.46	108.20
81	DA	2645	G	O4'-C1'-C2'	5.33	112.40	107.60
81	DA	3325	G	O4'-C4'-C3'	-5.33	98.67	104.00
4	AD	218	PHE	CZ-CE2-CD2	-5.33	113.71	120.10
8	AF	68	ILE	N-CA-C	-5.33	96.62	111.00
13	AL	16	ARG	NE-CZ-NH2	-5.33	117.64	120.30
35	BG	27	PRO	N-CA-C	-5.33	98.25	112.10
43	BP	119	TYR	CG-CD1-CE1	-5.33	117.04	121.30
78	CA	154	G	O3'-P-O5'	5.33	114.12	104.00
78	CA	372	G	C4'-C3'-C2'	-5.33	97.27	102.60
81	DA	1760	A	C4-C5-C6	5.33	119.66	117.00
81	DA	2177	G	O4'-C1'-C2'	-5.33	100.47	105.80
29	AU	18	LEU	N-CA-CB	5.33	121.05	110.40
42	BM	14	SER	N-CA-CB	5.33	118.49	110.50
50	BX	82	LEU	CB-CG-CD2	5.33	120.05	111.00
51	BZ	48	ARG	C-N-CA	5.33	135.01	121.70
78	CA	1669	U	O4'-C1'-N1	5.33	112.46	108.20
81	DA	2312	A	C3'-C2'-C1'	5.33	105.76	101.50
81	DA	2496	C	C4'-C3'-C2'	5.33	107.93	102.60
82	DB	147	U	O4'-C1'-C2'	-5.33	100.47	105.80
18	AP	107	VAL	CG1-CB-CG2	5.32	119.42	110.90
22	AV	79	ALA	N-CA-CB	5.32	117.55	110.10
34	BE	154	THR	CA-CB-CG2	-5.32	104.95	112.40
78	CA	1746	A	N9-C1'-C2'	-5.32	106.14	112.00
81	DA	166	C	C3'-C2'-C1'	5.32	105.76	101.50
81	DA	1298	C	C2'-C3'-O3'	5.32	122.22	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2884	C	C3'-C2'-C1'	5.32	105.76	101.50
83	DC	10	C	C5'-C4'-O4'	5.32	115.49	109.10
8	AF	106	LYS	N-CA-CB	5.32	120.18	110.60
33	BD	241	GLY	C-N-CA	5.32	135.00	121.70
61	Bj	68	TRP	CG-CD2-CE3	-5.32	129.11	133.90
78	CA	406	U	C1'-O4'-C4'	-5.32	105.64	109.90
81	DA	1073	U	C4'-C3'-C2'	-5.32	97.28	102.60
81	DA	1795	U	P-O3'-C3'	5.32	126.09	119.70
48	BW	78	TYR	CA-CB-CG	5.32	123.51	113.40
49	BV	3	ARG	CG-CD-NE	5.32	122.97	111.80
78	CA	333	A	N9-C1'-C2'	5.32	120.92	114.00
78	CA	584	C	P-O3'-C3'	-5.32	113.31	119.70
78	CA	650	U	O5'-C5'-C4'	5.32	121.81	111.70
78	CA	1062	A	O4'-C1'-N9	5.32	112.46	108.20
78	CA	1535	U	O5'-C5'-C4'	-5.32	101.59	111.70
81	DA	44	U	O4'-C1'-N1	5.32	112.46	108.20
81	DA	691	A	O4'-C1'-C2'	-5.32	100.48	105.80
81	DA	1102	A	C1'-O4'-C4'	5.32	114.16	109.90
81	DA	1293	U	C4'-C3'-C2'	-5.32	97.28	102.60
81	DA	1754	G	O5'-C5'-C4'	5.32	121.81	111.70
81	DA	2437	G	C2'-C3'-O3'	5.32	122.21	113.70
81	DA	2491	A	O3'-P-O5'	-5.32	93.89	104.00
35	BG	8	LYS	N-CA-CB	5.32	120.17	110.60
61	Bj	73	ARG	O-C-N	-5.32	114.19	122.70
78	CA	1633	A	C5-C6-N1	-5.32	115.04	117.70
79	CB	56	A	C5'-C4'-O4'	5.32	115.48	109.10
81	DA	764	U	OP1-P-O3'	5.32	116.90	105.20
81	DA	2579	G	C4-N9-C1'	-5.32	119.59	126.50
81	DA	2668	U	C4'-C3'-C2'	-5.32	97.28	102.60
5	AC	37	LYS	CB-CG-CD	5.32	125.43	111.60
6	AE	24	ARG	NE-CZ-NH1	-5.32	117.64	120.30
40	BK	131	PRO	CA-N-CD	-5.32	104.06	111.50
81	DA	413	U	O4'-C1'-N1	5.32	112.45	108.20
81	DA	742	G	O4'-C1'-C2'	-5.32	100.48	105.80
81	DA	836	A	C1'-O4'-C4'	5.32	114.15	109.90
81	DA	1889	G	N9-C1'-C2'	5.32	120.91	114.00
81	DA	2985	C	O4'-C1'-N1	5.32	112.45	108.20
1	Aa	258	THR	CA-CB-CG2	5.32	119.84	112.40
10	AI	48	VAL	CG1-CB-CG2	-5.32	102.39	110.90
32	BC	42	ALA	N-CA-CB	5.32	117.54	110.10
38	Bs	12	PHE	CB-CG-CD2	5.32	124.52	120.80
40	BK	135	TYR	N-CA-C	-5.32	96.65	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	Ba	71	PHE	CB-CG-CD2	-5.32	117.08	120.80
57	Be	220	PHE	CD1-CG-CD2	5.32	125.21	118.30
78	CA	931	C	OP1-P-OP2	-5.32	111.63	119.60
81	DA	282	G	C2'-C3'-O3'	5.32	122.20	113.70
81	DA	288	C	O4'-C1'-N1	5.32	112.45	108.20
81	DA	1285	G	C4'-C3'-O3'	5.32	123.63	113.00
81	DA	3053	G	C1'-O4'-C4'	-5.32	105.65	109.90
33	BD	351	PRO	N-CA-CB	5.31	109.68	103.30
48	BW	93	ILE	CA-CB-CG2	5.31	121.53	110.90
78	CA	1635	A	C5-C6-N1	-5.31	115.04	117.70
81	DA	1800	A	C3'-C2'-C1'	5.31	105.75	101.50
81	DA	1912	U	C1'-O4'-C4'	-5.31	105.65	109.90
81	DA	2533	G	C5-C6-O6	-5.31	125.41	128.60
81	DA	2758	A	C1'-O4'-C4'	5.31	114.15	109.90
82	DB	85	G	C3'-C2'-C1'	5.31	105.75	101.50
1	Aa	166	SER	N-CA-CB	5.31	118.47	110.50
35	BG	52	VAL	CG1-CB-CG2	5.31	119.40	110.90
55	Bc	110	ALA	CB-CA-C	-5.31	102.13	110.10
62	Bk	76	ARG	NH1-CZ-NH2	-5.31	113.56	119.40
78	CA	367	A	C4'-C3'-C2'	-5.31	97.29	102.60
78	CA	591	A	C1'-O4'-C4'	-5.31	105.65	109.90
78	CA	821	U	C3'-C2'-C1'	5.31	105.75	101.50
78	CA	962	C	C3'-C2'-C1'	5.31	105.75	101.50
78	CA	1275	A	C4-C5-C6	5.31	119.66	117.00
81	DA	69	C	C5'-C4'-C3'	5.31	124.50	116.00
81	DA	657	A	O3'-P-O5'	5.31	114.09	104.00
81	DA	862	U	O4'-C1'-N1	5.31	112.45	108.20
81	DA	1912	U	O4'-C1'-N1	5.31	112.45	108.20
12	AK	103	ARG	NE-CZ-NH1	-5.31	117.64	120.30
25	AY	31	GLU	N-CA-CB	5.31	120.16	110.60
31	BB	246	LEU	C-N-CA	5.31	134.98	121.70
34	BE	108	GLU	CB-CA-C	-5.31	99.78	110.40
81	DA	1793	C	O4'-C1'-N1	5.31	112.45	108.20
6	AE	95	ARG	NE-CZ-NH2	-5.31	117.64	120.30
18	AP	58	CYS	CA-C-N	5.31	131.97	117.10
32	BC	283	TYR	CZ-CE2-CD2	5.31	124.58	119.80
35	BG	99	GLU	C-N-CA	5.31	134.97	121.70
50	BX	56	ARG	NE-CZ-NH2	-5.31	117.64	120.30
78	CA	423	G	O4'-C4'-C3'	5.31	110.35	106.10
78	CA	485	A	C5-C6-N1	-5.31	115.05	117.70
78	CA	547	U	C4'-C3'-C2'	-5.31	97.29	102.60
81	DA	890	C	O4'-C1'-N1	5.31	112.45	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2209	U	C5'-C4'-O4'	-5.31	102.73	109.10
81	DA	2564	G	C5-C6-O6	-5.31	125.41	128.60
81	DA	3389	U	C3'-C2'-C1'	-5.31	97.25	101.50
35	BG	77	ARG	NH1-CZ-NH2	5.31	125.24	119.40
38	Bs	77	LEU	N-CA-C	-5.31	96.67	111.00
46	BT	47	ASN	CA-CB-CG	-5.31	101.72	113.40
65	Bn	71	PRO	CB-CA-C	5.31	125.27	112.00
73	Bv	16	THR	C-N-CD	-5.31	108.92	120.60
78	CA	1037	C	N1-C1'-C2'	5.31	120.90	114.00
78	CA	1220	C	OP2-P-O3'	5.31	116.88	105.20
78	CA	1317	C	C3'-C2'-C1'	5.31	105.75	101.50
81	DA	705	A	P-O5'-C5'	-5.31	112.41	120.90
81	DA	1146	C	O4'-C1'-C2'	-5.31	100.49	105.80
81	DA	2197	C	C1'-O4'-C4'	5.31	114.15	109.90
81	DA	2564	G	N3-C2-N2	5.31	123.61	119.90
78	CA	851	U	C3'-C2'-C1'	5.31	105.74	101.50
78	CA	1705	C	C3'-C2'-C1'	5.31	105.74	101.50
81	DA	3297	U	O4'-C1'-C2'	-5.31	100.49	105.80
81	DA	178	U	C2'-C3'-O3'	5.30	122.19	113.70
81	DA	1154	A	O4'-C1'-C2'	-5.30	100.50	105.80
81	DA	1627	U	O4'-C4'-C3'	-5.30	98.70	104.00
81	DA	1691	U	O4'-C1'-N1	5.30	112.44	108.20
81	DA	2420	C	P-O5'-C5'	-5.30	112.41	120.90
81	DA	3295	A	N9-C1'-C2'	5.30	120.90	114.00
82	DB	100	U	O4'-C1'-N1	5.30	112.44	108.20
78	CA	161	U	O3'-P-O5'	5.30	114.08	104.00
78	CA	1167	G	N9-C1'-C2'	-5.30	106.17	112.00
34	BE	2	SER	CA-CB-OG	-5.30	96.89	111.20
78	CA	565	C	N3-C4-N4	5.30	121.71	118.00
78	CA	1471	A	O4'-C1'-N9	5.30	112.44	108.20
81	DA	2080	C	C1'-O4'-C4'	5.30	114.14	109.90
81	DA	2789	U	P-O5'-C5'	5.30	129.38	120.90
43	BP	14	LYS	N-CA-C	5.30	125.31	111.00
64	Bl	20	ASN	CB-CA-C	-5.30	99.80	110.40
78	CA	36	C	N1-C1'-C2'	5.30	120.89	114.00
81	DA	164	A	C5-C6-N6	-5.30	119.46	123.70
81	DA	170	G	N9-C1'-C2'	-5.30	106.17	112.00
81	DA	688	G	N9-C1'-C2'	-5.30	106.17	112.00
81	DA	1008	U	O4'-C1'-C2'	-5.30	100.50	105.80
81	DA	2165	G	C5'-C4'-C3'	5.30	124.48	116.00
83	DC	23	A	O4'-C1'-N9	5.30	112.44	108.20
17	AQ	129	ASP	C-N-CA	-5.30	108.45	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	BW	33	TYR	CB-CG-CD1	-5.30	117.82	121.00
81	DA	2099	A	C4'-C3'-O3'	-5.30	98.27	109.40
81	DA	2602	G	O4'-C1'-C2'	5.30	112.37	107.60
44	BO	59	ARG	NE-CZ-NH1	5.30	122.95	120.30
76	BS	32	TRP	CB-CG-CD1	5.30	133.89	127.00
78	CA	100	A	O4'-C1'-N9	5.30	112.44	108.20
78	CA	506	A	C4-C5-C6	5.30	119.65	117.00
81	DA	1252	A	C3'-C2'-C1'	5.30	105.74	101.50
81	DA	2958	A	C5'-C4'-C3'	5.30	124.47	116.00
81	DA	3256	G	P-O5'-C5'	5.30	129.37	120.90
37	BH	103	ALA	CB-CA-C	-5.29	102.16	110.10
40	BK	186	ALA	O-C-N	5.29	131.17	122.70
78	CA	339	C	O4'-C1'-C2'	-5.29	100.50	105.80
78	CA	1597	A	C1'-O4'-C4'	-5.29	105.66	109.90
78	CA	1608	U	OP1-P-O3'	5.29	116.85	105.20
81	DA	498	A	O4'-C1'-C2'	-5.29	100.50	105.80
81	DA	2455	U	O4'-C1'-N1	5.29	112.44	108.20
82	DB	34	U	C3'-C2'-C1'	5.29	105.74	101.50
1	Aa	250	TYR	CB-CG-CD1	-5.29	117.82	121.00
26	AZ	40	TYR	CB-CA-C	5.29	120.99	110.40
37	BH	74	THR	N-CA-CB	5.29	120.36	110.30
43	BP	176	LYS	N-CA-CB	-5.29	101.07	110.60
78	CA	405	C	C3'-C2'-C1'	5.29	105.73	101.50
78	CA	1275	A	C5-C6-N1	-5.29	115.05	117.70
81	DA	36	C	C3'-C2'-C1'	5.29	105.73	101.50
81	DA	524	U	P-O3'-C3'	5.29	126.05	119.70
81	DA	2479	C	C5'-C4'-C3'	5.29	124.47	116.00
81	DA	3246	G	P-O5'-C5'	5.29	129.37	120.90
33	BD	142	VAL	CA-CB-CG2	5.29	118.84	110.90
43	BP	13	LYS	O-C-N	-5.29	114.23	122.70
72	Bu	43	ASP	N-CA-CB	5.29	120.12	110.60
78	CA	218	A	O4'-C1'-N9	-5.29	103.97	108.20
81	DA	779	G	C5'-C4'-C3'	-5.29	107.53	116.00
81	DA	2367	A	O3'-P-O5'	5.29	114.05	104.00
82	DB	4	C	C1'-O4'-C4'	-5.29	105.67	109.90
5	AC	164	PHE	CA-C-O	-5.29	108.99	120.10
34	BE	52	TYR	O-C-N	-5.29	114.23	122.70
50	BX	40	LEU	CB-CG-CD2	5.29	119.99	111.00
78	CA	514	G	C5'-C4'-C3'	-5.29	107.54	116.00
81	DA	1982	G	O4'-C1'-N9	5.29	112.43	108.20
81	DA	2787	G	O4'-C1'-N9	5.29	112.43	108.20
16	AO	113	PHE	CB-CG-CD1	-5.29	117.10	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	466	U	C5'-C4'-C3'	-5.29	107.54	116.00
78	CA	669	G	C5'-C4'-C3'	-5.29	107.54	116.00
79	CB	3	C	O4'-C1'-N1	5.29	112.43	108.20
81	DA	502	U	O4'-C1'-C2'	-5.29	100.51	105.80
81	DA	1272	C	P-O5'-C5'	-5.29	112.44	120.90
81	DA	1847	A	O4'-C1'-C2'	-5.29	100.51	105.80
81	DA	2201	G	C4'-C3'-C2'	-5.29	97.31	102.60
78	CA	314	C	N1-C1'-C2'	5.29	120.87	114.00
79	CB	21	A	P-O5'-C5'	5.29	129.36	120.90
81	DA	2533	G	O4'-C1'-N9	5.29	112.43	108.20
81	DA	2578	U	O3'-P-O5'	-5.29	93.95	104.00
62	Bk	96	ALA	CB-CA-C	-5.29	102.17	110.10
78	CA	960	U	C4'-C3'-C2'	-5.29	97.31	102.60
78	CA	1264	G	C5'-C4'-O4'	-5.29	102.76	109.10
78	CA	1267	G	C1'-O4'-C4'	-5.29	105.67	109.90
81	DA	33	G	C1'-O4'-C4'	-5.29	105.67	109.90
81	DA	42	C	C5'-C4'-C3'	-5.29	107.54	116.00
81	DA	734	C	N3-C4-C5	-5.29	119.79	121.90
81	DA	1388	U	C4'-C3'-C2'	-5.29	97.31	102.60
81	DA	1683	A	P-O3'-C3'	5.29	126.04	119.70
81	DA	1696	A	C1'-O4'-C4'	-5.29	105.67	109.90
81	DA	2854	U	C4'-C3'-C2'	-5.29	97.31	102.60
81	DA	3124	G	P-O3'-C3'	-5.29	113.36	119.70
14	AM	88	ARG	CA-C-N	5.28	128.82	117.20
37	BH	108	ARG	N-CA-CB	5.28	120.11	110.60
40	BK	129	LEU	N-CA-CB	5.28	120.97	110.40
45	BR	13	SER	CA-C-N	-5.28	105.63	116.20
53	Ba	95	VAL	CG1-CB-CG2	-5.28	102.45	110.90
59	Bh	26	HIS	C-N-CA	5.28	134.91	121.70
78	CA	833	U	C5'-C4'-O4'	5.28	115.44	109.10
81	DA	1230	G	C4'-C3'-C2'	5.28	107.88	102.60
81	DA	1807	G	O3'-P-O5'	5.28	114.04	104.00
81	DA	1876	U	C3'-C2'-C1'	5.28	105.73	101.50
81	DA	2205	U	C3'-C2'-C1'	5.28	105.73	101.50
81	DA	2312	A	P-O3'-C3'	5.28	126.04	119.70
81	DA	3034	C	C5'-C4'-C3'	-5.28	107.55	116.00
83	DC	106	G	O4'-C1'-N9	5.28	112.43	108.20
13	AL	6	PRO	N-CA-CB	5.28	109.64	103.30
16	AO	109	LYS	N-CA-C	5.28	125.26	111.00
81	DA	2264	U	P-O3'-C3'	-5.28	113.36	119.70
47	BU	137	GLU	N-CA-C	-5.28	96.74	111.00
52	BY	20	PHE	N-CA-CB	5.28	120.11	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	396	A	C3'-C2'-C1'	5.28	105.72	101.50
81	DA	415	G	N9-C1'-C2'	5.28	120.86	114.00
81	DA	724	U	O4'-C1'-C2'	-5.28	100.52	105.80
81	DA	1473	G	C1'-O4'-C4'	-5.28	105.68	109.90
81	DA	1885	U	C5'-C4'-O4'	-5.28	102.76	109.10
5	AC	18	PRO	N-CA-CB	5.28	109.64	103.30
6	AE	84	LYS	N-CA-CB	5.28	120.10	110.60
78	CA	1664	C	O4'-C1'-N1	5.28	112.42	108.20
81	DA	561	C	N1-C1'-C2'	5.28	120.86	114.00
81	DA	736	A	C5-C6-N1	-5.28	115.06	117.70
81	DA	840	C	O4'-C1'-N1	5.28	112.42	108.20
81	DA	1141	C	C3'-C2'-C1'	5.28	105.72	101.50
81	DA	2830	G	O4'-C4'-C3'	-5.28	98.72	104.00
9	AH	96	ALA	N-CA-CB	5.28	117.49	110.10
78	CA	1323	C	N1-C1'-C2'	5.28	120.86	114.00
78	CA	1777	G	O4'-C1'-N9	5.28	112.42	108.20
81	DA	2075	C	C3'-C2'-C1'	5.28	105.72	101.50
81	DA	2200	U	N1-C1'-C2'	5.28	120.86	114.00
81	DA	2900	A	P-O5'-C5'	5.28	129.34	120.90
82	DB	93	U	O4'-C1'-C2'	-5.28	100.52	105.80
83	DC	107	G	C4'-C3'-C2'	-5.28	97.32	102.60
31	BB	25	GLY	C-N-CA	5.28	134.89	121.70
37	BH	62	LYS	C-N-CA	5.28	134.89	121.70
43	BP	181	ASN	CB-CA-C	-5.28	99.85	110.40
76	BS	26	ILE	N-CA-CB	-5.28	98.67	110.80
78	CA	122	U	C5'-C4'-O4'	5.28	115.43	109.10
81	DA	724	U	N1-C1'-C2'	5.28	120.86	114.00
81	DA	1703	U	C1'-O4'-C4'	5.28	114.12	109.90
81	DA	3233	C	C3'-C2'-C1'	5.28	105.72	101.50
81	DA	3258	U	C5'-C4'-C3'	5.28	124.44	116.00
9	AH	98	GLN	O-C-N	5.27	131.14	122.70
11	AJ	60	THR	N-CA-CB	5.27	120.32	110.30
76	BS	66	ILE	C-N-CA	-5.27	108.52	121.70
78	CA	1197	C	C5'-C4'-O4'	5.27	115.43	109.10
81	DA	1581	C	O4'-C1'-C2'	-5.27	100.53	105.80
22	AV	29	LYS	CA-C-O	-5.27	109.03	120.10
41	BN	100	ALA	C-N-CA	5.27	134.88	121.70
78	CA	1595	U	P-O3'-C3'	5.27	126.03	119.70
81	DA	136	G	C1'-O4'-C4'	-5.27	105.68	109.90
81	DA	198	A	C1'-O4'-C4'	5.27	114.12	109.90
81	DA	215	G	O4'-C1'-N9	5.27	112.42	108.20
81	DA	1738	C	P-O3'-C3'	-5.27	113.37	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	DC	67	C	O4'-C1'-C2'	-5.27	100.53	105.80
78	CA	284	G	C1'-O4'-C4'	5.27	114.12	109.90
81	DA	1490	A	O4'-C1'-N9	5.27	112.42	108.20
81	DA	1826	C	C5'-C4'-C3'	5.27	124.43	116.00
81	DA	2065	U	N1-C1'-C2'	5.27	120.85	114.00
3	AB	190	ARG	NE-CZ-NH2	-5.27	117.67	120.30
4	AD	47	PHE	CB-CG-CD2	-5.27	117.11	120.80
37	BH	61	GLN	CA-C-O	-5.27	109.03	120.10
45	BR	80	THR	N-CA-CB	5.27	120.31	110.30
52	BY	74	TYR	N-CA-C	-5.27	96.77	111.00
78	CA	846	G	O4'-C1'-N9	5.27	112.42	108.20
81	DA	627	U	C5'-C4'-C3'	5.27	124.43	116.00
81	DA	1107	C	P-O5'-C5'	5.27	129.33	120.90
81	DA	2758	A	N9-C1'-C2'	-5.27	106.20	112.00
83	DC	76	U	C1'-O4'-C4'	5.27	114.11	109.90
4	AD	138	TYR	CB-CG-CD1	-5.27	117.84	121.00
16	AO	80	LEU	C-N-CA	5.27	134.87	121.70
30	BA	168	ALA	N-CA-CB	5.27	117.47	110.10
42	BM	46	LEU	C-N-CA	5.27	134.87	121.70
46	BT	55	VAL	N-CA-CB	5.27	123.09	111.50
63	Bm	41	PHE	CB-CG-CD2	-5.27	117.11	120.80
74	BQ	237	GLU	N-CA-C	-5.27	96.78	111.00
78	CA	348	U	C4'-C3'-C2'	-5.27	97.33	102.60
78	CA	590	C	C3'-C2'-C1'	5.27	105.71	101.50
78	CA	842	C	C5-C6-N1	5.27	123.63	121.00
78	CA	1085	G	P-O3'-C3'	-5.27	113.38	119.70
81	DA	841	A	N9-C1'-C2'	5.27	120.85	114.00
81	DA	1109	U	O4'-C1'-C2'	-5.27	100.53	105.80
81	DA	3327	G	C4'-C3'-C2'	-5.27	97.33	102.60
3	AB	152	PHE	CB-CG-CD2	5.27	124.49	120.80
47	BU	84	TYR	CD1-CG-CD2	5.27	123.69	117.90
81	DA	3007	U	O4'-C1'-N1	5.27	112.41	108.20
16	AO	65	VAL	N-CA-CB	5.26	123.08	111.50
29	AU	31	ASN	N-CA-CB	5.26	120.08	110.60
30	BA	53	LEU	CB-CG-CD1	-5.26	102.05	111.00
64	Bl	11	ARG	O-C-N	-5.26	114.28	122.70
74	BQ	239	ILE	N-CA-CB	-5.26	98.69	110.80
78	CA	1471	A	C5'-C4'-C3'	-5.26	107.58	116.00
81	DA	1598	G	O5'-C5'-C4'	5.26	121.70	111.70
81	DA	1767	C	C4'-C3'-C2'	-5.26	97.34	102.60
81	DA	2119	A	C5'-C4'-O4'	5.26	115.42	109.10
81	DA	2286	U	O4'-C1'-N1	5.26	112.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2621	G	N9-C1'-C2'	5.26	120.84	114.00
15	AN	20	GLN	O-C-N	-5.26	114.28	122.70
53	Ba	66	THR	CA-CB-CG2	-5.26	105.03	112.40
81	DA	820	A	O4'-C1'-C2'	-5.26	100.54	105.80
47	BU	48	ILE	C-N-CA	5.26	134.85	121.70
62	Bk	83	ALA	N-CA-C	5.26	125.20	111.00
78	CA	1117	U	C5'-C4'-C3'	5.26	124.42	116.00
78	CA	1294	G	P-O3'-C3'	-5.26	113.39	119.70
78	CA	1571	C	P-O5'-C5'	-5.26	112.48	120.90
81	DA	32	U	C5'-C4'-C3'	5.26	124.42	116.00
81	DA	285	A	P-O3'-C3'	-5.26	113.39	119.70
81	DA	1335	C	C4'-C3'-C2'	-5.26	97.34	102.60
22	AV	71	ILE	N-CA-C	-5.26	96.80	111.00
32	BC	10	ARG	NE-CZ-NH2	-5.26	117.67	120.30
32	BC	369	ARG	NE-CZ-NH1	5.26	122.93	120.30
41	BN	108	ARG	CA-C-O	5.26	131.14	120.10
62	Bk	57	LEU	CB-CG-CD2	5.26	119.94	111.00
78	CA	1235	C	C5'-C4'-C3'	5.26	124.42	116.00
78	CA	1476	C	O4'-C1'-N1	5.26	112.41	108.20
81	DA	560	G	C1'-O4'-C4'	5.26	114.11	109.90
81	DA	984	G	C5'-C4'-C3'	5.26	124.42	116.00
81	DA	127	G	C1'-O4'-C4'	-5.26	105.69	109.90
81	DA	2114	C	C4'-C3'-O3'	5.26	123.52	113.00
82	DB	73	U	P-O5'-C5'	5.26	129.31	120.90
6	AE	197	TYR	CG-CD1-CE1	-5.26	117.09	121.30
20	AS	57	ARG	NE-CZ-NH1	5.26	122.93	120.30
60	Bi	42	PRO	CA-C-N	5.26	128.76	117.20
78	CA	889	U	C3'-C2'-C1'	5.26	105.70	101.50
78	CA	1420	C	N1-C1'-C2'	5.26	120.83	114.00
78	CA	1529	C	C1'-O4'-C4'	-5.26	105.69	109.90
81	DA	606	C	O4'-C1'-N1	5.26	112.41	108.20
81	DA	808	A	P-O3'-C3'	5.26	126.01	119.70
81	DA	2839	G	C1'-O4'-C4'	-5.26	105.69	109.90
81	DA	2916	U	O4'-C1'-C2'	-5.26	100.54	105.80
83	DC	30	G	O4'-C1'-C2'	5.26	112.33	107.60
5	AC	57	ARG	NE-CZ-NH2	-5.25	117.67	120.30
20	AS	91	TYR	CA-C-N	-5.25	105.64	117.20
40	BK	147	TRP	CB-CA-C	-5.25	99.89	110.40
78	CA	1577	A	O4'-C1'-C2'	-5.25	100.55	105.80
10	AI	140	LYS	CB-CA-C	-5.25	99.89	110.40
20	AS	30	VAL	CA-C-O	-5.25	109.07	120.10
35	BG	2	SER	CB-CA-C	5.25	120.08	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	868	G	P-O5'-C5'	-5.25	112.49	120.90
81	DA	448	U	C5'-C4'-C3'	-5.25	107.59	116.00
81	DA	1491	A	O4'-C1'-N9	5.25	112.40	108.20
81	DA	2464	U	O4'-C1'-N1	5.25	112.40	108.20
81	DA	2760	C	C4'-C3'-O3'	5.25	123.51	113.00
81	DA	2773	C	O4'-C1'-N1	5.25	112.40	108.20
11	AJ	64	LYS	N-CA-CB	5.25	120.05	110.60
30	BA	161	LYS	N-CA-CB	5.25	120.05	110.60
69	Br	99	GLN	N-CA-C	-5.25	96.82	111.00
78	CA	308	C	O4'-C1'-C2'	-5.25	100.55	105.80
78	CA	1476	C	O3'-P-O5'	5.25	113.98	104.00
81	DA	637	C	C4'-C3'-O3'	5.25	123.50	113.00
81	DA	1003	A	C5'-C4'-O4'	5.25	115.40	109.10
81	DA	2151	C	O4'-C1'-C2'	-5.25	100.55	105.80
81	DA	2221	G	C5'-C4'-O4'	-5.25	102.80	109.10
81	DA	2272	G	N9-C1'-C2'	-5.25	106.22	112.00
8	AF	215	ASP	CB-CG-OD2	-5.25	113.58	118.30
15	AN	9	SER	CB-CA-C	5.25	120.08	110.10
54	Bd	52	LYS	CB-CG-CD	5.25	125.25	111.60
78	CA	1648	A	C1'-O4'-C4'	-5.25	105.70	109.90
81	DA	1975	C	C5'-C4'-C3'	5.25	124.40	116.00
82	DB	32	C	O4'-C1'-C2'	-5.25	100.55	105.80
1	Aa	302	PHE	CB-CG-CD1	-5.25	117.13	120.80
37	BH	232	HIS	CA-C-N	5.25	128.75	117.20
72	Bt	56	ASP	CB-CG-OD2	5.25	123.02	118.30
78	CA	1051	G	N1-C2-N3	-5.25	120.75	123.90
78	CA	1393	C	C4'-C3'-O3'	5.25	123.50	113.00
78	CA	1416	G	O4'-C1'-N9	5.25	112.40	108.20
78	CA	1475	A	O4'-C4'-C3'	-5.25	98.75	104.00
81	DA	57	A	O4'-C1'-N9	5.25	112.40	108.20
81	DA	1761	C	N3-C4-N4	5.25	121.67	118.00
81	DA	2321	A	O4'-C1'-N9	5.25	112.40	108.20
3	AB	215	GLU	N-CA-C	-5.25	96.83	111.00
51	BZ	66	GLU	N-CA-CB	5.25	120.04	110.60
69	Br	59	HIS	CA-CB-CG	-5.25	104.68	113.60
78	CA	214	G	O4'-C1'-N9	5.25	112.40	108.20
78	CA	216	U	P-O3'-C3'	5.25	126.00	119.70
78	CA	578	U	O4'-C1'-N1	5.25	112.40	108.20
78	CA	1436	A	C2'-C3'-O3'	5.25	122.09	113.70
81	DA	1647	A	P-O3'-C3'	5.25	126.00	119.70
81	DA	1933	A	O4'-C1'-C2'	-5.25	100.55	105.80
81	DA	2933	A	C3'-C2'-C1'	5.25	105.70	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	92	A	P-O5'-C5'	5.25	129.30	120.90
1	Aa	75	ALA	CB-CA-C	-5.25	102.23	110.10
2	AA	45	VAL	CG1-CB-CG2	5.25	119.29	110.90
43	BP	179	LYS	CA-C-O	-5.25	109.09	120.10
72	Bt	58	LEU	CB-CA-C	-5.25	100.23	110.20
81	DA	61	A	O4'-C1'-N9	5.25	112.40	108.20
81	DA	1096	U	P-O3'-C3'	5.25	125.99	119.70
81	DA	2360	C	C1'-O4'-C4'	-5.25	105.70	109.90
81	DA	2904	U	C3'-C2'-C1'	5.25	105.70	101.50
81	DA	2964	G	C4'-C3'-C2'	-5.25	97.36	102.60
83	DC	38	U	C3'-C2'-C1'	-5.25	97.30	101.50
35	BG	142	ASP	N-CA-C	-5.24	96.84	111.00
78	CA	1728	A	O4'-C1'-N9	5.24	112.39	108.20
81	DA	444	U	N1-C1'-C2'	5.24	120.82	114.00
81	DA	1668	G	O3'-P-O5'	5.24	113.96	104.00
17	AQ	45	ARG	NE-CZ-NH1	5.24	122.92	120.30
36	BF	129	ARG	NE-CZ-NH2	-5.24	117.68	120.30
81	DA	1250	G	O4'-C1'-C2'	-5.24	100.56	105.80
4	AD	54	TYR	CD1-CE1-CZ	5.24	124.52	119.80
5	AC	118	LEU	CB-CA-C	5.24	120.16	110.20
11	AJ	84	MET	N-CA-CB	5.24	120.03	110.60
14	AM	88	ARG	C-N-CA	5.24	134.80	121.70
21	AT	46	ILE	N-CA-C	-5.24	96.85	111.00
32	BC	60	LEU	CB-CA-C	5.24	120.16	110.20
39	BJ	51	LYS	N-CA-CB	5.24	120.03	110.60
57	Be	151	ARG	CD-NE-CZ	-5.24	116.27	123.60
76	BS	118	VAL	CA-CB-CG1	5.24	118.76	110.90
78	CA	1681	A	O3'-P-O5'	-5.24	94.04	104.00
81	DA	102	C	N1-C1'-C2'	5.24	120.81	114.00
81	DA	721	G	C1'-O4'-C4'	5.24	114.09	109.90
81	DA	1338	C	O4'-C1'-C2'	-5.24	100.56	105.80
81	DA	1616	U	N1-C1'-C2'	5.24	120.81	114.00
81	DA	1902	G	O4'-C1'-C2'	5.24	112.32	107.60
81	DA	2870	C	O4'-C1'-C2'	-5.24	100.56	105.80
82	DB	28	C	C3'-C2'-C1'	5.24	105.69	101.50
5	AC	127	VAL	CB-CA-C	5.24	121.35	111.40
69	Br	79	THR	N-CA-C	-5.24	96.86	111.00
74	BQ	31	TYR	CB-CG-CD1	5.24	124.14	121.00
78	CA	1547	A	C4'-C3'-C2'	-5.24	97.36	102.60
81	DA	1131	G	C4'-C3'-C2'	5.24	107.84	102.60
81	DA	1171	G	O3'-P-O5'	5.24	113.95	104.00
81	DA	2565	U	C4'-C3'-C2'	-5.24	97.36	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2745	G	C1'-O4'-C4'	5.24	114.09	109.90
78	CA	856	A	C3'-C2'-C1'	-5.24	97.31	101.50
78	CA	1498	G	O4'-C1'-N9	5.24	112.39	108.20
81	DA	838	G	C5'-C4'-C3'	5.24	124.38	116.00
33	BD	352	ALA	C-N-CA	-5.24	108.61	121.70
44	BO	14	HIS	N-CA-CB	5.24	120.02	110.60
44	BO	60	TYR	CB-CG-CD2	-5.24	117.86	121.00
78	CA	618	U	C3'-C2'-C1'	5.24	105.69	101.50
78	CA	1339	C	C5'-C4'-C3'	-5.24	107.62	116.00
79	CB	41	G	P-O3'-C3'	5.24	125.98	119.70
79	CB	69	G	C1'-O4'-C4'	-5.24	105.71	109.90
81	DA	239	G	C3'-C2'-C1'	-5.24	97.31	101.50
81	DA	513	G	C5'-C4'-O4'	5.24	115.38	109.10
81	DA	2176	U	C5'-C4'-C3'	5.24	124.38	116.00
81	DA	2539	C	N3-C4-C5	-5.24	119.81	121.90
81	DA	2627	C	O4'-C1'-C2'	-5.24	100.56	105.80
81	DA	2868	U	O4'-C1'-N1	5.24	112.39	108.20
81	DA	3350	C	O4'-C4'-C3'	-5.24	98.77	104.00
83	DC	28	C	C5'-C4'-C3'	-5.24	107.62	116.00
83	DC	112	G	P-O5'-C5'	5.24	129.28	120.90
20	AS	45	MET	N-CA-C	5.23	125.13	111.00
43	BP	116	LEU	C-N-CA	5.23	134.78	121.70
81	DA	2256	A	N9-C1'-C2'	-5.23	106.24	112.00
81	DA	2687	G	O4'-C1'-N9	5.23	112.39	108.20
81	DA	3037	U	P-O3'-C3'	-5.23	113.42	119.70
39	BJ	121	PHE	CB-CG-CD1	-5.23	117.14	120.80
45	BR	144	ARG	N-CA-C	5.23	125.12	111.00
64	Bl	3	LYS	N-CA-CB	5.23	120.02	110.60
78	CA	579	A	C5-C6-N1	-5.23	115.08	117.70
78	CA	1314	U	C1'-O4'-C4'	-5.23	105.71	109.90
78	CA	1502	G	O4'-C1'-N9	5.23	112.39	108.20
81	DA	736	A	C5'-C4'-O4'	5.23	115.38	109.10
81	DA	1635	G	N9-C1'-C2'	5.23	120.80	114.00
81	DA	3149	G	P-O5'-C5'	5.23	129.27	120.90
81	DA	3167	A	N9-C1'-C2'	-5.23	106.24	112.00
9	AH	111	MET	N-CA-CB	5.23	120.01	110.60
39	BJ	71	ALA	N-CA-CB	5.23	117.42	110.10
41	BN	5	SER	C-N-CA	-5.23	108.62	121.70
51	BZ	25	ASP	N-CA-CB	5.23	120.02	110.60
81	DA	2487	U	O3'-P-O5'	5.23	113.94	104.00
82	DB	22	U	O4'-C1'-C2'	-5.23	100.57	105.80
83	DC	99	A	P-O3'-C3'	-5.23	113.42	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	47	A	N9-C1'-C2'	-5.23	106.25	112.00
81	DA	223	U	O4'-C1'-N1	5.23	112.38	108.20
81	DA	869	G	P-O3'-C3'	5.23	125.97	119.70
81	DA	3254	G	C5'-C4'-O4'	5.23	115.38	109.10
4	AD	216	ASN	CA-C-N	-5.23	105.70	117.20
6	AE	35	TRP	CB-CG-CD2	-5.23	119.81	126.60
8	AF	35	GLN	CB-CA-C	-5.23	99.95	110.40
32	BC	163	HIS	N-CA-CB	5.23	120.01	110.60
34	BE	123	PHE	CB-CG-CD1	5.23	124.46	120.80
49	BV	161	ALA	C-N-CA	5.23	134.77	121.70
65	Bn	40	GLN	C-N-CA	5.23	134.77	121.70
78	CA	648	G	C5'-C4'-O4'	-5.23	102.83	109.10
78	CA	1398	U	C5'-C4'-C3'	5.23	124.36	116.00
78	CA	1440	C	C4'-C3'-C2'	-5.23	97.37	102.60
78	CA	1596	C	N1-C1'-C2'	-5.23	106.25	112.00
81	DA	2564	G	P-O3'-C3'	-5.23	113.43	119.70
81	DA	2650	U	O4'-C1'-C2'	-5.23	100.57	105.80
81	DA	2669	G	C1'-O4'-C4'	-5.23	105.72	109.90
81	DA	3072	C	N1-C1'-C2'	5.23	120.80	114.00
83	DC	49	G	C1'-O4'-C4'	5.23	114.08	109.90
49	BV	76	PHE	CB-CG-CD2	-5.23	117.14	120.80
81	DA	526	C	C1'-O4'-C4'	-5.23	105.72	109.90
81	DA	1139	G	O4'-C1'-C2'	5.23	112.30	107.60
53	Ba	44	ALA	N-CA-CB	5.22	117.41	110.10
76	BS	80	TRP	CB-CG-CD1	5.22	133.79	127.00
78	CA	203	U	O4'-C4'-C3'	-5.22	98.78	104.00
78	CA	481	A	C5'-C4'-C3'	5.22	124.36	116.00
78	CA	1235	C	P-O3'-C3'	-5.22	113.43	119.70
81	DA	11	A	C3'-C2'-C1'	5.22	105.68	101.50
81	DA	222	A	O4'-C1'-C2'	-5.22	100.58	105.80
81	DA	226	C	C1'-O4'-C4'	-5.22	105.72	109.90
81	DA	384	A	C1'-O4'-C4'	-5.22	105.72	109.90
81	DA	1269	U	C5'-C4'-C3'	5.22	124.36	116.00
81	DA	1330	A	O4'-C1'-N9	5.22	112.38	108.20
81	DA	1641	U	C5'-C4'-O4'	5.22	115.37	109.10
81	DA	1790	G	C4'-C3'-C2'	-5.22	97.38	102.60
81	DA	1897	G	C4'-C3'-C2'	-5.22	97.38	102.60
81	DA	2723	U	O4'-C1'-N1	5.22	112.38	108.20
81	DA	2724	U	O4'-C1'-N1	5.22	112.38	108.20
81	DA	2844	C	C1'-O4'-C4'	-5.22	105.72	109.90
81	DA	3221	C	O3'-P-O5'	5.22	113.92	104.00
4	AD	106	LYS	CB-CA-C	-5.22	99.96	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	910	G	C1'-O4'-C4'	-5.22	105.72	109.90
81	DA	1392	G	C1'-O4'-C4'	-5.22	105.72	109.90
81	DA	1564	U	C5'-C4'-C3'	5.22	124.36	116.00
81	DA	1610	G	O4'-C1'-N9	5.22	112.38	108.20
81	DA	2261	G	O4'-C1'-N9	5.22	112.38	108.20
81	DA	2754	G	C2'-C3'-O3'	5.22	122.06	113.70
81	DA	3235	C	C5'-C4'-O4'	5.22	115.37	109.10
2	AA	59	LEU	N-CA-CB	5.22	120.84	110.40
3	AB	207	THR	C-N-CA	5.22	134.75	121.70
13	AL	87	VAL	C-N-CD	-5.22	109.11	120.60
49	BV	77	GLY	N-CA-C	-5.22	100.05	113.10
72	Bt	37	ASP	CB-CG-OD2	5.22	123.00	118.30
78	CA	295	A	P-O5'-C5'	5.22	129.25	120.90
78	CA	1304	G	C1'-O4'-C4'	-5.22	105.72	109.90
81	DA	1435	A	C3'-C2'-C1'	5.22	105.68	101.50
81	DA	1523	U	C1'-O4'-C4'	5.22	114.08	109.90
81	DA	1708	C	O4'-C1'-C2'	-5.22	100.58	105.80
12	AK	57	PRO	C-N-CA	5.22	134.75	121.70
78	CA	190	C	O4'-C1'-C2'	-5.22	100.58	105.80
78	CA	980	G	N9-C1'-C2'	5.22	120.79	114.00
81	DA	1198	C	C4'-C3'-C2'	-5.22	97.38	102.60
81	DA	1912	U	N1-C1'-C2'	5.22	120.78	114.00
81	DA	2753	G	C5'-C4'-C3'	5.22	124.35	116.00
8	AF	31	GLU	N-CA-CB	5.22	119.99	110.60
81	DA	891	G	O4'-C1'-N9	5.22	112.37	108.20
81	DA	1995	A	O4'-C1'-C2'	-5.22	100.58	105.80
50	BX	35	PRO	N-CA-CB	5.22	109.56	103.30
78	CA	93	A	N9-C1'-C2'	5.22	120.78	114.00
78	CA	610	G	O3'-P-O5'	-5.22	94.09	104.00
81	DA	1344	G	P-O5'-C5'	5.22	129.25	120.90
81	DA	1488	G	O4'-C1'-N9	5.22	112.37	108.20
81	DA	1892	G	O4'-C1'-C2'	5.22	112.29	107.60
81	DA	2575	G	N3-C2-N2	5.22	123.55	119.90
81	DA	3340	G	P-O3'-C3'	5.22	125.96	119.70
82	DB	72	A	C5'-C4'-C3'	-5.22	107.65	116.00
22	AV	105	THR	N-CA-C	5.21	125.08	111.00
37	BH	119	GLY	N-CA-C	5.21	126.14	113.10
38	Bs	55	LYS	CB-CG-CD	5.21	125.16	111.60
46	BT	136	ARG	NH1-CZ-NH2	-5.21	113.66	119.40
53	Ba	9	LYS	O-C-N	-5.21	114.36	122.70
72	Bt	50	ASP	CB-CG-OD2	5.21	122.99	118.30
74	BQ	119	TYR	CB-CG-CD2	5.21	124.13	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	248	U	O3'-P-O5'	-5.21	94.09	104.00
81	DA	249	U	P-O5'-C5'	-5.21	112.56	120.90
81	DA	805	G	P-O3'-C3'	-5.21	113.44	119.70
81	DA	1493	G	O4'-C1'-C2'	-5.21	100.58	105.80
81	DA	2931	C	N1-C1'-C2'	5.21	120.78	114.00
15	AN	25	SER	N-CA-CB	5.21	118.32	110.50
51	BZ	51	TRP	CB-CG-CD2	5.21	133.38	126.60
78	CA	1418	G	C3'-C2'-C1'	5.21	105.67	101.50
78	CA	1607	G	C5'-C4'-O4'	5.21	115.36	109.10
81	DA	2202	C	N1-C1'-C2'	5.21	120.78	114.00
82	DB	84	C	C3'-C2'-C1'	-5.21	97.33	101.50
12	AK	84	ARG	N-CA-CB	5.21	119.98	110.60
21	AT	58	TYR	CG-CD1-CE1	-5.21	117.13	121.30
37	BH	190	VAL	CA-CB-CG1	-5.21	103.08	110.90
46	BT	39	ASN	CB-CA-C	-5.21	99.98	110.40
72	Bt	16	ASP	CB-CG-OD2	5.21	122.99	118.30
78	CA	279	G	C5'-C4'-C3'	5.21	124.34	116.00
78	CA	1227	A	C5'-C4'-C3'	5.21	124.34	116.00
81	DA	782	U	O4'-C1'-C2'	-5.21	100.59	105.80
81	DA	991	G	C3'-C2'-C1'	5.21	105.67	101.50
81	DA	1272	C	C4'-C3'-C2'	-5.21	97.39	102.60
81	DA	2791	G	O3'-P-O5'	5.21	113.90	104.00
4	AD	233	LYS	CA-C-N	5.21	131.69	117.10
35	BG	75	PRO	C-N-CA	-5.21	108.68	121.70
78	CA	1771	U	C1'-O4'-C4'	-5.21	105.73	109.90
78	CA	1791	A	P-O5'-C5'	5.21	129.24	120.90
81	DA	688	G	O3'-P-O5'	-5.21	94.10	104.00
81	DA	2198	A	C3'-C2'-C1'	5.21	105.67	101.50
5	AC	95	TYR	CB-CG-CD1	5.21	124.12	121.00
57	Be	223	PHE	O-C-N	-5.21	114.37	122.70
78	CA	638	U	C3'-C2'-C1'	5.21	105.67	101.50
78	CA	918	U	C5'-C4'-O4'	-5.21	102.85	109.10
78	CA	1460	A	P-O5'-C5'	-5.21	112.57	120.90
81	DA	403	C	C3'-C2'-C1'	5.21	105.67	101.50
81	DA	1336	U	O4'-C1'-N1	5.21	112.37	108.20
81	DA	2631	U	C4'-C3'-C2'	-5.21	97.39	102.60
14	AM	7	GLU	C-N-CA	5.21	134.72	121.70
32	BC	290	ASP	CB-CA-C	5.21	120.81	110.40
43	BP	28	TRP	CB-CG-CD1	5.21	133.77	127.00
44	BO	68	PHE	N-CA-CB	5.21	119.97	110.60
49	BV	130	TYR	CB-CG-CD2	5.21	124.12	121.00
63	Bm	87	ARG	NE-CZ-NH2	-5.21	117.70	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
72	Bt	43	ASP	CB-CG-OD2	5.21	122.99	118.30
76	BS	165	LEU	N-CA-CB	5.21	120.81	110.40
78	CA	232	U	O4'-C1'-N1	5.21	112.36	108.20
78	CA	1226	A	C5'-C4'-C3'	5.21	124.33	116.00
81	DA	1549	U	P-O3'-C3'	-5.21	113.45	119.70
81	DA	3145	C	C1'-O4'-C4'	-5.21	105.73	109.90
81	DA	3349	C	C3'-C2'-C1'	5.21	105.66	101.50
1	Aa	162	ALA	N-CA-CB	5.20	117.39	110.10
1	Aa	167	VAL	CA-CB-CG2	-5.20	103.09	110.90
78	CA	1439	C	N1-C1'-C2'	5.20	120.77	114.00
78	CA	1544	U	O5'-P-OP1	5.20	116.94	110.70
78	CA	1768	G	C3'-C2'-C1'	5.20	105.66	101.50
81	DA	2458	A	P-O3'-C3'	5.20	125.94	119.70
81	DA	2579	G	N1-C2-N3	-5.20	120.78	123.90
83	DC	49	G	C5'-C4'-C3'	-5.20	107.67	116.00
33	BD	152	VAL	CG1-CB-CG2	5.20	119.22	110.90
78	CA	116	U	OP2-P-O3'	5.20	116.64	105.20
81	DA	596	C	P-O5'-C5'	-5.20	112.58	120.90
3	AB	162	GLN	CB-CA-C	5.20	120.80	110.40
4	AD	240	LYS	CB-CA-C	5.20	120.80	110.40
9	AH	22	LYS	CB-CA-C	-5.20	100.00	110.40
55	Bc	10	ARG	NE-CZ-NH2	-5.20	117.70	120.30
59	Bh	101	SER	CB-CA-C	-5.20	100.22	110.10
72	Bu	16	ASP	CB-CG-OD2	5.20	122.98	118.30
78	CA	567	A	C5-C6-N1	-5.20	115.10	117.70
81	DA	279	U	O4'-C1'-N1	5.20	112.36	108.20
81	DA	1019	G	O4'-C1'-N9	5.20	112.36	108.20
81	DA	1639	C	N1-C1'-C2'	5.20	120.76	114.00
83	DC	13	A	O3'-P-O5'	5.20	113.88	104.00
44	BO	96	LYS	C-N-CA	5.20	134.70	121.70
72	Bu	50	ASP	CB-CG-OD2	5.20	122.98	118.30
74	BQ	33	ARG	CD-NE-CZ	-5.20	116.32	123.60
78	CA	117	U	C5'-C4'-C3'	5.20	124.32	116.00
81	DA	90	C	N1-C1'-C2'	5.20	120.76	114.00
81	DA	697	A	O4'-C1'-C2'	-5.20	100.60	105.80
81	DA	759	U	P-O5'-C5'	-5.20	112.58	120.90
81	DA	804	C	O4'-C1'-C2'	-5.20	100.60	105.80
81	DA	2743	A	O3'-P-O5'	-5.20	94.12	104.00
83	DC	60	G	P-O3'-C3'	5.20	125.94	119.70
58	Bg	23	VAL	C-N-CA	5.20	134.69	121.70
81	DA	2409	G	O4'-C1'-N9	5.20	112.36	108.20
81	DA	2416	U	C3'-C2'-C1'	-5.20	97.34	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	3258	U	O4'-C1'-C2'	-5.20	100.60	105.80
1	Aa	269	TYR	N-CA-CB	5.20	119.95	110.60
44	BO	48	TYR	CB-CG-CD1	-5.20	117.88	121.00
55	Bc	116	TYR	CB-CG-CD1	-5.20	117.88	121.00
72	Bu	37	ASP	CB-CG-OD2	5.20	122.98	118.30
77	BI	176	LEU	C-N-CA	5.20	134.69	121.70
78	CA	1309	C	P-O3'-C3'	-5.20	113.47	119.70
78	CA	1433	G	C4'-C3'-C2'	-5.20	97.40	102.60
81	DA	2189	U	P-O3'-C3'	5.20	125.93	119.70
81	DA	2419	A	P-O5'-C5'	-5.20	112.59	120.90
81	DA	2633	U	C5'-C4'-C3'	5.20	124.31	116.00
83	DC	115	A	C3'-C2'-C1'	-5.20	97.34	101.50
17	AQ	11	ARG	NE-CZ-NH2	-5.19	117.70	120.30
45	BR	98	LYS	CA-CB-CG	-5.19	101.97	113.40
66	Bo	24	PRO	N-CA-C	-5.19	98.60	112.10
78	CA	369	A	P-O5'-C5'	5.19	129.21	120.90
78	CA	1087	A	O4'-C1'-N9	5.19	112.36	108.20
79	CB	68	C	P-O5'-C5'	5.19	129.21	120.90
81	DA	1017	C	C3'-C2'-C1'	5.19	105.66	101.50
47	BU	131	GLN	CA-C-O	-5.19	109.19	120.10
60	Bi	16	ARG	C-N-CA	5.19	134.68	121.70
69	Br	98	LYS	N-CA-C	-5.19	96.98	111.00
72	Bu	56	ASP	CB-CG-OD2	5.19	122.97	118.30
78	CA	611	U	N1-C1'-C2'	5.19	120.75	114.00
78	CA	644	C	O4'-C1'-C2'	-5.19	100.61	105.80
78	CA	989	U	C3'-C2'-C1'	-5.19	97.35	101.50
78	CA	1480	G	C3'-C2'-C1'	-5.19	97.34	101.50
78	CA	1553	G	N9-C1'-C2'	5.19	120.75	114.00
81	DA	1562	C	O3'-P-O5'	5.19	113.87	104.00
81	DA	2867	C	O4'-C1'-N1	5.19	112.35	108.20
81	DA	3106	A	OP2-P-O3'	5.19	116.62	105.20
50	BX	23	ALA	C-N-CA	5.19	134.68	121.70
78	CA	191	C	C1'-O4'-C4'	5.19	114.05	109.90
78	CA	990	C	O4'-C1'-N1	-5.19	104.05	108.20
79	CB	8	U	O4'-C1'-C2'	-5.19	100.61	105.80
81	DA	1690	C	C5'-C4'-C3'	5.19	124.31	116.00
81	DA	1756	C	P-O3'-C3'	5.19	125.93	119.70
81	DA	1873	U	C1'-O4'-C4'	-5.19	105.75	109.90
11	AJ	9	VAL	C-N-CA	5.19	134.67	121.70
81	DA	957	C	O4'-C1'-C2'	-5.19	100.61	105.80
81	DA	1086	C	O3'-P-O5'	-5.19	94.14	104.00
81	DA	1435	A	C5'-C4'-C3'	-5.19	107.70	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AY	29	ARG	NE-CZ-NH1	5.19	122.89	120.30
43	BP	177	GLY	CA-C-N	5.19	128.61	117.20
81	DA	293	C	C3'-C2'-C1'	5.19	105.65	101.50
81	DA	1180	A	P-O3'-C3'	5.19	125.92	119.70
81	DA	1272	C	O4'-C1'-C2'	-5.19	100.61	105.80
81	DA	1568	U	P-O5'-C5'	5.19	129.20	120.90
81	DA	2756	C	O4'-C1'-C2'	-5.19	100.61	105.80
81	DA	2942	C	O4'-C1'-N1	-5.19	104.05	108.20
5	AC	132	ARG	NE-CZ-NH2	-5.19	117.71	120.30
37	BH	233	TRP	O-C-N	-5.19	114.38	123.20
61	Bj	83	ALA	N-CA-CB	5.19	117.36	110.10
78	CA	1449	U	O4'-C1'-C2'	-5.19	100.61	105.80
79	CB	48	C	C3'-C2'-C1'	5.19	105.65	101.50
81	DA	173	G	C4'-C3'-C2'	-5.19	97.41	102.60
81	DA	756	U	P-O3'-C3'	5.19	125.92	119.70
81	DA	2227	C	O4'-C1'-C2'	-5.19	100.61	105.80
81	DA	2274	U	N1-C1'-C2'	5.19	120.74	114.00
37	BH	151	VAL	CA-CB-CG1	-5.18	103.12	110.90
37	BH	232	HIS	CB-CA-C	-5.18	100.03	110.40
46	BT	88	ARG	NH1-CZ-NH2	5.18	125.10	119.40
49	BV	147	GLU	CB-CA-C	5.18	120.77	110.40
81	DA	149	U	O5'-C5'-C4'	5.18	121.55	111.70
81	DA	704	U	O3'-P-O5'	-5.18	94.15	104.00
82	DB	133	G	C5'-C4'-O4'	5.18	115.32	109.10
16	AO	110	ASP	C-N-CA	5.18	134.66	121.70
78	CA	220	A	O4'-C1'-C2'	-5.18	100.62	105.80
78	CA	267	U	O5'-C5'-C4'	-5.18	101.85	111.70
78	CA	717	C	C5'-C4'-C3'	5.18	124.29	116.00
78	CA	1442	U	O4'-C1'-N1	5.18	112.35	108.20
78	CA	1734	U	O4'-C1'-N1	5.18	112.35	108.20
81	DA	1399	A	O3'-P-O5'	-5.18	94.15	104.00
81	DA	1773	C	C3'-C2'-C1'	5.18	105.65	101.50
80	CC	22	A	C5-C6-N1	-5.18	115.11	117.70
81	DA	961	C	O4'-C1'-N1	-5.18	104.06	108.20
1	Aa	192	PHE	CB-CG-CD1	-5.18	117.17	120.80
14	AM	100	THR	N-CA-CB	5.18	120.14	110.30
14	AM	101	LEU	CD1-CG-CD2	5.18	126.04	110.50
17	AQ	134	LYS	C-N-CA	5.18	134.65	121.70
49	BV	152	GLU	N-CA-C	5.18	124.98	111.00
57	Be	220	PHE	CE1-CZ-CE2	5.18	129.32	120.00
78	CA	152	U	O4'-C1'-C2'	-5.18	100.62	105.80
78	CA	172	C	O5'-C5'-C4'	5.18	121.54	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	635	A	P-O3'-C3'	-5.18	113.48	119.70
78	CA	1751	C	C3'-C2'-C1'	5.18	105.64	101.50
81	DA	188	U	C1'-O4'-C4'	5.18	114.04	109.90
81	DA	626	U	O4'-C1'-C2'	-5.18	100.62	105.80
81	DA	1892	G	C3'-C2'-C1'	-5.18	97.36	101.50
81	DA	1935	G	O4'-C1'-N9	5.18	112.34	108.20
81	DA	1942	U	C3'-C2'-C1'	5.18	105.64	101.50
81	DA	2043	U	O4'-C1'-C2'	-5.18	100.62	105.80
81	DA	2193	U	OP1-P-O3'	5.18	116.60	105.20
81	DA	2878	G	P-O3'-C3'	-5.18	113.48	119.70
26	AZ	18	THR	N-CA-C	-5.18	97.02	111.00
40	BK	7	VAL	N-CA-C	-5.18	97.02	111.00
78	CA	1407	U	O4'-C1'-N1	5.18	112.34	108.20
81	DA	713	U	C3'-C2'-C1'	5.18	105.64	101.50
49	BV	165	VAL	C-N-CA	-5.18	108.76	121.70
76	BS	155	TYR	CG-CD1-CE1	-5.18	117.16	121.30
78	CA	447	U	N1-C1'-C2'	5.18	120.73	114.00
78	CA	1604	U	C3'-C2'-C1'	-5.18	97.36	101.50
81	DA	1296	C	O4'-C4'-C3'	-5.18	98.82	104.00
81	DA	2675	C	O4'-C1'-C2'	-5.18	100.62	105.80
81	DA	3358	U	C4'-C3'-C2'	-5.18	97.42	102.60
83	DC	77	A	C1'-O4'-C4'	5.18	114.04	109.90
2	AA	244	GLU	CB-CA-C	5.17	120.75	110.40
12	AK	89	THR	N-CA-CB	5.17	120.13	110.30
43	BP	177	GLY	CA-C-O	-5.17	111.28	120.60
46	BT	81	ARG	NE-CZ-NH2	-5.17	117.71	120.30
48	BW	96	VAL	C-N-CA	5.17	134.64	121.70
78	CA	877	G	N9-C1'-C2'	5.17	120.73	114.00
78	CA	1500	C	C6-N1-C2	-5.17	118.23	120.30
81	DA	281	G	C1'-O4'-C4'	-5.17	105.76	109.90
81	DA	1978	A	C3'-C2'-C1'	5.17	105.64	101.50
82	DB	34	U	O4'-C1'-N1	5.17	112.34	108.20
83	DC	115	A	O5'-C5'-C4'	5.17	121.53	111.70
13	AL	40	SER	CA-CB-OG	5.17	125.17	111.20
32	BC	209	PHE	CB-CG-CD1	5.17	124.42	120.80
32	BC	240	ARG	CA-C-O	5.17	130.96	120.10
43	BP	12	ARG	NE-CZ-NH1	5.17	122.89	120.30
78	CA	1064	G	N3-C2-N2	5.17	123.52	119.90
81	DA	2610	G	C3'-C2'-C1'	5.17	105.64	101.50
2	AA	232	VAL	N-CA-CB	5.17	122.88	111.50
6	AE	92	ALA	N-CA-CB	-5.17	102.86	110.10
78	CA	1433	G	N9-C1'-C2'	-5.17	106.31	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	164	A	O4'-C1'-N9	5.17	112.34	108.20
81	DA	706	A	P-O5'-C5'	-5.17	112.63	120.90
81	DA	1007	U	O3'-P-O5'	-5.17	94.17	104.00
81	DA	2752	U	O5'-C5'-C4'	5.17	121.53	111.70
82	DB	137	C	O4'-C1'-N1	5.17	112.34	108.20
2	AA	6	THR	N-CA-CB	5.17	120.12	110.30
78	CA	470	A	C3'-C2'-C1'	5.17	105.64	101.50
78	CA	574	G	N1-C2-N3	-5.17	120.80	123.90
81	DA	633	C	O4'-C1'-N1	5.17	112.34	108.20
81	DA	872	U	N1-C1'-C2'	5.17	120.72	114.00
81	DA	1975	C	O4'-C4'-C3'	-5.17	98.83	104.00
81	DA	3238	G	C4'-C3'-C2'	-5.17	97.43	102.60
1	Aa	48	THR	CA-C-N	5.17	126.54	116.20
31	BB	245	LEU	N-CA-C	-5.17	97.05	111.00
35	BG	152	THR	CA-CB-OG1	5.17	119.85	109.00
45	BR	99	THR	N-CA-CB	5.17	120.12	110.30
51	BZ	2	LYS	C-N-CA	5.17	134.62	121.70
62	Bk	70	ARG	C-N-CA	5.17	134.62	121.70
78	CA	391	A	O4'-C1'-N9	5.17	112.33	108.20
78	CA	1067	C	N3-C4-N4	5.17	121.62	118.00
78	CA	1322	A	O4'-C1'-N9	5.17	112.33	108.20
78	CA	1396	U	O4'-C1'-N1	5.17	112.33	108.20
81	DA	298	U	O4'-C1'-C2'	-5.17	100.63	105.80
81	DA	1827	C	O4'-C1'-C2'	-5.17	100.63	105.80
81	DA	2113	A	O4'-C1'-N9	5.17	112.33	108.20
81	DA	2362	C	O4'-C4'-C3'	-5.17	98.83	104.00
82	DB	16	G	N9-C1'-C2'	-5.17	106.31	112.00
83	DC	17	A	O4'-C4'-C3'	-5.17	98.83	104.00
44	BO	62	HIS	C-N-CA	5.17	134.61	121.70
48	BW	92	TRP	N-CA-C	-5.17	97.05	111.00
74	BQ	250	ASP	CB-CG-OD2	5.17	122.95	118.30
78	CA	204	G	O4'-C1'-C2'	5.17	112.25	107.60
78	CA	367	A	C5'-C4'-C3'	5.17	124.27	116.00
78	CA	846	G	C5'-C4'-O4'	5.17	115.30	109.10
78	CA	1612	U	P-O5'-C5'	-5.17	112.63	120.90
81	DA	264	G	C4'-C3'-C2'	-5.17	97.43	102.60
81	DA	427	C	O4'-C1'-N1	-5.17	104.07	108.20
81	DA	1405	U	P-O3'-C3'	-5.17	113.50	119.70
81	DA	1674	G	C3'-C2'-C1'	-5.17	97.37	101.50
81	DA	1761	C	N3-C4-C5	-5.17	119.83	121.90
81	DA	2264	U	C5'-C4'-C3'	5.17	124.27	116.00
81	DA	2346	C	O4'-C1'-C2'	-5.17	100.63	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2950	G	C1'-O4'-C4'	5.17	114.03	109.90
21	AT	70	ASN	C-N-CA	5.17	134.61	121.70
81	DA	2393	G	C5'-C4'-C3'	5.17	124.26	116.00
81	DA	2631	U	C2'-C3'-O3'	5.17	121.97	113.70
81	DA	2775	U	C3'-C2'-C1'	5.17	105.63	101.50
82	DB	35	C	C3'-C2'-C1'	5.17	105.63	101.50
31	BB	47	GLN	CB-CA-C	-5.16	100.07	110.40
45	BR	39	ARG	CB-CA-C	5.16	120.73	110.40
47	BU	54	HIS	CA-CB-CG	-5.16	104.82	113.60
74	BQ	55	PHE	N-CA-CB	5.16	119.90	110.60
78	CA	579	A	C5-C6-N6	-5.16	119.57	123.70
78	CA	614	C	C3'-C2'-C1'	5.16	105.63	101.50
78	CA	1029	U	O4'-C1'-C2'	-5.16	100.64	105.80
78	CA	1345	A	O4'-C1'-N9	5.16	112.33	108.20
78	CA	1500	C	C5-C6-N1	5.16	123.58	121.00
81	DA	787	G	C5'-C4'-O4'	5.16	115.30	109.10
81	DA	968	G	OP1-P-O3'	5.16	116.56	105.20
81	DA	1396	C	C3'-C2'-C1'	5.16	105.63	101.50
81	DA	2740	A	P-O3'-C3'	-5.16	113.50	119.70
81	DA	2760	C	C4'-C3'-C2'	5.16	107.76	102.60
81	DA	3213	A	O3'-P-O5'	-5.16	94.19	104.00
83	DC	98	G	O4'-C1'-N9	-5.16	104.07	108.20
9	AH	67	GLY	CA-C-O	-5.16	111.31	120.60
78	CA	270	C	N1-C1'-C2'	5.16	120.71	114.00
78	CA	835	U	P-O5'-C5'	5.16	129.16	120.90
81	DA	735	A	C5-C6-N1	-5.16	115.12	117.70
81	DA	1963	G	O4'-C1'-C2'	5.16	112.25	107.60
81	DA	1966	U	C2'-C3'-O3'	5.16	121.96	113.70
37	BH	119	GLY	C-N-CA	5.16	134.60	121.70
42	BM	11	PHE	CB-CG-CD1	-5.16	117.19	120.80
78	CA	328	A	O4'-C1'-N9	5.16	112.33	108.20
78	CA	1503	A	C5-C6-N6	-5.16	119.57	123.70
78	CA	1596	C	O4'-C1'-C2'	-5.16	100.64	105.80
81	DA	550	A	N9-C1'-C2'	-5.16	106.32	112.00
81	DA	812	G	C5'-C4'-C3'	5.16	124.26	116.00
81	DA	1082	U	C1'-O4'-C4'	5.16	114.03	109.90
81	DA	1791	C	O4'-C4'-C3'	-5.16	98.84	104.00
81	DA	2510	U	N1-C1'-C2'	-5.16	106.32	112.00
81	DA	2724	U	C1'-O4'-C4'	-5.16	105.77	109.90
2	AA	185	ARG	NE-CZ-NH1	5.16	122.88	120.30
9	AH	84	GLY	N-CA-C	5.16	125.99	113.10
32	BC	16	PHE	N-CA-C	-5.16	97.07	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BK	141	LEU	CB-CG-CD1	-5.16	102.23	111.00
48	BW	57	THR	CA-CB-CG2	-5.16	105.18	112.40
78	CA	163	G	N9-C1'-C2'	-5.16	106.33	112.00
81	DA	1985	G	C1'-O4'-C4'	-5.16	105.77	109.90
81	DA	3051	U	O3'-P-O5'	5.16	113.80	104.00
81	DA	3233	C	O4'-C1'-N1	5.16	112.33	108.20
48	BW	83	TYR	CZ-CE2-CD2	5.16	124.44	119.80
57	Be	132	PRO	CB-CA-C	-5.16	99.11	112.00
81	DA	80	G	O4'-C1'-C2'	5.16	112.24	107.60
81	DA	490	A	P-O3'-C3'	-5.16	113.51	119.70
81	DA	835	G	O3'-P-O5'	5.16	113.80	104.00
81	DA	2489	C	C1'-O4'-C4'	-5.16	105.78	109.90
1	Aa	19	TRP	N-CA-CB	-5.15	101.32	110.60
16	AO	72	MET	CG-SD-CE	5.15	108.45	100.20
17	AQ	85	VAL	CB-CA-C	-5.15	101.61	111.40
32	BC	100	ARG	NH1-CZ-NH2	5.15	125.07	119.40
62	Bk	68	ARG	CD-NE-CZ	-5.15	116.38	123.60
69	Br	28	TYR	CG-CD2-CE2	-5.15	117.18	121.30
78	CA	1536	G	P-O3'-C3'	-5.15	113.52	119.70
81	DA	109	A	O4'-C1'-N9	-5.15	104.08	108.20
81	DA	556	U	C1'-O4'-C4'	-5.15	105.78	109.90
82	DB	52	A	O4'-C1'-N9	-5.15	104.08	108.20
32	BC	8	ALA	CB-CA-C	-5.15	102.37	110.10
32	BC	308	MET	CG-SD-CE	-5.15	91.96	100.20
40	BK	131	PRO	CB-CA-C	-5.15	99.12	112.00
44	BO	91	LEU	C-N-CA	5.15	134.58	121.70
49	BV	164	LYS	N-CA-C	5.15	124.91	111.00
78	CA	19	A	O4'-C1'-N9	-5.15	104.08	108.20
78	CA	50	C	C5'-C4'-C3'	-5.15	107.75	116.00
78	CA	644	C	P-O3'-C3'	-5.15	113.52	119.70
78	CA	903	U	C3'-C2'-C1'	5.15	105.62	101.50
78	CA	1028	C	O4'-C1'-C2'	-5.15	100.65	105.80
78	CA	1345	A	C1'-O4'-C4'	5.15	114.02	109.90
78	CA	1783	C	P-O5'-C5'	-5.15	112.65	120.90
81	DA	327	A	N9-C1'-C2'	5.15	120.70	114.00
81	DA	1101	G	C4'-C3'-C2'	5.15	107.75	102.60
81	DA	1290	A	C1'-O4'-C4'	5.15	114.02	109.90
81	DA	1552	G	C1'-O4'-C4'	-5.15	105.78	109.90
81	DA	3228	C	P-O3'-C3'	-5.15	113.52	119.70
83	DC	104	C	C4'-C3'-C2'	-5.15	97.45	102.60
1	Aa	149	ASP	N-CA-CB	5.15	119.87	110.60
18	AP	102	LYS	N-CA-C	-5.15	97.10	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BC	100	ARG	N-CA-CB	5.15	119.87	110.60
35	BG	52	VAL	CB-CA-C	-5.15	101.61	111.40
42	BM	102	ILE	C-N-CA	5.15	134.57	121.70
74	BQ	52	VAL	O-C-N	-5.15	114.46	122.70
78	CA	1240	U	P-O5'-C5'	5.15	129.14	120.90
81	DA	159	A	C1'-O4'-C4'	5.15	114.02	109.90
81	DA	1034	U	O4'-C1'-N1	5.15	112.32	108.20
81	DA	1273	A	O3'-P-O5'	-5.15	94.21	104.00
81	DA	2294	U	N1-C1'-C2'	-5.15	106.33	112.00
81	DA	3069	G	P-O3'-C3'	-5.15	113.52	119.70
17	AQ	20	TYR	CD1-CE1-CZ	5.15	124.43	119.80
78	CA	438	A	C2'-C3'-O3'	5.15	121.94	113.70
81	DA	2648	G	C3'-C2'-C1'	-5.15	97.38	101.50
8	AF	36	ALA	N-CA-C	5.15	124.90	111.00
76	BS	119	ARG	N-CA-C	-5.15	97.10	111.00
78	CA	13	C	C1'-O4'-C4'	-5.15	105.78	109.90
78	CA	505	A	C5-C6-N1	-5.15	115.13	117.70
78	CA	892	A	C4'-C3'-C2'	-5.15	97.45	102.60
78	CA	1436	A	OP1-P-O3'	5.15	116.52	105.20
81	DA	1704	A	P-O5'-C5'	5.15	129.14	120.90
81	DA	2031	U	N1-C1'-C2'	5.15	120.69	114.00
81	DA	2457	G	O4'-C1'-N9	5.15	112.32	108.20
81	DA	2545	C	N3-C4-N4	5.15	121.60	118.00
81	DA	2580	A	P-O5'-C5'	5.15	129.14	120.90
81	DA	2606	G	C3'-C2'-C1'	-5.15	97.38	101.50
81	DA	3375	A	O4'-C1'-C2'	-5.15	100.65	105.80
3	AB	139	SER	N-CA-CB	-5.15	102.78	110.50
29	AU	72	PHE	C-N-CA	5.15	133.11	122.30
45	BR	13	SER	CB-CA-C	-5.15	100.32	110.10
48	BW	84	LEU	CB-CA-C	-5.15	100.42	110.20
78	CA	388	G	C3'-C2'-C1'	-5.15	97.38	101.50
78	CA	1086	A	C3'-C2'-C1'	5.15	105.62	101.50
78	CA	1616	G	C1'-O4'-C4'	-5.15	105.78	109.90
81	DA	251	G	C4'-C3'-C2'	-5.15	97.45	102.60
81	DA	540	U	P-O5'-C5'	5.15	129.13	120.90
81	DA	1261	G	C4'-C3'-C2'	-5.15	97.45	102.60
81	DA	2948	C	C3'-C2'-C1'	5.15	105.62	101.50
78	CA	554	C	N1-C1'-C2'	5.14	120.69	114.00
78	CA	1425	A	C4-C5-C6	5.14	119.57	117.00
78	CA	1634	C	N3-C4-N4	5.14	121.60	118.00
81	DA	515	C	C3'-C2'-C1'	5.14	105.61	101.50
81	DA	1047	A	P-O3'-C3'	5.14	125.87	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	Bp	51	LEU	CB-CA-C	5.14	119.97	110.20
81	DA	91	G	O4'-C1'-N9	5.14	112.31	108.20
1	Aa	7	LEU	N-CA-CB	5.14	120.68	110.40
41	BN	123	LEU	N-CA-CB	5.14	120.68	110.40
78	CA	157	A	O4'-C1'-C2'	-5.14	100.66	105.80
78	CA	1424	A	O4'-C1'-N9	5.14	112.31	108.20
78	CA	1547	A	C5'-C4'-O4'	-5.14	102.93	109.10
81	DA	515	C	C5'-C4'-C3'	-5.14	107.78	116.00
81	DA	694	C	N1-C1'-C2'	5.14	120.68	114.00
83	DC	101	A	C4'-C3'-C2'	-5.14	97.46	102.60
19	AR	128	HIS	C-N-CA	5.14	133.09	122.30
31	BB	1	MET	O-C-N	-5.14	114.46	123.20
38	Bs	42	ARG	NE-CZ-NH2	-5.14	117.73	120.30
43	BP	24	ARG	NE-CZ-NH2	-5.14	117.73	120.30
77	BI	106	ALA	CB-CA-C	-5.14	102.39	110.10
78	CA	158	U	C5'-C4'-C3'	5.14	124.22	116.00
78	CA	852	C	P-O5'-C5'	-5.14	112.68	120.90
78	CA	1588	G	O4'-C1'-N9	5.14	112.31	108.20
79	CB	9	A	O4'-C1'-N9	5.14	112.31	108.20
81	DA	1500	G	C1'-O4'-C4'	-5.14	105.79	109.90
81	DA	3018	C	C5'-C4'-C3'	5.14	124.22	116.00
20	AS	55	TYR	CG-CD1-CE1	5.14	125.41	121.30
33	BD	222	VAL	CA-CB-CG1	5.14	118.61	110.90
69	Br	61	LYS	C-N-CA	5.14	134.55	121.70
78	CA	158	U	P-O3'-C3'	5.14	125.87	119.70
78	CA	831	U	O4'-C1'-C2'	-5.14	100.66	105.80
81	DA	2757	U	C3'-C2'-C1'	5.14	105.61	101.50
6	AE	226	THR	CA-CB-CG2	-5.14	105.21	112.40
74	BQ	46	THR	N-CA-CB	5.14	120.06	110.30
78	CA	554	C	C1'-O4'-C4'	-5.14	105.79	109.90
78	CA	638	U	C5'-C4'-C3'	5.14	124.22	116.00
78	CA	1062	A	C5-C6-N1	-5.14	115.13	117.70
81	DA	948	C	O4'-C1'-C2'	-5.14	100.66	105.80
81	DA	1151	U	P-O3'-C3'	5.14	125.86	119.70
81	DA	1372	C	O4'-C1'-N1	5.14	112.31	108.20
81	DA	2491	A	C3'-C2'-C1'	-5.14	97.39	101.50
81	DA	2641	U	C5'-C4'-C3'	-5.14	107.78	116.00
81	DA	2879	C	P-O3'-C3'	5.14	125.86	119.70
82	DB	10	A	C3'-C2'-C1'	5.14	105.61	101.50
1	Aa	75	ALA	N-CA-CB	5.13	117.29	110.10
37	BH	200	LEU	N-CA-CB	5.13	120.67	110.40
69	Br	58	PHE	CB-CA-C	5.13	120.67	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
76	BS	65	GLU	C-N-CA	5.13	134.54	121.70
78	CA	368	U	C5'-C4'-C3'	5.13	124.22	116.00
78	CA	1143	A	O4'-C1'-N9	5.13	112.31	108.20
81	DA	1647	A	N9-C1'-C2'	-5.13	106.35	112.00
81	DA	2032	U	P-O3'-C3'	-5.13	113.54	119.70
81	DA	2046	U	OP2-P-O3'	5.13	116.50	105.20
81	DA	2250	G	O4'-C1'-N9	5.13	112.31	108.20
81	DA	2279	A	N9-C1'-C2'	5.13	120.67	114.00
59	Bh	77	ALA	CB-CA-C	-5.13	102.40	110.10
78	CA	90	C	N1-C1'-C2'	5.13	120.67	114.00
78	CA	568	G	O4'-C1'-N9	5.13	112.31	108.20
78	CA	586	G	OP1-P-OP2	-5.13	111.90	119.60
78	CA	1724	U	C3'-C2'-C1'	5.13	105.61	101.50
81	DA	55	G	N9-C1'-C2'	5.13	120.67	114.00
81	DA	1864	A	N9-C1'-C2'	-5.13	106.35	112.00
81	DA	3314	A	P-O5'-C5'	-5.13	112.69	120.90
61	Bj	44	TYR	CG-CD1-CE1	-5.13	117.19	121.30
78	CA	1534	G	O5'-C5'-C4'	5.13	121.45	111.70
81	DA	223	U	N1-C1'-C2'	5.13	120.67	114.00
81	DA	847	A	C3'-C2'-C1'	5.13	105.60	101.50
81	DA	1313	G	O4'-C1'-N9	5.13	112.30	108.20
81	DA	3235	C	C4'-C3'-C2'	-5.13	97.47	102.60
81	DA	3325	G	C3'-C2'-C1'	-5.13	97.39	101.50
53	Ba	27	LYS	CB-CG-CD	5.13	124.94	111.60
67	Bp	51	LEU	N-CA-CB	5.13	120.66	110.40
81	DA	482	C	O4'-C1'-C2'	-5.13	100.67	105.80
81	DA	695	C	O4'-C1'-N1	5.13	112.30	108.20
81	DA	1257	C	C5'-C4'-O4'	-5.13	102.94	109.10
81	DA	1261	G	C5'-C4'-C3'	5.13	124.21	116.00
34	BE	167	TYR	N-CA-C	5.13	124.85	111.00
78	CA	1590	G	O4'-C1'-N9	5.13	112.30	108.20
81	DA	1534	A	C2'-C3'-O3'	5.13	121.91	113.70
81	DA	2173	U	O4'-C4'-C3'	-5.13	98.87	104.00
81	DA	2572	C	O4'-C1'-N1	5.13	112.30	108.20
81	DA	2691	A	C3'-C2'-C1'	5.13	105.60	101.50
81	DA	3166	C	O5'-C5'-C4'	5.13	121.44	111.70
1	Aa	51	ASP	N-CA-CB	5.13	119.83	110.60
15	AN	33	LYS	C-N-CA	5.13	134.52	121.70
17	AQ	53	TYR	CD1-CG-CD2	5.13	123.54	117.90
73	Bw	17	PRO	CA-N-CD	-5.13	104.32	111.50
78	CA	70	C	O4'-C1'-C2'	-5.13	100.67	105.80
78	CA	818	C	C3'-C2'-C1'	5.13	105.60	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	823	G	C5-C6-O6	-5.13	125.53	128.60
78	CA	1627	U	N1-C1'-C2'	5.13	120.66	114.00
81	DA	70	A	C1'-O4'-C4'	-5.13	105.80	109.90
81	DA	337	G	P-O3'-C3'	5.13	125.85	119.70
81	DA	2293	C	O4'-C1'-C2'	-5.13	100.67	105.80
19	AR	89	MET	CA-CB-CG	5.12	122.01	113.30
46	BT	167	ARG	NE-CZ-NH1	-5.12	117.74	120.30
65	Bn	76	ASN	C-N-CA	5.12	134.51	121.70
77	BI	110	ARG	O-C-N	-5.12	114.50	122.70
81	DA	274	G	C1'-O4'-C4'	-5.12	105.80	109.90
81	DA	1232	C	C1'-O4'-C4'	5.12	114.00	109.90
1	Aa	131	ILE	CB-CA-C	5.12	121.85	111.60
6	AE	30	THR	N-CA-CB	5.12	120.03	110.30
32	BC	28	ARG	NE-CZ-NH2	-5.12	117.74	120.30
33	BD	330	TYR	N-CA-C	5.12	124.83	111.00
78	CA	1594	G	O4'-C1'-N9	5.12	112.30	108.20
81	DA	820	A	C3'-C2'-C1'	5.12	105.60	101.50
81	DA	1548	C	O4'-C1'-C2'	-5.12	100.68	105.80
3	AB	181	VAL	CB-CA-C	-5.12	101.67	111.40
33	BD	138	ARG	NE-CZ-NH2	5.12	122.86	120.30
39	BJ	85	LEU	O-C-N	5.12	130.90	122.70
45	BR	20	LYS	CA-CB-CG	5.12	124.67	113.40
61	Bj	86	ARG	NE-CZ-NH2	-5.12	117.74	120.30
78	CA	664	U	O4'-C1'-N1	5.12	112.30	108.20
78	CA	665	U	O4'-C1'-N1	-5.12	104.10	108.20
81	DA	646	A	C5'-C4'-C3'	5.12	124.19	116.00
81	DA	704	U	P-O5'-C5'	5.12	129.10	120.90
81	DA	2044	U	C3'-C2'-C1'	5.12	105.60	101.50
81	DA	3088	G	C3'-C2'-C1'	5.12	105.60	101.50
83	DC	83	U	O3'-P-O5'	5.12	113.73	104.00
11	AJ	74	GLU	N-CA-CB	-5.12	101.39	110.60
32	BC	72	VAL	CA-CB-CG2	-5.12	103.22	110.90
45	BR	25	TYR	CB-CG-CD2	5.12	124.07	121.00
80	CC	19	U	C6-N1-C1'	-5.12	114.03	121.20
81	DA	2174	G	N9-C1'-C2'	5.12	120.66	114.00
81	DA	2472	U	O4'-C1'-N1	5.12	112.30	108.20
13	AL	93	LEU	O-C-N	-5.12	114.51	122.70
29	AU	33	ALA	N-CA-C	5.12	124.82	111.00
32	BC	126	LYS	C-N-CA	5.12	134.50	121.70
32	BC	172	ALA	N-CA-CB	5.12	117.27	110.10
58	Bg	95	PRO	N-CD-CG	5.12	110.88	103.20
78	CA	645	C	P-O3'-C3'	-5.12	113.56	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	829	A	C4-C5-C6	5.12	119.56	117.00
81	DA	15	C	P-O3'-C3'	-5.12	113.56	119.70
81	DA	241	G	O3'-P-O5'	5.12	113.73	104.00
81	DA	1190	A	N9-C1'-C2'	5.12	120.66	114.00
81	DA	1774	C	O4'-C1'-C2'	-5.12	100.68	105.80
81	DA	1876	U	N1-C1'-C2'	-5.12	106.37	112.00
81	DA	2088	A	O5'-C5'-C4'	5.12	121.43	111.70
81	DA	2952	G	N9-C1'-C2'	5.12	120.65	114.00
81	DA	3136	G	C4'-C3'-C2'	-5.12	97.48	102.60
1	Aa	145	LEU	CB-CG-CD2	5.12	119.70	111.00
8	AF	27	THR	CA-CB-CG2	-5.12	105.24	112.40
78	CA	473	A	O4'-C1'-N9	5.12	112.29	108.20
78	CA	922	G	C1'-O4'-C4'	-5.12	105.81	109.90
78	CA	1086	A	C1'-O4'-C4'	-5.12	105.81	109.90
81	DA	2467	G	C5'-C4'-C3'	5.12	124.19	116.00
81	DA	2856	G	N9-C1'-C2'	5.12	120.65	114.00
22	AV	55	PRO	N-CD-CG	5.12	110.87	103.20
52	BY	113	LYS	CA-CB-CG	5.12	124.65	113.40
81	DA	161	G	C5'-C4'-O4'	5.12	115.24	109.10
81	DA	1592	G	P-O3'-C3'	5.12	125.84	119.70
81	DA	1717	U	C4'-C3'-C2'	5.12	107.72	102.60
81	DA	3038	U	C4'-C3'-C2'	-5.12	97.48	102.60
30	BA	145	TYR	CB-CG-CD1	-5.11	117.93	121.00
57	Be	51	TYR	CZ-CE2-CD2	-5.11	115.20	119.80
81	DA	538	G	N9-C1'-C2'	5.11	120.65	114.00
81	DA	1477	A	O3'-P-O5'	5.11	113.72	104.00
81	DA	2575	G	C5-C6-O6	-5.11	125.53	128.60
81	DA	2984	C	O4'-C1'-C2'	-5.11	100.69	105.80
81	DA	3164	C	O4'-C1'-C2'	-5.11	100.69	105.80
21	AT	12	TYR	CZ-CE2-CD2	-5.11	115.20	119.80
78	CA	1136	U	C4'-C3'-C2'	5.11	107.71	102.60
81	DA	311	C	C1'-O4'-C4'	5.11	113.99	109.90
81	DA	359	U	N1-C1'-C2'	5.11	120.65	114.00
81	DA	2343	C	C3'-C2'-C1'	5.11	105.59	101.50
81	DA	3247	G	N9-C1'-C2'	-5.11	106.38	112.00
43	BP	121	VAL	O-C-N	-5.11	114.52	122.70
45	BR	36	LEU	CB-CA-C	5.11	119.91	110.20
78	CA	309	C	C4'-C3'-C2'	-5.11	97.49	102.60
78	CA	489	C	C4'-C3'-C2'	-5.11	97.49	102.60
78	CA	1537	C	N1-C1'-C2'	5.11	120.64	114.00
81	DA	202	G	C1'-O4'-C4'	-5.11	105.81	109.90
81	DA	843	A	O4'-C1'-C2'	-5.11	100.69	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1550	C	C4'-C3'-C2'	-5.11	97.49	102.60
81	DA	2498	U	O3'-P-O5'	5.11	113.71	104.00
81	DA	3128	G	O4'-C1'-N9	5.11	112.29	108.20
41	BN	26	GLY	C-N-CA	5.11	134.47	121.70
78	CA	641	G	O4'-C1'-N9	5.11	112.29	108.20
78	CA	1260	U	O4'-C1'-C2'	-5.11	100.69	105.80
81	DA	1454	A	O4'-C1'-C2'	-5.11	100.69	105.80
81	DA	2476	C	C5'-C4'-O4'	-5.11	102.97	109.10
4	AD	209	HIS	N-CA-CB	5.11	119.79	110.60
13	AL	38	PHE	O-C-N	-5.11	114.53	122.70
18	AP	65	SER	N-CA-CB	5.11	118.16	110.50
59	Bh	21	HIS	CB-CG-ND1	5.11	135.97	123.20
78	CA	267	U	C4'-C3'-C2'	-5.11	97.49	102.60
78	CA	1546	G	P-O5'-C5'	5.11	129.07	120.90
81	DA	299	G	O4'-C1'-C2'	5.11	112.20	107.60
81	DA	436	A	O4'-C1'-N9	-5.11	104.11	108.20
81	DA	673	U	C1'-O4'-C4'	-5.11	105.81	109.90
81	DA	2218	G	C3'-C2'-C1'	-5.11	97.41	101.50
53	Ba	44	ALA	N-CA-C	-5.11	97.21	111.00
78	CA	257	A	P-O3'-C3'	5.11	125.83	119.70
78	CA	1300	A	N9-C1'-C2'	-5.11	106.38	112.00
81	DA	1364	C	O4'-C1'-C2'	-5.11	100.69	105.80
81	DA	2398	A	C5'-C4'-C3'	-5.11	107.83	116.00
81	DA	3289	G	C1'-O4'-C4'	-5.11	105.82	109.90
78	CA	1083	G	O4'-C1'-N9	5.10	112.28	108.20
78	CA	1381	U	C1'-O4'-C4'	5.10	113.98	109.90
2	AA	191	ARG	NE-CZ-NH2	-5.10	117.75	120.30
4	AD	140	VAL	N-CA-C	-5.10	97.22	111.00
5	AC	63	ASP	O-C-N	-5.10	114.53	122.70
13	AL	124	VAL	O-C-N	-5.10	114.53	122.70
69	Br	71	ARG	NE-CZ-NH1	5.10	122.85	120.30
77	BI	178	ARG	CA-C-N	5.10	131.39	117.10
78	CA	344	A	P-O3'-C3'	5.10	125.82	119.70
78	CA	1395	G	O3'-P-O5'	5.10	113.69	104.00
81	DA	283	G	C1'-O4'-C4'	-5.10	105.82	109.90
81	DA	902	G	C1'-O4'-C4'	-5.10	105.82	109.90
81	DA	1198	C	O4'-C1'-N1	5.10	112.28	108.20
81	DA	1679	A	P-O3'-C3'	5.10	125.82	119.70
81	DA	1881	A	O4'-C1'-C2'	-5.10	100.70	105.80
81	DA	2178	A	C1'-O4'-C4'	-5.10	105.82	109.90
81	DA	2700	G	N9-C1'-C2'	5.10	120.63	114.00
81	DA	2876	C	C1'-O4'-C4'	-5.10	105.82	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
66	Bo	32	ASN	N-CA-CB	5.10	119.78	110.60
81	DA	790	U	O4'-C1'-N1	5.10	112.28	108.20
81	DA	1004	U	O4'-C1'-N1	5.10	112.28	108.20
81	DA	1209	G	C4'-C3'-C2'	-5.10	97.50	102.60
2	AA	54	TRP	CD1-CG-CD2	-5.10	102.22	106.30
13	AL	1	MET	CA-CB-CG	5.10	121.97	113.30
38	Bs	124	VAL	CB-CA-C	5.10	121.09	111.40
51	BZ	11	ALA	N-CA-CB	5.10	117.24	110.10
57	Be	179	LEU	CB-CA-C	-5.10	100.51	110.20
78	CA	246	G	P-O3'-C3'	-5.10	113.58	119.70
78	CA	542	A	C5'-C4'-C3'	5.10	124.16	116.00
80	CC	21	C	N3-C4-N4	5.10	121.57	118.00
81	DA	793	C	C3'-C2'-C1'	5.10	105.58	101.50
16	AO	107	LYS	N-CA-CB	5.10	119.78	110.60
17	AQ	60	ARG	CB-CA-C	-5.10	100.21	110.40
78	CA	117	U	C4'-C3'-C2'	-5.10	97.50	102.60
78	CA	847	A	O4'-C1'-C2'	5.10	112.19	107.60
78	CA	1505	A	C8-N9-C4	-5.10	103.76	105.80
78	CA	1566	U	O4'-C4'-C3'	5.10	110.18	106.10
81	DA	1673	G	N9-C1'-C2'	5.10	120.63	114.00
81	DA	1774	C	C4'-C3'-C2'	-5.10	97.50	102.60
81	DA	1865	A	O4'-C1'-C2'	-5.10	100.70	105.80
81	DA	2305	G	O4'-C1'-C2'	5.10	112.19	107.60
78	CA	1193	A	O4'-C1'-C2'	-5.10	100.70	105.80
81	DA	2599	U	C3'-C2'-C1'	5.10	105.58	101.50
81	DA	3140	G	O3'-P-O5'	-5.10	94.32	104.00
26	AZ	44	PHE	N-CA-C	-5.09	97.25	111.00
65	Bn	11	PHE	CB-CG-CD2	-5.09	117.23	120.80
78	CA	487	G	N3-C2-N2	5.09	123.47	119.90
78	CA	490	C	C5'-C4'-O4'	5.09	115.21	109.10
78	CA	629	U	O4'-C1'-C2'	-5.09	100.71	105.80
78	CA	1279	C	C3'-C2'-C1'	5.09	105.58	101.50
81	DA	1445	U	N1-C1'-C2'	5.09	120.62	114.00
81	DA	1753	G	O4'-C1'-C2'	-5.09	100.70	105.80
81	DA	2318	U	O3'-P-O5'	-5.09	94.32	104.00
82	DB	137	C	O4'-C1'-C2'	-5.09	100.71	105.80
2	AA	243	ALA	CB-CA-C	-5.09	102.46	110.10
20	AS	48	GLN	O-C-N	-5.09	114.55	122.70
78	CA	546	U	O3'-P-O5'	5.09	113.68	104.00
81	DA	182	U	C4'-C3'-C2'	5.09	107.69	102.60
81	DA	308	A	P-O3'-C3'	5.09	125.81	119.70
10	AI	28	LEU	CB-CA-C	5.09	119.87	110.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	BQ	243	ALA	CA-C-O	-5.09	109.41	120.10
78	CA	1221	A	C4'-C3'-C2'	-5.09	97.51	102.60
81	DA	275	U	O3'-P-O5'	5.09	113.67	104.00
81	DA	883	A	P-O3'-C3'	5.09	125.81	119.70
81	DA	1826	C	C1'-O4'-C4'	-5.09	105.83	109.90
81	DA	2750	U	N1-C1'-C2'	5.09	120.62	114.00
81	DA	3213	A	C5'-C4'-C3'	5.09	124.15	116.00
13	AL	97	ASP	CB-CG-OD2	-5.09	113.72	118.30
31	BB	54	ARG	CB-CA-C	-5.09	100.22	110.40
78	CA	339	C	O4'-C1'-N1	5.09	112.27	108.20
81	DA	480	C	P-O3'-C3'	5.09	125.81	119.70
81	DA	1425	U	C3'-C2'-C1'	5.09	105.57	101.50
81	DA	2625	C	P-O5'-C5'	5.09	129.04	120.90
76	BS	29	MET	CG-SD-CE	-5.09	92.06	100.20
20	AS	44	GLU	CA-C-N	-5.09	106.01	117.20
32	BC	240	ARG	CA-C-N	-5.09	106.01	117.20
38	Bs	155	ASP	CB-CG-OD2	-5.09	113.72	118.30
46	BT	71	ARG	NE-CZ-NH2	-5.09	117.76	120.30
78	CA	1398	U	O4'-C1'-N1	5.09	112.27	108.20
81	DA	492	U	O4'-C1'-C2'	-5.09	100.71	105.80
81	DA	1728	G	P-O5'-C5'	5.09	129.04	120.90
81	DA	1741	A	P-O5'-C5'	-5.09	112.76	120.90
81	DA	1848	G	C3'-C2'-C1'	5.09	105.57	101.50
81	DA	1852	G	N9-C1'-C2'	5.09	120.61	114.00
81	DA	2400	G	N9-C1'-C2'	5.09	120.61	114.00
81	DA	3392	U	P-O3'-C3'	5.09	125.81	119.70
1	Aa	212	ALA	CB-CA-C	-5.08	102.47	110.10
19	AR	50	THR	N-CA-C	-5.08	97.27	111.00
31	BB	67	TYR	CB-CA-C	5.08	120.57	110.40
37	BH	185	ARG	CB-CA-C	-5.08	100.23	110.40
64	Bl	73	ARG	NE-CZ-NH1	-5.08	117.76	120.30
81	DA	328	U	C4'-C3'-C2'	5.08	107.69	102.60
81	DA	1562	C	O4'-C1'-C2'	-5.08	100.72	105.80
81	DA	2726	C	O4'-C1'-C2'	-5.08	100.72	105.80
9	AH	69	LEU	CB-CG-CD1	5.08	119.64	111.00
20	AS	116	ILE	CA-CB-CG1	5.08	120.66	111.00
25	AY	20	GLY	CA-C-O	-5.08	111.45	120.60
81	DA	24	G	N9-C1'-C2'	-5.08	106.41	112.00
81	DA	1254	C	C3'-C2'-C1'	5.08	105.57	101.50
81	DA	3002	C	OP2-P-O3'	-5.08	94.02	105.20
81	DA	3030	G	C5'-C4'-C3'	5.08	124.13	116.00
81	DA	3141	A	C3'-C2'-C1'	5.08	105.57	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	DB	100	U	C1'-O4'-C4'	-5.08	105.83	109.90
83	DC	49	G	P-O3'-C3'	5.08	125.80	119.70
83	DC	85	G	O4'-C1'-C2'	5.08	112.17	107.60
4	AD	136	VAL	N-CA-C	-5.08	97.28	111.00
8	AF	28	PRO	CA-C-N	-5.08	106.02	117.20
17	AQ	94	SER	N-CA-C	-5.08	97.28	111.00
38	Bs	244	LYS	C-N-CA	5.08	134.40	121.70
49	BV	69	ARG	NE-CZ-NH1	5.08	122.84	120.30
51	BZ	69	LYS	CA-C-N	-5.08	106.02	117.20
76	BS	72	THR	N-CA-C	-5.08	97.28	111.00
78	CA	912	U	C5'-C4'-C3'	-5.08	107.87	116.00
78	CA	1205	C	N1-C1'-C2'	5.08	120.61	114.00
78	CA	1246	C	O4'-C1'-N1	5.08	112.27	108.20
81	DA	125	C	O4'-C1'-N1	5.08	112.27	108.20
81	DA	243	G	C5'-C4'-C3'	5.08	124.13	116.00
81	DA	983	A	O5'-P-OP1	5.08	116.80	110.70
81	DA	1587	A	C1'-O4'-C4'	5.08	113.97	109.90
81	DA	2658	G	O4'-C1'-N9	5.08	112.26	108.20
81	DA	2684	C	O4'-C1'-C2'	-5.08	100.72	105.80
81	DA	3324	C	O4'-C1'-N1	5.08	112.27	108.20
82	DB	85	G	P-O3'-C3'	-5.08	113.60	119.70
42	BM	85	TRP	NE1-CE2-CD2	5.08	112.38	107.30
78	CA	1775	U	C4'-C3'-C2'	-5.08	97.52	102.60
81	DA	2416	U	O3'-P-O5'	5.08	113.65	104.00
6	AE	236	PRO	C-N-CA	5.08	134.40	121.70
8	AF	28	PRO	CA-N-CD	-5.08	104.39	111.50
39	BJ	73	VAL	CA-CB-CG1	5.08	118.52	110.90
44	BO	107	ALA	N-CA-CB	5.08	117.21	110.10
53	Ba	77	TYR	CB-CG-CD1	-5.08	117.95	121.00
81	DA	2354	C	P-O5'-C5'	5.08	129.02	120.90
81	DA	3222	U	O4'-C4'-C3'	-5.08	98.92	104.00
81	DA	3313	U	OP1-P-O3'	5.08	116.38	105.20
15	AN	13	ARG	NE-CZ-NH1	5.08	122.84	120.30
21	AT	29	HIS	C-N-CA	5.08	134.39	121.70
76	BS	157	LYS	N-CA-C	5.08	124.71	111.00
78	CA	850	A	OP1-P-OP2	-5.08	111.98	119.60
81	DA	1190	A	O4'-C1'-N9	-5.08	104.14	108.20
4	AD	224	ASN	CA-CB-CG	-5.08	102.23	113.40
11	AJ	76	SER	N-CA-C	-5.08	97.30	111.00
32	BC	295	ALA	CB-CA-C	-5.08	102.49	110.10
38	Bs	104	ARG	NE-CZ-NH1	5.08	122.84	120.30
43	BP	119	TYR	C-N-CA	5.08	134.39	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	1404	C	N1-C1'-C2'	5.08	120.60	114.00
78	CA	1611	A	O4'-C1'-C2'	-5.08	100.72	105.80
81	DA	245	U	C1'-O4'-C4'	-5.08	105.84	109.90
81	DA	440	A	P-O3'-C3'	5.08	125.79	119.70
81	DA	1013	G	C5'-C4'-C3'	5.08	124.12	116.00
81	DA	1322	U	O4'-C1'-N1	5.08	112.26	108.20
81	DA	1591	G	C3'-C2'-C1'	-5.08	97.44	101.50
81	DA	3025	C	P-O3'-C3'	-5.08	113.61	119.70
81	DA	3105	U	O4'-C1'-N1	5.08	112.26	108.20
16	AO	75	LEU	O-C-N	-5.07	114.58	122.70
32	BC	367	LYS	C-N-CA	5.07	132.96	122.30
35	BG	52	VAL	CA-CB-CG1	-5.07	103.29	110.90
37	BH	150	LEU	CB-CG-CD1	5.07	119.62	111.00
38	Bs	184	GLY	N-CA-C	-5.07	100.42	113.10
45	BR	58	ASN	N-CA-CB	5.07	119.73	110.60
78	CA	305	C	P-O3'-C3'	-5.07	113.61	119.70
78	CA	588	U	C5'-C4'-C3'	5.07	124.12	116.00
78	CA	1612	U	O4'-C1'-C2'	-5.07	100.73	105.80
81	DA	975	C	C1'-O4'-C4'	5.07	113.96	109.90
81	DA	1160	C	N1-C1'-C2'	5.07	120.59	114.00
81	DA	2963	C	O3'-P-O5'	5.07	113.64	104.00
1	Aa	317	THR	N-CA-CB	5.07	119.94	110.30
8	AF	184	PHE	CG-CD1-CE1	-5.07	115.22	120.80
78	CA	1120	U	N1-C1'-C2'	5.07	120.59	114.00
35	BG	150	LYS	N-CA-C	-5.07	97.31	111.00
57	Be	107	ARG	NE-CZ-NH2	-5.07	117.77	120.30
78	CA	483	A	O4'-C1'-N9	5.07	112.26	108.20
78	CA	702	G	C5'-C4'-C3'	5.07	124.11	116.00
78	CA	1316	G	C4'-C3'-C2'	-5.07	97.53	102.60
78	CA	1502	G	N3-C2-N2	5.07	123.45	119.90
79	CB	17	G	C5'-C4'-C3'	-5.07	107.89	116.00
81	DA	329	U	P-O5'-C5'	-5.07	112.79	120.90
8	AF	82	PHE	CB-CG-CD1	5.07	124.35	120.80
44	BO	3	SER	C-N-CA	5.07	134.37	121.70
81	DA	1758	G	C5'-C4'-O4'	5.07	115.18	109.10
81	DA	2010	U	P-O3'-C3'	-5.07	113.62	119.70
81	DA	3301	U	C1'-O4'-C4'	-5.07	105.84	109.90
9	AH	50	PHE	N-CA-CB	5.07	119.72	110.60
41	BN	112	LEU	N-CA-CB	5.07	120.53	110.40
44	BO	97	GLU	N-CA-CB	5.07	119.72	110.60
50	BX	127	THR	CA-CB-CG2	-5.07	105.31	112.40
67	Bp	15	CYS	N-CA-C	5.07	124.68	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	CA	179	A	O5'-C5'-C4'	-5.07	102.07	111.70
78	CA	335	U	C2'-C3'-O3'	5.07	121.81	113.70
78	CA	686	C	N1-C1'-C2'	5.07	120.59	114.00
78	CA	1694	A	O4'-C1'-N9	5.07	112.25	108.20
81	DA	1295	G	C5'-C4'-O4'	5.07	115.18	109.10
81	DA	2351	U	C1'-O4'-C4'	-5.07	105.85	109.90
81	DA	2686	A	O4'-C1'-N9	5.07	112.25	108.20
81	DA	2834	G	C1'-O4'-C4'	-5.07	105.85	109.90
81	DA	3324	C	N1-C1'-C2'	5.07	120.59	114.00
6	AE	143	TYR	CB-CG-CD1	-5.07	117.96	121.00
8	AF	225	ARG	NH1-CZ-NH2	-5.07	113.83	119.40
78	CA	270	C	P-O5'-C5'	-5.07	112.80	120.90
81	DA	1681	U	N1-C1'-C2'	5.07	120.58	114.00
81	DA	2447	A	C1'-O4'-C4'	-5.07	105.85	109.90
81	DA	2996	U	P-O3'-C3'	5.07	125.78	119.70
81	DA	3363	U	O3'-P-O5'	-5.07	94.38	104.00
35	BG	92	SER	N-CA-CB	5.06	118.10	110.50
78	CA	50	C	N1-C1'-C2'	5.06	120.58	114.00
78	CA	1691	A	O5'-C5'-C4'	5.06	121.32	111.70
81	DA	1757	A	P-O5'-C5'	5.06	129.00	120.90
81	DA	77	A	C3'-C2'-C1'	-5.06	97.45	101.50
81	DA	623	U	C5'-C4'-O4'	5.06	115.17	109.10
81	DA	964	G	N9-C1'-C2'	5.06	120.58	114.00
81	DA	1198	C	C5'-C4'-C3'	-5.06	107.90	116.00
29	AU	35	VAL	C-N-CA	-5.06	109.05	121.70
33	BD	34	ILE	N-CA-CB	5.06	122.44	110.80
43	BP	28	TRP	CB-CA-C	-5.06	100.28	110.40
47	BU	56	PHE	C-N-CA	5.06	134.35	121.70
81	DA	77	A	N9-C1'-C2'	5.06	120.58	114.00
81	DA	1419	A	O4'-C1'-N9	5.06	112.25	108.20
81	DA	1574	C	P-O3'-C3'	5.06	125.77	119.70
81	DA	2700	G	O4'-C1'-N9	5.06	112.25	108.20
81	DA	2859	U	C1'-O4'-C4'	5.06	113.95	109.90
20	AS	69	LYS	CA-CB-CG	5.06	124.53	113.40
32	BC	266	ARG	CB-CA-C	-5.06	100.28	110.40
42	BM	45	ARG	N-CA-CB	-5.06	101.49	110.60
43	BP	67	ARG	NE-CZ-NH1	5.06	122.83	120.30
78	CA	344	A	N9-C1'-C2'	5.06	120.58	114.00
78	CA	544	A	O3'-P-O5'	5.06	113.61	104.00
78	CA	1210	C	O4'-C1'-N1	5.06	112.25	108.20
81	DA	358	G	O4'-C1'-N9	5.06	112.25	108.20
81	DA	1668	G	P-O5'-C5'	5.06	129.00	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2192	C	O4'-C1'-N1	5.06	112.25	108.20
81	DA	3023	U	O4'-C1'-C2'	-5.06	100.74	105.80
46	BT	85	ARG	NE-CZ-NH1	5.06	122.83	120.30
64	Bl	66	TYR	CB-CG-CD1	5.06	124.03	121.00
78	CA	284	G	P-O3'-C3'	-5.06	113.63	119.70
78	CA	337	G	O4'-C4'-C3'	5.06	110.15	106.10
78	CA	1389	C	C1'-O4'-C4'	5.06	113.95	109.90
79	CB	11	U	C1'-O4'-C4'	5.06	113.95	109.90
81	DA	66	A	C1'-O4'-C4'	5.06	113.94	109.90
81	DA	327	A	C3'-C2'-C1'	5.06	105.55	101.50
81	DA	743	C	C1'-O4'-C4'	-5.06	105.85	109.90
81	DA	777	U	O4'-C1'-C2'	5.06	112.15	107.60
81	DA	2191	U	N1-C1'-C2'	5.06	120.58	114.00
81	DA	2492	C	C2'-C3'-O3'	5.06	121.79	113.70
81	DA	2618	G	O5'-P-OP2	-5.06	101.15	105.70
81	DA	1615	C	C1'-O4'-C4'	-5.06	105.86	109.90
8	AF	202	ALA	CB-CA-C	-5.05	102.52	110.10
21	AT	34	ILE	N-CA-CB	5.05	122.42	110.80
33	BD	260	GLN	N-CA-CB	5.05	119.70	110.60
46	BT	89	LEU	N-CA-C	-5.05	97.35	111.00
58	Bg	65	LYS	N-CA-C	5.05	124.65	111.00
59	Bh	15	LYS	C-N-CA	5.05	134.34	121.70
78	CA	140	A	C3'-C2'-C1'	5.05	105.54	101.50
78	CA	1336	A	O4'-C1'-C2'	-5.05	100.75	105.80
79	CB	9	A	O4'-C1'-C2'	-5.05	100.75	105.80
81	DA	39	A	O4'-C1'-N9	5.05	112.24	108.20
81	DA	102	C	C3'-C2'-C1'	5.05	105.54	101.50
81	DA	202	G	C3'-C2'-C1'	5.05	105.54	101.50
81	DA	393	U	C1'-O4'-C4'	-5.05	105.86	109.90
81	DA	888	A	O4'-C1'-C2'	-5.05	100.75	105.80
81	DA	970	A	O4'-C1'-N9	5.05	112.24	108.20
81	DA	1359	C	N1-C1'-C2'	5.05	120.57	114.00
81	DA	1702	U	O5'-C5'-C4'	5.05	121.30	111.70
81	DA	1704	A	C2'-C3'-O3'	5.05	121.79	113.70
81	DA	2375	G	C5'-C4'-C3'	5.05	124.09	116.00
81	DA	2757	U	O3'-P-O5'	-5.05	94.39	104.00
81	DA	3147	G	C3'-C2'-C1'	5.05	105.54	101.50
81	DA	3325	G	C4'-C3'-O3'	5.05	123.11	113.00
2	AA	71	GLU	N-CA-CB	5.05	119.69	110.60
8	AF	218	GLU	N-CA-CB	5.05	119.70	110.60
54	Bd	56	ALA	N-CA-C	5.05	124.64	111.00
1	Aa	6	VAL	N-CA-C	-5.05	97.36	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AO	127	ARG	N-CA-CB	5.05	119.69	110.60
20	AS	37	VAL	N-CA-C	-5.05	97.36	111.00
49	BV	90	PHE	CB-CG-CD2	5.05	124.34	120.80
59	Bh	28	VAL	CA-CB-CG2	-5.05	103.32	110.90
78	CA	566	C	N3-C4-N4	5.05	121.54	118.00
78	CA	1135	U	N1-C1'-C2'	5.05	120.57	114.00
79	CB	37	G	C1'-O4'-C4'	-5.05	105.86	109.90
81	DA	584	G	N9-C1'-C2'	5.05	120.57	114.00
81	DA	678	G	O4'-C1'-N9	5.05	112.24	108.20
81	DA	2526	C	C2'-C3'-O3'	5.05	121.78	113.70
8	AF	148	ARG	CB-CA-C	-5.05	100.30	110.40
19	AR	105	VAL	N-CA-CB	5.05	122.61	111.50
32	BC	380	MET	CB-CA-C	5.05	120.50	110.40
42	BM	68	GLU	CB-CA-C	5.05	120.50	110.40
53	Ba	14	VAL	CA-CB-CG1	5.05	118.47	110.90
59	Bh	17	PHE	N-CA-CB	5.05	119.69	110.60
78	CA	412	A	O4'-C1'-C2'	-5.05	100.75	105.80
78	CA	718	U	O3'-P-O5'	-5.05	94.41	104.00
78	CA	1109	G	O4'-C1'-N9	5.05	112.24	108.20
78	CA	1126	G	C5'-C4'-O4'	5.05	115.16	109.10
78	CA	1452	U	OP1-P-O3'	5.05	116.31	105.20
78	CA	1550	A	O4'-C4'-C3'	5.05	110.14	106.10
81	DA	1383	G	C1'-O4'-C4'	-5.05	105.86	109.90
81	DA	2104	A	C3'-C2'-C1'	5.05	105.54	101.50
81	DA	3035	A	N9-C1'-C2'	5.05	120.56	114.00
35	BG	99	GLU	CA-C-O	5.05	130.70	120.10
46	BT	52	LYS	CA-CB-CG	-5.05	102.29	113.40
50	BX	84	PHE	N-CA-CB	5.05	119.68	110.60
78	CA	193	U	O4'-C1'-N1	5.05	112.24	108.20
78	CA	205	U	P-O5'-C5'	5.05	128.97	120.90
78	CA	1129	U	C1'-O4'-C4'	5.05	113.94	109.90
78	CA	1554	U	C3'-C2'-C1'	5.05	105.54	101.50
81	DA	8	C	N1-C1'-C2'	5.05	120.56	114.00
81	DA	715	A	O4'-C1'-C2'	5.05	112.14	107.60
81	DA	738	A	C5-C6-N1	-5.05	115.18	117.70
81	DA	2171	G	C3'-C2'-C1'	5.05	105.54	101.50
81	DA	2631	U	P-O5'-C5'	-5.05	112.83	120.90
33	BD	104	LYS	N-CA-CB	5.04	119.68	110.60
74	BQ	293	LEU	N-CA-CB	5.04	120.49	110.40
78	CA	122	U	C4'-C3'-C2'	-5.04	97.56	102.60
78	CA	644	C	O4'-C1'-N1	5.04	112.24	108.20
78	CA	1586	A	N9-C1'-C2'	5.04	120.56	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2145	A	C3'-C2'-C1'	5.04	105.54	101.50
5	AC	62	ARG	NE-CZ-NH1	-5.04	117.78	120.30
6	AE	21	ARG	CA-C-N	5.04	131.22	117.10
30	BA	17	LEU	CB-CG-CD2	5.04	119.58	111.00
32	BC	105	VAL	N-CA-C	-5.04	97.38	111.00
33	BD	220	ARG	NE-CZ-NH1	5.04	122.82	120.30
58	Bg	94	GLU	N-CA-C	-5.04	97.38	111.00
78	CA	658	C	O3'-P-O5'	-5.04	94.42	104.00
81	DA	944	C	O4'-C1'-N1	5.04	112.24	108.20
81	DA	1011	A	C3'-C2'-C1'	5.04	105.53	101.50
81	DA	1568	U	O4'-C1'-C2'	-5.04	100.76	105.80
10	AI	73	GLY	N-CA-C	-5.04	100.50	113.10
49	BV	162	GLU	CA-C-N	5.04	128.29	117.20
60	Bi	1	MET	CG-SD-CE	5.04	108.27	100.20
60	Bi	9	ARG	NE-CZ-NH1	5.04	122.82	120.30
78	CA	887	A	C4'-C3'-C2'	-5.04	97.56	102.60
78	CA	1646	C	O4'-C1'-N1	5.04	112.23	108.20
81	DA	271	C	O4'-C1'-N1	5.04	112.23	108.20
81	DA	856	G	C3'-C2'-C1'	5.04	105.53	101.50
81	DA	1400	G	C4'-C3'-O3'	5.04	123.08	113.00
81	DA	1998	G	N9-C1'-C2'	-5.04	106.45	112.00
81	DA	2625	C	C2'-C3'-O3'	5.04	121.77	113.70
6	AE	240	LEU	N-CA-CB	5.04	120.48	110.40
9	AH	97	ARG	CB-CA-C	5.04	120.48	110.40
31	BB	242	ARG	NE-CZ-NH2	-5.04	117.78	120.30
44	BO	56	VAL	CA-CB-CG1	-5.04	103.34	110.90
76	BS	66	ILE	CB-CA-C	-5.04	101.52	111.60
78	CA	1568	C	N1-C1'-C2'	-5.04	106.46	112.00
81	DA	901	G	C1'-O4'-C4'	-5.04	105.87	109.90
81	DA	1630	U	P-O5'-C5'	5.04	128.96	120.90
1	Aa	47	LEU	N-CA-CB	5.04	120.48	110.40
2	AA	230	GLU	N-CA-C	5.04	124.61	111.00
4	AD	184	THR	CA-CB-CG2	-5.04	105.34	112.40
34	BE	52	TYR	CG-CD2-CE2	5.04	125.33	121.30
60	Bi	7	PHE	CB-CG-CD1	-5.04	117.27	120.80
61	Bj	73	ARG	CA-C-O	5.04	130.68	120.10
78	CA	661	A	O4'-C1'-C2'	-5.04	100.76	105.80
78	CA	1158	C	C5'-C4'-C3'	-5.04	107.94	116.00
78	CA	1366	U	O3'-P-O5'	5.04	113.57	104.00
78	CA	1793	G	N9-C1'-C2'	5.04	120.55	114.00
81	DA	696	C	C4'-C3'-C2'	-5.04	97.56	102.60
81	DA	1319	G	O3'-P-O5'	-5.04	94.42	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2230	C	N1-C1'-C2'	5.04	120.55	114.00
35	BG	55	LEU	CB-CA-C	5.04	119.77	110.20
78	CA	1347	U	C1'-O4'-C4'	5.04	113.93	109.90
78	CA	1638	G	N3-C2-N2	5.04	123.43	119.90
81	DA	319	A	C4'-C3'-C2'	-5.04	97.56	102.60
81	DA	2735	U	C5'-C4'-C3'	-5.04	107.94	116.00
2	AA	242	TRP	CB-CG-CD2	-5.04	120.05	126.60
11	AJ	77	LYS	CA-CB-CG	5.04	124.48	113.40
14	AM	79	TYR	CB-CG-CD1	5.04	124.02	121.00
21	AT	22	ARG	NE-CZ-NH2	5.04	122.82	120.30
42	BM	85	TRP	CE2-CD2-CE3	5.04	124.74	118.70
43	BP	180	PHE	C-N-CA	-5.04	109.11	121.70
51	BZ	70	LYS	O-C-N	5.04	130.75	122.70
64	Bl	73	ARG	CD-NE-CZ	-5.04	116.55	123.60
78	CA	1424	A	C4'-C3'-C2'	-5.04	97.56	102.60
81	DA	567	G	C1'-O4'-C4'	-5.04	105.87	109.90
81	DA	749	C	OP1-P-OP2	-5.04	112.05	119.60
81	DA	1360	C	C2'-C3'-O3'	5.04	121.76	113.70
81	DA	2155	G	O4'-C1'-C2'	5.04	112.13	107.60
81	DA	2341	A	C3'-C2'-C1'	5.04	105.53	101.50
81	DA	3384	U	C5'-C4'-O4'	-5.04	103.06	109.10
8	AF	71	ALA	N-CA-CB	5.03	117.15	110.10
13	AL	124	VAL	N-CA-C	5.03	124.59	111.00
21	AT	1	MET	CG-SD-CE	-5.03	92.15	100.20
25	AY	57	MET	CA-CB-CG	5.03	121.86	113.30
44	BO	117	ARG	N-CA-CB	5.03	119.66	110.60
47	BU	156	TYR	CD1-CG-CD2	-5.03	112.36	117.90
64	Bl	80	THR	N-CA-CB	5.03	119.86	110.30
78	CA	587	C	N1-C1'-C2'	5.03	120.54	114.00
78	CA	1427	A	P-O3'-C3'	5.03	125.74	119.70
81	DA	1082	U	C2'-C3'-O3'	5.03	121.75	113.70
81	DA	1392	G	N9-C1'-C2'	5.03	120.54	114.00
81	DA	1618	G	P-O5'-C5'	5.03	128.95	120.90
81	DA	2336	U	P-O3'-C3'	-5.03	113.66	119.70
81	DA	2903	A	O4'-C4'-C3'	5.03	110.13	106.10
82	DB	105	A	O4'-C1'-N9	-5.03	104.17	108.20
76	BS	110	THR	CA-CB-CG2	5.03	119.44	112.40
78	CA	276	C	O4'-C1'-C2'	-5.03	100.77	105.80
78	CA	433	C	N1-C1'-C2'	5.03	120.54	114.00
78	CA	442	C	N1-C1'-C2'	5.03	120.54	114.00
81	DA	103	G	P-O3'-C3'	-5.03	113.66	119.70
81	DA	2528	G	C3'-C2'-C1'	-5.03	97.47	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	AK	29	HIS	C-N-CA	5.03	134.27	121.70
31	BB	127	ALA	CA-C-N	5.03	128.27	117.20
32	BC	118	PHE	CB-CG-CD2	-5.03	117.28	120.80
54	Bd	58	LYS	N-CA-CB	5.03	119.66	110.60
74	BQ	23	ARG	N-CA-CB	5.03	119.66	110.60
74	BQ	129	TYR	CB-CA-C	5.03	120.46	110.40
78	CA	107	C	P-O3'-C3'	5.03	125.74	119.70
78	CA	300	A	O4'-C1'-C2'	-5.03	100.77	105.80
78	CA	1288	G	P-O5'-C5'	5.03	128.95	120.90
78	CA	1722	A	O3'-P-O5'	-5.03	94.44	104.00
81	DA	306	A	C5'-C4'-C3'	-5.03	107.95	116.00
81	DA	935	U	C1'-O4'-C4'	-5.03	105.88	109.90
81	DA	1193	A	C5'-C4'-O4'	5.03	115.14	109.10
81	DA	1222	G	O4'-C1'-C2'	-5.03	100.77	105.80
81	DA	1251	A	O4'-C1'-N9	5.03	112.22	108.20
81	DA	1687	U	O5'-C5'-C4'	-5.03	102.14	111.70
32	BC	4	ARG	N-CA-CB	5.03	119.65	110.60
37	BH	232	HIS	CA-C-O	-5.03	109.54	120.10
46	BT	29	THR	CA-CB-CG2	-5.03	105.36	112.40
74	BQ	16	PHE	CD1-CE1-CZ	-5.03	114.06	120.10
79	CB	59	U	C1'-O4'-C4'	5.03	113.92	109.90
81	DA	25	U	C5'-C4'-O4'	-5.03	103.06	109.10
81	DA	958	C	C1'-O4'-C4'	5.03	113.92	109.90
81	DA	2931	C	OP1-P-O3'	5.03	116.27	105.20
41	BN	71	ALA	CB-CA-C	-5.03	102.56	110.10
52	BY	78	PHE	CB-CG-CD2	-5.03	117.28	120.80
76	BS	35	ASN	N-CA-CB	5.03	119.65	110.60
78	CA	271	A	C1'-O4'-C4'	-5.03	105.88	109.90
78	CA	428	A	O4'-C1'-N9	5.03	112.22	108.20
78	CA	455	C	O4'-C1'-C2'	-5.03	100.77	105.80
78	CA	1255	G	OP2-P-O3'	5.03	116.26	105.20
81	DA	1320	C	O4'-C4'-C3'	-5.03	98.97	104.00
81	DA	2154	U	C3'-C2'-C1'	5.03	105.52	101.50
81	DA	2814	G	O4'-C1'-N9	5.03	112.22	108.20
81	DA	3025	C	C3'-C2'-C1'	5.03	105.52	101.50
81	DA	3149	G	C5'-C4'-O4'	5.03	115.13	109.10
5	AC	34	PHE	N-CA-CB	5.03	119.65	110.60
39	BJ	80	LEU	CB-CG-CD2	5.03	119.55	111.00
48	BW	13	LYS	N-CA-C	-5.03	97.43	111.00
61	Bj	66	VAL	CA-CB-CG1	5.03	118.44	110.90
74	BQ	139	PRO	N-CA-C	5.03	125.16	112.10
78	CA	1753	A	C1'-O4'-C4'	-5.03	105.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	CB	37	G	N9-C1'-C2'	5.03	120.53	114.00
81	DA	178	U	C1'-O4'-C4'	5.03	113.92	109.90
81	DA	636	C	O3'-P-O5'	-5.03	94.45	104.00
81	DA	1062	A	N9-C1'-C2'	-5.03	106.47	112.00
81	DA	1124	U	O4'-C1'-C2'	-5.03	100.77	105.80
81	DA	1680	G	O3'-P-O5'	5.03	113.55	104.00
81	DA	1833	G	C5'-C4'-C3'	5.03	124.04	116.00
81	DA	2238	G	C2'-C3'-O3'	-5.03	98.44	109.50
81	DA	2288	G	P-O3'-C3'	5.03	125.73	119.70
81	DA	2673	A	C5'-C4'-O4'	5.03	115.13	109.10
81	DA	3055	U	N1-C1'-C2'	-5.03	106.47	112.00
33	BD	109	TRP	CA-CB-CG	5.02	123.25	113.70
78	CA	336	G	C1'-O4'-C4'	-5.02	105.88	109.90
78	CA	389	G	O4'-C1'-N9	5.02	112.22	108.20
81	DA	2100	A	O4'-C1'-N9	-5.02	104.18	108.20
3	AB	213	GLU	C-N-CA	5.02	134.25	121.70
4	AD	238	LEU	C-N-CA	5.02	143.10	122.00
5	AC	46	SER	N-CA-CB	5.02	118.03	110.50
34	BE	59	ILE	CB-CA-C	-5.02	101.55	111.60
37	BH	234	GLY	N-CA-C	-5.02	100.54	113.10
40	BK	117	ARG	NE-CZ-NH2	5.02	122.81	120.30
45	BR	44	PHE	CB-CA-C	-5.02	100.35	110.40
67	Bp	48	LYS	CB-CA-C	-5.02	100.36	110.40
78	CA	390	G	O4'-C1'-N9	5.02	112.22	108.20
78	CA	1294	G	C4'-C3'-C2'	-5.02	97.58	102.60
4	AD	51	ARG	NE-CZ-NH1	-5.02	117.79	120.30
37	BH	238	LEU	CB-CA-C	5.02	119.74	110.20
38	Bs	86	PHE	CB-CG-CD1	-5.02	117.28	120.80
61	Bj	86	ARG	N-CA-CB	-5.02	101.56	110.60
81	DA	3099	C	C4'-C3'-C2'	5.02	107.62	102.60
2	AA	174	TRP	CB-CA-C	5.02	120.44	110.40
32	BC	220	VAL	CG1-CB-CG2	5.02	118.93	110.90
41	BN	114	ASP	N-CA-CB	5.02	119.64	110.60
43	BP	44	ARG	CA-C-N	5.02	131.16	117.10
47	BU	159	PHE	CA-C-N	-5.02	106.16	117.20
55	Bc	4	VAL	CA-CB-CG1	5.02	118.43	110.90
61	Bj	2	ALA	C-N-CA	-5.02	109.15	121.70
72	Bu	58	LEU	CB-CA-C	-5.02	100.66	110.20
81	DA	95	A	O4'-C1'-N9	5.02	112.22	108.20
81	DA	507	U	P-O3'-C3'	5.02	125.72	119.70
81	DA	1396	C	O3'-P-O5'	5.02	113.54	104.00
81	DA	2166	A	P-O5'-C5'	-5.02	112.87	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2849	C	O4'-C1'-N1	5.02	112.22	108.20
81	DA	3161	C	O4'-C1'-N1	5.02	112.22	108.20
81	DA	3218	A	C2'-C3'-O3'	5.02	121.73	113.70
13	AL	72	VAL	CA-CB-CG2	-5.02	103.37	110.90
32	BC	97	ARG	CA-CB-CG	5.02	124.44	113.40
78	CA	103	A	C1'-O4'-C4'	5.02	113.91	109.90
78	CA	1700	C	O4'-C1'-N1	5.02	112.21	108.20
81	DA	977	C	C5'-C4'-C3'	5.02	124.03	116.00
81	DA	2599	U	O4'-C1'-C2'	-5.02	100.78	105.80
81	DA	3164	C	N1-C1'-C2'	-5.02	106.48	112.00
82	DB	30	C	C4'-C3'-C2'	-5.02	97.58	102.60
31	BB	74	GLU	N-CA-CB	5.02	119.63	110.60
74	BQ	248	ARG	CA-CB-CG	5.02	124.44	113.40
78	CA	826	U	P-O3'-C3'	5.02	125.72	119.70
81	DA	2148	U	O4'-C1'-C2'	-5.02	100.78	105.80
82	DB	98	U	O4'-C1'-N1	5.02	112.21	108.20
5	AC	152	SER	N-CA-CB	5.01	118.02	110.50
32	BC	298	PHE	N-CA-CB	-5.01	101.57	110.60
63	Bm	7	LYS	C-N-CA	5.01	134.24	121.70
78	CA	433	C	O4'-C1'-C2'	-5.01	100.79	105.80
79	CB	38	C	O4'-C1'-N1	5.01	112.21	108.20
81	DA	1165	A	C3'-C2'-C1'	5.01	105.51	101.50
81	DA	2188	A	O4'-C1'-C2'	-5.01	100.78	105.80
81	DA	2460	U	O4'-C1'-N1	5.01	112.21	108.20
81	DA	3220	G	C4'-C3'-C2'	-5.01	97.59	102.60
16	AO	113	PHE	CA-CB-CG	5.01	125.93	113.90
47	BU	156	TYR	N-CA-C	-5.01	97.47	111.00
78	CA	310	C	O4'-C1'-C2'	-5.01	100.79	105.80
81	DA	255	A	C4'-C3'-C2'	-5.01	97.59	102.60
81	DA	1340	G	C1'-O4'-C4'	-5.01	105.89	109.90
81	DA	2080	C	C3'-C2'-C1'	5.01	105.51	101.50
1	Aa	214	ALA	N-CA-CB	5.01	117.12	110.10
46	BT	14	VAL	CA-CB-CG2	-5.01	103.38	110.90
46	BT	62	ARG	NE-CZ-NH1	-5.01	117.79	120.30
48	BW	94	ARG	N-CA-C	-5.01	97.47	111.00
56	Bf	48	THR	CA-CB-CG2	-5.01	105.38	112.40
78	CA	1501	C	C2-N3-C4	5.01	122.41	119.90
81	DA	3091	A	O4'-C4'-C3'	-5.01	98.99	104.00
60	Bi	73	SER	N-CA-C	-5.01	97.48	111.00
78	CA	165	G	P-O3'-C3'	5.01	125.71	119.70
78	CA	293	U	C3'-C2'-C1'	5.01	105.51	101.50
81	DA	1075	A	C3'-C2'-C1'	5.01	105.51	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	1160	C	C1'-O4'-C4'	-5.01	105.89	109.90
81	DA	1397	C	O4'-C1'-N1	-5.01	104.19	108.20
81	DA	1399	A	O4'-C1'-N9	5.01	112.21	108.20
81	DA	1730	G	O4'-C1'-C2'	-5.01	100.79	105.80
81	DA	2118	C	P-O3'-C3'	5.01	125.71	119.70
81	DA	2142	A	N9-C1'-C2'	-5.01	106.49	112.00
81	DA	2453	U	C3'-C2'-C1'	5.01	105.51	101.50
81	DA	3345	G	O4'-C4'-C3'	-5.01	98.99	104.00
17	AQ	10	LYS	N-CA-CB	5.01	119.61	110.60
1	Aa	201	THR	CA-CB-CG2	5.01	119.41	112.40
4	AD	90	ILE	CB-CA-C	-5.01	101.59	111.60
4	AD	133	LYS	CB-CA-C	5.01	120.41	110.40
57	Be	142	SER	N-CA-C	5.01	124.52	111.00
78	CA	1273	G	C5-C6-O6	-5.01	125.60	128.60
78	CA	1637	C	C6-N1-C1'	-5.01	114.79	120.80
81	DA	337	G	O3'-P-O5'	-5.01	94.49	104.00
81	DA	560	G	C5'-C4'-O4'	5.01	115.11	109.10
81	DA	678	G	N9-C1'-C2'	-5.01	106.49	112.00
81	DA	2422	C	C4'-C3'-O3'	-5.01	98.88	109.40
81	DA	3367	C	P-O3'-C3'	5.01	125.71	119.70
83	DC	47	C	O5'-C5'-C4'	-5.01	102.19	111.70
17	AQ	71	PHE	C-N-CA	5.00	134.21	121.70
47	BU	44	ALA	N-CA-CB	5.00	117.11	110.10
65	Bn	46	ARG	NE-CZ-NH2	-5.00	117.80	120.30
78	CA	1752	U	P-O3'-C3'	-5.00	113.69	119.70
81	DA	1502	C	O4'-C1'-C2'	-5.00	100.80	105.80
81	DA	1824	U	O4'-C1'-C2'	-5.00	100.80	105.80
81	DA	3343	G	C1'-O4'-C4'	-5.00	105.90	109.90
83	DC	6	C	O4'-C1'-N1	5.00	112.20	108.20
31	BB	112	ILE	CB-CA-C	5.00	121.61	111.60
39	BJ	123	ARG	N-CA-CB	5.00	119.61	110.60
78	CA	339	C	C5'-C4'-C3'	-5.00	108.00	116.00
78	CA	1235	C	P-O5'-C5'	5.00	128.91	120.90
78	CA	1396	U	C2'-C3'-O3'	5.00	121.70	113.70
78	CA	1710	U	O4'-C1'-N1	5.00	112.20	108.20
81	DA	50	U	O4'-C1'-N1	5.00	112.20	108.20
81	DA	311	C	P-O5'-C5'	-5.00	112.89	120.90
81	DA	835	G	C4'-C3'-C2'	-5.00	97.60	102.60
81	DA	1002	A	O3'-P-O5'	5.00	113.51	104.00
81	DA	1263	A	C4'-C3'-C2'	5.00	107.60	102.60
81	DA	1361	U	O3'-P-O5'	-5.00	94.49	104.00
81	DA	2512	C	C3'-C2'-C1'	5.00	105.50	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	DA	2864	A	C3'-C2'-C1'	-5.00	97.50	101.50
81	DA	3188	G	C5'-C4'-C3'	5.00	124.00	116.00
20	AS	7	ARG	NE-CZ-NH2	-5.00	117.80	120.30
30	BA	174	MET	CG-SD-CE	5.00	108.20	100.20
35	BG	155	LEU	CB-CA-C	-5.00	100.70	110.20
57	Be	60	ARG	CB-CG-CD	5.00	124.60	111.60
78	CA	257	A	C3'-C2'-C1'	5.00	105.50	101.50
78	CA	1657	U	C5'-C4'-C3'	5.00	124.00	116.00
78	CA	1767	G	C3'-C2'-C1'	5.00	105.50	101.50
81	DA	242	C	O4'-C1'-N1	-5.00	104.20	108.20
81	DA	434	U	O3'-P-O5'	5.00	113.50	104.00
81	DA	1062	A	P-O3'-C3'	5.00	125.70	119.70
81	DA	1204	A	O4'-C1'-C2'	5.00	112.10	107.60
81	DA	1741	A	C1'-O4'-C4'	-5.00	105.90	109.90
81	DA	2125	A	O4'-C1'-N9	5.00	112.20	108.20
81	DA	3046	A	P-O3'-C3'	5.00	125.70	119.70
81	DA	3358	U	O4'-C1'-C2'	-5.00	100.80	105.80

All (96) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	AA	241	GLU	CA
5	AC	129	ILE	CA
5	AC	162	SER	CA
6	AE	28	ARG	CA
6	AE	30	THR	CA
6	AE	31	GLU	CA
12	AK	67	VAL	CA
16	AO	67	THR	CA
16	AO	118	ILE	CA
23	AW	62	UNK	CA
23	AW	66	UNK	CA
23	AW	67	UNK	CA
23	AW	74	UNK	CA
23	AW	117	UNK	CA
29	AU	5	VAL	CA
29	AU	62	THR	CA
31	BB	40	TYR	CA
31	BB	67	TYR	CA
32	BC	241	LYS	CA
32	BC	344	THR	CA
33	BD	261	VAL	CA

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Mol	Chain	Res	Type	Atom
33	BD	296	GLN	CA
34	BE	52	TYR	CA
34	BE	55	ARG	CA
35	BG	8	LYS	CA
35	BG	75	PRO	CA
39	BJ	14	TYR	CA
41	BN	62	GLN	CA
43	BP	13	LYS	CA
43	BP	44	ARG	CA
43	BP	122	ASN	CA
43	BP	123	GLN	CA
44	BO	7	LYS	CA
47	BU	126	VAL	CA
57	Be	98	LYS	CA
61	Bj	21	ARG	CA
62	Bk	27	SER	CA
63	Bm	29	LEU	CA
75	BL	52	UNK	CA
75	BL	127	UNK	CA
75	BL	138	UNK	CA
75	BL	143	UNK	CA
75	BL	144	UNK	CA
75	BL	179	UNK	CA
76	BS	66	ILE	CA
77	BI	13	LYS	CA
77	BI	90	ARG	CA
78	CA	558	U	C3'
78	CA	963	A	C3'
78	CA	1337	A	C3'
78	CA	1434	U	C3'
78	CA	1444	A	C2'
78	CA	1459	C	C2'
78	CA	1546	G	C1'
78	CA	1601	G	C1'
78	CA	1700	C	C2'
78	CA	1735	U	C4'
79	CB	55	C	C1'
80	CC	20	U	C4'
81	DA	476	G	C3'
81	DA	527	A	C3'
81	DA	609	G	C3'
81	DA	637	C	C3'

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Mol	Chain	Res	Type	Atom
81	DA	699	A	C4'
81	DA	702	C	C3'
81	DA	782	U	C2'
81	DA	975	C	C3'
81	DA	1047	A	C3'
81	DA	1209	G	C3'
81	DA	1221	A	C1'
81	DA	1251	A	C1'
81	DA	1384	U	C3'
81	DA	1537	A	C3'
81	DA	1701	C	C3'
81	DA	1754	G	C3'
81	DA	1771	C	C4',C2',C3'
81	DA	1856	C	C3'
81	DA	2067	U	C4'
81	DA	2137	U	C3'
81	DA	2211	U	C3'
81	DA	2362	C	C3'
81	DA	2384	A	C3'
81	DA	2757	U	C2'
81	DA	2760	C	C3'
81	DA	2970	C	C3'
81	DA	3044	G	C3'
81	DA	3092	C	C3'
81	DA	3215	A	C2',C1'
82	DB	51	G	C3'
82	DB	94	C	C3'
82	DB	120	C	C3'
82	DB	132	G	C3'
82	DB	138	A	C3'

All (1514) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	AA	10	THR	Mainchain,Peptide
2	AA	101	ARG	Sidechain
2	AA	104	PRO	Peptide
2	AA	11	PRO	Mainchain,Peptide
2	AA	110	TYR	Sidechain
2	AA	13	ASP	Peptide
2	AA	175	TYR	Sidechain
2	AA	194	PRO	Peptide

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Mol	Chain	Res	Type	Group
2	AA	195	TRP	Mainchain,Peptide
2	AA	197	ILE	Peptide
2	AA	229	LYS	Mainchain,Peptide
2	AA	230	GLU	Peptide
2	AA	232	VAL	Peptide
2	AA	250	VAL	Mainchain,Peptide
2	AA	251	GLU	Mainchain,Peptide
2	AA	36	TYR	Sidechain
2	AA	4	PRO	Mainchain,Peptide
2	AA	5	ALA	Peptide
2	AA	6	THR	Mainchain,Peptide
2	AA	82	GLY	Peptide
2	AA	84	ARG	Sidechain
2	AA	9	LEU	Peptide
3	AB	116	ARG	Sidechain
3	AB	117	ARG	Sidechain
3	AB	120	TYR	Sidechain
3	AB	125	TYR	Sidechain
3	AB	17	PHE	Sidechain
3	AB	18	TYR	Sidechain
3	AB	192	PRO	Peptide
3	AB	198	GLY	Peptide
3	AB	199	PRO	Mainchain,Peptide
3	AB	201	ALA	Peptide
3	AB	202	LEU	Peptide
3	AB	205	ALA	Mainchain,Peptide
3	AB	206	VAL	Peptide
3	AB	208	ILE	Peptide
3	AB	209	ILE	Mainchain,Peptide
3	AB	210	GLU	Peptide
3	AB	212	LYS	Mainchain,Peptide
3	AB	214	GLU	Mainchain,Peptide
3	AB	64	ARG	Sidechain
3	AB	72	LEU	Mainchain
3	AB	78	LYS	Mainchain,Peptide
3	AB	79	TYR	Peptide
3	AB	87	TYR	Sidechain
5	AC	104	PHE	Sidechain
5	AC	117	GLY	Peptide
5	AC	118	LEU	Peptide
5	AC	126	ARG	Sidechain
5	AC	133	HIS	Sidechain

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Mol	Chain	Res	Type	Group
5	AC	14	THR	Peptide
5	AC	142	ASN	Sidechain
5	AC	148	VAL	Peptide
5	AC	15	PRO	Mainchain
5	AC	151	ASP	Peptide
5	AC	157	ASP	Mainchain,Peptide
5	AC	158	PHE	Sidechain,Peptide
5	AC	16	LYS	Peptide
5	AC	160	PRO	Peptide
5	AC	162	SER	Mainchain,Peptide
5	AC	163	PRO	Peptide
5	AC	164	PHE	Mainchain,Peptide
5	AC	168	ARG	Mainchain,Peptide
5	AC	18	PRO	Mainchain,Peptide
5	AC	182	GLU	Peptide
5	AC	183	ALA	Peptide
5	AC	184	SER	Peptide
5	AC	186	GLU	Peptide
5	AC	187	ALA	Peptide
5	AC	188	ALA	Peptide
5	AC	19	TYR	Peptide
5	AC	190	GLU	Peptide
5	AC	191	ALA	Peptide
5	AC	193	GLU	Peptide
5	AC	2	PRO	Peptide
5	AC	21	SER	Peptide
5	AC	3	ARG	Peptide
5	AC	57	ARG	Sidechain
5	AC	6	ARG	Sidechain
4	AD	103	TYR	Sidechain
4	AD	108	ARG	Sidechain
4	AD	131	LEU	Peptide
4	AD	134	LYS	Peptide
4	AD	142	HIS	Sidechain
4	AD	149	TYR	Sidechain
4	AD	150	PRO	Peptide
4	AD	153	ASN	Mainchain,Peptide
4	AD	182	TYR	Sidechain
4	AD	187	ARG	Sidechain
4	AD	211	LYS	Peptide
4	AD	212	ASP	Peptide
4	AD	218	PHE	Mainchain

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Mol	Chain	Res	Type	Group
4	AD	230	GLU	Peptide
4	AD	231	GLN	Peptide
4	AD	234	PRO	Peptide
4	AD	235	TYR	Mainchain
4	AD	238	LEU	Peptide
4	AD	239	PRO	Peptide
4	AD	240	LYS	Mainchain,Peptide
4	AD	51	ARG	Sidechain
4	AD	54	TYR	Peptide
4	AD	55	ALA	Peptide
4	AD	57	ASN	Peptide
4	AD	82	TYR	Sidechain
4	AD	90	ILE	Mainchain,Peptide
4	AD	93	ASP	Mainchain,Peptide
4	AD	94	ALA	Mainchain,Peptide
4	AD	95	THR	Peptide
4	AD	96	ASN	Mainchain
4	AD	99	PHE	Sidechain
6	AE	109	GLY	Peptide
6	AE	110	HIS	Sidechain
6	AE	126	ARG	Sidechain
6	AE	137	ILE	Peptide
6	AE	168	ARG	Sidechain
6	AE	174	ARG	Mainchain,Peptide
6	AE	205	ARG	Sidechain
6	AE	225	LEU	Peptide
6	AE	239	PRO	Peptide
6	AE	24	ARG	Sidechain
6	AE	243	TYR	Mainchain
6	AE	25	ARG	Peptide
6	AE	28	ARG	Peptide
6	AE	30	THR	Peptide
6	AE	31	GLU	Peptide
6	AE	4	PRO	Mainchain,Peptide
6	AE	67	GLN	Peptide
6	AE	69	ILE	Peptide
6	AE	7	GLN	Mainchain,Peptide
6	AE	70	ASP	Mainchain
6	AE	71	THR	Peptide
6	AE	81	MET	Mainchain,Peptide
6	AE	92	ALA	Mainchain,Peptide
6	AE	95	ARG	Sidechain

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Mol	Chain	Res	Type	Group
8	AF	101	GLY	Peptide
8	AF	103	ASN	Peptide
8	AF	116	HIS	Sidechain
8	AF	157	ARG	Sidechain
8	AF	209	TYR	Sidechain
8	AF	28	PRO	Peptide
8	AF	35	GLN	Mainchain,Peptide
8	AF	36	ALA	Peptide
8	AF	37	GLN	Peptide
8	AF	61	TYR	Sidechain
8	AF	65	ARG	Peptide
8	AF	79	ASN	Peptide
8	AF	92	ARG	Sidechain
7	AG	10	UNK	Mainchain,Peptide
7	AG	100	UNK	Mainchain,Peptide
7	AG	101	UNK	Mainchain,Peptide
7	AG	103	UNK	Mainchain,Peptide
7	AG	104	UNK	Mainchain,Peptide
7	AG	107	UNK	Mainchain,Peptide
7	AG	11	UNK	Peptide
7	AG	127	UNK	Mainchain,Peptide
7	AG	128	UNK	Peptide
7	AG	131	UNK	Peptide
7	AG	21	UNK	Mainchain,Peptide
7	AG	35	UNK	Mainchain,Peptide
7	AG	37	UNK	Mainchain,Peptide
7	AG	38	UNK	Mainchain,Peptide
7	AG	52	UNK	Mainchain,Peptide
7	AG	53	UNK	Peptide
7	AG	55	UNK	Mainchain,Peptide
7	AG	56	UNK	Peptide
7	AG	68	UNK	Mainchain
7	AG	69	UNK	Peptide
7	AG	71	UNK	Mainchain,Peptide
7	AG	75	UNK	Mainchain,Peptide
7	AG	79	UNK	Peptide
7	AG	81	UNK	Mainchain,Peptide
7	AG	83	UNK	Mainchain,Peptide
7	AG	86	UNK	Mainchain,Peptide
7	AG	87	UNK	Mainchain,Peptide
7	AG	9	UNK	Mainchain,Peptide
7	AG	96	UNK	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
7	AG	97	UNK	Mainchain,Peptide
9	AH	101	TYR	Sidechain
9	AH	121	VAL	Peptide
9	AH	3	ARG	Sidechain
9	AH	41	MET	Peptide
9	AH	52	TYR	Sidechain
9	AH	57	ARG	Sidechain
9	AH	64	GLN	Peptide
9	AH	65	LEU	Peptide
9	AH	66	ASN	Mainchain,Peptide
9	AH	67	GLY	Peptide
9	AH	79	PHE	Sidechain,Peptide
9	AH	80	ASN	Peptide
9	AH	83	ILE	Peptide
10	AI	119	ALA	Mainchain,Peptide
10	AI	123	ARG	Sidechain,Peptide
10	AI	125	GLU	Peptide
10	AI	126	PRO	Peptide
10	AI	140	LYS	Mainchain,Peptide
10	AI	27	GLY	Peptide
10	AI	49	TYR	Sidechain
10	AI	54	LEU	Mainchain,Peptide
10	AI	83	GLN	Peptide
10	AI	85	ILE	Peptide
11	AJ	119	ALA	Mainchain,Peptide
11	AJ	21	LYS	Peptide
11	AJ	57	ARG	Sidechain
11	AJ	61	LYS	Peptide
11	AJ	64	LYS	Peptide
11	AJ	68	ARG	Sidechain
11	AJ	71	PRO	Peptide
11	AJ	73	GLY	Peptide
11	AJ	74	GLU	Peptide
11	AJ	78	THR	Peptide
11	AJ	81	THR	Mainchain,Peptide
11	AJ	82	TYR	Peptide
11	AJ	86	ILE	Peptide
11	AJ	87	HIS	Peptide
11	AJ	90	TYR	Sidechain
12	AK	107	ARG	Sidechain
12	AK	111	ARG	Sidechain
12	AK	114	ARG	Sidechain

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Mol	Chain	Res	Type	Group
12	AK	119	THR	Peptide
12	AK	123	SER	Mainchain,Peptide
12	AK	136	ARG	Peptide
12	AK	21	ALA	Peptide
12	AK	22	SER	Mainchain,Peptide
12	AK	30	VAL	Peptide
12	AK	59	ALA	Mainchain,Peptide
12	AK	60	ALA	Mainchain,Peptide
13	AL	10	ASN	Mainchain
13	AL	124	VAL	Peptide
13	AL	13	ARG	Sidechain
13	AL	134	ALA	Mainchain,Peptide
13	AL	22	ASN	Mainchain,Peptide
13	AL	34	LEU	Mainchain,Peptide
13	AL	38	PHE	Sidechain,Peptide
13	AL	87	VAL	Mainchain
13	AL	93	LEU	Mainchain
13	AL	98	GLU	Peptide
14	AM	10	SER	Peptide
14	AM	11	PHE	Sidechain
14	AM	110	ARG	Sidechain
14	AM	134	ARG	Sidechain
14	AM	140	THR	Peptide
14	AM	145	ARG	Sidechain
14	AM	22	VAL	Peptide
14	AM	87	ASN	Peptide
14	AM	88	ARG	Peptide
14	AM	90	ASN	Peptide
14	AM	99	HIS	Mainchain,Peptide
15	AN	10	HIS	Sidechain,Peptide
15	AN	37	ASN	Peptide
15	AN	44	ARG	Sidechain
15	AN	46	LYS	Mainchain,Peptide
15	AN	47	ALA	Mainchain
15	AN	52	PHE	Mainchain
15	AN	53	ASN	Mainchain,Peptide
15	AN	54	LYS	Mainchain,Peptide
16	AO	104	ARG	Sidechain
16	AO	106	ARG	Sidechain
16	AO	114	ARG	Sidechain
16	AO	127	ARG	Sidechain
16	AO	128	TYR	Sidechain

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Mol	Chain	Res	Type	Group
16	AO	129	TYR	Sidechain
16	AO	40	TYR	Sidechain,Peptide
16	AO	41	ALA	Peptide
16	AO	63	ALA	Mainchain
16	AO	64	ARG	Sidechain
16	AO	67	THR	Mainchain,Peptide
16	AO	89	TYR	Sidechain
16	AO	90	TYR	Sidechain
18	AP	100	TYR	Sidechain
18	AP	109	VAL	Peptide
18	AP	110	HIS	Peptide
18	AP	122	ILE	Mainchain,Peptide
18	AP	40	LEU	Mainchain,Peptide
18	AP	53	TYR	Mainchain
18	AP	54	ILE	Peptide
18	AP	55	ASP	Mainchain,Peptide
18	AP	57	LYS	Mainchain
18	AP	59	PRO	Peptide
18	AP	60	PHE	Sidechain
18	AP	93	TYR	Sidechain
17	AQ	101	ASN	Peptide
17	AQ	128	ARG	Peptide
17	AQ	129	ASP	Mainchain,Peptide
17	AQ	131	ARG	Sidechain,Peptide
17	AQ	132	TYR	Sidechain
17	AQ	133	ARG	Sidechain
17	AQ	134	LYS	Peptide
17	AQ	19	ARG	Sidechain
17	AQ	20	TYR	Sidechain
17	AQ	26	LEU	Mainchain,Peptide
17	AQ	5	ARG	Sidechain,Peptide
17	AQ	60	ARG	Sidechain
17	AQ	63	LYS	Mainchain
17	AQ	71	PHE	Sidechain
17	AQ	81	LYS	Mainchain,Peptide
17	AQ	82	ASP	Mainchain,Peptide
17	AQ	85	VAL	Mainchain,Peptide
17	AQ	87	GLU	Peptide
17	AQ	93	LEU	Peptide
17	AQ	94	SER	Peptide
17	AQ	95	ARG	Sidechain
17	AQ	99	VAL	Peptide

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Mol	Chain	Res	Type	Group
19	AR	108	ARG	Sidechain
19	AR	125	PRO	Peptide
19	AR	127	ARG	Sidechain
19	AR	131	ALA	Peptide
19	AR	134	THR	Peptide
19	AR	52	LYS	Peptide
19	AR	77	ARG	Sidechain
19	AR	97	TYR	Sidechain
20	AS	122	ARG	Sidechain
20	AS	130	ARG	Sidechain
20	AS	30	VAL	Peptide
20	AS	43	ASN	Peptide
20	AS	60	SER	Mainchain
20	AS	68	ARG	Sidechain
20	AS	69	LYS	Peptide
20	AS	7	ARG	Sidechain
20	AS	70	GLN	Peptide
20	AS	78	LYS	Peptide
20	AS	80	TYR	Sidechain
20	AS	87	GLY	Peptide
20	AS	90	PRO	Mainchain,Peptide
20	AS	91	TYR	Peptide
20	AS	95	ASP	Mainchain,Peptide
20	AS	96	ALA	Mainchain,Peptide
21	AT	27	ASP	Peptide
21	AT	43	GLY	Mainchain,Peptide
21	AT	44	ARG	Mainchain,Peptide
21	AT	53	TYR	Peptide
21	AT	54	ALA	Mainchain,Peptide
21	AT	58	TYR	Sidechain
21	AT	68	SER	Peptide
21	AT	8	LEU	Peptide
21	AT	85	TYR	Sidechain,Peptide
21	AT	9	VAL	Mainchain,Peptide
29	AU	27	VAL	Peptide
29	AU	35	VAL	Peptide
29	AU	36	SER	Mainchain,Peptide
29	AU	37	LYS	Peptide
29	AU	52	LYS	Peptide
29	AU	58	PHE	Sidechain
29	AU	62	THR	Mainchain
29	AU	66	GLY	Peptide

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Mol	Chain	Res	Type	Group
29	AU	70	VAL	Mainchain
29	AU	72	PHE	Peptide
29	AU	89	TYR	Sidechain
22	AV	103	ARG	Sidechain,Peptide
22	AV	104	ALA	Mainchain
22	AV	105	THR	Mainchain
22	AV	106	ALA	Peptide
22	AV	26	LYS	Mainchain,Peptide
22	AV	28	SER	Peptide
22	AV	29	LYS	Peptide
22	AV	43	ASP	Peptide
22	AV	47	TYR	Sidechain
22	AV	77	ARG	Sidechain
23	AW	117	UNK	Peptide
23	AW	15	UNK	Mainchain,Peptide
23	AW	60	UNK	Peptide
23	AW	61	UNK	Peptide
23	AW	62	UNK	Peptide
23	AW	63	UNK	Peptide
23	AW	64	UNK	Peptide
23	AW	66	UNK	Peptide
23	AW	67	UNK	Peptide
23	AW	69	UNK	Peptide
23	AW	70	UNK	Peptide
23	AW	72	UNK	Peptide
23	AW	73	UNK	Peptide
23	AW	75	UNK	Peptide
23	AW	77	UNK	Peptide
23	AW	91	UNK	Peptide
23	AW	92	UNK	Peptide
23	AW	93	UNK	Peptide
23	AW	94	UNK	Peptide
24	AX	47	PHE	Sidechain
24	AX	58	SER	Peptide
25	AY	20	GLY	Peptide
25	AY	21	SER	Peptide
25	AY	22	ARG	Peptide
25	AY	23	GLY	Peptide
26	AZ	10	ARG	Sidechain
26	AZ	18	THR	Mainchain,Peptide
26	AZ	19	PRO	Peptide
26	AZ	21	VAL	Peptide

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Mol	Chain	Res	Type	Group
26	AZ	22	GLU	Peptide
26	AZ	24	THR	Peptide
26	AZ	26	LYS	Peptide
26	AZ	35	TYR	Sidechain
26	AZ	39	LEU	Mainchain,Peptide
26	AZ	40	TYR	Mainchain,Peptide
26	AZ	41	THR	Peptide
26	AZ	42	ARG	Sidechain
26	AZ	43	ARG	Sidechain
26	AZ	44	PHE	Mainchain,Peptide
26	AZ	46	ASN	Peptide
26	AZ	54	ARG	Peptide
26	AZ	55	ARG	Peptide
26	AZ	57	ASN	Peptide
26	AZ	58	PRO	Peptide
26	AZ	59	GLY	Peptide
26	AZ	61	SER	Peptide
1	Aa	10	ARG	Sidechain
1	Aa	192	PHE	Sidechain
1	Aa	232	TYR	Sidechain
1	Aa	240	VAL	Peptide
1	Aa	280	GLY	Peptide
1	Aa	302	PHE	Sidechain
1	Aa	305	TYR	Sidechain
1	Aa	48	THR	Peptide
1	Aa	49	GLY	Peptide
1	Aa	53	LYS	Mainchain,Peptide
1	Aa	54	PHE	Mainchain,Peptide
1	Aa	58	VAL	Peptide
1	Aa	59	ARG	Mainchain,Peptide
1	Aa	60	SER	Peptide
1	Aa	78	ALA	Peptide
27	Ab	1	UNK	Mainchain
27	Ab	27	UNK	Mainchain
27	Ab	29	UNK	Mainchain
28	Ac	3	UNK	Peptide
30	BA	107	TYR	Sidechain
30	BA	122	ARG	Sidechain
30	BA	19	TYR	Peptide
30	BA	208	SER	Mainchain
30	BA	210	MET	Peptide
30	BA	214	PHE	Sidechain

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Mol	Chain	Res	Type	Group
30	BA	41	TYR	Sidechain
30	BA	68	PHE	Sidechain
31	BB	1	MET	Mainchain
31	BB	127	ALA	Mainchain,Peptide
31	BB	128	ARG	Sidechain
31	BB	140	ASN	Peptide
31	BB	19	HIS	Sidechain
31	BB	193	ARG	Sidechain
31	BB	196	TRP	Mainchain,Peptide
31	BB	2	GLY	Peptide
31	BB	239	ALA	Peptide
31	BB	241	ARG	Sidechain
31	BB	242	ARG	Sidechain
31	BB	243	THR	Peptide
31	BB	244	GLY	Mainchain,Peptide
31	BB	245	LEU	Mainchain
31	BB	249	SER	Mainchain,Peptide
31	BB	252	THR	Mainchain,Peptide
31	BB	26	ALA	Peptide
31	BB	27	ALA	Peptide
31	BB	30	ARG	Sidechain
31	BB	34	TYR	Sidechain
31	BB	37	ARG	Mainchain
31	BB	39	GLY	Peptide
31	BB	40	TYR	Sidechain,Peptide
31	BB	42	ARG	Sidechain
31	BB	50	HIS	Sidechain
31	BB	54	ARG	Sidechain
31	BB	6	ARG	Sidechain
31	BB	62	VAL	Mainchain,Peptide
31	BB	67	TYR	Sidechain
31	BB	68	LYS	Peptide
31	BB	69	TYR	Sidechain
31	BB	70	ARG	Peptide
31	BB	73	GLU	Mainchain,Peptide
31	BB	83	HIS	Sidechain
31	BB	84	THR	Mainchain
31	BB	89	TYR	Sidechain
31	BB	9	ARG	Sidechain
32	BC	10	ARG	Sidechain
32	BC	100	ARG	Sidechain
32	BC	101	SER	Mainchain

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Mol	Chain	Res	Type	Group
32	BC	103	THR	Peptide
32	BC	109	HIS	Peptide
32	BC	117	ARG	Sidechain
32	BC	119	TYR	Sidechain
32	BC	121	ASN	Peptide
32	BC	129	ALA	Peptide
32	BC	130	PHE	Mainchain,Peptide
32	BC	154	TYR	Peptide
32	BC	155	ALA	Peptide
32	BC	169	THR	Peptide
32	BC	17	LEU	Mainchain,Peptide
32	BC	19	ARG	Sidechain
32	BC	247	ARG	Sidechain
32	BC	256	HIS	Mainchain,Peptide
32	BC	28	ARG	Sidechain
32	BC	283	TYR	Sidechain
32	BC	288	GLY	Peptide
32	BC	289	ASP	Mainchain,Peptide
32	BC	297	SER	Mainchain,Peptide
32	BC	298	PHE	Mainchain,Peptide
32	BC	3	HIS	Mainchain,Peptide
32	BC	314	TYR	Sidechain
32	BC	334	ARG	Sidechain
32	BC	339	ARG	Sidechain
32	BC	344	THR	Mainchain
32	BC	345	ASN	Mainchain,Peptide
32	BC	353	GLU	Peptide
32	BC	360	ASP	Mainchain,Peptide
32	BC	362	ALA	Mainchain,Peptide
32	BC	365	PHE	Sidechain
32	BC	368	GLY	Mainchain,Peptide
32	BC	371	GLN	Mainchain
32	BC	381	GLY	Mainchain,Peptide
32	BC	386	ASP	Mainchain,Peptide
32	BC	49	TYR	Sidechain
32	BC	5	LYS	Mainchain,Peptide
32	BC	6	TYR	Sidechain
32	BC	70	ARG	Sidechain
32	BC	92	TYR	Mainchain
33	BD	105	THR	Peptide
33	BD	107	ARG	Sidechain
33	BD	108	LYS	Peptide

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Mol	Chain	Res	Type	Group
33	BD	12	THR	Mainchain,Peptide
33	BD	143	GLU	Peptide
33	BD	145	ILE	Mainchain,Peptide
33	BD	146	PRO	Peptide
33	BD	148	ILE	Mainchain,Peptide
33	BD	195	ARG	Sidechain
33	BD	197	ARG	Sidechain
33	BD	209	TYR	Sidechain
33	BD	220	ARG	Sidechain
33	BD	258	LEU	Peptide
33	BD	260	GLN	Peptide
33	BD	295	ILE	Peptide
33	BD	314	LYS	Peptide
33	BD	318	LEU	Mainchain,Peptide
33	BD	319	LYS	Peptide
33	BD	320	ASN	Peptide
33	BD	321	LYS	Mainchain,Peptide
33	BD	323	VAL	Mainchain,Peptide
33	BD	326	ARG	Sidechain
33	BD	330	TYR	Sidechain,Peptide
33	BD	331	ALA	Mainchain,Peptide
33	BD	334	PHE	Sidechain
33	BD	346	LYS	Mainchain
33	BD	348	GLY	Peptide
33	BD	349	THR	Mainchain,Peptide
33	BD	350	LYS	Peptide
33	BD	351	PRO	Mainchain,Peptide
33	BD	353	ALA	Peptide
33	BD	354	VAL	Mainchain
33	BD	355	PHE	Peptide
33	BD	47	ARG	Sidechain
33	BD	73	ARG	Sidechain
33	BD	76	ARG	Sidechain
33	BD	78	GLY	Mainchain,Peptide
33	BD	84	ARG	Mainchain,Peptide
33	BD	88	GLY	Peptide
33	BD	89	ALA	Mainchain,Peptide
34	BE	116	TYR	Sidechain
34	BE	121	GLY	Peptide
34	BE	123	PHE	Mainchain,Peptide
34	BE	124	GLY	Peptide
34	BE	127	PHE	Sidechain

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Mol	Chain	Res	Type	Group
34	BE	128	TYR	Sidechain
34	BE	2	SER	Peptide
34	BE	51	ARG	Mainchain
34	BE	52	TYR	Sidechain,Peptide
34	BE	53	THR	Mainchain,Peptide
34	BE	54	VAL	Mainchain,Peptide
34	BE	55	ARG	Mainchain,Peptide
34	BE	58	GLY	Mainchain
34	BE	60	ARG	Mainchain
34	BE	72	ARG	Sidechain
34	BE	89	TYR	Mainchain,Peptide
34	BE	9	MET	Mainchain,Peptide
34	BE	94	ARG	Sidechain
36	BF	184	LYS	Peptide
36	BF	185	GLY	Peptide
36	BF	2	LYS	Mainchain,Peptide
36	BF	23	ARG	Sidechain
36	BF	3	TYR	Sidechain
36	BF	44	THR	Peptide
36	BF	45	PHE	Mainchain
36	BF	62	ARG	Sidechain
36	BF	96	HIS	Peptide
35	BG	10	TYR	Mainchain,Peptide
35	BG	102	ASN	Peptide
35	BG	105	TYR	Mainchain
35	BG	11	PRO	Peptide
35	BG	12	SER	Peptide
35	BG	128	LYS	Peptide
35	BG	129	GLU	Peptide
35	BG	134	ARG	Sidechain
35	BG	14	ASP	Peptide
35	BG	141	VAL	Peptide
35	BG	142	ASP	Mainchain,Peptide
35	BG	148	GLU	Mainchain,Peptide
35	BG	15	VAL	Mainchain,Peptide
35	BG	150	LYS	Peptide
35	BG	152	THR	Mainchain,Peptide
35	BG	154	LEU	Peptide
35	BG	16	ALA	Mainchain,Peptide
35	BG	169	ASP	Peptide
35	BG	17	ALA	Peptide
35	BG	2	SER	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
35	BG	22	ARG	Sidechain
35	BG	25	ALA	Peptide
35	BG	27	PRO	Mainchain,Peptide
35	BG	3	ALA	Mainchain,Peptide
35	BG	34	LEU	Peptide
35	BG	38	THR	Mainchain,Peptide
35	BG	44	ALA	Peptide
35	BG	46	ARG	Sidechain
35	BG	47	PHE	Sidechain
35	BG	49	GLY	Mainchain,Peptide
35	BG	5	LYS	Mainchain,Peptide
35	BG	54	TYR	Sidechain
35	BG	56	LYS	Peptide
35	BG	57	HIS	Peptide
35	BG	75	PRO	Mainchain,Peptide
35	BG	77	ARG	Sidechain,Peptide
35	BG	8	LYS	Mainchain,Peptide
35	BG	81	ALA	Peptide
35	BG	93	VAL	Peptide
35	BG	94	GLU	Peptide
35	BG	96	VAL	Peptide
35	BG	99	GLU	Mainchain
37	BH	108	ARG	Sidechain
37	BH	117	ALA	Peptide
37	BH	119	GLY	Mainchain
37	BH	120	LYS	Peptide
37	BH	122	LYS	Peptide
37	BH	123	GLN	Peptide
37	BH	125	ALA	Peptide
37	BH	128	LYS	Peptide
37	BH	130	TYR	Peptide
37	BH	134	TYR	Sidechain
37	BH	138	HIS	Sidechain
37	BH	158	ASP	Mainchain,Peptide
37	BH	226	TYR	Peptide
37	BH	228	GLU	Mainchain,Peptide
37	BH	232	HIS	Sidechain,Mainchain
37	BH	236	GLY	Mainchain,Peptide
37	BH	60	ARG	Sidechain
37	BH	61	GLN	Mainchain
37	BH	62	LYS	Peptide
37	BH	63	LYS	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
37	BH	64	ILE	Peptide
37	BH	68	ARG	Sidechain
37	BH	70	LYS	Peptide
37	BH	73	PRO	Mainchain,Peptide
37	BH	84	ARG	Sidechain
37	BH	89	GLU	Sidechain,Mainchain,Peptide
37	BH	98	ARG	Sidechain,Peptide
77	BI	10	ARG	Sidechain
77	BI	106	ALA	Peptide
77	BI	108	ALA	Peptide
77	BI	109	ASP	Peptide
77	BI	110	ARG	Sidechain
77	BI	111	LEU	Peptide
77	BI	114	GLY	Peptide
77	BI	116	ARG	Peptide
77	BI	128	ARG	Sidechain
77	BI	13	LYS	Peptide
77	BI	139	ARG	Sidechain
77	BI	154	ARG	Sidechain
77	BI	156	ARG	Sidechain
77	BI	17	TYR	Peptide
77	BI	170	LYS	Peptide
77	BI	21	ARG	Peptide
77	BI	24	ARG	Sidechain
77	BI	3	ARG	Sidechain
77	BI	4	ARG	Sidechain,Peptide
77	BI	69	ARG	Sidechain
77	BI	7	ARG	Sidechain
77	BI	82	ARG	Sidechain
77	BI	88	ARG	Sidechain
39	BJ	121	PHE	Peptide
39	BJ	123	ARG	Sidechain
39	BJ	14	TYR	Sidechain
39	BJ	59	THR	Peptide
39	BJ	74	VAL	Peptide
39	BJ	75	PRO	Mainchain,Peptide
39	BJ	76	SER	Mainchain,Peptide
39	BJ	92	ARG	Sidechain
40	BK	1	MET	Peptide
40	BK	110	PRO	Peptide
40	BK	120	VAL	Peptide
40	BK	125	ARG	Peptide

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Mol	Chain	Res	Type	Group
40	BK	128	ARG	Mainchain
40	BK	129	LEU	Peptide
40	BK	130	LYS	Peptide
40	BK	131	PRO	Peptide
40	BK	133	ARG	Peptide
40	BK	147	TRP	Mainchain,Peptide
40	BK	168	TYR	Sidechain
40	BK	178	VAL	Mainchain
40	BK	180	SER	Mainchain,Peptide
40	BK	181	ALA	Peptide
40	BK	182	ASN	Peptide
40	BK	184	THR	Mainchain,Peptide
40	BK	187	GLU	Mainchain
40	BK	4	GLU	Peptide
40	BK	6	VAL	Peptide
40	BK	63	ALA	Mainchain,Peptide
40	BK	64	PHE	Sidechain
40	BK	69	GLY	Mainchain,Peptide
40	BK	74	ARG	Peptide
40	BK	90	HIS	Sidechain
75	BL	122	UNK	Peptide
75	BL	145	UNK	Peptide
75	BL	149	UNK	Peptide
75	BL	52	UNK	Peptide
75	BL	82	UNK	Peptide
42	BM	109	MET	Peptide
42	BM	11	PHE	Sidechain
42	BM	12	ARG	Sidechain
42	BM	35	TYR	Sidechain
42	BM	40	LYS	Mainchain
42	BM	45	ARG	Sidechain
42	BM	48	ARG	Mainchain
42	BM	64	LYS	Mainchain
42	BM	65	GLY	Mainchain
42	BM	75	PRO	Mainchain
42	BM	80	ARG	Sidechain
41	BN	10	SER	Peptide
41	BN	115	PHE	Sidechain
41	BN	124	ARG	Sidechain
41	BN	129	TYR	Sidechain
41	BN	19	ARG	Sidechain
41	BN	2	SER	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
41	BN	3	THR	Mainchain
41	BN	5	SER	Mainchain,Peptide
41	BN	52	GLY	Peptide
41	BN	61	GLY	Peptide
41	BN	9	ALA	Peptide
44	BO	117	ARG	Sidechain
44	BO	128	ARG	Sidechain
44	BO	139	ARG	Sidechain
44	BO	14	HIS	Sidechain
44	BO	142	GLY	Mainchain,Peptide
44	BO	27	LYS	Peptide
44	BO	29	PRO	Peptide
44	BO	3	SER	Mainchain
44	BO	32	ARG	Sidechain
44	BO	40	HIS	Mainchain
44	BO	48	TYR	Sidechain
44	BO	5	PHE	Sidechain
44	BO	56	VAL	Mainchain
44	BO	57	GLY	Mainchain
44	BO	59	ARG	Sidechain
44	BO	6	THR	Peptide
44	BO	61	PHE	Sidechain
44	BO	62	HIS	Mainchain,Peptide
44	BO	7	LYS	Mainchain,Peptide
44	BO	8	THR	Mainchain,Peptide
44	BO	87	ARG	Sidechain
44	BO	90	TYR	Sidechain,Peptide
44	BO	98	THR	Peptide
43	BP	114	ARG	Sidechain
43	BP	116	LEU	Mainchain,Peptide
43	BP	12	ARG	Sidechain
43	BP	120	TRP	Peptide
43	BP	121	VAL	Peptide
43	BP	123	GLN	Peptide
43	BP	127	TYR	Sidechain
43	BP	129	TYR	Sidechain
43	BP	13	LYS	Mainchain,Peptide
43	BP	137	PRO	Peptide
43	BP	147	ARG	Sidechain
43	BP	159	ARG	Sidechain
43	BP	16	SER	Mainchain,Peptide
43	BP	162	ARG	Sidechain

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Mol	Chain	Res	Type	Group
43	BP	165	THR	Mainchain
43	BP	175	ASN	Mainchain,Peptide
43	BP	176	LYS	Peptide
43	BP	177	GLY	Mainchain,Peptide
43	BP	179	LYS	Mainchain,Peptide
43	BP	180	PHE	Peptide
43	BP	185	ALA	Peptide
43	BP	187	ARG	Sidechain
43	BP	2	GLY	Mainchain,Peptide
43	BP	20	ARG	Sidechain
43	BP	4	TYR	Sidechain
43	BP	42	PRO	Mainchain
43	BP	50	ARG	Sidechain
43	BP	51	LEU	Peptide
43	BP	62	TYR	Sidechain
43	BP	67	ARG	Sidechain
43	BP	68	ARG	Sidechain
43	BP	74	PRO	Mainchain,Peptide
43	BP	80	THR	Mainchain,Peptide
43	BP	81	TYR	Sidechain
43	BP	96	ARG	Sidechain
74	BQ	111	GLN	Mainchain,Peptide
74	BQ	115	LEU	Mainchain,Peptide
74	BQ	119	TYR	Sidechain
74	BQ	121	GLY	Mainchain,Peptide
74	BQ	123	GLU	Mainchain
74	BQ	128	GLU	Mainchain,Peptide
74	BQ	129	TYR	Mainchain,Peptide
74	BQ	136	GLU	Peptide
74	BQ	145	PHE	Sidechain
74	BQ	158	ARG	Sidechain,Mainchain
74	BQ	172	TYR	Sidechain
74	BQ	180	PHE	Peptide
74	BQ	189	GLU	Peptide
74	BQ	190	ILE	Mainchain,Peptide
74	BQ	197	SER	Mainchain,Peptide
74	BQ	2	ALA	Peptide
74	BQ	201	GLY	Mainchain,Peptide
74	BQ	203	HIS	Sidechain
74	BQ	21	ARG	Sidechain
74	BQ	223	PHE	Sidechain
74	BQ	237	GLU	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
74	BQ	238	ASP	Mainchain,Peptide
74	BQ	239	ILE	Peptide
74	BQ	240	TYR	Peptide
74	BQ	242	SER	Mainchain
74	BQ	243	ALA	Mainchain
74	BQ	248	ARG	Peptide
74	BQ	249	ALA	Peptide
74	BQ	258	LYS	Peptide
74	BQ	265	TYR	Sidechain
74	BQ	27	LYS	Peptide
74	BQ	272	TYR	Sidechain
74	BQ	33	ARG	Sidechain
74	BQ	51	LEU	Peptide
74	BQ	52	VAL	Peptide
74	BQ	54	ARG	Sidechain
74	BQ	55	PHE	Peptide
45	BR	1	MET	Peptide
45	BR	11	LYS	Peptide
45	BR	111	ARG	Sidechain
45	BR	13	SER	Mainchain,Peptide
45	BR	131	ALA	Peptide
45	BR	14	GLY	Mainchain
45	BR	140	LEU	Mainchain,Peptide
45	BR	142	GLY	Mainchain,Peptide
45	BR	143	PRO	Mainchain,Peptide
45	BR	15	HIS	Peptide
45	BR	156	GLY	Peptide
45	BR	157	PRO	Mainchain,Peptide
45	BR	159	LYS	Peptide
45	BR	17	THR	Peptide
45	BR	2	GLY	Peptide
45	BR	3	ILE	Mainchain,Peptide
45	BR	38	ARG	Sidechain
45	BR	39	ARG	Sidechain
45	BR	53	PHE	Sidechain
45	BR	75	GLY	Peptide
45	BR	95	GLU	Mainchain,Peptide
45	BR	96	PHE	Sidechain
45	BR	98	LYS	Mainchain,Peptide
76	BS	115	ARG	Sidechain
76	BS	117	ARG	Sidechain
76	BS	119	ARG	Sidechain

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Mol	Chain	Res	Type	Group
76	BS	120	PHE	Mainchain
76	BS	122	CYS	Mainchain,Peptide
76	BS	123	ILE	Mainchain,Peptide
76	BS	124	GLN	Peptide
76	BS	138	ARG	Sidechain,Peptide
76	BS	14	ARG	Peptide
76	BS	144	PHE	Sidechain
76	BS	15	GLY	Mainchain,Peptide
76	BS	150	LYS	Peptide
76	BS	151	PHE	Sidechain,Peptide
76	BS	152	PRO	Peptide
76	BS	153	LEU	Peptide
76	BS	156	ARG	Mainchain,Peptide
76	BS	157	LYS	Peptide
76	BS	159	ARG	Sidechain,Peptide
76	BS	161	PRO	Peptide
76	BS	18	THR	Peptide
76	BS	25	LYS	Peptide
76	BS	28	ARG	Peptide
76	BS	43	PHE	Sidechain
76	BS	52	LYS	Peptide
76	BS	53	VAL	Peptide
76	BS	54	LYS	Peptide
76	BS	69	LYS	Peptide
76	BS	70	ASN	Mainchain,Peptide
76	BS	72	THR	Peptide
76	BS	73	THR	Mainchain,Peptide
76	BS	74	ILE	Peptide
76	BS	96	TYR	Sidechain
46	BT	103	ARG	Sidechain
46	BT	114	LYS	Peptide
46	BT	151	ARG	Sidechain
46	BT	162	ARG	Sidechain
46	BT	163	ARG	Sidechain
46	BT	173	ARG	Sidechain
46	BT	38	ARG	Sidechain
46	BT	56	THR	Peptide
46	BT	58	HIS	Sidechain
46	BT	62	ARG	Sidechain
46	BT	71	ARG	Mainchain,Peptide
46	BT	78	TYR	Sidechain
46	BT	82	LYS	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
46	BT	83	GLY	Peptide
46	BT	88	ARG	Sidechain
47	BU	10	ARG	Sidechain
47	BU	102	ARG	Sidechain
47	BU	108	ARG	Sidechain
47	BU	126	VAL	Mainchain,Peptide
47	BU	136	ARG	Peptide
47	BU	137	GLU	Peptide
47	BU	138	SER	Peptide
47	BU	140	ILE	Mainchain,Peptide
47	BU	141	VAL	Peptide
47	BU	20	ARG	Sidechain
47	BU	5	HIS	Peptide
47	BU	8	ARG	Sidechain
47	BU	84	TYR	Sidechain
47	BU	88	ARG	Sidechain
49	BV	113	TYR	Sidechain
49	BV	122	ALA	Peptide
49	BV	130	TYR	Sidechain
49	BV	139	TYR	Sidechain
49	BV	152	GLU	Mainchain,Peptide
49	BV	162	GLU	Mainchain,Peptide
49	BV	165	VAL	Mainchain,Peptide
49	BV	167	ARG	Mainchain,Peptide
49	BV	2	ALA	Peptide
49	BV	3	ARG	Peptide
49	BV	47	TYR	Sidechain
49	BV	56	ARG	Sidechain
49	BV	63	PHE	Peptide
49	BV	69	ARG	Sidechain,Peptide
49	BV	90	PHE	Sidechain
48	BW	106	ALA	Peptide
48	BW	107	PHE	Peptide
48	BW	109	GLN	Peptide
48	BW	19	VAL	Peptide
48	BW	20	SER	Peptide
48	BW	28	PHE	Sidechain
48	BW	29	ASP	Peptide
48	BW	7	ARG	Peptide
48	BW	78	TYR	Sidechain
48	BW	90	ARG	Mainchain,Peptide
48	BW	93	ILE	Mainchain

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Mol	Chain	Res	Type	Group
50	BX	123	TYR	Sidechain
50	BX	130	TYR	Sidechain
50	BX	138	ARG	Sidechain
50	BX	22	LYS	Peptide
50	BX	34	LEU	Peptide
50	BX	36	LYS	Peptide
50	BX	37	THR	Peptide
50	BX	39	LYS	Peptide
50	BX	43	ALA	Peptide
50	BX	46	TYR	Peptide
50	BX	54	TYR	Peptide
50	BX	56	ARG	Sidechain
50	BX	60	TYR	Sidechain
52	BY	10	SER	Peptide
52	BY	13	ARG	Sidechain
52	BY	27	ARG	Sidechain
52	BY	51	ARG	Sidechain
52	BY	60	ARG	Peptide
52	BY	74	TYR	Sidechain
52	BY	78	PHE	Sidechain
52	BY	9	SER	Peptide
51	BZ	14	TYR	Sidechain
51	BZ	51	TRP	Mainchain,Peptide
51	BZ	56	ARG	Sidechain
51	BZ	57	LYS	Peptide
51	BZ	58	HIS	Peptide
51	BZ	59	HIS	Peptide
51	BZ	60	LYS	Mainchain,Peptide
51	BZ	62	GLY	Peptide
51	BZ	63	ILE	Peptide
51	BZ	65	GLU	Peptide
51	BZ	67	VAL	Mainchain
51	BZ	68	ALA	Peptide
51	BZ	69	LYS	Peptide
51	BZ	70	LYS	Mainchain,Peptide
51	BZ	71	ARG	Peptide
53	Ba	11	ALA	Peptide
53	Ba	12	VAL	Peptide
53	Ba	13	VAL	Mainchain,Peptide
53	Ba	15	ARG	Mainchain,Peptide
53	Ba	16	GLY	Mainchain,Peptide
53	Ba	20	GLY	Mainchain

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Mol	Chain	Res	Type	Group
53	Ba	36	HIS	Peptide
53	Ba	41	ALA	Peptide
53	Ba	44	ALA	Peptide
53	Ba	46	ILE	Peptide
53	Ba	53	VAL	Peptide
53	Ba	55	LYS	Peptide
53	Ba	56	LYS	Peptide
53	Ba	57	HIS	Sidechain,Peptide
53	Ba	59	ALA	Peptide
53	Ba	60	LYS	Mainchain,Peptide
53	Ba	64	LYS	Peptide
53	Ba	8	GLY	Mainchain,Peptide
53	Ba	9	LYS	Peptide
55	Bc	102	GLU	Mainchain,Peptide
55	Bc	104	GLN	Mainchain,Peptide
55	Bc	108	GLN	Mainchain
55	Bc	110	ALA	Peptide
55	Bc	112	PRO	Mainchain,Peptide
55	Bc	119	LYS	Peptide
55	Bc	70	TYR	Sidechain
55	Bc	76	GLN	Peptide
55	Bc	81	ARG	Sidechain
55	Bc	86	ARG	Peptide
55	Bc	94	LYS	Mainchain,Peptide
55	Bc	96	GLU	Mainchain
54	Bd	41	ARG	Sidechain
57	Be	107	ARG	Sidechain
57	Be	132	PRO	Mainchain,Peptide
57	Be	133	TYR	Sidechain,Peptide
57	Be	134	VAL	Peptide
57	Be	141	TYR	Sidechain
57	Be	151	ARG	Sidechain
57	Be	164	SER	Peptide
57	Be	202	LEU	Mainchain,Peptide
57	Be	220	PHE	Sidechain
57	Be	55	TYR	Sidechain
57	Be	97	PRO	Peptide
56	Bf	3	PRO	Peptide
56	Bf	35	ARG	Sidechain
56	Bf	5	LYS	Peptide
56	Bf	52	ARG	Sidechain
56	Bf	64	LYS	Peptide

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Mol	Chain	Res	Type	Group
56	Bf	85	PHE	Sidechain
58	Bg	107	VAL	Mainchain,Peptide
58	Bg	12	TYR	Sidechain
58	Bg	28	ARG	Sidechain
58	Bg	31	ARG	Sidechain
58	Bg	4	LEU	Peptide
58	Bg	63	GLY	Peptide
58	Bg	64	VAL	Peptide
58	Bg	69	TYR	Sidechain
58	Bg	72	ARG	Sidechain
58	Bg	90	PHE	Peptide
58	Bg	92	TYR	Peptide
58	Bg	94	GLU	Peptide
59	Bh	12	LYS	Mainchain,Peptide
59	Bh	125	ARG	Sidechain
59	Bh	13	HIS	Peptide
59	Bh	18	LYS	Peptide
59	Bh	20	HIS	Mainchain,Peptide
59	Bh	23	ASP	Mainchain
59	Bh	24	ARG	Sidechain
59	Bh	25	TYR	Sidechain
59	Bh	26	HIS	Sidechain
59	Bh	43	ARG	Sidechain
59	Bh	46	PHE	Sidechain
59	Bh	47	ARG	Sidechain
60	Bi	108	GLN	Mainchain,Peptide
60	Bi	110	GLU	Peptide
60	Bi	16	ARG	Mainchain
60	Bi	19	LYS	Peptide
60	Bi	34	HIS	Sidechain
60	Bi	41	ARG	Mainchain,Peptide
60	Bi	42	PRO	Mainchain,Peptide
60	Bi	43	LYS	Peptide
60	Bi	55	SER	Mainchain,Peptide
60	Bi	58	ARG	Peptide
60	Bi	60	ARG	Peptide
60	Bi	62	TYR	Sidechain
60	Bi	67	LYS	Peptide
60	Bi	68	THR	Mainchain,Peptide
60	Bi	77	GLY	Mainchain
60	Bi	78	GLY	Mainchain,Peptide
60	Bi	79	SER	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
60	Bi	88	ARG	Sidechain
61	Bj	18	ARG	Sidechain
61	Bj	2	ALA	Mainchain,Peptide
61	Bj	20	LYS	Mainchain,Peptide
61	Bj	35	VAL	Peptide
61	Bj	36	ALA	Peptide
61	Bj	37	THR	Mainchain,Peptide
61	Bj	4	SER	Peptide
61	Bj	43	PHE	Peptide
61	Bj	44	TYR	Sidechain,Peptide
61	Bj	51	TYR	Sidechain
61	Bj	56	SER	Peptide
61	Bj	57	LYS	Peptide
61	Bj	58	GLU	Peptide
61	Bj	65	ARG	Sidechain
61	Bj	8	TYR	Sidechain,Mainchain,Peptide
61	Bj	86	ARG	Sidechain
61	Bj	89	LEU	Mainchain
61	Bj	90	PRO	Peptide
61	Bj	98	VAL	Peptide
61	Bj	99	ARG	Peptide
62	Bk	25	LYS	Mainchain,Peptide
62	Bk	27	SER	Mainchain
62	Bk	28	TYR	Mainchain
62	Bk	45	ARG	Sidechain
62	Bk	54	GLU	Peptide
62	Bk	55	ARG	Peptide
62	Bk	62	ARG	Sidechain
62	Bk	81	THR	Mainchain,Peptide
62	Bk	82	ARG	Mainchain,Peptide
62	Bk	83	ALA	Mainchain,Peptide
62	Bk	98	ARG	Mainchain
64	Bl	11	ARG	Sidechain,Peptide
64	Bl	25	ARG	Sidechain
64	Bl	39	TYR	Mainchain,Peptide
64	Bl	56	ARG	Sidechain
64	Bl	64	MET	Peptide
64	Bl	65	ARG	Sidechain,Peptide
64	Bl	73	ARG	Sidechain
64	Bl	74	PHE	Sidechain
64	Bl	83	ALA	Peptide
64	Bl	84	SER	Peptide

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Mol	Chain	Res	Type	Group
63	Bm	1	MET	Peptide
63	Bm	14	TYR	Sidechain
63	Bm	37	TYR	Sidechain
63	Bm	41	PHE	Sidechain
63	Bm	80	ARG	Sidechain
65	Bn	11	PHE	Sidechain
65	Bn	26	LYS	Peptide
65	Bn	29	LYS	Peptide
65	Bn	34	ALA	Mainchain,Peptide
65	Bn	35	GLY	Mainchain,Peptide
65	Bn	36	LYS	Peptide
65	Bn	39	ARG	Peptide
65	Bn	46	ARG	Sidechain
65	Bn	51	LEU	Peptide
65	Bn	52	TYR	Peptide
65	Bn	71	PRO	Mainchain,Peptide
65	Bn	72	THR	Peptide
66	Bo	1	MET	Peptide
66	Bo	2	ALA	Peptide
66	Bo	28	ARG	Sidechain
66	Bo	3	ALA	Peptide
66	Bo	30	ARG	Peptide
66	Bo	34	THR	Peptide
66	Bo	4	GLN	Peptide
66	Bo	40	LYS	Peptide
66	Bo	42	ARG	Peptide
66	Bo	45	ARG	Sidechain,Peptide
66	Bo	46	ARG	Peptide
66	Bo	49	MET	Peptide
66	Bo	6	SER	Peptide
66	Bo	8	ARG	Sidechain
67	Bp	13	TYR	Peptide
67	Bp	14	ASN	Peptide
67	Bp	34	CYS	Mainchain
67	Bp	37	ARG	Sidechain
67	Bp	41	HIS	Sidechain
67	Bp	46	ARG	Sidechain
67	Bp	49	LYS	Peptide
67	Bp	50	LYS	Peptide
68	Bq	12	ARG	Sidechain
68	Bq	21	ARG	Sidechain
68	Bq	23	ARG	Peptide

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Mol	Chain	Res	Type	Group
68	Bq	24	SER	Peptide
69	Br	100	LYS	Peptide
69	Br	101	GLY	Mainchain,Peptide
69	Br	102	GLN	Peptide
69	Br	103	ALA	Mainchain,Peptide
69	Br	104	LEU	Mainchain
69	Br	28	TYR	Sidechain
69	Br	31	GLY	Peptide
69	Br	36	PHE	Sidechain
69	Br	43	TYR	Sidechain
69	Br	46	LYS	Peptide
69	Br	47	GLN	Mainchain,Peptide
69	Br	49	GLY	Peptide
69	Br	56	PRO	Peptide
69	Br	58	PHE	Mainchain,Peptide
69	Br	59	HIS	Sidechain
69	Br	62	ALA	Mainchain
69	Br	89	LYS	Mainchain,Peptide
69	Br	99	GLN	Peptide
38	Bs	202	LEU	Peptide
38	Bs	203	ASP	Peptide
38	Bs	243	TYR	Sidechain
38	Bs	254	SER	Peptide
38	Bs	257	TYR	Sidechain
38	Bs	26	PHE	Sidechain
38	Bs	30	VAL	Peptide
38	Bs	42	ARG	Sidechain
38	Bs	46	ARG	Sidechain
38	Bs	49	ALA	Peptide
38	Bs	5	ARG	Mainchain,Peptide
38	Bs	52	LEU	Peptide
38	Bs	55	LYS	Peptide
38	Bs	60	ARG	Sidechain
38	Bs	64	ARG	Sidechain
38	Bs	72	ASP	Mainchain,Peptide
72	Bt	52	GLN	Peptide
72	Bt	60	ASN	Mainchain
72	Bt	61	PHE	Sidechain
72	Bu	52	GLN	Peptide
72	Bu	60	ASN	Mainchain
72	Bu	61	PHE	Sidechain
73	Bv	55	THR	Peptide

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Mol	Chain	Res	Type	Group
73	Bw	55	THR	Peptide
70	Bx	1	UNK	Peptide
70	Bx	3	UNK	Mainchain,Peptide
70	Bx	6	UNK	Mainchain,Peptide
70	Bx	8	UNK	Mainchain,Peptide
71	Bz	2	UNK	Peptide
78	CA	1057	U	Sidechain
78	CA	1058	U	Sidechain
78	CA	1064	G	Sidechain
78	CA	1275	A	Sidechain
78	CA	1427	A	Sidechain
78	CA	1428	G	Sidechain
78	CA	1499	G	Sidechain
78	CA	1502	G	Sidechain
78	CA	1506	G	Sidechain
78	CA	1634	C	Sidechain
78	CA	1761	U	Sidechain
78	CA	479	C	Sidechain
78	CA	488	G	Sidechain
78	CA	489	C	Sidechain
78	CA	496	G	Sidechain
78	CA	507	U	Sidechain
78	CA	567	A	Sidechain
78	CA	577	G	Sidechain
78	CA	824	G	Sidechain
78	CA	829	A	Sidechain
78	CA	841	U	Sidechain
78	CA	842	C	Sidechain
81	DA	164	A	Sidechain
81	DA	1756	C	Sidechain
81	DA	1766	G	Sidechain
81	DA	1768	U	Sidechain
81	DA	1771	C	Sidechain
81	DA	2531	C	Sidechain
81	DA	2534	G	Sidechain
81	DA	2562	A	Sidechain
81	DA	2564	G	Sidechain
81	DA	2576	G	Sidechain
81	DA	2579	G	Sidechain
81	DA	731	U	Sidechain
81	DA	733	G	Sidechain
81	DA	737	G	Sidechain

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Mol	Chain	Res	Type	Group
81	DA	769	G	Sidechain

5.2 Too-close contacts ⓘ

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	2442	0	2396	0	0
2	AA	1922	0	1841	43	0
3	AB	1511	0	1503	22	0
4	AD	1591	0	1653	82	0
5	AC	1521	0	1546	63	0
6	AE	1936	0	2030	86	0
7	AG	716	0	164	27	0
8	AF	1543	0	1589	34	0
9	AH	1030	0	1072	29	0
10	AI	998	0	1048	51	0
11	AJ	849	0	864	17	0
12	AK	833	0	824	78	0
13	AL	978	0	899	111	0
14	AM	1156	0	1176	153	0
15	AN	353	0	332	21	0
16	AO	978	0	1039	70	0
17	AQ	1098	0	1163	24	0
18	AP	631	0	634	93	0
19	AR	676	0	696	90	0
20	AS	1120	0	1131	87	0
21	AT	685	0	672	23	0
22	AV	688	0	734	25	0
23	AW	461	0	106	16	0
24	AX	366	0	364	19	0
25	AY	445	0	461	12	0
26	AZ	492	0	535	7	0
27	Ab	181	0	38	0	0
28	Ac	126	0	28	0	0
29	AU	714	0	711	46	0
30	BA	1718	0	1811	35	0
31	BB	1904	0	1951	143	0
32	BC	3055	0	3108	127	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
33	BD	2486	0	2587	125	0
34	BE	1341	0	1376	115	0
35	BG	1409	0	1512	119	0
36	BF	1516	0	1581	47	0
37	BH	1505	0	1582	64	0
38	Bs	1976	0	2017	0	0
39	BJ	954	0	1025	23	0
40	BK	1570	0	1675	50	0
41	BN	1068	0	1166	105	0
42	BM	972	0	1019	67	0
43	BP	1625	0	1685	71	0
44	BO	1182	0	1220	66	0
45	BR	1243	0	1327	63	0
46	BT	1530	0	1629	39	0
47	BU	1261	0	1281	34	0
48	BW	830	0	845	28	0
49	BV	1312	0	1313	23	0
50	BX	978	0	1049	4	0
51	BZ	579	0	591	55	0
52	BY	972	0	1060	17	0
53	Ba	708	0	741	0	0
54	Bd	174	0	188	0	0
55	Bc	965	0	1073	0	0
56	Bf	785	0	819	0	0
57	Be	1919	0	2013	0	0
58	Bg	873	0	913	0	0
59	Bh	1043	0	1113	0	0
60	Bi	926	0	998	0	0
61	Bj	738	0	730	0	0
62	Bk	619	0	673	0	0
63	Bm	703	0	750	0	0
64	Bl	678	0	667	0	0
65	Bn	604	0	664	0	0
66	Bo	445	0	487	0	0
67	Bp	330	0	356	0	0
68	Bq	234	0	284	0	0
69	Br	834	0	894	0	0
70	Bx	100	0	22	0	0
70	By	100	0	22	0	0
71	Bz	70	0	18	0	0
72	Bt	440	0	439	0	0
72	Bu	440	0	439	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
73	Bv	429	0	445	0	0
73	Bw	429	0	442	0	0
74	BQ	2356	0	2288	101	0
75	BL	845	0	192	38	0
76	BS	1420	0	1465	74	0
77	BI	1444	0	1477	35	0
78	CA	33643	0	16491	1332	0
79	CB	1599	0	807	34	0
80	CC	236	0	121	10	0
81	DA	68830	0	34361	1790	0
82	DB	3129	0	1554	73	0
83	DC	2513	0	1271	125	0
All	All	191627	0	136876	4881	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 19.

All (4881) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BH:158:ASP:CB	37:BH:158:ASP:CA	1.74	1.66
14:AM:12:GLN:HG3	34:BE:116:TYR:CD1	1.28	1.65
78:CA:960:U:C1'	78:CA:960:U:C2'	1.75	1.63
82:DB:50:C:C1'	82:DB:50:C:C2'	1.74	1.62
22:AV:105:THR:CA	22:AV:105:THR:CB	1.74	1.62
33:BD:321:LYS:CB	33:BD:321:LYS:CA	1.74	1.62
4:AD:93:ASP:CB	4:AD:93:ASP:CA	1.76	1.61
81:DA:2339:C:C2'	81:DA:2339:C:C1'	1.75	1.61
43:BP:80:THR:CA	43:BP:80:THR:CB	1.75	1.61
81:DA:3304:U:C2'	81:DA:3304:U:C3'	1.76	1.60
6:AE:92:ALA:CA	6:AE:92:ALA:CB	1.79	1.60
29:AU:70:VAL:CB	29:AU:70:VAL:CG1	1.79	1.59
32:BC:3:HIS:CB	32:BC:3:HIS:CA	1.77	1.59
5:AC:157:ASP:CA	5:AC:157:ASP:CB	1.77	1.59
31:BB:196:TRP:CB	31:BB:196:TRP:CA	1.75	1.59
81:DA:1682:U:C2'	81:DA:1682:U:C1'	1.77	1.59
44:BO:124:ILE:HG21	75:BL:147:UNK:CB	1.31	1.58
33:BD:89:ALA:CA	33:BD:89:ALA:CB	1.77	1.58
81:DA:331:G:C2'	81:DA:331:G:C1'	1.79	1.58
32:BC:289:ASP:CA	32:BC:289:ASP:CB	1.74	1.58
34:BE:89:TYR:CA	34:BE:89:TYR:CB	1.83	1.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
74:BQ:128:GLU:CB	74:BQ:128:GLU:CA	1.78	1.57
81:DA:2001:U:C1'	81:DA:2001:U:C2'	1.76	1.56
7:AG:75:UNK:CA	7:AG:75:UNK:N	1.68	1.56
32:BC:298:PHE:CB	32:BC:298:PHE:CA	1.75	1.56
78:CA:1091:A:C2'	78:CA:1091:A:C1'	1.76	1.56
78:CA:856:A:C2'	78:CA:856:A:C1'	1.79	1.56
81:DA:169:U:C2'	81:DA:169:U:C1'	1.77	1.56
81:DA:3142:A:C2'	81:DA:3142:A:C1'	1.81	1.56
17:AQ:82:ASP:CA	17:AQ:82:ASP:CB	1.77	1.55
31:BB:62:VAL:CB	31:BB:62:VAL:CA	1.77	1.55
81:DA:1054:A:C1'	81:DA:1054:A:C2'	1.78	1.55
35:BG:69:PHE:CD1	35:BG:69:PHE:CE1	1.94	1.55
81:DA:1055:A:C2'	81:DA:1055:A:C1'	1.82	1.55
34:BE:115:LYS:CG	34:BE:115:LYS:CB	1.78	1.54
3:AB:205:ALA:CA	3:AB:205:ALA:N	1.68	1.54
15:AN:54:LYS:N	15:AN:54:LYS:CA	1.70	1.54
77:BI:106:ALA:HB3	77:BI:108:ALA:CB	1.35	1.54
4:AD:153:ASN:CB	4:AD:153:ASN:CA	1.79	1.54
81:DA:1285:G:C2'	81:DA:1285:G:C1'	1.79	1.54
81:DA:3304:U:C4'	81:DA:3304:U:C3'	1.83	1.54
48:BW:90:ARG:CA	48:BW:90:ARG:CB	1.76	1.54
81:DA:2869:U:C2'	81:DA:2869:U:C1'	1.78	1.53
78:CA:1393:C:C1'	78:CA:1393:C:C2'	1.85	1.52
78:CA:228:G:C1'	78:CA:228:G:C2'	1.80	1.52
13:AL:135:LEU:CA	13:AL:135:LEU:N	1.70	1.52
78:CA:306:U:C1'	78:CA:306:U:C2'	1.84	1.52
16:AO:117:LEU:HG	78:CA:939:A:C6	1.41	1.52
81:DA:422:A:C1'	81:DA:422:A:C2'	1.75	1.51
81:DA:2487:U:C2'	81:DA:2487:U:C1'	1.74	1.51
83:DC:46:A:C1'	83:DC:46:A:C2'	1.84	1.51
74:BQ:129:TYR:CA	74:BQ:129:TYR:N	1.73	1.50
78:CA:955:A:C2'	78:CA:955:A:C1'	1.75	1.50
37:BH:89:GLU:CA	37:BH:89:GLU:N	1.67	1.50
78:CA:631:G:C2'	78:CA:631:G:C1'	1.83	1.50
81:DA:3149:G:C2'	81:DA:3149:G:C1'	1.74	1.50
21:AT:10:GLU:CA	21:AT:10:GLU:N	1.69	1.50
81:DA:3217:C:C1'	81:DA:3217:C:C2'	1.77	1.49
7:AG:97:UNK:N	7:AG:97:UNK:CA	1.68	1.49
81:DA:2612:U:H1'	81:DA:2803:A:C2	1.46	1.49
7:AG:107:UNK:N	7:AG:107:UNK:CA	1.72	1.49
43:BP:74:PRO:CB	43:BP:74:PRO:CA	1.75	1.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BC:266:ARG:CD	32:BC:266:ARG:NE	1.71	1.48
33:BD:323:VAL:N	33:BD:323:VAL:CA	1.70	1.48
35:BG:99:GLU:CB	35:BG:99:GLU:CA	1.89	1.48
78:CA:46:A:C1'	78:CA:46:A:C2'	1.81	1.48
78:CA:140:A:C1'	78:CA:140:A:C2'	1.80	1.48
81:DA:677:A:C1'	81:DA:677:A:C2'	1.84	1.48
78:CA:1081:A:C1'	78:CA:1081:A:C2'	1.80	1.47
78:CA:853:G:C2'	78:CA:853:G:C1'	1.76	1.47
81:DA:1859:A:C1'	81:DA:1859:A:C2'	1.77	1.47
33:BD:296:GLN:N	33:BD:296:GLN:CA	1.73	1.47
78:CA:929:A:N6	78:CA:930:A:C2	1.80	1.47
12:AK:36:LYS:NZ	78:CA:900:A:H5''	1.31	1.46
81:DA:209:A:C1'	81:DA:209:A:C2'	1.77	1.46
78:CA:45:U:C1'	78:CA:45:U:C2'	1.89	1.45
42:BM:95:PHE:CD2	51:BZ:22:VAL:HG11	1.52	1.44
81:DA:2363:A:C2'	81:DA:2363:A:C1'	1.77	1.44
81:DA:3304:U:C4'	81:DA:3304:U:O4'	1.64	1.43
81:DA:2637:A:C2'	81:DA:2637:A:C1'	1.76	1.43
81:DA:2362:C:C2'	81:DA:2362:C:C1'	1.76	1.43
81:DA:2623:G:C1'	81:DA:2623:G:C2'	1.75	1.43
30:BA:194:LEU:HD21	75:BL:178:UNK:CB	1.46	1.43
6:AE:217:ALA:CB	78:CA:2:A:N6	1.82	1.42
78:CA:1190:C:P	78:CA:1190:C:OP1	1.03	1.42
81:DA:699:A:O4'	81:DA:699:A:C1'	1.65	1.42
44:BO:124:ILE:CD1	75:BL:148:UNK:H	1.32	1.42
30:BA:194:LEU:CD2	75:BL:178:UNK:CB	1.98	1.42
83:DC:49:G:O4'	83:DC:49:G:C1'	1.64	1.41
81:DA:2648:G:C2'	81:DA:2648:G:C1'	1.92	1.41
78:CA:1190:C:C5'	78:CA:1190:C:C4'	2.00	1.40
35:BG:145:LEU:CD1	41:BN:114:ASP:HA	1.47	1.40
81:DA:1401:A:C1'	81:DA:1401:A:C2'	1.86	1.40
16:AO:117:LEU:HG	78:CA:939:A:N1	1.30	1.39
78:CA:295:A:C1'	78:CA:295:A:C2'	1.79	1.39
4:AD:146:THR:HG22	78:CA:295:A:N1	1.38	1.39
13:AL:7:ARG:CG	18:AP:76:VAL:HG22	1.50	1.39
31:BB:6:ARG:NH2	81:DA:914:A:C6	1.91	1.39
81:DA:2934:A:C2'	81:DA:2934:A:C1'	1.93	1.39
14:AM:16:ARG:HH12	34:BE:111:ASP:N	1.22	1.38
81:DA:3103:A:C1'	81:DA:3103:A:O4'	1.63	1.38
44:BO:20:GLY:CA	44:BO:21:ARG:N	1.86	1.38
81:DA:577:C:O4'	81:DA:577:C:C1'	1.64	1.38

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1702:A:C2'	78:CA:1702:A:C1'	1.76	1.38
78:CA:1791:A:C1'	78:CA:1791:A:O4'	1.64	1.38
79:CB:55:C:C1'	79:CB:55:C:O4'	1.71	1.38
78:CA:296:U:C1'	78:CA:296:U:O4'	1.67	1.37
78:CA:1614:A:C1'	78:CA:1614:A:O4'	1.63	1.37
44:BO:20:GLY:C	44:BO:21:ARG:CA	1.92	1.37
78:CA:1161:C:O4'	78:CA:1161:C:C1'	1.64	1.37
78:CA:298:C:C1'	78:CA:298:C:O4'	1.63	1.36
16:AO:117:LEU:CD2	78:CA:939:A:H61	1.36	1.36
14:AM:13:HIS:O	34:BE:116:TYR:CZ	1.78	1.36
79:CB:55:C:C1'	79:CB:55:C:C3'	1.99	1.36
6:AE:188:LEU:HD11	78:CA:1298:U:C2	1.59	1.35
31:BB:6:ARG:NH1	81:DA:914:A:N6	1.70	1.35
33:BD:29:PRO:CA	45:BR:25:TYR:OH	1.75	1.35
31:BB:245:LEU:HD12	81:DA:2243:A:C8	1.62	1.35
81:DA:124:U:C1'	81:DA:124:U:O4'	1.69	1.35
2:AA:11:PRO:N	2:AA:11:PRO:CD	1.67	1.35
81:DA:3115:C:C1'	81:DA:3115:C:O4'	1.65	1.35
78:CA:469:C:O4'	78:CA:469:C:C1'	1.73	1.35
81:DA:2187:G:C2'	81:DA:2187:G:C1'	1.82	1.35
81:DA:1209:G:C2'	81:DA:1209:G:C1'	2.00	1.34
78:CA:1570:A:O4'	78:CA:1570:A:C1'	1.64	1.34
78:CA:897:C:O4'	78:CA:897:C:C1'	1.68	1.34
44:BO:73:LEU:O	44:BO:73:LEU:C	1.63	1.34
14:AM:16:ARG:NH1	34:BE:111:ASP:O	1.60	1.34
78:CA:433:C:O4'	78:CA:433:C:C1'	1.63	1.33
33:BD:29:PRO:HB2	45:BR:25:TYR:CE1	1.62	1.33
78:CA:1565:C:O4'	78:CA:1565:C:C1'	1.66	1.33
13:AL:7:ARG:CD	18:AP:76:VAL:HG22	1.55	1.33
78:CA:354:C:C1'	78:CA:354:C:O4'	1.64	1.33
44:BO:20:GLY:O	44:BO:21:ARG:N	1.58	1.33
44:BO:21:ARG:C	44:BO:22:ILE:N	1.82	1.32
42:BM:95:PHE:CD2	51:BZ:22:VAL:CG1	2.13	1.32
78:CA:686:C:C1'	78:CA:686:C:O4'	1.63	1.32
19:AR:130:ARG:NH1	78:CA:1558:U:H5'	1.42	1.32
81:DA:2612:U:C1'	81:DA:2803:A:C2	2.12	1.32
81:DA:594:U:O4'	81:DA:594:U:C1'	1.65	1.32
81:DA:338:A:C1'	81:DA:338:A:O4'	1.70	1.31
12:AK:33:LEU:HD13	78:CA:902:G:C8	1.64	1.31
42:BM:95:PHE:CE2	51:BZ:22:VAL:HG11	1.64	1.31
31:BB:245:LEU:CD1	81:DA:2243:A:C8	2.14	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BB:245:LEU:CD1	81:DA:2243:A:N7	1.93	1.30
78:CA:668:C:C1'	78:CA:668:C:O4'	1.64	1.30
6:AE:188:LEU:CD1	78:CA:1298:U:O2	1.79	1.30
81:DA:1115:G:O4'	81:DA:1115:G:C1'	1.67	1.30
78:CA:1157:A:C8	78:CA:1617:U:O4	1.85	1.30
43:BP:49:ARG:HG2	81:DA:114:A:O2'	1.31	1.30
81:DA:675:C:O4'	81:DA:675:C:C1'	1.67	1.29
81:DA:752:C:C1'	81:DA:752:C:O4'	1.64	1.29
78:CA:206:A:C1'	78:CA:206:A:O4'	1.64	1.29
78:CA:1615:C:O4'	78:CA:1615:C:C1'	1.68	1.29
83:DC:54:A:C1'	83:DC:54:A:O4'	1.64	1.29
44:BO:124:ILE:HD13	75:BL:147:UNK:CB	1.61	1.29
81:DA:573:C:C1'	81:DA:573:C:O4'	1.64	1.29
14:AM:16:ARG:NH1	34:BE:111:ASP:N	1.81	1.29
81:DA:1975:C:O4'	81:DA:1975:C:C1'	1.72	1.29
78:CA:1690:G:C1'	78:CA:1690:G:O4'	1.74	1.28
82:DB:35:C:C1'	82:DB:35:C:O4'	1.67	1.28
81:DA:1396:C:C1'	81:DA:1396:C:O4'	1.67	1.28
81:DA:2264:U:C1'	81:DA:2264:U:O4'	1.67	1.28
31:BB:6:ARG:CZ	81:DA:914:A:N6	1.96	1.28
77:BI:106:ALA:CB	77:BI:108:ALA:CB	2.12	1.28
81:DA:3092:C:C1'	81:DA:3092:C:O4'	1.76	1.28
81:DA:1582:C:O4'	81:DA:1582:C:C1'	1.67	1.28
81:DA:247:C:O4'	81:DA:247:C:C1'	1.63	1.28
31:BB:6:ARG:CZ	81:DA:914:A:C6	2.15	1.27
78:CA:1180:C:O4'	78:CA:1180:C:C1'	1.64	1.27
5:AC:24:LEU:HD13	78:CA:555:A:O4'	1.25	1.27
13:AL:13:ARG:NH2	18:AP:78:THR:CG2	1.96	1.27
78:CA:672:U:O4'	78:CA:672:U:C1'	1.64	1.27
81:DA:665:A:O4'	81:DA:665:A:C1'	1.65	1.27
80:CC:18:C:O4'	80:CC:18:C:C1'	1.65	1.27
47:BU:61:THR:OG1	81:DA:1062:A:N1	1.64	1.27
81:DA:498:A:O4'	81:DA:498:A:C1'	1.63	1.27
78:CA:1674:C:O4'	78:CA:1674:C:C1'	1.64	1.26
78:CA:1780:G:N1	78:CA:1781:A:C2	2.03	1.26
81:DA:7:C:O4'	81:DA:7:C:C1'	1.70	1.26
83:DC:42:A:O4'	83:DC:42:A:C1'	1.65	1.26
31:BB:188:LYS:HD3	81:DA:1793:C:O2'	1.14	1.26
81:DA:1397:C:C1'	81:DA:1397:C:O4'	1.64	1.26
31:BB:245:LEU:HD11	81:DA:2243:A:N7	1.45	1.26
81:DA:1297:C:O4'	81:DA:1297:C:C1'	1.65	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2653:C:O4'	81:DA:2653:C:C1'	1.64	1.26
78:CA:636:A:C2'	78:CA:636:A:C1'	2.13	1.26
81:DA:3094:A:O4'	81:DA:3094:A:C1'	1.64	1.25
78:CA:305:C:O4'	78:CA:305:C:C1'	1.75	1.25
81:DA:1579:C:C1'	81:DA:1579:C:O4'	1.68	1.25
74:BQ:39:GLN:C	74:BQ:40:HIS:N	1.90	1.25
78:CA:1096:C:C1'	78:CA:1096:C:O4'	1.65	1.25
19:AR:89:MET:HG3	78:CA:1555:A:O2'	1.35	1.25
83:DC:45:A:C1'	83:DC:45:A:O4'	1.64	1.25
42:BM:94:TYR:O	51:BZ:22:VAL:HG12	1.37	1.25
78:CA:471:A:C1'	78:CA:471:A:O4'	1.64	1.25
9:AH:6:VAL:HG11	78:CA:1036:A:O2'	1.37	1.24
81:DA:2407:C:C1'	81:DA:2407:C:O4'	1.64	1.24
78:CA:1336:A:C1'	78:CA:1336:A:O4'	1.64	1.24
13:AL:13:ARG:HD3	18:AP:74:THR:CG2	1.68	1.24
31:BB:188:LYS:CD	81:DA:1793:C:O2'	1.86	1.24
6:AE:92:ALA:O	6:AE:92:ALA:CB	1.85	1.24
14:AM:12:GLN:HG3	34:BE:116:TYR:CE1	1.72	1.24
81:DA:1333:C:C1'	81:DA:1333:C:O4'	1.67	1.24
81:DA:3298:C:O4'	81:DA:3298:C:C1'	1.66	1.24
46:BT:57:VAL:O	81:DA:1871:U:H5''	1.32	1.24
81:DA:608:A:O4'	81:DA:608:A:C1'	1.66	1.23
14:AM:12:GLN:NE2	34:BE:116:TYR:CZ	2.04	1.23
81:DA:1085:A:O4'	81:DA:1085:A:C1'	1.63	1.23
81:DA:2757:U:O4'	81:DA:2757:U:C1'	1.74	1.23
81:DA:2942:C:O4'	81:DA:2942:C:C1'	1.63	1.23
78:CA:1780:G:C6	78:CA:1781:A:C6	2.25	1.23
81:DA:1971:C:O4'	81:DA:1971:C:C1'	1.70	1.23
81:DA:2625:C:O4'	81:DA:2625:C:C1'	1.70	1.23
81:DA:3212:C:C1'	81:DA:3212:C:O4'	1.76	1.23
78:CA:635:A:C1'	78:CA:635:A:O4'	1.67	1.23
81:DA:2439:A:C1'	81:DA:2439:A:O4'	1.67	1.22
5:AC:24:LEU:CD1	78:CA:555:A:C1'	2.15	1.22
16:AO:117:LEU:CG	78:CA:939:A:C6	2.22	1.22
78:CA:1580:C:C1'	78:CA:1580:C:O4'	1.67	1.22
78:CA:609:U:O4'	78:CA:609:U:C1'	1.71	1.22
81:DA:518:G:O4'	81:DA:518:G:C1'	1.66	1.22
13:AL:7:ARG:HD2	18:AP:76:VAL:CG2	1.70	1.22
12:AK:33:LEU:CD1	78:CA:902:G:C8	2.21	1.22
14:AM:12:GLN:HG3	34:BE:116:TYR:CG	1.75	1.22
14:AM:14:ILE:HD13	34:BE:115:LYS:CB	1.70	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:174:U:O4'	78:CA:174:U:C1'	1.66	1.22
83:DC:53:U:O4'	83:DC:53:U:C1'	1.66	1.22
14:AM:133:VAL:CB	78:CA:1545:A:H5''	1.69	1.22
13:AL:13:ARG:CD	18:AP:74:THR:HG21	1.70	1.22
81:DA:576:C:O4'	81:DA:576:C:C1'	1.63	1.22
13:AL:7:ARG:NH1	18:AP:75:VAL:O	1.73	1.21
14:AM:14:ILE:CB	34:BE:115:LYS:H	1.51	1.21
81:DA:3350:C:O4'	81:DA:3350:C:C1'	1.63	1.21
81:DA:1633:C:C1'	81:DA:1633:C:O4'	1.64	1.21
81:DA:745:C:C1'	81:DA:745:C:O4'	1.64	1.21
81:DA:2166:A:C1'	81:DA:2166:A:O4'	1.77	1.21
83:DC:27:A:C1'	83:DC:27:A:O4'	1.64	1.21
31:BB:204:MET:SD	81:DA:914:A:O2'	1.96	1.21
5:AC:24:LEU:CD1	78:CA:555:A:O4'	1.85	1.21
78:CA:589:C:C1'	78:CA:589:C:O4'	1.65	1.21
4:AD:187:ARG:NH2	78:CA:652:G:O6	1.71	1.21
81:DA:1551:C:C1'	81:DA:1551:C:O4'	1.65	1.21
81:DA:1585:C:C1'	81:DA:1585:C:O4'	1.65	1.20
78:CA:1308:G:O6	78:CA:1318:G:C6	1.93	1.20
81:DA:1820:U:C1'	81:DA:1820:U:O4'	1.73	1.20
81:DA:2721:A:O4'	81:DA:2721:A:C1'	1.69	1.20
81:DA:702:C:C1'	81:DA:702:C:O4'	1.71	1.20
33:BD:89:ALA:CB	33:BD:89:ALA:O	1.87	1.20
78:CA:1003:A:C6	78:CA:1005:A:C2	2.28	1.20
78:CA:1200:G:O4'	78:CA:1200:G:C1'	1.70	1.20
81:DA:1821:U:O4'	81:DA:1821:U:C1'	1.71	1.20
81:DA:2438:A:O4'	81:DA:2438:A:C1'	1.65	1.20
16:AO:117:LEU:CG	78:CA:939:A:N6	2.04	1.20
34:BE:89:TYR:CB	34:BE:89:TYR:O	1.89	1.20
81:DA:3249:C:C1'	81:DA:3249:C:O4'	1.64	1.20
78:CA:1086:A:C1'	78:CA:1086:A:O4'	1.64	1.20
81:DA:2157:G:C1'	81:DA:2157:G:O4'	1.69	1.20
12:AK:33:LEU:HD13	78:CA:902:G:N7	1.54	1.20
19:AR:89:MET:CG	78:CA:1555:A:O2'	1.90	1.19
14:AM:12:GLN:CG	34:BE:116:TYR:CD1	2.25	1.19
13:AL:7:ARG:CD	18:AP:76:VAL:CG2	2.19	1.19
78:CA:393:C:C1'	78:CA:393:C:O4'	1.66	1.19
81:DA:3131:U:C1'	81:DA:3131:U:O4'	1.74	1.19
31:BB:245:LEU:HD11	81:DA:2243:A:C5	1.76	1.19
19:AR:130:ARG:O	78:CA:1558:U:O4'	1.59	1.19
81:DA:3002:C:C1'	81:DA:3002:C:O4'	1.65	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1308:G:C6	78:CA:1318:G:C2	2.30	1.19
14:AM:13:HIS:O	34:BE:116:TYR:CE1	1.94	1.19
4:AD:187:ARG:CZ	78:CA:652:G:O6	1.89	1.19
81:DA:3034:C:C1'	81:DA:3034:C:O4'	1.75	1.19
5:AC:157:ASP:O	5:AC:157:ASP:CB	1.91	1.19
82:DB:45:C:O4'	82:DB:45:C:C1'	1.67	1.19
33:BD:296:GLN:N	33:BD:296:GLN:HA	1.44	1.18
81:DA:1261:G:C2'	81:DA:1261:G:C1'	2.18	1.18
81:DA:1866:C:O4'	81:DA:1866:C:C1'	1.70	1.18
81:DA:2638:C:O4'	81:DA:2638:C:C1'	1.67	1.18
81:DA:2630:C:C1'	81:DA:2630:C:O4'	1.69	1.18
81:DA:2770:G:C1'	81:DA:2770:G:O4'	1.71	1.18
81:DA:636:C:C1'	81:DA:636:C:O4'	1.87	1.18
21:AT:9:VAL:O	21:AT:10:GLU:CA	1.91	1.18
81:DA:345:G:O2'	82:DB:25:G:N2	1.77	1.18
78:CA:172:C:O4'	78:CA:172:C:C1'	1.75	1.18
81:DA:2220:A:N6	81:DA:2221:G:C2	2.12	1.18
81:DA:2756:C:C1'	81:DA:2756:C:O4'	1.65	1.18
43:BP:49:ARG:CG	81:DA:114:A:O2'	1.90	1.17
81:DA:2720:G:O4'	81:DA:2720:G:C1'	1.67	1.17
32:BC:298:PHE:CB	32:BC:298:PHE:O	1.91	1.17
81:DA:2916:U:O4'	81:DA:2916:U:C1'	1.65	1.17
81:DA:1747:G:C1'	81:DA:1747:G:O4'	1.66	1.17
51:BZ:70:LYS:CA	51:BZ:70:LYS:O	1.90	1.17
77:BI:106:ALA:CB	77:BI:108:ALA:HB3	1.70	1.17
78:CA:1308:G:C6	78:CA:1318:G:N1	2.12	1.17
14:AM:14:ILE:HG21	34:BE:114:ILE:HA	1.18	1.16
44:BO:124:ILE:CG2	75:BL:147:UNK:CB	2.23	1.16
78:CA:1292:G:N3	78:CA:1324:G:N2	1.93	1.16
78:CA:874:C:O4'	78:CA:874:C:C1'	1.72	1.16
78:CA:294:C:C1'	78:CA:294:C:O4'	1.70	1.16
23:AW:15:UNK:O	23:AW:15:UNK:CA	1.92	1.16
42:BM:51:ALA:CB	81:DA:1795:U:H3	78.50	1.16
5:AC:166:GLY:HA2	78:CA:586:G:H4'	1.22	1.16
81:DA:2108:C:C1'	81:DA:2108:C:O4'	1.64	1.16
48:BW:90:ARG:CB	48:BW:90:ARG:O	1.94	1.16
82:DB:154:C:O4'	82:DB:154:C:C1'	1.73	1.16
5:AC:24:LEU:HD13	78:CA:555:A:C1'	1.76	1.15
81:DA:1552:G:O4'	81:DA:1552:G:C1'	1.64	1.15
82:DB:32:C:O4'	82:DB:32:C:C1'	1.66	1.15
33:BD:29:PRO:HA	45:BR:25:TYR:OH	1.43	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BW:81:LYS:HD2	81:DA:1688:U:C4	1.81	1.15
6:AE:201:ASN:ND2	78:CA:3:U:C5	2.13	1.15
81:DA:2899:C:C1'	81:DA:2899:C:O4'	1.69	1.15
81:DA:1688:U:O4'	81:DA:1688:U:C1'	1.71	1.15
16:AO:117:LEU:HD23	78:CA:939:A:N6	1.58	1.15
2:AA:10:THR:C	2:AA:11:PRO:CD	2.14	1.15
78:CA:990:C:O4'	78:CA:990:C:C1'	1.67	1.15
81:DA:1316:C:C1'	81:DA:1316:C:O4'	1.68	1.15
81:DA:427:C:C1'	81:DA:427:C:O4'	1.70	1.15
81:DA:71:A:O4'	81:DA:71:A:C1'	1.72	1.14
20:AS:43:ASN:CA	78:CA:1477:G:H4'	1.76	1.14
78:CA:123:G:O4'	78:CA:123:G:C1'	1.84	1.14
13:AL:13:ARG:HG3	18:AP:76:VAL:CB	1.76	1.14
78:CA:280:U:C1'	78:CA:280:U:O4'	1.65	1.14
8:AF:153:GLY:N	78:CA:904:G:O2'	1.81	1.14
14:AM:12:GLN:NE2	34:BE:116:TYR:CE1	2.15	1.14
13:AL:13:ARG:HH22	18:AP:78:THR:HG21	1.11	1.14
78:CA:1201:G:O4'	78:CA:1201:G:C1'	1.69	1.14
35:BG:46:ARG:HD3	81:DA:3215:A:H61	1.05	1.14
42:BM:95:PHE:HA	51:BZ:22:VAL:HG13	1.16	1.14
81:DA:2440:G:C1'	81:DA:2440:G:O4'	1.73	1.14
81:DA:2788:C:O4'	81:DA:2788:C:C1'	1.75	1.14
78:CA:1602:C:O4'	78:CA:1602:C:C1'	1.76	1.14
32:BC:3:HIS:O	32:BC:3:HIS:CB	1.95	1.13
81:DA:2880:U:O4'	81:DA:2880:U:C1'	1.66	1.13
81:DA:638:C:C1'	81:DA:638:C:O4'	1.72	1.13
81:DA:2948:C:C1'	81:DA:2948:C:O4'	1.68	1.13
81:DA:3241:G:O4'	81:DA:3241:G:C1'	1.74	1.13
81:DA:386:A:O4'	81:DA:386:A:C1'	1.64	1.13
83:DC:17:A:O4'	83:DC:17:A:C1'	1.69	1.13
31:BB:177:LYS:O	81:DA:1793:C:N4	1.82	1.13
78:CA:1003:A:N6	78:CA:1005:A:C2	2.16	1.13
10:AI:135:ARG:NH2	78:CA:1588:G:C5	2.15	1.13
81:DA:242:C:O4'	81:DA:242:C:C1'	1.65	1.13
13:AL:13:ARG:CZ	18:AP:71:LEU:HD22	1.78	1.13
80:CC:18:C:O3'	80:CC:19:U:P	2.07	1.13
4:AD:153:ASN:O	4:AD:153:ASN:CB	1.94	1.13
81:DA:1572:U:C1'	81:DA:1572:U:O4'	1.68	1.13
78:CA:1157:A:N7	78:CA:1617:U:O4	1.81	1.12
14:AM:116:LEU:HD21	78:CA:1547:A:H5''	1.27	1.12
31:BB:6:ARG:NH2	81:DA:914:A:C5	2.11	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1802:C:O4'	81:DA:1802:C:C1'	1.77	1.12
83:DC:102:C:C1'	83:DC:102:C:O4'	1.73	1.12
78:CA:1780:G:O6	78:CA:1781:A:N1	1.82	1.12
23:AW:15:UNK:O	23:AW:15:UNK:C	0.83	1.12
31:BB:196:TRP:CB	31:BB:196:TRP:O	1.98	1.12
4:AD:93:ASP:O	4:AD:93:ASP:CB	1.95	1.12
6:AE:201:ASN:ND2	78:CA:3:U:C4	2.17	1.11
81:DA:3221:C:C1'	81:DA:3221:C:O4'	1.92	1.11
17:AQ:82:ASP:CB	17:AQ:82:ASP:O	1.95	1.11
79:CB:55:C:C1'	79:CB:55:C:O2'	1.97	1.11
81:DA:2231:C:C1'	81:DA:2231:C:O4'	1.65	1.11
7:AG:107:UNK:O	7:AG:107:UNK:N	1.83	1.11
13:AL:22:ASN:O	13:AL:22:ASN:CA	1.97	1.11
19:AR:58:LYS:HD3	78:CA:1549:C:C5	1.84	1.11
35:BG:145:LEU:HD13	41:BN:114:ASP:HA	1.15	1.11
13:AL:13:ARG:HH22	18:AP:78:THR:CG2	1.56	1.11
5:AC:24:LEU:CD1	78:CA:555:A:H1'	1.74	1.11
37:BH:134:TYR:CE1	81:DA:146:U:H5''	1.86	1.10
35:BG:46:ARG:HD3	81:DA:3215:A:N6	1.64	1.10
35:BG:99:GLU:HB2	35:BG:100:LYS:H	1.09	1.10
78:CA:1308:G:C5	78:CA:1318:G:C2	2.39	1.10
19:AR:129:GLY:O	78:CA:1558:U:N3	1.83	1.10
35:BG:145:LEU:HD11	41:BN:113:THR:O	1.52	1.10
81:DA:1685:C:C1'	81:DA:1685:C:O4'	1.70	1.10
81:DA:70:A:O4'	81:DA:70:A:C1'	1.67	1.10
78:CA:929:A:N6	78:CA:930:A:N1	2.00	1.09
4:AD:146:THR:CG2	78:CA:295:A:N1	2.13	1.09
32:BC:266:ARG:CD	32:BC:266:ARG:HH11	1.63	1.09
44:BO:124:ILE:CD1	75:BL:147:UNK:CB	2.29	1.09
81:DA:1207:G:C1'	81:DA:1207:G:O4'	1.92	1.09
78:CA:591:A:O4'	78:CA:591:A:C1'	1.76	1.09
7:AG:75:UNK:O	7:AG:75:UNK:N	1.85	1.09
13:AL:134:ALA:C	13:AL:135:LEU:CA	2.22	1.09
15:AN:53:ASN:C	15:AN:54:LYS:CA	2.21	1.09
19:AR:90:ILE:CD1	78:CA:1554:U:O2'	1.99	1.09
44:BO:124:ILE:CD1	75:BL:148:UNK:N	2.15	1.09
12:AK:33:LEU:CD2	78:CA:903:U:C5	2.35	1.08
35:BG:99:GLU:CB	35:BG:100:LYS:H	1.63	1.08
19:AR:90:ILE:HD11	78:CA:1554:U:O2'	1.52	1.08
6:AE:188:LEU:CD1	78:CA:1298:U:C2	2.34	1.08
46:BT:57:VAL:O	81:DA:1871:U:C5'	2.01	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:14:ILE:HB	34:BE:115:LYS:H	1.14	1.08
3:AB:205:ALA:N	3:AB:205:ALA:O	1.86	1.07
14:AM:133:VAL:HB	78:CA:1545:A:H5''	1.08	1.07
6:AE:217:ALA:HB3	78:CA:2:A:N6	1.56	1.07
9:AH:6:VAL:CG2	78:CA:1036:A:H1'	1.84	1.07
44:BO:124:ILE:HG13	75:BL:149:UNK:CB	1.84	1.07
13:AL:13:ARG:CG	18:AP:76:VAL:HB	1.84	1.06
11:AJ:81:THR:CA	11:AJ:81:THR:O	2.03	1.06
78:CA:1552:U:C4	78:CA:1553:G:C6	2.41	1.06
20:AS:43:ASN:HA	78:CA:1477:G:H4'	1.09	1.06
12:AK:36:LYS:NZ	78:CA:900:A:C5'	2.17	1.06
35:BG:145:LEU:CD1	41:BN:114:ASP:CA	2.32	1.06
43:BP:80:THR:O	43:BP:80:THR:CB	2.03	1.06
32:BC:266:ARG:CZ	81:DA:2989:U:C6	2.37	1.06
19:AR:59:LYS:HG3	78:CA:1551:U:C5	1.90	1.06
19:AR:59:LYS:HG3	78:CA:1551:U:H5	1.19	1.06
22:AV:105:THR:CB	22:AV:105:THR:C	2.23	1.06
78:CA:1780:G:O6	78:CA:1781:A:C6	2.09	1.06
81:DA:1647:A:N6	81:DA:1808:G:O2'	1.89	1.06
14:AM:30:TYR:CZ	78:CA:1532:U:O2'	2.10	1.05
44:BO:124:ILE:HD11	75:BL:148:UNK:H	1.22	1.05
12:AK:124:ASP:OD1	78:CA:929:A:C5	2.09	1.05
13:AL:7:ARG:CG	18:AP:76:VAL:CG2	2.35	1.05
14:AM:14:ILE:HD13	34:BE:115:LYS:CG	1.86	1.05
78:CA:904:G:O6	78:CA:905:A:N1	1.89	1.05
5:AC:24:LEU:HD12	78:CA:555:A:N3	1.71	1.05
35:BG:2:SER:O	35:BG:3:ALA:N	1.89	1.05
33:BD:297:SER:HB3	45:BR:25:TYR:CE2	1.90	1.05
29:AU:70:VAL:CA	29:AU:70:VAL:CG1	2.35	1.04
78:CA:1552:U:O4	78:CA:1553:G:C6	2.10	1.04
19:AR:59:LYS:CG	78:CA:1551:U:C5	2.40	1.04
7:AG:97:UNK:N	7:AG:97:UNK:O	1.87	1.04
32:BC:289:ASP:O	32:BC:289:ASP:CB	2.04	1.04
78:CA:1292:G:C2	78:CA:1324:G:C2	2.44	1.04
4:AD:146:THR:CG2	78:CA:295:A:C6	2.40	1.04
79:CB:55:C:C1'	79:CB:55:C:C4'	2.33	1.04
81:DA:1314:C:C1'	81:DA:1314:C:O4'	1.72	1.04
81:DA:2612:U:O4'	81:DA:2803:A:N1	1.90	1.04
35:BG:145:LEU:HD11	41:BN:113:THR:C	1.78	1.04
78:CA:1780:G:C6	78:CA:1781:A:N1	2.25	1.03
37:BH:134:TYR:CE1	81:DA:146:U:C3'	2.42	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2362:C:C2'	81:DA:2362:C:N1	2.21	1.03
4:AD:146:THR:HG22	78:CA:295:A:C6	1.93	1.03
11:AJ:81:THR:O	11:AJ:81:THR:C	0.83	1.03
78:CA:1583:A:O4'	78:CA:1583:A:C1'	1.77	1.03
35:BG:2:SER:O	35:BG:2:SER:C	0.82	1.02
6:AE:217:ALA:HB2	78:CA:2:A:N6	1.69	1.02
31:BB:6:ARG:NH1	81:DA:914:A:H62	1.37	1.02
43:BP:50:ARG:CA	81:DA:267:G:H21	1.72	1.02
74:BQ:128:GLU:CB	74:BQ:128:GLU:O	2.08	1.02
78:CA:1161:C:H42	78:CA:1616:G:H1	1.03	1.02
78:CA:1167:G:H1	78:CA:1578:U:H3	1.07	1.02
33:BD:29:PRO:HA	45:BR:25:TYR:HH	1.17	1.01
79:CB:55:C:H1'	79:CB:55:C:H2'	1.05	1.01
81:DA:1298:C:C1'	81:DA:1298:C:O4'	1.73	1.01
81:DA:1401:A:N9	81:DA:1401:A:C2'	2.21	1.01
81:DA:2206:G:H21	81:DA:2208:A:H61	1.08	1.01
37:BH:89:GLU:O	37:BH:89:GLU:N	1.92	1.01
78:CA:1147:A:H61	78:CA:1630:U:H3	1.05	1.01
13:AL:19:ARG:CZ	78:CA:1106:U:O4	2.09	1.01
7:AG:96:UNK:O	7:AG:97:UNK:CA	2.08	1.01
37:BH:134:TYR:CZ	81:DA:146:U:C3'	2.43	1.01
19:AR:59:LYS:HG2	78:CA:1551:U:C6	1.96	1.01
33:BD:29:PRO:HB2	45:BR:25:TYR:CZ	1.94	1.00
13:AL:13:ARG:HH21	18:AP:78:THR:HG22	1.21	1.00
33:BD:29:PRO:CB	45:BR:25:TYR:OH	2.08	1.00
78:CA:1157:A:N7	78:CA:1617:U:C4	2.30	1.00
51:BZ:70:LYS:C	51:BZ:70:LYS:O	0.81	1.00
35:BG:69:PHE:CD1	35:BG:69:PHE:CZ	2.40	1.00
19:AR:59:LYS:HB2	78:CA:1550:A:H3'	1.43	1.00
12:AK:33:LEU:CD1	78:CA:902:G:H8	1.68	1.00
6:AE:92:ALA:C	6:AE:92:ALA:CB	2.29	1.00
78:CA:904:G:O6	78:CA:905:A:C2	2.14	1.00
78:CA:976:G:N2	78:CA:1027:A:H61	1.60	1.00
14:AM:12:GLN:CG	34:BE:116:TYR:CE1	2.43	1.00
14:AM:30:TYR:CE2	78:CA:1532:U:O2'	2.15	1.00
79:CB:55:C:C1'	79:CB:55:C:H2'	1.60	1.00
13:AL:22:ASN:C	13:AL:22:ASN:O	0.80	1.00
43:BP:74:PRO:O	43:BP:74:PRO:CB	2.10	0.99
16:AO:117:LEU:CD2	78:CA:939:A:N6	2.12	0.99
78:CA:1158:C:C5	78:CA:1582:U:C4	2.50	0.99
78:CA:976:G:H21	78:CA:1027:A:H61	1.08	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BB:26:ALA:HB2	81:DA:2175:U:H2'	1.41	0.99
19:AR:129:GLY:O	78:CA:1558:U:C2	2.15	0.99
14:AM:11:PHE:CD2	22:AV:33:LYS:CG	2.45	0.99
20:AS:89:ARG:NH1	78:CA:1467:C:H1'	1.78	0.99
12:AK:33:LEU:HD21	78:CA:903:U:C5	1.97	0.99
13:AL:7:ARG:NH1	18:AP:75:VAL:C	2.15	0.99
42:BM:51:ALA:HB2	81:DA:1795:U:H3	77.71	0.99
33:BD:29:PRO:CB	45:BR:25:TYR:CE1	2.46	0.98
78:CA:1780:G:N1	78:CA:1781:A:N3	2.11	0.98
14:AM:14:ILE:HG21	34:BE:114:ILE:CA	1.93	0.98
4:AD:221:ARG:NH2	78:CA:682:C:H1'	1.78	0.98
81:DA:299:G:H1	81:DA:316:U:H3	1.00	0.98
5:AC:53:ARG:HH22	78:CA:658:C:H4'	1.25	0.98
9:AH:6:VAL:HG22	78:CA:1036:A:H1'	1.44	0.98
47:BU:116:ARG:CZ	81:DA:1095:U:C3'	2.41	0.98
14:AM:14:ILE:CG2	34:BE:114:ILE:HA	1.93	0.98
78:CA:901:G:O6	78:CA:902:G:N1	1.97	0.98
78:CA:1203:A:C4	78:CA:1556:A:C2	2.51	0.97
42:BM:51:ALA:HB1	81:DA:1795:U:C4	76.88	0.97
4:AD:207:LEU:HD11	78:CA:683:C:H1'	1.45	0.97
5:AC:21:SER:HB3	78:CA:555:A:H5'	1.43	0.97
35:BG:2:SER:CA	35:BG:2:SER:O	2.12	0.97
14:AM:116:LEU:HD21	78:CA:1547:A:C5'	1.93	0.97
46:BT:58:HIS:HA	81:DA:1871:U:H5'	1.44	0.97
74:BQ:57:ASN:O	83:DC:49:G:O6	1.81	0.97
11:AJ:83:GLU:HA	15:AN:55:PHE:H	1.28	0.97
19:AR:130:ARG:NH1	78:CA:1558:U:C5'	2.27	0.97
33:BD:29:PRO:CB	45:BR:25:TYR:CZ	2.47	0.97
6:AE:217:ALA:CB	78:CA:2:A:H61	1.76	0.97
13:AL:13:ARG:NH2	18:AP:78:THR:HG22	1.73	0.97
78:CA:1185:U:C4	78:CA:1458:G:C5	2.52	0.97
81:DA:1870:C:H3'	81:DA:1871:U:C5	1.99	0.97
81:DA:2989:U:O4'	81:DA:2989:U:C1'	2.04	0.97
33:BD:321:LYS:CB	33:BD:321:LYS:O	2.12	0.96
16:AO:117:LEU:CG	78:CA:939:A:N1	2.23	0.96
78:CA:1292:G:C2	78:CA:1324:G:N2	2.32	0.96
77:BI:117:GLY:HA2	81:DA:2645:G:OP2	1.64	0.96
78:CA:1552:U:O4	78:CA:1553:G:O6	1.82	0.96
30:BA:194:LEU:HD22	75:BL:178:UNK:CB	1.93	0.96
80:CC:18:C:O3'	80:CC:19:U:O5'	1.82	0.96
4:AD:153:ASN:CB	4:AD:153:ASN:C	2.32	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:533:A:H61	81:DA:560:G:H1	1.06	0.96
13:AL:13:ARG:HD3	18:AP:74:THR:HG21	0.99	0.96
48:BW:81:LYS:CD	81:DA:1688:U:C4	2.48	0.96
13:AL:7:ARG:HH11	18:AP:75:VAL:C	1.69	0.96
13:AL:7:ARG:HD2	18:AP:76:VAL:HG22	1.32	0.96
42:BM:51:ALA:HB1	81:DA:1795:U:N3	77.88	0.96
4:AD:187:ARG:NH2	78:CA:652:G:C6	2.33	0.95
81:DA:2994:A:N1	81:DA:3142:A:N6	2.12	0.95
77:BI:106:ALA:CB	77:BI:108:ALA:HB2	1.94	0.95
12:AK:33:LEU:HD11	78:CA:902:G:H8	1.30	0.95
35:BG:99:GLU:CB	35:BG:100:LYS:N	2.30	0.95
18:AP:59:PRO:HG2	78:CA:326:G:H4'	1.46	0.95
16:AO:117:LEU:HD21	78:CA:975:C:H1'	1.43	0.95
42:BM:51:ALA:HB1	81:DA:1795:U:H3	78.39	0.95
78:CA:1181:U:O2	78:CA:1458:G:C2	2.20	0.95
78:CA:5:U:O2	78:CA:20:G:N2	2.00	0.95
43:BP:50:ARG:CB	81:DA:267:G:H21	1.78	0.95
18:AP:59:PRO:HG2	78:CA:326:G:C4'	1.97	0.95
42:BM:93:LEU:HD23	51:BZ:20:LEU:HB3	1.48	0.95
36:BF:46:THR:CA	41:BN:7:VAL:HG23	1.97	0.95
16:AO:117:LEU:HD23	78:CA:939:A:H61	0.78	0.95
78:CA:929:A:C6	78:CA:930:A:C2	2.54	0.94
78:CA:1747:G:H5'	81:DA:2302:G:H21	1.29	0.94
7:AG:107:UNK:N	7:AG:107:UNK:C	2.31	0.94
78:CA:559:C:N4	78:CA:586:G:H1	1.66	0.94
78:CA:636:A:N9	78:CA:636:A:C2'	2.29	0.94
37:BH:138:HIS:CD2	81:DA:147:U:C4'	2.49	0.94
14:AM:12:GLN:CG	34:BE:116:TYR:CG	2.48	0.94
78:CA:901:G:N1	78:CA:902:G:C2	2.34	0.94
16:AO:114:ARG:NH1	78:CA:940:A:H62	1.64	0.94
5:AC:52:ILE:HG12	78:CA:1:U:O2	1.66	0.94
16:AO:117:LEU:HG	78:CA:939:A:N6	1.77	0.94
78:CA:1303:U:O4	78:CA:1304:G:N1	2.00	0.94
78:CA:899:G:H2'	78:CA:900:A:H5'	1.50	0.94
22:AV:105:THR:O	22:AV:105:THR:CB	2.15	0.94
77:BI:106:ALA:HB3	77:BI:108:ALA:HB3	0.97	0.94
78:CA:1203:A:C5	78:CA:1556:A:C2	2.55	0.94
6:AE:201:ASN:ND2	78:CA:3:U:C6	2.36	0.94
12:AK:124:ASP:OD1	78:CA:929:A:C6	2.21	0.94
78:CA:295:A:N9	78:CA:295:A:C2'	2.30	0.94
16:AO:117:LEU:HB2	78:CA:939:A:N6	1.83	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:3149:G:N9	81:DA:3149:G:C2'	2.29	0.94
14:AM:16:ARG:HH12	34:BE:110:ILE:C	1.70	0.93
15:AN:53:ASN:O	15:AN:54:LYS:CA	2.16	0.93
22:AV:105:THR:O	22:AV:105:THR:HB	1.68	0.93
16:AO:117:LEU:CB	78:CA:939:A:N6	2.31	0.93
79:CB:55:C:C2'	79:CB:55:C:N1	2.31	0.93
32:BC:93:VAL:HG11	81:DA:3243:A:C4	2.03	0.93
31:BB:204:MET:SD	81:DA:914:A:N3	2.40	0.93
81:DA:2612:U:H1'	81:DA:2803:A:N3	1.82	0.93
12:AK:46:MET:HE3	78:CA:918:U:H1'	1.46	0.93
78:CA:1308:G:C6	78:CA:1318:G:C6	2.52	0.93
12:AK:124:ASP:OD1	78:CA:929:A:C4	2.22	0.93
78:CA:1292:G:C4	78:CA:1324:G:N2	2.36	0.93
81:DA:2869:U:O2	81:DA:2873:U:C5	2.21	0.93
12:AK:36:LYS:HZ3	78:CA:900:A:C5'	1.78	0.93
37:BH:134:TYR:HE1	81:DA:146:U:H5''	1.27	0.93
78:CA:1780:G:C2	78:CA:1781:A:C4	2.57	0.93
15:AN:54:LYS:N	15:AN:54:LYS:O	2.01	0.93
42:BM:95:PHE:CD2	51:BZ:22:VAL:HG13	2.04	0.93
45:BR:90:ASP:CB	81:DA:677:A:N7	2.33	0.92
14:AM:14:ILE:HG12	34:BE:115:LYS:N	1.84	0.92
37:BH:158:ASP:CB	37:BH:158:ASP:C	2.36	0.92
44:BO:124:ILE:HD13	75:BL:147:UNK:CA	1.98	0.92
44:BO:20:GLY:O	44:BO:21:ARG:CA	2.11	0.92
78:CA:1455:G:C8	78:CA:1559:A:N6	2.37	0.92
81:DA:1949:G:H1	81:DA:2097:U:H3	1.16	0.92
4:AD:206:ASP:CG	78:CA:682:C:O2'	2.06	0.92
14:AM:16:ARG:NH1	34:BE:111:ASP:H	1.57	0.92
19:AR:59:LYS:CG	78:CA:1551:U:H5	1.77	0.92
13:AL:7:ARG:CB	18:AP:76:VAL:HG22	1.99	0.92
14:AM:14:ILE:HD11	34:BE:109:HIS:NE2	1.84	0.92
14:AM:14:ILE:CG1	34:BE:115:LYS:H	1.82	0.92
81:DA:1870:C:C3'	81:DA:1871:U:C5	2.51	0.92
33:BD:162:THR:HG21	81:DA:209:A:C8	2.04	0.92
81:DA:3304:U:C5'	81:DA:3304:U:C3'	2.48	0.92
13:AL:7:ARG:HA	18:AP:76:VAL:HG13	1.51	0.92
79:CB:55:C:C2'	79:CB:55:C:C1'	0.92	0.92
31:BB:196:TRP:CB	31:BB:196:TRP:C	2.38	0.92
43:BP:49:ARG:HG2	81:DA:114:A:C2'	2.00	0.92
12:AK:36:LYS:HZ1	78:CA:900:A:H5''	1.32	0.92
78:CA:1747:G:C5'	81:DA:2302:G:H21	1.82	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:3215:A:C1'	81:DA:3215:A:O4'	1.96	0.92
35:BG:55:LEU:CB	35:BG:98:VAL:HG22	2.00	0.91
78:CA:1747:G:H5'	81:DA:2302:G:N2	1.84	0.91
42:BM:95:PHE:CA	51:BZ:22:VAL:HG13	2.00	0.91
33:BD:162:THR:HG21	81:DA:209:A:H8	1.31	0.91
42:BM:93:LEU:HD22	51:BZ:20:LEU:HD22	1.49	0.91
5:AC:52:ILE:CG1	78:CA:1:U:O2	2.17	0.91
14:AM:133:VAL:HB	78:CA:1545:A:C5'	2.00	0.91
14:AM:14:ILE:CG1	34:BE:115:LYS:N	2.34	0.91
74:BQ:128:GLU:O	74:BQ:129:TYR:CA	2.16	0.91
78:CA:929:A:C6	78:CA:930:A:N1	2.37	0.91
33:BD:295:ILE:C	33:BD:296:GLN:HA	1.91	0.91
35:BG:99:GLU:HB2	35:BG:100:LYS:N	1.85	0.91
10:AI:139:GLN:OE1	78:CA:1580:C:H5''	1.71	0.91
78:CA:1308:G:C5	78:CA:1318:G:N2	2.39	0.91
10:AI:135:ARG:NH2	78:CA:1588:G:N7	2.15	0.90
19:AR:130:ARG:HH11	78:CA:1558:U:H5'	1.30	0.90
78:CA:1157:A:N7	78:CA:1617:U:N3	2.19	0.90
33:BD:321:LYS:C	33:BD:321:LYS:CB	2.38	0.90
81:DA:2612:U:O4'	81:DA:2803:A:C2	2.20	0.90
81:DA:1297:C:H2'	81:DA:1298:C:C6	2.06	0.90
81:DA:1683:A:C8	81:DA:1684:U:C5	2.59	0.90
12:AK:33:LEU:CD2	78:CA:903:U:H5	1.84	0.90
13:AL:22:ASN:O	13:AL:23:ARG:N	2.05	0.90
78:CA:45:U:N1	78:CA:45:U:C2'	2.34	0.90
81:DA:2531:C:H1'	81:DA:2580:A:N6	1.87	0.90
16:AO:114:ARG:NH1	78:CA:940:A:N7	2.19	0.90
81:DA:2637:A:N9	81:DA:2637:A:C2'	2.35	0.90
42:BM:95:PHE:HA	51:BZ:22:VAL:CG1	2.00	0.90
74:BQ:129:TYR:O	74:BQ:129:TYR:N	2.03	0.89
78:CA:901:G:C6	78:CA:902:G:C2	2.61	0.89
31:BB:6:ARG:HG2	81:DA:914:A:H61	1.37	0.89
19:AR:58:LYS:HD3	78:CA:1549:C:C4	2.06	0.89
19:AR:130:ARG:O	78:CA:1558:U:C1'	2.20	0.89
78:CA:904:G:C6	78:CA:905:A:C4	2.59	0.89
81:DA:653:A:H61	81:DA:1442:U:H3	1.17	0.89
23:AW:15:UNK:O	23:AW:16:UNK:N	2.05	0.89
31:BB:188:LYS:HD3	81:DA:1793:C:HO2'	1.16	0.89
37:BH:134:TYR:CE1	81:DA:146:U:C5'	2.55	0.89
13:AL:7:ARG:HD2	18:AP:76:VAL:HG23	1.52	0.89
8:AF:83:ARG:NH2	25:AY:9:LEU:HD21	1.86	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1190:C:C5'	78:CA:1190:C:O4'	2.20	0.89
78:CA:1203:A:C6	78:CA:1556:A:C6	2.60	0.89
5:AC:53:ARG:NH2	78:CA:658:C:H5''	1.86	0.89
42:BM:51:ALA:HB1	81:DA:1795:U:O4	76.80	0.89
78:CA:1780:G:C2	78:CA:1781:A:N3	2.40	0.89
5:AC:20:GLU:O	78:CA:555:A:H5''	1.73	0.89
4:AD:187:ARG:NE	78:CA:652:G:O6	2.04	0.89
78:CA:929:A:C6	78:CA:930:A:C6	2.60	0.89
32:BC:3:HIS:CB	32:BC:3:HIS:C	2.40	0.89
42:BM:51:ALA:CB	81:DA:1795:U:N3	77.97	0.89
44:BO:4:ARG:NH2	81:DA:661:G:C6	2.41	0.89
81:DA:345:G:O2'	82:DB:25:G:C2	2.26	0.89
33:BD:29:PRO:HB2	45:BR:25:TYR:HE1	1.07	0.89
35:BG:55:LEU:HB3	35:BG:98:VAL:HG22	1.53	0.89
78:CA:1003:A:N7	78:CA:1005:A:C6	2.41	0.89
78:CA:904:G:C6	78:CA:905:A:C2	2.60	0.89
31:BB:193:ARG:CZ	81:DA:2174:G:H3'	2.02	0.89
81:DA:3347:A:H61	81:DA:3358:U:H3	1.17	0.88
5:AC:53:ARG:HH22	78:CA:658:C:C4'	1.86	0.88
37:BH:138:HIS:HD2	81:DA:147:U:C4'	1.86	0.88
48:BW:90:ARG:HB2	48:BW:90:ARG:O	1.71	0.88
19:AR:89:MET:HG2	78:CA:1555:A:O2'	1.73	0.88
44:BO:2:PRO:HG2	81:DA:802:C:N4	1.87	0.88
14:AM:133:VAL:HG21	78:CA:1545:A:H4'	1.56	0.88
81:DA:2623:G:C2'	81:DA:2623:G:N9	2.36	0.88
21:AT:9:VAL:C	21:AT:10:GLU:CA	2.42	0.88
5:AC:53:ARG:NH2	78:CA:658:C:H4'	1.87	0.88
78:CA:1170:G:N2	78:CA:1574:G:N3	2.21	0.88
29:AU:10:ARG:HH12	78:CA:164:A:C5'	1.86	0.88
47:BU:60:LYS:HA	81:DA:1062:A:N3	1.87	0.88
81:DA:3165:A:H61	81:DA:3285:C:H42	1.15	0.88
43:BP:74:PRO:CB	43:BP:74:PRO:C	2.40	0.88
81:DA:1870:C:O3'	81:DA:1871:U:C5	2.26	0.88
4:AD:146:THR:HG21	78:CA:295:A:C6	2.08	0.88
43:BP:50:ARG:HA	81:DA:267:G:H21	1.36	0.88
78:CA:1308:G:N1	78:CA:1318:G:C4	2.41	0.88
13:AL:7:ARG:HA	18:AP:76:VAL:CG1	2.04	0.87
36:BF:58:HIS:CE1	76:BS:160:PRO:O	2.27	0.87
33:BD:112:LYS:NZ	81:DA:790:U:H5'	1.88	0.87
11:AJ:81:THR:O	11:AJ:82:TYR:N	2.06	0.87
32:BC:266:ARG:CD	32:BC:266:ARG:NH1	2.37	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1625:A:N6	81:DA:1819:U:O4	2.06	0.87
4:AD:206:ASP:CB	78:CA:682:C:O2'	2.22	0.87
40:BK:18:ARG:NE	81:DA:1181:U:C5	2.36	0.87
14:AM:16:ARG:CZ	34:BE:111:ASP:H	1.80	0.87
43:BP:80:THR:C	43:BP:80:THR:CB	2.42	0.87
78:CA:840:U:O2'	78:CA:841:U:H5'	1.75	0.87
4:AD:199:GLU:OE1	78:CA:683:C:O2'	1.93	0.87
5:AC:24:LEU:HD11	78:CA:555:A:H1'	1.56	0.87
83:DC:26:C:H42	83:DC:53:U:H3	1.21	0.87
31:BB:204:MET:HE1	81:DA:914:A:H1'	1.55	0.87
14:AM:133:VAL:CG2	78:CA:1545:A:H5''	2.03	0.87
7:AG:75:UNK:C	7:AG:75:UNK:N	2.38	0.87
8:AF:83:ARG:HH21	25:AY:9:LEU:HD21	1.38	0.87
14:AM:14:ILE:CB	34:BE:115:LYS:N	2.36	0.87
78:CA:1147:A:N6	78:CA:1630:U:H3	1.72	0.87
81:DA:169:U:N1	81:DA:169:U:C2'	2.37	0.86
81:DA:2648:G:C2'	81:DA:2648:G:N9	2.38	0.86
78:CA:552:G:H1	78:CA:572:C:H42	1.21	0.86
81:DA:1788:C:H2'	81:DA:1789:G:C8	2.10	0.86
5:AC:24:LEU:HD12	78:CA:555:A:C1'	2.04	0.86
7:AG:74:UNK:C	7:AG:75:UNK:CA	2.54	0.86
74:BQ:128:GLU:CB	74:BQ:128:GLU:N	2.38	0.86
81:DA:2439:A:H2'	81:DA:2440:G:C8	2.11	0.86
35:BG:46:ARG:CD	81:DA:3215:A:H61	1.88	0.86
19:AR:89:MET:HG3	78:CA:1555:A:HO2'	1.38	0.86
78:CA:1780:G:C6	78:CA:1781:A:C2	2.62	0.86
14:AM:13:HIS:C	34:BE:116:TYR:CE1	2.49	0.86
29:AU:16:PRO:CG	29:AU:93:ARG:HB2	2.05	0.86
32:BC:298:PHE:C	32:BC:298:PHE:CB	2.43	0.86
78:CA:1158:C:C6	78:CA:1582:U:C5	2.63	0.86
83:DC:29:C:H2'	83:DC:30:G:H8	1.40	0.86
20:AS:43:ASN:HA	78:CA:1477:G:C4'	2.03	0.86
32:BC:266:ARG:CZ	81:DA:2989:U:H6	1.87	0.86
78:CA:1161:C:N3	78:CA:1616:G:N2	2.22	0.86
81:DA:1054:A:N9	81:DA:1054:A:C2'	2.39	0.86
81:DA:2220:A:N6	81:DA:2221:G:N2	2.23	0.86
78:CA:1157:A:H8	78:CA:1617:U:O4	1.53	0.85
81:DA:2187:G:C2'	81:DA:2187:G:N9	2.38	0.85
6:AE:217:ALA:HB3	78:CA:2:A:H62	1.38	0.85
13:AL:13:ARG:NH1	18:AP:71:LEU:HD22	1.89	0.85
44:BO:124:ILE:HD12	75:BL:148:UNK:H	1.38	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1185:U:O4	78:CA:1458:G:C4	2.29	0.85
37:BH:138:HIS:CD2	81:DA:147:U:O5'	2.29	0.85
23:AW:62:UNK:HA	78:CA:1800:A:H5'	1.57	0.85
31:BB:128:ARG:HD3	81:DA:2177:G:H2'	1.55	0.85
4:AD:153:ASN:O	4:AD:153:ASN:HB3	1.74	0.85
13:AL:13:ARG:NH2	18:AP:78:THR:HG21	1.76	0.85
19:AR:58:LYS:CG	78:CA:1550:A:N7	2.40	0.85
19:AR:59:LYS:HG2	78:CA:1551:U:H6	1.38	0.85
78:CA:1780:G:C6	78:CA:1781:A:C5	2.65	0.85
3:AB:205:ALA:C	3:AB:205:ALA:N	2.29	0.85
29:AU:16:PRO:HG3	29:AU:93:ARG:HB2	1.57	0.85
6:AE:188:LEU:HD11	78:CA:1298:U:O2	1.48	0.85
34:BE:89:TYR:C	34:BE:89:TYR:CB	2.45	0.85
19:AR:59:LYS:CG	78:CA:1551:U:C6	2.59	0.85
78:CA:1158:C:C4	78:CA:1582:U:C4	2.65	0.85
81:DA:3304:U:C1'	81:DA:3304:U:C3'	2.55	0.84
42:BM:94:TYR:CZ	51:BZ:21:PHE:N	2.34	0.84
78:CA:56:U:O4	78:CA:92:A:C4'	2.26	0.84
31:BB:188:LYS:CE	81:DA:1793:C:O2'	2.23	0.84
81:DA:2206:G:N2	81:DA:2208:A:H61	1.75	0.84
6:AE:217:ALA:HB2	78:CA:2:A:H61	1.35	0.84
17:AQ:82:ASP:CB	17:AQ:82:ASP:C	2.46	0.84
9:AH:84:GLY:HA3	13:AL:6:PRO:O	1.78	0.84
81:DA:2450:G:N2	81:DA:2496:C:O2	2.10	0.84
16:AO:112:LYS:HE2	16:AO:115:LEU:HB3	1.59	0.84
51:BZ:70:LYS:O	51:BZ:71:ARG:N	2.09	0.84
78:CA:1702:A:C2'	78:CA:1702:A:N9	2.40	0.84
78:CA:631:G:N9	78:CA:631:G:C2'	2.40	0.84
78:CA:999:U:O2	78:CA:1005:A:N6	2.11	0.84
14:AM:22:VAL:HG13	34:BE:115:LYS:HD2	1.58	0.84
34:BE:89:TYR:HB3	34:BE:89:TYR:O	1.76	0.84
48:BW:90:ARG:CB	48:BW:90:ARG:N	2.41	0.84
4:AD:93:ASP:N	4:AD:93:ASP:CB	2.41	0.84
16:AO:117:LEU:CB	78:CA:939:A:C6	2.60	0.84
13:AL:7:ARG:HG2	18:AP:76:VAL:HG22	1.56	0.84
47:BU:116:ARG:CZ	81:DA:1095:U:C4'	2.55	0.84
47:BU:8:ARG:HG2	81:DA:2631:U:H5''	1.58	0.83
81:DA:207:U:H3	81:DA:222:A:H61	1.26	0.83
36:BF:69:ARG:HG2	81:DA:3113:A:H4'	1.59	0.83
13:AL:13:ARG:HG3	18:AP:76:VAL:HB	0.91	0.83
5:AC:157:ASP:C	5:AC:157:ASP:CB	2.47	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AS:84:LYS:NZ	78:CA:1525:A:C4'	2.42	0.83
14:AM:14:ILE:HD13	34:BE:115:LYS:CA	2.07	0.83
78:CA:372:G:O6	78:CA:373:G:C2	2.32	0.83
81:DA:1255:C:O2'	81:DA:1256:G:H5'	1.79	0.83
6:AE:217:ALA:CB	78:CA:2:A:C6	2.61	0.83
33:BD:89:ALA:C	33:BD:89:ALA:CB	2.46	0.83
74:BQ:128:GLU:CB	74:BQ:128:GLU:C	2.47	0.83
5:AC:53:ARG:NH2	78:CA:658:C:C4'	2.41	0.83
78:CA:899:G:C2'	78:CA:900:A:H5'	2.08	0.83
16:AO:117:LEU:HD21	78:CA:975:C:C1'	2.08	0.83
78:CA:976:G:H21	78:CA:1027:A:N6	1.75	0.83
78:CA:587:C:C4	78:CA:588:U:C5	2.67	0.83
43:BP:49:ARG:CB	81:DA:114:A:O2'	2.26	0.83
13:AL:39:LYS:HD2	13:AL:110:LYS:HD3	1.60	0.83
82:DB:86:U:O2	82:DB:86:U:O2'	1.96	0.83
42:BM:94:TYR:O	51:BZ:22:VAL:CG1	2.23	0.83
48:BW:90:ARG:C	48:BW:90:ARG:CB	2.46	0.83
78:CA:1174:C:C4	78:CA:1466:G:C2	2.67	0.83
4:AD:221:ARG:NH2	78:CA:682:C:C1'	2.42	0.83
81:DA:2363:A:C2'	81:DA:2363:A:N9	2.41	0.83
13:AL:99:ASN:OD1	78:CA:1136:U:H5	1.62	0.82
78:CA:1181:U:H3	78:CA:1185:U:H3	1.27	0.82
78:CA:1780:G:N1	78:CA:1781:A:C4	2.46	0.82
78:CA:1399:C:N4	78:CA:1401:A:H61	1.77	0.82
78:CA:853:G:C2'	78:CA:853:G:N9	2.42	0.82
78:CA:933:A:N1	78:CA:935:U:O2	2.11	0.82
81:DA:3338:C:O2	81:DA:3366:G:N2	2.12	0.82
4:AD:153:ASN:N	4:AD:153:ASN:CB	2.42	0.82
78:CA:1158:C:C5	78:CA:1582:U:C5	2.67	0.82
74:BQ:158:ARG:NE	83:DC:46:A:H5''	1.93	0.82
13:AL:7:ARG:HG2	18:AP:76:VAL:CG2	2.07	0.82
78:CA:140:A:N9	78:CA:140:A:C2'	2.42	0.82
78:CA:57:G:O6	78:CA:91:G:C2	2.32	0.82
48:BW:81:LYS:HD2	81:DA:1688:U:O4	1.78	0.82
5:AC:24:LEU:HD12	78:CA:555:A:O4'	1.79	0.82
33:BD:297:SER:CB	45:BR:25:TYR:CE2	2.63	0.82
45:BR:90:ASP:HB2	81:DA:677:A:N7	1.93	0.82
81:DA:637:C:H2'	81:DA:638:C:C6	2.15	0.82
4:AD:221:ARG:HH22	78:CA:682:C:C1'	1.92	0.82
12:AK:46:MET:CE	78:CA:918:U:H1'	2.09	0.82
16:AO:114:ARG:CD	78:CA:938:G:O2'	2.27	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AL:7:ARG:CA	18:AP:76:VAL:HG13	2.10	0.81
78:CA:1003:A:C5	78:CA:1005:A:C6	2.67	0.81
81:DA:1055:A:C2'	81:DA:1055:A:N9	2.43	0.81
37:BH:134:TYR:CE2	81:DA:147:U:P	2.73	0.81
78:CA:1203:A:C6	78:CA:1556:A:N1	2.48	0.81
81:DA:1683:A:N7	81:DA:1684:U:C4	2.47	0.81
45:BR:105:ARG:NH2	81:DA:675:C:C5	2.49	0.81
81:DA:1859:A:N9	81:DA:1859:A:C2'	2.43	0.81
78:CA:1308:G:C4	78:CA:1318:G:N2	2.49	0.81
14:AM:144:ARG:CD	78:CA:1570:A:H4'	2.11	0.81
78:CA:587:C:C4	78:CA:588:U:C4	2.69	0.81
19:AR:58:LYS:CD	78:CA:1549:C:C4	2.63	0.81
81:DA:3305:A:H2'	81:DA:3306:U:C6	2.16	0.81
14:AM:12:GLN:CD	34:BE:116:TYR:CE1	2.53	0.81
78:CA:904:G:O6	78:CA:905:A:C6	2.33	0.81
81:DA:209:A:C2'	81:DA:209:A:N9	2.43	0.81
4:AD:235:TYR:O	4:AD:236:ILE:HG13	1.81	0.81
14:AM:14:ILE:HB	34:BE:115:LYS:N	1.93	0.81
22:AV:105:THR:HB	22:AV:105:THR:C	1.99	0.81
42:BM:95:PHE:CG	51:BZ:22:VAL:CG1	2.64	0.81
13:AL:19:ARG:NH2	78:CA:1106:U:O4	2.12	0.81
83:DC:30:G:H1	83:DC:47:C:H42	1.29	0.81
41:BN:43:LYS:HB2	76:BS:97:ARG:HH22	1.45	0.81
14:AM:144:ARG:HD3	78:CA:1570:A:H4'	1.61	0.81
14:AM:14:ILE:HD13	34:BE:115:LYS:HB2	1.62	0.81
78:CA:901:G:C6	78:CA:902:G:N1	2.49	0.81
81:DA:1870:C:O3'	81:DA:1871:U:C6	2.34	0.81
45:BR:90:ASP:CB	81:DA:677:A:C8	2.64	0.81
31:BB:204:MET:SD	81:DA:914:A:C4	2.74	0.81
29:AU:16:PRO:CB	29:AU:93:ARG:HB2	2.11	0.80
18:AP:59:PRO:HG2	78:CA:326:G:C5'	2.10	0.80
34:BE:89:TYR:CA	34:BE:89:TYR:CG	2.65	0.80
5:AC:4:ALA:HB1	5:AC:8:TYR:CE1	2.16	0.80
81:DA:2466:G:N2	81:DA:2489:C:O2	2.13	0.80
9:AH:6:VAL:HG21	78:CA:1036:A:H1'	1.63	0.80
78:CA:1172:G:N2	78:CA:1468:U:C2	2.49	0.80
78:CA:1203:A:C2	78:CA:1556:A:C4	2.69	0.80
81:DA:1399:A:H61	81:DA:1411:C:H42	1.28	0.80
81:DA:509:U:H3	81:DA:582:G:H1	1.28	0.80
5:AC:157:ASP:N	5:AC:157:ASP:CB	2.45	0.80
81:DA:3304:U:C4'	81:DA:3304:U:C1'	2.59	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:207:LEU:HD11	78:CA:683:C:C1'	2.11	0.80
20:AS:43:ASN:N	78:CA:1477:G:H5'	1.95	0.80
78:CA:1171:A:C2	78:CA:1469:A:C6	2.69	0.80
81:DA:636:C:H2'	81:DA:637:C:H5''	1.63	0.80
21:AT:9:VAL:O	21:AT:10:GLU:HA	1.81	0.80
33:BD:323:VAL:O	33:BD:323:VAL:N	2.14	0.80
78:CA:1161:C:N4	78:CA:1616:G:H1	1.78	0.80
81:DA:209:A:N1	81:DA:212:G:N7	2.30	0.80
81:DA:2482:U:O2	81:DA:2486:A:N6	2.13	0.80
31:BB:196:TRP:HB3	31:BB:196:TRP:O	1.81	0.79
81:DA:2693:C:H2'	81:DA:2755:C:C5	2.16	0.79
77:BI:106:ALA:CA	77:BI:108:ALA:HB3	2.11	0.79
81:DA:3052:G:H1	81:DA:3090:U:H3	1.28	0.79
78:CA:1003:A:C6	78:CA:1005:A:N3	2.51	0.79
81:DA:832:G:H1	81:DA:862:U:H3	1.28	0.79
5:AC:166:GLY:HA2	78:CA:586:G:C4'	2.07	0.79
77:BI:106:ALA:HB3	77:BI:108:ALA:HB1	1.58	0.79
78:CA:1170:G:N2	78:CA:1574:G:C2	2.51	0.79
78:CA:587:C:N4	78:CA:588:U:O4	2.15	0.79
36:BF:46:THR:CA	41:BN:7:VAL:CG2	2.60	0.79
19:AR:129:GLY:O	78:CA:1558:U:O2	2.00	0.79
9:AH:6:VAL:CG1	78:CA:1036:A:O2'	2.27	0.79
78:CA:1292:G:N1	78:CA:1324:G:C2	2.51	0.79
78:CA:1170:G:C2	78:CA:1574:G:C4	2.71	0.79
78:CA:1149:G:H1	78:CA:1628:U:H3	1.28	0.79
12:AK:36:LYS:HZ1	78:CA:900:A:C5'	1.86	0.79
7:AG:14:UNK:CB	46:BT:188:ASP:CG	2.51	0.79
32:BC:3:HIS:CG	32:BC:3:HIS:CA	2.64	0.79
14:AM:16:ARG:CZ	34:BE:111:ASP:N	2.32	0.79
78:CA:1295:G:O2'	78:CA:1321:A:C6	2.35	0.79
6:AE:92:ALA:HB1	6:AE:92:ALA:O	1.82	0.79
12:AK:33:LEU:CD2	78:CA:903:U:C4	2.66	0.79
78:CA:904:G:C6	78:CA:905:A:C5	2.70	0.79
78:CA:145:A:N6	78:CA:169:A:C8	2.51	0.78
35:BG:46:ARG:CD	81:DA:3215:A:N6	2.45	0.78
78:CA:1292:G:C5	78:CA:1324:G:N1	2.51	0.78
5:AC:166:GLY:CA	78:CA:586:G:H4'	2.10	0.78
35:BG:69:PHE:CE1	35:BG:76:LEU:HD21	2.19	0.78
40:BK:18:ARG:CZ	81:DA:1181:U:C5	2.66	0.78
10:AI:141:SER:HA	78:CA:1579:U:O2'	1.83	0.78
81:DA:798:G:H2'	81:DA:799:G:C8	2.18	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1203:A:C5	78:CA:1556:A:N1	2.51	0.78
78:CA:372:G:C6	78:CA:373:G:C4	2.72	0.78
81:DA:1069:C:H42	81:DA:1091:A:H61	1.30	0.78
16:AO:65:VAL:HG11	24:AX:51:GLN:H	1.48	0.78
31:BB:62:VAL:CB	31:BB:62:VAL:C	2.51	0.78
5:AC:168:ARG:HD2	5:AC:168:ARG:O	1.83	0.78
13:AL:13:ARG:NE	18:AP:74:THR:HG21	1.99	0.78
80:CC:18:C:O3'	80:CC:19:U:OP1	2.01	0.78
5:AC:52:ILE:CD1	78:CA:1:U:O2	2.32	0.78
2:AA:10:THR:C	2:AA:11:PRO:HD3	2.03	0.78
13:AL:13:ARG:NH2	18:AP:78:THR:CB	2.46	0.78
32:BC:289:ASP:C	32:BC:289:ASP:CB	2.52	0.78
32:BC:3:HIS:O	32:BC:3:HIS:HB3	1.82	0.78
41:BN:39:ILE:HG23	76:BS:74:ILE:HG12	1.66	0.78
78:CA:1552:U:C4	78:CA:1553:G:O6	2.36	0.78
33:BD:29:PRO:C	45:BR:25:TYR:OH	2.21	0.77
35:BG:145:LEU:HD11	41:BN:114:ASP:N	2.00	0.77
78:CA:1158:C:C4	78:CA:1582:U:N3	2.53	0.77
78:CA:1185:U:C4	78:CA:1458:G:C4	2.72	0.77
37:BH:158:ASP:O	37:BH:158:ASP:CB	2.30	0.77
81:DA:519:A:H2'	81:DA:520:U:H5'	1.66	0.77
32:BC:266:ARG:CZ	81:DA:2988:C:H2'	2.14	0.77
32:BC:298:PHE:HB3	32:BC:298:PHE:O	1.84	0.77
32:BC:298:PHE:CA	32:BC:298:PHE:CG	2.67	0.77
41:BN:39:ILE:HG21	76:BS:97:ARG:HH21	1.48	0.77
81:DA:2919:A:H61	81:DA:2927:C:H42	1.32	0.77
81:DA:426:G:H5''	81:DA:427:C:C6	2.19	0.77
83:DC:46:A:N9	83:DC:46:A:C2'	2.48	0.77
20:AS:12:GLN:HG3	20:AS:13:ASP:H	1.47	0.77
33:BD:84:ARG:HB2	81:DA:365:A:O2'	1.85	0.77
40:BK:84:LEU:HD12	40:BK:102:LEU:HD22	1.65	0.77
43:BP:80:THR:CB	43:BP:80:THR:N	2.48	0.77
78:CA:1170:G:H1'	78:CA:1574:G:O2'	1.84	0.77
81:DA:1232:C:H41	81:DA:1261:G:H2'	1.49	0.77
78:CA:1003:A:C5	78:CA:1005:A:C5	2.73	0.77
81:DA:1997:U:H3	81:DA:2024:G:H1	1.33	0.77
31:BB:193:ARG:NH1	81:DA:2174:G:H2'	2.00	0.77
13:AL:7:ARG:CD	18:AP:76:VAL:HG23	2.09	0.77
81:DA:2612:U:H1'	81:DA:2803:A:H2	1.40	0.77
13:AL:99:ASN:OD1	78:CA:1136:U:C5	2.38	0.77
8:AF:57:SER:OG	25:AY:57:MET:HA	1.84	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BG:97:ASN:HB2	35:BG:165:LEU:HD22	1.67	0.77
35:BG:145:LEU:HD12	41:BN:114:ASP:HA	1.62	0.77
78:CA:1393:C:N1	78:CA:1393:C:C2'	2.48	0.77
10:AI:127:LYS:NZ	78:CA:1584:G:H4'	1.99	0.77
81:DA:3062:G:H1	81:DA:3081:C:H42	1.33	0.77
83:DC:29:C:H2'	83:DC:30:G:C8	2.19	0.77
74:BQ:93:THR:HG23	83:DC:48:U:OP2	1.85	0.77
81:DA:988:U:H3	81:DA:1063:G:H1	1.33	0.77
13:AL:129:GLY:HA3	13:AL:135:LEU:N	2.00	0.76
37:BH:158:ASP:N	37:BH:158:ASP:CB	2.46	0.76
35:BG:145:LEU:HD11	41:BN:114:ASP:HA	1.64	0.76
13:AL:11:SER:H	18:AP:79:LYS:HG2	1.49	0.76
31:BB:62:VAL:CG2	31:BB:62:VAL:CA	2.64	0.76
81:DA:3066:U:H3	81:DA:3075:G:H1	1.30	0.76
3:AB:158:ILE:HD13	3:AB:162:GLN:HG3	1.66	0.76
4:AD:206:ASP:HB3	78:CA:682:C:O2'	1.84	0.76
16:AO:58:HIS:CD2	16:AO:59:GLY:H	2.03	0.76
41:BN:74:ARG:HD3	76:BS:154:VAL:HG11	1.66	0.76
78:CA:1544:U:H3	78:CA:1567:U:H3	1.33	0.76
81:DA:2155:G:H1	81:DA:2181:C:H42	1.33	0.76
33:BD:346:LYS:HA	81:DA:577:C:H5''	1.67	0.76
81:DA:345:G:O2'	82:DB:25:G:N3	2.16	0.76
19:AR:130:ARG:O	78:CA:1558:U:C2	2.39	0.76
81:DA:2427:U:H3	81:DA:2602:G:H1	1.33	0.76
14:AM:101:LEU:CD2	78:CA:1566:U:H4'	2.16	0.76
81:DA:1975:C:H2'	81:DA:1976:G:H5'	1.66	0.76
33:BD:89:ALA:N	33:BD:89:ALA:CB	2.48	0.76
81:DA:1209:G:C2'	81:DA:1209:G:N9	2.48	0.76
32:BC:75:ALA:HB2	81:DA:3049:A:N1	2.01	0.76
16:AO:58:HIS:CG	16:AO:59:GLY:H	2.02	0.76
35:BG:21:THR:O	81:DA:503:C:H4'	1.85	0.76
14:AM:14:ILE:HD11	34:BE:109:HIS:CD2	2.20	0.76
29:AU:5:VAL:HG22	29:AU:35:VAL:HA	1.68	0.76
37:BH:134:TYR:CD1	81:DA:146:U:H5''	2.20	0.76
77:BI:4:ARG:HH22	81:DA:1628:C:H5''	142.62	0.76
31:BB:193:ARG:CZ	81:DA:2174:G:C3'	2.63	0.76
78:CA:904:G:N1	78:CA:905:A:N3	2.33	0.76
81:DA:2934:A:C2'	81:DA:2934:A:N9	2.48	0.76
77:BI:6:ALA:N	81:DA:2855:U:OP2	2.17	0.76
74:BQ:93:THR:HG23	83:DC:48:U:P	2.25	0.76
78:CA:1648:A:N6	78:CA:1752:U:O4	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:636:C:C2'	81:DA:637:C:H5''	2.15	0.75
35:BG:99:GLU:CB	35:BG:99:GLU:C	2.53	0.75
20:AS:42:GLY:HA3	78:CA:1476:C:O2'	1.85	0.75
12:AK:36:LYS:HZ3	78:CA:900:A:H5''	0.91	0.75
32:BC:3:HIS:CB	32:BC:3:HIS:N	2.48	0.75
78:CA:46:A:N9	78:CA:46:A:C2'	2.49	0.75
5:AC:53:ARG:NH2	78:CA:658:C:C5'	2.50	0.75
32:BC:134:SER:HB2	81:DA:3150:A:H5''	1.68	0.75
42:BM:96:GLU:HA	51:BZ:21:PHE:HZ	1.49	0.75
78:CA:1292:G:C4	78:CA:1324:G:C2	2.75	0.75
78:CA:1307:U:N3	78:CA:1319:A:C2	2.55	0.75
78:CA:904:G:C6	78:CA:905:A:C6	2.75	0.75
81:DA:2279:A:C2	81:DA:2286:U:N3	2.53	0.75
82:DB:98:U:C5	82:DB:99:C:C4	2.74	0.75
14:AM:122:HIS:H	19:AR:126:VAL:HG12	1.51	0.75
78:CA:1174:C:H42	78:CA:1465:C:H42	1.34	0.75
78:CA:1547:A:H2'	78:CA:1548:G:H5'	1.68	0.75
5:AC:52:ILE:HD11	78:CA:1:U:O2	1.87	0.75
78:CA:373:G:N2	78:CA:374:U:C2	2.55	0.75
13:AL:14:LYS:HE2	18:AP:78:THR:OG1	1.86	0.75
31:BB:196:TRP:CB	31:BB:196:TRP:N	2.49	0.75
81:DA:2191:U:H3	81:DA:2316:G:H1	1.32	0.75
77:BI:118:ALA:CB	81:DA:2645:G:O2'	2.35	0.75
82:DB:39:G:H1'	82:DB:104:A:N6	2.01	0.75
78:CA:1677:C:H2'	78:CA:1678:A:C8	2.22	0.75
6:AE:24:ARG:HB3	9:AH:68:ARG:C	2.07	0.75
81:DA:1501:U:O4	81:DA:1515:A:N6	2.18	0.75
81:DA:2005:G:H1	81:DA:2016:U:H3	1.31	0.75
81:DA:2420:C:N4	81:DA:2606:G:O6	2.18	0.75
81:DA:3248:C:H2'	81:DA:3249:C:C6	2.22	0.75
29:AU:70:VAL:HA	29:AU:70:VAL:CG1	2.16	0.74
33:BD:112:LYS:CE	81:DA:790:U:H5'	2.17	0.74
19:AR:59:LYS:HE2	78:CA:1551:U:P	2.27	0.74
81:DA:2626:A:H5''	81:DA:2627:C:OP2	1.87	0.74
36:BF:58:HIS:CE1	76:BS:160:PRO:HA	2.23	0.74
42:BM:96:GLU:HA	51:BZ:21:PHE:CZ	2.21	0.74
4:AD:206:ASP:CG	78:CA:682:C:HO2'	1.90	0.74
78:CA:1747:G:C5'	81:DA:2302:G:N2	2.45	0.74
4:AD:207:LEU:CD1	78:CA:683:C:H1'	2.17	0.74
11:AJ:68:ARG:HD2	78:CA:1605:G:H5'	1.68	0.74
12:AK:46:MET:HE3	78:CA:918:U:Cl'	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1072:G:H1	81:DA:1088:U:H3	1.36	0.74
43:BP:50:ARG:HA	81:DA:114:A:H1'	1.69	0.74
81:DA:1976:G:H1	81:DA:2046:U:H3	1.35	0.74
39:BJ:127:SER:OG	81:DA:1256:G:H4'	1.87	0.74
81:DA:1975:C:C2'	81:DA:1976:G:H5'	2.17	0.74
81:DA:3142:A:N9	81:DA:3142:A:C2'	2.49	0.74
81:DA:1261:G:C2'	81:DA:1261:G:N9	2.49	0.74
31:BB:191:LEU:HD11	81:DA:1794:G:H5''	1.70	0.74
33:BD:297:SER:CB	45:BR:25:TYR:HE2	2.00	0.74
12:AK:124:ASP:HA	78:CA:929:A:N9	2.03	0.74
19:AR:130:ARG:C	78:CA:1558:U:O2	2.26	0.74
31:BB:188:LYS:NZ	81:DA:1793:C:H2'	2.02	0.74
45:BR:54:LEU:CD2	45:BR:55:SER:H	2.01	0.74
83:DC:26:C:H2'	83:DC:27:A:C8	2.22	0.74
12:AK:33:LEU:CD1	78:CA:902:G:N7	2.37	0.74
18:AP:63:LEU:HD21	18:AP:86:ILE:HB	1.70	0.74
19:AR:58:LYS:HE2	78:CA:1550:A:H62	1.52	0.74
78:CA:1170:G:C2	78:CA:1574:G:N3	2.56	0.74
5:AC:53:ARG:HH21	78:CA:658:C:H5''	1.52	0.74
78:CA:1308:G:O6	78:CA:1318:G:N1	2.10	0.74
78:CA:913:G:C2	81:DA:2208:A:C2	2.76	0.74
7:AG:96:UNK:C	7:AG:97:UNK:CA	2.66	0.74
37:BH:134:TYR:CE1	81:DA:146:U:C4'	2.70	0.74
42:BM:31:ALA:HA	42:BM:65:GLY:HA2	1.69	0.73
78:CA:856:A:C2'	78:CA:856:A:N9	2.51	0.73
81:DA:1058:U:H2'	81:DA:1059:G:C8	2.22	0.73
81:DA:533:A:N6	81:DA:560:G:H1	1.83	0.73
35:BG:99:GLU:CB	35:BG:99:GLU:HA	2.12	0.73
78:CA:486:G:H1	78:CA:501:U:H3	1.36	0.73
78:CA:960:U:N1	78:CA:960:U:C2'	2.50	0.73
81:DA:1792:C:O2'	81:DA:1794:G:C5	2.40	0.73
81:DA:2668:U:H2'	81:DA:2669:G:C8	2.24	0.73
83:DC:14:U:H3	83:DC:64:A:H61	1.31	0.73
35:BG:99:GLU:HA	81:DA:616:G:H5'	1.71	0.73
78:CA:1091:A:N9	78:CA:1091:A:C2'	2.50	0.73
78:CA:1352:G:H22	78:CA:1372:U:H3	1.35	0.73
81:DA:2531:C:H1'	81:DA:2580:A:H61	1.53	0.73
40:BK:198:GLY:HA2	41:BN:108:ARG:HD3	1.69	0.73
81:DA:2487:U:N1	81:DA:2487:U:C2'	2.52	0.73
14:AM:14:ILE:CD1	34:BE:115:LYS:CG	2.64	0.73
20:AS:89:ARG:HH12	78:CA:1467:C:H1'	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:33:LEU:HD11	78:CA:902:G:C8	2.08	0.73
5:AC:157:ASP:O	5:AC:157:ASP:HB3	1.88	0.73
4:AD:93:ASP:O	4:AD:93:ASP:HB3	1.87	0.73
6:AE:20:GLY:O	6:AE:24:ARG:HG3	1.88	0.73
16:AO:114:ARG:NH1	78:CA:940:A:N6	2.36	0.73
44:BO:57:GLY:O	44:BO:58:MET:HG2	1.89	0.73
78:CA:327:U:H3	78:CA:341:A:H61	1.37	0.73
11:AJ:85:ARG:HA	15:AN:52:PHE:H	1.53	0.73
81:DA:2426:U:H3	81:DA:2603:G:H1	1.36	0.73
81:DA:369:A:H61	82:DB:20:U:H3	1.33	0.73
8:AF:153:GLY:H	78:CA:904:G:HO2'	1.33	0.73
78:CA:1308:G:C2	78:CA:1318:G:N3	2.57	0.73
78:CA:587:C:N4	78:CA:588:U:C4	2.56	0.73
78:CA:1746:A:H3'	78:CA:1747:G:C8	2.24	0.73
13:AL:13:ARG:NH2	18:AP:78:THR:HB	2.04	0.73
19:AR:130:ARG:O	78:CA:1558:U:O2	2.06	0.73
44:BO:124:ILE:HD13	75:BL:148:UNK:H	1.46	0.73
42:BM:95:PHE:CG	51:BZ:22:VAL:HG11	2.22	0.73
78:CA:1697:G:H1	78:CA:1704:U:H3	1.35	0.73
78:CA:372:G:C6	78:CA:373:G:N3	2.57	0.73
78:CA:904:G:C5	78:CA:905:A:C5	2.77	0.73
81:DA:2756:C:H2'	81:DA:2757:U:C6	2.24	0.73
33:BD:112:LYS:HZ2	81:DA:790:U:H5'	1.53	0.73
13:AL:98:GLU:OE1	78:CA:19:A:H5'	1.88	0.72
21:AT:53:TYR:CE2	23:AW:69:UNK:O	2.41	0.72
31:BB:196:TRP:CA	31:BB:196:TRP:CG	2.71	0.72
45:BR:90:ASP:HB2	81:DA:677:A:C8	2.25	0.72
43:BP:49:ARG:HB3	81:DA:114:A:O2'	1.89	0.72
20:AS:84:LYS:HZ2	78:CA:1525:A:C4'	2.01	0.72
31:BB:245:LEU:O	31:BB:246:LEU:HG	1.89	0.72
74:BQ:128:GLU:O	74:BQ:129:TYR:C	2.28	0.72
31:BB:191:LEU:HD11	81:DA:1794:G:H4'	1.71	0.72
32:BC:298:PHE:CB	32:BC:298:PHE:N	2.50	0.72
37:BH:134:TYR:HE1	81:DA:146:U:C5'	2.00	0.72
79:CB:55:C:C2'	79:CB:55:C:H1'	1.04	0.72
6:AE:188:LEU:HD12	78:CA:1298:U:O2	1.84	0.72
78:CA:1295:G:O4'	78:CA:1321:A:N1	2.21	0.72
81:DA:2086:A:H2'	81:DA:2087:C:C5	2.25	0.72
10:AI:139:GLN:OE1	78:CA:1580:C:C5'	2.37	0.72
33:BD:84:ARG:CZ	81:DA:366:A:H4'	2.19	0.72
35:BG:93:VAL:HG23	35:BG:94:GLU:H	4.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BK:3:VAL:HG12	40:BK:4:GLU:H	1.55	0.72
14:AM:133:VAL:CG2	78:CA:1545:A:C5'	2.66	0.72
12:AK:36:LYS:CE	78:CA:900:A:H5''	2.18	0.72
81:DA:600:G:H1'	81:DA:603:A:H61	1.54	0.72
35:BG:64:LEU:HD22	35:BG:98:VAL:HG13	1.72	0.72
78:CA:955:A:N9	78:CA:955:A:C2'	2.52	0.72
81:DA:1001:G:H1	81:DA:1050:U:H3	1.38	0.72
34:BE:61:ARG:NH2	79:CB:55:C:C6	2.58	0.72
37:BH:89:GLU:C	37:BH:89:GLU:N	2.42	0.72
20:AS:42:GLY:C	78:CA:1477:G:H5'	2.10	0.72
78:CA:1185:U:C5	78:CA:1458:G:C8	2.78	0.72
81:DA:1054:A:C5	81:DA:1055:A:H1'	2.24	0.72
81:DA:372:A:N6	81:DA:373:A:N1	2.37	0.72
35:BG:145:LEU:CD1	41:BN:113:THR:O	2.36	0.72
43:BP:50:ARG:CB	81:DA:267:G:N2	2.52	0.72
6:AE:188:LEU:HD13	78:CA:1298:U:O2	1.87	0.72
12:AK:33:LEU:HD23	78:CA:903:U:C5	2.23	0.71
78:CA:1303:U:C4	78:CA:1304:G:C6	2.78	0.71
78:CA:887:A:H2'	78:CA:888:U:C6	2.25	0.71
81:DA:2206:G:H21	81:DA:2208:A:N6	1.84	0.71
44:BO:4:ARG:HB2	81:DA:802:C:OP1	1.90	0.71
31:BB:62:VAL:N	31:BB:62:VAL:CB	2.49	0.71
81:DA:1683:A:H8	81:DA:1684:U:C5	2.08	0.71
81:DA:2683:U:H2'	81:DA:2684:C:C6	2.25	0.71
33:BD:112:LYS:HE3	81:DA:790:U:H5'	1.73	0.71
81:DA:971:G:H1	81:DA:1110:U:H3	1.38	0.71
30:BA:164:CYS:HB3	81:DA:2465:G:H4'	1.72	0.71
33:BD:323:VAL:N	33:BD:323:VAL:C	2.44	0.71
43:BP:179:LYS:O	43:BP:180:PHE:HB3	1.87	0.71
5:AC:21:SER:HB3	78:CA:555:A:C5'	2.18	0.71
78:CA:57:G:C6	78:CA:91:G:C2	2.79	0.71
80:CC:18:C:HO3'	80:CC:19:U:P	1.97	0.71
81:DA:1232:C:N4	81:DA:1261:G:H2'	2.04	0.71
31:BB:6:ARG:NH2	81:DA:914:A:N1	2.36	0.71
78:CA:228:G:C2'	78:CA:228:G:N9	2.54	0.71
81:DA:2681:U:H2'	81:DA:2682:C:C6	2.26	0.71
32:BC:331:ASN:ND2	81:DA:3304:U:H4'	2.05	0.71
45:BR:90:ASP:HB3	81:DA:677:A:C8	2.25	0.71
6:AE:24:ARG:HG2	9:AH:69:LEU:HB2	1.72	0.71
22:AV:105:THR:CA	22:AV:105:THR:CG2	2.68	0.71
78:CA:1203:A:C2	78:CA:1556:A:N3	2.59	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1185:U:N3	78:CA:1458:G:C5	2.59	0.71
78:CA:330:G:H1	78:CA:338:C:H42	1.38	0.71
81:DA:2369:G:H2'	81:DA:2370:G:C8	2.26	0.71
78:CA:1086:A:H2'	78:CA:1087:A:O4'	1.91	0.71
81:DA:1687:U:O2'	81:DA:1688:U:H5'	1.91	0.71
81:DA:2001:U:N1	81:DA:2001:U:C2'	2.52	0.71
43:BP:80:THR:CA	43:BP:80:THR:CG2	2.68	0.71
81:DA:422:A:N9	81:DA:422:A:C2'	2.54	0.71
83:DC:93:U:H2'	83:DC:94:A:C8	2.26	0.71
6:AE:198:THR:HG23	78:CA:1:U:OP3	1.91	0.71
78:CA:1293:U:H3	78:CA:1322:A:H61	1.39	0.71
81:DA:1683:A:C8	81:DA:1684:U:C4	2.78	0.71
78:CA:1747:G:C4'	81:DA:2302:G:H21	2.02	0.71
2:AA:88:LYS:HZ2	2:AA:217:GLU:HB3	1.56	0.70
35:BG:2:SER:O	35:BG:3:ALA:CA	2.39	0.70
78:CA:1310:U:O2	78:CA:1316:G:C2	2.44	0.70
20:AS:84:LYS:NZ	78:CA:1525:A:C5'	2.54	0.70
45:BR:90:ASP:CG	81:DA:677:A:N7	2.44	0.70
33:BD:321:LYS:HB3	33:BD:321:LYS:O	1.91	0.70
37:BH:134:TYR:CE2	81:DA:147:U:OP2	2.45	0.70
19:AR:90:ILE:CG1	78:CA:1554:U:O2'	2.38	0.70
32:BC:180:GLU:OE1	81:DA:3003:G:H4'	1.91	0.70
81:DA:310:U:H2'	81:DA:311:C:H5'	1.71	0.70
83:DC:27:A:H1'	83:DC:55:A:H61	1.54	0.70
77:BI:118:ALA:HB3	81:DA:2645:G:O3'	1.91	0.70
74:BQ:74:VAL:CG1	83:DC:5:G:H21	2.03	0.70
37:BH:158:ASP:CA	37:BH:158:ASP:CG	2.60	0.70
78:CA:1308:G:N1	78:CA:1318:G:N3	2.39	0.70
78:CA:138:A:N1	78:CA:284:G:N7	2.39	0.70
12:AK:46:MET:HE1	78:CA:918:U:C2	2.27	0.70
81:DA:821:U:H3	81:DA:904:A:H61	1.37	0.70
2:AA:58:VAL:C	10:AI:107:LYS:HE3	85.74	0.70
14:AM:12:GLN:NE2	34:BE:116:TYR:CE2	2.52	0.70
31:BB:127:ALA:H	31:BB:128:ARG:HD2	1.55	0.70
74:BQ:242:SER:O	74:BQ:243:ALA:CB	2.37	0.70
78:CA:1292:G:C2	78:CA:1324:G:N3	2.60	0.70
5:AC:24:LEU:HD12	78:CA:555:A:C4	2.27	0.70
6:AE:101:VAL:HG12	6:AE:102:VAL:H	1.56	0.70
6:AE:92:ALA:N	6:AE:92:ALA:CB	2.53	0.70
81:DA:8:C:H2'	81:DA:9:U:C6	2.26	0.70
32:BC:362:ALA:HB1	32:BC:364:LYS:CB	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AA:109:ASN:HD21	78:CA:1294:G:H1'	1.56	0.70
78:CA:1308:G:C4	78:CA:1318:G:C2	2.80	0.70
43:BP:80:THR:O	43:BP:80:THR:HB	1.90	0.70
78:CA:936:G:C6	78:CA:937:C:C4	2.80	0.70
81:DA:2187:G:C8	81:DA:2187:G:C2'	2.75	0.70
81:DA:2920:U:C5	81:DA:2921:U:C4	2.80	0.70
8:AF:153:GLY:CA	78:CA:904:G:O2'	2.40	0.70
12:AK:33:LEU:HD23	78:CA:903:U:H5	1.56	0.70
77:BI:106:ALA:HB1	77:BI:108:ALA:HB2	1.74	0.70
74:BQ:57:ASN:C	83:DC:49:G:O6	2.30	0.70
20:AS:75:LYS:HE3	78:CA:1523:G:H5'	1.72	0.70
78:CA:1176:G:C6	78:CA:1464:G:C6	2.80	0.70
81:DA:1071:U:H3	81:DA:1089:G:H1	1.38	0.70
81:DA:1584:U:C4	81:DA:1585:C:C4	2.80	0.70
4:AD:188:ASN:CG	78:CA:650:U:H5''	2.12	0.69
10:AI:135:ARG:NH2	78:CA:1588:G:C6	2.60	0.69
4:AD:146:THR:CG2	78:CA:295:A:N6	2.55	0.69
81:DA:381:U:H3	81:DA:388:G:H1	1.40	0.69
81:DA:674:G:H2'	81:DA:675:C:C6	2.27	0.69
32:BC:255:TRP:NE1	81:DA:2941:A:N6	2.40	0.69
41:BN:12:TRP:CE3	76:BS:165:LEU:HB2	2.27	0.69
78:CA:901:G:C6	78:CA:902:G:C6	2.80	0.69
81:DA:1692:U:H2'	81:DA:1693:C:C6	2.27	0.69
81:DA:3304:U:C5'	81:DA:3304:U:O4'	2.39	0.69
36:BF:46:THR:CA	41:BN:8:LYS:CE	2.69	0.69
47:BU:61:THR:OG1	81:DA:1062:A:C6	2.44	0.69
81:DA:1820:U:H2'	81:DA:1821:U:C6	2.28	0.69
81:DA:1970:U:H3	81:DA:2052:G:H1	1.37	0.69
81:DA:2220:A:H61	81:DA:2221:G:N2	1.90	0.69
31:BB:6:ARG:HH12	81:DA:914:A:H62	1.33	0.69
82:DB:50:C:C2'	82:DB:50:C:N1	2.55	0.69
78:CA:1115:U:C4	78:CA:1130:G:C2	2.80	0.69
78:CA:388:G:C8	78:CA:423:G:N2	2.61	0.69
81:DA:3146:G:H2'	81:DA:3147:G:C8	2.27	0.69
36:BF:45:PHE:CZ	36:BF:75:VAL:HG11	2.27	0.69
47:BU:141:VAL:H	47:BU:142:SER:CB	2.05	0.69
78:CA:1292:G:C6	78:CA:1324:G:C2	2.81	0.69
12:AK:53:ASP:HB2	78:CA:899:G:H5'	1.74	0.69
81:DA:1124:U:H3	81:DA:1134:G:H22	1.39	0.69
81:DA:1870:C:O2	81:DA:1870:C:H2'	1.90	0.69
78:CA:1589:C:H42	78:CA:1607:G:H1	1.40	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:673:A:H2'	78:CA:674:C:H6	1.56	0.69
78:CA:989:U:C5	78:CA:990:C:C5	2.80	0.69
81:DA:1788:C:H2'	81:DA:1789:G:H8	1.56	0.69
81:DA:854:G:H2'	81:DA:855:U:C6	2.28	0.69
10:AI:138:PHE:CD2	78:CA:1587:A:OP2	2.46	0.69
78:CA:929:A:N1	78:CA:930:A:C6	2.60	0.69
81:DA:3348:G:H1	81:DA:3357:U:H3	1.40	0.69
45:BR:90:ASP:OD1	81:DA:786:A:N6	2.25	0.69
16:AO:65:VAL:HG22	24:AX:51:GLN:NE2	2.08	0.69
47:BU:60:LYS:NZ	81:DA:2638:C:H1'	2.08	0.69
81:DA:3374:U:H3'	81:DA:3375:A:H5'	1.74	0.69
78:CA:1203:A:N6	78:CA:1556:A:C6	2.61	0.69
81:DA:1870:C:H3'	81:DA:1871:U:C4	2.28	0.69
12:AK:33:LEU:HD22	78:CA:903:U:C4	2.28	0.69
33:BD:84:ARG:NE	81:DA:366:A:H4'	2.07	0.69
81:DA:1687:U:H2'	81:DA:1688:U:C5'	2.23	0.69
81:DA:2000:U:H3	81:DA:2021:G:H1	1.40	0.69
35:BG:34:LEU:HB3	35:BG:147:ALA:HB3	1.75	0.68
35:BG:98:VAL:HG12	35:BG:99:GLU:H	1.57	0.68
52:BY:13:ARG:H	52:BY:13:ARG:HE	1.41	0.68
19:AR:58:LYS:HG2	78:CA:1550:A:N7	2.07	0.68
7:AG:130:UNK:C	78:CA:636:A:H61	2.05	0.68
81:DA:2505:U:H2'	81:DA:2506:U:C5	2.27	0.68
81:DA:331:G:N9	81:DA:331:G:C2'	2.53	0.68
81:DA:655:C:H2'	81:DA:656:A:C8	2.28	0.68
83:DC:30:G:N2	83:DC:47:C:N3	2.33	0.68
42:BM:95:PHE:CE2	51:BZ:22:VAL:CG1	2.56	0.68
6:AE:217:ALA:HB1	78:CA:2:A:N6	2.02	0.68
78:CA:901:G:O6	78:CA:902:G:C6	2.46	0.68
33:BD:112:LYS:HE3	81:DA:790:U:C5'	2.24	0.68
36:BF:46:THR:CA	41:BN:8:LYS:HE3	2.23	0.68
78:CA:1158:C:C6	78:CA:1582:U:C4	2.81	0.68
81:DA:636:C:N3	81:DA:2361:A:N1	2.41	0.68
14:AM:133:VAL:CG2	78:CA:1545:A:H4'	2.23	0.68
31:BB:204:MET:SD	81:DA:914:A:C2'	2.81	0.68
47:BU:60:LYS:CA	81:DA:1062:A:N3	2.52	0.68
81:DA:1623:G:O2'	81:DA:1624:G:H5''	1.93	0.68
81:DA:3047:U:H2'	81:DA:3048:A:C8	2.29	0.68
13:AL:22:ASN:CB	13:AL:22:ASN:O	2.41	0.68
35:BG:93:VAL:CG2	35:BG:94:GLU:H	4.35	0.68
81:DA:2073:A:H2'	81:DA:2074:C:C6	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BC:134:SER:CB	81:DA:3150:A:H5''	2.22	0.68
41:BN:132:LYS:NZ	81:DA:3230:G:H5'	2.09	0.68
81:DA:372:A:C6	81:DA:373:A:C2	2.82	0.68
33:BD:84:ARG:CD	81:DA:365:A:O2'	2.42	0.68
78:CA:552:G:H1	78:CA:572:C:N4	1.90	0.68
83:DC:29:C:C2	83:DC:30:G:C8	2.81	0.68
9:AH:6:VAL:HG11	78:CA:1036:A:C2'	2.23	0.68
20:AS:43:ASN:CB	78:CA:1477:G:H4'	2.24	0.68
78:CA:936:G:C6	78:CA:937:C:N4	2.61	0.68
81:DA:2407:C:O2	81:DA:2818:U:N3	2.27	0.68
33:BD:310:THR:HG22	33:BD:313:LEU:HD12	1.75	0.68
41:BN:39:ILE:HG21	76:BS:97:ARG:NH2	2.09	0.68
47:BU:141:VAL:H	47:BU:142:SER:HB3	1.59	0.68
31:BB:233:GLN:NE2	81:DA:2607:G:C8	2.55	0.68
14:AM:144:ARG:HG3	78:CA:1570:A:O2'	1.93	0.68
16:AO:65:VAL:HG12	24:AX:47:PHE:CZ	2.29	0.68
14:AM:101:LEU:HD21	78:CA:1566:U:H4'	1.75	0.68
81:DA:1395:G:H2'	81:DA:1396:C:C6	2.29	0.68
14:AM:16:ARG:NH1	34:BE:111:ASP:C	2.46	0.68
81:DA:331:G:C8	81:DA:332:C:C5	2.81	0.68
44:BO:124:ILE:HD12	75:BL:148:UNK:N	1.97	0.67
44:BO:20:GLY:O	44:BO:21:ARG:HA	1.94	0.67
74:BQ:128:GLU:O	74:BQ:129:TYR:O	2.12	0.67
45:BR:58:ASN:HD21	81:DA:975:C:H5'	1.58	0.67
41:BN:39:ILE:O	76:BS:145:HIS:CD2	2.47	0.67
78:CA:372:G:C2	78:CA:373:G:H1'	2.29	0.67
12:AK:36:LYS:NZ	78:CA:900:A:C4'	2.57	0.67
81:DA:1623:G:H2'	81:DA:1624:G:H5'	1.76	0.67
31:BB:245:LEU:HD13	81:DA:2243:A:N7	2.07	0.67
45:BR:122:ILE:HG22	45:BR:124:LEU:H	1.59	0.67
8:AF:33:VAL:HG12	8:AF:34:GLN:H	1.59	0.67
33:BD:354:VAL:O	33:BD:354:VAL:HG23	1.95	0.67
37:BH:61:GLN:O	37:BH:62:LYS:HB3	1.94	0.67
81:DA:129:U:H3	81:DA:139:G:H1	1.41	0.67
83:DC:48:U:H2'	83:DC:49:G:C8	2.30	0.67
14:AM:16:ARG:NH1	34:BE:109:HIS:O	2.26	0.67
51:BZ:53:VAL:HG23	51:BZ:54:LEU:H	1.58	0.67
78:CA:1174:C:N3	78:CA:1466:G:C2	2.62	0.67
14:AM:116:LEU:CD2	78:CA:1547:A:H5''	2.17	0.67
81:DA:3330:A:C2	81:DA:3373:U:O2	2.47	0.67
14:AM:121:ALA:HB3	14:AM:124:GLY:H	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AS:95:ASP:O	20:AS:96:ALA:O	2.12	0.67
35:BG:75:PRO:O	35:BG:76:LEU:CG	2.43	0.67
19:AR:130:ARG:CZ	78:CA:1558:U:H5'	2.21	0.67
7:AG:106:UNK:C	7:AG:107:UNK:CA	2.64	0.67
34:BE:123:PHE:CZ	81:DA:2674:A:C4	2.83	0.67
78:CA:57:G:O6	78:CA:91:G:N1	2.27	0.67
81:DA:1742:U:H2'	81:DA:1744:G:C8	2.30	0.67
81:DA:1869:C:C5	81:DA:1870:C:C5	2.82	0.67
46:BT:58:HIS:CA	81:DA:1871:U:H5'	2.21	0.67
81:DA:2004:U:H3	81:DA:2017:G:H1	1.41	0.67
43:BP:50:ARG:HA	81:DA:267:G:N2	2.07	0.67
34:BE:86:VAL:HB	34:BE:110:ILE:HD13	1.75	0.67
35:BG:98:VAL:CG1	35:BG:99:GLU:H	2.07	0.67
74:BQ:57:ASN:HB3	83:DC:48:U:O4	1.95	0.67
78:CA:46:A:C8	78:CA:46:A:C2'	2.78	0.67
81:DA:1455:U:C5	81:DA:2346:C:H5'	2.29	0.67
81:DA:1647:A:H62	81:DA:1808:G:H1'	1.60	0.67
12:AK:59:ALA:O	12:AK:62:LEU:HB2	1.95	0.67
31:BB:216:HIS:CE1	81:DA:2960:C:C5	2.82	0.67
78:CA:1476:C:H3'	78:CA:1476:C:C6	2.29	0.67
78:CA:1476:C:H2'	78:CA:1477:G:C8	2.30	0.67
46:BT:57:VAL:C	81:DA:1871:U:H5''	2.15	0.67
81:DA:2565:U:H3	81:DA:2576:G:H1	1.43	0.67
7:AG:97:UNK:N	7:AG:97:UNK:C	2.50	0.67
12:AK:124:ASP:OD1	78:CA:929:A:C2	2.48	0.67
22:AV:105:THR:O	22:AV:106:ALA:HB2	1.94	0.67
32:BC:289:ASP:N	32:BC:289:ASP:CB	2.56	0.67
39:BJ:34:PRO:HB3	39:BJ:62:LEU:HD11	1.77	0.67
33:BD:31:ARG:HH11	45:BR:23:ASN:HD22	1.42	0.67
78:CA:1308:G:C5	78:CA:1318:G:N1	2.56	0.67
78:CA:1292:G:C6	78:CA:1324:G:N1	2.63	0.67
12:AK:36:LYS:HZ1	78:CA:900:A:C4'	2.08	0.67
81:DA:1289:G:H2'	81:DA:1290:A:C8	2.30	0.67
48:BW:85:LYS:HE3	81:DA:1682:U:H1'	1.76	0.67
81:DA:1801:U:H2'	81:DA:1802:C:C6	2.30	0.67
35:BG:98:VAL:HG12	35:BG:99:GLU:N	2.09	0.66
35:BG:145:LEU:HD11	41:BN:114:ASP:CA	2.16	0.66
78:CA:1295:G:H4'	78:CA:1321:A:H61	1.58	0.66
78:CA:1399:C:N4	78:CA:1401:A:N6	2.42	0.66
14:AM:116:LEU:HD11	78:CA:1546:G:O3'	1.95	0.66
78:CA:1746:A:H4'	81:DA:2291:A:O2'	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1623:G:H2'	81:DA:1624:G:C5'	2.25	0.66
81:DA:1752:A:H8	81:DA:1752:A:H5'	1.59	0.66
81:DA:2065:U:H3	81:DA:2071:A:H61	1.42	0.66
31:BB:193:ARG:NE	81:DA:2174:G:H3'	2.10	0.66
44:BO:4:ARG:HG2	81:DA:802:C:H5	1.58	0.66
31:BB:204:MET:CE	81:DA:914:A:H1'	2.24	0.66
81:DA:92:G:N7	81:DA:94:G:N3	2.44	0.66
31:BB:204:MET:SD	81:DA:914:A:C1'	2.83	0.66
32:BC:344:THR:O	32:BC:345:ASN:CB	2.42	0.66
14:AM:13:HIS:N	34:BE:116:TYR:CE1	2.63	0.66
18:AP:59:PRO:CG	78:CA:326:G:H4'	2.24	0.66
78:CA:45:U:C6	78:CA:45:U:C2'	2.78	0.66
81:DA:2735:U:H2'	81:DA:2736:A:H5'	1.76	0.66
6:AE:188:LEU:HD11	78:CA:1298:U:N1	2.08	0.66
20:AS:84:LYS:HZ1	78:CA:1525:A:C4'	2.07	0.66
20:AS:89:ARG:NH1	78:CA:1467:C:C1'	2.57	0.66
81:DA:160:G:N2	81:DA:261:U:C5	2.63	0.66
36:BF:58:HIS:HE1	76:BS:160:PRO:HA	1.58	0.66
35:BG:49:GLY:HA3	35:BG:50:LYS:HD3	1.77	0.66
37:BH:134:TYR:OH	81:DA:146:U:C3'	2.43	0.66
37:BH:138:HIS:CD2	81:DA:147:U:C5'	2.78	0.66
78:CA:676:G:H2'	78:CA:677:G:H5''	1.78	0.66
81:DA:2508:U:H6	81:DA:2508:U:H5''	1.60	0.66
14:AM:14:ILE:HD13	34:BE:115:LYS:HG3	1.74	0.66
78:CA:1003:A:N6	78:CA:1005:A:N1	2.43	0.66
36:BF:129:ARG:HH12	81:DA:3126:C:H5'	1.58	0.66
5:AC:20:GLU:O	78:CA:555:A:C5'	2.42	0.66
81:DA:1993:G:H1	81:DA:2028:U:H3	1.44	0.66
20:AS:12:GLN:HG3	20:AS:13:ASP:N	2.10	0.66
41:BN:12:TRP:HB2	76:BS:165:LEU:H	1.60	0.66
78:CA:1582:U:C2	78:CA:1614:A:H1'	2.31	0.66
78:CA:904:G:C6	78:CA:905:A:N3	2.63	0.66
81:DA:2465:G:C3'	81:DA:2466:G:H5'	2.25	0.66
81:DA:3058:U:H3	81:DA:3085:G:H1	1.44	0.66
30:BA:164:CYS:CB	81:DA:2465:G:H4'	2.26	0.66
42:BM:94:TYR:CZ	51:BZ:20:LEU:C	2.69	0.66
44:BO:20:GLY:C	44:BO:21:ARG:N	0.61	0.66
10:AI:123:ARG:O	78:CA:1337:A:H3'	1.96	0.66
78:CA:6:G:N1	78:CA:19:A:C2	2.64	0.66
2:AA:104:PRO:HG2	78:CA:1322:A:H4'	1.78	0.66
13:AL:13:ARG:HH22	18:AP:78:THR:CB	2.06	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AU:14:SER:HB2	29:AU:89:TYR:H	1.60	0.66
29:AU:16:PRO:HG3	29:AU:93:ARG:CB	2.24	0.66
4:AD:93:ASP:C	4:AD:93:ASP:CB	2.58	0.65
78:CA:1552:U:C4	78:CA:1553:G:C5	2.83	0.65
78:CA:218:A:H61	78:CA:838:G:H1'	1.60	0.65
4:AD:188:ASN:ND2	78:CA:650:U:H5''	2.11	0.65
13:AL:11:SER:H	18:AP:79:LYS:CG	2.09	0.65
74:BQ:184:ASP:H	74:BQ:190:ILE:HB	1.61	0.65
6:AE:217:ALA:HB2	78:CA:2:A:C6	2.30	0.65
78:CA:29:U:H2'	78:CA:30:G:C1'	2.27	0.65
78:CA:646:C:N3	78:CA:685:A:H2	1.94	0.65
78:CA:893:U:O2	78:CA:919:A:C2	2.49	0.65
12:AK:33:LEU:HD22	78:CA:902:G:N7	2.10	0.65
81:DA:1783:U:H2'	81:DA:1784:G:C8	2.31	0.65
81:DA:77:A:H61	81:DA:323:A:H61	1.43	0.65
81:DA:799:G:H2'	81:DA:801:A:H62	1.61	0.65
82:DB:98:U:C4	82:DB:99:C:C2	2.84	0.65
5:AC:4:ALA:HB1	5:AC:8:TYR:CZ	2.30	0.65
16:AO:114:ARG:HD2	78:CA:938:G:O2'	1.95	0.65
43:BP:50:ARG:CB	81:DA:267:G:N3	2.60	0.65
79:CB:55:C:C4	79:CB:56:A:C6	2.84	0.65
81:DA:1682:U:O2'	81:DA:1685:C:N4	2.24	0.65
81:DA:1688:U:O4'	81:DA:1688:U:C6	2.48	0.65
81:DA:2920:U:C4	81:DA:2921:U:C4	2.84	0.65
78:CA:1181:U:C2	78:CA:1458:G:N1	2.64	0.65
78:CA:901:G:N1	78:CA:902:G:N3	2.43	0.65
2:AA:131:GLN:NE2	78:CA:1321:A:N7	2.45	0.65
12:AK:59:ALA:HB3	12:AK:61:MET:H	1.60	0.65
41:BN:43:LYS:HD2	76:BS:97:ARG:NH2	2.12	0.65
81:DA:2464:U:H3	81:DA:2491:A:H61	1.43	0.65
14:AM:99:HIS:HA	14:AM:101:LEU:H	1.62	0.65
42:BM:95:PHE:CE2	51:BZ:22:VAL:HG21	2.32	0.65
78:CA:1174:C:N4	78:CA:1465:C:H42	1.94	0.65
78:CA:1552:U:C5	78:CA:1553:G:C6	2.85	0.65
81:DA:2994:A:C6	81:DA:3142:A:N6	2.62	0.65
78:CA:1308:G:N1	78:CA:1318:G:C2	2.64	0.65
78:CA:304:U:C2	78:CA:305:C:C5	2.84	0.65
81:DA:1985:G:H1	81:DA:2036:U:H3	1.42	0.65
78:CA:1476:C:H3'	78:CA:1476:C:H6	1.62	0.65
78:CA:272:U:H3	78:CA:284:G:H1	1.45	0.65
78:CA:295:A:C2'	78:CA:295:A:C4	2.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2697:A:H2'	81:DA:2698:G:C8	2.32	0.65
83:DC:14:U:H2'	83:DC:15:C:C6	2.32	0.65
13:AL:39:LYS:HB2	13:AL:110:LYS:HE2	1.79	0.65
32:BC:362:ALA:HB1	32:BC:364:LYS:HB2	1.78	0.65
43:BP:49:ARG:HG2	81:DA:114:A:C3'	2.26	0.65
12:AK:33:LEU:HD22	78:CA:903:U:O4	1.97	0.65
81:DA:2734:A:H2'	81:DA:2735:U:C6	2.32	0.65
13:AL:7:ARG:HH11	18:AP:76:VAL:N	1.94	0.65
44:BO:73:LEU:CA	44:BO:73:LEU:O	2.43	0.65
2:AA:131:GLN:NE2	78:CA:1321:A:C8	2.65	0.65
8:AF:98:MET:CE	78:CA:1611:A:H5'	2.27	0.65
78:CA:651:G:N2	78:CA:679:U:C4	2.65	0.65
32:BC:331:ASN:HD21	81:DA:3304:U:H4'	1.62	0.65
82:DB:58:G:N2	82:DB:59:A:C2	2.64	0.65
35:BG:46:ARG:CD	35:BG:46:ARG:H	2.09	0.64
16:AO:117:LEU:HB2	78:CA:939:A:C6	2.30	0.64
81:DA:1682:U:HO2'	81:DA:1685:C:H41	1.42	0.64
82:DB:86:U:O2	82:DB:86:U:C2'	2.44	0.64
78:CA:1185:U:N3	78:CA:1458:G:C6	2.65	0.64
78:CA:1759:C:H4'	81:DA:2262:A:C2	2.31	0.64
81:DA:2216:G:H2'	81:DA:2217:U:C6	2.31	0.64
7:AG:75:UNK:CB	7:AG:75:UNK:N	2.59	0.64
12:AK:29:HIS:NE2	78:CA:918:U:H5''	2.13	0.64
42:BM:94:TYR:CE2	51:BZ:20:LEU:O	2.50	0.64
78:CA:1201:G:C6	78:CA:1601:G:N7	2.65	0.64
81:DA:1667:A:H2'	81:DA:1668:G:C8	2.33	0.64
81:DA:3242:G:H3'	81:DA:3242:G:C8	2.33	0.64
31:BB:207:VAL:HG21	81:DA:916:G:C6	2.32	0.64
78:CA:1115:U:C4	78:CA:1130:G:N2	2.65	0.64
78:CA:225:A:H61	78:CA:233:C:H42	1.45	0.64
78:CA:868:G:H1	78:CA:960:U:H3	1.44	0.64
81:DA:1979:G:H1	81:DA:2043:U:H3	1.46	0.64
81:DA:2203:U:H2'	81:DA:2204:C:C6	2.31	0.64
81:DA:2508:U:H2'	81:DA:2509:U:C6	2.33	0.64
33:BD:107:ARG:HB2	81:DA:663:C:H4'	1.80	0.64
9:AH:86:ILE:HG22	13:AL:7:ARG:HH22	1.62	0.64
17:AQ:100:LEU:HD13	17:AQ:133:ARG:C	2.17	0.64
32:BC:255:TRP:HE1	81:DA:2941:A:N6	1.95	0.64
78:CA:1303:U:C5	78:CA:1304:G:C6	2.86	0.64
78:CA:1618:C:O2	78:CA:1618:C:H3'	1.98	0.64
78:CA:306:U:N1	78:CA:306:U:C2'	2.58	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:667:U:H2'	78:CA:668:C:C6	2.33	0.64
81:DA:3121:U:H4'	81:DA:3122:A:OP1	1.96	0.64
81:DA:636:C:H5	81:DA:646:A:H4'	1.61	0.64
81:DA:640:U:H2'	81:DA:641:C:C6	2.33	0.64
42:BM:95:PHE:CG	51:BZ:22:VAL:HG13	2.28	0.64
78:CA:1303:U:O4	78:CA:1304:G:C2	2.51	0.64
78:CA:388:G:C8	78:CA:423:G:C2	2.85	0.64
81:DA:2505:U:H2'	81:DA:2506:U:C6	2.31	0.64
83:DC:2:G:H2'	83:DC:3:U:C5	2.33	0.64
31:BB:204:MET:CE	81:DA:914:A:N3	2.60	0.64
20:AS:89:ARG:HH11	78:CA:1467:C:H1'	1.60	0.64
30:BA:53:LEU:HD21	30:BA:134:PHE:CD1	2.33	0.64
52:BY:8:VAL:HG13	81:DA:334:A:H4'	1.80	0.64
5:AC:53:ARG:HH22	78:CA:658:C:C3'	2.11	0.64
81:DA:385:A:H2'	81:DA:386:A:C8	2.33	0.64
81:DA:835:G:H1'	81:DA:858:A:N6	2.13	0.64
8:AF:57:SER:OG	25:AY:57:MET:CA	2.46	0.64
8:AF:98:MET:HE3	78:CA:1611:A:H5'	1.80	0.64
78:CA:904:G:N1	78:CA:905:A:C4	2.66	0.64
34:BE:21:ILE:HD11	34:BE:122:ILE:HG21	1.80	0.64
36:BF:46:THR:CA	41:BN:8:LYS:HE2	2.28	0.64
46:BT:82:LYS:CD	46:BT:82:LYS:H	2.10	0.64
78:CA:1170:G:N1	78:CA:1574:G:C4	2.67	0.64
20:AS:84:LYS:HB3	78:CA:1590:G:H5''	1.80	0.64
81:DA:2176:U:H2'	81:DA:2177:G:C8	2.33	0.64
81:DA:3147:G:H2'	81:DA:3148:U:C6	2.32	0.64
17:AQ:85:VAL:HG12	17:AQ:85:VAL:O	1.98	0.63
19:AR:107:ILE:CG1	78:CA:1453:G:H21	2.10	0.63
78:CA:1303:U:O4	78:CA:1304:G:C6	2.51	0.63
78:CA:938:G:N2	78:CA:942:G:C4	2.65	0.63
81:DA:1076:C:O2	81:DA:1084:A:N1	2.30	0.63
81:DA:2130:G:H2'	81:DA:2131:A:H5'	1.81	0.63
2:AA:194:PRO:HB2	2:AA:208:GLU:HB2	1.80	0.63
8:AF:153:GLY:HA3	78:CA:904:G:H1'	1.79	0.63
17:AQ:82:ASP:O	17:AQ:82:ASP:HB3	1.94	0.63
19:AR:59:LYS:HE3	78:CA:1551:U:C5'	2.28	0.63
34:BE:9:MET:HG2	83:DC:54:A:C5	2.33	0.63
78:CA:1346:A:C2	78:CA:1347:U:C4	2.87	0.63
78:CA:1780:G:N2	78:CA:1781:A:N3	2.47	0.63
81:DA:3146:G:H2'	81:DA:3147:G:H8	1.60	0.63
7:AG:68:UNK:O	7:AG:69:UNK:CB	2.40	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2187:G:C8	81:DA:2187:G:H2'	2.34	0.63
81:DA:2684:C:H2'	81:DA:2685:C:C6	2.33	0.63
33:BD:84:ARG:HD3	81:DA:366:A:H5'	1.79	0.63
36:BF:46:THR:C	41:BN:7:VAL:HG23	2.18	0.63
78:CA:646:C:N3	78:CA:685:A:C2	2.67	0.63
81:DA:1716:U:C5	81:DA:1730:G:N2	2.67	0.63
81:DA:177:U:H3	81:DA:241:G:H22	1.46	0.63
14:AM:123:ARG:CZ	78:CA:1547:A:OP2	2.46	0.63
13:AL:7:ARG:HB3	18:AP:76:VAL:HG22	1.81	0.63
18:AP:105:LYS:HE3	78:CA:335:U:H4'	1.81	0.63
81:DA:3235:C:H2'	81:DA:3236:U:C6	2.34	0.63
78:CA:1357:A:H2'	78:CA:1358:G:C8	2.34	0.63
6:AE:198:THR:HG22	78:CA:2:A:N1	2.14	0.63
81:DA:2100:A:H2'	81:DA:2101:C:C6	2.34	0.63
81:DA:2499:U:H2'	81:DA:2500:A:C8	2.34	0.63
81:DA:3217:C:C2'	81:DA:3217:C:N1	2.61	0.63
3:AB:76:ARG:HB2	17:AQ:33:ARG:HE	1.63	0.63
35:BG:49:GLY:CA	35:BG:50:LYS:HD3	2.29	0.63
78:CA:1187:U:H3	78:CA:1198:G:H1	1.45	0.63
78:CA:1203:A:C6	78:CA:1556:A:C2	2.86	0.63
81:DA:1975:C:C3'	81:DA:1976:G:H5'	2.28	0.63
6:AE:184:VAL:HG21	78:CA:1098:U:H5'	1.81	0.63
16:AO:58:HIS:CG	16:AO:59:GLY:N	2.67	0.63
75:BL:18:UNK:CB	81:DA:798:G:H4'	2.28	0.63
44:BO:3:SER:H	44:BO:4:ARG:HA	1.64	0.63
78:CA:1003:A:C6	78:CA:1005:A:N1	2.66	0.63
81:DA:1863:G:H1'	81:DA:1867:A:N6	2.13	0.63
81:DA:3049:A:H2'	81:DA:3050:U:H5'	1.79	0.63
81:DA:3304:U:C3'	81:DA:3304:U:O4'	2.47	0.63
81:DA:45:A:N3	81:DA:95:A:H2	1.97	0.63
14:AM:99:HIS:CG	14:AM:101:LEU:HD12	2.33	0.62
32:BC:266:ARG:CG	32:BC:266:ARG:HH11	2.12	0.62
74:BQ:54:ARG:HA	83:DC:27:A:OP1	1.98	0.62
78:CA:991:G:N2	78:CA:1014:G:C6	2.67	0.62
12:AK:122:PRO:HG3	78:CA:887:A:H5''	1.80	0.62
7:AG:14:UNK:CB	46:BT:188:ASP:OD1	2.47	0.62
20:AS:126:GLU:HA	20:AS:129:GLN:HE21	1.64	0.62
34:BE:53:THR:O	34:BE:55:ARG:N	2.31	0.62
40:BK:18:ARG:CZ	81:DA:1181:U:H5	2.12	0.62
78:CA:1747:G:H4'	81:DA:2303:A:H1'	1.82	0.62
32:BC:331:ASN:OD1	81:DA:3304:U:C4'	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:673:U:H2'	81:DA:674:G:C8	2.34	0.62
32:BC:106:TRP:HE1	81:DA:3149:G:H5'	1.63	0.62
19:AR:58:LYS:HG3	78:CA:1550:A:C8	2.33	0.62
82:DB:3:A:H3'	82:DB:4:C:C6	2.33	0.62
6:AE:217:ALA:CB	78:CA:2:A:H62	1.98	0.62
16:AO:123:HIS:CE1	16:AO:148:ALA:HB1	2.34	0.62
8:AF:116:HIS:CG	22:AV:94:LYS:HD2	2.34	0.62
30:BA:18:LYS:HB3	30:BA:24:LYS:H	1.65	0.62
78:CA:1552:U:C5	78:CA:1553:G:C5	2.88	0.62
31:BB:231:SER:HB2	81:DA:2163:C:H5''	1.81	0.62
81:DA:307:A:H1'	81:DA:2222:A:C2	2.34	0.62
5:AC:168:ARG:CD	5:AC:168:ARG:O	2.48	0.62
29:AU:62:THR:O	29:AU:63:GLN:CB	2.47	0.62
32:BC:29:VAL:HG22	32:BC:218:ILE:HD12	1.80	0.62
41:BN:74:ARG:HD3	76:BS:154:VAL:CG1	2.30	0.62
51:BZ:70:LYS:N	51:BZ:70:LYS:O	2.31	0.62
81:DA:1687:U:C2'	81:DA:1688:U:H5'	2.29	0.62
81:DA:1687:U:H2'	81:DA:1688:U:H5'	1.81	0.62
81:DA:2266:U:H2'	81:DA:2267:C:C5	2.35	0.62
82:DB:39:G:H1'	82:DB:104:A:H61	1.64	0.62
14:AM:14:ILE:CD1	34:BE:115:LYS:HG3	2.28	0.62
20:AS:68:ARG:NH2	78:CA:1481:C:H5''	2.15	0.62
74:BQ:257:GLU:HG3	74:BQ:258:LYS:H	1.63	0.62
78:CA:1756:A:H3'	78:CA:1757:G:H5'	1.82	0.62
78:CA:29:U:H2'	78:CA:30:G:O4'	1.99	0.62
81:DA:1013:G:H1	81:DA:1039:U:H3	1.45	0.62
81:DA:1870:C:O2'	81:DA:1871:U:P	2.57	0.62
81:DA:1915:A:H2'	81:DA:1916:U:C6	2.35	0.62
11:AJ:83:GLU:HA	15:AN:55:PHE:N	2.10	0.62
17:AQ:16:LEU:HD13	17:AQ:38:ILE:HB	1.81	0.62
35:BG:69:PHE:HE1	35:BG:76:LEU:HD21	1.63	0.62
40:BK:178:VAL:O	40:BK:180:SER:N	2.32	0.62
40:BK:27:LEU:HD21	40:BK:33:ILE:HG22	1.82	0.62
42:BM:45:ARG:O	42:BM:48:ARG:HB2	1.99	0.62
76:BS:123:ILE:HA	76:BS:124:GLN:HE21	1.62	0.62
78:CA:163:G:H3'	78:CA:164:A:C8	2.35	0.62
6:AE:201:ASN:ND2	78:CA:3:U:C2	2.68	0.62
78:CA:95:G:H1	78:CA:402:C:H41	1.47	0.62
31:BB:26:ALA:HB2	81:DA:2175:U:C2'	2.24	0.62
35:BG:145:LEU:HD13	41:BN:114:ASP:CA	2.09	0.62
78:CA:1582:U:O2	78:CA:1614:A:H1'	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AE:198:THR:CG2	78:CA:2:A:C2	2.82	0.62
78:CA:929:A:C5	78:CA:930:A:C4	2.88	0.62
81:DA:2631:U:H2'	81:DA:2632:G:C8	2.35	0.62
16:AO:124:ARG:HD2	78:CA:627:C:O2'	2.00	0.62
44:BO:124:ILE:CG1	75:BL:149:UNK:CB	2.70	0.62
19:AR:59:LYS:CE	78:CA:1551:U:O5'	2.48	0.62
81:DA:168:U:H3	81:DA:254:A:H61	1.47	0.62
81:DA:2840:C:HO2'	81:DA:2841:G:H8	1.45	0.62
5:AC:24:LEU:HD13	78:CA:555:A:C4'	2.28	0.61
30:BA:130:LYS:H	30:BA:130:LYS:HD2	1.64	0.61
33:BD:321:LYS:CA	33:BD:321:LYS:CG	2.76	0.61
77:BI:4:ARG:HH22	81:DA:1628:C:C5'	142.30	0.61
78:CA:1081:A:H61	78:CA:1092:A:H62	1.47	0.61
78:CA:1292:G:N1	78:CA:1324:G:N3	2.48	0.61
81:DA:1006:A:H2'	81:DA:1007:U:C6	2.35	0.61
81:DA:1682:U:N1	81:DA:1682:U:C2'	2.59	0.61
29:AU:16:PRO:CG	29:AU:93:ARG:CB	2.79	0.61
74:BQ:44:TYR:HB2	74:BQ:144:VAL:HG23	1.81	0.61
78:CA:1785:U:H2'	78:CA:1786:G:C8	2.34	0.61
81:DA:2720:G:O2'	81:DA:2736:A:N6	2.33	0.61
44:BO:2:PRO:HG2	81:DA:802:C:H41	1.62	0.61
19:AR:123:TYR:O	19:AR:126:VAL:HG23	2.01	0.61
33:BD:354:VAL:O	33:BD:355:PHE:HB2	1.99	0.61
81:DA:1958:U:H3	81:DA:2083:G:H1	1.49	0.61
81:DA:3330:A:H2	81:DA:3373:U:O2	1.83	0.61
13:AL:9:LEU:HB3	18:AP:79:LYS:HZ1	1.65	0.61
22:AV:104:ALA:O	22:AV:105:THR:HG23	2.00	0.61
32:BC:9:PRO:HD2	42:BM:45:ARG:HH22	1.65	0.61
7:AG:14:UNK:CB	46:BT:188:ASP:OD2	2.47	0.61
78:CA:56:U:O4	78:CA:92:A:H4'	2.00	0.61
81:DA:2755:C:H2'	81:DA:2756:C:C6	2.34	0.61
6:AE:110:HIS:CE1	6:AE:140:ARG:HE	2.19	0.61
16:AO:65:VAL:HG13	24:AX:51:GLN:OE1	2.00	0.61
26:AZ:11:ALA:HB2	26:AZ:33:ARG:HH22	1.66	0.61
74:BQ:129:TYR:CB	74:BQ:129:TYR:N	2.60	0.61
78:CA:1003:A:C5	78:CA:1005:A:C4	2.88	0.61
78:CA:1158:C:C5	78:CA:1582:U:N3	2.68	0.61
78:CA:1583:A:O4'	78:CA:1583:A:N9	2.31	0.61
81:DA:1480:G:H1	81:DA:1871:U:H3	1.47	0.61
81:DA:2830:G:H1	81:DA:2858:U:H3	1.48	0.61
35:BG:97:ASN:O	35:BG:98:VAL:HG23	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BJ:12:TYR:HB2	39:BJ:14:TYR:CE1	2.35	0.61
78:CA:163:G:H3'	78:CA:164:A:H8	1.65	0.61
78:CA:218:A:N6	78:CA:838:G:H1'	2.15	0.61
81:DA:1584:U:C4	81:DA:1585:C:N4	2.69	0.61
81:DA:2160:G:O6	81:DA:2173:U:H2'	2.01	0.61
81:DA:2339:C:C2'	81:DA:2339:C:N1	2.61	0.61
81:DA:77:A:H61	81:DA:323:A:N6	1.98	0.61
78:CA:1170:G:N3	78:CA:1574:G:H1'	2.15	0.61
78:CA:304:U:H2'	78:CA:305:C:C5	2.36	0.61
13:AL:13:ARG:NH2	18:AP:71:LEU:HD22	2.15	0.61
41:BN:74:ARG:NE	76:BS:154:VAL:HB	2.15	0.61
78:CA:1292:G:C5	78:CA:1324:G:C2	2.89	0.61
12:AK:46:MET:CE	78:CA:918:U:C1'	2.77	0.61
81:DA:2177:G:O5'	81:DA:2177:G:H8	1.84	0.61
14:AM:116:LEU:CD1	78:CA:1546:G:O3'	2.49	0.61
13:AL:9:LEU:CB	18:AP:79:LYS:HZ1	2.14	0.61
47:BU:8:ARG:H	47:BU:8:ARG:HD2	1.65	0.61
78:CA:1295:G:H4'	78:CA:1321:A:N6	2.15	0.61
81:DA:636:C:C5	81:DA:646:A:H4'	2.36	0.61
14:AM:133:VAL:HG21	78:CA:1545:A:C4'	2.30	0.60
81:DA:219:A:C2	81:DA:1390:A:H2'	2.35	0.60
81:DA:2129:U:H3	81:DA:2323:G:H1	1.48	0.60
52:BY:90:VAL:HG22	81:DA:378:A:O4'	2.01	0.60
23:AW:63:UNK:H	23:AW:64:UNK:HA	1.65	0.60
40:BK:27:LEU:CD1	40:BK:84:LEU:HD11	2.30	0.60
78:CA:1115:U:H2'	78:CA:1115:U:O2	2.00	0.60
78:CA:1201:G:O6	78:CA:1601:G:O6	2.19	0.60
78:CA:1393:C:H2'	78:CA:1394:G:H5'	1.83	0.60
81:DA:1401:A:C4	81:DA:1401:A:C2'	2.84	0.60
81:DA:2676:A:H1'	81:DA:2679:A:N7	2.16	0.60
43:BP:50:ARG:HB2	81:DA:267:G:N3	2.16	0.60
81:DA:406:G:H1'	82:DB:17:A:N6	2.16	0.60
78:CA:1115:U:N3	78:CA:1131:A:N7	2.49	0.60
78:CA:330:G:H1	78:CA:338:C:N4	1.98	0.60
78:CA:45:U:C6	78:CA:45:U:H2'	2.37	0.60
12:AK:124:ASP:CG	78:CA:929:A:C5	2.73	0.60
80:CC:18:C:C3'	80:CC:19:U:P	2.89	0.60
31:BB:230:VAL:HG21	81:DA:2424:A:C2	2.37	0.60
30:BA:54:LYS:H	30:BA:155:ILE:HG22	1.65	0.60
31:BB:6:ARG:NH1	81:DA:914:A:C6	2.47	0.60
33:BD:84:ARG:HD3	81:DA:365:A:O2'	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BN:15:VAL:HG11	76:BS:160:PRO:HG2	1.83	0.60
41:BN:74:ARG:CD	76:BS:154:VAL:HG11	2.31	0.60
48:BW:90:ARG:HG3	48:BW:90:ARG:H	1.65	0.60
10:AI:127:LYS:HG3	78:CA:1584:G:H3'	1.83	0.60
6:AE:197:TYR:HB2	78:CA:2:A:N6	2.16	0.60
78:CA:446:A:H62	78:CA:461:G:H21	1.49	0.60
81:DA:1218:U:H2'	81:DA:1219:C:H5''	1.81	0.60
9:AH:6:VAL:HG21	78:CA:1036:A:C1'	2.30	0.60
20:AS:43:ASN:CA	78:CA:1477:G:C4'	2.66	0.60
21:AT:55:LEU:H	21:AT:55:LEU:HD12	1.67	0.60
22:AV:49:ARG:HB3	22:AV:69:LEU:HD13	1.83	0.60
35:BG:136:GLU:HG2	41:BN:115:PHE:HB3	1.83	0.60
41:BN:12:TRP:HZ2	76:BS:164:LYS:HD3	1.65	0.60
78:CA:1201:G:N9	78:CA:1201:G:O4'	2.33	0.60
78:CA:1746:A:H3'	78:CA:1747:G:H8	1.65	0.60
32:BC:25:ILE:HD12	81:DA:3312:U:H5''	1.83	0.60
19:AR:107:ILE:HG13	78:CA:1453:G:N2	2.17	0.60
20:AS:39:THR:HG22	20:AS:40:SER:H	1.66	0.60
78:CA:1583:A:C2	78:CA:1612:U:H5	2.18	0.60
78:CA:587:C:N3	78:CA:588:U:C5	2.69	0.60
43:BP:49:ARG:HB3	81:DA:114:A:HO2'	1.64	0.60
81:DA:2661:G:H2'	81:DA:2662:G:H8	1.67	0.60
81:DA:345:G:OP1	81:DA:1429:G:N2	2.35	0.60
13:AL:19:ARG:NH2	78:CA:1106:U:C4	2.69	0.60
14:AM:122:HIS:CD2	19:AR:130:ARG:HD3	2.37	0.60
32:BC:308:MET:HE3	81:DA:3327:G:H2'	1.84	0.60
35:BG:75:PRO:O	35:BG:76:LEU:CB	2.49	0.60
41:BN:12:TRP:CZ2	76:BS:164:LYS:HD3	2.37	0.60
42:BM:95:PHE:CZ	51:BZ:22:VAL:HG11	2.33	0.60
20:AS:42:GLY:CA	78:CA:1476:C:O2'	2.50	0.60
19:AR:58:LYS:HG3	78:CA:1550:A:N7	2.17	0.60
81:DA:1257:C:H2'	81:DA:1258:U:C5'	2.32	0.60
19:AR:59:LYS:HG2	78:CA:1551:U:C5	2.22	0.60
78:CA:207:U:C6	78:CA:253:A:C2	2.90	0.60
81:DA:1695:U:H3	81:DA:1752:A:H61	1.48	0.60
81:DA:1871:U:H6	81:DA:1871:U:O5'	1.84	0.60
81:DA:1900:A:H61	81:DA:1908:A:H61	1.48	0.60
14:AM:14:ILE:CD1	34:BE:115:LYS:CA	2.79	0.60
31:BB:15:ILE:HD11	81:DA:911:C:H5''	1.83	0.60
78:CA:117:U:H2'	78:CA:118:U:H5'	1.84	0.60
2:AA:108:THR:HB	78:CA:1294:G:O2'	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AS:85:SER:H	78:CA:1591:C:P	2.24	0.60
78:CA:1618:C:C3'	78:CA:1618:C:O2	2.49	0.60
81:DA:1009:A:H61	81:DA:1043:C:H42	1.50	0.60
81:DA:1054:A:N7	81:DA:1055:A:H1'	2.17	0.60
31:BB:188:LYS:HG2	81:DA:1794:G:H5'	1.83	0.60
81:DA:1941:C:O2	81:DA:2107:A:N1	2.35	0.60
81:DA:2362:C:C2'	81:DA:2362:C:C6	2.85	0.60
81:DA:636:C:C4	81:DA:637:C:C5	2.90	0.60
33:BD:31:ARG:HH22	81:DA:673:U:H4'	1.67	0.60
37:BH:232:HIS:CG	37:BH:232:HIS:O	2.49	0.60
43:BP:178:HIS:HB2	81:DA:69:C:C5'	2.32	0.60
49:BV:18:ARG:HH21	81:DA:388:G:H5''	1.66	0.60
81:DA:1746:U:H2'	81:DA:1747:G:C8	2.37	0.60
81:DA:2292:U:H3	81:DA:2300:G:H1	1.49	0.60
81:DA:2478:C:C5	81:DA:2479:C:C2	2.89	0.60
6:AE:198:THR:CG2	78:CA:2:A:N1	2.65	0.59
10:AI:90:VAL:HA	10:AI:93:HIS:CE1	2.36	0.59
43:BP:50:ARG:CA	81:DA:267:G:N2	2.54	0.59
78:CA:6:G:C2	78:CA:19:A:C2	2.89	0.59
39:BJ:123:ARG:HH21	81:DA:1257:C:C3'	2.15	0.59
81:DA:1427:U:O2'	81:DA:1428:A:H5'	2.02	0.59
81:DA:754:G:H1	81:DA:778:U:H3	1.50	0.59
13:AL:14:LYS:CE	18:AP:78:THR:OG1	2.50	0.59
10:AI:127:LYS:HZ1	78:CA:1584:G:H4'	1.67	0.59
43:BP:12:ARG:NH1	81:DA:297:G:O6	2.35	0.59
81:DA:600:G:H1'	81:DA:603:A:N6	2.16	0.59
4:AD:125:LYS:H	4:AD:142:HIS:HD2	1.50	0.59
6:AE:174:ARG:HD3	6:AE:174:ARG:O	2.02	0.59
6:AE:30:THR:HG22	6:AE:31:GLU:H	1.66	0.59
16:AO:112:LYS:HA	78:CA:879:G:H5'	1.84	0.59
20:AS:15:ILE:HD13	20:AS:56:LYS:CD	2.32	0.59
36:BF:47:LYS:N	41:BN:7:VAL:HG23	2.17	0.59
42:BM:93:LEU:HD23	51:BZ:20:LEU:CB	2.28	0.59
10:AI:138:PHE:CE1	78:CA:1587:A:OP1	2.55	0.59
78:CA:267:U:H2'	78:CA:268:C:C6	2.37	0.59
81:DA:668:G:H1	81:DA:794:U:H3	1.50	0.59
5:AC:122:VAL:O	5:AC:124:HIS:CD2	2.55	0.59
14:AM:13:HIS:CA	34:BE:116:TYR:CE1	2.85	0.59
33:BD:295:ILE:O	33:BD:296:GLN:HA	2.01	0.59
41:BN:65:LEU:HD23	76:BS:161:PRO:CG	2.32	0.59
78:CA:1176:G:C2	78:CA:1464:G:C2	2.91	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:230:U:H3'	81:DA:231:G:H5'	1.83	0.59
40:BK:110:PRO:HB3	81:DA:3246:G:H21	1.66	0.59
32:BC:123:TYR:HB2	81:DA:3296:A:H5''	1.84	0.59
81:DA:861:C:H2'	81:DA:862:U:C6	2.37	0.59
19:AR:107:ILE:HG23	19:AR:108:ARG:H	1.67	0.59
78:CA:1735:U:H3'	78:CA:1736:G:C8	2.38	0.59
81:DA:1871:U:C6	81:DA:1871:U:P	2.96	0.59
21:AT:83:TRP:CD1	23:AW:118:UNK:CB	2.85	0.59
40:BK:178:VAL:O	40:BK:178:VAL:CG1	2.47	0.59
44:BO:57:GLY:O	44:BO:58:MET:CB	2.48	0.59
46:BT:69:SER:HB2	46:BT:74:ARG:HH22	1.68	0.59
78:CA:1334:U:H3	78:CA:1417:A:H61	1.48	0.59
78:CA:1770:U:H3	78:CA:1791:A:H61	1.50	0.59
78:CA:936:G:C2	78:CA:937:C:C2	2.91	0.59
81:DA:1622:U:H4'	81:DA:1623:G:OP1	2.01	0.59
81:DA:1630:U:H3	81:DA:1811:G:H1	1.48	0.59
78:CA:1759:C:H4'	81:DA:2262:A:H2	1.67	0.59
31:BB:230:VAL:HG21	81:DA:2424:A:N1	2.18	0.59
81:DA:2999:U:H2'	81:DA:3000:A:C8	2.38	0.59
44:BO:4:ARG:HG2	81:DA:802:C:C5	2.38	0.59
4:AD:105:VAL:HG12	4:AD:187:ARG:O	2.03	0.59
10:AI:127:LYS:HZ2	78:CA:1584:G:H4'	1.66	0.59
22:AV:105:THR:O	22:AV:106:ALA:CB	2.45	0.59
32:BC:331:ASN:CG	81:DA:3304:U:H4'	2.22	0.59
74:BQ:90:HIS:CG	74:BQ:91:GLY:H	2.21	0.59
76:BS:75:LYS:HE2	76:BS:131:VAL:HG12	1.84	0.59
78:CA:1003:A:N1	78:CA:1005:A:N3	2.49	0.59
80:CC:18:C:H4'	80:CC:19:U:C5	2.38	0.59
78:CA:1174:C:H42	78:CA:1465:C:N4	2.00	0.59
78:CA:932:U:C2	78:CA:944:A:C6	2.91	0.59
81:DA:1335:C:H2'	81:DA:1336:U:C6	2.38	0.59
81:DA:2346:C:C4	81:DA:2347:U:C5	2.91	0.59
13:AL:13:ARG:HG3	18:AP:76:VAL:CG2	2.32	0.59
21:AT:10:GLU:CB	21:AT:10:GLU:N	2.60	0.59
78:CA:1225:U:H2'	78:CA:1226:A:C8	2.37	0.59
78:CA:1281:G:H2'	78:CA:1282:U:C6	2.38	0.59
78:CA:223:U:H3	78:CA:234:G:H1	1.50	0.59
78:CA:45:U:O4	78:CA:434:G:N2	2.32	0.59
20:AS:15:ILE:HG21	20:AS:60:SER:CB	2.33	0.59
31:BB:188:LYS:CE	81:DA:1793:C:C2'	2.81	0.59
32:BC:182:GLN:HE21	32:BC:184:ASN:HD21	1.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AR:90:ILE:HG13	78:CA:1554:U:O2'	2.01	0.58
20:AS:6:VAL:HG21	20:AS:133:ASP:OD1	2.03	0.58
33:BD:129:THR:HG21	33:BD:248:VAL:HG12	1.84	0.58
34:BE:143:ARG:HD2	74:BQ:50:ARG:HB3	1.84	0.58
78:CA:1174:C:C4	78:CA:1466:G:N2	2.71	0.58
14:AM:123:ARG:CZ	78:CA:1547:A:P	2.91	0.58
78:CA:1780:G:C5	78:CA:1781:A:C5	2.91	0.58
40:BK:130:LYS:HB2	81:DA:1316:C:C6	2.38	0.58
81:DA:1989:U:H2'	81:DA:1990:U:C5	2.38	0.58
81:DA:372:A:C6	81:DA:373:A:N1	2.71	0.58
31:BB:208:ASP:HB3	81:DA:914:A:H2	1.67	0.58
11:AJ:81:THR:O	11:AJ:81:THR:N	2.34	0.58
16:AO:53:LEU:CD2	16:AO:63:ALA:HA	2.33	0.58
34:BE:53:THR:OG1	79:CB:55:C:H2'	2.03	0.58
78:CA:1679:G:H1'	78:CA:1722:A:H61	1.68	0.58
78:CA:451:A:H61	78:CA:455:C:H42	1.51	0.58
81:DA:1379:G:H1	81:DA:1427:U:H3	1.49	0.58
81:DA:1990:U:H2'	81:DA:1991:G:O4'	2.02	0.58
74:BQ:256:THR:HG23	83:DC:59:G:H21	1.68	0.58
13:AL:7:ARG:HB3	18:AP:76:VAL:HG13	1.84	0.58
33:BD:338:LYS:O	33:BD:339:LEU:HD23	2.04	0.58
14:AM:26:ILE:HD12	78:CA:1534:G:P	2.43	0.58
78:CA:1552:U:C5	78:CA:1553:G:N7	2.72	0.58
78:CA:365:G:C6	78:CA:377:G:C2	2.91	0.58
81:DA:2661:G:H2'	81:DA:2662:G:C8	2.39	0.58
2:AA:252:TRP:HA	3:AB:198:GLY:HA3	1.83	0.58
13:AL:7:ARG:CB	18:AP:76:VAL:HG13	2.33	0.58
32:BC:170:PRO:HG2	32:BC:171:LEU:HD12	1.86	0.58
32:BC:232:ARG:HH11	32:BC:233:TRP:HE1	1.50	0.58
35:BG:145:LEU:HD21	41:BN:113:THR:O	2.03	0.58
41:BN:65:LEU:HD23	76:BS:161:PRO:HG2	1.85	0.58
78:CA:1055:U:O2	78:CA:1065:A:C2	2.57	0.58
20:AS:43:ASN:HB2	78:CA:1477:G:H5''	1.86	0.58
78:CA:5:U:O2	78:CA:20:G:C2	2.57	0.58
78:CA:671:G:H2'	78:CA:672:U:C6	2.38	0.58
37:BH:134:TYR:CD1	81:DA:146:U:C5'	2.83	0.58
81:DA:1666:G:H1	81:DA:1783:U:H3	1.49	0.58
81:DA:2999:U:H3	81:DA:3149:G:H1	1.51	0.58
81:DA:4:U:H3	82:DB:155:A:H61	1.51	0.58
81:DA:519:A:H62	81:DA:571:U:H3	1.52	0.58
5:AC:39:LYS:HA	5:AC:39:LYS:HE2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BK:90:HIS:CE1	81:DA:2381:G:H5''	2.38	0.58
78:CA:1684:U:H3	78:CA:1717:G:H1	1.51	0.58
81:DA:1258:U:H2'	81:DA:1260:A:OP2	2.04	0.58
81:DA:1667:A:H61	81:DA:1782:U:H3	1.52	0.58
81:DA:3092:C:N1	81:DA:3092:C:O4'	2.33	0.58
13:AL:134:ALA:O	13:AL:135:LEU:CA	2.51	0.58
81:DA:1825:G:C6	81:DA:1826:C:C5	2.92	0.58
81:DA:3302:U:H2'	81:DA:3303:G:C8	2.39	0.58
81:DA:3384:U:H6	81:DA:3384:U:H5''	1.68	0.58
10:AI:123:ARG:N	10:AI:124:PRO:HD3	2.19	0.58
13:AL:13:ARG:HD3	18:AP:74:THR:CB	2.33	0.58
43:BP:50:ARG:HB3	81:DA:267:G:N3	2.17	0.58
46:BT:78:TYR:HB2	81:DA:1938:U:O4'	2.04	0.58
78:CA:1308:G:C6	78:CA:1318:G:C5	2.91	0.58
18:AP:105:LYS:CE	78:CA:335:U:H4'	2.34	0.58
78:CA:46:A:C8	78:CA:46:A:H2'	2.39	0.58
81:DA:92:G:C8	81:DA:94:G:C4	2.92	0.58
8:AF:66:GLN:H	8:AF:67:PRO:HD3	1.69	0.58
32:BC:308:MET:HG3	32:BC:309:GLY:N	2.18	0.58
78:CA:1176:G:C4	78:CA:1464:G:C2	2.92	0.58
78:CA:964:U:H1'	78:CA:965:U:C4	2.39	0.58
81:DA:1209:G:C8	81:DA:1210:U:P	2.96	0.58
81:DA:1623:G:C2'	81:DA:1624:G:H5''	2.34	0.58
81:DA:2607:G:C6	81:DA:2608:G:C5	2.92	0.58
81:DA:2631:U:H2'	81:DA:2632:G:H8	1.69	0.58
81:DA:372:A:N1	81:DA:373:A:C2	2.72	0.58
6:AE:217:ALA:HB1	78:CA:2:A:C6	2.39	0.58
12:AK:29:HIS:CE1	78:CA:918:U:H5''	2.39	0.58
16:AO:53:LEU:HD23	16:AO:63:ALA:HA	1.85	0.58
16:AO:62:GLN:O	16:AO:65:VAL:HG23	2.04	0.58
45:BR:54:LEU:HD23	45:BR:55:SER:H	1.69	0.58
78:CA:1292:G:C6	78:CA:1324:G:C6	2.92	0.58
14:AM:133:VAL:CG2	78:CA:1545:A:C4'	2.82	0.58
81:DA:1427:U:H2'	81:DA:1428:A:C8	2.39	0.58
81:DA:1573:G:H2'	81:DA:1574:C:C6	2.39	0.58
74:BQ:203:HIS:CE1	83:DC:47:C:H5'	2.38	0.58
51:BZ:67:VAL:O	51:BZ:69:LYS:HG2	2.04	0.58
78:CA:1132:A:H2'	78:CA:1133:A:C8	2.39	0.58
78:CA:402:C:C5	78:CA:403:G:N7	2.72	0.58
81:DA:1963:G:H1	81:DA:2059:U:H3	1.52	0.58
81:DA:2356:A:N1	81:DA:2982:A:C2	2.72	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BD:84:ARG:CB	81:DA:365:A:O2'	2.51	0.58
81:DA:636:C:C3'	81:DA:637:C:H5''	2.33	0.58
50:BX:56:ARG:HB2	82:DB:134:G:H5'	1.86	0.58
83:DC:66:C:H2'	83:DC:67:C:C6	2.39	0.58
13:AL:13:ARG:CD	18:AP:74:THR:CG2	2.51	0.57
21:AT:1:MET:SD	23:AW:119:UNK:HA	2.44	0.57
48:BW:81:LYS:HG2	81:DA:1688:U:C5	2.38	0.57
52:BY:48:LEU:HD13	52:BY:115:ARG:HH21	1.69	0.57
78:CA:674:C:O2'	78:CA:675:U:H5'	2.04	0.57
4:AD:209:HIS:HA	4:AD:219:VAL:HA	1.85	0.57
16:AO:65:VAL:HG11	24:AX:51:GLN:HB2	1.85	0.57
35:BG:46:ARG:HG3	81:DA:3215:A:H62	1.69	0.57
35:BG:55:LEU:HB3	35:BG:98:VAL:CG2	2.31	0.57
37:BH:232:HIS:CD2	37:BH:232:HIS:O	2.57	0.57
76:BS:151:PHE:HB2	76:BS:153:LEU:H	1.69	0.57
78:CA:1395:G:H1	78:CA:1403:C:H42	1.52	0.57
14:AM:116:LEU:HD11	78:CA:1547:A:H5'	1.86	0.57
81:DA:2002:G:H1	81:DA:2019:U:H3	1.52	0.57
81:DA:2291:A:N1	81:DA:2302:G:C6	2.72	0.57
2:AA:93:THR:HG23	2:AA:95:ALA:H	1.69	0.57
20:AS:83:ALA:H	20:AS:84:LYS:HD2	1.68	0.57
31:BB:6:ARG:NH2	81:DA:914:A:C4	2.68	0.57
33:BD:331:ALA:HB1	33:BD:334:PHE:H	1.69	0.57
14:AM:16:ARG:NH1	34:BE:110:ILE:C	2.30	0.57
48:BW:105:LEU:HG	48:BW:107:PHE:HB3	1.85	0.57
48:BW:81:LYS:HD2	81:DA:1688:U:N3	2.19	0.57
20:AS:43:ASN:N	78:CA:1477:G:C5'	2.65	0.57
78:CA:372:G:C5	78:CA:373:G:C4	2.92	0.57
78:CA:590:C:H2'	78:CA:591:A:C8	2.38	0.57
81:DA:1649:U:H2'	81:DA:1650:G:C8	2.39	0.57
81:DA:1871:U:C6	81:DA:1871:U:O5'	2.57	0.57
81:DA:1959:G:H1	81:DA:2082:U:H3	1.52	0.57
81:DA:1986:U:H3	81:DA:2035:G:H1	1.53	0.57
81:DA:331:G:N7	81:DA:332:C:C5	2.72	0.57
81:DA:998:A:H61	81:DA:1052:U:H3	1.51	0.57
44:BO:141:ALA:CB	75:BL:80:UNK:O	2.53	0.57
43:BP:49:ARG:NE	81:DA:114:A:O2'	2.37	0.57
81:DA:1640:G:H2'	81:DA:1641:U:C6	2.39	0.57
8:AF:192:GLU:H	8:AF:192:GLU:CD	2.07	0.57
20:AS:12:GLN:HA	20:AS:15:ILE:HG13	1.86	0.57
20:AS:11:ALA:O	20:AS:15:ILE:HG23	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BP:142:ILE:H	43:BP:142:ILE:HD12	1.69	0.57
76:BS:148:ASP:HB3	76:BS:154:VAL:HG23	1.87	0.57
51:BZ:50:ALA:HB3	51:BZ:53:VAL:HG22	1.87	0.57
78:CA:1617:U:H4'	78:CA:1618:C:O2	2.05	0.57
81:DA:1075:A:H2'	81:DA:1076:C:C6	2.39	0.57
81:DA:1869:C:C2	81:DA:1870:C:C6	2.91	0.57
81:DA:2612:U:O2'	81:DA:2803:A:C4	2.50	0.57
43:BP:180:PHE:CD2	81:DA:287:G:H5''	2.39	0.57
81:DA:678:G:C5	81:DA:703:G:C6	2.92	0.57
33:BD:322:GLN:C	33:BD:323:VAL:CA	2.68	0.57
74:BQ:121:GLY:O	74:BQ:122:VAL:CG2	2.52	0.57
78:CA:1115:U:N3	78:CA:1130:G:N2	2.52	0.57
78:CA:1203:A:N1	78:CA:1556:A:C5	2.72	0.57
81:DA:114:A:N1	81:DA:266:A:H5'	2.19	0.57
81:DA:299:G:O6	81:DA:316:U:O4	2.22	0.57
29:AU:14:SER:HB3	29:AU:89:TYR:HB3	1.86	0.57
81:DA:1666:G:H2'	81:DA:1667:A:C8	2.40	0.57
81:DA:3129:A:H3'	81:DA:3131:U:C5	2.40	0.57
81:DA:3221:C:H2'	81:DA:3222:U:C6	2.40	0.57
8:AF:33:VAL:HB	10:AI:68:ARG:HH12	1.70	0.57
18:AP:59:PRO:CG	78:CA:326:G:C5'	2.81	0.57
44:BO:57:GLY:O	44:BO:58:MET:CG	2.53	0.57
42:BM:94:TYR:OH	51:BZ:21:PHE:N	2.38	0.57
78:CA:1381:U:H2'	78:CA:1382:A:C8	2.39	0.57
33:BD:221:ASN:O	81:DA:212:G:C8	2.58	0.57
14:AM:116:LEU:HA	14:AM:119:ILE:HD12	1.87	0.57
14:AM:133:VAL:HG23	78:CA:1545:A:C5'	2.34	0.57
14:AM:16:ARG:HH12	34:BE:111:ASP:CA	2.11	0.57
35:BG:93:VAL:HG23	35:BG:94:GLU:N	3.63	0.57
42:BM:48:ARG:HD2	81:DA:2339:C:OP2	2.05	0.57
41:BN:12:TRP:CE3	76:BS:165:LEU:CB	2.88	0.57
78:CA:1171:A:C2	78:CA:1469:A:N1	2.72	0.57
78:CA:885:G:H2'	78:CA:886:U:C6	2.39	0.57
81:DA:1017:C:H42	81:DA:1037:C:H42	1.53	0.57
81:DA:1623:G:C2'	81:DA:1624:G:C5'	2.82	0.57
16:AO:63:ALA:N	16:AO:64:ARG:HB2	2.20	0.57
31:BB:178:PRO:HB3	81:DA:2150:G:H5''	1.87	0.57
32:BC:266:ARG:NE	81:DA:2989:U:C6	2.71	0.57
37:BH:97:TYR:CD1	37:BH:221:ASN:HB2	2.40	0.57
44:BO:124:ILE:CD1	75:BL:147:UNK:C	2.83	0.57
42:BM:92:PHE:HB2	51:BZ:19:THR:HG22	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:30:TYR:OH	78:CA:1532:U:H1'	2.05	0.57
78:CA:296:U:H2'	78:CA:297:U:H6	1.70	0.57
81:DA:1019:G:H1	81:DA:1035:G:H21	1.53	0.57
81:DA:752:C:H42	81:DA:780:A:H61	1.53	0.57
83:DC:105:A:H2'	83:DC:106:G:C8	2.40	0.57
78:CA:1176:G:C2	78:CA:1464:G:N3	2.72	0.56
78:CA:1437:U:C2'	78:CA:1438:G:H5'	2.35	0.56
10:AI:135:ARG:NH1	78:CA:1589:C:H41	2.03	0.56
78:CA:6:G:C2	78:CA:19:A:N3	2.73	0.56
2:AA:41:ARG:HB2	2:AA:45:VAL:HG11	1.87	0.56
10:AI:49:TYR:H	20:AS:8:ASP:HB2	1.70	0.56
14:AM:122:HIS:CD2	19:AR:130:ARG:HG2	2.41	0.56
30:BA:74:VAL:O	30:BA:74:VAL:HG12	3.97	0.56
37:BH:200:LEU:HD13	37:BH:202:GLU:HB2	1.86	0.56
46:BT:82:LYS:O	46:BT:83:GLY:O	2.22	0.56
29:AU:68:LYS:NZ	78:CA:165:G:H5''	2.20	0.56
46:BT:121:HIS:HE2	81:DA:1718:G:H8	1.52	0.56
81:DA:1784:G:O2'	81:DA:1785:U:H5'	2.04	0.56
81:DA:701:G:H2'	81:DA:702:C:C6	2.40	0.56
81:DA:369:A:N6	82:DB:20:U:H3	2.03	0.56
83:DC:14:U:H3	83:DC:64:A:N6	2.01	0.56
6:AE:198:THR:HG23	78:CA:2:A:C2	2.41	0.56
13:AL:98:GLU:HG2	78:CA:18:C:O2'	2.04	0.56
14:AM:15:LEU:H	14:AM:22:VAL:HG11	1.69	0.56
35:BG:97:ASN:C	35:BG:98:VAL:HG23	2.25	0.56
78:CA:1455:G:OP1	78:CA:1558:U:C2	2.58	0.56
29:AU:10:ARG:HH12	78:CA:164:A:H5'	1.65	0.56
7:AG:130:UNK:O	78:CA:636:A:N6	2.37	0.56
81:DA:1659:U:H3	81:DA:1790:G:H1	1.52	0.56
31:BB:26:ALA:CB	81:DA:2175:U:H2'	2.26	0.56
81:DA:394:G:H22	81:DA:397:A:H5'	1.70	0.56
81:DA:44:U:H2'	81:DA:45:A:H5'	1.85	0.56
81:DA:796:U:H2'	81:DA:797:U:C6	2.41	0.56
83:DC:102:C:H2'	83:DC:103:U:C6	2.40	0.56
3:AB:162:GLN:HB3	3:AB:163:PRO:HD2	1.87	0.56
4:AD:169:ILE:HG21	4:AD:172:PHE:CE1	2.40	0.56
19:AR:59:LYS:HE2	78:CA:1551:U:O5'	2.05	0.56
32:BC:362:ALA:HB1	32:BC:364:LYS:HB3	1.87	0.56
33:BD:3:ARG:HH21	33:BD:22:LEU:CD1	2.18	0.56
43:BP:12:ARG:CZ	81:DA:297:G:O6	2.53	0.56
74:BQ:121:GLY:O	74:BQ:122:VAL:HG23	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:59:ALA:HB2	78:CA:906:A:OP1	2.05	0.56
78:CA:933:A:C6	78:CA:935:U:H1'	2.40	0.56
81:DA:2161:G:C8	81:DA:2162:U:C5	2.93	0.56
43:BP:50:ARG:HB3	81:DA:267:G:H21	1.63	0.56
81:DA:798:G:C2'	81:DA:799:G:C8	2.89	0.56
83:DC:2:G:H2'	83:DC:3:U:H5	1.71	0.56
14:AM:123:ARG:HB3	78:CA:1547:A:OP1	2.04	0.56
33:BD:107:ARG:HA	81:DA:664:U:H5'	1.88	0.56
33:BD:89:ALA:HB3	33:BD:89:ALA:O	1.99	0.56
35:BG:76:LEU:CD2	35:BG:100:LYS:HB3	2.35	0.56
39:BJ:94:LYS:HG2	81:DA:1251:A:N3	2.20	0.56
40:BK:198:GLY:CA	41:BN:108:ARG:HD3	2.34	0.56
32:BC:300:ARG:HE	51:BZ:1:MET:N	2.03	0.56
78:CA:195:G:O3'	78:CA:196:G:C8	2.59	0.56
78:CA:647:G:H8	78:CA:647:G:O5'	1.89	0.56
81:DA:1285:G:C2'	81:DA:1285:G:N9	2.64	0.56
81:DA:1863:G:O2'	81:DA:1867:A:N6	2.39	0.56
78:CA:1667:A:H4'	81:DA:1936:A:H5'	1.86	0.56
81:DA:2869:U:O2	81:DA:2873:U:C4	2.57	0.56
81:DA:3305:A:H2'	81:DA:3306:U:O4'	2.06	0.56
81:DA:677:A:N9	81:DA:677:A:C2'	2.64	0.56
81:DA:997:A:C8	81:DA:997:A:H3'	2.40	0.56
10:AI:29:ILE:HD11	10:AI:125:GLU:HB3	1.87	0.56
14:AM:136:GLN:HG3	78:CA:1544:U:H5''	1.88	0.56
13:AL:7:ARG:HD2	18:AP:76:VAL:N	2.21	0.56
74:BQ:152:ARG:HG2	81:DA:2663:G:C5'	2.36	0.56
81:DA:1073:U:H3	81:DA:1087:G:H1	1.53	0.56
81:DA:1675:G:H2'	81:DA:1676:A:C8	2.41	0.56
81:DA:1820:U:H2'	81:DA:1821:U:H6	1.70	0.56
83:DC:29:C:C2	83:DC:30:G:N7	2.74	0.56
20:AS:41:SER:N	78:CA:1477:G:OP1	2.37	0.56
33:BD:145:ILE:HG23	33:BD:146:PRO:HA	1.88	0.56
78:CA:929:A:H5''	78:CA:931:C:H42	1.70	0.56
81:DA:1291:A:H2'	81:DA:1292:C:C6	2.40	0.56
19:AR:107:ILE:HG12	78:CA:1453:G:H21	1.69	0.56
29:AU:10:ARG:HH12	78:CA:164:A:H5''	1.67	0.56
51:BZ:51:TRP:H	51:BZ:53:VAL:HG13	1.71	0.56
78:CA:1003:A:C4	78:CA:1005:A:C5	2.93	0.56
78:CA:1087:A:O2'	78:CA:1142:A:O2'	2.23	0.56
14:AM:109:LEU:HD11	78:CA:1546:G:O4'	2.05	0.56
78:CA:217:A:C2	78:CA:839:U:O2	2.59	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2424:A:C2	81:DA:2607:G:C2	2.93	0.56
81:DA:2919:A:N6	81:DA:2927:C:H42	2.03	0.56
14:AM:15:LEU:O	14:AM:22:VAL:HG12	2.06	0.56
18:AP:60:PHE:CD2	78:CA:325:G:H4'	2.41	0.56
46:BT:82:LYS:HD2	46:BT:82:LYS:H	1.70	0.56
78:CA:1190:C:C6	78:CA:1190:C:H5'	2.41	0.56
81:DA:2721:A:H61	81:DA:2735:U:H3	1.54	0.56
81:DA:3035:A:H2'	81:DA:3036:G:C8	2.41	0.56
33:BD:100:PHE:HB3	81:DA:803:C:H4'	1.87	0.56
13:AL:7:ARG:HG2	18:AP:76:VAL:HG21	1.87	0.56
17:AQ:93:LEU:O	17:AQ:94:SER:CB	2.53	0.56
41:BN:65:LEU:CD2	76:BS:161:PRO:HG2	2.36	0.56
81:DA:3013:U:O4	81:DA:3041:U:O4	2.23	0.56
81:DA:3019:U:C5	81:DA:3020:U:C4	2.94	0.56
81:DA:349:A:H2	82:DB:22:U:HO2'	1.51	0.56
81:DA:394:G:N2	81:DA:397:A:C8	2.74	0.56
82:DB:45:C:H2'	82:DB:46:G:C8	2.41	0.56
13:AL:19:ARG:HH21	78:CA:1106:U:H5	1.53	0.56
32:BC:50:LYS:HA	32:BC:79:VAL:HG12	1.88	0.56
77:BI:6:ALA:HB3	81:DA:2855:U:OP1	2.05	0.56
78:CA:1747:G:O2'	81:DA:2303:A:C1'	2.54	0.56
78:CA:220:A:C2	78:CA:836:U:O2	2.59	0.56
78:CA:553:G:H22	78:CA:571:G:H1	1.54	0.56
78:CA:218:A:H61	78:CA:838:G:C1'	2.18	0.56
39:BJ:74:VAL:HG11	81:DA:1235:U:H5'	1.87	0.56
81:DA:655:C:H2'	81:DA:656:A:H8	1.71	0.56
24:AX:47:PHE:HD1	24:AX:47:PHE:H	1.53	0.55
34:BE:89:TYR:CB	34:BE:89:TYR:N	2.62	0.55
48:BW:95:PHE:HA	48:BW:100:THR:HG22	1.87	0.55
78:CA:1388:A:H1'	78:CA:1411:A:H2	1.70	0.55
78:CA:988:A:H2'	78:CA:989:U:C6	2.41	0.55
81:DA:991:G:H1	81:DA:1060:U:H3	1.52	0.55
81:DA:1686:U:H3	81:DA:3069:G:H1	1.53	0.55
81:DA:1752:A:H8	81:DA:1752:A:C5'	2.18	0.55
82:DB:104:A:C8	82:DB:105:A:C8	2.94	0.55
82:DB:98:U:H5	82:DB:99:C:C4	2.23	0.55
4:AD:153:ASN:CA	4:AD:153:ASN:CG	2.68	0.55
4:AD:79:ASP:CB	4:AD:82:TYR:CE2	2.88	0.55
7:AG:9:UNK:O	7:AG:11:UNK:HA	2.06	0.55
14:AM:123:ARG:NE	78:CA:1547:A:OP2	2.39	0.55
16:AO:63:ALA:O	16:AO:66:ILE:HG12	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AR:124:THR:HG23	19:AR:125:PRO:HD3	1.88	0.55
32:BC:248:LYS:HD2	32:BC:249:VAL:H	1.71	0.55
36:BF:168:ARG:HH21	81:DA:2894:C:H4'	1.71	0.55
37:BH:138:HIS:O	37:BH:142:LEU:HD23	2.06	0.55
78:CA:1081:A:C2'	78:CA:1081:A:N9	2.62	0.55
78:CA:1185:U:C4	78:CA:1458:G:N7	2.74	0.55
78:CA:676:G:C2'	78:CA:677:G:H5''	2.37	0.55
79:CB:67:G:H2'	79:CB:68:C:H5''	1.88	0.55
81:DA:1646:G:C6	81:DA:1808:G:C6	2.94	0.55
81:DA:275:U:H3	81:DA:290:G:H22	1.54	0.55
81:DA:3049:A:C8	81:DA:3050:U:C5	2.93	0.55
81:DA:3107:U:H2'	81:DA:3108:G:H8	1.70	0.55
20:AS:45:MET:HE1	20:AS:53:TRP:CG	2.42	0.55
29:AU:16:PRO:HB2	29:AU:93:ARG:HE	1.70	0.55
77:BI:106:ALA:CA	77:BI:108:ALA:CB	2.79	0.55
78:CA:1203:A:N6	78:CA:1556:A:N6	2.54	0.55
78:CA:1673:G:H2'	78:CA:1674:C:C5	2.42	0.55
81:DA:1870:C:HO2'	81:DA:1871:U:P	2.29	0.55
13:AL:10:ASN:H	18:AP:79:LYS:NZ	2.04	0.55
31:BB:15:ILE:HD11	81:DA:911:C:P	2.47	0.55
32:BC:344:THR:O	32:BC:345:ASN:HB2	2.06	0.55
36:BF:23:ARG:HH22	36:BF:44:THR:HA	1.71	0.55
37:BH:153:ILE:HG23	37:BH:163:VAL:CG2	2.35	0.55
77:BI:57:LEU:H	77:BI:57:LEU:HD13	4.95	0.55
52:BY:112:ASP:HB2	52:BY:115:ARG:HB3	1.88	0.55
78:CA:1552:U:C5	78:CA:1553:G:O6	2.59	0.55
81:DA:1869:C:C4	81:DA:1870:C:C5	2.94	0.55
81:DA:2157:G:N9	81:DA:2157:G:O4'	2.37	0.55
81:DA:2164:A:N6	81:DA:2165:G:C6	2.74	0.55
81:DA:2220:A:H2'	81:DA:2221:G:H5'	1.87	0.55
81:DA:2465:G:C2'	81:DA:2466:G:H5'	2.37	0.55
81:DA:2676:A:H1'	81:DA:2679:A:C5	2.42	0.55
82:DB:121:U:H5	82:DB:132:G:H21	1.53	0.55
13:AL:74:VAL:HG12	13:AL:102:VAL:HG12	1.89	0.55
31:BB:224:THR:HG21	81:DA:2201:G:H21	1.72	0.55
36:BF:57:VAL:HG12	36:BF:59:ASN:H	1.71	0.55
74:BQ:238:ASP:HB3	74:BQ:239:ILE:HA	1.87	0.55
45:BR:105:ARG:NH2	81:DA:675:C:C6	2.74	0.55
45:BR:72:LYS:HD3	45:BR:99:THR:HB	1.88	0.55
14:AM:137:HIS:NE2	78:CA:1173:C:H3'	2.22	0.55
78:CA:1570:A:H3'	78:CA:1571:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AO:114:ARG:HD3	78:CA:938:G:O2'	2.04	0.55
81:DA:1314:C:H2'	81:DA:1315:U:H5'	1.89	0.55
81:DA:1686:U:C4	81:DA:1687:U:N3	2.73	0.55
81:DA:1696:A:H2'	81:DA:1697:A:C8	2.41	0.55
81:DA:2177:G:H4'	81:DA:2180:G:H1'	1.89	0.55
81:DA:600:G:C2	81:DA:604:G:C5	2.95	0.55
4:AD:147:ILE:HD13	4:AD:169:ILE:HD11	1.87	0.55
31:BB:193:ARG:HH11	81:DA:2173:U:H3'	1.71	0.55
44:BO:5:PHE:CE2	81:DA:801:A:OP1	2.60	0.55
46:BT:17:VAL:HG23	46:BT:52:LYS:HD2	1.88	0.55
51:BZ:67:VAL:HB	51:BZ:69:LYS:HB3	1.89	0.55
78:CA:1303:U:C4	78:CA:1304:G:N1	2.75	0.55
81:DA:1942:U:H2'	81:DA:1943:C:C6	2.42	0.55
81:DA:384:A:H2'	81:DA:385:A:C8	2.41	0.55
82:DB:98:U:C5	82:DB:99:C:N3	2.74	0.55
10:AI:138:PHE:CZ	78:CA:1587:A:P	2.99	0.55
13:AL:9:LEU:HD13	18:AP:79:LYS:CE	2.36	0.55
18:AP:104:HIS:CG	18:AP:105:LYS:H	2.24	0.55
26:AZ:11:ALA:HB2	26:AZ:33:ARG:NH2	2.22	0.55
31:BB:37:ARG:HA	31:BB:93:LYS:HB3	1.87	0.55
37:BH:134:TYR:CD2	81:DA:147:U:OP1	2.59	0.55
49:BV:18:ARG:NH2	81:DA:388:G:H5''	2.21	0.55
78:CA:1292:G:C5	78:CA:1293:U:C4	2.94	0.55
78:CA:1413:U:H5	78:CA:1415:U:H5''	1.72	0.55
78:CA:1547:A:H2'	78:CA:1548:G:C5'	2.37	0.55
78:CA:481:A:N6	78:CA:506:A:H61	2.05	0.55
45:BR:13:SER:HB2	81:DA:1342:C:H5''	1.89	0.55
81:DA:2065:U:O2	81:DA:2071:A:N1	2.39	0.55
81:DA:535:G:H1	81:DA:558:U:H3	1.55	0.55
8:AF:55:ASP:OD2	25:AY:58:GLU:OE2	2.25	0.55
10:AI:86:ALA:HB2	78:CA:1609:U:OP1	2.07	0.55
13:AL:11:SER:HB2	13:AL:14:LYS:HZ2	1.71	0.55
30:BA:74:VAL:O	30:BA:74:VAL:CG1	4.32	0.55
40:BK:197:LEU:HD13	41:BN:108:ARG:HB3	1.89	0.55
45:BR:102:ALA:HB1	45:BR:124:LEU:HD13	1.88	0.55
81:DA:2723:U:H2'	81:DA:2724:U:C6	2.41	0.55
81:DA:3106:A:H2'	81:DA:3107:U:H5'	1.88	0.55
32:BC:93:VAL:HG11	81:DA:3243:A:N9	2.21	0.55
81:DA:19:U:H3	82:DB:140:G:H1	1.54	0.55
83:DC:58:U:H2'	83:DC:59:G:H8	1.71	0.55
74:BQ:74:VAL:HG12	83:DC:5:G:H21	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AO:65:VAL:HB	24:AX:51:GLN:HB2	1.89	0.55
14:AM:26:ILE:HD12	78:CA:1534:G:OP2	2.06	0.55
78:CA:1158:C:N4	78:CA:1582:U:N3	2.54	0.55
32:BC:331:ASN:OD1	81:DA:3304:U:H4'	2.06	0.55
35:BG:3:ALA:HB1	35:BG:4:GLN:HB3	1.89	0.55
77:BI:112:GLN:HE22	77:BI:116:ARG:HG2	1.72	0.55
41:BN:12:TRP:HE3	76:BS:165:LEU:HD12	1.73	0.55
78:CA:1375:A:H2'	78:CA:1376:C:C6	2.42	0.55
78:CA:1677:C:H2'	78:CA:1678:A:H8	1.71	0.55
40:BK:17:GLY:HA3	81:DA:1314:C:OP1	2.07	0.55
33:BD:240:PRO:HB2	81:DA:1383:G:H4'	1.89	0.55
48:BW:81:LYS:CG	81:DA:1688:U:O4	2.55	0.55
81:DA:2220:A:C6	81:DA:2221:G:C2	2.92	0.55
81:DA:2747:A:H2'	81:DA:2748:A:C8	2.42	0.55
44:BO:14:HIS:CG	81:DA:95:A:H4'	2.41	0.55
16:AO:106:ARG:HD2	16:AO:112:LYS:HG2	1.90	0.54
33:BD:354:VAL:O	33:BD:355:PHE:CB	2.45	0.54
35:BG:99:GLU:CA	81:DA:616:G:H5'	2.35	0.54
37:BH:89:GLU:OE2	37:BH:89:GLU:HA	2.07	0.54
10:AI:138:PHE:CE2	78:CA:1587:A:OP2	2.60	0.54
78:CA:1641:C:H42	78:CA:1760:G:H1	1.55	0.54
78:CA:559:C:H42	78:CA:586:G:H1	0.81	0.54
81:DA:1694:U:H3	81:DA:1753:G:H1	1.55	0.54
34:BE:123:PHE:CE2	81:DA:2674:A:C4	2.95	0.54
81:DA:600:G:C6	81:DA:604:G:O6	2.60	0.54
81:DA:703:G:C6	81:DA:704:U:C2	2.94	0.54
83:DC:117:C:H2'	83:DC:118:U:C6	2.41	0.54
12:AK:33:LEU:CD2	78:CA:903:U:O4	2.55	0.54
39:BJ:120:SER:HA	81:DA:1234:G:H5'	1.90	0.54
10:AI:135:ARG:CZ	78:CA:1588:G:C6	2.90	0.54
78:CA:901:G:H1	78:CA:902:G:N2	2.04	0.54
81:DA:1927:G:N2	81:DA:1928:G:C8	2.76	0.54
31:BB:200:ARG:NH2	81:DA:2187:G:C6	2.76	0.54
81:DA:2638:C:H2'	81:DA:2639:G:H5'	1.88	0.54
81:DA:2762:A:H3'	81:DA:2763:U:C5	2.43	0.54
31:BB:191:LEU:HD11	81:DA:1794:G:C5'	2.37	0.54
43:BP:177:GLY:O	43:BP:181:ASN:CB	2.55	0.54
19:AR:59:LYS:HE3	78:CA:1551:U:O5'	2.06	0.54
19:AR:125:PRO:HG2	78:CA:1557:U:H3	1.72	0.54
78:CA:415:C:C5	78:CA:417:A:N3	2.75	0.54
79:CB:73:C:H42	81:DA:2620:G:H1	1.54	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:1078:U:H3'	81:DA:1078:U:C6	2.42	0.54
47:BU:116:ARG:CZ	81:DA:1095:U:O3'	2.55	0.54
81:DA:2216:G:H2'	81:DA:2217:U:C5	2.43	0.54
74:BQ:203:HIS:HE1	83:DC:47:C:H5'	1.72	0.54
34:BE:149:GLY:H	34:BE:152:HIS:CD2	2.26	0.54
36:BF:45:PHE:CE1	36:BF:75:VAL:HG11	2.42	0.54
37:BH:138:HIS:NE2	81:DA:147:U:C5'	2.70	0.54
40:BK:27:LEU:HD13	40:BK:84:LEU:HD11	1.89	0.54
42:BM:49:LEU:HD11	81:DA:1901:A:H1'	1.87	0.54
43:BP:73:ARG:HH12	43:BP:92:LEU:HD12	1.72	0.54
74:BQ:238:ASP:HB3	74:BQ:239:ILE:CA	2.36	0.54
48:BW:81:LYS:CG	81:DA:1688:U:C4	2.89	0.54
78:CA:1115:U:O2	78:CA:1131:A:N6	2.41	0.54
78:CA:586:G:H2'	78:CA:587:C:H6	1.72	0.54
81:DA:1201:C:H42	81:DA:2857:C:H5''	1.72	0.54
81:DA:1961:G:N2	81:DA:2080:C:O2	2.35	0.54
81:DA:2279:A:H2	81:DA:2286:U:H3	1.42	0.54
11:AJ:56:VAL:HG12	11:AJ:57:ARG:H	1.72	0.54
31:BB:38:HIS:N	31:BB:38:HIS:CD2	2.68	0.54
33:BD:161:LYS:O	33:BD:218:ALA:HB1	2.08	0.54
43:BP:74:PRO:HB2	43:BP:74:PRO:C	2.28	0.54
78:CA:1176:G:C2	78:CA:1464:G:C4	2.96	0.54
19:AR:59:LYS:CB	78:CA:1551:U:H5	2.20	0.54
78:CA:1780:G:O6	78:CA:1781:A:N6	2.41	0.54
78:CA:228:G:C2'	78:CA:228:G:C8	2.91	0.54
78:CA:375:U:C4	78:CA:376:C:C4	2.96	0.54
78:CA:918:U:H2'	78:CA:919:A:C8	2.42	0.54
81:DA:1887:A:H61	81:DA:2348:A:H1'	1.72	0.54
81:DA:2007:G:H1	81:DA:2014:U:H3	1.56	0.54
81:DA:2166:A:N9	81:DA:2166:A:O4'	2.36	0.54
31:BB:129:ALA:HB2	81:DA:2177:G:H5''	1.88	0.54
81:DA:2700:G:H21	81:DA:2705:A:H2	1.55	0.54
81:DA:2859:U:H4'	81:DA:2860:U:C5	2.42	0.54
81:DA:3219:G:H2'	81:DA:3220:G:C8	2.43	0.54
35:BG:77:ARG:CD	35:BG:79:VAL:HG13	2.37	0.54
35:BG:64:LEU:HD13	35:BG:98:VAL:HG11	1.89	0.54
41:BN:12:TRP:CD2	41:BN:19:ARG:NH2	2.75	0.54
47:BU:27:LEU:HD23	74:BQ:37:VAL:HG21	1.89	0.54
81:DA:1009:A:H5'	81:DA:1009:A:H8	1.71	0.54
81:DA:3304:U:C4'	81:DA:3304:U:C2'	2.84	0.54
83:DC:49:G:O4'	83:DC:49:G:N9	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BH:230:LYS:C	37:BH:232:HIS:H	2.10	0.54
46:BT:71:ARG:CZ	81:DA:2100:A:P	2.95	0.54
78:CA:1003:A:C6	78:CA:1005:A:C4	2.96	0.54
78:CA:1203:A:N1	78:CA:1556:A:C4	2.76	0.54
78:CA:1543:A:N6	78:CA:1567:U:N3	2.56	0.54
78:CA:1133:A:C2	78:CA:1651:A:O2'	2.60	0.54
78:CA:275:C:H2'	78:CA:276:C:C5	2.43	0.54
78:CA:893:U:O2	78:CA:919:A:H2	1.87	0.54
81:DA:1617:G:H2'	81:DA:1618:G:C8	2.43	0.54
81:DA:2041:U:H2'	81:DA:2042:G:C8	2.42	0.54
81:DA:3048:A:H5'	81:DA:3048:A:H8	1.73	0.54
81:DA:847:A:H2'	81:DA:848:A:C8	2.43	0.54
82:DB:153:U:H2'	82:DB:154:C:C5	2.43	0.54
16:AO:90:TYR:HE2	78:CA:869:A:H4'	1.73	0.54
14:AM:11:PHE:CE2	22:AV:33:LYS:CG	2.89	0.54
30:BA:190:PHE:HB3	75:BL:180:UNK:C	2.38	0.54
76:BS:156:ARG:O	76:BS:158:VAL:HB	2.08	0.54
78:CA:1308:G:C6	78:CA:1318:G:C4	2.95	0.54
81:DA:3219:G:H3'	81:DA:3220:G:C8	2.42	0.54
81:DA:3385:U:H2'	81:DA:3386:G:C8	2.42	0.54
81:DA:701:G:C8	81:DA:701:G:H3'	2.43	0.54
82:DB:44:A:H3'	82:DB:45:C:C5	2.43	0.54
14:AM:101:LEU:HD22	78:CA:1566:U:H4'	1.90	0.54
19:AR:58:LYS:HD2	78:CA:1549:C:C4	2.41	0.54
32:BC:73:VAL:HG23	42:BM:89:ASP:O	2.08	0.54
34:BE:60:ARG:HH11	34:BE:60:ARG:H	1.54	0.54
76:BS:73:THR:HA	76:BS:74:ILE:HG13	1.89	0.54
19:AR:123:TYR:CE2	78:CA:1556:A:OP1	2.61	0.54
78:CA:1699:G:O2'	78:CA:1702:A:N6	2.41	0.54
81:DA:1401:A:C1'	81:DA:1401:A:O2'	2.52	0.54
81:DA:1717:U:H3	81:DA:1727:G:H1	1.55	0.54
81:DA:2743:A:H2'	81:DA:2744:U:C6	2.43	0.54
81:DA:677:A:C2	81:DA:786:A:C4	2.95	0.54
4:AD:79:ASP:HB2	4:AD:82:TYR:CE2	2.43	0.54
12:AK:124:ASP:OD1	78:CA:929:A:N1	2.41	0.54
35:BG:111:LEU:O	35:BG:114:LYS:HG3	2.08	0.54
44:BO:91:LEU:HD13	44:BO:116:GLY:HA2	1.90	0.54
78:CA:1176:G:C6	78:CA:1464:G:N1	2.76	0.54
78:CA:295:A:H2'	78:CA:295:A:C4	2.42	0.54
81:DA:1825:G:C5	81:DA:1826:C:C5	2.96	0.54
81:DA:2044:U:H2'	81:DA:2045:G:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2148:U:H2'	81:DA:2149:A:C4	2.43	0.54
31:BB:193:ARG:HD3	81:DA:2173:U:H5''	1.90	0.54
83:DC:44:C:H2'	83:DC:45:A:C8	2.43	0.54
4:AD:123:LEU:HD21	4:AD:159:THR:HB	1.90	0.53
18:AP:67:ARG:NE	78:CA:306:U:H5''	2.22	0.53
32:BC:173:GLN:HA	81:DA:3314:A:OP1	2.08	0.53
36:BF:45:PHE:O	41:BN:8:LYS:HE2	2.08	0.53
44:BO:73:LEU:H	44:BO:73:LEU:HD12	1.73	0.53
46:BT:58:HIS:HA	81:DA:1871:U:C5'	2.28	0.53
78:CA:1463:C:OP1	79:CB:30:G:H4'	2.09	0.53
78:CA:5:U:C2	78:CA:20:G:N2	2.76	0.53
78:CA:306:U:O5'	78:CA:306:U:C6	2.60	0.53
78:CA:933:A:C6	78:CA:935:U:O2	2.61	0.53
81:DA:1889:G:H2'	81:DA:1890:U:C6	2.44	0.53
81:DA:160:G:N2	81:DA:261:U:C4	2.76	0.53
81:DA:2680:A:O5'	81:DA:2681:U:C5	2.61	0.53
36:BF:121:LYS:NZ	81:DA:3036:G:H1'	2.23	0.53
81:DA:3047:U:C3'	81:DA:3048:A:C8	2.91	0.53
83:DC:35:C:N4	83:DC:46:A:H1'	2.23	0.53
5:AC:16:LYS:O	5:AC:17:ARG:HG3	2.08	0.53
6:AE:221:THR:HG23	6:AE:222:TYR:CD2	2.44	0.53
21:AT:77:GLY:HA3	21:AT:82:VAL:HG23	1.90	0.53
77:BI:90:ARG:HD2	77:BI:134:ILE:HG23	1.88	0.53
40:BK:23:VAL:HG22	40:BK:33:ILE:HD13	1.90	0.53
41:BN:132:LYS:HZ3	81:DA:3230:G:H5'	1.70	0.53
49:BV:116:HIS:CE1	49:BV:118:GLN:HG3	2.42	0.53
81:DA:1293:U:H2'	81:DA:1294:A:C8	2.43	0.53
81:DA:1639:C:H2'	81:DA:1640:G:C8	2.42	0.53
48:BW:81:LYS:CD	81:DA:1688:U:O4	2.49	0.53
81:DA:2735:U:H2'	81:DA:2736:A:C5'	2.39	0.53
83:DC:4:U:H2'	83:DC:5:G:C8	2.43	0.53
16:AO:117:LEU:HB2	78:CA:939:A:H62	1.70	0.53
43:BP:12:ARG:HB2	43:BP:13:LYS:HG3	1.90	0.53
48:BW:90:ARG:HB2	48:BW:91:ASP:HA	1.90	0.53
50:BX:37:THR:H	50:BX:38:LEU:HD23	1.74	0.53
14:AM:101:LEU:CD2	78:CA:1566:U:C5'	2.86	0.53
78:CA:479:C:N4	78:CA:509:G:H1	2.06	0.53
81:DA:1020:G:H2'	81:DA:1021:G:C8	2.43	0.53
81:DA:2073:A:H2'	81:DA:2074:C:H6	1.71	0.53
81:DA:3071:U:C5	81:DA:3072:C:C4	2.96	0.53
81:DA:310:U:C2'	81:DA:311:C:H5'	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:665:A:N9	81:DA:665:A:O4'	2.35	0.53
81:DA:947:G:H2'	81:DA:948:C:C6	2.43	0.53
83:DC:19:C:C2	83:DC:60:G:C2	2.97	0.53
5:AC:168:ARG:O	5:AC:168:ARG:CG	2.52	0.53
4:AD:180:LEU:O	4:AD:227:VAL:HG13	2.07	0.53
20:AS:15:ILE:HD13	20:AS:56:LYS:HD3	1.89	0.53
37:BH:153:ILE:HG23	37:BH:163:VAL:HG21	1.90	0.53
78:CA:1003:A:C4	78:CA:1005:A:C4	2.96	0.53
78:CA:62:A:H61	78:CA:88:U:H3	1.55	0.53
79:CB:55:C:O4'	79:CB:55:C:N1	2.40	0.53
39:BJ:123:ARG:CZ	81:DA:1257:C:H5''	2.38	0.53
81:DA:1390:A:H4'	81:DA:1391:C:H5'	1.91	0.53
81:DA:2208:A:C2	81:DA:2209:U:C6	2.97	0.53
81:DA:3305:A:H2'	81:DA:3306:U:H6	1.71	0.53
41:BN:77:ARG:HG2	81:DA:560:G:H5'	1.89	0.53
81:DA:757:C:O2	81:DA:775:A:C2	2.62	0.53
81:DA:955:U:C2	81:DA:967:A:C2	2.96	0.53
83:DC:104:C:C2'	83:DC:105:A:H5'	2.38	0.53
3:AB:59:LEU:HD11	3:AB:86:LEU:CD2	2.39	0.53
19:AR:59:LYS:HE2	78:CA:1551:U:OP2	2.08	0.53
32:BC:8:ALA:HB2	42:BM:46:LEU:HD22	1.90	0.53
42:BM:94:TYR:CZ	51:BZ:20:LEU:O	2.62	0.53
41:BN:39:ILE:O	76:BS:145:HIS:CG	2.62	0.53
41:BN:3:THR:O	41:BN:3:THR:HG22	2.09	0.53
78:CA:1115:U:C2	78:CA:1130:G:N2	2.77	0.53
78:CA:617:U:H3	78:CA:1088:A:H61	1.57	0.53
78:CA:56:U:O4	78:CA:92:A:O4'	2.26	0.53
46:BT:71:ARG:NH2	81:DA:2100:A:P	2.81	0.53
81:DA:3215:A:N9	81:DA:3215:A:O4'	2.39	0.53
4:AD:146:THR:HG22	78:CA:295:A:N6	2.19	0.53
17:AQ:30:THR:HA	17:AQ:33:ARG:HH11	1.74	0.53
31:BB:37:ARG:HA	31:BB:93:LYS:CB	2.39	0.53
39:BJ:124:THR:O	39:BJ:128:VAL:HG23	2.08	0.53
44:BO:62:HIS:C	75:BL:146:UNK:HA	2.29	0.53
78:CA:1003:A:N7	78:CA:1005:A:N6	2.56	0.53
78:CA:1172:G:N2	78:CA:1468:U:O2	2.41	0.53
2:AA:109:ASN:ND2	78:CA:1294:G:H1'	2.22	0.53
15:AN:38:ILE:HB	78:CA:1433:G:H2'	1.89	0.53
78:CA:651:G:N2	78:CA:679:U:O4	2.41	0.53
81:DA:2660:G:H1	81:DA:2710:C:H42	1.57	0.53
83:DC:94:A:O2'	83:DC:95:C:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:235:TYR:O	4:AD:236:ILE:CG1	2.55	0.53
18:AP:103:ARG:HH21	78:CA:304:U:H4'	1.73	0.53
32:BC:75:ALA:HB2	81:DA:3049:A:C6	2.44	0.53
32:BC:93:VAL:O	32:BC:93:VAL:HG13	2.07	0.53
34:BE:29:ARG:HD2	34:BE:33:ALA:H	1.72	0.53
37:BH:158:ASP:C	37:BH:158:ASP:HB3	2.28	0.53
37:BH:60:ARG:C	37:BH:61:GLN:O	2.47	0.53
78:CA:1115:U:O2	78:CA:1131:A:C6	2.61	0.53
78:CA:1185:U:C4	78:CA:1458:G:C8	2.97	0.53
78:CA:1616:G:H1'	78:CA:1618:C:H42	1.73	0.53
18:AP:69:LYS:NZ	78:CA:307:G:H4'	2.23	0.53
81:DA:1673:G:H2'	81:DA:1674:G:C8	2.43	0.53
31:BB:11:GLY:HA2	81:DA:2163:C:C2'	2.38	0.53
31:BB:245:LEU:CD1	81:DA:2243:A:C5	2.63	0.53
45:BR:55:SER:HA	81:DA:672:A:P	2.49	0.53
81:DA:688:G:H2'	81:DA:689:U:C5	2.44	0.53
44:BO:2:PRO:CG	81:DA:802:C:H41	2.22	0.53
83:DC:58:U:H2'	83:DC:59:G:C8	2.43	0.53
33:BD:89:ALA:HA	33:BD:91:GLY:N	2.24	0.53
40:BK:198:GLY:HA2	41:BN:108:ARG:CD	2.38	0.53
74:BQ:5:LYS:HZ3	74:BQ:12:TYR:HB3	1.73	0.53
45:BR:54:LEU:HB3	45:BR:58:ASN:HB2	1.91	0.53
78:CA:1336:A:C2	78:CA:1416:G:C2	2.97	0.53
78:CA:217:A:H2	78:CA:839:U:O2	1.90	0.53
34:BE:53:THR:OG1	79:CB:55:C:C2'	2.56	0.53
81:DA:2071:A:H2'	81:DA:2072:G:C8	2.43	0.53
81:DA:2479:C:N4	81:DA:2487:U:N3	2.57	0.53
81:DA:967:A:C4	81:DA:968:G:C8	2.97	0.53
12:AK:53:ASP:CB	78:CA:899:G:H5'	2.39	0.53
32:BC:266:ARG:CZ	81:DA:2989:U:O4'	2.57	0.53
34:BE:56:THR:HG21	81:DA:2678:A:C6	2.43	0.53
35:BG:142:ASP:HB3	35:BG:143:LYS:HA	1.90	0.53
37:BH:139:VAL:HA	37:BH:200:LEU:HD23	1.90	0.53
44:BO:16:SER:O	44:BO:21:ARG:HA	2.09	0.53
43:BP:17:ASP:HA	43:BP:20:ARG:HB3	1.89	0.53
74:BQ:51:LEU:HB2	74:BQ:55:PHE:CZ	2.43	0.53
78:CA:1041:G:N2	78:CA:1042:G:C6	2.77	0.53
78:CA:1303:U:C5	78:CA:1304:G:C5	2.97	0.53
78:CA:1357:A:H2'	78:CA:1358:G:H8	1.73	0.53
7:AG:130:UNK:C	78:CA:636:A:N6	2.72	0.53
81:DA:1013:G:H2'	81:DA:1014:U:H5'	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BO:10:LYS:HZ1	81:DA:1493:G:N2	73.82	0.53
81:DA:2443:A:H2'	81:DA:2444:C:C6	2.44	0.53
81:DA:2678:A:N1	81:DA:2679:A:C4	2.77	0.53
81:DA:567:G:H2'	81:DA:568:G:C8	2.44	0.53
82:DB:131:A:H2'	82:DB:132:G:C8	2.44	0.53
5:AC:53:ARG:NH2	78:CA:658:C:C3'	2.72	0.53
9:AH:66:ASN:HA	9:AH:67:GLY:O	2.08	0.53
11:AJ:63:LEU:HD11	11:AJ:89:ARG:HE	1.74	0.53
17:AQ:102:VAL:HG12	17:AQ:103:ASP:H	1.74	0.53
31:BB:126:LEU:HD21	31:BB:156:LYS:HZ2	1.74	0.53
14:AM:13:HIS:N	34:BE:116:TYR:HE1	2.05	0.53
81:DA:2030:C:H2'	81:DA:2031:U:C6	2.43	0.53
42:BM:46:LEU:HA	81:DA:2917:G:OP1	2.09	0.53
36:BF:69:ARG:CG	81:DA:3113:A:H4'	2.35	0.53
81:DA:3306:U:H2'	81:DA:3307:A:H5''	1.90	0.53
81:DA:519:A:H2'	81:DA:520:U:C5'	2.38	0.53
81:DA:519:A:C2'	81:DA:520:U:H5'	2.36	0.53
83:DC:49:G:C8	83:DC:49:G:O4'	2.62	0.53
13:AL:13:ARG:NE	18:AP:74:THR:CG2	2.68	0.52
44:BO:124:ILE:HD13	75:BL:147:UNK:C	2.39	0.52
36:BF:58:HIS:HE1	76:BS:160:PRO:O	1.89	0.52
41:BN:43:LYS:H	76:BS:97:ARG:HH12	1.55	0.52
78:CA:1690:G:H8	78:CA:1690:G:O5'	1.92	0.52
78:CA:175:G:H8	78:CA:175:G:H5''	1.74	0.52
78:CA:586:G:O2'	78:CA:587:C:H5'	2.09	0.52
79:CB:17:G:H3'	79:CB:18:G:H5''	1.91	0.52
81:DA:3215:A:C8	81:DA:3215:A:O4'	2.62	0.52
81:DA:677:A:C8	81:DA:677:A:C2'	2.92	0.52
81:DA:730:C:H2'	81:DA:731:U:C6	2.44	0.52
81:DA:768:C:H4'	81:DA:769:G:OP1	2.08	0.52
82:DB:38:U:H3'	82:DB:39:G:H5'	1.90	0.52
9:AH:121:VAL:HG22	9:AH:122:SER:N	2.24	0.52
30:BA:18:LYS:CB	30:BA:24:LYS:H	2.23	0.52
31:BB:132:ASN:OD1	81:DA:2179:C:H2'	2.09	0.52
46:BT:78:TYR:HB2	81:DA:1938:U:C1'	2.39	0.52
13:AL:19:ARG:NH2	78:CA:1106:U:C5	2.77	0.52
81:DA:2050:C:O2'	81:DA:2051:G:H5'	2.09	0.52
81:DA:2389:C:H2'	81:DA:2390:A:C8	2.44	0.52
81:DA:2612:U:C4	81:DA:2613:U:C4	2.97	0.52
81:DA:331:G:N7	81:DA:332:C:C4	2.77	0.52
33:BD:84:ARG:NH2	81:DA:366:A:O2'	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AE:24:ARG:CG	9:AH:69:LEU:HB2	2.38	0.52
13:AL:11:SER:HB2	13:AL:14:LYS:NZ	2.24	0.52
13:AL:7:ARG:HA	18:AP:76:VAL:HG11	1.86	0.52
29:AU:20:ARG:HE	78:CA:154:G:H4'	1.73	0.52
14:AM:14:ILE:CG2	34:BE:115:LYS:H	2.18	0.52
34:BE:19:LEU:CD1	34:BE:37:LEU:HD22	2.39	0.52
75:BL:93:UNK:CB	81:DA:76:G:N7	2.73	0.52
43:BP:50:ARG:HB3	81:DA:267:G:N2	2.22	0.52
78:CA:929:A:C6	78:CA:930:A:C5	2.98	0.52
81:DA:2177:G:O5'	81:DA:2177:G:C8	2.63	0.52
78:CA:1747:G:O2'	81:DA:2303:A:H1'	2.09	0.52
81:DA:66:A:N6	81:DA:76:G:H1'	2.24	0.52
82:DB:34:U:C2	82:DB:35:C:C5	2.97	0.52
83:DC:47:C:H2'	83:DC:48:U:O5'	2.09	0.52
83:DC:47:C:C2'	83:DC:48:U:O5'	2.57	0.52
4:AD:207:LEU:CD1	78:CA:683:C:C1'	2.84	0.52
4:AD:208:VAL:O	4:AD:219:VAL:HG13	2.09	0.52
14:AM:44:ASN:HB3	20:AS:46:PRO:HD2	1.90	0.52
44:BO:124:ILE:CB	75:BL:147:UNK:CB	2.87	0.52
52:BY:35:LEU:HD21	52:BY:48:LEU:HD11	1.90	0.52
78:CA:1003:A:C5	78:CA:1005:A:C2	2.93	0.52
78:CA:1680:G:O2'	78:CA:1721:A:N6	2.43	0.52
81:DA:1206:G:O6	81:DA:1298:C:N4	2.18	0.52
81:DA:2770:G:N9	81:DA:2770:G:O4'	2.39	0.52
81:DA:821:U:O2'	81:DA:822:G:H5'	2.10	0.52
10:AI:117:LEU:O	10:AI:118:ILE:HB	2.10	0.52
12:AK:59:ALA:O	12:AK:62:LEU:CB	2.58	0.52
9:AH:86:ILE:HG22	13:AL:7:ARG:NH2	2.25	0.52
29:AU:70:VAL:CG2	29:AU:70:VAL:CG1	2.80	0.52
30:BA:28:PHE:HB2	30:BA:34:LEU:HD12	1.92	0.52
33:BD:339:LEU:HD22	33:BD:342:LYS:HB3	1.91	0.52
76:BS:75:LYS:HD3	76:BS:131:VAL:H	1.75	0.52
78:CA:1012:U:H2'	78:CA:1013:A:C8	2.45	0.52
78:CA:1135:U:H2'	78:CA:1136:U:C6	2.44	0.52
19:AR:59:LYS:CB	78:CA:1551:U:C5	2.93	0.52
78:CA:1563:C:H2'	78:CA:1564:U:C5	2.45	0.52
4:AD:206:ASP:CB	78:CA:682:C:HO2'	2.19	0.52
81:DA:2493:U:H4'	81:DA:2494:A:OP1	2.10	0.52
43:BP:28:TRP:CZ2	81:DA:2515:A:H4'	2.45	0.52
81:DA:3048:A:C8	81:DA:3048:A:H5'	2.45	0.52
81:DA:410:U:H3	82:DB:13:A:H61	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AN:24:CYS:HB2	15:AN:36:LEU:CD2	2.40	0.52
18:AP:85:VAL:O	18:AP:111:VAL:HG13	2.09	0.52
19:AR:116:LEU:H	19:AR:119:PHE:HB3	1.75	0.52
22:AV:29:LYS:O	22:AV:30:LYS:HB2	2.09	0.52
33:BD:3:ARG:HH21	33:BD:22:LEU:HD12	1.74	0.52
43:BP:30:TYR:HB3	43:BP:129:TYR:CE1	2.45	0.52
74:BQ:285:ARG:O	74:BQ:286:VAL:HG23	2.10	0.52
52:BY:46:LYS:HD3	52:BY:46:LYS:H	1.74	0.52
20:AS:89:ARG:HH12	78:CA:1467:C:C1'	2.19	0.52
78:CA:1570:A:O4'	78:CA:1570:A:N9	2.39	0.52
78:CA:1667:A:H2'	78:CA:1668:G:C8	2.44	0.52
78:CA:1746:A:C4'	81:DA:2291:A:O2'	2.57	0.52
78:CA:374:U:C2	78:CA:375:U:C6	2.98	0.52
81:DA:2304:C:O3'	81:DA:2305:G:C8	2.62	0.52
81:DA:807:A:H2	81:DA:2411:U:O2	1.92	0.52
81:DA:2509:U:H2'	81:DA:2510:U:C6	2.45	0.52
81:DA:3035:A:H2'	81:DA:3036:G:H8	1.75	0.52
81:DA:3319:U:C5	81:DA:3382:U:OP2	2.63	0.52
81:DA:428:A:H61	81:DA:631:U:H3	1.57	0.52
81:DA:70:A:O4'	81:DA:70:A:N9	2.37	0.52
5:AC:68:LYS:H	5:AC:71:PHE:HB3	1.75	0.52
14:AM:13:HIS:C	34:BE:116:TYR:CD1	2.83	0.52
33:BD:343:LYS:HA	33:BD:346:LYS:HG3	1.92	0.52
35:BG:69:PHE:CZ	35:BG:76:LEU:HD11	2.45	0.52
52:BY:11:ASP:HA	52:BY:13:ARG:HH21	1.75	0.52
78:CA:1352:G:N2	78:CA:1372:U:H3	2.05	0.52
78:CA:929:A:H5''	78:CA:931:C:N4	2.25	0.52
78:CA:933:A:C5	78:CA:935:U:HI'	2.45	0.52
78:CA:936:G:N2	78:CA:937:C:C2	2.78	0.52
81:DA:1167:U:H3	81:DA:1332:A:H61	1.56	0.52
81:DA:2470:C:N4	81:DA:2471:U:C4	2.78	0.52
81:DA:2710:C:H2'	81:DA:2711:C:C6	2.45	0.52
81:DA:69:C:H2'	81:DA:70:A:H5'	1.91	0.52
44:BO:4:ARG:HG3	81:DA:802:C:P	2.50	0.52
5:AC:163:PRO:HD2	78:CA:588:U:OP1	2.09	0.52
4:AD:93:ASP:CA	4:AD:93:ASP:CG	2.69	0.52
11:AJ:85:ARG:NH2	15:AN:51:GLY:O	2.43	0.52
20:AS:22:LEU:HD11	20:AS:59:ALA:HA	1.91	0.52
16:AO:65:VAL:CG2	24:AX:51:GLN:NE2	2.73	0.52
34:BE:18:VAL:HG22	34:BE:70:THR:HG22	1.92	0.52
43:BP:95:GLN:O	81:DA:289:A:H5'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1548:G:N2	78:CA:1564:U:N3	2.58	0.52
78:CA:1455:G:N7	78:CA:1559:A:N6	2.58	0.52
78:CA:205:U:C4	78:CA:206:A:C2	2.98	0.52
81:DA:2086:A:H2'	81:DA:2087:C:C6	2.45	0.52
81:DA:2155:G:H1	81:DA:2181:C:N4	2.06	0.52
31:BB:175:VAL:CG2	81:DA:2179:C:H1'	2.40	0.52
32:BC:75:ALA:HB2	81:DA:3049:A:C2	2.45	0.52
81:DA:798:G:H2'	81:DA:799:G:N9	2.25	0.52
82:DB:98:U:C5	82:DB:99:C:C2	2.97	0.52
4:AD:93:ASP:CB	4:AD:93:ASP:H	2.20	0.52
13:AL:133:LEU:O	13:AL:135:LEU:N	2.43	0.52
37:BH:61:GLN:O	37:BH:62:LYS:CB	2.51	0.52
78:CA:624:G:C4	78:CA:1027:A:C2	2.98	0.52
78:CA:119:A:C6	78:CA:120:U:C6	2.98	0.52
78:CA:1756:A:H3'	78:CA:1757:G:C5'	2.39	0.52
81:DA:1584:U:C5	81:DA:1585:C:N4	2.78	0.52
81:DA:835:G:H1'	81:DA:858:A:H62	1.74	0.52
2:AA:56:LYS:HG3	2:AA:161:PRO:HD2	1.92	0.52
29:AU:70:VAL:HA	29:AU:70:VAL:HG13	1.92	0.52
44:BO:73:LEU:N	44:BO:73:LEU:HD12	2.25	0.52
46:BT:58:HIS:CG	81:DA:1691:U:OP1	2.63	0.52
78:CA:1295:G:O2'	78:CA:1321:A:C5	2.58	0.52
81:DA:2409:G:H4'	81:DA:2410:U:OP2	2.09	0.52
81:DA:677:A:N6	81:DA:785:G:C4	2.78	0.52
81:DA:799:G:C2	81:DA:801:A:C6	2.98	0.52
4:AD:175:PHE:CE1	4:AD:227:VAL:HG23	2.45	0.51
41:BN:12:TRP:CH2	41:BN:67:PRO:HG3	2.45	0.51
33:BD:33:ASP:HB2	45:BR:22:ASP:HA	1.92	0.51
47:BU:139:ARG:H	47:BU:141:VAL:HG13	1.75	0.51
78:CA:1751:C:H2'	78:CA:1752:U:C6	2.45	0.51
78:CA:383:G:C6	78:CA:384:G:C5	2.98	0.51
78:CA:962:C:H3'	78:CA:963:A:H5''	1.92	0.51
40:BK:90:HIS:HE1	81:DA:2381:G:C5'	2.23	0.51
81:DA:2450:G:N1	81:DA:2496:C:N3	2.53	0.51
32:BC:119:TYR:CZ	81:DA:3314:A:OP2	2.63	0.51
33:BD:297:SER:HB3	45:BR:25:TYR:CD2	2.42	0.51
37:BH:133:LYS:HA	81:DA:147:U:OP1	2.11	0.51
49:BV:17:ALA:HB1	49:BV:97:ASN:HD22	1.76	0.51
78:CA:1203:A:N3	78:CA:1556:A:N3	2.58	0.51
81:DA:1039:U:H3'	81:DA:1040:A:C8	2.45	0.51
81:DA:2294:U:C2	81:DA:2297:U:C5	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2369:G:H2'	81:DA:2370:G:H8	1.73	0.51
81:DA:2763:U:H3	81:DA:2794:G:H1	1.58	0.51
81:DA:77:A:N6	81:DA:323:A:H61	2.08	0.51
21:AT:33:GLN:O	21:AT:34:ILE:HG23	2.11	0.51
14:AM:11:PHE:HD2	22:AV:33:LYS:CG	2.13	0.51
30:BA:17:LEU:HD12	30:BA:214:PHE:HB2	1.93	0.51
77:BI:98:ARG:HH22	81:DA:2646:C:H4'	1.74	0.51
74:BQ:16:PHE:HB3	83:DC:14:U:H5'	1.92	0.51
45:BR:26:LEU:CD2	81:DA:673:U:OP2	2.57	0.51
43:BP:49:ARG:CD	81:DA:114:A:O2'	2.58	0.51
81:DA:1677:G:H22	81:DA:1691:U:H3	1.59	0.51
7:AG:97:UNK:N	7:AG:97:UNK:CB	2.61	0.51
12:AK:124:ASP:HA	78:CA:929:A:C4	2.45	0.51
46:BT:71:ARG:NE	81:DA:2100:A:H5''	2.25	0.51
19:AR:59:LYS:HB3	78:CA:1551:U:C5	2.46	0.51
78:CA:34:G:C6	78:CA:35:U:C2	2.98	0.51
81:DA:1295:G:C5	81:DA:1296:C:C5	2.98	0.51
81:DA:2129:U:H2'	81:DA:2130:G:C8	2.45	0.51
81:DA:2154:U:H2'	81:DA:2155:G:C8	2.45	0.51
81:DA:2957:G:H1	81:DA:2975:U:H3	1.57	0.51
81:DA:3221:C:OP2	81:DA:3221:C:C5	2.63	0.51
81:DA:3325:G:C2'	81:DA:3326:G:H5'	2.39	0.51
31:BB:245:LEU:O	31:BB:246:LEU:CG	2.58	0.51
48:BW:92:TRP:CZ3	81:DA:1680:G:OP2	2.64	0.51
20:AS:43:ASN:HB2	78:CA:1477:G:C5'	2.40	0.51
78:CA:279:G:H2'	78:CA:280:U:H5'	1.92	0.51
81:DA:2266:U:H2'	81:DA:2267:C:C6	2.45	0.51
81:DA:3217:C:C2'	81:DA:3217:C:C6	2.93	0.51
2:AA:115:PHE:CE1	6:AE:93:GLY:O	2.64	0.51
6:AE:24:ARG:HB3	9:AH:68:ARG:O	2.11	0.51
13:AL:129:GLY:HA3	13:AL:135:LEU:CA	2.41	0.51
16:AO:53:LEU:HD23	16:AO:63:ALA:CA	2.41	0.51
32:BC:9:PRO:HD2	42:BM:45:ARG:NH2	2.25	0.51
34:BE:16:LYS:HE3	81:DA:2683:U:H5''	1.93	0.51
20:AS:57:ARG:HB2	78:CA:1479:A:OP1	2.11	0.51
78:CA:959:U:O2	78:CA:960:U:C5	2.64	0.51
79:CB:30:G:H1	79:CB:40:U:H3	1.58	0.51
81:DA:1685:C:H2'	81:DA:1686:U:C6	2.46	0.51
81:DA:1893:A:H1'	81:DA:3080:G:O6	2.10	0.51
81:DA:1905:G:H2'	81:DA:1906:G:H5''	1.93	0.51
81:DA:3302:U:H2'	81:DA:3303:G:H8	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AE:5:GLU:HG2	6:AE:6:ALA:H	1.76	0.51
9:AH:86:ILE:CG2	13:AL:7:ARG:HH22	2.24	0.51
19:AR:85:ILE:HD11	19:AR:105:VAL:HG11	1.92	0.51
21:AT:23:ILE:HG12	21:AT:59:VAL:HG11	1.92	0.51
33:BD:89:ALA:HB1	33:BD:89:ALA:O	2.01	0.51
36:BF:45:PHE:CZ	36:BF:75:VAL:CG1	2.94	0.51
36:BF:96:HIS:CG	81:DA:3024:A:H4'	2.46	0.51
35:BG:98:VAL:CG1	35:BG:99:GLU:N	2.71	0.51
74:BQ:152:ARG:HG2	81:DA:2663:G:H5''	1.92	0.51
46:BT:16:GLY:O	46:BT:17:VAL:HG13	2.11	0.51
78:CA:1580:C:N1	78:CA:1580:C:O4'	2.40	0.51
78:CA:1615:C:O4'	78:CA:1615:C:N1	2.36	0.51
79:CB:20:C:H3'	79:CB:21:A:H5'	1.93	0.51
81:DA:1292:C:H2'	81:DA:1293:U:C6	2.46	0.51
81:DA:2932:U:O2	81:DA:2934:A:C8	2.64	0.51
32:BC:100:ARG:HB2	81:DA:3243:A:C2	2.46	0.51
81:DA:653:A:H4'	81:DA:2361:A:H5''	1.93	0.51
4:AD:188:ASN:CG	78:CA:650:U:C5'	2.79	0.51
12:AK:30:VAL:HG21	12:AK:94:PRO:O	2.10	0.51
35:BG:56:LYS:HB2	35:BG:64:LEU:CB	2.40	0.51
40:BK:74:ARG:HA	40:BK:145:VAL:HG11	1.93	0.51
78:CA:1158:C:C5	78:CA:1582:U:C6	2.99	0.51
22:AV:27:TRP:CZ2	78:CA:1535:U:OP2	2.64	0.51
81:DA:1055:A:O2'	81:DA:1055:A:C1'	2.51	0.51
81:DA:1716:U:C4	81:DA:1730:G:N2	2.79	0.51
83:DC:41:G:C2	83:DC:45:A:C2	2.98	0.51
4:AD:55:ALA:H	4:AD:56:LEU:HB2	1.76	0.51
10:AI:93:HIS:CD2	10:AI:93:HIS:H	2.29	0.51
31:BB:136:ILE:HG21	31:BB:139:HIS:CE1	2.46	0.51
35:BG:68:PRO:HB3	35:BG:103:VAL:HA	1.92	0.51
39:BJ:35:LEU:HD23	39:BJ:41:LYS:HG2	1.93	0.51
74:BQ:158:ARG:O	74:BQ:160:PHE:N	2.44	0.51
78:CA:1181:U:O2	78:CA:1458:G:N2	2.44	0.51
78:CA:609:U:O4'	78:CA:609:U:N1	2.39	0.51
81:DA:1295:G:C6	81:DA:1296:C:C4	2.99	0.51
81:DA:194:U:H3	81:DA:201:A:H61	1.58	0.51
81:DA:2424:A:C2	81:DA:2607:G:N3	2.79	0.51
81:DA:2693:C:H2'	81:DA:2755:C:C6	2.46	0.51
81:DA:301:G:H1	81:DA:314:U:H3	1.59	0.51
81:DA:16:A:H61	82:DB:143:U:H3	1.57	0.51
9:AH:122:SER:H	78:CA:646:C:H5''	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AS:119:LYS:HE3	78:CA:1519:U:C4'	2.41	0.51
29:AU:9:THR:HG23	29:AU:84:LYS:HB3	1.92	0.51
35:BG:5:LYS:HA	35:BG:6:ALA:HB2	1.92	0.51
45:BR:58:ASN:HD21	81:DA:975:C:C5'	2.23	0.51
78:CA:1167:G:N2	78:CA:1578:U:O2	2.36	0.51
78:CA:1655:A:C2	78:CA:1746:A:H1'	2.46	0.51
78:CA:57:G:H2'	78:CA:58:U:C6	2.45	0.51
78:CA:604:A:N6	78:CA:605:A:C6	2.78	0.51
79:CB:27:G:H2'	79:CB:28:G:H8	1.76	0.51
50:BX:40:LEU:HD12	81:DA:1578:C:H41	1.75	0.51
81:DA:181:U:H4'	82:DB:94:C:C4	2.46	0.51
81:DA:209:A:C2	81:DA:212:G:N7	2.78	0.51
81:DA:2171:G:C4	81:DA:2172:A:C8	2.99	0.51
81:DA:3077:A:N6	81:DA:3081:C:C5	2.79	0.51
81:DA:3325:G:H2'	81:DA:3326:G:H5'	1.92	0.51
81:DA:3375:A:H2'	81:DA:3380:U:C6	2.46	0.51
35:BG:25:ALA:CB	81:DA:502:U:H5'	2.40	0.51
10:AI:139:GLN:HB2	78:CA:1580:C:H4'	1.92	0.50
15:AN:24:CYS:CB	15:AN:36:LEU:HD21	2.42	0.50
16:AO:124:ARG:HD3	81:DA:846:A:C6	2.46	0.50
26:AZ:18:THR:HG22	26:AZ:24:THR:H	1.75	0.50
44:BO:124:ILE:HD11	75:BL:148:UNK:N	2.03	0.50
78:CA:1263:G:H2'	78:CA:1264:G:C8	2.46	0.50
81:DA:14:U:H2'	81:DA:15:C:C6	2.46	0.50
81:DA:2064:C:H2'	81:DA:2065:U:C6	2.46	0.50
81:DA:3241:G:C6	81:DA:3242:G:O6	2.63	0.50
81:DA:3342:A:H61	81:DA:3363:U:H3	1.59	0.50
81:DA:497:C:H2'	81:DA:498:A:C8	2.45	0.50
83:DC:41:G:H4'	83:DC:42:A:C8	2.46	0.50
14:AM:122:HIS:CE1	19:AR:131:ALA:HB2	2.46	0.50
18:AP:104:HIS:CD2	18:AP:105:LYS:H	2.29	0.50
78:CA:1147:A:N1	78:CA:1630:U:O2	2.44	0.50
78:CA:1611:A:C6	78:CA:1612:U:C4	2.98	0.50
78:CA:326:G:O6	78:CA:337:G:O6	2.28	0.50
81:DA:1049:C:H2'	81:DA:1050:U:C6	2.46	0.50
81:DA:653:A:N6	81:DA:1442:U:H3	1.96	0.50
81:DA:1476:G:H1	81:DA:1877:U:H3	1.58	0.50
81:DA:2121:G:H2'	81:DA:2122:G:H4'	1.93	0.50
81:DA:2224:A:H2'	81:DA:2225:U:C6	2.46	0.50
81:DA:3222:U:H2'	81:DA:3223:A:C8	2.46	0.50
2:AA:58:VAL:O	10:AI:107:LYS:HG3	86.70	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:36:LYS:HZ1	78:CA:900:A:C3'	2.24	0.50
22:AV:57:TYR:HB2	22:AV:60:VAL:HG13	1.93	0.50
31:BB:128:ARG:HG2	81:DA:2177:G:C8	2.46	0.50
36:BF:47:LYS:HA	36:BF:53:ILE:HA	1.92	0.50
74:BQ:215:ASP:OD1	83:DC:49:G:OP1	2.30	0.50
76:BS:51:LYS:C	76:BS:52:LYS:HG2	2.31	0.50
78:CA:1570:A:H3'	78:CA:1571:C:C5	2.46	0.50
78:CA:904:G:N1	78:CA:905:A:C2	2.76	0.50
81:DA:1870:C:C3'	81:DA:1871:U:C4	2.92	0.50
81:DA:2223:A:C6	81:DA:2224:A:C2	2.99	0.50
81:DA:3051:U:H2'	81:DA:3052:G:H8	1.76	0.50
81:DA:702:C:C6	81:DA:702:C:O4'	2.64	0.50
8:AF:143:ARG:O	8:AF:162:VAL:HG11	2.11	0.50
6:AE:24:ARG:HB3	9:AH:69:LEU:N	2.26	0.50
20:AS:40:SER:HB3	78:CA:1477:G:P	2.52	0.50
29:AU:63:GLN:HG3	29:AU:66:GLY:HA3	1.94	0.50
41:BN:13:ARG:HB3	76:BS:158:VAL:HG13	1.93	0.50
47:BU:132:PRO:O	47:BU:136:ARG:HB2	2.11	0.50
49:BV:86:LYS:HB2	81:DA:2353:G:H5''	1.94	0.50
78:CA:1041:G:C2	78:CA:1042:G:C5	2.99	0.50
78:CA:1140:G:N2	78:CA:1141:G:C4	2.80	0.50
78:CA:152:U:C2'	78:CA:153:G:H5'	2.42	0.50
78:CA:257:A:C2'	78:CA:258:C:H5'	2.42	0.50
16:AO:114:ARG:NH2	78:CA:941:A:H62	2.10	0.50
81:DA:2840:C:O2'	81:DA:2841:G:H8	1.94	0.50
81:DA:3049:A:N7	81:DA:3050:U:C5	2.79	0.50
81:DA:713:U:H2'	81:DA:714:G:C8	2.46	0.50
83:DC:27:A:O4'	83:DC:27:A:N9	2.39	0.50
83:DC:81:U:H2'	83:DC:82:A:C8	2.46	0.50
17:AQ:81:LYS:O	17:AQ:82:ASP:CB	2.59	0.50
20:AS:15:ILE:HD13	20:AS:56:LYS:CG	2.41	0.50
32:BC:106:TRP:NE1	81:DA:3149:G:H5'	2.26	0.50
32:BC:116:ARG:HB3	32:BC:176:ALA:H	1.75	0.50
40:BK:177:LYS:O	41:BN:135:LEU:HD13	2.11	0.50
41:BN:14:LEU:HB3	41:BN:19:ARG:HB2	1.93	0.50
74:BQ:55:PHE:HD1	74:BQ:56:THR:H	1.58	0.50
47:BU:80:VAL:HB	81:DA:2727:A:N6	2.26	0.50
78:CA:1003:A:C5	78:CA:1005:A:N1	2.79	0.50
78:CA:1176:G:C4	78:CA:1464:G:N2	2.80	0.50
78:CA:1476:C:C6	78:CA:1476:C:C3'	2.94	0.50
78:CA:191:C:H2'	78:CA:192:U:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AP:69:LYS:NZ	78:CA:307:G:O3'	2.44	0.50
17:AQ:85:VAL:CG1	17:AQ:85:VAL:O	2.57	0.50
31:BB:225:ILE:HG22	31:BB:238:ILE:HA	1.93	0.50
37:BH:92:LYS:HB3	37:BH:230:LYS:H	1.76	0.50
75:BL:21:UNK:CB	81:DA:799:G:O2'	2.60	0.50
50:BX:38:LEU:HD12	81:DA:1560:G:N2	2.27	0.50
78:CA:1087:A:H2'	78:CA:1088:A:C8	2.47	0.50
78:CA:1149:G:O6	78:CA:1628:U:O4	2.30	0.50
78:CA:1306:C:C3'	78:CA:1307:U:H5'	2.42	0.50
78:CA:1311:U:O2	78:CA:1315:U:C2	2.64	0.50
19:AR:107:ILE:HG13	78:CA:1453:G:H21	1.74	0.50
4:AD:218:PHE:CZ	78:CA:650:U:OP1	2.64	0.50
78:CA:872:G:H2'	78:CA:873:U:C6	2.47	0.50
81:DA:1313:G:O3'	81:DA:1314:C:C6	2.64	0.50
81:DA:2638:C:C2	81:DA:2639:G:C8	2.99	0.50
81:DA:2637:A:H2	81:DA:2639:G:H3'	1.77	0.50
81:DA:71:A:O4'	81:DA:71:A:N9	2.39	0.50
47:BU:160:ILE:HG23	81:DA:969:C:H5''	1.92	0.50
20:AS:62:ALA:HB1	20:AS:132:LEU:HD21	1.93	0.50
31:BB:41:ILE:HG23	31:BB:63:PHE:CE1	2.47	0.50
76:BS:6:PHE:HB2	76:BS:105:VAL:HG21	1.94	0.50
78:CA:1045:C:H2'	78:CA:1046:G:C8	2.47	0.50
78:CA:1190:C:C5'	78:CA:1190:C:H6	2.24	0.50
81:DA:2859:U:C4'	81:DA:2860:U:H5	2.25	0.50
81:DA:3107:U:H2'	81:DA:3108:G:C8	2.46	0.50
81:DA:3250:U:H2'	81:DA:3251:U:C6	2.46	0.50
8:AF:147:THR:HG21	25:AY:45:LYS:HD3	1.94	0.50
12:AK:59:ALA:HB3	12:AK:61:MET:N	2.24	0.50
18:AP:104:HIS:CG	18:AP:105:LYS:N	2.80	0.50
20:AS:48:GLN:HA	20:AS:52:GLY:HA3	1.93	0.50
31:BB:188:LYS:HE3	81:DA:1794:G:C8	2.47	0.50
32:BC:8:ALA:HB2	42:BM:46:LEU:CD2	2.42	0.50
32:BC:9:PRO:HD3	81:DA:2915:U:OP2	2.11	0.50
34:BE:86:VAL:CB	34:BE:110:ILE:HD13	2.41	0.50
37:BH:116:VAL:HG21	37:BH:205:ALA:HB3	1.93	0.50
78:CA:296:U:H2'	78:CA:297:U:C6	2.46	0.50
78:CA:324:U:H2'	78:CA:325:G:C8	2.47	0.50
12:AK:53:ASP:HB2	78:CA:899:G:C5'	2.41	0.50
31:BB:240:ALA:HB1	81:DA:2154:U:H4'	1.94	0.50
81:DA:2623:G:H2'	81:DA:2624:G:C8	2.47	0.50
81:DA:3034:C:C6	81:DA:3034:C:O4'	2.64	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:3052:G:O6	81:DA:3090:U:O4	2.29	0.50
81:DA:406:G:H1'	82:DB:17:A:H62	1.76	0.50
83:DC:73:G:O2'	83:DC:100:A:N6	2.44	0.50
83:DC:14:U:H2'	83:DC:15:C:H6	1.75	0.50
13:AL:13:ARG:CZ	18:AP:71:LEU:CD2	2.70	0.50
17:AQ:95:ARG:HD3	17:AQ:95:ARG:H	1.77	0.50
29:AU:5:VAL:HG21	29:AU:29:HIS:CA	2.42	0.50
21:AT:53:TYR:CE2	23:AW:70:UNK:HA	2.46	0.50
16:AO:65:VAL:HG12	24:AX:47:PHE:HZ	1.76	0.50
31:BB:126:LEU:HD11	31:BB:158:ILE:CD1	2.41	0.50
32:BC:102:LEU:HD11	32:BC:151:ILE:HB	1.94	0.50
33:BD:349:THR:HG23	33:BD:350:LYS:HE3	1.94	0.50
36:BF:58:HIS:HE1	76:BS:160:PRO:CA	2.24	0.50
39:BJ:34:PRO:CB	39:BJ:62:LEU:HD11	2.40	0.50
49:BV:54:HIS:O	49:BV:54:HIS:CD2	2.65	0.50
81:DA:1070:U:H3	81:DA:1090:G:H1	1.60	0.50
81:DA:1826:C:H2'	81:DA:1827:C:C6	2.47	0.50
81:DA:1967:U:C2'	81:DA:1968:G:H5'	2.41	0.50
40:BK:90:HIS:CE1	81:DA:2381:G:C5'	2.95	0.50
33:BD:73:ARG:HH22	81:DA:2402:A:H2'	1.76	0.50
81:DA:2666:C:H41	81:DA:2687:G:H2'	1.76	0.50
81:DA:265:A:OP2	81:DA:266:A:C4	2.65	0.50
43:BP:50:ARG:HH21	81:DA:266:A:H5''	1.76	0.50
81:DA:331:G:O2'	81:DA:331:G:C1'	2.53	0.50
81:DA:570:A:H2'	81:DA:571:U:H5'	1.94	0.50
31:BB:18:SER:HB3	31:BB:193:ARG:HG3	1.94	0.49
78:CA:1308:G:N1	78:CA:1318:G:C5	2.80	0.49
78:CA:1327:C:H2'	78:CA:1328:G:H8	1.77	0.49
78:CA:365:G:O6	78:CA:377:G:C2	2.65	0.49
78:CA:548:G:C4	78:CA:591:A:C2	3.00	0.49
78:CA:930:A:N7	78:CA:931:C:C2	2.80	0.49
81:DA:1685:C:N3	81:DA:3070:A:N1	2.60	0.49
81:DA:168:U:H3	81:DA:254:A:N6	2.10	0.49
46:BT:78:TYR:CB	81:DA:1938:U:H1'	2.42	0.49
81:DA:2629:U:C2	81:DA:2630:C:C5	3.00	0.49
81:DA:2712:U:H2'	81:DA:2713:U:C6	2.48	0.49
74:BQ:94:ASN:HA	83:DC:47:C:P	2.52	0.49
6:AE:73:LEU:H	6:AE:73:LEU:HD23	1.77	0.49
33:BD:30:ILE:HD11	33:BD:128:ALA:HB2	1.94	0.49
41:BN:38:ILE:HD12	76:BS:154:VAL:CG1	2.43	0.49
78:CA:1292:G:C5	78:CA:1293:U:C5	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BO:10:LYS:NZ	81:DA:1493:G:N2	73.53	0.49
81:DA:1660:C:H2'	81:DA:1661:G:C8	2.47	0.49
81:DA:664:U:H2'	81:DA:665:A:C8	2.47	0.49
81:DA:674:G:C6	81:DA:675:C:N4	2.79	0.49
81:DA:807:A:H62	81:DA:934:G:H1	1.58	0.49
81:DA:967:A:C5	81:DA:968:G:C8	3.00	0.49
9:AH:120:HIS:O	9:AH:121:VAL:HB	2.12	0.49
10:AI:54:LEU:O	10:AI:55:VAL:O	2.29	0.49
14:AM:14:ILE:HG21	34:BE:113:GLY:O	2.11	0.49
15:AN:24:CYS:HB2	15:AN:36:LEU:HD21	1.93	0.49
19:AR:125:PRO:HG2	78:CA:1557:U:O2	2.12	0.49
30:BA:207:LYS:HG2	30:BA:208:SER:H	1.78	0.49
31:BB:245:LEU:O	31:BB:246:LEU:CB	2.57	0.49
32:BC:25:ILE:HD12	81:DA:3312:U:H4'	1.94	0.49
32:BC:380:MET:HB3	81:DA:3369:G:C8	2.47	0.49
37:BH:89:GLU:CB	37:BH:89:GLU:N	2.61	0.49
43:BP:50:ARG:CB	81:DA:267:G:C2	2.95	0.49
80:CC:17:A:C2	80:CC:19:U:O4	2.65	0.49
37:BH:138:HIS:NE2	81:DA:147:U:C4'	2.75	0.49
81:DA:1673:G:H2'	81:DA:1674:G:H8	1.77	0.49
81:DA:2231:C:C6	81:DA:2231:C:O4'	2.64	0.49
81:DA:456:U:H2'	81:DA:457:C:C6	2.46	0.49
6:AE:69:ILE:O	6:AE:70:ASP:O	2.30	0.49
12:AK:53:ASP:OD2	78:CA:900:A:OP2	2.31	0.49
20:AS:57:ARG:O	20:AS:61:VAL:HG13	2.12	0.49
25:AY:25:VAL:HG22	25:AY:46:GLY:H	1.77	0.49
31:BB:193:ARG:NH1	81:DA:2174:G:C2'	2.74	0.49
32:BC:28:ARG:HG3	81:DA:3003:G:OP2	2.11	0.49
78:CA:221:A:C2	78:CA:835:U:O2	2.65	0.49
78:CA:372:G:O6	78:CA:373:G:N3	2.43	0.49
78:CA:595:G:H2'	78:CA:596:C:C6	2.47	0.49
78:CA:851:U:C4	78:CA:852:C:C4	2.99	0.49
48:BW:81:LYS:HG2	81:DA:1688:U:C4	2.47	0.49
81:DA:1900:A:N6	81:DA:1908:A:H61	2.09	0.49
46:BT:78:TYR:HB2	81:DA:1938:U:H1'	1.95	0.49
81:DA:665:A:H2	81:DA:797:U:H3	1.57	0.49
5:AC:163:PRO:CG	78:CA:588:U:OP2	2.60	0.49
11:AJ:85:ARG:HG2	15:AN:52:PHE:H	1.78	0.49
12:AK:124:ASP:HA	78:CA:929:A:C1'	2.43	0.49
31:BB:200:ARG:NH2	81:DA:2187:G:C5	2.79	0.49
41:BN:125:LYS:HG3	41:BN:128:ARG:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BU:25:VAL:HG22	47:BU:47:SER:HB3	1.95	0.49
78:CA:1280:C:H2'	78:CA:1281:G:C8	2.47	0.49
78:CA:636:A:C8	78:CA:636:A:C2'	2.94	0.49
81:DA:1372:C:H2'	81:DA:1373:A:C8	2.47	0.49
30:BA:158:GLN:HE21	81:DA:2464:U:H5''	1.78	0.49
81:DA:264:G:H2'	81:DA:265:A:H4'	1.94	0.49
81:DA:2665:U:O4	81:DA:2703:A:H4'	2.13	0.49
31:BB:15:ILE:HD11	81:DA:911:C:C5'	2.42	0.49
81:DA:989:A:H2'	81:DA:990:U:C6	2.48	0.49
81:DA:997:A:C8	81:DA:997:A:C3'	2.95	0.49
49:BV:61:ARG:O	82:DB:4:C:H5''	2.12	0.49
83:DC:40:C:C5	83:DC:42:A:C6	3.01	0.49
20:AS:84:LYS:HZ2	78:CA:1525:A:C5'	2.22	0.49
20:AS:82:GLY:H	20:AS:95:ASP:CG	2.16	0.49
21:AT:71:ARG:HE	21:AT:71:ARG:H	1.60	0.49
33:BD:148:ILE:HD12	33:BD:149:PRO:HA	1.95	0.49
35:BG:161:ALA:O	35:BG:165:LEU:HG	2.13	0.49
74:BQ:18:THR:HG21	81:DA:2689:A:N6	2.28	0.49
41:BN:40:ASP:OD2	76:BS:97:ARG:HD2	2.13	0.49
78:CA:1679:G:H1'	78:CA:1722:A:N6	2.27	0.49
78:CA:337:G:H1	78:CA:342:C:N4	2.11	0.49
78:CA:866:G:N2	78:CA:965:U:H2'	2.27	0.49
79:CB:55:C:O4'	79:CB:55:C:C6	2.65	0.49
81:DA:1084:A:C5	81:DA:1085:A:C2	3.01	0.49
33:BD:223:PRO:HD3	81:DA:212:G:C5	2.47	0.49
82:DB:103:G:C2	82:DB:105:A:N6	2.80	0.49
83:DC:46:A:N9	83:DC:46:A:C3'	2.70	0.49
35:BG:56:LYS:CD	35:BG:98:VAL:HG21	2.42	0.49
44:BO:24:LYS:NZ	75:BL:15:UNK:N	2.59	0.49
81:DA:1055:A:C2'	81:DA:1055:A:C4	2.95	0.49
81:DA:3365:U:H2'	81:DA:3366:G:H8	1.76	0.49
2:AA:176:LEU:HD21	2:AA:179:ARG:HH21	1.78	0.49
2:AA:4:PRO:HB3	2:AA:5:ALA:HB2	1.95	0.49
4:AD:210:ILE:O	4:AD:218:PHE:O	2.31	0.49
20:AS:42:GLY:N	78:CA:1477:G:H5'	2.28	0.49
22:AV:105:THR:N	22:AV:105:THR:CB	2.63	0.49
31:BB:125:ALA:HB1	31:BB:128:ARG:HH11	1.78	0.49
31:BB:197:PRO:HG2	81:DA:913:A:O4'	2.12	0.49
33:BD:354:VAL:O	33:BD:354:VAL:CG2	2.47	0.49
45:BR:55:SER:HA	81:DA:672:A:OP1	2.13	0.49
78:CA:95:G:H1	78:CA:402:C:N4	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:587:C:C2	78:CA:588:U:C6	3.01	0.49
78:CA:604:A:C6	78:CA:605:A:C5	2.99	0.49
78:CA:826:U:H3	78:CA:846:G:H1	1.61	0.49
78:CA:916:U:C4	78:CA:917:U:C4	3.01	0.49
78:CA:929:A:C5	78:CA:930:A:C5	3.01	0.49
81:DA:1207:G:O4'	81:DA:1207:G:C8	2.65	0.49
81:DA:1624:G:H1	81:DA:1820:U:H3	1.60	0.49
81:DA:2406:C:H2'	81:DA:2407:C:C6	2.48	0.49
81:DA:2723:U:H2'	81:DA:2724:U:H6	1.77	0.49
81:DA:2775:U:H3	81:DA:2785:A:H61	1.59	0.49
83:DC:22:A:C8	83:DC:53:U:C4	3.01	0.49
2:AA:242:TRP:CE3	2:AA:242:TRP:HA	2.47	0.49
2:AA:58:VAL:O	10:AI:107:LYS:CG	85.89	0.49
10:AI:139:GLN:O	10:AI:140:LYS:HB2	2.13	0.49
19:AR:58:LYS:HD3	78:CA:1549:C:C6	2.43	0.49
31:BB:126:LEU:HD13	31:BB:150:LEU:HD11	1.94	0.49
32:BC:119:TYR:CZ	32:BC:125:SER:HB3	2.46	0.49
37:BH:134:TYR:CZ	81:DA:147:U:P	3.05	0.49
39:BJ:90:ARG:HG3	39:BJ:90:ARG:HH11	1.77	0.49
42:BM:95:PHE:CD2	51:BZ:22:VAL:HG21	2.48	0.49
74:BQ:183:TRP:HB2	74:BQ:189:GLU:O	2.13	0.49
78:CA:1665:U:H3	78:CA:1736:G:H22	1.59	0.49
81:DA:1205:A:H3'	81:DA:1206:G:H5''	1.95	0.49
81:DA:1623:G:H1	81:DA:1821:U:H3	1.61	0.49
81:DA:1697:A:H3'	81:DA:1698:C:C6	2.48	0.49
81:DA:1883:A:H2'	81:DA:1884:A:O4'	2.13	0.49
81:DA:2231:C:N1	81:DA:2231:C:O4'	2.40	0.49
81:DA:636:C:N3	81:DA:2361:A:C2	2.81	0.49
81:DA:2403:G:N2	81:DA:2405:C:C2	2.80	0.49
81:DA:3161:C:H2'	81:DA:3162:C:C6	2.48	0.49
81:DA:572:A:H3'	81:DA:573:C:C5	2.48	0.49
81:DA:600:G:C2	81:DA:604:G:C6	3.00	0.49
13:AL:53:VAL:HG22	13:AL:54:LEU:H	1.77	0.49
43:BP:179:LYS:O	43:BP:180:PHE:CB	2.60	0.49
45:BR:120:GLU:HB3	45:BR:122:ILE:HG13	1.94	0.49
78:CA:1580:C:C6	78:CA:1580:C:O4'	2.66	0.49
78:CA:590:C:H2'	78:CA:591:A:H8	1.78	0.49
81:DA:1377:G:H5''	81:DA:1409:G:OP1	2.12	0.49
33:BD:84:ARG:CZ	81:DA:366:A:C4'	2.88	0.49
45:BR:55:SER:CB	81:DA:672:A:P	3.01	0.49
74:BQ:265:TYR:CE2	83:DC:106:G:OP1	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AF:133:VAL:HG22	8:AF:198:LEU:HD11	1.95	0.48
7:AG:38:UNK:H	7:AG:39:UNK:HA	1.78	0.48
13:AL:22:ASN:O	13:AL:22:ASN:HB2	2.11	0.48
29:AU:14:SER:CB	29:AU:89:TYR:HB3	2.43	0.48
30:BA:193:LEU:HG	30:BA:195:LYS:H	1.76	0.48
35:BG:148:GLU:HB3	35:BG:149:ILE:HA	1.95	0.48
75:BL:85:UNK:CB	75:BL:86:UNK:HA	2.42	0.48
46:BT:58:HIS:CD2	81:DA:1691:U:OP1	2.66	0.48
52:BY:28:ARG:HA	52:BY:31:LEU:HB2	1.94	0.48
42:BM:93:LEU:CD2	51:BZ:20:LEU:HB3	2.33	0.48
78:CA:1086:A:OP1	78:CA:1086:A:H8	1.96	0.48
78:CA:570:A:H62	78:CA:574:G:H21	1.60	0.48
81:DA:1971:C:C3'	81:DA:1972:A:H5'	2.43	0.48
81:DA:209:A:C2	81:DA:212:G:C8	3.00	0.48
49:BV:66:SER:H	81:DA:2389:C:H5''	1.78	0.48
81:DA:3215:A:O5'	81:DA:3215:A:H8	1.96	0.48
35:BG:52:VAL:HG11	81:DA:3217:C:H5'	1.94	0.48
29:AU:23:PHE:HB3	29:AU:73:GLY:O	2.13	0.48
35:BG:93:VAL:HG22	81:DA:3324:C:O4'	118.60	0.48
36:BF:47:LYS:N	41:BN:7:VAL:CG2	2.76	0.48
74:BQ:158:ARG:HE	83:DC:47:C:P	2.36	0.48
49:BV:101:ASN:ND2	81:DA:388:G:H21	2.12	0.48
78:CA:1167:G:O6	78:CA:1578:U:O4	2.30	0.48
40:BK:130:LYS:HB2	81:DA:1316:C:C5	2.48	0.48
81:DA:1869:C:H2'	81:DA:1870:C:H6	1.79	0.48
81:DA:2491:A:H3'	81:DA:2492:C:H5'	1.94	0.48
47:BU:80:VAL:CG1	81:DA:2727:A:N6	2.76	0.48
81:DA:2763:U:H6	81:DA:2763:U:O5'	1.96	0.48
81:DA:2859:U:H4'	81:DA:2860:U:H5	1.76	0.48
42:BM:12:ARG:HH11	81:DA:3040:A:H5''	1.77	0.48
81:DA:798:G:H3'	81:DA:799:G:C8	2.48	0.48
82:DB:153:U:H4'	82:DB:154:C:OP1	2.12	0.48
4:AD:186:GLY:HA3	78:CA:651:G:OP2	2.13	0.48
44:BO:47:LYS:HG2	44:BO:92:LYS:H	1.77	0.48
78:CA:1292:G:N7	78:CA:1293:U:C5	2.81	0.48
78:CA:1603:U:C5	78:CA:1604:U:C5	3.01	0.48
43:BP:26:ARG:HH21	81:DA:1487:G:H21	76.38	0.48
81:DA:1621:A:H2'	81:DA:1622:U:C6	2.47	0.48
81:DA:1664:G:H1	81:DA:1785:U:H3	1.61	0.48
81:DA:2279:A:C2	81:DA:2288:G:C8	3.01	0.48
81:DA:2279:A:OP1	81:DA:2279:A:H3'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2592:G:H4'	81:DA:2594:C:C2	2.48	0.48
81:DA:32:U:H3	81:DA:52:A:H61	1.61	0.48
82:DB:89:A:C5	82:DB:91:C:C5	3.01	0.48
10:AI:93:HIS:CD2	10:AI:93:HIS:N	2.81	0.48
29:AU:70:VAL:HG12	29:AU:71:GLY:N	2.28	0.48
29:AU:58:PHE:CD2	29:AU:72:PHE:HB3	2.49	0.48
36:BF:129:ARG:HH12	81:DA:3126:C:C5'	2.26	0.48
41:BN:39:ILE:HG23	76:BS:74:ILE:CG1	2.41	0.48
41:BN:99:TRP:C	41:BN:101:LYS:H	2.16	0.48
41:BN:74:ARG:NH2	76:BS:151:PHE:HB3	2.28	0.48
46:BT:55:VAL:HG12	46:BT:56:THR:H	1.79	0.48
78:CA:1171:A:N3	78:CA:1469:A:N1	2.61	0.48
78:CA:585:A:H2'	78:CA:586:G:C8	2.48	0.48
78:CA:929:A:N6	78:CA:930:A:H2	1.87	0.48
78:CA:995:A:H4'	81:DA:2196:C:OP1	2.12	0.48
81:DA:1256:G:H2'	81:DA:1257:C:O4'	2.14	0.48
81:DA:1363:A:H2'	81:DA:1364:C:C6	2.48	0.48
31:BB:188:LYS:HZ1	81:DA:1793:C:H2'	1.79	0.48
81:DA:1824:U:H2'	81:DA:1825:G:H8	1.79	0.48
81:DA:2228:A:H2'	81:DA:2229:A:H5''	1.95	0.48
81:DA:2294:U:C2	81:DA:2297:U:H5	2.32	0.48
81:DA:2487:U:C2'	81:DA:2487:U:C6	2.97	0.48
81:DA:2632:G:C6	81:DA:2633:U:C4	3.01	0.48
81:DA:2698:G:H2'	81:DA:2699:G:C8	2.48	0.48
81:DA:3034:C:H2'	81:DA:3035:A:C8	2.48	0.48
81:DA:3048:A:H61	81:DA:3090:U:H5''	1.79	0.48
81:DA:3048:A:N6	81:DA:3090:U:H5''	2.28	0.48
81:DA:798:G:H3'	81:DA:799:G:H8	1.78	0.48
74:BQ:16:PHE:CD1	83:DC:14:U:OP1	2.66	0.48
83:DC:27:A:H1'	83:DC:55:A:N6	2.25	0.48
6:AE:201:ASN:ND2	78:CA:3:U:N1	2.62	0.48
19:AR:130:ARG:C	78:CA:1558:U:C2	2.85	0.48
74:BQ:146:LEU:HD22	74:BQ:163:LEU:HD22	1.94	0.48
78:CA:1334:U:H3	78:CA:1417:A:N6	2.10	0.48
78:CA:1276:U:H3	78:CA:1436:A:H61	1.61	0.48
78:CA:1202:A:C8	78:CA:1600:A:N6	2.81	0.48
13:AL:120:VAL:C	78:CA:586:G:OP2	2.51	0.48
81:DA:1944:U:H2'	81:DA:1945:A:C8	2.48	0.48
81:DA:1995:A:H2'	81:DA:1996:C:C6	2.48	0.48
81:DA:2479:C:H2'	81:DA:2480:A:H5'	1.96	0.48
47:BU:56:PHE:HB2	81:DA:2639:G:H5''	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:887:G:H2'	81:DA:888:A:C8	2.49	0.48
4:AD:188:ASN:OD1	78:CA:650:U:H5''	2.13	0.48
16:AO:65:VAL:CB	24:AX:51:GLN:HB2	2.44	0.48
31:BB:188:LYS:HE2	81:DA:1793:C:C2'	2.44	0.48
31:BB:188:LYS:NZ	81:DA:1793:C:C2'	2.74	0.48
74:BQ:110:LEU:HD22	74:BQ:118:THR:HG21	1.95	0.48
46:BT:140:GLU:O	46:BT:143:ILE:HG23	2.14	0.48
78:CA:1190:C:H5''	78:CA:1190:C:O4'	2.10	0.48
78:CA:1637:C:H5'	80:CC:18:C:N3	2.29	0.48
78:CA:990:C:C6	78:CA:990:C:O4'	2.67	0.48
81:DA:1647:A:N6	81:DA:1808:G:HO2'	2.09	0.48
81:DA:1688:U:N1	81:DA:1688:U:O4'	2.41	0.48
81:DA:2624:G:H21	81:DA:2626:A:H2	1.60	0.48
81:DA:2826:U:C4	81:DA:2827:U:C4	3.02	0.48
31:BB:216:HIS:HE1	81:DA:2960:C:C5	2.31	0.48
81:DA:3048:A:H2	81:DA:3091:A:N7	2.12	0.48
81:DA:3049:A:H2'	81:DA:3050:U:C5'	2.43	0.48
81:DA:3215:A:C5'	81:DA:3215:A:H8	2.26	0.48
81:DA:3240:C:H2'	81:DA:3241:G:O4'	2.12	0.48
81:DA:3242:G:C3'	81:DA:3242:G:C8	2.97	0.48
83:DC:29:C:N3	83:DC:30:G:C5	2.82	0.48
83:DC:57:C:C5	83:DC:58:U:C4	3.01	0.48
12:AK:107:ARG:HG3	12:AK:108:SER:H	1.79	0.48
18:AP:85:VAL:HB	18:AP:111:VAL:HG22	1.96	0.48
21:AT:53:TYR:CD2	23:AW:69:UNK:O	2.67	0.48
21:AT:55:LEU:CD1	21:AT:55:LEU:H	2.25	0.48
31:BB:199:THR:HG22	81:DA:913:A:H4'	1.95	0.48
34:BE:115:LYS:CA	34:BE:115:LYS:CG	2.71	0.48
36:BF:113:GLU:HB2	36:BF:123:ILE:HD11	1.94	0.48
42:BM:95:PHE:CD2	51:BZ:22:VAL:CG2	2.96	0.48
49:BV:4:TYR:O	82:DB:12:A:H4'	2.14	0.48
78:CA:1427:A:H4'	78:CA:1428:G:C5'	2.44	0.48
78:CA:280:U:C6	78:CA:280:U:O4'	2.67	0.48
78:CA:866:G:C6	78:CA:965:U:C4	3.01	0.48
78:CA:942:G:C2	78:CA:943:C:C2	3.02	0.48
81:DA:1514:G:H22	81:DA:1842:A:H5''	1.77	0.48
81:DA:1784:G:C2'	81:DA:1785:U:H5'	2.44	0.48
81:DA:1826:C:H2'	81:DA:1827:C:C5	2.48	0.48
46:BT:71:ARG:HE	81:DA:2100:A:H5''	1.78	0.48
36:BF:121:LYS:HZ3	81:DA:3036:G:H1'	1.78	0.48
81:DA:380:U:H2'	81:DA:381:U:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:DB:115:C:H2'	82:DB:116:G:C8	2.49	0.48
19:AR:125:PRO:CG	78:CA:1557:U:H3	2.27	0.48
30:BA:190:PHE:HB3	75:BL:181:UNK:CB	2.44	0.48
41:BN:39:ILE:CG2	76:BS:97:ARG:NH2	2.75	0.48
78:CA:1170:G:H22	78:CA:1574:G:N2	2.10	0.48
78:CA:1589:C:N4	78:CA:1607:G:H1	2.10	0.48
78:CA:441:A:C2	78:CA:464:A:C2	3.02	0.48
4:AD:188:ASN:OD1	78:CA:650:U:OP1	2.31	0.48
78:CA:936:G:N1	78:CA:937:C:C4	2.82	0.48
33:BD:221:ASN:ND2	81:DA:211:A:OP2	2.43	0.48
81:DA:2197:C:N4	81:DA:2241:U:H2'	2.28	0.48
81:DA:3009:G:C6	81:DA:3010:U:C2	3.02	0.48
81:DA:3382:U:H2'	81:DA:3383:G:C8	2.49	0.48
81:DA:595:G:C8	81:DA:595:G:H3'	2.48	0.48
83:DC:104:C:H2'	83:DC:105:A:H5'	1.95	0.48
83:DC:4:U:H2'	83:DC:5:G:H8	1.79	0.48
6:AE:188:LEU:HD11	78:CA:1298:U:C1'	2.44	0.48
6:AE:199:GLN:HG2	6:AE:200:SER:H	1.77	0.48
8:AF:140:THR:HG23	8:AF:171:ALA:HB1	1.96	0.48
33:BD:100:PHE:CD1	33:BD:100:PHE:N	2.80	0.48
14:AM:14:ILE:CD1	34:BE:115:LYS:CB	2.65	0.48
41:BN:33:ALA:HB1	41:BN:46:ILE:HG22	1.95	0.48
43:BP:44:ARG:HB2	43:BP:119:TYR:CE1	2.48	0.48
74:BQ:261:THR:HB	74:BQ:266:ALA:HB2	1.96	0.48
33:BD:30:ILE:N	45:BR:25:TYR:OH	2.46	0.48
78:CA:121:U:C2	78:CA:122:U:C5	3.02	0.48
78:CA:1178:G:C6	78:CA:1462:G:C6	3.01	0.48
14:AM:116:LEU:HD22	78:CA:1547:A:OP1	2.13	0.48
78:CA:1170:G:N1	78:CA:1574:G:C5	2.82	0.48
78:CA:1780:G:C6	78:CA:1781:A:C4	2.95	0.48
6:AE:198:THR:CG2	78:CA:1:U:P	3.02	0.48
81:DA:1230:G:H2'	81:DA:1231:A:C8	2.49	0.48
81:DA:1739:U:H2'	81:DA:1740:U:O4'	2.14	0.48
81:DA:1747:G:H2'	81:DA:1748:G:C8	2.48	0.48
81:DA:2043:U:H2'	81:DA:2044:U:C6	2.49	0.48
81:DA:2374:C:N4	81:DA:2822:U:O2'	2.47	0.48
81:DA:814:U:H2'	81:DA:815:G:C8	2.49	0.48
45:BR:10:HIS:HA	81:DA:949:C:H4'	1.95	0.48
13:AL:8:GLY:O	13:AL:9:LEU:CB	2.62	0.48
14:AM:15:LEU:H	14:AM:22:VAL:CG1	2.27	0.48
31:BB:199:THR:CG2	81:DA:913:A:H4'	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BF:92:TYR:CD1	36:BF:99:ILE:HG21	2.48	0.48
35:BG:25:ALA:HB2	81:DA:502:U:O3'	2.14	0.48
78:CA:1310:U:C2	78:CA:1316:G:N1	2.82	0.48
20:AS:116:ILE:HG13	78:CA:1499:G:H4'	1.95	0.48
78:CA:673:A:O2'	78:CA:674:C:H5'	2.14	0.48
81:DA:1976:G:H2'	81:DA:1977:C:C6	2.49	0.48
81:DA:2208:A:C2	81:DA:2209:U:C5	3.02	0.48
81:DA:182:U:H3	81:DA:234:G:H1	1.62	0.48
81:DA:2502:A:C2	81:DA:2503:G:C8	3.02	0.48
81:DA:2720:G:O4'	81:DA:2720:G:C8	2.67	0.48
81:DA:3160:U:H3	81:DA:3290:G:H1	1.62	0.48
81:DA:3320:A:H2'	81:DA:3321:C:C6	2.49	0.48
82:DB:29:U:H2'	82:DB:30:C:C6	2.48	0.48
83:DC:107:G:H2'	83:DC:108:U:H5'	1.95	0.48
2:AA:88:LYS:HZ3	2:AA:196:SER:H	1.62	0.47
14:AM:16:ARG:HH12	34:BE:111:ASP:C	2.14	0.47
19:AR:130:ARG:O	78:CA:1558:U:N1	2.47	0.47
29:AU:32:ARG:HB3	29:AU:33:ALA:H	1.54	0.47
31:BB:193:ARG:NH1	81:DA:2173:U:O5'	2.47	0.47
74:BQ:142:PHE:CG	74:BQ:143:LYS:N	2.82	0.47
74:BQ:110:LEU:HD11	74:BQ:170:GLY:HA3	1.96	0.47
49:BV:2:ALA:HB1	49:BV:18:ARG:CZ	2.44	0.47
42:BM:95:PHE:HE2	51:BZ:22:VAL:HG21	1.76	0.47
78:CA:1295:G:C4'	78:CA:1321:A:N1	2.76	0.47
78:CA:1386:G:H3'	78:CA:1387:G:H5''	1.96	0.47
78:CA:1393:C:C2'	78:CA:1394:G:H5'	2.44	0.47
78:CA:1476:C:H2'	78:CA:1477:G:H8	1.78	0.47
14:AM:101:LEU:HD21	78:CA:1566:U:C5'	2.44	0.47
10:AI:138:PHE:HB2	78:CA:1586:A:H5''	1.96	0.47
78:CA:180:A:H2'	78:CA:181:A:C8	2.49	0.47
78:CA:901:G:O6	78:CA:902:G:C2	2.57	0.47
12:AK:46:MET:HE1	78:CA:918:U:N1	2.29	0.47
16:AO:114:ARG:NH1	78:CA:940:A:C5	2.72	0.47
78:CA:877:G:N1	78:CA:951:A:C2	2.79	0.47
81:DA:1237:G:O2'	81:DA:1251:A:N6	2.47	0.47
81:DA:1257:C:H2'	81:DA:1258:U:O4'	2.13	0.47
81:DA:1689:U:H2'	81:DA:1690:C:H6	1.79	0.47
81:DA:2422:C:H2'	81:DA:2423:U:C6	2.49	0.47
81:DA:2469:G:HO2'	81:DA:2488:A:H2	1.61	0.47
81:DA:2665:U:H4'	81:DA:2666:C:H5'	1.96	0.47
81:DA:2897:A:N7	81:DA:2899:C:C5	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BN:132:LYS:HZ1	81:DA:3230:G:H5'	1.79	0.47
32:BC:25:ILE:HD12	81:DA:3312:U:C5'	2.43	0.47
13:AL:38:PHE:CZ	78:CA:600:U:O2	2.67	0.47
20:AS:2:PRO:HB3	20:AS:137:ALA:HA	1.94	0.47
20:AS:34:VAL:HB	20:AS:45:MET:SD	2.54	0.47
31:BB:101:VAL:HG22	31:BB:165:VAL:HG22	1.96	0.47
40:BK:96:LYS:HD3	81:DA:422:A:N7	2.29	0.47
41:BN:12:TRP:CD1	41:BN:19:ARG:NH2	2.82	0.47
41:BN:5:SER:O	41:BN:6:ILE:HB	2.14	0.47
44:BO:4:ARG:NH2	81:DA:661:G:O6	2.46	0.47
43:BP:74:PRO:HA	43:BP:76:PRO:HD3	1.96	0.47
45:BR:44:PHE:CZ	45:BR:137:THR:HG23	2.49	0.47
78:CA:1178:G:C2	78:CA:1462:G:C4	3.02	0.47
78:CA:1176:G:N3	78:CA:1464:G:C2	2.82	0.47
20:AS:39:THR:HG21	78:CA:1478:G:OP1	2.14	0.47
78:CA:31:C:C5	78:CA:32:U:C5	3.02	0.47
81:DA:1414:G:H3'	81:DA:1414:G:C8	2.49	0.47
81:DA:1584:U:H2'	81:DA:1585:C:C6	2.49	0.47
81:DA:2491:A:C3'	81:DA:2492:C:C5'	2.92	0.47
74:BQ:18:THR:HG21	81:DA:2689:A:H61	1.78	0.47
81:DA:2744:U:H3	81:DA:2749:G:H1	1.59	0.47
81:DA:2869:U:N1	81:DA:2869:U:C2'	2.65	0.47
81:DA:756:U:H2'	81:DA:757:C:C6	2.49	0.47
81:DA:802:C:N4	81:DA:803:C:N4	2.62	0.47
5:AC:79:ARG:HD3	5:AC:82:ARG:HA	1.97	0.47
6:AE:225:LEU:HD12	6:AE:225:LEU:H	1.79	0.47
9:AH:64:GLN:HG2	9:AH:71:LYS:HB2	1.96	0.47
22:AV:104:ALA:O	22:AV:105:THR:CB	2.62	0.47
30:BA:88:ASP:HA	30:BA:92:LYS:HD2	1.95	0.47
33:BD:99:MET:HB2	33:BD:102:PRO:HG2	1.96	0.47
37:BH:93:LEU:HD11	43:BP:21:PHE:CD1	2.50	0.47
40:BK:54:TYR:CE2	40:BK:141:LEU:HD11	2.49	0.47
43:BP:177:GLY:O	43:BP:181:ASN:HB2	2.14	0.47
78:CA:1201:G:O6	78:CA:1601:G:N7	2.47	0.47
78:CA:205:U:C4	78:CA:206:A:H2	2.32	0.47
78:CA:45:U:O2	78:CA:434:G:H1'	2.15	0.47
81:DA:2190:U:H2'	81:DA:2191:U:C6	2.49	0.47
81:DA:2279:A:H2	81:DA:2286:U:N3	2.05	0.47
81:DA:2623:G:C4	81:DA:2623:G:C2'	2.97	0.47
81:DA:2919:A:H61	81:DA:2927:C:N4	2.07	0.47
81:DA:34:A:H3'	81:DA:48:A:H61	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AC:122:VAL:O	5:AC:124:HIS:CE1	2.67	0.47
19:AR:124:THR:CG2	19:AR:125:PRO:HD3	2.44	0.47
20:AS:6:VAL:HG22	20:AS:136:ALA:HB2	1.96	0.47
29:AU:63:GLN:CG	29:AU:66:GLY:HA3	2.44	0.47
32:BC:315:GLY:HA2	81:DA:3380:U:H4'	1.95	0.47
34:BE:23:VAL:HG11	34:BE:28:ASP:OD1	2.15	0.47
35:BG:55:LEU:HB2	35:BG:98:VAL:HG22	1.90	0.47
46:BT:57:VAL:O	81:DA:1871:U:O5'	2.33	0.47
78:CA:123:G:C2	78:CA:296:U:C4	3.02	0.47
78:CA:1203:A:C2	78:CA:1556:A:C2	3.02	0.47
78:CA:901:G:C2	78:CA:902:G:N3	2.83	0.47
39:BJ:123:ARG:NE	81:DA:1257:C:H5''	2.30	0.47
81:DA:267:G:O6	81:DA:319:A:C5	2.68	0.47
81:DA:3342:A:N6	81:DA:3363:U:H3	2.12	0.47
81:DA:598:A:C2	81:DA:606:C:O2	2.67	0.47
81:DA:599:C:C4	81:DA:600:G:N7	2.82	0.47
81:DA:664:U:O5'	81:DA:664:U:H6	1.97	0.47
4:AD:125:LYS:H	4:AD:142:HIS:CD2	2.31	0.47
6:AE:52:THR:HA	6:AE:55:GLU:HB3	1.96	0.47
6:AE:69:ILE:C	6:AE:70:ASP:O	2.52	0.47
16:AO:50:ILE:HG23	16:AO:64:ARG:HD3	1.96	0.47
18:AP:63:LEU:N	18:AP:63:LEU:HD23	2.30	0.47
20:AS:51:GLU:O	20:AS:56:LYS:HE2	2.14	0.47
32:BC:125:SER:C	32:BC:127:LYS:H	2.17	0.47
32:BC:262:TRP:HB2	81:DA:2989:U:OP1	2.13	0.47
35:BG:46:ARG:HG3	81:DA:3215:A:N6	2.30	0.47
35:BG:77:ARG:HD2	35:BG:79:VAL:HG13	1.96	0.47
78:CA:1166:A:O2'	78:CA:1587:A:H4'	2.14	0.47
20:AS:88:VAL:HG21	78:CA:1600:A:O3'	2.13	0.47
78:CA:163:G:C3'	78:CA:164:A:H8	2.28	0.47
78:CA:304:U:H2'	78:CA:305:C:H5	1.79	0.47
78:CA:636:A:C4	78:CA:636:A:C2'	2.95	0.47
81:DA:13:A:H61	82:DB:145:U:H3	1.63	0.47
46:BT:77:GLY:HA3	81:DA:1939:G:OP1	2.15	0.47
81:DA:3149:G:C8	81:DA:3149:G:H3'	2.50	0.47
81:DA:66:A:C5	81:DA:68:C:C2	3.03	0.47
81:DA:92:G:C8	81:DA:94:G:H1'	2.49	0.47
6:AE:24:ARG:HD3	9:AH:69:LEU:N	2.30	0.47
32:BC:166:ILE:HD11	32:BC:171:LEU:HD22	1.96	0.47
32:BC:349:LYS:NZ	81:DA:3098:G:H5''	2.30	0.47
33:BD:162:THR:HG23	33:BD:163:LYS:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BG:153:PRO:HD2	35:BG:154:LEU:H	1.79	0.47
35:BG:56:LYS:HB2	35:BG:64:LEU:HB2	1.95	0.47
37:BH:62:LYS:O	37:BH:63:LYS:O	2.32	0.47
44:BO:124:ILE:HD12	75:BL:147:UNK:CB	2.36	0.47
78:CA:296:U:C4	78:CA:297:U:C4	3.02	0.47
81:DA:1176:C:H5	81:DA:1177:G:HO2'	1.60	0.47
81:DA:1469:C:N4	81:DA:1509:A:H1'	2.29	0.47
81:DA:2500:A:H2'	81:DA:2501:U:C6	2.50	0.47
81:DA:2698:G:H2'	81:DA:2699:G:H8	1.79	0.47
81:DA:3137:C:H2'	81:DA:3138:U:C6	2.49	0.47
41:BN:3:THR:HG21	81:DA:3198:U:OP1	2.15	0.47
81:DA:675:C:O4'	81:DA:675:C:C6	2.67	0.47
2:AA:124:THR:HG23	2:AA:125:ASP:H	1.80	0.47
5:AC:53:ARG:NH2	78:CA:658:C:O3'	2.47	0.47
12:AK:33:LEU:HD21	78:CA:903:U:H5	1.52	0.47
13:AL:10:ASN:O	13:AL:11:SER:C	2.52	0.47
14:AM:13:HIS:O	34:BE:116:TYR:OH	2.27	0.47
11:AJ:85:ARG:HB3	15:AN:51:GLY:HA3	1.97	0.47
29:AU:17:LEU:HD21	29:AU:93:ARG:HG3	1.97	0.47
30:BA:18:LYS:HG2	30:BA:19:TYR:O	2.14	0.47
31:BB:17:THR:HG22	81:DA:2172:A:O3'	2.15	0.47
33:BD:357:GLU:O	33:BD:361:HIS:CD2	2.67	0.47
77:BI:118:ALA:HB3	81:DA:2645:G:O2'	2.11	0.47
41:BN:3:THR:O	41:BN:4:ASP:C	2.52	0.47
43:BP:114:ARG:HD3	43:BP:157:LYS:HA	1.96	0.47
74:BQ:52:VAL:C	74:BQ:54:ARG:H	2.17	0.47
48:BW:52:ASN:HB3	48:BW:69:ALA:HB2	1.95	0.47
78:CA:122:U:C5	78:CA:123:G:N7	2.82	0.47
78:CA:1580:C:H2'	78:CA:1581:C:C6	2.50	0.47
78:CA:6:G:C6	78:CA:19:A:N1	2.83	0.47
78:CA:501:U:H6	78:CA:501:U:H5''	1.78	0.47
78:CA:618:U:C2	78:CA:1087:A:N1	2.82	0.47
12:AK:124:ASP:HA	78:CA:929:A:H1'	1.96	0.47
81:DA:1004:U:C6	81:DA:1005:G:C8	3.02	0.47
81:DA:124:U:C6	81:DA:124:U:O4'	2.67	0.47
81:DA:2041:U:H2'	81:DA:2042:G:H8	1.79	0.47
81:DA:2199:G:C5	81:DA:2200:U:C5	3.03	0.47
81:DA:1446:A:N6	81:DA:2356:A:H5''	2.29	0.47
81:DA:2756:C:H4'	81:DA:2757:U:OP1	2.14	0.47
82:DB:98:U:H2'	82:DB:99:C:H5'	1.96	0.47
8:AF:41:LYS:HZ1	10:AI:65:ILE:HG23	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AR:130:ARG:CZ	78:CA:1558:U:C5'	2.90	0.47
35:BG:145:LEU:CD1	41:BN:114:ASP:N	2.67	0.47
39:BJ:34:PRO:HG2	39:BJ:42:VAL:HG11	1.97	0.47
45:BR:98:LYS:HB3	45:BR:99:THR:HA	1.96	0.47
78:CA:26:A:O2'	78:CA:27:U:H5'	2.15	0.47
78:CA:109:G:H1	78:CA:305:C:H42	1.63	0.47
78:CA:595:G:H2'	78:CA:596:C:H6	1.79	0.47
78:CA:636:A:P	78:CA:636:A:H8	2.37	0.47
39:BJ:94:LYS:HG2	81:DA:1251:A:C2	2.49	0.47
81:DA:1257:C:H2'	81:DA:1258:U:H5'	1.96	0.47
81:DA:1623:G:C2'	81:DA:1624:G:H5'	2.42	0.47
81:DA:2479:C:C2'	81:DA:2480:A:H5'	2.45	0.47
81:DA:2735:U:C2'	81:DA:2736:A:H5'	2.42	0.47
81:DA:2770:G:H2'	81:DA:2771:U:C6	2.50	0.47
81:DA:2916:U:O4'	81:DA:2916:U:C6	2.67	0.47
81:DA:2110:G:H4'	81:DA:3364:C:H5'	1.96	0.47
81:DA:799:G:C5	81:DA:801:A:C5	3.02	0.47
81:DA:934:G:H3'	81:DA:935:U:C6	2.50	0.47
2:AA:23:HIS:CE1	2:AA:168:HIS:HB3	2.50	0.47
11:AJ:85:ARG:HG2	15:AN:52:PHE:N	2.30	0.47
16:AO:53:LEU:HD23	16:AO:63:ALA:CB	2.45	0.47
18:AP:69:LYS:HZ2	78:CA:307:G:H4'	1.78	0.47
74:BQ:68:THR:HG22	74:BQ:71:GLY:O	2.15	0.47
47:BU:126:VAL:HG21	47:BU:129:LYS:HB2	1.97	0.47
78:CA:1132:A:H2'	78:CA:1133:A:H8	1.79	0.47
78:CA:1174:C:N3	78:CA:1466:G:N3	2.62	0.47
78:CA:1770:U:H3	78:CA:1791:A:N6	2.12	0.47
78:CA:673:A:H2'	78:CA:674:C:C6	2.44	0.47
81:DA:1021:G:H1	81:DA:1033:U:H3	1.63	0.47
81:DA:1487:G:H1	81:DA:1855:U:H3	1.63	0.47
81:DA:1971:C:H3'	81:DA:1972:A:H5'	1.97	0.47
81:DA:2615:G:H2'	81:DA:2616:C:C6	2.50	0.47
81:DA:3148:U:H2'	81:DA:3149:G:C8	2.50	0.47
41:BN:77:ARG:CG	81:DA:560:G:H5'	2.44	0.47
31:BB:6:ARG:CG	81:DA:914:A:H61	2.17	0.47
83:DC:41:G:H4'	83:DC:42:A:H8	1.79	0.47
83:DC:17:A:H61	83:DC:61:U:H3	1.62	0.47
4:AD:153:ASN:HB3	4:AD:153:ASN:C	2.19	0.47
13:AL:1:MET:HG3	13:AL:2:GLY:O	2.15	0.47
20:AS:94:ILE:HG22	20:AS:96:ALA:H	1.78	0.47
30:BA:19:TYR:C	30:BA:206:VAL:HG11	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BC:345:ASN:O	32:BC:346:THR:CB	2.63	0.47
33:BD:310:THR:HG22	33:BD:313:LEU:CD1	2.43	0.47
33:BD:88:GLY:C	33:BD:89:ALA:CB	2.83	0.47
14:AM:16:ARG:CZ	34:BE:109:HIS:O	2.63	0.47
81:DA:1083:G:H2'	81:DA:1084:A:C8	2.49	0.47
46:BT:71:ARG:NH2	81:DA:2100:A:OP1	2.47	0.47
81:DA:2405:C:O2	81:DA:2819:A:N1	2.48	0.47
81:DA:2994:A:N6	81:DA:3142:A:H62	2.13	0.47
43:BP:178:HIS:HB2	81:DA:69:C:H5'	1.97	0.47
82:DB:97:A:C6	82:DB:98:U:C4	3.03	0.47
83:DC:45:A:H3'	83:DC:45:A:C8	2.50	0.47
5:AC:122:VAL:O	5:AC:124:HIS:CG	2.68	0.47
4:AD:77:ARG:HD3	4:AD:82:TYR:CE1	2.51	0.47
30:BA:190:PHE:O	75:BL:180:UNK:HA	2.15	0.47
74:BQ:128:GLU:C	74:BQ:129:TYR:O	2.52	0.47
45:BR:17:THR:HA	45:BR:53:PHE:CD1	2.50	0.47
78:CA:1075:C:N4	78:CA:1076:A:N6	2.62	0.47
78:CA:1308:G:O6	78:CA:1318:G:O6	2.28	0.47
81:DA:1675:G:N2	81:DA:1693:C:O2	2.42	0.47
81:DA:1967:U:H2'	81:DA:1968:G:H5'	1.97	0.47
81:DA:425:G:H5'	81:DA:426:G:H5'	1.97	0.47
81:DA:693:A:H2'	81:DA:694:C:C6	2.49	0.47
82:DB:98:U:C5	82:DB:99:C:C5	3.03	0.47
83:DC:23:A:O2'	83:DC:24:A:C5'	2.63	0.47
6:AE:115:ILE:HD13	6:AE:230:TRP:NE1	2.30	0.46
16:AO:112:LYS:HG3	16:AO:112:LYS:O	2.15	0.46
18:AP:103:ARG:HH21	78:CA:304:U:C4'	2.28	0.46
31:BB:193:ARG:CZ	81:DA:2174:G:C2'	2.93	0.46
37:BH:232:HIS:O	37:BH:233:TRP:O	2.32	0.46
40:BK:187:GLU:O	40:BK:188:SER:C	2.53	0.46
41:BN:36:VAL:HG23	41:BN:76:ALA:HB3	1.97	0.46
74:BQ:115:LEU:O	74:BQ:116:ASP:O	2.34	0.46
51:BZ:49:ILE:O	51:BZ:49:ILE:HG23	2.15	0.46
6:AE:121:VAL:H	78:CA:11:A:H4'	1.81	0.46
81:DA:1042:U:H2'	81:DA:1043:C:C6	2.49	0.46
81:DA:1203:A:N6	81:DA:1300:G:H2'	2.30	0.46
39:BJ:123:ARG:NH2	81:DA:1257:C:H5''	2.29	0.46
81:DA:1261:G:H5''	81:DA:1262:G:OP1	2.15	0.46
81:DA:1413:G:H3'	81:DA:1414:G:C8	2.51	0.46
81:DA:2486:A:O2'	81:DA:2487:U:C5	2.62	0.46
81:DA:1209:G:H22	81:DA:3114:A:N6	2.13	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:674:G:H2'	81:DA:675:C:H6	1.79	0.46
6:AE:70:ASP:O	6:AE:71:THR:C	2.52	0.46
7:AG:100:UNK:N	7:AG:101:UNK:HA	2.30	0.46
13:AL:9:LEU:HD13	18:AP:79:LYS:HE3	1.97	0.46
14:AM:119:ILE:HG23	19:AR:119:PHE:HA	1.97	0.46
20:AS:71:VAL:HG12	20:AS:72:GLY:H	1.80	0.46
37:BH:88:ALA:C	37:BH:89:GLU:CA	2.68	0.46
44:BO:139:ARG:HE	75:BL:84:UNK:HA	1.79	0.46
41:BN:12:TRP:O	76:BS:162:THR:HA	2.14	0.46
47:BU:160:ILE:HG12	81:DA:969:C:OP2	2.15	0.46
78:CA:1086:A:C6	78:CA:1087:A:N1	2.84	0.46
78:CA:1584:G:N2	78:CA:1610:G:H2'	2.30	0.46
78:CA:309:C:H2'	78:CA:310:C:C6	2.51	0.46
78:CA:904:G:C5	78:CA:905:A:C4	3.00	0.46
81:DA:1974:A:H61	81:DA:2048:G:H1'	1.80	0.46
81:DA:2332:A:C6	81:DA:2333:C:C2	3.04	0.46
81:DA:424:G:H1	81:DA:2365:C:H5	1.64	0.46
81:DA:3019:U:C4	81:DA:3020:U:N3	2.83	0.46
81:DA:3112:G:O6	81:DA:3120:C:H5''	2.15	0.46
81:DA:835:G:O2'	81:DA:858:A:N6	2.48	0.46
81:DA:920:A:H3'	81:DA:922:U:O4	2.16	0.46
14:AM:101:LEU:HD21	78:CA:1566:U:C4'	2.43	0.46
16:AO:118:ILE:HG23	16:AO:121:ARG:HB2	1.97	0.46
19:AR:59:LYS:HB3	78:CA:1551:U:H5	1.80	0.46
41:BN:21:VAL:HG13	41:BN:65:LEU:HD13	1.97	0.46
74:BQ:152:ARG:HG2	81:DA:2663:G:H5'	1.98	0.46
74:BQ:187:THR:O	74:BQ:187:THR:HG23	2.15	0.46
32:BC:364:LYS:HD2	51:BZ:17:ARG:HD3	1.97	0.46
13:AL:23:ARG:NH1	78:CA:1107:G:N7	2.63	0.46
19:AR:58:LYS:CD	78:CA:1549:C:C5	2.75	0.46
79:CB:55:C:O2'	79:CB:55:C:H1'	1.92	0.46
81:DA:1054:A:C8	81:DA:1054:A:C2'	2.99	0.46
81:DA:993:G:C8	81:DA:1059:G:N2	2.84	0.46
81:DA:1120:A:H61	81:DA:1138:U:H3	1.63	0.46
33:BD:36:HIS:CG	81:DA:1425:U:H4'	2.50	0.46
81:DA:1682:U:HO2'	81:DA:1685:C:N4	2.09	0.46
81:DA:2678:A:C6	81:DA:2679:A:C5	3.04	0.46
81:DA:64:G:C6	81:DA:322:U:C5	3.03	0.46
33:BD:84:ARG:CD	81:DA:366:A:H5'	2.45	0.46
8:AF:161:ASP:HB2	25:AY:44:VAL:HA	1.96	0.46
17:AQ:30:THR:HA	17:AQ:33:ARG:HD3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:26:THR:HG22	25:AY:27:GLN:H	1.79	0.46
31:BB:50:HIS:CE1	42:BM:52:ALA:O	82.90	0.46
33:BD:107:ARG:HG3	33:BD:109:TRP:CD1	2.51	0.46
33:BD:195:ARG:NH2	81:DA:337:G:N7	2.64	0.46
33:BD:355:PHE:O	33:BD:357:GLU:N	2.49	0.46
76:BS:101:LEU:HD22	76:BS:101:LEU:H	1.80	0.46
42:BM:95:PHE:CB	51:BZ:22:VAL:HG13	2.44	0.46
10:AI:138:PHE:CD1	78:CA:1587:A:OP1	2.68	0.46
78:CA:6:G:N2	78:CA:19:A:N3	2.64	0.46
46:BT:121:HIS:NE2	81:DA:1718:G:C8	2.84	0.46
81:DA:2406:C:H2'	81:DA:2407:C:C5	2.51	0.46
81:DA:638:C:C4	81:DA:639:G:N7	2.83	0.46
74:BQ:94:ASN:HA	83:DC:47:C:OP2	2.15	0.46
12:AK:33:LEU:CD2	78:CA:902:G:N7	2.77	0.46
13:AL:15:LEU:HD22	78:CA:1105:C:OP2	2.15	0.46
14:AM:136:GLN:CG	78:CA:1544:U:H5''	2.46	0.46
16:AO:60:VAL:O	16:AO:64:ARG:HG2	2.16	0.46
19:AR:58:LYS:CD	78:CA:1550:A:N7	2.78	0.46
29:AU:62:THR:O	29:AU:63:GLN:HB3	2.16	0.46
29:AU:16:PRO:HG3	29:AU:93:ARG:CA	2.44	0.46
31:BB:242:ARG:HB3	81:DA:2241:U:H4'	1.97	0.46
32:BC:362:ALA:HB2	32:BC:364:LYS:HD3	1.98	0.46
33:BD:222:VAL:O	33:BD:225:VAL:HG12	2.16	0.46
44:BO:62:HIS:O	75:BL:146:UNK:CA	2.63	0.46
33:BD:29:PRO:HB2	45:BR:25:TYR:OH	1.93	0.46
45:BR:98:LYS:HA	45:BR:98:LYS:HD2	1.78	0.46
78:CA:1008:G:H2'	78:CA:1009:U:C6	2.51	0.46
78:CA:1041:G:N2	78:CA:1042:G:C5	2.83	0.46
78:CA:1272:U:O2	78:CA:1438:G:O6	2.34	0.46
78:CA:1213:G:H22	78:CA:1450:U:H3	1.63	0.46
78:CA:408:C:C5	78:CA:409:C:C5	3.04	0.46
78:CA:938:G:C2	78:CA:942:G:C4	3.03	0.46
81:DA:1427:U:O2'	81:DA:1428:A:C5'	2.63	0.46
81:DA:2531:C:H3'	81:DA:2532:U:C6	2.50	0.46
81:DA:518:G:H2'	81:DA:519:A:C8	2.51	0.46
81:DA:896:A:H62	81:DA:2133:U:H3	1.63	0.46
83:DC:46:A:C4	83:DC:46:A:C2'	2.98	0.46
8:AF:33:VAL:HG13	8:AF:44:ASN:HD21	1.80	0.46
14:AM:18:LEU:H	14:AM:18:LEU:HD23	1.79	0.46
14:AM:40:ARG:HB2	20:AS:42:GLY:HA2	1.96	0.46
20:AS:58:ALA:HA	20:AS:61:VAL:HG22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BC:360:ASP:HA	32:BC:361:THR:HB	1.97	0.46
34:BE:110:ILE:HD12	34:BE:110:ILE:O	2.15	0.46
40:BK:187:GLU:O	40:BK:189:ASP:N	2.48	0.46
41:BN:74:ARG:HH21	76:BS:151:PHE:HB3	1.81	0.46
36:BF:58:HIS:ND1	76:BS:160:PRO:O	2.49	0.46
78:CA:1570:A:O4'	78:CA:1570:A:C8	2.68	0.46
78:CA:1284:C:OP2	78:CA:1623:C:H4'	2.16	0.46
78:CA:174:U:O4'	78:CA:174:U:C6	2.69	0.46
5:AC:21:SER:CB	78:CA:555:A:H5'	2.31	0.46
78:CA:936:G:N1	78:CA:937:C:N3	2.64	0.46
78:CA:989:U:C6	78:CA:990:C:C5	3.04	0.46
43:BP:50:ARG:NH2	81:DA:114:A:C2	2.84	0.46
81:DA:1257:C:H2'	81:DA:1258:U:C4'	2.46	0.46
81:DA:1384:U:H3	81:DA:1422:G:H1	1.64	0.46
81:DA:1627:U:H2'	81:DA:1628:C:H5'	1.98	0.46
81:DA:1824:U:H2'	81:DA:1825:G:C8	2.51	0.46
81:DA:1923:C:C4	81:DA:1924:U:C4	3.04	0.46
31:BB:128:ARG:HG2	81:DA:2177:G:N7	2.30	0.46
81:DA:2787:G:H2'	81:DA:2788:C:C6	2.51	0.46
81:DA:3165:A:N6	81:DA:3285:C:H42	1.98	0.46
81:DA:678:G:C6	81:DA:703:G:C6	3.04	0.46
14:AM:129:TRP:CZ3	19:AR:133:ALA:HB3	2.51	0.46
20:AS:15:ILE:CD1	20:AS:56:LYS:HD3	2.46	0.46
32:BC:28:ARG:HD2	81:DA:3003:G:H5'	1.97	0.46
35:BG:94:GLU:HB2	81:DA:501:A:H5'	1.98	0.46
40:BK:133:ARG:HH21	40:BK:133:ARG:HA	1.81	0.46
42:BM:11:PHE:HB2	42:BM:85:TRP:CZ2	2.51	0.46
51:BZ:53:VAL:HG23	51:BZ:54:LEU:N	2.25	0.46
78:CA:1399:C:H2'	78:CA:1400:A:H8	1.80	0.46
78:CA:1583:A:C2	78:CA:1612:U:C5	3.03	0.46
78:CA:913:G:C4	81:DA:2208:A:C6	3.04	0.46
12:AK:124:ASP:CG	78:CA:929:A:C6	2.86	0.46
81:DA:1294:A:H2'	81:DA:1295:G:H8	1.81	0.46
81:DA:1990:U:H2'	81:DA:1991:G:C1'	2.45	0.46
78:CA:1746:A:C3'	81:DA:2291:A:O2'	2.64	0.46
81:DA:2447:A:C2	81:DA:2499:U:O2	2.68	0.46
81:DA:756:U:H3	81:DA:775:A:H61	1.63	0.46
81:DA:985:U:H2'	81:DA:986:U:C6	2.51	0.46
2:AA:241:GLU:HB2	78:CA:1391:A:O4'	2.15	0.46
5:AC:182:GLU:O	5:AC:184:SER:HB2	2.16	0.46
14:AM:27:LYS:HA	14:AM:57:ARG:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AU:5:VAL:HG23	29:AU:6:THR:H	1.80	0.46
32:BC:51:ALA:HA	32:BC:314:TYR:CE1	2.50	0.46
34:BE:29:ARG:HH11	34:BE:33:ALA:HB3	1.80	0.46
35:BG:142:ASP:O	35:BG:143:LYS:HG3	2.16	0.46
77:BI:119:TRP:CD1	81:DA:2646:C:OP1	2.68	0.46
48:BW:94:ARG:C	48:BW:95:PHE:CD2	2.89	0.46
78:CA:1043:A:C2	78:CA:1044:U:C2	3.04	0.46
78:CA:1044:U:C4	78:CA:1045:C:N4	2.84	0.46
78:CA:177:U:H2'	78:CA:178:U:C6	2.50	0.46
37:BH:134:TYR:CZ	81:DA:147:U:OP2	2.68	0.46
81:DA:2362:C:C1'	81:DA:2362:C:O2'	2.55	0.46
81:DA:2391:G:H2'	81:DA:2392:C:C6	2.51	0.46
81:DA:3131:U:O4'	81:DA:3131:U:C6	2.68	0.46
81:DA:3374:U:H3'	81:DA:3375:A:C5'	2.43	0.46
81:DA:597:G:C4	81:DA:607:A:N6	2.84	0.46
81:DA:640:U:H2'	81:DA:641:C:H6	1.81	0.46
81:DA:766:U:C5	81:DA:767:U:H1'	2.51	0.46
81:DA:982:C:H2'	81:DA:983:A:H5'	1.97	0.46
82:DB:154:C:H2'	82:DB:155:A:C8	2.51	0.46
6:AE:31:GLU:HA	6:AE:34:GLY:H	1.81	0.46
14:AM:123:ARG:NH2	78:CA:1547:A:OP2	2.49	0.46
19:AR:107:ILE:CG1	78:CA:1453:G:N2	2.76	0.46
29:AU:62:THR:O	29:AU:63:GLN:CD	2.54	0.46
16:AO:65:VAL:CG1	24:AX:47:PHE:CZ	2.98	0.46
35:BG:65:ILE:CG2	35:BG:77:ARG:HB2	2.46	0.46
35:BG:65:ILE:HG22	35:BG:77:ARG:H	1.81	0.46
41:BN:66:THR:HG23	41:BN:68:LEU:H	1.80	0.46
76:BS:165:LEU:HG	76:BS:167:THR:H	1.81	0.46
46:BT:82:LYS:HD3	81:DA:1914:G:H21	1.81	0.46
78:CA:1427:A:H4'	78:CA:1428:G:H5'	1.97	0.46
78:CA:463:U:C4	78:CA:464:A:N6	2.84	0.46
78:CA:4:C:C4	78:CA:5:U:O4	2.69	0.46
81:DA:1218:U:C2'	81:DA:1219:C:H5''	2.45	0.46
81:DA:1222:G:H1'	81:DA:1286:A:N6	2.31	0.46
81:DA:1869:C:C6	81:DA:1870:C:C5	3.04	0.46
81:DA:3025:C:H2'	81:DA:3026:G:H5'	1.98	0.46
82:DB:91:C:H2'	82:DB:92:A:C8	2.51	0.46
5:AC:157:ASP:H	5:AC:157:ASP:CB	2.28	0.46
4:AD:107:GLY:N	4:AD:189:LEU:HD13	2.31	0.46
6:AE:3:ALA:HB1	9:AH:97:ARG:HG2	1.98	0.46
12:AK:124:ASP:OD1	12:AK:124:ASP:O	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:122:HIS:CG	19:AR:130:ARG:HG2	2.51	0.46
32:BC:289:ASP:O	32:BC:289:ASP:HB2	2.08	0.46
32:BC:367:LYS:O	51:BZ:14:TYR:CE2	2.69	0.46
34:BE:50:ALA:O	34:BE:61:ARG:O	2.34	0.46
41:BN:23:ILE:HG21	41:BN:31:LYS:H	1.81	0.46
43:BP:175:ASN:O	43:BP:180:PHE:CZ	2.69	0.46
76:BS:148:ASP:HB3	76:BS:154:VAL:CG2	2.45	0.46
78:CA:10:G:H2'	78:CA:11:A:C8	2.51	0.46
78:CA:1225:U:H2'	78:CA:1226:A:H8	1.76	0.46
78:CA:164:A:H2'	78:CA:165:G:C8	2.50	0.46
78:CA:304:U:C2	78:CA:305:C:H5	2.34	0.46
78:CA:69:G:H1	78:CA:82:U:H3	1.64	0.46
81:DA:1838:G:H4'	81:DA:1839:A:C8	2.51	0.46
81:DA:2220:A:C6	81:DA:2221:G:N3	2.83	0.46
81:DA:2637:A:H1'	81:DA:2640:A:H62	1.81	0.46
81:DA:2871:G:OP1	81:DA:2871:G:C8	2.68	0.46
81:DA:1209:G:N2	81:DA:3114:A:C6	2.84	0.46
35:BG:82:ARG:HD3	81:DA:3218:A:H4'	1.97	0.46
82:DB:98:U:C6	82:DB:99:C:C6	3.04	0.46
82:DB:98:U:H2'	82:DB:99:C:C5'	2.46	0.46
5:AC:144:PRO:HA	78:CA:477:A:C4	2.51	0.45
5:AC:3:ARG:HH11	5:AC:6:ARG:HB3	1.81	0.45
6:AE:5:GLU:OE1	6:AE:174:ARG:O	2.34	0.45
11:AJ:85:ARG:NE	15:AN:51:GLY:C	2.70	0.45
19:AR:59:LYS:HG3	78:CA:1551:U:C6	2.38	0.45
21:AT:53:TYR:HE2	23:AW:70:UNK:HA	1.81	0.45
32:BC:46:PHE:CZ	32:BC:84:VAL:HB	2.51	0.45
32:BC:93:VAL:HG11	81:DA:3243:A:N3	2.30	0.45
36:BF:41:ILE:HD12	40:BK:130:LYS:O	2.16	0.45
43:BP:49:ARG:NE	81:DA:114:A:C2'	2.79	0.45
76:BS:33:ALA:HB1	76:BS:38:ARG:CB	2.46	0.45
78:CA:117:U:H2'	78:CA:118:U:C5'	2.46	0.45
78:CA:1292:G:C4	78:CA:1324:G:N1	2.84	0.45
16:AO:129:TYR:OH	78:CA:868:G:H5'	2.16	0.45
81:DA:2279:A:N1	81:DA:2286:U:C4	2.83	0.45
81:DA:2359:C:H2'	81:DA:2360:C:C6	2.51	0.45
81:DA:2822:U:H2'	81:DA:2823:G:O4'	2.16	0.45
81:DA:45:A:H2'	81:DA:46:U:C5'	2.47	0.45
81:DA:600:G:C1'	81:DA:603:A:H61	2.26	0.45
45:BR:55:SER:OG	81:DA:671:U:H5''	2.16	0.45
6:AE:182:PRO:HG3	9:AH:97:ARG:HH11	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AL:7:ARG:CB	18:AP:76:VAL:CG2	2.84	0.45
17:AQ:91:LEU:HD22	17:AQ:96:SER:HB2	1.98	0.45
20:AS:53:TRP:CE3	20:AS:54:PHE:HA	2.51	0.45
34:BE:89:TYR:CA	34:BE:89:TYR:CD1	3.00	0.45
74:BQ:247:ILE:HG13	74:BQ:248:ARG:HH11	1.81	0.45
47:BU:152:ALA:HB3	47:BU:153:PRO:HD3	1.99	0.45
32:BC:364:LYS:HG2	51:BZ:17:ARG:CZ	2.46	0.45
81:DA:1314:C:O4'	81:DA:1314:C:N1	2.42	0.45
81:DA:1411:C:H2'	81:DA:1412:G:H8	1.81	0.45
48:BW:85:LYS:CE	81:DA:1682:U:H1'	2.46	0.45
81:DA:2362:C:H2'	81:DA:2362:C:C6	2.50	0.45
47:BU:10:ARG:HD2	81:DA:2637:A:H62	1.81	0.45
43:BP:50:ARG:HB3	81:DA:267:G:C2	2.50	0.45
81:DA:3219:G:O5'	81:DA:3219:G:H8	1.99	0.45
44:BO:5:PHE:CZ	81:DA:801:A:OP1	2.70	0.45
81:DA:811:U:H2'	81:DA:812:G:C8	2.51	0.45
83:DC:41:G:N2	83:DC:45:A:C2	2.84	0.45
23:AW:15:UNK:O	23:AW:15:UNK:N	2.46	0.45
32:BC:39:LYS:HB3	32:BC:40:PRO:CD	2.47	0.45
33:BD:107:ARG:NH1	81:DA:664:U:OP1	2.49	0.45
40:BK:197:LEU:HD22	41:BN:109:ARG:HD3	1.98	0.45
78:CA:1204:A:H62	78:CA:1597:A:N6	2.14	0.45
81:DA:1444:G:C6	81:DA:1445:U:C2	3.04	0.45
81:DA:1477:A:H2'	81:DA:1478:C:C6	2.51	0.45
81:DA:1506:A:H3'	81:DA:1507:G:H4'	1.98	0.45
81:DA:1513:G:C2	81:DA:1515:A:C8	3.04	0.45
81:DA:1884:A:C5	81:DA:1885:U:C4	3.04	0.45
81:DA:2172:A:H3'	81:DA:2172:A:C8	2.51	0.45
81:DA:2180:G:H2'	81:DA:2181:C:C6	2.51	0.45
45:BR:55:SER:HB3	81:DA:672:A:P	2.56	0.45
74:BQ:93:THR:O	83:DC:47:C:OP2	2.35	0.45
2:AA:29:VAL:HG12	2:AA:30:GLN:H	1.80	0.45
5:AC:16:LYS:O	5:AC:16:LYS:HG3	2.17	0.45
4:AD:77:ARG:HD3	4:AD:82:TYR:CZ	2.51	0.45
9:AH:25:VAL:HG12	9:AH:27:ILE:HD12	1.98	0.45
14:AM:133:VAL:HG11	78:CA:1545:A:O3'	2.15	0.45
18:AP:107:VAL:N	18:AP:108:PRO:CD	2.79	0.45
40:BK:4:GLU:HG3	40:BK:31:GLN:HE22	1.82	0.45
40:BK:197:LEU:HD13	41:BN:108:ARG:CB	2.47	0.45
78:CA:1292:G:C6	78:CA:1293:U:C4	3.04	0.45
78:CA:1314:U:H4'	78:CA:1315:U:H5	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AL:3:LYS:HG3	78:CA:611:U:C5'	2.47	0.45
78:CA:866:G:C2	78:CA:965:U:C2	3.05	0.45
79:CB:12:U:H2'	79:CB:13:U:C6	2.51	0.45
37:BH:138:HIS:NE2	81:DA:147:U:O5'	2.49	0.45
81:DA:1728:G:C4'	81:DA:1730:G:H1'	2.46	0.45
78:CA:1747:G:O2'	81:DA:2303:A:C4'	2.65	0.45
81:DA:2629:U:H2'	81:DA:2630:C:H6	1.81	0.45
81:DA:2998:U:H1'	81:DA:3395:G:N2	2.31	0.45
81:DA:741:U:H2'	81:DA:742:G:C8	2.52	0.45
81:DA:882:A:C2	81:DA:885:U:C6	3.05	0.45
6:AE:21:ARG:HD3	6:AE:249:ALA:HB1	1.98	0.45
14:AM:144:ARG:HG3	78:CA:1570:A:C3'	2.46	0.45
19:AR:131:ALA:HB1	19:AR:133:ALA:H	1.81	0.45
35:BG:69:PHE:CB	35:BG:73:GLY:HA3	2.46	0.45
37:BH:97:TYR:CE1	37:BH:99:PRO:HD3	2.51	0.45
44:BO:75:LEU:HA	44:BO:81:LEU:HD13	1.99	0.45
78:CA:1190:C:C5'	78:CA:1190:C:C6	3.00	0.45
78:CA:1292:G:C8	78:CA:1293:U:C5	3.05	0.45
78:CA:1395:G:H1	78:CA:1403:C:N4	2.14	0.45
78:CA:1780:G:C5	78:CA:1781:A:C6	2.96	0.45
6:AE:198:THR:HG23	78:CA:1:U:P	2.55	0.45
77:BI:4:ARG:HE	81:DA:1631:C:H5''	141.53	0.45
81:DA:2279:A:OP2	81:DA:2305:G:N2	2.50	0.45
82:DB:50:C:H5	82:DB:51:G:N7	2.14	0.45
12:AK:124:ASP:HA	78:CA:929:A:C8	2.51	0.45
13:AL:13:ARG:NH1	18:AP:71:LEU:CD2	2.72	0.45
16:AO:65:VAL:HG21	24:AX:51:GLN:HB2	1.98	0.45
17:AQ:100:LEU:HD13	17:AQ:133:ARG:O	2.15	0.45
31:BB:178:PRO:HB2	81:DA:2150:G:H5'	1.98	0.45
41:BN:12:TRP:HB2	76:BS:165:LEU:HB2	1.99	0.45
49:BV:54:HIS:O	49:BV:54:HIS:CG	2.69	0.45
78:CA:1388:A:H1'	78:CA:1411:A:C2	2.51	0.45
78:CA:1499:G:H2'	78:CA:1500:C:C6	2.52	0.45
78:CA:31:C:C5	78:CA:32:U:C4	3.05	0.45
81:DA:660:A:H62	81:DA:1432:C:H5	1.64	0.45
81:DA:2274:U:H2'	81:DA:2275:A:H5'	1.98	0.45
81:DA:2373:A:H2	81:DA:2824:G:H21	1.64	0.45
30:BA:164:CYS:SG	81:DA:2465:G:H4'	2.57	0.45
81:DA:634:C:H3'	81:DA:635:G:C5'	2.47	0.45
81:DA:636:C:H42	81:DA:2361:A:H61	1.63	0.45
81:DA:836:A:C2	81:DA:858:A:H1'	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:DC:113:C:H2'	83:DC:114:A:O4'	2.17	0.45
14:AM:20:THR:HG23	34:BE:110:ILE:CG2	2.47	0.45
16:AO:65:VAL:CG1	24:AX:51:GLN:HB2	2.46	0.45
31:BB:11:GLY:HA2	81:DA:2163:C:H2'	1.99	0.45
35:BG:75:PRO:O	35:BG:76:LEU:HG	2.15	0.45
35:BG:77:ARG:HD3	35:BG:79:VAL:HG13	1.97	0.45
39:BJ:74:VAL:HA	39:BJ:76:SER:HB2	1.98	0.45
40:BK:189:ASP:O	40:BK:192:LYS:HB2	2.16	0.45
40:BK:69:GLY:HA3	81:DA:2383:C:H4'	1.99	0.45
40:BK:197:LEU:CD2	41:BN:109:ARG:HH11	2.28	0.45
78:CA:1115:U:C5	78:CA:1130:G:C2	3.04	0.45
78:CA:284:G:H2'	78:CA:284:G:N3	2.32	0.45
81:DA:2362:C:C2'	81:DA:2362:C:C2	2.97	0.45
81:DA:491:C:C6	81:DA:491:C:OP2	2.70	0.45
81:DA:813:G:H2'	81:DA:814:U:C6	2.52	0.45
6:AE:110:HIS:CE1	6:AE:138:PRO:HB2	2.52	0.45
10:AI:28:LEU:HD23	10:AI:125:GLU:OE2	2.16	0.45
14:AM:116:LEU:HD13	78:CA:1547:A:OP1	2.17	0.45
15:AN:22:ARG:HE	17:AQ:32:LYS:HD3	1.81	0.45
29:AU:14:SER:HB2	29:AU:89:TYR:N	2.30	0.45
24:AX:77:THR:HB	24:AX:78:SER:H	1.74	0.45
32:BC:160:VAL:HG23	32:BC:183:LEU:HD21	1.98	0.45
34:BE:36:VAL:HG13	34:BE:108:GLU:HB2	1.98	0.45
35:BG:46:ARG:CD	35:BG:50:LYS:HZ1	2.29	0.45
78:CA:1086:A:O4'	78:CA:1086:A:N9	2.40	0.45
78:CA:629:U:H4'	78:CA:630:A:OP1	2.17	0.45
78:CA:659:C:H42	78:CA:673:A:H61	1.64	0.45
81:DA:1069:C:H42	81:DA:1091:A:N6	2.07	0.45
81:DA:1360:C:H2'	81:DA:1361:U:C6	2.51	0.45
81:DA:1561:G:C6	81:DA:1562:C:C4	3.05	0.45
81:DA:1792:C:O2'	81:DA:1794:G:C4	2.67	0.45
81:DA:1514:G:C6	81:DA:1842:A:C8	3.05	0.45
81:DA:2174:G:O4'	81:DA:2176:U:C1'	2.64	0.45
81:DA:2304:C:H3'	81:DA:2305:G:C8	2.52	0.45
81:DA:2897:A:H2'	81:DA:2899:C:H5''	1.99	0.45
81:DA:45:A:H2'	81:DA:46:U:H5'	1.97	0.45
81:DA:641:C:C5	81:DA:642:U:C5	3.05	0.45
8:AF:29:ILE:HG23	8:AF:30:PRO:HD2	1.99	0.45
6:AE:24:ARG:O	9:AH:69:LEU:HD13	2.16	0.45
14:AM:57:ARG:HH11	14:AM:57:ARG:HG3	1.82	0.45
31:BB:43:GLY:HA2	31:BB:63:PHE:H	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BC:100:ARG:HB2	81:DA:3243:A:H2	1.82	0.45
32:BC:233:TRP:CE2	32:BC:265:ALA:HA	2.51	0.45
40:BK:49:ARG:NH1	81:DA:1191:U:C6	2.85	0.45
41:BN:121:MET:HA	41:BN:124:ARG:HE	1.82	0.45
41:BN:16:GLU:HG3	41:BN:17:VAL:N	2.32	0.45
43:BP:73:ARG:HH22	43:BP:92:LEU:CD1	2.30	0.45
74:BQ:237:GLU:HA	74:BQ:238:ASP:HB2	1.99	0.45
74:BQ:51:LEU:HG	83:DC:5:G:H5''	1.99	0.45
42:BM:96:GLU:HB2	51:BZ:23:ARG:HA	1.99	0.45
78:CA:1003:A:O2'	78:CA:1005:A:N7	2.37	0.45
14:AM:144:ARG:HG3	78:CA:1570:A:H4'	1.99	0.45
81:DA:1343:A:H3'	81:DA:1344:G:H5''	1.98	0.45
81:DA:2763:U:C6	81:DA:2763:U:H3'	2.52	0.45
81:DA:636:C:C3'	81:DA:637:C:C5'	2.93	0.45
12:AK:33:LEU:CD2	78:CA:902:G:C8	3.00	0.45
15:AN:53:ASN:O	15:AN:54:LYS:C	2.55	0.45
13:AL:9:LEU:HD13	18:AP:79:LYS:NZ	2.32	0.45
31:BB:178:PRO:CB	81:DA:2150:G:H5''	2.47	0.45
31:BB:6:ARG:NH2	81:DA:914:A:C2	2.85	0.45
32:BC:180:GLU:CD	81:DA:3003:G:H4'	2.36	0.45
32:BC:255:TRP:NE1	81:DA:2941:A:C6	2.84	0.45
36:BF:45:PHE:HA	36:BF:55:VAL:HA	1.98	0.45
20:AS:43:ASN:HB2	78:CA:1477:G:C4'	2.47	0.45
78:CA:1586:A:C4	78:CA:1611:A:C6	3.04	0.45
78:CA:1679:G:H2'	78:CA:1680:G:C1'	2.47	0.45
78:CA:375:U:C4	78:CA:376:C:N4	2.85	0.45
78:CA:479:C:H42	78:CA:509:G:H1	1.63	0.45
78:CA:881:A:C6	78:CA:882:U:C4	3.05	0.45
79:CB:27:G:H2'	79:CB:28:G:C8	2.51	0.45
81:DA:1084:A:C6	81:DA:1085:A:C2	3.05	0.45
81:DA:2733:A:H2'	81:DA:2734:A:C8	2.52	0.45
40:BK:68:ARG:NH1	81:DA:2988:C:H5''	2.32	0.45
81:DA:635:G:N2	81:DA:646:A:C6	2.84	0.45
81:DA:797:U:H2'	81:DA:798:G:O4'	2.16	0.45
2:AA:66:ALA:HB2	6:AE:56:ILE:HG22	1.99	0.44
4:AD:235:TYR:O	4:AD:236:ILE:CB	2.65	0.44
8:AF:33:VAL:HG12	8:AF:34:GLN:N	2.30	0.44
9:AH:79:PHE:HB3	9:AH:125:ILE:O	2.17	0.44
11:AJ:85:ARG:CA	15:AN:52:PHE:H	2.25	0.44
22:AV:66:VAL:HG21	22:AV:73:GLY:HA2	1.98	0.44
32:BC:6:TYR:HA	42:BM:46:LEU:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:12:GLN:HG2	34:BE:116:TYR:CG	2.47	0.44
36:BF:77:ASN:HB3	36:BF:151:VAL:HG21	1.99	0.44
35:BG:91:VAL:HG12	35:BG:92:SER:H	1.82	0.44
39:BJ:58:VAL:HG12	39:BJ:59:THR:O	2.16	0.44
41:BN:12:TRP:HA	41:BN:19:ARG:HH12	1.82	0.44
44:BO:149:ALA:HA	75:BL:118:UNK:O	2.17	0.44
74:BQ:25:GLU:HG3	74:BQ:52:VAL:HG21	1.98	0.44
78:CA:1388:A:H4'	78:CA:1389:C:O4'	2.17	0.44
78:CA:163:G:C2'	78:CA:164:A:H5'	2.48	0.44
79:CB:41:G:C3'	79:CB:42:C:H5''	2.47	0.44
81:DA:2476:C:O2'	81:DA:2488:A:C5'	2.65	0.44
81:DA:2629:U:H2'	81:DA:2630:C:C6	2.52	0.44
35:BG:25:ALA:HB1	81:DA:502:U:H5'	1.98	0.44
81:DA:701:G:C8	81:DA:701:G:C3'	2.99	0.44
81:DA:798:G:C3'	81:DA:799:G:C8	3.01	0.44
33:BD:3:ARG:NH2	33:BD:22:LEU:HD12	2.31	0.44
42:BM:26:ALA:O	42:BM:115:THR:HG22	2.17	0.44
74:BQ:13:SER:CB	83:DC:11:A:C2	3.00	0.44
49:BV:7:THR:HG23	49:BV:8:SER:H	1.82	0.44
78:CA:1037:C:N3	78:CA:1094:G:O6	2.51	0.44
78:CA:127:G:H22	78:CA:291:G:H1	1.64	0.44
78:CA:257:A:H2'	78:CA:258:C:H5'	1.99	0.44
78:CA:401:A:C2	78:CA:404:G:C8	3.05	0.44
78:CA:631:G:C4	78:CA:632:U:H5	2.35	0.44
78:CA:841:U:H2'	78:CA:842:C:C6	2.51	0.44
78:CA:959:U:H1'	78:CA:960:U:H5	1.82	0.44
78:CA:994:G:C6	78:CA:1011:G:N2	2.86	0.44
81:DA:1697:A:H3'	81:DA:1698:C:H6	1.82	0.44
81:DA:2137:U:HO2'	81:DA:2141:U:H5	1.66	0.44
81:DA:2690:G:H5''	81:DA:2691:A:OP2	2.17	0.44
81:DA:2722:U:C2'	81:DA:2723:U:O5'	2.65	0.44
52:BY:87:LYS:HB3	81:DA:375:A:H5''	1.99	0.44
81:DA:422:A:C1'	81:DA:422:A:O2'	2.52	0.44
10:AI:85:ILE:HG21	10:AI:89:LEU:HD12	1.98	0.44
13:AL:3:LYS:HG2	13:AL:16:ARG:NH2	2.32	0.44
23:AW:2:UNK:CB	25:AY:14:LYS:HD2	2.45	0.44
30:BA:72:PHE:CD1	30:BA:109:ALA:HB2	2.52	0.44
41:BN:3:THR:CG2	41:BN:3:THR:O	2.63	0.44
74:BQ:215:ASP:OD1	83:DC:49:G:P	2.76	0.44
76:BS:109:TYR:O	76:BS:113:ALA:HB2	2.17	0.44
78:CA:12:U:H2'	78:CA:13:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1172:G:C2	78:CA:1468:U:C2	3.06	0.44
78:CA:1479:A:C2	78:CA:1528:U:O2	2.70	0.44
78:CA:1545:A:O2'	78:CA:1546:G:H5'	2.17	0.44
78:CA:228:G:H2'	78:CA:228:G:C8	2.53	0.44
78:CA:312:A:C5	78:CA:314:C:N4	2.86	0.44
78:CA:399:A:C2	78:CA:401:A:C4	3.06	0.44
16:AO:114:ARG:NH1	78:CA:938:G:O2'	2.50	0.44
81:DA:1006:A:H2'	81:DA:1007:U:H6	1.81	0.44
81:DA:1209:G:N7	81:DA:1210:U:OP1	2.49	0.44
81:DA:1622:U:O2	81:DA:1823:A:H2	2.00	0.44
81:DA:230:U:C3'	81:DA:231:G:H5'	2.47	0.44
81:DA:2920:U:C5	81:DA:2921:U:O4	2.70	0.44
81:DA:2987:A:H2'	81:DA:2988:C:C6	2.53	0.44
81:DA:3240:C:C4	81:DA:3241:G:C2	3.05	0.44
82:DB:43:A:C2	82:DB:102:U:C2	3.06	0.44
14:AM:144:ARG:HG3	78:CA:1570:A:C2'	2.47	0.44
20:AS:55:TYR:O	20:AS:56:LYS:C	2.54	0.44
30:BA:165:LEU:HD21	30:BA:184:LEU:HD21	1.99	0.44
37:BH:91:PHE:HB2	43:BP:17:ASP:HB2	1.99	0.44
43:BP:33:LYS:HD2	43:BP:37:HIS:CD2	2.51	0.44
33:BD:29:PRO:HB3	45:BR:25:TYR:CZ	2.46	0.44
45:BR:88:THR:OG1	81:DA:786:A:N6	2.50	0.44
78:CA:1176:G:C5	78:CA:1464:G:N1	2.86	0.44
78:CA:1288:G:H5''	78:CA:1625:C:H5'	1.99	0.44
78:CA:1647:U:H2'	78:CA:1648:A:H5''	1.99	0.44
78:CA:1690:G:C8	78:CA:1690:G:H3'	2.53	0.44
78:CA:145:A:C6	78:CA:169:A:N7	2.86	0.44
81:DA:1341:U:H2'	81:DA:1342:C:C6	2.53	0.44
78:CA:1747:G:H4'	81:DA:2302:G:H21	1.80	0.44
81:DA:2716:U:H2'	81:DA:2717:U:C6	2.52	0.44
36:BF:168:ARG:HB3	81:DA:2894:C:H5'	2.00	0.44
81:DA:2996:U:C5	81:DA:2997:G:C5	3.05	0.44
81:DA:311:C:O2'	81:DA:312:C:H5'	2.18	0.44
81:DA:68:C:H41	81:DA:315:C:H5'	1.82	0.44
81:DA:3343:G:N2	81:DA:3363:U:C4	2.85	0.44
81:DA:523:A:C8	81:DA:524:U:C5	3.06	0.44
2:AA:153:SER:O	6:AE:30:THR:HG21	2.16	0.44
10:AI:48:VAL:HG11	10:AI:53:LEU:HG	2.00	0.44
12:AK:60:ALA:HB2	12:AK:63:ALA:HB3	1.99	0.44
29:AU:17:LEU:CD2	29:AU:93:ARG:HG3	2.48	0.44
32:BC:300:ARG:HE	51:BZ:1:MET:H1	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BE:12:LEU:HD12	34:BE:12:LEU:HA	1.84	0.44
39:BJ:98:VAL:HG23	39:BJ:100:HIS:O	2.18	0.44
44:BO:124:ILE:HD12	75:BL:149:UNK:N	2.32	0.44
44:BO:14:HIS:CG	44:BO:15:VAL:H	2.36	0.44
48:BW:11:ILE:HG12	48:BW:13:LYS:HD2	1.99	0.44
78:CA:1031:U:H3'	78:CA:1032:G:C5'	2.47	0.44
78:CA:1710:U:H2'	78:CA:1711:C:C6	2.53	0.44
78:CA:374:U:C4	78:CA:375:U:C5	3.05	0.44
76:BS:85:SER:HB2	81:DA:1294:A:H4'	1.99	0.44
81:DA:1752:A:C8	81:DA:1752:A:H5'	2.47	0.44
81:DA:1972:A:H61	81:DA:2050:C:H42	1.66	0.44
81:DA:2531:C:H1'	81:DA:2580:A:H62	1.73	0.44
32:BC:28:ARG:HD2	81:DA:3003:G:C5'	2.46	0.44
81:DA:3003:G:H1	81:DA:3145:C:H42	1.65	0.44
81:DA:3010:U:H2'	81:DA:3011:A:OP1	2.18	0.44
83:DC:35:C:H2'	83:DC:36:C:H5'	1.99	0.44
2:AA:175:TYR:CE1	2:AA:192:THR:HG22	2.53	0.44
10:AI:29:ILE:HD11	10:AI:125:GLU:CB	2.48	0.44
12:AK:59:ALA:H	12:AK:62:LEU:HD12	1.83	0.44
17:AQ:93:LEU:HD23	17:AQ:93:LEU:HA	1.90	0.44
20:AS:7:ARG:HE	20:AS:67:MET:HA	1.83	0.44
34:BE:38:GLU:HG3	34:BE:45:PRO:HD3	1.99	0.44
46:BT:97:ARG:O	46:BT:101:VAL:HG23	2.17	0.44
46:BT:17:VAL:HG23	46:BT:52:LYS:CD	2.48	0.44
78:CA:1556:A:HO2'	78:CA:1560:U:H5	1.57	0.44
78:CA:629:U:C5	78:CA:969:C:C2	3.06	0.44
81:DA:1405:U:H2'	81:DA:1406:A:H5'	2.00	0.44
37:BH:134:TYR:O	81:DA:146:U:O3'	2.36	0.44
81:DA:2220:A:N7	81:DA:2221:G:C5	2.86	0.44
40:BK:90:HIS:HE1	81:DA:2381:G:H5''	1.79	0.44
81:DA:2625:C:H4'	81:DA:2626:A:OP1	2.18	0.44
81:DA:2816:G:C8	81:DA:2869:U:C6	3.06	0.44
81:DA:3002:C:H2'	81:DA:3003:G:O4'	2.18	0.44
81:DA:3061:G:H2'	81:DA:3062:G:C8	2.53	0.44
81:DA:329:U:OP1	81:DA:330:G:C8	2.70	0.44
81:DA:521:A:N1	81:DA:570:A:C5	2.86	0.44
81:DA:532:A:H2'	81:DA:533:A:C8	2.52	0.44
82:DB:37:A:H8	82:DB:37:A:H5'	1.83	0.44
4:AD:175:PHE:CZ	4:AD:227:VAL:HG23	2.52	0.44
4:AD:98:ASN:HD22	4:AD:116:ASP:HA	1.83	0.44
12:AK:119:THR:HG22	23:AW:89:UNK:CB	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:30:LYS:O	22:AV:31:SER:O	2.36	0.44
30:BA:155:ILE:HG13	30:BA:165:LEU:HD22	1.98	0.44
31:BB:128:ARG:CZ	81:DA:2157:G:H21	2.31	0.44
31:BB:188:LYS:CE	81:DA:1794:G:C8	3.01	0.44
31:BB:207:VAL:HG13	81:DA:2415:C:H5''	2.00	0.44
33:BD:197:ARG:HH22	81:DA:337:G:H3'	1.83	0.44
14:AM:14:ILE:CD1	34:BE:115:LYS:HB2	2.42	0.44
34:BE:56:THR:HG21	81:DA:2678:A:N1	2.33	0.44
39:BJ:61:GLN:HB2	39:BJ:72:SER:HB3	1.99	0.44
76:BS:83:TYR:CD2	76:BS:116:HIS:HB3	2.53	0.44
41:BN:12:TRP:CZ3	76:BS:165:LEU:HA	2.52	0.44
78:CA:1244:A:H2'	78:CA:1245:G:H8	1.82	0.44
78:CA:1306:C:H5''	78:CA:1307:U:OP2	2.17	0.44
78:CA:1308:G:C2	78:CA:1318:G:C4	3.00	0.44
78:CA:150:U:H2'	78:CA:151:G:C8	2.53	0.44
29:AU:20:ARG:NE	78:CA:154:G:H4'	2.32	0.44
14:AM:144:ARG:HG3	78:CA:1570:A:O3'	2.18	0.44
78:CA:1781:A:C6	78:CA:1782:A:N6	2.86	0.44
81:DA:160:G:C2	81:DA:261:U:C5	3.06	0.44
81:DA:1645:U:C4	81:DA:1646:G:C6	3.06	0.44
81:DA:2220:A:C2'	81:DA:2221:G:H5'	2.47	0.44
81:DA:2255:A:H5''	81:DA:2261:G:H1	1.83	0.44
81:DA:2363:A:O2'	81:DA:2363:A:C1'	2.52	0.44
81:DA:2638:C:C2'	81:DA:2639:G:H5'	2.47	0.44
81:DA:264:G:H3'	81:DA:264:G:C8	2.53	0.44
81:DA:2755:C:H2'	81:DA:2756:C:C5	2.52	0.44
81:DA:3088:G:H2'	81:DA:3089:C:C6	2.53	0.44
81:DA:1209:G:N2	81:DA:3114:A:N1	2.66	0.44
81:DA:3115:C:O4'	81:DA:3115:C:C6	2.71	0.44
81:DA:3313:U:H2'	81:DA:3314:A:C8	2.53	0.44
74:BQ:51:LEU:HD21	83:DC:5:G:H4'	1.99	0.44
2:AA:107:PHE:HB3	2:AA:139:VAL:HG21	2.00	0.44
10:AI:49:TYR:H	20:AS:8:ASP:CB	2.29	0.44
32:BC:94:GLU:HA	32:BC:99:LEU:CD2	2.47	0.44
36:BF:118:LEU:O	81:DA:3033:A:H2	2.00	0.44
36:BF:47:LYS:O	41:BN:7:VAL:HB	2.17	0.44
43:BP:33:LYS:HD2	43:BP:37:HIS:CG	2.52	0.44
46:BT:24:LEU:HD22	46:BT:50:ILE:HG12	1.99	0.44
78:CA:1548:G:N2	78:CA:1564:U:C2	2.85	0.44
78:CA:270:C:H3'	78:CA:271:A:H5''	2.00	0.44
78:CA:974:A:H2'	78:CA:975:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CB:12:U:H2'	79:CB:13:U:O4'	2.18	0.44
81:DA:1733:G:H3'	81:DA:1734:G:C8	2.53	0.44
31:BB:1:MET:CE	81:DA:2608:G:N7	2.81	0.44
81:DA:2624:G:H2'	81:DA:2625:C:C6	2.52	0.44
81:DA:372:A:H61	81:DA:394:G:H4'	1.83	0.44
81:DA:529:A:H61	81:DA:563:U:H3	1.65	0.44
81:DA:637:C:C2'	81:DA:638:C:C6	2.94	0.44
45:BR:90:ASP:OD2	81:DA:677:A:N7	2.50	0.44
83:DC:68:U:H3	83:DC:105:A:H61	1.66	0.44
4:AD:105:VAL:HG13	4:AD:189:LEU:O	2.18	0.44
33:BD:321:LYS:N	33:BD:321:LYS:CB	2.64	0.44
35:BG:43:LEU:HD21	35:BG:121:LEU:HD22	2.00	0.44
78:CA:1426:C:C3'	78:CA:1427:A:H5''	2.47	0.44
78:CA:280:U:N1	78:CA:280:U:O4'	2.42	0.44
78:CA:571:G:OP1	78:CA:571:G:C2	2.71	0.44
81:DA:1314:C:O4'	81:DA:1314:C:C6	2.71	0.44
81:DA:2185:G:C6	81:DA:2186:U:C4	3.06	0.44
81:DA:2499:U:H2'	81:DA:2500:A:H8	1.80	0.44
81:DA:49:A:N7	81:DA:279:U:H4'	2.33	0.44
81:DA:409:A:H5'	81:DA:655:C:H4'	2.00	0.44
81:DA:894:G:H1'	81:DA:895:A:C8	2.53	0.44
83:DC:26:C:HO2'	83:DC:27:A:P	2.40	0.44
83:DC:30:G:C2	83:DC:31:U:C4	3.06	0.44
6:AE:29:ASN:HD22	6:AE:29:ASN:H	1.66	0.43
16:AO:114:ARG:NH2	78:CA:938:G:N3	2.66	0.43
30:BA:114:GLU:O	30:BA:117:ILE:HG22	2.18	0.43
32:BC:261:MET:HB3	40:BK:65:ASN:HB3	2.00	0.43
33:BD:148:ILE:HD12	33:BD:148:ILE:HA	1.94	0.43
34:BE:48:SER:HB2	34:BE:66:ALA:HB3	2.00	0.43
36:BF:132:VAL:HG23	36:BF:147:SER:O	2.18	0.43
35:BG:50:LYS:HZ3	35:BG:50:LYS:HG3	1.65	0.43
8:AF:98:MET:HE1	78:CA:1611:A:H5'	2.00	0.43
78:CA:1747:G:HO2'	81:DA:2303:A:C1'	2.30	0.43
78:CA:279:G:C2'	78:CA:280:U:H5'	2.47	0.43
78:CA:664:U:H3'	78:CA:666:U:OP2	2.18	0.43
78:CA:874:C:O4'	78:CA:874:C:N1	2.44	0.43
81:DA:1036:A:H2'	81:DA:1037:C:H5'	2.00	0.43
81:DA:1829:G:H5''	81:DA:1830:G:C8	2.53	0.43
81:DA:2431:C:H2'	81:DA:2432:A:H8	1.83	0.43
81:DA:2513:U:O2'	81:DA:2514:U:C6	2.71	0.43
81:DA:2920:U:C5	81:DA:2921:U:C5	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BE:9:MET:CE	83:DC:54:A:N1	2.81	0.43
4:AD:136:VAL:HA	4:AD:137:PRO:O	2.18	0.43
6:AE:197:TYR:HB2	78:CA:2:A:H61	1.82	0.43
8:AF:41:LYS:NZ	10:AI:65:ILE:HG12	2.33	0.43
14:AM:26:ILE:HG13	14:AM:27:LYS:H	1.83	0.43
16:AO:128:TYR:HB2	78:CA:628:G:OP1	2.18	0.43
22:AV:104:ALA:O	22:AV:105:THR:CG2	2.67	0.43
33:BD:352:ALA:HA	81:DA:516:A:H4'	1.99	0.43
34:BE:59:ILE:HB	79:CB:19:U:C2	2.53	0.43
35:BG:76:LEU:HD21	35:BG:100:LYS:HB3	1.98	0.43
35:BG:75:PRO:HG2	81:DA:3218:A:N1	2.33	0.43
40:BK:130:LYS:O	40:BK:131:PRO:CB	2.66	0.43
41:BN:74:ARG:NH1	76:BS:154:VAL:HG21	2.34	0.43
37:BH:84:ARG:HG3	43:BP:25:VAL:HB	2.00	0.43
78:CA:148:A:C8	78:CA:149:C:C5	3.06	0.43
78:CA:1550:A:C2	78:CA:1562:G:C2	3.06	0.43
78:CA:181:A:H61	78:CA:193:U:H3	1.66	0.43
78:CA:672:U:H2'	78:CA:673:A:C8	2.53	0.43
81:DA:1842:A:H4'	81:DA:1843:C:OP2	2.18	0.43
81:DA:2136:C:N4	81:DA:2142:A:H1'	2.33	0.43
81:DA:427:C:O4'	81:DA:427:C:C6	2.71	0.43
81:DA:840:C:H2'	81:DA:841:A:C8	2.53	0.43
82:DB:35:C:C6	82:DB:35:C:O4'	2.71	0.43
3:AB:59:LEU:HA	3:AB:66:ILE:HB	1.99	0.43
12:AK:121:VAL:HG22	12:AK:122:PRO:HD3	2.00	0.43
13:AL:39:LYS:HE2	13:AL:41:SER:HB2	2.01	0.43
14:AM:14:ILE:CG1	34:BE:115:LYS:CA	2.94	0.43
18:AP:54:ILE:C	18:AP:55:ASP:O	2.55	0.43
29:AU:5:VAL:HG21	29:AU:29:HIS:HA	1.99	0.43
26:AZ:57:ASN:H	26:AZ:58:PRO:HD2	1.83	0.43
30:BA:165:LEU:N	30:BA:165:LEU:HD23	2.33	0.43
32:BC:51:ALA:HA	32:BC:314:TYR:CZ	2.53	0.43
34:BE:53:THR:C	34:BE:55:ARG:N	2.68	0.43
52:BY:60:ARG:HD3	52:BY:103:LYS:HA	2.00	0.43
51:BZ:67:VAL:O	51:BZ:69:LYS:HB3	2.19	0.43
78:CA:1013:A:H2'	78:CA:1014:G:H5'	2.00	0.43
78:CA:1140:G:C2	78:CA:1141:G:C5	3.06	0.43
78:CA:1264:G:C8	78:CA:1264:G:H3'	2.54	0.43
19:AR:58:LYS:CE	78:CA:1550:A:H62	2.27	0.43
14:AM:144:ARG:CG	78:CA:1570:A:H4'	2.48	0.43
78:CA:1747:G:H4'	81:DA:2302:G:N2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AF:156:ARG:HH21	78:CA:905:A:H5''	1.82	0.43
78:CA:91:G:OP1	78:CA:397:A:N6	2.51	0.43
81:DA:1009:A:H61	81:DA:1043:C:N4	2.16	0.43
81:DA:1069:C:N4	81:DA:1091:A:H61	2.08	0.43
81:DA:2187:G:OP1	81:DA:2315:G:H8	2.01	0.43
81:DA:2487:U:H2'	81:DA:2487:U:C6	2.53	0.43
81:DA:2626:A:C5'	81:DA:2627:C:OP2	2.61	0.43
81:DA:3142:A:H4'	81:DA:3143:C:OP1	2.18	0.43
81:DA:411:U:H2'	81:DA:412:G:C8	2.53	0.43
81:DA:595:G:C6	81:DA:596:C:C5	3.06	0.43
81:DA:729:C:H2'	81:DA:730:C:C6	2.53	0.43
81:DA:814:U:H2'	81:DA:815:G:H8	1.83	0.43
82:DB:14:C:N4	82:DB:15:G:C6	2.86	0.43
82:DB:98:U:C2'	82:DB:99:C:H5'	2.48	0.43
16:AO:65:VAL:CG1	24:AX:51:GLN:OE1	2.65	0.43
18:AP:108:PRO:HG2	18:AP:109:VAL:O	2.19	0.43
18:AP:64:VAL:CG2	18:AP:81:HIS:CD2	3.01	0.43
17:AQ:85:VAL:O	17:AQ:86:PRO:C	2.54	0.43
20:AS:43:ASN:CB	78:CA:1477:G:C4'	2.96	0.43
31:BB:62:VAL:CB	31:BB:62:VAL:O	2.64	0.43
32:BC:115:LYS:HA	32:BC:118:PHE:CD2	2.53	0.43
77:BI:106:ALA:O	77:BI:108:ALA:HB2	2.19	0.43
40:BK:197:LEU:HD22	41:BN:109:ARG:CD	2.49	0.43
42:BM:51:ALA:HB2	81:DA:1795:U:N3	77.18	0.43
76:BS:145:HIS:CE1	76:BS:149:ILE:HD11	2.52	0.43
48:BW:90:ARG:H	48:BW:90:ARG:CG	2.28	0.43
10:AI:139:GLN:CD	78:CA:1580:C:H5''	2.37	0.43
78:CA:587:C:N3	78:CA:588:U:C4	2.86	0.43
78:CA:653:C:H2'	78:CA:654:C:H6	1.83	0.43
16:AO:114:ARG:NH1	78:CA:940:A:C6	2.86	0.43
81:DA:1445:U:O2'	81:DA:2358:A:N6	2.50	0.43
81:DA:1988:C:H2'	81:DA:1989:U:H6	1.82	0.43
43:BP:77:LYS:HB3	81:DA:2165:G:OP1	2.18	0.43
81:DA:2396:G:O6	81:DA:2946:A:N1	2.51	0.43
81:DA:3129:A:H3'	81:DA:3131:U:H5	1.81	0.43
81:DA:407:A:O3'	81:DA:1396:C:H5'	2.17	0.43
81:DA:425:G:H2'	81:DA:636:C:O2'	2.19	0.43
31:BB:15:ILE:HD11	81:DA:911:C:OP1	2.18	0.43
82:DB:103:G:C6	82:DB:105:A:C6	3.06	0.43
6:AE:131:ILE:HG22	6:AE:132:ALA:H	1.84	0.43
20:AS:48:GLN:CA	20:AS:52:GLY:HA3	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BC:171:LEU:HD22	32:BC:173:GLN:HE21	1.83	0.43
74:BQ:289:LYS:HG3	74:BQ:290:ILE:H	1.84	0.43
76:BS:145:HIS:O	76:BS:145:HIS:CD2	2.71	0.43
78:CA:629:U:HO2'	78:CA:630:A:H8	1.65	0.43
78:CA:653:C:H2'	78:CA:654:C:C6	2.54	0.43
81:DA:998:A:N6	81:DA:1052:U:H3	2.15	0.43
81:DA:1289:G:H2'	81:DA:1290:A:H8	1.82	0.43
81:DA:1514:G:H1	81:DA:1841:A:H2'	1.84	0.43
81:DA:2279:A:H2	81:DA:2286:U:C2	2.37	0.43
81:DA:3000:A:H2'	81:DA:3001:C:C6	2.53	0.43
81:DA:3099:C:H2'	81:DA:3100:U:C6	2.54	0.43
81:DA:3112:G:C2	81:DA:3121:U:C5	3.06	0.43
81:DA:659:G:H2'	81:DA:1432:C:H42	1.83	0.43
81:DA:846:A:C2	81:DA:847:A:C4	3.06	0.43
3:AB:162:GLN:HB3	3:AB:163:PRO:CD	2.48	0.43
4:AD:107:GLY:HA2	4:AD:189:LEU:HD13	2.00	0.43
14:AM:132:ARG:HG2	14:AM:145:ARG:HH12	1.82	0.43
24:AX:63:LEU:HD22	24:AX:75:GLU:OE1	2.18	0.43
32:BC:266:ARG:HG3	32:BC:266:ARG:HH11	1.83	0.43
37:BH:190:VAL:HG11	37:BH:199:ALA:CB	2.48	0.43
43:BP:178:HIS:C	43:BP:179:LYS:O	2.54	0.43
45:BR:17:THR:HA	45:BR:53:PHE:CG	2.54	0.43
76:BS:153:LEU:HD23	76:BS:156:ARG:HB2	2.00	0.43
78:CA:1003:A:C8	78:CA:1005:A:C6	3.06	0.43
78:CA:1178:G:C4	78:CA:1462:G:C2	3.07	0.43
78:CA:1181:U:H2'	78:CA:1182:U:H5'	2.01	0.43
78:CA:1304:G:H5'	78:CA:1322:A:OP2	2.18	0.43
78:CA:1319:A:C6	78:CA:1320:U:C2	3.07	0.43
78:CA:1350:U:H3	78:CA:1375:A:H61	1.65	0.43
78:CA:1545:A:H61	78:CA:1566:U:H3	1.67	0.43
78:CA:1679:G:H2'	78:CA:1680:G:H1'	2.01	0.43
78:CA:228:G:C1'	78:CA:228:G:O2'	2.58	0.43
78:CA:562:G:H2'	78:CA:563:U:C6	2.53	0.43
78:CA:636:A:C3'	78:CA:636:A:C8	3.02	0.43
78:CA:884:A:H2'	78:CA:885:G:C8	2.53	0.43
78:CA:888:U:H2'	78:CA:889:U:C6	2.54	0.43
78:CA:89:G:C5	78:CA:90:C:C5	3.07	0.43
81:DA:1679:A:C2	81:DA:1680:G:C5	3.07	0.43
81:DA:2117:A:H3'	81:DA:2118:C:C6	2.54	0.43
31:BB:25:GLY:HA2	81:DA:2175:U:H5	1.84	0.43
81:DA:3051:U:H2'	81:DA:3052:G:C8	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:672:A:C5	81:DA:673:U:C4	3.07	0.43
81:DA:762:U:H3	81:DA:769:G:H22	1.65	0.43
31:BB:204:MET:SD	81:DA:914:A:H1'	2.56	0.43
81:DA:94:G:O6	81:DA:95:A:N1	2.52	0.43
83:DC:17:A:C8	83:DC:17:A:O4'	2.72	0.43
2:AA:252:TRP:HA	3:AB:198:GLY:CA	2.48	0.43
5:AC:92:LYS:HD3	5:AC:94:ASP:OD2	2.18	0.43
31:BB:80:GLU:HG3	31:BB:170:ALA:HA	2.00	0.43
33:BD:244:LEU:H	33:BD:244:LEU:CD2	2.32	0.43
36:BF:49:ASN:HA	41:BN:4:ASP:HB3	2.00	0.43
74:BQ:152:ARG:HG3	83:DC:45:A:OP1	2.19	0.43
78:CA:991:G:H2'	78:CA:1012:U:O4	2.19	0.43
78:CA:1096:C:C2	78:CA:1101:G:H5'	2.54	0.43
78:CA:1190:C:H6	78:CA:1190:C:H5'	1.82	0.43
78:CA:123:G:N2	78:CA:296:U:C4	2.87	0.43
78:CA:1303:U:C4	78:CA:1304:G:C5	3.06	0.43
78:CA:1413:U:H5	78:CA:1415:U:C5'	2.31	0.43
78:CA:892:A:H2'	78:CA:893:U:H5'	2.00	0.43
79:CB:74:C:N3	81:DA:2619:G:N1	2.67	0.43
81:DA:1896:A:H5''	81:DA:1897:G:OP2	2.19	0.43
81:DA:1920:U:O2	81:DA:1932:A:H5'	2.19	0.43
31:BB:19:HIS:CE1	81:DA:823:C:H5'	2.54	0.43
83:DC:35:C:C5	83:DC:36:C:C5	3.07	0.43
2:AA:45:VAL:HG22	2:AA:46:HIS:H	1.84	0.43
3:AB:95:GLY:CA	3:AB:188:ILE:HD12	2.49	0.43
3:AB:16:VAL:HA	3:AB:19:ALA:HB3	2.00	0.43
12:AK:124:ASP:OD1	78:CA:929:A:N3	2.52	0.43
77:BI:118:ALA:HB2	81:DA:2645:G:O2'	2.13	0.43
43:BP:178:HIS:HB2	81:DA:69:C:H5''	1.99	0.43
78:CA:589:C:H2'	78:CA:590:C:H5'	2.00	0.43
78:CA:631:G:H2'	78:CA:632:U:C6	2.52	0.43
78:CA:933:A:C2	78:CA:935:U:C2	3.07	0.43
81:DA:998:A:C2	81:DA:1053:A:C6	3.07	0.43
81:DA:1623:G:H2'	81:DA:1624:G:H5''	1.95	0.43
77:BI:118:ALA:CB	81:DA:2646:C:H5'	2.48	0.43
81:DA:3312:U:H2'	81:DA:3313:U:H6	1.84	0.43
81:DA:3358:U:O2'	81:DA:3359:A:H5'	2.18	0.43
82:DB:103:G:N1	82:DB:105:A:N6	2.66	0.43
49:BV:61:ARG:HG2	82:DB:4:C:O5'	2.19	0.43
83:DC:99:A:H2'	83:DC:100:A:H5'	2.00	0.43
11:AJ:85:ARG:HA	15:AN:52:PHE:N	2.29	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AK:39:ILE:HD12	12:AK:79:VAL:HG21	1.99	0.43
14:AM:41:ARG:HG2	20:AS:37:VAL:HB	2.01	0.43
33:BD:334:PHE:HE2	81:DA:505:G:H5'	1.84	0.43
36:BF:31:ARG:HH22	36:BF:133:THR:HG22	1.83	0.43
35:BG:64:LEU:HD21	35:BG:100:LYS:HE3	2.00	0.43
35:BG:76:LEU:HD22	35:BG:100:LYS:HG2	2.01	0.43
41:BN:116:GLU:HA	41:BN:119:GLN:CD	2.39	0.43
74:BQ:242:SER:O	74:BQ:243:ALA:HB2	2.17	0.43
49:BV:114:VAL:HG11	49:BV:117:ILE:HD11	2.00	0.43
78:CA:1158:C:C5	78:CA:1582:U:C2	3.07	0.43
78:CA:1649:G:H3'	78:CA:1650:U:H4'	2.00	0.43
12:AK:122:PRO:CG	78:CA:887:A:H5''	2.45	0.43
31:BB:175:VAL:HG21	81:DA:2179:C:H1'	2.01	0.43
31:BB:175:VAL:HG23	81:DA:2179:C:H1'	2.01	0.43
81:DA:2493:U:O2'	81:DA:2494:A:H5''	2.19	0.43
81:DA:2726:C:C2	81:DA:2729:U:C5	3.07	0.43
81:DA:2879:C:H2'	81:DA:2880:U:C6	2.54	0.43
81:DA:3214:U:H2'	81:DA:3215:A:N7	2.34	0.43
44:BO:53:PHE:CZ	81:DA:678:G:OP2	2.72	0.43
83:DC:31:U:C6	83:DC:31:U:H3'	2.54	0.43
4:AD:118:GLU:CD	4:AD:236:ILE:H	2.21	0.43
16:AO:120:SER:O	16:AO:124:ARG:HG3	2.19	0.43
29:AU:18:LEU:HG	78:CA:155:U:H5''	2.01	0.43
31:BB:32:LEU:HD23	31:BB:32:LEU:H	1.84	0.43
33:BD:346:LYS:HA	81:DA:577:C:C5'	2.44	0.43
35:BG:56:LYS:HB2	35:BG:64:LEU:HB3	2.01	0.43
35:BG:77:ARG:HG3	35:BG:79:VAL:HG22	2.01	0.43
37:BH:138:HIS:CE1	81:DA:146:U:C3'	3.02	0.43
37:BH:186:LEU:HD11	37:BH:199:ALA:HB3	2.01	0.43
46:BT:77:GLY:O	46:BT:81:ARG:HG3	2.18	0.43
47:BU:141:VAL:HG21	81:DA:1067:U:H5	1.84	0.43
78:CA:1033:C:H2'	78:CA:1034:C:C6	2.54	0.43
78:CA:1213:G:H1	78:CA:1450:U:H3	1.65	0.43
78:CA:163:G:H2'	78:CA:164:A:H5'	2.01	0.43
47:BU:133:ALA:HB3	81:DA:1095:U:OP2	2.19	0.43
81:DA:2130:G:C2'	81:DA:2131:A:H5'	2.47	0.43
81:DA:2188:A:H2'	81:DA:2189:U:H5'	2.01	0.43
81:DA:2420:C:H2'	81:DA:2421:U:C6	2.54	0.43
81:DA:2511:A:H2'	81:DA:2512:C:O5'	2.19	0.43
81:DA:2766:U:H3	81:DA:2792:A:H61	1.65	0.43
81:DA:3342:A:N1	81:DA:3364:C:H1'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:972:A:H2'	81:DA:973:A:C8	2.54	0.43
83:DC:55:A:H2'	83:DC:56:G:H5'	2.00	0.43
83:DC:86:G:N2	83:DC:89:A:C8	2.86	0.43
25:AY:33:LEU:HD23	25:AY:33:LEU:HA	1.96	0.42
33:BD:30:ILE:HD11	33:BD:244:LEU:CD1	2.49	0.42
43:BP:115:VAL:HG12	43:BP:117:ASN:H	1.84	0.42
74:BQ:203:HIS:CG	74:BQ:204:VAL:N	2.87	0.42
48:BW:90:ARG:CB	48:BW:90:ARG:H	2.26	0.42
78:CA:1347:U:H5	78:CA:1348:A:C5	2.37	0.42
78:CA:1352:G:C6	78:CA:1371:A:N6	2.86	0.42
19:AR:125:PRO:HG2	78:CA:1557:U:C2	2.53	0.42
78:CA:1604:U:H2'	78:CA:1605:G:C8	2.54	0.42
78:CA:172:C:C6	78:CA:172:C:O4'	2.72	0.42
78:CA:446:A:N6	78:CA:461:G:H21	2.16	0.42
78:CA:1191:U:C6	79:CB:34:G:H4'	2.53	0.42
81:DA:1637:A:C2	81:DA:1711:C:O2	2.72	0.42
31:BB:221:LYS:HE2	81:DA:2417:U:H5''	2.01	0.42
81:DA:2817:A:HO2'	81:DA:2818:U:H5	1.63	0.42
81:DA:3312:U:H2'	81:DA:3313:U:C6	2.54	0.42
81:DA:3375:A:H2'	81:DA:3380:U:H6	1.84	0.42
52:BY:90:VAL:HG22	81:DA:378:A:C1'	2.49	0.42
32:BC:242:THR:HG22	81:DA:874:U:OP1	2.19	0.42
5:AC:39:LYS:CE	5:AC:39:LYS:HA	2.48	0.42
6:AE:5:GLU:CG	6:AE:6:ALA:H	2.32	0.42
10:AI:138:PHE:CE1	78:CA:1587:A:P	3.13	0.42
17:AQ:26:LEU:O	17:AQ:27:ASP:O	2.37	0.42
20:AS:53:TRP:CZ2	20:AS:100:ILE:HG21	2.53	0.42
42:BM:94:TYR:CD2	51:BZ:20:LEU:O	2.71	0.42
78:CA:1264:G:H8	78:CA:1264:G:H3'	1.84	0.42
78:CA:1408:G:H2'	78:CA:1409:G:H3'	2.02	0.42
78:CA:1174:C:C5	78:CA:1466:G:N2	2.87	0.42
78:CA:631:G:C6	78:CA:969:C:O2	2.72	0.42
78:CA:647:G:C8	78:CA:647:G:O5'	2.69	0.42
78:CA:874:C:H2'	78:CA:875:G:C8	2.54	0.42
39:BJ:56:ILE:HB	81:DA:1239:C:OP2	2.19	0.42
81:DA:1862:U:H3	81:DA:1868:G:H1	1.67	0.42
81:DA:1510:G:C2	81:DA:1879:A:N6	2.87	0.42
81:DA:1911:A:H2'	81:DA:1912:U:C6	2.54	0.42
31:BB:150:LEU:HD12	81:DA:2157:G:C2	2.54	0.42
81:DA:2301:U:H2'	81:DA:2302:G:H8	1.83	0.42
81:DA:3049:A:C2'	81:DA:3050:U:H5'	2.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:3079:U:H4'	81:DA:3080:G:OP2	2.19	0.42
81:DA:597:G:C4	81:DA:607:A:C6	3.08	0.42
83:DC:52:U:O2'	83:DC:53:U:H5'	2.19	0.42
2:AA:73:VAL:O	2:AA:95:ALA:HB1	2.19	0.42
4:AD:183:VAL:HG22	4:AD:220:THR:HG21	2.01	0.42
4:AD:201:HIS:CD2	4:AD:206:ASP:OD2	2.71	0.42
10:AI:38:LEU:HD22	10:AI:75:VAL:O	2.19	0.42
14:AM:20:THR:O	34:BE:109:HIS:CE1	2.73	0.42
14:AM:22:VAL:HG13	34:BE:115:LYS:CD	2.41	0.42
15:AN:12:ARG:HE	15:AN:13:ARG:N	2.17	0.42
29:AU:16:PRO:HG3	29:AU:93:ARG:N	2.35	0.42
31:BB:191:LEU:HD11	81:DA:1794:G:C4'	2.45	0.42
32:BC:60:LEU:HD21	32:BC:69:LYS:N	2.34	0.42
33:BD:313:LEU:HD23	33:BD:313:LEU:N	2.27	0.42
35:BG:34:LEU:O	35:BG:35:VAL:HB	2.20	0.42
35:BG:99:GLU:HB2	35:BG:100:LYS:HB2	2.01	0.42
75:BL:18:UNK:CB	81:DA:798:G:C4'	2.97	0.42
41:BN:42:LYS:O	41:BN:42:LYS:HG3	4.81	0.42
74:BQ:36:LEU:HD12	74:BQ:145:PHE:HD1	1.83	0.42
45:BR:54:LEU:HD12	45:BR:58:ASN:CG	2.40	0.42
78:CA:1160:A:H2'	78:CA:1161:C:C6	2.54	0.42
78:CA:1210:C:H2'	78:CA:1211:A:C8	2.54	0.42
78:CA:1409:G:N2	78:CA:1410:A:C6	2.87	0.42
78:CA:1576:A:N7	78:CA:1577:A:H1'	2.35	0.42
78:CA:1592:A:C2	78:CA:1605:G:C2	3.07	0.42
20:AS:89:ARG:NH2	78:CA:1601:G:OP1	2.52	0.42
78:CA:642:G:H21	78:CA:690:G:H22	1.67	0.42
78:CA:901:G:C6	78:CA:902:G:C5	3.07	0.42
33:BD:162:THR:HG22	81:DA:210:U:OP2	2.20	0.42
81:DA:242:C:O4'	81:DA:242:C:C6	2.72	0.42
81:DA:2841:G:H2'	81:DA:2844:C:H42	1.84	0.42
81:DA:513:G:H2'	81:DA:514:G:C8	2.54	0.42
81:DA:966:U:H2'	81:DA:967:A:C8	2.54	0.42
82:DB:101:U:H2'	82:DB:102:U:H6	1.84	0.42
82:DB:55:U:C4	82:DB:56:G:N7	2.87	0.42
83:DC:102:C:N1	83:DC:102:C:O4'	2.46	0.42
2:AA:103:THR:HA	2:AA:104:PRO:HD3	1.61	0.42
6:AE:168:ARG:O	6:AE:169:LEU:HG	2.20	0.42
9:AH:69:LEU:HB3	9:AH:70:ASN:H	1.44	0.42
12:AK:39:ILE:HG21	12:AK:79:VAL:HG11	2.01	0.42
13:AL:9:LEU:HD13	18:AP:79:LYS:HZ1	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:45:LEU:CD1	20:AS:35:ASP:HB3	2.49	0.42
16:AO:53:LEU:HD23	16:AO:63:ALA:HB2	2.01	0.42
20:AS:45:MET:O	20:AS:48:GLN:HG2	2.19	0.42
21:AT:43:GLY:N	21:AT:44:ARG:HG2	2.34	0.42
40:BK:186:ALA:O	40:BK:187:GLU:O	2.37	0.42
41:BN:12:TRP:CZ3	76:BS:165:LEU:HD23	2.53	0.42
78:CA:1303:U:C4	78:CA:1304:G:C2	3.08	0.42
78:CA:1548:G:H2'	78:CA:1549:C:H6	1.84	0.42
78:CA:1681:A:C2	78:CA:1721:A:H1'	2.54	0.42
78:CA:308:C:H5''	78:CA:309:C:OP1	2.19	0.42
78:CA:368:U:C4	78:CA:369:A:C6	3.07	0.42
78:CA:439:U:HO2'	78:CA:441:A:H8	1.62	0.42
78:CA:611:U:C4	78:CA:612:U:C4	3.08	0.42
81:DA:1679:A:OP1	81:DA:1757:A:H5''	2.20	0.42
81:DA:1858:A:H5''	81:DA:1859:A:H3'	2.01	0.42
81:DA:2210:G:C6	81:DA:2236:G:C2	3.07	0.42
81:DA:2291:A:C2	81:DA:2302:G:C6	3.07	0.42
81:DA:263:C:H2'	81:DA:264:G:H5''	2.01	0.42
81:DA:2916:U:H6	81:DA:2916:U:OP2	2.02	0.42
81:DA:303:G:C2	81:DA:313:A:C2	3.07	0.42
81:DA:321:C:H2'	81:DA:322:U:C6	2.55	0.42
81:DA:69:C:C2'	81:DA:70:A:H5'	2.49	0.42
81:DA:749:C:H2'	81:DA:750:G:C8	2.55	0.42
81:DA:7:C:C6	81:DA:7:C:O4'	2.73	0.42
83:DC:103:U:H2'	83:DC:104:C:C6	2.55	0.42
4:AD:125:LYS:O	4:AD:141:THR:HA	2.20	0.42
14:AM:122:HIS:CD2	19:AR:130:ARG:CD	3.02	0.42
18:AP:59:PRO:CG	78:CA:326:G:H5''	2.48	0.42
26:AZ:24:THR:HA	26:AZ:28:LYS:HD2	2.01	0.42
17:AQ:111:LYS:HD2	26:AZ:31:LYS:HG2	2.01	0.42
31:BB:1:MET:HE2	81:DA:2608:G:C8	2.55	0.42
32:BC:364:LYS:CG	51:BZ:17:ARG:CZ	2.97	0.42
14:AM:14:ILE:CD1	34:BE:109:HIS:NE2	2.69	0.42
35:BG:50:LYS:H	35:BG:118:GLU:HG3	1.84	0.42
35:BG:42:LEU:HD12	35:BG:50:LYS:HZ3	1.85	0.42
41:BN:43:LYS:CB	76:BS:97:ARG:HH22	2.23	0.42
49:BV:22:LEU:HD13	49:BV:90:PHE:CG	2.55	0.42
13:AL:15:LEU:CD2	78:CA:1105:C:OP2	2.67	0.42
78:CA:1190:C:C1'	78:CA:1190:C:C5'	2.98	0.42
10:AI:135:ARG:HH12	78:CA:1589:C:H41	1.65	0.42
78:CA:30:G:H2'	78:CA:31:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:605:A:N1	78:CA:606:A:C5	2.88	0.42
12:AK:53:ASP:CB	78:CA:899:G:C5'	2.97	0.42
80:CC:18:C:O4'	80:CC:18:C:N1	2.43	0.42
81:DA:1050:U:H6	81:DA:1050:U:O5'	2.01	0.42
81:DA:1662:G:H2'	81:DA:1663:C:C5	2.55	0.42
81:DA:1679:A:C2	81:DA:1690:C:C2	3.07	0.42
81:DA:2164:A:C6	81:DA:2171:G:C2	3.07	0.42
81:DA:68:C:N4	81:DA:315:C:H5'	2.34	0.42
81:DA:3213:A:H3'	81:DA:3214:U:C6	2.54	0.42
3:AB:46:THR:OG1	3:AB:84:ILE:HD11	2.19	0.42
4:AD:133:LYS:O	4:AD:134:LYS:HB2	2.18	0.42
12:AK:118:VAL:O	12:AK:119:THR:HG23	2.19	0.42
14:AM:13:HIS:O	34:BE:116:TYR:CE2	2.58	0.42
18:AP:119:VAL:HG22	18:AP:120:GLY:H	1.85	0.42
19:AR:125:PRO:HG2	78:CA:1557:U:N3	2.35	0.42
20:AS:30:VAL:O	20:AS:30:VAL:HG23	2.20	0.42
29:AU:62:THR:O	29:AU:63:GLN:CG	2.67	0.42
8:AF:123:VAL:HG22	22:AV:59:TYR:CD2	2.55	0.42
30:BA:77:ALA:O	30:BA:80:CYS:HB3	2.20	0.42
32:BC:173:GLN:HG3	32:BC:175:LYS:H	1.83	0.42
32:BC:167:ARG:HH11	32:BC:174:LYS:HB3	1.84	0.42
32:BC:32:PHE:CE2	32:BC:182:GLN:HB2	2.53	0.42
35:BG:35:VAL:HG13	35:BG:36:PRO:HD2	2.01	0.42
37:BH:190:VAL:HG11	37:BH:199:ALA:HB1	2.02	0.42
74:BQ:158:ARG:HD2	74:BQ:158:ARG:H	1.85	0.42
74:BQ:16:PHE:HB3	83:DC:14:U:C5'	2.49	0.42
78:CA:1165:G:N2	78:CA:1581:C:C2	2.87	0.42
78:CA:586:G:O2'	78:CA:587:C:C5'	2.68	0.42
78:CA:22:A:H61	78:CA:603:U:H3	1.68	0.42
81:DA:1357:G:O2'	81:DA:1358:C:H5'	2.20	0.42
81:DA:1363:A:H2'	81:DA:1364:C:H6	1.84	0.42
81:DA:2253:G:N2	81:DA:2264:U:C2	2.88	0.42
81:DA:2734:A:H2'	81:DA:2735:U:H6	1.82	0.42
81:DA:3243:A:C4	81:DA:3244:A:C8	3.07	0.42
81:DA:696:C:H2'	81:DA:697:A:C8	2.55	0.42
33:BD:73:ARG:O	81:DA:805:G:H4'	2.19	0.42
83:DC:102:C:C6	83:DC:102:C:O4'	2.72	0.42
2:AA:58:VAL:HG11	6:AE:44:LEU:HD13	2.02	0.42
2:AA:58:VAL:H	10:AI:107:LYS:HD2	84.87	0.42
13:AL:39:LYS:HG3	13:AL:91:GLY:CA	2.49	0.42
14:AM:141:THR:HB	78:CA:1173:C:OP2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:95:GLY:HA3	14:AM:98:TYR:CZ	2.54	0.42
74:BQ:54:ARG:HH22	83:DC:4:U:H5'	1.84	0.42
45:BR:26:LEU:O	45:BR:30:VAL:HG22	2.20	0.42
76:BS:55:LYS:HA	81:DA:1281:G:H5''	67.45	0.42
78:CA:1086:A:OP1	78:CA:1086:A:C8	2.72	0.42
78:CA:1379:C:H5''	78:CA:1380:U:OP2	2.20	0.42
78:CA:1413:U:C5	78:CA:1415:U:H5''	2.53	0.42
78:CA:1534:G:H21	78:CA:1535:U:H3	1.68	0.42
19:AR:58:LYS:HA	78:CA:1549:C:H3'	2.01	0.42
78:CA:1203:A:N3	78:CA:1556:A:C2	2.84	0.42
78:CA:589:C:C2'	78:CA:590:C:H5'	2.50	0.42
81:DA:1245:A:C8	81:DA:1272:C:H5'	2.54	0.42
81:DA:1506:A:H4'	81:DA:1507:G:OP2	2.20	0.42
81:DA:1567:U:H2'	81:DA:1568:U:H5'	2.02	0.42
81:DA:1700:G:H22	81:DA:1746:U:H3	1.67	0.42
81:DA:1746:U:H3'	81:DA:1747:G:C8	2.54	0.42
81:DA:2174:G:O4'	81:DA:2176:U:H1'	2.19	0.42
81:DA:2450:G:C6	81:DA:2451:G:C5	3.08	0.42
81:DA:2506:U:H2'	81:DA:2507:C:C6	2.55	0.42
81:DA:2637:A:C2	81:DA:2639:G:H3'	2.54	0.42
81:DA:2648:G:O2'	81:DA:2648:G:C1'	2.61	0.42
42:BM:44:SER:HB2	81:DA:2916:U:O2'	2.19	0.42
81:DA:3106:A:C2'	81:DA:3107:U:H5'	2.50	0.42
81:DA:345:G:C6	81:DA:346:C:H5	2.37	0.42
4:AD:107:GLY:HA2	4:AD:189:LEU:CD1	2.50	0.42
8:AF:143:ARG:C	8:AF:162:VAL:HG11	2.40	0.42
29:AU:12:VAL:HG22	29:AU:23:PHE:HB2	2.01	0.42
29:AU:24:VAL:HG13	78:CA:163:G:O2'	2.19	0.42
32:BC:84:VAL:CG1	32:BC:162:VAL:HG13	2.50	0.42
33:BD:334:PHE:CE2	81:DA:505:G:H5'	2.55	0.42
34:BE:143:ARG:HH22	74:BQ:52:VAL:HG23	1.84	0.42
36:BF:45:PHE:CE1	36:BF:53:ILE:HG12	2.55	0.42
35:BG:68:PRO:CB	35:BG:103:VAL:HA	2.50	0.42
44:BO:52:TYR:HA	45:BR:92:ARG:HG2	2.02	0.42
74:BQ:260:PHE:CD1	74:BQ:268:GLU:HB2	2.54	0.42
45:BR:45:ASN:HA	45:BR:48:VAL:HG12	2.02	0.42
76:BS:61:LEU:HD22	76:BS:62:ALA:HB2	2.01	0.42
78:CA:1141:G:C6	78:CA:1142:A:C6	3.07	0.42
6:AE:188:LEU:HD13	78:CA:1298:U:C2	2.41	0.42
78:CA:297:U:H3'	78:CA:298:C:C6	2.55	0.42
78:CA:610:G:H2'	78:CA:614:C:C5	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:893:U:O2	78:CA:919:A:N1	2.53	0.42
81:DA:1261:G:C5'	81:DA:1262:G:OP1	2.68	0.42
81:DA:1396:C:O2'	81:DA:1397:C:H5'	2.20	0.42
81:DA:1405:U:C2'	81:DA:1406:A:H5'	2.49	0.42
81:DA:1575:A:H2'	81:DA:1576:G:OP2	2.19	0.42
81:DA:1510:G:N1	81:DA:1879:A:N6	2.68	0.42
81:DA:2206:G:N2	81:DA:2208:A:N6	2.53	0.42
81:DA:2465:G:C3'	81:DA:2466:G:C5'	2.97	0.42
74:BQ:153:THR:HG21	81:DA:2746:A:C5	2.54	0.42
81:DA:3375:A:H5'	81:DA:3375:A:C8	2.55	0.42
81:DA:997:A:H8	81:DA:997:A:H3'	1.85	0.42
4:AD:188:ASN:OD1	78:CA:650:U:C5'	2.68	0.42
9:AH:102:VAL:CG1	9:AH:125:ILE:HG23	2.50	0.42
12:AK:22:SER:HA	12:AK:87:GLY:CA	2.50	0.42
14:AM:122:HIS:O	14:AM:122:HIS:CG	2.73	0.42
25:AY:23:GLY:O	25:AY:47:PRO:HG3	2.20	0.42
33:BD:100:PHE:HB2	33:BD:101:ALA:H	1.64	0.42
34:BE:101:ASN:ND2	34:BE:128:TYR:CE2	2.88	0.42
77:BI:106:ALA:C	77:BI:108:ALA:CB	2.87	0.42
42:BM:15:LEU:H	42:BM:15:LEU:HG	1.63	0.42
35:BG:145:LEU:CD2	41:BN:113:THR:O	2.66	0.42
43:BP:179:LYS:C	43:BP:180:PHE:O	2.52	0.42
47:BU:116:ARG:HD2	47:BU:116:ARG:HH11	1.60	0.42
48:BW:24:GLU:CD	48:BW:24:GLU:H	2.23	0.42
52:BY:30:LEU:O	52:BY:101:PRO:HG3	2.20	0.42
78:CA:116:U:H2'	78:CA:117:U:OP2	2.19	0.42
78:CA:1220:C:H2'	78:CA:1221:A:OP2	2.19	0.42
78:CA:124:A:H2'	78:CA:125:U:C6	2.54	0.42
78:CA:1308:G:C2	78:CA:1318:G:C2	3.06	0.42
78:CA:1308:G:O6	78:CA:1318:G:C5	2.66	0.42
78:CA:547:U:H3	78:CA:591:A:H61	1.67	0.42
78:CA:852:C:H2'	78:CA:853:G:C8	2.55	0.42
78:CA:874:C:O4'	78:CA:874:C:C6	2.73	0.42
81:DA:1009:A:N6	81:DA:1043:C:H42	2.17	0.42
81:DA:1190:A:H3'	81:DA:1191:U:H5''	2.01	0.42
81:DA:1661:G:C2	81:DA:1789:G:C2	3.08	0.42
81:DA:1728:G:H4'	81:DA:1730:G:H1'	2.02	0.42
81:DA:1908:A:H3'	81:DA:1909:A:C8	2.55	0.42
81:DA:2462:A:H3'	81:DA:2463:G:H8	1.85	0.42
81:DA:2510:U:H2'	81:DA:2511:A:C8	2.55	0.42
34:BE:55:ARG:HB3	81:DA:2678:A:H1'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2684:C:H2'	81:DA:2685:C:H6	1.83	0.42
81:DA:2744:U:C4	81:DA:2745:G:C5	3.07	0.42
81:DA:3219:G:C3'	81:DA:3220:G:C8	3.03	0.42
81:DA:659:G:H2'	81:DA:1432:C:N4	2.34	0.42
81:DA:840:C:H2'	81:DA:841:A:H8	1.84	0.42
21:AT:44:ARG:CA	21:AT:45:ALA:CB	2.98	0.42
30:BA:19:TYR:HA	30:BA:206:VAL:HB	2.02	0.42
44:BO:73:LEU:O	44:BO:74:ASN:N	2.28	0.42
76:BS:79:ILE:HG23	76:BS:81:LEU:HB2	2.02	0.42
78:CA:104:A:H2'	78:CA:106:U:C5	2.54	0.42
19:AR:58:LYS:HE3	78:CA:1549:C:N4	2.35	0.42
13:AL:98:GLU:CG	78:CA:18:C:O2'	2.66	0.42
78:CA:342:C:H2'	78:CA:343:C:C6	2.55	0.42
78:CA:374:U:C5	78:CA:375:U:C5	3.07	0.42
78:CA:469:C:O4'	78:CA:469:C:C6	2.72	0.42
78:CA:936:G:O6	78:CA:937:C:N4	2.53	0.42
81:DA:1005:G:H2'	81:DA:1006:A:OP2	2.19	0.42
81:DA:1115:G:N9	81:DA:1115:G:O4'	2.44	0.42
33:BD:138:ARG:O	81:DA:1384:U:H4'	2.20	0.42
81:DA:1988:C:H2'	81:DA:1989:U:C6	2.54	0.42
81:DA:2102:U:H2'	81:DA:2103:U:C6	2.55	0.42
81:DA:2203:U:H3	81:DA:2239:G:H1	1.68	0.42
81:DA:2510:U:H2'	81:DA:2511:A:H8	1.85	0.42
47:BU:80:VAL:HG12	81:DA:2727:A:H62	1.84	0.42
32:BC:223:GLY:C	81:DA:3306:U:OP2	2.59	0.42
81:DA:3325:G:C8	81:DA:3325:G:H3'	2.55	0.42
32:BC:308:MET:CE	81:DA:3327:G:H2'	2.49	0.42
81:DA:82:C:H2'	81:DA:83:U:C6	2.55	0.42
12:AK:22:SER:HA	12:AK:87:GLY:HA3	2.02	0.41
14:AM:136:GLN:OE1	78:CA:1544:U:OP1	2.38	0.41
18:AP:109:VAL:H	18:AP:109:VAL:HG23	1.55	0.41
18:AP:91:LEU:HB3	18:AP:92:HIS:H	1.72	0.41
17:AQ:107:SER:CB	26:AZ:28:LYS:HB3	2.50	0.41
31:BB:171:GLY:HA3	31:BB:174:ARG:NH1	2.35	0.41
33:BD:47:ARG:HH11	33:BD:47:ARG:HB3	1.85	0.41
35:BG:69:PHE:HE1	35:BG:100:LYS:CA	2.33	0.41
37:BH:143:ILE:HD11	37:BH:151:VAL:HG11	2.01	0.41
52:BY:95:VAL:HB	52:BY:96:PRO:HD2	2.02	0.41
78:CA:1075:C:H2'	78:CA:1076:A:C8	2.54	0.41
13:AL:1:MET:SD	78:CA:1101:G:OP1	2.78	0.41
14:AM:143:ARG:HH21	78:CA:1171:A:P	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1340:U:H5''	78:CA:1341:A:OP1	2.19	0.41
19:AR:130:ARG:HG3	78:CA:1558:U:H5'	2.01	0.41
78:CA:56:U:O4	78:CA:92:A:C5'	2.66	0.41
13:AL:9:LEU:O	78:CA:632:U:C5'	2.67	0.41
81:DA:1001:G:N2	81:DA:1050:U:O2	2.44	0.41
81:DA:1633:C:C4	81:DA:1634:G:C6	3.08	0.41
31:BB:188:LYS:HZ3	81:DA:1793:C:H2'	1.78	0.41
81:DA:2171:G:C6	81:DA:2172:A:C5	3.08	0.41
81:DA:295:A:C6	81:DA:296:A:C6	3.07	0.41
81:DA:636:C:N4	81:DA:637:C:C5	2.88	0.41
81:DA:641:C:H42	81:DA:645:A:H8	1.68	0.41
74:BQ:94:ASN:N	83:DC:48:U:OP2	2.53	0.41
83:DC:5:G:C5	83:DC:114:A:C2	3.07	0.41
3:AB:29:LEU:HD13	3:AB:32:GLU:OE1	2.20	0.41
4:AD:181:VAL:O	4:AD:192:ILE:HD13	2.20	0.41
13:AL:52:ILE:HG23	13:AL:53:VAL:H	1.84	0.41
18:AP:108:PRO:HB2	18:AP:109:VAL:H	1.32	0.41
19:AR:76:VAL:HA	19:AR:100:LYS:HE2	2.03	0.41
21:AT:53:TYR:HE2	23:AW:69:UNK:O	1.99	0.41
33:BD:305:ALA:O	33:BD:310:THR:HG21	2.20	0.41
35:BG:50:LYS:HD2	81:DA:3216:G:C8	2.54	0.41
39:BJ:34:PRO:C	39:BJ:42:VAL:HG21	2.41	0.41
42:BM:41:GLY:HA2	81:DA:2932:U:H5''	2.01	0.41
76:BS:77:TYR:CE1	76:BS:101:LEU:HD13	2.55	0.41
76:BS:81:LEU:HD13	76:BS:82:ARG:N	2.35	0.41
47:BU:8:ARG:HH21	81:DA:2757:U:H3'	1.84	0.41
52:BY:25:SER:HA	52:BY:28:ARG:HB2	2.02	0.41
78:CA:1161:C:C2	78:CA:1616:G:N2	2.82	0.41
78:CA:1791:A:N9	78:CA:1791:A:O4'	2.43	0.41
78:CA:231:U:C5	78:CA:232:U:C4	3.08	0.41
78:CA:929:A:C6	78:CA:930:A:C4	3.09	0.41
78:CA:974:A:C6	78:CA:975:C:N4	2.88	0.41
81:DA:1008:U:O2'	81:DA:1009:A:H5''	2.20	0.41
81:DA:1333:C:O4'	81:DA:1333:C:C6	2.73	0.41
81:DA:1932:A:H2'	81:DA:1933:A:H5'	2.01	0.41
33:BD:162:THR:CG2	81:DA:209:A:C8	2.90	0.41
81:DA:2383:C:H2'	81:DA:2384:A:H8	1.86	0.41
77:BI:118:ALA:HB1	81:DA:2646:C:H5'	2.02	0.41
81:DA:2783:U:H2'	81:DA:2784:G:C8	2.54	0.41
81:DA:3234:A:C8	81:DA:3234:A:H3'	2.55	0.41
81:DA:409:A:H2'	81:DA:410:U:O4'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:665:A:C8	81:DA:665:A:O4'	2.73	0.41
81:DA:838:G:H2'	81:DA:839:C:C5	2.55	0.41
81:DA:342:A:OP2	82:DB:21:C:N4	2.54	0.41
3:AB:35:SER:HA	3:AB:99:VAL:HG22	2.02	0.41
5:AC:1:MET:HB2	5:AC:2:PRO:HD3	2.03	0.41
8:AF:29:ILE:N	8:AF:30:PRO:HD2	2.36	0.41
10:AI:48:VAL:HG12	20:AS:8:ASP:HB2	2.03	0.41
10:AI:62:ASN:O	10:AI:65:ILE:HG13	2.20	0.41
14:AM:125:ILE:HD13	14:AM:129:TRP:CH2	2.55	0.41
16:AO:65:VAL:HB	24:AX:52:THR:HG23	2.02	0.41
32:BC:358:TRP:CZ3	51:BZ:15:PRO:HB2	2.55	0.41
33:BD:313:LEU:HD23	33:BD:313:LEU:HA	1.67	0.41
37:BH:138:HIS:CD2	81:DA:147:U:P	3.12	0.41
77:BI:108:ALA:HB1	77:BI:111:LEU:HG	2.02	0.41
74:BQ:256:THR:O	74:BQ:256:THR:HG22	2.20	0.41
76:BS:75:LYS:HG2	76:BS:130:THR:HG22	2.03	0.41
47:BU:147:VAL:HB	47:BU:148:PRO:HD3	2.02	0.41
78:CA:1142:A:H2'	78:CA:1143:A:C8	2.55	0.41
78:CA:95:G:C2	78:CA:403:G:O6	2.73	0.41
81:DA:1258:U:H4'	81:DA:1259:A:OP1	2.20	0.41
81:DA:1582:C:O4'	81:DA:1582:C:C6	2.72	0.41
81:DA:1783:U:H4'	81:DA:1784:G:OP1	2.20	0.41
81:DA:2166:A:OP1	81:DA:2166:A:C8	2.73	0.41
81:DA:2718:U:H3	81:DA:2738:A:H61	1.68	0.41
36:BF:129:ARG:NH1	81:DA:3126:C:C5'	2.83	0.41
81:DA:896:A:C2	81:DA:913:A:C2	3.09	0.41
81:DA:959:C:H4'	81:DA:960:U:O5'	2.20	0.41
74:BQ:158:ARG:CD	83:DC:46:A:H5''	2.48	0.41
5:AC:157:ASP:CA	5:AC:157:ASP:CG	2.72	0.41
6:AE:188:LEU:HD11	78:CA:1298:U:H1'	2.01	0.41
10:AI:84:ALA:O	10:AI:85:ILE:HB	2.19	0.41
16:AO:65:VAL:HG21	24:AX:52:THR:HG23	2.02	0.41
30:BA:19:TYR:O	30:BA:206:VAL:HG11	2.20	0.41
31:BB:245:LEU:HA	81:DA:2153:U:H5''	2.02	0.41
36:BF:41:ILE:CD1	40:BK:130:LYS:O	2.68	0.41
35:BG:136:GLU:HG2	41:BN:115:PHE:CB	2.49	0.41
77:BI:106:ALA:N	77:BI:108:ALA:HB3	2.35	0.41
77:BI:6:ALA:HB3	81:DA:2855:U:P	2.60	0.41
42:BM:59:MET:HG3	42:BM:75:PRO:HG3	2.03	0.41
74:BQ:18:THR:HG23	74:BQ:19:PRO:HD2	2.02	0.41
52:BY:100:HIS:CG	52:BY:101:PRO:HD2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1307:U:C2	78:CA:1319:A:C2	3.07	0.41
78:CA:1543:A:N6	78:CA:1567:U:C4	2.88	0.41
14:AM:144:ARG:HG3	78:CA:1570:A:C4'	2.51	0.41
78:CA:16:G:H1'	78:CA:1139:A:H61	1.84	0.41
78:CA:1702:A:C1'	78:CA:1702:A:O2'	2.57	0.41
78:CA:483:A:H61	78:CA:504:U:H3	1.69	0.41
7:AG:129:UNK:HA	78:CA:638:U:C2	2.55	0.41
78:CA:220:A:H2	78:CA:836:U:O2	2.02	0.41
78:CA:851:U:C4	78:CA:852:C:N4	2.89	0.41
81:DA:1727:G:H2'	81:DA:1728:G:C8	2.55	0.41
81:DA:1954:G:C8	81:DA:1955:U:C5	3.08	0.41
81:DA:1955:U:H3'	81:DA:1955:U:C6	2.55	0.41
81:DA:2217:U:O2	81:DA:2229:A:C5	2.74	0.41
81:DA:2144:A:C4	81:DA:2281:A:N1	2.88	0.41
81:DA:1891:A:H61	81:DA:2344:U:H3	1.68	0.41
81:DA:2345:A:C2	81:DA:2346:C:C2	3.08	0.41
81:DA:2413:A:H2'	81:DA:2414:G:C8	2.55	0.41
81:DA:2462:A:H3'	81:DA:2463:G:C8	2.55	0.41
81:DA:2591:A:H2'	81:DA:2592:G:C8	2.56	0.41
81:DA:2677:G:N7	81:DA:2679:A:N6	2.68	0.41
81:DA:2961:G:C5	81:DA:2962:U:C5	3.08	0.41
81:DA:68:C:C5	81:DA:315:C:H5'	2.56	0.41
81:DA:3296:A:H2'	81:DA:3297:U:C6	2.55	0.41
81:DA:372:A:C6	81:DA:373:A:C6	3.09	0.41
81:DA:799:G:C4	81:DA:801:A:C5	3.07	0.41
18:AP:86:ILE:HD13	18:AP:86:ILE:HG21	1.89	0.41
20:AS:78:LYS:O	78:CA:1524:A:H5''	2.20	0.41
31:BB:11:GLY:O	81:DA:2163:C:O2	2.37	0.41
33:BD:181:VAL:HG12	33:BD:181:VAL:O	2.21	0.41
33:BD:39:PHE:CB	33:BD:242:ALA:HB2	2.50	0.41
77:BI:34:TYR:CZ	77:BI:92:HIS:CD2	3.09	0.41
74:BQ:53:VAL:HG12	83:DC:27:A:H5''	2.01	0.41
76:BS:120:PHE:O	76:BS:122:CYS:N	2.54	0.41
41:BN:38:ILE:CD1	76:BS:154:VAL:HG13	2.51	0.41
46:BT:14:VAL:HG23	46:BT:38:ARG:HD2	2.02	0.41
47:BU:113:ALA:HA	47:BU:116:ARG:HD3	2.03	0.41
47:BU:26:HIS:N	47:BU:26:HIS:CD2	2.89	0.41
49:BV:151:THR:HG23	49:BV:154:GLU:HG2	2.01	0.41
49:BV:69:ARG:HB3	49:BV:79:THR:O	2.21	0.41
48:BW:81:LYS:CD	81:DA:1688:U:C5	3.03	0.41
78:CA:1174:C:N4	78:CA:1466:G:N1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:CA:1346:A:C2	78:CA:1347:U:O4	2.74	0.41
78:CA:1658:G:H2'	78:CA:1659:A:C8	2.56	0.41
78:CA:901:G:C6	78:CA:902:G:C4	3.08	0.41
78:CA:1001:A:OP1	79:CB:39:G:H5'	2.20	0.41
81:DA:1008:U:H4'	81:DA:1009:A:OP1	2.21	0.41
81:DA:1339:C:H2'	81:DA:1340:G:H8	1.85	0.41
81:DA:1444:G:H2'	81:DA:1445:U:O4'	2.21	0.41
81:DA:1757:A:H2'	81:DA:1758:G:C8	2.56	0.41
42:BM:37:ILE:HG22	81:DA:2295:A:C5	2.55	0.41
81:DA:2492:C:C2'	81:DA:2493:U:O5'	2.69	0.41
81:DA:2616:C:C5	81:DA:2617:U:C4	3.09	0.41
81:DA:2625:C:O4'	81:DA:2625:C:C6	2.73	0.41
42:BM:40:LYS:HA	81:DA:2931:C:O3'	2.21	0.41
81:DA:3090:U:O2'	81:DA:3091:A:P	2.79	0.41
81:DA:3368:U:H4'	81:DA:3369:G:H5'	2.03	0.41
81:DA:3380:U:H2'	81:DA:3381:U:C6	2.55	0.41
81:DA:916:G:N7	81:DA:924:G:C5	2.88	0.41
83:DC:27:A:C8	83:DC:27:A:O4'	2.72	0.41
2:AA:195:TRP:HA	2:AA:195:TRP:CE3	2.55	0.41
6:AE:198:THR:HG23	78:CA:2:A:H2	1.85	0.41
7:AG:130:UNK:O	78:CA:636:A:N1	2.53	0.41
10:AI:90:VAL:HG23	10:AI:90:VAL:H	1.49	0.41
21:AT:44:ARG:HA	21:AT:45:ALA:HB2	2.03	0.41
31:BB:193:ARG:CZ	81:DA:2174:G:O3'	2.69	0.41
32:BC:93:VAL:H	32:BC:93:VAL:HG12	1.53	0.41
34:BE:50:ALA:HB2	34:BE:65:ILE:HD12	2.01	0.41
35:BG:76:LEU:HB3	35:BG:100:LYS:HD3	2.03	0.41
77:BI:142:ASP:CG	77:BI:145:LYS:HZ2	2.24	0.41
42:BM:40:LYS:HD3	81:DA:2931:C:H5'	2.01	0.41
74:BQ:36:LEU:HD12	74:BQ:145:PHE:CD1	2.55	0.41
74:BQ:267:ALA:O	74:BQ:271:LYS:HG2	2.21	0.41
49:BV:29:THR:HG23	49:BV:119:VAL:HG11	2.02	0.41
51:BZ:4:GLU:HB3	51:BZ:13:ILE:HB	2.02	0.41
14:AM:116:LEU:CD1	78:CA:1547:A:P	3.08	0.41
78:CA:1621:U:H2'	78:CA:1622:G:H8	1.86	0.41
81:DA:1002:A:N1	81:DA:1049:C:N3	2.68	0.41
77:BI:88:ARG:HD3	81:DA:1046:A:H1'	2.02	0.41
45:BR:38:ARG:HH22	81:DA:1347:U:H5	1.69	0.41
81:DA:1393:A:H4'	81:DA:1420:C:H4'	2.03	0.41
81:DA:1688:U:O4'	81:DA:1688:U:H6	1.98	0.41
81:DA:2478:C:N4	81:DA:2479:C:C5	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2603:G:H2'	81:DA:2604:U:C6	2.56	0.41
35:BG:52:VAL:CG1	81:DA:3217:C:H5'	2.50	0.41
82:DB:128:U:H3'	82:DB:129:C:C6	2.56	0.41
74:BQ:158:ARG:HD2	83:DC:46:A:C5'	2.50	0.41
74:BQ:95:TRP:CZ2	83:DC:46:A:H4'	2.55	0.41
3:AB:34:TYR:HB3	3:AB:52:ALA:HB2	2.03	0.41
6:AE:12:GLY:C	6:AE:14:PHE:H	2.24	0.41
8:AF:146:THR:CG2	8:AF:221:ALA:HA	2.50	0.41
12:AK:65:GLN:O	12:AK:68:ALA:HB3	2.21	0.41
12:AK:96:PRO:HD2	12:AK:99:GLN:HB2	2.02	0.41
29:AU:16:PRO:HD3	29:AU:92:VAL:HG13	2.02	0.41
32:BC:17:LEU:HA	32:BC:17:LEU:HD12	1.79	0.41
32:BC:237:LYS:HE3	81:DA:2340:U:C6	2.56	0.41
14:AM:22:VAL:HG22	34:BE:115:LYS:HD3	2.02	0.41
34:BE:29:ARG:HG2	34:BE:32:ARG:H	1.86	0.41
40:BK:197:LEU:HD23	41:BN:124:ARG:HH12	1.84	0.41
43:BP:112:ASN:HD21	43:BP:138:GLN:NE2	2.18	0.41
43:BP:44:ARG:HD3	43:BP:121:VAL:HG12	2.03	0.41
74:BQ:5:LYS:HD2	81:DA:2687:G:H5''	2.03	0.41
45:BR:15:HIS:O	45:BR:16:ARG:CB	2.69	0.41
78:CA:1094:G:N2	78:CA:1095:U:H1'	2.35	0.41
78:CA:1327:C:H2'	78:CA:1328:G:C8	2.56	0.41
78:CA:1551:U:H2'	78:CA:1552:U:C6	2.56	0.41
78:CA:294:C:C6	78:CA:294:C:O4'	2.73	0.41
78:CA:375:U:N3	78:CA:376:C:C4	2.88	0.41
5:AC:23:ARG:HE	78:CA:554:C:H5'	1.85	0.41
78:CA:8:U:O4	78:CA:15:U:O4	2.39	0.41
79:CB:66:C:H2'	79:CB:67:G:C8	2.55	0.41
81:DA:1783:U:H2'	81:DA:1784:G:H8	1.81	0.41
81:DA:1927:G:C2	81:DA:1928:G:C8	3.08	0.41
81:DA:2163:C:N3	81:DA:2172:A:C2	2.89	0.41
81:DA:2444:C:H2'	81:DA:2445:A:OP2	2.20	0.41
81:DA:3047:U:O3'	81:DA:3048:A:H8	2.04	0.41
33:BD:47:ARG:HD3	81:DA:338:A:C8	2.56	0.41
81:DA:375:A:H3'	81:DA:376:G:H5''	2.02	0.41
81:DA:498:A:H61	81:DA:615:U:H3	1.69	0.41
83:DC:31:U:C3'	83:DC:31:U:C6	3.04	0.41
83:DC:8:G:H2'	83:DC:9:C:C6	2.56	0.41
2:AA:213:GLN:HB3	2:AA:216:GLU:HB3	2.03	0.41
3:AB:158:ILE:HG21	3:AB:162:GLN:HB2	2.02	0.41
14:AM:139:LYS:H	14:AM:139:LYS:HD2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:118:LYS:O	19:AR:116:LEU:HD13	2.21	0.41
19:AR:124:THR:N	19:AR:125:PRO:HD2	2.36	0.41
22:AV:71:ILE:HG13	22:AV:75:LEU:HD12	2.02	0.41
31:BB:38:HIS:CD2	31:BB:38:HIS:H	2.10	0.41
32:BC:103:THR:HB	32:BC:147:GLU:HB3	2.01	0.41
32:BC:119:TYR:CE2	32:BC:174:LYS:NZ	2.89	0.41
32:BC:120:LYS:CG	81:DA:3313:U:OP2	2.69	0.41
34:BE:114:ILE:HG21	34:BE:117:ASP:HB2	2.02	0.41
35:BG:21:THR:O	81:DA:503:C:C4'	2.64	0.41
42:BM:56:ASP:O	42:BM:77:ILE:HA	2.21	0.41
74:BQ:128:GLU:O	74:BQ:128:GLU:HB2	2.08	0.41
74:BQ:228:ALA:HA	74:BQ:231:ILE:HG12	2.02	0.41
45:BR:15:HIS:CE1	45:BR:54:LEU:N	2.89	0.41
76:BS:54:LYS:HB3	76:BS:57:ASN:H	1.85	0.41
78:CA:991:G:H1'	78:CA:1014:G:N2	2.35	0.41
78:CA:1076:A:H2'	78:CA:1077:C:C6	2.56	0.41
78:CA:1087:A:HO2'	78:CA:1142:A:HO2'	1.57	0.41
6:AE:125:ILE:H	78:CA:1146:G:H4'	1.86	0.41
78:CA:1437:U:H2'	78:CA:1438:G:H5'	2.03	0.41
79:CB:54:U:C2	79:CB:56:A:OP2	2.73	0.41
81:DA:1059:G:H2'	81:DA:1060:U:H4'	2.02	0.41
81:DA:1256:G:H3'	81:DA:1257:C:C6	2.56	0.41
45:BR:13:SER:CB	81:DA:1342:C:H5''	2.51	0.41
81:DA:1633:C:H3'	81:DA:1634:G:C8	2.56	0.41
81:DA:169:U:N1	81:DA:169:U:H2'	2.31	0.41
81:DA:1784:G:H2'	81:DA:1785:U:C5'	2.51	0.41
81:DA:1647:A:N6	81:DA:1808:G:H1'	2.31	0.41
81:DA:2367:A:C2	81:DA:2368:A:C4	3.09	0.41
34:BE:130:VAL:HG21	81:DA:2684:C:OP1	2.21	0.41
81:DA:290:G:H2'	81:DA:291:C:C6	2.56	0.41
81:DA:3141:A:H4'	81:DA:3142:A:OP1	2.20	0.41
32:BC:101:SER:O	81:DA:3147:G:H4'	2.21	0.41
81:DA:3257:C:C4	81:DA:3258:U:C4	3.09	0.41
81:DA:410:U:H2'	81:DA:411:U:C6	2.55	0.41
82:DB:93:U:H2'	82:DB:95:G:C4	2.56	0.41
3:AB:156:PHE:HA	78:CA:1327:C:OP1	2.20	0.41
13:AL:99:ASN:HB3	78:CA:1136:U:OP2	2.21	0.41
20:AS:65:ILE:HG21	20:AS:124:ILE:HD13	2.03	0.41
33:BD:26:PHE:CE2	33:BD:126:ILE:HG22	2.56	0.41
35:BG:102:ASN:OD1	35:BG:106:PHE:CG	2.74	0.41
45:BR:71:LEU:HD21	45:BR:79:LYS:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BV:31:GLU:HG3	49:BV:60:PHE:CD2	2.56	0.41
51:BZ:51:TRP:N	51:BZ:53:VAL:HG13	2.33	0.41
78:CA:1190:C:H5''	78:CA:1190:C:H6	1.85	0.41
78:CA:1500:C:C5	78:CA:1501:C:C5	3.09	0.41
10:AI:86:ALA:CB	78:CA:1609:U:OP1	2.69	0.41
78:CA:1667:A:H4'	81:DA:1936:A:C5'	2.50	0.41
78:CA:473:A:H2'	78:CA:474:A:C8	2.56	0.41
81:DA:1004:U:C5	81:DA:1005:G:C4	3.09	0.41
81:DA:1020:G:H1	81:DA:1034:U:H3	1.69	0.41
47:BU:141:VAL:HG21	81:DA:1067:U:C5	2.55	0.41
81:DA:1222:G:H1'	81:DA:1286:A:H62	1.85	0.41
81:DA:1397:C:O4'	81:DA:1397:C:C6	2.73	0.41
77:BI:4:ARG:HD3	81:DA:1630:U:OP1	145.66	0.41
81:DA:1658:G:H2'	81:DA:1659:U:C6	2.56	0.41
81:DA:1975:C:O4'	81:DA:1975:C:C6	2.74	0.41
81:DA:2386:A:N6	81:DA:2993:G:H1'	2.36	0.41
81:DA:3321:C:H2'	81:DA:3322:A:C8	2.55	0.41
33:BD:329:PRO:CG	81:DA:506:U:OP1	2.69	0.41
4:AD:183:VAL:HG12	4:AD:189:LEU:HA	2.03	0.41
6:AE:150:GLN:HB2	6:AE:156:THR:HB	2.03	0.41
8:AF:43:PHE:CD1	8:AF:115:LYS:HG2	2.56	0.41
12:AK:29:HIS:NE2	78:CA:918:U:C5'	2.82	0.41
32:BC:174:LYS:NZ	81:DA:3314:A:OP2	2.54	0.41
39:BJ:26:ALA:O	39:BJ:30:PRO:HD2	2.21	0.41
74:BQ:112:ARG:HG3	74:BQ:112:ARG:NH1	2.36	0.41
74:BQ:261:THR:CB	74:BQ:266:ALA:HB2	2.50	0.41
46:BT:134:HIS:HB2	46:BT:137:ALA:H	1.86	0.41
78:CA:152:U:H3	78:CA:162:A:H61	1.69	0.41
20:AS:85:SER:HB2	78:CA:1591:C:OP2	2.20	0.41
78:CA:202:A:H2'	78:CA:203:U:C6	2.56	0.41
78:CA:97:C:H2'	78:CA:98:U:C6	2.56	0.41
79:CB:67:G:C2'	79:CB:68:C:H5''	2.51	0.41
81:DA:1002:A:C2	81:DA:1049:C:N3	2.89	0.41
81:DA:1852:G:H2'	81:DA:1853:U:C6	2.56	0.41
74:BQ:26:GLY:C	81:DA:2703:A:H61	2.24	0.41
81:DA:2897:A:N7	81:DA:2899:C:C6	2.89	0.41
35:BG:46:ARG:CG	81:DA:3215:A:N6	2.84	0.41
81:DA:598:A:C2	81:DA:606:C:C2	3.09	0.41
81:DA:664:U:O2'	81:DA:665:A:H5'	2.21	0.41
83:DC:29:C:N3	83:DC:30:G:N7	2.68	0.41
74:BQ:94:ASN:HB3	83:DC:47:C:H5''	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AE:18:ASN:O	6:AE:22:PRO:HD2	2.21	0.41
8:AF:147:THR:OG1	8:AF:160:VAL:HG21	2.21	0.41
14:AM:101:LEU:HD22	78:CA:1566:U:H5''	2.01	0.41
14:AM:44:ASN:HB3	20:AS:44:GLU:HB3	2.03	0.41
32:BC:43:LEU:HD11	32:BC:203:VAL:HG11	2.02	0.41
33:BD:343:LYS:NZ	81:DA:598:A:H4'	2.36	0.41
33:BD:46:LYS:HE3	81:DA:691:A:C2	2.56	0.41
34:BE:22:SER:HB3	81:DA:2680:A:H62	1.86	0.41
36:BF:121:LYS:HE3	81:DA:3035:A:N3	2.36	0.41
36:BF:16:VAL:HG12	36:BF:18:VAL:HG23	2.02	0.41
40:BK:15:LEU:HA	40:BK:15:LEU:HD23	1.96	0.41
40:BK:3:VAL:HG12	40:BK:4:GLU:N	2.30	0.41
44:BO:62:HIS:O	75:BL:146:UNK:CB	2.69	0.41
76:BS:107:GLN:HA	76:BS:110:THR:HG22	2.03	0.41
78:CA:1092:A:O5'	78:CA:1092:A:N3	2.54	0.41
78:CA:145:A:N1	78:CA:169:A:N7	2.69	0.41
78:CA:1171:A:N3	78:CA:1469:A:C2	2.89	0.41
78:CA:16:G:H21	78:CA:1138:A:H62	1.68	0.41
78:CA:297:U:H3'	78:CA:298:C:C5	2.56	0.41
16:AO:114:ARG:NH2	78:CA:941:A:N7	2.68	0.41
31:BB:128:ARG:NH2	81:DA:2157:G:N2	2.69	0.41
81:DA:199:A:C2	81:DA:219:A:C2	3.09	0.41
81:DA:2203:U:H2'	81:DA:2204:C:H6	1.85	0.41
81:DA:2508:U:C6	81:DA:2508:U:H5''	2.49	0.41
81:DA:2612:U:C1'	81:DA:2803:A:H2	2.07	0.41
81:DA:32:U:C4	81:DA:33:G:C5	3.10	0.41
81:DA:3364:C:H2'	81:DA:3365:U:C6	2.56	0.41
83:DC:41:G:H1'	83:DC:44:C:H42	1.86	0.41
2:AA:159:ALA:HB3	6:AE:32:GLU:HG3	2.03	0.40
13:AL:6:PRO:HG2	13:AL:8:GLY:H	1.86	0.40
13:AL:98:GLU:OE1	78:CA:18:C:O3'	2.38	0.40
17:AQ:92:ASP:C	17:AQ:93:LEU:O	2.58	0.40
20:AS:42:GLY:HA3	78:CA:1476:C:HO2'	1.82	0.40
20:AS:15:ILE:HD13	20:AS:56:LYS:HG2	2.03	0.40
22:AV:94:LYS:HG2	22:AV:95:HIS:H	1.85	0.40
30:BA:40:ASN:HD21	30:BA:188:ASN:HD22	1.68	0.40
31:BB:221:LYS:O	81:DA:2245:C:H4'	2.21	0.40
34:BE:110:ILE:HD12	34:BE:111:ASP:OD1	2.19	0.40
37:BH:138:HIS:CE1	81:DA:146:U:O3'	2.74	0.40
74:BQ:130:GLU:HB3	74:BQ:183:TRP:CD1	2.56	0.40
76:BS:74:ILE:CG2	76:BS:145:HIS:HE1	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BV:4:TYR:CE1	49:BV:147:GLU:HB2	2.56	0.40
42:BM:117:PRO:HG3	51:BZ:22:VAL:CG2	2.51	0.40
78:CA:1196:A:C6	78:CA:1601:G:H4'	2.55	0.40
29:AU:17:LEU:HD21	78:CA:419:G:H4'	2.03	0.40
81:DA:1043:C:C5	81:DA:1044:U:C5	3.09	0.40
43:BP:50:ARG:CZ	81:DA:114:A:C2	3.05	0.40
81:DA:1233:G:H1'	81:DA:1256:G:N2	2.36	0.40
81:DA:1768:U:H2'	81:DA:1769:G:C8	2.56	0.40
81:DA:1509:A:H62	81:DA:1879:A:H62	1.69	0.40
81:DA:2133:U:O4	81:DA:2147:A:H2	2.04	0.40
81:DA:2300:G:C6	81:DA:2301:U:C4	3.09	0.40
81:DA:2678:A:N6	81:DA:2679:A:C6	2.89	0.40
81:DA:283:G:C6	81:DA:285:A:C2	3.09	0.40
81:DA:3094:A:O4'	81:DA:3094:A:C8	2.73	0.40
82:DB:37:A:H5'	82:DB:37:A:C8	2.56	0.40
82:DB:45:C:C6	82:DB:45:C:O4'	2.72	0.40
83:DC:107:G:H3'	83:DC:107:G:C8	2.56	0.40
83:DC:23:A:O2'	83:DC:24:A:C4'	2.69	0.40
83:DC:23:A:O2'	83:DC:24:A:H4'	2.21	0.40
83:DC:3:U:C6	83:DC:3:U:H3'	2.56	0.40
83:DC:79:U:H2'	83:DC:80:G:C8	2.56	0.40
2:AA:144:ILE:HG22	2:AA:158:VAL:HG12	2.03	0.40
2:AA:227:GLU:H	2:AA:229:LYS:HD2	1.86	0.40
13:AL:8:GLY:O	13:AL:9:LEU:CG	2.69	0.40
29:AU:7:ILE:HG23	29:AU:25:VAL:CG2	2.52	0.40
31:BB:142:ASP:HB3	31:BB:145:LYS:H	1.85	0.40
32:BC:119:TYR:CE2	32:BC:125:SER:CB	3.04	0.40
32:BC:32:PHE:CD1	32:BC:44:THR:HG21	2.56	0.40
14:AM:22:VAL:CG1	34:BE:115:LYS:HD2	2.40	0.40
36:BF:46:THR:C	41:BN:7:VAL:CG2	2.87	0.40
41:BN:116:GLU:HA	41:BN:119:GLN:NE2	2.36	0.40
45:BR:13:SER:HA	45:BR:14:GLY:HA3	1.73	0.40
41:BN:12:TRP:CB	76:BS:165:LEU:HB2	2.51	0.40
78:CA:1336:A:H3'	78:CA:1337:A:H5''	2.02	0.40
78:CA:1398:U:O4'	78:CA:1398:U:O2	2.36	0.40
78:CA:1554:U:H2'	78:CA:1555:A:C8	2.56	0.40
78:CA:305:C:O4'	78:CA:305:C:C6	2.74	0.40
81:DA:992:A:C2	81:DA:1059:G:N1	2.89	0.40
47:BU:116:ARG:NE	81:DA:1095:U:C4'	2.82	0.40
81:DA:1677:G:H1	81:DA:1691:U:H3	1.69	0.40
81:DA:19:U:H2'	81:DA:20:A:C8	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:2316:G:C6	81:DA:2317:A:C6	3.09	0.40
34:BE:140:ARG:HH22	81:DA:2684:C:H5''	1.86	0.40
81:DA:2770:G:C8	81:DA:2770:G:O4'	2.75	0.40
81:DA:2880:U:O4'	81:DA:2880:U:C6	2.73	0.40
81:DA:422:A:C8	81:DA:422:A:C2'	3.04	0.40
81:DA:851:C:H2'	81:DA:852:U:C6	2.56	0.40
49:BV:132:ALA:HB1	81:DA:880:G:C8	2.55	0.40
82:DB:101:U:H2'	82:DB:102:U:C6	2.56	0.40
4:AD:126:VAL:HG23	4:AD:158:ASP:O	2.21	0.40
14:AM:26:ILE:CG1	14:AM:27:LYS:H	2.34	0.40
19:AR:86:VAL:HG22	19:AR:88:GLU:H	1.86	0.40
20:AS:43:ASN:CA	78:CA:1477:G:C5'	2.99	0.40
21:AT:29:HIS:H	78:CA:875:G:H5''	1.87	0.40
23:AW:62:UNK:HA	78:CA:1800:A:C5'	2.41	0.40
31:BB:204:MET:SD	81:DA:914:A:N9	2.93	0.40
33:BD:323:VAL:HG12	33:BD:324:LEU:N	2.37	0.40
36:BF:45:PHE:C	41:BN:8:LYS:HE2	2.40	0.40
35:BG:65:ILE:HG22	35:BG:77:ARG:N	2.37	0.40
35:BG:69:PHE:HB2	35:BG:73:GLY:HA3	2.03	0.40
40:BK:92:THR:HG23	40:BK:95:GLY:H	1.85	0.40
41:BN:35:ILE:HG23	41:BN:44:VAL:CG1	2.52	0.40
44:BO:75:LEU:HD12	44:BO:81:LEU:HD21	2.02	0.40
44:BO:43:ILE:H	44:BO:84:GLU:HG3	1.85	0.40
74:BQ:20:PHE:CE1	74:BQ:30:TYR:CE1	3.09	0.40
76:BS:151:PHE:HB2	76:BS:153:LEU:N	2.33	0.40
76:BS:33:ALA:HB1	76:BS:38:ARG:HB3	2.03	0.40
78:CA:1754:A:C6	78:CA:1755:A:N6	2.89	0.40
78:CA:1765:A:C2	78:CA:1767:G:C4	3.10	0.40
78:CA:643:G:C6	78:CA:690:G:N2	2.90	0.40
78:CA:893:U:O2'	78:CA:894:U:H5'	2.21	0.40
81:DA:1002:A:H2'	81:DA:1003:A:C5'	2.51	0.40
81:DA:1209:G:C8	81:DA:1210:U:OP1	2.74	0.40
81:DA:1514:G:N1	81:DA:1842:A:H8	2.19	0.40
81:DA:1651:U:H2'	81:DA:1652:G:O5'	2.21	0.40
81:DA:194:U:H3	81:DA:201:A:N6	2.19	0.40
81:DA:2039:C:H2'	81:DA:2040:U:C6	2.56	0.40
78:CA:1747:G:HO2'	81:DA:2303:A:C4'	2.35	0.40
81:DA:2435:G:H2'	81:DA:2436:U:C6	2.56	0.40
37:BH:68:ARG:O	81:DA:2587:U:H5'	2.22	0.40
81:DA:2680:A:O5'	81:DA:2681:U:H5	2.05	0.40
81:DA:2685:C:H2'	81:DA:2686:A:C8	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:DA:3033:A:H2'	81:DA:3034:C:C6	2.57	0.40
81:DA:3370:A:H2'	81:DA:3371:G:C8	2.57	0.40
81:DA:35:A:H2'	81:DA:36:C:C6	2.56	0.40
81:DA:506:U:H2'	81:DA:507:U:C6	2.57	0.40
6:AE:242:ILE:HG13	6:AE:243:TYR:H	1.86	0.40
18:AP:103:ARG:NH2	78:CA:304:U:C4'	2.84	0.40
20:AS:76:LEU:O	20:AS:80:TYR:CE2	2.74	0.40
21:AT:82:VAL:HG12	21:AT:83:TRP:CE3	2.57	0.40
30:BA:184:LEU:C	30:BA:184:LEU:HD23	2.41	0.40
30:BA:61:PRO:HB2	30:BA:63:MET:H	1.87	0.40
31:BB:103:PRO:HA	31:BB:163:ARG:HA	2.04	0.40
33:BD:343:LYS:O	33:BD:346:LYS:HB2	2.21	0.40
35:BG:146:ILE:HD11	41:BN:115:PHE:CD2	2.57	0.40
35:BG:28:GLN:CG	35:BG:29:LYS:H	2.33	0.40
40:BK:28:LEU:HA	40:BK:28:LEU:HD23	1.98	0.40
44:BO:141:ALA:HB1	75:BL:80:UNK:O	2.22	0.40
42:BM:27:ASP:HB3	42:BM:101:VAL:HG12	2.04	0.40
74:BQ:21:ARG:HH22	81:DA:122:A:H5'	146.55	0.40
49:BV:122:ALA:O	82:DB:14:C:H4'	2.22	0.40
52:BY:56:VAL:HG21	52:BY:104:LEU:HD23	2.03	0.40
78:CA:620:A:H2	78:CA:1108:G:N3	2.20	0.40
78:CA:1185:U:H4'	78:CA:1186:U:H5''	2.01	0.40
78:CA:1346:A:H61	78:CA:1379:C:N4	2.19	0.40
78:CA:1601:G:H1'	78:CA:1602:C:C5	2.57	0.40
78:CA:175:G:C8	78:CA:175:G:H5''	2.55	0.40
78:CA:954:G:H2'	78:CA:955:A:H5'	2.04	0.40
81:DA:1572:U:C5	81:DA:1573:G:C5	3.09	0.40
81:DA:1689:U:C2	81:DA:1690:C:C6	3.09	0.40
42:BM:51:ALA:CB	81:DA:1795:U:O4	76.89	0.40
81:DA:2171:G:C6	81:DA:2172:A:N7	2.89	0.40
81:DA:2465:G:H2'	81:DA:2466:G:H5'	2.04	0.40
81:DA:299:G:C6	81:DA:300:G:C5	3.09	0.40
81:DA:836:A:N6	81:DA:857:G:O2'	2.53	0.40
2:AA:135:GLU:O	2:AA:139:VAL:HG23	2.21	0.40
3:AB:133:GLY:HA3	3:AB:157:LEU:HB2	2.02	0.40
3:AB:176:LEU:HD13	78:CA:1437:U:H5'	2.04	0.40
3:AB:59:LEU:HD11	3:AB:86:LEU:HD22	2.04	0.40
5:AC:92:LYS:HD3	5:AC:121:SER:OG	2.21	0.40
4:AD:103:TYR:HB3	4:AD:189:LEU:HD22	2.02	0.40
4:AD:131:LEU:HA	4:AD:132:GLY:HA2	1.89	0.40
6:AE:84:LYS:HB3	6:AE:86:VAL:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AM:12:GLN:NE2	34:BE:116:TYR:OH	2.48	0.40
16:AO:39:LYS:HE2	24:AX:32:PHE:CZ	2.57	0.40
20:AS:88:VAL:H	20:AS:90:PRO:HD2	1.86	0.40
31:BB:205:ASN:HB3	31:BB:206:PRO:HD2	2.04	0.40
35:BG:69:PHE:CE1	35:BG:100:LYS:C	2.95	0.40
35:BG:81:ALA:HA	35:BG:140:VAL:HB	2.03	0.40
40:BK:7:VAL:HG21	40:BK:31:GLN:HB3	2.03	0.40
74:BQ:74:VAL:CG1	83:DC:5:G:N2	2.80	0.40
45:BR:54:LEU:HD12	45:BR:58:ASN:ND2	2.37	0.40
19:AR:130:ARG:HD2	78:CA:1557:U:C3'	2.51	0.40
81:DA:1292:C:H2'	81:DA:1293:U:H6	1.86	0.40
81:DA:1615:C:H2'	81:DA:1616:U:C6	2.56	0.40
81:DA:1679:A:C2	81:DA:1690:C:O2	2.75	0.40
81:DA:1821:U:O4'	81:DA:1821:U:C6	2.75	0.40
81:DA:1508:C:C5	81:DA:1879:A:N3	2.89	0.40
33:BD:182:LEU:HG	81:DA:212:G:H1	1.87	0.40
81:DA:2604:U:C4	81:DA:2605:G:C5	3.10	0.40
81:DA:2880:U:H2'	81:DA:2881:C:C6	2.56	0.40
81:DA:3025:C:C2'	81:DA:3026:G:H5'	2.52	0.40
33:BD:360:LYS:HG2	81:DA:519:A:C5'	2.52	0.40
81:DA:531:G:C2	81:DA:532:A:C2	3.09	0.40
82:DB:92:A:C2'	82:DB:93:U:H5'	2.51	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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	
1	Aa	317/319 (99%)	274 (86%)	23 (7%)	20 (6%)	1	22
2	AA	250/252 (99%)	199 (80%)	21 (8%)	30 (12%)	0	7
3	AB	202/240 (84%)	137 (68%)	30 (15%)	35 (17%)	0	4

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	AD	198/261 (76%)	160 (81%)	17 (9%)	21 (11%)	0	10
5	AC	192/197 (98%)	136 (71%)	28 (15%)	28 (15%)	0	5
6	AE	252/254 (99%)	176 (70%)	36 (14%)	40 (16%)	0	4
8	AF	197/225 (88%)	170 (86%)	9 (5%)	18 (9%)	1	15
9	AH	128/130 (98%)	95 (74%)	17 (13%)	16 (12%)	0	7
10	AI	124/143 (87%)	84 (68%)	16 (13%)	24 (19%)	0	3
11	AJ	108/121 (89%)	92 (85%)	8 (7%)	8 (7%)	1	18
12	AK	117/137 (85%)	81 (69%)	9 (8%)	27 (23%)	0	2
13	AL	143/145 (99%)	100 (70%)	22 (15%)	21 (15%)	0	5
14	AM	138/146 (94%)	107 (78%)	21 (15%)	10 (7%)	1	19
15	AN	46/56 (82%)	31 (67%)	2 (4%)	13 (28%)	0	0
16	AO	119/151 (79%)	95 (80%)	12 (10%)	12 (10%)	1	12
17	AQ	134/136 (98%)	90 (67%)	22 (16%)	22 (16%)	0	4
18	AP	83/156 (53%)	65 (78%)	12 (14%)	6 (7%)	1	19
19	AR	86/142 (61%)	64 (74%)	10 (12%)	12 (14%)	0	5
20	AS	142/144 (99%)	118 (83%)	8 (6%)	16 (11%)	0	8
21	AT	85/87 (98%)	66 (78%)	10 (12%)	9 (11%)	0	10
22	AV	83/108 (77%)	66 (80%)	7 (8%)	10 (12%)	0	7
24	AX	48/82 (58%)	37 (77%)	7 (15%)	4 (8%)	1	16
25	AY	58/67 (87%)	46 (79%)	7 (12%)	5 (9%)	1	15
26	AZ	61/63 (97%)	41 (67%)	6 (10%)	14 (23%)	0	2
29	AU	94/135 (70%)	62 (66%)	14 (15%)	18 (19%)	0	3
30	BA	215/217 (99%)	194 (90%)	11 (5%)	10 (5%)	3	28
31	BB	252/254 (99%)	208 (82%)	18 (7%)	26 (10%)	0	11
32	BC	386/388 (100%)	316 (82%)	33 (8%)	37 (10%)	1	13
33	BD	325/362 (90%)	250 (77%)	34 (10%)	41 (13%)	0	7
34	BE	166/174 (95%)	136 (82%)	11 (7%)	19 (11%)	0	8
35	BG	174/176 (99%)	108 (62%)	15 (9%)	51 (29%)	0	0
36	BF	189/191 (99%)	173 (92%)	13 (7%)	3 (2%)	11	51
37	BH	195/256 (76%)	156 (80%)	18 (9%)	21 (11%)	0	10
38	Bs	255/312 (82%)	224 (88%)	16 (6%)	15 (6%)	2	23

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
39	BJ	125/165 (76%)	107 (86%)	11 (9%)	7 (6%)	2	25
40	BK	197/199 (99%)	161 (82%)	15 (8%)	21 (11%)	0	10
41	BN	136/138 (99%)	104 (76%)	14 (10%)	18 (13%)	0	6
42	BM	129/137 (94%)	124 (96%)	5 (4%)	0	100	100
43	BP	191/204 (94%)	168 (88%)	14 (7%)	9 (5%)	3	28
44	BO	147/149 (99%)	100 (68%)	24 (16%)	23 (16%)	0	4
45	BR	159/186 (86%)	116 (73%)	22 (14%)	21 (13%)	0	6
46	BT	187/189 (99%)	163 (87%)	14 (8%)	10 (5%)	2	26
47	BU	158/160 (99%)	144 (91%)	7 (4%)	7 (4%)	3	29
48	BW	103/121 (85%)	79 (77%)	15 (15%)	9 (9%)	1	15
49	BV	168/170 (99%)	135 (80%)	20 (12%)	13 (8%)	1	18
50	BX	120/142 (84%)	95 (79%)	11 (9%)	14 (12%)	0	8
51	BZ	71/155 (46%)	48 (68%)	13 (18%)	10 (14%)	0	5
52	BY	121/123 (98%)	115 (95%)	2 (2%)	4 (3%)	4	35
53	Ba	93/136 (68%)	62 (67%)	15 (16%)	16 (17%)	0	4
54	Bd	20/59 (34%)	19 (95%)	1 (5%)	0	100	100
55	Bc	116/120 (97%)	92 (79%)	11 (10%)	13 (11%)	0	9
56	Bf	103/105 (98%)	91 (88%)	7 (7%)	5 (5%)	2	27
57	Be	237/244 (97%)	213 (90%)	14 (6%)	10 (4%)	3	30
58	Bg	108/113 (96%)	95 (88%)	4 (4%)	9 (8%)	1	16
59	Bh	128/130 (98%)	115 (90%)	7 (6%)	6 (5%)	3	28
60	Bi	116/118 (98%)	76 (66%)	13 (11%)	27 (23%)	0	2
61	Bj	98/107 (92%)	66 (67%)	15 (15%)	17 (17%)	0	4
62	Bk	75/100 (75%)	61 (81%)	6 (8%)	8 (11%)	0	10
63	Bm	90/92 (98%)	78 (87%)	10 (11%)	2 (2%)	8	44
64	Bl	86/88 (98%)	65 (76%)	14 (16%)	7 (8%)	1	16
65	Bn	76/78 (97%)	56 (74%)	10 (13%)	10 (13%)	0	6
66	Bo	49/51 (96%)	38 (78%)	3 (6%)	8 (16%)	0	4
67	Bp	38/52 (73%)	28 (74%)	7 (18%)	3 (8%)	1	17
68	Bq	23/25 (92%)	21 (91%)	1 (4%)	1 (4%)	3	29
69	Br	104/106 (98%)	71 (68%)	14 (14%)	19 (18%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
72	Bt	56/106 (53%)	53 (95%)	0	3 (5%)	2	25
72	Bu	56/106 (53%)	53 (95%)	0	3 (5%)	2	25
73	Bv	56/106 (53%)	53 (95%)	1 (2%)	2 (4%)	4	33
73	Bw	56/106 (53%)	53 (95%)	1 (2%)	2 (4%)	4	33
74	BQ	295/297 (99%)	232 (79%)	27 (9%)	36 (12%)	0	7
76	BS	165/167 (99%)	116 (70%)	15 (9%)	34 (21%)	0	2
77	BI	179/221 (81%)	135 (75%)	23 (13%)	21 (12%)	0	8
All	All	9997/11298 (88%)	7958 (80%)	949 (10%)	1090 (11%)	1	10

All (1090) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	Aa	29	GLN
1	Aa	51	ASP
1	Aa	55	GLY
1	Aa	57	PRO
1	Aa	84	SER
1	Aa	129	LYS
1	Aa	160	GLU
1	Aa	246	SER
1	Aa	281	TYR
1	Aa	285	ALA
2	AA	4	PRO
2	AA	6	THR
2	AA	10	THR
2	AA	11	PRO
2	AA	43	ASP
2	AA	97	PRO
2	AA	195	TRP
2	AA	201	LEU
2	AA	232	VAL
2	AA	250	VAL
3	AB	30	ALA
3	AB	32	GLU
3	AB	36	GLY
3	AB	62	ASN
3	AB	78	LYS
3	AB	113	LEU
3	AB	141	LYS
3	AB	152	PHE

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Mol	Chain	Res	Type
3	AB	156	PHE
3	AB	184	ILE
3	AB	189	MET
3	AB	190	ARG
3	AB	199	PRO
3	AB	209	ILE
3	AB	211	PRO
3	AB	213	GLU
3	AB	214	GLU
4	AD	53	LYS
4	AD	96	ASN
4	AD	133	LYS
4	AD	137	PRO
4	AD	149	TYR
4	AD	151	ASP
4	AD	154	ILE
4	AD	215	ASP
4	AD	233	LYS
4	AD	234	PRO
4	AD	236	ILE
4	AD	239	PRO
5	AC	15	PRO
5	AC	17	ARG
5	AC	18	PRO
5	AC	39	LYS
5	AC	56	ALA
5	AC	145	SER
5	AC	148	VAL
5	AC	152	SER
5	AC	159	ALA
5	AC	168	ARG
5	AC	170	GLY
5	AC	184	SER
5	AC	186	GLU
5	AC	187	ALA
5	AC	188	ALA
5	AC	189	ASP
5	AC	192	ASP
6	AE	4	PRO
6	AE	7	GLN
6	AE	13	GLY
6	AE	14	PHE

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Mol	Chain	Res	Type
6	AE	43	ARG
6	AE	50	ILE
6	AE	51	THR
6	AE	67	GLN
6	AE	68	ILE
6	AE	70	ASP
6	AE	72	LEU
6	AE	84	LYS
6	AE	99	LYS
6	AE	108	ASN
6	AE	120	GLU
6	AE	125	ILE
6	AE	224	PHE
6	AE	242	ILE
6	AE	243	TYR
6	AE	244	SER
6	AE	251	LYS
8	AF	29	ILE
8	AF	30	PRO
8	AF	36	ALA
8	AF	37	GLN
8	AF	66	GLN
8	AF	68	ILE
8	AF	71	ALA
8	AF	161	ASP
8	AF	163	SER
9	AH	43	LYS
9	AH	53	ILE
9	AH	65	LEU
9	AH	66	ASN
9	AH	81	VAL
9	AH	84	GLY
9	AH	108	ALA
10	AI	30	LYS
10	AI	39	VAL
10	AI	55	VAL
10	AI	70	THR
10	AI	84	ALA
10	AI	85	ILE
10	AI	86	ALA
10	AI	87	LYS
10	AI	108	ALA

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Mol	Chain	Res	Type
10	AI	118	ILE
10	AI	121	SER
10	AI	122	ARG
10	AI	123	ARG
10	AI	136	SER
10	AI	138	PHE
11	AJ	51	VAL
11	AJ	96	PRO
12	AK	22	SER
12	AK	39	ILE
12	AK	40	ALA
12	AK	53	ASP
12	AK	59	ALA
12	AK	60	ALA
12	AK	62	LEU
12	AK	80	HIS
12	AK	81	VAL
12	AK	84	ARG
12	AK	121	VAL
12	AK	122	PRO
12	AK	127	ARG
12	AK	128	LYS
12	AK	129	LYS
13	AL	9	LEU
13	AL	37	ALA
13	AL	81	LYS
13	AL	87	VAL
13	AL	99	ASN
13	AL	116	ASP
13	AL	121	ARG
13	AL	123	LYS
13	AL	132	LEU
13	AL	134	ALA
14	AM	8	GLN
14	AM	93	THR
14	AM	102	ALA
14	AM	141	THR
15	AN	10	HIS
15	AN	11	PRO
15	AN	14	TYR
15	AN	34	TYR
15	AN	47	ALA

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Mol	Chain	Res	Type
15	AN	52	PHE
16	AO	43	LYS
16	AO	58	HIS
16	AO	81	ALA
17	AQ	4	VAL
17	AQ	27	ASP
17	AQ	71	PHE
17	AQ	74	GLN
17	AQ	78	ARG
17	AQ	88	VAL
17	AQ	117	LEU
17	AQ	133	ARG
17	AQ	135	ARG
18	AP	55	ASP
18	AP	119	VAL
19	AR	62	ALA
19	AR	79	HIS
19	AR	107	ILE
19	AR	134	THR
20	AS	27	LYS
20	AS	37	VAL
20	AS	69	LYS
20	AS	79	LEU
20	AS	83	ALA
20	AS	88	VAL
20	AS	90	PRO
20	AS	91	TYR
20	AS	96	ALA
21	AT	29	HIS
21	AT	34	ILE
21	AT	45	ALA
21	AT	55	LEU
21	AT	68	SER
22	AV	26	LYS
22	AV	30	LYS
22	AV	31	SER
22	AV	105	THR
22	AV	106	ALA
24	AX	66	PRO
24	AX	67	THR
24	AX	77	THR
25	AY	18	ARG

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Mol	Chain	Res	Type
25	AY	26	THR
26	AZ	18	THR
26	AZ	27	PRO
26	AZ	46	ASN
26	AZ	57	ASN
26	AZ	58	PRO
26	AZ	60	PRO
26	AZ	61	SER
29	AU	5	VAL
29	AU	6	THR
29	AU	19	ALA
29	AU	32	ARG
29	AU	49	LYS
29	AU	52	LYS
29	AU	63	GLN
29	AU	94	TYR
30	BA	21	ASN
30	BA	74	VAL
30	BA	135	PRO
30	BA	151	VAL
31	BB	27	ALA
31	BB	63	PHE
31	BB	67	TYR
31	BB	68	LYS
31	BB	71	LEU
31	BB	73	GLU
31	BB	128	ARG
31	BB	227	ARG
31	BB	241	ARG
31	BB	244	GLY
31	BB	246	LEU
31	BB	247	ARG
31	BB	249	SER
31	BB	253	GLN
32	BC	5	LYS
32	BC	60	LEU
32	BC	61	ASP
32	BC	127	LYS
32	BC	137	TYR
32	BC	158	VAL
32	BC	259	HIS
32	BC	292	ALA

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Mol	Chain	Res	Type
32	BC	296	THR
32	BC	345	ASN
32	BC	349	LYS
32	BC	352	GLU
32	BC	355	SER
32	BC	371	GLN
33	BD	11	LEU
33	BD	15	ALA
33	BD	49	ALA
33	BD	84	ARG
33	BD	89	ALA
33	BD	100	PHE
33	BD	102	PRO
33	BD	103	THR
33	BD	104	LYS
33	BD	106	TRP
33	BD	109	TRP
33	BD	142	VAL
33	BD	144	LYS
33	BD	146	PRO
33	BD	173	GLY
33	BD	196	ASN
33	BD	298	ALA
33	BD	300	ARG
33	BD	315	LYS
33	BD	317	PRO
33	BD	319	LYS
33	BD	321	LYS
33	BD	323	VAL
33	BD	329	PRO
33	BD	330	TYR
33	BD	350	LYS
33	BD	351	PRO
33	BD	354	VAL
33	BD	355	PHE
33	BD	356	THR
34	BE	5	ALA
34	BE	9	MET
34	BE	25	GLU
34	BE	52	TYR
34	BE	53	THR
34	BE	54	VAL

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Mol	Chain	Res	Type
34	BE	59	ILE
34	BE	61	ARG
34	BE	89	TYR
34	BE	111	ASP
34	BE	122	ILE
35	BG	2	SER
35	BG	4	GLN
35	BG	10	TYR
35	BG	11	PRO
35	BG	15	VAL
35	BG	18	LEU
35	BG	27	PRO
35	BG	35	VAL
35	BG	61	ASN
35	BG	69	PHE
35	BG	75	PRO
35	BG	76	LEU
35	BG	81	ALA
35	BG	88	SER
35	BG	98	VAL
35	BG	99	GLU
35	BG	103	VAL
35	BG	139	LYS
35	BG	140	VAL
35	BG	141	VAL
35	BG	143	LYS
35	BG	145	LEU
35	BG	151	LYS
35	BG	152	THR
35	BG	153	PRO
35	BG	155	LEU
35	BG	171	PRO
36	BF	141	LYS
37	BH	62	LYS
37	BH	63	LYS
37	BH	65	LEU
37	BH	73	PRO
37	BH	88	ALA
37	BH	89	GLU
37	BH	96	LYS
37	BH	123	GLN
37	BH	124	ASP

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Mol	Chain	Res	Type
37	BH	126	SER
37	BH	129	PRO
37	BH	232	HIS
37	BH	233	TRP
37	BH	237	ILE
38	Bs	60	ARG
38	Bs	70	LEU
38	Bs	71	PRO
38	Bs	73	PHE
38	Bs	83	ASN
38	Bs	124	VAL
38	Bs	179	SER
38	Bs	180	PRO
38	Bs	231	THR
39	BJ	37	LEU
39	BJ	51	LYS
39	BJ	75	PRO
39	BJ	76	SER
40	BK	5	PRO
40	BK	66	LYS
40	BK	70	PRO
40	BK	121	PRO
40	BK	127	LEU
40	BK	129	LEU
40	BK	130	LYS
40	BK	131	PRO
40	BK	185	ALA
40	BK	188	SER
40	BK	189	ASP
40	BK	198	GLY
41	BN	6	ILE
41	BN	14	LEU
41	BN	27	GLN
41	BN	29	ALA
41	BN	51	ALA
41	BN	63	VAL
41	BN	72	LEU
41	BN	73	PRO
41	BN	90	VAL
41	BN	98	SER
41	BN	101	LYS
41	BN	112	LEU

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Mol	Chain	Res	Type
41	BN	137	LYS
43	BP	14	LYS
43	BP	44	ARG
43	BP	51	LEU
43	BP	52	GLY
43	BP	120	TRP
43	BP	123	GLN
44	BO	2	PRO
44	BO	15	VAL
44	BO	22	ILE
44	BO	58	MET
44	BO	92	LYS
44	BO	95	SER
44	BO	97	GLU
44	BO	99	ALA
44	BO	101	VAL
45	BR	4	ASP
45	BR	15	HIS
45	BR	16	ARG
45	BR	20	LYS
45	BR	78	ASN
45	BR	95	GLU
45	BR	122	ILE
45	BR	141	ARG
45	BR	144	ARG
45	BR	149	ALA
45	BR	155	MET
46	BT	55	VAL
46	BT	59	SER
46	BT	74	ARG
46	BT	82	LYS
46	BT	91	SER
46	BT	115	ILE
47	BU	4	SER
47	BU	69	LYS
47	BU	137	GLU
47	BU	140	ILE
47	BU	142	SER
48	BW	23	THR
48	BW	46	ALA
49	BV	70	THR
49	BV	111	LYS

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Mol	Chain	Res	Type
49	BV	122	ALA
49	BV	163	LYS
49	BV	164	LYS
49	BV	166	VAL
50	BX	24	LEU
50	BX	42	ARG
50	BX	50	ALA
51	BZ	49	ILE
51	BZ	55	PHE
51	BZ	59	HIS
51	BZ	60	LYS
51	BZ	63	ILE
51	BZ	67	VAL
51	BZ	70	LYS
51	BZ	72	SER
52	BY	9	SER
52	BY	11	ASP
52	BY	22	ALA
53	Ba	10	VAL
53	Ba	11	ALA
53	Ba	13	VAL
53	Ba	17	ARG
53	Ba	20	GLY
53	Ba	27	LYS
53	Ba	28	PRO
53	Ba	31	GLU
53	Ba	35	SER
53	Ba	37	PRO
53	Ba	54	THR
55	Bc	38	ARG
55	Bc	39	PRO
55	Bc	40	SER
55	Bc	102	GLU
55	Bc	103	LYS
55	Bc	104	GLN
55	Bc	107	LYS
55	Bc	109	ILE
55	Bc	112	PRO
56	Bf	4	VAL
56	Bf	98	SER
57	Be	82	LYS
57	Be	98	LYS

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Mol	Chain	Res	Type
57	Be	134	VAL
57	Be	172	ASN
58	Bg	2	ALA
58	Bg	64	VAL
58	Bg	65	LYS
58	Bg	79	ARG
58	Bg	91	SER
58	Bg	107	VAL
60	Bi	11	ASN
60	Bi	12	PRO
60	Bi	18	ASN
60	Bi	19	LYS
60	Bi	37	LYS
60	Bi	42	PRO
60	Bi	43	LYS
60	Bi	44	CYS
60	Bi	57	LEU
60	Bi	65	VAL
60	Bi	67	LYS
60	Bi	68	THR
60	Bi	79	SER
60	Bi	80	ARG
60	Bi	102	LYS
60	Bi	107	GLU
61	Bj	2	ALA
61	Bj	3	GLU
61	Bj	4	SER
61	Bj	6	ARG
61	Bj	9	VAL
61	Bj	21	ARG
61	Bj	25	PRO
61	Bj	35	VAL
61	Bj	38	PRO
61	Bj	57	LYS
61	Bj	87	ASN
61	Bj	96	ALA
62	Bk	26	ILE
62	Bk	51	SER
62	Bk	52	PRO
62	Bk	54	GLU
63	Bm	6	LYS
63	Bm	17	ARG

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Mol	Chain	Res	Type
64	Bl	11	ARG
64	Bl	12	HIS
64	Bl	63	ARG
64	Bl	84	SER
64	Bl	85	LYS
64	Bl	86	ALA
65	Bn	29	LYS
65	Bn	34	ALA
65	Bn	36	LYS
65	Bn	50	SER
65	Bn	53	THR
65	Bn	72	THR
66	Bo	2	ALA
66	Bo	34	THR
66	Bo	35	ILE
66	Bo	38	ASN
67	Bp	51	LEU
69	Br	33	ALA
69	Br	34	SER
69	Br	48	SER
69	Br	56	PRO
69	Br	58	PHE
69	Br	59	HIS
69	Br	62	ALA
69	Br	64	THR
69	Br	96	GLU
69	Br	97	LYS
69	Br	102	GLN
72	Bt	61	PHE
72	Bu	61	PHE
73	Bv	17	PRO
73	Bw	17	PRO
74	BQ	10	SER
74	BQ	54	ARG
74	BQ	88	ILE
74	BQ	116	ASP
74	BQ	118	THR
74	BQ	144	VAL
74	BQ	159	VAL
74	BQ	198	TYR
74	BQ	199	ILE
74	BQ	218	ARG

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Mol	Chain	Res	Type
74	BQ	236	LEU
74	BQ	238	ASP
74	BQ	239	ILE
74	BQ	242	SER
74	BQ	243	ALA
74	BQ	245	GLU
74	BQ	258	LYS
74	BQ	285	ARG
74	BQ	286	VAL
74	BQ	289	LYS
74	BQ	293	LEU
76	BS	4	PHE
76	BS	6	PHE
76	BS	17	PRO
76	BS	19	PRO
76	BS	23	HIS
76	BS	35	ASN
76	BS	54	LYS
76	BS	68	GLU
76	BS	71	PRO
76	BS	72	THR
76	BS	73	THR
76	BS	87	THR
76	BS	120	PHE
76	BS	121	PRO
76	BS	123	ILE
76	BS	124	GLN
76	BS	138	ARG
76	BS	151	PHE
76	BS	152	PRO
76	BS	156	ARG
76	BS	157	LYS
76	BS	158	VAL
76	BS	159	ARG
77	BI	4	ARG
77	BI	5	PRO
77	BI	18	PRO
77	BI	108	ALA
77	BI	109	ASP
77	BI	112	GLN
77	BI	113	GLN
77	BI	115	MET

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Mol	Chain	Res	Type
1	Aa	58	VAL
1	Aa	240	VAL
1	Aa	283	LYS
2	AA	13	ASP
2	AA	15	GLN
2	AA	16	LEU
2	AA	21	ASN
2	AA	210	VAL
2	AA	230	GLU
3	AB	48	VAL
3	AB	63	GLY
3	AB	173	ARG
3	AB	183	GLY
3	AB	208	ILE
4	AD	94	ALA
4	AD	189	LEU
4	AD	213	SER
5	AC	14	THR
5	AC	19	TYR
5	AC	84	GLY
5	AC	116	LEU
5	AC	154	LYS
5	AC	165	GLY
6	AE	28	ARG
6	AE	42	GLY
6	AE	83	ILE
6	AE	100	ALA
6	AE	110	HIS
6	AE	178	ILE
8	AF	67	PRO
8	AF	72	HIS
8	AF	79	ASN
9	AH	67	GLY
9	AH	99	PHE
9	AH	121	VAL
10	AI	75	VAL
11	AJ	59	PRO
11	AJ	73	GLY
11	AJ	79	TRP
12	AK	63	ALA
12	AK	75	GLY
12	AK	76	ILE

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Mol	Chain	Res	Type
12	AK	120	PRO
12	AK	124	ASP
12	AK	126	THR
12	AK	131	GLY
13	AL	28	ASN
13	AL	30	LYS
13	AL	34	LEU
13	AL	88	PRO
13	AL	102	VAL
13	AL	120	VAL
13	AL	130	VAL
14	AM	85	PHE
15	AN	13	ARG
15	AN	33	LYS
15	AN	38	ILE
15	AN	48	ASN
15	AN	55	PHE
16	AO	80	LEU
16	AO	112	LYS
16	AO	147	SER
17	AQ	6	THR
17	AQ	62	GLN
17	AQ	67	ARG
17	AQ	72	LYS
17	AQ	73	LEU
17	AQ	82	ASP
17	AQ	94	SER
17	AQ	121	VAL
17	AQ	127	GLN
18	AP	75	VAL
18	AP	108	PRO
19	AR	65	LEU
19	AR	66	ALA
20	AS	71	VAL
22	AV	42	LEU
22	AV	99	ALA
26	AZ	16	SER
26	AZ	62	VAL
29	AU	18	LEU
29	AU	31	ASN
29	AU	54	ALA
30	BA	99	LEU

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Mol	Chain	Res	Type
30	BA	168	ALA
30	BA	198	TRP
30	BA	199	GLN
31	BB	11	GLY
31	BB	30	ARG
31	BB	35	ALA
31	BB	74	GLU
31	BB	140	ASN
32	BC	70	ARG
32	BC	97	ARG
32	BC	124	LYS
32	BC	138	ALA
32	BC	139	GLN
32	BC	344	THR
32	BC	346	THR
32	BC	367	LYS
32	BC	381	GLY
33	BD	12	THR
33	BD	53	SER
33	BD	78	GLY
33	BD	172	VAL
33	BD	326	ARG
33	BD	339	LEU
33	BD	352	ALA
34	BE	56	THR
35	BG	7	PRO
35	BG	13	GLU
35	BG	14	ASP
35	BG	19	LYS
35	BG	36	PRO
35	BG	71	VAL
35	BG	82	ARG
35	BG	97	ASN
35	BG	142	ASP
35	BG	146	ILE
35	BG	154	LEU
37	BH	66	SER
37	BH	238	LEU
38	Bs	49	ALA
38	Bs	206	ASP
38	Bs	253	ALA
39	BJ	32	ILE

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Mol	Chain	Res	Type
39	BJ	77	ALA
40	BK	3	VAL
40	BK	68	ARG
40	BK	184	THR
43	BP	166	ALA
44	BO	7	LYS
44	BO	8	THR
44	BO	61	PHE
44	BO	63	LYS
44	BO	68	PHE
44	BO	105	LEU
44	BO	106	ALA
45	BR	3	ILE
45	BR	11	LYS
45	BR	75	GLY
45	BR	123	THR
45	BR	124	LEU
45	BR	146	SER
47	BU	80	VAL
48	BW	86	LYS
48	BW	96	VAL
49	BV	38	GLY
49	BV	169	THR
50	BX	36	LYS
50	BX	37	THR
50	BX	45	LYS
50	BX	52	PRO
50	BX	57	LEU
50	BX	58	ASP
51	BZ	66	GLU
53	Ba	15	ARG
53	Ba	16	GLY
53	Ba	19	ALA
55	Bc	94	LYS
56	Bf	6	SER
56	Bf	65	THR
57	Be	75	TYR
57	Be	77	VAL
57	Be	107	ARG
58	Bg	92	TYR
59	Bh	19	ARG
60	Bi	34	HIS

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Mol	Chain	Res	Type
60	Bi	35	VAL
60	Bi	55	SER
60	Bi	69	HIS
60	Bi	106	LYS
61	Bj	99	ARG
62	Bk	30	LYS
62	Bk	68	ARG
65	Bn	57	ASN
66	Bo	39	ALA
66	Bo	47	THR
67	Bp	15	CYS
69	Br	29	LYS
69	Br	63	LYS
69	Br	89	LYS
72	Bt	18	GLU
72	Bt	34	ASN
72	Bu	18	GLU
72	Bu	34	ASN
73	Bv	18	ASP
73	Bw	18	ASP
74	BQ	112	ARG
74	BQ	122	VAL
74	BQ	129	TYR
74	BQ	130	GLU
74	BQ	200	PHE
74	BQ	234	ASP
76	BS	3	ALA
76	BS	22	GLU
76	BS	52	LYS
76	BS	86	ARG
76	BS	125	ILE
76	BS	165	LEU
76	BS	166	LYS
77	BI	28	ASP
77	BI	103	LEU
77	BI	106	ALA
77	BI	107	GLY
77	BI	117	GLY
1	Aa	31	ASN
1	Aa	95	ALA
1	Aa	236	ALA
1	Aa	317	THR

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Mol	Chain	Res	Type
2	AA	9	LEU
2	AA	67	ILE
2	AA	185	ARG
2	AA	196	SER
2	AA	212	GLN
2	AA	231	GLU
3	AB	64	ARG
3	AB	98	ALA
3	AB	157	LEU
4	AD	95	THR
5	AC	37	LYS
5	AC	151	ASP
5	AC	195	ASP
6	AE	10	LYS
6	AE	238	SER
6	AE	241	ASP
9	AH	18	GLU
9	AH	80	ASN
9	AH	97	ARG
10	AI	26	LYS
10	AI	35	PRO
10	AI	58	ASP
10	AI	124	PRO
10	AI	126	PRO
10	AI	140	LYS
11	AJ	18	GLN
11	AJ	23	ARG
11	AJ	71	PRO
12	AK	96	PRO
13	AL	70	LYS
15	AN	16	LYS
16	AO	67	THR
16	AO	79	GLY
16	AO	86	GLU
17	AQ	26	LEU
17	AQ	68	GLY
17	AQ	102	VAL
18	AP	59	PRO
19	AR	54	ALA
19	AR	61	ARG
19	AR	63	ALA
21	AT	54	ALA

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Mol	Chain	Res	Type
21	AT	82	VAL
22	AV	27	TRP
25	AY	19	THR
26	AZ	19	PRO
26	AZ	24	THR
26	AZ	47	VAL
29	AU	17	LEU
29	AU	34	ASN
30	BA	137	PRO
31	BB	32	LEU
31	BB	38	HIS
32	BC	130	PHE
32	BC	169	THR
32	BC	319	ASN
32	BC	354	VAL
32	BC	370	PHE
33	BD	18	ASN
34	BE	30	LEU
34	BE	88	GLU
35	BG	12	SER
35	BG	34	LEU
35	BG	47	PHE
35	BG	84	VAL
35	BG	96	VAL
35	BG	129	GLU
35	BG	150	LYS
35	BG	172	HIS
37	BH	130	TYR
38	Bs	6	GLU
40	BK	186	ALA
40	BK	187	GLU
41	BN	4	ASP
41	BN	10	SER
41	BN	89	ALA
43	BP	125	SER
44	BO	28	HIS
44	BO	96	LYS
45	BR	151	ARG
45	BR	159	LYS
47	BU	78	LYS
49	BV	74	LYS
49	BV	153	LYS

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Mol	Chain	Res	Type
50	BX	35	PRO
51	BZ	58	HIS
53	Ba	59	ALA
55	Bc	37	SER
55	Bc	85	THR
55	Bc	92	LEU
59	Bh	50	ILE
60	Bi	59	PRO
61	Bj	5	HIS
61	Bj	46	GLY
62	Bk	53	TYR
62	Bk	55	ARG
66	Bo	40	LYS
69	Br	57	VAL
69	Br	90	HIS
69	Br	99	GLN
74	BQ	4	GLN
74	BQ	111	GLN
74	BQ	141	PRO
74	BQ	158	ARG
74	BQ	188	GLU
76	BS	70	ASN
76	BS	130	THR
77	BI	14	ASN
77	BI	23	ASN
77	BI	84	ALA
77	BI	93	PRO
77	BI	104	SER
77	BI	174	THR
2	AA	28	ASN
2	AA	208	GLU
3	AB	93	ASP
3	AB	99	VAL
3	AB	149	ALA
3	AB	192	PRO
3	AB	197	THR
4	AD	163	ASP
4	AD	231	GLN
5	AC	38	ASN
5	AC	160	PRO
6	AE	17	ARG
6	AE	41	LEU

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Mol	Chain	Res	Type
6	AE	82	ASN
6	AE	109	GLY
6	AE	140	ARG
6	AE	253	ARG
8	AF	88	PRO
8	AF	99	MET
9	AH	50	PHE
9	AH	111	MET
9	AH	120	HIS
10	AI	25	GLY
10	AI	132	LYS
12	AK	20	TYR
12	AK	94	PRO
12	AK	123	SER
13	AL	57	LEU
14	AM	76	PRO
14	AM	82	PRO
14	AM	97	ASP
16	AO	109	LYS
19	AR	64	LYS
20	AS	30	VAL
20	AS	31	PRO
20	AS	68	ARG
22	AV	94	LYS
25	AY	9	LEU
26	AZ	40	TYR
29	AU	2	SER
31	BB	34	TYR
31	BB	36	GLU
31	BB	66	PRO
32	BC	40	PRO
32	BC	95	THR
32	BC	129	ALA
32	BC	347	SER
32	BC	385	LYS
32	BC	387	LEU
33	BD	17	ALA
34	BE	23	VAL
34	BE	106	ILE
34	BE	143	ARG
35	BG	74	VAL
35	BG	102	ASN

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Mol	Chain	Res	Type
36	BF	51	GLN
37	BH	203	VAL
37	BH	224	ASP
38	Bs	233	PRO
40	BK	134	LYS
40	BK	135	TYR
41	BN	99	TRP
43	BP	181	ASN
44	BO	35	ALA
44	BO	100	PRO
44	BO	111	LYS
46	BT	71	ARG
46	BT	130	ASN
48	BW	9	GLN
48	BW	88	GLN
48	BW	101	ASN
49	BV	8	SER
50	BX	44	PRO
52	BY	10	SER
57	Be	71	ALA
59	Bh	12	LYS
59	Bh	16	LYS
59	Bh	89	THR
60	Bi	76	TYR
61	Bj	15	SER
64	Bl	76	ASN
67	Bp	14	ASN
74	BQ	248	ARG
77	BI	160	PRO
1	Aa	79	TYR
1	Aa	284	ALA
2	AA	124	THR
2	AA	167	LYS
2	AA	207	PRO
2	AA	213	GLN
3	AB	61	GLU
3	AB	110	LEU
3	AB	205	ALA
3	AB	207	THR
6	AE	126	ARG
8	AF	33	VAL
8	AF	77	TYR

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Mol	Chain	Res	Type
13	AL	118	PRO
14	AM	100	THR
16	AO	57	ALA
16	AO	150	VAL
18	AP	58	CYS
19	AR	81	ARG
20	AS	40	SER
20	AS	92	LYS
21	AT	83	TRP
24	AX	60	SER
29	AU	95	GLY
31	BB	127	ALA
32	BC	62	ARG
32	BC	136	LYS
33	BD	29	PRO
33	BD	327	LEU
34	BE	87	LYS
35	BG	16	ALA
36	BF	186	PHE
37	BH	61	GLN
37	BH	117	ALA
39	BJ	95	ASP
40	BK	126	VAL
48	BW	7	ARG
49	BV	63	PHE
49	BV	167	ARG
50	BX	104	GLU
53	Ba	55	LYS
59	Bh	11	LYS
60	Bi	13	TYR
65	Bn	28	ASN
69	Br	50	PHE
74	BQ	190	ILE
76	BS	117	ARG
2	AA	46	HIS
3	AB	80	ALA
4	AD	241	GLY
8	AF	103	ASN
8	AF	159	ALA
17	AQ	85	VAL
20	AS	32	GLY
22	AV	92	ILE

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Mol	Chain	Res	Type
26	AZ	26	LYS
30	BA	134	PHE
31	BB	226	SER
32	BC	96	PRO
35	BG	130	ILE
41	BN	7	VAL
44	BO	10	LYS
44	BO	56	VAL
45	BR	131	ALA
50	BX	38	LEU
57	Be	173	LEU
58	Bg	93	VAL
60	Bi	54	ILE
68	Bq	4	LYS
69	Br	105	GLN
74	BQ	52	VAL
1	Aa	193	ILE
6	AE	74	PRO
13	AL	52	ILE
15	AN	15	GLY
29	AU	16	PRO
34	BE	24	GLY
46	BT	83	GLY
48	BW	22	PRO
56	Bf	3	PRO
57	Be	204	PRO
58	Bg	94	GLU
65	Bn	35	GLY
14	AM	135	GLY
21	AT	32	VAL
29	AU	29	HIS
46	BT	57	VAL
76	BS	74	ILE
77	BI	178	ARG
2	AA	70	PRO
6	AE	16	GLY
12	AK	79	VAL
25	AY	6	PRO
50	BX	51	VAL
60	Bi	101	VAL
65	Bn	75	VAL
74	BQ	192	PRO

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Mol	Chain	Res	Type
4	AD	135	GLY
4	AD	150	PRO
29	AU	7	ILE
35	BG	68	PRO
38	Bs	228	GLY
40	BK	111	PRO
45	BR	14	GLY
60	Bi	58	ARG
61	Bj	90	PRO
66	Bo	24	PRO
6	AE	101	VAL
19	AR	132	GLY

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	Aa	259/262 (99%)	238 (92%)	21 (8%)	14	44
2	AA	198/210 (94%)	180 (91%)	18 (9%)	11	38
3	AB	148/195 (76%)	136 (92%)	12 (8%)	14	44
4	AD	173/222 (78%)	158 (91%)	15 (9%)	12	40
5	AC	153/166 (92%)	132 (86%)	21 (14%)	4	23
6	AE	205/205 (100%)	188 (92%)	17 (8%)	13	43
8	AF	163/191 (85%)	144 (88%)	19 (12%)	6	27
9	AH	111/111 (100%)	98 (88%)	13 (12%)	6	27
10	AI	105/119 (88%)	93 (89%)	12 (11%)	7	28
11	AJ	93/114 (82%)	88 (95%)	5 (5%)	26	58
12	AK	82/105 (78%)	77 (94%)	5 (6%)	22	55
13	AL	87/120 (72%)	75 (86%)	12 (14%)	4	23
14	AM	123/129 (95%)	104 (85%)	19 (15%)	3	19
15	AN	34/49 (69%)	30 (88%)	4 (12%)	6	27

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	AO	105/128 (82%)	91 (87%)	14 (13%)	4	24
17	AQ	122/124 (98%)	109 (89%)	13 (11%)	8	31
18	AP	63/137 (46%)	56 (89%)	7 (11%)	7	29
19	AR	71/118 (60%)	62 (87%)	9 (13%)	5	25
20	AS	115/116 (99%)	100 (87%)	15 (13%)	5	25
21	AT	74/74 (100%)	67 (90%)	7 (10%)	10	36
22	AV	74/89 (83%)	67 (90%)	7 (10%)	10	36
24	AX	43/71 (61%)	33 (77%)	10 (23%)	1	6
25	AY	50/60 (83%)	47 (94%)	3 (6%)	22	55
26	AZ	51/54 (94%)	47 (92%)	4 (8%)	15	46
29	AU	72/113 (64%)	62 (86%)	10 (14%)	4	23
30	BA	198/198 (100%)	184 (93%)	14 (7%)	17	49
31	BB	189/196 (96%)	177 (94%)	12 (6%)	21	53
32	BC	315/323 (98%)	265 (84%)	50 (16%)	3	18
33	BD	253/289 (88%)	222 (88%)	31 (12%)	5	26
34	BE	145/150 (97%)	118 (81%)	27 (19%)	2	11
35	BG	153/153 (100%)	124 (81%)	29 (19%)	2	11
36	BF	170/171 (99%)	152 (89%)	18 (11%)	8	31
37	BH	154/208 (74%)	136 (88%)	18 (12%)	6	27
38	Bs	216/254 (85%)	209 (97%)	7 (3%)	44	71
39	BJ	102/136 (75%)	94 (92%)	8 (8%)	15	46
40	BK	162/162 (100%)	143 (88%)	19 (12%)	6	27
41	BN	109/109 (100%)	96 (88%)	13 (12%)	6	27
42	BM	101/105 (96%)	85 (84%)	16 (16%)	3	18
43	BP	165/176 (94%)	141 (86%)	24 (14%)	4	21
44	BO	119/119 (100%)	100 (84%)	19 (16%)	3	18
45	BR	131/151 (87%)	106 (81%)	25 (19%)	2	11
46	BT	154/154 (100%)	144 (94%)	10 (6%)	20	52
47	BU	132/137 (96%)	113 (86%)	19 (14%)	4	22
48	BW	90/107 (84%)	77 (86%)	13 (14%)	4	22
49	BV	131/137 (96%)	117 (89%)	14 (11%)	8	31

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
50	BX	106/118 (90%)	99 (93%)	7 (7%)	19	52
51	BZ	59/129 (46%)	51 (86%)	8 (14%)	4	23
52	BY	107/107 (100%)	93 (87%)	14 (13%)	5	24
53	Ba	73/116 (63%)	63 (86%)	10 (14%)	4	23
54	Bd	15/47 (32%)	13 (87%)	2 (13%)	4	24
55	Bc	104/105 (99%)	88 (85%)	16 (15%)	3	19
56	Bf	83/88 (94%)	75 (90%)	8 (10%)	10	35
57	Be	202/205 (98%)	182 (90%)	20 (10%)	9	34
58	Bg	90/97 (93%)	79 (88%)	11 (12%)	6	26
59	Bh	111/111 (100%)	95 (86%)	16 (14%)	4	22
60	Bi	99/101 (98%)	87 (88%)	12 (12%)	6	27
61	Bj	71/91 (78%)	63 (89%)	8 (11%)	7	29
62	Bk	64/82 (78%)	58 (91%)	6 (9%)	10	36
63	Bm	72/72 (100%)	67 (93%)	5 (7%)	18	51
64	Bl	68/71 (96%)	61 (90%)	7 (10%)	8	32
65	Bn	66/69 (96%)	53 (80%)	13 (20%)	1	10
66	Bo	46/46 (100%)	38 (83%)	8 (17%)	2	14
67	Bp	37/47 (79%)	35 (95%)	2 (5%)	26	58
68	Bq	23/23 (100%)	21 (91%)	2 (9%)	12	40
69	Br	87/91 (96%)	76 (87%)	11 (13%)	5	26
72	Bt	48/76 (63%)	48 (100%)	0	100	100
72	Bu	48/76 (63%)	48 (100%)	0	100	100
73	Bv	47/74 (64%)	45 (96%)	2 (4%)	33	64
73	Bw	47/74 (64%)	46 (98%)	1 (2%)	59	80
74	BQ	238/245 (97%)	196 (82%)	42 (18%)	2	14
76	BS	153/153 (100%)	116 (76%)	37 (24%)	1	5
77	BI	151/187 (81%)	133 (88%)	18 (12%)	6	27
All	All	8278/9418 (88%)	7314 (88%)	964 (12%)	10	28

All (964) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Aa	9	LEU

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Mol	Chain	Res	Type
1	Aa	16	HIS
1	Aa	35	SER
1	Aa	47	LEU
1	Aa	54	PHE
1	Aa	59	ARG
1	Aa	64	HIS
1	Aa	67	ILE
1	Aa	71	CYS
1	Aa	82	SER
1	Aa	86	ASP
1	Aa	92	TRP
1	Aa	145	LEU
1	Aa	150	TRP
1	Aa	188	ILE
1	Aa	201	THR
1	Aa	211	ILE
1	Aa	229	LYS
1	Aa	258	THR
1	Aa	306	THR
1	Aa	308	ASN
2	AA	9	LEU
2	AA	11	PRO
2	AA	23	HIS
2	AA	58	VAL
2	AA	71	GLU
2	AA	108	THR
2	AA	110	TYR
2	AA	120	LEU
2	AA	139	VAL
2	AA	157	ASP
2	AA	165	ARG
2	AA	193	GLN
2	AA	208	GLU
2	AA	217	GLU
2	AA	231	GLU
2	AA	234	GLU
2	AA	240	THR
2	AA	250	VAL
3	AB	18	TYR
3	AB	22	ASN
3	AB	67	ASN
3	AB	71	LEU

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Mol	Chain	Res	Type
3	AB	75	LYS
3	AB	78	LYS
3	AB	84	ILE
3	AB	86	LEU
3	AB	91	VAL
3	AB	115	ILE
3	AB	176	LEU
3	AB	191	ASP
4	AD	56	LEU
4	AD	73	ASP
4	AD	102	VAL
4	AD	118	GLU
4	AD	123	LEU
4	AD	136	VAL
4	AD	137	PRO
4	AD	146	THR
4	AD	154	ILE
4	AD	182	TYR
4	AD	189	LEU
4	AD	192	ILE
4	AD	207	LEU
4	AD	220	THR
4	AD	239	PRO
5	AC	10	LYS
5	AC	15	PRO
5	AC	16	LYS
5	AC	24	LEU
5	AC	38	ASN
5	AC	47	PHE
5	AC	51	LYS
5	AC	61	THR
5	AC	65	LYS
5	AC	67	PRO
5	AC	87	SER
5	AC	91	LYS
5	AC	95	TYR
5	AC	103	ASP
5	AC	118	LEU
5	AC	143	ILE
5	AC	146	PHE
5	AC	153	GLU
5	AC	158	PHE

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Mol	Chain	Res	Type
5	AC	168	ARG
5	AC	174	ARG
6	AE	29	ASN
6	AE	30	THR
6	AE	39	THR
6	AE	51	THR
6	AE	69	ILE
6	AE	71	THR
6	AE	83	ILE
6	AE	96	THR
6	AE	139	ILE
6	AE	141	ARG
6	AE	185	LYS
6	AE	196	VAL
6	AE	224	PHE
6	AE	225	LEU
6	AE	235	LEU
6	AE	241	ASP
6	AE	245	ASP
8	AF	27	THR
8	AF	30	PRO
8	AF	31	GLU
8	AF	42	LEU
8	AF	58	LEU
8	AF	73	THR
8	AF	80	LYS
8	AF	81	ARG
8	AF	84	LYS
8	AF	106	LYS
8	AF	108	LEU
8	AF	160	VAL
8	AF	161	ASP
8	AF	180	ARG
8	AF	184	PHE
8	AF	189	THR
8	AF	203	LYS
8	AF	217	LEU
8	AF	222	LYS
9	AH	27	ILE
9	AH	28	ARG
9	AH	40	VAL
9	AH	65	LEU

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Mol	Chain	Res	Type
9	AH	68	ARG
9	AH	69	LEU
9	AH	79	PHE
9	AH	89	TRP
9	AH	94	LEU
9	AH	97	ARG
9	AH	113	HIS
9	AH	122	SER
9	AH	130	TYR
10	AI	36	ILE
10	AI	37	THR
10	AI	39	VAL
10	AI	57	LEU
10	AI	70	THR
10	AI	85	ILE
10	AI	93	HIS
10	AI	94	GLN
10	AI	118	ILE
10	AI	132	LYS
10	AI	138	PHE
10	AI	142	TYR
11	AJ	25	THR
11	AJ	56	VAL
11	AJ	71	PRO
11	AJ	78	THR
11	AJ	79	TRP
12	AK	24	ASN
12	AK	46	MET
12	AK	49	LYS
12	AK	51	ASP
12	AK	107	ARG
13	AL	6	PRO
13	AL	9	LEU
13	AL	13	ARG
13	AL	22	ASN
13	AL	38	PHE
13	AL	53	VAL
13	AL	78	LYS
13	AL	82	LYS
13	AL	86	PHE
13	AL	87	VAL
13	AL	96	VAL

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Mol	Chain	Res	Type
13	AL	114	LYS
14	AM	13	HIS
14	AM	18	LEU
14	AM	20	THR
14	AM	25	ASN
14	AM	27	LYS
14	AM	40	ARG
14	AM	51	ASP
14	AM	60	GLU
14	AM	66	LEU
14	AM	76	PRO
14	AM	80	LYS
14	AM	81	ILE
14	AM	87	ASN
14	AM	92	ILE
14	AM	93	THR
14	AM	106	GLU
14	AM	137	HIS
14	AM	139	LYS
14	AM	144	ARG
15	AN	9	SER
15	AN	12	ARG
15	AN	20	GLN
15	AN	37	ASN
16	AO	40	TYR
16	AO	46	THR
16	AO	55	ARG
16	AO	64	ARG
16	AO	65	VAL
16	AO	70	LYS
16	AO	83	GLU
16	AO	92	ILE
16	AO	112	LYS
16	AO	113	PHE
16	AO	118	ILE
16	AO	120	SER
16	AO	124	ARG
16	AO	145	THR
17	AQ	14	LYS
17	AQ	28	PHE
17	AQ	29	GLN
17	AQ	50	ILE

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Mol	Chain	Res	Type
17	AQ	95	ARG
17	AQ	96	SER
17	AQ	97	ASN
17	AQ	99	VAL
17	AQ	102	VAL
17	AQ	119	LEU
17	AQ	125	SER
17	AQ	132	TYR
17	AQ	135	ARG
18	AP	63	LEU
18	AP	78	THR
18	AP	97	TYR
18	AP	99	ARG
18	AP	101	GLU
18	AP	115	PHE
18	AP	119	VAL
19	AR	49	MET
19	AR	52	LYS
19	AR	60	LEU
19	AR	72	LYS
19	AR	80	MET
19	AR	88	GLU
19	AR	106	GLU
19	AR	107	ILE
19	AR	130	ARG
20	AS	4	VAL
20	AS	7	ARG
20	AS	15	ILE
20	AS	38	LYS
20	AS	46	PRO
20	AS	56	LYS
20	AS	63	ARG
20	AS	75	LYS
20	AS	84	LYS
20	AS	89	ARG
20	AS	90	PRO
20	AS	100	ILE
20	AS	101	ASN
20	AS	116	ILE
20	AS	122	ARG
21	AT	33	GLN
21	AT	44	ARG

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Mol	Chain	Res	Type
21	AT	46	ILE
21	AT	55	LEU
21	AT	68	SER
21	AT	71	ARG
21	AT	72	LEU
22	AV	24	LYS
22	AV	27	TRP
22	AV	54	VAL
22	AV	59	TYR
22	AV	60	VAL
22	AV	96	SER
22	AV	105	THR
24	AX	32	PHE
24	AX	35	VAL
24	AX	42	ASN
24	AX	43	ILE
24	AX	44	THR
24	AX	47	PHE
24	AX	56	CYS
24	AX	61	THR
24	AX	73	LEU
24	AX	77	THR
25	AY	4	LYS
25	AY	7	VAL
25	AY	36	THR
26	AZ	18	THR
26	AZ	30	PRO
26	AZ	42	ARG
26	AZ	58	PRO
29	AU	2	SER
29	AU	3	ASP
29	AU	20	ARG
29	AU	25	VAL
29	AU	30	PRO
29	AU	32	ARG
29	AU	60	PHE
29	AU	63	GLN
29	AU	72	PHE
29	AU	86	GLU
30	BA	49	PHE
30	BA	93	LEU
30	BA	103	LEU

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Mol	Chain	Res	Type
30	BA	105	LYS
30	BA	108	ASN
30	BA	135	PRO
30	BA	136	THR
30	BA	149	THR
30	BA	155	ILE
30	BA	160	LYS
30	BA	178	VAL
30	BA	181	ASN
30	BA	190	PHE
30	BA	191	VAL
31	BB	15	ILE
31	BB	61	VAL
31	BB	66	PRO
31	BB	67	TYR
31	BB	83	HIS
31	BB	102	LEU
31	BB	134	VAL
31	BB	142	ASP
31	BB	155	LYS
31	BB	186	PHE
31	BB	199	THR
31	BB	242	ARG
32	BC	1	MET
32	BC	2	SER
32	BC	3	HIS
32	BC	6	TYR
32	BC	39	LYS
32	BC	40	PRO
32	BC	43	LEU
32	BC	45	SER
32	BC	55	THR
32	BC	60	LEU
32	BC	66	LYS
32	BC	68	HIS
32	BC	72	VAL
32	BC	78	VAL
32	BC	84	VAL
32	BC	95	THR
32	BC	100	ARG
32	BC	118	PHE
32	BC	120	LYS

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Mol	Chain	Res	Type
32	BC	130	PHE
32	BC	154	TYR
32	BC	164	THR
32	BC	174	LYS
32	BC	175	LYS
32	BC	183	LEU
32	BC	196	ARG
32	BC	212	ASN
32	BC	241	LYS
32	BC	248	LYS
32	BC	251	CYS
32	BC	252	ILE
32	BC	261	MET
32	BC	262	TRP
32	BC	264	VAL
32	BC	266	ARG
32	BC	270	ARG
32	BC	300	ARG
32	BC	318	LYS
32	BC	321	PHE
32	BC	323	MET
32	BC	324	VAL
32	BC	331	ASN
32	BC	332	ARG
32	BC	335	ILE
32	BC	346	THR
32	BC	348	ARG
32	BC	354	VAL
32	BC	361	THR
32	BC	364	LYS
32	BC	370	PHE
33	BD	1	MET
33	BD	5	GLN
33	BD	6	VAL
33	BD	8	VAL
33	BD	25	VAL
33	BD	29	PRO
33	BD	30	ILE
33	BD	33	ASP
33	BD	47	ARG
33	BD	100	PHE
33	BD	102	PRO

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Mol	Chain	Res	Type
33	BD	109	TRP
33	BD	122	THR
33	BD	131	VAL
33	BD	140	HIS
33	BD	142	VAL
33	BD	143	GLU
33	BD	145	ILE
33	BD	156	LEU
33	BD	219	LEU
33	BD	244	LEU
33	BD	256	THR
33	BD	259	ASP
33	BD	260	GLN
33	BD	295	ILE
33	BD	312	VAL
33	BD	318	LEU
33	BD	324	LEU
33	BD	333	VAL
33	BD	341	SER
33	BD	349	THR
34	BE	4	LYS
34	BE	10	ARG
34	BE	17	LEU
34	BE	25	GLU
34	BE	29	ARG
34	BE	32	ARG
34	BE	36	VAL
34	BE	53	THR
34	BE	55	ARG
34	BE	57	PHE
34	BE	59	ILE
34	BE	60	ARG
34	BE	64	LYS
34	BE	67	VAL
34	BE	89	TYR
34	BE	94	ARG
34	BE	101	ASN
34	BE	110	ILE
34	BE	115	LYS
34	BE	117	ASP
34	BE	125	MET
34	BE	131	MET

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Mol	Chain	Res	Type
34	BE	143	ARG
34	BE	147	THR
34	BE	152	HIS
34	BE	156	LYS
34	BE	166	LYS
35	BG	4	GLN
35	BG	5	LYS
35	BG	11	PRO
35	BG	18	LEU
35	BG	22	ARG
35	BG	27	PRO
35	BG	42	LEU
35	BG	46	ARG
35	BG	50	LYS
35	BG	52	VAL
35	BG	56	LYS
35	BG	57	HIS
35	BG	62	THR
35	BG	64	LEU
35	BG	65	ILE
35	BG	74	VAL
35	BG	75	PRO
35	BG	79	VAL
35	BG	84	VAL
35	BG	85	ILE
35	BG	93	VAL
35	BG	99	GLU
35	BG	102	ASN
35	BG	111	LEU
35	BG	114	LYS
35	BG	146	ILE
35	BG	151	LYS
35	BG	154	LEU
35	BG	160	SER
36	BF	2	LYS
36	BF	3	TYR
36	BF	4	ILE
36	BF	31	ARG
36	BF	36	LYS
36	BF	39	LYS
36	BF	41	ILE
36	BF	44	THR

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Mol	Chain	Res	Type
36	BF	47	LYS
36	BF	53	ILE
36	BF	54	LYS
36	BF	62	ARG
36	BF	69	ARG
36	BF	103	ILE
36	BF	106	LYS
36	BF	141	LYS
36	BF	149	ASN
36	BF	174	LYS
37	BH	66	SER
37	BH	70	LYS
37	BH	73	PRO
37	BH	78	PHE
37	BH	92	LYS
37	BH	110	THR
37	BH	128	LYS
37	BH	136	LEU
37	BH	152	LEU
37	BH	158	ASP
37	BH	165	PHE
37	BH	173	MET
37	BH	181	LYS
37	BH	193	LYS
37	BH	218	ILE
37	BH	221	ASN
37	BH	225	LYS
37	BH	229	VAL
38	Bs	36	GLN
38	Bs	53	MET
38	Bs	58	MET
38	Bs	60	ARG
38	Bs	73	PHE
38	Bs	89	THR
38	Bs	230	PRO
39	BJ	13	LEU
39	BJ	14	TYR
39	BJ	37	LEU
39	BJ	41	LYS
39	BJ	90	ARG
39	BJ	94	LYS
39	BJ	96	LYS

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Mol	Chain	Res	Type
39	BJ	98	VAL
40	BK	26	GLN
40	BK	32	LYS
40	BK	39	GLU
40	BK	43	ILE
40	BK	49	ARG
40	BK	59	ARG
40	BK	60	LYS
40	BK	62	THR
40	BK	64	PHE
40	BK	84	LEU
40	BK	117	ARG
40	BK	121	PRO
40	BK	126	VAL
40	BK	129	LEU
40	BK	133	ARG
40	BK	153	VAL
40	BK	155	LYS
40	BK	162	VAL
40	BK	197	LEU
41	BN	6	ILE
41	BN	8	LYS
41	BN	10	SER
41	BN	22	LEU
41	BN	36	VAL
41	BN	39	ILE
41	BN	43	LYS
41	BN	65	LEU
41	BN	66	THR
41	BN	72	LEU
41	BN	85	TRP
41	BN	99	TRP
41	BN	129	TYR
42	BM	12	ARG
42	BM	22	ILE
42	BM	45	ARG
42	BM	49	LEU
42	BM	53	SER
42	BM	54	LEU
42	BM	56	ASP
42	BM	59	MET
42	BM	61	THR

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Mol	Chain	Res	Type
42	BM	62	VAL
42	BM	71	LYS
42	BM	75	PRO
42	BM	78	VAL
42	BM	101	VAL
42	BM	110	LYS
42	BM	125	LEU
43	BP	1	MET
43	BP	14	LYS
43	BP	21	PHE
43	BP	22	LEU
43	BP	25	VAL
43	BP	50	ARG
43	BP	73	ARG
43	BP	84	PRO
43	BP	86	ASN
43	BP	87	GLN
43	BP	95	GLN
43	BP	98	LEU
43	BP	116	LEU
43	BP	120	TRP
43	BP	125	SER
43	BP	138	GLN
43	BP	143	ARG
43	BP	144	ARG
43	BP	160	GLU
43	BP	174	ILE
43	BP	176	LYS
43	BP	180	PHE
43	BP	184	LYS
43	BP	192	LYS
44	BO	4	ARG
44	BO	8	THR
44	BO	19	LYS
44	BO	39	HIS
44	BO	46	ASP
44	BO	47	LYS
44	BO	60	TYR
44	BO	61	PHE
44	BO	62	HIS
44	BO	72	VAL
44	BO	75	LEU

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Mol	Chain	Res	Type
44	BO	80	THR
44	BO	84	GLU
44	BO	89	GLN
44	BO	101	VAL
44	BO	117	ARG
44	BO	122	PRO
44	BO	123	VAL
44	BO	128	ARG
45	BR	3	ILE
45	BR	4	ASP
45	BR	10	HIS
45	BR	11	LYS
45	BR	12	ARG
45	BR	13	SER
45	BR	15	HIS
45	BR	17	THR
45	BR	22	ASP
45	BR	24	VAL
45	BR	28	LEU
45	BR	32	LEU
45	BR	35	PHE
45	BR	36	LEU
45	BR	39	ARG
45	BR	49	LEU
45	BR	54	LEU
45	BR	89	ASP
45	BR	92	ARG
45	BR	93	ILE
45	BR	95	GLU
45	BR	100	THR
45	BR	147	ARG
45	BR	148	GLU
45	BR	155	MET
46	BT	14	VAL
46	BT	17	VAL
46	BT	20	ARG
46	BT	57	VAL
46	BT	80	LYS
46	BT	82	LYS
46	BT	96	ILE
46	BT	124	TYR
46	BT	130	ASN

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Mol	Chain	Res	Type
46	BT	143	ILE
47	BU	7	TYR
47	BU	8	ARG
47	BU	10	ARG
47	BU	15	PHE
47	BU	20	ARG
47	BU	25	VAL
47	BU	26	HIS
47	BU	27	LEU
47	BU	31	LEU
47	BU	42	ILE
47	BU	56	PHE
47	BU	69	LYS
47	BU	89	LEU
47	BU	91	LEU
47	BU	96	ILE
47	BU	134	GLN
47	BU	141	VAL
47	BU	151	LEU
47	BU	160	ILE
48	BW	8	LYS
48	BW	11	ILE
48	BW	13	LYS
48	BW	24	GLU
48	BW	29	ASP
48	BW	42	LYS
48	BW	81	LYS
48	BW	90	ARG
48	BW	92	TRP
48	BW	95	PHE
48	BW	97	SER
48	BW	98	THR
48	BW	99	LYS
49	BV	4	TYR
49	BV	18	ARG
49	BV	22	LEU
49	BV	30	ARG
49	BV	47	TYR
49	BV	69	ARG
49	BV	70	THR
49	BV	74	LYS
49	BV	78	VAL

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Mol	Chain	Res	Type
49	BV	79	THR
49	BV	83	TRP
49	BV	143	PRO
49	BV	145	HIS
49	BV	169	THR
50	BX	28	THR
50	BX	36	LYS
50	BX	40	LEU
50	BX	48	SER
50	BX	93	TYR
50	BX	113	LEU
50	BX	141	TYR
51	BZ	5	ILE
51	BZ	27	LYS
51	BZ	30	ARG
51	BZ	49	ILE
51	BZ	51	TRP
51	BZ	56	ARG
51	BZ	67	VAL
51	BZ	69	LYS
52	BY	3	LYS
52	BY	16	ARG
52	BY	21	THR
52	BY	46	LYS
52	BY	48	LEU
52	BY	51	ARG
52	BY	70	ILE
52	BY	74	TYR
52	BY	80	VAL
52	BY	91	ASN
52	BY	106	ILE
52	BY	110	HIS
52	BY	118	LEU
52	BY	121	ARG
53	Ba	10	VAL
53	Ba	21	LYS
53	Ba	27	LYS
53	Ba	29	HIS
53	Ba	37	PRO
53	Ba	42	LEU
53	Ba	55	LYS
53	Ba	56	LYS

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Mol	Chain	Res	Type
53	Ba	61	LYS
53	Ba	82	PRO
54	Bd	44	LYS
54	Bd	52	LYS
55	Bc	14	LYS
55	Bc	20	GLN
55	Bc	28	LEU
55	Bc	32	LYS
55	Bc	36	LEU
55	Bc	38	ARG
55	Bc	39	PRO
55	Bc	48	ARG
55	Bc	71	LYS
55	Bc	75	TYR
55	Bc	88	LEU
55	Bc	93	THR
55	Bc	94	LYS
55	Bc	95	PHE
55	Bc	109	ILE
55	Bc	118	ILE
56	Bf	13	LYS
56	Bf	14	LEU
56	Bf	18	ILE
56	Bf	50	VAL
56	Bf	51	LEU
56	Bf	64	LYS
56	Bf	65	THR
56	Bf	77	LEU
57	Be	17	LYS
57	Be	22	THR
57	Be	60	ARG
57	Be	70	LYS
57	Be	82	LYS
57	Be	95	ILE
57	Be	105	LEU
57	Be	107	ARG
57	Be	142	SER
57	Be	160	ARG
57	Be	162	PRO
57	Be	163	LEU
57	Be	165	ASP
57	Be	180	SER

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Mol	Chain	Res	Type
57	Be	181	ILE
57	Be	199	ASN
57	Be	200	ASN
57	Be	224	ILE
57	Be	229	PHE
57	Be	242	SER
58	Bg	1	MET
58	Bg	7	VAL
58	Bg	10	ARG
58	Bg	11	GLU
58	Bg	23	VAL
58	Bg	25	PHE
58	Bg	65	LYS
58	Bg	71	LEU
58	Bg	72	ARG
58	Bg	77	ARG
58	Bg	100	SER
59	Bh	9	ILE
59	Bh	24	ARG
59	Bh	25	TYR
59	Bh	30	GLU
59	Bh	35	GLN
59	Bh	36	LYS
59	Bh	41	VAL
59	Bh	43	ARG
59	Bh	45	ARG
59	Bh	46	PHE
59	Bh	50	ILE
59	Bh	57	TYR
59	Bh	60	ASN
59	Bh	75	LEU
59	Bh	76	VAL
59	Bh	89	THR
60	Bi	3	GLN
60	Bi	9	ARG
60	Bi	10	ARG
60	Bi	12	PRO
60	Bi	29	ILE
60	Bi	36	LYS
60	Bi	38	LEU
60	Bi	55	SER
60	Bi	57	LEU

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Mol	Chain	Res	Type
60	Bi	58	ARG
60	Bi	74	ARG
60	Bi	80	ARG
61	Bj	7	LEU
61	Bj	18	ARG
61	Bj	19	SER
61	Bj	37	THR
61	Bj	51	TYR
61	Bj	80	VAL
61	Bj	86	ARG
61	Bj	90	PRO
62	Bk	26	ILE
62	Bk	27	SER
62	Bk	28	TYR
62	Bk	56	ARG
62	Bk	57	LEU
62	Bk	63	ASN
63	Bm	3	LYS
63	Bm	6	LYS
63	Bm	17	ARG
63	Bm	29	LEU
63	Bm	61	LYS
64	Bl	1	MET
64	Bl	7	SER
64	Bl	12	HIS
64	Bl	63	ARG
64	Bl	67	LEU
64	Bl	76	ASN
64	Bl	79	GLN
65	Bn	15	THR
65	Bn	16	ARG
65	Bn	17	ARG
65	Bn	20	VAL
65	Bn	31	LEU
65	Bn	33	LYS
65	Bn	40	GLN
65	Bn	46	ARG
65	Bn	52	TYR
65	Bn	54	LEU
65	Bn	57	ASN
65	Bn	72	THR
65	Bn	73	LEU

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Mol	Chain	Res	Type
66	Bo	1	MET
66	Bo	5	LYS
66	Bo	6	SER
66	Bo	7	PHE
66	Bo	8	ARG
66	Bo	30	ARG
66	Bo	34	THR
66	Bo	45	ARG
67	Bp	35	ARG
67	Bp	51	LEU
68	Bq	11	ARG
68	Bq	24	SER
69	Br	17	CYS
69	Br	18	ARG
69	Br	32	LYS
69	Br	45	ARG
69	Br	47	GLN
69	Br	50	PHE
69	Br	55	LYS
69	Br	56	PRO
69	Br	61	LYS
69	Br	75	VAL
69	Br	86	LYS
73	Bv	17	PRO
73	Bv	20	THR
73	Bw	20	THR
74	BQ	3	PHE
74	BQ	9	SER
74	BQ	18	THR
74	BQ	20	PHE
74	BQ	23	ARG
74	BQ	34	LYS
74	BQ	36	LEU
74	BQ	46	THR
74	BQ	49	TYR
74	BQ	50	ARG
74	BQ	53	VAL
74	BQ	55	PHE
74	BQ	74	VAL
74	BQ	79	TYR
74	BQ	88	ILE
74	BQ	107	ARG

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Mol	Chain	Res	Type
74	BQ	113	LEU
74	BQ	120	LYS
74	BQ	129	TYR
74	BQ	131	LEU
74	BQ	142	PHE
74	BQ	148	ILE
74	BQ	151	GLN
74	BQ	159	VAL
74	BQ	167	SER
74	BQ	179	ARG
74	BQ	196	ARG
74	BQ	200	PHE
74	BQ	208	MET
74	BQ	216	GLU
74	BQ	219	PHE
74	BQ	224	LYS
74	BQ	227	LEU
74	BQ	239	ILE
74	BQ	240	TYR
74	BQ	248	ARG
74	BQ	251	PRO
74	BQ	259	LYS
74	BQ	260	PHE
74	BQ	273	ARG
74	BQ	289	LYS
74	BQ	293	LEU
76	BS	5	ARG
76	BS	7	HIS
76	BS	16	LEU
76	BS	19	PRO
76	BS	23	HIS
76	BS	25	LYS
76	BS	31	LEU
76	BS	32	TRP
76	BS	43	PHE
76	BS	51	LYS
76	BS	52	LYS
76	BS	53	VAL
76	BS	55	LYS
76	BS	66	ILE
76	BS	68	GLU
76	BS	69	LYS

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Mol	Chain	Res	Type
76	BS	73	THR
76	BS	74	ILE
76	BS	75	LYS
76	BS	79	ILE
76	BS	92	MET
76	BS	94	LYS
76	BS	97	ARG
76	BS	98	ASP
76	BS	105	VAL
76	BS	114	SER
76	BS	115	ARG
76	BS	118	VAL
76	BS	119	ARG
76	BS	123	ILE
76	BS	132	HIS
76	BS	142	LYS
76	BS	152	PRO
76	BS	157	LYS
76	BS	158	VAL
76	BS	159	ARG
76	BS	163	ARG
77	BI	4	ARG
77	BI	5	PRO
77	BI	12	GLN
77	BI	13	LYS
77	BI	17	TYR
77	BI	20	SER
77	BI	23	ASN
77	BI	28	ASP
77	BI	30	LYS
77	BI	63	GLU
77	BI	65	LEU
77	BI	90	ARG
77	BI	95	HIS
77	BI	110	ARG
77	BI	144	ASN
77	BI	146	ASP
77	BI	156	ARG
77	BI	177	ASP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (133) such sidechains are listed below:

Mol	Chain	Res	Type
1	Aa	64	HIS
1	Aa	159	ASN
1	Aa	182	ASN
1	Aa	185	GLN
1	Aa	187	GLN
1	Aa	195	HIS
1	Aa	288	HIS
1	Aa	314	GLN
2	AA	23	HIS
2	AA	46	HIS
2	AA	109	ASN
2	AA	164	ASN
3	AB	165	ASN
4	AD	142	HIS
4	AD	153	ASN
4	AD	201	HIS
5	AC	48	GLN
5	AC	124	HIS
6	AE	29	ASN
6	AE	67	GLN
6	AE	110	HIS
8	AF	44	ASN
8	AF	116	HIS
8	AF	128	ASN
9	AH	113	HIS
10	AI	32	ASN
10	AI	74	HIS
10	AI	93	HIS
11	AJ	44	ASN
13	AL	18	HIS
13	AL	22	ASN
13	AL	99	ASN
14	AM	122	HIS
16	AO	58	HIS
16	AO	123	HIS
17	AQ	62	GLN
18	AP	104	HIS
20	AS	70	GLN
20	AS	129	GLN
24	AX	49	HIS
29	AU	29	HIS
30	BA	40	ASN
30	BA	158	GLN

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Mol	Chain	Res	Type
30	BA	199	GLN
31	BB	38	HIS
31	BB	50	HIS
31	BB	187	HIS
31	BB	205	ASN
31	BB	216	HIS
32	BC	68	HIS
32	BC	121	ASN
32	BC	163	HIS
32	BC	182	GLN
33	BD	48	GLN
33	BD	320	ASN
33	BD	322	GLN
33	BD	361	HIS
34	BE	7	ASN
34	BE	101	ASN
35	BG	28	GLN
35	BG	125	GLN
35	BG	138	GLN
36	BF	58	HIS
36	BF	64	HIS
37	BH	138	HIS
37	BH	155	ASN
37	BH	232	HIS
37	BH	243	GLN
38	Bs	37	GLN
38	Bs	189	GLN
39	BJ	61	GLN
39	BJ	100	HIS
40	BK	90	HIS
41	BN	126	GLN
42	BM	47	ASN
43	BP	37	HIS
43	BP	86	ASN
43	BP	112	ASN
43	BP	149	ASN
44	BO	11	HIS
44	BO	14	HIS
44	BO	49	HIS
44	BO	62	HIS
44	BO	89	GLN
45	BR	45	ASN

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Mol	Chain	Res	Type
45	BR	58	ASN
46	BT	58	HIS
46	BT	75	HIS
47	BU	16	GLN
47	BU	26	HIS
47	BU	58	GLN
49	BV	54	HIS
49	BV	72	GLN
49	BV	97	ASN
49	BV	101	ASN
49	BV	116	HIS
49	BV	118	GLN
52	BY	66	GLN
52	BY	98	ASN
52	BY	120	GLN
53	Ba	36	HIS
53	Ba	57	HIS
54	Bd	48	HIS
55	Bc	99	GLN
56	Bf	75	ASN
57	Be	80	GLN
57	Be	159	GLN
57	Be	194	HIS
57	Be	222	HIS
57	Be	225	GLN
59	Bh	13	HIS
59	Bh	21	HIS
59	Bh	71	HIS
60	Bi	18	ASN
60	Bi	34	HIS
60	Bi	52	GLN
60	Bi	61	GLN
60	Bi	69	HIS
60	Bi	98	GLN
61	Bj	13	HIS
61	Bj	88	ASN
64	Bl	76	ASN
67	Bp	43	ASN
69	Br	20	HIS
74	BQ	32	GLN
74	BQ	45	ASN
74	BQ	151	GLN

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Mol	Chain	Res	Type
74	BQ	203	HIS
76	BS	7	HIS
76	BS	76	ASN
76	BS	124	GLN
76	BS	145	HIS
77	BI	112	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
78	CA	1483/1800 (82%)	521 (35%)	0
79	CB	74/75 (98%)	26 (35%)	0
80	CC	10/11 (90%)	7 (70%)	0
81	DA	3150/3396 (92%)	1246 (39%)	0
82	DB	141/158 (89%)	65 (46%)	0
83	DC	117/118 (99%)	60 (51%)	0
All	All	4975/5558 (89%)	1925 (38%)	0

All (1925) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
78	CA	3	U
78	CA	4	C
78	CA	5	U
78	CA	10	G
78	CA	11	A
78	CA	16	G
78	CA	26	A
78	CA	28	A
78	CA	29	U
78	CA	30	G
78	CA	31	C
78	CA	34	G
78	CA	37	U
78	CA	42	G
78	CA	45	U
78	CA	46	A
78	CA	47	A
78	CA	49	C
78	CA	50	C
78	CA	51	A

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Mol	Chain	Res	Type
78	CA	55	A
78	CA	57	G
78	CA	58	U
78	CA	59	C
78	CA	60	U
78	CA	61	A
78	CA	65	A
78	CA	68	A
78	CA	70	C
78	CA	84	A
78	CA	87	C
78	CA	89	G
78	CA	93	A
78	CA	100	A
78	CA	101	U
78	CA	104	A
78	CA	105	A
78	CA	114	C
78	CA	115	G
78	CA	116	U
78	CA	117	U
78	CA	118	U
78	CA	119	A
78	CA	120	U
78	CA	123	G
78	CA	140	A
78	CA	141	U
78	CA	142	G
78	CA	146	U
78	CA	149	C
78	CA	151	G
78	CA	153	G
78	CA	156	A
78	CA	157	A
78	CA	158	U
78	CA	162	A
78	CA	163	G
78	CA	164	A
78	CA	169	A
78	CA	170	U
78	CA	172	C
78	CA	173	A

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Mol	Chain	Res	Type
78	CA	174	U
78	CA	175	G
78	CA	178	U
78	CA	179	A
78	CA	180	A
78	CA	183	U
78	CA	184	C
78	CA	185	U
78	CA	189	C
78	CA	191	C
78	CA	192	U
78	CA	195	G
78	CA	196	G
78	CA	202	A
78	CA	206	A
78	CA	219	A
78	CA	220	A
78	CA	221	A
78	CA	222	A
78	CA	223	U
78	CA	229	U
78	CA	231	U
78	CA	235	G
78	CA	236	A
78	CA	252	U
78	CA	255	U
78	CA	256	A
78	CA	267	U
78	CA	271	A
78	CA	276	C
78	CA	279	G
78	CA	282	C
78	CA	288	A
78	CA	289	U
78	CA	294	C
78	CA	295	A
78	CA	298	C
78	CA	304	U
78	CA	305	C
78	CA	309	C
78	CA	310	C
78	CA	313	U

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Mol	Chain	Res	Type
78	CA	316	A
78	CA	319	U
78	CA	320	U
78	CA	324	U
78	CA	335	U
78	CA	337	G
78	CA	338	C
78	CA	345	U
78	CA	348	U
78	CA	352	A
78	CA	354	C
78	CA	359	A
78	CA	361	C
78	CA	369	A
78	CA	373	G
78	CA	378	A
78	CA	387	A
78	CA	393	C
78	CA	394	C
78	CA	400	A
78	CA	401	A
78	CA	404	G
78	CA	413	U
78	CA	418	G
78	CA	421	A
78	CA	423	G
78	CA	424	C
78	CA	425	A
78	CA	426	G
78	CA	435	C
78	CA	438	A
78	CA	439	U
78	CA	444	C
78	CA	445	A
78	CA	449	C
78	CA	452	A
78	CA	453	U
78	CA	454	U
78	CA	455	C
78	CA	456	A
78	CA	459	G
78	CA	460	A

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Mol	Chain	Res	Type
78	CA	461	G
78	CA	463	U
78	CA	468	A
78	CA	477	A
78	CA	478	A
78	CA	479	C
78	CA	481	A
78	CA	482	U
78	CA	483	A
78	CA	484	C
78	CA	486	G
78	CA	487	G
78	CA	489	C
78	CA	490	C
78	CA	491	C
78	CA	492	A
78	CA	493	U
78	CA	494	U
78	CA	496	G
78	CA	497	G
78	CA	498	G
78	CA	499	U
78	CA	500	C
78	CA	501	U
78	CA	502	U
78	CA	504	U
78	CA	505	A
78	CA	506	A
78	CA	508	U
78	CA	548	G
78	CA	551	G
78	CA	554	C
78	CA	555	A
78	CA	556	A
78	CA	558	U
78	CA	559	C
78	CA	565	C
78	CA	566	C
78	CA	571	G
78	CA	574	G
78	CA	577	G
78	CA	578	U

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Mol	Chain	Res	Type
78	CA	579	A
78	CA	580	A
78	CA	581	U
78	CA	582	U
78	CA	586	G
78	CA	589	C
78	CA	591	A
78	CA	594	A
78	CA	597	G
78	CA	598	U
78	CA	604	A
78	CA	606	A
78	CA	607	G
78	CA	608	U
78	CA	611	U
78	CA	613	G
78	CA	618	U
78	CA	619	A
78	CA	620	A
78	CA	623	A
78	CA	624	G
78	CA	627	C
78	CA	629	U
78	CA	630	A
78	CA	631	G
78	CA	634	G
78	CA	635	A
78	CA	636	A
78	CA	637	C
78	CA	638	U
78	CA	645	C
78	CA	647	G
78	CA	650	U
78	CA	651	G
78	CA	652	G
78	CA	662	U
78	CA	671	G
78	CA	677	G
78	CA	678	A
78	CA	685	A
78	CA	690	G
78	CA	823	G

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Mol	Chain	Res	Type
78	CA	825	U
78	CA	826	U
78	CA	830	U
78	CA	831	U
78	CA	832	U
78	CA	833	U
78	CA	838	G
78	CA	840	U
78	CA	841	U
78	CA	842	C
78	CA	843	U
78	CA	849	C
78	CA	853	G
78	CA	855	A
78	CA	857	U
78	CA	876	G
78	CA	886	U
78	CA	887	A
78	CA	888	U
78	CA	892	A
78	CA	893	U
78	CA	898	A
78	CA	899	G
78	CA	912	U
78	CA	913	G
78	CA	914	G
78	CA	921	U
78	CA	925	G
78	CA	926	A
78	CA	930	A
78	CA	934	C
78	CA	935	U
78	CA	942	G
78	CA	944	A
78	CA	945	U
78	CA	960	U
78	CA	963	A
78	CA	964	U
78	CA	966	A
78	CA	979	A
78	CA	1004	U
78	CA	1026	A

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Mol	Chain	Res	Type
78	CA	1027	A
78	CA	1028	C
78	CA	1032	G
78	CA	1039	A
78	CA	1044	U
78	CA	1050	G
78	CA	1056	U
78	CA	1057	U
78	CA	1058	U
78	CA	1059	U
78	CA	1060	U
78	CA	1061	A
78	CA	1064	G
78	CA	1066	C
78	CA	1067	C
78	CA	1068	C
78	CA	1069	A
78	CA	1076	A
78	CA	1080	U
78	CA	1081	A
78	CA	1091	A
78	CA	1092	A
78	CA	1096	C
78	CA	1101	G
78	CA	1108	G
78	CA	1109	G
78	CA	1118	G
78	CA	1132	A
78	CA	1138	A
78	CA	1144	U
78	CA	1151	A
78	CA	1155	G
78	CA	1158	C
78	CA	1160	A
78	CA	1173	C
78	CA	1174	C
78	CA	1185	U
78	CA	1190	C
78	CA	1191	U
78	CA	1194	A
78	CA	1196	A
78	CA	1197	C

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Mol	Chain	Res	Type
78	CA	1199	G
78	CA	1200	G
78	CA	1202	A
78	CA	1209	C
78	CA	1214	U
78	CA	1221	A
78	CA	1222	C
78	CA	1223	A
78	CA	1226	A
78	CA	1228	G
78	CA	1234	A
78	CA	1237	G
78	CA	1239	U
78	CA	1242	A
78	CA	1243	G
78	CA	1246	C
78	CA	1258	U
78	CA	1262	U
78	CA	1263	G
78	CA	1265	G
78	CA	1268	G
78	CA	1270	G
78	CA	1274	C
78	CA	1275	A
78	CA	1281	G
78	CA	1282	U
78	CA	1285	U
78	CA	1286	U
78	CA	1289	U
78	CA	1290	U
78	CA	1291	G
78	CA	1301	U
78	CA	1303	U
78	CA	1305	U
78	CA	1306	C
78	CA	1310	U
78	CA	1312	A
78	CA	1314	U
78	CA	1321	A
78	CA	1324	G
78	CA	1325	A
78	CA	1327	C

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Mol	Chain	Res	Type
78	CA	1337	A
78	CA	1338	C
78	CA	1339	C
78	CA	1340	U
78	CA	1341	A
78	CA	1342	C
78	CA	1343	U
78	CA	1344	A
78	CA	1349	G
78	CA	1352	G
78	CA	1353	U
78	CA	1354	G
78	CA	1355	C
78	CA	1356	U
78	CA	1357	A
78	CA	1358	G
78	CA	1364	G
78	CA	1365	C
78	CA	1366	U
78	CA	1367	G
78	CA	1368	G
78	CA	1375	A
78	CA	1376	C
78	CA	1377	U
78	CA	1382	A
78	CA	1387	G
78	CA	1388	A
78	CA	1389	C
78	CA	1391	A
78	CA	1392	U
78	CA	1394	G
78	CA	1396	U
78	CA	1397	U
78	CA	1401	A
78	CA	1402	G
78	CA	1405	G
78	CA	1410	A
78	CA	1418	G
78	CA	1419	G
78	CA	1420	C
78	CA	1425	A
78	CA	1426	C

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Mol	Chain	Res	Type
78	CA	1427	A
78	CA	1428	G
78	CA	1432	U
78	CA	1433	G
78	CA	1434	U
78	CA	1436	A
78	CA	1437	U
78	CA	1438	G
78	CA	1440	C
78	CA	1441	C
78	CA	1442	U
78	CA	1444	A
78	CA	1448	G
78	CA	1451	C
78	CA	1453	G
78	CA	1454	G
78	CA	1455	G
78	CA	1456	C
78	CA	1459	C
78	CA	1460	A
78	CA	1461	C
78	CA	1462	G
78	CA	1463	C
78	CA	1467	C
78	CA	1471	A
78	CA	1472	C
78	CA	1473	U
78	CA	1477	G
78	CA	1478	G
78	CA	1479	A
78	CA	1497	U
78	CA	1499	G
78	CA	1502	G
78	CA	1503	A
78	CA	1505	A
78	CA	1506	G
78	CA	1507	G
78	CA	1508	U
78	CA	1509	C
78	CA	1528	U
78	CA	1529	C
78	CA	1530	C

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Mol	Chain	Res	Type
78	CA	1534	G
78	CA	1535	U
78	CA	1537	C
78	CA	1538	U
78	CA	1542	G
78	CA	1548	G
78	CA	1549	C
78	CA	1550	A
78	CA	1557	U
78	CA	1558	U
78	CA	1568	C
78	CA	1571	C
78	CA	1573	A
78	CA	1575	G
78	CA	1578	U
78	CA	1580	C
78	CA	1583	A
78	CA	1584	G
78	CA	1590	G
78	CA	1601	G
78	CA	1602	C
78	CA	1603	U
78	CA	1614	A
78	CA	1615	C
78	CA	1617	U
78	CA	1618	C
78	CA	1629	G
78	CA	1636	C
78	CA	1645	G
78	CA	1648	A
78	CA	1649	G
78	CA	1650	U
78	CA	1654	G
78	CA	1656	U
78	CA	1659	A
78	CA	1665	U
78	CA	1666	U
78	CA	1670	G
78	CA	1673	G
78	CA	1674	C
78	CA	1677	C
78	CA	1678	A

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Mol	Chain	Res	Type
78	CA	1680	G
78	CA	1690	G
78	CA	1691	A
78	CA	1694	A
78	CA	1699	G
78	CA	1700	C
78	CA	1701	A
78	CA	1702	A
78	CA	1703	C
78	CA	1708	U
78	CA	1721	A
78	CA	1724	U
78	CA	1725	U
78	CA	1729	C
78	CA	1732	A
78	CA	1735	U
78	CA	1736	G
78	CA	1737	G
78	CA	1744	A
78	CA	1745	G
78	CA	1749	A
78	CA	1750	A
78	CA	1751	C
78	CA	1754	A
78	CA	1755	A
78	CA	1756	A
78	CA	1757	G
78	CA	1761	U
78	CA	1762	A
78	CA	1764	C
78	CA	1765	A
78	CA	1766	A
78	CA	1767	G
78	CA	1768	G
78	CA	1771	U
78	CA	1775	U
78	CA	1783	C
78	CA	1786	G
78	CA	1793	G
79	CB	8	U
79	CB	12	U
79	CB	13	U

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Mol	Chain	Res	Type
79	CB	14	A
79	CB	17	G
79	CB	18	G
79	CB	19	U
79	CB	20	C
79	CB	21	A
79	CB	22	G
79	CB	26	G
79	CB	28	G
79	CB	32	U
79	CB	33	U
79	CB	37	G
79	CB	38	C
79	CB	42	C
79	CB	45	G
79	CB	47	U
79	CB	51	G
79	CB	60	C
79	CB	65	U
79	CB	68	C
79	CB	73	C
79	CB	74	C
79	CB	75	A
80	CC	13	A
80	CC	14	A
80	CC	18	C
80	CC	19	U
80	CC	20	U
80	CC	21	C
80	CC	22	A
81	DA	2	U
81	DA	3	U
81	DA	7	C
81	DA	8	C
81	DA	9	U
81	DA	21	G
81	DA	31	C
81	DA	32	U
81	DA	33	G
81	DA	37	U
81	DA	40	A
81	DA	43	A

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Mol	Chain	Res	Type
81	DA	44	U
81	DA	50	U
81	DA	60	A
81	DA	61	A
81	DA	63	A
81	DA	64	G
81	DA	66	A
81	DA	72	C
81	DA	73	C
81	DA	74	G
81	DA	77	A
81	DA	92	G
81	DA	93	C
81	DA	105	C
81	DA	109	A
81	DA	110	G
81	DA	114	A
81	DA	134	U
81	DA	135	C
81	DA	136	G
81	DA	137	G
81	DA	160	G
81	DA	162	G
81	DA	167	U
81	DA	170	G
81	DA	171	G
81	DA	179	C
81	DA	186	U
81	DA	187	A
81	DA	190	U
81	DA	191	U
81	DA	210	U
81	DA	211	A
81	DA	212	G
81	DA	218	G
81	DA	219	A
81	DA	228	U
81	DA	229	G
81	DA	230	U
81	DA	231	G
81	DA	249	U
81	DA	250	U

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Mol	Chain	Res	Type
81	DA	251	G
81	DA	261	U
81	DA	264	G
81	DA	265	A
81	DA	266	A
81	DA	267	G
81	DA	269	G
81	DA	281	G
81	DA	283	G
81	DA	285	A
81	DA	286	U
81	DA	295	A
81	DA	298	U
81	DA	299	G
81	DA	304	G
81	DA	305	U
81	DA	308	A
81	DA	311	C
81	DA	312	C
81	DA	327	A
81	DA	329	U
81	DA	330	G
81	DA	339	C
81	DA	342	A
81	DA	346	C
81	DA	350	C
81	DA	351	A
81	DA	367	A
81	DA	370	U
81	DA	374	A
81	DA	375	A
81	DA	376	G
81	DA	384	A
81	DA	385	A
81	DA	386	A
81	DA	387	A
81	DA	391	A
81	DA	398	A
81	DA	399	A
81	DA	400	G
81	DA	402	A
81	DA	403	C

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Mol	Chain	Res	Type
81	DA	409	A
81	DA	420	G
81	DA	425	G
81	DA	426	G
81	DA	427	C
81	DA	430	U
81	DA	433	A
81	DA	434	U
81	DA	435	C
81	DA	436	A
81	DA	440	A
81	DA	441	U
81	DA	443	G
81	DA	444	U
81	DA	451	U
81	DA	453	C
81	DA	456	U
81	DA	457	C
81	DA	458	U
81	DA	460	C
81	DA	462	C
81	DA	463	C
81	DA	466	G
81	DA	467	U
81	DA	468	G
81	DA	469	G
81	DA	470	G
81	DA	471	U
81	DA	473	G
81	DA	474	G
81	DA	475	G
81	DA	476	G
81	DA	481	U
81	DA	482	C
81	DA	483	G
81	DA	484	C
81	DA	485	A
81	DA	489	C
81	DA	490	A
81	DA	491	C
81	DA	492	U
81	DA	493	G

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Mol	Chain	Res	Type
81	DA	494	G
81	DA	495	G
81	DA	496	C
81	DA	497	C
81	DA	498	A
81	DA	500	C
81	DA	501	A
81	DA	502	U
81	DA	506	U
81	DA	507	U
81	DA	508	U
81	DA	510	G
81	DA	511	G
81	DA	512	U
81	DA	513	G
81	DA	516	A
81	DA	517	G
81	DA	518	G
81	DA	519	A
81	DA	520	U
81	DA	521	A
81	DA	523	A
81	DA	524	U
81	DA	525	C
81	DA	527	A
81	DA	528	U
81	DA	530	G
81	DA	532	A
81	DA	533	A
81	DA	534	U
81	DA	535	G
81	DA	536	U
81	DA	537	A
81	DA	538	G
81	DA	539	C
81	DA	540	U
81	DA	541	U
81	DA	544	C
81	DA	545	U
81	DA	547	G
81	DA	548	G
81	DA	549	U

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Mol	Chain	Res	Type
81	DA	551	A
81	DA	552	G
81	DA	553	U
81	DA	555	U
81	DA	556	U
81	DA	557	A
81	DA	558	U
81	DA	559	A
81	DA	560	G
81	DA	561	C
81	DA	562	C
81	DA	563	U
81	DA	565	U
81	DA	567	G
81	DA	569	A
81	DA	570	A
81	DA	571	U
81	DA	573	C
81	DA	577	C
81	DA	578	A
81	DA	579	G
81	DA	581	U
81	DA	582	G
81	DA	583	G
81	DA	585	A
81	DA	586	C
81	DA	587	U
81	DA	593	C
81	DA	594	U
81	DA	595	G
81	DA	597	G
81	DA	599	C
81	DA	600	G
81	DA	601	U
81	DA	602	A
81	DA	603	A
81	DA	604	G
81	DA	606	C
81	DA	607	A
81	DA	608	A
81	DA	609	G
81	DA	612	U

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Mol	Chain	Res	Type
81	DA	614	C
81	DA	616	G
81	DA	617	G
81	DA	623	U
81	DA	624	G
81	DA	626	U
81	DA	628	A
81	DA	629	U
81	DA	634	C
81	DA	635	G
81	DA	636	C
81	DA	637	C
81	DA	638	C
81	DA	639	G
81	DA	640	U
81	DA	641	C
81	DA	647	A
81	DA	648	C
81	DA	649	A
81	DA	652	G
81	DA	656	A
81	DA	662	U
81	DA	663	C
81	DA	671	U
81	DA	672	A
81	DA	673	U
81	DA	674	G
81	DA	675	C
81	DA	676	G
81	DA	677	A
81	DA	678	G
81	DA	679	U
81	DA	681	U
81	DA	682	U
81	DA	688	G
81	DA	689	U
81	DA	690	A
81	DA	691	A
81	DA	698	U
81	DA	699	A
81	DA	700	C
81	DA	701	G

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Mol	Chain	Res	Type
81	DA	702	C
81	DA	703	G
81	DA	704	U
81	DA	705	A
81	DA	706	A
81	DA	709	A
81	DA	710	A
81	DA	714	G
81	DA	715	A
81	DA	723	U
81	DA	729	C
81	DA	730	C
81	DA	732	C
81	DA	733	G
81	DA	735	A
81	DA	736	A
81	DA	737	G
81	DA	740	G
81	DA	741	U
81	DA	742	G
81	DA	745	C
81	DA	751	A
81	DA	753	C
81	DA	763	G
81	DA	764	U
81	DA	765	C
81	DA	767	U
81	DA	768	C
81	DA	769	G
81	DA	770	G
81	DA	773	G
81	DA	781	G
81	DA	782	U
81	DA	783	A
81	DA	784	A
81	DA	785	G
81	DA	786	A
81	DA	787	G
81	DA	788	C
81	DA	789	A
81	DA	792	G
81	DA	793	C

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Mol	Chain	Res	Type
81	DA	799	G
81	DA	800	G
81	DA	808	A
81	DA	813	G
81	DA	814	U
81	DA	817	A
81	DA	835	G
81	DA	837	A
81	DA	838	G
81	DA	839	C
81	DA	840	C
81	DA	843	A
81	DA	849	C
81	DA	852	U
81	DA	856	G
81	DA	857	G
81	DA	858	A
81	DA	859	G
81	DA	861	C
81	DA	862	U
81	DA	864	G
81	DA	865	U
81	DA	874	U
81	DA	879	U
81	DA	884	A
81	DA	888	A
81	DA	895	A
81	DA	896	A
81	DA	897	U
81	DA	900	G
81	DA	903	U
81	DA	907	G
81	DA	908	G
81	DA	914	A
81	DA	916	G
81	DA	917	A
81	DA	921	A
81	DA	924	G
81	DA	928	C
81	DA	933	A
81	DA	934	G
81	DA	937	G

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Mol	Chain	Res	Type
81	DA	944	C
81	DA	948	C
81	DA	960	U
81	DA	962	A
81	DA	966	U
81	DA	969	C
81	DA	970	A
81	DA	975	C
81	DA	976	U
81	DA	977	C
81	DA	983	A
81	DA	985	U
81	DA	987	U
81	DA	991	G
81	DA	993	G
81	DA	994	G
81	DA	995	U
81	DA	996	A
81	DA	997	A
81	DA	1002	A
81	DA	1003	A
81	DA	1005	G
81	DA	1006	A
81	DA	1009	A
81	DA	1011	A
81	DA	1014	U
81	DA	1018	G
81	DA	1021	G
81	DA	1035	G
81	DA	1038	C
81	DA	1040	A
81	DA	1042	U
81	DA	1044	U
81	DA	1047	A
81	DA	1048	A
81	DA	1049	C
81	DA	1050	U
81	DA	1055	A
81	DA	1056	U
81	DA	1058	U
81	DA	1061	A
81	DA	1062	A

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Mol	Chain	Res	Type
81	DA	1063	G
81	DA	1064	A
81	DA	1067	U
81	DA	1077	U
81	DA	1079	A
81	DA	1080	A
81	DA	1085	A
81	DA	1088	U
81	DA	1089	G
81	DA	1094	U
81	DA	1100	U
81	DA	1102	A
81	DA	1105	A
81	DA	1114	U
81	DA	1115	G
81	DA	1116	G
81	DA	1117	G
81	DA	1125	U
81	DA	1130	A
81	DA	1131	G
81	DA	1132	C
81	DA	1137	C
81	DA	1143	A
81	DA	1144	U
81	DA	1145	G
81	DA	1152	G
81	DA	1153	A
81	DA	1159	A
81	DA	1160	C
81	DA	1161	G
81	DA	1165	A
81	DA	1172	G
81	DA	1178	G
81	DA	1179	A
81	DA	1181	U
81	DA	1182	A
81	DA	1186	G
81	DA	1191	U
81	DA	1193	A
81	DA	1194	G
81	DA	1195	A
81	DA	1196	C

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Mol	Chain	Res	Type
81	DA	1199	C
81	DA	1200	A
81	DA	1201	C
81	DA	1206	G
81	DA	1207	G
81	DA	1208	U
81	DA	1209	G
81	DA	1210	U
81	DA	1215	U
81	DA	1216	C
81	DA	1217	A
81	DA	1219	C
81	DA	1220	U
81	DA	1221	A
81	DA	1227	C
81	DA	1231	A
81	DA	1232	C
81	DA	1233	G
81	DA	1234	G
81	DA	1235	U
81	DA	1236	G
81	DA	1237	G
81	DA	1242	G
81	DA	1243	G
81	DA	1244	A
81	DA	1245	A
81	DA	1246	G
81	DA	1248	C
81	DA	1251	A
81	DA	1252	A
81	DA	1256	G
81	DA	1258	U
81	DA	1259	A
81	DA	1260	A
81	DA	1262	G
81	DA	1263	A
81	DA	1265	U
81	DA	1269	U
81	DA	1270	A
81	DA	1274	A
81	DA	1278	A
81	DA	1279	C

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Mol	Chain	Res	Type
81	DA	1283	C
81	DA	1286	A
81	DA	1287	A
81	DA	1289	G
81	DA	1290	A
81	DA	1291	A
81	DA	1292	C
81	DA	1293	U
81	DA	1294	A
81	DA	1296	C
81	DA	1297	C
81	DA	1298	C
81	DA	1299	U
81	DA	1301	A
81	DA	1307	G
81	DA	1308	A
81	DA	1309	U
81	DA	1310	G
81	DA	1313	G
81	DA	1314	C
81	DA	1321	G
81	DA	1322	U
81	DA	1334	U
81	DA	1336	U
81	DA	1339	C
81	DA	1344	G
81	DA	1361	U
81	DA	1366	A
81	DA	1379	G
81	DA	1384	U
81	DA	1385	C
81	DA	1391	C
81	DA	1392	G
81	DA	1394	A
81	DA	1397	C
81	DA	1401	A
81	DA	1404	G
81	DA	1407	A
81	DA	1408	G
81	DA	1409	G
81	DA	1412	G
81	DA	1414	G

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Mol	Chain	Res	Type
81	DA	1417	G
81	DA	1418	A
81	DA	1419	A
81	DA	1421	G
81	DA	1428	A
81	DA	1430	U
81	DA	1432	C
81	DA	1434	G
81	DA	1436	U
81	DA	1437	C
81	DA	1446	A
81	DA	1447	G
81	DA	1454	A
81	DA	1456	A
81	DA	1479	U
81	DA	1480	G
81	DA	1481	A
81	DA	1482	A
81	DA	1483	G
81	DA	1484	U
81	DA	1485	G
81	DA	1493	G
81	DA	1500	G
81	DA	1501	U
81	DA	1506	A
81	DA	1507	G
81	DA	1514	G
81	DA	1515	A
81	DA	1518	U
81	DA	1525	G
81	DA	1526	U
81	DA	1527	C
81	DA	1528	G
81	DA	1529	A
81	DA	1531	C
81	DA	1534	A
81	DA	1535	A
81	DA	1536	G
81	DA	1537	A
81	DA	1538	G
81	DA	1539	A
81	DA	1540	U

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Mol	Chain	Res	Type
81	DA	1541	G
81	DA	1542	G
81	DA	1543	G
81	DA	1547	G
81	DA	1551	C
81	DA	1552	G
81	DA	1561	G
81	DA	1563	C
81	DA	1564	U
81	DA	1565	G
81	DA	1566	A
81	DA	1568	U
81	DA	1570	U
81	DA	1571	A
81	DA	1572	U
81	DA	1573	G
81	DA	1575	A
81	DA	1576	G
81	DA	1579	C
81	DA	1580	A
81	DA	1581	C
81	DA	1583	A
81	DA	1584	U
81	DA	1585	C
81	DA	1586	G
81	DA	1587	A
81	DA	1588	A
81	DA	1589	A
81	DA	1590	G
81	DA	1593	A
81	DA	1598	G
81	DA	1603	A
81	DA	1607	U
81	DA	1608	C
81	DA	1609	C
81	DA	1610	G
81	DA	1616	U
81	DA	1618	G
81	DA	1621	A
81	DA	1622	U
81	DA	1623	G
81	DA	1624	G

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Mol	Chain	Res	Type
81	DA	1625	A
81	DA	1626	U
81	DA	1629	U
81	DA	1630	U
81	DA	1631	C
81	DA	1633	C
81	DA	1634	G
81	DA	1635	G
81	DA	1638	A
81	DA	1639	C
81	DA	1640	G
81	DA	1641	U
81	DA	1645	U
81	DA	1648	A
81	DA	1649	U
81	DA	1653	G
81	DA	1657	C
81	DA	1658	G
81	DA	1662	G
81	DA	1666	G
81	DA	1667	A
81	DA	1668	G
81	DA	1674	G
81	DA	1676	A
81	DA	1679	A
81	DA	1683	A
81	DA	1684	U
81	DA	1685	C
81	DA	1686	U
81	DA	1687	U
81	DA	1688	U
81	DA	1690	C
81	DA	1691	U
81	DA	1692	U
81	DA	1693	C
81	DA	1694	U
81	DA	1695	U
81	DA	1696	A
81	DA	1698	C
81	DA	1699	A
81	DA	1701	C
81	DA	1702	U

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Mol	Chain	Res	Type
81	DA	1703	U
81	DA	1704	A
81	DA	1705	U
81	DA	1707	A
81	DA	1709	C
81	DA	1710	C
81	DA	1711	C
81	DA	1713	G
81	DA	1717	U
81	DA	1718	G
81	DA	1728	G
81	DA	1729	A
81	DA	1730	G
81	DA	1731	A
81	DA	1734	G
81	DA	1742	U
81	DA	1743	G
81	DA	1745	C
81	DA	1747	G
81	DA	1749	A
81	DA	1750	A
81	DA	1751	G
81	DA	1752	A
81	DA	1754	G
81	DA	1755	C
81	DA	1756	C
81	DA	1757	A
81	DA	1758	G
81	DA	1767	C
81	DA	1768	U
81	DA	1769	G
81	DA	1771	C
81	DA	1772	U
81	DA	1773	C
81	DA	1774	C
81	DA	1775	G
81	DA	1777	U
81	DA	1778	G
81	DA	1779	C
81	DA	1781	C
81	DA	1782	U
81	DA	1784	G

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Mol	Chain	Res	Type
81	DA	1789	G
81	DA	1792	C
81	DA	1794	G
81	DA	1802	C
81	DA	1806	A
81	DA	1807	G
81	DA	1809	A
81	DA	1810	A
81	DA	1811	G
81	DA	1814	A
81	DA	1815	U
81	DA	1816	A
81	DA	1817	G
81	DA	1818	U
81	DA	1819	U
81	DA	1820	U
81	DA	1821	U
81	DA	1824	U
81	DA	1826	C
81	DA	1827	C
81	DA	1829	G
81	DA	1830	G
81	DA	1831	U
81	DA	1832	C
81	DA	1833	G
81	DA	1839	A
81	DA	1840	U
81	DA	1841	A
81	DA	1842	A
81	DA	1847	A
81	DA	1848	G
81	DA	1849	C
81	DA	1850	A
81	DA	1856	C
81	DA	1857	C
81	DA	1858	A
81	DA	1860	G
81	DA	1864	A
81	DA	1865	A
81	DA	1869	C
81	DA	1871	U
81	DA	1872	C

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Mol	Chain	Res	Type
81	DA	1873	U
81	DA	1877	U
81	DA	1878	G
81	DA	1879	A
81	DA	1880	U
81	DA	1886	A
81	DA	1896	A
81	DA	1897	G
81	DA	1898	G
81	DA	1904	C
81	DA	1906	G
81	DA	1907	C
81	DA	1908	A
81	DA	1928	G
81	DA	1932	A
81	DA	1940	G
81	DA	1943	C
81	DA	1944	U
81	DA	1948	G
81	DA	1949	G
81	DA	1954	G
81	DA	1966	U
81	DA	1967	U
81	DA	1973	G
81	DA	1975	C
81	DA	1976	G
81	DA	1989	U
81	DA	1990	U
81	DA	1995	A
81	DA	2010	U
81	DA	2011	U
81	DA	2013	C
81	DA	2031	U
81	DA	2032	U
81	DA	2041	U
81	DA	2042	G
81	DA	2044	U
81	DA	2047	A
81	DA	2048	G
81	DA	2067	U
81	DA	2068	U
81	DA	2071	A

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Mol	Chain	Res	Type
81	DA	2072	G
81	DA	2073	A
81	DA	2080	C
81	DA	2081	U
81	DA	2087	C
81	DA	2099	A
81	DA	2100	A
81	DA	2102	U
81	DA	2108	C
81	DA	2115	G
81	DA	2116	G
81	DA	2119	A
81	DA	2120	A
81	DA	2121	G
81	DA	2122	G
81	DA	2131	A
81	DA	2137	U
81	DA	2138	A
81	DA	2149	A
81	DA	2157	G
81	DA	2158	A
81	DA	2170	U
81	DA	2174	G
81	DA	2175	U
81	DA	2177	G
81	DA	2178	A
81	DA	2179	C
81	DA	2180	G
81	DA	2181	C
81	DA	2182	A
81	DA	2187	G
81	DA	2188	A
81	DA	2189	U
81	DA	2190	U
81	DA	2194	G
81	DA	2207	A
81	DA	2208	A
81	DA	2209	U
81	DA	2210	G
81	DA	2211	U
81	DA	2212	C
81	DA	2216	G

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Mol	Chain	Res	Type
81	DA	2225	U
81	DA	2229	A
81	DA	2230	C
81	DA	2236	G
81	DA	2237	C
81	DA	2239	G
81	DA	2244	A
81	DA	2245	C
81	DA	2251	G
81	DA	2258	U
81	DA	2259	A
81	DA	2266	U
81	DA	2267	C
81	DA	2268	U
81	DA	2270	A
81	DA	2273	G
81	DA	2275	A
81	DA	2280	A
81	DA	2281	A
81	DA	2282	U
81	DA	2283	G
81	DA	2284	C
81	DA	2287	C
81	DA	2298	U
81	DA	2305	G
81	DA	2306	C
81	DA	2308	C
81	DA	2310	U
81	DA	2313	A
81	DA	2314	U
81	DA	2315	G
81	DA	2316	G
81	DA	2323	G
81	DA	2335	G
81	DA	2336	U
81	DA	2339	C
81	DA	2340	U
81	DA	2351	U
81	DA	2355	G
81	DA	2362	C
81	DA	2363	A
81	DA	2364	G

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Mol	Chain	Res	Type
81	DA	2365	C
81	DA	2368	A
81	DA	2369	G
81	DA	2370	G
81	DA	2373	A
81	DA	2374	C
81	DA	2375	G
81	DA	2376	G
81	DA	2377	G
81	DA	2378	C
81	DA	2384	A
81	DA	2385	G
81	DA	2387	A
81	DA	2392	C
81	DA	2394	G
81	DA	2397	A
81	DA	2402	A
81	DA	2403	G
81	DA	2406	C
81	DA	2407	C
81	DA	2411	U
81	DA	2419	A
81	DA	2421	U
81	DA	2422	C
81	DA	2424	A
81	DA	2435	G
81	DA	2436	U
81	DA	2438	A
81	DA	2439	A
81	DA	2440	G
81	DA	2441	A
81	DA	2443	A
81	DA	2444	C
81	DA	2445	A
81	DA	2446	U
81	DA	2447	A
81	DA	2448	G
81	DA	2451	G
81	DA	2452	G
81	DA	2453	U
81	DA	2454	G
81	DA	2455	U

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Mol	Chain	Res	Type
81	DA	2458	A
81	DA	2459	A
81	DA	2461	A
81	DA	2463	G
81	DA	2464	U
81	DA	2467	G
81	DA	2468	A
81	DA	2469	G
81	DA	2470	C
81	DA	2471	U
81	DA	2472	U
81	DA	2473	C
81	DA	2474	G
81	DA	2475	G
81	DA	2477	G
81	DA	2478	C
81	DA	2479	C
81	DA	2480	A
81	DA	2481	G
81	DA	2482	U
81	DA	2484	A
81	DA	2485	A
81	DA	2487	U
81	DA	2488	A
81	DA	2489	C
81	DA	2490	C
81	DA	2491	A
81	DA	2492	C
81	DA	2493	U
81	DA	2494	A
81	DA	2495	C
81	DA	2496	C
81	DA	2498	U
81	DA	2499	U
81	DA	2501	U
81	DA	2502	A
81	DA	2503	G
81	DA	2504	U
81	DA	2505	U
81	DA	2506	U
81	DA	2507	C
81	DA	2508	U

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Mol	Chain	Res	Type
81	DA	2509	U
81	DA	2510	U
81	DA	2511	A
81	DA	2514	U
81	DA	2526	C
81	DA	2530	G
81	DA	2545	C
81	DA	2547	A
81	DA	2563	G
81	DA	2567	C
81	DA	2569	A
81	DA	2571	U
81	DA	2573	G
81	DA	2579	G
81	DA	2580	A
81	DA	2581	U
81	DA	2587	U
81	DA	2592	G
81	DA	2593	A
81	DA	2594	C
81	DA	2596	U
81	DA	2597	U
81	DA	2606	G
81	DA	2607	G
81	DA	2614	G
81	DA	2615	G
81	DA	2617	U
81	DA	2618	G
81	DA	2619	G
81	DA	2620	G
81	DA	2621	G
81	DA	2622	C
81	DA	2625	C
81	DA	2626	A
81	DA	2627	C
81	DA	2629	U
81	DA	2630	C
81	DA	2632	G
81	DA	2633	U
81	DA	2636	A
81	DA	2637	A
81	DA	2638	C

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Mol	Chain	Res	Type
81	DA	2640	A
81	DA	2649	A
81	DA	2651	G
81	DA	2652	U
81	DA	2656	A
81	DA	2657	A
81	DA	2658	G
81	DA	2665	U
81	DA	2667	A
81	DA	2669	G
81	DA	2673	A
81	DA	2674	A
81	DA	2675	C
81	DA	2676	A
81	DA	2677	G
81	DA	2678	A
81	DA	2680	A
81	DA	2681	U
81	DA	2682	C
81	DA	2683	U
81	DA	2684	C
81	DA	2686	A
81	DA	2688	U
81	DA	2689	A
81	DA	2690	G
81	DA	2694	A
81	DA	2696	A
81	DA	2699	G
81	DA	2702	A
81	DA	2703	A
81	DA	2704	A
81	DA	2706	G
81	DA	2709	C
81	DA	2711	C
81	DA	2713	U
81	DA	2714	G
81	DA	2715	A
81	DA	2717	U
81	DA	2718	U
81	DA	2721	A
81	DA	2723	U
81	DA	2724	U

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Mol	Chain	Res	Type
81	DA	2727	A
81	DA	2728	G
81	DA	2729	U
81	DA	2735	U
81	DA	2736	A
81	DA	2737	C
81	DA	2738	A
81	DA	2747	A
81	DA	2752	U
81	DA	2755	C
81	DA	2756	C
81	DA	2757	U
81	DA	2758	A
81	DA	2759	U
81	DA	2760	C
81	DA	2761	G
81	DA	2763	U
81	DA	2764	C
81	DA	2777	G
81	DA	2780	A
81	DA	2784	G
81	DA	2785	A
81	DA	2788	C
81	DA	2795	U
81	DA	2796	G
81	DA	2797	C
81	DA	2798	C
81	DA	2799	A
81	DA	2800	G
81	DA	2801	A
81	DA	2802	A
81	DA	2803	A
81	DA	2810	C
81	DA	2816	G
81	DA	2817	A
81	DA	2825	C
81	DA	2830	G
81	DA	2841	G
81	DA	2845	A
81	DA	2859	U
81	DA	2860	U
81	DA	2861	U

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Mol	Chain	Res	Type
81	DA	2864	A
81	DA	2866	U
81	DA	2867	C
81	DA	2871	G
81	DA	2872	A
81	DA	2873	U
81	DA	2875	U
81	DA	2887	A
81	DA	2890	A
81	DA	2898	G
81	DA	2899	C
81	DA	2900	A
81	DA	2904	U
81	DA	2912	G
81	DA	2916	U
81	DA	2923	U
81	DA	2929	C
81	DA	2935	U
81	DA	2936	A
81	DA	2941	A
81	DA	2942	C
81	DA	2947	G
81	DA	2951	G
81	DA	2954	U
81	DA	2957	G
81	DA	2964	G
81	DA	2968	G
81	DA	2970	C
81	DA	2971	A
81	DA	2972	G
81	DA	2983	C
81	DA	2989	U
81	DA	2993	G
81	DA	2994	A
81	DA	2997	G
81	DA	2998	U
81	DA	2999	U
81	DA	3000	A
81	DA	3001	C
81	DA	3002	C
81	DA	3003	G
81	DA	3011	A

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Mol	Chain	Res	Type
81	DA	3012	A
81	DA	3013	U
81	DA	3035	A
81	DA	3041	U
81	DA	3042	U
81	DA	3044	G
81	DA	3045	G
81	DA	3048	A
81	DA	3051	U
81	DA	3052	G
81	DA	3056	U
81	DA	3063	C
81	DA	3071	U
81	DA	3072	C
81	DA	3079	U
81	DA	3081	C
81	DA	3087	A
81	DA	3090	U
81	DA	3091	A
81	DA	3092	C
81	DA	3093	C
81	DA	3094	A
81	DA	3098	G
81	DA	3099	C
81	DA	3100	U
81	DA	3107	U
81	DA	3108	G
81	DA	3113	A
81	DA	3116	G
81	DA	3122	A
81	DA	3130	A
81	DA	3131	U
81	DA	3136	G
81	DA	3137	C
81	DA	3138	U
81	DA	3139	A
81	DA	3141	A
81	DA	3142	A
81	DA	3143	C
81	DA	3144	G
81	DA	3145	C
81	DA	3146	G

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Mol	Chain	Res	Type
81	DA	3150	A
81	DA	3151	U
81	DA	3163	A
81	DA	3164	C
81	DA	3165	A
81	DA	3166	C
81	DA	3167	A
81	DA	3168	A
81	DA	3212	C
81	DA	3215	A
81	DA	3216	G
81	DA	3217	C
81	DA	3218	A
81	DA	3219	G
81	DA	3220	G
81	DA	3221	C
81	DA	3222	U
81	DA	3223	A
81	DA	3229	G
81	DA	3230	G
81	DA	3231	U
81	DA	3232	G
81	DA	3234	A
81	DA	3235	C
81	DA	3237	U
81	DA	3239	G
81	DA	3240	C
81	DA	3241	G
81	DA	3242	G
81	DA	3243	A
81	DA	3244	A
81	DA	3246	G
81	DA	3247	G
81	DA	3248	C
81	DA	3249	C
81	DA	3250	U
81	DA	3251	U
81	DA	3252	G
81	DA	3253	G
81	DA	3254	G
81	DA	3256	G
81	DA	3257	C

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Mol	Chain	Res	Type
81	DA	3258	U
81	DA	3282	U
81	DA	3283	U
81	DA	3284	G
81	DA	3285	C
81	DA	3288	G
81	DA	3289	G
81	DA	3290	G
81	DA	3296	A
81	DA	3297	U
81	DA	3299	A
81	DA	3300	U
81	DA	3301	U
81	DA	3304	U
81	DA	3305	A
81	DA	3306	U
81	DA	3308	C
81	DA	3312	U
81	DA	3314	A
81	DA	3316	A
81	DA	3317	U
81	DA	3318	G
81	DA	3319	U
81	DA	3320	A
81	DA	3321	C
81	DA	3325	G
81	DA	3326	G
81	DA	3328	G
81	DA	3334	U
81	DA	3336	A
81	DA	3337	G
81	DA	3342	A
81	DA	3343	G
81	DA	3344	A
81	DA	3346	U
81	DA	3361	G
81	DA	3362	A
81	DA	3363	U
81	DA	3364	C
81	DA	3365	U
81	DA	3368	U
81	DA	3369	G

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Mol	Chain	Res	Type
81	DA	3370	A
81	DA	3371	G
81	DA	3373	U
81	DA	3374	U
81	DA	3375	A
81	DA	3382	U
81	DA	3383	G
81	DA	3384	U
81	DA	3385	U
81	DA	3386	G
81	DA	3387	U
81	DA	3388	C
81	DA	3389	U
81	DA	3394	U
81	DA	3395	G
81	DA	3396	U
82	DB	3	A
82	DB	4	C
82	DB	20	U
82	DB	21	C
82	DB	23	U
82	DB	29	U
82	DB	34	U
82	DB	36	G
82	DB	37	A
82	DB	38	U
82	DB	39	G
82	DB	45	C
82	DB	47	C
82	DB	48	A
82	DB	49	G
82	DB	51	G
82	DB	52	A
82	DB	59	A
82	DB	60	U
82	DB	61	A
82	DB	62	C
82	DB	64	U
82	DB	66	A
82	DB	83	C
82	DB	84	C
82	DB	85	G

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Mol	Chain	Res	Type
82	DB	86	U
82	DB	88	A
82	DB	89	A
82	DB	90	U
82	DB	91	C
82	DB	92	A
82	DB	94	C
82	DB	95	G
82	DB	96	A
82	DB	97	A
82	DB	98	U
82	DB	100	U
82	DB	104	A
82	DB	105	A
82	DB	106	C
82	DB	107	G
82	DB	111	A
82	DB	112	U
82	DB	120	C
82	DB	121	U
82	DB	122	U
82	DB	125	U
82	DB	126	A
82	DB	127	U
82	DB	128	U
82	DB	129	C
82	DB	132	G
82	DB	133	G
82	DB	134	G
82	DB	135	G
82	DB	138	A
82	DB	139	U
82	DB	145	U
82	DB	150	G
82	DB	151	C
82	DB	152	G
82	DB	154	C
82	DB	157	U
82	DB	158	U
83	DC	4	U
83	DC	9	C
83	DC	11	A

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Mol	Chain	Res	Type
83	DC	13	A
83	DC	15	C
83	DC	16	U
83	DC	18	C
83	DC	19	C
83	DC	21	G
83	DC	22	A
83	DC	23	A
83	DC	24	A
83	DC	25	G
83	DC	26	C
83	DC	27	A
83	DC	28	C
83	DC	29	C
83	DC	30	G
83	DC	31	U
83	DC	32	U
83	DC	38	U
83	DC	39	C
83	DC	41	G
83	DC	42	A
83	DC	45	A
83	DC	46	A
83	DC	47	C
83	DC	48	U
83	DC	49	G
83	DC	50	U
83	DC	51	G
83	DC	52	U
83	DC	54	A
83	DC	55	A
83	DC	56	G
83	DC	58	U
83	DC	61	U
83	DC	62	A
83	DC	63	G
83	DC	64	A
83	DC	70	A
83	DC	71	C
83	DC	73	G
83	DC	74	A
83	DC	75	G

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Mol	Chain	Res	Type
83	DC	76	U
83	DC	84	G
83	DC	86	G
83	DC	90	C
83	DC	93	U
83	DC	95	C
83	DC	99	A
83	DC	101	A
83	DC	102	C
83	DC	105	A
83	DC	108	U
83	DC	109	G
83	DC	114	A
83	DC	115	A
83	DC	116	U

There are no RNA pucker outliers to report.

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
44	BO	3
23	AW	1
80	CC	1
74	BQ	1
78	CA	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AW	31:UNK	C	59:UNK	N	10.96
1	CC	18:C	O3'	19:U	P	2.07
1	CA	1255:G	O3'	1256:A	P	1.94
1	BQ	39:GLN	C	40:HIS	N	1.90
1	BO	21:ARG	C	22:ILE	N	1.82
1	BO	73:LEU	C	74:ASN	N	1.03
1	BO	20:GLY	C	21:ARG	N	0.61