



## wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 03:25 PM BST

PDB ID : 4V6W  
EMDB ID: : EMD-5591  
Title : Structure of the D. melanogaster 80S ribosome  
Authors : Anger, A.M.; Armache, J.-P.; Berninghausen, O.; Habeck, M.; Subklewe, M.;  
Wilson, D.N.; Beckmann, R.  
Deposited on : 2013-02-27  
Resolution : 6.00 Å(reported)

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.  
For rigid body fitted models, validation errors reported here could stem from errors in the original structure(s) used in the fitting.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/EMValidationReportHelp>

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MolProbity : 4.02b-467  
Mogul : unknown  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : trunk27241

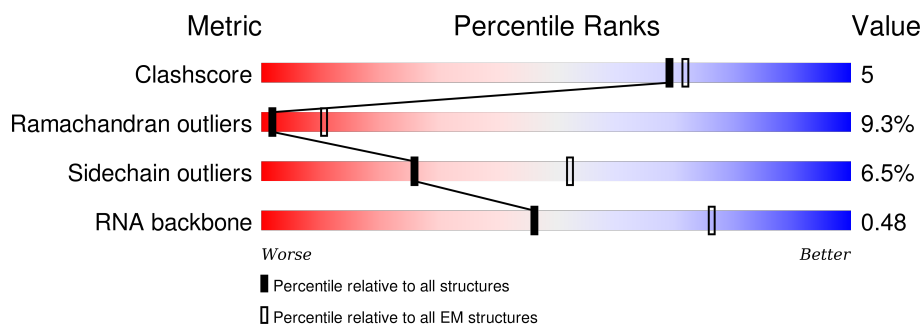
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 6.00 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.















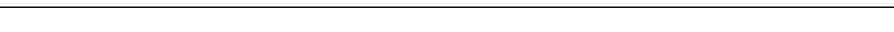

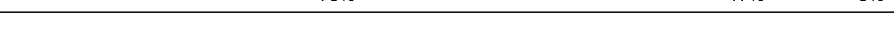

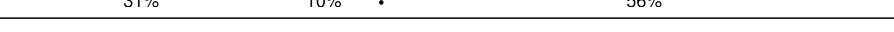








Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686
RNA backbone	3027	244

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  $\geq 3$ , 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	Az	844	70% 22% 5% ..
2	Ag	318	86% 13% .
3	AU	120	68% 15% . 15%
4	AK	163	38% 15% .. 42%
5	AO	151	64% 19% . . 11%
6	AX	143	78% 18% . .
7	AM	139	57% 19% 6% . 14%
8	AS	152	65% 18% . . 10%









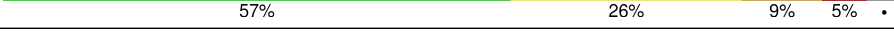

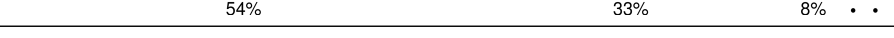
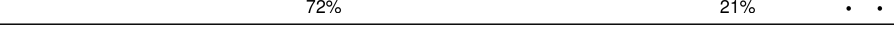

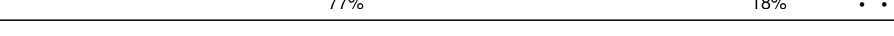


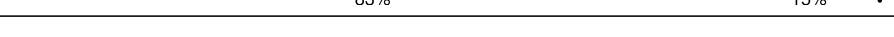

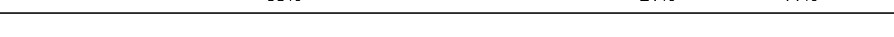






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Mol	Chain	Length	Quality of chain
9	Ad	56	
10	AN	151	
11	AL	155	
12	AR	131	
13	AP	148	
14	AT	156	
15	AB	268	
16	AA	313	
17	AV	83	
18	AY	131	
19	AZ	117	
20	Aa	114	
21	Ab	84	
22	Ac	65	
23	AD	246	
24	Ae	132	
25	Af	80	
26	AJ	195	
27	AE	261	
28	AC	267	
29	AG	248	
30	AF	228	
31	AH	194	
32	AW	130	
33	AI	208	

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Mol	Chain	Length	Quality of chain
34	AQ	148	
35	Ah	121	
36	B2	1995	
37	BC	75	
38	Cz	218	
39	Cq	223	
40	CK	165	
41	CO	205	
42	CL	218	
43	CV	140	
44	CM	166	
45	Ca	149	
46	CN	204	
47	CI	218	
48	CD	299	
49	CQ	188	
50	CR	203	
51	CA	256	
52	CS	177	
53	CT	159	
54	CP	186	
55	CU	299	
56	CX	277	
57	CY	149	
58	CW	155	

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Mol	Chain	Length	Quality of chain
59	CZ	135	
60	Cr	144	
61	Ch	123	
62	Cb	76	
63	CB	416	
64	CF	252	
65	Cc	111	
66	Cd	124	
67	Ce	134	
68	Cf	157	
69	Cg	162	
70	Ci	115	
71	Cj	93	
72	Ck	70	
73	Cl	51	
74	CC	401	
75	Cm	52	
76	Cn	25	
77	Cp	92	
78	Co	104	
79	CJ	184	
80	CH	190	
81	CE	243	
82	CG	271	
83	A5	3970	

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Mol	Chain	Length	Quality of chain
84	A9	30	<div><div></div><div>63%</div><div>23%</div><div>13%</div></div>
85	A7	120	<div><div></div><div>63%</div><div>33%</div><div></div></div>
86	A8	123	<div><div></div><div>59%</div><div>34%</div><div></div></div>

## 2 Entry composition [i](#)

There are 86 unique types of molecules in this entry. The entry contains 230721 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 Elongation factor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Az	837	Total	C	N	O	S	0	0
			6574	4170	1123	1235	46		

- Molecule 2 is a protein called Guanine nucleotide-binding protein subunit beta-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	Ag	318	Total	C	N	O	S	0	0
			2511	1577	444	480	10		

- Molecule 3 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AU	102	Total	C	N	O	S	0	0
			815	505	161	145	4		

- Molecule 4 is a protein called 40S ribosomal protein S10a.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AK	95	Total	C	N	O	S	0	0
			797	522	136	137	2		

- Molecule 5 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AO	134	Total	C	N	O	S	0	0
			1003	616	196	187	4		

- Molecule 6 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AX	143	Total	C	N	O	S	0	0
			1131	712	226	191	2		

- Molecule 7 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AM	119	Total	C	N	O	S	0	0
			924	582	165	171	6		

- Molecule 8 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AS	137	Total	C	N	O	S	0	0
			1128	707	220	198	3		

- Molecule 9 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	Ad	52	Total	C	N	O	S	0	0
			433	269	87	72	5		

- Molecule 10 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AN	150	Total	C	N	O	S	0	0
			1202	767	229	203	3		

- Molecule 11 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AL	155	Total	C	N	O	S	0	0
			1274	803	254	211	6		

- Molecule 12 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AR	120	Total	C	N	O	S	0	0
			981	618	183	176	4		

- Molecule 13 is a protein called 40S ribosomal protein S15, isoform A.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AP	124	Total	C	N	O	S	0	0
			1016	652	189	169	6		

- Molecule 14 is a protein called 40S ribosomal protein S19a.



Mol	Chain	Residues	Atoms					AltConf	Trace
14	AT	154	Total	C	N	O	S	0	0
			1203	762	230	207	4		

- Molecule 15 is a protein called 40S ribosomal protein S3a.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AB	220	Total	C	N	O	S	0	0
			1798	1138	328	324	8		

- Molecule 16 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AA	218	Total	C	N	O	S	0	0
			1737	1113	298	321	5		

- Molecule 17 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AV	82	Total	C	N	O	S	0	0
			617	373	114	125	5		

There are 13 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AV	2	GLN	GLU	CONFLICT	UNP O76927
AV	8	PHE	ASN	CONFLICT	UNP O76927
AV	25	GLY	HIS	CONFLICT	UNP O76927
AV	32	ILE	VAL	CONFLICT	UNP O76927
AV	34	MET	LEU	CONFLICT	UNP O76927
AV	35	ASN	SER	CONFLICT	UNP O76927
AV	36	VAL	ILE	CONFLICT	UNP O76927
AV	58	ALA	GLU	CONFLICT	UNP O76927
AV	68	SER	CYS	CONFLICT	UNP O76927
AV	70	LEU	VAL	CONFLICT	UNP O76927
AV	75	ALA	LYS	CONFLICT	UNP O76927
AV	79	VAL	ILE	CONFLICT	UNP O76927
AV	80	SER	THR	CONFLICT	UNP O76927

- Molecule 18 is a protein called 40S ribosomal protein S24.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AY	126	Total	C	N	O	S	0	0
			1016	644	196	171	5		

- Molecule 19 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AZ	74	Total	C	N	O	S	0	0
			608	390	112	106			

- Molecule 20 is a protein called 40S ribosomal protein S26.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	Aa	107	Total	C	N	O	S	0	0
			867	539	182	140	6		

- Molecule 21 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	Ab	84	Total	C	N	O	S	0	0
			653	412	123	110	8		

- Molecule 22 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	Ac	62	Total	C	N	O	S	0	0
			498	307	100	89	2		

- Molecule 23 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AD	227	Total	C	N	O	S	0	0
			1782	1127	319	326	10		

- Molecule 24 is a protein called 40S ribosomal protein S30, isoform A.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	Ae	58	Total	C	N	O	S	0	0
			469	289	105	75			

- Molecule 25 is a protein called 40S ribosomal protein S27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Af	80	Total	C	N	O	S	0	0
			659	417	128	109	5		

- Molecule 26 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AJ	181	Total	C	N	O	S	0	0
			1503	957	298	247	1		

- Molecule 27 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	AE	261	Total	C	N	O	S	0	0
			2054	1314	380	353	7		

- Molecule 28 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	AC	227	Total	C	N	O	S	0	0
			1746	1126	302	311	7		

- Molecule 29 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AG	231	Total	C	N	O	S	0	0
			1866	1172	372	315	7		

- Molecule 30 is a protein called 40S ribosomal protein S5a.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	AF	190	Total	C	N	O	S	0	0
			1497	934	285	269	9		

- Molecule 31 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	AH	194	Total	C	N	O	S	0	0
			1566	1006	278	281	1		

- Molecule 32 is a protein called 40S ribosomal protein S15Aa.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	AW	129	Total	C	N	O	S	0	0
			1028	656	189	176	7		

- Molecule 33 is a protein called 40S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	AI	207	Total	C	N	O	S	0	0
			1665	1037	329	296	3		

- Molecule 34 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	AQ	148	Total	C	N	O	S	0	0
			1183	753	223	204	3		

- Molecule 35 is a protein called Vig2, isoform B.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Ah	58	Total	C	N	O	S	0	0
			486	298	93	94	1		

There are 7 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Ah	212	LYS	GLU	CONFLICT	UNP Q9VBX3
Ah	213	GLU	ASP	CONFLICT	UNP Q9VBX3
Ah	215	PRO	SER	CONFLICT	UNP Q9VBX3
Ah	217	GLU	GLN	CONFLICT	UNP Q9VBX3
Ah	226	ILE	LEU	CONFLICT	UNP Q9VBX3
Ah	227	GLN	ARG	CONFLICT	UNP Q9VBX3
Ah	228	ASN	ASP	CONFLICT	UNP Q9VBX3

- Molecule 36 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	B2	1957	Total	C	N	O	P	0	0
			39523	17589	6780	13198	1956		

- Molecule 37 is a RNA chain called E-tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BC	75	Total	C	N	O	P	0	0
			1605	717	296	518	74		

- Molecule 38 is a protein called 60S ribosomal protein L10a-2.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Cz	217	Total	C	N	O	S	0	0
			1702	1084	303	305	10		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Cz	72A	SER	-	EXPRESSION TAG	UNP Q9VTP4

- Molecule 39 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Cq	223	Total	C	N	O	S	0	0
			1710	1089	297	314	10		

- Molecule 40 is a protein called 60S ribosomal protein L12.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	CK	158	Total	C	N	O	S	0	0
			1180	739	213	222	6		

- Molecule 41 is a protein called 60S ribosomal protein L13a.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	CO	205	Total	C	N	O	S	0	0
			1668	1063	331	268	6		

- Molecule 42 is a protein called 60S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	CL	210	Total	C	N	O	S	0	0
			1695	1066	342	284	3		

- Molecule 43 is a protein called 60S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	CV	134	Total	C	N	O	S	0	0
			998	629	190	173	6		

- Molecule 44 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	CM	159	Total	C	N	O	S	0	0
			1302	826	256	218	2		

- Molecule 45 is a protein called 60S ribosomal protein L27a.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Ca	149	Total	C	N	O	S	0	0
			1204	769	242	189	4		

- Molecule 46 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	CN	203	Total	C	N	O	S	0	0
			1710	1072	362	271	5		

- Molecule 47 is a protein called 60S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	CI	217	Total	C	N	O	S	0	0
			1785	1125	343	304	13		

- Molecule 48 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	CD	290	Total	C	N	O	S	0	0
			2334	1471	434	423	6		

- Molecule 49 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	CQ	187	Total	C	N	O	S	0	0
			1518	957	306	251	4		

- Molecule 50 is a protein called 60S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	CR	203	Total	C	N	O	S	0	0
			1683	1047	350	277	9		

- Molecule 51 is a protein called 60S ribosomal protein L8.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	CA	253	Total	C	N	O	S	0	0
			1935	1206	395	326	8		

- Molecule 52 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	CS	173	Total	C	N	O	S	0	0
			1454	935	275	240	4		

- Molecule 53 is a protein called 60S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	CT	158	Total	C	N	O	S	0	0
			1297	829	253	212	3		

- Molecule 54 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	CP	185	Total	C	N	O	S	0	0
			1505	928	305	263	9		

- Molecule 55 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	CU	116	Total	C	N	O	S	0	0
			961	607	167	185	2		

- Molecule 56 is a protein called 60S ribosomal protein L23A.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	CX	120	Total	C	N	O	S	0	0
			984	625	192	165	2		

- Molecule 57 is a protein called 60S ribosomal protein L26.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	CY	131	Total	C	N	O	S	0	0
			1078	676	224	176	2		

- Molecule 58 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	CW	130	Total	C	N	O	S	0	0
			1047	662	207	172	6		

- Molecule 59 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	CZ	134	Total	C	N	O	S	0	0
			1115	723	209	180	3		

- Molecule 60 is a protein called 60S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Cr	134	Total	C	N	O	S	0	0
			1051	670	205	176			

- Molecule 61 is a protein called 60S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Ch	123	Total	C	N	O	S	0	0
			1015	646	202	164	3		

- Molecule 62 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	Cb	75	Total	C	N	O	S	0	0
			619	378	133	107	1		

- Molecule 63 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	CB	414	Total	C	N	O	S	0	0
			3287	2083	621	565	18		

- Molecule 64 is a protein called 60S ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	CF	229	Total	C	N	O	S	0	0
			1921	1234	372	312	3		

- Molecule 65 is a protein called 60S ribosomal protein L30.



Mol	Chain	Residues	Atoms					AltConf	Trace
65	Cc	100	Total	C	N	O	S	0	0
			770	486	132	147	5		

- Molecule 66 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Cd	111	Total	C	N	O	S	0	0
			924	573	180	169	2		

- Molecule 67 is a protein called 60S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Ce	132	Total	C	N	O	S	0	0
			1110	698	230	177	5		

- Molecule 68 is a protein called 60S ribosomal protein L35A.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Cf	157	Total	C	N	O	S	0	0
			1244	781	255	203	5		

- Molecule 69 is a protein called 60S ribosomal protein L34a.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	Cg	113	Total	C	N	O	S	0	0
			926	575	193	152	6		

- Molecule 70 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Ci	113	Total	C	N	O	S	0	0
			934	585	193	153	3		

- Molecule 71 is a protein called 60S ribosomal protein L37-A.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	Cj	92	Total	C	N	O	S	0	0
			737	450	160	122	5		

- Molecule 72 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	Ck	70	Total	C	N	O	S	0	0
			576	366	108	100	2		

- Molecule 73 is a protein called 60S ribosomal protein L39.

Mol	Chain	Residues	Atoms				AltConf	Trace
73	Cl	50	Total	C	N	O	0	0
			437	276	98	63		

- Molecule 74 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	CC	392	Total	C	N	O	S	0	0
			3109	1959	622	522	6		

- Molecule 75 is a protein called 60S ribosomal protein L40.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	Cm	52	Total	C	N	O	S	0	0
			429	267	89	67	6		

- Molecule 76 is a protein called 60S ribosomal protein L41.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Cn	25	Total	C	N	O	S	0	0
			236	143	63	27	3		

- Molecule 77 is a protein called 60S ribosomal protein L37a.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Cp	91	Total	C	N	O	S	0	0
			710	441	140	122	7		

- Molecule 78 is a protein called 60S ribosomal protein L36A.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Co	104	Total	C	N	O	S	0	0
			874	548	180	138	8		

- Molecule 79 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	CJ	182	Total	C	N	O	S	0	0
			1468	926	278	258	6		

- Molecule 80 is a protein called 60S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	CH	190	Total	C	N	O	S	0	0
			1499	947	265	278	9		

- Molecule 81 is a protein called 60S ribosomal protein L6, isoform A.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	CE	228	Total	C	N	O	S	0	0
			1845	1185	351	305	4		

- Molecule 82 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	CG	241	Total	C	N	O	S	0	0
			1936	1237	368	327	4		

- Molecule 83 is a RNA chain called 28S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	A5	3806	Total	C	N	O	P	0	0
			77967	34770	13566	25827	3804		

- Molecule 84 is a RNA chain called 2S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	A9	30	Total	C	N	O	P	0	0
			639	286	111	213	29		

- Molecule 85 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	A7	120	Total	C	N	O	P	0	0
			2554	1141	456	838	119		

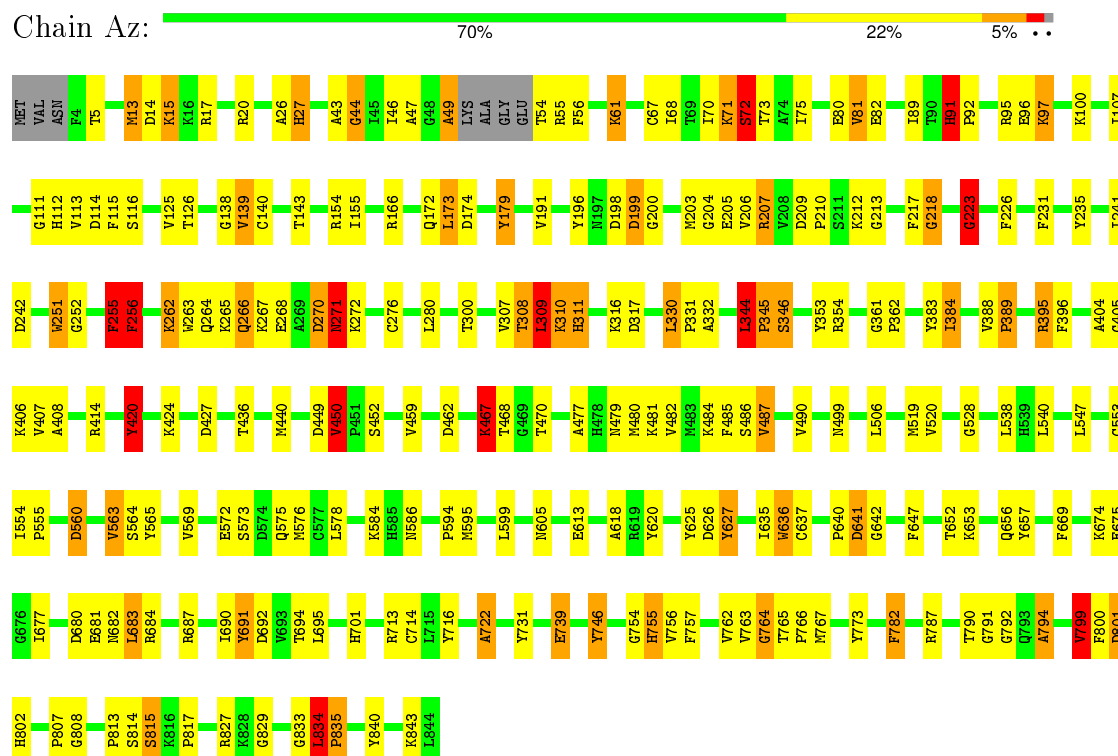
- Molecule 86 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
86	A8	123	Total	C	N	O	P	0	0
			2621	1173	474	852	122		

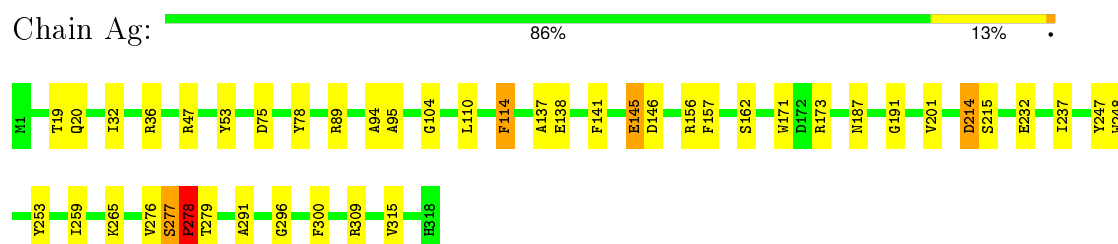
### 3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors 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: Elongation factor 2



- Molecule 2: Guanine nucleotide-binding protein subunit beta-like protein



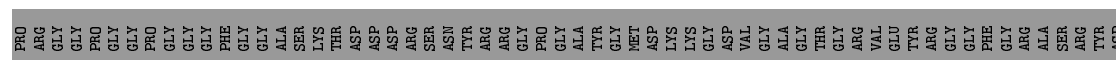
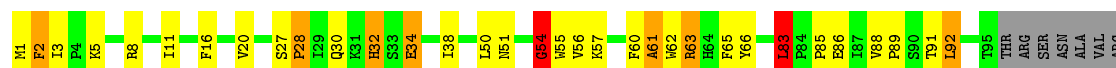
- Molecule 3: 40S ribosomal protein S20





- Molecule 4: 40S ribosomal protein S10a

Chain AK: 38% 15% 42%



ASN

- Molecule 5: 40S ribosomal protein S14

Chain AO: 64% 19% 11%



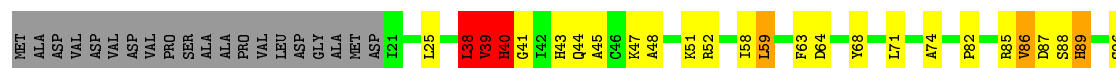
- Molecule 6: 40S ribosomal protein S23

Chain AX: 78% 18% 4%



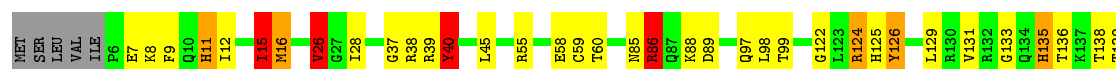
- Molecule 7: 40S ribosomal protein S12

Chain AM: 57% 19% 6% 14%

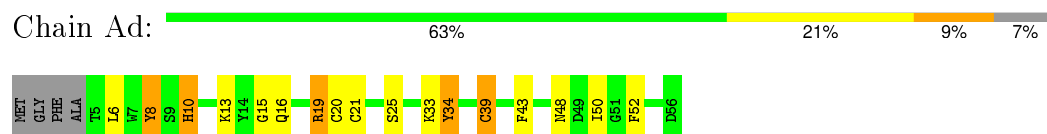


- Molecule 8: 40S ribosomal protein S18

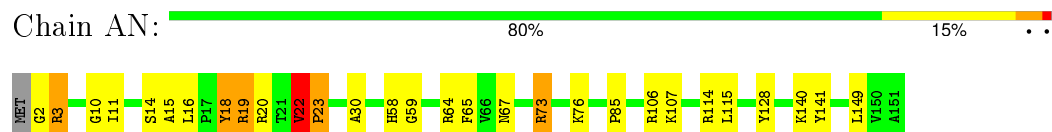
Chain AS: 65% 18% 10%



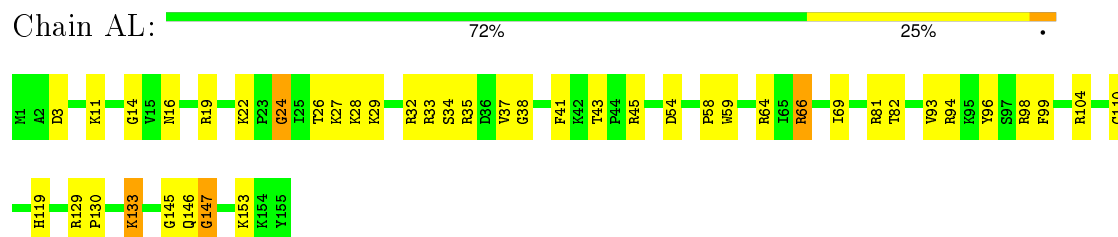
- Molecule 9: 40S ribosomal protein S29



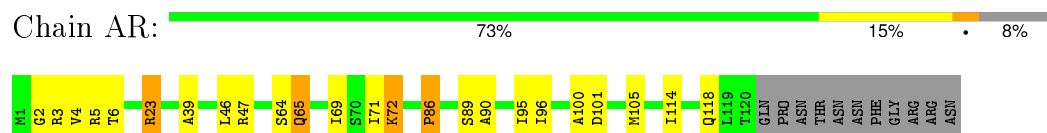
- Molecule 10: 40S ribosomal protein S13



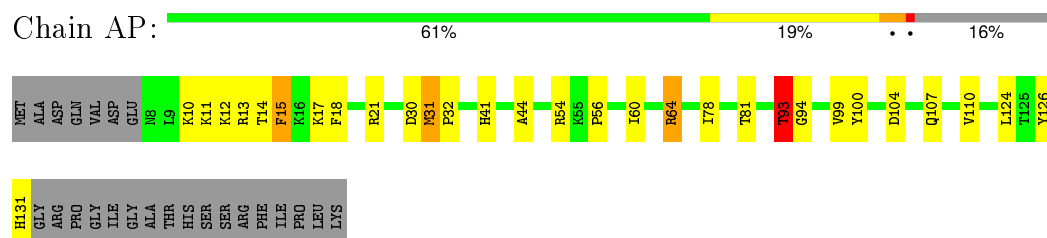
- Molecule 11: 40S ribosomal protein S11



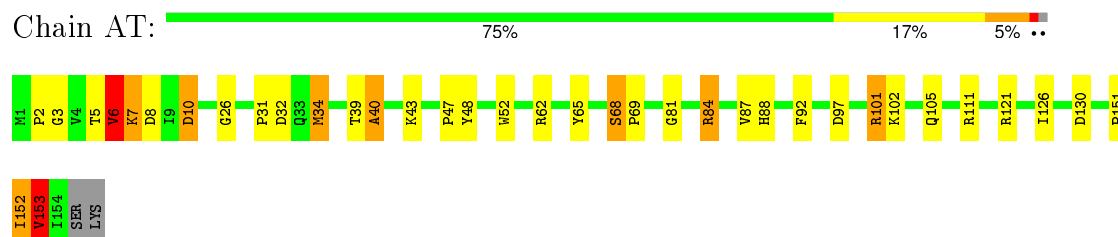
- Molecule 12: 40S ribosomal protein S17



- Molecule 13: 40S ribosomal protein S15, isoform A

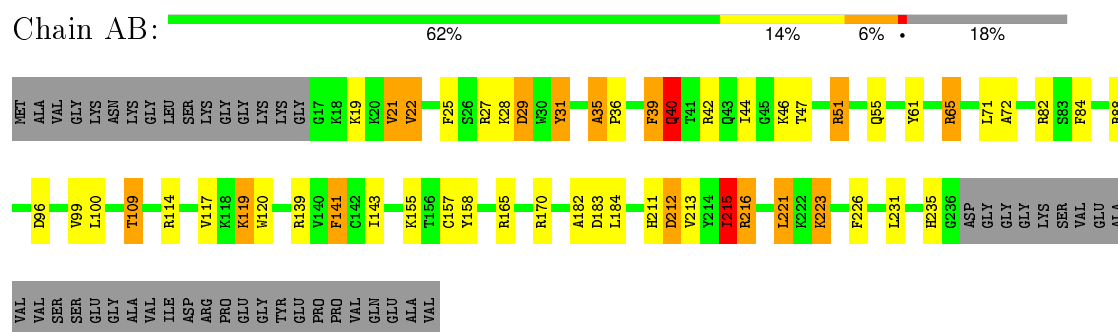


- Molecule 14: 40S ribosomal protein S19a



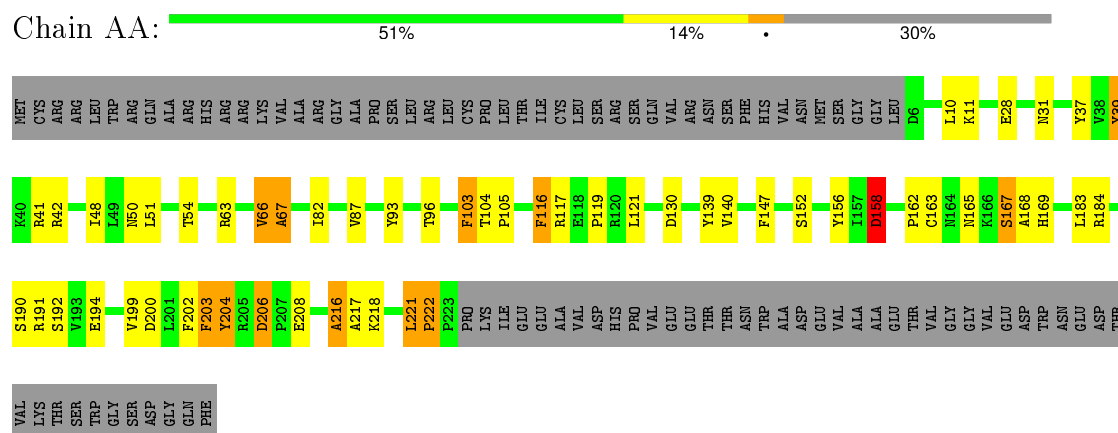
- Molecule 15: 40S ribosomal protein S3a

Chain AB:



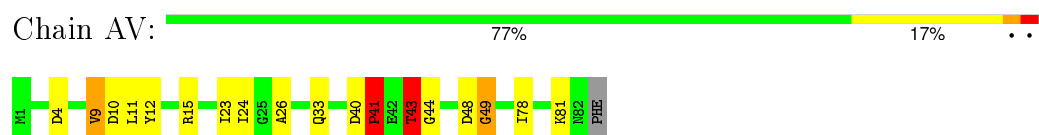
- Molecule 16: 40S ribosomal protein SA

Chain AA:



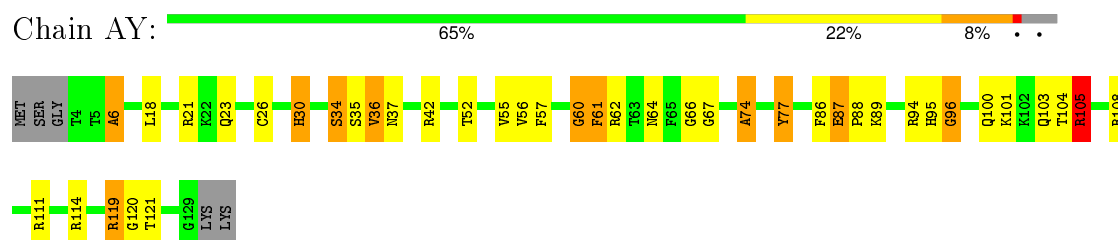
- Molecule 17: 40S ribosomal protein S21

Chain AV:



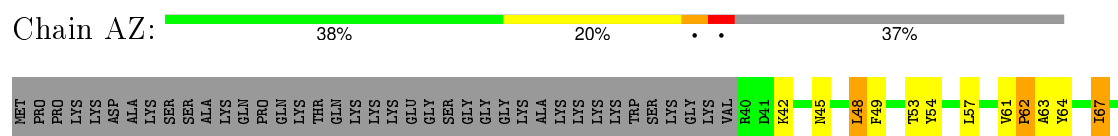
- Molecule 18: 40S ribosomal protein S24

Chain AY:



- Molecule 19: 40S ribosomal protein S25

Chain AZ:

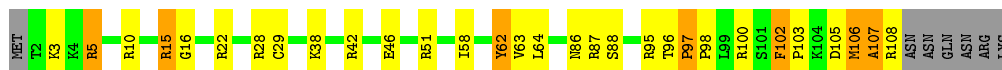






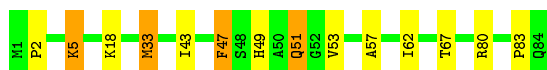
- Molecule 20: 40S ribosomal protein S26

Chain Aa: 68% 20% 6% 6%



- Molecule 21: 40S ribosomal protein S27

Chain Ab: 83% 12% 5%



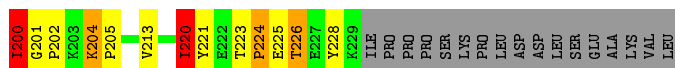
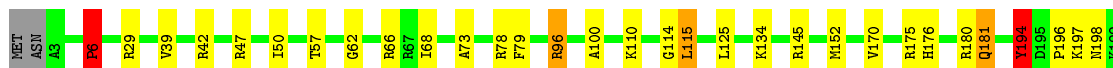
- Molecule 22: 40S ribosomal protein S28

Chain Ac: 75% 17% 5%



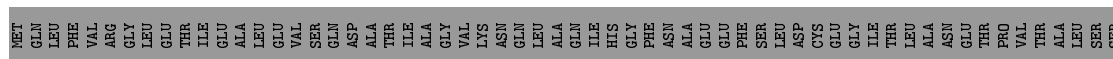
- Molecule 23: 40S ribosomal protein S3

Chain AD: 74% 14% 8%



- Molecule 24: 40S ribosomal protein S30, isoform A

Chain Ae: 31% 10% 56%



- Molecule 25: 40S ribosomal protein S27a

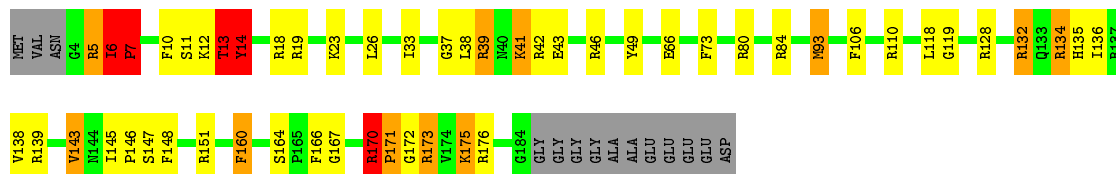
Chain Af: 53% 34% 11%



E155  
K156

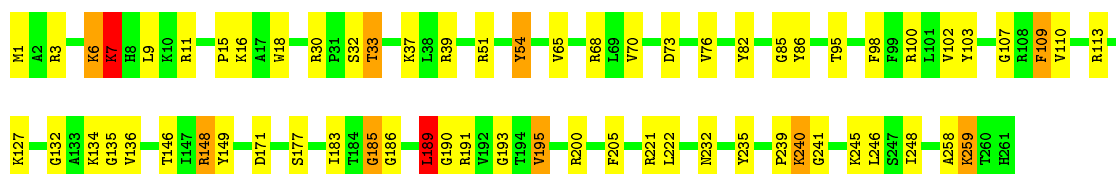
- Molecule 26: 40S ribosomal protein S9

Chain AJ: 66% 19% 6% 7%



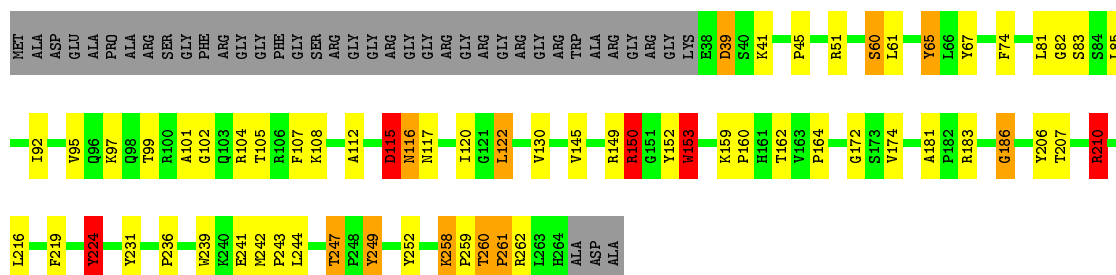
- Molecule 27: 40S ribosomal protein S4

Chain AE: 75% 21% . .



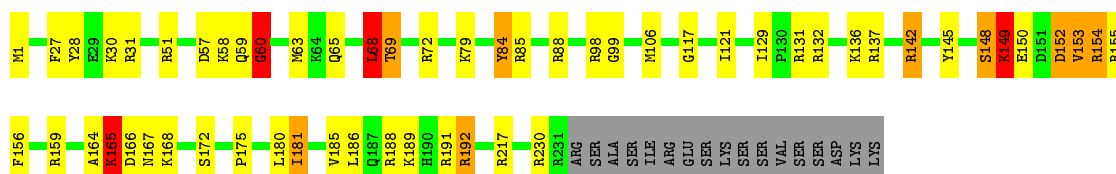
- Molecule 28: 40S ribosomal protein S2

Chain AC: 61% 18% . . 15%



- Molecule 29: 40S ribosomal protein S6

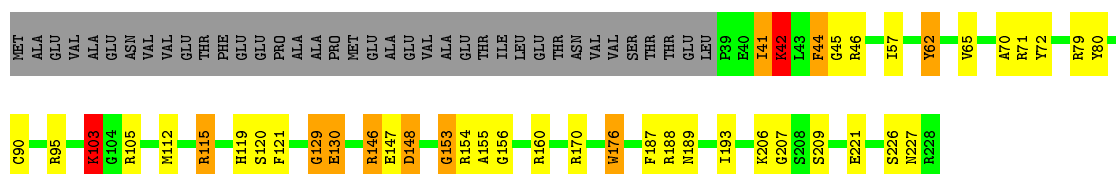
Chain AG: 70% 18% . . 7%



- Molecule 30: 40S ribosomal protein S5a

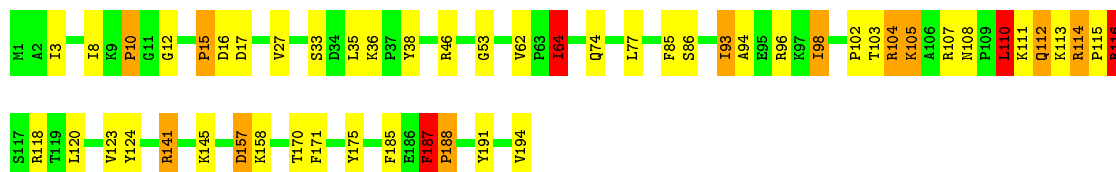
Chain AF: 64% 14% . . 17%





- Molecule 31: 40S ribosomal protein S7

Chain AH: 73% 20% 6%



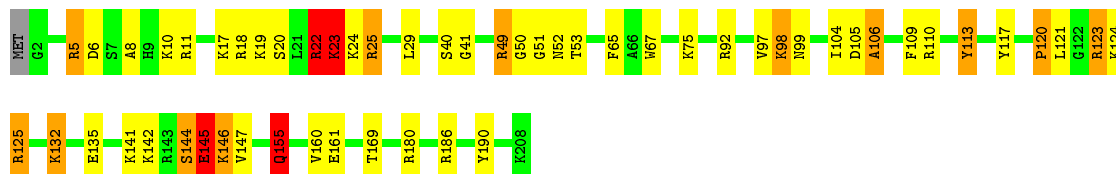
- Molecule 32: 40S ribosomal protein S15Aa

Chain AW: 77% 18% 5%



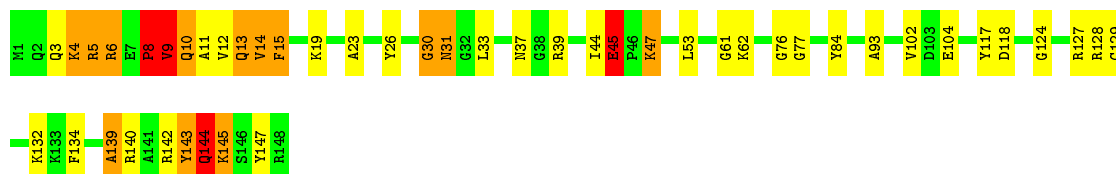
- Molecule 33: 40S ribosomal protein S8

Chain AI: 73% 19% 6%



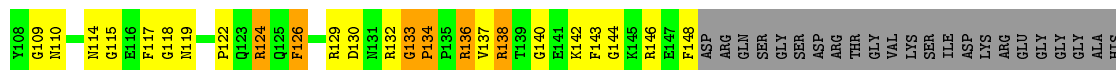
- Molecule 34: 40S ribosomal protein S16

Chain AQ: 68% 20% 9%



- Molecule 35: Vig2, isoform B

Chain Ah: 25% 17% 5% 52%



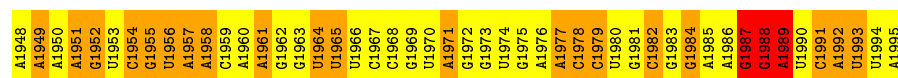
ASN	TRP	GLY	SER	PRO	LVS	GLN	ASP	ILE	ASP	ASP	LEU	LVS	THR	THR	GLU	GLU	THR	SER	PRO	GLN	ALA	ALA	ASN	GLU	SER	ALA	ASP	PRO	ALA	VAL	ALA	ALA	ALA	GLU	K212	E213	E214	P215	K216	A225	I228
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● Molecule 36: 18S ribosomal RNA

Chain B2: 9% 53% 29% 6%

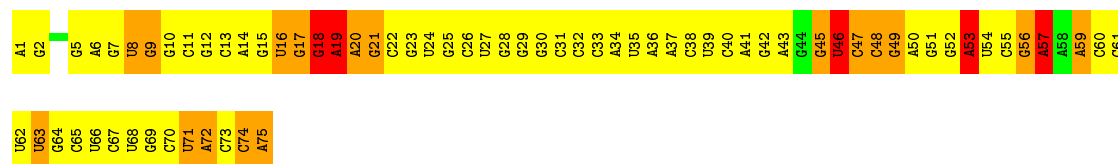
A891	U831	A	U608	G548	U487	G427	C366	A304	U243	A183	A121	A61	A1
A892	U832	C	A609	A549	A488	G428	C367	A305	A244	A184	A122	A62	U2
A893	U833	U	U610	C550	C489	C429	C368	A306	U245	U185	A123	G63	U3
A894	A834	A	U611	A551	A490	A430	G369	U307	U246	U186	U124	U64	C4
A895	U835	C	A612	A552	G491	C431	G370	G308	G247	A187	C125	A65	U5
U886	C836	U	A613	A553	G492	C432	A371	U309	G248	C188	G126	C66	G6
A897	A837	U	A614	U554	A493	A433	A372	C310	U249	C189	U127	A67	G7
A898	U838	G	U615	U555	C494	U434	U373	U311	U250	U190	C131	C68	U8
G901	A839	U	U616	G556	U495	C435	A374	G312	G251	U191	A132	A69	U9
U892	U840	U	U617	G557	C496	C436	A375	C313	A252	A192	G71	C70	G10
U893	U841	G	U618	A558	A497	C437	G376	C314	A253	U193	G133	G71	A11
U894	A842	U	U619	G559	U498	C438	G377	C315	C254	G194	U134	A72	U12
U895	G843	G	U620	U560	A499	G439	G378	U316	U255	G195	U135	A73	C13
U896	A844	U	G621	C561	U500	U440	U379	A317	C256	G196	U136	U74	C14
G907	U845	U	U622	C562	C501	A441	U380	U318	U257	A197	C137	U75	U15
U898	U846	U	G623	U563	C502	A442	C381	C319	A258	G198	U138	A76	G16
U899	G847	A	G624	A564	U501	A443	G382	A320	G259	G199	U139	A77	C17
U900	C848	U	U625	G565	G505	U444	A383	A321	A260	U200	G140	A78	C18
G911	U849	G	U626	U566	G506	U445	U384	C322	U261	G201	G141	A79	A19
U912	U850	U	A627	C567	C507	A446	U385	U323	A262	U202	A142	G80	G20
G913	A851	U	G628	U568	C508	C447	C386	U324	A263	G203	U143	U81	U21
U914	A852	U	U629	G569	G509	C448	C387	U325	C264	G204	A144	G82	A22
U915	C853	U	A630	G570	U510	C449	G388	U326	A265	U205	A145	A83	G23
U916	G854	U	G631	U571	G511	A450	G389	G327	U266	U206	C146	A84	U24
U917	C855	U	G632	G572	U512	C451	A390	A328	G267	U207	U147	A85	U25
G918	U856	U	U633	C573	A513	U452	G391	U329	C268	U208	G148	C86	A26
U919	U857	U	G634	C574	A514	C453	A392	G330	A269	A209	U149	C87	U27
U920	G858	U	U635	U575	U515	C454	G393	G331	A270	U210	G150	G88	A28
U921	C859	U	G636	G576	U516	C455	G394	U332	A271	U211	G151	C89	U29
G922	U860	U	U637	C577	G517	A456	G395	A333	U272	A212	U152	A90	G30
U923	U861	U	A638	A578	G518	C457	A396	G334	C273	G213	A153	A91	C31
G924	C862	U	G639	U579	A519	U458	G397	U335	G274	G214	A154	A92	U32
U925	U863	U	U640	C580	A520	U459	C398	A336	U275	C215	A155	A93	U33
U926	A864	U	U641	C581	U521	C460	C399	U337	A276	U216	U156	G84	G34
U927	A865	U	G642	G582	G522	G461	U400	C338	U277	A217	C157	G85	U35
C928	U866	U	A643	C583	A523	G462	G401	U339	G278	A218	U158	C96	C36
A929	G867	U	U644	G584	G524	C463	A404	A340	G279	A219	U159	U97	U37
U930	C868	U	U645	U585	A525	G464	A405	G341	U280	A220	G160	C98	C38
A931	U869	U	U646	G586	U526	U465	A406	G342	C281	C221	A161	A99	A39
U932	U870	U	U647	U587	C527	G466	C407	A343	U282	C222	G162	U100	A40
C933	G871	U	G648	A588	A528	G467	C407	C344	U283	C223	C163	U101	A41
U934	U872	U	U649	U589	C529	U468	G408	U345	G284	A224	U164	A102	G42
U935	U873	U	U650	U590	U530	C469	G409	A346	U285	G225	U165	A103	A43
U936	A874	U	G651	C591	U531	U470	C410	C347	U286	C226	A166	U104	U44
G938	U875	U	U652	C592	U532	U471	U411	C348	C287	G227	U167	U105	U45
U939	A876	U	U653	A593	A533	G472	A412	A349	C288	A228	A168	C106	A46
U940	U877	U	C654	G594	A534	A473	C413	U350	G289	U229	C169	A107	A47
A941	G878	U	A855	C595	A535	C474	C414	G351	A290	C230	A170	G108	G48
U942	U879	U	U656	U596	U536	G475	A415	G352	C291	G231	U171	U109	C49
U943	G880	U	A857	C597	C537	A476	C416	C356	G292	C232	G172	A110	C50
G944	U881	U	U658	C598	C538	A477	A417	U357	A293	C233	C173	A111	A51
U945	A882	U	G659	G599	U539	U478	U418	A357	C294	A234	A174	U112	U52
U946	C883	U	A600	U600	U540	A479	C419	A358	A295	G235	A175	G113	G53
U947	U884	U	G661	U601	U541	A480	U420	C589	U296	A236	U176	G114	C54
A948	U885	U	U662	A602	A542	U481	A421	G360	U298	C237	U177	U115	A55
U949	G886	U	A663	C603	A543	A482	A422	G361	C299	C238	A178	U116	U56
U950	U887	U	U664	G604	C544	A483	G423	G362	U300	G239	A179	C117	G57
A951	C888	U	A665	G605	A545	C484	G424	U363	U301	U240	A180	C118	U58
U952	U889	U	C666	U606	A546	A485	A425	A364	C302	U241	A181	U119	C59
C953	U890	A	U667	U607	C547	A486	A426	A365	U303	U242	C182	U120	U60

G1886	A1887	C1826	G1766	U1706	G1646	U1586	A1526	G1436	U1376	G1336	G1256	G1195	G1135	G1014	A954
A1887	A1707	A1827	G1767	A1707	G1647	U1587	G1526	A1437	U1377	U1317	U1256	G1196	G1135	U1015	G955
C1828	A1768	C1828	A1768	A1708	C1648	C1588	G1527	A1438	C1378	A1318	G1257	G1197	U1136	A1016	G956
G1889	A1769	C1829	A1769	A1709	C1649	C1589	G1528	U1439	G1379	A1319	G1258	G1198	G1137	A1017	A957
C1890	G1710	G1830	G1650	G1529	U1440	U1590	G1529	U1441	U1380	A1320	A1259	G1199	U1138	C1018	G958
	C1711	G1831	U1651	A1530	C1651	U1591	G1530	C1441	G1381	A1321	G1260	A1200	A1139	U1019	U959
G1894	G1712	C1832	A1652	G1531	A1652	C1592	G1531	U1442	G1382	C1322	C1261	A1201	G1140	U1020	U960
C1895	C1713	C1833	G1653	C1532	U1443	U1593	G1532	U1443	C1383	A1323	C1262	G1202	G1141	U1021	U961
G1896	U1714	G1834	C1654	C1533	C1444	A1594	C1533	C1444	G1384	A1324	C1263	G1203		A1022	G962
G1897	G1715	C1835	G1655	G1534	A1445	U1595	G1534	A1445	U1385	A1325	C1264	A1204	U1144	G1023	G963
U1898	A1716	G1836	G1656	U1535	G1446	C1596	G1535	G1446	U1386	U1326	C1265	G1205	U1145	G1024	G964
G1899	A1717	G1837	G1657	A1536	G1447	A1597	G1536	G1447	A1387	U1327	G1266	G1206	U1146	G1025	G965
U1900	C1718	G1838	G1658	C1537	U1448	U1598	G1537	U1448	U1388	U1328	G1267	G1207	U1147	A1026	G966
A1901	C1719	U1839	C1659	C1538	U1449	U1599	C1538	U1449	U1389	A1329	C1268	U1208	U1148	A1027	C967
C1902	A1720	G1840	U1660		U1450	A1600		U1450	U1390	U1330	U1269	U1209	A1149	A1028	A968
G1903	C1721	C1841	A1661	U1541	A1451	A1601	U1541	A1451	U1391	U1331	U1270	G1210	U1150	G1029	U969
G1904	U1722	C1842	C1662	U1542	U1452	G1602	U1542	U1452	U1392	G1332	A1271	C1211	G1151	C1030	U970
C1905	G1723	C1843	G1603	G1543	G1453	G1603	G1543	G1453	C1393	C1333	A1272	A1212	G1152	A1091	A971
U1906	U1724	C1844	A1604	G1544	G1454	A1604	G1544	G1454	U1394	U1334	U1273	A1213	C1153	U1032	G972
G1907	C1725	C1845	G1605	U1545	U1455	G1605	U1545	U1455	G1395	C1335	U1274	A1214	U1154	U1033	U973
U1908	G1726	G1846	G1606	U1546	G1456	A1606	U1546	G1456	G1396	U1336	U1275	G1215	C1155	U1034	A974
U1909	U1727	A1847	A1667	U1547	U1457	U1607	U1547	U1457	U1397	U1337	G1276	C1216	U1156	G1035	U975
U1910	G1728	C1848	U1608	G1548	U1458	U1608	U1548	U1458	U1398	U1338	A1277	U1217	C1157	C1036	U976
G1911	C1729	A1849	A1669	U1549	G1459	G1609	U1549	G1459	A1399	U1339	C1278	C1097	U1158	C1037	A977
C1912	U1730	G1850	G1670	C1550	A1460	A1610	A1550	A1460	A1400	U1340	U1279	A1218	G1159	A1038	C978
C1913	U1731	A1851	U1671	C1551	A1461	G1611	U1551	A1461	U1401	C1341	C1280	A1220	A1160	A1039	G979
A1914	G1732	A1852	A1672	C1552	G1462	C1612	C1552	G1462	U1402	G1342	A1281	A1221	G1161	A1040	A980
A1915	C1733	C1853	U1673	A1553	C1463	A1613	A1553	C1463	A1403	A1343	A1282	C1222	U1162	G1041	C981
U1916	G1734	C1854	C1674	U1554	U1464	A1614	U1554	U1464	C1404	A1344	C1283	U1223	C1163	A1042	G982
A1917	A1735	A1855	A1675	U1555	G1465	A1615	U1555	G1465	A1405	U1345	A1284	U1224	C1164	U1043	C983
G1918	U1736	U1856	A1676	A1556	A1466	A1616	A1556	A1466	A1406	C1346	C1285	A1225	C1165	G1044	G984
U1919	C1737	C1857	C1677	U1557	U1467	A1617	U1557	U1467	U1407	U1347	A1286	A1226	U1166	U1045	A985
U1920	G1738	U1858	G1678	A1558	G1468	C1618	A1558	G1468	A1408	A1348	G1287	A1227	U1167	U1046	G986
G1921	U1739	A1859	A1679	C1559	U1469	A1619	A1559	U1469	A1409	U1349	A1288	G1228	C1168	U1047	A987
A1922	G1740	G1860	G1680	U1560	A1470	G1620	U1560	A1470	C1410	G1350	A1289	G1229	C1169	U1048	G988
C1923	A1741	C1861	G1621	G1561	G1471	A1621	G1561	G1471	A1411	G1351	A1290	A1230	C1170	C1049	G989
G1924	U1742	A1862	U1622	A1562	C1472	G1622	A1562	C1472	A1412	G1352	A1291	A1231	G1171	A1050	U990
G1925	C1743	C1863	C1623	C1563	C1473	C1623	C1563	C1473	A1413	U1353	A1292	U1232	G1172	U1051	G991
A1926	U1744	G1864	U1624	A1564		U1624	A1564		C1414	G1354	C1293	U1233	A1173	U1052	A992
C1927	G1745	C1865	G1625	C1565	C1476	G1625	C1565	C1476	G1415	G1355	U1294	G1234	A1174	A1053	A993
G1928	A1746	C1866	U1626	U1566		U1626	U1566		A1416	U1356	U1295	A1235	A1175	U1054	A994
U1929	U1747	C1867	G1627	A1567	U1479	G1627	A1567	U1479	G1417	G1357	C1236	G1236	C1176	U1055	U995
U1930	A1748	U1868	A1628	G1568		A1628	G1568		U1418	U1358	G1297	G1237	C1177	C1056	U996
G1931	C1749	C1869	U1629	C1569	A1482	G1629	C1569	A1482	C1419	U1359	G1298	G1238	A1178	A1057	C997
A1932	U1750	C1870	G1630	U1570	A1493	U1630	U1570	A1493	U1420	G1360	A1299	A1239	A1179	A1058	U998
U1933	G1751	A1891	C1631	U1571	A1494	C1631	U1571	A1494	C1421	C1361	G1300	A1240	A1180	G1059	U999
G1934	U1752	C1892	C1632	C1572	A1495	A1632	C1572	A1495	A1422	G1362	G1301	G1241	C1181	A1060	G1000
A1935	U1753	C1893	C1633	U1573	U1496	A1633	U1573	U1496	A1423	U1363	U1302	G1242	C1182	A1061	G1001
U1936	C1754	G1894	U1634	U1574		A1634	U1574		A1424	G1364	C1303	G1243	U1183	C1062	A1002
U1937	A1755	C1895	U1635	A1575	U1499	U1635	A1575	U1499	U1425	G1365	G1304	C1244	U1184	G1063	C1003
U1938	C1756	U1896	A1636	A1576		A1636	A1576		A1426	C1366	A1305	A1245	U1185	A1064	C1004
G1939	G1757	C1897	G1637	U1577	U1503	G1637	U1577	U1503	U1427	C1367	A1306	C1246	U1186	A1065	G1005
U1940	A1758	C1898	A1638	U1578	G1504	A1638	U1578	G1504	A1428	G1368	C1307	C1247	U1187	A1066	U1006
A1941	U1759	G1899	U1639	U1579		U1639	U1579		A1429	U1369	A1308	A1248	G1188	G1067	C1007
G1942	C1760	C1880	G1700	G1580	U1519	A1640	G1580	U1519	U1430	U1370	C1249	G1249	G1189	U1068	G1008
G1943	A1761	A1881	U1641	A1581	A1520	U1641	A1581	A1520	A1431	C1371	A1311	C1250	G1190	U1069	U1009
A1944	U1762	C1882	C1642	C1582	U1521	C1642	C1582	U1521	A1432	U1372	G1312	A1251	C1191	A1070	A1010
G1945	C1763	U1883	C1643	A1583	G1522	U1643	A1583	G1522	A1433	U1373	U1313	G1252	U1192	A1071	A1011
U1946	G1704	C1884	U1644	A1584	U1523	U1644	A1584	U1523	U1434	U1374	G1314	G1253	C1193	G1072	G1012
U1947	U1765	A1885	G1705	A1585	A1524	G1645	A1585	A1524	A1435	G1375	U1315	A1254	C1194	G1073	A1013



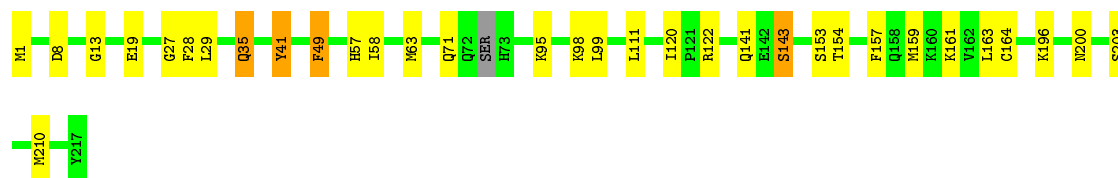
• Molecule 37: E-tRNA

Chain BC: 5% 65% 23% 7%



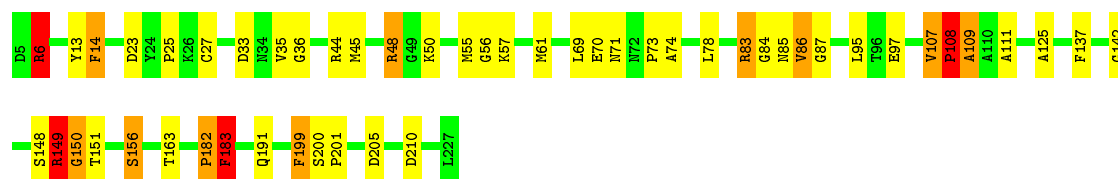
• Molecule 38: 60S ribosomal protein L10a-2

Chain Cz: 84% 13% •



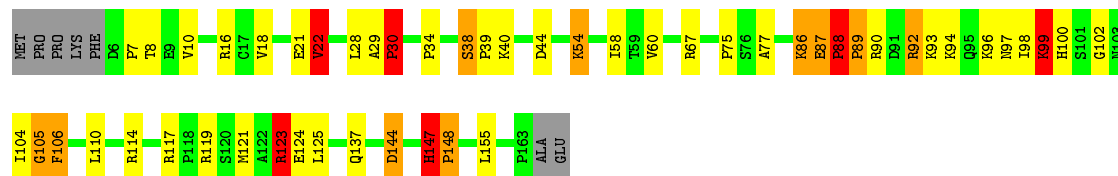
• Molecule 39: 60S acidic ribosomal protein P0

Chain Cq: 77% 17% • •



• Molecule 40: 60S ribosomal protein L12

Chain CK: 65% 21% 6% • •



• Molecule 41: 60S ribosomal protein L13a

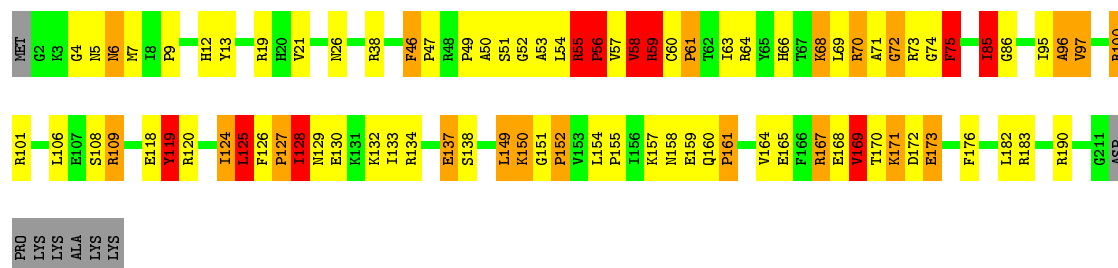
Chain CO: 78% 15% 5% •





- Molecule 42: 60S ribosomal protein L13

Chain CL: 57% 26% 9% 5% .



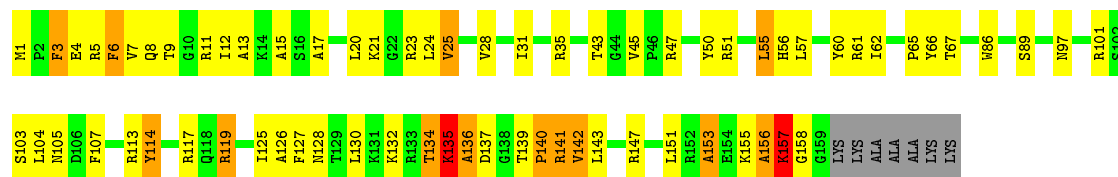
- Molecule 43: 60S ribosomal protein L23

Chain CV: 81% 14% .



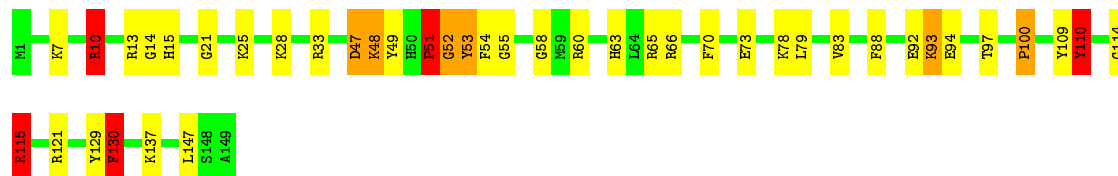
- Molecule 44: 60S ribosomal protein L14

Chain CM: 54% 33% 8% . .



- Molecule 45: 60S ribosomal protein L27a

Chain Ca: 72% 21% . .



- Molecule 46: 60S ribosomal protein L15

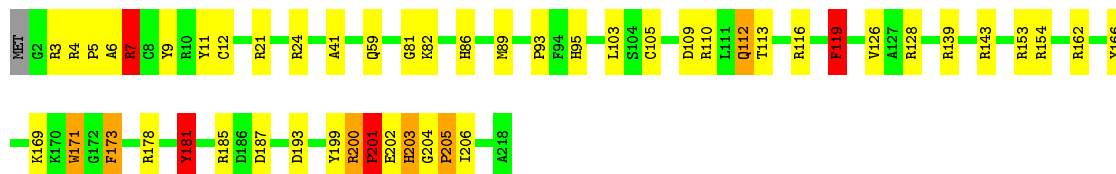
Chain CN: 72% 23% . .





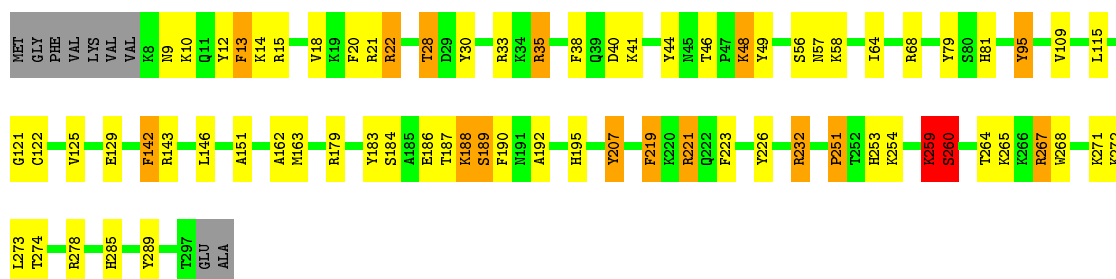
- Molecule 47: 60S ribosomal protein L10

Chain CI: 77% 18%



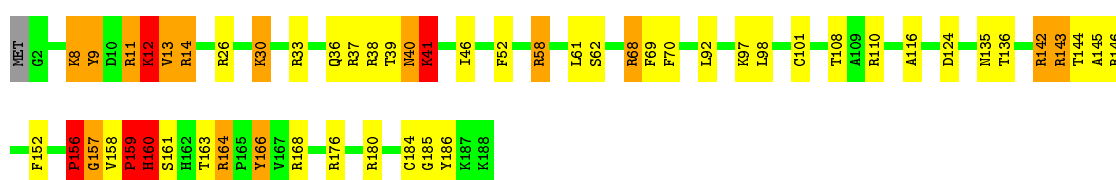
- Molecule 48: 60S ribosomal protein L5

Chain CD: 73% 19% 5%



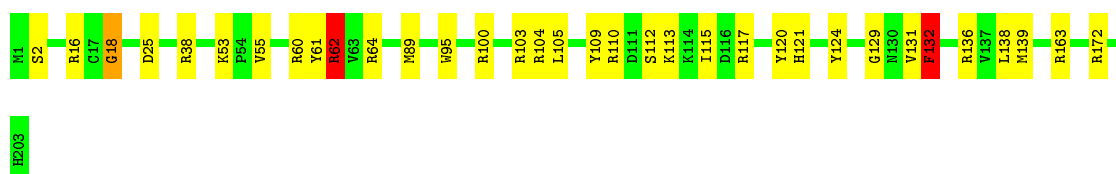
- Molecule 49: 60S ribosomal protein L18

Chain CQ: 71% 19% 7%



- Molecule 50: 60S ribosomal protein L19

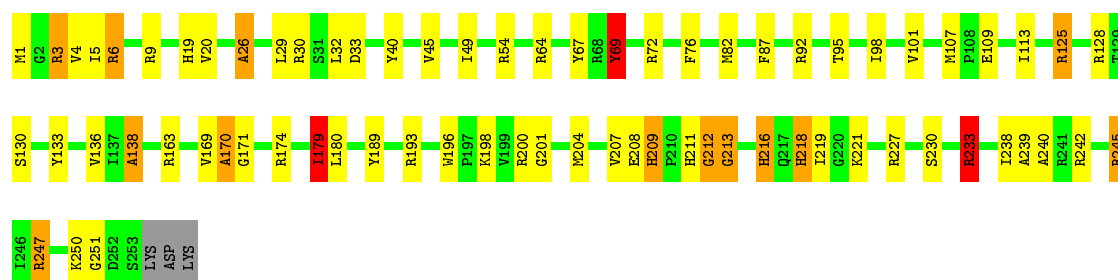
Chain CR: 83% 15%



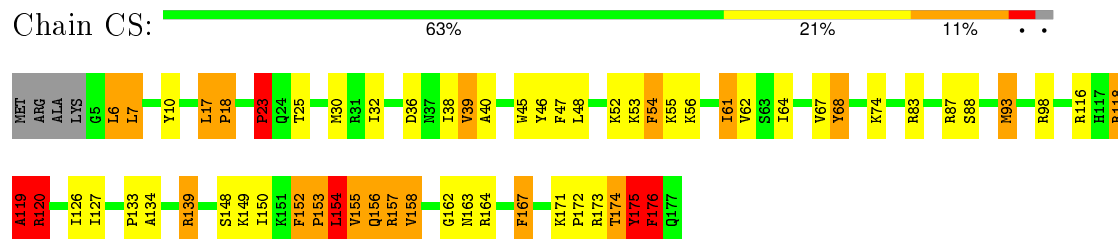
- Molecule 51: 60S ribosomal protein L8

Chain CA: 71% 22% 5%

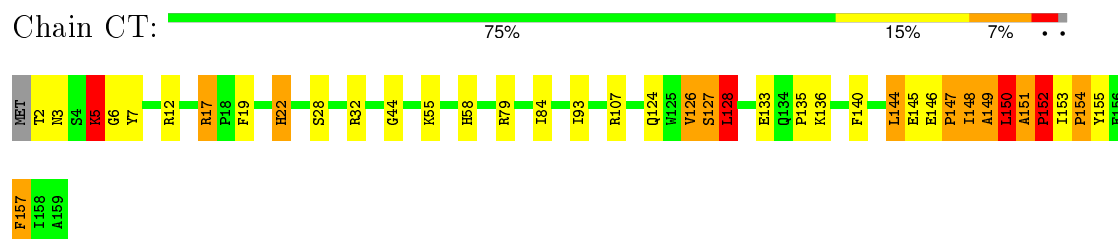




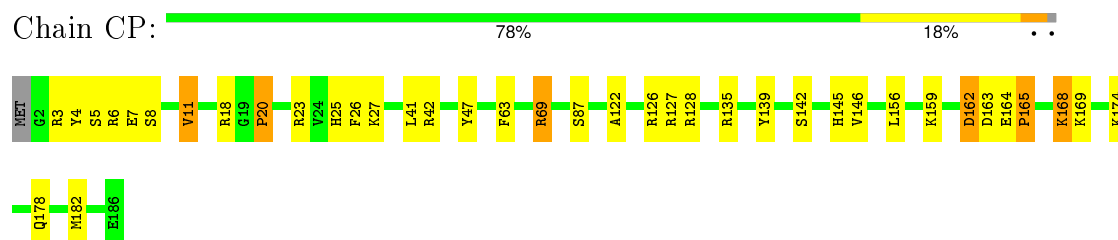
- Molecule 52: 60S ribosomal protein L18a



- Molecule 53: 60S ribosomal protein L21



- Molecule 54: 60S ribosomal protein L17



- Molecule 55: 60S ribosomal protein L22





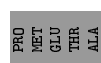
- Molecule 56: 60S ribosomal protein L23A

Chain CX: 36% 5% 57%



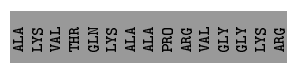
- Molecule 57: 60S ribosomal protein L26

Chain CY: 70% 15% 12%



- Molecule 58: 60S ribosomal protein L24

Chain CW: 65% 12% 5% 16%



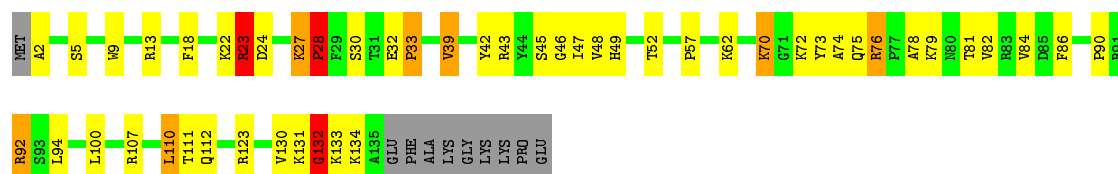
- Molecule 59: 60S ribosomal protein L27

Chain CZ: 73% 22% 5%



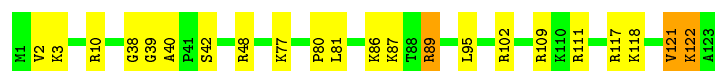
- Molecule 60: 60S ribosomal protein L28

Chain Cr: 58% 28% 5% 7%



- Molecule 61: 60S ribosomal protein L35

Chain Ch: 82% 15%



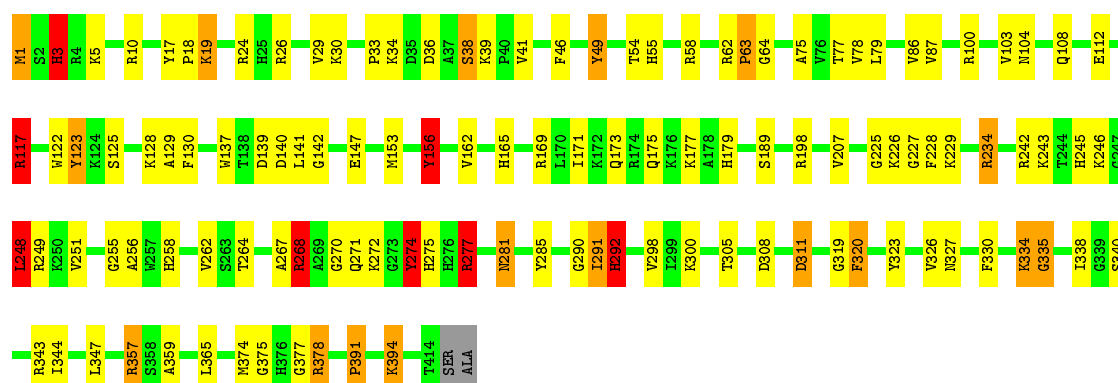
- Molecule 62: 60S ribosomal protein L29

Chain Cb: 71% 20% 5%



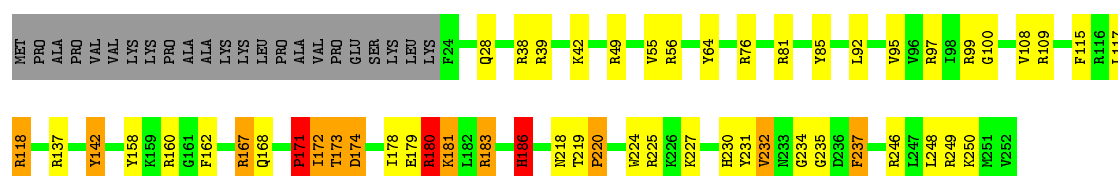
- Molecule 63: 60S ribosomal protein L3

Chain CB: 71% 23%



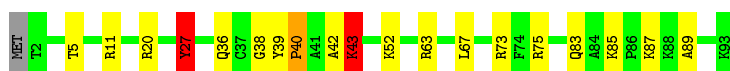
- Molecule 64: 60S ribosomal protein L7

Chain CF: 69% 16% 9%

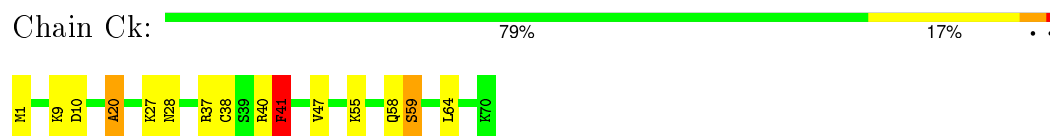


- Molecule 65: 60S ribosomal protein L30

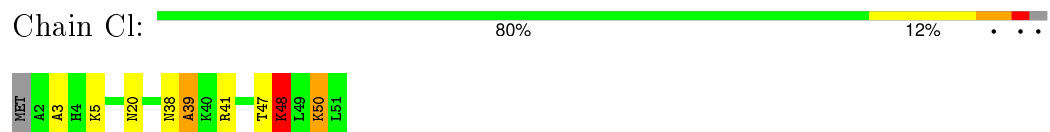
Chain Cc: 74% 13% 10%



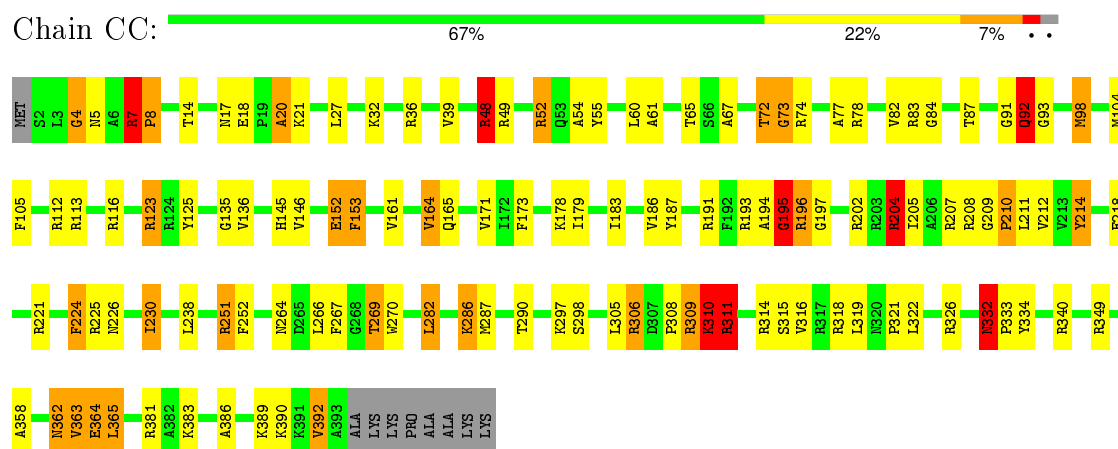
- Molecule 72: 60S ribosomal protein L38



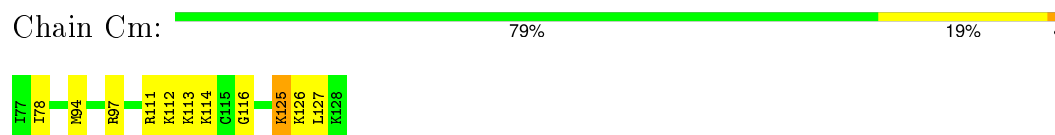
- Molecule 73: 60S ribosomal protein L39



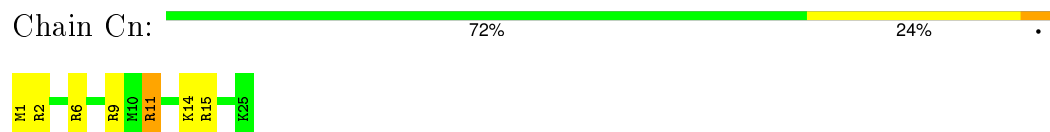
- Molecule 74: 60S ribosomal protein L4



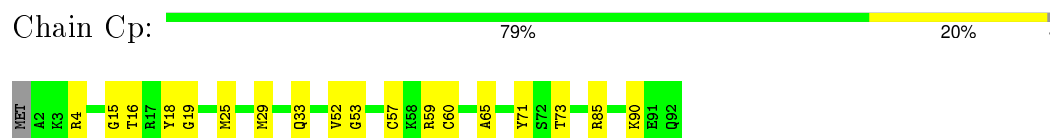
- Molecule 75: 60S ribosomal protein L40



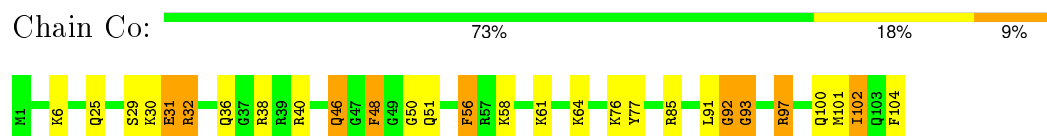
- Molecule 76: 60S ribosomal protein L41



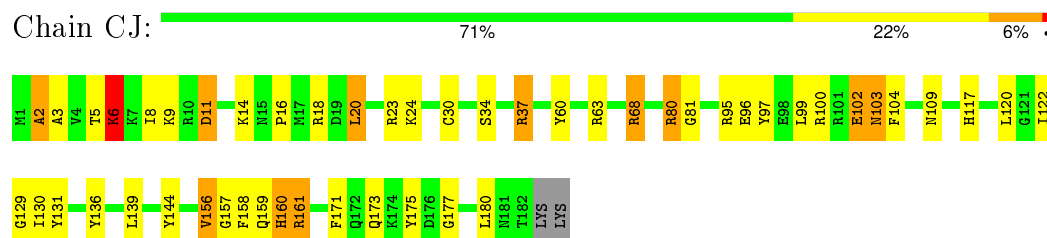
- Molecule 77: 60S ribosomal protein L37a



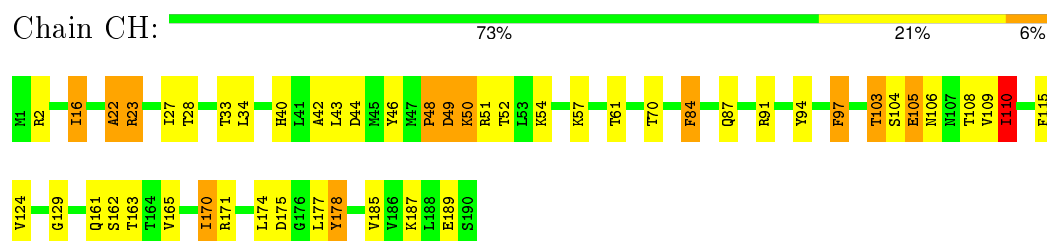
- Molecule 78: 60S ribosomal protein L36A



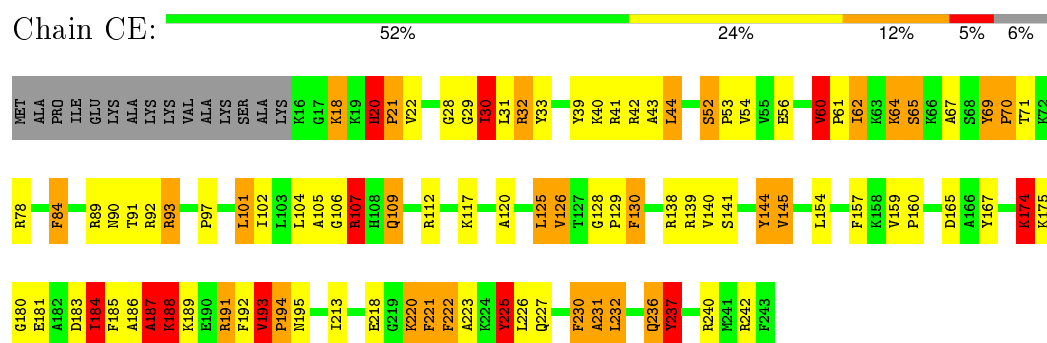
- Molecule 79: 60S ribosomal protein L11



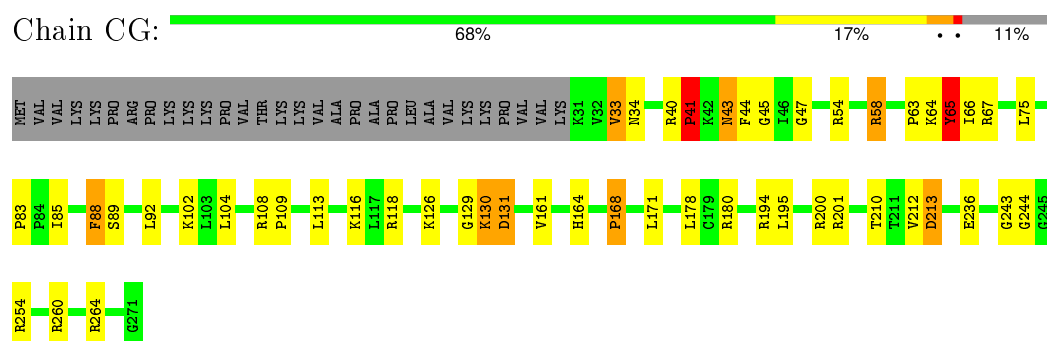
- Molecule 80: 60S ribosomal protein L9



- Molecule 81: 60S ribosomal protein L6, isoform A



- Molecule 82: 60S ribosomal protein L7a



● Molecule 83: 28S ribosomal RNA

Chain A5:  8% 51% 30% 7%

U1	A61	A121	A181	C242	A302	A362	U423	A484	U544	G610	G670	U731	C791	G851	A911
U2	G62	C122	G182	A242	G303	G363	G424	A485	U545	G611	A671	U732	U792	C852	A912
A3	G63	U123	U183	G244	U304	U364	A425	A486	G546	U612	U672	A733	U793	G853	C914
U4	A64	A124	A184	G245	G305	U365	A426	A487	U547	U613	U673	U734	G794	U854	C915
A5	A65	A125	U185	C246	C306	A366	A427	U488	A548	G614	G674	U735	A795	A855	C916
U6	A66	G126	G186	C247	A307	A367	A428	U489	A549	G615	C675	U736	A796	A856	C917
A7	A67	U127	A187	C248	G308	C368	U429	G490	U550	A616	A676	U737	A797	U857	C918
C8	A68	C128	G188	G249	C309	A369	G430	U491	C551	U617	A677	U738	C798	U858	C919
A9	A69	A129	A189	G250	A310	A370	C431	A492	U552	U618	G677	U739	A799	A859	C920
A10	A70	C130	A190	A251	C311	G371	U432	A493	A553	U619	G678	U740	C800	A860	C921
C11	A71	U131	A191	A252	U312	U372	U433	U494	U554	U620	C680	C741	C901	C861	C922
C12	A72	C72	U192	A253	A313	A373	A434	A495	U555	A621	G681	A742	G802	U862	G923
U13	C73	U73	U193	A254	A314	C374	G435	U496	A556	A622	U682	C743	A803	U863	G924
C14	A74	G134	A194	C255	G315	C375	A436	U497	G557	C623	U683	U744	C804	G864	U924
A15	A75	U135	A195	G256	U316	G376	G437	U498	C558	A624	A684	U745	C905	A865	C925
A16	C76	C136	C196	U257	G317	U377	G438	A499	A559	C625	A685	G746	A806	C866	U926
C17	A77	U137	G197	U258	G318	G378	U439	A500	U560	A626	U686	U747	A807	U867	U927
U18	A78	A138	A198	A259	G319	A379	U440	A501	U561	A627	U687	A748	G808	A868	U928
C19	G79	U139	U199	A260	U320	G380	A441	U502	U562	A628	U688	U749	G809	A869	A929
A20	G80	A140	U200	U261	G321	G381	A442	A503	A563	A629	U689	U750	A810	U870	U930
U21	A81	U141	U201	G262	G322	G382	G443	A504	A564	U630	U690	A751	G811	A871	A931
A22	A82	G142	A202	A263	U323	A383	C444	U505	C565	A631	G691	U752	U812	A872	G932
U23	U83	G143	A203	U264	U324	A384	C445	A506	A566	A632	G692	U753	C913	U873	U933
G24	U84	C144	G204	U265	A325	A385	C446	U507	A567	A633	A693	U754	U814	G874	U934
G25	U85	A145	U205	A266	A326	G386	U449	U508	A568	U634	A694	A755	A815	A875	A935
G26	C86	A146	C206	C267	C327	U387	U450	A509	U569	G635	A695	C756	A816	G876	U936
A27	U87	A147	C207	U268	U328	U388	G451	U510	U570	U636	U696	A757	A817	A877	G937
C28	U88	U148	U208	A269	C329	G389	A452	U511	U571	U637	U697	U758	A818	U878	U938
U29	A89	G149	U209	G270	C330	A390	A453	A512	A572	A638	A698	U759	U819	A879	A939
A30	G90	U150	C210	A271	C331	A391	C454	U513	A573	U639	G699	G760	A820	A880	U940
C31	U91	G151	U211	U272	U332	A392	C455	A514	C574	U640	A700	C761	U821	G881	A941
C32	A92	A152	U212	G273	C333	A393	U456	A515	A575	A641	U701	G762	G822	U882	A942
C33	G93	U153	A213	A274	U334	G394	U457	U516	U576	A642	A702	A763	U823	U883	U943
C34	C94	A154	A214	U275	A335	A395	A458	U517	A577	U643	U703	A764	G824	U884	G944
C35	G95	U155	G216	G276	A336	A396	U459	U519	A578	U644	U704	A765	C825	U885	U945
U36	G96	G156	U216	U277	A337	C397	U460	U520	A579	U645	G705	G766	A826	U886	A946
G37	C97	C157	G217	U278	A338	U398	U461	U521	A580	G646	G706	A767	U827	U887	U947
A38	G98	A158	A218	U279	C339	C399	C462	U522	U581	U647	C707	U768	G828	A888	U958
A39	A99	G159	G219	C280	U340	U400	C463	G523	A582	U648	A708	U769	U830	G889	U959
U40	G100	U160	G220	C281	A341	G401	A464	A524	A583	A649	U709	U770	U831	G890	U960
U41	C101	G161	C221	A282	A342	A402	G465	U525	A584	A650	A710	A771	U832	A891	A961
U42	G102	U162	C222	A283	A343	A403	U466	U526	A585	A651	A711	G772	U833	A892	U962
A43	A103	A163	A223	A284	U344	U404	U467	U527	C586	G652	U712	G773	U834	U893	G963
A44	A104	U164	U224	G285	A345	A405	A468	U528	C587	U653	U713	A774	G835	U894	C964
G45	A105	G165	U225	A286	U346	G406	U469	U529	U588	G654	A714	U775	G836	U895	C965
C46	A106	G166	U226	U287	A347	U407	G470	U530	A589	C655	U715	A776	U837	A896	C966
A47	G107	A107	C227	U288	A348	A409	A471	U531	U590	U656	C716	C777	U838	U897	U966
U48	G168	G168	C228	C289	C349	G410	A472	C531	A591	G657	A717	C778	U839	A898	C967
A49	A108	A108	C229	G290	C350	U411	A473	C532	G592	U658	U718	U779	U840	G899	U968
U50	A110	G170	C230	U291	A351	U412	A474	U534	U593	U659	U719	U780	U841	C900	A969
U51	A111	U171	U232	G292	U352	A413	A475	U535	U594	A660	G720	C781	A842	U901	A970
A52	C112	C172	A233	U293	G353	A414	U476	A535	U595	G661	U723	G782	A843	A902	A971
A53	A113	A173	G234	U294	A354	A415	U477	U536	A596	A662	U724	G783	C944	A903	C971
U54	G114	A174	A235	G295	G355	A416	C477	A537	U597	U663	U725	G784	C945	U904	U972
U55	U115	U175	G236	C296	A356	A417	A478	A538	U598	U664	U726	G785	C946	U905	G973
A56	U116	A176	G237	U297	C357	G418	U479	G539	A601	U665	U727	C786	C947	A906	G974
G57	C117	U177	G238	U298	C358	U419	C480	G540	A602	U666	G727	C787	U948	A907	A976
G58	A118	U178	U239	G299	G359	U420	A481	A541	U599	U667	U728	C788	C949	C908	A977
G59	G119	U179	C240	A300	A360	A421	A482	C542	U600	U668	G729	G789	U950	A909	C978
G60	C120	U180	C241	U301	U361	G422	U483	A543	A607	U669	U730	U790	A850	C910	U979

A1887	C1887	A1767	A1707	A1647	U1587	C1527	A1466	G1406	C1346	U1286	G1226	A1162	G1102	C1040	A980
A1888	A1888	G1768	G1708	A1648	A1588	G1528	A1467	G1407	A1347	U1287	C1227	G1163	U1103	A1041	C981
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A1890	U	C1770	G1710	C1650	A1590	U1530	C1469	G1409	A1349	C1289	U1229	A1165	U1105	G1043	U983
A1891	A	G1711	C1711	C1651	U1591	U1591	C1470	A1410	A1350	U1290	U1230	U1166	A1106	G1044	U984
A1892	A	G1712	C1712	C1652	U1592	A1532	G1471	A1411	C1351	U1291	A1231	A1167	G1107	G1045	G985
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A1894	C	C1774	U1714	C1654	U1594	G1534	U1473	C1413	G1353	A1293	G1233	C1169	G1109	A1047	G987
A1895	A	G1715	A1655	A1655	G1595	A1535	A1474	C1414	G1354	U1294	G1234	U1170	G1110	A1048	C988
A1896	A	G1716	U1656	U1656	A1596	U1536	A1475	A1415	C1355	U1295	U1235	G1171	C1111	C1049	A989
A1897	A	A1777	G1657	G1657	A1597	G1537	G1476	A1416	C1356	U1296	C1236	G1172	G1112	C1050	U990
A1898	C	G1778	G1718	G1658	A1598	U1538	G1477	A1417	C1357	G1297	G1237	U1173	A1113	G1051	A991
A1899	G	G1779	G1719	A1659	C1599	A1539	A1478	A1418	U1358	G1298	G1238	G1174	A1114	U1052	U992
U1900	G	U1780	A1720	G1660	U1600	U1540	G1479	A1419	G1359	A1299	A1239	C1175	A1115	G1053	A993
G1901	A	U1781	C1721	G1661	A1601	A1541	U1480	A1420	U1360	G1300	A1240	A1176	G1116	A1054	U994
U1902	A	C1782	U1722	U1662	U1602	C1542	G1481	A1421	G1361	A1177	A1241	U1177	A1117	U1055	G995
U1903	U	A1783	G1723	G1663	A1603	C1543	U1482	G1422	G1362	U1302	U1178	U1178	C1118	G1056	C996
G1904	U	A1784	A1724	C1664	G1604	U1544	G1483	G1423	G1363	C1303	A1243	U1179	C1119	U997	U997
A1905	A	G1785	A1725	C1665	U1605	A1545	U1484	G1424	A1364	A1304	U1244	U1180	A1120	G998	G998
G1906	U	G1786	G1726	A1666	G1606	U1546	A1485	U1425	U1365	A1305	C1245	A1181	A1121	G1060	U999
U1907	A	C1787	U1727	U1667	A1607	U1547	A1486	U1426	G1366	G1306	U1246	A1182	A1122	G1061	G1000
A1908	A	G1788	G1728	U1668	G1608	C1548	C1487	G1427	A1367	G1307	U1247	A1183	C1123	C1062	A1001
U1909	U	A1789	G1729	G1669	U1609	A1549	A1488	G1428	A1368	U1308	A1248	G1124	G1124	C1063	C1002
C1910	A	A1790	A1730	G1670	A1610	U1550	A1489	A1429	C1369	U1309	A1249	A1125	A1125	G1064	C1003
C1911	C	A1791	G1731	G1671	G1611	U1551	C1490	U1430	C1370	A1310	C1250	A1126	A1126	A1065	C1004
C1912	A	A1792	A1732	A1672	G1612	A1552	U1491	G1431	A1371	U1311	C1251	C1127	C1127	A1066	G1005
U1913	C	G1793	C1733	C1673	A1613	C1553	C1492	G1432	A1372	G1312	U1252	A1192	C1128	A1067	A1006
U1914	U	G1794	A1734	A1674	A1614	C1554	A1493	A1433	A1373	A1313	U1253	A1193	A1129	A1068	A1007
U1915	U	A1795	G1735	G1675	G1615	G1555	C1494	A1434	C1374	U1314	U1254	A1194	U1130	A1069	A1008
G1916	G	A1796	G1736	A1676	G1616	C1556	U1495	A1435	G1375	A1315	U1255	U1195	C1131	G1070	G1009
U1917	A	A1797	U1737	U1677	U1617	U1557	G1497	A1436	U1376	U1316	C1256	A1196	U1132	U1071	A1010
U1918	A	A1798	U1738	C1678	A1618	A1558	C1498	A1437	A1377	A1317	U1257	A1197	A1133	U1072	U1011
U1919	U	U1799	U1739	G1679	C1619	A1559	C1499	A1438	A1378	A1318	U1258	U1198	A1134	C1073	G1012
U1921	A1860	U1800	C1740	G1680	A1620	G1560	A1500	A1439	G1379	A1319	A1259	C1199	U1135	C1074	G1013
A1922	U1861	U1801	G1741	G1681	A1621	G1561	A1501	A1440	G1380	U1320	A1260	U1200	A1136	G1075	U1014
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U1925	U1864	A1804	U1744	G1684	G1624	G1564	C1504	A1443	A1383	C1323	U1263	U1203	U1139	G1078	A1017
A1926	U1865	A1805	G1745	G1685	U1625	A1565	A1505	G1444	C1384	C1324	U1264	C1204	G1140	U1079	C1018
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G1930	A1869	G1809	A1749	G1689	C1629	A1569	A1509	G1448	C1388	U1328	A1268	U1208	C1144	A1083	A1022
C1931	G1870	A1810	U1750	A1690	G1630	U1570	G1510	G1449	C1389	G1329	U1269	A1209	C1145	A1084	C1023
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U1933	A1872	C1812	G1752	G1692	A1632	A1572	C1512	G1451	A1391	G1331	G1271	A1211	U1147	C1086	U1025
C1934	A1873	A1813	G1753	C1693	G1633	U1573	C1513	A1452	A1392	C1332	G1272	G1212	C1148	G1087	G1026
G1935	G1874	A1814	U1754	A1694	A1634	A1574	U1514	U1453	A1393	C1333	C1273	C1213	C1149	A1088	A1027
U1936	G1875	A	U1755	A1695	A1635	U1575	U1515	C1454	U1394	A1334	A1274	G1214	G1150	U1089	U1028
G1937	G1876	A	U1756	A1696	G1636	U1576	A1516	A1455	U1395	C1335	A1275	A1215	A1151	U1090	C1029
C1938	A1877	A	A1757	U1697	U1637	A1577	A1517	U1456	A1396	U1336	G1276	A1216	A1152	G1091	A1030
U1939	A1878	U	U1758	A1698	G1638	U1578	A1518	G1457	A1397	U1337	G1277	U1217	G1153	G1031	G1031
U1940	U1879	G	C1759	A1699	U1639	U1579	A1519	A1458	C1398	U1338	A1278	G1218	U1154	A1094	G1032
A1941	A1880	C	U1760	U1700	U1640	U1580	U1520	A1459	A1399	U1339	C1279	A1219	U1155	G1095	U1033
U1942	C1881	C	C1761	C1701	U1641	G1581	G1521	A1460	A1400	G1340	C1280	U1220	U1156	A1096	U1034
C1943	G1882	U	G1762	G1702	G1642	U1582	G1522	G1461	A1401	G1341	U1281	U1221	C1157	A1097	G1035
C1944	G1883	A	A1763	A1703	G1643	A1583	A1523	U1462	U1402	U1342	U1282	A1222	C1158	U1098	A1036
U1945	U1884	A	G1764	A1704	C1644	U1584	U1524	C1463	A1403	A1343	A1283	G1223	C1159	U1099	A1037
G1946	U1885	C	U1765	U1705	G1645	U1585	G1525	A1464	A1404	A1344	A1284	A1224	U1160	G1038	G1038
G1947	C1886	U	U1766	G1706	U1646	A1586	G1526	A1465	U1405	G1345	C1285	G1225	C1161	A1101	U1039






U9392	C3872	A3811	C3751	A3690	C3630	C3570	U3510	G3450	U3390	C3330	G3269	G3209	U3149	U3070	U2969
G3933	A3873	C3812	G3752	A3691	C3631	C3571	U3511	A3451	U3391	A3331	G3270	A3210	G3150	U3071	U2970
G3934	A3874	C3813	A3753	G3692	G3632	C3572	U3512	A3452	U3392	G3332	A3271	A3211	G3151	G3086	
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C3938	U3878	C3817	U3757	C3696	G3636	G3576	C3516	U3456	A3396	A3336	G3275	A3215	G3155	U3090	U2984
A3939	A3879	U3818	G3758	A3697	A3637	U3577	U3517	C3457	U3397	U3337	A3276	C3216	G3156	A3091	U2985
A3940	A3880	C3819	G3759	A3698	U3638	A3578	A3518	A3458	C3398	U3338	A3277	A3217	U3157	U2986	U2986
C3941	A3881	U3820	A3760	U3699	U3639	C3579	C3519	C3459	C3399	U3339	A3278	C3218	A3158	C3093	U2987
U3942	C3882	G3821	U3761	U3700	A3640	G3580	U3520	C3460	U3400	A3340	A3279	A3219	C3159	U3094	U2988
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A3970	A3910	A3849	U3789	A3728	G3668	G3608	U3548	G3488	A3428	C3368	A3308	A3247	C3187	C3126	G3016
	G3911	A3850	A3729	U3729	U3669	A3609	C3549	A3489	A3429	A3369	A3309	U3248	A3188	A3127	U3017
	U3912	U3851	G3730	C3730	G3670	C3610	C3550	C3490	G3430	A3370	G3310	C3249	A3189	U3128	U3018
	G3913	A3852	A3731	C3671	C3671	C3611	U3551	C3491	C3431	G3371	A3311	U3250	G3190	U3129	A3023
	G3914	C3853	U3732	U3672	U3672	A3612	G3552	G3492	A3432	C3372	G3312	G3251	G3191	G3130	A3024
	U3915	A3854	U3733	G3673	G3673	G3613	C3553	U3493	A3433	C3373	G3313	G3252	C3192	C3131	A3025
	U3916	A3855	A3734	G3674	G3674	U3614	G3554	C3494	A3434	U3374	U3314	G3253	C3193	C3132	U3026
	G3917	U3856	A3735	A3675	A3675	G3615	U3555	G3495	A3435	C3375	U3315	U3254	A3194		
	A3918	C3857	U3736	C3676	C3676	G3616	A3556	U3496	U3436	C3376	G3316	G3255	G3195	G3135	U3029
	G3919	U3857	A3737	U3677	U3677	U3617	G3557	G3497	U3437	A3377	U3317	U3256	C3196	U3136	U3030
	A3920	A3858	U3738	G3678	G3678	A3618	U3558	A3498	C3438	U3378	U3318	U3257	U3197	A3137	G3031
	A3921	C3859	U3739	C3679	C3679	U3619	A3559	G3499	A3439	A3379	A3319	C3258	C3198	G3138	C3032
	G3922	A3860	U3740	U3680	A3680	G3620	C3560	A3500	C3440	G3380	C3320	A3259	A3199	G3139	A3033
	C3923	G3861	A3741	C3681	A3681	A3621	G3561	C3501	C3441	A3381	A3321	G3260	G3200	G3140	A3034
	U3924	U3862	C3742	U3682	U3682	C3622	A3562	A3502	A3442	G3382	A3322	U3261	U3201	A3141	C3035
	G3925	C3863	U3743	G3683	G3683	G3623	G3563	C3503	A3443	C3383	G3323	A3262	G3202	G3142	
	C3926	U3864	U3744	A3684	A3684	C3624	A3564	G3504	G3444	C3384	A3324	C3263	G3203	U3143	
	G3927	G3865	G3745	U3685	U3685	G3625	G3565	C3505	C3445	G3385	G3325	A3264	G3204	U3144	A3049
	A3928	A3866	A3746	A3686	A3686	A3626	G3566	U3506	G3446	U3386	G3326	C3265	G3205	U3145	A3050
	U3929	U3867	C3747	C3687	A3687	C3627	A3567	A3507	U3447	C3387	U3327	A3266	A3206	G3146	U3068
	A3930	A3868	U3748	A3688	A3688	G3628	A3568	C3508	U3448	C3388	G3328	C3267	C3207	A3147	
	C3931	U3871	A3750	U3629	U3629	U3629	C3569	U3509	G3449	C3389	U3329	A3268	A3208	C3148	U3069

- Molecule 84: 2S ribosomal RNA

Chain A9:  63% 23% 13%

U1 G2 G3 U4 U5 G6 G7 A8 C9 U10 A11 C12 A13 U14 A15 U16 G17 G18 U19 U20 G21 A22 G23 G24 G25 U26 U27 G28 U29 A30

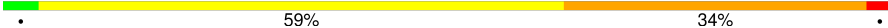
- Molecule 85: 5S ribosomal RNA

Chain A7:  63% 33%

G1 C2 C3 A4 A5 C6 G7 A8 C9 C10 G11 U12 U13 A14 C15 A16 G17 G18 C19 U20 G21 A22 A23 U24 A25 C26 A27 U28 C29 G30 G31 U32 U33 C34 U35 U36 G37 G38 C39 C40 A41 A42 U43 C44 A45 C46 G47 G48 G49 A50 A51 U52 U53 A54 A55 G56 C57 A58 U59 C60

G61 U62 C63 G64 A65 G66 G67 A68 C69 G70 G71 U72 U73 A74 G75 A76 U77 G78 C79 U80 A81 G82 A83 U84 A85 G86 G87 A88 C89 G90 G91 C92 C93 G94 U95 U96 G97 G98 G99 A100 A101 G102 A103 C104 C105 G106 G107 G108 U109 A110 G111 U112 G113 U114 U115 G116 G117 C118 G119 U120

- Molecule 86: 5.8S ribosomal RNA

Chain A8:  59% 34%

A1 A2 C3 U4 C5 U6 A7 A8 G9 C10 G11 G12 U13 G14 G15 A16 U17 C18 A19 C20 U21 C22 G23 G24 C25 U26 C27 A28 U29 U30 G31 C32 G33 U34 C35 A36 U37 G38 A39 A40 A41 G42 A43 C44 G45 C46 G47 G48 C49 A50 A51 A52 C53 U54 G55 U56 G57 C58 G59 U60

G61 A62 C63 G64 U65 G66 G67 U68 G69 A70 G71 G72 U73 G74 A75 A76 G77 G78 A79 C80 A81 C82 A83 U84 G85 A86 A87 A88 C89 U90 C91 G92 G93 A94 A95 U96 U97 U98 U99 G100 A101 A102 C103 G104 C105 A106 U107 U108 U109 C110 G111 C112 A113 G114 U115 U116 C117 A118 U119 G120

G121 U122 G123

## 4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	134500	Depositor
Resolution determination method	FSC at 0.5 cut-off	Depositor
CTF correction method	each subvolume	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	20	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	90000	Depositor
Image detector	Eagle 4k CCD	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	Az	1.21	2/6704 (0.0%)	1.68	114/9051 (1.3%)
10	AN	1.26	1/1225 (0.1%)	1.45	13/1641 (0.8%)
11	AL	1.35	2/1296 (0.2%)	1.53	12/1725 (0.7%)
12	AR	1.26	1/993 (0.1%)	1.41	6/1333 (0.5%)
13	AP	1.22	0/1036	1.44	8/1383 (0.6%)
14	AT	1.23	0/1228	1.51	12/1653 (0.7%)
15	AB	1.24	2/1825 (0.1%)	1.49	22/2448 (0.9%)
16	AA	1.25	3/1777 (0.2%)	1.63	29/2422 (1.2%)
17	AV	1.29	0/622	1.47	4/835 (0.5%)
18	AY	2.40	7/1032 (0.7%)	1.64	17/1373 (1.2%)
19	AZ	1.27	1/616 (0.2%)	1.61	10/826 (1.2%)
2	Ag	1.19	0/2574	1.46	21/3506 (0.6%)
20	Aa	1.34	2/883 (0.2%)	1.65	18/1184 (1.5%)
21	Ab	1.28	1/668 (0.1%)	1.48	4/898 (0.4%)
22	Ac	1.41	0/502	1.46	2/670 (0.3%)
23	AD	1.28	4/1808 (0.2%)	1.50	13/2427 (0.5%)
24	Ae	1.33	1/475 (0.2%)	1.53	7/625 (1.1%)
25	Af	1.30	3/672 (0.4%)	1.69	11/887 (1.2%)
26	AJ	1.34	6/1526 (0.4%)	1.65	23/2037 (1.1%)
27	AE	1.27	6/2096 (0.3%)	1.54	27/2819 (1.0%)
28	AC	1.24	3/1785 (0.2%)	1.57	26/2415 (1.1%)
29	AG	1.31	0/1891	1.61	34/2519 (1.3%)
3	AU	1.26	1/825 (0.1%)	1.52	9/1111 (0.8%)
30	AF	1.28	2/1518 (0.1%)	1.53	21/2037 (1.0%)
31	AH	1.25	2/1593 (0.1%)	1.63	19/2145 (0.9%)
32	AW	1.26	3/1046 (0.3%)	1.51	14/1402 (1.0%)
33	AI	1.31	2/1689 (0.1%)	1.62	29/2250 (1.3%)
34	AQ	1.30	1/1202 (0.1%)	1.70	25/1608 (1.6%)
35	Ah	1.37	1/495 (0.2%)	1.76	13/658 (2.0%)
36	B2	2.32	1859/44058 (4.2%)	2.09	2463/68404 (3.6%)
37	BC	2.25	72/1796 (4.0%)	1.89	84/2800 (3.0%)
38	Cz	1.18	0/1727	1.43	7/2308 (0.3%)
39	Cq	1.20	2/1736 (0.1%)	1.56	24/2342 (1.0%)
4	AK	1.20	0/819	1.52	10/1110 (0.9%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
40	CK	1.19	1/1196 (0.1%)	1.57	13/1614 (0.8%)
41	CO	1.33	4/1700 (0.2%)	1.51	22/2277 (1.0%)
42	CL	1.35	4/1726 (0.2%)	1.76	47/2308 (2.0%)
43	CV	1.28	1/1014 (0.1%)	1.52	14/1362 (1.0%)
44	CM	1.37	1/1326 (0.1%)	1.65	20/1780 (1.1%)
45	Ca	1.28	2/1235 (0.2%)	1.66	29/1640 (1.8%)
46	CN	1.43	8/1750 (0.5%)	1.62	26/2335 (1.1%)
47	CI	1.33	2/1827 (0.1%)	1.54	14/2447 (0.6%)
48	CD	1.32	2/2379 (0.1%)	1.55	31/3196 (1.0%)
49	CQ	1.34	3/1544 (0.2%)	1.64	40/2069 (1.9%)
5	AO	1.27	1/1016 (0.1%)	1.59	17/1364 (1.2%)
50	CR	1.27	3/1703 (0.2%)	1.46	19/2255 (0.8%)
51	CA	1.33	4/1970 (0.2%)	1.61	29/2635 (1.1%)
52	CS	1.29	1/1491 (0.1%)	1.66	26/1998 (1.3%)
53	CT	1.28	3/1326 (0.2%)	1.53	13/1773 (0.7%)
54	CP	1.31	2/1529 (0.1%)	1.50	16/2042 (0.8%)
55	CU	1.21	1/974 (0.1%)	1.46	6/1302 (0.5%)
56	CX	1.27	1/1001 (0.1%)	1.58	7/1348 (0.5%)
57	CY	1.36	3/1094 (0.3%)	1.51	14/1456 (1.0%)
58	CW	1.29	1/1063 (0.1%)	1.55	9/1410 (0.6%)
59	CZ	1.28	1/1141 (0.1%)	1.56	10/1517 (0.7%)
6	AX	1.30	1/1152 (0.1%)	1.50	11/1540 (0.7%)
60	Cr	1.29	0/1069	1.70	20/1432 (1.4%)
61	Ch	1.30	0/1024	1.45	8/1353 (0.6%)
62	Cb	1.29	2/628 (0.3%)	1.67	12/832 (1.4%)
63	CB	1.24	3/3356 (0.1%)	1.61	41/4494 (0.9%)
64	CF	1.31	2/1958 (0.1%)	1.56	29/2622 (1.1%)
65	Cc	1.20	1/779 (0.1%)	1.55	9/1048 (0.9%)
66	Cd	1.28	0/939	1.54	10/1262 (0.8%)
67	Ce	1.36	1/1132 (0.1%)	1.54	13/1508 (0.9%)
68	Cf	1.33	0/1270	1.74	22/1696 (1.3%)
69	Cg	1.44	2/938 (0.2%)	1.65	19/1252 (1.5%)
7	AM	1.15	0/937	1.59	15/1260 (1.2%)
70	Ci	1.30	1/944 (0.1%)	1.62	16/1250 (1.3%)
71	Cj	1.41	1/750 (0.1%)	1.47	5/993 (0.5%)
72	Ck	1.26	0/583	1.72	10/774 (1.3%)
73	Cl	1.39	0/445	1.46	3/589 (0.5%)
74	CC	1.32	5/3163 (0.2%)	1.57	43/4253 (1.0%)
75	Cm	1.24	0/435	1.51	4/575 (0.7%)
76	Cn	1.55	0/237	1.43	3/300 (1.0%)
77	Cp	1.30	0/719	1.49	9/954 (0.9%)
78	Co	1.30	2/887 (0.2%)	1.63	15/1162 (1.3%)
79	CJ	1.30	3/1494 (0.2%)	1.53	15/2001 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
8	AS	1.25	1/1146 (0.1%)	1.64	19/1535 (1.2%)
80	CH	1.21	0/1519	1.54	23/2042 (1.1%)
81	CE	1.29	3/1883 (0.2%)	1.75	45/2514 (1.8%)
82	CG	1.26	7/1968 (0.4%)	1.47	21/2637 (0.8%)
83	A5	2.33	3665/87035 (4.2%)	2.12	5062/135254 (3.7%)
84	A9	2.28	39/714 (5.5%)	2.32	45/1112 (4.0%)
85	A7	2.35	134/2854 (4.7%)	2.03	160/4447 (3.6%)
86	A8	2.29	115/2932 (3.9%)	2.05	138/4568 (3.0%)
9	Ad	1.38	0/443	1.61	7/589 (1.2%)
All	All	1.95	6027/247076 (2.4%)	1.91	9425/360828 (2.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	Az	105	86
10	AN	0	6
11	AL	0	9
12	AR	0	5
13	AP	1	4
14	AT	2	11
15	AB	0	4
16	AA	0	6
17	AV	0	2
18	AY	0	11
19	AZ	1	2
2	Ag	0	4
20	Aa	1	6
21	Ab	0	4
22	Ac	0	3
23	AD	1	10
24	Ae	0	2
25	Af	0	10
26	AJ	0	7
27	AE	0	13
28	AC	0	14
29	AG	0	11
3	AU	0	3
30	AF	0	7
31	AH	2	8

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Mol	Chain	#Chirality outliers	#Planarity outliers
32	AW	0	2
33	AI	0	12
34	AQ	0	12
35	Ah	0	6
36	B2	1	0
38	Cz	1	2
39	Cq	1	16
4	AK	0	8
40	CK	0	13
41	CO	0	9
42	CL	29	21
43	CV	0	4
44	CM	2	15
45	Ca	1	12
46	CN	1	13
47	CI	0	11
48	CD	1	8
49	CQ	0	7
5	AO	2	1
50	CR	0	5
51	CA	0	8
52	CS	28	22
53	CT	1	12
54	CP	1	4
55	CU	0	4
56	CX	1	4
57	CY	0	4
58	CW	0	10
59	CZ	0	6
6	AX	0	3
60	Cr	0	14
61	Ch	0	3
62	Cb	0	4
63	CB	1	24
64	CF	1	7
65	Cc	0	5
66	Cd	1	3
67	Ce	0	8
68	Cf	7	22
69	Cg	0	7
7	AM	1	7
70	Ci	0	5

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Mol	Chain	#Chirality outliers	#Planarity outliers
71	Cj	0	3
72	Ck	0	2
73	Cl	0	4
74	CC	1	21
75	Cm	0	2
76	Cn	0	2
77	Cp	0	2
78	Co	0	5
79	CJ	1	10
8	AS	0	6
80	CH	1	11
81	CE	3	26
82	CG	1	7
83	A5	7	0
9	Ad	0	4
All	All	208	716

All (6027) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1668	U	C2'-C1'	-31.14	1.19	1.53
36	B2	1320	G	C2'-C1'	-30.14	1.20	1.53
18	AY	77	TYR	CE1-CZ	30.11	1.77	1.38
18	AY	77	TYR	CE2-CZ	28.88	1.76	1.38
18	AY	77	TYR	CG-CD1	27.53	1.75	1.39
83	A5	973	G	C2'-C1'	-27.48	1.23	1.53
18	AY	77	TYR	CG-CD2	26.96	1.74	1.39
83	A5	2767	U	C2'-C1'	-25.82	1.25	1.53
83	A5	3474	G	C2'-C1'	-25.27	1.25	1.53
83	A5	874	G	C2'-C1'	-24.85	1.26	1.53
83	A5	1689	G	C2'-C1'	-23.99	1.26	1.53
36	B2	1821	G	C2'-C1'	-23.93	1.27	1.53
83	A5	3670	G	C2'-C1'	-23.89	1.27	1.53
83	A5	1417	G	C2'-C1'	-23.37	1.27	1.53
83	A5	2085	G	C2'-C1'	-23.34	1.27	1.53
18	AY	77	TYR	CD2-CE2	23.14	1.74	1.39
83	A5	1948	C	C2'-C1'	-23.08	1.27	1.53
83	A5	775	U	C2'-C1'	-22.44	1.28	1.53
83	A5	1564	G	C2'-C1'	-22.38	1.28	1.53
83	A5	1250	C	C2'-C1'	-22.38	1.28	1.53
36	B2	1620	G	C2'-C1'	-22.30	1.28	1.53
83	A5	24	G	C2'-C1'	-22.17	1.28	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	717	C	C2'-C1'	-22.12	1.29	1.53
36	B2	430	A	C2'-C1'	-21.97	1.29	1.53
83	A5	2673	A	C2'-C1'	-21.85	1.29	1.53
36	B2	1089	G	C2'-C1'	-21.82	1.29	1.53
83	A5	801	G	C2'-C1'	-21.79	1.29	1.53
83	A5	118	A	C2'-C1'	-21.69	1.29	1.53
83	A5	1503	G	C2'-C1'	-21.59	1.29	1.53
83	A5	1534	G	C2'-C1'	-21.42	1.29	1.53
83	A5	3190	G	C2'-C1'	-21.34	1.29	1.53
83	A5	761	C	C2'-C1'	-21.18	1.30	1.53
83	A5	3759	G	C2'-C1'	-21.16	1.30	1.53
83	A5	3906	U	C2'-C1'	-21.13	1.30	1.53
83	A5	1181	A	C2'-C1'	-20.94	1.30	1.53
36	B2	267	G	C2'-C1'	-20.89	1.30	1.53
83	A5	973	G	O4'-C1'	20.89	1.68	1.41
83	A5	2737	C	C2'-C1'	-20.66	1.30	1.53
83	A5	3586	A	C2'-C1'	-20.51	1.30	1.53
18	AY	77	TYR	CD1-CE1	20.26	1.69	1.39
36	B2	1596	C	C2'-C1'	-20.17	1.31	1.53
83	A5	1599	C	C2'-C1'	-20.12	1.31	1.53
83	A5	3807	G	C2'-C1'	-20.08	1.31	1.53
83	A5	932	G	C2'-C1'	-20.05	1.31	1.53
83	A5	815	A	C2'-C1'	-19.98	1.31	1.53
83	A5	1368	A	O4'-C1'	-19.97	1.15	1.41
83	A5	2122	G	C2'-C1'	-19.93	1.31	1.53
83	A5	542	C	O4'-C1'	19.90	1.67	1.41
36	B2	249	U	C2'-C1'	-19.61	1.31	1.53
83	A5	1757	A	C2'-C1'	-19.60	1.31	1.53
83	A5	875	G	C2'-C1'	-19.53	1.31	1.53
36	B2	1243	G	C2'-C1'	-19.52	1.31	1.53
36	B2	1402	U	C2'-C1'	-19.52	1.31	1.53
36	B2	1650	G	C2'-C1'	-19.50	1.31	1.53
36	B2	1127	G	C2'-C1'	-19.46	1.31	1.53
83	A5	3843	U	C2'-C1'	19.34	1.74	1.53
83	A5	220	G	C2'-C1'	-19.32	1.32	1.53
83	A5	117	C	C2'-C1'	-19.26	1.32	1.53
83	A5	3563	G	C2'-C1'	-19.21	1.32	1.53
83	A5	3784	C	C2'-C1'	-19.17	1.32	1.53
83	A5	1873	A	C2'-C1'	-19.11	1.32	1.53
83	A5	3683	G	C2'-C1'	-19.11	1.32	1.53
83	A5	2767	U	O4'-C1'	19.08	1.66	1.41
83	A5	3151	G	C2'-C1'	-18.95	1.32	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1359	U	C2'-C1'	-18.94	1.32	1.53
36	B2	1569	C	O4'-C1'	18.80	1.66	1.41
36	B2	1342	G	O4'-C1'	-18.79	1.17	1.41
83	A5	1132	U	C2'-C1'	-18.75	1.32	1.53
83	A5	1015	G	C2'-C1'	-18.62	1.32	1.53
83	A5	12	C	C2'-C1'	-18.59	1.32	1.53
83	A5	2794	U	C2'-C1'	-18.56	1.32	1.53
83	A5	1195	U	C2'-C1'	-18.52	1.32	1.53
86	A8	70	A	C2'-C1'	-18.42	1.33	1.53
83	A5	1029	C	C2'-C1'	-18.35	1.33	1.53
83	A5	677	G	C2'-C1'	-18.33	1.33	1.53
36	B2	817	C	C2'-C1'	-18.20	1.33	1.53
83	A5	2138	C	C2'-C1'	-18.11	1.33	1.53
83	A5	260	A	C2'-C1'	-18.05	1.33	1.53
83	A5	117	C	O4'-C1'	18.03	1.65	1.41
83	A5	2753	G	C2'-C1'	-17.95	1.33	1.53
83	A5	11	C	C2'-C1'	-17.95	1.33	1.53
83	A5	3389	C	C2'-C1'	-17.90	1.33	1.53
83	A5	2680	G	C2'-C1'	-17.86	1.33	1.53
83	A5	1404	A	C2'-C1'	-17.79	1.33	1.53
83	A5	2014	C	C2'-C1'	-17.76	1.33	1.53
36	B2	650	G	C2'-C1'	-17.75	1.33	1.53
83	A5	2572	G	C2'-C1'	-17.73	1.33	1.53
83	A5	3249	C	C2'-C1'	-17.71	1.33	1.53
36	B2	1290	A	C2'-C1'	-17.68	1.33	1.53
83	A5	3395	G	C2'-C1'	-17.65	1.33	1.53
83	A5	937	G	C2'-C1'	-17.64	1.33	1.53
36	B2	867	G	C2'-C1'	-17.62	1.33	1.53
83	A5	155	U	C2'-C1'	-17.61	1.33	1.53
83	A5	3569	C	C2'-C1'	-17.61	1.33	1.53
83	A5	3952	C	C2'-C1'	-17.60	1.33	1.53
36	B2	1960	A	C2'-C1'	-17.59	1.33	1.53
36	B2	1218	G	C2'-C1'	-17.56	1.34	1.53
83	A5	1556	C	C2'-C1'	-17.56	1.34	1.53
83	A5	3925	G	C2'-C1'	-17.55	1.34	1.53
83	A5	1003	C	C2'-C1'	-17.52	1.34	1.53
36	B2	1123	G	C2'-C1'	-17.52	1.34	1.53
83	A5	2481	U	C2'-C1'	-17.51	1.34	1.53
36	B2	419	C	C2'-C1'	-17.50	1.34	1.53
36	B2	1674	C	O4'-C1'	17.48	1.64	1.41
83	A5	488	U	C2'-C1'	-17.48	1.34	1.53
36	B2	429	C	C2'-C1'	-17.46	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	959	U	O4'-C1'	17.43	1.64	1.41
36	B2	1965	U	C2'-C1'	-17.43	1.34	1.53
86	A8	74	G	C2'-C1'	-17.42	1.34	1.53
83	A5	691	C	C2'-C1'	-17.39	1.34	1.53
83	A5	2030	U	C2'-C1'	-17.37	1.34	1.53
83	A5	864	G	O4'-C1'	17.36	1.64	1.41
36	B2	394	G	C2'-C1'	-17.35	1.34	1.53
36	B2	1833	C	O4'-C1'	17.34	1.64	1.41
83	A5	623	C	O4'-C1'	17.32	1.64	1.41
83	A5	1077	C	C2'-C1'	-17.28	1.34	1.53
36	B2	654	C	C2'-C1'	-17.21	1.34	1.53
83	A5	2996	U	C2'-C1'	-17.19	1.34	1.53
36	B2	1912	G	C2'-C1'	-17.18	1.34	1.53
37	BC	33	C	C2'-C1'	-17.17	1.34	1.53
83	A5	1689	G	O4'-C1'	17.15	1.64	1.41
36	B2	458	C	O4'-C1'	17.12	1.64	1.41
36	B2	1925	G	C2'-C1'	-17.12	1.34	1.53
83	A5	2558	A	C2'-C1'	-17.09	1.34	1.53
83	A5	1752	G	C2'-C1'	-17.09	1.34	1.53
83	A5	3583	C	C2'-C1'	-17.09	1.34	1.53
83	A5	922	G	C2'-C1'	-17.05	1.34	1.53
36	B2	621	G	C2'-C1'	-17.03	1.34	1.53
36	B2	431	G	C2'-C1'	-17.01	1.34	1.53
83	A5	1940	C	O4'-C1'	17.01	1.63	1.41
83	A5	1886	C	O4'-C1'	17.01	1.63	1.41
83	A5	2066	G	O4'-C1'	17.00	1.63	1.41
83	A5	3796	G	C2'-C1'	-17.00	1.34	1.53
83	A5	2487	C	O4'-C1'	16.99	1.63	1.41
36	B2	94	G	C2'-C1'	-16.98	1.34	1.53
83	A5	3357	C	O4'-C1'	16.92	1.63	1.41
83	A5	3224	G	C2'-C1'	-16.91	1.34	1.53
83	A5	1976	G	C2'-C1'	-16.91	1.34	1.53
83	A5	2844	G	C2'-C1'	-16.90	1.34	1.53
36	B2	651	C	O4'-C1'	16.87	1.63	1.41
83	A5	3384	C	O4'-C1'	16.82	1.63	1.41
83	A5	3687	A	C2'-C1'	-16.81	1.34	1.53
83	A5	1803	C	O4'-C1'	16.79	1.63	1.41
83	A5	1013	G	C2'-C1'	-16.77	1.34	1.53
83	A5	3160	A	C2'-C1'	-16.73	1.34	1.53
83	A5	300	A	O4'-C1'	16.72	1.63	1.41
83	A5	3515	C	O4'-C1'	16.71	1.63	1.41
36	B2	458	C	C2'-C1'	-16.71	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1298	C	C2'-C1'	-16.69	1.34	1.53
36	B2	1792	A	C2'-C1'	-16.68	1.35	1.53
83	A5	1770	C	O4'-C1'	16.67	1.63	1.41
83	A5	3807	G	O4'-C1'	16.67	1.63	1.41
36	B2	1877	G	C2'-C1'	-16.63	1.35	1.53
83	A5	33	C	O4'-C1'	16.62	1.63	1.41
83	A5	2078	C	O4'-C1'	16.61	1.63	1.41
36	B2	284	G	O4'-C1'	16.57	1.63	1.41
83	A5	3237	U	O4'-C1'	16.55	1.63	1.41
36	B2	1173	A	C2'-C1'	-16.54	1.35	1.53
36	B2	1320	G	O4'-C1'	16.53	1.63	1.41
36	B2	1030	C	O4'-C1'	16.52	1.63	1.41
83	A5	2138	C	O4'-C1'	16.49	1.63	1.41
83	A5	156	G	C2'-C1'	-16.48	1.35	1.53
83	A5	3419	A	C2'-C1'	-16.43	1.35	1.53
83	A5	3811	A	C2'-C1'	-16.43	1.35	1.53
83	A5	3514	C	O4'-C1'	-16.41	1.20	1.41
83	A5	3552	G	C2'-C1'	-16.41	1.35	1.53
83	A5	746	G	C2'-C1'	-16.38	1.35	1.53
36	B2	591	C	C2'-C1'	-16.37	1.35	1.53
83	A5	801	G	O4'-C1'	16.36	1.62	1.41
83	A5	238	G	C2'-C1'	-16.36	1.35	1.53
83	A5	2798	C	C2'-C1'	-16.32	1.35	1.53
83	A5	3690	A	O4'-C1'	16.30	1.62	1.41
83	A5	2727	U	C2'-C1'	-16.29	1.35	1.53
83	A5	1687	U	C2'-C1'	-16.27	1.35	1.53
83	A5	3820	C	O4'-C1'	16.27	1.62	1.41
36	B2	574	C	C2'-C1'	-16.24	1.35	1.53
83	A5	533	A	C2'-C1'	-16.22	1.35	1.53
36	B2	705	G	C2'-C1'	-16.22	1.35	1.53
83	A5	1095	G	C2'-C1'	-16.18	1.35	1.53
83	A5	920	G	O4'-C1'	16.16	1.62	1.41
36	B2	1206	G	C2'-C1'	-16.14	1.35	1.53
83	A5	3628	G	O4'-C1'	16.09	1.62	1.41
36	B2	948	A	C2'-C1'	-16.09	1.35	1.53
83	A5	2740	C	O4'-C1'	16.09	1.62	1.41
36	B2	106	C	C2'-C1'	-16.07	1.35	1.53
83	A5	3124	G	C2'-C1'	-16.05	1.35	1.53
83	A5	2131	C	O4'-C1'	16.03	1.62	1.41
83	A5	3695	G	C2'-C1'	-16.03	1.35	1.53
83	A5	1941	A	C2'-C1'	-16.03	1.35	1.53
36	B2	598	C	C2'-C1'	-16.02	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A7	43	U	C2'-C1'	-16.02	1.35	1.53
83	A5	3905	U	C2'-C1'	-16.02	1.35	1.53
83	A5	2926	G	C2'-C1'	-16.01	1.35	1.53
83	A5	1554	C	C2'-C1'	-16.00	1.35	1.53
36	B2	1087	C	O4'-C1'	-15.97	1.20	1.41
36	B2	163	C	O4'-C1'	15.95	1.62	1.41
83	A5	2196	U	C2'-C1'	15.95	1.70	1.53
83	A5	1574	A	C2'-C1'	-15.95	1.35	1.53
36	B2	1695	A	O4'-C1'	-15.93	1.21	1.41
83	A5	1722	U	C2'-C1'	-15.92	1.35	1.53
83	A5	1404	A	O4'-C1'	15.90	1.62	1.41
36	B2	1658	G	C2'-C1'	-15.86	1.35	1.53
83	A5	626	A	C2'-C1'	-15.84	1.35	1.53
83	A5	1160	U	O4'-C1'	15.84	1.62	1.41
83	A5	1024	U	C2'-C1'	-15.82	1.35	1.53
83	A5	3812	C	O4'-C1'	15.79	1.62	1.41
83	A5	1701	C	O4'-C1'	15.78	1.62	1.41
83	A5	3309	A	C2'-C1'	-15.78	1.35	1.53
36	B2	1975	G	C2'-C1'	-15.78	1.35	1.53
83	A5	2155	A	C2'-C1'	-15.76	1.36	1.53
83	A5	2557	C	O4'-C1'	15.75	1.62	1.41
83	A5	3584	C	O4'-C1'	15.75	1.62	1.41
83	A5	3852	A	C2'-C1'	-15.70	1.36	1.53
83	A5	1647	A	C2'-C1'	-15.68	1.36	1.53
36	B2	565	G	C2'-C1'	-15.68	1.36	1.53
83	A5	2152	C	C2'-C1'	-15.67	1.36	1.53
85	A7	99	G	C2'-C1'	-15.67	1.36	1.53
36	B2	1701	C	O4'-C1'	15.67	1.62	1.41
83	A5	761	C	O4'-C1'	15.67	1.62	1.41
83	A5	2882	A	C2'-C1'	-15.66	1.36	1.53
83	A5	557	G	C2'-C1'	-15.66	1.36	1.53
83	A5	3642	G	C2'-C1'	-15.66	1.36	1.53
83	A5	2503	G	C2'-C1'	-15.63	1.36	1.53
36	B2	1430	U	C2'-C1'	-15.63	1.36	1.53
83	A5	1948	C	O4'-C1'	15.61	1.61	1.41
36	B2	857	G	C2'-C1'	-15.60	1.36	1.53
36	B2	1246	C	O4'-C1'	15.57	1.61	1.41
36	B2	1271	A	O4'-C1'	15.56	1.61	1.41
36	B2	1447	G	C2'-C1'	-15.55	1.36	1.53
36	B2	1886	G	C2'-C1'	-15.53	1.36	1.53
83	A5	2828	A	O4'-C1'	15.53	1.61	1.41
83	A5	2792	G	C2'-C1'	-15.52	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2756	C	C2'-C1'	-15.52	1.36	1.53
36	B2	272	U	O4'-C1'	15.51	1.61	1.41
83	A5	625	C	O4'-C1'	15.51	1.61	1.41
83	A5	2625	G	C2'-C1'	-15.50	1.36	1.53
36	B2	416	C	O4'-C1'	15.48	1.61	1.41
83	A5	1144	C	O4'-C1'	15.48	1.61	1.41
83	A5	1174	G	C2'-C1'	-15.46	1.36	1.53
83	A5	3233	C	C2'-C1'	-15.45	1.36	1.53
36	B2	1029	G	C2'-C1'	-15.45	1.36	1.53
83	A5	1132	U	O4'-C1'	15.45	1.61	1.41
83	A5	2710	A	O4'-C1'	15.43	1.61	1.41
36	B2	1290	A	O4'-C1'	15.42	1.61	1.41
85	A7	1	G	C2'-C1'	-15.42	1.36	1.53
36	B2	157	C	O4'-C1'	15.41	1.61	1.41
86	A8	68	U	C2'-C1'	-15.41	1.36	1.53
36	B2	96	C	C2'-C1'	-15.39	1.36	1.53
83	A5	743	C	C2'-C1'	-15.39	1.36	1.53
83	A5	317	G	C2'-C1'	-15.39	1.36	1.53
83	A5	1616	G	C2'-C1'	-15.38	1.36	1.53
36	B2	1024	C	O4'-C1'	15.37	1.61	1.41
83	A5	2887	U	C2'-C1'	-15.36	1.36	1.53
36	B2	399	C	C2'-C1'	-15.35	1.36	1.53
36	B2	1036	C	O4'-C1'	15.35	1.61	1.41
83	A5	1992	G	C2'-C1'	-15.35	1.36	1.53
36	B2	657	A	O4'-C1'	15.34	1.61	1.41
36	B2	1077	C	O4'-C1'	15.33	1.61	1.41
83	A5	503	A	C2'-C1'	-15.31	1.36	1.53
83	A5	2613	C	O4'-C1'	15.28	1.61	1.41
36	B2	1687	C	O4'-C1'	15.25	1.61	1.41
36	B2	264	C	O4'-C1'	15.23	1.61	1.41
83	A5	15	A	C2'-C1'	-15.22	1.36	1.53
83	A5	1355	C	C2'-C1'	-15.22	1.36	1.53
36	B2	1788	C	O4'-C1'	-15.19	1.22	1.41
83	A5	188	G	C2'-C1'	-15.17	1.36	1.53
83	A5	6	U	C2'-C1'	-15.16	1.36	1.53
83	A5	1470	C	C2'-C1'	-15.15	1.36	1.53
83	A5	2061	G	C2'-C1'	-15.15	1.36	1.53
83	A5	3188	A	C2'-C1'	-15.15	1.36	1.53
36	B2	375	A	C2'-C1'	-15.13	1.36	1.53
83	A5	397	C	C2'-C1'	-15.13	1.36	1.53
83	A5	1748	C	O4'-C1'	15.12	1.61	1.41
83	A5	1554	C	O4'-C1'	15.12	1.61	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1796	C	O4'-C1'	15.10	1.61	1.41
83	A5	3206	A	O4'-C1'	15.09	1.61	1.41
36	B2	1603	G	C2'-C1'	-15.06	1.36	1.53
83	A5	3569	C	O4'-C1'	15.06	1.61	1.41
83	A5	3676	C	C2'-C1'	15.05	1.70	1.53
83	A5	1873	A	O4'-C1'	15.04	1.61	1.41
36	B2	1096	C	O4'-C1'	15.03	1.61	1.41
36	B2	438	C	C2'-C1'	-15.02	1.36	1.53
83	A5	242	C	C2'-C1'	-15.01	1.36	1.53
83	A5	3803	C	O4'-C1'	15.01	1.61	1.41
36	B2	1276	G	C2'-C1'	-14.99	1.36	1.53
36	B2	248	G	O4'-C1'	14.97	1.61	1.41
83	A5	3933	G	C2'-C1'	-14.97	1.36	1.53
83	A5	1159	C	O4'-C1'	14.96	1.61	1.41
83	A5	2151	A	O4'-C1'	14.96	1.61	1.41
36	B2	573	C	O4'-C1'	14.95	1.61	1.41
83	A5	1701	C	C2'-C1'	-14.94	1.36	1.53
83	A5	3273	C	O4'-C1'	14.93	1.61	1.41
36	B2	1314	G	C2'-C1'	-14.92	1.36	1.53
36	B2	574	C	O4'-C1'	14.92	1.61	1.41
86	A8	74	G	O4'-C1'	14.91	1.61	1.41
36	B2	635	C	C2'-C1'	-14.91	1.36	1.53
83	A5	31	C	C2'-C1'	-14.90	1.36	1.53
83	A5	3590	C	O4'-C1'	14.90	1.61	1.41
36	B2	474	C	O4'-C1'	14.90	1.61	1.41
83	A5	1661	C	O4'-C1'	14.87	1.60	1.41
36	B2	106	C	O4'-C1'	14.86	1.60	1.41
36	B2	1871	G	C2'-C1'	-14.86	1.37	1.53
83	A5	169	C	C2'-C1'	-14.86	1.37	1.53
83	A5	1471	G	C2'-C1'	-14.85	1.37	1.53
83	A5	2686	C	O4'-C1'	14.85	1.60	1.41
83	A5	299	G	C2'-C1'	-14.84	1.37	1.53
36	B2	1799	A	C2'-C1'	-14.83	1.37	1.53
36	B2	230	C	O4'-C1'	14.82	1.60	1.41
83	A5	3383	A	C2'-C1'	-14.81	1.37	1.53
83	A5	3478	G	C2'-C1'	-14.81	1.37	1.53
83	A5	2194	G	C2'-C1'	-14.81	1.37	1.53
84	A9	2	G	C2'-C1'	-14.81	1.37	1.53
36	B2	96	C	O4'-C1'	14.80	1.60	1.41
83	A5	3812	C	C2'-C1'	-14.80	1.37	1.53
83	A5	2487	C	C2'-C1'	-14.79	1.37	1.53
83	A5	3952	C	O4'-C1'	14.78	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3166	C	O4'-C1'	14.76	1.60	1.41
83	A5	615	C	O4'-C1'	14.73	1.60	1.41
36	B2	1807	C	C2'-C1'	-14.73	1.37	1.53
85	A7	94	C	C2'-C1'	-14.72	1.37	1.53
83	A5	2520	U	O4'-C1'	14.72	1.60	1.41
83	A5	12	C	O4'-C1'	14.72	1.60	1.41
83	A5	3654	C	C2'-C1'	-14.71	1.37	1.53
83	A5	3575	G	C2'-C1'	-14.71	1.37	1.53
83	A5	2497	C	O4'-C1'	14.71	1.60	1.41
83	A5	309	C	O4'-C1'	14.71	1.60	1.41
36	B2	592	C	C2'-C1'	-14.69	1.37	1.53
36	B2	55	A	C2'-C1'	-14.68	1.37	1.53
36	B2	1662	C	C2'-C1'	-14.68	1.37	1.53
83	A5	327	C	O4'-C1'	14.68	1.60	1.41
83	A5	1139	U	C2'-C1'	-14.68	1.37	1.53
36	B2	817	C	O4'-C1'	14.67	1.60	1.41
83	A5	280	C	O4'-C1'	14.66	1.60	1.41
83	A5	1511	C	O4'-C1'	14.66	1.60	1.41
83	A5	1583	G	C2'-C1'	-14.66	1.37	1.53
83	A5	462	C	O4'-C1'	14.65	1.60	1.41
36	B2	1211	C	O4'-C1'	14.65	1.60	1.41
83	A5	1327	G	C2'-C1'	-14.65	1.37	1.53
83	A5	3727	A	O4'-C1'	-14.65	1.22	1.41
36	B2	543	A	C2'-C1'	-14.64	1.37	1.53
83	A5	1199	C	O4'-C1'	14.62	1.60	1.41
83	A5	1036	A	O4'-C1'	14.62	1.60	1.41
36	B2	706	U	C2'-C1'	-14.61	1.37	1.53
83	A5	3757	U	C2'-C1'	-14.61	1.37	1.53
36	B2	1584	A	O4'-C1'	14.58	1.60	1.41
83	A5	3571	C	O4'-C1'	14.56	1.60	1.41
83	A5	3626	A	O4'-C1'	14.56	1.60	1.41
83	A5	2459	C	O4'-C1'	14.55	1.60	1.41
83	A5	1641	U	O4'-C1'	14.54	1.60	1.41
83	A5	1002	C	O4'-C1'	14.51	1.60	1.41
83	A5	3810	C	O4'-C1'	14.51	1.60	1.41
36	B2	718	C	O4'-C1'	14.50	1.60	1.41
83	A5	3876	U	C2'-C1'	-14.50	1.37	1.53
85	A7	4	A	C2'-C1'	-14.50	1.37	1.53
36	B2	1378	C	C2'-C1'	-14.50	1.37	1.53
36	B2	1763	C	O4'-C1'	14.50	1.60	1.41
83	A5	1938	C	C2'-C1'	-14.50	1.37	1.53
83	A5	143	G	C2'-C1'	-14.49	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	386	C	O4'-C1'	14.49	1.60	1.41
36	B2	706	U	O4'-C1'	14.48	1.60	1.41
36	B2	1696	G	C2'-C1'	-14.47	1.37	1.53
86	A8	49	C	O4'-C1'	14.46	1.60	1.41
36	B2	654	C	O4'-C1'	14.46	1.60	1.41
83	A5	331	A	C2'-C1'	-14.45	1.37	1.53
83	A5	2772	G	C2'-C1'	-14.43	1.37	1.53
83	A5	169	C	O4'-C1'	14.43	1.60	1.41
83	A5	2013	C	O4'-C1'	14.42	1.60	1.41
83	A5	2624	G	C2'-C1'	-14.42	1.37	1.53
83	A5	3577	U	C2'-C1'	-14.42	1.37	1.53
36	B2	293	A	C2'-C1'	-14.41	1.37	1.53
36	B2	1756	C	C2'-C1'	-14.41	1.37	1.53
36	B2	1339	C	O4'-C1'	14.39	1.60	1.41
83	A5	1756	G	O4'-C1'	14.39	1.60	1.41
83	A5	1668	U	O4'-C1'	14.39	1.60	1.41
36	B2	173	C	C2'-C1'	-14.38	1.37	1.53
36	B2	38	C	O4'-C1'	14.38	1.60	1.41
83	A5	2018	C	O4'-C1'	14.38	1.60	1.41
83	A5	2663	C	O4'-C1'	14.38	1.60	1.41
36	B2	1962	G	C2'-C1'	-14.36	1.37	1.53
83	A5	2616	G	C2'-C1'	-14.36	1.37	1.53
83	A5	3604	G	C2'-C1'	-14.35	1.37	1.53
83	A5	1457	G	C2'-C1'	-14.35	1.37	1.53
36	B2	1817	C	C2'-C1'	-14.34	1.37	1.53
83	A5	2494	G	C2'-C1'	-14.34	1.37	1.53
83	A5	3368	C	O4'-C1'	-14.34	1.23	1.41
83	A5	1719	G	C2'-C1'	-14.34	1.37	1.53
36	B2	1990	U	C2'-C1'	-14.34	1.37	1.53
83	A5	1527	C	O4'-C1'	14.32	1.60	1.41
83	A5	1077	C	O4'-C1'	14.32	1.60	1.41
83	A5	3711	G	C2'-C1'	14.30	1.69	1.53
36	B2	1378	C	O4'-C1'	14.29	1.60	1.41
83	A5	3516	C	C2'-C1'	-14.29	1.37	1.53
83	A5	397	C	O4'-C1'	14.29	1.60	1.41
36	B2	955	G	C2'-C1'	-14.27	1.37	1.53
83	A5	98	G	C2'-C1'	-14.26	1.37	1.53
83	A5	44	A	C2'-C1'	-14.25	1.37	1.53
83	A5	2841	G	C2'-C1'	-14.24	1.37	1.53
83	A5	3906	U	O4'-C1'	14.23	1.60	1.41
36	B2	1261	C	C2'-C1'	-14.22	1.37	1.53
83	A5	1409	G	C2'-C1'	-14.21	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	36	C	O4'-C1'	14.20	1.60	1.41
83	A5	3696	C	O4'-C1'	14.18	1.60	1.41
83	A5	2109	G	O4'-C1'	14.16	1.60	1.41
83	A5	2770	C	O4'-C1'	14.16	1.60	1.41
83	A5	3890	G	C2'-C1'	-14.14	1.37	1.53
83	A5	667	U	C2'-C1'	-14.14	1.37	1.53
83	A5	3272	A	C2'-C1'	-14.14	1.37	1.53
36	B2	1243	G	O4'-C1'	14.13	1.60	1.41
83	A5	475	U	O4'-C1'	14.12	1.60	1.41
83	A5	1670	G	C2'-C1'	-14.12	1.37	1.53
83	A5	1931	C	O4'-C1'	14.11	1.59	1.41
83	A5	1869	C	O4'-C1'	14.11	1.59	1.41
83	A5	3624	C	O4'-C1'	14.11	1.59	1.41
36	B2	298	U	C2'-C1'	-14.10	1.37	1.53
83	A5	2031	C	O4'-C1'	14.10	1.59	1.41
83	A5	793	U	O4'-C1'	14.10	1.59	1.41
83	A5	2769	G	C2'-C1'	-14.10	1.37	1.53
83	A5	446	C	C2'-C1'	-14.09	1.37	1.53
36	B2	1419	C	C2'-C1'	-14.09	1.37	1.53
83	A5	3405	U	C2'-C1'	-14.08	1.37	1.53
36	B2	1003	C	O4'-C1'	14.07	1.59	1.41
36	B2	1267	G	C2'-C1'	-14.07	1.37	1.53
36	B2	1850	G	C2'-C1'	-14.07	1.37	1.53
36	B2	1642	C	O4'-C1'	14.07	1.59	1.41
83	A5	3890	G	O4'-C1'	14.07	1.59	1.41
36	B2	1640	G	C2'-C1'	-14.06	1.37	1.53
36	B2	538	C	O4'-C1'	14.05	1.59	1.41
83	A5	1225	G	C2'-C1'	-14.05	1.37	1.53
36	B2	1630	G	C2'-C1'	-14.04	1.38	1.53
83	A5	3943	G	C2'-C1'	-14.04	1.38	1.53
36	B2	17	C	O4'-C1'	14.03	1.59	1.41
36	B2	1099	U	C2'-C1'	-14.02	1.38	1.53
83	A5	2028	A	C2'-C1'	-14.02	1.38	1.53
37	BC	70	C	C2'-C1'	-14.02	1.38	1.53
86	A8	49	C	C2'-C1'	-14.00	1.38	1.53
83	A5	1598	A	C2'-C1'	-14.00	1.38	1.53
83	A5	522	G	C2'-C1'	-13.99	1.38	1.53
83	A5	1330	G	O4'-C1'	13.98	1.59	1.41
83	A5	102	G	O4'-C1'	13.98	1.59	1.41
83	A5	1145	C	C2'-C1'	-13.98	1.38	1.53
83	A5	1160	U	C2'-C1'	-13.98	1.38	1.53
83	A5	3515	C	C2'-C1'	-13.97	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1701	C	C2'-C1'	-13.96	1.38	1.53
83	A5	2756	C	O4'-C1'	13.96	1.59	1.41
83	A5	3775	A	O4'-C1'	13.95	1.59	1.41
83	A5	1209	A	C2'-C1'	-13.95	1.38	1.53
83	A5	1367	A	C2'-C1'	-13.95	1.38	1.53
83	A5	1567	G	C2'-C1'	-13.95	1.38	1.53
83	A5	2018	C	C2'-C1'	-13.93	1.38	1.53
36	B2	460	C	O4'-C1'	13.93	1.59	1.41
36	B2	903	C	O4'-C1'	13.91	1.59	1.41
83	A5	2582	C	C2'-C1'	-13.90	1.38	1.53
83	A5	1663	G	C2'-C1'	-13.90	1.38	1.53
36	B2	717	C	O4'-C1'	13.90	1.59	1.41
36	B2	1005	G	C2'-C1'	-13.88	1.38	1.53
83	A5	3398	C	O4'-C1'	13.88	1.59	1.41
36	B2	871	G	C2'-C1'	-13.88	1.38	1.53
36	B2	388	G	C2'-C1'	-13.87	1.38	1.53
83	A5	2676	U	C2'-C1'	-13.87	1.38	1.53
83	A5	2000	U	O4'-C1'	13.87	1.59	1.41
83	A5	1708	G	O4'-C1'	13.87	1.59	1.41
36	B2	438	C	O4'-C1'	13.86	1.59	1.41
83	A5	3703	C	C2'-C1'	-13.86	1.38	1.53
36	B2	163	C	C2'-C1'	-13.84	1.38	1.53
36	B2	1711	C	O4'-C1'	13.84	1.59	1.41
83	A5	4	U	C2'-C1'	13.84	1.68	1.53
83	A5	3636	G	C2'-C1'	-13.83	1.38	1.53
36	B2	895	A	O4'-C1'	13.83	1.59	1.41
83	A5	1782	C	C2'-C1'	-13.82	1.38	1.53
83	A5	116	U	C2'-C1'	13.82	1.68	1.53
36	B2	899	A	C2'-C1'	-13.81	1.38	1.53
85	A7	94	C	O4'-C1'	13.80	1.59	1.41
36	B2	562	C	O4'-C1'	13.80	1.59	1.41
36	B2	1003	C	C2'-C1'	-13.80	1.38	1.53
36	B2	848	C	C2'-C1'	-13.79	1.38	1.53
36	B2	1119	G	C2'-C1'	-13.79	1.38	1.53
36	B2	1780	G	C2'-C1'	-13.78	1.38	1.53
36	B2	1305	A	O4'-C1'	-13.77	1.23	1.41
36	B2	604	C	O4'-C1'	13.77	1.59	1.41
36	B2	828	A	C2'-C1'	-13.77	1.38	1.53
83	A5	390	A	C2'-C1'	-13.77	1.38	1.53
83	A5	885	U	C2'-C1'	-13.76	1.38	1.53
83	A5	1245	C	C2'-C1'	-13.76	1.38	1.53
83	A5	2507	C	C2'-C1'	-13.74	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3166	C	C2'-C1'	-13.73	1.38	1.53
83	A5	1547	A	C2'-C1'	-13.72	1.38	1.53
83	A5	67	A	C2'-C1'	-13.72	1.38	1.53
36	B2	1651	C	O4'-C1'	13.70	1.59	1.41
83	A5	3367	C	O4'-C1'	13.70	1.59	1.41
36	B2	1954	C	O4'-C1'	13.70	1.59	1.41
83	A5	1499	C	O4'-C1'	13.69	1.59	1.41
83	A5	2220	C	C2'-C1'	-13.69	1.38	1.53
83	A5	2155	A	O4'-C1'	13.69	1.59	1.41
83	A5	863	U	C2'-C1'	-13.68	1.38	1.53
36	B2	183	A	O4'-C1'	13.68	1.59	1.41
83	A5	3198	C	O4'-C1'	13.68	1.59	1.41
36	B2	92	A	C2'-C1'	-13.67	1.38	1.53
36	B2	615	G	C2'-C1'	-13.67	1.38	1.53
36	B2	1659	C	C2'-C1'	-13.66	1.38	1.53
83	A5	3654	C	O4'-C1'	13.66	1.59	1.41
83	A5	2230	G	C2'-C1'	-13.65	1.38	1.53
83	A5	775	U	O4'-C1'	13.65	1.59	1.41
83	A5	982	C	C2'-C1'	-13.65	1.38	1.53
83	A5	1256	C	C2'-C1'	-13.63	1.38	1.53
36	B2	43	A	O4'-C1'	13.63	1.59	1.41
36	B2	829	C	C2'-C1'	-13.62	1.38	1.53
36	B2	1018	C	O4'-C1'	13.62	1.59	1.41
83	A5	3441	C	O4'-C1'	13.62	1.59	1.41
83	A5	305	G	C2'-C1'	-13.61	1.38	1.53
83	A5	1869	C	C2'-C1'	-13.61	1.38	1.53
36	B2	1569	C	C2'-C1'	-13.60	1.38	1.53
83	A5	2000	U	C2'-C1'	-13.59	1.38	1.53
36	B2	1871	G	O4'-C1'	13.58	1.59	1.41
83	A5	1888	A	C2'-C1'	-13.57	1.38	1.53
36	B2	204	C	O4'-C1'	13.57	1.59	1.41
36	B2	314	C	O4'-C1'	13.57	1.59	1.41
83	A5	531	C	O4'-C1'	13.57	1.59	1.41
83	A5	2078	C	C2'-C1'	-13.57	1.38	1.53
86	A8	116	C	C2'-C1'	-13.57	1.38	1.53
83	A5	1182	A	C2'-C1'	-13.56	1.38	1.53
83	A5	2615	C	O4'-C1'	13.56	1.59	1.41
36	B2	516	U	C2'-C1'	-13.55	1.38	1.53
85	A7	49	A	O4'-C1'	13.55	1.59	1.41
83	A5	426	A	O4'-C1'	13.54	1.59	1.41
37	BC	23	G	O4'-C1'	13.54	1.59	1.41
36	B2	590	U	C2'-C1'	-13.54	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	146	C	O4'-C1'	13.53	1.59	1.41
36	B2	533	A	C2'-C1'	-13.53	1.38	1.53
36	B2	869	C	C2'-C1'	-13.52	1.38	1.53
36	B2	651	C	C2'-C1'	-13.51	1.38	1.53
83	A5	1737	U	C2'-C1'	-13.51	1.38	1.53
83	A5	2813	G	O4'-C1'	13.50	1.59	1.41
83	A5	2052	G	O4'-C1'	13.48	1.59	1.41
83	A5	2901	C	C2'-C1'	-13.48	1.38	1.53
85	A7	99	G	O4'-C1'	13.48	1.59	1.41
83	A5	985	G	O4'-C1'	-13.47	1.24	1.41
83	A5	2516	U	O4'-C1'	13.46	1.59	1.41
83	A5	3603	C	O4'-C1'	13.46	1.59	1.41
83	A5	2087	C	O4'-C1'	13.46	1.59	1.41
83	A5	1361	G	C2'-C1'	-13.46	1.38	1.53
36	B2	520	A	O4'-C1'	13.45	1.59	1.41
83	A5	2228	U	C2'-C1'	-13.45	1.38	1.53
83	A5	2717	C	O4'-C1'	13.45	1.59	1.41
83	A5	3111	G	C2'-C1'	-13.44	1.38	1.53
36	B2	936	G	C2'-C1'	-13.44	1.38	1.53
83	A5	1708	G	C2'-C1'	-13.44	1.38	1.53
36	B2	1237	G	C2'-C1'	-13.43	1.38	1.53
83	A5	1478	A	C2'-C1'	-13.42	1.38	1.53
36	B2	399	C	O4'-C1'	13.42	1.59	1.41
83	A5	2882	A	O4'-C1'	13.41	1.59	1.41
36	B2	243	U	O4'-C1'	13.41	1.59	1.41
36	B2	947	U	C2'-C1'	-13.40	1.38	1.53
36	B2	1184	U	O4'-C1'	13.40	1.59	1.41
83	A5	788	C	C2'-C1'	-13.40	1.38	1.53
83	A5	2573	C	O4'-C1'	13.40	1.59	1.41
83	A5	3666	C	C2'-C1'	-13.39	1.38	1.53
83	A5	206	C	O4'-C1'	13.38	1.59	1.41
36	B2	906	C	C2'-C1'	-13.38	1.38	1.53
83	A5	292	G	C2'-C1'	-13.37	1.38	1.53
86	A8	116	C	O4'-C1'	13.37	1.59	1.41
36	B2	1789	A	C2'-C1'	-13.37	1.38	1.53
83	A5	1157	C	O4'-C1'	13.37	1.59	1.41
83	A5	3130	G	C2'-C1'	-13.35	1.38	1.53
36	B2	1943	G	C2'-C1'	-13.35	1.38	1.53
36	B2	1434	U	C2'-C1'	-13.33	1.38	1.53
36	B2	848	C	O4'-C1'	13.31	1.58	1.41
83	A5	1665	C	O4'-C1'	13.31	1.58	1.41
83	A5	1009	G	C2'-C1'	-13.31	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	213	A	O4'-C1'	13.31	1.58	1.41
83	A5	1971	C	O4'-C1'	13.29	1.58	1.41
83	A5	1258	C	C2'-C1'	-13.29	1.38	1.53
83	A5	1607	A	O4'-C1'	13.29	1.58	1.41
83	A5	2245	G	O4'-C1'	13.29	1.58	1.41
83	A5	1204	C	O4'-C1'	13.28	1.58	1.41
83	A5	2031	C	C2'-C1'	-13.28	1.38	1.53
83	A5	3507	A	C2'-C1'	-13.28	1.38	1.53
83	A5	1068	C	O4'-C1'	13.28	1.58	1.41
36	B2	474	C	C2'-C1'	-13.28	1.38	1.53
36	B2	869	C	O4'-C1'	13.28	1.58	1.41
83	A5	3661	C	C2'-C1'	-13.27	1.38	1.53
83	A5	463	C	O4'-C1'	13.27	1.58	1.41
83	A5	3539	C	C2'-C1'	-13.27	1.38	1.53
83	A5	2265	A	C2'-C1'	-13.26	1.38	1.53
86	A8	39	A	O4'-C1'	13.26	1.58	1.41
83	A5	1466	A	O4'-C1'	13.25	1.58	1.41
36	B2	31	C	C2'-C1'	-13.25	1.38	1.53
85	A7	8	A	C2'-C1'	-13.25	1.38	1.53
83	A5	1469	C	O4'-C1'	13.24	1.58	1.41
36	B2	1824	C	C2'-C1'	-13.24	1.38	1.53
86	A8	3	C	C2'-C1'	-13.24	1.38	1.53
83	A5	3675	A	O4'-C1'	13.24	1.58	1.41
83	A5	1324	C	O4'-C1'	13.23	1.58	1.41
36	B2	637	U	C2'-C1'	-13.23	1.38	1.53
36	B2	1207	G	C2'-C1'	-13.23	1.38	1.53
36	B2	1417	G	C2'-C1'	-13.23	1.38	1.53
36	B2	1945	A	O4'-C1'	13.23	1.58	1.41
83	A5	3593	A	O4'-C1'	-13.22	1.24	1.41
36	B2	1298	C	O4'-C1'	13.21	1.58	1.41
83	A5	1111	C	C2'-C1'	-13.21	1.38	1.53
83	A5	463	C	C2'-C1'	-13.21	1.38	1.53
83	A5	1138	C	C2'-C1'	-13.21	1.38	1.53
83	A5	3263	C	O4'-C1'	13.21	1.58	1.41
36	B2	635	C	O4'-C1'	13.20	1.58	1.41
36	B2	340	A	C2'-C1'	-13.20	1.38	1.53
83	A5	1126	A	C2'-C1'	-13.20	1.38	1.53
36	B2	315	C	C2'-C1'	-13.19	1.38	1.53
83	A5	1774	C	O4'-C1'	13.19	1.58	1.41
83	A5	527	U	O4'-C1'	13.19	1.58	1.41
83	A5	1303	C	O4'-C1'	13.19	1.58	1.41
36	B2	419	C	O4'-C1'	13.18	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1062	C	C2'-C1'	-13.18	1.38	1.53
83	A5	3626	A	C2'-C1'	-13.18	1.38	1.53
83	A5	641	A	O4'-C1'	13.17	1.58	1.41
83	A5	1876	G	C2'-C1'	-13.17	1.38	1.53
83	A5	1159	C	C2'-C1'	-13.17	1.38	1.53
83	A5	926	U	C2'-C1'	-13.16	1.38	1.53
83	A5	2526	A	C2'-C1'	-13.15	1.38	1.53
36	B2	1304	G	C2'-C1'	-13.15	1.38	1.53
83	A5	1984	U	C2'-C1'	-13.15	1.38	1.53
36	B2	595	C	O4'-C1'	13.14	1.58	1.41
83	A5	3754	C	O4'-C1'	13.14	1.58	1.41
83	A5	1279	C	O4'-C1'	13.13	1.58	1.41
83	A5	2675	U	O4'-C1'	13.13	1.58	1.41
83	A5	1886	C	C2'-C1'	-13.11	1.39	1.53
36	B2	455	C	O4'-C1'	13.10	1.58	1.41
36	B2	1089	G	O4'-C1'	13.09	1.58	1.41
83	A5	1893	C	O4'-C1'	13.09	1.58	1.41
83	A5	458	A	O4'-C1'	13.09	1.58	1.41
36	B2	1404	C	C2'-C1'	-13.09	1.39	1.53
83	A5	2131	C	C2'-C1'	-13.08	1.39	1.53
83	A5	2884	C	O4'-C1'	13.08	1.58	1.41
83	A5	1303	C	C2'-C1'	-13.08	1.39	1.53
36	B2	956	C	C2'-C1'	-13.07	1.39	1.53
36	B2	137	C	O4'-C1'	13.05	1.58	1.41
36	B2	838	A	O4'-C1'	13.04	1.58	1.41
36	B2	1766	G	O4'-C1'	13.04	1.58	1.41
37	BC	22	C	O4'-C1'	13.04	1.58	1.41
85	A7	117	G	C2'-C1'	-13.04	1.39	1.53
83	A5	1894	G	C2'-C1'	-13.03	1.39	1.53
36	B2	991	G	C2'-C1'	-13.03	1.39	1.53
36	B2	435	G	C2'-C1'	-13.03	1.39	1.53
36	B2	1419	C	O4'-C1'	13.03	1.58	1.41
36	B2	1678	G	O4'-C1'	-13.03	1.24	1.41
83	A5	2072	C	O4'-C1'	13.03	1.58	1.41
83	A5	3013	C	O4'-C1'	13.03	1.58	1.41
83	A5	1502	A	O4'-C1'	13.01	1.58	1.41
83	A5	3445	C	O4'-C1'	13.00	1.58	1.41
36	B2	1756	C	O4'-C1'	13.00	1.58	1.41
83	A5	1487	C	O4'-C1'	12.99	1.58	1.41
83	A5	3154	C	O4'-C1'	12.99	1.58	1.41
83	A5	3806	C	O4'-C1'	12.99	1.58	1.41
36	B2	1098	C	O4'-C1'	12.98	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2716	C	C2'-C1'	-12.97	1.39	1.53
83	A5	3381	C	O4'-C1'	12.97	1.58	1.41
83	A5	206	C	C2'-C1'	-12.97	1.39	1.53
83	A5	95	G	C2'-C1'	-12.97	1.39	1.53
83	A5	3693	G	C2'-C1'	-12.97	1.39	1.53
83	A5	1716	G	C2'-C1'	-12.96	1.39	1.53
86	A8	99	U	C2'-C1'	-12.96	1.39	1.53
83	A5	2547	C	O4'-C1'	12.94	1.58	1.41
86	A8	100	G	C2'-C1'	-12.94	1.39	1.53
83	A5	2662	C	O4'-C1'	12.94	1.58	1.41
83	A5	2180	A	O4'-C1'	12.92	1.58	1.41
83	A5	400	U	O4'-C1'	12.91	1.58	1.41
83	A5	3292	C	O4'-C1'	12.91	1.58	1.41
83	A5	1293	A	C2'-C1'	12.90	1.67	1.53
86	A8	5	C	O4'-C1'	12.90	1.58	1.41
36	B2	218	A	O4'-C1'	12.89	1.58	1.41
83	A5	3784	C	O4'-C1'	12.89	1.58	1.41
36	B2	164	U	C2'-C1'	-12.89	1.39	1.53
36	B2	1969	G	C2'-C1'	-12.88	1.39	1.53
83	A5	2142	A	O4'-C1'	12.88	1.58	1.41
83	A5	1081	C	C2'-C1'	-12.87	1.39	1.53
83	A5	2106	C	O4'-C1'	12.87	1.58	1.41
83	A5	1541	A	C2'-C1'	-12.87	1.39	1.53
83	A5	2220	C	O4'-C1'	12.87	1.58	1.41
83	A5	3295	U	O4'-C1'	12.87	1.58	1.41
85	A7	44	C	O4'-C1'	12.86	1.58	1.41
83	A5	784	G	C2'-C1'	-12.86	1.39	1.53
83	A5	2496	A	C2'-C1'	-12.85	1.39	1.53
83	A5	97	C	O4'-C1'	12.84	1.58	1.41
83	A5	3473	C	O4'-C1'	12.84	1.58	1.41
83	A5	2857	C	O4'-C1'	12.84	1.58	1.41
83	A5	3931	C	O4'-C1'	12.84	1.58	1.41
83	A5	3228	A	O4'-C1'	12.83	1.58	1.41
83	A5	1568	A	C2'-C1'	-12.83	1.39	1.53
36	B2	559	G	C2'-C1'	-12.83	1.39	1.53
83	A5	549	A	O4'-C1'	12.82	1.58	1.41
83	A5	3430	G	C2'-C1'	-12.82	1.39	1.53
36	B2	1651	C	C2'-C1'	-12.81	1.39	1.53
83	A5	3721	C	O4'-C1'	12.81	1.58	1.41
83	A5	693	G	C2'-C1'	-12.81	1.39	1.53
83	A5	161	G	O4'-C1'	12.81	1.58	1.41
83	A5	349	C	O4'-C1'	12.81	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1416	A	O4'-C1'	12.80	1.58	1.41
83	A5	1349	A	C2'-C1'	-12.80	1.39	1.53
36	B2	264	C	C2'-C1'	-12.80	1.39	1.53
83	A5	2631	G	C2'-C1'	-12.79	1.39	1.53
83	A5	1707	A	C2'-C1'	-12.79	1.39	1.53
83	A5	3532	G	C2'-C1'	-12.79	1.39	1.53
36	B2	1357	G	C2'-C1'	-12.79	1.39	1.53
85	A7	57	C	C2'-C1'	-12.78	1.39	1.53
83	A5	1547	A	O4'-C1'	12.77	1.58	1.41
36	B2	454	C	O4'-C1'	12.77	1.58	1.41
83	A5	2601	A	O4'-C1'	12.77	1.58	1.41
83	A5	1657	G	O4'-C1'	12.76	1.58	1.41
83	A5	3131	C	O4'-C1'	12.76	1.58	1.41
83	A5	2235	G	O4'-C1'	12.75	1.58	1.41
83	A5	1634	A	C2'-C1'	-12.75	1.39	1.53
83	A5	3570	C	O4'-C1'	12.75	1.58	1.41
83	A5	388	U	C2'-C1'	-12.74	1.39	1.53
83	A5	1052	U	C2'-C1'	-12.74	1.39	1.53
83	A5	965	C	O4'-C1'	12.73	1.58	1.41
83	A5	2166	U	O4'-C1'	12.73	1.58	1.41
36	B2	303	C	O4'-C1'	12.72	1.58	1.41
83	A5	2132	A	C2'-C1'	-12.72	1.39	1.53
36	B2	1402	U	O4'-C1'	12.72	1.58	1.41
36	B2	1079	A	O4'-C1'	-12.72	1.25	1.41
83	A5	856	A	O4'-C1'	12.70	1.58	1.41
83	A5	1062	C	O4'-C1'	12.70	1.58	1.41
36	B2	883	C	O4'-C1'	12.69	1.58	1.41
83	A5	2582	C	O4'-C1'	12.68	1.58	1.41
83	A5	1892	C	O4'-C1'	12.68	1.58	1.41
83	A5	2101	C	O4'-C1'	12.66	1.58	1.41
83	A5	717	A	C2'-C1'	-12.66	1.39	1.53
36	B2	253	A	C2'-C1'	-12.65	1.39	1.53
36	B2	1746	A	C2'-C1'	-12.65	1.39	1.53
83	A5	446	C	O4'-C1'	12.65	1.58	1.41
83	A5	35	C	O4'-C1'	12.65	1.58	1.41
83	A5	2798	C	O4'-C1'	12.65	1.58	1.41
83	A5	874	G	O4'-C1'	12.64	1.58	1.41
83	A5	3574	A	C2'-C1'	-12.64	1.39	1.53
83	A5	3362	G	O4'-C1'	12.64	1.58	1.41
83	A5	2105	C	O4'-C1'	12.64	1.58	1.41
83	A5	2747	G	C2'-C1'	-12.63	1.39	1.53
83	A5	255	C	O4'-C1'	12.63	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1724	A	C2'-C1'	-12.62	1.39	1.53
36	B2	1807	C	O4'-C1'	12.61	1.58	1.41
83	A5	3911	G	C2'-C1'	-12.61	1.39	1.53
36	B2	1020	U	C2'-C1'	-12.60	1.39	1.53
36	B2	120	U	C2'-C1'	-12.60	1.39	1.53
83	A5	1678	C	C2'-C1'	-12.60	1.39	1.53
83	A5	2009	A	C2'-C1'	-12.60	1.39	1.53
83	A5	3713	C	C2'-C1'	12.60	1.67	1.53
83	A5	1204	C	C2'-C1'	-12.59	1.39	1.53
85	A7	2	C	O4'-C1'	12.59	1.58	1.41
83	A5	271	A	C2'-C1'	-12.59	1.39	1.53
83	A5	824	G	C2'-C1'	-12.59	1.39	1.53
85	A7	107	C	O4'-C1'	12.58	1.58	1.41
36	B2	1168	C	O4'-C1'	12.58	1.58	1.41
36	B2	1732	G	C2'-C1'	-12.57	1.39	1.53
36	B2	1988	G	O4'-C1'	12.57	1.57	1.41
83	A5	1285	C	O4'-C1'	12.57	1.57	1.41
83	A5	2159	C	C2'-C1'	-12.57	1.39	1.53
83	A5	2802	A	O4'-C1'	12.57	1.57	1.41
83	A5	2201	U	O4'-C1'	12.56	1.57	1.41
36	B2	591	C	O4'-C1'	12.56	1.57	1.41
36	B2	247	G	C2'-C1'	-12.56	1.39	1.53
83	A5	2887	U	O4'-C1'	12.56	1.57	1.41
36	B2	1940	G	C2'-C1'	-12.56	1.39	1.53
83	A5	1892	C	C2'-C1'	-12.55	1.39	1.53
83	A5	3500	A	C2'-C1'	-12.55	1.39	1.53
83	A5	707	C	O4'-C1'	12.54	1.57	1.41
36	B2	188	C	O4'-C1'	12.53	1.57	1.41
36	B2	1924	C	C2'-C1'	-12.53	1.39	1.53
83	A5	375	C	C2'-C1'	-12.53	1.39	1.53
37	BC	13	C	O4'-C1'	12.53	1.57	1.41
83	A5	2070	G	C2'-C1'	-12.53	1.39	1.53
83	A5	3915	U	O4'-C1'	12.52	1.57	1.41
36	B2	1339	C	C2'-C1'	-12.52	1.39	1.53
83	A5	691	C	O4'-C1'	12.52	1.57	1.41
83	A5	3919	G	C2'-C1'	-12.52	1.39	1.53
83	A5	1369	C	O4'-C1'	12.51	1.57	1.41
36	B2	429	C	O4'-C1'	12.51	1.57	1.41
86	A8	120	G	C2'-C1'	-12.51	1.39	1.53
83	A5	1599	C	O4'-C1'	12.50	1.57	1.41
37	BC	22	C	C2'-C1'	-12.49	1.39	1.53
83	A5	390	A	O4'-C1'	12.49	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	862	C	O4'-C1'	12.49	1.57	1.41
83	A5	3457	C	O4'-C1'	12.49	1.57	1.41
83	A5	3388	G	C2'-C1'	-12.49	1.39	1.53
83	A5	3345	A	C2'-C1'	-12.47	1.39	1.53
83	A5	2497	C	C2'-C1'	-12.46	1.39	1.53
83	A5	2884	C	C2'-C1'	-12.46	1.39	1.53
83	A5	32	C	O4'-C1'	12.45	1.57	1.41
83	A5	430	G	C2'-C1'	-12.45	1.39	1.53
83	A5	2992	A	O4'-C1'	12.45	1.57	1.41
36	B2	13	C	O4'-C1'	12.44	1.57	1.41
36	B2	453	C	C2'-C1'	-12.44	1.39	1.53
36	B2	1713	C	O4'-C1'	12.44	1.57	1.41
83	A5	1325	C	O4'-C1'	12.43	1.57	1.41
83	A5	327	C	C2'-C1'	-12.43	1.39	1.53
83	A5	778	C	O4'-C1'	12.43	1.57	1.41
36	B2	1670	G	C2'-C1'	-12.41	1.39	1.53
83	A5	2055	G	C2'-C1'	-12.41	1.39	1.53
83	A5	349	C	C2'-C1'	-12.41	1.39	1.53
36	B2	567	C	O4'-C1'	12.40	1.57	1.41
83	A5	217	G	C2'-C1'	-12.40	1.39	1.53
83	A5	661	G	C2'-C1'	-12.40	1.39	1.53
83	A5	652	G	C2'-C1'	-12.40	1.39	1.53
83	A5	2160	C	C2'-C1'	-12.40	1.39	1.53
83	A5	2257	C	C2'-C1'	-12.40	1.39	1.53
83	A5	260	A	O4'-C1'	12.39	1.57	1.41
85	A7	43	U	O4'-C1'	12.39	1.57	1.41
83	A5	3585	A	O4'-C1'	12.37	1.57	1.41
83	A5	1138	C	O4'-C1'	12.36	1.57	1.41
83	A5	2896	U	C2'-C1'	-12.36	1.39	1.53
36	B2	1059	G	C2'-C1'	-12.35	1.39	1.53
83	A5	1233	G	C2'-C1'	-12.35	1.39	1.53
83	A5	626	A	O4'-C1'	12.34	1.57	1.41
36	B2	594	G	C2'-C1'	-12.34	1.39	1.53
83	A5	2928	G	C2'-C1'	-12.34	1.39	1.53
36	B2	1921	G	C2'-C1'	-12.33	1.39	1.53
83	A5	1782	C	O4'-C1'	12.32	1.57	1.41
36	B2	829	C	O4'-C1'	12.32	1.57	1.41
83	A5	506	A	C2'-C1'	-12.32	1.39	1.53
83	A5	3813	C	O4'-C1'	12.32	1.57	1.41
83	A5	1596	A	O4'-C1'	12.31	1.57	1.41
83	A5	3669	U	O4'-C1'	12.31	1.57	1.41
36	B2	603	G	C2'-C1'	-12.31	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	770	C	O4'-C1'	12.30	1.57	1.41
36	B2	1647	G	C2'-C1'	-12.29	1.39	1.53
83	A5	1051	C	O4'-C1'	12.29	1.57	1.41
83	A5	1104	A	C2'-C1'	-12.29	1.39	1.53
83	A5	3187	C	O4'-C1'	12.29	1.57	1.41
83	A5	428	C	O4'-C1'	12.29	1.57	1.41
83	A5	1280	C	O4'-C1'	12.28	1.57	1.41
83	A5	122	C	O4'-C1'	12.28	1.57	1.41
83	A5	1728	G	C2'-C1'	-12.28	1.39	1.53
83	A5	3351	A	O4'-C1'	12.28	1.57	1.41
36	B2	31	C	O4'-C1'	12.27	1.57	1.41
36	B2	1817	C	O4'-C1'	12.27	1.57	1.41
36	B2	1055	U	O4'-C1'	12.26	1.57	1.41
37	BC	60	C	O4'-C1'	12.26	1.57	1.41
83	A5	1087	G	C2'-C1'	-12.26	1.39	1.53
36	B2	1434	U	O4'-C1'	12.26	1.57	1.41
36	B2	6	G	C2'-C1'	-12.25	1.39	1.53
36	B2	1071	G	C2'-C1'	-12.25	1.39	1.53
83	A5	210	C	O4'-C1'	12.24	1.57	1.41
36	B2	213	G	O4'-C1'	12.23	1.57	1.41
36	B2	544	C	O4'-C1'	12.23	1.57	1.41
83	A5	49	A	C2'-C1'	-12.23	1.40	1.53
83	A5	459	U	C2'-C1'	12.21	1.66	1.53
36	B2	494	C	O4'-C1'	12.21	1.57	1.41
83	A5	617	U	O4'-C1'	12.21	1.57	1.41
83	A5	996	C	O4'-C1'	12.21	1.57	1.41
83	A5	3191	G	C2'-C1'	-12.21	1.40	1.53
83	A5	2686	C	C2'-C1'	-12.21	1.40	1.53
86	A8	91	C	O4'-C1'	12.21	1.57	1.41
83	A5	563	A	C2'-C1'	-12.20	1.40	1.53
83	A5	3173	U	C2'-C1'	-12.20	1.40	1.53
83	A5	2645	C	O4'-C1'	12.19	1.57	1.41
36	B2	558	A	C2'-C1'	-12.19	1.40	1.53
36	B2	1748	A	C2'-C1'	-12.18	1.40	1.53
83	A5	1670	G	O4'-C1'	12.17	1.57	1.41
36	B2	1836	C	C2'-C1'	-12.17	1.40	1.53
83	A5	1321	G	C2'-C1'	-12.17	1.40	1.53
83	A5	1793	C	C2'-C1'	-12.17	1.40	1.53
83	A5	1447	C	C2'-C1'	-12.16	1.40	1.53
83	A5	3722	C	O4'-C1'	12.16	1.57	1.41
83	A5	3353	C	O4'-C1'	12.16	1.57	1.41
83	A5	1397	A	C2'-C1'	-12.16	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BC	48	C	O4'-C1'	12.15	1.57	1.41
83	A5	3616	G	C2'-C1'	-12.15	1.40	1.53
36	B2	75	U	C2'-C1'	12.14	1.66	1.53
83	A5	3938	C	O4'-C1'	12.14	1.57	1.41
83	A5	1773	U	O4'-C1'	12.14	1.57	1.41
36	B2	1086	U	C2'-C1'	-12.14	1.40	1.53
83	A5	11	C	O4'-C1'	12.14	1.57	1.41
83	A5	3473	C	C2'-C1'	-12.14	1.40	1.53
36	B2	865	A	O4'-C1'	12.13	1.57	1.41
83	A5	2172	C	C2'-C1'	-12.13	1.40	1.53
83	A5	992	U	O4'-C1'	12.13	1.57	1.41
83	A5	2525	C	O4'-C1'	12.12	1.57	1.41
83	A5	113	A	C2'-C1'	-12.12	1.40	1.53
36	B2	1610	A	O4'-C1'	12.11	1.57	1.41
83	A5	329	C	O4'-C1'	12.11	1.57	1.41
36	B2	327	G	C2'-C1'	-12.11	1.40	1.53
83	A5	3198	C	C2'-C1'	-12.11	1.40	1.53
86	A8	121	C	O4'-C1'	12.11	1.57	1.41
83	A5	568	A	C2'-C1'	-12.10	1.40	1.53
83	A5	3680	A	O4'-C1'	12.10	1.57	1.41
83	A5	3953	C	O4'-C1'	12.10	1.57	1.41
83	A5	2626	C	C2'-C1'	-12.08	1.40	1.53
83	A5	3666	C	O4'-C1'	12.08	1.57	1.41
36	B2	590	U	O4'-C1'	12.08	1.57	1.41
83	A5	3267	C	O4'-C1'	12.08	1.57	1.41
86	A8	27	C	C2'-C1'	-12.08	1.40	1.53
83	A5	1556	C	O4'-C1'	12.07	1.57	1.41
36	B2	1188	G	O4'-C1'	12.07	1.57	1.41
83	A5	439	U	C2'-C1'	-12.07	1.40	1.53
83	A5	3504	G	C2'-C1'	-12.07	1.40	1.53
36	B2	449	C	C2'-C1'	-12.06	1.40	1.53
36	B2	1404	C	O4'-C1'	12.06	1.57	1.41
83	A5	2473	C	O4'-C1'	12.06	1.57	1.41
36	B2	1037	C	O4'-C1'	12.06	1.57	1.41
83	A5	1020	A	O4'-C1'	12.05	1.57	1.41
83	A5	1250	C	O4'-C1'	12.05	1.57	1.41
83	A5	1800	U	O4'-C1'	12.05	1.57	1.41
83	A5	2739	A	C2'-C1'	-12.04	1.40	1.53
83	A5	2837	A	C2'-C1'	-12.04	1.40	1.53
83	A5	1232	G	C2'-C1'	-12.03	1.40	1.53
83	A5	3167	A	C2'-C1'	-12.03	1.40	1.53
36	B2	1958	A	C2'-C1'	-12.03	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A8	102	A	C2'-C1'	-12.03	1.40	1.53
83	A5	436	A	O4'-C1'	12.02	1.57	1.41
36	B2	902	A	O4'-C1'	12.02	1.57	1.41
36	B2	1262	C	C2'-C1'	-12.02	1.40	1.53
83	A5	1793	C	O4'-C1'	12.02	1.57	1.41
83	A5	2122	G	O4'-C1'	12.02	1.57	1.41
86	A8	10	C	O4'-C1'	12.02	1.57	1.41
36	B2	34	G	C2'-C1'	-12.02	1.40	1.53
83	A5	2856	C	O4'-C1'	12.02	1.57	1.41
37	BC	33	C	O4'-C1'	12.01	1.57	1.41
83	A5	2507	C	O4'-C1'	12.00	1.57	1.41
83	A5	1413	C	O4'-C1'	11.98	1.57	1.41
84	A9	29	U	C2'-C1'	-11.98	1.40	1.53
36	B2	251	G	O4'-C1'	11.97	1.57	1.41
83	A5	3567	A	O4'-C1'	11.97	1.57	1.41
36	B2	49	C	O4'-C1'	11.97	1.57	1.41
37	BC	60	C	C2'-C1'	-11.97	1.40	1.53
83	A5	1432	C	O4'-C1'	11.97	1.57	1.41
83	A5	2201	U	C2'-C1'	-11.97	1.40	1.53
36	B2	1659	C	O4'-C1'	11.96	1.57	1.41
83	A5	2797	A	O4'-C1'	11.96	1.57	1.41
83	A5	785	A	O4'-C1'	11.95	1.57	1.41
36	B2	920	U	C2'-C1'	-11.95	1.40	1.53
83	A5	3168	A	C2'-C1'	-11.95	1.40	1.53
36	B2	272	U	C2'-C1'	-11.94	1.40	1.53
83	A5	1100	G	C2'-C1'	-11.94	1.40	1.53
83	A5	3676	C	O4'-C1'	-11.94	1.26	1.41
86	A8	121	C	C2'-C1'	-11.94	1.40	1.53
36	B2	1115	C	O4'-C1'	11.94	1.57	1.41
86	A8	27	C	O4'-C1'	11.94	1.57	1.41
83	A5	1095	G	O4'-C1'	11.93	1.57	1.41
83	A5	179	C	O4'-C1'	11.92	1.57	1.41
36	B2	1374	A	C2'-C1'	-11.91	1.40	1.53
83	A5	53	A	C2'-C1'	-11.91	1.40	1.53
86	A8	103	C	O4'-C1'	11.91	1.57	1.41
83	A5	2596	G	C2'-C1'	-11.91	1.40	1.53
83	A5	102	G	C2'-C1'	-11.91	1.40	1.53
83	A5	2775	A	C2'-C1'	-11.91	1.40	1.53
83	A5	717	A	O4'-C1'	11.91	1.57	1.41
36	B2	1824	C	O4'-C1'	11.90	1.57	1.41
83	A5	3559	A	O4'-C1'	11.90	1.57	1.41
86	A8	105	C	C2'-C1'	-11.90	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1204	A	C2'-C1'	-11.90	1.40	1.53
36	B2	1869	C	C2'-C1'	-11.90	1.40	1.53
36	B2	867	G	O4'-C1'	11.90	1.57	1.41
83	A5	3282	C	O4'-C1'	11.90	1.57	1.41
36	B2	1526	G	C2'-C1'	-11.89	1.40	1.53
83	A5	2213	G	C2'-C1'	-11.89	1.40	1.53
36	B2	1036	C	C2'-C1'	-11.89	1.40	1.53
86	A8	94	C	C2'-C1'	-11.89	1.40	1.53
83	A5	445	C	C2'-C1'	-11.88	1.40	1.53
36	B2	593	A	C2'-C1'	-11.88	1.40	1.53
36	B2	193	U	O4'-C1'	11.88	1.57	1.41
83	A5	3156	G	C2'-C1'	-11.88	1.40	1.53
83	A5	50	U	C2'-C1'	-11.88	1.40	1.53
83	A5	358	C	O4'-C1'	11.87	1.57	1.41
36	B2	1359	U	O4'-C1'	11.86	1.57	1.41
85	A7	98	G	C2'-C1'	-11.86	1.40	1.53
36	B2	1793	A	O4'-C1'	11.86	1.57	1.41
36	B2	1773	C	O4'-C1'	11.85	1.57	1.41
83	A5	16	A	C2'-C1'	-11.85	1.40	1.53
83	A5	35	C	C2'-C1'	-11.84	1.40	1.53
36	B2	890	U	C2'-C1'	-11.84	1.40	1.53
37	BC	49	G	C2'-C1'	-11.83	1.40	1.53
36	B2	1413	A	O4'-C1'	11.83	1.57	1.41
83	A5	3454	G	C2'-C1'	-11.83	1.40	1.53
36	B2	440	U	C2'-C1'	-11.82	1.40	1.53
36	B2	916	U	O4'-C1'	11.82	1.57	1.41
83	A5	790	U	C2'-C1'	-11.82	1.40	1.53
83	A5	2198	G	C2'-C1'	-11.82	1.40	1.53
36	B2	1251	A	O4'-C1'	11.82	1.57	1.41
83	A5	1351	C	O4'-C1'	11.82	1.57	1.41
83	A5	2168	G	C2'-C1'	-11.81	1.40	1.53
83	A5	2233	C	O4'-C1'	11.81	1.57	1.41
36	B2	1250	C	O4'-C1'	11.81	1.57	1.41
83	A5	1466	A	C2'-C1'	-11.80	1.40	1.53
83	A5	1986	G	C2'-C1'	-11.80	1.40	1.53
83	A5	2234	C	O4'-C1'	11.80	1.56	1.41
83	A5	3260	G	C2'-C1'	-11.80	1.40	1.53
83	A5	3518	A	O4'-C1'	11.80	1.56	1.41
36	B2	1631	C	O4'-C1'	11.79	1.56	1.41
36	B2	1761	A	O4'-C1'	11.79	1.56	1.41
36	B2	1952	G	C2'-C1'	-11.79	1.40	1.53
36	B2	1544	G	C2'-C1'	-11.77	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1719	C	O4'-C1'	11.77	1.56	1.41
83	A5	2693	G	C2'-C1'	-11.77	1.40	1.53
83	A5	3216	C	O4'-C1'	11.77	1.56	1.41
36	B2	30	G	C2'-C1'	-11.76	1.40	1.53
83	A5	428	C	C2'-C1'	-11.76	1.40	1.53
36	B2	4	C	O4'-C1'	11.75	1.56	1.41
83	A5	2466	C	O4'-C1'	11.75	1.56	1.41
36	B2	1677	C	C2'-C1'	-11.75	1.40	1.53
36	B2	1771	U	C2'-C1'	-11.75	1.40	1.53
37	BC	73	C	O4'-C1'	11.75	1.56	1.41
83	A5	1512	C	C2'-C1'	-11.75	1.40	1.53
83	A5	3769	C	O4'-C1'	11.74	1.56	1.41
36	B2	1224	U	C2'-C1'	-11.74	1.40	1.53
36	B2	1355	G	C2'-C1'	-11.74	1.40	1.53
83	A5	1959	A	C2'-C1'	-11.74	1.40	1.53
83	A5	445	C	O4'-C1'	11.74	1.56	1.41
83	A5	1343	A	C2'-C1'	-11.74	1.40	1.53
83	A5	3644	C	O4'-C1'	11.74	1.56	1.41
36	B2	1314	G	O4'-C1'	11.73	1.56	1.41
83	A5	228	C	O4'-C1'	11.73	1.56	1.41
36	B2	1177	C	O4'-C1'	11.73	1.56	1.41
83	A5	2530	C	O4'-C1'	11.73	1.56	1.41
83	A5	3119	U	C2'-C1'	-11.73	1.40	1.53
83	A5	1266	A	O4'-C1'	11.72	1.56	1.41
83	A5	1898	C	O4'-C1'	11.72	1.56	1.41
83	A5	1692	G	C2'-C1'	-11.72	1.40	1.53
83	A5	1646	U	C2'-C1'	-11.72	1.40	1.53
83	A5	358	C	C2'-C1'	-11.71	1.40	1.53
83	A5	1634	A	O4'-C1'	11.71	1.56	1.41
37	BC	74	C	O4'-C1'	11.71	1.56	1.41
83	A5	3758	G	C2'-C1'	11.71	1.66	1.53
83	A5	3652	C	O4'-C1'	11.70	1.56	1.41
85	A7	6	C	O4'-C1'	11.70	1.56	1.41
83	A5	1357	C	O4'-C1'	11.69	1.56	1.41
83	A5	793	U	C2'-C1'	-11.69	1.40	1.53
83	A5	3768	C	O4'-C1'	11.69	1.56	1.41
83	A5	1131	C	C2'-C1'	-11.69	1.40	1.53
83	A5	185	U	O4'-C1'	11.68	1.56	1.41
83	A5	3621	A	O4'-C1'	11.68	1.56	1.41
83	A5	3710	U	C2'-C1'	11.68	1.66	1.53
83	A5	499	A	O4'-C1'	11.67	1.56	1.41
86	A8	93	A	C2'-C1'	-11.67	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1358	G	C2'-C1'	-11.66	1.40	1.53
36	B2	980	A	O4'-C1'	11.66	1.56	1.41
83	A5	2805	C	O4'-C1'	11.66	1.56	1.41
83	A5	2172	C	O4'-C1'	11.65	1.56	1.41
86	A8	30	G	C2'-C1'	-11.65	1.40	1.53
83	A5	1340	G	C2'-C1'	-11.65	1.40	1.53
36	B2	636	G	C2'-C1'	-11.64	1.40	1.53
83	A5	1960	C	O4'-C1'	11.64	1.56	1.41
36	B2	1641	U	C2'-C1'	-11.63	1.40	1.53
83	A5	547	U	O4'-C1'	11.62	1.56	1.41
86	A8	73	U	O4'-C1'	11.62	1.56	1.41
36	B2	1844	C	O4'-C1'	11.62	1.56	1.41
83	A5	1175	C	O4'-C1'	11.62	1.56	1.41
83	A5	3272	A	O4'-C1'	11.62	1.56	1.41
83	A5	1606	G	O4'-C1'	11.61	1.56	1.41
36	B2	933	C	C2'-C1'	-11.61	1.40	1.53
83	A5	400	U	C2'-C1'	-11.60	1.40	1.53
83	A5	964	C	O4'-C1'	11.60	1.56	1.41
36	B2	715	U	O4'-C1'	11.60	1.56	1.41
36	B2	179	A	C2'-C1'	-11.59	1.40	1.53
83	A5	3014	G	O4'-C1'	11.58	1.56	1.41
83	A5	3016	G	C2'-C1'	-11.58	1.40	1.53
83	A5	1040	C	O4'-C1'	11.58	1.56	1.41
83	A5	2728	C	C2'-C1'	-11.57	1.40	1.53
83	A5	3161	U	C2'-C1'	-11.57	1.40	1.53
36	B2	1524	A	C2'-C1'	-11.57	1.40	1.53
83	A5	1543	C	C2'-C1'	-11.57	1.40	1.53
83	A5	1898	C	C2'-C1'	-11.57	1.40	1.53
36	B2	1297	C	O4'-C1'	11.56	1.56	1.41
83	A5	3970	A	C2'-C1'	11.56	1.66	1.53
83	A5	3691	A	C2'-C1'	-11.56	1.40	1.53
83	A5	1034	U	C2'-C1'	-11.56	1.40	1.53
83	A5	503	A	O4'-C1'	11.55	1.56	1.41
83	A5	2929	U	O4'-C1'	11.55	1.56	1.41
83	A5	263	A	O4'-C1'	11.54	1.56	1.41
83	A5	3193	C	O4'-C1'	-11.54	1.26	1.41
83	A5	3263	C	C2'-C1'	-11.54	1.40	1.53
36	B2	87	C	O4'-C1'	11.54	1.56	1.41
83	A5	985	G	C2'-C1'	11.54	1.66	1.53
83	A5	3550	C	O4'-C1'	11.54	1.56	1.41
86	A8	28	A	C2'-C1'	-11.53	1.40	1.53
37	BC	70	C	O4'-C1'	11.52	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1350	A	C2'-C1'	-11.52	1.40	1.53
36	B2	1090	A	C2'-C1'	-11.51	1.40	1.53
36	B2	1582	C	O4'-C1'	-11.51	1.26	1.41
36	B2	67	A	C2'-C1'	-11.51	1.40	1.53
36	B2	880	G	O4'-C1'	-11.50	1.26	1.41
36	B2	906	C	O4'-C1'	11.49	1.56	1.41
83	A5	786	C	O4'-C1'	11.49	1.56	1.41
83	A5	1003	C	O4'-C1'	11.49	1.56	1.41
36	B2	1008	G	C2'-C1'	-11.48	1.40	1.53
83	A5	466	U	C2'-C1'	-11.48	1.40	1.53
83	A5	1732	A	C2'-C1'	-11.48	1.40	1.53
83	A5	2925	C	C2'-C1'	-11.48	1.40	1.53
36	B2	1257	G	O4'-C1'	11.47	1.56	1.41
83	A5	1713	U	C2'-C1'	-11.47	1.40	1.53
83	A5	3356	G	O4'-C1'	11.47	1.56	1.41
83	A5	2812	U	O4'-C1'	-11.47	1.26	1.41
83	A5	323	U	O4'-C1'	11.46	1.56	1.41
83	A5	2002	C	O4'-C1'	11.46	1.56	1.41
36	B2	1550	C	O4'-C1'	11.46	1.56	1.41
36	B2	1537	C	C2'-C1'	-11.46	1.40	1.53
83	A5	1555	G	C2'-C1'	-11.46	1.40	1.53
83	A5	2146	G	O4'-C1'	11.45	1.56	1.41
36	B2	975	U	C2'-C1'	-11.45	1.40	1.53
83	A5	531	C	C2'-C1'	-11.45	1.40	1.53
83	A5	2066	G	C2'-C1'	-11.44	1.40	1.53
37	BC	21	G	C2'-C1'	-11.43	1.40	1.53
86	A8	117	C	O4'-C1'	11.43	1.56	1.41
83	A5	2743	C	O4'-C1'	11.43	1.56	1.41
83	A5	1256	C	O4'-C1'	11.42	1.56	1.41
85	A7	46	C	O4'-C1'	11.42	1.56	1.41
85	A7	118	C	O4'-C1'	11.42	1.56	1.41
83	A5	3656	A	C2'-C1'	-11.42	1.40	1.53
83	A5	247	C	O4'-C1'	11.41	1.56	1.41
85	A7	104	C	O4'-C1'	11.41	1.56	1.41
83	A5	937	G	O4'-C1'	11.41	1.56	1.41
36	B2	1222	C	C2'-C1'	-11.40	1.40	1.53
36	B2	1271	A	C2'-C1'	-11.40	1.40	1.53
37	BC	61	C	O4'-C1'	11.40	1.56	1.41
83	A5	3953	C	C2'-C1'	-11.40	1.40	1.53
36	B2	1293	C	C2'-C1'	-11.38	1.40	1.53
83	A5	1001	A	O4'-C1'	11.38	1.56	1.41
83	A5	1973	G	C2'-C1'	-11.38	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1667	A	C2'-C1'	-11.37	1.40	1.53
83	A5	1461	G	C2'-C1'	-11.37	1.40	1.53
83	A5	941	A	O4'-C1'	11.36	1.56	1.41
85	A7	105	C	O4'-C1'	11.36	1.56	1.41
36	B2	577	C	O4'-C1'	11.36	1.56	1.41
83	A5	100	G	C2'-C1'	-11.35	1.40	1.53
36	B2	1364	G	C2'-C1'	-11.34	1.40	1.53
83	A5	551	C	O4'-C1'	11.34	1.56	1.41
83	A5	900	C	O4'-C1'	11.34	1.56	1.41
85	A7	76	U	O4'-C1'	11.34	1.56	1.41
36	B2	331	G	C2'-C1'	-11.34	1.40	1.53
83	A5	959	U	C2'-C1'	-11.33	1.40	1.53
83	A5	2491	C	O4'-C1'	-11.33	1.26	1.41
83	A5	2547	C	C2'-C1'	-11.33	1.40	1.53
36	B2	1913	C	O4'-C1'	11.32	1.56	1.41
83	A5	1424	G	C2'-C1'	-11.32	1.40	1.53
36	B2	1755	A	C2'-C1'	-11.32	1.40	1.53
36	B2	1124	C	O4'-C1'	11.32	1.56	1.41
83	A5	1691	A	C2'-C1'	-11.32	1.40	1.53
36	B2	46	A	O4'-C1'	11.32	1.56	1.41
36	B2	1278	C	O4'-C1'	11.31	1.56	1.41
83	A5	1486	A	O4'-C1'	11.30	1.56	1.41
83	A5	2622	A	O4'-C1'	11.30	1.56	1.41
83	A5	3357	C	C2'-C1'	-11.30	1.41	1.53
36	B2	1985	A	C2'-C1'	-11.29	1.41	1.53
83	A5	3341	C	C2'-C1'	-11.30	1.41	1.53
36	B2	1048	U	C2'-C1'	-11.29	1.41	1.53
36	B2	1460	A	O4'-C1'	11.29	1.56	1.41
83	A5	214	A	O4'-C1'	11.29	1.56	1.41
83	A5	2224	A	O4'-C1'	11.29	1.56	1.41
83	A5	71	A	C2'-C1'	-11.28	1.41	1.53
83	A5	3320	C	C2'-C1'	-11.29	1.41	1.53
36	B2	1440	U	O4'-C1'	11.28	1.56	1.41
83	A5	178	U	O4'-C1'	11.28	1.56	1.41
83	A5	439	U	O4'-C1'	11.28	1.56	1.41
36	B2	613	A	O4'-C1'	11.28	1.56	1.41
83	A5	1291	U	O4'-C1'	11.27	1.56	1.41
83	A5	1542	C	O4'-C1'	11.27	1.56	1.41
83	A5	86	C	C2'-C1'	-11.27	1.41	1.53
83	A5	354	A	C2'-C1'	-11.27	1.41	1.53
83	A5	1655	A	C2'-C1'	-11.26	1.41	1.53
36	B2	657	A	C2'-C1'	-11.25	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2588	G	O4'-C1'	11.25	1.56	1.41
83	A5	2685	G	C2'-C1'	-11.24	1.41	1.53
36	B2	1186	U	C2'-C1'	-11.23	1.41	1.53
83	A5	3607	C	C2'-C1'	-11.22	1.41	1.53
36	B2	343	A	O4'-C1'	11.21	1.56	1.41
83	A5	1646	U	O4'-C1'	11.21	1.56	1.41
36	B2	1677	C	O4'-C1'	11.21	1.56	1.41
83	A5	558	C	C2'-C1'	-11.21	1.41	1.53
83	A5	1630	G	C2'-C1'	-11.21	1.41	1.53
83	A5	49	A	O4'-C1'	11.21	1.56	1.41
83	A5	1050	C	O4'-C1'	11.20	1.56	1.41
83	A5	2231	A	C2'-C1'	-11.20	1.41	1.53
36	B2	883	C	C2'-C1'	-11.20	1.41	1.53
83	A5	3182	U	O4'-C1'	11.20	1.56	1.41
83	A5	3192	C	O4'-C1'	11.20	1.56	1.41
83	A5	2241	U	O4'-C1'	11.20	1.56	1.41
83	A5	3270	G	C2'-C1'	-11.20	1.41	1.53
36	B2	113	G	O4'-C1'	11.19	1.56	1.41
36	B2	1798	C	O4'-C1'	11.19	1.56	1.41
36	B2	1283	C	C2'-C1'	-11.19	1.41	1.53
37	BC	32	C	O4'-C1'	11.19	1.56	1.41
36	B2	486	A	C2'-C1'	-11.19	1.41	1.53
83	A5	1251	C	O4'-C1'	11.19	1.56	1.41
83	A5	766	G	C2'-C1'	-11.19	1.41	1.53
86	A8	44	C	O4'-C1'	11.18	1.56	1.41
36	B2	16	G	O4'-C1'	11.18	1.56	1.41
83	A5	522	G	O4'-C1'	11.18	1.56	1.41
36	B2	547	G	C2'-C1'	-11.18	1.41	1.53
83	A5	2626	C	O4'-C1'	11.17	1.56	1.41
83	A5	2127	C	O4'-C1'	11.17	1.56	1.41
36	B2	1168	C	C2'-C1'	-11.17	1.41	1.53
83	A5	116	U	O4'-C1'	-11.17	1.27	1.41
83	A5	2153	C	O4'-C1'	11.16	1.56	1.41
83	A5	2245	G	C2'-C1'	-11.16	1.41	1.53
36	B2	1128	C	O4'-C1'	11.16	1.56	1.41
83	A5	589	A	O4'-C1'	11.16	1.56	1.41
85	A7	67	G	C2'-C1'	-11.16	1.41	1.53
83	A5	2237	A	O4'-C1'	11.15	1.56	1.41
36	B2	423	G	C2'-C1'	-11.15	1.41	1.53
36	B2	882	G	C2'-C1'	-11.15	1.41	1.53
83	A5	1486	A	C2'-C1'	-11.15	1.41	1.53
85	A7	106	G	C2'-C1'	-11.15	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	17	C	O4'-C1'	11.14	1.56	1.41
83	A5	1860	A	C2'-C1'	11.14	1.65	1.53
36	B2	1198	G	O4'-C1'	11.14	1.56	1.41
83	A5	2913	G	C2'-C1'	-11.14	1.41	1.53
83	A5	805	C	O4'-C1'	11.14	1.56	1.41
36	B2	646	U	C2'-C1'	-11.13	1.41	1.53
83	A5	2740	C	C2'-C1'	-11.13	1.41	1.53
83	A5	1409	G	O4'-C1'	11.12	1.56	1.41
36	B2	550	C	O4'-C1'	-11.12	1.27	1.41
36	B2	1430	U	O4'-C1'	11.12	1.56	1.41
83	A5	1084	A	C2'-C1'	11.12	1.65	1.53
36	B2	73	A	O4'-C1'	-11.12	1.27	1.41
36	B2	527	C	O4'-C1'	11.12	1.56	1.41
83	A5	872	A	O4'-C1'	-11.12	1.27	1.41
83	A5	2109	G	C2'-C1'	-11.11	1.41	1.53
83	A5	741	C	C2'-C1'	-11.11	1.41	1.53
83	A5	1335	C	O4'-C1'	11.11	1.56	1.41
83	A5	2856	C	C2'-C1'	-11.10	1.41	1.53
83	A5	1131	C	O4'-C1'	11.10	1.56	1.41
83	A5	3824	C	O4'-C1'	11.10	1.56	1.41
83	A5	1049	C	C2'-C1'	-11.10	1.41	1.53
36	B2	967	C	O4'-C1'	11.10	1.56	1.41
83	A5	2688	U	O4'-C1'	11.10	1.56	1.41
83	A5	3217	A	O4'-C1'	11.09	1.56	1.41
83	A5	3479	C	O4'-C1'	11.09	1.56	1.41
83	A5	1535	U	O4'-C1'	11.09	1.56	1.41
36	B2	146	C	C2'-C1'	-11.08	1.41	1.53
83	A5	642	A	O4'-C1'	11.08	1.56	1.41
83	A5	3365	G	C2'-C1'	-11.08	1.41	1.53
83	A5	2654	G	C2'-C1'	-11.08	1.41	1.53
83	A5	3788	G	O4'-C1'	-11.08	1.27	1.41
86	A8	25	C	O4'-C1'	11.08	1.56	1.41
36	B2	1303	C	O4'-C1'	11.08	1.56	1.41
83	A5	48	U	O4'-C1'	11.08	1.56	1.41
36	B2	990	U	O4'-C1'	11.07	1.56	1.41
83	A5	2906	C	O4'-C1'	11.07	1.56	1.41
83	A5	1672	A	O4'-C1'	11.07	1.56	1.41
83	A5	2992	A	C2'-C1'	-11.07	1.41	1.53
83	A5	273	G	O4'-C1'	11.07	1.56	1.41
83	A5	3342	C	O4'-C1'	11.06	1.56	1.41
83	A5	1958	G	C2'-C1'	-11.06	1.41	1.53
83	A5	1288	U	O4'-C1'	11.06	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3794	U	C2'-C1'	-11.06	1.41	1.53
83	A5	1015	G	O4'-C1'	11.05	1.56	1.41
36	B2	1864	G	C2'-C1'	-11.04	1.41	1.53
36	B2	1041	G	C2'-C1'	-11.03	1.41	1.53
36	B2	633	U	C2'-C1'	-11.02	1.41	1.53
83	A5	3239	C	O4'-C1'	11.02	1.55	1.41
83	A5	3287	C	O4'-C1'	11.02	1.55	1.41
83	A5	1324	C	C2'-C1'	-11.02	1.41	1.53
36	B2	10	G	C2'-C1'	-11.01	1.41	1.53
36	B2	1971	A	C2'-C1'	-11.01	1.41	1.53
83	A5	2613	C	C2'-C1'	-11.01	1.41	1.53
83	A5	31	C	O4'-C1'	11.01	1.55	1.41
83	A5	2925	C	O4'-C1'	11.01	1.55	1.41
36	B2	1596	C	O4'-C1'	11.00	1.55	1.41
83	A5	2580	C	O4'-C1'	10.99	1.55	1.41
36	B2	252	A	C2'-C1'	-10.99	1.41	1.53
83	A5	2902	C	C2'-C1'	-10.99	1.41	1.53
36	B2	111	A	C2'-C1'	-10.98	1.41	1.53
36	B2	975	U	O4'-C1'	10.98	1.55	1.41
85	A7	19	C	C2'-C1'	-10.98	1.41	1.53
83	A5	2543	C	O4'-C1'	10.97	1.55	1.41
36	B2	1850	G	O4'-C1'	10.97	1.55	1.41
83	A5	1880	A	C2'-C1'	-10.97	1.41	1.53
83	A5	1023	C	O4'-C1'	10.96	1.55	1.41
36	B2	1420	U	O4'-C1'	10.96	1.55	1.41
85	A7	2	C	C2'-C1'	-10.96	1.41	1.53
83	A5	1657	G	C2'-C1'	-10.96	1.41	1.53
83	A5	3440	C	O4'-C1'	10.96	1.55	1.41
36	B2	107	A	O4'-C1'	10.95	1.55	1.41
83	A5	3502	A	O4'-C1'	-10.95	1.27	1.41
85	A7	91	C	O4'-C1'	10.95	1.55	1.41
83	A5	60	G	C2'-C1'	-10.95	1.41	1.53
83	A5	2584	G	O4'-C1'	10.94	1.55	1.41
36	B2	1083	C	O4'-C1'	10.93	1.55	1.41
83	A5	2083	G	C2'-C1'	-10.93	1.41	1.53
83	A5	1102	G	C2'-C1'	-10.92	1.41	1.53
83	A5	3864	C	C2'-C1'	-10.92	1.41	1.53
83	A5	1671	U	C2'-C1'	-10.92	1.41	1.53
83	A5	3399	C	O4'-C1'	10.92	1.55	1.41
83	A5	2916	U	O4'-C1'	10.92	1.55	1.41
83	A5	3389	C	O4'-C1'	10.91	1.55	1.41
36	B2	1662	C	O4'-C1'	10.91	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1619	C	O4'-C1'	10.91	1.55	1.41
83	A5	3562	A	O4'-C1'	10.91	1.55	1.41
83	A5	2038	A	O4'-C1'	10.90	1.55	1.41
83	A5	3966	U	C2'-C1'	-10.90	1.41	1.53
37	BC	25	G	C2'-C1'	-10.90	1.41	1.53
83	A5	189	A	O4'-C1'	-10.90	1.27	1.41
83	A5	312	U	C2'-C1'	-10.89	1.41	1.53
85	A7	37	G	O4'-C1'	10.89	1.55	1.41
83	A5	1956	A	C2'-C1'	-10.89	1.41	1.53
36	B2	1249	C	C2'-C1'	-10.88	1.41	1.53
37	BC	29	G	C2'-C1'	-10.88	1.41	1.53
83	A5	1129	A	C2'-C1'	-10.88	1.41	1.53
36	B2	295	A	O4'-C1'	10.87	1.55	1.41
83	A5	1029	C	O4'-C1'	10.87	1.55	1.41
36	B2	1762	A	O4'-C1'	10.86	1.55	1.41
83	A5	3539	C	O4'-C1'	10.86	1.55	1.41
36	B2	552	A	O4'-C1'	10.86	1.55	1.41
36	B2	598	C	O4'-C1'	10.86	1.55	1.41
83	A5	3526	C	O4'-C1'	10.86	1.55	1.41
36	B2	1218	G	O4'-C1'	10.85	1.55	1.41
83	A5	1002	C	C2'-C1'	-10.85	1.41	1.53
83	A5	3904	G	C2'-C1'	-10.85	1.41	1.53
83	A5	1166	U	O4'-C1'	10.85	1.55	1.41
83	A5	2707	C	O4'-C1'	10.84	1.55	1.41
36	B2	1813	U	C2'-C1'	-10.84	1.41	1.53
83	A5	3716	C	C2'-C1'	-10.84	1.41	1.53
83	A5	421	C	O4'-C1'	10.84	1.55	1.41
83	A5	2834	A	O4'-C1'	10.84	1.55	1.41
83	A5	81	A	O4'-C1'	10.83	1.55	1.41
36	B2	1048	U	O4'-C1'	10.83	1.55	1.41
37	BC	10	G	O4'-C1'	10.83	1.55	1.41
83	A5	2641	C	O4'-C1'	10.83	1.55	1.41
36	B2	645	C	O4'-C1'	10.83	1.55	1.41
83	A5	2625	G	O4'-C1'	10.83	1.55	1.41
85	A7	41	G	C2'-C1'	-10.83	1.41	1.53
36	B2	1923	C	O4'-C1'	10.82	1.55	1.41
83	A5	2239	C	C2'-C1'	-10.82	1.41	1.53
83	A5	2555	G	C2'-C1'	-10.82	1.41	1.53
83	A5	3259	A	O4'-C1'	10.82	1.55	1.41
36	B2	4	C	C2'-C1'	-10.82	1.41	1.53
36	B2	953	A	C2'-C1'	-10.81	1.41	1.53
83	A5	879	U	C2'-C1'	-10.81	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2083	G	O4'-C1'	10.81	1.55	1.41
83	A5	280	C	C2'-C1'	-10.81	1.41	1.53
83	A5	2183	A	O4'-C1'	10.81	1.55	1.41
36	B2	1928	C	O4'-C1'	10.80	1.55	1.41
83	A5	2622	A	C2'-C1'	-10.80	1.41	1.53
85	A7	93	G	C2'-C1'	-10.80	1.41	1.53
36	B2	249	U	O4'-C1'	10.79	1.55	1.41
83	A5	1370	C	C2'-C1'	-10.79	1.41	1.53
83	A5	673	U	C2'-C1'	-10.78	1.41	1.53
84	A9	5	U	C2'-C1'	-10.78	1.41	1.53
36	B2	961	U	O4'-C1'	10.78	1.55	1.41
36	B2	230	C	C2'-C1'	-10.77	1.41	1.53
83	A5	1747	A	O4'-C1'	10.77	1.55	1.41
83	A5	2174	A	O4'-C1'	-10.77	1.27	1.41
36	B2	853	A	C2'-C1'	-10.77	1.41	1.53
36	B2	40	A	O4'-C1'	10.76	1.55	1.41
83	A5	3459	C	O4'-C1'	10.76	1.55	1.41
36	B2	1924	C	O4'-C1'	10.75	1.55	1.41
36	B2	1176	C	C2'-C1'	-10.75	1.41	1.53
36	B2	1762	A	C2'-C1'	-10.75	1.41	1.53
83	A5	2737	C	O4'-C1'	10.75	1.55	1.41
83	A5	2924	A	O4'-C1'	10.75	1.55	1.41
36	B2	855	C	O4'-C1'	10.75	1.55	1.41
36	B2	1268	C	C2'-C1'	-10.75	1.41	1.53
83	A5	158	A	C2'-C1'	-10.75	1.41	1.53
83	A5	3251	C	O4'-C1'	10.75	1.55	1.41
83	A5	3110	U	C2'-C1'	-10.74	1.41	1.53
83	A5	1110	G	C2'-C1'	-10.74	1.41	1.53
83	A5	2588	G	C2'-C1'	-10.74	1.41	1.53
83	A5	3875	U	O4'-C1'	10.74	1.55	1.41
36	B2	518	G	C2'-C1'	-10.73	1.41	1.53
83	A5	918	G	C2'-C1'	-10.73	1.41	1.53
37	BC	23	G	C2'-C1'	-10.73	1.41	1.53
83	A5	1018	C	O4'-C1'	10.72	1.55	1.41
83	A5	2673	A	O4'-C1'	10.72	1.55	1.41
36	B2	597	C	O4'-C1'	10.72	1.55	1.41
36	B2	1124	C	C2'-C1'	-10.72	1.41	1.53
83	A5	1885	U	O4'-C1'	10.72	1.55	1.41
83	A5	3119	U	O4'-C1'	10.71	1.55	1.41
36	B2	648	G	O4'-C1'	10.71	1.55	1.41
36	B2	1273	U	C2'-C1'	-10.71	1.41	1.53
83	A5	119	G	O4'-C1'	10.71	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	709	G	C2'-C1'	-10.70	1.41	1.53
83	A5	818	A	C2'-C1'	-10.70	1.41	1.53
85	A7	34	C	C2'-C1'	-10.70	1.41	1.53
83	A5	3293	G	C2'-C1'	10.70	1.65	1.53
83	A5	3576	G	C2'-C1'	-10.70	1.41	1.53
83	A5	1145	C	O4'-C1'	10.69	1.55	1.41
85	A7	96	U	O4'-C1'	10.69	1.55	1.41
36	B2	592	C	O4'-C1'	10.68	1.55	1.41
83	A5	1489	A	O4'-C1'	10.68	1.55	1.41
83	A5	3772	U	C2'-C1'	-10.68	1.41	1.53
36	B2	901	G	C2'-C1'	-10.68	1.41	1.53
36	B2	543	A	O4'-C1'	10.68	1.55	1.41
36	B2	1	A	O4'-C1'	10.67	1.55	1.41
36	B2	260	A	C2'-C1'	-10.67	1.41	1.53
83	A5	3881	A	O4'-C1'	10.67	1.55	1.41
83	A5	3510	U	C2'-C1'	-10.67	1.41	1.53
36	B2	647	U	C2'-C1'	10.67	1.65	1.53
83	A5	1325	C	C2'-C1'	-10.66	1.41	1.53
83	A5	2868	A	C2'-C1'	-10.66	1.41	1.53
85	A7	36	C	C2'-C1'	-10.66	1.41	1.53
83	A5	1695	A	C2'-C1'	-10.66	1.41	1.53
36	B2	86	C	C2'-C1'	-10.66	1.41	1.53
83	A5	555	U	C2'-C1'	-10.66	1.41	1.53
36	B2	284	G	C2'-C1'	-10.66	1.41	1.53
36	B2	618	G	O4'-C1'	-10.65	1.27	1.41
86	A8	39	A	C2'-C1'	-10.65	1.41	1.53
83	A5	2708	C	O4'-C1'	10.65	1.55	1.41
83	A5	1081	C	O4'-C1'	10.65	1.55	1.41
83	A5	2689	G	C2'-C1'	-10.65	1.41	1.53
85	A7	9	C	O4'-C1'	10.65	1.55	1.41
83	A5	2813	G	C2'-C1'	-10.64	1.41	1.53
36	B2	1446	G	C2'-C1'	-10.64	1.41	1.53
83	A5	63	G	O4'-C1'	10.64	1.55	1.41
86	A8	64	C	O4'-C1'	10.64	1.55	1.41
36	B2	1931	G	C2'-C1'	-10.64	1.41	1.53
83	A5	1959	A	O4'-C1'	10.64	1.55	1.41
83	A5	3804	U	C2'-C1'	-10.64	1.41	1.53
83	A5	6	U	O4'-C1'	10.63	1.55	1.41
83	A5	342	A	O4'-C1'	10.63	1.55	1.41
36	B2	347	C	O4'-C1'	10.62	1.55	1.41
83	A5	34	C	C2'-C1'	-10.62	1.41	1.53
83	A5	1355	C	O4'-C1'	10.62	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1413	C	C2'-C1'	-10.62	1.41	1.53
36	B2	287	C	C2'-C1'	-10.62	1.41	1.53
36	B2	1639	U	C2'-C1'	-10.62	1.41	1.53
37	BC	16	U	O4'-C1'	-10.62	1.27	1.41
83	A5	2771	G	C2'-C1'	-10.62	1.41	1.53
83	A5	310	A	O4'-C1'	10.62	1.55	1.41
36	B2	310	C	C2'-C1'	-10.61	1.41	1.53
83	A5	3627	C	O4'-C1'	10.61	1.55	1.41
36	B2	497	A	C2'-C1'	-10.61	1.41	1.53
83	A5	185	U	C2'-C1'	-10.61	1.41	1.53
83	A5	295	G	C2'-C1'	-10.60	1.41	1.53
83	A5	3355	G	C2'-C1'	-10.60	1.41	1.53
83	A5	2514	U	O4'-C1'	10.59	1.55	1.41
83	A5	2529	G	C2'-C1'	-10.59	1.41	1.53
36	B2	1017	A	O4'-C1'	10.59	1.55	1.41
83	A5	1331	G	C2'-C1'	-10.59	1.41	1.53
83	A5	2717	C	C2'-C1'	-10.59	1.41	1.53
83	A5	2894	A	O4'-C1'	10.58	1.55	1.41
83	A5	2907	U	C2'-C1'	10.58	1.65	1.53
83	A5	1875	G	C2'-C1'	-10.58	1.41	1.53
83	A5	375	C	O4'-C1'	10.58	1.55	1.41
83	A5	3367	C	C2'-C1'	-10.58	1.41	1.53
36	B2	1553	A	C2'-C1'	-10.57	1.41	1.53
83	A5	237	G	O4'-C1'	10.57	1.55	1.41
83	A5	2738	C	O4'-C1'	10.56	1.55	1.41
86	A8	91	C	C2'-C1'	-10.56	1.41	1.53
36	B2	1954	C	C2'-C1'	-10.56	1.41	1.53
83	A5	673	U	O4'-C1'	10.56	1.55	1.41
36	B2	1802	G	O4'-C1'	10.55	1.55	1.41
83	A5	1069	A	C2'-C1'	-10.54	1.41	1.53
36	B2	175	A	O4'-C1'	10.54	1.55	1.41
83	A5	1512	C	O4'-C1'	10.54	1.55	1.41
83	A5	3458	A	C2'-C1'	-10.54	1.41	1.53
36	B2	196	G	C2'-C1'	-10.53	1.41	1.53
83	A5	33	C	C2'-C1'	-10.54	1.41	1.53
83	A5	1270	G	O4'-C1'	10.54	1.55	1.41
83	A5	2902	C	O4'-C1'	10.53	1.55	1.41
36	B2	248	G	C2'-C1'	-10.53	1.41	1.53
83	A5	1128	C	O4'-C1'	10.53	1.55	1.41
37	BC	61	C	C2'-C1'	-10.52	1.41	1.53
36	B2	1191	C	O4'-C1'	10.52	1.55	1.41
83	A5	2	U	O4'-C1'	10.52	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2669	A	C2'-C1'	-10.52	1.41	1.53
83	A5	1050	C	C2'-C1'	-10.52	1.41	1.53
84	A9	21	G	C2'-C1'	-10.52	1.41	1.53
36	B2	1759	U	C2'-C1'	-10.51	1.41	1.53
86	A8	117	C	C2'-C1'	-10.51	1.41	1.53
36	B2	1826	C	O4'-C1'	10.50	1.55	1.41
83	A5	3839	A	O4'-C1'	-10.50	1.28	1.41
36	B2	622	C	O4'-C1'	10.49	1.55	1.41
83	A5	3249	C	O4'-C1'	10.49	1.55	1.41
83	A5	3011	C	O4'-C1'	10.49	1.55	1.41
36	B2	1293	C	O4'-C1'	10.49	1.55	1.41
83	A5	67	A	O4'-C1'	10.49	1.55	1.41
83	A5	2900	U	O4'-C1'	10.49	1.55	1.41
86	A8	88	C	C2'-C1'	-10.49	1.41	1.53
83	A5	756	C	O4'-C1'	10.48	1.55	1.41
83	A5	2479	A	O4'-C1'	-10.48	1.28	1.41
83	A5	1292	G	O4'-C1'	-10.48	1.28	1.41
36	B2	291	C	O4'-C1'	10.48	1.55	1.41
83	A5	3216	C	C2'-C1'	-10.47	1.41	1.53
36	B2	291	C	C2'-C1'	-10.47	1.41	1.53
83	A5	3492	G	O4'-C1'	10.47	1.55	1.41
36	B2	268	C	O4'-C1'	10.46	1.55	1.41
85	A7	35	U	C2'-C1'	-10.46	1.41	1.53
36	B2	1144	C	O4'-C1'	10.46	1.55	1.41
36	B2	1565	C	O4'-C1'	10.46	1.55	1.41
36	B2	1650	G	O4'-C1'	10.46	1.55	1.41
36	B2	1870	C	O4'-C1'	10.46	1.55	1.41
83	A5	2832	G	C2'-C1'	-10.46	1.41	1.53
36	B2	1816	C	O4'-C1'	10.45	1.55	1.41
85	A7	110	G	C2'-C1'	-10.45	1.41	1.53
36	B2	707	A	O4'-C1'	10.45	1.55	1.41
83	A5	1285	C	C2'-C1'	-10.45	1.41	1.53
83	A5	1502	A	C2'-C1'	-10.45	1.41	1.53
83	A5	3945	A	C2'-C1'	-10.44	1.41	1.53
83	A5	748	A	C2'-C1'	-10.44	1.41	1.53
83	A5	2270	G	C2'-C1'	-10.44	1.41	1.53
36	B2	1017	A	C2'-C1'	-10.44	1.41	1.53
83	A5	113	A	O4'-C1'	10.43	1.55	1.41
83	A5	3140	G	C2'-C1'	-10.43	1.41	1.53
83	A5	3501	C	O4'-C1'	10.43	1.55	1.41
83	A5	1756	G	C2'-C1'	-10.43	1.41	1.53
83	A5	1000	G	O4'-C1'	10.43	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1169	C	O4'-C1'	10.42	1.55	1.41
83	A5	1594	U	C2'-C1'	10.42	1.64	1.53
83	A5	3851	U	C2'-C1'	-10.42	1.41	1.53
36	B2	538	C	C2'-C1'	-10.41	1.41	1.53
36	B2	1174	A	C2'-C1'	-10.41	1.41	1.53
36	B2	1361	C	O4'-C1'	-10.41	1.28	1.41
36	B2	1968	C	O4'-C1'	10.41	1.55	1.41
83	A5	881	G	C2'-C1'	-10.41	1.41	1.53
36	B2	1261	C	O4'-C1'	10.41	1.55	1.41
36	B2	1837	G	C2'-C1'	-10.41	1.42	1.53
83	A5	2217	A	C2'-C1'	-10.41	1.42	1.53
83	A5	964	C	C2'-C1'	-10.40	1.42	1.53
83	A5	3692	G	C2'-C1'	-10.40	1.42	1.53
83	A5	808	G	C2'-C1'	-10.40	1.42	1.53
83	A5	1062	C	C2'-C1'	-10.40	1.42	1.53
83	A5	3760	A	O4'-C1'	10.38	1.55	1.41
85	A7	108	G	C2'-C1'	-10.38	1.42	1.53
36	B2	1588	G	C2'-C1'	-10.38	1.42	1.53
83	A5	1126	A	O4'-C1'	10.38	1.55	1.41
83	A5	1715	G	C2'-C1'	-10.38	1.42	1.53
36	B2	449	C	O4'-C1'	10.37	1.55	1.41
83	A5	2218	G	C2'-C1'	-10.37	1.42	1.53
83	A5	2830	G	O4'-C1'	10.37	1.55	1.41
83	A5	3928	A	O4'-C1'	-10.37	1.28	1.41
36	B2	561	G	C2'-C1'	-10.37	1.42	1.53
83	A5	3449	G	C2'-C1'	-10.37	1.42	1.53
83	A5	3248	U	O4'-C1'	10.35	1.55	1.41
83	A5	2039	G	C2'-C1'	-10.35	1.42	1.53
83	A5	3251	C	C2'-C1'	-10.35	1.42	1.53
83	A5	3898	C	C2'-C1'	-10.35	1.42	1.53
36	B2	327	G	O4'-C1'	10.34	1.55	1.41
83	A5	677	G	O4'-C1'	10.34	1.55	1.41
83	A5	59	G	C2'-C1'	-10.33	1.42	1.53
83	A5	306	C	O4'-C1'	10.33	1.55	1.41
83	A5	3311	A	C2'-C1'	-10.33	1.42	1.53
86	A8	55	G	C2'-C1'	-10.33	1.42	1.53
36	B2	1366	C	O4'-C1'	10.32	1.55	1.41
83	A5	879	U	O4'-C1'	10.32	1.55	1.41
83	A5	1788	G	O4'-C1'	10.31	1.55	1.41
85	A7	119	C	O4'-C1'	10.31	1.55	1.41
36	B2	912	U	C2'-C1'	-10.30	1.42	1.53
83	A5	2231	A	O4'-C1'	10.30	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3962	A	C2'-C1'	-10.30	1.42	1.53
36	B2	544	C	C2'-C1'	-10.29	1.42	1.53
36	B2	1260	G	C2'-C1'	-10.29	1.42	1.53
83	A5	3647	A	O4'-C1'	10.29	1.55	1.41
83	A5	755	A	O4'-C1'	10.29	1.55	1.41
83	A5	2776	A	O4'-C1'	10.29	1.55	1.41
83	A5	871	A	C2'-C1'	10.29	1.64	1.53
83	A5	2800	C	C2'-C1'	-10.29	1.42	1.53
83	A5	815	A	O4'-C1'	10.29	1.55	1.41
83	A5	3218	C	O4'-C1'	10.29	1.55	1.41
36	B2	1427	U	C2'-C1'	-10.29	1.42	1.53
83	A5	523	C	O4'-C1'	10.29	1.55	1.41
83	A5	3376	C	O4'-C1'	10.29	1.55	1.41
83	A5	3624	C	C2'-C1'	-10.28	1.42	1.53
83	A5	3835	U	O4'-C1'	10.28	1.55	1.41
83	A5	3920	C	O4'-C1'	10.28	1.55	1.41
36	B2	1639	U	O4'-C1'	10.27	1.55	1.41
83	A5	3909	A	O4'-C1'	10.27	1.55	1.41
36	B2	1193	C	O4'-C1'	10.26	1.54	1.41
36	B2	378	G	C2'-C1'	-10.26	1.42	1.53
83	A5	2166	U	C2'-C1'	-10.26	1.42	1.53
83	A5	2623	C	C2'-C1'	-10.26	1.42	1.53
36	B2	380	U	C2'-C1'	-10.26	1.42	1.53
83	A5	3623	G	C2'-C1'	-10.26	1.42	1.53
36	B2	1108	C	O4'-C1'	10.25	1.54	1.41
83	A5	2688	U	C2'-C1'	-10.25	1.42	1.53
83	A5	804	C	O4'-C1'	10.25	1.54	1.41
83	A5	208	U	O4'-C1'	10.24	1.54	1.41
83	A5	1772	G	C2'-C1'	-10.24	1.42	1.53
83	A5	3512	U	O4'-C1'	10.24	1.54	1.41
83	A5	311	C	C2'-C1'	-10.24	1.42	1.53
83	A5	2707	C	C2'-C1'	-10.24	1.42	1.53
83	A5	2153	C	C2'-C1'	-10.24	1.42	1.53
86	A8	12	G	C2'-C1'	-10.23	1.42	1.53
83	A5	2668	C	O4'-C1'	10.22	1.54	1.41
83	A5	147	A	O4'-C1'	10.22	1.54	1.41
83	A5	853	G	C2'-C1'	-10.22	1.42	1.53
36	B2	1002	A	C2'-C1'	-10.22	1.42	1.53
36	B2	1081	G	C2'-C1'	-10.21	1.42	1.53
83	A5	1907	U	O4'-C1'	10.21	1.54	1.41
36	B2	68	C	O4'-C1'	-10.20	1.28	1.41
36	B2	1537	C	O4'-C1'	10.20	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2125	G	C2'-C1'	10.20	1.64	1.53
83	A5	2682	C	O4'-C1'	10.19	1.54	1.41
83	A5	3407	U	O4'-C1'	10.19	1.54	1.41
83	A5	3579	C	C2'-C1'	-10.19	1.42	1.53
83	A5	3827	G	O4'-C1'	10.18	1.54	1.41
85	A7	80	U	C2'-C1'	-10.18	1.42	1.53
83	A5	255	C	C2'-C1'	-10.18	1.42	1.53
36	B2	1812	C	O4'-C1'	10.18	1.54	1.41
83	A5	323	U	C2'-C1'	-10.18	1.42	1.53
83	A5	139	U	O4'-C1'	10.17	1.54	1.41
83	A5	1647	A	O4'-C1'	10.17	1.54	1.41
83	A5	3443	A	O4'-C1'	-10.17	1.28	1.41
36	B2	1953	U	C2'-C1'	-10.16	1.42	1.53
83	A5	2202	A	C2'-C1'	-10.16	1.42	1.53
36	B2	196	G	O4'-C1'	10.16	1.54	1.41
36	B2	918	C	O4'-C1'	10.16	1.54	1.41
83	A5	1440	A	O4'-C1'	10.16	1.54	1.41
83	A5	3207	C	O4'-C1'	10.16	1.54	1.41
83	A5	3407	U	C2'-C1'	-10.16	1.42	1.53
86	A8	105	C	O4'-C1'	10.15	1.54	1.41
83	A5	2248	A	C2'-C1'	10.15	1.64	1.53
83	A5	3516	C	O4'-C1'	10.15	1.54	1.41
36	B2	1725	C	O4'-C1'	10.15	1.54	1.41
83	A5	1673	C	O4'-C1'	10.15	1.54	1.41
36	B2	1925	G	O4'-C1'	10.14	1.54	1.41
83	A5	2777	A	C2'-C1'	-10.14	1.42	1.53
36	B2	1761	A	C2'-C1'	-10.14	1.42	1.53
83	A5	2822	C	O4'-C1'	10.14	1.54	1.41
83	A5	2058	C	O4'-C1'	10.14	1.54	1.41
83	A5	2989	G	C2'-C1'	-10.14	1.42	1.53
83	A5	3233	C	O4'-C1'	10.13	1.54	1.41
83	A5	3276	C	O4'-C1'	10.13	1.54	1.41
83	A5	3775	A	C2'-C1'	-10.13	1.42	1.53
36	B2	48	G	C2'-C1'	-10.13	1.42	1.53
36	B2	1020	U	O4'-C1'	10.12	1.54	1.41
83	A5	3325	G	C2'-C1'	-10.12	1.42	1.53
83	A5	680	C	O4'-C1'	10.12	1.54	1.41
36	B2	287	C	O4'-C1'	10.12	1.54	1.41
83	A5	3526	C	C2'-C1'	-10.12	1.42	1.53
85	A7	68	G	C2'-C1'	-10.11	1.42	1.53
37	BC	65	C	O4'-C1'	10.11	1.54	1.41
83	A5	1370	C	O4'-C1'	10.11	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	387	C	O4'-C1'	10.11	1.54	1.41
36	B2	1084	G	C2'-C1'	-10.11	1.42	1.53
83	A5	1143	U	C2'-C1'	-10.11	1.42	1.53
36	B2	636	G	O4'-C1'	10.11	1.54	1.41
83	A5	2048	G	C2'-C1'	-10.11	1.42	1.53
83	A5	3804	U	O4'-C1'	10.11	1.54	1.41
83	A5	247	C	C2'-C1'	-10.11	1.42	1.53
36	B2	1356	U	C2'-C1'	-10.11	1.42	1.53
83	A5	353	G	C2'-C1'	-10.11	1.42	1.53
83	A5	2014	C	O4'-C1'	10.10	1.54	1.41
36	B2	1410	C	O4'-C1'	10.10	1.54	1.41
86	A8	72	C	C2'-C1'	-10.10	1.42	1.53
83	A5	2770	C	C2'-C1'	-10.09	1.42	1.53
86	A8	112	C	O4'-C1'	10.09	1.54	1.41
36	B2	1286	G	C2'-C1'	-10.09	1.42	1.53
83	A5	3520	U	O4'-C1'	10.09	1.54	1.41
83	A5	1027	A	C2'-C1'	-10.09	1.42	1.53
83	A5	1600	U	C2'-C1'	-10.08	1.42	1.53
36	B2	164	U	O4'-C1'	10.07	1.54	1.41
36	B2	621	G	O4'-C1'	10.07	1.54	1.41
86	A8	63	U	C2'-C1'	10.07	1.64	1.53
36	B2	1464	U	O4'-C1'	10.06	1.54	1.41
83	A5	2755	G	C2'-C1'	10.06	1.64	1.53
83	A5	32	C	C2'-C1'	-10.06	1.42	1.53
36	B2	578	A	O4'-C1'	10.06	1.54	1.41
83	A5	799	A	C2'-C1'	-10.05	1.42	1.53
83	A5	3297	C	C2'-C1'	-10.06	1.42	1.53
83	A5	3254	U	O4'-C1'	10.05	1.54	1.41
36	B2	634	U	O4'-C1'	10.05	1.54	1.41
36	B2	1394	U	C2'-C1'	10.05	1.64	1.53
36	B2	1965	U	O4'-C1'	10.05	1.54	1.41
83	A5	649	A	O4'-C1'	10.05	1.54	1.41
36	B2	104	A	O4'-C1'	10.05	1.54	1.41
83	A5	196	C	O4'-C1'	10.04	1.54	1.41
37	BC	67	C	O4'-C1'	10.04	1.54	1.41
36	B2	59	C	O4'-C1'	10.04	1.54	1.41
83	A5	432	U	C2'-C1'	-10.04	1.42	1.53
83	A5	3813	C	C2'-C1'	-10.04	1.42	1.53
36	B2	56	U	O4'-C1'	10.04	1.54	1.41
36	B2	1792	A	O4'-C1'	10.04	1.54	1.41
86	A8	94	C	O4'-C1'	10.04	1.54	1.41
36	B2	294	C	O4'-C1'	10.03	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	34	G	O4'-C1'	10.03	1.54	1.41
36	B2	1335	C	O4'-C1'	10.03	1.54	1.41
37	BC	12	G	C2'-C1'	-10.03	1.42	1.53
83	A5	1016	A	O4'-C1'	-10.03	1.28	1.41
83	A5	514	A	C2'-C1'	-10.02	1.42	1.53
83	A5	2620	C	O4'-C1'	10.02	1.54	1.41
36	B2	1463	C	O4'-C1'	10.02	1.54	1.41
36	B2	1463	C	C2'-C1'	-10.02	1.42	1.53
85	A7	8	A	O4'-C1'	10.02	1.54	1.41
36	B2	1001	G	O4'-C1'	10.02	1.54	1.41
36	B2	1836	C	O4'-C1'	10.02	1.54	1.41
83	A5	391	A	O4'-C1'	10.02	1.54	1.41
83	A5	3126	C	C2'-C1'	-10.02	1.42	1.53
36	B2	26	A	C2'-C1'	10.02	1.64	1.53
36	B2	988	G	O4'-C1'	-10.02	1.28	1.41
36	B2	1635	U	C2'-C1'	10.02	1.64	1.53
36	B2	1866	U	C2'-C1'	-10.02	1.42	1.53
83	A5	3127	A	O4'-C1'	-10.02	1.28	1.41
36	B2	1935	A	C2'-C1'	-10.02	1.42	1.53
83	A5	1640	U	O4'-C1'	10.02	1.54	1.41
83	A5	3405	U	O4'-C1'	10.01	1.54	1.41
36	B2	1332	G	O4'-C1'	-10.01	1.28	1.41
36	B2	1693	C	C2'-C1'	-10.00	1.42	1.53
83	A5	1042	G	C2'-C1'	-10.00	1.42	1.53
83	A5	3759	G	O4'-C1'	10.00	1.54	1.41
36	B2	972	G	C2'-C1'	-10.00	1.42	1.53
36	B2	75	U	O4'-C1'	-10.00	1.28	1.41
36	B2	1673	U	O4'-C1'	10.00	1.54	1.41
83	A5	192	U	C2'-C1'	-10.00	1.42	1.53
83	A5	3479	C	C2'-C1'	-10.00	1.42	1.53
83	A5	655	C	C2'-C1'	-9.99	1.42	1.53
83	A5	1964	A	C2'-C1'	-9.99	1.42	1.53
36	B2	13	C	C2'-C1'	-9.99	1.42	1.53
36	B2	835	A	C2'-C1'	9.99	1.64	1.53
83	A5	227	A	O4'-C1'	9.98	1.54	1.41
83	A5	1501	A	O4'-C1'	9.98	1.54	1.41
83	A5	1644	C	O4'-C1'	9.98	1.54	1.41
85	A7	33	U	C2'-C1'	-9.98	1.42	1.53
83	A5	345	A	C2'-C1'	-9.98	1.42	1.53
83	A5	2481	U	O4'-C1'	9.98	1.54	1.41
84	A9	23	G	O4'-C1'	9.97	1.54	1.41
83	A5	3671	C	C2'-C1'	-9.97	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A7	109	U	C2'-C1'	-9.97	1.42	1.53
83	A5	204	G	O4'-C1'	9.97	1.54	1.41
36	B2	279	G	C2'-C1'	-9.97	1.42	1.53
83	A5	2126	A	C2'-C1'	9.96	1.64	1.53
83	A5	3474	G	O4'-C1'	9.96	1.54	1.41
83	A5	248	C	O4'-C1'	9.96	1.54	1.41
83	A5	1420	A	C2'-C1'	-9.96	1.42	1.53
36	B2	366	C	O4'-C1'	9.96	1.54	1.41
83	A5	2570	C	O4'-C1'	9.96	1.54	1.41
83	A5	2873	C	O4'-C1'	9.96	1.54	1.41
36	B2	1758	A	C2'-C1'	-9.95	1.42	1.53
36	B2	956	C	O4'-C1'	9.95	1.54	1.41
83	A5	3892	A	C2'-C1'	9.95	1.64	1.53
83	A5	2812	U	C2'-C1'	9.95	1.64	1.53
36	B2	1283	C	O4'-C1'	9.95	1.54	1.41
83	A5	3296	C	O4'-C1'	9.95	1.54	1.41
36	B2	1953	U	O4'-C1'	9.94	1.54	1.41
83	A5	2787	U	O4'-C1'	9.94	1.54	1.41
83	A5	3183	G	O4'-C1'	-9.94	1.28	1.41
83	A5	2021	C	O4'-C1'	9.94	1.54	1.41
83	A5	2690	A	O4'-C1'	9.94	1.54	1.41
83	A5	3530	A	C2'-C1'	9.93	1.64	1.53
83	A5	3764	G	C2'-C1'	9.93	1.64	1.53
83	A5	3851	U	O4'-C1'	9.93	1.54	1.41
83	A5	2043	G	C2'-C1'	9.93	1.64	1.53
83	A5	3014	G	C2'-C1'	-9.93	1.42	1.53
85	A7	31	G	C2'-C1'	-9.93	1.42	1.53
83	A5	1783	A	O4'-C1'	9.93	1.54	1.41
85	A7	27	A	O4'-C1'	9.93	1.54	1.41
83	A5	3152	G	C2'-C1'	-9.93	1.42	1.53
83	A5	3114	C	O4'-C1'	9.92	1.54	1.41
83	A5	1433	U	O4'-C1'	9.92	1.54	1.41
83	A5	3927	C	O4'-C1'	9.92	1.54	1.41
36	B2	1814	G	C2'-C1'	-9.92	1.42	1.53
83	A5	410	G	C2'-C1'	-9.92	1.42	1.53
83	A5	3562	A	C2'-C1'	-9.92	1.42	1.53
83	A5	420	A	O4'-C1'	-9.92	1.28	1.41
83	A5	1268	A	C2'-C1'	-9.92	1.42	1.53
83	A5	2783	C	O4'-C1'	9.91	1.54	1.41
83	A5	3128	U	C2'-C1'	-9.91	1.42	1.53
83	A5	3287	C	C2'-C1'	-9.91	1.42	1.53
83	A5	1687	U	O4'-C1'	9.91	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	459	U	O4'-C1'	9.90	1.54	1.41
83	A5	586	C	C2'-C1'	-9.90	1.42	1.53
83	A5	2508	C	O4'-C1'	9.90	1.54	1.41
36	B2	1580	G	O4'-C1'	9.90	1.54	1.41
83	A5	1665	C	C2'-C1'	-9.90	1.42	1.53
83	A5	3519	C	O4'-C1'	9.89	1.54	1.41
36	B2	925	U	C2'-C1'	9.89	1.64	1.53
83	A5	996	C	C2'-C1'	-9.89	1.42	1.53
83	A5	2671	C	C2'-C1'	9.89	1.64	1.53
83	A5	3317	U	C2'-C1'	-9.89	1.42	1.53
36	B2	1887	A	C2'-C1'	-9.88	1.42	1.53
83	A5	450	G	C2'-C1'	-9.88	1.42	1.53
36	B2	1423	A	C2'-C1'	-9.88	1.42	1.53
83	A5	1707	A	O4'-C1'	9.88	1.54	1.41
83	A5	3369	A	C2'-C1'	9.88	1.64	1.53
83	A5	2022	C	C2'-C1'	-9.88	1.42	1.53
36	B2	1743	C	O4'-C1'	9.87	1.54	1.41
36	B2	292	G	O4'-C1'	-9.87	1.28	1.41
36	B2	1581	A	O4'-C1'	9.87	1.54	1.41
36	B2	1829	C	O4'-C1'	9.87	1.54	1.41
36	B2	1926	A	O4'-C1'	9.87	1.54	1.41
83	A5	1685	G	C2'-C1'	-9.87	1.42	1.53
83	A5	2160	C	O4'-C1'	9.87	1.54	1.41
36	B2	1911	C	C2'-C1'	9.87	1.64	1.53
83	A5	1504	C	O4'-C1'	9.87	1.54	1.41
83	A5	2656	C	C2'-C1'	-9.87	1.42	1.53
36	B2	1222	C	O4'-C1'	9.86	1.54	1.41
83	A5	919	G	O4'-C1'	-9.86	1.28	1.41
83	A5	2621	A	C2'-C1'	-9.86	1.42	1.53
86	A8	46	C	O4'-C1'	9.86	1.54	1.41
36	B2	67	A	O4'-C1'	9.86	1.54	1.41
36	B2	1580	G	C2'-C1'	-9.86	1.42	1.53
83	A5	3492	G	C2'-C1'	-9.86	1.42	1.53
83	A5	965	C	C2'-C1'	-9.85	1.42	1.53
83	A5	1864	U	O4'-C1'	9.84	1.54	1.41
83	A5	3671	C	O4'-C1'	9.84	1.54	1.41
36	B2	173	C	O4'-C1'	9.84	1.54	1.41
83	A5	2759	G	C2'-C1'	-9.84	1.42	1.53
36	B2	1910	U	O4'-C1'	9.84	1.54	1.41
83	A5	1654	C	O4'-C1'	9.84	1.54	1.41
83	A5	3162	C	O4'-C1'	9.84	1.54	1.41
83	A5	1951	C	O4'-C1'	9.83	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2985	U	C2'-C1'	-9.83	1.42	1.53
83	A5	3125	A	O4'-C1'	9.83	1.54	1.41
83	A5	1672	A	C2'-C1'	-9.82	1.42	1.53
85	A7	95	U	C2'-C1'	9.82	1.64	1.53
36	B2	702	U	C2'-C1'	-9.82	1.42	1.53
36	B2	976	U	C2'-C1'	-9.82	1.42	1.53
83	A5	1618	A	C2'-C1'	-9.82	1.42	1.53
86	A8	51	A	O4'-C1'	9.82	1.54	1.41
36	B2	1001	G	C2'-C1'	-9.82	1.42	1.53
83	A5	455	U	O4'-C1'	9.82	1.54	1.41
83	A5	1382	U	C2'-C1'	9.82	1.64	1.53
83	A5	1407	C	O4'-C1'	9.82	1.54	1.41
83	A5	2219	U	C2'-C1'	9.82	1.64	1.53
83	A5	1957	C	C2'-C1'	-9.81	1.42	1.53
36	B2	413	C	O4'-C1'	9.81	1.54	1.41
83	A5	788	C	O4'-C1'	9.81	1.54	1.41
83	A5	2493	C	O4'-C1'	9.81	1.54	1.41
83	A5	3496	U	O4'-C1'	9.81	1.54	1.41
36	B2	432	C	O4'-C1'	9.81	1.54	1.41
83	A5	1458	G	C2'-C1'	-9.80	1.42	1.53
83	A5	97	C	C2'-C1'	-9.80	1.42	1.53
83	A5	2732	C	C2'-C1'	-9.80	1.42	1.53
83	A5	2021	C	C2'-C1'	-9.80	1.42	1.53
83	A5	2635	C	O4'-C1'	9.80	1.54	1.41
83	A5	187	A	C2'-C1'	-9.80	1.42	1.53
36	B2	1153	C	O4'-C1'	9.80	1.54	1.41
36	B2	1354	G	C2'-C1'	-9.80	1.42	1.53
83	A5	2124	G	C2'-C1'	-9.80	1.42	1.53
83	A5	81	A	C2'-C1'	-9.80	1.42	1.53
83	A5	3691	A	O4'-C1'	9.79	1.54	1.41
36	B2	1108	C	C2'-C1'	-9.79	1.42	1.53
83	A5	3149	U	C2'-C1'	-9.79	1.42	1.53
36	B2	1192	U	C2'-C1'	-9.79	1.42	1.53
85	A7	60	C	O4'-C1'	9.79	1.54	1.41
36	B2	427	G	C2'-C1'	-9.78	1.42	1.53
36	B2	1042	A	O4'-C1'	9.78	1.54	1.41
83	A5	2929	U	C2'-C1'	-9.78	1.42	1.53
36	B2	430	A	O4'-C1'	9.78	1.54	1.41
36	B2	1929	U	O4'-C1'	9.78	1.54	1.41
83	A5	3182	U	C2'-C1'	-9.78	1.42	1.53
83	A5	1442	C	O4'-C1'	9.77	1.54	1.41
83	A5	1691	A	O4'-C1'	9.77	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3652	C	C2'-C1'	-9.77	1.42	1.53
36	B2	92	A	O4'-C1'	9.76	1.54	1.41
83	A5	1472	C	O4'-C1'	9.76	1.54	1.41
83	A5	1609	U	O4'-C1'	9.76	1.54	1.41
83	A5	1116	G	C2'-C1'	-9.76	1.42	1.53
83	A5	3757	U	O4'-C1'	9.76	1.54	1.41
83	A5	2012	G	O4'-C1'	9.76	1.54	1.41
83	A5	1564	G	O4'-C1'	9.76	1.54	1.41
83	A5	2539	G	C2'-C1'	-9.76	1.42	1.53
83	A5	3512	U	C2'-C1'	-9.75	1.42	1.53
36	B2	928	C	C2'-C1'	-9.75	1.42	1.53
83	A5	1750	G	C2'-C1'	9.75	1.64	1.53
86	A8	45	G	C2'-C1'	-9.74	1.42	1.53
36	B2	50	C	O4'-C1'	9.74	1.54	1.41
83	A5	900	C	C2'-C1'	-9.74	1.42	1.53
83	A5	3185	C	O4'-C1'	9.74	1.54	1.41
83	A5	755	A	C2'-C1'	9.74	1.64	1.53
36	B2	342	G	C2'-C1'	-9.73	1.42	1.53
83	A5	1111	C	O4'-C1'	9.73	1.54	1.41
83	A5	3172	A	O4'-C1'	9.73	1.54	1.41
86	A8	64	C	C2'-C1'	-9.73	1.42	1.53
83	A5	3409	G	C2'-C1'	-9.73	1.42	1.53
36	B2	467	G	C2'-C1'	-9.73	1.42	1.53
36	B2	1937	U	C2'-C1'	-9.73	1.42	1.53
83	A5	554	U	C2'-C1'	-9.73	1.42	1.53
83	A5	3600	G	C2'-C1'	-9.73	1.42	1.53
83	A5	2735	A	O4'-C1'	9.73	1.54	1.41
36	B2	1282	A	C2'-C1'	-9.72	1.42	1.53
83	A5	3396	A	O4'-C1'	9.72	1.54	1.41
83	A5	1801	U	C2'-C1'	9.72	1.64	1.53
36	B2	496	C	C2'-C1'	-9.72	1.42	1.53
83	A5	835	G	C2'-C1'	-9.72	1.42	1.53
83	A5	2746	A	C2'-C1'	-9.72	1.42	1.53
83	A5	1803	C	C2'-C1'	-9.71	1.42	1.53
83	A5	1997	C	O4'-C1'	9.71	1.54	1.41
36	B2	715	U	C2'-C1'	-9.71	1.42	1.53
83	A5	1931	C	C2'-C1'	-9.71	1.42	1.53
36	B2	95	G	C2'-C1'	-9.70	1.42	1.53
36	B2	440	U	O4'-C1'	9.70	1.54	1.41
83	A5	3733	U	O4'-C1'	9.70	1.54	1.41
36	B2	1690	G	C2'-C1'	-9.70	1.42	1.53
83	A5	330	C	O4'-C1'	9.70	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1332	C	O4'-C1'	9.69	1.54	1.41
83	A5	34	C	O4'-C1'	9.69	1.54	1.41
83	A5	2024	U	O4'-C1'	9.69	1.54	1.41
36	B2	1548	G	C2'-C1'	-9.69	1.42	1.53
83	A5	3902	G	C2'-C1'	-9.68	1.42	1.53
83	A5	2753	G	O4'-C1'	9.68	1.54	1.41
83	A5	3615	G	C2'-C1'	-9.68	1.42	1.53
83	A5	3416	C	C2'-C1'	-9.68	1.42	1.53
36	B2	501	C	O4'-C1'	9.67	1.54	1.41
83	A5	1928	G	C2'-C1'	-9.67	1.42	1.53
83	A5	2162	C	C2'-C1'	9.67	1.64	1.53
83	A5	90	G	O4'-C1'	9.67	1.54	1.41
83	A5	335	A	C2'-C1'	-9.66	1.42	1.53
36	B2	1010	A	O4'-C1'	9.66	1.54	1.41
36	B2	1956	U	O4'-C1'	9.66	1.54	1.41
83	A5	1937	G	C2'-C1'	9.66	1.64	1.53
36	B2	1865	G	C2'-C1'	-9.65	1.42	1.53
83	A5	3583	C	O4'-C1'	9.65	1.54	1.41
37	BC	31	C	O4'-C1'	9.65	1.54	1.41
36	B2	1643	C	O4'-C1'	9.65	1.54	1.41
83	A5	1349	A	O4'-C1'	9.65	1.54	1.41
83	A5	3863	G	C2'-C1'	-9.65	1.42	1.53
83	A5	2182	G	C2'-C1'	-9.65	1.42	1.53
83	A5	3176	C	C2'-C1'	-9.65	1.42	1.53
83	A5	3504	G	O4'-C1'	9.65	1.54	1.41
83	A5	3721	C	C2'-C1'	-9.65	1.42	1.53
86	A8	3	C	O4'-C1'	9.65	1.54	1.41
83	A5	926	U	O4'-C1'	9.64	1.54	1.41
36	B2	1767	G	C2'-C1'	-9.64	1.42	1.53
36	B2	1799	A	O4'-C1'	9.64	1.54	1.41
83	A5	289	C	O4'-C1'	9.64	1.54	1.41
83	A5	210	C	C2'-C1'	-9.64	1.42	1.53
83	A5	406	G	C2'-C1'	-9.64	1.42	1.53
83	A5	1372	A	C2'-C1'	9.64	1.64	1.53
83	A5	1292	G	C2'-C1'	9.63	1.64	1.53
83	A5	2841	G	O4'-C1'	9.63	1.54	1.41
83	A5	3219	A	C2'-C1'	9.63	1.64	1.53
36	B2	86	C	O4'-C1'	9.63	1.54	1.41
83	A5	1574	A	O4'-C1'	9.63	1.54	1.41
83	A5	1433	U	C2'-C1'	-9.63	1.42	1.53
83	A5	477	C	O4'-C1'	9.63	1.54	1.41
86	A8	87	A	O4'-C1'	9.63	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	330	C	C2'-C1'	-9.62	1.42	1.53
83	A5	3779	U	O4'-C1'	9.62	1.54	1.41
36	B2	254	C	O4'-C1'	9.62	1.54	1.41
83	A5	1360	U	O4'-C1'	9.62	1.54	1.41
83	A5	2623	C	O4'-C1'	9.62	1.54	1.41
83	A5	3923	C	O4'-C1'	9.62	1.54	1.41
83	A5	803	A	O4'-C1'	9.62	1.54	1.41
83	A5	992	U	C2'-C1'	-9.61	1.42	1.53
36	B2	865	A	C2'-C1'	-9.61	1.42	1.53
83	A5	1216	A	O4'-C1'	9.61	1.54	1.41
83	A5	1626	A	O4'-C1'	9.61	1.54	1.41
83	A5	2900	U	C2'-C1'	-9.61	1.42	1.53
83	A5	571	U	O4'-C1'	9.60	1.54	1.41
36	B2	487	U	C2'-C1'	-9.60	1.42	1.53
36	B2	1648	C	O4'-C1'	-9.60	1.29	1.41
83	A5	3115	C	O4'-C1'	9.60	1.54	1.41
83	A5	966	U	O4'-C1'	9.59	1.54	1.41
83	A5	1979	A	C2'-C1'	-9.59	1.42	1.53
83	A5	3427	G	O4'-C1'	9.59	1.54	1.41
83	A5	3297	C	O4'-C1'	9.58	1.54	1.41
83	A5	2273	A	C2'-C1'	9.58	1.63	1.53
83	A5	1391	A	O4'-C1'	9.58	1.54	1.41
83	A5	2883	C	O4'-C1'	9.58	1.54	1.41
83	A5	317	G	O4'-C1'	9.58	1.54	1.41
83	A5	455	U	C2'-C1'	-9.58	1.42	1.53
83	A5	201	U	C2'-C1'	9.57	1.63	1.53
83	A5	688	U	O4'-C1'	9.57	1.54	1.41
36	B2	387	C	C2'-C1'	-9.57	1.42	1.53
83	A5	2663	C	C2'-C1'	-9.57	1.42	1.53
83	A5	144	C	O4'-C1'	9.57	1.54	1.41
83	A5	221	C	O4'-C1'	9.57	1.54	1.41
36	B2	1231	A	O4'-C1'	9.57	1.54	1.41
83	A5	1061	A	C2'-C1'	-9.57	1.42	1.53
86	A8	9	G	C2'-C1'	-9.57	1.42	1.53
36	B2	508	C	O4'-C1'	9.56	1.54	1.41
83	A5	3591	A	C2'-C1'	9.56	1.63	1.53
83	A5	773	G	O4'-C1'	9.56	1.54	1.41
83	A5	1289	C	C2'-C1'	9.56	1.63	1.53
83	A5	2593	A	O4'-C1'	9.56	1.54	1.41
36	B2	1643	C	C2'-C1'	-9.56	1.42	1.53
83	A5	3650	G	C2'-C1'	-9.56	1.42	1.53
36	B2	1056	C	C2'-C1'	-9.56	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2728	C	O4'-C1'	9.56	1.54	1.41
36	B2	107	A	C2'-C1'	-9.56	1.42	1.53
83	A5	199	U	C2'-C1'	-9.55	1.42	1.53
83	A5	1086	C	O4'-C1'	9.55	1.54	1.41
83	A5	2205	G	C2'-C1'	-9.55	1.42	1.53
83	A5	3835	U	C2'-C1'	-9.55	1.42	1.53
83	A5	3482	G	O4'-C1'	9.54	1.54	1.41
83	A5	64	A	O4'-C1'	9.54	1.54	1.41
83	A5	1056	G	C2'-C1'	-9.54	1.42	1.53
36	B2	1444	C	O4'-C1'	9.53	1.54	1.41
83	A5	3607	C	O4'-C1'	9.53	1.54	1.41
85	A7	57	C	O4'-C1'	9.53	1.54	1.41
36	B2	1815	C	O4'-C1'	9.53	1.54	1.41
36	B2	304	A	O4'-C1'	9.52	1.54	1.41
36	B2	1780	G	O4'-C1'	9.52	1.54	1.41
83	A5	2734	A	O4'-C1'	9.52	1.54	1.41
36	B2	1623	C	O4'-C1'	9.52	1.54	1.41
83	A5	2243	G	O4'-C1'	-9.52	1.29	1.41
36	B2	821	U	C2'-C1'	-9.52	1.42	1.53
83	A5	3687	A	O4'-C1'	9.52	1.54	1.41
83	A5	2790	G	C2'-C1'	-9.52	1.42	1.53
36	B2	221	C	O4'-C1'	9.51	1.54	1.41
36	B2	1696	G	O4'-C1'	9.51	1.54	1.41
36	B2	49	C	C2'-C1'	-9.51	1.42	1.53
83	A5	3320	C	O4'-C1'	9.51	1.54	1.41
83	A5	1167	A	C2'-C1'	-9.51	1.42	1.53
83	A5	3151	G	O4'-C1'	9.51	1.54	1.41
83	A5	3460	C	O4'-C1'	9.51	1.54	1.41
36	B2	589	U	C2'-C1'	-9.51	1.42	1.53
36	B2	1128	C	C2'-C1'	-9.50	1.42	1.53
36	B2	1917	A	O4'-C1'	9.50	1.54	1.41
83	A5	2774	G	C2'-C1'	-9.50	1.42	1.53
83	A5	2724	C	O4'-C1'	9.50	1.53	1.41
83	A5	1518	A	O4'-C1'	-9.50	1.29	1.41
83	A5	2164	G	O4'-C1'	9.50	1.53	1.41
36	B2	10	G	O4'-C1'	9.49	1.53	1.41
36	B2	552	A	C2'-C1'	-9.49	1.43	1.53
83	A5	2552	G	C2'-C1'	-9.49	1.43	1.53
36	B2	1379	G	C2'-C1'	-9.49	1.43	1.53
83	A5	2792	G	O4'-C1'	9.49	1.53	1.41
83	A5	2741	A	C2'-C1'	-9.48	1.43	1.53
83	A5	3232	G	C2'-C1'	-9.48	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1085	U	C2'-C1'	-9.48	1.43	1.53
36	B2	1049	C	O4'-C1'	9.48	1.53	1.41
83	A5	256	G	C2'-C1'	-9.48	1.43	1.53
83	A5	3630	C	O4'-C1'	9.48	1.53	1.41
83	A5	625	C	C2'-C1'	-9.47	1.43	1.53
83	A5	2230	G	O4'-C1'	9.47	1.53	1.41
83	A5	3772	U	O4'-C1'	9.47	1.53	1.41
36	B2	381	C	C2'-C1'	-9.47	1.43	1.53
36	B2	72	A	C2'-C1'	9.47	1.63	1.53
37	BC	2	G	C2'-C1'	-9.46	1.43	1.53
83	A5	28	C	O4'-C1'	9.46	1.53	1.41
83	A5	1957	C	O4'-C1'	9.46	1.53	1.41
83	A5	1724	A	O4'-C1'	9.45	1.53	1.41
83	A5	42	U	O4'-C1'	9.45	1.53	1.41
83	A5	825	C	O4'-C1'	9.45	1.53	1.41
83	A5	1755	U	C2'-C1'	9.45	1.63	1.53
83	A5	2612	G	C2'-C1'	-9.45	1.43	1.53
83	A5	168	G	C2'-C1'	-9.44	1.43	1.53
83	A5	2129	C	C2'-C1'	9.44	1.63	1.53
86	A8	53	C	O4'-C1'	9.44	1.53	1.41
86	A8	68	U	O4'-C1'	9.44	1.53	1.41
36	B2	1385	U	C2'-C1'	-9.44	1.43	1.53
83	A5	1519	A	C2'-C1'	9.44	1.63	1.53
83	A5	3366	G	C2'-C1'	-9.43	1.43	1.53
83	A5	1262	C	O4'-C1'	9.43	1.53	1.41
83	A5	3612	A	C2'-C1'	-9.43	1.43	1.53
83	A5	2730	A	O4'-C1'	9.43	1.53	1.41
36	B2	1186	U	O4'-C1'	9.43	1.53	1.41
83	A5	2722	U	O4'-C1'	9.43	1.53	1.41
83	A5	3136	U	C2'-C1'	-9.43	1.43	1.53
83	A5	3916	U	C2'-C1'	-9.43	1.43	1.53
85	A7	77	A	C2'-C1'	-9.42	1.43	1.53
83	A5	1388	C	C2'-C1'	-9.42	1.43	1.53
83	A5	1148	C	O4'-C1'	9.42	1.53	1.41
36	B2	1687	C	C2'-C1'	-9.42	1.43	1.53
83	A5	515	A	C2'-C1'	9.42	1.63	1.53
83	A5	1408	A	C2'-C1'	-9.42	1.43	1.53
36	B2	18	C	O4'-C1'	9.41	1.53	1.41
36	B2	1545	U	C2'-C1'	9.41	1.63	1.53
36	B2	1811	C	O4'-C1'	9.41	1.53	1.41
83	A5	2147	C	O4'-C1'	9.41	1.53	1.41
36	B2	1353	U	C2'-C1'	9.41	1.63	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1877	G	O4'-C1'	9.41	1.53	1.41
83	A5	3765	A	O4'-C1'	-9.41	1.29	1.41
83	A5	1018	C	C2'-C1'	-9.40	1.43	1.53
36	B2	328	A	C2'-C1'	-9.40	1.43	1.53
36	B2	581	C	O4'-C1'	9.40	1.53	1.41
83	A5	818	A	O4'-C1'	9.40	1.53	1.41
83	A5	2554	U	O4'-C1'	9.40	1.53	1.41
83	A5	3416	C	O4'-C1'	9.40	1.53	1.41
83	A5	1297	G	C2'-C1'	-9.40	1.43	1.53
83	A5	989	A	O4'-C1'	9.40	1.53	1.41
84	A9	9	C	O4'-C1'	9.40	1.53	1.41
36	B2	260	A	O4'-C1'	9.39	1.53	1.41
36	B2	1305	A	C2'-C1'	9.39	1.63	1.53
36	B2	1796	C	C2'-C1'	-9.39	1.43	1.53
83	A5	3611	C	O4'-C1'	9.39	1.53	1.41
83	A5	859	A	C2'-C1'	-9.39	1.43	1.53
83	A5	3577	U	O4'-C1'	9.38	1.53	1.41
36	B2	298	U	O4'-C1'	9.38	1.53	1.41
83	A5	1543	C	O4'-C1'	9.38	1.53	1.41
83	A5	986	A	C2'-C1'	-9.38	1.43	1.53
83	A5	3361	U	C2'-C1'	9.38	1.63	1.53
83	A5	1686	A	O4'-C1'	9.38	1.53	1.41
83	A5	2889	C	C2'-C1'	-9.37	1.43	1.53
36	B2	218	A	C2'-C1'	-9.37	1.43	1.53
36	B2	1661	A	C2'-C1'	-9.37	1.43	1.53
83	A5	3237	U	C2'-C1'	-9.37	1.43	1.53
83	A5	2855	A	C2'-C1'	-9.37	1.43	1.53
83	A5	3891	U	O4'-C1'	-9.37	1.29	1.41
83	A5	845	C	O4'-C1'	9.36	1.53	1.41
83	A5	966	U	C2'-C1'	-9.36	1.43	1.53
83	A5	1396	A	C2'-C1'	9.36	1.63	1.53
36	B2	1268	C	O4'-C1'	9.35	1.53	1.41
83	A5	1388	C	O4'-C1'	9.35	1.53	1.41
83	A5	3209	G	C2'-C1'	-9.35	1.43	1.53
83	A5	3296	C	C2'-C1'	-9.35	1.43	1.53
36	B2	1969	G	O4'-C1'	9.35	1.53	1.41
83	A5	223	A	O4'-C1'	9.35	1.53	1.41
83	A5	916	C	O4'-C1'	9.35	1.53	1.41
83	A5	1000	G	C2'-C1'	-9.35	1.43	1.53
83	A5	2989	G	O4'-C1'	9.35	1.53	1.41
83	A5	1176	A	C2'-C1'	9.34	1.63	1.53
83	A5	2866	G	C2'-C1'	-9.34	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	523	A	O4'-C1'	9.34	1.53	1.41
83	A5	804	C	C2'-C1'	-9.34	1.43	1.53
83	A5	2247	U	O4'-C1'	9.34	1.53	1.41
37	BC	38	C	C2'-C1'	-9.33	1.43	1.53
83	A5	2814	U	C2'-C1'	9.33	1.63	1.53
83	A5	416	C	O4'-C1'	9.33	1.53	1.41
83	A5	802	G	C2'-C1'	-9.33	1.43	1.53
83	A5	1713	U	O4'-C1'	9.33	1.53	1.41
83	A5	2176	G	C2'-C1'	-9.33	1.43	1.53
83	A5	2615	C	C2'-C1'	-9.33	1.43	1.53
83	A5	3017	U	C2'-C1'	-9.33	1.43	1.53
83	A5	2591	A	O4'-C1'	9.32	1.53	1.41
83	A5	3822	C	O4'-C1'	9.32	1.53	1.41
83	A5	3764	G	O4'-C1'	-9.32	1.29	1.41
83	A5	3803	C	C2'-C1'	-9.32	1.43	1.53
36	B2	1164	G	C2'-C1'	-9.32	1.43	1.53
83	A5	1356	G	O4'-C1'	9.32	1.53	1.41
83	A5	1414	C	O4'-C1'	9.32	1.53	1.41
83	A5	1985	C	O4'-C1'	9.32	1.53	1.41
83	A5	849	U	C2'-C1'	-9.31	1.43	1.53
83	A5	856	A	C2'-C1'	-9.31	1.43	1.53
36	B2	489	C	O4'-C1'	9.31	1.53	1.41
83	A5	3127	A	C2'-C1'	9.31	1.63	1.53
83	A5	3510	U	O4'-C1'	9.31	1.53	1.41
37	BC	26	C	O4'-C1'	9.31	1.53	1.41
83	A5	2901	C	O4'-C1'	9.31	1.53	1.41
83	A5	1983	A	C2'-C1'	-9.30	1.43	1.53
36	B2	497	A	O4'-C1'	9.30	1.53	1.41
36	B2	1958	A	O4'-C1'	9.30	1.53	1.41
36	B2	181	A	C2'-C1'	-9.30	1.43	1.53
36	B2	496	C	O4'-C1'	9.30	1.53	1.41
36	B2	1524	A	O4'-C1'	9.29	1.53	1.41
83	A5	383	A	C2'-C1'	-9.30	1.43	1.53
83	A5	3384	C	C2'-C1'	-9.29	1.43	1.53
36	B2	377	G	O4'-C1'	9.29	1.53	1.41
83	A5	837	A	O4'-C1'	9.29	1.53	1.41
83	A5	2152	C	O4'-C1'	9.29	1.53	1.41
83	A5	2526	A	O4'-C1'	9.29	1.53	1.41
83	A5	1270	G	C2'-C1'	-9.29	1.43	1.53
36	B2	1880	C	O4'-C1'	9.28	1.53	1.41
83	A5	1010	A	C2'-C1'	-9.28	1.43	1.53
83	A5	3876	U	O4'-C1'	9.28	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	579	G	O4'-C1'	9.28	1.53	1.41
83	A5	1207	G	O4'-C1'	9.28	1.53	1.41
36	B2	90	A	O4'-C1'	9.28	1.53	1.41
36	B2	1236	C	C2'-C1'	-9.28	1.43	1.53
83	A5	398	U	C2'-C1'	-9.28	1.43	1.53
83	A5	1787	C	C2'-C1'	-9.28	1.43	1.53
83	A5	1318	A	O4'-C1'	9.28	1.53	1.41
36	B2	182	C	O4'-C1'	9.27	1.53	1.41
83	A5	1073	C	O4'-C1'	9.27	1.53	1.41
83	A5	1697	U	O4'-C1'	-9.27	1.29	1.41
36	B2	1721	C	O4'-C1'	9.27	1.53	1.41
83	A5	813	C	O4'-C1'	9.27	1.53	1.41
83	A5	851	G	O4'-C1'	9.26	1.53	1.41
83	A5	345	A	O4'-C1'	9.26	1.53	1.41
83	A5	2069	U	O4'-C1'	9.26	1.53	1.41
36	B2	622	C	C2'-C1'	-9.26	1.43	1.53
83	A5	1538	U	C2'-C1'	9.26	1.63	1.53
83	A5	3148	C	C2'-C1'	-9.26	1.43	1.53
36	B2	889	A	O4'-C1'	9.25	1.53	1.41
83	A5	1122	U	C2'-C1'	9.25	1.63	1.53
83	A5	3490	C	O4'-C1'	9.25	1.53	1.41
83	A5	3500	A	O4'-C1'	9.25	1.53	1.41
83	A5	2193	C	C2'-C1'	-9.25	1.43	1.53
37	BC	57	A	O4'-C1'	9.25	1.53	1.41
36	B2	1099	U	O4'-C1'	9.25	1.53	1.41
36	B2	1394	U	O4'-C1'	-9.25	1.29	1.41
37	BC	36	A	O4'-C1'	9.25	1.53	1.41
83	A5	3372	C	O4'-C1'	9.25	1.53	1.41
36	B2	391	G	O4'-C1'	9.24	1.53	1.41
36	B2	1140	G	O4'-C1'	9.24	1.53	1.41
83	A5	311	C	O4'-C1'	9.24	1.53	1.41
83	A5	637	U	C2'-C1'	9.24	1.63	1.53
36	B2	1630	G	O4'-C1'	9.24	1.53	1.41
36	B2	1867	C	O4'-C1'	9.24	1.53	1.41
36	B2	1633	C	O4'-C1'	9.24	1.53	1.41
36	B2	1714	U	O4'-C1'	9.24	1.53	1.41
36	B2	1097	C	O4'-C1'	9.23	1.53	1.41
36	B2	1303	C	C2'-C1'	-9.23	1.43	1.53
83	A5	3852	A	O4'-C1'	9.23	1.53	1.41
86	A8	2	A	C2'-C1'	-9.23	1.43	1.53
36	B2	1247	C	O4'-C1'	9.22	1.53	1.41
36	B2	1907	G	C2'-C1'	-9.22	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3427	G	C2'-C1'	-9.22	1.43	1.53
36	B2	1759	U	O4'-C1'	9.22	1.53	1.41
36	B2	905	U	C2'-C1'	-9.22	1.43	1.53
36	B2	1520	A	C2'-C1'	-9.22	1.43	1.53
83	A5	275	U	O4'-C1'	9.22	1.53	1.41
83	A5	2200	A	C2'-C1'	9.22	1.63	1.53
36	B2	1621	G	C2'-C1'	-9.21	1.43	1.53
86	A8	79	A	C2'-C1'	-9.21	1.43	1.53
36	B2	206	U	C2'-C1'	-9.21	1.43	1.53
83	A5	1139	U	O4'-C1'	9.21	1.53	1.41
83	A5	844	C	O4'-C1'	9.21	1.53	1.41
83	A5	2878	A	C2'-C1'	-9.21	1.43	1.53
83	A5	1967	G	C2'-C1'	-9.21	1.43	1.53
36	B2	1093	C	O4'-C1'	9.20	1.53	1.41
36	B2	1657	C	O4'-C1'	9.20	1.53	1.41
83	A5	1007	A	C2'-C1'	-9.20	1.43	1.53
83	A5	2478	A	C2'-C1'	-9.20	1.43	1.53
83	A5	3194	A	O4'-C1'	9.20	1.53	1.41
36	B2	208	U	C2'-C1'	-9.20	1.43	1.53
36	B2	616	U	C2'-C1'	-9.20	1.43	1.53
36	B2	275	U	O4'-C1'	9.20	1.53	1.41
36	B2	1312	G	O4'-C1'	9.20	1.53	1.41
83	A5	1915	U	O4'-C1'	9.20	1.53	1.41
83	A5	3894	C	C2'-C1'	-9.20	1.43	1.53
85	A7	118	C	C2'-C1'	-9.20	1.43	1.53
83	A5	3262	A	O4'-C1'	9.20	1.53	1.41
36	B2	1211	C	C2'-C1'	-9.19	1.43	1.53
36	B2	1802	G	C2'-C1'	-9.19	1.43	1.53
83	A5	806	A	C2'-C1'	-9.19	1.43	1.53
83	A5	831	A	O4'-C1'	9.19	1.53	1.41
36	B2	283	U	O4'-C1'	-9.19	1.29	1.41
36	B2	1810	C	O4'-C1'	9.19	1.53	1.41
83	A5	700	A	C2'-C1'	-9.19	1.43	1.53
83	A5	859	A	O4'-C1'	9.19	1.53	1.41
36	B2	656	U	C2'-C1'	9.18	1.63	1.53
83	A5	309	C	C2'-C1'	-9.18	1.43	1.53
36	B2	948	A	O4'-C1'	9.18	1.53	1.41
83	A5	2805	C	C2'-C1'	-9.18	1.43	1.53
83	A5	1697	U	C2'-C1'	9.18	1.63	1.53
36	B2	1390	U	C2'-C1'	-9.17	1.43	1.53
83	A5	136	C	C2'-C1'	-9.17	1.43	1.53
36	B2	40	A	C2'-C1'	-9.17	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A8	92	G	O4'-C1'	9.17	1.53	1.41
83	A5	3865	C	O4'-C1'	9.17	1.53	1.41
36	B2	1452	U	C2'-C1'	9.17	1.63	1.53
83	A5	2587	U	O4'-C1'	9.17	1.53	1.41
85	A7	111	U	C2'-C1'	-9.17	1.43	1.53
83	A5	2741	A	O4'-C1'	9.16	1.53	1.41
83	A5	2233	C	C2'-C1'	-9.16	1.43	1.53
83	A5	922	G	O4'-C1'	9.16	1.53	1.41
83	A5	3408	C	O4'-C1'	9.16	1.53	1.41
36	B2	1016	A	C2'-C1'	-9.15	1.43	1.53
83	A5	2710	A	C2'-C1'	-9.15	1.43	1.53
85	A7	60	C	C2'-C1'	-9.15	1.43	1.53
36	B2	509	C	O4'-C1'	9.15	1.53	1.41
36	B2	1655	C	O4'-C1'	9.15	1.53	1.41
83	A5	1079	U	C2'-C1'	-9.15	1.43	1.53
83	A5	586	C	O4'-C1'	9.15	1.53	1.41
83	A5	812	U	O4'-C1'	9.15	1.53	1.41
83	A5	1578	C	O4'-C1'	9.15	1.53	1.41
36	B2	1079	A	C2'-C1'	9.15	1.63	1.53
83	A5	3588	G	C2'-C1'	-9.15	1.43	1.53
83	A5	385	A	C2'-C1'	9.14	1.63	1.53
83	A5	3276	C	C2'-C1'	-9.14	1.43	1.53
83	A5	3387	C	O4'-C1'	9.14	1.53	1.41
83	A5	1899	C	O4'-C1'	9.14	1.53	1.41
83	A5	3938	C	C2'-C1'	-9.14	1.43	1.53
83	A5	3945	A	O4'-C1'	9.14	1.53	1.41
36	B2	1257	G	C2'-C1'	-9.13	1.43	1.53
83	A5	1870	G	C2'-C1'	-9.14	1.43	1.53
83	A5	3594	A	O4'-C1'	9.13	1.53	1.41
85	A7	19	C	O4'-C1'	9.13	1.53	1.41
36	B2	1319	A	C2'-C1'	-9.13	1.43	1.53
83	A5	3538	G	C2'-C1'	-9.13	1.43	1.53
83	A5	3840	G	C2'-C1'	9.13	1.63	1.53
83	A5	426	A	C2'-C1'	-9.13	1.43	1.53
83	A5	1650	C	O4'-C1'	9.12	1.53	1.41
37	BC	13	C	C2'-C1'	-9.12	1.43	1.53
83	A5	3128	U	O4'-C1'	9.12	1.53	1.41
36	B2	1613	A	C2'-C1'	-9.12	1.43	1.53
85	A7	59	G	C2'-C1'	-9.12	1.43	1.53
83	A5	754	A	O4'-C1'	9.12	1.53	1.41
83	A5	186	G	O4'-C1'	9.11	1.53	1.41
83	A5	3469	G	O4'-C1'	9.11	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	180	U	O4'-C1'	9.11	1.53	1.41
83	A5	2170	C	O4'-C1'	9.11	1.53	1.41
37	BC	35	U	C2'-C1'	-9.11	1.43	1.53
83	A5	1761	C	O4'-C1'	9.10	1.53	1.41
83	A5	991	A	O4'-C1'	9.10	1.53	1.41
83	A5	869	A	O4'-C1'	-9.10	1.29	1.41
86	A8	6	U	C2'-C1'	9.10	1.63	1.53
83	A5	3475	U	O4'-C1'	9.10	1.53	1.41
83	A5	3924	U	C2'-C1'	9.10	1.63	1.53
36	B2	207	U	C2'-C1'	9.09	1.63	1.53
36	B2	545	A	C2'-C1'	-9.09	1.43	1.53
36	B2	1322	C	C2'-C1'	-9.09	1.43	1.53
36	B2	1599	U	O4'-C1'	9.09	1.53	1.41
83	A5	55	U	O4'-C1'	9.09	1.53	1.41
83	A5	2276	C	O4'-C1'	9.09	1.53	1.41
86	A8	50	A	C2'-C1'	-9.09	1.43	1.53
36	B2	1640	G	O4'-C1'	9.09	1.53	1.41
83	A5	971	C	O4'-C1'	9.09	1.53	1.41
83	A5	2096	C	C2'-C1'	-9.09	1.43	1.53
83	A5	3226	A	C2'-C1'	-9.09	1.43	1.53
36	B2	1344	A	C2'-C1'	-9.08	1.43	1.53
36	B2	1464	U	C2'-C1'	-9.08	1.43	1.53
83	A5	2207	A	C2'-C1'	9.08	1.63	1.53
86	A8	81	A	O4'-C1'	9.08	1.53	1.41
83	A5	83	U	C2'-C1'	-9.08	1.43	1.53
83	A5	1620	A	C2'-C1'	-9.08	1.43	1.53
83	A5	1730	A	C2'-C1'	-9.07	1.43	1.53
83	A5	1463	C	O4'-C1'	9.07	1.53	1.41
36	B2	470	G	C2'-C1'	-9.07	1.43	1.53
83	A5	3174	A	C2'-C1'	-9.07	1.43	1.53
83	A5	2621	A	O4'-C1'	9.07	1.53	1.41
83	A5	95	G	O4'-C1'	9.06	1.53	1.41
83	A5	1544	U	O4'-C1'	9.06	1.53	1.41
83	A5	2520	U	C2'-C1'	-9.06	1.43	1.53
36	B2	217	A	C2'-C1'	-9.05	1.43	1.53
83	A5	1237	G	C2'-C1'	9.05	1.63	1.53
83	A5	3404	A	O4'-C1'	-9.05	1.29	1.41
83	A5	667	U	O4'-C1'	9.05	1.53	1.41
83	A5	2140	C	O4'-C1'	9.05	1.53	1.41
83	A5	3441	C	C2'-C1'	-9.05	1.43	1.53
36	B2	926	U	O4'-C1'	9.05	1.53	1.41
83	A5	2178	U	O4'-C1'	9.05	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3258	C	C2'-C1'	-9.04	1.43	1.53
83	A5	1704	A	C2'-C1'	9.04	1.63	1.53
83	A5	1231	A	C2'-C1'	-9.04	1.43	1.53
36	B2	933	C	O4'-C1'	9.04	1.53	1.41
83	A5	324	A	O4'-C1'	9.03	1.53	1.41
83	A5	939	A	C2'-C1'	-9.04	1.43	1.53
36	B2	1772	C	O4'-C1'	9.03	1.53	1.41
83	A5	1464	G	C2'-C1'	-9.03	1.43	1.53
83	A5	2474	A	C2'-C1'	-9.03	1.43	1.53
84	A9	12	C	O4'-C1'	9.03	1.53	1.41
36	B2	1549	U	O4'-C1'	9.03	1.53	1.41
83	A5	500	A	O4'-C1'	9.03	1.53	1.41
83	A5	671	A	C2'-C1'	-9.03	1.43	1.53
83	A5	2730	A	C2'-C1'	-9.03	1.43	1.53
83	A5	276	G	C2'-C1'	-9.02	1.43	1.53
36	B2	658	C	C2'-C1'	-9.02	1.43	1.53
36	B2	65	A	C2'-C1'	9.02	1.63	1.53
83	A5	512	A	C2'-C1'	9.02	1.63	1.53
83	A5	2729	U	C2'-C1'	9.02	1.63	1.53
36	B2	914	C	C2'-C1'	9.02	1.63	1.53
83	A5	1682	G	C2'-C1'	-9.02	1.43	1.53
83	A5	1558	A	C2'-C1'	-9.01	1.43	1.53
83	A5	1809	A	C2'-C1'	-9.01	1.43	1.53
83	A5	2237	A	C2'-C1'	-9.01	1.43	1.53
83	A5	188	G	O4'-C1'	9.00	1.53	1.41
83	A5	759	U	C2'-C1'	-9.00	1.43	1.53
36	B2	593	A	O4'-C1'	9.00	1.53	1.41
83	A5	967	C	C2'-C1'	-9.00	1.43	1.53
83	A5	2256	G	C2'-C1'	-9.00	1.43	1.53
83	A5	2258	U	O4'-C1'	9.00	1.53	1.41
36	B2	295	A	C2'-C1'	-8.99	1.43	1.53
83	A5	1455	A	O4'-C1'	8.99	1.53	1.41
83	A5	2135	C	O4'-C1'	8.99	1.53	1.41
36	B2	1280	C	O4'-C1'	8.99	1.53	1.41
36	B2	1370	U	O4'-C1'	8.99	1.53	1.41
83	A5	172	C	O4'-C1'	8.99	1.53	1.41
83	A5	2558	A	O4'-C1'	8.99	1.53	1.41
86	A8	88	C	O4'-C1'	8.99	1.53	1.41
36	B2	54	C	O4'-C1'	8.98	1.53	1.41
36	B2	1869	C	O4'-C1'	8.98	1.53	1.41
83	A5	3148	C	O4'-C1'	8.98	1.53	1.41
83	A5	3894	C	O4'-C1'	8.98	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3360	G	C2'-C1'	-8.98	1.43	1.53
36	B2	424	G	O4'-C1'	8.97	1.53	1.41
36	B2	595	C	C2'-C1'	-8.97	1.43	1.53
83	A5	3708	U	O4'-C1'	8.97	1.53	1.41
36	B2	990	U	C2'-C1'	-8.97	1.43	1.53
83	A5	1149	C	C2'-C1'	-8.97	1.43	1.53
83	A5	2654	G	O4'-C1'	8.97	1.53	1.41
85	A7	75	G	C2'-C1'	-8.97	1.43	1.53
36	B2	452	U	C2'-C1'	-8.96	1.43	1.53
36	B2	1146	U	C2'-C1'	-8.96	1.43	1.53
36	B2	1755	A	O4'-C1'	8.96	1.53	1.41
83	A5	912	A	C2'-C1'	-8.97	1.43	1.53
83	A5	1354	G	C2'-C1'	-8.96	1.43	1.53
36	B2	414	C	O4'-C1'	8.96	1.53	1.41
36	B2	1720	A	C2'-C1'	-8.96	1.43	1.53
83	A5	3932	U	O4'-C1'	8.96	1.53	1.41
36	B2	655	A	C2'-C1'	8.96	1.63	1.53
83	A5	2239	C	O4'-C1'	8.96	1.53	1.41
36	B2	1161	G	C2'-C1'	-8.96	1.43	1.53
83	A5	1326	A	O4'-C1'	8.96	1.53	1.41
83	A5	3639	U	C2'-C1'	-8.96	1.43	1.53
83	A5	1877	A	C2'-C1'	-8.95	1.43	1.53
36	B2	1669	A	C2'-C1'	8.95	1.63	1.53
83	A5	359	G	C2'-C1'	8.95	1.63	1.53
83	A5	1985	C	C2'-C1'	-8.95	1.43	1.53
83	A5	3113	U	C2'-C1'	-8.95	1.43	1.53
36	B2	964	G	C2'-C1'	8.94	1.63	1.53
83	A5	404	U	O4'-C1'	8.94	1.53	1.41
83	A5	2587	U	C2'-C1'	-8.94	1.43	1.53
36	B2	1625	G	C2'-C1'	-8.94	1.43	1.53
83	A5	1773	U	C2'-C1'	-8.94	1.43	1.53
36	B2	306	A	O4'-C1'	8.94	1.53	1.41
83	A5	481	A	O4'-C1'	8.94	1.53	1.41
83	A5	530	U	C2'-C1'	8.94	1.63	1.53
83	A5	207	C	O4'-C1'	8.93	1.53	1.41
83	A5	2709	U	C2'-C1'	-8.93	1.43	1.53
83	A5	3910	A	C2'-C1'	-8.93	1.43	1.53
36	B2	1393	C	O4'-C1'	8.93	1.53	1.41
83	A5	3630	C	C2'-C1'	-8.93	1.43	1.53
86	A8	104	G	C2'-C1'	-8.93	1.43	1.53
36	B2	87	C	C2'-C1'	-8.93	1.43	1.53
36	B2	1721	C	C2'-C1'	-8.93	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3245	U	O4'-C1'	8.93	1.53	1.41
36	B2	1769	A	C2'-C1'	-8.92	1.43	1.53
86	A8	72	C	O4'-C1'	8.92	1.53	1.41
83	A5	566	A	O4'-C1'	8.92	1.53	1.41
83	A5	2643	C	O4'-C1'	8.92	1.53	1.41
83	A5	2634	A	C2'-C1'	8.92	1.63	1.53
85	A7	89	G	C2'-C1'	-8.92	1.43	1.53
36	B2	246	U	C2'-C1'	-8.92	1.43	1.53
83	A5	297	U	C2'-C1'	8.92	1.63	1.53
83	A5	1552	A	O4'-C1'	8.91	1.53	1.41
83	A5	2159	C	O4'-C1'	8.91	1.53	1.41
36	B2	1056	C	O4'-C1'	8.91	1.53	1.41
83	A5	1258	C	O4'-C1'	8.91	1.53	1.41
83	A5	2242	C	O4'-C1'	8.91	1.53	1.41
36	B2	962	G	C2'-C1'	-8.91	1.43	1.53
83	A5	2772	G	O4'-C1'	8.91	1.53	1.41
83	A5	1157	C	C2'-C1'	-8.90	1.43	1.53
36	B2	344	C	O4'-C1'	8.90	1.53	1.41
36	B2	831	U	O4'-C1'	8.90	1.53	1.41
36	B2	890	U	O4'-C1'	8.90	1.53	1.41
36	B2	451	C	O4'-C1'	8.89	1.53	1.41
83	A5	3898	C	O4'-C1'	8.89	1.53	1.41
83	A5	1618	A	O4'-C1'	8.89	1.53	1.41
36	B2	1063	G	C2'-C1'	-8.89	1.43	1.53
83	A5	2665	C	O4'-C1'	8.89	1.53	1.41
83	A5	3651	C	O4'-C1'	8.88	1.53	1.41
83	A5	594	U	C2'-C1'	-8.88	1.43	1.53
36	B2	627	A	C2'-C1'	-8.88	1.43	1.53
83	A5	246	C	O4'-C1'	8.88	1.53	1.41
83	A5	1032	G	C2'-C1'	-8.88	1.43	1.53
37	BC	31	C	C2'-C1'	-8.88	1.43	1.53
83	A5	2063	A	O4'-C1'	-8.88	1.30	1.41
36	B2	859	C	O4'-C1'	8.88	1.53	1.41
36	B2	1173	A	O4'-C1'	8.88	1.53	1.41
83	A5	351	A	C2'-C1'	-8.88	1.43	1.53
83	A5	3661	C	O4'-C1'	8.88	1.53	1.41
36	B2	1457	C	O4'-C1'	8.87	1.53	1.41
36	B2	1904	G	C2'-C1'	-8.87	1.43	1.53
36	B2	126	G	O4'-C1'	8.86	1.53	1.41
83	A5	1524	U	O4'-C1'	8.87	1.53	1.41
83	A5	2889	C	O4'-C1'	8.87	1.53	1.41
83	A5	862	U	O4'-C1'	8.86	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1684	G	C2'-C1'	-8.86	1.43	1.53
83	A5	920	G	C2'-C1'	-8.86	1.43	1.53
36	B2	61	A	C2'-C1'	-8.86	1.43	1.53
36	B2	1219	A	C2'-C1'	-8.85	1.43	1.53
83	A5	1252	U	O4'-C1'	8.85	1.53	1.41
83	A5	3591	A	O4'-C1'	-8.85	1.30	1.41
83	A5	544	U	O4'-C1'	8.84	1.53	1.41
83	A5	742	A	O4'-C1'	8.84	1.53	1.41
83	A5	850	A	C2'-C1'	-8.84	1.43	1.53
83	A5	1725	A	O4'-C1'	-8.84	1.30	1.41
83	A5	402	A	O4'-C1'	8.84	1.53	1.41
83	A5	2708	C	C2'-C1'	-8.84	1.43	1.53
83	A5	3667	C	O4'-C1'	8.84	1.53	1.41
83	A5	3284	C	C2'-C1'	8.84	1.63	1.53
83	A5	615	C	C2'-C1'	-8.83	1.43	1.53
83	A5	3368	C	C2'-C1'	8.83	1.63	1.53
83	A5	163	A	O4'-C1'	8.83	1.53	1.41
36	B2	281	C	O4'-C1'	8.82	1.53	1.41
83	A5	2771	G	O4'-C1'	8.82	1.53	1.41
83	A5	1117	A	O4'-C1'	8.82	1.53	1.41
83	A5	2099	C	O4'-C1'	8.82	1.53	1.41
83	A5	3899	A	O4'-C1'	8.82	1.53	1.41
83	A5	791	C	O4'-C1'	8.81	1.53	1.41
83	A5	1711	C	C2'-C1'	8.81	1.63	1.53
83	A5	1859	U	O4'-C1'	8.81	1.53	1.41
83	A5	3679	C	O4'-C1'	8.81	1.53	1.41
84	A9	3	C	O4'-C1'	8.81	1.53	1.41
36	B2	1941	A	C2'-C1'	-8.81	1.43	1.53
83	A5	3853	C	O4'-C1'	8.81	1.53	1.41
83	A5	3967	U	O4'-C1'	8.81	1.53	1.41
83	A5	197	G	O4'-C1'	8.81	1.53	1.41
83	A5	2572	G	O4'-C1'	8.81	1.53	1.41
83	A5	42	U	C2'-C1'	-8.81	1.43	1.53
83	A5	301	U	O4'-C1'	-8.80	1.30	1.41
36	B2	1764	U	C2'-C1'	-8.80	1.43	1.53
83	A5	1267	A	O4'-C1'	8.80	1.53	1.41
83	A5	2180	A	C2'-C1'	-8.80	1.43	1.53
83	A5	2818	G	C2'-C1'	-8.80	1.43	1.53
84	A9	8	A	O4'-C1'	8.79	1.53	1.41
83	A5	1783	A	C2'-C1'	8.79	1.63	1.53
85	A7	69	C	O4'-C1'	8.79	1.53	1.41
36	B2	391	G	C2'-C1'	-8.79	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2500	G	O4'-C1'	8.79	1.53	1.41
36	B2	1538	C	O4'-C1'	8.78	1.53	1.41
36	B2	1838	C	O4'-C1'	8.78	1.53	1.41
83	A5	1440	A	C2'-C1'	-8.78	1.43	1.53
36	B2	161	A	C2'-C1'	-8.78	1.43	1.53
36	B2	908	G	C2'-C1'	-8.78	1.43	1.53
83	A5	3714	U	C2'-C1'	8.78	1.63	1.53
86	A8	104	G	O4'-C1'	8.77	1.53	1.41
36	B2	1287	G	C2'-C1'	8.77	1.62	1.53
83	A5	1690	U	O4'-C1'	8.77	1.53	1.41
36	B2	879	U	O4'-C1'	8.77	1.53	1.41
36	B2	1187	U	O4'-C1'	-8.77	1.30	1.41
83	A5	1378	A	O4'-C1'	8.77	1.53	1.41
83	A5	1920	U	C2'-C1'	-8.76	1.43	1.53
83	A5	3860	A	O4'-C1'	8.76	1.53	1.41
83	A5	197	G	C2'-C1'	-8.76	1.43	1.53
83	A5	3599	U	C2'-C1'	-8.76	1.43	1.53
83	A5	1738	U	O4'-C1'	8.75	1.53	1.41
36	B2	1396	G	C2'-C1'	-8.75	1.43	1.53
83	A5	2722	U	C2'-C1'	-8.75	1.43	1.53
36	B2	1373	U	C2'-C1'	-8.74	1.43	1.53
83	A5	1864	U	C2'-C1'	-8.74	1.43	1.53
36	B2	25	U	C2'-C1'	8.74	1.62	1.53
36	B2	1736	U	C2'-C1'	8.74	1.62	1.53
83	A5	3157	U	C2'-C1'	8.74	1.62	1.53
36	B2	868	C	O4'-C1'	8.74	1.53	1.41
36	B2	1249	C	O4'-C1'	8.73	1.53	1.41
83	A5	1364	A	O4'-C1'	8.73	1.53	1.41
83	A5	2023	A	C2'-C1'	-8.73	1.43	1.53
83	A5	1528	G	C2'-C1'	-8.73	1.43	1.53
83	A5	1813	A	O4'-C1'	8.73	1.52	1.41
83	A5	3593	A	C2'-C1'	8.73	1.62	1.53
36	B2	251	G	C2'-C1'	8.73	1.62	1.53
36	B2	1962	G	O4'-C1'	8.73	1.52	1.41
83	A5	631	A	O4'-C1'	8.73	1.52	1.41
83	A5	778	C	C2'-C1'	-8.73	1.43	1.53
83	A5	1649	G	O4'-C1'	-8.73	1.30	1.41
36	B2	433	A	C2'-C1'	-8.73	1.43	1.53
83	A5	3752	G	O4'-C1'	8.73	1.52	1.41
83	A5	3892	A	O4'-C1'	-8.73	1.30	1.41
83	A5	891	U	C2'-C1'	-8.72	1.43	1.53
83	A5	2711	C	O4'-C1'	8.72	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3125	A	C2'-C1'	8.72	1.62	1.53
83	A5	3483	G	O4'-C1'	8.71	1.52	1.41
36	B2	1121	C	O4'-C1'	8.71	1.52	1.41
83	A5	3605	A	O4'-C1'	8.71	1.52	1.41
83	A5	1746	A	O4'-C1'	8.71	1.52	1.41
36	B2	217	A	O4'-C1'	8.71	1.52	1.41
36	B2	981	C	O4'-C1'	8.71	1.52	1.41
36	B2	1468	G	C2'-C1'	-8.70	1.43	1.53
83	A5	265	U	O4'-C1'	8.70	1.52	1.41
83	A5	3604	G	O4'-C1'	8.70	1.52	1.41
86	A8	53	C	C2'-C1'	-8.70	1.43	1.53
36	B2	1103	U	O4'-C1'	8.70	1.52	1.41
83	A5	1686	A	C2'-C1'	-8.69	1.43	1.53
83	A5	3414	U	O4'-C1'	8.70	1.52	1.41
36	B2	118	C	O4'-C1'	8.69	1.52	1.41
83	A5	2035	C	O4'-C1'	8.69	1.52	1.41
36	B2	1162	U	C2'-C1'	8.69	1.62	1.53
83	A5	1279	C	C2'-C1'	-8.69	1.43	1.53
83	A5	2165	C	C2'-C1'	-8.68	1.43	1.53
84	A9	30	A	C2'-C1'	8.68	1.62	1.53
36	B2	237	U	C2'-C1'	-8.68	1.43	1.53
36	B2	1387	A	C2'-C1'	8.68	1.62	1.53
83	A5	191	A	C2'-C1'	-8.67	1.43	1.53
36	B2	1731	U	C2'-C1'	8.67	1.62	1.53
36	B2	418	U	O4'-C1'	8.67	1.52	1.41
36	B2	1409	A	C2'-C1'	-8.66	1.43	1.53
83	A5	2676	U	O4'-C1'	8.66	1.52	1.41
83	A5	2872	U	O4'-C1'	8.66	1.52	1.41
83	A5	1473	U	O4'-C1'	-8.66	1.30	1.41
83	A5	2785	C	O4'-C1'	8.66	1.52	1.41
83	A5	810	A	O4'-C1'	8.65	1.52	1.41
36	B2	1311	A	C2'-C1'	-8.65	1.43	1.53
83	A5	2072	C	C2'-C1'	-8.65	1.43	1.53
36	B2	1611	G	C2'-C1'	-8.65	1.43	1.53
83	A5	649	A	C2'-C1'	-8.65	1.43	1.53
36	B2	1027	A	C2'-C1'	8.65	1.62	1.53
36	B2	1233	U	C2'-C1'	-8.65	1.43	1.53
83	A5	43	A	O4'-C1'	8.65	1.52	1.41
83	A5	552	U	C2'-C1'	8.65	1.62	1.53
83	A5	1260	A	C2'-C1'	-8.65	1.43	1.53
83	A5	1750	G	O4'-C1'	-8.65	1.30	1.41
83	A5	1944	C	C2'-C1'	-8.65	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3227	A	C2'-C1'	8.65	1.62	1.53
83	A5	3719	A	O4'-C1'	-8.65	1.30	1.41
36	B2	1087	C	C2'-C1'	8.64	1.62	1.53
36	B2	1847	A	C2'-C1'	8.64	1.62	1.53
83	A5	155	U	O4'-C1'	8.64	1.52	1.41
83	A5	213	A	C2'-C1'	-8.64	1.43	1.53
83	A5	238	G	O4'-C1'	8.64	1.52	1.41
36	B2	924	U	O4'-C1'	8.64	1.52	1.41
36	B2	1413	A	C2'-C1'	-8.64	1.43	1.53
36	B2	1093	C	C2'-C1'	-8.63	1.43	1.53
83	A5	3545	C	C2'-C1'	-8.63	1.43	1.53
83	A5	942	A	O4'-C1'	8.63	1.52	1.41
83	A5	2906	C	C2'-C1'	-8.63	1.43	1.53
83	A5	281	C	O4'-C1'	8.62	1.52	1.41
86	A8	1	A	O4'-C1'	8.62	1.52	1.41
83	A5	262	G	C2'-C1'	-8.62	1.43	1.53
36	B2	262	A	O4'-C1'	8.62	1.52	1.41
83	A5	2990	C	C2'-C1'	-8.62	1.43	1.53
83	A5	906	A	O4'-C1'	8.62	1.52	1.41
36	B2	1238	G	O4'-C1'	8.61	1.52	1.41
36	B2	1794	C	C2'-C1'	-8.61	1.43	1.53
36	B2	455	C	C2'-C1'	-8.61	1.43	1.53
36	B2	1202	G	O4'-C1'	-8.61	1.30	1.41
83	A5	679	G	C2'-C1'	-8.61	1.43	1.53
83	A5	3146	G	C2'-C1'	-8.61	1.43	1.53
83	A5	705	G	C2'-C1'	-8.61	1.43	1.53
83	A5	3796	G	O4'-C1'	8.60	1.52	1.41
36	B2	1322	C	O4'-C1'	8.60	1.52	1.41
36	B2	1549	U	C2'-C1'	-8.60	1.43	1.53
83	A5	1529	C	C2'-C1'	-8.60	1.43	1.53
36	B2	282	U	C2'-C1'	8.60	1.62	1.53
83	A5	2182	G	O4'-C1'	8.60	1.52	1.41
36	B2	1352	G	C2'-C1'	-8.60	1.43	1.53
83	A5	2216	A	C2'-C1'	8.60	1.62	1.53
36	B2	1692	C	O4'-C1'	8.59	1.52	1.41
83	A5	3914	G	C2'-C1'	-8.59	1.43	1.53
83	A5	451	A	O4'-C1'	8.59	1.52	1.41
83	A5	1537	G	O4'-C1'	-8.59	1.30	1.41
36	B2	713	A	C2'-C1'	8.59	1.62	1.53
36	B2	1990	U	O4'-C1'	8.59	1.52	1.41
37	BC	38	C	O4'-C1'	8.59	1.52	1.41
83	A5	30	A	C2'-C1'	-8.59	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1173	U	O4'-C1'	8.59	1.52	1.41
36	B2	55	A	O4'-C1'	8.58	1.52	1.41
83	A5	2910	C	O4'-C1'	8.58	1.52	1.41
36	B2	1182	C	O4'-C1'	8.58	1.52	1.41
83	A5	308	G	C2'-C1'	-8.58	1.44	1.53
83	A5	1541	A	O4'-C1'	8.58	1.52	1.41
83	A5	921	C	O4'-C1'	8.57	1.52	1.41
83	A5	2635	C	C2'-C1'	-8.57	1.44	1.53
83	A5	2736	A	O4'-C1'	8.57	1.52	1.41
83	A5	1983	A	O4'-C1'	8.57	1.52	1.41
36	B2	826	U	C2'-C1'	-8.56	1.44	1.53
36	B2	649	U	C2'-C1'	-8.56	1.44	1.53
36	B2	1523	U	O4'-C1'	8.56	1.52	1.41
83	A5	3343	A	C2'-C1'	-8.56	1.44	1.53
36	B2	1560	G	C2'-C1'	-8.56	1.44	1.53
36	B2	1752	U	C2'-C1'	8.56	1.62	1.53
83	A5	3773	G	O4'-C1'	-8.56	1.30	1.41
36	B2	1730	U	C2'-C1'	-8.55	1.44	1.53
83	A5	1289	C	O4'-C1'	8.55	1.52	1.41
83	A5	2725	U	O4'-C1'	8.55	1.52	1.41
36	B2	1366	C	C2'-C1'	-8.55	1.44	1.53
36	B2	1860	G	C2'-C1'	-8.55	1.44	1.53
83	A5	2991	A	C2'-C1'	-8.55	1.44	1.53
83	A5	3565	G	C2'-C1'	-8.55	1.44	1.53
83	A5	3567	A	C2'-C1'	8.55	1.62	1.53
83	A5	130	C	O4'-C1'	8.54	1.52	1.41
83	A5	3537	U	C2'-C1'	8.54	1.62	1.53
36	B2	280	U	C2'-C1'	8.54	1.62	1.53
85	A7	9	C	C2'-C1'	-8.54	1.44	1.53
36	B2	1443	U	O4'-C1'	8.54	1.52	1.41
83	A5	733	A	C2'-C1'	-8.54	1.44	1.53
83	A5	1164	G	C2'-C1'	-8.53	1.44	1.53
83	A5	3247	A	C2'-C1'	-8.54	1.44	1.53
36	B2	216	U	C2'-C1'	-8.53	1.44	1.53
36	B2	1094	C	O4'-C1'	8.53	1.52	1.41
83	A5	1786	G	C2'-C1'	-8.53	1.44	1.53
36	B2	1024	C	C2'-C1'	-8.53	1.44	1.53
83	A5	1805	A	O4'-C1'	8.53	1.52	1.41
83	A5	2181	A	O4'-C1'	8.53	1.52	1.41
83	A5	3440	C	C2'-C1'	-8.52	1.44	1.53
83	A5	2921	G	C2'-C1'	-8.52	1.44	1.53
83	A5	3907	G	C2'-C1'	8.52	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	953	A	O4'-C1'	8.51	1.52	1.41
83	A5	3347	G	O4'-C1'	8.51	1.52	1.41
36	B2	340	A	O4'-C1'	8.51	1.52	1.41
36	B2	1216	C	O4'-C1'	8.51	1.52	1.41
36	B2	339	U	C2'-C1'	8.51	1.62	1.53
83	A5	2877	G	O4'-C1'	-8.51	1.30	1.41
83	A5	1928	G	O4'-C1'	8.51	1.52	1.41
86	A8	25	C	C2'-C1'	-8.51	1.44	1.53
83	A5	3153	G	C2'-C1'	-8.50	1.44	1.53
36	B2	976	U	O4'-C1'	8.50	1.52	1.41
36	B2	1798	C	C2'-C1'	-8.49	1.44	1.53
36	B2	1870	C	C2'-C1'	-8.49	1.44	1.53
83	A5	440	U	P-O5'	-8.49	1.51	1.59
83	A5	256	G	O4'-C1'	8.49	1.52	1.41
83	A5	3491	C	O4'-C1'	8.49	1.52	1.41
83	A5	296	C	O4'-C1'	8.49	1.52	1.41
83	A5	525	U	C2'-C1'	8.49	1.62	1.53
83	A5	2656	C	O4'-C1'	8.49	1.52	1.41
36	B2	1703	G	C2'-C1'	-8.48	1.44	1.53
36	B2	104	A	C2'-C1'	-8.48	1.44	1.53
83	A5	240	G	O4'-C1'	-8.48	1.30	1.41
36	B2	515	U	C2'-C1'	-8.47	1.44	1.53
83	A5	876	G	C2'-C1'	-8.47	1.44	1.53
83	A5	3606	G	C2'-C1'	-8.47	1.44	1.53
36	B2	408	G	C2'-C1'	-8.47	1.44	1.53
36	B2	1321	A	O4'-C1'	8.47	1.52	1.41
83	A5	3864	C	O4'-C1'	8.47	1.52	1.41
36	B2	527	C	C2'-C1'	-8.46	1.44	1.53
83	A5	2105	C	C2'-C1'	-8.47	1.44	1.53
83	A5	3403	G	C2'-C1'	-8.46	1.44	1.53
86	A8	44	C	O3'-P	-8.46	1.50	1.61
36	B2	1015	U	O4'-C1'	8.46	1.52	1.41
83	A5	2867	U	C2'-C1'	-8.46	1.44	1.53
83	A5	1245	C	O4'-C1'	8.46	1.52	1.41
83	A5	3665	U	O4'-C1'	8.46	1.52	1.41
36	B2	1774	C	O4'-C1'	8.45	1.52	1.41
83	A5	3611	C	C2'-C1'	-8.45	1.44	1.53
83	A5	496	U	C2'-C1'	-8.45	1.44	1.53
83	A5	3172	A	C2'-C1'	-8.45	1.44	1.53
83	A5	2922	G	C2'-C1'	-8.45	1.44	1.53
36	B2	860	U	C2'-C1'	8.44	1.62	1.53
36	B2	534	A	C2'-C1'	-8.44	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2059	U	O4'-C1'	8.44	1.52	1.41
83	A5	3160	A	O4'-C1'	8.44	1.52	1.41
83	A5	1251	C	C2'-C1'	-8.43	1.44	1.53
83	A5	3644	C	C2'-C1'	-8.43	1.44	1.53
83	A5	786	C	C2'-C1'	-8.43	1.44	1.53
83	A5	1247	U	O4'-C1'	8.43	1.52	1.41
83	A5	1744	U	O4'-C1'	8.43	1.52	1.41
83	A5	2206	U	O4'-C1'	8.43	1.52	1.41
36	B2	271	A	C2'-C1'	-8.43	1.44	1.53
83	A5	3461	C	O4'-C1'	8.43	1.52	1.41
36	B2	1100	A	C2'-C1'	-8.42	1.44	1.53
36	B2	1944	A	C2'-C1'	8.42	1.62	1.53
36	B2	180	A	O4'-C1'	8.41	1.52	1.41
83	A5	315	G	C2'-C1'	8.41	1.62	1.53
83	A5	1501	A	C2'-C1'	8.41	1.62	1.53
83	A5	3665	U	C2'-C1'	-8.41	1.44	1.53
83	A5	817	C	O4'-C1'	8.41	1.52	1.41
83	A5	1703	A	O4'-C1'	8.41	1.52	1.41
83	A5	3362	G	C2'-C1'	-8.41	1.44	1.53
83	A5	61	A	O4'-C1'	8.41	1.52	1.41
83	A5	3566	G	C2'-C1'	-8.41	1.44	1.53
83	A5	3501	C	C2'-C1'	-8.40	1.44	1.53
83	A5	559	A	C2'-C1'	-8.40	1.44	1.53
83	A5	560	U	O4'-C1'	8.40	1.52	1.41
83	A5	1384	C	O4'-C1'	8.40	1.52	1.41
83	A5	1664	C	O4'-C1'	8.40	1.52	1.41
83	A5	3114	C	C2'-C1'	-8.39	1.44	1.53
83	A5	1363	G	O4'-C1'	8.39	1.52	1.41
83	A5	2851	U	C2'-C1'	8.39	1.62	1.53
83	A5	2734	A	C2'-C1'	-8.39	1.44	1.53
84	A9	25	G	C2'-C1'	-8.39	1.44	1.53
83	A5	653	U	O4'-C1'	8.38	1.52	1.41
84	A9	17	G	O4'-C1'	8.38	1.52	1.41
83	A5	2514	U	C2'-C1'	-8.38	1.44	1.53
36	B2	416	C	C2'-C1'	-8.38	1.44	1.53
83	A5	1237	G	O4'-C1'	-8.38	1.30	1.41
83	A5	1710	G	O4'-C1'	8.38	1.52	1.41
83	A5	2764	A	O4'-C1'	8.38	1.52	1.41
83	A5	3585	A	C2'-C1'	-8.38	1.44	1.53
36	B2	529	C	O4'-C1'	8.38	1.52	1.41
36	B2	1685	U	O4'-C1'	8.38	1.52	1.41
37	BC	72	A	O4'-C1'	8.37	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1100	G	O4'-C1'	8.38	1.52	1.41
83	A5	3905	U	O4'-C1'	8.38	1.52	1.41
83	A5	695	A	O4'-C1'	8.37	1.52	1.41
83	A5	733	A	O4'-C1'	8.36	1.52	1.41
83	A5	2744	C	O4'-C1'	8.36	1.52	1.41
36	B2	1391	G	C2'-C1'	-8.36	1.44	1.53
83	A5	2073	A	C2'-C1'	-8.36	1.44	1.53
83	A5	3395	G	O4'-C1'	8.36	1.52	1.41
83	A5	3889	U	O4'-C1'	8.36	1.52	1.41
83	A5	1178	U	C2'-C1'	-8.36	1.44	1.53
83	A5	3015	A	O4'-C1'	8.36	1.52	1.41
83	A5	3457	C	C2'-C1'	-8.36	1.44	1.53
36	B2	701	G	C2'-C1'	8.35	1.62	1.53
83	A5	619	U	C2'-C1'	-8.35	1.44	1.53
36	B2	1718	C	O4'-C1'	8.35	1.52	1.41
83	A5	91	U	O4'-C1'	8.35	1.52	1.41
83	A5	1045	G	C2'-C1'	8.35	1.62	1.53
36	B2	124	U	O4'-C1'	8.34	1.52	1.41
83	A5	1311	U	O4'-C1'	8.34	1.52	1.41
83	A5	3845	A	O4'-C1'	8.34	1.52	1.41
36	B2	89	C	O4'-C1'	8.33	1.52	1.41
83	A5	135	U	C2'-C1'	-8.33	1.44	1.53
83	A5	1570	U	C2'-C1'	-8.33	1.44	1.53
83	A5	2462	U	O4'-C1'	8.33	1.52	1.41
83	A5	3856	U	C2'-C1'	8.33	1.62	1.53
83	A5	2709	U	O4'-C1'	8.33	1.52	1.41
83	A5	2500	G	C2'-C1'	-8.33	1.44	1.53
36	B2	1576	A	O4'-C1'	8.32	1.52	1.41
83	A5	2163	A	O4'-C1'	8.32	1.52	1.41
36	B2	1642	C	C2'-C1'	-8.32	1.44	1.53
83	A5	1141	G	C2'-C1'	-8.32	1.44	1.53
83	A5	1390	C	C2'-C1'	-8.32	1.44	1.53
83	A5	3126	C	O4'-C1'	8.32	1.52	1.41
83	A5	3484	U	C2'-C1'	-8.32	1.44	1.53
36	B2	823	C	O4'-C1'	8.31	1.52	1.41
83	A5	179	C	C2'-C1'	-8.31	1.44	1.53
83	A5	3351	A	C2'-C1'	-8.31	1.44	1.53
83	A5	1130	U	O4'-C1'	8.31	1.52	1.41
36	B2	490	A	C2'-C1'	-8.31	1.44	1.53
36	B2	1251	A	C2'-C1'	-8.31	1.44	1.53
83	A5	564	C	O4'-C1'	8.31	1.52	1.41
83	A5	1086	C	C2'-C1'	-8.31	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3517	U	O4'-C1'	8.31	1.52	1.41
37	BC	11	C	O4'-C1'	8.30	1.52	1.41
36	B2	1371	C	O4'-C1'	8.30	1.52	1.41
83	A5	1442	C	C2'-C1'	-8.30	1.44	1.53
83	A5	2470	U	O4'-C1'	8.30	1.52	1.41
83	A5	2677	A	O4'-C1'	8.30	1.52	1.41
83	A5	1699	A	C2'-C1'	-8.30	1.44	1.53
83	A5	3373	G	C2'-C1'	8.30	1.62	1.53
36	B2	1011	A	C2'-C1'	8.29	1.62	1.53
36	B2	1693	C	O4'-C1'	8.29	1.52	1.41
36	B2	389	G	C2'-C1'	-8.29	1.44	1.53
83	A5	2515	C	O4'-C1'	8.29	1.52	1.41
83	A5	3517	U	C2'-C1'	-8.29	1.44	1.53
83	A5	3563	G	O4'-C1'	8.29	1.52	1.41
83	A5	252	U	O4'-C1'	8.29	1.52	1.41
36	B2	437	G	C2'-C1'	-8.28	1.44	1.53
83	A5	1479	G	O4'-C1'	8.28	1.52	1.41
83	A5	1520	U	C2'-C1'	8.28	1.62	1.53
83	A5	128	C	O4'-C1'	8.28	1.52	1.41
83	A5	3684	A	O4'-C1'	8.28	1.52	1.41
36	B2	573	C	C2'-C1'	-8.27	1.44	1.53
36	B2	441	A	C2'-C1'	8.27	1.62	1.53
83	A5	257	U	O4'-C1'	8.27	1.52	1.41
83	A5	3316	U	O4'-C1'	8.27	1.52	1.41
83	A5	3438	C	O4'-C1'	8.27	1.52	1.41
83	A5	1	U	C2'-C1'	8.27	1.62	1.53
83	A5	3234	A	O4'-C1'	8.27	1.52	1.41
83	A5	25	G	O4'-C1'	-8.27	1.30	1.41
36	B2	1831	C	O4'-C1'	8.26	1.52	1.41
83	A5	1262	C	C2'-C1'	-8.26	1.44	1.53
83	A5	1530	U	O4'-C1'	8.26	1.52	1.41
83	A5	3419	A	O4'-C1'	8.26	1.52	1.41
83	A5	3549	C	O4'-C1'	8.26	1.52	1.41
36	B2	1743	C	C2'-C1'	-8.26	1.44	1.53
36	B2	1844	C	C2'-C1'	-8.26	1.44	1.53
83	A5	1631	U	O4'-C1'	-8.26	1.30	1.41
83	A5	2276	C	C2'-C1'	-8.26	1.44	1.53
36	B2	900	A	C2'-C1'	8.26	1.62	1.53
83	A5	170	G	C2'-C1'	-8.26	1.44	1.53
83	A5	743	C	O4'-C1'	8.26	1.52	1.41
83	A5	2050	U	C2'-C1'	-8.26	1.44	1.53
83	A5	2777	A	O4'-C1'	8.26	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A7	70	G	C2'-C1'	-8.26	1.44	1.53
36	B2	1174	A	O4'-C1'	8.26	1.52	1.41
83	A5	3156	G	O4'-C1'	8.26	1.52	1.41
83	A5	24	G	O4'-C1'	8.25	1.52	1.41
83	A5	444	C	O4'-C1'	8.25	1.52	1.41
83	A5	2894	A	C2'-C1'	-8.25	1.44	1.53
36	B2	349	A	O4'-C1'	8.24	1.52	1.41
85	A7	77	A	O4'-C1'	8.24	1.52	1.41
36	B2	341	G	O4'-C1'	-8.24	1.30	1.41
36	B2	1699	G	C2'-C1'	-8.24	1.44	1.53
83	A5	2164	G	C2'-C1'	-8.24	1.44	1.53
83	A5	3545	C	O4'-C1'	8.24	1.52	1.41
36	B2	1619	A	O4'-C1'	-8.24	1.30	1.41
83	A5	1169	C	C2'-C1'	-8.24	1.44	1.53
84	A9	22	A	O4'-C1'	8.24	1.52	1.41
36	B2	1754	C	C2'-C1'	-8.23	1.44	1.53
83	A5	2784	C	O4'-C1'	8.23	1.52	1.41
36	B2	835	A	O4'-C1'	8.22	1.52	1.41
36	B2	1674	C	C2'-C1'	-8.22	1.44	1.53
83	A5	971	C	C2'-C1'	-8.22	1.44	1.53
83	A5	2477	C	O4'-C1'	8.22	1.52	1.41
85	A7	10	C	O4'-C1'	8.22	1.52	1.41
36	B2	109	U	C2'-C1'	-8.22	1.44	1.53
36	B2	1740	G	O4'-C1'	8.22	1.52	1.41
83	A5	241	C	C2'-C1'	-8.22	1.44	1.53
83	A5	3344	U	C2'-C1'	-8.22	1.44	1.53
83	A5	333	C	O4'-C1'	8.22	1.52	1.41
83	A5	3723	A	O4'-C1'	8.22	1.52	1.41
36	B2	1605	G	C2'-C1'	-8.21	1.44	1.53
83	A5	177	U	O4'-C1'	8.21	1.52	1.41
83	A5	279	U	C2'-C1'	-8.21	1.44	1.53
85	A7	54	A	C2'-C1'	-8.21	1.44	1.53
36	B2	11	A	C2'-C1'	8.21	1.62	1.53
83	A5	1158	C	O4'-C1'	8.21	1.52	1.41
83	A5	1347	A	O4'-C1'	8.21	1.52	1.41
83	A5	3305	U	C2'-C1'	-8.21	1.44	1.53
86	A8	13	U	C2'-C1'	-8.21	1.44	1.53
36	B2	1103	U	C2'-C1'	-8.20	1.44	1.53
36	B2	1704	G	C2'-C1'	-8.20	1.44	1.53
83	A5	3595	U	O4'-C1'	8.20	1.52	1.41
83	A5	3914	G	O4'-C1'	8.20	1.52	1.41
36	B2	1431	A	O4'-C1'	8.20	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	583	C	O4'-C1'	8.20	1.52	1.41
36	B2	1255	G	C2'-C1'	-8.19	1.44	1.53
83	A5	565	C	O4'-C1'	8.19	1.52	1.41
83	A5	3282	C	C2'-C1'	-8.19	1.44	1.53
83	A5	780	U	C2'-C1'	8.19	1.62	1.53
83	A5	3253	G	C2'-C1'	-8.19	1.44	1.53
36	B2	137	C	C2'-C1'	-8.18	1.44	1.53
83	A5	3245	U	C2'-C1'	-8.18	1.44	1.53
83	A5	800	C	O4'-C1'	8.18	1.52	1.41
83	A5	2659	A	O4'-C1'	-8.18	1.31	1.41
36	B2	1717	A	O4'-C1'	8.18	1.52	1.41
83	A5	2918	A	C2'-C1'	8.18	1.62	1.53
83	A5	3402	C	C2'-C1'	8.18	1.62	1.53
83	A5	159	G	C2'-C1'	-8.17	1.44	1.53
83	A5	1683	U	O4'-C1'	8.17	1.52	1.41
83	A5	3347	G	C2'-C1'	-8.17	1.44	1.53
83	A5	2542	C	O4'-C1'	8.16	1.52	1.41
83	A5	2985	U	O4'-C1'	8.16	1.52	1.41
83	A5	3690	A	C2'-C1'	-8.16	1.44	1.53
83	A5	2716	C	O4'-C1'	8.16	1.52	1.41
85	A7	3	C	O4'-C1'	8.15	1.52	1.41
36	B2	1763	C	C2'-C1'	-8.14	1.44	1.53
83	A5	1548	C	O4'-C1'	8.14	1.52	1.41
83	A5	2459	C	C2'-C1'	-8.14	1.44	1.53
36	B2	190	U	O4'-C1'	-8.14	1.31	1.41
83	A5	2552	G	O4'-C1'	8.14	1.52	1.41
37	BC	53	A	C2'-C1'	-8.14	1.44	1.53
83	A5	72	C	O4'-C1'	8.14	1.52	1.41
83	A5	2188	C	O4'-C1'	8.14	1.52	1.41
83	A5	1043	G	C2'-C1'	-8.13	1.44	1.53
83	A5	3648	A	O4'-C1'	8.13	1.52	1.41
36	B2	1776	G	O4'-C1'	8.13	1.52	1.41
37	BC	40	C	O4'-C1'	8.13	1.52	1.41
83	A5	1056	G	O4'-C1'	8.13	1.52	1.41
83	A5	656	U	O4'-C1'	8.13	1.52	1.41
83	A5	2478	A	O4'-C1'	8.13	1.52	1.41
36	B2	1459	G	O4'-C1'	8.12	1.52	1.41
83	A5	378	G	C2'-C1'	-8.12	1.44	1.53
83	A5	1076	A	O4'-C1'	8.12	1.52	1.41
36	B2	1902	C	O4'-C1'	8.12	1.52	1.41
83	A5	207	C	C2'-C1'	-8.12	1.44	1.53
83	A5	2201	U	P-O5'	-8.12	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	350	U	O4'-C1'	8.12	1.52	1.41
83	A5	362	A	C2'-C1'	-8.12	1.44	1.53
83	A5	798	C	O4'-C1'	-8.11	1.31	1.41
83	A5	1333	C	O4'-C1'	8.11	1.52	1.41
36	B2	1098	C	C2'-C1'	-8.10	1.44	1.53
36	B2	839	A	O4'-C1'	8.10	1.52	1.41
36	B2	1007	C	O4'-C1'	8.10	1.52	1.41
83	A5	2871	G	O4'-C1'	8.10	1.52	1.41
36	B2	1120	C	O4'-C1'	8.09	1.52	1.41
36	B2	1328	G	O4'-C1'	-8.09	1.31	1.41
36	B2	1955	G	O4'-C1'	8.09	1.52	1.41
83	A5	130	C	C2'-C1'	-8.09	1.44	1.53
83	A5	1181	A	O4'-C1'	8.09	1.52	1.41
36	B2	447	C	O4'-C1'	8.09	1.52	1.41
36	B2	1348	A	C2'-C1'	-8.09	1.44	1.53
83	A5	3449	G	O4'-C1'	8.09	1.52	1.41
36	B2	1864	G	O4'-C1'	8.08	1.52	1.41
83	A5	1178	U	O4'-C1'	8.08	1.52	1.41
83	A5	2715	C	O4'-C1'	8.08	1.52	1.41
83	A5	3228	A	C2'-C1'	-8.08	1.44	1.53
83	A5	1414	C	C2'-C1'	-8.08	1.44	1.53
83	A5	3176	C	O4'-C1'	8.08	1.52	1.41
83	A5	2551	U	O4'-C1'	8.07	1.52	1.41
36	B2	43	A	C2'-C1'	-8.07	1.44	1.53
36	B2	1155	C	O4'-C1'	8.07	1.52	1.41
83	A5	3442	A	C2'-C1'	-8.07	1.44	1.53
36	B2	1304	G	O4'-C1'	8.07	1.52	1.41
83	A5	392	A	O4'-C1'	-8.07	1.31	1.41
36	B2	981	C	C2'-C1'	-8.06	1.44	1.53
36	B2	920	U	O4'-C1'	8.06	1.52	1.41
36	B2	1393	C	C2'-C1'	-8.06	1.44	1.53
83	A5	2227	U	C2'-C1'	-8.06	1.44	1.53
36	B2	866	U	O4'-C1'	8.06	1.52	1.41
83	A5	3265	C	O4'-C1'	8.06	1.52	1.41
83	A5	3597	C	O4'-C1'	8.06	1.52	1.41
83	A5	1663	G	O4'-C1'	8.05	1.52	1.41
36	B2	1190	G	C2'-C1'	-8.05	1.44	1.53
83	A5	1234	G	C2'-C1'	-8.05	1.44	1.53
36	B2	1123	G	O4'-C1'	8.05	1.52	1.41
37	BC	39	U	O4'-C1'	8.05	1.52	1.41
83	A5	2477	C	C2'-C1'	-8.05	1.44	1.53
36	B2	1775	A	C2'-C1'	-8.04	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1062	C	O4'-C1'	8.04	1.52	1.41
36	B2	1975	G	O4'-C1'	8.03	1.52	1.41
36	B2	1845	C	O4'-C1'	8.03	1.52	1.41
36	B2	1523	U	C2'-C1'	-8.03	1.44	1.53
83	A5	1737	U	O4'-C1'	8.03	1.52	1.41
83	A5	2830	G	C2'-C1'	-8.03	1.44	1.53
83	A5	2895	U	C2'-C1'	8.03	1.62	1.53
36	B2	195	G	O4'-C1'	-8.03	1.31	1.41
36	B2	310	C	O4'-C1'	8.03	1.52	1.41
36	B2	1002	A	O4'-C1'	8.03	1.52	1.41
83	A5	1932	C	O4'-C1'	8.03	1.52	1.41
83	A5	1893	C	C2'-C1'	-8.02	1.44	1.53
83	A5	1951	C	C2'-C1'	-8.02	1.44	1.53
36	B2	1754	C	O4'-C1'	8.02	1.52	1.41
36	B2	193	U	C2'-C1'	-8.01	1.44	1.53
36	B2	720	G	O4'-C1'	8.01	1.52	1.41
36	B2	1194	C	C2'-C1'	-8.01	1.44	1.53
83	A5	585	A	C2'-C1'	-8.01	1.44	1.53
83	A5	2689	G	O4'-C1'	8.01	1.52	1.41
37	BC	55	C	O4'-C1'	8.01	1.52	1.41
83	A5	1397	A	O4'-C1'	8.01	1.52	1.41
83	A5	3284	C	O4'-C1'	8.01	1.52	1.41
83	A5	3779	U	C2'-C1'	-8.01	1.44	1.53
83	A5	3909	A	C2'-C1'	-8.01	1.44	1.53
37	BC	37	A	O4'-C1'	8.01	1.52	1.41
83	A5	308	G	O4'-C1'	8.01	1.52	1.41
83	A5	357	C	O4'-C1'	8.01	1.52	1.41
83	A5	1938	C	O4'-C1'	8.01	1.52	1.41
36	B2	1675	A	O4'-C1'	8.00	1.52	1.41
83	A5	2043	G	O4'-C1'	-8.00	1.31	1.41
36	B2	1059	G	O4'-C1'	8.00	1.52	1.41
83	A5	546	G	O4'-C1'	8.00	1.52	1.41
83	A5	908	C	O4'-C1'	8.00	1.52	1.41
83	A5	915	C	O4'-C1'	8.00	1.52	1.41
36	B2	156	U	C2'-C1'	-7.99	1.44	1.53
83	A5	2199	A	O4'-C1'	7.99	1.52	1.41
36	B2	1729	C	O4'-C1'	7.99	1.52	1.41
83	A5	2473	C	C2'-C1'	-7.99	1.44	1.53
83	A5	2579	G	O4'-C1'	7.99	1.52	1.41
85	A7	72	U	O4'-C1'	7.99	1.52	1.41
36	B2	247	G	O4'-C1'	7.99	1.52	1.41
83	A5	3456	U	O4'-C1'	7.99	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	351	G	O4'-C1'	7.99	1.52	1.41
36	B2	1536	A	O4'-C1'	7.99	1.52	1.41
83	A5	2071	A	C2'-C1'	-7.99	1.44	1.53
83	A5	2165	C	O4'-C1'	7.99	1.52	1.41
85	A7	1	G	O4'-C1'	7.98	1.52	1.41
83	A5	3341	C	O4'-C1'	7.98	1.52	1.41
83	A5	3620	G	O4'-C1'	-7.98	1.31	1.41
36	B2	1722	U	C2'-C1'	-7.98	1.44	1.53
83	A5	2484	G	C2'-C1'	-7.98	1.44	1.53
36	B2	939	G	O4'-C1'	-7.97	1.31	1.41
36	B2	471	U	C2'-C1'	-7.97	1.44	1.53
83	A5	1598	A	O4'-C1'	7.97	1.52	1.41
36	B2	951	A	C2'-C1'	7.97	1.62	1.53
83	A5	617	U	C2'-C1'	-7.97	1.44	1.53
83	A5	2602	A	C2'-C1'	7.97	1.62	1.53
83	A5	3315	U	O4'-C1'	7.97	1.52	1.41
83	A5	2610	A	O4'-C1'	7.96	1.52	1.41
83	A5	2576	A	O4'-C1'	7.96	1.52	1.41
83	A5	1917	U	C2'-C1'	7.96	1.62	1.53
36	B2	856	A	O4'-C1'	-7.96	1.31	1.41
83	A5	1154	U	O4'-C1'	7.96	1.51	1.41
83	A5	2601	A	C2'-C1'	-7.95	1.44	1.53
83	A5	337	A	C2'-C1'	-7.95	1.44	1.53
83	A5	720	G	C2'-C1'	-7.95	1.44	1.53
83	A5	635	G	C2'-C1'	-7.95	1.44	1.53
83	A5	1447	C	O4'-C1'	7.95	1.51	1.41
83	A5	986	A	O4'-C1'	7.94	1.51	1.41
36	B2	1697	A	O4'-C1'	7.94	1.51	1.41
36	B2	426	A	C2'-C1'	7.94	1.62	1.53
83	A5	2853	A	C2'-C1'	-7.94	1.44	1.53
36	B2	821	U	O4'-C1'	7.94	1.51	1.41
83	A5	2027	A	O4'-C1'	7.94	1.51	1.41
85	A7	16	A	O4'-C1'	7.94	1.51	1.41
83	A5	3758	G	O4'-C1'	-7.93	1.31	1.41
36	B2	1244	C	O4'-C1'	7.93	1.51	1.41
83	A5	1136	A	O4'-C1'	7.93	1.51	1.41
36	B2	66	C	O4'-C1'	7.93	1.51	1.41
36	B2	273	C	O4'-C1'	7.93	1.51	1.41
36	B2	255	U	O3'-P	-7.93	1.51	1.61
36	B2	1856	U	O4'-C1'	7.93	1.51	1.41
83	A5	760	G	O4'-C1'	7.93	1.51	1.41
86	A8	47	A	O4'-C1'	7.93	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1641	U	C2'-C1'	-7.93	1.44	1.53
83	A5	2559	C	O4'-C1'	7.93	1.51	1.41
36	B2	397	G	C2'-C1'	7.92	1.62	1.53
83	A5	2808	G	C2'-C1'	-7.92	1.44	1.53
36	B2	1603	G	O4'-C1'	7.92	1.51	1.41
83	A5	1105	U	O4'-C1'	7.92	1.51	1.41
36	B2	208	U	O4'-C1'	7.92	1.51	1.41
36	B2	978	C	O4'-C1'	7.92	1.51	1.41
36	B2	1991	C	C2'-C1'	7.92	1.62	1.53
83	A5	96	G	C2'-C1'	-7.91	1.44	1.53
83	A5	663	U	O4'-C1'	7.91	1.51	1.41
83	A5	2743	C	C2'-C1'	-7.91	1.44	1.53
83	A5	342	A	C2'-C1'	-7.91	1.44	1.53
83	A5	1006	A	C2'-C1'	-7.91	1.44	1.53
83	A5	1105	U	C2'-C1'	-7.91	1.44	1.53
83	A5	1586	A	C2'-C1'	-7.91	1.44	1.53
83	A5	1405	U	O4'-C1'	7.91	1.51	1.41
83	A5	389	G	C2'-C1'	-7.91	1.44	1.53
36	B2	454	C	C2'-C1'	-7.91	1.44	1.53
36	B2	524	G	C2'-C1'	-7.90	1.44	1.53
83	A5	3426	U	O4'-C1'	7.90	1.51	1.41
83	A5	3778	U	C2'-C1'	7.90	1.62	1.53
83	A5	521	U	C2'-C1'	7.90	1.62	1.53
83	A5	1472	C	C2'-C1'	-7.90	1.44	1.53
85	A7	109	U	O4'-C1'	7.90	1.51	1.41
83	A5	3961	G	C2'-C1'	-7.89	1.44	1.53
85	A7	46	C	C2'-C1'	-7.89	1.44	1.53
86	A8	48	G	C2'-C1'	-7.89	1.44	1.53
36	B2	229	U	C2'-C1'	-7.89	1.44	1.53
36	B2	1215	G	C2'-C1'	-7.89	1.44	1.53
36	B2	1470	A	O4'-C1'	7.89	1.51	1.41
83	A5	655	C	O4'-C1'	7.89	1.51	1.41
36	B2	1554	U	C2'-C1'	7.89	1.62	1.53
36	B2	1863	A	C2'-C1'	-7.89	1.44	1.53
83	A5	478	A	C2'-C1'	-7.89	1.44	1.53
83	A5	3163	U	O4'-C1'	7.89	1.51	1.41
36	B2	91	A	O4'-C1'	7.88	1.51	1.41
83	A5	1787	C	O4'-C1'	7.88	1.51	1.41
83	A5	201	U	O4'-C1'	-7.88	1.31	1.41
83	A5	3668	G	C2'-C1'	-7.88	1.44	1.53
83	A5	285	G	O4'-C1'	7.88	1.51	1.41
36	B2	928	C	O4'-C1'	7.88	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	574	C	O4'-C1'	7.88	1.51	1.41
36	B2	1044	G	C2'-C1'	-7.88	1.44	1.53
83	A5	1684	G	O4'-C1'	7.88	1.51	1.41
83	A5	3939	C	O4'-C1'	7.88	1.51	1.41
36	B2	837	A	C2'-C1'	-7.87	1.44	1.53
36	B2	1141	C	O4'-C1'	7.87	1.51	1.41
83	A5	92	A	O4'-C1'	7.87	1.51	1.41
83	A5	2924	A	C2'-C1'	-7.87	1.44	1.53
83	A5	1746	A	C2'-C1'	-7.87	1.44	1.53
36	B2	1468	G	O4'-C1'	7.87	1.51	1.41
83	A5	1471	G	O4'-C1'	7.87	1.51	1.41
36	B2	314	C	C2'-C1'	-7.86	1.44	1.53
36	B2	1176	C	O4'-C1'	7.86	1.51	1.41
36	B2	36	C	C2'-C1'	-7.86	1.44	1.53
83	A5	3285	G	C2'-C1'	-7.86	1.44	1.53
83	A5	3891	U	C2'-C1'	7.86	1.61	1.53
36	B2	332	U	O4'-C1'	7.85	1.51	1.41
36	B2	1325	A	O4'-C1'	7.85	1.51	1.41
36	B2	1401	U	C2'-C1'	7.85	1.61	1.53
83	A5	969	A	O4'-C1'	7.85	1.51	1.41
36	B2	625	U	O4'-C1'	7.85	1.51	1.41
83	A5	1874	G	C2'-C1'	-7.85	1.44	1.53
83	A5	1553	C	O4'-C1'	7.85	1.51	1.41
83	A5	3532	G	O4'-C1'	7.84	1.51	1.41
85	A7	88	G	C2'-C1'	-7.84	1.44	1.53
83	A5	1133	A	O4'-C1'	7.84	1.51	1.41
83	A5	1911	C	C2'-C1'	7.84	1.61	1.53
83	A5	3307	A	C2'-C1'	-7.83	1.44	1.53
36	B2	1466	A	O4'-C1'	7.83	1.51	1.41
83	A5	3540	G	C2'-C1'	7.83	1.61	1.53
36	B2	1773	C	C2'-C1'	-7.83	1.44	1.53
36	B2	1587	U	C2'-C1'	7.83	1.61	1.53
83	A5	1264	U	O4'-C1'	7.83	1.51	1.41
83	A5	1317	A	O4'-C1'	7.83	1.51	1.41
83	A5	3194	A	C2'-C1'	-7.83	1.44	1.53
83	A5	290	G	C2'-C1'	-7.82	1.44	1.53
83	A5	2098	C	C2'-C1'	7.82	1.61	1.53
83	A5	360	A	C2'-C1'	7.82	1.61	1.53
83	A5	2752	C	O4'-C1'	7.82	1.51	1.41
36	B2	78	A	C2'-C1'	7.82	1.61	1.53
36	B2	550	C	C2'-C1'	7.82	1.61	1.53
83	A5	3783	A	O4'-C1'	7.82	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2652	U	O4'-C1'	7.81	1.51	1.41
83	A5	2257	C	O4'-C1'	7.81	1.51	1.41
36	B2	1995	A	O4'-C1'	-7.81	1.31	1.41
83	A5	2796	G	O4'-C1'	-7.81	1.31	1.41
83	A5	3434	A	O4'-C1'	7.81	1.51	1.41
36	B2	511	G	C2'-C1'	7.81	1.61	1.53
83	A5	737	U	O4'-C1'	7.81	1.51	1.41
83	A5	2137	U	C2'-C1'	7.81	1.61	1.53
83	A5	1357	C	C2'-C1'	-7.80	1.44	1.53
83	A5	3302	G	C2'-C1'	-7.80	1.44	1.53
83	A5	1529	C	O4'-C1'	7.80	1.51	1.41
83	A5	2096	C	O4'-C1'	7.80	1.51	1.41
36	B2	84	A	O4'-C1'	7.80	1.51	1.41
83	A5	1310	A	C2'-C1'	7.80	1.61	1.53
83	A5	3371	G	C2'-C1'	-7.79	1.44	1.53
36	B2	373	U	C2'-C1'	7.79	1.61	1.53
36	B2	1307	C	O4'-C1'	7.79	1.51	1.41
83	A5	2873	C	C2'-C1'	-7.79	1.44	1.53
83	A5	679	G	O4'-C1'	7.79	1.51	1.41
36	B2	242	A	O4'-C1'	7.79	1.51	1.41
83	A5	1906	G	C2'-C1'	-7.79	1.44	1.53
36	B2	41	A	C2'-C1'	7.79	1.61	1.53
36	B2	1742	A	C2'-C1'	-7.79	1.44	1.53
36	B2	203	G	O4'-C1'	7.78	1.51	1.41
86	A8	100	G	O4'-C1'	7.78	1.51	1.41
83	A5	485	A	O4'-C1'	7.78	1.51	1.41
36	B2	141	G	O4'-C1'	7.78	1.51	1.41
36	B2	1989	A	C2'-C1'	-7.78	1.44	1.53
83	A5	453	C	O4'-C1'	7.78	1.51	1.41
83	A5	3696	C	C2'-C1'	-7.78	1.44	1.53
83	A5	2224	A	C2'-C1'	-7.78	1.44	1.53
83	A5	1930	G	C2'-C1'	7.77	1.61	1.53
36	B2	825	A	O4'-C1'	7.76	1.51	1.41
83	A5	8	C	O4'-C1'	7.76	1.51	1.41
83	A5	1518	A	C2'-C1'	7.76	1.61	1.53
36	B2	1141	C	C2'-C1'	-7.76	1.44	1.53
83	A5	2745	A	C2'-C1'	-7.76	1.44	1.53
83	A5	3572	G	C2'-C1'	-7.76	1.44	1.53
83	A5	3337	G	C2'-C1'	-7.76	1.44	1.53
83	A5	3175	A	O4'-C1'	7.75	1.51	1.41
36	B2	371	A	C2'-C1'	7.75	1.61	1.53
36	B2	1581	A	C2'-C1'	-7.75	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1872	A	C2'-C1'	-7.75	1.44	1.53
83	A5	3379	A	O4'-C1'	7.75	1.51	1.41
36	B2	486	A	O4'-C1'	7.75	1.51	1.41
83	A5	3421	C	O4'-C1'	7.75	1.51	1.41
83	A5	3429	A	P-O5'	-7.74	1.52	1.59
36	B2	150	G	C2'-C1'	-7.74	1.44	1.53
36	B2	58	U	C2'-C1'	7.74	1.61	1.53
83	A5	1920	U	O4'-C1'	7.74	1.51	1.41
83	A5	3316	U	C2'-C1'	-7.74	1.44	1.53
36	B2	992	A	O4'-C1'	7.74	1.51	1.41
83	A5	475	U	C2'-C1'	-7.74	1.44	1.53
36	B2	533	A	O4'-C1'	7.73	1.51	1.41
83	A5	1774	C	C2'-C1'	-7.73	1.44	1.53
36	B2	189	C	C2'-C1'	7.73	1.61	1.53
36	B2	349	A	C2'-C1'	-7.73	1.44	1.53
83	A5	2603	U	C2'-C1'	7.73	1.61	1.53
83	A5	131	U	O4'-C1'	7.72	1.51	1.41
83	A5	1019	U	C2'-C1'	7.72	1.61	1.53
36	B2	299	C	C2'-C1'	-7.72	1.44	1.53
36	B2	925	U	O4'-C1'	-7.72	1.31	1.41
36	B2	1318	A	O4'-C1'	7.71	1.51	1.41
83	A5	2745	A	O4'-C1'	7.71	1.51	1.41
36	B2	1618	C	C2'-C1'	7.71	1.61	1.53
36	B2	1097	C	C2'-C1'	-7.71	1.44	1.53
83	A5	3327	U	C2'-C1'	7.71	1.61	1.53
85	A7	82	G	C2'-C1'	-7.71	1.44	1.53
36	B2	1329	A	C2'-C1'	-7.71	1.44	1.53
83	A5	103	A	C2'-C1'	7.70	1.61	1.53
36	B2	1784	G	C2'-C1'	-7.70	1.44	1.53
83	A5	120	C	O4'-C1'	7.70	1.51	1.41
83	A5	1359	G	C2'-C1'	-7.70	1.44	1.53
83	A5	2206	U	C2'-C1'	-7.70	1.44	1.53
83	A5	222	C	O4'-C1'	7.70	1.51	1.41
83	A5	3330	C	O4'-C1'	7.70	1.51	1.41
36	B2	513	A	C2'-C1'	7.70	1.61	1.53
83	A5	890	C	O4'-C1'	7.70	1.51	1.41
83	A5	1231	A	O4'-C1'	7.70	1.51	1.41
83	A5	3696	C	P-O5'	7.70	1.67	1.59
84	A9	7	G	O4'-C1'	7.70	1.51	1.41
36	B2	74	U	O4'-C1'	-7.69	1.31	1.41
36	B2	1410	C	C2'-C1'	-7.69	1.44	1.53
83	A5	286	A	C2'-C1'	7.69	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	467	A	C2'-C1'	-7.69	1.44	1.53
36	B2	14	C	C2'-C1'	-7.68	1.44	1.53
36	B2	714	U	O4'-C1'	7.68	1.51	1.41
83	A5	1585	U	C2'-C1'	7.68	1.61	1.53
83	A5	2563	G	C2'-C1'	-7.68	1.44	1.53
83	A5	3444	G	O4'-C1'	7.68	1.51	1.41
36	B2	710	C	O4'-C1'	7.68	1.51	1.41
36	B2	1741	A	C2'-C1'	-7.68	1.45	1.53
83	A5	1211	A	C2'-C1'	-7.68	1.45	1.53
83	A5	571	U	C2'-C1'	-7.67	1.45	1.53
36	B2	1862	G	O4'-C1'	7.67	1.51	1.41
83	A5	636	U	C2'-C1'	7.67	1.61	1.53
83	A5	3267	C	C2'-C1'	-7.67	1.45	1.53
83	A5	969	A	C2'-C1'	-7.67	1.45	1.53
83	A5	2800	C	O4'-C1'	7.67	1.51	1.41
36	B2	161	A	O4'-C1'	7.66	1.51	1.41
83	A5	493	A	O4'-C1'	7.66	1.51	1.41
83	A5	539	G	O4'-C1'	7.66	1.51	1.41
83	A5	1321	G	O4'-C1'	7.66	1.51	1.41
83	A5	2607	A	C2'-C1'	-7.66	1.45	1.53
83	A5	773	G	O3'-P	-7.66	1.51	1.61
36	B2	1291	A	O4'-C1'	7.66	1.51	1.41
83	A5	444	C	C2'-C1'	-7.66	1.45	1.53
83	A5	2158	U	C2'-C1'	-7.66	1.45	1.53
83	A5	2896	U	O4'-C1'	7.66	1.51	1.41
83	A5	3294	A	C2'-C1'	7.66	1.61	1.53
85	A7	69	C	C2'-C1'	-7.66	1.45	1.53
36	B2	203	G	C2'-C1'	-7.65	1.45	1.53
83	A5	1358	U	C2'-C1'	7.65	1.61	1.53
83	A5	1780	U	O3'-P	-7.65	1.51	1.61
83	A5	3756	A	O4'-C1'	7.65	1.51	1.41
83	A5	236	G	O4'-C1'	7.65	1.51	1.41
83	A5	403	A	C2'-C1'	-7.65	1.45	1.53
83	A5	1872	A	O4'-C1'	7.65	1.51	1.41
83	A5	3200	G	C2'-C1'	7.65	1.61	1.53
36	B2	959	U	O4'-C1'	7.64	1.51	1.41
83	A5	331	A	O4'-C1'	7.64	1.51	1.41
83	A5	885	U	O4'-C1'	7.64	1.51	1.41
83	A5	2100	U	C2'-C1'	7.64	1.61	1.53
36	B2	513	A	O4'-C1'	7.64	1.51	1.41
36	B2	913	G	O4'-C1'	7.64	1.51	1.41
36	B2	1566	U	O4'-C1'	7.63	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	438	G	C2'-C1'	-7.63	1.45	1.53
83	A5	267	C	O4'-C1'	7.63	1.51	1.41
36	B2	39	A	C2'-C1'	7.63	1.61	1.53
36	B2	1929	U	C2'-C1'	-7.63	1.45	1.53
83	A5	416	C	C2'-C1'	7.62	1.61	1.53
36	B2	1432	A	C2'-C1'	7.62	1.61	1.53
83	A5	857	U	O4'-C1'	7.62	1.51	1.41
36	B2	1469	U	O4'-C1'	7.62	1.51	1.41
83	A5	1656	U	C2'-C1'	-7.62	1.45	1.53
83	A5	1770	C	C2'-C1'	-7.62	1.45	1.53
83	A5	2470	U	C2'-C1'	-7.61	1.45	1.53
83	A5	2141	A	C2'-C1'	7.61	1.61	1.53
36	B2	143	U	C2'-C1'	-7.61	1.45	1.53
36	B2	1615	U	O4'-C1'	7.61	1.51	1.41
83	A5	2927	U	O4'-C1'	7.61	1.51	1.41
83	A5	3960	U	C2'-C1'	7.61	1.61	1.53
86	A8	9	G	O4'-C1'	7.60	1.51	1.41
83	A5	1678	C	O4'-C1'	7.60	1.51	1.41
83	A5	3121	A	O4'-C1'	7.60	1.51	1.41
83	A5	1261	A	C2'-C1'	-7.60	1.45	1.53
36	B2	1194	C	O4'-C1'	7.60	1.51	1.41
83	A5	3129	U	C2'-C1'	-7.60	1.45	1.53
83	A5	3725	U	C2'-C1'	7.60	1.61	1.53
83	A5	1235	U	O4'-C1'	7.59	1.51	1.41
36	B2	278	G	O4'-C1'	7.58	1.51	1.41
36	B2	1684	U	O4'-C1'	7.58	1.51	1.41
83	A5	1654	C	C2'-C1'	-7.58	1.45	1.53
83	A5	2130	G	O4'-C1'	-7.58	1.31	1.41
83	A5	355	G	C2'-C1'	-7.58	1.45	1.53
36	B2	1872	G	O4'-C1'	-7.58	1.31	1.41
83	A5	1693	C	O4'-C1'	7.58	1.51	1.41
83	A5	1243	A	C2'-C1'	-7.57	1.45	1.53
36	B2	379	U	C2'-C1'	-7.57	1.45	1.53
36	B2	442	A	C2'-C1'	7.57	1.61	1.53
83	A5	1751	U	C2'-C1'	-7.57	1.45	1.53
36	B2	1531	G	O4'-C1'	7.57	1.51	1.41
83	A5	3490	C	C2'-C1'	-7.57	1.45	1.53
36	B2	1739	U	C2'-C1'	-7.57	1.45	1.53
36	B2	1832	C	O4'-C1'	7.57	1.51	1.41
83	A5	1808	A	C2'-C1'	-7.56	1.45	1.53
85	A7	120	U	C2'-C1'	-7.56	1.45	1.53
36	B2	47	A	O4'-C1'	7.56	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	165	G	C2'-C1'	-7.56	1.45	1.53
83	A5	2918	A	O4'-C1'	-7.56	1.31	1.41
83	A5	3487	A	O4'-C1'	7.56	1.51	1.41
36	B2	1963	G	C2'-C1'	-7.56	1.45	1.53
83	A5	341	A	O4'-C1'	7.55	1.51	1.41
83	A5	782	G	O4'-C1'	7.55	1.51	1.41
83	A5	1552	A	C2'-C1'	-7.55	1.45	1.53
36	B2	862	C	C2'-C1'	-7.55	1.45	1.53
83	A5	1464	G	O4'-C1'	7.55	1.51	1.41
36	B2	878	C	C2'-C1'	7.55	1.61	1.53
84	A9	26	U	C2'-C1'	-7.55	1.45	1.53
83	A5	2068	A	C2'-C1'	-7.55	1.45	1.53
83	A5	1051	C	C2'-C1'	-7.54	1.45	1.53
83	A5	3546	A	C2'-C1'	-7.54	1.45	1.53
36	B2	1022	A	O4'-C1'	7.54	1.51	1.41
83	A5	115	U	C2'-C1'	7.54	1.61	1.53
36	B2	1760	G	O3'-P	-7.54	1.52	1.61
36	B2	457	G	O4'-C1'	7.54	1.51	1.41
83	A5	1351	C	C2'-C1'	-7.54	1.45	1.53
83	A5	1765	U	O4'-C1'	7.54	1.51	1.41
83	A5	1878	A	O4'-C1'	7.54	1.51	1.41
36	B2	46	A	C2'-C1'	-7.53	1.45	1.53
36	B2	983	C	O4'-C1'	7.53	1.51	1.41
36	B2	1604	A	O4'-C1'	7.53	1.51	1.41
83	A5	648	U	O4'-C1'	7.52	1.51	1.41
83	A5	690	U	O4'-C1'	7.52	1.51	1.41
36	B2	1265	C	O4'-C1'	7.52	1.51	1.41
83	A5	759	U	O4'-C1'	7.52	1.51	1.41
83	A5	2550	G	C2'-C1'	-7.52	1.45	1.53
83	A5	3579	C	O4'-C1'	7.52	1.51	1.41
83	A5	157	C	C2'-C1'	7.51	1.61	1.53
83	A5	3669	U	C2'-C1'	-7.51	1.45	1.53
36	B2	902	A	C2'-C1'	-7.51	1.45	1.53
36	B2	1845	C	C2'-C1'	-7.51	1.45	1.53
85	A7	78	C	O4'-C1'	7.51	1.51	1.41
83	A5	3648	A	C2'-C1'	-7.50	1.45	1.53
36	B2	1080	A	C2'-C1'	-7.50	1.45	1.53
83	A5	1098	U	O4'-C1'	7.50	1.51	1.41
83	A5	3599	U	O4'-C1'	7.50	1.51	1.41
83	A5	1144	C	C2'-C1'	-7.50	1.45	1.53
83	A5	2120	G	C2'-C1'	-7.50	1.45	1.53
83	A5	2823	A	C2'-C1'	-7.50	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	662	A	O4'-C1'	-7.49	1.31	1.41
83	A5	2485	A	O4'-C1'	7.49	1.51	1.41
36	B2	82	G	C2'-C1'	-7.49	1.45	1.53
36	B2	176	U	C2'-C1'	-7.49	1.45	1.53
83	A5	3181	G	C2'-C1'	-7.49	1.45	1.53
83	A5	3459	C	C2'-C1'	-7.49	1.45	1.53
83	A5	336	A	C2'-C1'	-7.49	1.45	1.53
36	B2	1948	A	O4'-C1'	7.48	1.51	1.41
83	A5	1717	A	C2'-C1'	-7.48	1.45	1.53
36	B2	571	U	C2'-C1'	-7.48	1.45	1.53
83	A5	3186	C	O4'-C1'	7.48	1.51	1.41
83	A5	3202	G	C2'-C1'	-7.48	1.45	1.53
83	A5	3370	A	C2'-C1'	7.48	1.61	1.53
83	A5	2877	G	C2'-C1'	7.47	1.61	1.53
86	A8	48	G	O4'-C1'	7.47	1.51	1.41
86	A8	65	G	C2'-C1'	-7.47	1.45	1.53
36	B2	843	G	C2'-C1'	-7.47	1.45	1.53
36	B2	1813	U	O4'-C1'	7.47	1.51	1.41
83	A5	122	C	C2'-C1'	-7.47	1.45	1.53
83	A5	1298	A	O4'-C1'	7.47	1.51	1.41
83	A5	2249	A	O4'-C1'	7.47	1.51	1.41
84	A9	12	C	C2'-C1'	-7.47	1.45	1.53
36	B2	329	U	C2'-C1'	7.46	1.61	1.53
36	B2	1282	A	O4'-C1'	7.46	1.51	1.41
83	A5	2914	A	C2'-C1'	-7.46	1.45	1.53
36	B2	1035	G	C2'-C1'	-7.46	1.45	1.53
83	A5	3210	A	C2'-C1'	-7.46	1.45	1.53
36	B2	1830	G	O4'-C1'	7.45	1.51	1.41
36	B2	1039	A	C2'-C1'	-7.45	1.45	1.53
83	A5	1530	U	C2'-C1'	-7.45	1.45	1.53
83	A5	62	G	C2'-C1'	-7.45	1.45	1.53
83	A5	3366	G	O4'-C1'	7.45	1.51	1.41
37	BC	19	A	O4'-C1'	7.45	1.51	1.41
83	A5	620	U	C2'-C1'	7.45	1.61	1.53
83	A5	3543	A	O4'-C1'	-7.45	1.31	1.41
83	A5	977	C	C2'-C1'	-7.45	1.45	1.53
36	B2	1010	A	C2'-C1'	-7.45	1.45	1.53
83	A5	370	A	O4'-C1'	-7.44	1.31	1.41
84	A9	28	G	O4'-C1'	-7.44	1.31	1.41
36	B2	453	C	O4'-C1'	7.44	1.51	1.41
36	B2	1768	A	O4'-C1'	7.44	1.51	1.41
83	A5	1323	C	O4'-C1'	7.44	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	222	C	O4'-C1'	7.43	1.51	1.41
83	A5	3816	A	C2'-C1'	7.43	1.61	1.53
36	B2	580	C	O4'-C1'	7.43	1.51	1.41
36	B2	1681	U	O4'-C1'	-7.43	1.31	1.41
83	A5	2498	U	C2'-C1'	-7.43	1.45	1.53
83	A5	2990	C	O4'-C1'	7.43	1.51	1.41
83	A5	3688	A	C2'-C1'	-7.43	1.45	1.53
83	A5	3144	U	C2'-C1'	7.42	1.61	1.53
36	B2	937	A	C2'-C1'	-7.42	1.45	1.53
83	A5	1610	A	O4'-C1'	7.42	1.51	1.41
36	B2	1589	C	O4'-C1'	7.42	1.51	1.41
36	B2	1634	U	C2'-C1'	7.42	1.61	1.53
83	A5	1522	G	O4'-C1'	7.42	1.51	1.41
85	A7	48	G	O4'-C1'	-7.42	1.32	1.41
85	A7	3	C	C2'-C1'	-7.42	1.45	1.53
83	A5	1096	A	O4'-C1'	-7.41	1.32	1.41
83	A5	2598	A	C2'-C1'	-7.41	1.45	1.53
36	B2	1456	G	O4'-C1'	7.41	1.51	1.41
36	B2	1559	A	O4'-C1'	7.41	1.51	1.41
83	A5	1280	C	C2'-C1'	-7.41	1.45	1.53
83	A5	1511	C	C2'-C1'	-7.41	1.45	1.53
83	A5	1558	A	O4'-C1'	7.41	1.51	1.41
36	B2	588	A	C2'-C1'	-7.41	1.45	1.53
36	B2	1881	A	O4'-C1'	7.41	1.51	1.41
83	A5	3528	A	C2'-C1'	7.41	1.61	1.53
36	B2	1082	G	O4'-C1'	-7.41	1.32	1.41
36	B2	1633	C	C2'-C1'	-7.41	1.45	1.53
83	A5	3631	C	O4'-C1'	7.40	1.51	1.41
36	B2	1331	A	O3'-P	-7.40	1.52	1.61
36	B2	1032	U	O4'-C1'	7.40	1.51	1.41
83	A5	936	U	O4'-C1'	7.40	1.51	1.41
36	B2	1342	G	C2'-C1'	7.40	1.61	1.53
83	A5	2062	A	C2'-C1'	7.40	1.61	1.53
85	A7	116	G	C2'-C1'	-7.40	1.45	1.53
83	A5	3677	U	O4'-C1'	7.40	1.51	1.41
86	A8	98	U	C2'-C1'	-7.40	1.45	1.53
83	A5	1880	A	O4'-C1'	7.39	1.51	1.41
83	A5	2022	C	O4'-C1'	7.39	1.51	1.41
84	A9	8	A	C2'-C1'	-7.39	1.45	1.53
36	B2	386	C	C2'-C1'	-7.39	1.45	1.53
83	A5	2095	U	C2'-C1'	-7.39	1.45	1.53
83	A5	459	U	O4'-C1'	-7.39	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3742	C	O4'-C1'	7.39	1.51	1.41
36	B2	1705	G	C2'-C1'	-7.39	1.45	1.53
83	A5	235	A	C2'-C1'	7.39	1.61	1.53
83	A5	1183	U	O4'-C1'	7.39	1.51	1.41
36	B2	1081	G	O4'-C1'	7.38	1.51	1.41
36	B2	1770	U	C2'-C1'	-7.38	1.45	1.53
83	A5	136	C	C5'-C4'	7.38	1.60	1.51
83	A5	1742	U	O4'-C1'	7.38	1.51	1.41
36	B2	322	C	O4'-C1'	7.38	1.51	1.41
36	B2	1427	U	O4'-C1'	7.38	1.51	1.41
83	A5	1229	U	O4'-C1'	7.38	1.51	1.41
83	A5	1249	A	O4'-C1'	7.38	1.51	1.41
83	A5	2469	U	O4'-C1'	7.38	1.51	1.41
83	A5	2234	C	C2'-C1'	-7.38	1.45	1.53
83	A5	2788	U	O4'-C1'	7.38	1.51	1.41
36	B2	461	G	O4'-C1'	7.37	1.51	1.41
83	A5	1698	A	O4'-C1'	-7.37	1.32	1.41
83	A5	2550	G	O4'-C1'	7.37	1.51	1.41
83	A5	3606	G	O4'-C1'	7.37	1.51	1.41
36	B2	879	U	C2'-C1'	-7.37	1.45	1.53
36	B2	1208	U	O4'-C1'	7.37	1.51	1.41
86	A8	31	G	C2'-C1'	-7.37	1.45	1.53
36	B2	1405	G	C2'-C1'	-7.37	1.45	1.53
36	B2	374	C	O4'-C1'	7.36	1.51	1.41
36	B2	960	U	C2'-C1'	7.36	1.61	1.53
36	B2	232	C	O4'-C1'	7.36	1.51	1.41
36	B2	1199	G	C2'-C1'	-7.36	1.45	1.53
83	A5	1593	U	O4'-C1'	-7.36	1.32	1.41
36	B2	263	A	C2'-C1'	7.36	1.61	1.53
36	B2	1262	C	O4'-C1'	7.36	1.51	1.41
36	B2	1075	U	O4'-C1'	7.35	1.51	1.41
84	A9	14	U	C2'-C1'	-7.35	1.45	1.53
83	A5	554	U	O4'-C1'	7.35	1.51	1.41
83	A5	2646	U	C2'-C1'	7.35	1.61	1.53
83	A5	69	A	O4'-C1'	-7.35	1.32	1.41
83	A5	1403	C	C5'-C4'	7.35	1.60	1.51
83	A5	1972	C	O4'-C1'	7.35	1.51	1.41
83	A5	3781	U	C2'-C1'	7.34	1.61	1.53
83	A5	3866	U	C2'-C1'	-7.34	1.45	1.53
83	A5	624	A	C2'-C1'	7.34	1.61	1.53
83	A5	1209	A	O4'-C1'	7.34	1.51	1.41
83	A5	2067	C	O4'-C1'	7.34	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3514	C	C2'-C1'	7.34	1.61	1.53
83	A5	2556	A	O4'-C1'	7.34	1.51	1.41
36	B2	1014	C	C2'-C1'	-7.34	1.45	1.53
36	B2	1555	U	O4'-C1'	7.34	1.51	1.41
83	A5	239	U	C2'-C1'	-7.34	1.45	1.53
83	A5	1882	G	O4'-C1'	-7.33	1.32	1.41
83	A5	3330	C	C2'-C1'	-7.33	1.45	1.53
83	A5	2706	U	C2'-C1'	-7.33	1.45	1.53
86	A8	56	U	C2'-C1'	-7.33	1.45	1.53
83	A5	2803	A	O4'-C1'	7.33	1.51	1.41
83	A5	224	U	O4'-C1'	7.33	1.51	1.41
83	A5	3503	G	C2'-C1'	-7.33	1.45	1.53
83	A5	3913	G	C2'-C1'	-7.33	1.45	1.53
36	B2	980	A	C2'-C1'	-7.32	1.45	1.53
83	A5	711	A	O4'-C1'	7.32	1.51	1.41
85	A7	74	A	C2'-C1'	7.32	1.61	1.53
37	BC	67	C	C2'-C1'	-7.32	1.45	1.53
83	A5	395	A	P-O5'	-7.32	1.52	1.59
83	A5	1765	U	C2'-C1'	-7.32	1.45	1.53
36	B2	1555	U	O3'-P	-7.32	1.52	1.61
83	A5	1981	A	O4'-C1'	7.32	1.51	1.41
36	B2	367	G	C2'-C1'	-7.32	1.45	1.53
36	B2	1013	A	O4'-C1'	7.32	1.51	1.41
83	A5	3560	C	C2'-C1'	7.31	1.61	1.53
83	A5	1617	U	O4'-C1'	7.31	1.51	1.41
83	A5	768	U	C2'-C1'	7.31	1.61	1.53
36	B2	1816	C	C2'-C1'	-7.31	1.45	1.53
83	A5	2002	C	C2'-C1'	-7.31	1.45	1.53
85	A7	76	U	C2'-C1'	-7.31	1.45	1.53
36	B2	52	U	O4'-C1'	7.30	1.51	1.41
83	A5	1104	A	O4'-C1'	7.30	1.51	1.41
36	B2	1295	U	C4'-C3'	7.30	1.61	1.53
83	A5	2053	A	C2'-C1'	-7.30	1.45	1.53
83	A5	2001	U	O4'-C1'	7.30	1.51	1.41
84	A9	24	G	C2'-C1'	7.30	1.61	1.53
86	A8	56	U	O4'-C1'	7.30	1.51	1.41
83	A5	1545	A	C2'-C1'	-7.29	1.45	1.53
36	B2	1333	C	P-O5'	-7.29	1.52	1.59
36	B2	1599	U	C2'-C1'	-7.29	1.45	1.53
36	B2	1752	U	O4'-C1'	-7.29	1.32	1.41
83	A5	135	U	O4'-C1'	7.29	1.51	1.41
83	A5	809	G	C2'-C1'	-7.29	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1690	U	C2'-C1'	7.29	1.61	1.53
83	A5	3307	A	O4'-C1'	7.29	1.51	1.41
83	A5	2058	C	C2'-C1'	-7.29	1.45	1.53
36	B2	1632	C	O4'-C1'	7.29	1.51	1.41
83	A5	1477	G	O4'-C1'	7.29	1.51	1.41
83	A5	2009	A	O4'-C1'	7.29	1.51	1.41
83	A5	1891	U	C2'-C1'	7.28	1.61	1.53
85	A7	54	A	O4'-C1'	7.28	1.51	1.41
83	A5	528	U	C2'-C1'	-7.28	1.45	1.53
83	A5	2539	G	O4'-C1'	7.28	1.51	1.41
83	A5	2650	G	O4'-C1'	-7.28	1.32	1.41
36	B2	614	A	C2'-C1'	-7.28	1.45	1.53
83	A5	433	U	O4'-C1'	7.28	1.51	1.41
36	B2	195	G	C2'-C1'	7.28	1.61	1.53
83	A5	1881	C	O4'-C1'	7.28	1.51	1.41
86	A8	45	G	C5'-C4'	7.28	1.60	1.51
36	B2	885	U	C2'-C1'	7.28	1.61	1.53
83	A5	896	A	C2'-C1'	-7.28	1.45	1.53
84	A9	23	G	C2'-C1'	-7.28	1.45	1.53
83	A5	3806	C	C2'-C1'	-7.27	1.45	1.53
36	B2	1681	U	C2'-C1'	7.27	1.61	1.53
83	A5	2981	G	C4'-C3'	7.27	1.61	1.53
83	A5	3873	A	O4'-C1'	7.27	1.51	1.41
36	B2	85	A	C2'-C1'	7.26	1.61	1.53
36	B2	616	U	O4'-C1'	7.26	1.51	1.41
83	A5	3618	A	C2'-C1'	-7.26	1.45	1.53
83	A5	1901	G	C2'-C1'	-7.26	1.45	1.53
83	A5	1012	G	C2'-C1'	-7.26	1.45	1.53
83	A5	3363	G	C2'-C1'	-7.26	1.45	1.53
36	B2	1028	A	O4'-C1'	7.26	1.51	1.41
83	A5	1228	C	C2'-C1'	7.26	1.61	1.53
83	A5	1276	G	C2'-C1'	-7.26	1.45	1.53
83	A5	2834	A	C2'-C1'	-7.26	1.45	1.53
37	BC	54	U	P-O5'	-7.26	1.52	1.59
83	A5	3445	C	C2'-C1'	-7.25	1.45	1.53
83	A5	3774	U	O4'-C1'	7.25	1.51	1.41
36	B2	1529	G	C2'-C1'	7.25	1.61	1.53
83	A5	685	A	C2'-C1'	-7.25	1.45	1.53
36	B2	1205	U	C2'-C1'	-7.25	1.45	1.53
36	B2	1532	C	O4'-C1'	7.25	1.51	1.41
83	A5	1389	C	O4'-C1'	7.25	1.51	1.41
36	B2	9	U	O4'-C1'	7.25	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	428	G	O4'-C1'	7.25	1.51	1.41
83	A5	3511	U	O4'-C1'	7.24	1.51	1.41
36	B2	215	C	O4'-C1'	7.24	1.51	1.41
36	B2	274	G	C2'-C1'	-7.24	1.45	1.53
83	A5	1229	U	C2'-C1'	-7.24	1.45	1.53
83	A5	2750	A	O4'-C1'	-7.24	1.32	1.41
83	A5	1930	G	O4'-C1'	-7.23	1.32	1.41
36	B2	1709	A	O4'-C1'	7.23	1.51	1.41
83	A5	3102	C	O4'-C1'	7.23	1.51	1.41
36	B2	288	C	O4'-C1'	7.23	1.51	1.41
36	B2	457	G	C2'-C1'	-7.23	1.45	1.53
83	A5	1314	U	C2'-C1'	-7.23	1.45	1.53
83	A5	3742	C	C2'-C1'	-7.23	1.45	1.53
84	A9	9	C	C2'-C1'	-7.23	1.45	1.53
83	A5	988	C	O4'-C1'	7.22	1.51	1.41
83	A5	2861	G	O4'-C1'	7.22	1.51	1.41
37	BC	16	U	C2'-C1'	7.22	1.61	1.53
83	A5	555	U	O4'-C1'	7.22	1.51	1.41
83	A5	1693	C	C2'-C1'	-7.22	1.45	1.53
36	B2	1216	C	C2'-C1'	-7.22	1.45	1.53
83	A5	488	U	O4'-C1'	7.22	1.51	1.41
83	A5	537	A	O4'-C1'	7.22	1.51	1.41
83	A5	1308	U	C2'-C1'	-7.22	1.45	1.53
36	B2	406	A	C2'-C1'	-7.21	1.45	1.53
36	B2	1679	U	C2'-C1'	7.21	1.61	1.53
83	A5	1513	C	C2'-C1'	-7.21	1.45	1.53
83	A5	3836	A	C2'-C1'	-7.21	1.45	1.53
83	A5	1149	C	O4'-C1'	7.21	1.51	1.41
83	A5	1273	U	O4'-C1'	7.21	1.51	1.41
83	A5	1507	C	O4'-C1'	7.21	1.51	1.41
83	A5	3716	C	O4'-C1'	7.21	1.51	1.41
37	BC	10	G	C2'-C1'	-7.20	1.45	1.53
86	A8	18	C	O4'-C1'	7.20	1.51	1.41
36	B2	539	U	O4'-C1'	7.20	1.51	1.41
83	A5	1243	A	O4'-C1'	7.20	1.51	1.41
36	B2	1307	C	C2'-C1'	-7.19	1.45	1.53
36	B2	1858	U	O4'-C1'	7.19	1.50	1.41
83	A5	193	U	O4'-C1'	7.19	1.50	1.41
83	A5	1792	G	C4'-C3'	7.18	1.61	1.53
83	A5	2277	G	O4'-C1'	7.18	1.50	1.41
83	A5	3400	U	C2'-C1'	-7.18	1.45	1.53
83	A5	828	G	C2'-C1'	7.18	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1428	A	C2'-C1'	7.17	1.61	1.53
36	B2	1724	U	C2'-C1'	-7.17	1.45	1.53
83	A5	430	G	O4'-C1'	7.17	1.50	1.41
83	A5	840	U	C2'-C1'	-7.17	1.45	1.53
83	A5	3829	U	C2'-C1'	7.17	1.61	1.53
36	B2	1154	U	O4'-C1'	7.17	1.50	1.41
83	A5	1578	C	C2'-C1'	-7.17	1.45	1.53
83	A5	2684	C	O4'-C1'	-7.17	1.32	1.41
36	B2	1294	U	C2'-C1'	-7.17	1.45	1.53
36	B2	1889	G	C2'-C1'	-7.17	1.45	1.53
83	A5	1232	G	O4'-C1'	7.17	1.50	1.41
36	B2	1086	U	O4'-C1'	7.17	1.50	1.41
36	B2	197	A	O4'-C1'	7.16	1.50	1.41
83	A5	1677	U	O4'-C1'	7.16	1.50	1.41
83	A5	3332	G	O4'-C1'	7.16	1.50	1.41
36	B2	979	G	C2'-C1'	-7.16	1.45	1.53
83	A5	1744	U	C2'-C1'	-7.16	1.45	1.53
83	A5	3793	U	O4'-C1'	7.16	1.50	1.41
36	B2	1955	G	C2'-C1'	-7.15	1.45	1.53
83	A5	1127	C	O4'-C1'	7.15	1.50	1.41
83	A5	1532	A	O4'-C1'	-7.15	1.32	1.41
83	A5	3505	U	O4'-C1'	7.15	1.50	1.41
85	A7	100	A	C2'-C1'	-7.15	1.45	1.53
83	A5	3553	C	O4'-C1'	7.15	1.50	1.41
83	A5	3730	G	C2'-C1'	7.15	1.61	1.53
83	A5	796	A	P-O5'	-7.15	1.52	1.59
36	B2	1324	G	C2'-C1'	-7.14	1.45	1.53
83	A5	1308	U	O4'-C1'	7.14	1.50	1.41
83	A5	3413	C	C2'-C1'	7.14	1.61	1.53
37	BC	65	C	C2'-C1'	-7.14	1.45	1.53
36	B2	118	C	C2'-C1'	-7.14	1.45	1.53
36	B2	1655	C	C2'-C1'	-7.14	1.45	1.53
83	A5	1570	U	O4'-C1'	7.14	1.50	1.41
83	A5	3734	A	O4'-C1'	7.14	1.50	1.41
83	A5	1148	C	C2'-C1'	-7.13	1.45	1.53
36	B2	872	A	O4'-C1'	7.13	1.50	1.41
83	A5	925	C	O4'-C1'	7.13	1.50	1.41
83	A5	1004	C	O4'-C1'	7.13	1.50	1.41
83	A5	1431	G	O4'-C1'	-7.13	1.32	1.41
83	A5	1730	A	O4'-C1'	7.13	1.50	1.41
36	B2	398	C	O4'-C1'	7.13	1.50	1.41
36	B2	904	C	O4'-C1'	7.13	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1070	G	O4'-C1'	7.13	1.50	1.41
83	A5	2920	U	O4'-C1'	7.13	1.50	1.41
83	A5	163	A	O3'-P	-7.12	1.52	1.61
83	A5	1600	U	O4'-C1'	7.12	1.50	1.41
83	A5	1945	U	O4'-C1'	7.12	1.50	1.41
36	B2	882	G	O4'-C1'	7.12	1.50	1.41
36	B2	1403	C	C2'-C1'	-7.12	1.45	1.53
83	A5	124	A	C2'-C1'	7.12	1.61	1.53
83	A5	1789	A	O4'-C1'	7.12	1.50	1.41
83	A5	3243	C	O4'-C1'	7.12	1.50	1.41
36	B2	1220	A	C2'-C1'	-7.12	1.45	1.53
36	B2	1672	A	O4'-C1'	7.12	1.50	1.41
36	B2	1192	U	O4'-C1'	7.12	1.50	1.41
83	A5	676	A	O4'-C1'	7.12	1.50	1.41
83	A5	1966	A	C2'-C1'	-7.11	1.45	1.53
85	A7	93	G	O4'-C1'	7.11	1.50	1.41
83	A5	3520	U	C2'-C1'	-7.11	1.45	1.53
83	A5	1032	G	O4'-C1'	7.11	1.50	1.41
83	A5	1368	A	C2'-C1'	7.11	1.61	1.53
85	A7	44	C	C2'-C1'	-7.11	1.45	1.53
36	B2	611	U	C2'-C1'	7.10	1.61	1.53
83	A5	1411	U	C2'-C1'	7.10	1.61	1.53
36	B2	345	U	O4'-C1'	7.10	1.50	1.41
36	B2	1863	A	O4'-C1'	7.10	1.50	1.41
83	A5	2604	U	O4'-C1'	7.10	1.50	1.41
36	B2	1403	C	O4'-C1'	7.10	1.50	1.41
36	B2	832	U	C2'-C1'	-7.10	1.45	1.53
83	A5	2512	U	O4'-C1'	7.10	1.50	1.41
83	A5	359	G	O4'-C1'	-7.10	1.32	1.41
83	A5	3190	G	O4'-C1'	7.10	1.50	1.41
83	A5	478	A	O4'-C1'	7.10	1.50	1.41
83	A5	1215	A	C2'-C1'	-7.09	1.45	1.53
36	B2	68	C	C2'-C1'	7.09	1.61	1.53
36	B2	658	C	O4'-C1'	7.09	1.50	1.41
36	B2	1595	G	C2'-C1'	-7.09	1.45	1.53
36	B2	1933	U	C2'-C1'	-7.09	1.45	1.53
83	A5	1035	G	O4'-C1'	-7.09	1.32	1.41
83	A5	2991	A	O4'-C1'	7.08	1.50	1.41
83	A5	769	U	O4'-C1'	7.08	1.50	1.41
83	A5	3762	G	C2'-C1'	-7.08	1.45	1.53
83	A5	1078	G	C2'-C1'	7.08	1.61	1.53
83	A5	3131	C	C2'-C1'	-7.08	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1259	A	C2'-C1'	-7.08	1.45	1.53
36	B2	1841	C	O4'-C1'	7.08	1.50	1.41
83	A5	1748	C	C2'-C1'	-7.08	1.45	1.53
36	B2	294	C	C2'-C1'	-7.07	1.45	1.53
83	A5	2773	G	C2'-C1'	-7.07	1.45	1.53
83	A5	30	A	O4'-C1'	7.07	1.50	1.41
83	A5	1888	A	O4'-C1'	7.07	1.50	1.41
83	A5	3205	G	C2'-C1'	7.07	1.61	1.53
37	BC	53	A	O4'-C1'	7.07	1.50	1.41
36	B2	971	A	C2'-C1'	-7.07	1.45	1.53
83	A5	657	G	C2'-C1'	-7.06	1.45	1.53
83	A5	2119	G	C2'-C1'	-7.06	1.45	1.53
36	B2	588	A	O4'-C1'	7.06	1.50	1.41
83	A5	3227	A	O4'-C1'	-7.06	1.32	1.41
83	A5	3243	C	C2'-C1'	-7.06	1.45	1.53
36	B2	1788	C	C2'-C1'	7.06	1.61	1.53
83	A5	2833	U	O4'-C1'	7.06	1.50	1.41
36	B2	570	G	C2'-C1'	-7.06	1.45	1.53
36	B2	1114	A	P-O5'	-7.05	1.52	1.59
83	A5	192	U	O4'-C1'	7.05	1.50	1.41
83	A5	3411	C	O4'-C1'	7.05	1.50	1.41
83	A5	855	A	C2'-C1'	7.05	1.61	1.53
83	A5	1590	A	C2'-C1'	-7.05	1.45	1.53
83	A5	3937	U	C2'-C1'	7.05	1.61	1.53
36	B2	1786	G	C2'-C1'	-7.05	1.45	1.53
36	B2	1559	A	C2'-C1'	-7.04	1.45	1.53
36	B2	1095	G	C2'-C1'	-7.04	1.45	1.53
36	B2	1284	A	C2'-C1'	7.04	1.61	1.53
83	A5	245	G	C2'-C1'	-7.04	1.45	1.53
83	A5	1432	C	C2'-C1'	-7.04	1.45	1.53
83	A5	3141	A	C2'-C1'	-7.04	1.45	1.53
83	A5	1729	G	C2'-C1'	-7.03	1.45	1.53
83	A5	1906	G	O4'-C1'	7.03	1.50	1.41
83	A5	1912	G	O4'-C1'	7.03	1.50	1.41
36	B2	366	C	C2'-C1'	-7.03	1.45	1.53
83	A5	672	U	O3'-P	-7.03	1.52	1.61
83	A5	1709	A	C2'-C1'	7.03	1.61	1.53
36	B2	521	U	C2'-C1'	7.03	1.61	1.53
83	A5	3926	C	O4'-C1'	7.03	1.50	1.41
83	A5	2038	A	C2'-C1'	-7.02	1.45	1.53
36	B2	1374	A	O4'-C1'	7.02	1.50	1.41
83	A5	654	G	C2'-C1'	-7.02	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1448	G	O4'-C1'	-7.02	1.32	1.41
83	A5	1476	G	O4'-C1'	7.02	1.50	1.41
83	A5	1134	G	O4'-C1'	7.02	1.50	1.41
84	A9	10	U	O4'-C1'	7.02	1.50	1.41
36	B2	1809	U	C2'-C1'	-7.02	1.45	1.53
36	B2	519	A	C2'-C1'	-7.01	1.45	1.53
36	B2	1380	U	C2'-C1'	7.01	1.61	1.53
83	A5	315	G	O4'-C1'	-7.01	1.32	1.41
83	A5	1439	C	O4'-C1'	7.01	1.50	1.41
83	A5	2537	A	O4'-C1'	7.01	1.50	1.41
36	B2	1139	A	C2'-C1'	7.01	1.61	1.53
36	B2	1801	U	C2'-C1'	-7.01	1.45	1.53
83	A5	257	U	C2'-C1'	-7.01	1.45	1.53
83	A5	2534	G	C2'-C1'	-7.01	1.45	1.53
86	A8	106	A	C2'-C1'	-7.01	1.45	1.53
83	A5	2762	A	O4'-C1'	7.01	1.50	1.41
83	A5	3460	C	C2'-C1'	-7.01	1.45	1.53
83	A5	2787	U	C2'-C1'	-7.00	1.45	1.53
36	B2	50	C	C2'-C1'	-7.00	1.45	1.53
83	A5	825	C	C2'-C1'	-7.00	1.45	1.53
36	B2	487	U	O4'-C1'	6.99	1.50	1.41
36	B2	913	G	C2'-C1'	-6.99	1.45	1.53
83	A5	41	U	C2'-C1'	-6.99	1.45	1.53
83	A5	763	A	C2'-C1'	6.99	1.61	1.53
83	A5	3766	U	O4'-C1'	6.99	1.50	1.41
83	A5	3831	C	O4'-C1'	6.99	1.50	1.41
36	B2	32	U	C2'-C1'	6.99	1.61	1.53
36	B2	1992	A	C2'-C1'	6.99	1.61	1.53
83	A5	3112	A	C2'-C1'	-6.99	1.45	1.53
83	A5	1725	A	C2'-C1'	6.98	1.61	1.53
36	B2	1479	U	C5'-C4'	6.98	1.59	1.51
83	A5	431	C	O4'-C1'	6.98	1.50	1.41
85	A7	106	G	O4'-C1'	6.98	1.50	1.41
36	B2	563	A	O4'-C1'	6.97	1.50	1.41
36	B2	1014	C	O4'-C1'	6.97	1.50	1.41
36	B2	1255	G	O4'-C1'	6.97	1.50	1.41
83	A5	1416	U	O4'-C1'	6.97	1.50	1.41
36	B2	229	U	O4'-C1'	6.97	1.50	1.41
83	A5	1986	G	O4'-C1'	6.97	1.50	1.41
84	A9	13	A	C2'-C1'	-6.97	1.45	1.53
85	A7	92	C	C2'-C1'	-6.97	1.45	1.53
83	A5	1963	U	O4'-C1'	6.96	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3491	C	C2'-C1'	-6.96	1.45	1.53
83	A5	72	C	C2'-C1'	-6.96	1.45	1.53
36	B2	14	C	O4'-C1'	6.95	1.50	1.41
36	B2	1415	G	O4'-C1'	6.95	1.50	1.41
83	A5	288	U	C2'-C1'	-6.95	1.45	1.53
83	A5	1470	C	O4'-C1'	6.95	1.50	1.41
83	A5	2200	A	O4'-C1'	6.95	1.50	1.41
83	A5	3203	C	O4'-C1'	6.95	1.50	1.41
83	A5	3450	G	C2'-C1'	-6.95	1.45	1.53
83	A5	2581	U	C2'-C1'	-6.95	1.45	1.53
36	B2	1015	U	C2'-C1'	-6.95	1.45	1.53
83	A5	138	A	C2'-C1'	6.95	1.60	1.53
83	A5	181	A	O4'-C1'	6.95	1.50	1.41
83	A5	826	A	C2'-C1'	6.95	1.60	1.53
83	A5	1806	G	C2'-C1'	6.95	1.60	1.53
36	B2	1392	U	O4'-C1'	-6.95	1.32	1.41
83	A5	2143	C	O4'-C1'	6.95	1.50	1.41
85	A7	52	U	O4'-C1'	6.95	1.50	1.41
36	B2	279	G	O4'-C1'	6.95	1.50	1.41
83	A5	2766	U	C2'-C1'	-6.95	1.45	1.53
83	A5	3815	G	C2'-C1'	-6.95	1.45	1.53
36	B2	1628	A	O4'-C1'	6.94	1.50	1.41
86	A8	101	A	O4'-C1'	6.94	1.50	1.41
83	A5	1431	G	C2'-C1'	6.94	1.60	1.53
83	A5	3162	C	C2'-C1'	-6.94	1.45	1.53
83	A5	2054	U	C5'-C4'	6.94	1.59	1.51
36	B2	1315	U	O4'-C1'	6.93	1.50	1.41
83	A5	960	U	O4'-C1'	6.93	1.50	1.41
83	A5	2259	C	O4'-C1'	6.93	1.50	1.41
83	A5	2797	A	C2'-C1'	-6.93	1.45	1.53
36	B2	179	A	O4'-C1'	6.93	1.50	1.41
83	A5	267	C	C2'-C1'	-6.93	1.45	1.53
83	A5	890	C	P-O5'	-6.93	1.52	1.59
83	A5	2186	C	O4'-C1'	6.93	1.50	1.41
36	B2	1751	G	O4'-C1'	-6.92	1.32	1.41
36	B2	1771	U	O4'-C1'	6.92	1.50	1.41
36	B2	1046	U	O4'-C1'	-6.92	1.32	1.41
36	B2	1459	G	C2'-C1'	-6.92	1.45	1.53
83	A5	498	U	C2'-C1'	-6.92	1.45	1.53
83	A5	3829	U	O4'-C1'	-6.92	1.32	1.41
36	B2	1702	C	O4'-C1'	6.92	1.50	1.41
36	B2	800	A	C5'-C4'	6.92	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3442	A	O4'-C1'	6.92	1.50	1.41
36	B2	1381	G	C2'-C1'	-6.92	1.45	1.53
36	B2	306	A	C2'-C1'	-6.91	1.45	1.53
83	A5	3571	C	C2'-C1'	-6.91	1.45	1.53
83	A5	3333	A	C2'-C1'	-6.91	1.45	1.53
86	A8	10	C	C2'-C1'	-6.91	1.45	1.53
36	B2	826	U	O4'-C1'	6.91	1.50	1.41
83	A5	643	U	C2'-C1'	-6.91	1.45	1.53
36	B2	1026	A	O4'-C1'	6.90	1.50	1.41
36	B2	1733	G	C2'-C1'	-6.90	1.45	1.53
83	A5	1141	G	O4'-C1'	6.90	1.50	1.41
83	A5	1942	U	C2'-C1'	-6.90	1.45	1.53
83	A5	3381	C	C2'-C1'	-6.90	1.45	1.53
36	B2	858	G	C2'-C1'	-6.90	1.45	1.53
36	B2	982	G	O4'-C1'	-6.90	1.32	1.41
36	B2	1276	G	O4'-C1'	6.90	1.50	1.41
83	A5	1142	U	C2'-C1'	-6.89	1.45	1.53
83	A5	2820	G	O4'-C1'	6.89	1.50	1.41
36	B2	1236	C	O4'-C1'	6.89	1.50	1.41
36	B2	1686	C	C2'-C1'	-6.89	1.45	1.53
36	B2	1323	A	C2'-C1'	-6.89	1.45	1.53
83	A5	71	A	O4'-C1'	6.89	1.50	1.41
83	A5	1011	U	O4'-C1'	6.89	1.50	1.41
83	A5	2217	A	O4'-C1'	6.89	1.50	1.41
36	B2	1790	U	C2'-C1'	-6.88	1.45	1.53
83	A5	172	C	C2'-C1'	-6.88	1.45	1.53
83	A5	1312	G	C2'-C1'	-6.88	1.45	1.53
83	A5	3680	A	C2'-C1'	-6.88	1.45	1.53
83	A5	576	U	O4'-C1'	6.88	1.50	1.41
36	B2	1406	A	O4'-C1'	6.88	1.50	1.41
83	A5	248	C	C2'-C1'	-6.88	1.45	1.53
83	A5	3622	C	O4'-C1'	6.88	1.50	1.41
83	A5	1577	A	C2'-C1'	-6.88	1.45	1.53
36	B2	514	A	C2'-C1'	-6.87	1.45	1.53
83	A5	1156	U	C2'-C1'	-6.87	1.45	1.53
83	A5	139	U	C2'-C1'	-6.87	1.45	1.53
83	A5	236	G	C2'-C1'	-6.87	1.45	1.53
83	A5	1739	U	O4'-C1'	6.87	1.50	1.41
36	B2	711	G	C2'-C1'	-6.87	1.45	1.53
36	B2	1445	A	O4'-C1'	6.87	1.50	1.41
83	A5	1797	A	C2'-C1'	6.87	1.60	1.53
36	B2	1375	G	O4'-C1'	6.86	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1921	U	O4'-C1'	6.86	1.50	1.41
83	A5	266	A	C2'-C1'	-6.86	1.45	1.53
83	A5	253	A	C2'-C1'	-6.86	1.45	1.53
36	B2	841	U	O4'-C1'	6.86	1.50	1.41
83	A5	680	C	C2'-C1'	-6.86	1.45	1.53
83	A5	2225	A	O4'-C1'	6.86	1.50	1.41
83	A5	2725	U	C2'-C1'	-6.86	1.45	1.53
83	A5	1125	A	O4'-C1'	6.85	1.50	1.41
36	B2	1325	A	C2'-C1'	-6.85	1.45	1.53
83	A5	19	C	O4'-C1'	6.85	1.50	1.41
36	B2	415	A	C2'-C1'	-6.85	1.45	1.53
36	B2	1311	A	O4'-C1'	6.85	1.50	1.41
36	B2	1445	A	C2'-C1'	6.85	1.60	1.53
83	A5	218	A	O4'-C1'	6.85	1.50	1.41
83	A5	2655	C	C2'-C1'	-6.85	1.45	1.53
83	A5	85	U	O4'-C1'	6.84	1.50	1.41
83	A5	454	C	C2'-C1'	-6.84	1.45	1.53
83	A5	2917	A	O4'-C1'	-6.84	1.32	1.41
36	B2	719	G	C2'-C1'	-6.84	1.45	1.53
36	B2	1092	A	O4'-C1'	6.84	1.50	1.41
83	A5	932	G	O4'-C1'	6.84	1.50	1.41
85	A7	18	G	C2'-C1'	-6.84	1.45	1.53
36	B2	899	A	O3'-P	-6.84	1.52	1.61
83	A5	2485	A	C2'-C1'	6.84	1.60	1.53
83	A5	3697	A	O3'-P	-6.84	1.52	1.61
83	A5	3348	G	O4'-C1'	6.83	1.50	1.41
83	A5	2749	G	C2'-C1'	-6.83	1.45	1.53
83	A5	2763	U	C2'-C1'	-6.83	1.45	1.53
36	B2	214	G	O4'-C1'	-6.83	1.32	1.41
36	B2	232	C	C2'-C1'	-6.83	1.45	1.53
36	B2	1054	A	C2'-C1'	-6.83	1.45	1.53
36	B2	1439	A	C2'-C1'	-6.83	1.45	1.53
36	B2	1586	U	O4'-C1'	6.83	1.50	1.41
83	A5	3222	G	C2'-C1'	-6.83	1.45	1.53
83	A5	3464	G	C2'-C1'	6.83	1.60	1.53
85	A7	78	C	C2'-C1'	-6.83	1.45	1.53
36	B2	1611	G	O4'-C1'	6.83	1.50	1.41
36	B2	1021	A	O4'-C1'	-6.83	1.32	1.41
36	B2	142	A	C2'-C1'	6.82	1.60	1.53
83	A5	3143	U	C5'-C4'	6.82	1.59	1.51
36	B2	529	C	C2'-C1'	-6.82	1.45	1.53
36	B2	38	C	C2'-C1'	-6.82	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	313	C	O4'-C1'	-6.82	1.32	1.41
83	A5	3842	A	P-O5'	-6.82	1.52	1.59
36	B2	515	U	O4'-C1'	6.82	1.50	1.41
83	A5	3543	A	C2'-C1'	6.82	1.60	1.53
83	A5	1017	A	C2'-C1'	-6.81	1.45	1.53
83	A5	3820	C	C2'-C1'	-6.81	1.45	1.53
85	A7	104	C	C2'-C1'	-6.81	1.45	1.53
83	A5	616	A	O4'-C1'	6.81	1.50	1.41
36	B2	301	U	O4'-C1'	6.81	1.50	1.41
83	A5	114	G	C2'-C1'	6.81	1.60	1.53
36	B2	713	A	O4'-C1'	-6.81	1.32	1.41
83	A5	799	A	O4'-C1'	6.81	1.50	1.41
83	A5	2736	A	C2'-C1'	-6.81	1.45	1.53
83	A5	3709	A	C2'-C1'	-6.81	1.45	1.53
84	A9	19	U	O4'-C1'	6.81	1.50	1.41
36	B2	596	U	C2'-C1'	6.80	1.60	1.53
83	A5	398	U	O4'-C1'	6.80	1.50	1.41
36	B2	607	A	O4'-C1'	6.80	1.50	1.41
83	A5	826	A	O4'-C1'	6.80	1.50	1.41
85	A7	80	U	O4'-C1'	6.80	1.50	1.41
83	A5	1134	G	C2'-C1'	-6.80	1.45	1.53
83	A5	491	U	O4'-C1'	6.79	1.50	1.41
85	A7	5	A	C2'-C1'	-6.79	1.45	1.53
36	B2	502	C	O4'-C1'	6.79	1.50	1.41
83	A5	2760	G	C2'-C1'	-6.79	1.45	1.53
83	A5	914	C	C2'-C1'	-6.79	1.45	1.53
83	A5	2172	C	O3'-P	-6.79	1.53	1.61
83	A5	1061	A	O4'-C1'	6.79	1.50	1.41
36	B2	697	U	O3'-P	-6.78	1.53	1.61
83	A5	155	U	O3'-P	-6.78	1.53	1.61
83	A5	1449	G	O4'-C1'	6.78	1.50	1.41
83	A5	1640	U	C2'-C1'	-6.78	1.45	1.53
83	A5	1740	C	O4'-C1'	6.78	1.50	1.41
83	A5	2212	A	O4'-C1'	6.78	1.50	1.41
84	A9	27	U	O4'-C1'	6.78	1.50	1.41
36	B2	1657	C	C2'-C1'	-6.78	1.45	1.53
83	A5	830	U	C2'-C1'	-6.78	1.45	1.53
83	A5	3145	U	C2'-C1'	6.78	1.60	1.53
83	A5	208	U	C2'-C1'	-6.78	1.45	1.53
84	A9	17	G	C2'-C1'	-6.78	1.45	1.53
83	A5	2580	C	C2'-C1'	-6.78	1.45	1.53
83	A5	3454	G	O4'-C1'	6.78	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3888	U	C2'-C1'	-6.78	1.45	1.53
36	B2	97	U	C2'-C1'	-6.77	1.45	1.53
36	B2	1794	C	O4'-C1'	6.77	1.50	1.41
83	A5	652	G	O4'-C1'	6.77	1.50	1.41
83	A5	1342	U	O4'-C1'	6.77	1.50	1.41
83	A5	754	A	C2'-C1'	6.77	1.60	1.53
36	B2	277	U	C2'-C1'	-6.77	1.46	1.53
83	A5	1712	C	O4'-C1'	6.77	1.50	1.41
83	A5	3238	G	C2'-C1'	-6.76	1.46	1.53
83	A5	2994	C	C2'-C1'	6.76	1.60	1.53
83	A5	2133	A	C2'-C1'	-6.76	1.46	1.53
36	B2	1389	U	O4'-C1'	6.76	1.50	1.41
83	A5	771	A	O4'-C1'	6.76	1.50	1.41
36	B2	370	G	C2'-C1'	6.76	1.60	1.53
83	A5	2555	G	O4'-C1'	6.76	1.50	1.41
83	A5	3122	A	O4'-C1'	6.76	1.50	1.41
83	A5	3260	G	C5'-C4'	6.76	1.59	1.51
36	B2	148	G	C2'-C1'	-6.75	1.46	1.53
83	A5	1275	A	C2'-C1'	-6.75	1.46	1.53
36	B2	1073	G	O4'-C1'	6.75	1.50	1.41
83	A5	558	C	O4'-C1'	6.75	1.50	1.41
83	A5	3008	U	O4'-C1'	6.75	1.50	1.41
36	B2	556	G	C2'-C1'	-6.75	1.46	1.53
36	B2	1865	G	P-O5'	-6.75	1.52	1.59
83	A5	1338	U	C2'-C1'	-6.75	1.46	1.53
36	B2	1691	A	C2'-C1'	-6.75	1.46	1.53
83	A5	560	U	C2'-C1'	-6.75	1.46	1.53
83	A5	3533	U	O4'-C1'	6.75	1.50	1.41
36	B2	98	C	C2'-C1'	6.75	1.60	1.53
36	B2	1063	G	O4'-C1'	6.75	1.50	1.41
83	A5	2700	C	O4'-C1'	6.75	1.50	1.41
36	B2	1597	A	C2'-C1'	-6.75	1.46	1.53
83	A5	2810	A	O4'-C1'	6.75	1.50	1.41
83	A5	1612	G	C2'-C1'	-6.74	1.46	1.53
83	A5	3101	A	O4'-C1'	6.74	1.50	1.41
36	B2	568	U	C2'-C1'	-6.74	1.46	1.53
85	A7	92	C	O4'-C1'	6.74	1.50	1.41
83	A5	1971	C	C2'-C1'	-6.74	1.46	1.53
83	A5	3509	U	C2'-C1'	-6.74	1.46	1.53
83	A5	3720	A	O4'-C1'	6.74	1.50	1.41
36	B2	1971	A	O4'-C1'	6.73	1.50	1.41
83	A5	382	G	C2'-C1'	-6.73	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	732	U	C2'-C1'	6.73	1.60	1.53
83	A5	1780	U	O4'-C1'	6.73	1.50	1.41
83	A5	834	G	C2'-C1'	6.73	1.60	1.53
83	A5	547	U	C2'-C1'	-6.73	1.46	1.53
36	B2	55	A	O3'-P	-6.72	1.53	1.61
83	A5	3186	C	C2'-C1'	-6.72	1.46	1.53
83	A5	3401	U	O4'-C1'	6.72	1.50	1.41
83	A5	2809	C	O4'-C1'	6.72	1.50	1.41
83	A5	595	U	C2'-C1'	-6.72	1.46	1.53
83	A5	1034	U	O4'-C1'	6.72	1.50	1.41
36	B2	1976	A	C2'-C1'	-6.72	1.46	1.53
83	A5	392	A	C2'-C1'	6.72	1.60	1.53
83	A5	2718	U	O4'-C1'	6.72	1.50	1.41
36	B2	1412	A	O4'-C1'	6.71	1.50	1.41
83	A5	838	U	C2'-C1'	-6.71	1.46	1.53
83	A5	165	G	O4'-C1'	6.71	1.50	1.41
83	A5	1049	C	O4'-C1'	6.71	1.50	1.41
83	A5	1248	A	O3'-P	-6.71	1.53	1.61
36	B2	911	C	C2'-C1'	-6.71	1.46	1.53
36	B2	1030	C	C2'-C1'	-6.71	1.46	1.53
83	A5	1154	U	C2'-C1'	-6.71	1.46	1.53
83	A5	3573	C	C2'-C1'	-6.71	1.46	1.53
83	A5	3354	U	O4'-C1'	6.71	1.50	1.41
36	B2	1329	A	O4'-C1'	6.70	1.50	1.41
83	A5	807	A	O4'-C1'	6.70	1.50	1.41
36	B2	1164	G	O4'-C1'	6.70	1.50	1.41
36	B2	1189	G	C2'-C1'	-6.70	1.46	1.53
83	A5	723	U	O4'-C1'	6.70	1.50	1.41
83	A5	1425	U	O4'-C1'	6.70	1.50	1.41
36	B2	446	A	O4'-C1'	6.70	1.50	1.41
83	A5	279	U	O4'-C1'	6.70	1.50	1.41
83	A5	413	A	O4'-C1'	6.70	1.50	1.41
83	A5	2035	C	C2'-C1'	-6.70	1.46	1.53
83	A5	1540	U	O4'-C1'	6.69	1.50	1.41
36	B2	1407	U	C2'-C1'	-6.69	1.46	1.53
83	A5	562	U	O4'-C1'	6.69	1.50	1.41
83	A5	3737	A	O4'-C1'	6.69	1.50	1.41
36	B2	1336	U	O4'-C1'	6.69	1.50	1.41
83	A5	970	A	O4'-C1'	6.69	1.50	1.41
36	B2	914	C	P-O5'	-6.69	1.53	1.59
83	A5	2851	U	O4'-C1'	6.68	1.50	1.41
83	A5	3866	U	O4'-C1'	6.68	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
85	A7	73	U	O4'-C1'	6.68	1.50	1.41
36	B2	1295	U	O4'-C1'	6.68	1.50	1.41
83	A5	2908	U	O4'-C1'	6.68	1.50	1.41
83	A5	286	A	O4'-C1'	-6.68	1.32	1.41
83	A5	3375	U	C2'-C1'	6.68	1.60	1.53
83	A5	1332	C	C2'-C1'	-6.68	1.46	1.53
83	A5	1859	U	C2'-C1'	-6.68	1.46	1.53
85	A7	114	U	O4'-C1'	6.68	1.50	1.41
83	A5	3897	G	C2'-C1'	-6.68	1.46	1.53
36	B2	1433	A	O4'-C1'	6.67	1.50	1.41
83	A5	1665	C	P-O5'	-6.67	1.53	1.59
83	A5	2076	U	P-O5'	-6.67	1.53	1.59
36	B2	1676	A	O4'-C1'	6.67	1.50	1.41
83	A5	486	A	C2'-C1'	6.67	1.60	1.53
83	A5	3269	G	C2'-C1'	-6.67	1.46	1.53
83	A5	3487	A	C2'-C1'	6.67	1.60	1.53
85	A7	52	U	C2'-C1'	-6.67	1.46	1.53
83	A5	852	C	O4'-C1'	6.67	1.50	1.41
83	A5	3642	G	O4'-C1'	6.67	1.50	1.41
36	B2	871	G	O4'-C1'	6.66	1.50	1.41
36	B2	1800	U	C2'-C1'	-6.66	1.46	1.53
36	B2	1926	A	P-O5'	-6.66	1.53	1.59
83	A5	3493	U	O4'-C1'	6.66	1.50	1.41
83	A5	3509	U	O4'-C1'	6.66	1.50	1.41
83	A5	977	C	O4'-C1'	6.66	1.50	1.41
83	A5	1234	G	C5'-C4'	6.66	1.59	1.51
83	A5	1236	C	O4'-C1'	6.66	1.50	1.41
83	A5	927	A	C2'-C1'	-6.65	1.46	1.53
83	A5	966	U	C5'-C4'	6.65	1.59	1.51
83	A5	3242	A	C2'-C1'	-6.65	1.46	1.53
83	A5	222	C	C2'-C1'	-6.65	1.46	1.53
83	A5	2008	U	C2'-C1'	-6.65	1.46	1.53
37	BC	59	A	O4'-C1'	6.65	1.50	1.41
83	A5	3273	C	C2'-C1'	-6.65	1.46	1.53
83	A5	665	U	O4'-C1'	6.65	1.50	1.41
83	A5	2994	C	O4'-C1'	6.65	1.50	1.41
83	A5	1575	U	O4'-C1'	6.64	1.50	1.41
83	A5	3656	A	O4'-C1'	6.64	1.50	1.41
36	B2	1936	U	C2'-C1'	-6.64	1.46	1.53
83	A5	2177	G	C2'-C1'	-6.64	1.46	1.53
36	B2	1050	A	O4'-C1'	-6.64	1.33	1.41
36	B2	219	A	C2'-C1'	-6.64	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BC	75	A	C2'-C1'	-6.64	1.46	1.53
83	A5	820	A	O4'-C1'	6.64	1.50	1.41
83	A5	2045	U	C2'-C1'	-6.64	1.46	1.53
83	A5	3201	U	O4'-C1'	6.64	1.50	1.41
36	B2	1050	A	C2'-C1'	6.63	1.60	1.53
36	B2	1100	A	O4'-C1'	6.63	1.50	1.41
83	A5	803	A	C2'-C1'	-6.63	1.46	1.53
83	A5	978	G	C2'-C1'	-6.63	1.46	1.53
83	A5	2212	A	O3'-P	-6.63	1.53	1.61
83	A5	3703	C	O4'-C1'	6.63	1.50	1.41
83	A5	350	C	C2'-C1'	-6.63	1.46	1.53
83	A5	1327	G	O4'-C1'	6.63	1.50	1.41
83	A5	1934	C	O4'-C1'	6.63	1.50	1.41
36	B2	66	C	C2'-C1'	6.63	1.60	1.53
83	A5	726	U	C2'-C1'	-6.62	1.46	1.53
83	A5	1490	C	O4'-C1'	6.62	1.50	1.41
83	A5	2801	U	O4'-C1'	6.62	1.50	1.41
36	B2	1004	C	O4'-C1'	6.62	1.50	1.41
83	A5	45	G	C2'-C1'	-6.61	1.46	1.53
83	A5	2600	A	C2'-C1'	6.61	1.60	1.53
83	A5	1009	G	O4'-C1'	6.61	1.50	1.41
83	A5	1885	U	C2'-C1'	-6.61	1.46	1.53
36	B2	443	A	C2'-C1'	-6.61	1.46	1.53
83	A5	3508	G	O4'-C1'	6.61	1.50	1.41
37	BC	25	G	O4'-C1'	6.61	1.50	1.41
83	A5	982	C	O4'-C1'	6.61	1.50	1.41
36	B2	612	A	O4'-C1'	6.60	1.50	1.41
83	A5	66	A	O4'-C1'	6.60	1.50	1.41
83	A5	316	U	O4'-C1'	6.60	1.50	1.41
83	A5	3675	A	C2'-C1'	-6.60	1.46	1.53
36	B2	1164	G	O3'-P	-6.60	1.53	1.61
83	A5	2727	U	O4'-C1'	6.60	1.50	1.41
83	A5	2472	A	C2'-C1'	6.60	1.60	1.53
36	B2	303	C	C2'-C1'	-6.59	1.46	1.53
37	BC	42	G	C2'-C1'	-6.59	1.46	1.53
83	A5	1498	C	O4'-C1'	6.59	1.50	1.41
36	B2	1751	G	C2'-C1'	6.59	1.60	1.53
83	A5	1633	G	C2'-C1'	6.59	1.60	1.53
36	B2	126	G	C2'-C1'	-6.59	1.46	1.53
36	B2	1253	G	C2'-C1'	-6.59	1.46	1.53
83	A5	2789	U	O4'-C1'	6.59	1.50	1.41
83	A5	3636	G	O4'-C1'	6.59	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	76	A	C2'-C1'	6.59	1.60	1.53
36	B2	1829	C	C2'-C1'	-6.59	1.46	1.53
83	A5	1063	C	O4'-C1'	6.59	1.50	1.41
83	A5	3754	C	C2'-C1'	-6.59	1.46	1.53
83	A5	2761	A	O4'-C1'	6.59	1.50	1.41
83	A5	96	G	O4'-C1'	6.59	1.50	1.41
83	A5	1538	U	O4'-C1'	6.58	1.50	1.41
36	B2	189	C	C4'-C3'	6.58	1.60	1.53
83	A5	258	U	P-O5'	-6.58	1.53	1.59
83	A5	695	A	C2'-C1'	-6.58	1.46	1.53
83	A5	2099	C	C2'-C1'	-6.58	1.46	1.53
86	A8	97	U	C2'-C1'	-6.58	1.46	1.53
36	B2	268	C	C2'-C1'	-6.58	1.46	1.53
83	A5	341	A	C5'-C4'	6.58	1.59	1.51
83	A5	3670	G	O4'-C1'	6.58	1.50	1.41
83	A5	3916	U	O4'-C1'	6.58	1.50	1.41
83	A5	3908	U	C2'-C1'	-6.58	1.46	1.53
83	A5	2525	C	C2'-C1'	-6.58	1.46	1.53
36	B2	1224	U	O4'-C1'	6.58	1.50	1.41
36	B2	1730	U	O4'-C1'	6.58	1.50	1.41
83	A5	1621	A	O4'-C1'	6.58	1.50	1.41
83	A5	2056	G	C2'-C1'	-6.58	1.46	1.53
36	B2	276	A	C2'-C1'	6.57	1.60	1.53
36	B2	1424	A	C2'-C1'	6.57	1.60	1.53
83	A5	2465	U	O4'-C1'	6.57	1.50	1.41
83	A5	2739	A	O4'-C1'	6.57	1.50	1.41
83	A5	3817	U	O4'-C1'	6.57	1.50	1.41
36	B2	1181	G	C2'-C1'	-6.56	1.46	1.53
36	B2	1392	U	C4'-C3'	6.56	1.60	1.53
83	A5	3838	A	O3'-P	-6.56	1.53	1.61
83	A5	998	G	C2'-C1'	-6.56	1.46	1.53
83	A5	2128	A	C2'-C1'	-6.56	1.46	1.53
83	A5	2687	A	O4'-C1'	6.56	1.50	1.41
36	B2	1934	U	C2'-C1'	-6.56	1.46	1.53
83	A5	1695	A	O4'-C1'	6.55	1.50	1.41
83	A5	2754	G	O4'-C1'	6.55	1.50	1.41
36	B2	1302	U	O4'-C1'	6.55	1.50	1.41
83	A5	181	A	O3'-P	-6.55	1.53	1.61
36	B2	1157	C	O4'-C1'	6.54	1.50	1.41
83	A5	3760	A	C2'-C1'	-6.54	1.46	1.53
36	B2	1307	C	P-O5'	-6.54	1.53	1.59
83	A5	1967	G	P-O5'	-6.54	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2138	C	C5'-C4'	6.54	1.59	1.51
83	A5	3904	G	O4'-C1'	6.54	1.50	1.41
85	A7	103	A	C2'-C1'	-6.54	1.46	1.53
36	B2	243	U	C2'-C1'	-6.54	1.46	1.53
83	A5	629	A	O4'-C1'	6.54	1.50	1.41
83	A5	3783	A	C2'-C1'	-6.54	1.46	1.53
36	B2	265	A	O4'-C1'	6.54	1.50	1.41
83	A5	2949	A	C5'-C4'	6.54	1.59	1.51
85	A7	105	C	C2'-C1'	-6.54	1.46	1.53
83	A5	3137	A	C2'-C1'	6.53	1.60	1.53
83	A5	1683	U	C2'-C1'	-6.53	1.46	1.53
83	A5	3893	A	O4'-C1'	-6.53	1.33	1.41
86	A8	106	A	O4'-C1'	6.53	1.50	1.41
36	B2	443	A	O4'-C1'	6.53	1.50	1.41
36	B2	1383	A	C2'-C1'	-6.53	1.46	1.53
83	A5	3513	A	O4'-C1'	6.53	1.50	1.41
83	A5	1386	U	O3'-P	-6.53	1.53	1.61
83	A5	492	A	C2'-C1'	6.53	1.60	1.53
83	A5	1017	A	O4'-C1'	6.53	1.50	1.41
36	B2	516	U	O4'-C1'	6.52	1.50	1.41
36	B2	1626	U	C2'-C1'	-6.52	1.46	1.53
36	B2	1897	U	O4'-C1'	6.52	1.50	1.41
83	A5	259	A	O4'-C1'	6.52	1.50	1.41
36	B2	250	U	O4'-C1'	6.52	1.50	1.41
83	A5	3846	U	C5'-C4'	6.52	1.59	1.51
36	B2	97	U	O4'-C1'	6.52	1.50	1.41
36	B2	383	A	C2'-C1'	-6.52	1.46	1.53
36	B2	1397	U	C2'-C1'	6.52	1.60	1.53
83	A5	1577	A	O4'-C1'	6.52	1.50	1.41
36	B2	1959	C	O4'-C1'	6.52	1.50	1.41
85	A7	108	G	O4'-C1'	6.52	1.50	1.41
83	A5	2713	G	O4'-C1'	-6.51	1.33	1.41
36	B2	707	A	C2'-C1'	-6.51	1.46	1.53
36	B2	900	A	O4'-C1'	-6.51	1.33	1.41
83	A5	2912	U	C2'-C1'	6.51	1.60	1.53
36	B2	596	U	O4'-C1'	6.50	1.50	1.41
36	B2	965	G	P-O5'	-6.50	1.53	1.59
83	A5	3830	A	O4'-C1'	6.50	1.50	1.41
85	A7	75	G	P-O5'	-6.50	1.53	1.59
83	A5	1944	C	O4'-C1'	6.50	1.50	1.41
83	A5	3298	U	O4'-C1'	6.50	1.50	1.41
36	B2	371	A	O4'-C1'	6.50	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1535	U	P-O5'	-6.50	1.53	1.59
83	A5	1666	A	O4'-C1'	6.50	1.50	1.41
83	A5	1727	U	C4'-C3'	6.50	1.60	1.53
83	A5	1434	U	C2'-C1'	-6.50	1.46	1.53
85	A7	4	A	O4'-C1'	6.50	1.50	1.41
36	B2	1385	U	O4'-C1'	6.49	1.50	1.41
83	A5	1071	U	O4'-C1'	6.49	1.50	1.41
83	A5	2094	U	C2'-C1'	-6.49	1.46	1.53
83	A5	3485	U	O4'-C1'	6.49	1.50	1.41
83	A5	1055	U	O4'-C1'	6.49	1.50	1.41
83	A5	1367	A	O4'-C1'	6.49	1.50	1.41
86	A8	49	C	C5'-C4'	6.49	1.59	1.51
36	B2	143	U	O4'-C1'	6.49	1.50	1.41
36	B2	1622	U	C2'-C1'	6.49	1.60	1.53
83	A5	595	U	O4'-C1'	6.49	1.50	1.41
36	B2	315	C	O4'-C1'	6.49	1.50	1.41
36	B2	1932	A	O4'-C1'	6.49	1.50	1.41
83	A5	3232	G	O4'-C1'	6.49	1.50	1.41
83	A5	353	G	O3'-P	-6.48	1.53	1.61
36	B2	524	G	O4'-C1'	6.48	1.50	1.41
83	A5	2527	A	O3'-P	-6.48	1.53	1.61
83	A5	3197	U	P-O5'	-6.48	1.53	1.59
36	B2	405	A	C2'-C1'	6.48	1.60	1.53
83	A5	243	A	O4'-C1'	6.48	1.50	1.41
83	A5	403	A	O4'-C1'	6.48	1.50	1.41
83	A5	629	A	C2'-C1'	-6.48	1.46	1.53
83	A5	3226	A	O4'-C1'	6.48	1.50	1.41
36	B2	1099	U	C4'-O4'	-6.48	1.37	1.45
36	B2	1746	A	O4'-C1'	6.48	1.50	1.41
37	BC	74	C	C2'-C1'	-6.48	1.46	1.53
83	A5	489	U	C2'-C1'	6.48	1.60	1.53
83	A5	1475	A	C2'-C1'	6.47	1.60	1.53
36	B2	220	A	C2'-C1'	6.47	1.60	1.53
36	B2	1414	C	O4'-C1'	6.47	1.50	1.41
83	A5	1125	A	C2'-C1'	-6.47	1.46	1.53
83	A5	2181	A	C2'-C1'	-6.47	1.46	1.53
36	B2	246	U	O4'-C1'	6.47	1.50	1.41
36	B2	1499	U	O3'-P	-6.47	1.53	1.61
37	BC	35	U	O4'-C1'	6.47	1.50	1.41
83	A5	2564	U	C2'-C1'	-6.47	1.46	1.53
83	A5	2880	A	C2'-C1'	6.47	1.60	1.53
36	B2	1896	G	C5'-C4'	6.47	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3353	C	C2'-C1'	-6.47	1.46	1.53
36	B2	597	C	C2'-C1'	-6.46	1.46	1.53
83	A5	1506	A	C2'-C1'	-6.46	1.46	1.53
83	A5	3262	A	C2'-C1'	-6.46	1.46	1.53
83	A5	3741	A	C2'-C1'	6.46	1.60	1.53
36	B2	831	U	C2'-C1'	-6.46	1.46	1.53
83	A5	2837	A	O4'-C1'	6.46	1.50	1.41
36	B2	1281	A	O4'-C1'	6.46	1.50	1.41
36	B2	1983	G	C2'-C1'	-6.46	1.46	1.53
83	A5	785	A	C2'-C1'	-6.46	1.46	1.53
83	A5	2075	A	O4'-C1'	6.46	1.50	1.41
83	A5	1037	A	O4'-C1'	6.46	1.50	1.41
36	B2	638	A	C2'-C1'	-6.45	1.46	1.53
83	A5	335	A	O3'-P	-6.45	1.53	1.61
83	A5	2228	U	O4'-C1'	6.45	1.50	1.41
36	B2	996	U	O4'-C1'	6.45	1.50	1.41
83	A5	1096	A	C2'-C1'	6.45	1.60	1.53
83	A5	18	U	C2'-C1'	-6.45	1.46	1.53
83	A5	646	G	C2'-C1'	-6.44	1.46	1.53
36	B2	6	G	P-O5'	-6.44	1.53	1.59
36	B2	309	U	O4'-C1'	6.44	1.50	1.41
36	B2	406	A	O4'-C1'	6.44	1.50	1.41
83	A5	1745	G	C2'-C1'	6.44	1.60	1.53
83	A5	2816	A	C2'-C1'	-6.44	1.46	1.53
36	B2	1846	G	C2'-C1'	-6.44	1.46	1.53
83	A5	1519	A	O4'-C1'	-6.44	1.33	1.41
83	A5	2790	G	O4'-C1'	6.44	1.50	1.41
83	A5	3140	G	O4'-C1'	6.44	1.50	1.41
83	A5	92	A	C2'-C1'	-6.44	1.46	1.53
83	A5	734	U	O4'-C1'	6.44	1.50	1.41
83	A5	1996	U	O4'-C1'	6.43	1.50	1.41
83	A5	2515	C	O3'-P	-6.43	1.53	1.61
83	A5	374	C	O4'-C1'	6.43	1.50	1.41
83	A5	2565	G	C2'-C1'	-6.43	1.46	1.53
83	A5	3751	C	O4'-C1'	6.43	1.50	1.41
86	A8	59	G	C2'-C1'	-6.43	1.46	1.53
83	A5	3961	G	O4'-C1'	6.43	1.50	1.41
83	A5	2025	G	O4'-C1'	6.43	1.50	1.41
36	B2	840	U	C2'-C1'	-6.42	1.46	1.53
83	A5	513	G	C5'-C4'	6.42	1.59	1.51
83	A5	724	U	C2'-C1'	6.42	1.60	1.53
83	A5	1685	G	O4'-C1'	6.42	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3843	U	O3'-P	-6.42	1.53	1.61
83	A5	1424	G	O4'-C1'	6.42	1.50	1.41
83	A5	528	U	O4'-C1'	6.42	1.50	1.41
83	A5	2156	U	O4'-C1'	6.42	1.50	1.41
36	B2	847	G	C2'-C1'	6.42	1.60	1.53
83	A5	2498	U	O4'-C1'	6.42	1.50	1.41
83	A5	237	G	C2'-C1'	-6.42	1.46	1.53
83	A5	470	G	C2'-C1'	-6.42	1.46	1.53
36	B2	1169	C	O3'-P	-6.41	1.53	1.61
83	A5	216	U	O3'-P	-6.41	1.53	1.61
83	A5	1807	U	O4'-C1'	6.41	1.50	1.41
36	B2	1125	U	C2'-C1'	-6.40	1.46	1.53
36	B2	1256	U	C2'-C1'	-6.40	1.46	1.53
83	A5	1539	A	O4'-C1'	6.40	1.50	1.41
36	B2	1067	G	C2'-C1'	-6.40	1.46	1.53
84	A9	15	A	O4'-C1'	6.40	1.50	1.41
36	B2	1360	G	C2'-C1'	-6.39	1.46	1.53
36	B2	1769	A	O4'-C1'	6.39	1.50	1.41
83	A5	282	A	C2'-C1'	-6.39	1.46	1.53
83	A5	1310	A	O4'-C1'	6.39	1.50	1.41
83	A5	2204	U	C2'-C1'	6.39	1.60	1.53
83	A5	2903	U	O4'-C1'	6.39	1.50	1.41
83	A5	3120	C	C2'-C1'	-6.39	1.46	1.53
83	A5	2055	G	O4'-C1'	6.39	1.50	1.41
36	B2	168	A	P-O5'	-6.38	1.53	1.59
83	A5	58	G	O4'-C1'	-6.38	1.33	1.41
83	A5	3724	U	C2'-C1'	6.38	1.60	1.53
36	B2	165	A	C2'-C1'	-6.38	1.46	1.53
83	A5	3169	A	O4'-C1'	6.38	1.50	1.41
36	B2	2	U	O4'-C1'	6.38	1.50	1.41
20	Aa	42	ARG	NE-CZ	6.38	1.41	1.33
83	A5	184	A	C2'-C1'	6.38	1.60	1.53
83	A5	3746	A	C2'-C1'	-6.38	1.46	1.53
83	A5	3274	A	C2'-C1'	-6.38	1.46	1.53
36	B2	1411	G	C2'-C1'	-6.37	1.46	1.53
83	A5	712	U	O4'-C1'	6.37	1.50	1.41
83	A5	3451	A	O4'-C1'	6.37	1.50	1.41
83	A5	156	G	P-O5'	-6.37	1.53	1.59
83	A5	3947	C	O4'-C1'	6.37	1.50	1.41
83	A5	914	C	O4'-C1'	6.37	1.50	1.41
36	B2	95	G	O4'-C1'	6.37	1.50	1.41
83	A5	1235	U	C2'-C1'	-6.37	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2554	U	C2'-C1'	-6.37	1.46	1.53
83	A5	1389	C	C2'-C1'	-6.37	1.46	1.53
83	A5	2065	A	C2'-C1'	-6.37	1.46	1.53
83	A5	1362	G	C2'-C1'	-6.36	1.46	1.53
36	B2	1937	U	O4'-C1'	6.36	1.50	1.41
83	A5	861	C	O4'-C1'	6.36	1.50	1.41
83	A5	1568	A	O4'-C1'	6.36	1.50	1.41
83	A5	146	A	O4'-C1'	6.36	1.50	1.41
36	B2	1140	G	C2'-C1'	-6.36	1.46	1.53
36	B2	1578	U	O4'-C1'	6.36	1.50	1.41
83	A5	190	A	C2'-C1'	6.35	1.60	1.53
36	B2	1238	G	C2'-C1'	-6.35	1.46	1.53
83	A5	136	C	O4'-C1'	6.35	1.50	1.41
83	A5	1694	A	O4'-C1'	6.35	1.50	1.41
83	A5	2785	C	C2'-C1'	-6.35	1.46	1.53
83	A5	3402	C	O4'-C1'	6.35	1.50	1.41
37	BC	20	A	C2'-C1'	6.35	1.60	1.53
83	A5	1284	A	C2'-C1'	6.35	1.60	1.53
36	B2	534	A	O4'-C1'	6.35	1.50	1.41
36	B2	1201	A	C2'-C1'	-6.35	1.46	1.53
83	A5	894	U	O4'-C1'	6.35	1.50	1.41
83	A5	2897	G	O4'-C1'	-6.35	1.33	1.41
83	A5	3917	G	C2'-C1'	-6.35	1.46	1.53
36	B2	1993	U	C4'-C3'	-6.35	1.46	1.53
36	B2	1073	G	C2'-C1'	-6.34	1.46	1.53
36	B2	545	A	O4'-C1'	6.34	1.49	1.41
83	A5	1296	U	C2'-C1'	-6.34	1.46	1.53
36	B2	1077	C	C2'-C1'	-6.34	1.46	1.53
83	A5	2143	C	C2'-C1'	-6.34	1.46	1.53
36	B2	75	U	C5'-C4'	6.34	1.58	1.51
83	A5	3946	G	C2'-C1'	-6.34	1.46	1.53
36	B2	911	C	O4'-C1'	6.33	1.49	1.41
83	A5	1097	A	C2'-C1'	-6.33	1.46	1.53
83	A5	3495	G	O4'-C1'	-6.33	1.33	1.41
36	B2	1028	A	C2'-C1'	-6.33	1.46	1.53
36	B2	1867	C	C2'-C1'	-6.33	1.46	1.53
83	A5	306	C	C2'-C1'	-6.33	1.46	1.53
36	B2	338	C	O4'-C1'	6.33	1.49	1.41
36	B2	488	A	O3'-P	-6.32	1.53	1.61
83	A5	3868	G	C2'-C1'	-6.32	1.46	1.53
83	A5	3282	C	C5'-C4'	6.32	1.58	1.51
83	A5	141	U	C2'-C1'	6.32	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2739	A	P-O5'	-6.32	1.53	1.59
83	A5	2835	G	C2'-C1'	-6.32	1.46	1.53
83	A5	715	U	C2'-C1'	6.32	1.60	1.53
83	A5	2761	A	C2'-C1'	-6.32	1.46	1.53
36	B2	1886	G	O4'-C1'	6.31	1.49	1.41
36	B2	174	A	O4'-C1'	-6.31	1.33	1.41
36	B2	1242	G	C2'-C1'	-6.31	1.46	1.53
36	B2	1349	U	O4'-C1'	6.31	1.49	1.41
83	A5	527	U	C2'-C1'	-6.31	1.46	1.53
83	A5	1195	U	O4'-C1'	6.31	1.49	1.41
83	A5	1339	U	O4'-C1'	6.31	1.49	1.41
83	A5	2215	G	P-O5'	-6.31	1.53	1.59
83	A5	1322	U	O4'-C1'	6.31	1.49	1.41
36	B2	1806	A	O4'-C1'	-6.31	1.33	1.41
83	A5	740	G	C2'-C1'	-6.31	1.46	1.53
83	A5	1170	U	C2'-C1'	6.31	1.60	1.53
83	A5	1591	U	C2'-C1'	-6.31	1.46	1.53
83	A5	2636	U	O4'-C1'	6.31	1.49	1.41
83	A5	3475	U	P-O5'	-6.31	1.53	1.59
83	A5	3638	U	C2'-C1'	-6.31	1.46	1.53
83	A5	3921	A	O4'-C1'	6.31	1.49	1.41
83	A5	1123	C	O4'-C1'	6.30	1.49	1.41
83	A5	2732	C	O4'-C1'	6.30	1.49	1.41
86	A8	98	U	O4'-C1'	6.30	1.49	1.41
56	CX	260	ARG	NE-CZ	6.30	1.41	1.33
83	A5	524	A	C2'-C1'	6.30	1.60	1.53
36	B2	993	A	O4'-C1'	6.29	1.49	1.41
83	A5	644	U	C2'-C1'	-6.29	1.46	1.53
83	A5	3211	A	O4'-C1'	-6.29	1.33	1.41
83	A5	3843	U	O4'-C1'	-6.29	1.33	1.41
83	A5	2071	A	O4'-C1'	6.29	1.49	1.41
36	B2	364	A	C2'-C1'	6.29	1.60	1.53
36	B2	535	A	O4'-C1'	6.29	1.49	1.41
83	A5	820	A	C2'-C1'	-6.29	1.46	1.53
36	B2	1285	C	O4'-C1'	6.28	1.49	1.41
83	A5	3164	C	O4'-C1'	6.28	1.49	1.41
83	A5	3120	C	O4'-C1'	6.28	1.49	1.41
83	A5	1224	A	O4'-C1'	6.28	1.49	1.41
83	A5	635	G	O4'-C1'	6.28	1.49	1.41
83	A5	2260	U	P-O5'	-6.28	1.53	1.59
83	A5	3345	A	O4'-C1'	6.28	1.49	1.41
83	A5	3513	A	C2'-C1'	-6.28	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	634	U	C5'-C4'	6.27	1.58	1.51
83	A5	176	A	C2'-C1'	-6.27	1.46	1.53
83	A5	1403	C	O4'-C1'	6.27	1.49	1.41
83	A5	2246	A	O4'-C1'	6.27	1.49	1.41
83	A5	891	U	O4'-C1'	6.27	1.49	1.41
83	A5	3435	A	O4'-C1'	6.27	1.49	1.41
36	B2	64	U	C2'-C1'	6.27	1.60	1.53
36	B2	1114	A	C2'-C1'	6.27	1.60	1.53
83	A5	367	A	C2'-C1'	6.27	1.60	1.53
83	A5	3385	G	P-O5'	-6.27	1.53	1.59
83	A5	1276	G	O4'-C1'	6.26	1.49	1.41
83	A5	1712	C	C2'-C1'	-6.26	1.46	1.53
83	A5	2796	G	C2'-C1'	6.26	1.60	1.53
83	A5	3586	A	O4'-C1'	6.26	1.49	1.41
83	A5	3469	G	C5'-C4'	6.26	1.58	1.51
36	B2	299	C	O4'-C1'	6.26	1.49	1.41
83	A5	3380	G	C2'-C1'	-6.26	1.46	1.53
36	B2	637	U	O4'-C1'	6.26	1.49	1.41
36	B2	958	G	O4'-C1'	6.26	1.49	1.41
36	B2	1654	G	O4'-C1'	-6.26	1.33	1.41
83	A5	3573	C	O4'-C1'	6.26	1.49	1.41
36	B2	1438	U	O4'-C1'	6.25	1.49	1.41
83	A5	1467	A	O3'-P	-6.25	1.53	1.61
83	A5	1718	G	O4'-C1'	6.25	1.49	1.41
82	CG	180	ARG	CZ-NH2	6.25	1.41	1.33
36	B2	1151	G	C2'-C1'	-6.25	1.46	1.53
36	B2	1858	U	C2'-C1'	-6.25	1.46	1.53
83	A5	1080	G	O3'-P	-6.25	1.53	1.61
83	A5	3536	U	O4'-C1'	6.25	1.49	1.41
83	A5	1445	G	C2'-C1'	-6.25	1.46	1.53
83	A5	2901	C	O3'-P	-6.25	1.53	1.61
83	A5	1271	G	O4'-C1'	-6.24	1.33	1.41
86	A8	89	A	O4'-C1'	6.24	1.49	1.41
83	A5	2030	U	O4'-C1'	6.24	1.49	1.41
36	B2	1200	A	O4'-C1'	6.24	1.49	1.41
83	A5	2680	G	O4'-C1'	6.24	1.49	1.41
36	B2	192	A	C2'-C1'	6.24	1.60	1.53
83	A5	480	C	O4'-C1'	6.24	1.49	1.41
83	A5	1974	U	C2'-C1'	-6.24	1.46	1.53
83	A5	3506	U	O4'-C1'	6.23	1.49	1.41
86	A8	24	G	O3'-P	-6.23	1.53	1.61
36	B2	308	G	C2'-C1'	-6.23	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	906	A	C2'-C1'	-6.23	1.46	1.53
83	A5	2187	U	C2'-C1'	6.23	1.60	1.53
83	A5	3649	C	O4'-C1'	6.23	1.49	1.41
83	A5	460	A	C2'-C1'	-6.23	1.46	1.53
83	A5	3814	U	C2'-C1'	6.23	1.60	1.53
36	B2	1441	C	O4'-C1'	6.23	1.49	1.41
83	A5	864	G	C2'-C1'	-6.23	1.46	1.53
83	A5	101	C	O4'-C1'	6.22	1.49	1.41
83	A5	2204	U	O4'-C1'	6.22	1.49	1.41
26	AJ	134	ARG	CD-NE	6.22	1.57	1.46
36	B2	1702	C	C2'-C1'	-6.22	1.46	1.53
83	A5	2591	A	C2'-C1'	-6.22	1.46	1.53
83	A5	372	U	O4'-C1'	6.22	1.49	1.41
83	A5	627	G	C2'-C1'	-6.22	1.46	1.53
83	A5	462	C	C2'-C1'	-6.22	1.46	1.53
83	A5	1435	A	C2'-C1'	6.21	1.60	1.53
36	B2	1673	U	C2'-C1'	-6.21	1.46	1.53
36	B2	168	A	C2'-C1'	-6.21	1.46	1.53
36	B2	881	U	C2'-C1'	-6.21	1.46	1.53
36	B2	1027	A	O4'-C1'	6.21	1.49	1.41
83	A5	795	A	O4'-C1'	6.21	1.49	1.41
83	A5	3199	A	O4'-C1'	6.21	1.49	1.41
36	B2	954	A	O4'-C1'	6.21	1.49	1.41
83	A5	3942	U	C2'-C1'	-6.20	1.46	1.53
36	B2	1285	C	C2'-C1'	6.20	1.60	1.53
83	A5	1024	U	O4'-C1'	6.20	1.49	1.41
83	A5	1989	A	O4'-C1'	6.20	1.49	1.41
83	A5	3283	U	O4'-C1'	6.20	1.49	1.41
36	B2	1039	A	O4'-C1'	6.20	1.49	1.41
83	A5	21	U	P-O5'	-6.20	1.53	1.59
83	A5	587	U	O4'-C1'	6.20	1.49	1.41
36	B2	1928	C	C2'-C1'	-6.20	1.46	1.53
36	B2	531	U	O4'-C1'	6.19	1.49	1.41
83	A5	3309	A	O4'-C1'	6.19	1.49	1.41
83	A5	497	U	O3'-P	-6.19	1.53	1.61
36	B2	1843	A	C4'-C3'	6.19	1.59	1.53
83	A5	2510	A	O4'-C1'	6.19	1.49	1.41
36	B2	270	G	C2'-C1'	-6.19	1.46	1.53
83	A5	565	C	C2'-C1'	-6.19	1.46	1.53
83	A5	357	C	C2'-C1'	-6.18	1.46	1.53
83	A5	1521	G	O4'-C1'	6.18	1.49	1.41
83	A5	395	A	O4'-C1'	6.18	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2161	G	C2'-C1'	-6.18	1.46	1.53
36	B2	649	U	O4'-C1'	6.18	1.49	1.41
36	B2	183	A	C2'-C1'	-6.18	1.46	1.53
83	A5	1804	A	O3'-P	-6.18	1.53	1.61
36	B2	989	G	C2'-C1'	-6.17	1.46	1.53
36	B2	1105	U	O4'-C1'	6.17	1.49	1.41
83	A5	2171	U	O4'-C1'	6.17	1.49	1.41
83	A5	2529	G	O4'-C1'	6.17	1.49	1.41
36	B2	1125	U	P-O5'	-6.17	1.53	1.59
36	B2	1583	A	C2'-C1'	6.17	1.60	1.53
83	A5	2266	U	O4'-C1'	6.17	1.49	1.41
36	B2	1831	C	C4'-C3'	-6.16	1.46	1.53
83	A5	3822	C	C2'-C1'	-6.16	1.46	1.53
83	A5	3920	C	O3'-P	-6.16	1.53	1.61
36	B2	1200	A	C2'-C1'	-6.16	1.46	1.53
36	B2	1894	G	C5'-C4'	6.16	1.58	1.51
83	A5	1395	U	O4'-C1'	6.16	1.49	1.41
36	B2	94	G	O4'-C1'	6.16	1.49	1.41
83	A5	3110	U	O4'-C1'	6.15	1.49	1.41
36	B2	542	A	O4'-C1'	6.15	1.49	1.41
36	B2	1069	U	C2'-C1'	-6.15	1.46	1.53
37	BC	72	A	C2'-C1'	-6.15	1.46	1.53
83	A5	186	G	C2'-C1'	-6.15	1.46	1.53
83	A5	1277	A	O4'-C1'	6.15	1.49	1.41
83	A5	2147	C	C2'-C1'	-6.15	1.46	1.53
83	A5	2715	C	C2'-C1'	-6.15	1.46	1.53
86	A8	4	U	C2'-C1'	-6.15	1.46	1.53
86	A8	23	G	C2'-C1'	-6.15	1.46	1.53
85	A7	90	A	C2'-C1'	6.15	1.60	1.53
83	A5	796	A	O4'-C1'	6.15	1.49	1.41
36	B2	395	G	O4'-C1'	-6.14	1.33	1.41
36	B2	1156	U	O4'-C1'	6.14	1.49	1.41
83	A5	1758	U	O4'-C1'	6.14	1.49	1.41
83	A5	2209	G	C2'-C1'	-6.14	1.46	1.53
36	B2	1029	G	C5'-C4'	6.14	1.58	1.51
36	B2	1811	C	C2'-C1'	-6.14	1.46	1.53
36	B2	1047	U	O4'-C1'	6.14	1.49	1.41
37	BC	28	G	C2'-C1'	-6.14	1.46	1.53
36	B2	1019	U	O4'-C1'	6.14	1.49	1.41
36	B2	1437	A	O4'-C1'	6.14	1.49	1.41
36	B2	1127	G	O4'-C1'	6.14	1.49	1.41
83	A5	2627	G	C2'-C1'	-6.14	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
86	A8	38	G	C5'-C4'	6.14	1.58	1.51
36	B2	698	U	C5'-C4'	6.13	1.58	1.51
83	A5	536	U	C2'-C1'	6.13	1.60	1.53
36	B2	1737	U	O4'-C1'	6.13	1.49	1.41
83	A5	3612	A	O4'-C1'	6.13	1.49	1.41
36	B2	1775	A	O4'-C1'	6.13	1.49	1.41
83	A5	1604	G	C2'-C1'	-6.13	1.46	1.53
83	A5	3256	U	C2'-C1'	-6.13	1.46	1.53
83	A5	1030	A	O4'-C1'	6.12	1.49	1.41
83	A5	1947	G	C2'-C1'	6.12	1.60	1.53
21	Ab	80	ARG	NE-CZ	6.12	1.41	1.33
83	A5	120	C	C2'-C1'	6.12	1.60	1.53
36	B2	1297	C	C2'-C1'	-6.12	1.46	1.53
83	A5	2769	G	O4'-C1'	6.12	1.49	1.41
36	B2	555	U	C2'-C1'	-6.12	1.46	1.53
36	B2	1165	C	O4'-C1'	6.12	1.49	1.41
36	B2	1326	U	C2'-C1'	-6.12	1.46	1.53
83	A5	1770	C	C5'-C4'	6.12	1.58	1.51
36	B2	231	G	C2'-C1'	6.12	1.60	1.53
36	B2	276	A	O4'-C1'	6.12	1.49	1.41
83	A5	863	U	O4'-C1'	6.12	1.49	1.41
83	A5	1298	A	C2'-C1'	-6.11	1.46	1.53
83	A5	980	A	O3'-P	-6.11	1.53	1.61
83	A5	2632	U	O4'-C1'	6.11	1.49	1.41
83	A5	482	U	O4'-C1'	6.11	1.49	1.41
83	A5	172	C	C5'-C4'	6.11	1.58	1.51
83	A5	2628	G	C2'-C1'	-6.11	1.46	1.53
83	A5	2658	A	O4'-C1'	6.11	1.49	1.41
85	A7	70	G	O4'-C1'	6.11	1.49	1.41
36	B2	383	A	O4'-C1'	6.11	1.49	1.41
83	A5	2486	A	O4'-C1'	6.11	1.49	1.41
83	A5	2757	U	C2'-C1'	6.10	1.60	1.53
36	B2	1008	G	O4'-C1'	6.10	1.49	1.41
36	B2	270	G	O4'-C1'	6.10	1.49	1.41
83	A5	3420	U	O4'-C1'	6.10	1.49	1.41
83	A5	1359	G	O4'-C1'	6.10	1.49	1.41
83	A5	2175	A	P-O5'	-6.10	1.53	1.59
83	A5	3393	U	O4'-C1'	6.10	1.49	1.41
83	A5	3388	G	O3'-P	-6.10	1.53	1.61
36	B2	70	C	O4'-C1'	6.09	1.49	1.41
83	A5	938	U	O4'-C1'	6.09	1.49	1.41
36	B2	824	U	O4'-C1'	6.09	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	AC	262	ARG	NE-CZ	6.09	1.41	1.33
36	B2	875	A	C2'-C1'	-6.09	1.46	1.53
83	A5	1151	A	C2'-C1'	-6.09	1.46	1.53
85	A7	99	G	C5'-C4'	6.09	1.58	1.51
36	B2	546	A	C2'-C1'	6.09	1.60	1.53
36	B2	1772	C	C2'-C1'	-6.09	1.46	1.53
83	A5	3437	U	O4'-C1'	6.09	1.49	1.41
36	B2	1901	A	C5'-C4'	6.08	1.58	1.51
83	A5	116	U	C5'-C4'	6.08	1.58	1.51
36	B2	1323	A	O4'-C1'	6.08	1.49	1.41
83	A5	984	U	O4'-C1'	-6.08	1.33	1.41
83	A5	1055	U	C2'-C1'	-6.08	1.46	1.53
36	B2	735	G	O3'-P	-6.08	1.53	1.61
83	A5	2513	G	O4'-C1'	6.08	1.49	1.41
83	A5	240	G	C2'-C1'	6.08	1.60	1.53
36	B2	1182	C	C2'-C1'	-6.08	1.46	1.53
36	B2	1555	U	C2'-C1'	-6.08	1.46	1.53
36	B2	1428	A	O4'-C1'	6.08	1.49	1.41
83	A5	2093	U	C2'-C1'	-6.08	1.46	1.53
36	B2	136	A	O4'-C1'	-6.07	1.33	1.41
36	B2	876	U	C2'-C1'	6.07	1.60	1.53
83	A5	892	A	C2'-C1'	-6.07	1.46	1.53
83	A5	967	C	O4'-C1'	6.07	1.49	1.41
83	A5	2551	U	C2'-C1'	-6.07	1.46	1.53
83	A5	366	A	O4'-C1'	6.07	1.49	1.41
83	A5	3088	U	P-O5'	-6.07	1.53	1.59
83	A5	1097	A	O4'-C1'	6.07	1.49	1.41
85	A7	113	G	O4'-C1'	6.07	1.49	1.41
83	A5	2024	U	C2'-C1'	-6.07	1.46	1.53
84	A9	27	U	C2'-C1'	-6.07	1.46	1.53
37	BC	5	G	C2'-C1'	-6.06	1.46	1.53
36	B2	1526	G	O4'-C1'	6.06	1.49	1.41
86	A8	80	C	O4'-C1'	-6.06	1.33	1.41
36	B2	1458	U	C5'-C4'	6.06	1.58	1.51
83	A5	441	A	O4'-C1'	6.06	1.49	1.41
36	B2	1555	U	P-O5'	-6.06	1.53	1.59
83	A5	2575	C	O4'-C1'	6.06	1.49	1.41
83	A5	1677	U	C2'-C1'	6.05	1.60	1.53
83	A5	2214	G	C2'-C1'	-6.05	1.46	1.53
83	A5	2806	U	O4'-C1'	6.05	1.49	1.41
83	A5	3157	U	O3'-P	-6.05	1.53	1.61
86	A8	16	A	O4'-C1'	6.05	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	572	G	O4'-C1'	6.05	1.49	1.41
83	A5	1469	C	C2'-C1'	-6.05	1.46	1.53
83	A5	3562	A	C3'-C2'	-6.05	1.46	1.52
83	A5	1941	A	O4'-C1'	6.05	1.49	1.41
83	A5	2551	U	O3'-P	-6.05	1.53	1.61
36	B2	1295	U	O3'-P	-6.04	1.53	1.61
83	A5	3247	A	O4'-C1'	6.04	1.49	1.41
36	B2	1372	U	O4'-C1'	-6.04	1.33	1.41
83	A5	1076	A	C2'-C1'	-6.04	1.46	1.53
83	A5	3557	G	C4'-C3'	6.04	1.59	1.53
36	B2	1364	G	O4'-C1'	6.04	1.49	1.41
83	A5	360	A	O4'-C1'	-6.04	1.33	1.41
83	A5	1963	U	C2'-C1'	6.04	1.59	1.53
36	B2	551	C	O4'-C1'	6.03	1.49	1.41
83	A5	868	A	C5'-C4'	6.03	1.58	1.51
36	B2	302	U	O4'-C1'	6.03	1.49	1.41
83	A5	2499	U	O4'-C1'	6.03	1.49	1.41
36	B2	1158	U	O4'-C1'	6.03	1.49	1.41
36	B2	166	A	C2'-C1'	6.03	1.59	1.53
36	B2	1332	G	C2'-C1'	6.03	1.59	1.53
83	A5	3686	A	O4'-C1'	-6.03	1.33	1.41
83	A5	1582	U	O4'-C1'	6.02	1.49	1.41
83	A5	2694	G	C4'-C3'	-6.02	1.46	1.53
83	A5	3639	U	O4'-C1'	6.02	1.49	1.41
83	A5	2490	G	O3'-P	-6.02	1.53	1.61
83	A5	676	A	C2'-C1'	-6.02	1.46	1.53
83	A5	880	A	O4'-C1'	6.01	1.49	1.41
83	A5	921	C	P-O5'	-6.01	1.53	1.59
83	A5	3342	C	C2'-C1'	-6.01	1.46	1.53
36	B2	343	A	C2'-C1'	-6.01	1.46	1.53
83	A5	1504	C	C2'-C1'	-6.01	1.46	1.53
36	B2	832	U	O4'-C1'	6.01	1.49	1.41
83	A5	1314	U	O4'-C1'	6.01	1.49	1.41
83	A5	3502	A	C2'-C1'	6.01	1.59	1.53
83	A5	351	A	O4'-C1'	6.01	1.49	1.41
83	A5	1320	U	O4'-C1'	6.01	1.49	1.41
83	A5	1465	A	O4'-C1'	6.01	1.49	1.41
83	A5	2175	A	O4'-C1'	6.01	1.49	1.41
36	B2	39	A	O3'-P	-6.01	1.53	1.61
83	A5	2129	C	C5'-C4'	6.01	1.58	1.51
83	A5	3793	U	C2'-C1'	-6.01	1.46	1.53
36	B2	237	U	O4'-C1'	6.00	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	849	U	C2'-C1'	-6.00	1.46	1.53
36	B2	887	G	C2'-C1'	-6.00	1.46	1.53
83	A5	666	A	C2'-C1'	6.00	1.59	1.53
36	B2	1461	A	O4'-C1'	6.00	1.49	1.41
36	B2	1686	C	O4'-C1'	6.00	1.49	1.41
83	A5	1887	C	C2'-C1'	6.00	1.59	1.53
83	A5	3112	A	O4'-C1'	6.00	1.49	1.41
83	A5	3496	U	C2'-C1'	-6.00	1.46	1.53
36	B2	1299	A	O4'-C1'	6.00	1.49	1.41
83	A5	202	A	C2'-C1'	6.00	1.59	1.53
83	A5	1758	U	C2'-C1'	-6.00	1.46	1.53
83	A5	272	U	O4'-C1'	6.00	1.49	1.41
36	B2	375	A	O4'-C1'	5.99	1.49	1.41
83	A5	3364	C	O4'-C1'	5.99	1.49	1.41
83	A5	162	U	O4'-C1'	-5.99	1.33	1.41
83	A5	2619	U	O4'-C1'	5.99	1.49	1.41
83	A5	325	A	O4'-C1'	5.99	1.49	1.41
83	A5	2225	A	C2'-C1'	-5.99	1.46	1.53
83	A5	3597	C	C2'-C1'	-5.99	1.46	1.53
83	A5	3836	A	O4'-C1'	5.99	1.49	1.41
83	A5	1513	C	O4'-C1'	5.98	1.49	1.41
83	A5	2270	G	O4'-C1'	5.98	1.49	1.41
36	B2	69	A	O4'-C1'	5.98	1.49	1.41
36	B2	1088	A	O4'-C1'	5.98	1.49	1.41
36	B2	1264	G	C2'-C1'	-5.98	1.46	1.53
36	B2	1559	A	C5'-C4'	5.98	1.58	1.51
47	CI	153	ARG	CZ-NH1	5.98	1.40	1.33
59	CZ	110	ARG	NE-CZ	5.98	1.40	1.33
36	B2	992	A	O3'-P	-5.98	1.53	1.61
83	A5	917	G	C2'-C1'	-5.98	1.46	1.53
83	A5	3527	A	O4'-C1'	5.98	1.49	1.41
83	A5	185	U	C4'-C3'	5.98	1.59	1.53
83	A5	3762	G	O4'-C1'	-5.98	1.33	1.41
36	B2	959	U	C2'-C1'	-5.98	1.46	1.53
36	B2	241	U	O4'-C1'	5.97	1.49	1.41
36	B2	1287	G	O4'-C1'	-5.97	1.33	1.41
83	A5	2253	U	C2'-C1'	-5.97	1.46	1.53
83	A5	123	U	C2'-C1'	5.97	1.59	1.53
83	A5	319	G	C2'-C1'	-5.97	1.46	1.53
83	A5	1290	U	C2'-C1'	-5.97	1.46	1.53
83	A5	3679	C	C2'-C1'	-5.97	1.46	1.53
83	A5	1740	C	C2'-C1'	-5.97	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1979	A	O4'-C1'	5.97	1.49	1.41
83	A5	2748	G	C4'-C3'	5.97	1.59	1.53
36	B2	1277	A	C2'-C1'	5.96	1.59	1.53
71	Cj	75	ARG	CZ-NH1	5.96	1.40	1.33
83	A5	1446	A	C2'-C1'	5.96	1.59	1.53
83	A5	2004	G	O4'-C1'	5.96	1.49	1.41
83	A5	2173	C	O4'-C1'	5.96	1.49	1.41
36	B2	1296	A	O4'-C1'	-5.96	1.33	1.41
36	B2	390	A	O4'-C1'	5.96	1.49	1.41
83	A5	2784	C	C2'-C1'	-5.96	1.46	1.53
83	A5	908	C	C2'-C1'	-5.96	1.46	1.53
36	B2	319	C	O4'-C1'	5.96	1.49	1.41
83	A5	98	G	O3'-P	-5.96	1.54	1.61
36	B2	1994	U	C2'-C1'	5.96	1.59	1.53
83	A5	3865	C	C2'-C1'	-5.96	1.46	1.53
36	B2	1472	C	O3'-P	-5.95	1.54	1.61
36	B2	1522	G	C2'-C1'	-5.95	1.46	1.53
85	A7	20	U	C2'-C1'	-5.95	1.46	1.53
36	B2	1653	C	C2'-C1'	5.95	1.59	1.53
83	A5	542	C	C2'-C1'	-5.95	1.46	1.53
83	A5	1423	C	O4'-C1'	5.95	1.49	1.41
83	A5	1481	G	O4'-C1'	5.95	1.49	1.41
83	A5	2718	U	C2'-C1'	-5.95	1.46	1.53
36	B2	653	U	O4'-C1'	5.95	1.49	1.41
41	CO	20	ARG	CZ-NH2	5.95	1.40	1.33
83	A5	997	U	O4'-C1'	5.95	1.49	1.41
84	A9	15	A	C2'-C1'	-5.95	1.46	1.53
83	A5	2831	U	O4'-C1'	5.95	1.49	1.41
83	A5	1155	U	C2'-C1'	-5.95	1.46	1.53
36	B2	1528	G	O4'-C1'	5.94	1.49	1.41
83	A5	5	A	O4'-C1'	-5.94	1.33	1.41
83	A5	3598	U	C2'-C1'	5.94	1.59	1.53
83	A5	2189	U	O4'-C1'	5.94	1.49	1.41
36	B2	1534	G	C2'-C1'	-5.94	1.46	1.53
83	A5	244	G	C2'-C1'	-5.94	1.46	1.53
83	A5	2538	U	O4'-C1'	5.94	1.49	1.41
86	A8	58	C	C2'-C1'	-5.94	1.46	1.53
35	Ah	138	ARG	NE-CZ	5.94	1.40	1.33
36	B2	1715	G	O4'-C1'	-5.94	1.33	1.41
83	A5	2255	G	C2'-C1'	-5.94	1.46	1.53
83	A5	1054	A	C5'-C4'	5.94	1.58	1.51
83	A5	1292	G	C4'-C3'	5.93	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3924	U	O4'-C1'	5.93	1.49	1.41
83	A5	2898	U	C2'-C1'	5.93	1.59	1.53
36	B2	788	U	P-O5'	-5.93	1.53	1.59
83	A5	2988	U	O3'-P	-5.93	1.54	1.61
83	A5	3374	U	C2'-C1'	-5.93	1.46	1.53
83	A5	3224	G	O4'-C1'	5.92	1.49	1.41
83	A5	1116	G	O3'-P	-5.92	1.54	1.61
83	A5	396	A	O4'-C1'	5.92	1.49	1.41
36	B2	855	C	C2'-C1'	-5.91	1.46	1.53
36	B2	922	G	C2'-C1'	-5.91	1.46	1.53
83	A5	2599	G	C2'-C1'	-5.91	1.46	1.53
36	B2	1851	A	P-O5'	-5.91	1.53	1.59
83	A5	346	U	O3'-P	-5.91	1.54	1.61
83	A5	3626	A	C5'-C4'	5.91	1.58	1.51
20	Aa	15	ARG	NE-CZ	5.91	1.40	1.33
36	B2	332	U	C4'-C3'	5.91	1.59	1.53
36	B2	828	A	O4'-C1'	5.91	1.49	1.41
83	A5	2577	G	O3'-P	-5.91	1.54	1.61
85	A7	55	A	C2'-C1'	-5.91	1.46	1.53
83	A5	3688	A	O4'-C1'	5.90	1.49	1.41
36	B2	222	C	C2'-C1'	-5.90	1.46	1.53
36	B2	1466	A	C2'-C1'	-5.90	1.46	1.53
83	A5	3193	C	C2'-C1'	5.90	1.59	1.53
36	B2	582	G	O3'-P	-5.90	1.54	1.61
36	B2	1940	G	O3'-P	-5.90	1.54	1.61
83	A5	718	U	C2'-C1'	-5.90	1.46	1.53
83	A5	2506	U	O3'-P	-5.90	1.54	1.61
83	A5	3006	A	O4'-C1'	5.90	1.49	1.41
83	A5	1615	G	C2'-C1'	-5.90	1.46	1.53
36	B2	1641	U	C5'-C4'	5.89	1.58	1.51
83	A5	1023	C	O3'-P	-5.89	1.54	1.61
36	B2	1354	G	O4'-C1'	5.89	1.49	1.41
36	B2	866	U	C2'-C1'	-5.89	1.46	1.53
36	B2	1417	G	O4'-C1'	5.89	1.49	1.41
83	A5	17	C	C2'-C1'	-5.89	1.46	1.53
36	B2	688	A	O3'-P	-5.88	1.54	1.61
83	A5	3931	C	C2'-C1'	-5.88	1.46	1.53
36	B2	1239	A	C2'-C1'	5.88	1.59	1.53
36	B2	1256	U	O4'-C1'	5.88	1.49	1.41
83	A5	49	A	P-O5'	-5.88	1.53	1.59
83	A5	549	A	C2'-C1'	-5.88	1.46	1.53
83	A5	907	A	O4'-C1'	5.88	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	220	A	O4'-C1'	5.88	1.49	1.41
36	B2	1068	U	C2'-C1'	-5.88	1.46	1.53
83	A5	3668	G	C4'-C3'	-5.88	1.46	1.52
36	B2	381	C	O4'-C1'	5.88	1.49	1.41
83	A5	1391	A	P-O5'	-5.88	1.53	1.59
36	B2	1888	C	O4'-C1'	5.88	1.49	1.41
36	B2	1835	U	C2'-C1'	-5.87	1.46	1.53
83	A5	3940	A	C2'-C1'	-5.87	1.46	1.53
86	A8	29	U	C5'-C4'	5.87	1.58	1.51
83	A5	1474	A	O4'-C1'	-5.87	1.34	1.41
36	B2	1741	A	O4'-C1'	5.87	1.49	1.41
18	AY	34	SER	CA-CB	5.86	1.61	1.52
83	A5	21	U	O4'-C1'	5.86	1.49	1.41
83	A5	1089	U	O4'-C1'	5.86	1.49	1.41
83	A5	1943	C	C5'-C4'	5.86	1.58	1.51
83	A5	3161	U	O4'-C1'	5.86	1.49	1.41
36	B2	587	A	C2'-C1'	-5.86	1.47	1.53
36	B2	1977	A	P-O5'	-5.86	1.53	1.59
83	A5	1475	A	O4'-C1'	-5.86	1.34	1.41
83	A5	1987	G	C2'-C1'	-5.86	1.47	1.53
83	A5	1526	G	C2'-C1'	-5.86	1.47	1.53
36	B2	773	U	C4'-C3'	5.85	1.59	1.53
36	B2	586	U	O4'-C1'	5.85	1.49	1.41
36	B2	1851	A	C2'-C1'	5.85	1.59	1.53
83	A5	882	U	O4'-C1'	5.85	1.49	1.41
83	A5	2104	A	P-O5'	-5.85	1.53	1.59
57	CY	45	ARG	CD-NE	5.85	1.56	1.46
83	A5	44	A	O4'-C1'	5.85	1.49	1.41
83	A5	3252	G	O4'-C1'	-5.85	1.34	1.41
83	A5	3275	G	C2'-C1'	-5.85	1.47	1.53
83	A5	308	G	O3'-P	-5.85	1.54	1.61
83	A5	1718	G	C2'-C1'	-5.85	1.47	1.53
83	A5	2117	A	O4'-C1'	5.85	1.49	1.41
83	A5	2629	G	O4'-C1'	5.85	1.49	1.41
83	A5	2847	G	C2'-C1'	-5.85	1.47	1.53
36	B2	921	U	C2'-C1'	5.84	1.59	1.53
83	A5	2591	A	P-O5'	-5.84	1.53	1.59
83	A5	2875	A	C2'-C1'	5.84	1.59	1.53
83	A5	908	C	O3'-P	-5.84	1.54	1.61
83	A5	1006	A	O4'-C1'	5.84	1.49	1.41
83	A5	1879	U	C5'-C4'	5.84	1.58	1.51
36	B2	1157	C	P-O5'	5.84	1.65	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	Cg	29	ARG	NE-CZ	5.84	1.40	1.33
83	A5	3863	G	O4'-C1'	5.84	1.49	1.41
85	A7	48	G	C2'-C1'	-5.84	1.47	1.53
86	A8	69	G	P-O5'	-5.83	1.53	1.59
36	B2	42	G	C2'-C1'	-5.83	1.47	1.53
36	B2	1204	A	O4'-C1'	5.83	1.49	1.41
83	A5	484	A	O3'-P	-5.83	1.54	1.61
83	A5	2525	C	P-O5'	-5.83	1.53	1.59
36	B2	10	G	C5'-C4'	5.83	1.58	1.51
36	B2	1947	U	C5'-C4'	5.83	1.58	1.51
83	A5	594	U	O4'-C1'	5.83	1.49	1.41
83	A5	3303	G	C4'-C3'	5.83	1.59	1.53
36	B2	969	U	C2'-C1'	-5.83	1.47	1.53
83	A5	877	A	C2'-C1'	-5.83	1.47	1.53
83	A5	1553	C	P-O5'	-5.83	1.53	1.59
83	A5	2685	G	C4'-C3'	5.83	1.59	1.53
83	A5	1309	U	O4'-C1'	5.83	1.49	1.41
83	A5	557	G	O4'-C1'	5.82	1.49	1.41
83	A5	3376	C	C2'-C1'	-5.82	1.47	1.53
83	A5	716	C	O4'-C1'	5.82	1.49	1.41
83	A5	3235	A	C2'-C1'	5.82	1.59	1.53
83	A5	3530	A	O4'-C1'	-5.82	1.34	1.41
83	A5	3187	C	C2'-C1'	-5.82	1.47	1.53
36	B2	846	U	O4'-C1'	5.82	1.49	1.41
83	A5	3373	G	O4'-C1'	-5.82	1.34	1.41
83	A5	3596	A	C2'-C1'	5.82	1.59	1.53
83	A5	3668	G	P-O5'	-5.82	1.53	1.59
36	B2	1061	A	O4'-C1'	5.82	1.49	1.41
36	B2	1302	U	C2'-C1'	-5.82	1.47	1.53
83	A5	1596	A	C2'-C1'	-5.82	1.47	1.53
83	A5	93	G	O4'-C1'	-5.81	1.34	1.41
36	B2	564	A	C2'-C1'	5.81	1.59	1.53
83	A5	54	U	O4'-C1'	5.81	1.49	1.41
83	A5	2192	U	O4'-C1'	5.81	1.49	1.41
83	A5	14	C	C2'-C1'	-5.80	1.47	1.53
83	A5	118	A	O4'-C1'	5.80	1.49	1.41
83	A5	686	U	C2'-C1'	-5.80	1.47	1.53
83	A5	1443	A	O4'-C1'	5.80	1.49	1.41
83	A5	1732	A	O4'-C1'	5.80	1.49	1.41
83	A5	1874	G	O4'-C1'	5.80	1.49	1.41
83	A5	2695	A	O4'-C1'	5.80	1.49	1.41
83	A5	2659	A	C2'-C1'	5.80	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3529	A	C2'-C1'	-5.80	1.47	1.53
36	B2	500	U	C2'-C1'	5.80	1.59	1.53
36	B2	1101	G	C2'-C1'	5.80	1.59	1.53
83	A5	377	U	C2'-C1'	-5.80	1.47	1.53
83	A5	738	A	O4'-C1'	5.80	1.49	1.41
83	A5	3204	G	O4'-C1'	5.80	1.49	1.41
83	A5	3917	G	O4'-C1'	5.80	1.49	1.41
83	A5	1430	U	C5'-C4'	5.79	1.58	1.51
83	A5	2726	A	O3'-P	-5.79	1.54	1.61
36	B2	368	G	O3'-P	-5.79	1.54	1.61
36	B2	620	U	O4'-C1'	5.79	1.49	1.41
36	B2	1336	U	C2'-C1'	-5.79	1.47	1.53
83	A5	126	G	C2'-C1'	-5.79	1.47	1.53
36	B2	56	U	C2'-C1'	-5.79	1.47	1.53
36	B2	1433	A	C3'-C2'	5.79	1.59	1.52
36	B2	24	U	O3'-P	-5.79	1.54	1.61
36	B2	461	G	C2'-C1'	-5.79	1.47	1.53
83	A5	2212	A	C2'-C1'	-5.79	1.47	1.53
36	B2	1012	G	C2'-C1'	-5.79	1.47	1.53
36	B2	1317	U	O4'-C1'	5.79	1.49	1.41
83	A5	989	A	C2'-C1'	-5.79	1.47	1.53
83	A5	2803	A	P-O5'	-5.79	1.53	1.59
83	A5	3334	A	C2'-C1'	5.79	1.59	1.53
86	A8	26	U	C2'-C1'	-5.79	1.47	1.53
36	B2	1615	U	C2'-C1'	-5.78	1.47	1.53
36	B2	1683	U	O4'-C1'	-5.78	1.34	1.41
83	A5	1319	A	C2'-C1'	-5.78	1.47	1.53
86	A8	81	A	C2'-C1'	5.78	1.59	1.53
83	A5	32	C	O3'-P	-5.78	1.54	1.61
83	A5	1863	U	C2'-C1'	-5.78	1.47	1.53
83	A5	3842	A	C3'-C2'	5.78	1.59	1.52
83	A5	2007	U	C2'-C1'	5.78	1.59	1.53
83	A5	3511	U	P-O5'	-5.78	1.53	1.59
83	A5	601	A	C5'-C4'	5.78	1.58	1.51
83	A5	3192	C	C2'-C1'	-5.78	1.47	1.53
83	A5	3557	G	C2'-C1'	-5.78	1.47	1.53
86	A8	25	C	P-O5'	-5.78	1.53	1.59
83	A5	2492	A	C4'-C3'	-5.78	1.46	1.52
83	A5	2514	U	C5'-C4'	5.77	1.58	1.51
36	B2	20	G	C2'-C1'	-5.77	1.47	1.53
83	A5	3466	A	C2'-C1'	5.77	1.59	1.53
83	A5	3702	G	O4'-C1'	5.77	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1394	U	P-O5'	-5.77	1.53	1.59
36	B2	1546	U	O3'-P	-5.77	1.54	1.61
83	A5	3668	G	O4'-C1'	5.77	1.49	1.41
36	B2	373	U	P-O5'	-5.77	1.53	1.59
36	B2	574	C	O3'-P	-5.77	1.54	1.61
36	B2	1597	A	O4'-C1'	5.77	1.49	1.41
36	B2	1476	C	O3'-P	-5.77	1.54	1.61
83	A5	234	G	O4'-C1'	-5.77	1.34	1.41
83	A5	844	C	O3'-P	-5.77	1.54	1.61
36	B2	560	G	O4'-C1'	-5.76	1.34	1.41
83	A5	1865	U	C2'-C1'	-5.76	1.47	1.53
83	A5	2850	A	O4'-C1'	5.76	1.49	1.41
36	B2	556	G	C5'-C4'	5.76	1.58	1.51
83	A5	3697	A	O4'-C1'	-5.76	1.34	1.41
83	A5	1408	A	O4'-C1'	5.76	1.49	1.41
36	B2	1113	A	C2'-C1'	5.76	1.59	1.53
83	A5	199	U	O4'-C1'	5.76	1.49	1.41
83	A5	1239	A	C2'-C1'	-5.76	1.47	1.53
83	A5	1499	C	P-O5'	-5.76	1.53	1.59
83	A5	1790	A	O4'-C1'	5.76	1.49	1.41
83	A5	2001	U	C5'-C4'	5.76	1.58	1.51
36	B2	1189	G	O4'-C1'	5.76	1.49	1.41
37	BC	8	U	O4'-C1'	5.76	1.49	1.41
83	A5	121	A	O4'-C1'	-5.76	1.34	1.41
83	A5	2023	A	O4'-C1'	5.75	1.49	1.41
36	B2	608	U	O4'-C1'	5.75	1.49	1.41
83	A5	2844	G	O4'-C1'	5.75	1.49	1.41
83	A5	1345	G	C2'-C1'	-5.75	1.47	1.53
83	A5	1801	U	O3'-P	-5.75	1.54	1.61
83	A5	968	U	O4'-C1'	5.75	1.49	1.41
83	A5	1206	G	O4'-C1'	-5.75	1.34	1.41
83	A5	2655	C	O4'-C1'	5.75	1.49	1.41
83	A5	347	A	C5'-C4'	5.74	1.58	1.51
36	B2	919	A	C2'-C1'	5.74	1.59	1.53
83	A5	63	G	O3'-P	-5.74	1.54	1.61
83	A5	995	G	C2'-C1'	-5.74	1.47	1.53
83	A5	1152	A	P-O5'	-5.74	1.54	1.59
36	B2	584	G	O4'-C1'	5.74	1.49	1.41
83	A5	1387	G	O4'-C1'	5.74	1.49	1.41
83	A5	2052	G	C2'-C1'	-5.74	1.47	1.53
83	A5	2628	G	C5'-C4'	5.74	1.58	1.51
83	A5	2861	G	C2'-C1'	-5.74	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3908	U	O4'-C1'	5.74	1.49	1.41
26	AJ	110	ARG	CZ-NH1	5.74	1.40	1.33
78	Co	85	ARG	CZ-NH1	5.74	1.40	1.33
83	A5	83	U	P-O5'	-5.74	1.54	1.59
83	A5	959	U	P-O5'	-5.74	1.54	1.59
36	B2	1456	G	C5'-C4'	5.73	1.58	1.51
83	A5	1542	C	C2'-C1'	-5.73	1.47	1.53
83	A5	3967	U	C4'-C3'	5.73	1.59	1.53
83	A5	1534	G	O4'-C1'	5.73	1.49	1.41
36	B2	1234	G	O3'-P	-5.73	1.54	1.61
83	A5	434	A	O3'-P	-5.73	1.54	1.61
83	A5	1200	U	C2'-C1'	-5.73	1.47	1.53
83	A5	1705	U	C5'-C4'	5.73	1.58	1.51
83	A5	1764	G	O3'-P	-5.73	1.54	1.61
83	A5	3482	G	C2'-C1'	5.73	1.59	1.53
83	A5	578	A	P-O5'	-5.73	1.54	1.59
83	A5	3141	A	O4'-C1'	5.73	1.49	1.41
36	B2	80	G	O4'-C1'	5.73	1.49	1.41
36	B2	1276	G	C5'-C4'	5.73	1.58	1.51
53	CT	107	ARG	CZ-NH1	5.73	1.40	1.33
69	Cg	10	ARG	NE-CZ	5.73	1.40	1.33
83	A5	2657	A	O4'-C1'	5.73	1.49	1.41
83	A5	3295	U	C2'-C1'	-5.73	1.47	1.53
83	A5	584	A	C2'-C1'	5.72	1.59	1.53
36	B2	1013	A	C2'-C1'	-5.72	1.47	1.53
83	A5	48	U	C2'-C1'	-5.72	1.47	1.53
83	A5	612	U	C5'-C4'	5.72	1.58	1.51
83	A5	1667	U	C2'-C1'	-5.72	1.47	1.53
36	B2	582	G	C2'-C1'	-5.72	1.47	1.53
83	A5	2042	A	O4'-C1'	5.72	1.49	1.41
36	B2	493	A	C2'-C1'	-5.72	1.47	1.53
83	A5	460	A	C5'-C4'	5.72	1.58	1.51
83	A5	2205	G	O4'-C1'	5.72	1.49	1.41
83	A5	3113	U	O4'-C1'	5.72	1.49	1.41
83	A5	458	A	C2'-C1'	-5.71	1.47	1.53
83	A5	1388	C	O3'-P	-5.71	1.54	1.61
83	A5	1868	A	C2'-C1'	-5.71	1.47	1.53
83	A5	1649	G	C5'-C4'	5.71	1.58	1.51
83	A5	3091	A	P-O5'	-5.71	1.54	1.59
86	A8	66	U	O4'-C1'	5.71	1.49	1.41
83	A5	2157	A	O4'-C1'	-5.71	1.34	1.41
83	A5	3429	A	C2'-C1'	5.71	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	765	U	O3'-P	-5.71	1.54	1.61
83	A5	305	G	O4'-C1'	5.71	1.49	1.41
83	A5	613	U	O4'-C1'	5.71	1.49	1.41
36	B2	1049	C	C2'-C1'	-5.70	1.47	1.53
36	B2	1915	A	C2'-C1'	5.70	1.59	1.53
36	B2	1919	U	C2'-C1'	-5.70	1.47	1.53
83	A5	1617	U	C2'-C1'	-5.70	1.47	1.53
83	A5	3643	C	O4'-C1'	5.70	1.49	1.41
83	A5	252	U	C2'-C1'	-5.70	1.47	1.53
83	A5	157	C	C3'-C2'	5.70	1.59	1.52
83	A5	1763	A	C3'-C2'	-5.70	1.46	1.52
83	A5	2103	G	O4'-C1'	5.70	1.49	1.41
36	B2	363	U	O4'-C1'	5.70	1.49	1.41
36	B2	421	A	C2'-C1'	5.70	1.59	1.53
83	A5	646	G	O3'-P	-5.70	1.54	1.61
83	A5	1501	A	O3'-P	-5.70	1.54	1.61
36	B2	942	A	O4'-C1'	-5.70	1.34	1.41
83	A5	887	U	C3'-C2'	-5.70	1.46	1.52
36	B2	1826	C	C2'-C1'	-5.70	1.47	1.53
83	A5	15	A	O4'-C1'	5.70	1.49	1.41
36	B2	1043	U	C5'-C4'	5.69	1.58	1.51
36	B2	1161	G	O4'-C1'	5.69	1.49	1.41
36	B2	1895	C	P-O5'	-5.69	1.54	1.59
83	A5	623	C	C2'-C1'	-5.69	1.47	1.53
83	A5	3463	U	C2'-C1'	-5.69	1.47	1.53
83	A5	1868	A	O4'-C1'	5.69	1.49	1.41
36	B2	1171	G	C2'-C1'	-5.69	1.47	1.53
83	A5	2846	A	C2'-C1'	5.69	1.59	1.53
83	A5	1252	U	C2'-C1'	-5.69	1.47	1.53
36	B2	638	A	C5'-C4'	5.68	1.58	1.51
83	A5	844	C	C5'-C4'	5.68	1.58	1.51
83	A5	3548	U	O4'-C1'	5.68	1.49	1.41
83	A5	2575	C	O3'-P	-5.68	1.54	1.61
83	A5	492	A	O3'-P	-5.68	1.54	1.61
36	B2	1388	U	P-O5'	-5.68	1.54	1.59
83	A5	2013	C	C2'-C1'	-5.67	1.47	1.53
36	B2	1589	C	C2'-C1'	-5.67	1.47	1.53
83	A5	1943	C	O3'-P	-5.67	1.54	1.61
83	A5	3223	A	C2'-C1'	-5.67	1.47	1.53
36	B2	491	G	C2'-C1'	-5.67	1.47	1.53
83	A5	708	A	C2'-C1'	-5.67	1.47	1.53
83	A5	1415	A	C2'-C1'	5.67	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	629	A	O3'-P	-5.67	1.54	1.61
83	A5	878	U	O4'-C1'	5.67	1.49	1.41
85	A7	43	U	O3'-P	-5.67	1.54	1.61
36	B2	761	A	C4'-C3'	5.67	1.59	1.53
37	BC	45	G	C5'-C4'	5.67	1.58	1.51
83	A5	2135	C	C2'-C1'	-5.67	1.47	1.53
83	A5	2577	G	C2'-C1'	5.67	1.59	1.53
83	A5	3326	G	P-O5'	-5.67	1.54	1.59
36	B2	1014	C	P-O5'	-5.67	1.54	1.59
83	A5	391	A	O3'-P	-5.66	1.54	1.61
83	A5	603	U	P-O5'	-5.66	1.54	1.59
83	A5	1900	U	C2'-C1'	5.66	1.59	1.53
36	B2	1940	G	O4'-C1'	5.66	1.49	1.41
36	B2	1150	U	O4'-C1'	5.66	1.49	1.41
36	B2	1781	U	O4'-C1'	5.66	1.49	1.41
83	A5	2196	U	O4'-C1'	-5.66	1.34	1.41
36	B2	113	G	O3'-P	-5.66	1.54	1.61
36	B2	1107	A	O4'-C1'	5.66	1.49	1.41
83	A5	3747	U	C2'-C1'	-5.66	1.47	1.53
83	A5	319	G	P-O5'	-5.66	1.54	1.59
36	B2	1198	G	C2'-C1'	-5.66	1.47	1.53
36	B2	1252	G	C2'-C1'	-5.66	1.47	1.53
83	A5	451	A	C2'-C1'	-5.66	1.47	1.53
83	A5	3010	U	C2'-C1'	-5.66	1.47	1.53
36	B2	599	A	C2'-C1'	-5.65	1.47	1.53
83	A5	1984	U	O4'-C1'	5.65	1.49	1.41
83	A5	3725	U	O4'-C1'	5.65	1.49	1.41
85	A7	7	G	C2'-C1'	-5.65	1.47	1.53
36	B2	8	U	C2'-C1'	5.65	1.59	1.53
36	B2	888	G	C2'-C1'	-5.65	1.47	1.53
36	B2	1006	U	O4'-C1'	5.65	1.49	1.41
83	A5	1305	A	O4'-C1'	5.65	1.49	1.41
36	B2	427	G	O3'-P	-5.64	1.54	1.61
36	B2	1242	G	O4'-C1'	5.64	1.49	1.41
83	A5	2751	A	O4'-C1'	5.64	1.49	1.41
36	B2	363	U	C2'-C1'	-5.64	1.47	1.53
83	A5	1421	G	C2'-C1'	-5.64	1.47	1.53
36	B2	240	U	C2'-C1'	5.64	1.59	1.53
83	A5	532	C	O4'-C1'	5.64	1.49	1.41
83	A5	997	U	C2'-C1'	-5.64	1.47	1.53
83	A5	883	U	O4'-C1'	5.64	1.49	1.41
36	B2	1995	A	P-O5'	-5.63	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	562	U	C2'-C1'	-5.63	1.47	1.53
83	A5	618	U	O4'-C1'	5.63	1.49	1.41
83	A5	2836	A	O4'-C1'	5.63	1.49	1.41
83	A5	2853	A	O4'-C1'	5.63	1.49	1.41
83	A5	202	A	C4'-C3'	5.63	1.59	1.53
83	A5	2597	A	C2'-C1'	-5.63	1.47	1.53
36	B2	842	A	O4'-C1'	5.63	1.49	1.41
36	B2	948	A	C5'-C4'	5.63	1.58	1.51
83	A5	1214	G	C2'-C1'	-5.63	1.47	1.53
83	A5	1488	A	C2'-C1'	5.63	1.59	1.53
83	A5	3244	U	O4'-C1'	5.63	1.49	1.41
36	B2	356	C	O4'-C1'	5.63	1.49	1.41
83	A5	993	A	C2'-C1'	-5.63	1.47	1.53
36	B2	1981	G	O3'-P	-5.62	1.54	1.61
83	A5	27	A	O4'-C1'	5.62	1.49	1.41
83	A5	370	A	C2'-C1'	5.62	1.59	1.53
36	B2	216	U	O3'-P	-5.62	1.54	1.61
83	A5	1902	U	P-O5'	-5.62	1.54	1.59
83	A5	2677	A	P-O5'	-5.62	1.54	1.59
83	A5	2683	G	O4'-C1'	-5.62	1.34	1.41
83	A5	3463	U	O4'-C1'	5.62	1.49	1.41
16	AA	167	SER	CA-CB	5.62	1.61	1.52
36	B2	1970	U	C2'-C1'	5.62	1.59	1.53
36	B2	261	U	O4'-C1'	5.62	1.49	1.41
36	B2	1566	U	C5'-C4'	5.62	1.58	1.51
36	B2	1742	A	O3'-P	-5.62	1.54	1.61
83	A5	1427	G	O3'-P	-5.62	1.54	1.61
83	A5	2670	U	O4'-C1'	5.62	1.49	1.41
83	A5	3925	G	O4'-C1'	5.62	1.49	1.41
36	B2	973	U	O4'-C1'	5.61	1.49	1.41
83	A5	2221	G	O3'-P	-5.61	1.54	1.61
36	B2	1760	G	O4'-C1'	-5.61	1.34	1.41
83	A5	3009	A	C2'-C1'	-5.61	1.47	1.53
36	B2	1390	U	O4'-C1'	5.61	1.49	1.41
36	B2	1420	U	C2'-C1'	-5.61	1.47	1.53
36	B2	1461	A	C2'-C1'	5.61	1.59	1.53
36	B2	1494	A	C5'-C4'	5.61	1.58	1.51
83	A5	258	U	O4'-C1'	5.61	1.49	1.41
32	AW	20	ARG	CZ-NH1	5.61	1.40	1.33
44	CM	35	ARG	CZ-NH1	5.61	1.40	1.33
63	CB	268	ARG	CZ-NH2	5.61	1.40	1.33
83	A5	1091	G	P-O5'	-5.61	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3735	U	C5'-C4'	5.61	1.58	1.51
37	BC	67	C	P-O5'	-5.61	1.54	1.59
83	A5	44	A	O3'-P	-5.61	1.54	1.61
83	A5	619	U	O3'-P	-5.61	1.54	1.61
83	A5	2733	G	O4'-C1'	5.61	1.49	1.41
83	A5	1014	U	O3'-P	-5.60	1.54	1.61
83	A5	1584	A	O4'-C1'	5.60	1.49	1.41
83	A5	1688	A	C2'-C1'	-5.60	1.47	1.53
83	A5	277	U	O4'-C1'	5.60	1.49	1.41
83	A5	504	A	O4'-C1'	5.60	1.49	1.41
83	A5	3826	A	O4'-C1'	-5.60	1.34	1.41
36	B2	708	A	O4'-C1'	5.60	1.49	1.41
83	A5	1792	G	O4'-C1'	5.60	1.49	1.41
83	A5	2086	U	C2'-C1'	5.60	1.59	1.53
11	AL	81	ARG	NE-CZ	5.60	1.40	1.33
83	A5	666	A	C5'-C4'	5.60	1.58	1.51
36	B2	653	U	C5'-C4'	5.60	1.58	1.51
36	B2	1715	G	C2'-C1'	5.60	1.59	1.53
83	A5	2692	U	C5'-C4'	5.60	1.58	1.51
83	A5	3196	C	O4'-C1'	5.60	1.49	1.41
3	AU	21	ARG	CD-NE	5.59	1.55	1.46
83	A5	2584	G	C2'-C1'	-5.59	1.47	1.53
83	A5	2803	A	C2'-C1'	-5.59	1.47	1.53
83	A5	3919	G	P-O5'	-5.59	1.54	1.59
36	B2	1069	U	O4'-C1'	5.59	1.49	1.41
83	A5	59	G	P-O5'	-5.59	1.54	1.59
83	A5	1439	C	P-O5'	-5.59	1.54	1.59
83	A5	1485	A	C2'-C1'	-5.59	1.47	1.53
83	A5	89	A	P-O5'	-5.59	1.54	1.59
36	B2	1241	G	C2'-C1'	-5.59	1.47	1.53
83	A5	3171	A	O4'-C1'	5.59	1.49	1.41
83	A5	3842	A	C5'-C4'	5.59	1.58	1.51
83	A5	3954	U	O4'-C1'	5.59	1.49	1.41
83	A5	225	U	O3'-P	-5.58	1.54	1.61
36	B2	1318	A	C5'-C4'	5.58	1.58	1.51
83	A5	747	U	C2'-C1'	-5.58	1.47	1.53
83	A5	3923	C	C2'-C1'	5.58	1.59	1.53
83	A5	187	A	P-O5'	-5.58	1.54	1.59
83	A5	198	A	O4'-C1'	5.58	1.49	1.41
83	A5	3299	U	C2'-C1'	5.58	1.59	1.53
83	A5	1766	U	O4'-C1'	5.58	1.49	1.41
83	A5	862	U	P-O5'	-5.58	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	99	A	O4'-C1'	5.58	1.48	1.41
83	A5	339	C	O4'-C1'	5.58	1.48	1.41
83	A5	2156	U	C3'-C2'	5.58	1.59	1.52
83	A5	3356	G	C2'-C1'	-5.58	1.47	1.53
70	Ci	38	ARG	NE-CZ	5.57	1.40	1.33
83	A5	70	A	O4'-C1'	-5.57	1.34	1.41
83	A5	2888	A	C2'-C1'	-5.57	1.47	1.53
83	A5	1875	G	O4'-C1'	5.57	1.48	1.41
36	B2	346	A	C5'-C4'	5.57	1.58	1.51
83	A5	681	G	O4'-C1'	-5.57	1.34	1.41
83	A5	3225	C	C3'-C2'	-5.57	1.46	1.52
36	B2	1593	U	O4'-C1'	5.57	1.48	1.41
36	B2	1706	U	O3'-P	-5.57	1.54	1.61
83	A5	2714	U	C2'-C1'	5.57	1.59	1.53
83	A5	2867	U	O4'-C1'	5.57	1.48	1.41
36	B2	420	U	C2'-C1'	5.57	1.59	1.53
36	B2	1834	G	C2'-C1'	-5.57	1.47	1.53
83	A5	687	U	O3'-P	-5.57	1.54	1.61
83	A5	1792	G	C5'-C4'	5.57	1.58	1.51
83	A5	1896	A	O4'-C1'	5.57	1.48	1.41
83	A5	2993	G	O4'-C1'	5.57	1.48	1.41
86	A8	33	U	C2'-C1'	-5.57	1.47	1.53
52	CS	120	ARG	CZ-NH1	5.56	1.40	1.33
83	A5	3941	C	O4'-C1'	5.56	1.48	1.41
36	B2	1248	A	O4'-C1'	5.56	1.48	1.41
83	A5	529	U	O4'-C1'	5.56	1.48	1.41
83	A5	2258	U	C2'-C1'	-5.56	1.47	1.53
83	A5	3518	A	C2'-C1'	-5.56	1.47	1.53
36	B2	638	A	O4'-C1'	5.56	1.48	1.41
36	B2	448	C	C3'-C2'	-5.56	1.46	1.52
83	A5	2255	G	O4'-C1'	5.56	1.48	1.41
36	B2	328	A	O4'-C1'	5.56	1.48	1.41
36	B2	1791	U	O3'-P	-5.56	1.54	1.61
83	A5	1021	U	C2'-C1'	5.56	1.59	1.53
83	A5	1757	A	O4'-C1'	5.56	1.48	1.41
83	A5	3410	G	C3'-C2'	5.56	1.59	1.52
83	A5	2994	C	C4'-C3'	5.56	1.59	1.53
83	A5	1460	A	C2'-C1'	-5.55	1.47	1.53
85	A7	101	A	P-O5'	-5.55	1.54	1.59
36	B2	774	U	O3'-P	-5.55	1.54	1.61
36	B2	977	A	C4'-C3'	-5.55	1.47	1.52
46	CN	179	ARG	CZ-NH2	5.55	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	CP	126	ARG	NE-CZ	5.55	1.40	1.33
83	A5	2168	G	O4'-C1'	5.55	1.48	1.41
36	B2	859	C	C2'-C1'	-5.55	1.47	1.53
74	CC	202	ARG	CZ-NH2	5.55	1.40	1.33
83	A5	1367	A	P-O5'	-5.55	1.54	1.59
83	A5	1936	U	O3'-P	-5.55	1.54	1.61
36	B2	805	U	O3'-P	-5.55	1.54	1.61
45	Ca	121	ARG	NE-CZ	5.55	1.40	1.33
83	A5	167	A	C2'-C1'	5.55	1.59	1.53
83	A5	670	G	O4'-C1'	5.55	1.48	1.41
36	B2	1551	C	O4'-C1'	5.54	1.48	1.41
65	Cc	106	ARG	NE-CZ	5.54	1.40	1.33
42	CL	100	ARG	CZ-NH2	5.54	1.40	1.33
83	A5	837	A	C2'-C1'	-5.54	1.47	1.53
83	A5	3790	A	O4'-C1'	-5.54	1.34	1.41
86	A8	42	A	C2'-C1'	-5.54	1.47	1.53
36	B2	181	A	O4'-C1'	5.54	1.48	1.41
83	A5	3877	G	C2'-C1'	5.54	1.59	1.53
36	B2	655	A	O4'-C1'	5.54	1.48	1.41
83	A5	832	U	O4'-C1'	5.54	1.48	1.41
83	A5	3754	C	C4'-C3'	-5.54	1.47	1.52
36	B2	407	C	C2'-C1'	5.53	1.59	1.53
36	B2	565	G	C4'-C3'	5.53	1.59	1.53
83	A5	987	G	C2'-C1'	-5.53	1.47	1.53
83	A5	1759	C	C2'-C1'	5.53	1.59	1.53
83	A5	2222	G	C2'-C1'	-5.53	1.47	1.53
36	B2	393	G	C2'-C1'	-5.53	1.47	1.53
36	B2	852	A	C2'-C1'	5.53	1.59	1.53
83	A5	7	A	C2'-C1'	5.53	1.59	1.53
36	B2	81	U	O4'-C1'	5.53	1.48	1.41
83	A5	1233	G	C5'-C4'	5.53	1.57	1.51
83	A5	1617	U	P-O5'	-5.53	1.54	1.59
37	BC	48	C	O3'-P	-5.53	1.54	1.61
83	A5	630	U	O4'-C1'	5.53	1.48	1.41
83	A5	2026	G	O4'-C1'	-5.53	1.34	1.41
83	A5	2561	A	O4'-C1'	5.53	1.48	1.41
36	B2	216	U	C5'-C4'	5.52	1.57	1.51
83	A5	1757	A	O3'-P	-5.52	1.54	1.61
36	B2	451	C	P-O5'	-5.52	1.54	1.59
83	A5	1458	G	O4'-C1'	5.52	1.48	1.41
36	B2	143	U	C5'-C4'	5.52	1.57	1.51
36	B2	1387	A	O4'-C1'	-5.52	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2097	U	O4'-C1'	5.52	1.48	1.41
85	A7	34	C	O4'-C1'	5.52	1.48	1.41
36	B2	578	A	C2'-C1'	-5.51	1.47	1.53
47	CI	7	ARG	CZ-NH1	5.51	1.40	1.33
83	A5	1859	U	O3'-P	-5.51	1.54	1.61
83	A5	2511	C	O4'-C1'	5.51	1.48	1.41
83	A5	2592	A	C2'-C1'	5.51	1.59	1.53
83	A5	3447	U	O4'-C1'	5.51	1.48	1.41
36	B2	1610	A	C2'-C1'	-5.51	1.47	1.53
83	A5	751	A	C2'-C1'	-5.51	1.47	1.53
83	A5	814	U	C2'-C1'	5.51	1.59	1.53
83	A5	2927	U	C2'-C1'	-5.51	1.47	1.53
83	A5	3437	U	O3'-P	-5.51	1.54	1.61
36	B2	460	C	C3'-C2'	5.51	1.59	1.52
83	A5	2608	G	O4'-C1'	-5.51	1.34	1.41
83	A5	3864	C	P-O5'	-5.51	1.54	1.59
37	BC	64	G	O4'-C1'	-5.51	1.34	1.41
83	A5	1697	U	C5'-C4'	5.51	1.57	1.51
36	B2	1564	A	O3'-P	-5.51	1.54	1.61
36	B2	221	C	C5'-C4'	5.51	1.57	1.51
83	A5	324	A	O3'-P	-5.51	1.54	1.61
83	A5	1217	U	C2'-C1'	-5.51	1.47	1.53
83	A5	2801	U	C2'-C1'	-5.51	1.47	1.53
83	A5	3947	C	P-O5'	-5.51	1.54	1.59
36	B2	965	G	C2'-C1'	-5.50	1.47	1.53
83	A5	369	A	C2'-C1'	5.50	1.59	1.53
83	A5	3383	A	O4'-C1'	5.50	1.48	1.41
36	B2	708	A	C2'-C1'	-5.50	1.47	1.53
83	A5	1695	A	O3'-P	-5.50	1.54	1.61
83	A5	2486	A	C2'-C1'	-5.50	1.47	1.53
83	A5	3476	G	O4'-C1'	-5.50	1.34	1.41
83	A5	3853	C	C2'-C1'	-5.50	1.47	1.53
36	B2	898	U	C2'-C1'	-5.50	1.47	1.53
83	A5	3903	U	O4'-C1'	5.50	1.48	1.41
83	A5	1406	G	C5'-C4'	5.50	1.57	1.51
36	B2	1084	G	O4'-C1'	5.50	1.48	1.41
83	A5	1462	U	O4'-C1'	5.50	1.48	1.41
83	A5	3844	U	C2'-C1'	-5.50	1.47	1.53
83	A5	3893	A	C2'-C1'	5.49	1.59	1.53
36	B2	1919	U	O4'-C1'	5.49	1.48	1.41
83	A5	176	A	O4'-C1'	-5.49	1.34	1.41
83	A5	436	A	C2'-C1'	-5.49	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1527	U	C2'-C1'	-5.49	1.47	1.53
42	CL	19	ARG	CZ-NH2	5.49	1.40	1.33
83	A5	1632	A	C2'-C1'	-5.49	1.47	1.53
1	Az	179	TYR	CE2-CZ	5.49	1.45	1.38
15	AB	139	ARG	CZ-NH1	5.49	1.40	1.33
36	B2	77	A	C2'-C1'	5.49	1.59	1.53
36	B2	1967	C	O3'-P	-5.49	1.54	1.61
83	A5	2127	C	C2'-C1'	-5.49	1.47	1.53
83	A5	2459	C	P-O5'	-5.49	1.54	1.59
83	A5	3312	G	C2'-C1'	-5.49	1.47	1.53
83	A5	3314	U	O4'-C1'	5.49	1.48	1.41
83	A5	479	U	C2'-C1'	5.48	1.59	1.53
36	B2	537	C	O4'-C1'	5.48	1.48	1.41
83	A5	538	A	C4'-C3'	5.48	1.59	1.53
36	B2	1292	A	O4'-C1'	5.48	1.48	1.41
82	CG	264	ARG	CD-NE	5.48	1.55	1.46
79	CJ	100	ARG	NE-CZ	5.48	1.40	1.33
83	A5	862	U	C4'-C3'	-5.48	1.47	1.52
83	A5	1155	U	O4'-C1'	5.48	1.48	1.41
83	A5	1864	U	C3'-C2'	5.48	1.58	1.52
36	B2	64	U	O4'-C1'	5.48	1.48	1.41
83	A5	2221	G	O4'-C1'	-5.48	1.34	1.41
83	A5	2275	U	C2'-C1'	5.48	1.59	1.53
83	A5	3617	U	O4'-C1'	5.48	1.48	1.41
84	A9	6	G	C2'-C1'	5.48	1.59	1.53
36	B2	1617	A	O4'-C1'	5.47	1.48	1.41
83	A5	369	A	O3'-P	-5.47	1.54	1.61
36	B2	266	U	O4'-C1'	-5.47	1.34	1.41
83	A5	1573	U	O3'-P	-5.47	1.54	1.61
36	B2	949	A	O4'-C1'	5.47	1.48	1.41
6	AX	8	ARG	NE-CZ	5.47	1.40	1.33
83	A5	435	G	C2'-C1'	5.47	1.59	1.53
83	A5	493	A	O3'-P	-5.47	1.54	1.61
86	A8	89	A	C5'-C4'	5.47	1.57	1.51
36	B2	190	U	C2'-C1'	5.47	1.59	1.53
83	A5	970	A	C2'-C1'	-5.47	1.47	1.53
83	A5	1604	G	O4'-C1'	5.47	1.48	1.41
83	A5	3805	U	C2'-C1'	5.47	1.59	1.53
85	A7	114	U	C2'-C1'	-5.47	1.47	1.53
83	A5	329	C	C2'-C1'	-5.46	1.47	1.53
83	A5	2820	G	C2'-C1'	-5.46	1.47	1.53
83	A5	3600	G	O4'-C1'	-5.46	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3720	A	C2'-C1'	-5.46	1.47	1.53
83	A5	845	C	C2'-C1'	-5.46	1.47	1.53
83	A5	3782	A	C2'-C1'	-5.46	1.47	1.53
83	A5	653	U	C2'-C1'	-5.46	1.47	1.53
83	A5	1398	C	O4'-C1'	5.46	1.48	1.41
83	A5	3070	U	O3'-P	-5.46	1.54	1.61
85	A7	37	G	C2'-C1'	-5.46	1.47	1.53
32	AW	118	ARG	CD-NE	5.46	1.55	1.46
36	B2	1019	U	O3'-P	-5.46	1.54	1.61
83	A5	753	U	O3'-P	-5.46	1.54	1.61
83	A5	3092	A	C5'-C4'	5.46	1.57	1.51
84	A9	29	U	O4'-C1'	5.46	1.48	1.41
11	AL	33	ARG	CZ-NH2	5.46	1.40	1.33
27	AE	200	ARG	NE-CZ	5.46	1.40	1.33
30	AF	120	SER	CA-CB	5.46	1.61	1.52
36	B2	1618	C	O4'-C1'	5.46	1.48	1.41
51	CA	64	ARG	CZ-NH2	5.46	1.40	1.33
41	CO	61	ARG	CD-NE	5.45	1.55	1.46
83	A5	2652	U	P-O5'	-5.45	1.54	1.59
83	A5	3112	A	O3'-P	-5.45	1.54	1.61
86	A8	97	U	O4'-C1'	5.45	1.48	1.41
83	A5	1452	A	C2'-C1'	5.45	1.59	1.53
83	A5	1896	A	C2'-C1'	-5.45	1.47	1.53
83	A5	3216	C	P-O5'	-5.45	1.54	1.59
86	A8	90	U	O3'-P	-5.45	1.54	1.61
36	B2	1412	A	C2'-C1'	-5.45	1.47	1.53
83	A5	765	A	O4'-C1'	5.45	1.48	1.41
83	A5	1156	U	O4'-C1'	5.45	1.48	1.41
83	A5	1182	A	C5'-C4'	5.45	1.57	1.51
83	A5	710	A	C5'-C4'	5.44	1.57	1.51
83	A5	2190	A	C2'-C1'	5.44	1.59	1.53
36	B2	1899	U	O4'-C1'	5.44	1.48	1.41
83	A5	188	G	C4'-C3'	5.44	1.59	1.53
83	A5	3231	G	C5'-C4'	5.44	1.57	1.51
83	A5	1684	G	O3'-P	-5.44	1.54	1.61
36	B2	964	G	O4'-C1'	5.44	1.48	1.41
83	A5	339	C	O3'-P	-5.44	1.54	1.61
83	A5	2504	A	C2'-C1'	5.44	1.59	1.53
85	A7	33	U	O4'-C1'	5.44	1.48	1.41
83	A5	3285	G	O3'-P	-5.44	1.54	1.61
36	B2	882	G	C4'-C3'	5.43	1.59	1.53
83	A5	1694	A	C2'-C1'	-5.43	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	867	U	C2'-C1'	-5.43	1.47	1.53
83	A5	1420	A	O4'-C1'	5.43	1.48	1.41
83	A5	1879	U	C2'-C1'	5.43	1.59	1.53
83	A5	2690	A	C2'-C1'	5.43	1.59	1.53
83	A5	411	U	O4'-C1'	5.43	1.48	1.41
83	A5	913	U	P-O5'	-5.43	1.54	1.59
83	A5	1959	A	P-O5'	-5.43	1.54	1.59
36	B2	24	U	C2'-C1'	5.43	1.59	1.53
83	A5	1011	U	P-O5'	-5.43	1.54	1.59
31	AH	107	ARG	CZ-NH1	5.43	1.40	1.33
36	B2	400	U	C2'-C1'	-5.43	1.47	1.53
83	A5	1215	A	C4'-C3'	5.43	1.59	1.53
83	A5	2561	A	P-O5'	-5.42	1.54	1.59
36	B2	1319	A	P-O5'	-5.42	1.54	1.59
36	B2	1389	U	C2'-C1'	-5.42	1.47	1.53
36	B2	1604	A	C2'-C1'	5.42	1.59	1.53
36	B2	1369	U	P-O5'	-5.42	1.54	1.59
74	CC	340	ARG	CD-NE	5.42	1.55	1.46
83	A5	1165	A	C2'-C1'	-5.42	1.47	1.53
83	A5	1921	U	C4'-C3'	5.42	1.59	1.53
26	AJ	84	ARG	NE-CZ	5.42	1.40	1.33
83	A5	301	U	C5'-C4'	5.42	1.57	1.51
83	A5	1897	A	O4'-C1'	5.42	1.48	1.41
36	B2	599	A	C5'-C4'	5.42	1.57	1.51
36	B2	152	U	C2'-C1'	5.41	1.59	1.53
83	A5	3674	G	O4'-C1'	5.41	1.48	1.41
36	B2	252	A	O3'-P	-5.41	1.54	1.61
36	B2	1347	U	O4'-C1'	5.41	1.48	1.41
83	A5	149	G	O4'-C1'	5.41	1.48	1.41
83	A5	1127	C	C2'-C1'	-5.41	1.47	1.53
83	A5	1729	G	C5'-C4'	5.41	1.57	1.51
83	A5	2051	A	C2'-C1'	-5.41	1.47	1.53
83	A5	3946	G	O4'-C1'	5.41	1.48	1.41
83	A5	1669	G	C4'-C3'	5.41	1.59	1.53
83	A5	2107	U	O4'-C1'	5.41	1.48	1.41
36	B2	369	G	C2'-C1'	-5.41	1.47	1.53
74	CC	52	ARG	NE-CZ	5.41	1.40	1.33
83	A5	716	C	C2'-C1'	-5.41	1.47	1.53
83	A5	2593	A	C2'-C1'	-5.41	1.47	1.53
83	A5	3738	U	C2'-C1'	5.41	1.59	1.53
83	A5	824	G	O4'-C1'	5.40	1.48	1.41
83	A5	2213	G	O4'-C1'	5.40	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	961	A	O4'-C1'	5.40	1.48	1.41
86	A8	95	A	C2'-C1'	-5.40	1.47	1.53
83	A5	3312	G	O4'-C1'	5.40	1.48	1.41
36	B2	1571	U	O4'-C1'	-5.40	1.34	1.41
36	B2	1828	C	O4'-C1'	5.40	1.48	1.41
83	A5	899	G	C2'-C1'	-5.40	1.47	1.53
83	A5	3257	U	C2'-C1'	5.40	1.59	1.53
83	A5	983	U	O4'-C1'	5.39	1.48	1.41
83	A5	2603	U	C5'-C4'	5.39	1.57	1.51
83	A5	3737	A	C4'-C3'	5.39	1.59	1.53
36	B2	154	A	C5'-C4'	5.39	1.57	1.51
83	A5	2674	A	C4'-C3'	-5.39	1.47	1.52
36	B2	316	U	C2'-C1'	5.39	1.59	1.53
36	B2	1124	C	C5'-C4'	5.39	1.57	1.51
36	B2	1367	C	O4'-C1'	5.39	1.48	1.41
83	A5	1454	C	O4'-C1'	5.39	1.48	1.41
83	A5	2165	C	C5'-C4'	5.39	1.57	1.51
83	A5	3479	C	P-O5'	-5.39	1.54	1.59
83	A5	207	C	C5'-C4'	5.39	1.57	1.51
83	A5	2906	C	P-O5'	-5.39	1.54	1.59
83	A5	2223	C	O3'-P	-5.39	1.54	1.61
85	A7	8	A	O3'-P	-5.39	1.54	1.61
36	B2	955	G	O3'-P	-5.39	1.54	1.61
63	CB	378	ARG	NE-CZ	5.39	1.40	1.33
83	A5	340	U	O3'-P	-5.39	1.54	1.61
83	A5	94	C	C2'-C1'	-5.38	1.47	1.53
83	A5	3810	C	C2'-C1'	-5.38	1.47	1.53
36	B2	1595	G	O3'-P	-5.38	1.54	1.61
83	A5	2627	G	O3'-P	-5.38	1.54	1.61
83	A5	3522	A	C2'-C1'	-5.38	1.47	1.53
86	A8	70	A	P-O5'	-5.38	1.54	1.59
36	B2	422	A	C2'-C1'	5.38	1.59	1.53
83	A5	2056	G	C5'-C4'	5.38	1.57	1.51
83	A5	3837	A	C2'-C1'	5.38	1.59	1.53
85	A7	42	A	O4'-C1'	5.38	1.48	1.41
36	B2	1547	U	O4'-C1'	5.38	1.48	1.41
83	A5	752	U	O4'-C1'	5.38	1.48	1.41
36	B2	31	C	C5'-C4'	5.37	1.57	1.51
36	B2	1533	C	C2'-C1'	-5.37	1.47	1.53
64	CF	76	ARG	NE-CZ	5.37	1.40	1.33
83	A5	791	C	C5'-C4'	5.37	1.57	1.51
86	A8	1	A	C2'-C1'	-5.37	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	309	U	P-O5'	-5.37	1.54	1.59
42	CL	64	ARG	NE-CZ	5.37	1.40	1.33
83	A5	506	A	O4'-C1'	5.37	1.48	1.41
83	A5	3852	A	C5'-C4'	5.37	1.57	1.51
62	Cb	47	ARG	CZ-NH1	5.37	1.40	1.33
83	A5	920	G	O3'-P	-5.37	1.54	1.61
83	A5	999	U	C2'-C1'	5.37	1.59	1.53
36	B2	1968	C	C2'-C1'	-5.37	1.47	1.53
83	A5	1804	A	C5'-C4'	5.37	1.57	1.51
83	A5	2093	U	C5'-C4'	5.37	1.57	1.51
83	A5	3967	U	P-O5'	-5.37	1.54	1.59
36	B2	557	G	C2'-C1'	-5.37	1.47	1.53
36	B2	514	A	O4'-C1'	5.37	1.48	1.41
36	B2	1553	A	O4'-C1'	5.37	1.48	1.41
46	CN	127	TYR	CG-CD1	5.37	1.46	1.39
36	B2	1295	U	C2'-C1'	-5.36	1.47	1.53
83	A5	422	G	C2'-C1'	-5.36	1.47	1.53
83	A5	781	C	O4'-C1'	5.36	1.48	1.41
83	A5	1272	G	C3'-C2'	-5.36	1.46	1.52
36	B2	1625	G	O4'-C1'	5.36	1.48	1.41
83	A5	271	A	O4'-C1'	5.36	1.48	1.41
36	B2	551	C	C5'-C4'	5.36	1.57	1.51
83	A5	389	G	O4'-C1'	5.36	1.48	1.41
83	A5	1781	U	O4'-C1'	5.36	1.48	1.41
83	A5	1956	A	O4'-C1'	5.36	1.48	1.41
83	A5	3710	U	O4'-C1'	-5.36	1.34	1.41
85	A7	120	U	O4'-C1'	5.36	1.48	1.41
36	B2	1467	U	O4'-C1'	5.36	1.48	1.41
83	A5	1680	U	P-O5'	-5.36	1.54	1.59
83	A5	2043	G	O3'-P	-5.36	1.54	1.61
83	A5	2257	C	O3'-P	-5.36	1.54	1.61
83	A5	3686	A	P-O5'	-5.36	1.54	1.59
36	B2	512	U	O4'-C1'	5.36	1.48	1.41
36	B2	1150	U	O3'-P	-5.36	1.54	1.61
83	A5	884	U	C5'-C4'	5.36	1.57	1.51
83	A5	1667	U	O3'-P	-5.36	1.54	1.61
63	CB	343	ARG	CZ-NH1	5.35	1.40	1.33
83	A5	1472	C	P-O5'	-5.35	1.54	1.59
83	A5	460	A	C4'-O4'	-5.35	1.38	1.45
8	AS	38	ARG	CZ-NH2	5.35	1.40	1.33
36	B2	1899	U	C5'-C4'	5.35	1.57	1.51
64	CF	246	ARG	CZ-NH2	5.35	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3434	A	C2'-C1'	-5.35	1.47	1.53
36	B2	639	G	C2'-C1'	-5.35	1.47	1.53
36	B2	913	G	C5'-C4'	5.35	1.57	1.51
83	A5	1581	G	O4'-C1'	-5.35	1.34	1.41
36	B2	1351	G	O4'-C1'	5.34	1.48	1.41
74	CC	381	ARG	NE-CZ	5.34	1.40	1.33
83	A5	380	G	C2'-C1'	-5.34	1.47	1.53
83	A5	1411	U	C5'-C4'	5.34	1.57	1.51
83	A5	3364	C	P-O5'	-5.34	1.54	1.59
84	A9	26	U	O4'-C1'	5.34	1.48	1.41
36	B2	512	U	C2'-C1'	-5.34	1.47	1.53
36	B2	1664	A	C2'-C1'	5.34	1.59	1.53
79	CJ	95	ARG	CZ-NH2	5.34	1.40	1.33
83	A5	1613	A	O4'-C1'	5.34	1.48	1.41
85	A7	9	C	P-O5'	-5.34	1.54	1.59
85	A7	82	G	O4'-C1'	5.34	1.48	1.41
83	A5	764	A	O4'-C1'	5.34	1.48	1.41
36	B2	639	G	O4'-C1'	5.34	1.48	1.41
53	CT	79	ARG	CZ-NH2	5.34	1.40	1.33
83	A5	529	U	C5'-C4'	5.34	1.57	1.51
83	A5	848	A	C2'-C1'	-5.34	1.47	1.53
85	A7	87	G	O4'-C1'	5.34	1.48	1.41
36	B2	853	A	O4'-C1'	5.33	1.48	1.41
36	B2	1096	C	C2'-C1'	-5.33	1.47	1.53
36	B2	1619	A	O3'-P	-5.33	1.54	1.61
37	BC	1	A	C2'-C1'	-5.33	1.47	1.53
83	A5	2627	G	O4'-C1'	5.33	1.48	1.41
36	B2	351	G	C2'-C1'	-5.33	1.47	1.53
36	B2	1233	U	O3'-P	-5.33	1.54	1.61
83	A5	628	A	O4'-C1'	5.33	1.48	1.41
83	A5	3004	A	O3'-P	-5.33	1.54	1.61
83	A5	545	U	C2'-C1'	5.33	1.59	1.53
36	B2	379	U	O4'-C1'	5.33	1.48	1.41
36	B2	974	A	C2'-C1'	-5.33	1.47	1.53
83	A5	495	A	C2'-C1'	-5.33	1.47	1.53
83	A5	1152	A	O4'-C1'	5.33	1.48	1.41
83	A5	3466	A	O4'-C1'	5.33	1.48	1.41
36	B2	174	A	C2'-C1'	5.32	1.59	1.53
83	A5	2032	U	C2'-C1'	5.32	1.59	1.53
83	A5	2506	U	C2'-C1'	5.32	1.59	1.53
83	A5	2856	C	O3'-P	-5.32	1.54	1.61
83	A5	3229	A	O3'-P	-5.32	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3319	A	P-O5'	-5.32	1.54	1.59
36	B2	327	G	C4'-C3'	5.32	1.59	1.53
83	A5	439	U	O3'-P	-5.32	1.54	1.61
83	A5	476	U	O4'-C1'	5.32	1.48	1.41
83	A5	1268	A	O4'-C1'	5.32	1.48	1.41
83	A5	3965	A	O4'-C1'	5.32	1.48	1.41
46	CN	204	ARG	CZ-NH1	5.32	1.40	1.33
83	A5	1763	A	O4'-C1'	5.32	1.48	1.41
36	B2	1753	U	C2'-C1'	-5.32	1.47	1.53
83	A5	13	U	O4'-C1'	5.32	1.48	1.41
83	A5	2702	A	C2'-C1'	5.32	1.59	1.53
83	A5	1792	G	C2'-C1'	-5.31	1.47	1.53
83	A5	3179	A	O4'-C1'	5.31	1.48	1.41
36	B2	1810	C	C5'-C4'	5.31	1.57	1.51
83	A5	209	U	O4'-C1'	5.31	1.48	1.41
83	A5	616	A	C2'-C1'	-5.31	1.47	1.53
83	A5	628	A	C2'-C1'	5.31	1.59	1.53
83	A5	2465	U	C2'-C1'	-5.31	1.47	1.53
83	A5	2681	A	C2'-C1'	-5.31	1.47	1.53
83	A5	2930	A	C3'-C2'	-5.31	1.47	1.52
83	A5	3678	G	O4'-C1'	5.31	1.48	1.41
83	A5	3776	A	C2'-C1'	5.31	1.59	1.53
83	A5	516	U	C2'-C1'	-5.31	1.47	1.53
83	A5	1566	U	P-O5'	-5.31	1.54	1.59
36	B2	915	U	C2'-C1'	-5.31	1.47	1.53
83	A5	869	A	C2'-C1'	5.31	1.59	1.53
83	A5	3109	A	C2'-C1'	-5.31	1.47	1.53
83	A5	3494	C	O4'-C1'	5.31	1.48	1.41
83	A5	2603	U	O4'-C1'	5.31	1.48	1.41
83	A5	3068	U	C5'-C4'	5.31	1.57	1.51
36	B2	736	U	P-O5'	-5.30	1.54	1.59
36	B2	1104	C	O4'-C1'	5.30	1.48	1.41
36	B2	1624	U	C2'-C1'	5.30	1.59	1.53
36	B2	1584	A	C5'-C4'	5.30	1.57	1.51
83	A5	3005	A	O3'-P	-5.30	1.54	1.61
36	B2	1966	U	C5'-C4'	5.30	1.57	1.51
36	B2	213	G	C4'-O4'	5.30	1.52	1.45
83	A5	2685	G	O4'-C1'	5.30	1.48	1.41
83	A5	1019	U	O3'-P	-5.29	1.54	1.61
83	A5	2148	C	O4'-C1'	5.29	1.48	1.41
83	A5	3753	A	O3'-P	-5.29	1.54	1.61
83	A5	3914	G	O3'-P	-5.29	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	714	U	P-O5'	-5.29	1.54	1.59
36	B2	1808	G	C2'-C1'	-5.29	1.47	1.53
83	A5	240	G	C5'-C4'	5.29	1.57	1.51
83	A5	1293	A	C5'-C4'	5.29	1.57	1.51
83	A5	1480	U	C2'-C1'	5.29	1.59	1.53
85	A7	21	G	P-O5'	-5.29	1.54	1.59
36	B2	1619	A	C2'-C1'	-5.29	1.47	1.53
36	B2	912	U	C4'-C3'	5.29	1.58	1.53
83	A5	1272	G	C2'-C1'	-5.29	1.47	1.53
84	A9	11	A	O4'-C1'	5.29	1.48	1.41
5	AO	147	ARG	NE-CZ	5.28	1.40	1.33
83	A5	2664	U	O4'-C1'	5.28	1.48	1.41
83	A5	3184	U	O3'-P	-5.28	1.54	1.61
36	B2	1713	C	C2'-C1'	5.28	1.59	1.53
37	BC	73	C	C2'-C1'	-5.28	1.47	1.53
83	A5	3	A	O4'-C1'	5.28	1.48	1.41
83	A5	2653	A	C2'-C1'	-5.28	1.47	1.53
51	CA	72	ARG	CZ-NH2	5.28	1.40	1.33
83	A5	291	U	C2'-C1'	5.28	1.59	1.53
83	A5	1350	A	O4'-C1'	5.28	1.48	1.41
85	A7	36	C	O4'-C1'	5.28	1.48	1.41
83	A5	3343	A	P-O5'	-5.28	1.54	1.59
83	A5	3343	A	O4'-C1'	5.28	1.48	1.41
36	B2	201	G	O4'-C1'	5.27	1.48	1.41
36	B2	1795	U	C2'-C1'	5.27	1.59	1.53
83	A5	1596	A	C5'-C4'	5.27	1.57	1.51
36	B2	1742	A	O4'-C1'	5.27	1.48	1.41
49	CQ	146	ARG	NE-CZ	5.27	1.40	1.33
83	A5	2169	U	C2'-C1'	5.27	1.59	1.53
83	A5	2546	G	C2'-C1'	-5.27	1.47	1.53
84	A9	3	C	P-O5'	-5.27	1.54	1.59
83	A5	180	U	C2'-C1'	-5.27	1.47	1.53
83	A5	245	G	O4'-C1'	-5.27	1.34	1.41
83	A5	2581	U	O4'-C1'	5.27	1.48	1.41
83	A5	2701	G	C2'-C1'	5.27	1.59	1.53
83	A5	3586	A	O3'-P	-5.27	1.54	1.61
83	A5	3823	G	O3'-P	-5.27	1.54	1.61
85	A7	111	U	O4'-C1'	5.27	1.48	1.41
36	B2	1806	A	C2'-C1'	5.26	1.59	1.53
74	CC	208	ARG	NE-CZ	5.26	1.39	1.33
83	A5	2629	G	C2'-C1'	-5.26	1.47	1.53
83	A5	3918	A	C2'-C1'	-5.26	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1392	U	C2'-C1'	-5.26	1.47	1.53
83	A5	659	U	O4'-C1'	5.26	1.48	1.41
83	A5	862	U	C5'-C4'	5.26	1.57	1.51
36	B2	1920	U	O4'-C1'	5.26	1.48	1.41
83	A5	787	C	C2'-C1'	5.26	1.59	1.53
83	A5	1503	G	O4'-C1'	5.26	1.48	1.41
83	A5	2494	G	O4'-C1'	5.26	1.48	1.41
23	AD	66	ARG	CZ-NH2	5.26	1.39	1.33
25	Af	116	ARG	NE-CZ	5.26	1.39	1.33
27	AE	11	ARG	CZ-NH1	5.26	1.39	1.33
36	B2	1268	C	P-O5'	-5.26	1.54	1.59
36	B2	1426	A	O3'-P	-5.26	1.54	1.61
83	A5	343	A	O4'-C1'	5.26	1.48	1.41
36	B2	1126	A	C5'-C4'	5.25	1.57	1.51
83	A5	3558	U	C2'-C1'	-5.25	1.47	1.53
83	A5	3881	A	C2'-C1'	-5.25	1.47	1.53
36	B2	175	A	C5'-C4'	5.25	1.57	1.51
83	A5	162	U	O3'-P	-5.25	1.54	1.61
83	A5	1313	A	O4'-C1'	5.25	1.48	1.41
83	A5	3940	A	P-O5'	-5.25	1.54	1.59
12	AR	23	ARG	NE-CZ	5.25	1.39	1.33
36	B2	1613	A	O4'-C1'	5.25	1.48	1.41
37	BC	41	A	C2'-C1'	5.25	1.59	1.53
83	A5	701	U	C2'-C1'	5.25	1.59	1.53
83	A5	1485	A	O4'-C1'	5.25	1.48	1.41
83	A5	1908	A	C2'-C1'	-5.25	1.47	1.53
83	A5	2663	C	C5'-C4'	5.25	1.57	1.51
36	B2	657	A	C5'-C4'	5.25	1.57	1.51
83	A5	1905	A	O4'-C1'	5.25	1.48	1.41
36	B2	1739	U	O4'-C1'	5.24	1.48	1.41
36	B2	776	A	C5'-C4'	5.24	1.57	1.51
83	A5	664	U	C2'-C1'	-5.24	1.47	1.53
83	A5	2096	C	C5'-C4'	5.24	1.57	1.51
83	A5	2926	G	C5'-C4'	5.24	1.57	1.51
36	B2	332	U	C2'-C1'	-5.24	1.47	1.53
83	A5	1473	U	C2'-C1'	5.24	1.59	1.53
36	B2	652	U	C2'-C1'	-5.23	1.47	1.53
36	B2	1897	U	P-O5'	-5.23	1.54	1.59
83	A5	1319	A	O4'-C1'	5.23	1.48	1.41
84	A9	22	A	C2'-C1'	-5.23	1.47	1.53
27	AE	191	ARG	CD-NE	5.23	1.55	1.46
36	B2	1365	G	C2'-C1'	-5.23	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3106	G	O4'-C1'	-5.23	1.34	1.41
85	A7	97	G	C2'-C1'	-5.23	1.47	1.53
82	CG	236	GLU	CB-CG	5.23	1.62	1.52
36	B2	26	A	O4'-C1'	-5.22	1.34	1.41
36	B2	1552	C	O4'-C1'	5.22	1.48	1.41
36	B2	1846	G	O4'-C1'	5.22	1.48	1.41
83	A5	783	G	C2'-C1'	-5.22	1.47	1.53
83	A5	1272	G	O4'-C1'	5.22	1.48	1.41
83	A5	3026	U	C5'-C4'	5.22	1.57	1.51
36	B2	172	G	O4'-C1'	-5.22	1.34	1.41
58	CW	105	ARG	NE-CZ	5.22	1.39	1.33
83	A5	117	C	O3'-P	-5.22	1.54	1.61
83	A5	1345	G	C5'-C4'	5.22	1.57	1.51
36	B2	1011	A	O4'-C1'	5.22	1.48	1.41
36	B2	1783	U	O4'-C1'	5.22	1.48	1.41
83	A5	797	A	C2'-C1'	-5.22	1.47	1.53
83	A5	1168	G	O4'-C1'	5.22	1.48	1.41
83	A5	1476	G	C2'-C1'	-5.22	1.47	1.53
83	A5	1731	G	C2'-C1'	-5.22	1.47	1.53
83	A5	3256	U	O3'-P	-5.22	1.54	1.61
83	A5	1925	U	C2'-C1'	5.22	1.59	1.53
78	Co	40	ARG	NE-CZ	5.22	1.39	1.33
83	A5	1491	U	O3'-P	-5.22	1.54	1.61
83	A5	2819	A	O4'-C1'	5.22	1.48	1.41
83	A5	3331	A	O4'-C1'	5.22	1.48	1.41
23	AD	29	ARG	NE-CZ	5.21	1.39	1.33
83	A5	572	A	O4'-C1'	5.21	1.48	1.41
83	A5	1718	G	C4'-C3'	-5.21	1.47	1.52
83	A5	3873	A	C2'-C1'	-5.21	1.47	1.53
83	A5	124	A	O4'-C1'	-5.21	1.34	1.41
83	A5	3254	U	C2'-C1'	-5.21	1.47	1.53
36	B2	1266	G	C2'-C1'	-5.21	1.47	1.53
36	B2	1596	C	P-O5'	-5.21	1.54	1.59
86	A8	27	C	P-O5'	-5.21	1.54	1.59
36	B2	1446	G	P-O5'	-5.21	1.54	1.59
83	A5	1879	U	O4'-C1'	-5.21	1.34	1.41
27	AE	68	ARG	NE-CZ	5.21	1.39	1.33
49	CQ	164	ARG	CZ-NH2	5.21	1.39	1.33
83	A5	1208	U	C2'-C1'	5.21	1.59	1.53
86	A8	4	U	O4'-C1'	5.21	1.48	1.41
16	AA	41	ARG	CZ-NH2	5.21	1.39	1.33
36	B2	1722	U	O4'-C1'	5.21	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1040	C	P-O5'	-5.21	1.54	1.59
83	A5	1359	G	P-O5'	-5.21	1.54	1.59
83	A5	2131	C	O3'-P	-5.21	1.54	1.61
36	B2	1193	C	C2'-C1'	-5.20	1.47	1.53
55	CU	237	SER	CA-CB	5.20	1.60	1.52
36	B2	269	A	C5'-C4'	5.20	1.57	1.51
36	B2	1641	U	O4'-C1'	5.20	1.48	1.41
62	Cb	53	ARG	CZ-NH2	5.20	1.39	1.33
83	A5	1114	A	C2'-C1'	5.20	1.59	1.53
83	A5	2762	A	C2'-C1'	5.20	1.59	1.53
37	BC	6	A	C2'-C1'	-5.20	1.47	1.53
51	CA	30	ARG	CZ-NH2	5.20	1.39	1.33
33	AI	144	SER	CA-CB	5.20	1.60	1.52
25	Af	80	ARG	CD-NE	5.20	1.55	1.46
83	A5	1162	A	C2'-C1'	-5.20	1.47	1.53
83	A5	3372	C	C2'-C1'	-5.20	1.47	1.53
83	A5	3892	A	O3'-P	-5.20	1.54	1.61
83	A5	512	A	O4'-C1'	5.19	1.48	1.41
83	A5	158	A	O4'-C1'	5.19	1.48	1.41
83	A5	339	C	C2'-C1'	-5.19	1.47	1.53
83	A5	1743	G	C2'-C1'	-5.19	1.47	1.53
83	A5	1879	U	O3'-P	-5.19	1.54	1.61
83	A5	2134	A	C5'-C4'	5.19	1.57	1.51
83	A5	3428	A	C2'-C1'	-5.19	1.47	1.53
19	AZ	79	ARG	CD-NE	5.19	1.55	1.46
36	B2	364	A	P-O5'	-5.19	1.54	1.59
36	B2	1712	G	P-O5'	-5.19	1.54	1.59
83	A5	91	U	C2'-C1'	-5.19	1.47	1.53
83	A5	379	A	C3'-C2'	5.19	1.58	1.52
83	A5	988	C	P-O5'	-5.19	1.54	1.59
83	A5	3032	C	O3'-P	-5.19	1.54	1.61
83	A5	3431	C	C2'-C1'	-5.19	1.47	1.53
85	A7	98	G	P-O5'	-5.19	1.54	1.59
36	B2	960	U	C5'-C4'	5.19	1.57	1.51
36	B2	1263	U	C4'-C3'	-5.19	1.47	1.52
42	CL	55	ARG	CZ-NH2	5.19	1.39	1.33
83	A5	3400	U	O3'-P	-5.19	1.54	1.61
37	BC	21	G	O4'-C1'	5.18	1.48	1.41
83	A5	171	U	O4'-C1'	5.18	1.48	1.41
83	A5	707	C	O3'-P	-5.18	1.54	1.61
83	A5	2121	U	O4'-C1'	5.18	1.48	1.41
85	A7	68	G	O4'-C1'	5.18	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	1571	U	P-O5'	-5.18	1.54	1.59
85	A7	112	U	O4'-C1'	-5.18	1.34	1.41
36	B2	1335	C	C3'-C2'	-5.18	1.47	1.52
83	A5	1428	G	C2'-C1'	-5.18	1.47	1.53
85	A7	72	U	C2'-C1'	-5.18	1.47	1.53
36	B2	1057	A	C2'-C1'	5.18	1.59	1.53
83	A5	1164	G	O3'-P	-5.18	1.54	1.61
83	A5	1869	C	C5'-C4'	5.18	1.57	1.51
36	B2	286	A	O4'-C1'	5.17	1.48	1.41
36	B2	1122	A	C2'-C1'	-5.17	1.47	1.53
36	B2	1259	A	O4'-C1'	5.17	1.48	1.41
83	A5	1516	A	O3'-P	-5.17	1.54	1.61
83	A5	3440	C	C4'-C3'	-5.17	1.47	1.52
83	A5	3684	A	C2'-C1'	-5.17	1.47	1.53
36	B2	840	U	O4'-C1'	5.17	1.48	1.41
83	A5	725	U	C2'-C1'	5.17	1.59	1.53
36	B2	6	G	O4'-C1'	5.17	1.48	1.41
36	B2	1649	U	C2'-C1'	5.17	1.59	1.53
36	B2	1652	A	O4'-C1'	-5.17	1.34	1.41
46	CN	109	ARG	NE-CZ	5.17	1.39	1.33
49	CQ	168	ARG	NE-CZ	5.17	1.39	1.33
36	B2	1605	G	C5'-C4'	5.17	1.57	1.51
37	BC	26	C	O3'-P	-5.17	1.54	1.61
46	CN	202	ARG	NE-CZ	5.17	1.39	1.33
50	CR	60	ARG	CZ-NH2	5.17	1.39	1.33
83	A5	1741	G	C2'-C1'	-5.17	1.47	1.53
83	A5	2629	G	C5'-C4'	5.17	1.57	1.51
83	A5	3556	A	O3'-P	-5.17	1.54	1.61
83	A5	872	A	C5'-C4'	5.17	1.57	1.51
36	B2	1801	U	O4'-C1'	5.16	1.48	1.41
36	B2	1922	A	O4'-C1'	5.16	1.48	1.41
83	A5	1536	U	C2'-C1'	5.16	1.59	1.53
83	A5	1671	U	C5'-C4'	5.16	1.57	1.51
83	A5	2609	U	O4'-C1'	5.16	1.48	1.41
83	A5	977	C	C5'-C4'	5.16	1.57	1.51
83	A5	1579	U	C5'-C4'	5.16	1.57	1.51
81	CE	78	ARG	CZ-NH2	5.16	1.39	1.33
86	A8	18	C	C4'-C3'	-5.16	1.47	1.52
36	B2	718	C	C2'-C1'	-5.16	1.47	1.53
36	B2	1260	G	O4'-C1'	5.16	1.48	1.41
57	CY	75	ARG	CZ-NH2	5.16	1.39	1.33
36	B2	1312	G	C2'-C1'	-5.16	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	B2	312	G	C5'-C4'	5.16	1.57	1.51
82	CG	194	ARG	CD-NE	5.16	1.55	1.46
83	A5	673	U	P-O5'	-5.16	1.54	1.59
83	A5	2170	C	C2'-C1'	-5.16	1.47	1.53
83	A5	3465	C	O4'-C1'	5.16	1.48	1.41
83	A5	3902	G	O4'-C1'	5.16	1.48	1.41
36	B2	526	A	C2'-C1'	-5.15	1.47	1.53
36	B2	1312	G	P-O5'	-5.15	1.54	1.59
36	B2	1910	U	C2'-C1'	-5.15	1.47	1.53
83	A5	242	C	O4'-C1'	5.15	1.48	1.41
83	A5	1336	U	P-O5'	-5.15	1.54	1.59
83	A5	1743	G	C5'-C4'	5.15	1.57	1.51
50	CR	104	ARG	CD-NE	5.15	1.55	1.46
83	A5	1432	C	O3'-P	-5.15	1.54	1.61
83	A5	2515	C	P-O5'	-5.15	1.54	1.59
83	A5	2822	C	C2'-C1'	-5.15	1.47	1.53
28	AC	210	ARG	NE-CZ	5.15	1.39	1.33
83	A5	2278	G	O3'-P	-5.15	1.54	1.61
83	A5	2678	G	O4'-C1'	-5.15	1.34	1.41
48	CD	68	ARG	NE-CZ	5.15	1.39	1.33
82	CG	67	ARG	CZ-NH1	5.15	1.39	1.33
83	A5	182	G	C2'-C1'	-5.15	1.47	1.53
83	A5	2545	A	C2'-C1'	-5.15	1.47	1.53
83	A5	587	U	P-O5'	-5.15	1.54	1.59
83	A5	838	U	O4'-C1'	5.15	1.48	1.41
36	B2	1912	G	O4'-C1'	5.15	1.48	1.41
36	B2	1964	U	C5'-C4'	5.15	1.57	1.51
83	A5	3689	U	O4'-C1'	5.15	1.48	1.41
36	B2	633	U	C5'-C4'	5.14	1.57	1.51
36	B2	1606	A	C2'-C1'	-5.14	1.47	1.53
83	A5	1448	G	P-O5'	-5.14	1.54	1.59
83	A5	3319	A	O3'-P	-5.14	1.54	1.61
83	A5	3553	C	C2'-C1'	-5.14	1.47	1.53
85	A7	29	C	C2'-C1'	5.14	1.59	1.53
26	AJ	170	ARG	CD-NE	5.14	1.55	1.46
36	B2	242	A	C2'-C1'	-5.14	1.47	1.53
36	B2	396	A	O4'-C1'	5.14	1.48	1.41
36	B2	1816	C	P-O5'	-5.14	1.54	1.59
83	A5	1487	C	C2'-C1'	-5.14	1.47	1.53
83	A5	3158	A	C2'-C1'	5.14	1.59	1.53
36	B2	152	U	P-O5'	-5.14	1.54	1.59
36	B2	888	G	O4'-C1'	5.14	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	AH	38	TYR	CG-CD1	5.14	1.45	1.39
36	B2	300	U	O4'-C1'	5.14	1.48	1.41
32	AW	118	ARG	NE-CZ	5.14	1.39	1.33
36	B2	388	G	O4'-C1'	5.14	1.48	1.41
36	B2	520	A	O3'-P	-5.14	1.54	1.61
36	B2	1575	A	O4'-C1'	-5.14	1.34	1.41
83	A5	46	C	O4'-C1'	5.14	1.48	1.41
83	A5	3429	A	O4'-C1'	5.14	1.48	1.41
36	B2	192	A	O4'-C1'	-5.13	1.34	1.41
36	B2	1636	A	C2'-C1'	5.13	1.58	1.53
83	A5	1448	G	C5'-C4'	5.13	1.57	1.51
83	A5	3663	U	O4'-C1'	5.13	1.48	1.41
83	A5	3202	G	O4'-C1'	-5.13	1.34	1.41
36	B2	1935	A	O4'-C1'	5.13	1.48	1.41
36	B2	1940	G	C5'-C4'	5.13	1.57	1.51
50	CR	100	ARG	NE-CZ	5.13	1.39	1.33
83	A5	1550	U	O4'-C1'	5.13	1.48	1.41
36	B2	1914	A	O4'-C1'	5.13	1.48	1.41
79	CJ	80	ARG	CZ-NH2	5.13	1.39	1.33
83	A5	1036	A	C2'-C1'	-5.13	1.47	1.53
36	B2	372	A	P-O5'	-5.13	1.54	1.59
36	B2	1926	A	C2'-C1'	-5.13	1.47	1.53
36	B2	1798	C	P-O5'	-5.13	1.54	1.59
83	A5	2032	U	O4'-C1'	5.13	1.48	1.41
83	A5	2104	A	O4'-C1'	5.13	1.48	1.41
83	A5	2911	U	O3'-P	-5.13	1.54	1.61
83	A5	2675	U	C2'-C1'	-5.12	1.47	1.53
27	AE	113	ARG	NE-CZ	5.12	1.39	1.33
36	B2	17	C	C2'-C1'	-5.12	1.47	1.53
36	B2	961	U	C2'-C1'	-5.12	1.47	1.53
36	B2	1009	U	C5'-C4'	5.12	1.57	1.51
82	CG	201	ARG	NE-CZ	5.12	1.39	1.33
83	A5	454	C	O4'-C1'	5.12	1.48	1.41
83	A5	3139	G	C2'-C1'	-5.12	1.47	1.53
45	Ca	115	ARG	CZ-NH1	5.12	1.39	1.33
83	A5	1064	G	C2'-C1'	-5.12	1.47	1.53
83	A5	2598	A	O4'-C1'	5.12	1.48	1.41
83	A5	3651	C	O3'-P	-5.12	1.55	1.61
23	AD	180	ARG	CD-NE	5.12	1.55	1.46
36	B2	1280	C	P-O5'	-5.12	1.54	1.59
36	B2	1828	C	C2'-C1'	-5.12	1.47	1.53
83	A5	1222	A	C2'-C1'	-5.12	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	3481	G	C2'-C1'	-5.12	1.47	1.53
1	Az	414	ARG	CD-NE	5.12	1.55	1.46
83	A5	709	U	C2'-C1'	5.12	1.58	1.53
83	A5	1179	U	C2'-C1'	-5.12	1.47	1.53
83	A5	3218	C	O3'-P	-5.12	1.55	1.61
36	B2	173	C	C5'-C4'	5.12	1.57	1.51
83	A5	564	C	C2'-C1'	-5.12	1.47	1.53
83	A5	868	A	O4'-C1'	5.12	1.48	1.41
83	A5	1805	A	P-O5'	-5.12	1.54	1.59
36	B2	389	G	O4'-C1'	5.11	1.48	1.41
83	A5	3408	C	C2'-C1'	-5.11	1.47	1.53
83	A5	3667	C	C4'-C3'	5.11	1.58	1.53
36	B2	1286	G	O4'-C1'	5.11	1.48	1.41
85	A7	41	G	O3'-P	-5.11	1.55	1.61
36	B2	195	G	C5'-C4'	5.11	1.57	1.51
36	B2	578	A	C5'-C4'	5.11	1.57	1.51
36	B2	704	U	C5'-C4'	5.11	1.57	1.51
36	B2	999	U	O4'-C1'	5.11	1.48	1.41
83	A5	264	U	O4'-C1'	5.11	1.48	1.41
83	A5	724	U	P-O5'	-5.11	1.54	1.59
30	AF	105	ARG	NE-CZ	5.10	1.39	1.33
54	CP	135	ARG	NE-CZ	5.10	1.39	1.33
36	B2	532	U	O4'-C1'	5.10	1.48	1.41
85	A7	75	G	C5'-C4'	5.10	1.57	1.51
83	A5	6	U	P-O5'	-5.10	1.54	1.59
83	A5	405	A	C4'-C3'	5.10	1.58	1.53
26	AJ	151	ARG	CZ-NH1	5.10	1.39	1.33
36	B2	1711	C	O3'-P	-5.10	1.55	1.61
36	B2	1839	U	O4'-C1'	5.10	1.48	1.41
83	A5	433	U	C5'-C4'	5.10	1.57	1.51
83	A5	466	U	O4'-C1'	5.10	1.48	1.41
83	A5	1053	G	O4'-C1'	-5.10	1.35	1.41
85	A7	95	U	O4'-C1'	-5.10	1.35	1.41
36	B2	541	U	C2'-C1'	5.10	1.58	1.53
36	B2	1542	U	O4'-C1'	5.10	1.48	1.41
83	A5	2459	C	C5'-C4'	5.10	1.57	1.51
36	B2	376	G	O4'-C1'	-5.10	1.35	1.41
83	A5	3450	G	O4'-C1'	5.10	1.48	1.41
46	CN	20	ARG	CD-NE	5.09	1.55	1.46
83	A5	1562	U	C2'-C1'	-5.09	1.47	1.53
83	A5	1595	G	O4'-C1'	-5.09	1.35	1.41
83	A5	762	G	O4'-C1'	5.09	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	1741	G	O4'-C1'	5.09	1.48	1.41
83	A5	3936	A	C2'-C1'	-5.09	1.47	1.53
36	B2	1065	A	C2'-C1'	-5.09	1.47	1.53
57	CY	87	ARG	NE-CZ	5.09	1.39	1.33
83	A5	3647	A	C2'-C1'	-5.09	1.47	1.53
36	B2	1726	A	C2'-C1'	-5.09	1.47	1.53
83	A5	405	A	P-O5'	-5.09	1.54	1.59
83	A5	1248	A	C2'-C1'	-5.09	1.47	1.53
83	A5	1722	U	O4'-C1'	5.09	1.48	1.41
83	A5	3138	G	C2'-C1'	-5.09	1.47	1.53
86	A8	91	C	O3'-P	-5.09	1.55	1.61
26	AJ	18	ARG	NE-CZ	5.09	1.39	1.33
41	CO	87	ARG	CZ-NH1	5.09	1.39	1.33
67	Ce	26	ARG	CZ-NH2	5.09	1.39	1.33
83	A5	1352	U	C2'-C1'	5.09	1.58	1.53
83	A5	1456	U	C2'-C1'	-5.09	1.47	1.53
83	A5	1532	A	O3'-P	-5.09	1.55	1.61
83	A5	3015	A	O3'-P	-5.09	1.55	1.61
16	AA	63	ARG	CZ-NH2	5.08	1.39	1.33
36	B2	1384	G	O4'-C1'	5.08	1.48	1.41
39	Cq	83	ARG	CZ-NH1	5.08	1.39	1.33
83	A5	119	G	C5'-C4'	5.08	1.57	1.51
83	A5	425	A	C2'-C1'	-5.08	1.47	1.53
83	A5	2168	G	O3'-P	-5.08	1.55	1.61
83	A5	3773	G	O3'-P	-5.08	1.55	1.61
36	B2	1748	A	C4'-C3'	5.08	1.58	1.53
83	A5	190	A	O4'-C1'	5.08	1.48	1.41
83	A5	2242	C	O3'-P	-5.08	1.55	1.61
83	A5	3714	U	O4'-C1'	-5.08	1.35	1.41
83	A5	3944	A	O4'-C1'	5.08	1.48	1.41
36	B2	1954	C	C5'-C4'	5.08	1.57	1.51
36	B2	1963	G	O4'-C1'	5.08	1.48	1.41
83	A5	1607	A	O3'-P	-5.08	1.55	1.61
83	A5	2098	C	O4'-C1'	5.08	1.48	1.41
83	A5	2535	U	C2'-C1'	5.08	1.58	1.53
36	B2	44	U	C2'-C1'	5.08	1.58	1.53
36	B2	1130	A	O3'-P	-5.08	1.55	1.61
83	A5	2871	G	C2'-C1'	5.08	1.58	1.53
85	A7	35	U	O4'-C1'	5.08	1.48	1.41
36	B2	412	A	C3'-C2'	-5.08	1.47	1.52
48	CD	22	ARG	NE-CZ	5.08	1.39	1.33
81	CE	191	ARG	CZ-NH2	5.08	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	178	U	P-O5'	-5.08	1.54	1.59
37	BC	19	A	C2'-C1'	-5.07	1.47	1.53
82	CG	118	ARG	NE-CZ	5.07	1.39	1.33
83	A5	160	U	O3'-P	-5.07	1.55	1.61
83	A5	1882	G	C2'-C1'	5.07	1.58	1.53
84	A9	5	U	O4'-C1'	5.07	1.48	1.41
24	Ae	114	PHE	CG-CD1	5.07	1.46	1.38
39	Cq	200	SER	CA-CB	5.07	1.60	1.52
83	A5	100	G	C5'-C4'	5.07	1.57	1.51
83	A5	893	U	O3'-P	-5.07	1.55	1.61
83	A5	1930	G	C5'-C4'	5.07	1.57	1.51
83	A5	227	A	O3'-P	-5.07	1.55	1.61
36	B2	1349	U	O3'-P	-5.07	1.55	1.61
41	CO	39	ARG	CZ-NH1	5.07	1.39	1.33
84	A9	6	G	O4'-C1'	5.07	1.48	1.41
27	AE	51	ARG	CZ-NH2	5.07	1.39	1.33
36	B2	1004	C	C2'-C1'	5.07	1.58	1.53
51	CA	247	ARG	CZ-NH2	5.07	1.39	1.33
83	A5	507	U	P-O5'	-5.07	1.54	1.59
83	A5	3325	G	O4'-C1'	5.07	1.48	1.41
83	A5	756	C	C2'-C1'	-5.06	1.47	1.53
83	A5	1013	G	O4'-C1'	5.06	1.48	1.41
10	AN	106	ARG	CD-NE	5.06	1.55	1.46
83	A5	1311	U	C2'-C1'	5.06	1.58	1.53
83	A5	2696	U	O4'-C1'	5.06	1.48	1.41
86	A8	11	G	C2'-C1'	-5.06	1.47	1.53
83	A5	3910	A	O4'-C1'	5.06	1.48	1.41
53	CT	32	ARG	CZ-NH1	5.06	1.39	1.33
83	A5	575	A	O4'-C1'	5.06	1.48	1.41
83	A5	655	C	C5'-C4'	5.06	1.57	1.51
83	A5	2562	U	P-O5'	-5.06	1.54	1.59
83	A5	3636	G	C3'-C2'	5.06	1.58	1.52
36	B2	763	G	C4'-C3'	5.06	1.58	1.53
36	B2	1936	U	O4'-C1'	5.06	1.48	1.41
40	CK	16	ARG	NE-CZ	5.06	1.39	1.33
83	A5	364	U	C5'-C4'	5.06	1.57	1.51
83	A5	378	G	O4'-C1'	5.06	1.48	1.41
83	A5	548	A	O4'-C1'	5.06	1.48	1.41
83	A5	1001	A	C5'-C4'	5.06	1.57	1.51
83	A5	2793	C	O4'-C1'	5.06	1.48	1.41
83	A5	3325	G	C3'-C2'	-5.06	1.47	1.52
36	B2	1370	U	C4'-C3'	-5.06	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	678	U	P-O5'	-5.06	1.54	1.59
36	B2	1528	G	C2'-C1'	-5.05	1.47	1.53
46	CN	143	ARG	CZ-NH1	5.05	1.39	1.33
83	A5	1997	C	P-O5'	-5.05	1.54	1.59
83	A5	2579	G	C2'-C1'	-5.05	1.47	1.53
83	A5	3202	G	O3'-P	-5.05	1.55	1.61
83	A5	3565	G	O4'-C1'	-5.05	1.35	1.41
36	B2	579	G	C4'-C3'	5.05	1.58	1.53
83	A5	461	U	C5'-C4'	5.05	1.57	1.51
83	A5	2634	A	P-O5'	-5.05	1.54	1.59
83	A5	3668	G	O3'-P	-5.05	1.55	1.61
36	B2	267	G	O4'-C1'	5.05	1.48	1.41
36	B2	1329	A	O3'-P	-5.05	1.55	1.61
83	A5	212	U	O4'-C1'	5.05	1.48	1.41
83	A5	349	C	O3'-P	-5.05	1.55	1.61
86	A8	79	A	O4'-C1'	-5.05	1.35	1.41
83	A5	419	U	O4'-C1'	5.05	1.48	1.41
83	A5	1601	U	C5'-C4'	5.05	1.57	1.51
83	A5	1718	G	P-O5'	-5.05	1.54	1.59
83	A5	3458	A	C5'-C4'	5.05	1.57	1.51
83	A5	483	U	C2'-C1'	5.05	1.58	1.53
83	A5	2617	G	C2'-C1'	5.05	1.58	1.53
83	A5	1320	U	C5'-C4'	5.05	1.57	1.51
83	A5	2644	U	O4'-C1'	5.05	1.48	1.41
36	B2	1796	C	P-O5'	-5.04	1.54	1.59
83	A5	929	A	O3'-P	-5.04	1.55	1.61
34	AQ	6	ARG	CZ-NH1	5.04	1.39	1.33
36	B2	116	U	O4'-C1'	5.04	1.48	1.41
36	B2	1504	G	O3'-P	-5.04	1.55	1.61
83	A5	790	U	O3'-P	-5.04	1.55	1.61
83	A5	1454	C	C2'-C1'	-5.04	1.47	1.53
83	A5	1480	U	O4'-C1'	5.04	1.48	1.41
25	Af	138	ARG	NE-CZ	5.04	1.39	1.33
83	A5	46	C	C2'-C1'	-5.04	1.47	1.53
83	A5	1238	A	C2'-C1'	5.04	1.58	1.53
83	A5	1975	C	P-O5'	-5.04	1.54	1.59
83	A5	3393	U	C2'-C1'	5.04	1.58	1.53
36	B2	519	A	O4'-C1'	5.04	1.48	1.41
83	A5	3332	G	C2'-C1'	5.04	1.58	1.53
46	CN	41	ARG	CD-NE	5.04	1.55	1.46
33	AI	20	SER	CA-CB	5.03	1.60	1.52
83	A5	788	C	C4'-O4'	-5.03	1.39	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	A5	2067	C	P-O5'	-5.03	1.54	1.59
36	B2	1254	A	C2'-C1'	5.03	1.58	1.53
36	B2	337	U	O4'-C1'	5.03	1.48	1.41
83	A5	2029	G	C5'-C4'	5.03	1.57	1.51
85	A7	7	G	P-O5'	-5.03	1.54	1.59
36	B2	1995	A	C2'-C1'	5.02	1.58	1.53
43	CV	48	ARG	NE-CZ	5.02	1.39	1.33
81	CE	139	ARG	NE-CZ	5.02	1.39	1.33
83	A5	453	C	C2'-C1'	-5.02	1.47	1.53
83	A5	994	U	C2'-C1'	5.02	1.58	1.53
83	A5	2079	U	O4'-C1'	5.02	1.48	1.41
23	AD	145	ARG	CZ-NH2	5.02	1.39	1.33
36	B2	956	C	P-O5'	-5.02	1.54	1.59
28	AC	51	ARG	CZ-NH2	5.02	1.39	1.33
83	A5	516	U	C5'-C4'	5.02	1.57	1.51
83	A5	3185	C	C2'-C1'	-5.02	1.47	1.53
85	A7	119	C	O3'-P	-5.02	1.55	1.61
83	A5	15	A	C5'-C4'	5.02	1.57	1.51
83	A5	1576	U	C2'-C1'	5.02	1.58	1.53
15	AB	82	ARG	CZ-NH1	5.02	1.39	1.33
83	A5	3678	G	C2'-C1'	-5.02	1.47	1.53
83	A5	44	A	P-O5'	-5.01	1.54	1.59
83	A5	3412	U	C3'-O3'	5.01	1.49	1.42
36	B2	1866	U	O4'-C1'	5.01	1.48	1.41
83	A5	1199	C	C2'-C1'	-5.01	1.47	1.53
36	B2	1839	U	C2'-C1'	-5.01	1.47	1.53
83	A5	2706	U	O4'-C1'	5.01	1.48	1.41
83	A5	2781	G	P-O5'	-5.01	1.54	1.59
83	A5	3193	C	P-O5'	-5.01	1.54	1.59
36	B2	1096	C	C5'-C4'	5.00	1.57	1.51
83	A5	2772	G	C5'-C4'	5.00	1.57	1.51
83	A5	2903	U	C5'-C4'	5.00	1.57	1.51
83	A5	326	A	P-O5'	-5.00	1.54	1.59
83	A5	1087	G	P-O5'	-5.00	1.54	1.59
83	A5	2583	U	C2'-C1'	5.00	1.58	1.53
83	A5	2990	C	C5'-C4'	5.00	1.57	1.51
83	A5	3967	U	C2'-C1'	-5.00	1.47	1.53
84	A9	7	G	O3'-P	-5.00	1.55	1.61
83	A5	1558	A	O3'-P	-5.00	1.55	1.61
83	A5	2720	U	O4'-C1'	5.00	1.48	1.41
83	A5	2883	C	P-O5'	-5.00	1.54	1.59

All (9425) bond angle outliers are listed below:



Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3514	C	O4'-C1'-N1	37.72	138.37	108.20
83	A5	3368	C	O4'-C1'-N1	35.09	136.28	108.20
36	B2	1087	C	O4'-C1'-N1	32.98	134.59	108.20
83	A5	3676	C	O4'-C1'-N1	31.58	133.46	108.20
83	A5	2491	C	O4'-C1'-N1	31.03	133.03	108.20
36	B2	1472	C	P-O3'-C3'	30.72	156.56	119.70
36	B2	1788	C	O4'-C1'-N1	30.46	132.56	108.20
36	B2	550	C	O4'-C1'-N1	30.34	132.47	108.20
83	A5	668	A	P-O3'-C3'	30.33	156.09	119.70
83	A5	1368	A	O4'-C1'-N9	29.57	131.85	108.20
83	A5	866	C	P-O3'-C3'	29.37	154.94	119.70
83	A5	2812	U	O4'-C1'-N1	29.06	131.45	108.20
36	B2	75	U	O4'-C1'-N1	28.44	130.95	108.20
36	B2	1695	A	O4'-C1'-N9	28.26	130.81	108.20
36	B2	68	C	O4'-C1'-N1	28.19	130.75	108.20
36	B2	1371	C	P-O3'-C3'	28.07	153.39	119.70
83	A5	3846	U	O4'-C1'-N1	28.02	130.62	108.20
36	B2	1752	U	O4'-C1'-N1	26.97	129.78	108.20
36	B2	905	U	P-O3'-C3'	26.79	151.85	119.70
83	A5	3893	A	O4'-C1'-N9	26.75	129.60	108.20
84	A9	22	A	P-O3'-C3'	26.75	151.80	119.70
83	A5	3788	G	O4'-C1'-N9	26.66	129.53	108.20
36	B2	1571	U	O4'-C1'-N1	25.98	128.98	108.20
83	A5	1594	U	O4'-C1'-N1	25.92	128.93	108.20
36	B2	1333	C	O4'-C1'-N1	25.64	128.71	108.20
83	A5	420	A	O4'-C1'-N9	25.56	128.65	108.20
83	A5	315	G	O4'-C1'-N9	25.51	128.61	108.20
36	B2	1079	A	O4'-C1'-N9	25.51	128.61	108.20
36	B2	1681	U	O4'-C1'-N1	25.36	128.49	108.20
36	B2	1394	U	O4'-C1'-N1	25.16	128.33	108.20
36	B2	1342	G	O4'-C1'-N9	25.10	128.28	108.20
83	A5	303	G	P-O3'-C3'	25.08	149.79	119.70
86	A8	61	C	P-O3'-C3'	-24.88	89.85	119.70
83	A5	2479	A	O4'-C1'-N9	24.70	127.96	108.20
83	A5	116	U	O4'-C1'-N1	24.68	127.94	108.20
36	B2	1995	A	O4'-C1'-N9	24.57	127.85	108.20
36	B2	950	U	O4'-C1'-N1	24.20	127.56	108.20
83	A5	2091	A	P-O3'-C3'	24.16	148.69	119.70
36	B2	1727	U	P-O3'-C3'	24.14	148.67	119.70
86	A8	80	C	O4'-C1'-N1	23.93	127.34	108.20
83	A5	1237	G	O4'-C1'-N9	23.84	127.27	108.20
83	A5	1798	A	P-O3'-C3'	23.81	148.27	119.70
83	A5	1866	G	O4'-C1'-N9	23.55	127.04	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3023	A	P-O3'-C3'	23.53	147.94	119.70
83	A5	3968	C	P-O3'-C3'	23.46	147.85	119.70
83	A5	698	A	P-O3'-C3'	-23.45	91.56	119.70
36	B2	1591	U	O4'-C1'-N1	23.37	126.90	108.20
83	A5	985	G	O4'-C1'-N9	23.37	126.89	108.20
83	A5	3842	A	P-O5'-C5'	23.36	158.27	120.90
83	A5	211	U	P-O3'-C3'	23.33	147.70	119.70
36	B2	1648	C	O4'-C1'-N1	23.33	126.86	108.20
86	A8	44	C	P-O3'-C3'	23.28	147.63	119.70
83	A5	3193	C	O4'-C1'-N1	23.25	126.80	108.20
36	B2	1639	U	P-O3'-C3'	23.17	147.51	119.70
83	A5	872	A	O4'-C1'-N9	23.15	126.72	108.20
36	B2	225	G	P-O3'-C3'	23.02	147.33	119.70
86	A8	85	G	P-O3'-C3'	22.99	147.29	119.70
83	A5	2990	C	P-O3'-C3'	22.94	147.23	119.70
83	A5	3094	U	P-O3'-C3'	22.90	147.18	119.70
83	A5	5	A	O4'-C1'-N9	22.76	126.41	108.20
83	A5	3719	A	O4'-C1'-N9	22.63	126.30	108.20
83	A5	3713	C	O4'-C1'-N1	22.58	126.26	108.20
86	A8	58	C	O4'-C1'-N1	22.52	126.22	108.20
83	A5	138	A	O4'-C1'-N9	22.41	126.13	108.20
85	A7	12	U	P-O3'-C3'	-22.37	92.86	119.70
83	A5	1631	U	O4'-C1'-N1	22.22	125.98	108.20
83	A5	643	U	P-O3'-C3'	22.17	146.30	119.70
86	A8	108	A	P-O3'-C3'	-22.03	93.26	119.70
36	B2	984	G	P-O3'-C3'	21.89	145.96	119.70
36	B2	988	G	O4'-C1'-N9	21.85	125.68	108.20
36	B2	495	U	P-O3'-C3'	21.83	145.89	119.70
36	B2	488	A	P-O3'-C3'	21.55	145.56	119.70
83	A5	3841	C	P-O3'-C3'	21.42	145.40	119.70
83	A5	3819	C	P-O3'-C3'	21.40	145.38	119.70
83	A5	3843	U	P-O3'-C3'	21.37	145.34	119.70
36	B2	825	A	P-O3'-C3'	21.36	145.33	119.70
83	A5	1725	A	O4'-C1'-N9	21.27	125.21	108.20
83	A5	1565	A	P-O3'-C3'	21.25	145.20	119.70
36	B2	74	U	P-O3'-C3'	21.22	145.17	119.70
83	A5	1119	C	P-O3'-C3'	-21.15	94.32	119.70
36	B2	1806	A	O4'-C1'-N9	21.07	125.06	108.20
36	B2	656	U	O4'-C1'-N1	21.04	125.03	108.20
83	A5	2684	C	O4'-C1'-N1	21.00	125.00	108.20
36	B2	1169	C	P-O3'-C3'	20.98	144.88	119.70
36	B2	866	U	P-O3'-C3'	20.96	144.85	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	73	A	O4'-C1'-N9	20.91	124.93	108.20
83	A5	2838	U	P-O3'-C3'	20.90	144.78	119.70
85	A7	72	U	P-O3'-C3'	20.90	144.78	119.70
83	A5	163	A	P-O3'-C3'	20.78	144.64	119.70
36	B2	1473	C	P-O3'-C3'	20.66	144.49	119.70
83	A5	680	C	P-O3'-C3'	20.65	144.48	119.70
36	B2	1606	A	O4'-C1'-N9	20.60	124.68	108.20
83	A5	3928	A	O4'-C1'-N9	20.40	124.52	108.20
83	A5	3664	A	O4'-C1'-N9	20.39	124.51	108.20
83	A5	1863	U	P-O3'-C3'	20.37	144.15	119.70
36	B2	266	U	P-O3'-C3'	20.31	144.07	119.70
83	A5	773	G	P-O3'-C3'	20.29	144.05	119.70
83	A5	3706	U	O4'-C1'-N1	20.29	124.43	108.20
83	A5	984	U	O4'-C1'-N1	20.28	124.42	108.20
83	A5	3708	U	P-O3'-C3'	20.23	143.98	119.70
83	A5	3034	A	P-O3'-C3'	20.21	143.96	119.70
36	B2	283	U	O4'-C1'-N1	20.19	124.35	108.20
83	A5	1593	U	O4'-C1'-N1	20.19	124.35	108.20
36	B2	1749	C	P-O3'-C3'	20.17	143.90	119.70
83	A5	1436	A	P-O3'-C3'	20.07	143.79	119.70
83	A5	3127	A	O4'-C1'-N9	20.00	124.20	108.20
83	A5	3502	A	O4'-C1'-N9	20.00	124.20	108.20
36	B2	3	U	O4'-C1'-N1	19.99	124.19	108.20
36	B2	74	U	O4'-C1'-N1	19.93	124.15	108.20
83	A5	3593	A	O4'-C1'-N9	19.81	124.05	108.20
36	B2	1678	G	O4'-C1'-N9	19.77	124.02	108.20
36	B2	313	C	O4'-C1'-N1	19.75	124.00	108.20
36	B2	1046	U	O4'-C1'-N1	19.73	123.99	108.20
36	B2	226	C	P-O3'-C3'	19.70	143.34	119.70
83	A5	2015	G	P-O3'-C3'	19.65	143.28	119.70
36	B2	174	A	O4'-C1'-N9	19.62	123.90	108.20
83	A5	869	A	O4'-C1'-N9	19.60	123.88	108.20
83	A5	3760	A	P-O3'-C3'	19.56	143.17	119.70
83	A5	3765	A	O4'-C1'-N9	19.53	123.83	108.20
83	A5	459	U	O4'-C1'-N1	19.49	123.79	108.20
83	A5	2131	C	P-O3'-C3'	19.47	143.06	119.70
36	B2	1147	U	O4'-C1'-N1	19.44	123.75	108.20
83	A5	1913	U	O4'-C1'-N1	19.43	123.75	108.20
85	A7	64	G	P-O3'-C3'	-19.37	96.45	119.70
36	B2	1760	G	P-O3'-C3'	19.34	142.91	119.70
83	A5	3838	A	P-O3'-C3'	19.34	142.91	119.70
83	A5	2949	A	P-O3'-C3'	19.34	142.90	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	699	A	P-O3'-C3'	19.29	142.85	119.70
83	A5	3829	U	O4'-C1'-N1	19.29	123.63	108.20
83	A5	3591	A	P-O3'-C3'	19.26	142.82	119.70
83	A5	117	C	N1-C1'-C2'	19.24	139.01	114.00
83	A5	189	A	O4'-C1'-N9	19.22	123.58	108.20
36	B2	1372	U	O4'-C1'-N1	19.22	123.57	108.20
83	A5	3710	U	O4'-C1'-N1	19.14	123.52	108.20
83	A5	3950	A	O4'-C1'-N9	19.12	123.49	108.20
83	A5	1293	A	O4'-C1'-N9	19.11	123.49	108.20
83	A5	668	A	C4'-C3'-O3'	19.09	151.19	113.00
36	B2	631	C	O4'-C1'-N1	19.07	123.46	108.20
83	A5	3530	A	O4'-C1'-N9	19.03	123.43	108.20
83	A5	3773	G	O4'-C1'-N9	18.93	123.35	108.20
83	A5	225	U	P-O3'-C3'	18.92	142.41	119.70
83	A5	2278	G	P-O3'-C3'	18.92	142.40	119.70
83	A5	3764	G	O4'-C1'-N9	18.87	123.30	108.20
36	B2	1196	G	P-O3'-C3'	18.86	142.33	119.70
83	A5	1668	U	C1'-O4'-C4'	-18.84	94.82	109.90
36	B2	1305	A	O4'-C1'-N9	18.82	123.26	108.20
83	A5	2454	U	P-O3'-C3'	18.80	142.27	119.70
83	A5	2243	G	O4'-C1'-N9	18.76	123.21	108.20
85	A7	38	U	P-O3'-C3'	-18.76	97.19	119.70
83	A5	1750	G	O4'-C1'-N9	18.74	123.19	108.20
36	B2	690	U	P-O3'-C3'	18.71	142.16	119.70
83	A5	1296	U	O4'-C1'-N1	18.65	123.12	108.20
83	A5	2995	U	O4'-C1'-N1	18.65	123.12	108.20
36	B2	1331	A	P-O3'-C3'	18.64	142.07	119.70
36	B2	458	C	N1-C1'-C2'	18.58	138.16	114.00
83	A5	2128	A	P-O3'-C3'	18.50	141.91	119.70
36	B2	395	G	O4'-C1'-N9	18.49	122.99	108.20
84	A9	23	G	P-O3'-C3'	18.49	141.88	119.70
83	A5	2196	U	O4'-C1'-N1	18.47	122.98	108.20
83	A5	227	A	P-O3'-C3'	18.43	141.82	119.70
36	B2	904	C	P-O3'-C3'	18.41	141.79	119.70
83	A5	1780	U	P-O3'-C3'	18.37	141.75	119.70
36	B2	1547	U	P-O3'-C3'	18.32	141.69	119.70
83	A5	1562	U	P-O3'-C3'	18.32	141.69	119.70
36	B2	727	U	P-O3'-C3'	18.23	141.58	119.70
36	B2	824	U	P-O3'-C3'	18.14	141.47	119.70
83	A5	958	U	P-O3'-C3'	18.11	141.43	119.70
83	A5	201	U	P-O3'-C3'	18.08	141.40	119.70
83	A5	1292	G	O4'-C1'-N9	18.02	122.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2660	U	P-O3'-C3'	17.89	141.16	119.70
36	B2	195	G	O4'-C1'-N9	17.84	122.47	108.20
83	A5	3018	U	P-O3'-C3'	17.80	141.06	119.70
83	A5	1229	U	P-O3'-C3'	17.78	141.04	119.70
83	A5	2904	U	O4'-C1'-N1	17.78	122.42	108.20
36	B2	1991	C	O4'-C1'-N1	17.77	122.42	108.20
83	A5	3695	G	P-O3'-C3'	17.74	140.98	119.70
36	B2	1652	A	O4'-C1'-N9	17.69	122.35	108.20
36	B2	496	C	P-O5'-C5'	17.63	149.10	120.90
36	B2	908	G	P-O3'-C3'	17.59	140.81	119.70
83	A5	1308	U	P-O3'-C3'	17.58	140.80	119.70
83	A5	1250	C	N1-C1'-C2'	17.52	136.77	114.00
83	A5	2129	C	P-O3'-C3'	17.49	140.69	119.70
36	B2	713	A	O4'-C1'-N9	17.46	122.17	108.20
83	A5	1231	A	P-O3'-C3'	17.43	140.62	119.70
36	B2	1328	G	O4'-C1'-N9	17.43	122.14	108.20
83	A5	147	A	P-O3'-C3'	17.42	140.60	119.70
85	A7	62	U	P-O3'-C3'	-17.39	98.84	119.70
37	BC	17	G	P-O3'-C3'	17.36	140.54	119.70
83	A5	1668	U	N1-C1'-C2'	17.33	136.53	114.00
36	B2	278	G	P-O3'-C3'	17.31	140.47	119.70
36	B2	880	G	O4'-C1'-N9	17.27	122.02	108.20
36	B2	316	U	O4'-C1'-N1	17.26	122.01	108.20
36	B2	698	U	P-O3'-C3'	17.18	140.32	119.70
83	A5	3227	A	O4'-C1'-N9	17.18	121.94	108.20
83	A5	3626	A	P-O3'-C3'	17.14	140.27	119.70
83	A5	1649	G	O4'-C1'-N9	17.12	121.90	108.20
83	A5	3697	A	P-O3'-C3'	17.11	140.24	119.70
83	A5	1501	A	P-O3'-C3'	17.09	140.21	119.70
83	A5	1456	U	O4'-C1'-N1	17.09	121.87	108.20
36	B2	190	U	O4'-C1'-N1	17.07	121.85	108.20
83	A5	1518	A	O4'-C1'-N9	16.94	121.75	108.20
36	B2	1287	G	O4'-C1'-N9	16.93	121.74	108.20
36	B2	765	U	P-O3'-C3'	16.90	139.99	119.70
83	A5	1698	A	P-O3'-C3'	16.90	139.98	119.70
83	A5	2129	C	O4'-C1'-N1	16.90	121.72	108.20
36	B2	1492	A	P-O3'-C3'	16.89	139.96	119.70
83	A5	3211	A	O4'-C1'-N9	16.87	121.70	108.20
83	A5	3778	U	P-O5'-C5'	16.86	147.87	120.90
83	A5	1727	U	P-O3'-C3'	16.84	139.91	119.70
83	A5	2037	C	O4'-C1'-N1	16.80	121.64	108.20
83	A5	1295	A	O4'-C1'-N9	16.80	121.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	715	U	O4'-C1'-N1	16.80	121.64	108.20
83	A5	2157	A	O4'-C1'-N9	16.77	121.62	108.20
36	B2	156	U	O4'-C1'-N1	16.73	121.58	108.20
83	A5	615	C	P-O3'-C3'	16.73	139.77	119.70
83	A5	2815	A	O4'-C1'-N9	16.71	121.56	108.20
83	A5	3095	C	P-O3'-C3'	16.66	139.69	119.70
83	A5	3891	U	O4'-C1'-N1	16.65	121.52	108.20
83	A5	3856	U	O4'-C1'-N1	16.65	121.52	108.20
36	B2	697	U	P-O3'-C3'	16.62	139.65	119.70
83	A5	774	A	P-O3'-C3'	16.62	139.65	119.70
83	A5	2627	G	P-O3'-C3'	16.60	139.62	119.70
83	A5	1601	U	O4'-C1'-N1	16.58	121.47	108.20
83	A5	2490	G	P-O3'-C3'	16.55	139.56	119.70
83	A5	2904	U	P-O3'-C3'	16.52	139.52	119.70
83	A5	2796	G	O4'-C1'-N9	16.50	121.40	108.20
36	B2	1427	U	P-O3'-C3'	16.50	139.50	119.70
83	A5	3839	A	O4'-C1'-N9	16.50	121.40	108.20
84	A9	21	G	P-O3'-C3'	16.47	139.46	119.70
83	A5	201	U	O4'-C1'-N1	16.47	121.37	108.20
83	A5	497	U	O4'-C1'-N1	16.46	121.37	108.20
83	A5	2651	G	P-O3'-C3'	16.44	139.43	119.70
36	B2	1529	G	O4'-C1'-N9	16.41	121.33	108.20
36	B2	1320	G	C1'-O4'-C4'	-16.40	96.78	109.90
83	A5	675	C	P-O3'-C3'	16.36	139.33	119.70
86	A8	82	C	P-O3'-C3'	-16.35	100.08	119.70
36	B2	1313	U	P-O3'-C3'	16.34	139.31	119.70
83	A5	178	U	P-O3'-C3'	16.30	139.26	119.70
83	A5	1255	U	O4'-C1'-N1	16.30	121.24	108.20
83	A5	2174	A	O4'-C1'-N9	16.29	121.23	108.20
83	A5	2040	A	C4'-C3'-O3'	16.24	145.48	113.00
83	A5	1573	U	P-O3'-C3'	16.23	139.18	119.70
83	A5	1705	U	O4'-C1'-N1	16.22	121.17	108.20
83	A5	573	U	P-O3'-C3'	16.19	139.13	119.70
83	A5	1488	A	P-O3'-C3'	16.17	139.11	119.70
83	A5	3149	U	O4'-C1'-N1	16.17	121.13	108.20
83	A5	2877	G	O4'-C1'-N9	16.15	121.12	108.20
83	A5	642	A	P-O3'-C3'	16.14	139.07	119.70
83	A5	3627	C	P-O3'-C3'	16.14	139.07	119.70
83	A5	1183	U	P-O3'-C3'	16.08	139.00	119.70
83	A5	618	U	P-O3'-C3'	16.05	138.96	119.70
83	A5	761	C	N1-C1'-C2'	16.04	134.85	114.00
36	B2	1554	U	O4'-C1'-N1	16.03	121.02	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1296	A	O4'-C1'-N9	16.02	121.01	108.20
83	A5	164	U	P-O3'-C3'	16.02	138.92	119.70
83	A5	2085	G	C1'-O4'-C4'	-16.01	97.09	109.90
83	A5	1782	C	P-O3'-C3'	16.01	138.91	119.70
83	A5	3848	U	O4'-C1'-N1	15.99	120.99	108.20
36	B2	172	G	P-O3'-C3'	15.98	138.88	119.70
36	B2	1715	G	O4'-C1'-N9	15.98	120.98	108.20
36	B2	67	A	P-O3'-C3'	15.96	138.85	119.70
83	A5	2155	A	N9-C1'-C2'	15.94	134.72	114.00
83	A5	3697	A	O4'-C1'-N9	15.92	120.93	108.20
36	B2	258	A	P-O3'-C3'	15.91	138.79	119.70
83	A5	973	G	N9-C1'-C2'	15.90	134.67	114.00
36	B2	1202	G	O4'-C1'-N9	15.89	120.92	108.20
83	A5	3686	A	O4'-C1'-N9	15.89	120.91	108.20
83	A5	1811	A	P-O3'-C3'	-15.88	100.64	119.70
83	A5	1968	A	P-O3'-C3'	15.88	138.76	119.70
36	B2	1760	G	O4'-C1'-N9	15.86	120.89	108.20
83	A5	1879	U	O4'-C1'-N1	15.86	120.88	108.20
83	A5	872	A	P-O3'-C3'	15.85	138.72	119.70
83	A5	3841	C	O4'-C1'-N1	15.84	120.87	108.20
36	B2	266	U	O4'-C1'-N1	15.82	120.86	108.20
83	A5	672	U	P-O3'-C3'	15.81	138.68	119.70
83	A5	153	G	P-O3'-C3'	-15.80	100.74	119.70
83	A5	1808	A	P-O3'-C3'	15.79	138.65	119.70
36	B2	1426	A	P-O3'-C3'	15.77	138.62	119.70
37	BC	54	U	O4'-C1'-N1	15.76	120.81	108.20
83	A5	1939	U	O4'-C1'-N1	15.76	120.81	108.20
83	A5	3620	G	O4'-C1'-N9	15.75	120.80	108.20
83	A5	3212	A	O4'-C1'-N9	15.74	120.79	108.20
83	A5	3853	C	P-O3'-C3'	15.74	138.59	119.70
83	A5	3472	A	P-O3'-C3'	15.71	138.55	119.70
83	A5	1228	C	O4'-C1'-N1	15.70	120.76	108.20
83	A5	740	G	P-O3'-C3'	15.66	138.49	119.70
36	B2	250	U	P-O3'-C3'	15.64	138.47	119.70
83	A5	3728	A	P-O3'-C3'	15.61	138.43	119.70
36	B2	857	G	P-O3'-C3'	15.59	138.41	119.70
83	A5	93	G	O4'-C1'-N9	15.57	120.66	108.20
83	A5	3843	U	O4'-C1'-N1	15.56	120.65	108.20
36	B2	1656	G	O4'-C1'-N9	15.55	120.64	108.20
83	A5	530	U	O4'-C1'-N1	15.55	120.64	108.20
83	A5	753	U	O4'-C1'-N1	15.54	120.63	108.20
83	A5	1310	A	P-O3'-C3'	15.52	138.32	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	607	A	P-O3'-C3'	15.52	138.32	119.70
83	A5	3659	G	O4'-C1'-N9	15.52	120.61	108.20
83	A5	3431	C	O4'-C1'-N1	15.50	120.60	108.20
83	A5	1801	U	O4'-C1'-N1	15.50	120.60	108.20
36	B2	692	U	P-O3'-C3'	15.49	138.29	119.70
83	A5	2692	U	O4'-C1'-N1	15.47	120.58	108.20
83	A5	3775	A	P-O3'-C3'	15.46	138.25	119.70
83	A5	1390	C	O4'-C1'-N1	15.42	120.54	108.20
83	A5	3790	A	O4'-C1'-N9	15.42	120.54	108.20
36	B2	1582	C	O4'-C1'-N1	15.40	120.52	108.20
36	B2	1392	U	O4'-C1'-N1	15.39	120.51	108.20
36	B2	726	U	P-O3'-C3'	15.38	138.16	119.70
83	A5	300	A	P-O3'-C3'	15.36	138.13	119.70
83	A5	76	C	P-O3'-C3'	15.32	138.08	119.70
83	A5	268	U	O4'-C1'-N1	15.31	120.45	108.20
83	A5	1323	C	P-O3'-C3'	15.30	138.06	119.70
83	A5	3712	G	P-O3'-C3'	15.30	138.06	119.70
83	A5	523	C	P-O3'-C3'	15.30	138.06	119.70
36	B2	1000	G	P-O3'-C3'	15.29	138.05	119.70
47	CI	181	TYR	CB-CG-CD2	15.27	130.16	121.00
83	A5	3843	U	N1-C1'-C2'	-15.25	94.18	114.00
83	A5	1537	G	O4'-C1'-N9	15.24	120.39	108.20
36	B2	1849	U	O4'-C1'-N1	15.24	120.39	108.20
36	B2	1020	U	N1-C1'-C2'	15.22	133.79	114.00
83	A5	1096	A	O4'-C1'-N9	15.18	120.35	108.20
83	A5	2506	U	O4'-C1'-N1	15.17	120.33	108.20
83	A5	3236	A	O4'-C1'-N9	15.17	120.33	108.20
36	B2	199	G	C4'-C3'-O3'	-15.17	77.55	109.40
83	A5	186	G	P-O3'-C3'	15.14	137.87	119.70
83	A5	3727	A	O4'-C1'-N9	15.14	120.31	108.20
83	A5	1860	A	O4'-C1'-N9	15.12	120.30	108.20
83	A5	1640	U	P-O3'-C3'	15.11	137.83	119.70
83	A5	1475	A	O4'-C1'-N9	15.10	120.28	108.20
83	A5	3230	G	O4'-C1'-N9	15.06	120.25	108.20
83	A5	521	U	O4'-C1'-N1	15.04	120.23	108.20
83	A5	1316	U	O4'-C1'-N1	15.04	120.23	108.20
83	A5	2887	U	N1-C1'-C2'	15.03	133.54	114.00
83	A5	2820	G	P-O3'-C3'	15.02	137.72	119.70
83	A5	420	A	P-O3'-C3'	15.00	137.70	119.70
83	A5	896	A	O4'-C1'-N9	14.99	120.19	108.20
83	A5	3936	A	O4'-C1'-N9	14.99	120.19	108.20
83	A5	2085	G	O4'-C1'-C2'	14.94	121.04	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	346	U	P-O3'-C3'	14.93	137.62	119.70
83	A5	3373	G	O4'-C1'-N9	14.91	120.13	108.20
83	A5	2064	G	P-O3'-C3'	14.91	137.59	119.70
83	A5	2126	A	P-O3'-C3'	14.90	137.58	119.70
83	A5	3299	U	O4'-C1'-N1	14.89	120.12	108.20
83	A5	870	U	O4'-C1'-N1	14.88	120.11	108.20
83	A5	2892	U	O4'-C1'-N1	14.87	120.10	108.20
36	B2	1644	U	O4'-C1'-N1	14.84	120.08	108.20
83	A5	3758	G	O4'-C1'-N9	14.82	120.06	108.20
83	A5	2523	A	O4'-C1'-N9	14.81	120.05	108.20
83	A5	2799	U	O4'-C1'-N1	14.80	120.04	108.20
36	B2	1989	A	O4'-C1'-N9	14.78	120.03	108.20
83	A5	3892	A	O4'-C1'-N9	14.78	120.02	108.20
83	A5	3960	U	O4'-C1'-N1	14.78	120.02	108.20
36	B2	905	U	O4'-C1'-N1	14.77	120.02	108.20
83	A5	212	U	O4'-C1'-N1	14.77	120.02	108.20
83	A5	573	U	O4'-C1'-N1	14.75	120.00	108.20
83	A5	3304	U	O4'-C1'-N1	14.72	119.98	108.20
83	A5	1324	C	P-O3'-C3'	14.72	137.36	119.70
36	B2	509	C	P-O3'-C3'	14.71	137.36	119.70
83	A5	798	C	O4'-C1'-N1	14.71	119.97	108.20
83	A5	1711	C	O4'-C1'-N1	14.70	119.96	108.20
83	A5	2457	A	P-O3'-C3'	14.69	137.33	119.70
36	B2	960	U	O4'-C1'-N1	14.69	119.95	108.20
83	A5	2897	G	O4'-C1'-N9	14.69	119.95	108.20
83	A5	2968	C	P-O3'-C3'	14.68	137.31	119.70
83	A5	2063	A	O4'-C1'-N9	14.66	119.93	108.20
36	B2	909	U	O4'-C1'-N1	14.65	119.92	108.20
83	A5	1688	A	P-O3'-C3'	14.65	137.28	119.70
83	A5	184	A	O4'-C1'-N9	14.65	119.92	108.20
36	B2	113	G	P-O3'-C3'	14.63	137.26	119.70
83	A5	1745	G	O4'-C1'-N9	14.63	119.91	108.20
36	B2	1290	A	N9-C1'-C2'	14.63	133.01	114.00
83	A5	751	A	O4'-C1'-N9	14.61	119.89	108.20
83	A5	725	U	O4'-C1'-N1	14.59	119.87	108.20
83	A5	1544	U	P-O3'-C3'	14.59	137.21	119.70
36	B2	199	G	O3'-P-O5'	-14.58	76.30	104.00
47	CI	181	TYR	CB-CG-CD1	-14.57	112.26	121.00
36	B2	58	U	O4'-C1'-N1	14.55	119.84	108.20
83	A5	470	G	P-O3'-C3'	14.55	137.16	119.70
86	A8	21	U	O3'-P-O5'	14.53	131.60	104.00
36	B2	32	U	O4'-C1'-N1	14.52	119.82	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	77	A	P-O3'-C3'	14.52	137.13	119.70
36	B2	1751	G	O4'-C1'-N9	14.52	119.81	108.20
83	A5	493	A	P-O3'-C3'	14.50	137.10	119.70
36	B2	1635	U	O4'-C1'-N1	14.50	119.80	108.20
36	B2	1545	U	O4'-C1'-N1	14.48	119.78	108.20
83	A5	1588	A	O4'-C1'-N9	14.45	119.76	108.20
83	A5	3687	A	N9-C1'-C2'	14.41	132.74	114.00
83	A5	780	U	O4'-C1'-N1	14.39	119.71	108.20
36	B2	837	A	P-O3'-C3'	14.36	136.93	119.70
83	A5	610	G	P-O3'-C3'	14.35	136.91	119.70
86	A8	37	U	O4'-C1'-N1	14.34	119.67	108.20
83	A5	3744	U	O4'-C1'-N1	14.34	119.67	108.20
83	A5	2602	A	O4'-C1'-N9	14.33	119.67	108.20
83	A5	2659	A	O4'-C1'-N9	14.32	119.66	108.20
83	A5	667	U	N1-C1'-C2'	14.32	132.62	114.00
83	A5	2918	A	O4'-C1'-N9	14.31	119.65	108.20
36	B2	856	A	O4'-C1'-N9	14.30	119.64	108.20
83	A5	1581	G	P-O3'-C3'	14.30	136.87	119.70
36	B2	339	U	O4'-C1'-N1	14.26	119.61	108.20
83	A5	1304	A	O4'-C1'-N9	14.26	119.61	108.20
83	A5	2137	U	P-O3'-C3'	14.26	136.81	119.70
83	A5	995	G	O4'-C1'-N9	14.26	119.61	108.20
83	A5	359	G	O4'-C1'-N9	14.26	119.61	108.20
83	A5	270	G	O4'-C1'-N9	14.26	119.61	108.20
83	A5	3258	C	N1-C1'-C2'	14.26	132.53	114.00
83	A5	3753	A	O4'-C1'-N9	14.26	119.61	108.20
36	B2	1993	U	O4'-C1'-N1	14.25	119.60	108.20
36	B2	1683	U	O4'-C1'-N1	14.23	119.58	108.20
83	A5	2882	A	N9-C1'-C2'	14.22	132.49	114.00
83	A5	3567	A	P-O3'-C3'	14.22	136.77	119.70
83	A5	3969	G	P-O3'-C3'	14.20	136.74	119.70
36	B2	1188	G	P-O3'-C3'	14.19	136.73	119.70
36	B2	285	U	P-O3'-C3'	14.18	136.71	119.70
36	B2	860	U	O4'-C1'-N1	14.18	119.54	108.20
36	B2	1361	C	O4'-C1'-N1	14.17	119.54	108.20
85	A7	32	U	O4'-C1'-N1	14.16	119.53	108.20
83	A5	1116	G	P-O3'-C3'	14.15	136.68	119.70
83	A5	535	A	P-O3'-C3'	14.12	136.65	119.70
36	B2	1908	U	O4'-C1'-N1	14.11	119.49	108.20
83	A5	187	A	P-O3'-C3'	14.09	136.61	119.70
36	B2	429	C	N1-C1'-C2'	14.08	132.31	114.00
36	B2	187	A	P-O3'-C3'	14.06	136.58	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1358	U	O4'-C1'-N1	14.06	119.45	108.20
36	B2	587	A	O4'-C1'-N9	14.06	119.44	108.20
83	A5	1801	U	P-O3'-C3'	14.04	136.55	119.70
36	B2	1187	U	O4'-C1'-N1	14.03	119.43	108.20
83	A5	1309	U	P-O5'-C5'	14.01	143.32	120.90
86	A8	21	U	P-O3'-C3'	-14.01	102.89	119.70
83	A5	1714	U	O4'-C1'-N1	14.01	119.40	108.20
83	A5	1778	A	C4'-C3'-O3'	14.00	141.00	113.00
83	A5	3476	G	O4'-C1'-N9	14.00	119.40	108.20
36	B2	1329	A	P-O3'-C3'	13.99	136.49	119.70
83	A5	187	A	P-O5'-C5'	13.99	143.29	120.90
36	B2	199	G	P-O3'-C3'	13.98	136.47	119.70
36	B2	68	C	P-O3'-C3'	13.96	136.45	119.70
36	B2	207	U	O4'-C1'-N1	13.95	119.36	108.20
83	A5	2626	C	N1-C1'-C2'	13.95	132.13	114.00
83	A5	3857	G	O4'-C1'-N9	13.93	119.34	108.20
83	A5	392	A	O4'-C1'-N9	13.93	119.34	108.20
83	A5	652	G	P-O3'-C3'	13.92	136.40	119.70
85	A7	64	G	P-O5'-C5'	-13.92	98.63	120.90
36	B2	861	U	O4'-C1'-N1	13.89	119.31	108.20
85	A7	43	U	N1-C1'-C2'	13.89	132.06	114.00
83	A5	3404	A	O4'-C1'-N9	13.89	119.31	108.20
36	B2	1499	U	P-O3'-C3'	13.89	136.37	119.70
83	A5	157	C	P-O3'-C3'	13.89	136.36	119.70
36	B2	1169	C	C4'-C3'-O3'	-13.88	80.24	109.40
83	A5	645	U	O4'-C1'-N1	13.88	119.30	108.20
83	A5	1809	A	O4'-C1'-N9	13.88	119.30	108.20
83	A5	1724	A	N9-C1'-C2'	13.88	132.04	114.00
83	A5	3368	C	C3'-C2'-C1'	-13.87	90.41	101.50
83	A5	2122	G	N9-C1'-C2'	13.86	132.02	114.00
83	A5	525	U	O4'-C1'-N1	13.85	119.28	108.20
83	A5	2767	U	N1-C1'-C2'	13.84	131.99	114.00
83	A5	1581	G	O4'-C1'-N9	13.83	119.27	108.20
83	A5	2155	A	P-O3'-C3'	13.83	136.29	119.70
83	A5	2898	U	O4'-C1'-N1	13.82	119.26	108.20
83	A5	3689	U	O4'-C1'-N1	13.82	119.25	108.20
36	B2	1353	U	O4'-C1'-N1	13.81	119.25	108.20
83	A5	2054	U	O4'-C1'-N1	13.80	119.24	108.20
36	B2	647	U	O4'-C1'-N1	13.80	119.24	108.20
83	A5	2041	G	P-O3'-C3'	-13.80	103.14	119.70
83	A5	2833	U	P-O3'-C3'	13.79	136.25	119.70
83	A5	3833	U	O4'-C1'-N1	13.79	119.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3814	U	O4'-C1'-N1	13.76	119.21	108.20
36	B2	1679	U	P-O3'-C3'	13.76	136.21	119.70
86	A8	6	U	O4'-C1'-N1	13.76	119.21	108.20
86	A8	115	U	O4'-C1'-N1	13.76	119.21	108.20
83	A5	990	U	O4'-C1'-N1	13.75	119.20	108.20
83	A5	2824	U	O4'-C1'-N1	13.75	119.20	108.20
36	B2	216	U	P-O3'-C3'	13.75	136.20	119.70
36	B2	1586	U	O4'-C1'-N1	13.74	119.19	108.20
83	A5	1417	G	C1'-O4'-C4'	-13.73	98.92	109.90
83	A5	85	U	O4'-C1'-N1	13.72	119.18	108.20
83	A5	3746	A	O4'-C1'-N9	13.72	119.18	108.20
83	A5	2552	G	P-O3'-C3'	13.72	136.16	119.70
36	B2	942	A	O4'-C1'-N9	13.72	119.17	108.20
36	B2	283	U	P-O3'-C3'	13.71	136.15	119.70
83	A5	730	U	O4'-C1'-N1	13.70	119.16	108.20
83	A5	2634	A	O4'-C1'-N9	13.70	119.16	108.20
83	A5	1531	U	O4'-C1'-N1	13.68	119.15	108.20
83	A5	1160	U	C3'-C2'-C1'	13.68	112.44	101.50
36	B2	137	C	P-O3'-C3'	13.68	136.12	119.70
83	A5	1240	A	P-O3'-C3'	13.65	136.08	119.70
83	A5	2086	U	O4'-C1'-N1	13.60	119.08	108.20
83	A5	1306	G	P-O3'-C3'	13.60	136.02	119.70
83	A5	3891	U	P-O3'-C3'	13.60	136.02	119.70
83	A5	3803	C	N1-C1'-C2'	13.58	131.66	114.00
36	B2	1338	U	P-O3'-C3'	13.58	135.99	119.70
83	A5	2124	G	P-O3'-C3'	13.58	135.99	119.70
83	A5	2755	G	O4'-C1'-N9	13.58	119.06	108.20
83	A5	3412	U	O4'-C1'-N1	13.57	119.06	108.20
36	B2	422	A	P-O3'-C3'	13.55	135.97	119.70
83	A5	301	U	O4'-C1'-N1	13.55	119.04	108.20
83	A5	640	U	P-O3'-C3'	13.55	135.96	119.70
83	A5	929	A	P-O3'-C3'	13.54	135.94	119.70
83	A5	1698	A	O4'-C1'-N9	13.54	119.03	108.20
83	A5	3962	A	P-O3'-C3'	13.51	135.91	119.70
83	A5	2026	G	O4'-C1'-N9	13.51	119.01	108.20
36	B2	521	U	O4'-C1'-N1	13.51	119.01	108.20
36	B2	898	U	O4'-C1'-N1	13.51	119.00	108.20
83	A5	1394	U	O4'-C1'-N1	13.50	119.00	108.20
83	A5	1900	U	O4'-C1'-N1	13.49	119.00	108.20
83	A5	68	G	O4'-C1'-N9	13.49	118.99	108.20
83	A5	2782	A	O4'-C1'-N9	13.48	118.99	108.20
83	A5	1448	G	O4'-C1'-N9	13.47	118.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2981	G	P-O3'-C3'	13.47	135.87	119.70
83	A5	2929	U	P-O3'-C3'	13.46	135.86	119.70
83	A5	2471	A	P-O3'-C3'	13.46	135.85	119.70
83	A5	3024	U	C4'-C3'-O3'	-13.44	81.17	109.40
83	A5	2969	U	P-O3'-C3'	13.44	135.83	119.70
36	B2	1162	U	O4'-C1'-N1	13.43	118.94	108.20
83	A5	484	A	P-O3'-C3'	13.42	135.80	119.70
48	CD	226	TYR	CB-CG-CD2	-13.40	112.96	121.00
83	A5	261	U	O4'-C1'-N1	13.40	118.92	108.20
83	A5	2491	C	P-O3'-C3'	13.40	135.78	119.70
83	A5	3640	A	O4'-C1'-N9	13.40	118.92	108.20
83	A5	1594	U	P-O3'-C3'	13.39	135.76	119.70
83	A5	1302	U	O4'-C1'-N1	13.38	118.90	108.20
85	A7	73	U	P-O5'-C5'	13.37	142.29	120.90
36	B2	25	U	P-O3'-C3'	13.36	135.73	119.70
36	B2	611	U	O4'-C1'-N1	13.36	118.89	108.20
83	A5	1948	C	N1-C1'-C2'	13.34	131.34	114.00
83	A5	821	U	O4'-C1'-N1	13.34	118.87	108.20
83	A5	1336	U	O4'-C1'-N1	13.34	118.87	108.20
83	A5	228	C	P-O3'-C3'	13.32	135.69	119.70
36	B2	505	G	O4'-C1'-N9	13.31	118.85	108.20
7	AM	39	VAL	C-N-CA	13.31	154.97	121.70
36	B2	1442	U	O4'-C1'-N1	13.29	118.84	108.20
36	B2	1575	A	O4'-C1'-N9	13.29	118.83	108.20
36	B2	65	A	O4'-C1'-N9	13.29	118.83	108.20
83	A5	2495	G	O4'-C1'-N9	13.28	118.82	108.20
83	A5	176	A	O4'-C1'-N9	13.27	118.82	108.20
36	B2	93	A	O4'-C1'-N9	13.26	118.81	108.20
83	A5	1395	U	P-O3'-C3'	13.26	135.61	119.70
83	A5	1072	U	O4'-C1'-N1	13.24	118.79	108.20
83	A5	168	G	O4'-C1'-N9	13.24	118.79	108.20
83	A5	2139	U	O4'-C1'-N1	13.24	118.79	108.20
36	B2	1764	U	O4'-C1'-N1	13.23	118.78	108.20
83	A5	2839	A	P-O3'-C3'	-13.22	103.83	119.70
36	B2	878	C	P-O3'-C3'	13.21	135.56	119.70
36	B2	1587	U	O4'-C1'-N1	13.21	118.77	108.20
83	A5	3591	A	O4'-C1'-N9	13.20	118.76	108.20
83	A5	1090	U	O4'-C1'-N1	13.20	118.76	108.20
83	A5	846	U	O4'-C1'-N1	13.19	118.75	108.20
83	A5	1444	G	O4'-C1'-N9	13.18	118.75	108.20
36	B2	915	U	O4'-C1'-N1	13.17	118.73	108.20
36	B2	215	C	P-O3'-C3'	13.17	135.50	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	713	A	P-O3'-C3'	13.16	135.50	119.70
83	A5	3924	U	P-O3'-C3'	13.16	135.50	119.70
83	A5	3252	G	O4'-C1'-N9	13.16	118.72	108.20
83	A5	944	G	P-O3'-C3'	13.15	135.49	119.70
85	A7	115	U	O4'-C1'-N1	13.15	118.72	108.20
83	A5	412	U	O4'-C1'-N1	13.13	118.70	108.20
83	A5	1785	G	O4'-C1'-N9	13.13	118.70	108.20
83	A5	704	U	O4'-C1'-N1	13.12	118.69	108.20
83	A5	978	G	O4'-C1'-N9	13.11	118.69	108.20
36	B2	1875	G	O4'-C1'-N9	13.10	118.68	108.20
83	A5	1804	A	P-O3'-C3'	13.10	135.42	119.70
83	A5	614	G	O4'-C1'-N9	13.10	118.68	108.20
83	A5	4	U	P-O3'-C3'	13.09	135.41	119.70
83	A5	2996	U	N1-C1'-C2'	13.08	131.00	114.00
83	A5	304	U	P-O3'-C3'	13.07	135.38	119.70
83	A5	189	A	P-O3'-C3'	13.06	135.37	119.70
83	A5	3530	A	P-O3'-C3'	13.05	135.36	119.70
36	B2	1452	U	O4'-C1'-N1	13.04	118.63	108.20
83	A5	1181	A	N9-C1'-C2'	13.03	130.94	114.00
83	A5	731	U	O4'-C1'-N1	13.02	118.61	108.20
83	A5	2116	U	P-O3'-C3'	13.01	135.32	119.70
83	A5	771	A	P-O3'-C3'	13.01	135.31	119.70
36	B2	1145	U	O4'-C1'-N1	13.01	118.61	108.20
83	A5	1517	A	O4'-C1'-N9	13.01	118.61	108.20
83	A5	3754	C	N1-C1'-C2'	13.01	130.91	114.00
83	A5	188	G	P-O5'-C5'	12.99	141.69	120.90
83	A5	3673	G	O4'-C1'-N9	12.99	118.59	108.20
69	Cg	32	TYR	CB-CG-CD2	-12.99	113.21	121.00
83	A5	669	U	P-O3'-C3'	12.97	135.27	119.70
36	B2	1619	A	O4'-C1'-N9	12.97	118.58	108.20
83	A5	1177	U	O4'-C1'-N1	12.97	118.58	108.20
36	B2	495	U	O4'-C1'-N1	12.97	118.58	108.20
83	A5	3436	U	O4'-C1'-N1	12.96	118.57	108.20
83	A5	3754	C	C3'-C2'-C1'	12.95	111.86	101.50
83	A5	4	U	C1'-O4'-C4'	12.94	120.25	109.90
83	A5	1407	C	P-O3'-C3'	12.93	135.22	119.70
83	A5	1689	G	N9-C1'-C2'	12.91	130.78	114.00
83	A5	25	G	O4'-C1'-N9	12.91	118.53	108.20
83	A5	3049	A	P-O3'-C3'	12.91	135.19	119.70
83	A5	18	U	O4'-C1'-N1	12.89	118.52	108.20
86	A8	68	U	N1-C1'-C2'	12.89	130.75	114.00
86	A8	108	A	C4'-C3'-O3'	-12.88	82.35	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1542	U	O4'-C1'-N1	12.88	118.50	108.20
83	A5	175	U	O4'-C1'-N1	12.88	118.50	108.20
83	A5	386	G	P-O3'-C3'	-12.88	104.25	119.70
83	A5	1566	U	O4'-C1'-N1	12.86	118.49	108.20
83	A5	1933	U	O4'-C1'-N1	12.87	118.49	108.20
83	A5	1522	G	P-O3'-C3'	12.85	135.12	119.70
36	B2	251	G	O4'-C1'-C2'	-12.85	92.95	105.80
83	A5	3801	A	C5'-C4'-C3'	-12.85	95.45	116.00
83	A5	2535	U	O4'-C1'-N1	12.84	118.47	108.20
36	B2	1930	U	O4'-C1'-N1	12.84	118.47	108.20
83	A5	2729	U	O4'-C1'-N1	12.84	118.47	108.20
36	B2	704	U	P-O3'-C3'	12.83	135.10	119.70
83	A5	1404	A	N9-C1'-C2'	12.83	130.68	114.00
83	A5	1008	A	O4'-C1'-N9	12.83	118.46	108.20
36	B2	718	C	P-O3'-C3'	12.80	135.06	119.70
83	A5	903	A	O4'-C1'-N9	12.80	118.44	108.20
83	A5	3683	G	C1'-O4'-C4'	-12.80	99.66	109.90
36	B2	1327	U	O4'-C1'-N1	12.80	118.44	108.20
83	A5	3443	A	O4'-C1'-N9	12.79	118.44	108.20
83	A5	3838	A	O4'-C1'-N9	12.79	118.43	108.20
36	B2	33	U	O4'-C1'-N1	12.79	118.43	108.20
83	A5	2273	A	O4'-C1'-N9	12.79	118.43	108.20
83	A5	2155	A	C3'-C2'-C1'	12.78	111.72	101.50
36	B2	308	G	O4'-C1'-N9	12.78	118.42	108.20
83	A5	864	G	N9-C1'-C2'	12.78	130.61	114.00
83	A5	3534	U	O4'-C1'-N1	12.78	118.42	108.20
1	Az	255	PHE	CB-CG-CD1	-12.77	111.86	120.80
36	B2	1795	U	O4'-C1'-N1	12.77	118.41	108.20
84	A9	28	G	O4'-C1'-N9	12.76	118.41	108.20
38	Cz	28	PHE	CB-CG-CD2	12.76	129.73	120.80
83	A5	181	A	P-O3'-C3'	12.75	135.00	119.70
83	A5	2272	U	O4'-C1'-N1	12.75	118.40	108.20
83	A5	1180	U	O4'-C1'-N1	12.75	118.40	108.20
83	A5	2750	A	P-O3'-C3'	12.75	135.00	119.70
36	B2	866	U	O4'-C1'-N1	12.75	118.40	108.20
83	A5	1288	U	P-O3'-C3'	12.74	134.99	119.70
36	B2	1102	U	O4'-C1'-N1	12.74	118.39	108.20
83	A5	2041	G	C4'-C3'-O3'	-12.73	82.67	109.40
36	B2	1052	U	O4'-C1'-N1	12.72	118.38	108.20
83	A5	303	G	C4'-C3'-O3'	-12.72	82.69	109.40
83	A5	2608	G	O4'-C1'-N9	12.71	118.37	108.20
83	A5	176	A	P-O3'-C3'	12.71	134.95	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1503	U	P-O3'-C3'	12.70	134.94	119.70
83	A5	3334	A	O4'-C1'-N9	12.70	118.36	108.20
83	A5	1484	U	O4'-C1'-N1	12.69	118.35	108.20
83	A5	3712	G	N9-C1'-C2'	12.68	130.49	114.00
36	B2	1900	U	O4'-C1'-N1	12.68	118.34	108.20
83	A5	2115	U	O4'-C1'-N1	12.68	118.34	108.20
83	A5	3929	U	O4'-C1'-N1	12.68	118.34	108.20
36	B2	576	G	O4'-C1'-N9	12.67	118.34	108.20
36	B2	284	G	O4'-C1'-N9	-12.66	98.07	108.20
36	B2	420	U	O4'-C1'-N1	12.66	118.33	108.20
36	B2	647	U	P-O3'-C3'	12.65	134.88	119.70
83	A5	2907	U	C1'-O4'-C4'	12.64	120.02	109.90
83	A5	1891	U	P-O3'-C3'	12.63	134.86	119.70
83	A5	3338	U	O4'-C1'-N1	12.63	118.31	108.20
1	Az	255	PHE	CB-CG-CD2	12.63	129.64	120.80
83	A5	235	A	O4'-C1'-N9	12.63	118.31	108.20
36	B2	617	U	O4'-C1'-N1	12.62	118.30	108.20
85	A7	38	U	O3'-P-O5'	12.62	127.98	104.00
83	A5	1811	A	O3'-P-O5'	12.62	127.97	104.00
36	B2	1428	A	O4'-C1'-C2'	-12.62	93.18	105.80
83	A5	3896	G	O4'-C1'-N9	12.61	118.29	108.20
83	A5	2676	U	N1-C1'-C2'	12.59	130.37	114.00
36	B2	256	C	O3'-P-O5'	-12.59	80.08	104.00
36	B2	907	U	P-O3'-C3'	12.59	134.80	119.70
36	B2	917	U	O4'-C1'-N1	12.59	118.27	108.20
83	A5	416	C	O4'-C1'-C2'	-12.57	93.23	105.80
83	A5	2029	G	P-O3'-C3'	12.56	134.78	119.70
83	A5	3142	G	O4'-C1'-N9	12.56	118.25	108.20
36	B2	265	A	P-O3'-C3'	12.55	134.76	119.70
36	B2	1021	A	O4'-C1'-N9	12.55	118.24	108.20
83	A5	3786	U	O4'-C1'-N1	12.54	118.23	108.20
83	A5	1426	U	O4'-C1'-N1	12.53	118.23	108.20
36	B2	925	U	O4'-C1'-N1	12.53	118.22	108.20
83	A5	2536	G	O4'-C1'-N9	12.52	118.22	108.20
36	B2	1650	G	N9-C1'-C2'	12.52	130.27	114.00
83	A5	513	G	P-O3'-C3'	12.51	134.72	119.70
83	A5	2917	A	O4'-C1'-N9	12.51	118.21	108.20
83	A5	505	U	O4'-C1'-N1	12.50	118.20	108.20
83	A5	173	A	O4'-C1'-N9	12.49	118.19	108.20
83	A5	3361	U	O4'-C1'-N1	12.49	118.19	108.20
83	A5	3802	U	P-O3'-C3'	12.48	134.68	119.70
36	B2	154	A	P-O3'-C3'	12.48	134.67	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3670	G	C1'-O4'-C4'	-12.47	99.92	109.90
83	A5	1007	A	O4'-C1'-N9	12.46	118.17	108.20
83	A5	1382	U	O4'-C1'-N1	12.46	118.17	108.20
36	B2	1803	A	P-O3'-C3'	-12.45	104.76	119.70
36	B2	264	C	N1-C1'-C2'	12.45	130.18	114.00
86	A8	29	U	O4'-C1'-N1	12.45	118.16	108.20
83	A5	272	U	O4'-C1'-N1	12.44	118.15	108.20
85	A7	49	A	O4'-C1'-C2'	-12.43	93.37	105.80
83	A5	3592	C	O4'-C1'-N1	12.43	118.14	108.20
36	B2	640	U	O4'-C1'-N1	12.42	118.14	108.20
83	A5	194	A	P-O3'-C3'	12.42	134.60	119.70
36	B2	125	C	O4'-C1'-N1	12.41	118.13	108.20
83	A5	313	A	O4'-C1'-N9	12.41	118.13	108.20
83	A5	2899	U	O4'-C1'-N1	12.41	118.13	108.20
36	B2	624	G	O4'-C1'-N9	12.41	118.12	108.20
83	A5	29	U	O4'-C1'-N1	12.41	118.13	108.20
83	A5	3840	G	O4'-C1'-N9	12.40	118.12	108.20
36	B2	939	G	O4'-C1'-N9	12.40	118.12	108.20
83	A5	3405	U	N1-C1'-C2'	12.40	130.12	114.00
83	A5	87	U	O4'-C1'-N1	12.38	118.11	108.20
83	A5	3739	U	O4'-C1'-N1	12.39	118.11	108.20
83	A5	3763	U	O4'-C1'-N1	12.38	118.11	108.20
83	A5	234	G	O4'-C1'-N9	12.38	118.10	108.20
37	BC	74	C	P-O3'-C3'	12.37	134.54	119.70
36	B2	147	U	O4'-C1'-N1	12.36	118.09	108.20
83	A5	270	G	P-O3'-C3'	12.36	134.53	119.70
36	B2	1217	U	O4'-C1'-N1	12.35	118.08	108.20
83	A5	2786	U	O4'-C1'-N1	12.34	118.08	108.20
83	A5	2781	G	P-O3'-C3'	12.33	134.50	119.70
36	B2	886	G	O4'-C1'-N9	12.33	118.06	108.20
83	A5	17	C	C3'-C2'-C1'	12.33	111.36	101.50
85	A7	29	C	O4'-C1'-N1	12.33	118.06	108.20
36	B2	1090	A	N9-C1'-C2'	12.32	130.02	114.00
83	A5	914	C	O4'-C1'-N1	12.32	118.06	108.20
83	A5	930	U	O4'-C1'-N1	12.32	118.06	108.20
36	B2	1938	U	O4'-C1'-N1	12.32	118.05	108.20
79	CJ	100	ARG	NE-CZ-NH2	-12.32	114.14	120.30
83	A5	2126	A	C1'-O4'-C4'	12.32	119.75	109.90
83	A5	3304	U	P-O3'-C3'	12.32	134.48	119.70
36	B2	1401	U	O4'-C1'-N1	12.31	118.05	108.20
83	A5	1794	G	O4'-C1'-N9	12.30	118.04	108.20
36	B2	963	G	O4'-C1'-N9	12.29	118.03	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1491	U	C4'-C3'-O3'	-12.29	83.59	109.40
83	A5	1625	U	O4'-C1'-N1	12.29	118.03	108.20
36	B2	244	A	P-O3'-C3'	12.29	134.44	119.70
83	A5	24	G	N9-C1'-C2'	12.28	129.97	114.00
36	B2	1034	U	O4'-C1'-N1	12.28	118.02	108.20
37	BC	30	G	O4'-C1'-N9	12.28	118.02	108.20
83	A5	885	U	N1-C1'-C2'	12.28	129.96	114.00
83	A5	1862	U	P-O3'-C3'	12.28	134.43	119.70
36	B2	641	U	O4'-C1'-N1	12.27	118.02	108.20
83	A5	1473	U	O4'-C1'-N1	12.27	118.02	108.20
83	A5	9	A	P-O3'-C3'	12.27	134.42	119.70
83	A5	3539	C	N1-C1'-C2'	12.27	129.95	114.00
83	A5	4	U	O4'-C1'-N1	12.26	118.01	108.20
83	A5	3600	G	O4'-C1'-N9	12.26	118.01	108.20
83	A5	524	A	O4'-C1'-N9	12.26	118.00	108.20
83	A5	1289	C	O4'-C1'-N1	12.25	118.00	108.20
83	A5	2047	U	O4'-C1'-N1	12.24	118.00	108.20
83	A5	3125	A	O4'-C1'-C2'	-12.24	93.56	105.80
36	B2	267	G	C1'-O4'-C4'	-12.23	100.11	109.90
83	A5	3912	U	O4'-C1'-N1	12.23	117.99	108.20
83	A5	278	U	O4'-C1'-N1	12.23	117.98	108.20
83	A5	735	U	O4'-C1'-N1	12.23	117.98	108.20
83	A5	3801	A	C2'-C3'-O3'	12.22	136.38	109.50
83	A5	596	A	O4'-C1'-N9	12.21	117.97	108.20
36	B2	614	A	O4'-C1'-N9	12.21	117.96	108.20
36	B2	929	A	P-O3'-C3'	12.20	134.34	119.70
83	A5	2907	U	O4'-C1'-N1	12.20	117.96	108.20
83	A5	3025	A	P-O5'-C5'	-12.19	101.40	120.90
83	A5	1453	U	O4'-C1'-N1	12.18	117.94	108.20
36	B2	1872	G	O4'-C1'-N9	12.17	117.94	108.20
85	A7	47	C	P-O3'-C3'	12.16	134.29	119.70
37	BC	64	G	O4'-C1'-N9	12.15	117.92	108.20
83	A5	2472	A	O4'-C1'-N9	12.15	117.92	108.20
83	A5	3480	U	O4'-C1'-N1	12.15	117.92	108.20
83	A5	3514	C	N1-C1'-C2'	-12.15	98.20	114.00
83	A5	1709	A	O4'-C1'-N9	12.14	117.92	108.20
85	A7	95	U	O4'-C1'-N1	12.14	117.91	108.20
83	A5	871	A	O4'-C1'-N9	12.14	117.91	108.20
36	B2	139	U	P-O3'-C3'	-12.14	105.14	119.70
83	A5	2650	G	O4'-C1'-N9	12.13	117.91	108.20
36	B2	157	C	P-O5'-C5'	12.13	140.30	120.90
36	B2	1519	U	O4'-C1'-N1	12.13	117.90	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3629	U	O4'-C1'-N1	12.13	117.90	108.20
83	A5	1248	A	P-O3'-C3'	12.12	134.25	119.70
36	B2	300	U	O4'-C1'-N1	12.12	117.90	108.20
36	B2	1807	C	P-O3'-C3'	12.12	134.24	119.70
83	A5	1639	U	O4'-C1'-N1	12.12	117.89	108.20
83	A5	637	U	O4'-C1'-N1	12.11	117.89	108.20
5	AO	99	ALA	C-N-CA	12.10	151.96	121.70
83	A5	1764	G	O4'-C1'-N9	12.10	117.88	108.20
83	A5	2208	G	O4'-C1'-N9	12.10	117.88	108.20
83	A5	2879	A	P-O3'-C3'	12.09	134.21	119.70
83	A5	3682	U	O4'-C1'-N1	12.08	117.86	108.20
45	Ca	51	PRO	C-N-CA	12.08	147.66	122.30
36	B2	863	A	P-O3'-C3'	-12.08	105.21	119.70
83	A5	245	G	O4'-C1'-N9	12.07	117.86	108.20
83	A5	3118	U	P-O3'-C3'	12.07	134.19	119.70
83	A5	1177	U	P-O3'-C3'	12.06	134.18	119.70
83	A5	1891	U	O4'-C1'-N1	12.04	117.83	108.20
83	A5	465	U	O4'-C1'-N1	12.04	117.83	108.20
83	A5	3676	C	P-O3'-C3'	12.03	134.14	119.70
36	B2	1620	G	C1'-O4'-C4'	-12.02	100.28	109.90
36	B2	329	U	O4'-C1'-N1	12.02	117.82	108.20
36	B2	1951	A	O4'-C1'-N9	12.02	117.82	108.20
85	A7	71	G	P-O3'-C3'	12.00	134.10	119.70
83	A5	963	G	O4'-C1'-N9	11.99	117.79	108.20
83	A5	283	A	O4'-C1'-N9	11.98	117.79	108.20
36	B2	703	A	O4'-C1'-N9	11.98	117.78	108.20
83	A5	1914	U	O4'-C1'-N1	11.98	117.78	108.20
83	A5	3106	G	O4'-C1'-N9	11.97	117.78	108.20
59	CZ	114	ARG	NE-CZ-NH1	11.97	126.29	120.30
36	B2	138	U	C2'-C3'-O3'	11.97	135.83	109.50
83	A5	1180	U	P-O3'-C3'	11.97	134.06	119.70
36	B2	982	G	O4'-C1'-N9	11.97	117.77	108.20
83	A5	2007	U	O4'-C1'-N1	11.96	117.77	108.20
83	A5	1337	U	O4'-C1'-N1	11.96	117.77	108.20
83	A5	123	U	P-O3'-C3'	11.96	134.05	119.70
83	A5	199	U	O4'-C1'-N1	11.96	117.77	108.20
83	A5	1755	U	O4'-C1'-N1	11.96	117.76	108.20
83	A5	3554	G	C4'-C3'-O3'	-11.95	84.31	109.40
36	B2	1332	G	O4'-C1'-N9	11.94	117.75	108.20
83	A5	461	U	P-O3'-C3'	11.94	134.03	119.70
83	A5	764	A	P-O3'-C3'	11.94	134.03	119.70
83	A5	3837	A	O4'-C1'-N9	11.94	117.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1226	G	P-O3'-C3'	11.94	134.02	119.70
36	B2	1842	U	O4'-C1'-N1	11.93	117.75	108.20
83	A5	775	U	N1-C1'-C2'	11.93	129.51	114.00
83	A5	696	U	O4'-C1'-N1	11.93	117.75	108.20
83	A5	1605	U	O4'-C1'-N1	11.92	117.73	108.20
83	A5	58	G	O4'-C1'-N9	11.91	117.73	108.20
83	A5	2589	U	O4'-C1'-N1	11.91	117.73	108.20
83	A5	646	G	O4'-C1'-N9	11.91	117.73	108.20
83	A5	3803	C	C3'-C2'-C1'	11.90	111.02	101.50
83	A5	2673	A	N9-C1'-C2'	11.87	129.43	114.00
83	A5	2919	A	P-O3'-C3'	11.87	133.94	119.70
36	B2	824	U	O4'-C1'-N1	11.85	117.68	108.20
83	A5	919	G	O4'-C1'-N9	11.85	117.68	108.20
36	B2	560	G	O4'-C1'-N9	11.85	117.68	108.20
36	B2	1654	G	O4'-C1'-N9	11.85	117.68	108.20
83	A5	2758	U	O4'-C1'-N1	11.85	117.68	108.20
36	B2	1179	A	O4'-C1'-N9	11.84	117.67	108.20
83	A5	332	U	O4'-C1'-N1	11.84	117.67	108.20
83	A5	3641	U	O4'-C1'-N1	11.83	117.66	108.20
36	B2	155	U	O4'-C1'-N1	11.81	117.65	108.20
83	A5	1959	A	P-O5'-C5'	11.81	139.80	120.90
83	A5	3943	G	O4'-C1'-C2'	11.80	118.22	107.60
83	A5	3937	U	O4'-C1'-N1	11.80	117.64	108.20
36	B2	1284	A	P-O3'-C3'	11.79	133.85	119.70
36	B2	618	G	O4'-C1'-N9	11.79	117.63	108.20
36	B2	1550	C	P-O3'-C3'	11.79	133.84	119.70
83	A5	3876	U	N1-C1'-C2'	11.79	129.32	114.00
83	A5	177	U	O4'-C1'-N1	11.78	117.62	108.20
83	A5	3781	U	O4'-C1'-N1	11.78	117.62	108.20
83	A5	130	C	P-O3'-C3'	11.75	133.80	119.70
83	A5	1519	A	O4'-C1'-N9	11.75	117.60	108.20
36	B2	1992	A	P-O3'-C3'	11.74	133.79	119.70
83	A5	3086	G	P-O3'-C3'	11.73	133.77	119.70
36	B2	24	U	O4'-C1'-N1	11.72	117.58	108.20
83	A5	994	U	O4'-C1'-N1	11.72	117.57	108.20
36	B2	1326	U	O4'-C1'-N1	11.71	117.57	108.20
83	A5	687	U	O4'-C1'-N1	11.70	117.56	108.20
1	Az	731	TYR	CB-CG-CD1	-11.70	113.98	121.00
36	B2	1356	U	O4'-C1'-N1	11.70	117.56	108.20
1	Az	218	GLY	N-CA-C	11.69	142.32	113.10
83	A5	272	U	P-O3'-C3'	11.69	133.73	119.70
83	A5	1406	G	P-O3'-C3'	11.69	133.72	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3840	G	O4'-C1'-C2'	-11.68	94.12	105.80
86	A8	84	U	P-O3'-C3'	11.68	133.71	119.70
83	A5	2008	U	N1-C1'-C2'	11.67	129.18	114.00
36	B2	1857	U	O4'-C1'-N1	11.67	117.54	108.20
83	A5	1021	U	O4'-C1'-N1	11.67	117.53	108.20
83	A5	1668	U	C3'-C2'-C1'	-11.67	92.17	101.50
83	A5	2082	U	O4'-C1'-N1	11.66	117.53	108.20
52	CS	175	TYR	CB-CG-CD1	11.65	127.99	121.00
36	B2	591	C	N1-C1'-C2'	11.65	129.14	114.00
36	B2	1821	G	C1'-O4'-C4'	-11.65	100.58	109.90
36	B2	1695	A	C3'-C2'-C1'	-11.64	92.18	101.50
84	A9	4	U	O4'-C1'-N1	11.64	117.51	108.20
83	A5	2821	A	O4'-C1'-N9	11.64	117.51	108.20
36	B2	947	U	N1-C1'-C2'	11.63	129.12	114.00
63	CB	335	GLY	N-CA-C	11.63	142.18	113.10
36	B2	1429	U	O4'-C1'-N1	11.63	117.50	108.20
83	A5	2694	G	O4'-C1'-N9	11.63	117.50	108.20
84	A9	16	U	O4'-C1'-N1	11.63	117.50	108.20
83	A5	1257	U	O4'-C1'-N1	11.63	117.50	108.20
83	A5	3672	U	O4'-C1'-N1	11.62	117.50	108.20
14	AT	101	ARG	NE-CZ-NH2	-11.62	114.49	120.30
83	A5	3150	G	O4'-C1'-N9	11.62	117.50	108.20
83	A5	159	G	O4'-C1'-N9	11.61	117.49	108.20
83	A5	2216	A	N9-C1'-C2'	-11.61	98.91	114.00
83	A5	593	U	O4'-C1'-N1	11.60	117.48	108.20
36	B2	876	U	O4'-C1'-N1	11.59	117.47	108.20
36	B2	1397	U	O4'-C1'-N1	11.59	117.47	108.20
83	A5	1035	G	O4'-C1'-N9	11.59	117.47	108.20
83	A5	755	A	C1'-O4'-C4'	11.58	119.17	109.90
83	A5	3250	U	O4'-C1'-N1	11.58	117.47	108.20
83	A5	1807	U	O4'-C1'-N1	11.58	117.46	108.20
83	A5	3778	U	O4'-C1'-N1	11.57	117.46	108.20
36	B2	952	G	O4'-C1'-N9	11.57	117.46	108.20
83	A5	864	G	C3'-C2'-C1'	11.57	110.76	101.50
36	B2	39	A	O4'-C1'-N9	11.56	117.45	108.20
36	B2	1402	U	N1-C1'-C2'	11.56	129.03	114.00
83	A5	2487	C	N1-C1'-C2'	11.56	129.03	114.00
83	A5	526	U	O4'-C1'-N1	11.56	117.44	108.20
83	A5	2742	G	O4'-C1'-N9	11.56	117.44	108.20
83	A5	1410	A	O4'-C1'-N9	11.55	117.44	108.20
83	A5	1712	C	P-O5'-C5'	11.55	139.38	120.90
36	B2	698	U	P-O5'-C5'	11.54	139.37	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1127	G	C1'-O4'-C4'	-11.54	100.67	109.90
86	A8	15	G	O4'-C1'-N9	11.54	117.43	108.20
36	B2	1665	U	P-O3'-C3'	11.54	133.55	119.70
83	A5	1688	A	O4'-C1'-N9	11.54	117.43	108.20
83	A5	1988	A	P-O5'-C5'	11.53	139.35	120.90
83	A5	980	A	P-O3'-C3'	11.53	133.53	119.70
36	B2	1680	G	O4'-C1'-N9	11.53	117.42	108.20
36	B2	1185	U	P-O3'-C3'	11.52	133.53	119.70
36	B2	29	U	O4'-C1'-N1	11.51	117.41	108.20
83	A5	1810	A	P-O5'-C5'	11.51	139.32	120.90
83	A5	2221	G	O4'-C1'-N9	11.51	117.41	108.20
83	A5	3317	U	O4'-C1'-N1	11.51	117.40	108.20
72	Ck	40	ARG	C-N-CA	11.50	150.46	121.70
83	A5	1697	U	O4'-C1'-N1	11.50	117.40	108.20
83	A5	1903	U	O4'-C1'-N1	11.50	117.40	108.20
83	A5	1968	A	C4'-C3'-O3'	-11.50	85.24	109.40
83	A5	2796	G	P-O3'-C3'	11.50	133.50	119.70
36	B2	1245	A	P-O3'-C3'	11.50	133.50	119.70
83	A5	2007	U	P-O3'-C3'	11.50	133.50	119.70
83	A5	2997	C	C4'-C3'-O3'	11.50	136.00	113.00
83	A5	1561	G	P-O3'-C3'	11.49	133.49	119.70
36	B2	158	U	O4'-C1'-N1	11.49	117.39	108.20
83	A5	580	A	P-O3'-C3'	11.49	133.49	119.70
83	A5	23	U	O4'-C1'-N1	11.48	117.38	108.20
83	A5	1417	G	O4'-C1'-C2'	11.48	117.93	107.60
36	B2	985	A	P-O3'-C3'	11.47	133.46	119.70
83	A5	732	U	O4'-C1'-N1	11.46	117.37	108.20
83	A5	1108	G	O4'-C1'-N9	11.46	117.37	108.20
36	B2	1547	U	O4'-C1'-N1	11.46	117.37	108.20
83	A5	1220	U	O4'-C1'-N1	11.45	117.36	108.20
83	A5	1744	U	P-O3'-C3'	11.45	133.44	119.70
83	A5	1888	A	N9-C1'-C2'	11.45	128.89	114.00
83	A5	2553	U	P-O3'-C3'	11.45	133.44	119.70
36	B2	1341	C	P-O3'-C3'	11.45	133.44	119.70
36	B2	1186	U	N1-C1'-C2'	11.44	128.87	114.00
83	A5	567	A	P-O3'-C3'	11.44	133.43	119.70
83	A5	3730	G	O4'-C1'-N9	11.44	117.35	108.20
83	A5	1784	A	O4'-C1'-N9	11.44	117.35	108.20
36	B2	248	G	P-O3'-C3'	11.43	133.41	119.70
36	B2	1741	A	P-O3'-C3'	11.43	133.41	119.70
83	A5	972	U	O4'-C1'-N1	11.42	117.34	108.20
36	B2	1274	U	O4'-C1'-N1	11.41	117.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1320	G	N9-C1'-C2'	11.41	128.83	114.00
83	A5	623	C	O4'-C1'-C2'	-11.40	94.40	105.80
83	A5	3855	A	O4'-C1'-N9	11.40	117.32	108.20
83	A5	1922	A	C4'-C3'-O3'	-11.40	85.45	109.40
83	A5	3867	A	O4'-C1'-N9	11.40	117.32	108.20
83	A5	1112	G	O4'-C1'-N9	11.39	117.31	108.20
83	A5	1801	U	C1'-O4'-C4'	11.39	119.02	109.90
36	B2	1574	U	O4'-C1'-N1	11.39	117.31	108.20
83	A5	3004	A	P-O3'-C3'	11.39	133.36	119.70
36	B2	1944	A	O4'-C1'-N9	11.38	117.31	108.20
37	BC	66	U	O4'-C1'-N1	11.38	117.31	108.20
83	A5	456	G	O4'-C1'-N9	11.38	117.31	108.20
83	A5	1140	G	O4'-C1'-N9	11.38	117.31	108.20
83	A5	1995	U	O4'-C1'-N1	11.38	117.30	108.20
83	A5	3291	U	O4'-C1'-N1	11.38	117.30	108.20
83	A5	132	U	P-O3'-C3'	11.37	133.35	119.70
83	A5	486	A	O4'-C1'-N9	11.37	117.30	108.20
36	B2	1577	A	O4'-C1'-N9	11.37	117.30	108.20
85	A7	112	U	O4'-C1'-N1	11.37	117.30	108.20
83	A5	3170	U	O4'-C1'-N1	11.37	117.30	108.20
83	A5	2211	A	P-O3'-C3'	11.37	133.34	119.70
83	A5	2516	U	C3'-C2'-C1'	11.37	110.59	101.50
83	A5	491	U	O4'-C1'-N1	11.36	117.29	108.20
83	A5	2818	G	O4'-C1'-N9	11.36	117.29	108.20
83	A5	1562	U	O4'-C1'-N1	11.36	117.28	108.20
83	A5	1921	U	P-O3'-C3'	11.36	133.33	119.70
83	A5	2064	G	O4'-C1'-N9	11.35	117.28	108.20
83	A5	192	U	P-O3'-C3'	11.35	133.32	119.70
83	A5	2125	G	O4'-C1'-N9	11.35	117.28	108.20
85	A7	119	C	P-O3'-C3'	11.35	133.32	119.70
83	A5	1208	U	O4'-C1'-N1	11.34	117.28	108.20
83	A5	3536	U	O4'-C1'-N1	11.33	117.27	108.20
36	B2	704	U	O4'-C1'-N1	11.32	117.26	108.20
83	A5	697	U	P-O3'-C3'	-11.32	106.11	119.70
83	A5	3719	A	C3'-C2'-C1'	-11.32	92.44	101.50
36	B2	1729	C	O4'-C1'-C2'	-11.32	94.48	105.80
83	A5	424	G	P-O3'-C3'	-11.32	106.12	119.70
83	A5	2876	U	O4'-C1'-N1	11.32	117.25	108.20
83	A5	302	A	P-O3'-C3'	-11.31	106.13	119.70
36	B2	1431	A	P-O3'-C3'	11.30	133.27	119.70
83	A5	501	A	O4'-C1'-N9	11.30	117.24	108.20
83	A5	746	G	C1'-O4'-C4'	-11.30	100.86	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	297	U	O4'-C1'-N1	11.29	117.23	108.20
83	A5	745	U	P-O3'-C3'	11.29	133.25	119.70
36	B2	948	A	N9-C1'-C2'	11.29	128.68	114.00
36	B2	1451	A	O4'-C1'-N9	11.29	117.23	108.20
36	B2	1758	A	C1'-O4'-C4'	-11.29	100.87	109.90
37	BC	63	U	O4'-C1'-N1	11.29	117.23	108.20
83	A5	924	U	O4'-C1'-N1	11.28	117.23	108.20
83	A5	1930	G	O4'-C1'-N9	11.28	117.23	108.20
36	B2	904	C	O4'-C1'-N1	11.28	117.22	108.20
83	A5	3676	C	N1-C1'-C2'	-11.28	99.34	114.00
84	A9	14	U	O4'-C1'-N1	11.28	117.22	108.20
85	A7	17	C	O4'-C1'-N1	11.28	117.22	108.20
83	A5	3694	G	O4'-C1'-N9	11.27	117.22	108.20
83	A5	3717	U	P-O3'-C3'	11.27	133.22	119.70
37	BC	50	A	O4'-C1'-N9	11.26	117.21	108.20
83	A5	37	G	O4'-C1'-N9	11.26	117.21	108.20
83	A5	301	U	C3'-C2'-C1'	-11.26	92.49	101.50
83	A5	792	U	O4'-C1'-N1	11.26	117.21	108.20
83	A5	1282	U	O4'-C1'-N1	11.26	117.21	108.20
83	A5	1600	U	P-O3'-C3'	11.26	133.21	119.70
83	A5	2480	U	O4'-C1'-N1	11.26	117.20	108.20
83	A5	3404	A	P-O3'-C3'	11.25	133.21	119.70
36	B2	1949	A	P-O3'-C3'	11.25	133.20	119.70
83	A5	776	A	P-O3'-C3'	-11.24	106.21	119.70
85	A7	48	G	O4'-C1'-N9	11.24	117.19	108.20
36	B2	384	U	P-O3'-C3'	-11.24	106.21	119.70
83	A5	483	U	O4'-C1'-N1	11.24	117.19	108.20
83	A5	2270	G	C1'-O4'-C4'	-11.24	100.91	109.90
83	A5	1019	U	O4'-C1'-N1	11.23	117.18	108.20
83	A5	1882	G	O4'-C1'-N9	11.23	117.18	108.20
83	A5	1471	G	N9-C1'-C2'	11.23	128.59	114.00
83	A5	1890	U	O4'-C1'-N1	11.23	117.18	108.20
83	A5	73	U	O4'-C1'-N1	11.22	117.18	108.20
36	B2	794	U	P-O3'-C3'	11.22	133.16	119.70
36	B2	464	G	P-O3'-C3'	11.21	133.15	119.70
83	A5	865	A	P-O3'-C3'	11.21	133.15	119.70
83	A5	2603	U	O4'-C1'-N1	11.21	117.17	108.20
83	A5	901	U	O4'-C1'-N1	11.20	117.16	108.20
16	AA	202	PHE	CB-CG-CD2	11.20	128.64	120.80
36	B2	441	A	O4'-C1'-N9	11.19	117.15	108.20
36	B2	817	C	N1-C1'-C2'	11.19	128.55	114.00
83	A5	2817	G	O4'-C1'-N9	11.19	117.15	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2893	U	O4'-C1'-N1	11.19	117.15	108.20
36	B2	1146	U	O4'-C1'-N1	11.18	117.15	108.20
83	A5	841	A	P-O3'-C3'	11.18	133.12	119.70
83	A5	923	U	O4'-C1'-N1	11.18	117.15	108.20
36	B2	1854	U	O4'-C1'-N1	11.18	117.14	108.20
83	A5	2916	U	O4'-C1'-C2'	-11.17	94.63	105.80
36	B2	431	G	C1'-O4'-C4'	-11.17	100.96	109.90
83	A5	643	U	O4'-C1'-N1	11.17	117.13	108.20
83	A5	947	U	P-O5'-C5'	11.17	138.77	120.90
83	A5	69	A	P-O3'-C3'	11.16	133.10	119.70
83	A5	3729	A	P-O3'-C3'	-11.16	106.30	119.70
83	A5	3843	U	C1'-O4'-C4'	11.16	118.83	109.90
83	A5	3391	U	P-O3'-C3'	11.16	133.09	119.70
83	A5	3598	U	O4'-C1'-N1	11.16	117.13	108.20
83	A5	1571	U	O4'-C1'-N1	11.16	117.12	108.20
83	A5	1982	U	O4'-C1'-N1	11.16	117.12	108.20
36	B2	381	C	P-O3'-C3'	11.15	133.08	119.70
36	B2	1634	U	O4'-C1'-N1	11.15	117.12	108.20
83	A5	3762	G	P-O3'-C3'	11.15	133.08	119.70
83	A5	3790	A	P-O3'-C3'	11.15	133.08	119.70
36	B2	825	A	P-O5'-C5'	11.15	138.74	120.90
83	A5	874	G	C1'-O4'-C4'	-11.15	100.98	109.90
37	BC	16	U	O4'-C1'-N1	11.14	117.11	108.20
83	A5	77	A	C4'-C3'-O3'	-11.14	86.02	109.40
36	B2	566	U	P-O3'-C3'	11.13	133.06	119.70
36	B2	1679	U	O4'-C1'-N1	11.13	117.10	108.20
83	A5	200	U	P-O3'-C3'	11.12	133.05	119.70
83	A5	2118	U	O4'-C1'-N1	11.12	117.10	108.20
36	B2	410	C	P-O3'-C3'	-11.12	106.36	119.70
83	A5	671	A	O4'-C1'-N9	11.12	117.09	108.20
83	A5	962	U	O4'-C1'-N1	11.12	117.09	108.20
36	B2	280	U	O4'-C1'-N1	11.11	117.09	108.20
83	A5	2138	C	N1-C1'-C2'	11.11	128.44	114.00
36	B2	200	U	C2'-C3'-O3'	11.10	133.92	109.50
36	B2	1792	A	P-O3'-C3'	11.10	133.02	119.70
83	A5	1946	G	O4'-C1'-N9	11.10	117.08	108.20
36	B2	1956	U	P-O3'-C3'	11.10	133.02	119.70
7	AM	40	HIS	N-CA-C	11.10	140.96	111.00
83	A5	1015	G	N9-C1'-C2'	11.10	128.43	114.00
36	B2	900	A	O4'-C1'-N9	11.09	117.08	108.20
83	A5	2220	C	N1-C1'-C2'	11.09	128.42	114.00
83	A5	2405	A	P-O3'-C3'	11.09	133.01	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	508	U	O4'-C1'-N1	11.09	117.07	108.20
36	B2	177	U	O4'-C1'-N1	11.08	117.06	108.20
34	AQ	3	GLN	C-N-CA	11.08	149.39	121.70
36	B2	1791	U	O4'-C1'-N1	11.08	117.06	108.20
36	B2	171	U	O4'-C1'-N1	11.07	117.06	108.20
83	A5	1099	U	O4'-C1'-N1	11.07	117.06	108.20
83	A5	1569	U	O4'-C1'-N1	11.07	117.06	108.20
36	B2	245	U	P-O3'-C3'	-11.07	106.41	119.70
36	B2	1853	U	O4'-C1'-N1	11.07	117.06	108.20
83	A5	2548	G	O4'-C1'-N9	11.07	117.06	108.20
83	A5	334	U	O4'-C1'-N1	11.07	117.05	108.20
83	A5	479	U	O4'-C1'-N1	11.07	117.05	108.20
83	A5	1793	C	N1-C1'-C2'	11.07	128.39	114.00
83	A5	2636	U	O4'-C1'-N1	11.07	117.05	108.20
36	B2	511	G	C1'-O4'-C4'	11.05	118.74	109.90
36	B2	1347	U	O4'-C1'-N1	11.05	117.04	108.20
83	A5	344	U	O4'-C1'-N1	11.05	117.04	108.20
83	A5	3871	U	O4'-C1'-N1	11.05	117.04	108.20
36	B2	468	U	O4'-C1'-N1	11.05	117.04	108.20
83	A5	2196	U	N1-C1'-C2'	-11.05	99.64	114.00
83	A5	124	A	O4'-C1'-N9	11.04	117.04	108.20
83	A5	1525	G	O4'-C1'-N9	11.04	117.03	108.20
83	A5	3495	G	O4'-C1'-N9	11.03	117.03	108.20
29	AG	68	LEU	C-N-CA	11.03	149.26	121.70
83	A5	3000	G	C4'-C3'-O3'	-11.03	86.25	109.40
83	A5	3775	A	C3'-C2'-C1'	11.03	110.32	101.50
36	B2	463	G	O4'-C1'-N9	11.02	117.02	108.20
36	B2	511	G	P-O3'-C3'	11.02	132.93	119.70
83	A5	3165	U	O4'-C1'-N1	11.02	117.02	108.20
83	A5	515	A	C1'-O4'-C4'	11.01	118.71	109.90
83	A5	726	U	O4'-C1'-N1	11.01	117.01	108.20
83	A5	2720	U	O4'-C1'-N1	11.01	117.00	108.20
83	A5	3017	U	P-O3'-C3'	11.01	132.91	119.70
86	A8	96	U	O4'-C1'-N1	11.01	117.00	108.20
83	A5	652	G	C1'-O4'-C4'	-11.00	101.10	109.90
83	A5	1107	G	P-O3'-C3'	11.00	132.90	119.70
83	A5	1338	U	O4'-C1'-N1	10.99	116.99	108.20
36	B2	706	U	C3'-C2'-C1'	10.98	110.29	101.50
83	A5	2066	G	C3'-C2'-C1'	10.98	110.29	101.50
83	A5	3757	U	N1-C1'-C2'	10.98	128.28	114.00
36	B2	1453	G	O4'-C1'-N9	10.98	116.98	108.20
36	B2	1650	G	C1'-O4'-C4'	-10.98	101.12	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1583	A	O4'-C1'-N9	10.97	116.98	108.20
36	B2	1942	G	O4'-C1'-N9	10.97	116.98	108.20
36	B2	881	U	O4'-C1'-N1	10.97	116.97	108.20
36	B2	1521	U	O4'-C1'-N1	10.97	116.97	108.20
83	A5	1886	C	N1-C1'-C2'	10.97	128.26	114.00
83	A5	1680	U	O4'-C1'-N1	10.95	116.96	108.20
83	A5	3724	U	O4'-C1'-N1	10.95	116.96	108.20
83	A5	755	A	O4'-C1'-C2'	-10.95	94.86	105.80
36	B2	885	U	O4'-C1'-N1	10.94	116.95	108.20
36	B2	847	G	O4'-C1'-N9	10.94	116.95	108.20
83	A5	775	U	P-O5'-C5'	10.94	138.40	120.90
83	A5	1717	A	O4'-C1'-N9	10.94	116.95	108.20
83	A5	2214	G	O4'-C1'-N9	10.94	116.95	108.20
83	A5	973	G	C1'-O4'-C4'	-10.94	101.15	109.90
83	A5	3346	G	O4'-C1'-N9	10.94	116.95	108.20
86	A8	110	C	P-O3'-C3'	-10.93	106.58	119.70
36	B2	1570	U	O4'-C1'-C2'	-10.93	94.88	105.80
36	B2	292	G	O4'-C1'-N9	10.92	116.94	108.20
36	B2	1780	G	C1'-O4'-C4'	-10.92	101.16	109.90
74	CC	72	THR	C-N-CA	10.92	145.24	122.30
83	A5	1283	A	O4'-C1'-N9	10.92	116.94	108.20
83	A5	3392	U	P-O3'-C3'	-10.91	106.61	119.70
36	B2	195	G	P-O3'-C3'	10.91	132.79	119.70
83	A5	127	U	O4'-C1'-N1	10.90	116.92	108.20
83	A5	1532	A	O4'-C1'-N9	10.90	116.92	108.20
36	B2	442	A	O4'-C1'-N9	10.90	116.92	108.20
83	A5	3268	A	P-O3'-C3'	10.90	132.78	119.70
83	A5	1206	G	O4'-C1'-N9	10.89	116.91	108.20
83	A5	2907	U	P-O3'-C3'	10.88	132.76	119.70
83	A5	1253	A	O4'-C1'-N9	10.88	116.91	108.20
36	B2	868	C	O4'-C1'-N1	10.88	116.90	108.20
83	A5	492	A	O4'-C1'-N9	10.87	116.90	108.20
36	B2	867	G	C1'-O4'-C4'	-10.87	101.20	109.90
36	B2	635	C	N1-C1'-C2'	10.87	128.13	114.00
83	A5	82	U	O4'-C1'-N1	10.87	116.90	108.20
83	A5	1731	G	O4'-C1'-N9	10.86	116.89	108.20
84	A9	19	U	O4'-C1'-N1	10.86	116.89	108.20
83	A5	134	G	C2'-C3'-O3'	10.85	133.38	109.50
36	B2	563	A	P-O3'-C3'	10.84	132.71	119.70
36	B2	1171	G	O4'-C1'-N9	10.84	116.87	108.20
83	A5	3918	A	O4'-C1'-N9	10.84	116.87	108.20
65	Cc	31	TYR	CB-CG-CD1	10.83	127.50	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A7	23	A	P-O3'-C3'	-10.83	106.70	119.70
36	B2	927	U	O4'-C1'-N1	10.83	116.86	108.20
83	A5	1700	U	O4'-C1'-N1	10.83	116.86	108.20
83	A5	3825	U	O4'-C1'-N1	10.82	116.86	108.20
83	A5	973	G	O4'-C1'-N9	-10.82	99.54	108.20
72	Ck	58	GLN	C-N-CA	10.82	148.74	121.70
83	A5	513	G	O4'-C1'-N9	10.82	116.85	108.20
83	A5	188	G	N9-C1'-C2'	10.81	128.05	114.00
83	A5	3255	G	O4'-C1'-N9	10.81	116.85	108.20
36	B2	200	U	C5'-C4'-C3'	-10.80	98.71	116.00
36	B2	101	U	O4'-C1'-N1	10.80	116.84	108.20
36	B2	1221	A	O4'-C1'-N9	10.79	116.83	108.20
36	B2	249	U	C1'-O4'-C4'	-10.79	101.27	109.90
83	A5	406	G	O4'-C1'-N9	10.79	116.83	108.20
83	A5	3533	U	O4'-C1'-N1	10.79	116.83	108.20
36	B2	57	G	O4'-C1'-N9	10.79	116.83	108.20
83	A5	3324	A	O4'-C1'-N9	10.78	116.83	108.20
83	A5	3729	A	P-O5'-C5'	-10.78	103.65	120.90
36	B2	138	U	O3'-P-O5'	-10.78	83.53	104.00
36	B2	1620	G	O4'-C1'-C2'	10.78	117.30	107.60
36	B2	530	U	O4'-C1'-N1	10.77	116.82	108.20
83	A5	301	U	O4'-C1'-C2'	10.77	117.30	107.60
36	B2	1678	G	C3'-C2'-C1'	-10.77	92.89	101.50
36	B2	1546	U	P-O3'-C3'	10.76	132.62	119.70
36	B2	1664	A	O4'-C1'-N9	10.76	116.81	108.20
36	B2	1729	C	C3'-C2'-C1'	10.76	110.11	101.50
83	A5	2150	U	O4'-C1'-N1	10.75	116.80	108.20
83	A5	1154	U	O4'-C1'-N1	10.75	116.80	108.20
83	A5	2752	C	O4'-C1'-C2'	-10.75	95.05	105.80
36	B2	849	U	O4'-C1'-N1	10.74	116.79	108.20
36	B2	326	U	O4'-C1'-N1	10.73	116.79	108.20
36	B2	1673	U	P-O3'-C3'	10.73	132.58	119.70
83	A5	3240	U	O4'-C1'-N1	10.73	116.79	108.20
86	A8	68	U	C1'-O4'-C4'	-10.73	101.31	109.90
36	B2	255	U	O3'-P-O5'	10.73	124.38	104.00
83	A5	2956	U	P-O3'-C3'	10.73	132.57	119.70
36	B2	1770	U	O4'-C1'-N1	10.72	116.78	108.20
84	A9	23	G	P-O5'-C5'	10.72	138.06	120.90
62	Cb	45	TYR	CB-CG-CD1	10.72	127.43	121.00
83	A5	211	U	O4'-C1'-N1	10.72	116.78	108.20
83	A5	1564	G	N9-C1'-C2'	10.72	127.93	114.00
83	A5	1015	G	C1'-O4'-C4'	-10.71	101.33	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1907	U	O4'-C1'-C2'	-10.72	95.08	105.80
83	A5	1689	G	O4'-C1'-N9	-10.71	99.64	108.20
83	A5	681	G	O4'-C1'-N9	10.70	116.76	108.20
83	A5	2488	U	O4'-C1'-N1	10.70	116.76	108.20
83	A5	1263	U	O4'-C1'-N1	10.69	116.76	108.20
36	B2	1765	U	P-O3'-C3'	10.69	132.53	119.70
68	Cf	44	TYR	CB-CG-CD2	-10.69	114.59	121.00
83	A5	1595	G	O4'-C1'-N9	10.69	116.75	108.20
86	A8	122	U	O4'-C1'-N1	10.69	116.75	108.20
83	A5	3660	U	O4'-C1'-N1	10.68	116.75	108.20
83	A5	3898	C	N1-C1'-C2'	10.68	127.89	114.00
36	B2	1068	U	O4'-C1'-N1	10.68	116.74	108.20
36	B2	1569	C	C3'-C2'-C1'	10.68	110.05	101.50
36	B2	1992	A	O4'-C1'-N9	10.68	116.74	108.20
83	A5	2646	U	O4'-C1'-N1	10.68	116.74	108.20
83	A5	1342	U	O4'-C1'-N1	10.68	116.74	108.20
36	B2	1856	U	O4'-C1'-N1	10.67	116.73	108.20
83	A5	2749	G	O4'-C1'-N9	10.67	116.73	108.20
39	Cq	199	PHE	CB-CG-CD2	10.66	128.26	120.80
86	A8	67	G	O4'-C1'-N9	10.65	116.72	108.20
83	A5	4	U	O4'-C1'-C2'	-10.64	95.16	105.80
83	A5	2895	U	O4'-C1'-N1	10.64	116.71	108.20
83	A5	1902	U	O4'-C1'-N1	10.64	116.71	108.20
83	A5	2093	U	P-O3'-C3'	10.64	132.47	119.70
83	A5	2045	U	O4'-C1'-N1	10.63	116.71	108.20
83	A5	3808	A	P-O3'-C3'	10.63	132.46	119.70
83	A5	352	U	O4'-C1'-N1	10.63	116.70	108.20
83	A5	2585	A	C4'-C3'-O3'	10.63	134.26	113.00
83	A5	2932	C	P-O3'-C3'	-10.63	106.94	119.70
83	A5	2881	U	O4'-C1'-N1	10.63	116.70	108.20
83	A5	264	U	O4'-C1'-N1	10.63	116.70	108.20
36	B2	401	G	O4'-C1'-N9	10.62	116.70	108.20
36	B2	142	A	O4'-C1'-N9	10.62	116.69	108.20
36	B2	1145	U	P-O3'-C3'	10.62	132.44	119.70
83	A5	134	G	C5'-C4'-C3'	-10.62	99.01	116.00
83	A5	746	G	C3'-C2'-C1'	-10.62	93.01	101.50
36	B2	214	G	P-O3'-C3'	10.62	132.44	119.70
83	A5	190	A	P-O3'-C3'	10.61	132.44	119.70
83	A5	1564	G	C1'-O4'-C4'	-10.61	101.41	109.90
83	A5	3693	G	C1'-O4'-C4'	-10.61	101.41	109.90
36	B2	253	A	O4'-C1'-C2'	10.61	117.15	107.60
36	B2	1273	U	N1-C1'-C2'	10.61	127.79	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1667	U	P-O3'-C3'	10.61	132.43	119.70
83	A5	3715	U	O4'-C1'-N1	10.61	116.69	108.20
36	B2	1582	C	O4'-C1'-C2'	10.60	117.14	107.60
36	B2	1753	U	O4'-C1'-N1	10.60	116.68	108.20
83	A5	420	A	C3'-C2'-C1'	-10.59	93.03	101.50
83	A5	3308	A	O4'-C1'-N9	10.59	116.67	108.20
36	B2	596	U	O4'-C1'-N1	10.59	116.67	108.20
36	B2	1603	G	N9-C1'-C2'	10.58	127.75	114.00
83	A5	2827	G	O4'-C1'-N9	10.58	116.66	108.20
83	A5	2869	U	O4'-C1'-N1	10.58	116.66	108.20
83	A5	3306	U	O4'-C1'-N1	10.58	116.66	108.20
83	A5	1	U	O4'-C1'-N1	10.57	116.66	108.20
83	A5	1940	C	O4'-C1'-C2'	-10.57	95.23	105.80
83	A5	2605	C	O4'-C1'-N1	10.57	116.66	108.20
83	A5	3183	G	O4'-C1'-C2'	10.57	117.11	107.60
83	A5	678	U	O4'-C1'-N1	10.57	116.65	108.20
36	B2	1210	G	O4'-C1'-N9	10.56	116.65	108.20
83	A5	836	G	O4'-C1'-N9	10.56	116.65	108.20
83	A5	1992	G	C1'-O4'-C4'	-10.56	101.45	109.90
83	A5	2912	U	O4'-C1'-N1	10.56	116.65	108.20
36	B2	54	C	C3'-C2'-C1'	10.55	109.94	101.50
83	A5	3711	G	O4'-C1'-N9	10.55	116.64	108.20
36	B2	509	C	O4'-C1'-N1	10.55	116.64	108.20
36	B2	1898	G	O4'-C1'-N9	10.54	116.64	108.20
83	A5	2595	U	O4'-C1'-N1	10.54	116.63	108.20
83	A5	582	A	O4'-C1'-N9	10.53	116.63	108.20
83	A5	641	A	P-O3'-C3'	10.54	132.34	119.70
83	A5	84	U	O4'-C1'-N1	10.53	116.62	108.20
83	A5	3228	A	C3'-C2'-C1'	10.53	109.93	101.50
83	A5	1190	U	P-O3'-C3'	10.52	132.32	119.70
83	A5	1376	U	O4'-C1'-N1	10.52	116.62	108.20
83	A5	701	U	O4'-C1'-N1	10.51	116.61	108.20
83	A5	121	A	O4'-C1'-N9	10.51	116.61	108.20
83	A5	240	G	O4'-C1'-N9	10.51	116.61	108.20
83	A5	3301	U	O4'-C1'-N1	10.51	116.61	108.20
83	A5	1585	U	O4'-C1'-N1	10.51	116.61	108.20
83	A5	1860	A	N9-C1'-C2'	-10.51	100.34	114.00
83	A5	2152	C	N1-C1'-C2'	10.51	127.66	114.00
36	B2	845	G	O4'-C1'-N9	10.50	116.60	108.20
83	A5	2061	G	C1'-O4'-C4'	-10.50	101.50	109.90
83	A5	2993	G	P-O3'-C3'	10.50	132.30	119.70
36	B2	830	U	O4'-C1'-N1	10.50	116.60	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	772	G	O4'-C1'-N9	10.50	116.60	108.20
83	A5	353	G	O4'-C1'-N9	10.49	116.59	108.20
83	A5	2070	G	O4'-C1'-N9	10.48	116.58	108.20
83	A5	3697	A	P-O5'-C5'	10.47	137.66	120.90
36	B2	378	G	P-O3'-C3'	10.47	132.27	119.70
83	A5	1520	U	O4'-C1'-N1	10.47	116.58	108.20
36	B2	1868	U	O4'-C1'-N1	10.47	116.57	108.20
36	B2	1223	U	O4'-C1'-N1	10.46	116.57	108.20
36	B2	430	A	N9-C1'-C2'	10.46	127.59	114.00
83	A5	328	U	O4'-C1'-N1	10.46	116.56	108.20
83	A5	2130	G	O4'-C1'-N9	10.46	116.56	108.20
83	A5	208	U	O4'-C1'-N1	10.45	116.56	108.20
36	B2	880	G	C3'-C2'-C1'	-10.45	93.14	101.50
36	B2	1139	A	O4'-C1'-N9	10.45	116.56	108.20
83	A5	117	C	C3'-C2'-C1'	10.45	109.86	101.50
36	B2	1316	G	O4'-C1'-N9	10.45	116.56	108.20
83	A5	3787	A	O4'-C1'-N9	10.45	116.56	108.20
83	A5	2767	U	C1'-O4'-C4'	-10.45	101.54	109.90
36	B2	1884	G	O4'-C1'-N9	10.44	116.56	108.20
36	B2	1713	C	O4'-C1'-C2'	-10.44	95.36	105.80
83	A5	3183	G	O4'-C1'-N9	10.44	116.55	108.20
83	A5	3895	A	O4'-C1'-N9	10.44	116.55	108.20
83	A5	3107	G	O4'-C1'-N9	10.43	116.55	108.20
83	A5	2005	U	O3'-P-O5'	-10.43	84.18	104.00
83	A5	363	G	O4'-C1'-N9	10.43	116.54	108.20
83	A5	618	U	O4'-C1'-N1	10.43	116.54	108.20
83	A5	2010	U	O4'-C1'-N1	10.42	116.54	108.20
36	B2	105	U	O4'-C1'-N1	10.42	116.54	108.20
83	A5	720	G	O4'-C1'-N9	10.42	116.54	108.20
83	A5	62	G	O4'-C1'-N9	10.42	116.53	108.20
83	A5	727	G	O4'-C1'-N9	10.42	116.53	108.20
36	B2	500	U	O4'-C1'-N1	10.41	116.53	108.20
36	B2	1750	U	P-O3'-C3'	10.41	132.19	119.70
1	Az	256	PHE	CB-CG-CD1	-10.41	113.52	120.80
83	A5	3572	G	O4'-C1'-N9	10.40	116.52	108.20
36	B2	944	G	O4'-C1'-N9	10.40	116.52	108.20
36	B2	1906	U	O4'-C1'-N1	10.40	116.52	108.20
36	B2	514	A	P-O3'-C3'	10.38	132.16	119.70
83	A5	1230	U	O4'-C1'-N1	10.39	116.51	108.20
83	A5	238	G	C1'-O4'-C4'	-10.38	101.59	109.90
83	A5	3653	U	O4'-C1'-N1	10.38	116.50	108.20
85	A7	65	C	C4'-C3'-O3'	10.38	133.75	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1185	U	O4'-C1'-N1	10.37	116.50	108.20
83	A5	3683	G	O4'-C1'-C2'	10.37	116.93	107.60
83	A5	3670	G	O4'-C1'-C2'	10.37	116.93	107.60
83	A5	1796	A	P-O3'-C3'	10.36	132.13	119.70
83	A5	429	U	O4'-C1'-N1	10.36	116.48	108.20
83	A5	2741	A	C1'-O4'-C4'	-10.36	101.61	109.90
83	A5	3029	U	P-O3'-C3'	10.35	132.12	119.70
83	A5	3157	U	O4'-C1'-N1	10.35	116.48	108.20
83	A5	3200	G	O4'-C1'-N9	10.35	116.48	108.20
83	A5	3529	A	P-O3'-C3'	10.35	132.12	119.70
85	A7	53	U	O4'-C1'-N1	10.35	116.48	108.20
83	A5	3567	A	O4'-C1'-C2'	-10.35	95.45	105.80
83	A5	734	U	O4'-C1'-N1	10.34	116.47	108.20
83	A5	3143	U	O4'-C1'-N1	10.34	116.47	108.20
83	A5	2811	G	O4'-C1'-N9	10.34	116.47	108.20
83	A5	3954	U	O4'-C1'-N1	10.34	116.47	108.20
36	B2	4	C	N1-C1'-C2'	10.34	127.44	114.00
83	A5	2032	U	O4'-C1'-N1	10.33	116.46	108.20
83	A5	2217	A	N9-C1'-C2'	10.33	127.43	114.00
86	A8	54	U	O4'-C1'-N1	10.33	116.47	108.20
83	A5	3791	A	C4'-C3'-O3'	10.33	133.66	113.00
86	A8	88	C	O4'-C1'-N1	10.33	116.46	108.20
83	A5	2030	U	O4'-C1'-N1	10.33	116.46	108.20
83	A5	2102	G	O4'-C1'-N9	10.32	116.46	108.20
37	BC	75	A	O4'-C1'-N9	10.32	116.46	108.20
83	A5	3474	G	C1'-O4'-C4'	-10.32	101.64	109.90
83	A5	943	U	P-O3'-C3'	10.32	132.08	119.70
36	B2	172	G	O4'-C1'-N9	10.31	116.45	108.20
45	Ca	47	ASP	C-N-CA	10.31	147.47	121.70
36	B2	137	C	N1-C1'-C2'	10.30	127.40	114.00
36	B2	1727	U	C4'-C3'-O3'	10.30	133.60	113.00
36	B2	1994	U	O4'-C1'-N1	10.30	116.44	108.20
83	A5	1430	U	O4'-C1'-N1	10.30	116.44	108.20
83	A5	2571	U	P-O3'-C3'	10.30	132.06	119.70
83	A5	2988	U	O4'-C1'-N1	10.30	116.44	108.20
83	A5	1557	U	O4'-C1'-N1	10.29	116.44	108.20
83	A5	2111	A	O4'-C1'-N9	10.29	116.44	108.20
83	A5	475	U	P-O3'-C3'	10.29	132.05	119.70
36	B2	877	U	O4'-C1'-N1	10.29	116.43	108.20
83	A5	654	G	O4'-C1'-N9	10.29	116.43	108.20
36	B2	362	G	O4'-C1'-N9	10.29	116.43	108.20
36	B2	1462	G	O4'-C1'-N9	10.29	116.43	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3397	U	O4'-C1'-N1	10.28	116.43	108.20
83	A5	3886	U	P-O3'-C3'	-10.28	107.36	119.70
36	B2	947	U	O4'-C1'-N1	10.28	116.42	108.20
83	A5	709	U	O4'-C1'-N1	10.28	116.42	108.20
83	A5	3531	C	P-O3'-C3'	10.28	132.03	119.70
36	B2	541	U	O4'-C1'-N1	10.27	116.42	108.20
36	B2	1136	U	O4'-C1'-N1	10.27	116.42	108.20
83	A5	3472	A	C2'-C3'-O3'	10.27	132.10	109.50
36	B2	140	G	P-O5'-C5'	10.27	137.33	120.90
36	B2	1748	A	N9-C1'-C2'	10.27	127.35	114.00
36	B2	1627	G	O4'-C1'-N9	10.27	116.41	108.20
83	A5	3567	A	C3'-C2'-C1'	10.27	109.71	101.50
83	A5	3735	U	O4'-C1'-N1	10.27	116.41	108.20
86	A8	110	C	O4'-C1'-N1	10.27	116.41	108.20
36	B2	1530	A	P-O3'-C3'	10.26	132.01	119.70
36	B2	1330	U	O4'-C1'-N1	10.26	116.41	108.20
83	A5	2520	U	C3'-C2'-C1'	10.26	109.71	101.50
36	B2	1388	U	O4'-C1'-N1	10.25	116.40	108.20
83	A5	2862	U	O4'-C1'-N1	10.25	116.40	108.20
83	A5	1225	G	P-O3'-C3'	10.25	132.00	119.70
36	B2	167	U	O4'-C1'-N1	10.25	116.40	108.20
36	B2	1649	U	O4'-C1'-N1	10.25	116.40	108.20
37	BC	68	U	O4'-C1'-N1	10.25	116.40	108.20
83	A5	871	A	P-O3'-C3'	10.25	132.00	119.70
71	Cj	73	ARG	NE-CZ-NH1	10.24	125.42	120.30
36	B2	404	A	O4'-C1'-C2'	-10.24	95.56	105.80
36	B2	1004	C	O4'-C1'-N1	10.24	116.39	108.20
83	A5	155	U	N1-C1'-C2'	10.24	127.31	114.00
83	A5	3949	U	P-O3'-C3'	10.24	131.98	119.70
36	B2	525	U	O4'-C1'-N1	10.23	116.39	108.20
36	B2	610	U	O4'-C1'-N1	10.23	116.39	108.20
83	A5	1757	A	N9-C1'-C2'	10.23	127.30	114.00
83	A5	2841	G	N9-C1'-C2'	10.23	127.30	114.00
83	A5	3483	G	O4'-C1'-N9	10.22	116.38	108.20
83	A5	3707	G	O4'-C1'-N9	10.22	116.38	108.20
36	B2	1960	A	N9-C1'-C2'	10.22	127.28	114.00
83	A5	815	A	N9-C1'-C2'	10.22	127.28	114.00
36	B2	1688	U	O4'-C1'-N1	10.21	116.37	108.20
36	B2	1792	A	N9-C1'-C2'	10.21	127.28	114.00
36	B2	1363	U	O4'-C1'-N1	10.21	116.37	108.20
83	A5	1431	G	O4'-C1'-N9	10.21	116.37	108.20
36	B2	1818	U	P-O3'-C3'	-10.21	107.45	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	157	C	O4'-C1'-N1	10.21	116.37	108.20
83	A5	3035	A	P-O5'-C5'	10.21	137.23	120.90
83	A5	3502	A	C3'-C2'-C1'	-10.21	93.33	101.50
86	A8	33	U	O4'-C1'-N1	10.21	116.36	108.20
36	B2	1579	G	O4'-C1'-N9	10.20	116.36	108.20
83	A5	1974	U	O4'-C1'-N1	10.20	116.36	108.20
83	A5	2638	U	O4'-C1'-N1	10.20	116.36	108.20
36	B2	1314	G	N9-C1'-C2'	10.19	127.25	114.00
48	CD	226	TYR	CB-CG-CD1	10.19	127.11	121.00
83	A5	118	A	O4'-C1'-C2'	10.19	116.77	107.60
83	A5	747	U	O4'-C1'-N1	10.19	116.35	108.20
83	A5	1292	G	P-O3'-C3'	10.19	131.92	119.70
1	Az	217	PHE	C-N-CA	10.18	143.68	122.30
83	A5	2557	C	O4'-C1'-C2'	-10.17	95.63	105.80
83	A5	3258	C	O4'-C1'-N1	10.17	116.34	108.20
83	A5	3628	G	C3'-C2'-C1'	10.17	109.64	101.50
36	B2	1246	C	O4'-C1'-N1	-10.17	100.07	108.20
83	A5	2105	C	C3'-C2'-C1'	10.16	109.63	101.50
83	A5	2644	U	O4'-C1'-N1	10.16	116.33	108.20
83	A5	2936	U	P-O3'-C3'	10.15	131.88	119.70
36	B2	1841	C	O4'-C1'-N1	10.15	116.32	108.20
36	B2	1353	U	C1'-O4'-C4'	10.14	118.01	109.90
83	A5	673	U	P-O5'-C5'	10.14	137.13	120.90
36	B2	1911	C	O4'-C1'-C2'	-10.14	95.66	105.80
83	A5	2760	G	O4'-C1'-N9	10.14	116.31	108.20
83	A5	3839	A	P-O3'-C3'	10.14	131.87	119.70
85	A7	99	G	N9-C1'-C2'	10.14	127.18	114.00
83	A5	1704	A	O4'-C1'-N9	10.13	116.31	108.20
83	A5	3537	U	O4'-C1'-N1	10.13	116.31	108.20
83	A5	550	U	O4'-C1'-N1	10.12	116.29	108.20
83	A5	2719	A	O4'-C1'-N9	10.12	116.29	108.20
83	A5	926	U	O4'-C1'-N1	10.11	116.29	108.20
83	A5	1911	C	O4'-C1'-C2'	-10.11	95.69	105.80
83	A5	1802	U	P-O5'-C5'	10.11	137.08	120.90
83	A5	2131	C	C3'-C2'-C1'	10.11	109.59	101.50
83	A5	1284	A	O4'-C1'-N9	10.11	116.29	108.20
83	A5	1726	G	O4'-C1'-N9	10.11	116.29	108.20
36	B2	1151	G	O4'-C1'-N9	10.10	116.28	108.20
83	A5	583	U	O4'-C1'-N1	10.10	116.28	108.20
36	B2	131	C	P-O3'-C3'	10.10	131.82	119.70
36	B2	1033	U	O4'-C1'-N1	10.10	116.28	108.20
83	A5	1433	U	N1-C1'-C2'	10.10	127.13	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3593	A	C3'-C2'-C1'	-10.10	93.42	101.50
36	B2	648	G	C3'-C2'-C1'	10.09	109.57	101.50
36	B2	1246	C	C3'-C2'-C1'	10.09	109.57	101.50
83	A5	2003	U	P-O3'-C3'	10.09	131.80	119.70
83	A5	3542	C	O4'-C1'-N1	10.09	116.27	108.20
83	A5	932	G	C1'-O4'-C4'	-10.08	101.83	109.90
83	A5	1279	C	C3'-C2'-C1'	10.08	109.57	101.50
83	A5	2520	U	O4'-C1'-N1	-10.08	100.14	108.20
36	B2	255	U	C4'-C3'-O3'	-10.08	88.23	109.40
36	B2	540	U	O4'-C1'-N1	10.08	116.26	108.20
83	A5	482	U	O4'-C1'-N1	10.08	116.26	108.20
83	A5	2109	G	N9-C1'-C2'	10.08	127.10	114.00
36	B2	1822	U	O4'-C1'-N1	10.07	116.26	108.20
83	A5	175	U	P-O3'-C3'	10.07	131.79	119.70
83	A5	290	G	O4'-C1'-N9	10.07	116.26	108.20
83	A5	2258	U	O4'-C1'-N1	10.07	116.26	108.20
83	A5	7	A	O4'-C1'-N9	10.07	116.26	108.20
36	B2	216	U	O4'-C1'-N1	10.07	116.25	108.20
79	CJ	102	GLU	C-N-CA	10.06	146.86	121.70
83	A5	2623	C	N1-C1'-C2'	10.06	127.08	114.00
83	A5	1812	C	P-O3'-C3'	10.06	131.78	119.70
36	B2	1706	U	O4'-C1'-N1	10.05	116.24	108.20
36	B2	701	G	C1'-O4'-C4'	10.05	117.94	109.90
83	A5	2628	G	O4'-C1'-N9	10.04	116.24	108.20
36	B2	873	A	P-O3'-C3'	-10.04	107.65	119.70
50	CR	109	TYR	CB-CG-CD2	-10.04	114.97	121.00
83	A5	746	G	P-O3'-C3'	10.04	131.75	119.70
83	A5	1170	U	O4'-C1'-N1	10.04	116.23	108.20
83	A5	1330	G	O4'-C1'-N9	-10.04	100.17	108.20
36	B2	474	C	N1-C1'-C2'	10.03	127.04	114.00
83	A5	744	U	O4'-C1'-N1	10.03	116.22	108.20
83	A5	2814	U	P-O3'-C3'	10.02	131.73	119.70
83	A5	3784	C	N1-C1'-C2'	10.02	127.03	114.00
36	B2	1636	A	O4'-C1'-N9	10.02	116.22	108.20
83	A5	258	U	O4'-C1'-N1	10.02	116.22	108.20
83	A5	2879	A	O4'-C1'-N9	10.02	116.22	108.20
81	CE	138	ARG	NE-CZ-NH1	10.02	125.31	120.30
83	A5	3339	U	O4'-C1'-N1	10.02	116.22	108.20
36	B2	951	A	O4'-C1'-N9	10.02	116.21	108.20
36	B2	515	U	P-O3'-C3'	10.01	131.72	119.70
26	AJ	14	TYR	CB-CG-CD2	-10.01	115.00	121.00
36	B2	341	G	C3'-C2'-C1'	-10.01	93.49	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	669	U	O5'-C5'-C4'	10.01	130.72	111.70
70	Ci	95	ARG	NE-CZ-NH1	10.01	125.30	120.30
83	A5	3429	A	O4'-C1'-N9	10.00	116.20	108.20
83	A5	445	C	C3'-C2'-C1'	9.99	109.49	101.50
36	B2	974	A	O4'-C1'-N9	9.99	116.19	108.20
83	A5	1736	G	O4'-C1'-N9	9.99	116.19	108.20
83	A5	3650	G	O4'-C1'-N9	9.99	116.19	108.20
83	A5	3919	G	C1'-O4'-C4'	-9.99	101.91	109.90
83	A5	893	U	O4'-C1'-N1	9.98	116.19	108.20
83	A5	3676	C	C3'-C2'-C1'	-9.98	93.52	101.50
36	B2	896	A	O4'-C1'-N9	9.98	116.18	108.20
83	A5	3225	C	O4'-C1'-N1	9.97	116.18	108.20
36	B2	474	C	P-O3'-C3'	9.97	131.66	119.70
36	B2	1698	G	O4'-C1'-N9	9.97	116.17	108.20
83	A5	3050	A	P-O3'-C3'	9.97	131.66	119.70
83	A5	559	A	O4'-C1'-N9	9.96	116.17	108.20
83	A5	1594	U	C1'-O4'-C4'	9.96	117.87	109.90
83	A5	3413	C	O4'-C1'-N1	9.96	116.17	108.20
37	BC	51	G	O4'-C1'-N9	9.96	116.17	108.20
36	B2	646	U	O4'-C1'-N1	9.95	116.16	108.20
83	A5	1000	G	C3'-C2'-C1'	9.96	109.46	101.50
26	AJ	80	ARG	NE-CZ-NH1	9.95	125.28	120.30
80	CH	51	ARG	NE-CZ-NH1	9.95	125.28	120.30
36	B2	394	G	C1'-O4'-C4'	-9.95	101.94	109.90
83	A5	2114	U	O4'-C1'-N1	9.95	116.16	108.20
83	A5	156	G	N9-C1'-C2'	9.95	126.93	114.00
83	A5	161	G	C3'-C2'-C1'	9.95	109.46	101.50
83	A5	2885	A	C4'-C3'-O3'	-9.95	88.51	109.40
36	B2	943	U	O3'-P-O5'	9.94	122.89	104.00
83	A5	1925	U	O4'-C1'-N1	9.94	116.16	108.20
83	A5	211	U	O3'-P-O5'	9.94	122.89	104.00
83	A5	1783	A	O4'-C1'-C2'	-9.94	95.86	105.80
83	A5	1095	G	N9-C1'-C2'	9.93	126.91	114.00
83	A5	567	A	O4'-C1'-N9	9.93	116.14	108.20
83	A5	112	C	O4'-C1'-N1	9.93	116.14	108.20
83	A5	126	G	O4'-C1'-N9	9.93	116.14	108.20
83	A5	1591	U	O4'-C1'-N1	9.93	116.14	108.20
83	A5	2084	U	O4'-C1'-N1	9.93	116.14	108.20
83	A5	2493	C	C3'-C2'-C1'	9.93	109.44	101.50
83	A5	754	A	O4'-C1'-C2'	-9.92	95.88	105.80
36	B2	554	U	O4'-C1'-N1	9.92	116.14	108.20
83	A5	663	U	O4'-C1'-N1	9.92	116.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3569	C	N1-C1'-C2'	9.92	126.89	114.00
83	A5	3621	A	N9-C1'-C2'	-9.92	101.09	112.00
83	A5	473	A	P-O3'-C3'	9.92	131.60	119.70
83	A5	2814	U	O4'-C1'-N1	9.92	116.13	108.20
36	B2	1995	A	C3'-C2'-C1'	-9.91	93.57	101.50
83	A5	2604	U	O4'-C1'-N1	9.91	116.13	108.20
36	B2	621	G	N9-C1'-C2'	9.91	126.88	114.00
83	A5	156	G	C3'-C2'-C1'	-9.90	93.58	101.50
83	A5	3418	U	P-O3'-C3'	9.90	131.59	119.70
83	A5	120	C	O4'-C1'-C2'	-9.90	95.90	105.80
83	A5	182	G	O4'-C1'-N9	9.90	116.12	108.20
83	A5	940	U	O4'-C1'-N1	9.90	116.12	108.20
83	A5	2532	U	O4'-C1'-N1	9.90	116.12	108.20
83	A5	3888	U	O4'-C1'-N1	9.89	116.11	108.20
86	A8	60	U	P-O3'-C3'	9.89	131.57	119.70
83	A5	3840	G	C1'-O4'-C4'	9.88	117.81	109.90
83	A5	452	A	O4'-C1'-N9	9.88	116.11	108.20
36	B2	1449	U	P-O3'-C3'	-9.88	107.85	119.70
37	BC	27	U	O4'-C1'-N1	9.87	116.10	108.20
85	A7	4	A	C1'-O4'-C4'	-9.87	102.00	109.90
36	B2	1873	A	C4'-C3'-O3'	9.87	132.74	113.00
83	A5	3831	C	O4'-C1'-N1	9.87	116.10	108.20
36	B2	1653	C	O4'-C1'-N1	9.87	116.09	108.20
37	BC	28	G	O4'-C1'-N9	9.87	116.09	108.20
83	A5	1025	U	O4'-C1'-N1	9.87	116.09	108.20
83	A5	1661	C	O4'-C1'-C2'	-9.87	95.93	105.80
36	B2	857	G	O4'-C1'-N9	9.86	116.09	108.20
83	A5	3389	C	N1-C1'-C2'	9.85	126.80	114.00
83	A5	3762	G	O4'-C1'-N9	9.85	116.08	108.20
1	Az	731	TYR	CB-CG-CD2	9.84	126.90	121.00
36	B2	166	A	O4'-C1'-N9	9.84	116.07	108.20
36	B2	1269	U	O4'-C1'-N1	9.84	116.07	108.20
83	A5	2798	C	N1-C1'-C2'	9.84	126.79	114.00
83	A5	1428	G	O4'-C1'-N9	9.84	116.07	108.20
36	B2	1988	G	O4'-C1'-C2'	-9.83	95.97	105.80
83	A5	496	U	O4'-C1'-N1	9.83	116.06	108.20
83	A5	1706	G	O4'-C1'-N9	9.83	116.06	108.20
83	A5	2219	U	O4'-C1'-N1	9.83	116.06	108.20
36	B2	1848	U	O4'-C1'-N1	9.82	116.06	108.20
84	A9	1	U	O4'-C1'-N1	9.82	116.06	108.20
83	A5	2835	G	O4'-C1'-N9	9.81	116.05	108.20
83	A5	966	U	P-O3'-C3'	9.81	131.47	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3552	G	C1'-O4'-C4'	-9.81	102.05	109.90
83	A5	2196	U	C1'-O4'-C4'	9.81	117.75	109.90
64	CF	85	TYR	CB-CG-CD1	-9.80	115.12	121.00
68	Cf	44	TYR	CB-CG-CD1	9.80	126.88	121.00
83	A5	1978	G	O4'-C1'-N9	9.80	116.04	108.20
57	CY	11	ARG	NE-CZ-NH2	-9.80	115.40	120.30
83	A5	755	A	C3'-C2'-C1'	9.80	109.34	101.50
36	B2	318	U	O4'-C1'-N1	9.79	116.03	108.20
83	A5	648	U	O4'-C1'-N1	9.79	116.04	108.20
83	A5	775	U	C1'-O4'-C4'	-9.80	102.06	109.90
83	A5	2200	A	O4'-C1'-C2'	-9.79	96.01	105.80
35	Ah	126	PHE	CB-CG-CD1	9.78	127.64	120.80
36	B2	189	C	O4'-C1'-N1	9.77	116.02	108.20
36	B2	1724	U	O4'-C1'-N1	9.77	116.02	108.20
83	A5	1416	U	O4'-C1'-N1	9.77	116.02	108.20
83	A5	2081	U	O4'-C1'-N1	9.77	116.02	108.20
83	A5	3772	U	O4'-C1'-N1	9.77	116.02	108.20
83	A5	163	A	O4'-C1'-N9	-9.77	100.38	108.20
1	Az	226	PHE	CB-CG-CD1	9.77	127.64	120.80
36	B2	1612	C	O4'-C1'-N1	9.77	116.01	108.20
83	A5	1159	C	C3'-C2'-C1'	9.77	109.32	101.50
83	A5	1579	U	O4'-C1'-N1	9.77	116.01	108.20
83	A5	724	U	O4'-C1'-N1	9.76	116.01	108.20
26	AJ	176	ARG	NE-CZ-NH1	9.76	125.18	120.30
83	A5	95	G	N9-C1'-C2'	9.76	126.68	114.00
83	A5	2088	G	O4'-C1'-N9	9.76	116.00	108.20
42	CL	169	VAL	C-N-CA	9.75	146.07	121.70
83	A5	1587	U	O4'-C1'-N1	9.75	116.00	108.20
36	B2	115	U	O4'-C1'-N1	9.74	115.99	108.20
83	A5	2765	A	O4'-C1'-N9	9.74	115.99	108.20
83	A5	2935	U	P-O3'-C3'	9.74	131.39	119.70
84	A9	30	A	O4'-C1'-N9	9.73	115.99	108.20
83	A5	99	A	O4'-C1'-N9	9.73	115.98	108.20
83	A5	2481	U	C1'-O4'-C4'	-9.73	102.11	109.90
83	A5	3232	G	C1'-O4'-C4'	-9.73	102.12	109.90
36	B2	1337	U	P-O3'-C3'	9.72	131.37	119.70
36	B2	852	A	O4'-C1'-N9	9.72	115.98	108.20
83	A5	1590	A	O4'-C1'-N9	9.72	115.98	108.20
83	A5	1948	C	C1'-O4'-C4'	-9.72	102.12	109.90
83	A5	1752	G	C1'-O4'-C4'	-9.72	102.13	109.90
83	A5	706	G	N9-C1'-C2'	-9.72	101.31	112.00
36	B2	1138	U	P-O3'-C3'	9.71	131.36	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	CF	173	THR	C-N-CA	9.71	145.98	121.70
83	A5	564	C	P-O3'-C3'	9.71	131.35	119.70
83	A5	689	U	O4'-C1'-N1	9.71	115.97	108.20
83	A5	2098	C	O4'-C1'-N1	9.71	115.97	108.20
83	A5	3729	A	N9-C1'-C2'	-9.71	101.32	112.00
83	A5	3810	C	P-O3'-C3'	9.71	131.35	119.70
36	B2	1438	U	O4'-C1'-N1	9.71	115.97	108.20
83	A5	2074	U	O4'-C1'-N1	9.71	115.97	108.20
83	A5	2926	G	C1'-O4'-C4'	-9.71	102.14	109.90
36	B2	1973	G	O4'-C1'-N9	9.70	115.96	108.20
83	A5	936	U	O4'-C1'-N1	9.70	115.96	108.20
83	A5	2542	C	O4'-C1'-N1	9.70	115.96	108.20
83	A5	728	U	O4'-C1'-N1	9.70	115.96	108.20
36	B2	1075	U	O4'-C1'-N1	9.69	115.95	108.20
83	A5	2236	U	O4'-C1'-N1	9.69	115.95	108.20
37	BC	12	G	O4'-C1'-C2'	9.69	116.32	107.60
83	A5	242	C	N1-C1'-C2'	9.69	126.59	114.00
83	A5	2129	C	C1'-O4'-C4'	9.69	117.65	109.90
83	A5	2624	G	C1'-O4'-C4'	-9.69	102.15	109.90
83	A5	3407	U	N1-C1'-C2'	9.69	126.60	114.00
83	A5	40	U	O4'-C1'-N1	9.69	115.95	108.20
86	A8	82	C	O3'-P-O5'	9.69	122.41	104.00
83	A5	2619	U	O4'-C1'-N1	9.69	115.95	108.20
36	B2	1387	A	O4'-C1'-N9	9.68	115.95	108.20
36	B2	1527	U	O4'-C1'-N1	9.68	115.95	108.20
83	A5	779	U	O4'-C1'-N1	9.67	115.94	108.20
83	A5	2828	A	O4'-C1'-C2'	-9.67	96.13	105.80
83	A5	316	U	O4'-C1'-N1	9.66	115.93	108.20
83	A5	3556	A	O4'-C1'-N9	9.66	115.93	108.20
36	B2	1123	G	C1'-O4'-C4'	-9.66	102.17	109.90
83	A5	333	C	N1-C1'-C2'	9.66	126.55	114.00
83	A5	3010	U	O4'-C1'-N1	9.66	115.92	108.20
83	A5	3127	A	C3'-C2'-C1'	-9.66	93.78	101.50
36	B2	1330	U	P-O3'-C3'	9.65	131.29	119.70
39	Cq	83	ARG	C-N-CA	9.65	142.58	122.30
16	AA	184	ARG	NE-CZ-NH1	9.65	125.13	120.30
83	A5	3478	G	O4'-C1'-C2'	9.65	116.29	107.60
83	A5	3691	A	P-O3'-C3'	9.65	131.28	119.70
83	A5	3543	A	N9-C1'-C2'	-9.64	101.39	112.00
83	A5	2678	G	O4'-C1'-N9	9.64	115.91	108.20
36	B2	1245	A	O4'-C1'-N9	9.64	115.91	108.20
36	B2	1987	G	O4'-C1'-N9	9.64	115.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	540	G	C4'-C3'-O3'	-9.63	89.17	109.40
83	A5	2884	C	C3'-C2'-C1'	9.64	109.21	101.50
36	B2	1253	G	O4'-C1'-N9	9.63	115.91	108.20
83	A5	3906	U	N1-C1'-C2'	9.63	126.52	114.00
83	A5	151	G	O4'-C1'-N9	9.63	115.90	108.20
83	A5	3187	C	C3'-C2'-C1'	9.63	109.20	101.50
83	A5	1392	A	O4'-C1'-N9	9.62	115.90	108.20
36	B2	1050	A	O4'-C1'-N9	9.62	115.90	108.20
36	B2	438	C	N1-C1'-C2'	9.62	126.51	114.00
83	A5	440	U	O4'-C1'-N1	9.62	115.90	108.20
36	B2	96	C	N1-C1'-C2'	9.62	126.50	114.00
83	A5	3924	U	O4'-C1'-N1	9.62	115.89	108.20
83	A5	887	U	O4'-C1'-N1	9.61	115.89	108.20
36	B2	835	A	O4'-C1'-C2'	-9.61	96.19	105.80
83	A5	405	A	N9-C1'-C2'	-9.61	101.43	112.00
83	A5	514	A	C1'-O4'-C4'	-9.61	102.21	109.90
83	A5	904	U	P-O3'-C3'	-9.61	108.17	119.70
83	A5	880	A	P-O3'-C3'	9.61	131.23	119.70
36	B2	35	U	O4'-C1'-N1	9.60	115.88	108.20
83	A5	3357	C	N1-C1'-C2'	9.60	126.48	114.00
83	A5	580	A	O4'-C1'-N9	9.60	115.88	108.20
83	A5	1328	U	P-O3'-C3'	-9.60	108.18	119.70
36	B2	373	U	O4'-C1'-N1	9.60	115.88	108.20
83	A5	2994	C	O4'-C1'-C2'	-9.60	96.20	105.80
36	B2	1425	U	O4'-C1'-N1	9.59	115.87	108.20
83	A5	3087	G	P-O3'-C3'	9.59	131.21	119.70
36	B2	431	G	C3'-C2'-C1'	-9.59	93.83	101.50
36	B2	1322	C	N1-C1'-C2'	9.59	126.46	114.00
83	A5	1911	C	C1'-O4'-C4'	9.59	117.57	109.90
36	B2	1658	G	C1'-O4'-C4'	-9.58	102.23	109.90
36	B2	1737	U	O4'-C1'-N1	9.58	115.87	108.20
83	A5	542	C	C3'-C2'-C1'	9.58	109.17	101.50
83	A5	902	A	O4'-C1'-N9	9.58	115.86	108.20
83	A5	2144	A	O4'-C1'-N9	9.58	115.86	108.20
83	A5	2712	U	O4'-C1'-N1	9.58	115.86	108.20
36	B2	1168	C	P-O3'-C3'	9.58	131.19	119.70
83	A5	156	G	C1'-O4'-C4'	-9.58	102.24	109.90
83	A5	1687	U	N1-C1'-C2'	9.58	126.45	114.00
36	B2	1439	A	O4'-C1'-N9	9.57	115.86	108.20
83	A5	512	A	O4'-C1'-N9	9.57	115.86	108.20
36	B2	411	U	P-O3'-C3'	-9.57	108.22	119.70
83	A5	2696	U	O4'-C1'-N1	9.57	115.85	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1182	A	O4'-C1'-N9	9.56	115.85	108.20
41	CO	87	ARG	NE-CZ-NH1	9.56	125.08	120.30
83	A5	3448	U	O4'-C1'-N1	9.56	115.85	108.20
83	A5	3759	G	C1'-O4'-C4'	-9.55	102.26	109.90
83	A5	3829	U	N1-C1'-C2'	-9.55	101.49	112.00
83	A5	3943	G	C1'-O4'-C4'	-9.55	102.26	109.90
83	A5	118	A	C1'-O4'-C4'	-9.55	102.26	109.90
83	A5	360	A	O4'-C1'-N9	9.55	115.84	108.20
83	A5	468	U	O4'-C1'-N1	9.55	115.84	108.20
83	A5	3863	G	O4'-C1'-N9	9.55	115.84	108.20
36	B2	1744	U	O4'-C1'-N1	9.55	115.84	108.20
83	A5	767	A	O4'-C1'-N9	9.54	115.83	108.20
83	A5	2266	U	O4'-C1'-N1	9.54	115.83	108.20
36	B2	1568	G	P-O3'-C3'	9.54	131.15	119.70
36	B2	1608	U	O4'-C1'-N1	9.54	115.83	108.20
83	A5	2076	U	O4'-C1'-N1	9.54	115.83	108.20
36	B2	14	C	N1-C1'-C2'	9.53	126.39	114.00
83	A5	3293	G	C1'-O4'-C4'	9.53	117.52	109.90
36	B2	1428	A	C1'-O4'-C4'	9.53	117.52	109.90
36	B2	1702	C	O4'-C1'-N1	9.53	115.82	108.20
81	CE	65	SER	C-N-CA	9.53	145.51	121.70
18	AY	62	ARG	NE-CZ-NH2	-9.52	115.54	120.30
83	A5	442	A	O4'-C1'-N9	9.52	115.82	108.20
83	A5	746	G	N9-C1'-C2'	9.52	126.38	114.00
83	A5	178	U	P-O5'-C5'	9.52	136.13	120.90
37	BC	48	C	O4'-C1'-C2'	-9.52	96.28	105.80
36	B2	907	U	O4'-C1'-N1	9.51	115.81	108.20
83	A5	3012	A	O4'-C1'-N9	9.51	115.81	108.20
83	A5	3807	G	N9-C1'-C2'	9.51	126.37	114.00
83	A5	490	G	O4'-C1'-N9	9.51	115.81	108.20
83	A5	3464	G	O4'-C1'-N9	9.51	115.81	108.20
36	B2	703	A	P-O3'-C3'	9.51	131.11	119.70
83	A5	3515	C	N1-C1'-C2'	9.50	126.35	114.00
83	A5	3970	A	C1'-O4'-C4'	9.50	117.50	109.90
83	A5	2988	U	P-O3'-C3'	9.50	131.10	119.70
83	A5	3259	A	C3'-C2'-C1'	9.50	109.10	101.50
36	B2	1373	U	O4'-C1'-N1	9.49	115.79	108.20
36	B2	1876	U	O4'-C1'-N1	9.49	115.80	108.20
37	BC	33	C	N1-C1'-C2'	9.49	126.34	114.00
36	B2	1038	A	O4'-C1'-N9	9.49	115.79	108.20
36	B2	1212	A	O4'-C1'-N9	9.49	115.79	108.20
83	A5	6	U	N1-C1'-C2'	9.49	126.33	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3395	G	C1'-O4'-C4'	-9.49	102.31	109.90
36	B2	598	C	N1-C1'-C2'	9.48	126.33	114.00
36	B2	1380	U	O4'-C1'-N1	9.48	115.78	108.20
83	A5	2846	A	P-O3'-C3'	9.48	131.08	119.70
85	A7	79	U	O4'-C1'-N1	9.48	115.78	108.20
64	CF	39	ARG	NE-CZ-NH2	-9.48	115.56	120.30
37	BC	5	G	O4'-C1'-N9	9.47	115.78	108.20
36	B2	1172	G	O4'-C1'-N9	9.47	115.78	108.20
36	B2	1317	U	O4'-C1'-N1	9.47	115.78	108.20
83	A5	21	U	O4'-C1'-N1	9.47	115.78	108.20
36	B2	606	U	O4'-C1'-N1	9.47	115.77	108.20
83	A5	1451	G	O4'-C1'-N9	9.47	115.77	108.20
83	A5	2804	U	O4'-C1'-N1	9.47	115.77	108.20
52	CS	18	PRO	N-CA-C	9.46	136.71	112.10
83	A5	210	C	C3'-C2'-C1'	9.46	109.07	101.50
83	A5	3619	U	O4'-C1'-N1	9.46	115.77	108.20
36	B2	299	C	O4'-C1'-N1	9.46	115.77	108.20
83	A5	1014	U	O4'-C1'-N1	9.46	115.77	108.20
83	A5	2472	A	P-O3'-C3'	9.46	131.05	119.70
83	A5	2738	C	C3'-C2'-C1'	9.46	109.07	101.50
16	AA	37	TYR	CB-CG-CD1	-9.46	115.33	121.00
36	B2	37	U	O4'-C1'-N1	9.46	115.77	108.20
36	B2	1584	A	O4'-C1'-C2'	-9.46	96.34	105.80
86	A8	70	A	N9-C1'-C2'	9.46	126.29	114.00
36	B2	1871	G	N9-C1'-C2'	9.46	126.29	114.00
26	AJ	106	PHE	CB-CG-CD1	-9.45	114.18	120.80
28	AC	115	ASP	C-N-CA	9.45	145.33	121.70
83	A5	2051	A	O4'-C1'-N9	9.45	115.76	108.20
86	A8	99	U	N1-C1'-C2'	9.45	126.29	114.00
36	B2	254	C	C3'-C2'-C1'	9.45	109.06	101.50
83	A5	1203	U	O4'-C1'-N1	9.45	115.76	108.20
36	B2	1671	U	O4'-C1'-N1	9.45	115.76	108.20
36	B2	1186	U	P-O3'-C3'	9.45	131.04	119.70
37	BC	42	G	O4'-C1'-N9	9.45	115.76	108.20
83	A5	819	U	O4'-C1'-N1	9.45	115.76	108.20
83	A5	849	U	O4'-C1'-N1	9.44	115.75	108.20
83	A5	3901	G	O4'-C1'-N9	9.44	115.75	108.20
86	A8	119	U	O4'-C1'-N1	9.44	115.75	108.20
48	CD	219	PHE	CB-CG-CD2	-9.44	114.19	120.80
83	A5	1003	C	C1'-O4'-C4'	-9.43	102.35	109.90
38	Cz	28	PHE	CB-CG-CD1	-9.43	114.20	120.80
83	A5	814	U	O4'-C1'-N1	9.43	115.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	143	U	O4'-C1'-N1	9.43	115.74	108.20
83	A5	3535	G	O4'-C1'-N9	9.43	115.74	108.20
36	B2	1087	C	C3'-C2'-C1'	-9.43	93.96	101.50
36	B2	1792	A	C1'-O4'-C4'	-9.43	102.36	109.90
83	A5	1348	G	O4'-C1'-N9	9.42	115.74	108.20
83	A5	77	A	P-O3'-C3'	-9.42	108.39	119.70
83	A5	1297	G	P-O3'-C3'	9.42	131.00	119.70
83	A5	662	A	O4'-C1'-N9	9.42	115.74	108.20
36	B2	1434	U	C4'-C3'-C2'	-9.42	93.18	102.60
83	A5	3244	U	O4'-C1'-N1	9.41	115.73	108.20
83	A5	3695	G	O4'-C1'-N9	9.41	115.73	108.20
26	AJ	5	ARG	C-N-CA	9.41	145.23	121.70
36	B2	274	G	O4'-C1'-N9	9.41	115.73	108.20
83	A5	11	C	N1-C1'-C2'	9.41	126.24	114.00
83	A5	1667	U	O4'-C1'-N1	9.41	115.73	108.20
83	A5	584	A	O4'-C1'-N9	9.41	115.73	108.20
83	A5	1398	C	O4'-C1'-N1	9.41	115.73	108.20
83	A5	2173	C	O4'-C1'-N1	9.41	115.73	108.20
83	A5	763	A	O4'-C1'-N9	9.41	115.73	108.20
83	A5	3368	C	N1-C1'-C2'	-9.41	101.65	112.00
26	AJ	166	PHE	C-N-CA	9.41	142.06	122.30
36	B2	1543	G	O4'-C1'-N9	9.41	115.73	108.20
83	A5	1238	A	O4'-C1'-N9	9.41	115.73	108.20
83	A5	3649	C	O4'-C1'-C2'	-9.41	96.39	105.80
36	B2	1587	U	C1'-O4'-C4'	9.40	117.42	109.90
83	A5	1592	U	O4'-C1'-N1	9.40	115.72	108.20
83	A5	1701	C	C1'-O4'-C4'	-9.40	102.38	109.90
83	A5	3704	A	O4'-C1'-N9	9.40	115.72	108.20
83	A5	2822	C	P-O3'-C3'	9.40	130.98	119.70
83	A5	3294	A	O4'-C1'-N9	9.40	115.72	108.20
83	A5	2905	A	O4'-C1'-N9	9.40	115.72	108.20
83	A5	1320	U	O4'-C1'-N1	9.39	115.72	108.20
83	A5	668	A	C2'-C3'-O3'	-9.39	88.84	109.50
83	A5	3481	G	O4'-C1'-N9	9.39	115.71	108.20
36	B2	1909	U	O4'-C1'-N1	9.39	115.71	108.20
83	A5	874	G	N9-C1'-C2'	9.39	126.20	114.00
36	B2	471	U	O4'-C1'-N1	9.38	115.71	108.20
65	Cc	31	TYR	CB-CG-CD2	-9.38	115.37	121.00
83	A5	487	A	P-O3'-C3'	9.38	130.96	119.70
36	B2	65	A	N9-C1'-C2'	-9.38	101.68	112.00
83	A5	3168	A	O4'-C1'-C2'	9.38	116.04	107.60
83	A5	1137	G	O4'-C1'-N9	9.38	115.70	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	CT	5	LYS	C-N-CA	9.38	141.99	122.30
83	A5	882	U	O4'-C1'-N1	9.38	115.70	108.20
83	A5	3957	G	O4'-C1'-N9	9.37	115.70	108.20
83	A5	1314	U	O4'-C1'-N1	9.37	115.70	108.20
36	B2	169	C	O4'-C1'-N1	9.37	115.69	108.20
36	B2	465	A	P-O3'-C3'	9.37	130.94	119.70
36	B2	701	G	O4'-C1'-C2'	-9.37	96.43	105.80
83	A5	1271	G	O4'-C1'-N9	9.36	115.69	108.20
83	A5	2586	A	C4'-C3'-O3'	-9.37	89.73	109.40
83	A5	477	C	O4'-C1'-C2'	-9.36	96.44	105.80
8	AS	40	TYR	CB-CG-CD1	-9.36	115.38	121.00
36	B2	149	U	O4'-C1'-N1	9.36	115.69	108.20
36	B2	1313	U	O4'-C1'-N1	9.36	115.69	108.20
83	A5	1482	U	O4'-C1'-N1	9.36	115.69	108.20
83	A5	3618	A	O4'-C1'-N9	9.35	115.68	108.20
83	A5	3715	U	P-O3'-C3'	9.35	130.92	119.70
36	B2	1472	C	O3'-P-O5'	-9.35	86.24	104.00
83	A5	300	A	O4'-C1'-C2'	-9.35	96.45	105.80
15	AB	114	ARG	NE-CZ-NH2	-9.35	115.63	120.30
83	A5	2702	A	O4'-C1'-N9	9.35	115.68	108.20
36	B2	1665	U	C4'-C3'-O3'	9.34	131.68	113.00
83	A5	2992	A	N9-C1'-C2'	9.34	126.14	114.00
36	B2	848	C	C3'-C2'-C1'	9.34	108.97	101.50
83	A5	1411	U	O4'-C1'-C2'	-9.34	96.47	105.80
36	B2	921	U	O4'-C1'-N1	9.33	115.66	108.20
36	B2	1936	U	O4'-C1'-N1	9.33	115.66	108.20
31	AH	141	ARG	NE-CZ-NH2	-9.33	115.64	120.30
83	A5	569	U	P-O3'-C3'	-9.33	108.51	119.70
83	A5	1752	G	O4'-C1'-C2'	9.32	115.99	107.60
83	A5	839	A	O4'-C1'-N9	9.32	115.66	108.20
83	A5	1553	C	O4'-C1'-N1	9.32	115.66	108.20
83	A5	3738	U	O4'-C1'-N1	9.31	115.65	108.20
84	A9	21	G	C1'-O4'-C4'	-9.31	102.45	109.90
36	B2	1629	U	O4'-C1'-N1	9.31	115.64	108.20
36	B2	1606	A	C3'-C2'-C1'	-9.30	94.06	101.50
83	A5	2123	G	P-O3'-C3'	9.30	130.86	119.70
36	B2	1758	A	C3'-C2'-C1'	-9.30	94.06	101.50
83	A5	1776	U	O4'-C1'-N1	9.30	115.64	108.20
83	A5	3145	U	O4'-C1'-N1	9.30	115.64	108.20
83	A5	239	U	O4'-C1'-N1	9.30	115.64	108.20
83	A5	1992	G	O4'-C1'-C2'	9.30	115.97	107.60
83	A5	2642	U	O4'-C1'-N1	9.29	115.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3862	A	O4'-C1'-N9	9.29	115.64	108.20
86	A8	13	U	O4'-C1'-N1	9.29	115.63	108.20
36	B2	288	C	O4'-C1'-N1	9.29	115.63	108.20
83	A5	187	A	O4'-C1'-N9	9.29	115.63	108.20
15	AB	65	ARG	NE-CZ-NH1	9.28	124.94	120.30
83	A5	1290	U	O4'-C1'-N1	9.28	115.62	108.20
36	B2	364	A	O4'-C1'-N9	9.28	115.62	108.20
83	A5	459	U	C1'-O4'-C4'	9.28	117.32	109.90
83	A5	698	A	C4'-C3'-O3'	9.28	131.55	113.00
85	A7	56	G	O4'-C1'-N9	9.28	115.62	108.20
83	A5	761	C	P-O3'-C3'	9.28	130.83	119.70
36	B2	1396	G	O4'-C1'-N9	9.27	115.62	108.20
83	A5	294	U	O4'-C1'-N1	9.27	115.62	108.20
83	A5	761	C	C1'-O4'-C4'	-9.27	102.48	109.90
83	A5	2829	G	O4'-C1'-N9	9.27	115.62	108.20
85	A7	52	U	O4'-C1'-N1	9.27	115.62	108.20
36	B2	783	U	P-O3'-C3'	9.27	130.82	119.70
83	A5	1755	U	C1'-O4'-C4'	9.27	117.31	109.90
83	A5	1690	U	O4'-C1'-C2'	-9.26	96.54	105.80
83	A5	3967	U	O4'-C1'-N1	9.26	115.61	108.20
83	A5	1564	G	O4'-C1'-C2'	9.26	115.93	107.60
83	A5	1598	A	N9-C1'-C2'	9.26	126.03	114.00
83	A5	1669	G	O4'-C1'-N9	9.26	115.61	108.20
36	B2	1444	C	O4'-C1'-N1	9.25	115.60	108.20
36	B2	944	G	O4'-C4'-C3'	-9.25	94.75	104.00
36	B2	1788	C	C3'-C2'-C1'	-9.25	94.10	101.50
83	A5	2770	C	C3'-C2'-C1'	9.25	108.90	101.50
36	B2	1565	C	C3'-C2'-C1'	9.24	108.90	101.50
83	A5	1135	U	O4'-C1'-N1	9.24	115.59	108.20
83	A5	1976	G	C1'-O4'-C4'	-9.24	102.51	109.90
83	A5	3849	A	P-O3'-C3'	-9.24	108.61	119.70
36	B2	936	G	C1'-O4'-C4'	-9.24	102.51	109.90
68	Cf	40	SER	C-N-CA	9.24	144.79	121.70
83	A5	636	U	O4'-C1'-N1	9.23	115.59	108.20
83	A5	3151	G	N9-C1'-C2'	9.23	126.00	114.00
83	A5	3692	G	P-O3'-C3'	9.23	130.78	119.70
83	A5	1809	A	P-O3'-C3'	9.23	130.78	119.70
36	B2	488	A	O4'-C1'-N9	9.23	115.58	108.20
46	CN	5	ARG	NE-CZ-NH1	9.23	124.91	120.30
36	B2	1535	U	O4'-C1'-N1	9.22	115.58	108.20
83	A5	241	C	N1-C1'-C2'	9.22	125.99	114.00
83	A5	2571	U	O4'-C1'-N1	9.22	115.58	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2256	G	O4'-C1'-N9	9.22	115.58	108.20
83	A5	3588	G	O4'-C1'-N9	9.22	115.58	108.20
36	B2	1951	A	C3'-C2'-C1'	-9.22	94.12	101.50
83	A5	1218	G	O4'-C1'-N9	9.21	115.57	108.20
83	A5	2872	U	O4'-C1'-N1	9.21	115.57	108.20
83	A5	1277	A	P-O3'-C3'	9.21	130.75	119.70
36	B2	192	A	O4'-C1'-N9	9.21	115.57	108.20
36	B2	1901	A	O4'-C1'-N9	9.21	115.57	108.20
42	CL	57	VAL	C-N-CA	9.21	144.72	121.70
83	A5	1467	A	O4'-C1'-N9	9.21	115.57	108.20
36	B2	1717	A	O4'-C1'-C2'	-9.21	96.59	105.80
83	A5	717	A	N9-C1'-C2'	9.20	125.97	114.00
83	A5	865	A	O3'-P-O5'	-9.21	86.51	104.00
83	A5	679	G	O4'-C1'-N9	9.20	115.56	108.20
83	A5	2480	U	P-O3'-C3'	9.20	130.74	119.70
83	A5	3552	G	O4'-C1'-C2'	9.20	115.88	107.60
36	B2	61	A	O4'-C1'-N9	9.20	115.56	108.20
83	A5	123	U	C1'-O4'-C4'	9.20	117.26	109.90
83	A5	478	A	P-O3'-C3'	9.20	130.74	119.70
83	A5	980	A	O4'-C1'-N9	9.20	115.56	108.20
83	A5	3366	G	N9-C1'-C2'	9.19	125.95	114.00
36	B2	1244	C	O4'-C1'-N1	9.19	115.55	108.20
83	A5	1604	G	O4'-C1'-N9	9.19	115.55	108.20
83	A5	227	A	O4'-C1'-C2'	-9.19	96.61	105.80
83	A5	2122	G	C1'-O4'-C4'	-9.19	102.55	109.90
36	B2	92	A	N9-C1'-C2'	9.19	125.94	114.00
83	A5	2137	U	O4'-C1'-N1	9.19	115.55	108.20
36	B2	1340	U	P-O3'-C3'	9.19	130.72	119.70
51	CA	72	ARG	NE-CZ-NH1	9.19	124.89	120.30
36	B2	988	G	C3'-C2'-C1'	-9.18	94.16	101.50
83	A5	143	G	O4'-C1'-N9	9.18	115.54	108.20
83	A5	1717	A	P-O3'-C3'	9.18	130.72	119.70
83	A5	3827	G	O4'-C1'-N9	9.18	115.54	108.20
36	B2	393	G	O4'-C1'-N9	9.18	115.54	108.20
83	A5	1647	A	C3'-C2'-C1'	9.18	108.84	101.50
8	AS	126	TYR	CB-CG-CD2	-9.17	115.50	121.00
16	AA	116	PHE	CB-CG-CD2	9.17	127.22	120.80
85	A7	13	A	C4'-C3'-O3'	9.17	131.34	113.00
10	AN	58	HIS	C-N-CA	9.17	141.56	122.30
83	A5	1524	U	O4'-C1'-N1	9.17	115.54	108.20
11	AL	104	ARG	NE-CZ-NH2	-9.17	115.72	120.30
36	B2	61	A	O4'-C1'-C2'	9.16	115.85	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	568	U	O4'-C1'-N1	9.16	115.53	108.20
83	A5	2044	A	O4'-C1'-N9	9.16	115.53	108.20
83	A5	3249	C	N1-C1'-C2'	9.16	125.91	114.00
83	A5	3887	U	P-O3'-C3'	-9.16	108.71	119.70
83	A5	2852	U	O4'-C1'-N1	9.15	115.52	108.20
83	A5	2101	C	C3'-C2'-C1'	9.15	108.82	101.50
83	A5	2028	A	O4'-C1'-C2'	9.15	115.83	107.60
83	A5	2019	U	O4'-C1'-N1	9.15	115.52	108.20
36	B2	1741	A	O4'-C1'-N9	9.14	115.52	108.20
83	A5	1929	G	O4'-C1'-N9	9.14	115.52	108.20
83	A5	3944	A	O4'-C1'-N9	9.14	115.52	108.20
37	BC	57	A	O4'-C1'-C2'	-9.14	96.66	105.80
36	B2	1019	U	P-O3'-C3'	9.14	130.67	119.70
83	A5	2605	C	P-O3'-C3'	9.14	130.66	119.70
61	Ch	111	ARG	NE-CZ-NH2	-9.13	115.73	120.30
83	A5	817	C	O4'-C1'-N1	9.13	115.51	108.20
86	A8	66	U	O4'-C1'-N1	9.13	115.51	108.20
83	A5	933	U	O4'-C1'-N1	9.13	115.50	108.20
83	A5	3624	C	C3'-C2'-C1'	9.13	108.81	101.50
36	B2	122	G	O4'-C1'-N9	9.13	115.50	108.20
83	A5	2757	U	O4'-C1'-N1	9.12	115.50	108.20
83	A5	3486	U	O4'-C1'-N1	9.12	115.50	108.20
83	A5	3759	G	N9-C1'-C2'	9.12	125.86	114.00
83	A5	1097	A	C3'-C2'-C1'	9.12	108.79	101.50
10	AN	18	TYR	CB-CG-CD2	-9.11	115.53	121.00
36	B2	1711	C	C3'-C2'-C1'	9.11	108.79	101.50
83	A5	3295	U	C3'-C2'-C1'	9.11	108.79	101.50
44	CM	114	TYR	CB-CG-CD2	-9.11	115.53	121.00
83	A5	316	U	P-O3'-C3'	9.11	130.63	119.70
83	A5	3808	A	O4'-C1'-N9	9.11	115.49	108.20
83	A5	494	U	O4'-C1'-N1	9.11	115.49	108.20
36	B2	188	C	O4'-C1'-C2'	-9.11	96.69	105.80
83	A5	1503	G	C1'-O4'-C4'	-9.11	102.61	109.90
83	A5	2703	G	O4'-C1'-N9	9.11	115.49	108.20
63	CB	277	ARG	NE-CZ-NH1	9.10	124.85	120.30
83	A5	1179	U	N1-C1'-C2'	9.10	125.83	114.00
83	A5	1909	U	C4'-C3'-O3'	-9.10	90.29	109.40
36	B2	1723	U	O4'-C1'-N1	9.10	115.48	108.20
36	B2	1755	A	P-O3'-C3'	9.10	130.61	119.70
83	A5	1570	U	O4'-C1'-N1	9.10	115.48	108.20
64	CF	85	TYR	CB-CG-CD2	9.09	126.45	121.00
83	A5	1396	A	O4'-C1'-N9	9.09	115.47	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2154	A	C1'-O4'-C4'	9.09	117.17	109.90
36	B2	1098	C	C3'-C2'-C1'	9.09	108.77	101.50
36	B2	1934	U	O4'-C1'-N1	9.09	115.47	108.20
83	A5	692	G	O4'-C1'-N9	9.09	115.47	108.20
83	A5	3923	C	O4'-C1'-C2'	-9.09	96.71	105.80
83	A5	2274	G	O4'-C1'-N9	9.09	115.47	108.20
83	A5	3113	U	O4'-C1'-N1	9.08	115.47	108.20
36	B2	257	U	C4'-C3'-O3'	9.08	131.16	113.00
36	B2	1465	U	O4'-C1'-N1	9.08	115.46	108.20
83	A5	185	U	N1-C1'-C2'	9.08	125.81	114.00
83	A5	1411	U	O4'-C1'-N1	9.08	115.47	108.20
83	A5	3835	U	N1-C1'-C2'	9.08	125.80	114.00
20	Aa	97	PRO	CA-C-N	9.08	142.51	117.10
36	B2	1446	G	O4'-C1'-N9	9.07	115.46	108.20
83	A5	1626	A	P-O3'-C3'	9.07	130.59	119.70
83	A5	2560	A	O4'-C1'-N9	9.07	115.46	108.20
83	A5	637	U	N1-C1'-C2'	-9.07	102.02	112.00
83	A5	1551	U	O4'-C1'-N1	9.07	115.45	108.20
36	B2	1544	G	C1'-O4'-C4'	-9.07	102.65	109.90
36	B2	1005	G	C1'-O4'-C4'	-9.06	102.65	109.90
36	B2	1284	A	O4'-C1'-N9	9.06	115.45	108.20
83	A5	39	A	O4'-C1'-N9	9.06	115.45	108.20
83	A5	1281	U	O4'-C1'-N1	9.06	115.45	108.20
36	B2	1810	C	O4'-C1'-C2'	-9.06	96.74	105.80
83	A5	1622	U	O4'-C1'-N1	9.06	115.45	108.20
83	A5	3024	U	P-O3'-C3'	-9.06	108.83	119.70
83	A5	3136	U	O4'-C1'-N1	9.06	115.45	108.20
83	A5	3826	A	O4'-C1'-N9	9.06	115.45	108.20
1	Az	256	PHE	CB-CG-CD2	9.05	127.14	120.80
37	BC	56	G	O4'-C1'-N9	9.06	115.44	108.20
83	A5	569	U	O3'-P-O5'	9.05	121.20	104.00
83	A5	3478	G	C1'-O4'-C4'	-9.05	102.66	109.90
36	B2	214	G	O4'-C1'-N9	9.05	115.44	108.20
83	A5	576	U	O4'-C1'-N1	9.05	115.44	108.20
83	A5	233	A	O4'-C1'-N9	9.04	115.44	108.20
83	A5	1538	U	O4'-C1'-N1	9.05	115.44	108.20
36	B2	426	A	C1'-O4'-C4'	9.04	117.13	109.90
36	B2	1984	G	O4'-C1'-N9	9.04	115.43	108.20
62	Cb	45	TYR	CB-CG-CD2	-9.04	115.58	121.00
83	A5	1499	C	O4'-C1'-C2'	-9.04	96.76	105.80
83	A5	3705	U	O4'-C1'-N1	9.04	115.43	108.20
36	B2	1888	C	O4'-C1'-N1	9.04	115.43	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	435	G	O4'-C1'-N9	9.04	115.43	108.20
83	A5	997	U	O4'-C1'-N1	9.04	115.43	108.20
83	A5	1379	U	O4'-C1'-N1	9.04	115.43	108.20
83	A5	502	U	O4'-C1'-N1	9.04	115.43	108.20
83	A5	749	U	P-O3'-C3'	9.03	130.54	119.70
83	A5	2553	U	O4'-C1'-N1	9.03	115.42	108.20
83	A5	1329	G	P-O3'-C3'	-9.03	108.86	119.70
36	B2	836	C	O4'-C1'-N1	9.03	115.42	108.20
83	A5	2232	U	O4'-C1'-N1	9.03	115.42	108.20
36	B2	565	G	N9-C1'-C2'	9.02	125.73	114.00
36	B2	1144	C	O4'-C1'-C2'	-9.02	96.78	105.80
36	B2	627	A	O4'-C1'-C2'	9.02	115.72	107.60
83	A5	656	U	O4'-C1'-N1	9.02	115.42	108.20
83	A5	886	U	O4'-C1'-N1	9.02	115.42	108.20
83	A5	1306	G	O4'-C1'-N9	9.02	115.42	108.20
83	A5	2706	U	O4'-C1'-N1	9.02	115.41	108.20
36	B2	1275	U	O4'-C1'-N1	9.02	115.41	108.20
50	CR	104	ARG	NE-CZ-NH2	-9.02	115.79	120.30
83	A5	1689	G	C3'-C2'-C1'	9.01	108.71	101.50
62	Cb	63	ARG	NE-CZ-NH1	9.01	124.81	120.30
83	A5	1471	G	C1'-O4'-C4'	-9.01	102.69	109.90
36	B2	546	A	O4'-C1'-N9	9.01	115.41	108.20
54	CP	42	ARG	NE-CZ-NH2	-9.01	115.80	120.30
37	BC	70	C	N1-C1'-C2'	9.01	125.71	114.00
83	A5	1352	U	N1-C1'-C2'	-9.00	102.10	112.00
83	A5	1609	U	O4'-C1'-N1	9.00	115.40	108.20
83	A5	3436	U	C1'-O4'-C4'	9.00	117.10	109.90
83	A5	613	U	O4'-C1'-N1	9.00	115.40	108.20
36	B2	1674	C	C3'-C2'-C1'	8.99	108.69	101.50
36	B2	1967	C	O4'-C1'-N1	8.99	115.39	108.20
83	A5	1060	G	O4'-C1'-N9	8.99	115.40	108.20
83	A5	2393	A	P-O3'-C3'	8.99	130.49	119.70
36	B2	70	C	O4'-C1'-N1	8.99	115.39	108.20
36	B2	240	U	O4'-C1'-N1	8.99	115.39	108.20
83	A5	1534	G	C1'-O4'-C4'	-8.99	102.71	109.90
83	A5	1572	A	O4'-C1'-N9	8.99	115.39	108.20
7	AM	52	ARG	NE-CZ-NH2	-8.98	115.81	120.30
36	B2	239	G	P-O3'-C3'	8.98	130.48	119.70
36	B2	1091	U	O4'-C1'-N1	8.98	115.39	108.20
83	A5	163	A	C3'-C2'-C1'	8.98	108.69	101.50
83	A5	2762	A	O4'-C1'-C2'	-8.98	96.82	105.80
36	B2	25	U	O4'-C1'-N1	8.98	115.39	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	368	G	O4'-C1'-N9	8.98	115.39	108.20
83	A5	166	G	O4'-C1'-N9	8.98	115.39	108.20
83	A5	350	C	O4'-C1'-N1	8.98	115.38	108.20
83	A5	1474	A	O4'-C1'-N9	8.98	115.38	108.20
8	AS	126	TYR	CB-CG-CD1	8.97	126.38	121.00
36	B2	998	U	C5'-C4'-C3'	-8.96	101.66	116.00
83	A5	717	A	C1'-O4'-C4'	-8.96	102.73	109.90
83	A5	3260	G	O4'-C1'-C2'	8.96	115.67	107.60
36	B2	12	U	O4'-C1'-N1	8.96	115.37	108.20
36	B2	282	U	O4'-C1'-N1	8.96	115.37	108.20
83	A5	960	U	O4'-C1'-N1	8.96	115.37	108.20
36	B2	1645	G	O4'-C1'-N9	8.96	115.36	108.20
36	B2	430	A	C1'-O4'-C4'	-8.95	102.74	109.90
83	A5	2913	G	C1'-O4'-C4'	-8.95	102.74	109.90
83	A5	3243	C	O4'-C1'-N1	8.95	115.36	108.20
83	A5	3386	U	O4'-C1'-N1	8.95	115.36	108.20
83	A5	3806	C	P-O3'-C3'	8.95	130.44	119.70
36	B2	163	C	C3'-C2'-C1'	8.95	108.66	101.50
36	B2	285	U	O4'-C1'-N1	8.94	115.36	108.20
36	B2	902	A	C3'-C2'-C1'	8.94	108.66	101.50
36	B2	640	U	N1-C1'-C2'	-8.94	102.17	112.00
31	AH	171	PHE	CB-CG-CD2	-8.94	114.54	120.80
83	A5	381	G	O4'-C1'-N9	8.94	115.35	108.20
36	B2	821	U	O4'-C1'-N1	8.94	115.35	108.20
36	B2	1127	G	C3'-C2'-C1'	-8.94	94.35	101.50
37	BC	14	A	P-O3'-C3'	-8.93	108.98	119.70
83	A5	1917	U	O4'-C1'-N1	8.93	115.35	108.20
83	A5	2688	U	N1-C1'-C2'	8.93	125.61	114.00
83	A5	1134	G	N9-C1'-C2'	8.93	125.61	114.00
83	A5	3745	U	O4'-C1'-N1	8.93	115.34	108.20
36	B2	1170	G	P-O5'-C5'	-8.93	106.62	120.90
83	A5	745	U	O4'-C1'-N1	8.93	115.34	108.20
36	B2	17	C	C3'-C2'-C1'	8.92	108.64	101.50
83	A5	552	U	O4'-C1'-N1	8.92	115.34	108.20
36	B2	1331	A	O4'-C1'-N9	8.92	115.34	108.20
83	A5	1713	U	P-O5'-C5'	8.92	135.18	120.90
83	A5	3266	A	O4'-C1'-N9	8.92	115.34	108.20
83	A5	1007	A	O4'-C1'-C2'	8.92	115.63	107.60
29	AG	85	ARG	NE-CZ-NH2	-8.91	115.84	120.30
80	CH	97	PHE	CB-CG-CD1	8.91	127.04	120.80
83	A5	3610	A	O4'-C1'-N9	8.91	115.33	108.20
83	A5	304	U	O4'-C4'-C3'	-8.91	95.09	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1956	A	N9-C1'-C2'	8.91	125.59	114.00
83	A5	3415	U	O4'-C1'-N1	8.91	115.33	108.20
83	A5	2244	G	O4'-C1'-N9	8.91	115.33	108.20
36	B2	1258	G	O4'-C1'-N9	8.91	115.33	108.20
36	B2	1029	G	C1'-O4'-C4'	-8.91	102.77	109.90
83	A5	160	U	O4'-C1'-N1	8.91	115.33	108.20
83	A5	324	A	O4'-C1'-C2'	-8.91	96.89	105.80
83	A5	2519	U	O4'-C1'-N1	8.91	115.33	108.20
83	A5	1496	U	O4'-C1'-N1	8.91	115.33	108.20
83	A5	3297	C	O4'-C1'-N1	8.91	115.33	108.20
83	A5	2858	U	O4'-C1'-N1	8.91	115.33	108.20
83	A5	1089	U	O4'-C1'-N1	8.90	115.32	108.20
83	A5	201	U	N1-C1'-C2'	-8.90	102.21	112.00
83	A5	2124	G	O4'-C1'-N9	8.90	115.32	108.20
83	A5	706	G	O4'-C1'-N9	8.90	115.32	108.20
83	A5	3906	U	C3'-C2'-C1'	8.90	108.62	101.50
36	B2	18	C	C3'-C2'-C1'	8.89	108.62	101.50
83	A5	2492	A	O4'-C1'-N9	8.89	115.31	108.20
36	B2	27	U	O4'-C1'-N1	8.89	115.31	108.20
83	A5	358	C	N1-C1'-C2'	8.89	125.56	114.00
83	A5	1501	A	O4'-C1'-C2'	-8.89	96.91	105.80
83	A5	3494	C	O4'-C1'-N1	8.89	115.31	108.20
36	B2	1873	A	O3'-P-O5'	8.89	120.89	104.00
83	A5	1352	U	O4'-C1'-N1	8.88	115.31	108.20
83	A5	583	U	P-O3'-C3'	8.88	130.36	119.70
83	A5	2202	A	O4'-C1'-N9	8.88	115.31	108.20
36	B2	903	C	O4'-C1'-C2'	-8.88	96.92	105.80
83	A5	1051	C	N1-C1'-C2'	8.88	125.54	114.00
36	B2	1469	U	O4'-C1'-N1	8.88	115.30	108.20
83	A5	1641	U	C5'-C4'-C3'	-8.88	101.80	116.00
83	A5	884	U	O4'-C1'-N1	8.88	115.30	108.20
83	A5	2868	A	P-O3'-C3'	8.88	130.35	119.70
36	B2	712	U	O4'-C1'-N1	8.87	115.30	108.20
83	A5	1867	A	P-O5'-C5'	8.87	135.09	120.90
48	CD	260	SER	N-CA-CB	8.87	123.80	110.50
83	A5	768	U	O4'-C1'-N1	8.87	115.30	108.20
83	A5	2652	U	O4'-C1'-C2'	-8.86	96.94	105.80
83	A5	3666	C	N1-C1'-C2'	8.86	125.52	114.00
85	A7	31	G	C1'-O4'-C4'	-8.86	102.81	109.90
83	A5	359	G	C1'-O4'-C4'	8.86	116.99	109.90
83	A5	437	G	O4'-C1'-N9	8.86	115.28	108.20
83	A5	9	A	O4'-C1'-N9	8.85	115.28	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1385	G	C1'-O4'-C4'	8.85	116.98	109.90
83	A5	2609	U	O4'-C1'-N1	8.85	115.28	108.20
36	B2	423	G	N9-C1'-C2'	8.85	125.50	114.00
36	B2	623	G	O4'-C1'-N9	8.85	115.28	108.20
49	CQ	9	TYR	CB-CG-CD2	-8.85	115.69	121.00
83	A5	627	G	O4'-C1'-N9	8.85	115.28	108.20
36	B2	120	U	N1-C1'-C2'	8.84	125.49	114.00
83	A5	1247	U	O4'-C1'-N1	8.84	115.27	108.20
36	B2	1745	G	O4'-C1'-N9	8.84	115.27	108.20
83	A5	1437	A	P-O3'-C3'	-8.84	109.09	119.70
83	A5	3702	G	P-O3'-C3'	8.84	130.31	119.70
83	A5	1176	A	N9-C1'-C2'	-8.84	102.28	112.00
36	B2	215	C	O4'-C1'-C2'	-8.84	96.97	105.80
36	B2	1315	U	C3'-C2'-C1'	8.84	108.57	101.50
83	A5	3298	U	O4'-C1'-N1	8.84	115.27	108.20
83	A5	3824	C	P-O5'-C5'	8.84	135.04	120.90
36	B2	513	A	O4'-C1'-C2'	-8.83	96.97	105.80
83	A5	1250	C	C1'-O4'-C4'	-8.83	102.83	109.90
83	A5	1573	U	O4'-C1'-N1	8.83	115.27	108.20
36	B2	284	G	N9-C1'-C2'	8.83	125.48	114.00
83	A5	50	U	N1-C1'-C2'	8.83	125.48	114.00
83	A5	3276	C	N1-C1'-C2'	8.83	125.48	114.00
83	A5	421	C	O4'-C1'-N1	8.83	115.26	108.20
83	A5	3474	G	O4'-C1'-N9	-8.83	101.14	108.20
36	B2	1261	C	C3'-C2'-C1'	8.83	108.56	101.50
36	B2	1736	U	O4'-C1'-N1	8.82	115.26	108.20
83	A5	224	U	O4'-C1'-N1	8.82	115.26	108.20
83	A5	3005	A	O4'-C1'-N9	8.82	115.26	108.20
36	B2	310	C	N1-C1'-C2'	8.82	125.46	114.00
36	B2	1279	U	O4'-C1'-N1	8.82	115.25	108.20
83	A5	856	A	C3'-C2'-C1'	8.82	108.55	101.50
83	A5	1810	A	O3'-P-O5'	8.81	120.75	104.00
36	B2	512	U	O4'-C1'-N1	8.81	115.25	108.20
51	CA	30	ARG	NE-CZ-NH1	8.81	124.70	120.30
83	A5	3300	U	O4'-C1'-N1	8.81	115.25	108.20
83	A5	1927	U	O4'-C1'-N1	8.81	115.25	108.20
36	B2	1803	A	O3'-P-O5'	8.80	120.72	104.00
83	A5	211	U	P-O5'-C5'	8.80	134.98	120.90
83	A5	1909	U	O3'-P-O5'	8.80	120.72	104.00
83	A5	1927	U	C1'-C2'-O2'	-8.80	84.19	110.60
83	A5	2753	G	N9-C1'-C2'	8.80	125.44	114.00
83	A5	1589	A	O4'-C1'-N9	8.80	115.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3864	C	N1-C1'-C2'	8.80	125.44	114.00
83	A5	170	G	O4'-C1'-N9	8.80	115.24	108.20
25	Af	80	ARG	NE-CZ-NH1	8.79	124.70	120.30
83	A5	3104	C	O4'-C1'-N1	8.79	115.23	108.20
83	A5	116	U	N1-C1'-C2'	-8.79	102.33	112.00
83	A5	1751	U	O4'-C1'-N1	8.79	115.23	108.20
83	A5	2187	U	O4'-C1'-N1	8.79	115.23	108.20
36	B2	1215	G	O4'-C1'-C2'	8.79	115.51	107.60
36	B2	1427	U	N1-C1'-C2'	8.79	125.42	114.00
84	A9	26	U	O4'-C1'-N1	8.79	115.23	108.20
36	B2	251	G	C1'-O4'-C4'	8.78	116.93	109.90
36	B2	1849	U	P-O3'-C3'	8.79	130.24	119.70
83	A5	1470	C	N1-C1'-C2'	8.79	125.42	114.00
83	A5	1862	U	O4'-C1'-N1	8.78	115.23	108.20
83	A5	463	C	C3'-C2'-C1'	8.78	108.52	101.50
36	B2	1434	U	N1-C1'-C2'	8.77	125.41	114.00
36	B2	569	G	O4'-C1'-N9	8.77	115.22	108.20
36	B2	1582	C	C3'-C2'-C1'	-8.77	94.49	101.50
83	A5	2473	C	C3'-C2'-C1'	8.77	108.52	101.50
36	B2	1024	C	C3'-C2'-C1'	8.77	108.51	101.50
36	B2	1152	G	O4'-C1'-N9	8.76	115.21	108.20
36	B2	1874	C	O4'-C1'-N1	8.76	115.21	108.20
36	B2	379	U	O4'-C1'-N1	8.76	115.21	108.20
83	A5	2913	G	O4'-C1'-C2'	8.76	115.48	107.60
83	A5	183	U	O4'-C1'-N1	8.76	115.21	108.20
83	A5	3776	A	O4'-C1'-N9	8.76	115.21	108.20
83	A5	2126	A	N9-C1'-C2'	-8.75	102.37	112.00
36	B2	309	U	O4'-C1'-N1	8.75	115.20	108.20
83	A5	460	A	P-O5'-C5'	8.75	134.90	120.90
83	A5	3293	G	O4'-C1'-N9	8.75	115.20	108.20
83	A5	322	G	P-O3'-C3'	-8.75	109.20	119.70
84	A9	23	G	C3'-C2'-C1'	8.75	108.50	101.50
36	B2	1604	A	O4'-C1'-C2'	-8.74	97.06	105.80
83	A5	188	G	P-O3'-C3'	8.74	130.19	119.70
83	A5	1895	U	O4'-C1'-N1	8.74	115.19	108.20
36	B2	1839	U	O4'-C1'-N1	8.74	115.19	108.20
36	B2	1961	A	O4'-C1'-N9	8.74	115.19	108.20
83	A5	213	A	N9-C1'-C2'	8.74	125.36	114.00
83	A5	3465	C	O4'-C1'-N1	8.74	115.19	108.20
36	B2	132	A	P-O3'-C3'	8.74	130.18	119.70
36	B2	163	C	N1-C1'-C2'	8.73	125.36	114.00
36	B2	1038	A	N9-C1'-C2'	-8.73	102.39	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1561	G	O4'-C1'-N9	8.73	115.19	108.20
83	A5	1056	G	N9-C1'-C2'	8.73	125.35	114.00
79	CJ	63	ARG	NE-CZ-NH1	8.73	124.67	120.30
83	A5	1861	A	O4'-C1'-N9	8.73	115.19	108.20
36	B2	865	A	N9-C1'-C2'	8.73	125.35	114.00
86	A8	63	U	O4'-C1'-C2'	-8.73	97.07	105.80
83	A5	804	C	N1-C1'-C2'	8.72	125.34	114.00
36	B2	341	G	O4'-C1'-N9	8.72	115.18	108.20
36	B2	1642	C	C3'-C2'-C1'	8.72	108.48	101.50
36	B2	597	C	C3'-C2'-C1'	8.72	108.48	101.50
83	A5	1566	U	P-O3'-C3'	8.72	130.16	119.70
83	A5	3310	G	O4'-C1'-N9	8.71	115.17	108.20
83	A5	3549	C	O4'-C1'-N1	8.72	115.17	108.20
83	A5	3685	U	O4'-C1'-N1	8.71	115.17	108.20
36	B2	620	U	O4'-C1'-N1	8.71	115.17	108.20
83	A5	2769	G	C1'-O4'-C4'	-8.71	102.93	109.90
83	A5	3709	A	O4'-C1'-N9	8.71	115.17	108.20
36	B2	1573	U	C2'-C3'-O3'	8.71	128.66	109.50
83	A5	3916	U	C1'-O4'-C4'	-8.71	102.93	109.90
83	A5	2558	A	C1'-O4'-C4'	-8.71	102.93	109.90
83	A5	2834	A	O4'-C1'-N9	8.71	115.17	108.20
36	B2	1276	G	C1'-O4'-C4'	-8.71	102.94	109.90
80	CH	162	SER	C-N-CA	8.71	143.46	121.70
83	A5	1556	C	N1-C1'-C2'	8.71	125.32	114.00
58	CW	80	ARG	NE-CZ-NH2	-8.70	115.95	120.30
83	A5	1457	G	P-O3'-C3'	8.70	130.14	119.70
1	Az	198	ASP	C-N-CA	8.69	143.43	121.70
83	A5	2594	G	O4'-C1'-N9	8.69	115.16	108.20
83	A5	2651	G	O4'-C1'-C2'	-8.69	97.11	105.80
36	B2	1173	A	N9-C1'-C2'	8.69	125.29	114.00
83	A5	288	U	O4'-C1'-N1	8.69	115.15	108.20
83	A5	1721	C	P-O5'-C5'	8.68	134.79	120.90
7	AM	121	PHE	CB-CG-CD1	8.68	126.88	120.80
82	CG	88	PHE	C-N-CA	8.68	143.40	121.70
83	A5	595	U	O4'-C1'-N1	8.68	115.14	108.20
83	A5	691	C	C1'-O4'-C4'	-8.68	102.96	109.90
83	A5	1619	C	O4'-C1'-N1	8.68	115.14	108.20
36	B2	999	U	O4'-C1'-N1	8.68	115.14	108.20
83	A5	481	A	O4'-C1'-N9	8.68	115.14	108.20
83	A5	2806	U	O4'-C1'-N1	8.68	115.14	108.20
83	A5	3590	C	O4'-C1'-C2'	-8.68	97.12	105.80
83	A5	784	G	C1'-O4'-C4'	-8.67	102.96	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1338	U	C4'-C3'-O3'	8.67	130.34	113.00
83	A5	1047	A	O4'-C1'-N9	8.67	115.14	108.20
83	A5	1103	U	O4'-C1'-N1	8.67	115.14	108.20
83	A5	1957	C	P-O3'-C3'	8.67	130.10	119.70
83	A5	1945	U	O4'-C1'-N1	8.67	115.13	108.20
83	A5	1762	G	O4'-C1'-N9	8.66	115.13	108.20
36	B2	642	G	O4'-C1'-N9	8.66	115.13	108.20
83	A5	267	C	P-O3'-C3'	8.66	130.09	119.70
83	A5	858	U	O4'-C1'-N1	8.66	115.13	108.20
36	B2	183	A	C3'-C2'-C1'	8.66	108.42	101.50
80	CH	120	TYR	CB-CG-CD1	8.65	126.19	121.00
83	A5	214	A	C3'-C2'-C1'	8.65	108.42	101.50
36	B2	1766	G	C3'-C2'-C1'	8.65	108.42	101.50
83	A5	1178	U	C3'-C2'-C1'	8.65	108.42	101.50
83	A5	2117	A	C3'-C2'-C1'	8.65	108.42	101.50
83	A5	2204	U	O4'-C1'-N1	8.65	115.12	108.20
83	A5	1958	G	N9-C1'-C2'	8.65	125.24	114.00
36	B2	1201	A	O4'-C1'-N9	8.65	115.12	108.20
83	A5	732	U	N1-C1'-C2'	-8.65	102.49	112.00
86	A8	107	U	P-O3'-C3'	8.65	130.07	119.70
83	A5	913	U	O4'-C1'-N1	8.64	115.12	108.20
83	A5	2220	C	C3'-C2'-C1'	8.64	108.42	101.50
83	A5	3419	A	N9-C1'-C2'	8.64	125.23	114.00
36	B2	469	A	O4'-C1'-N9	8.64	115.11	108.20
83	A5	1627	U	O4'-C1'-N1	8.64	115.11	108.20
83	A5	2136	U	P-O3'-C3'	8.64	130.06	119.70
83	A5	3197	U	O4'-C1'-N1	8.63	115.11	108.20
85	A7	20	U	O4'-C1'-N1	8.63	115.11	108.20
83	A5	370	A	O4'-C1'-N9	8.63	115.11	108.20
83	A5	439	U	C1'-O4'-C4'	-8.63	103.00	109.90
83	A5	823	U	O4'-C1'-N1	8.63	115.10	108.20
83	A5	861	C	O4'-C1'-N1	8.63	115.10	108.20
36	B2	517	G	O4'-C1'-N9	8.63	115.10	108.20
83	A5	888	A	O4'-C1'-N9	8.63	115.10	108.20
36	B2	661	G	P-O3'-C3'	8.62	130.05	119.70
36	B2	1910	U	N1-C1'-C2'	8.62	125.21	114.00
36	B2	522	G	P-O3'-C3'	8.62	130.04	119.70
36	B2	439	G	O4'-C1'-N9	8.62	115.09	108.20
36	B2	1342	G	O4'-C1'-C2'	8.62	115.36	107.60
83	A5	148	U	O4'-C1'-N1	8.62	115.09	108.20
83	A5	304	U	N1-C1'-C2'	-8.62	102.52	112.00
64	CF	97	ARG	NE-CZ-NH2	-8.61	115.99	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2679	U	O4'-C1'-N1	8.61	115.09	108.20
36	B2	170	A	O4'-C1'-N9	8.61	115.09	108.20
83	A5	291	U	O4'-C1'-N1	8.61	115.09	108.20
83	A5	2529	G	C1'-O4'-C4'	-8.61	103.02	109.90
83	A5	3144	U	O4'-C1'-N1	8.61	115.08	108.20
83	A5	155	U	P-O3'-C3'	8.60	130.03	119.70
86	A8	76	A	P-O3'-C3'	-8.60	109.38	119.70
36	B2	1006	U	P-O5'-C5'	8.60	134.66	120.90
83	A5	2214	G	C3'-C2'-C1'	-8.60	94.62	101.50
31	AH	46	ARG	NE-CZ-NH2	-8.60	116.00	120.30
36	B2	1018	C	O4'-C1'-C2'	-8.60	97.20	105.80
83	A5	3117	A	C5'-C4'-O4'	-8.60	98.79	109.10
36	B2	625	U	O4'-C1'-N1	8.59	115.08	108.20
83	A5	123	U	O4'-C1'-N1	8.59	115.08	108.20
83	A5	225	U	O4'-C1'-N1	8.59	115.07	108.20
83	A5	241	C	O4'-C1'-N1	8.59	115.08	108.20
83	A5	3227	A	N9-C1'-C2'	-8.59	102.55	112.00
83	A5	440	U	P-O5'-C5'	8.59	134.64	120.90
83	A5	1576	U	O4'-C1'-N1	8.59	115.07	108.20
83	A5	1785	G	N9-C1'-C2'	-8.59	102.56	112.00
83	A5	3701	U	O4'-C1'-N1	8.59	115.07	108.20
36	B2	1369	U	O4'-C1'-N1	8.58	115.06	108.20
83	A5	876	G	O4'-C1'-N9	8.58	115.06	108.20
36	B2	1005	G	O4'-C1'-C2'	8.57	115.31	107.60
83	A5	187	A	N9-C1'-C2'	8.57	125.14	114.00
83	A5	873	U	O4'-C1'-N1	8.57	115.06	108.20
83	A5	1643	G	O4'-C1'-N9	8.57	115.06	108.20
36	B2	73	A	P-O3'-C3'	8.57	129.98	119.70
83	A5	12	C	N1-C1'-C2'	8.57	125.14	114.00
74	CC	153	PHE	CB-CG-CD2	8.56	126.80	120.80
83	A5	2572	G	N9-C1'-C2'	8.56	125.13	114.00
83	A5	3802	U	O4'-C1'-N1	8.56	115.05	108.20
36	B2	701	G	O4'-C1'-N9	8.56	115.05	108.20
83	A5	287	G	O4'-C1'-N9	8.56	115.05	108.20
36	B2	1585	A	O4'-C1'-N9	8.56	115.05	108.20
46	CN	5	ARG	NE-CZ-NH2	-8.56	116.02	120.30
83	A5	2986	G	O4'-C1'-N9	8.56	115.05	108.20
83	A5	1751	U	N1-C1'-C2'	8.56	125.12	114.00
42	CL	127	PRO	CA-N-CD	-8.55	99.52	111.50
83	A5	594	U	P-O5'-C5'	8.55	134.59	120.90
14	AT	101	ARG	NE-CZ-NH1	8.55	124.58	120.30
36	B2	1130	A	P-O3'-C3'	-8.55	109.44	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3206	A	C3'-C2'-C1'	8.55	108.34	101.50
36	B2	1658	G	O4'-C1'-C2'	8.55	115.30	107.60
83	A5	3417	C	C4'-C3'-O3'	-8.55	91.44	109.40
84	A9	6	G	O4'-C1'-C2'	-8.55	97.25	105.80
84	A9	23	G	C5'-C4'-C3'	8.55	129.68	116.00
36	B2	975	U	N1-C1'-C2'	8.55	125.11	114.00
36	B2	1766	G	O4'-C1'-N9	-8.55	101.36	108.20
83	A5	512	A	O4'-C1'-C2'	-8.55	97.25	105.80
83	A5	3625	U	O4'-C1'-N1	8.55	115.04	108.20
83	A5	511	G	O4'-C1'-N9	8.54	115.04	108.20
83	A5	3655	U	P-O3'-C3'	8.54	129.95	119.70
31	AH	175	TYR	CB-CG-CD2	-8.54	115.87	121.00
37	BC	49	G	C1'-O4'-C4'	-8.54	103.07	109.90
83	A5	3747	U	O4'-C1'-N1	8.54	115.03	108.20
20	Aa	51	ARG	NE-CZ-NH2	-8.54	116.03	120.30
83	A5	254	A	O4'-C1'-N9	8.54	115.03	108.20
83	A5	3313	U	O4'-C1'-N1	8.54	115.03	108.20
83	A5	2916	U	C3'-C2'-C1'	8.54	108.33	101.50
83	A5	3181	G	O4'-C1'-N9	8.54	115.03	108.20
83	A5	3811	A	P-O3'-C3'	8.54	129.94	119.70
83	A5	862	U	O4'-C1'-N1	8.53	115.03	108.20
83	A5	1996	U	O4'-C1'-N1	8.53	115.03	108.20
3	AU	119	ALA	N-CA-CB	8.53	122.04	110.10
83	A5	3571	C	N1-C1'-C2'	8.53	125.09	114.00
36	B2	498	U	O4'-C1'-N1	8.53	115.02	108.20
83	A5	1647	A	N9-C1'-C2'	8.53	125.09	114.00
83	A5	3176	C	C3'-C2'-C1'	8.53	108.32	101.50
36	B2	337	U	O4'-C1'-N1	8.53	115.02	108.20
36	B2	392	A	O4'-C1'-N9	8.53	115.02	108.20
36	B2	1820	U	O4'-C1'-N1	8.53	115.02	108.20
52	CS	167	PHE	CB-CG-CD2	8.53	126.77	120.80
83	A5	1872	A	C3'-C2'-C1'	8.53	108.32	101.50
83	A5	1397	A	C1'-O4'-C4'	-8.52	103.08	109.90
51	CA	76	PHE	CB-CG-CD1	8.52	126.76	120.80
83	A5	452	A	P-O3'-C3'	8.52	129.92	119.70
83	A5	171	U	O4'-C1'-N1	8.52	115.01	108.20
83	A5	529	U	O4'-C1'-N1	8.52	115.01	108.20
83	A5	1429	U	O4'-C1'-N1	8.52	115.01	108.20
36	B2	835	A	N9-C1'-C2'	-8.51	102.64	112.00
83	A5	1386	U	O4'-C1'-N1	8.51	115.01	108.20
83	A5	2039	G	O4'-C1'-N9	8.51	115.01	108.20
86	A8	6	U	N1-C1'-C2'	-8.51	102.64	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1445	A	O4'-C1'-C2'	-8.51	97.29	105.80
83	A5	156	G	O4'-C1'-C2'	8.51	115.26	107.60
36	B2	66	C	O4'-C1'-N1	8.51	115.01	108.20
36	B2	134	U	O3'-P-O5'	-8.51	87.84	104.00
36	B2	1804	U	P-O5'-C5'	8.51	134.51	120.90
83	A5	801	G	N9-C1'-C2'	8.51	125.06	114.00
83	A5	1801	U	P-O5'-C5'	8.51	134.51	120.90
83	A5	3232	G	N9-C1'-C2'	8.51	125.06	114.00
83	A5	3781	U	N1-C1'-C2'	-8.51	102.64	112.00
83	A5	3627	C	P-O5'-C5'	8.50	134.51	120.90
38	Cz	41	TYR	CB-CG-CD1	-8.50	115.90	121.00
83	A5	1513	C	O4'-C1'-N1	8.50	115.00	108.20
83	A5	2999	U	O4'-C1'-N1	8.50	115.00	108.20
83	A5	3840	G	C3'-C2'-C1'	8.49	108.30	101.50
83	A5	759	U	O4'-C1'-N1	8.49	114.99	108.20
36	B2	536	U	O4'-C1'-N1	8.49	114.99	108.20
83	A5	1455	A	O4'-C1'-C2'	-8.49	97.31	105.80
83	A5	3190	G	C1'-O4'-C4'	-8.49	103.11	109.90
83	A5	1132	U	O4'-C1'-N1	-8.49	101.41	108.20
41	CO	20	ARG	NE-CZ-NH1	8.48	124.54	120.30
83	A5	1200	U	O4'-C1'-N1	8.48	114.99	108.20
86	A8	19	A	O4'-C1'-N9	8.48	114.99	108.20
36	B2	922	G	O4'-C1'-N9	8.48	114.98	108.20
36	B2	1305	A	C1'-O4'-C4'	8.48	116.68	109.90
83	A5	3638	U	O4'-C1'-N1	8.48	114.98	108.20
31	AH	187	PHE	CB-CG-CD1	8.48	126.74	120.80
36	B2	566	U	O4'-C1'-N1	8.48	114.98	108.20
83	A5	2100	U	O4'-C1'-N1	8.48	114.98	108.20
83	A5	2917	A	P-O3'-C3'	8.47	129.87	119.70
83	A5	1059	A	O4'-C1'-N9	8.47	114.98	108.20
86	A8	44	C	O4'-C1'-N1	8.47	114.98	108.20
52	CS	175	TYR	CB-CG-CD2	-8.47	115.92	121.00
83	A5	927	A	O4'-C1'-N9	8.47	114.98	108.20
36	B2	95	G	C1'-O4'-C4'	-8.47	103.13	109.90
36	B2	1168	C	C3'-C2'-C1'	8.47	108.28	101.50
83	A5	1662	U	O4'-C1'-N1	8.47	114.97	108.20
83	A5	1873	A	O4'-C1'-N9	-8.47	101.43	108.20
83	A5	2578	U	O4'-C1'-N1	8.46	114.97	108.20
36	B2	1541	U	O4'-C1'-N1	8.46	114.97	108.20
36	B2	1821	G	N9-C1'-C2'	8.46	125.00	114.00
83	A5	2268	G	P-O3'-C3'	8.46	129.85	119.70
36	B2	1905	U	O4'-C1'-N1	8.46	114.96	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	298	U	O4'-C1'-N1	8.45	114.96	108.20
83	A5	2748	G	O4'-C1'-N9	8.45	114.96	108.20
36	B2	1681	U	C1'-O4'-C4'	8.45	116.66	109.90
83	A5	1708	G	O4'-C1'-N9	-8.45	101.44	108.20
36	B2	387	C	O4'-C1'-N1	8.45	114.96	108.20
83	A5	999	U	O4'-C1'-N1	8.45	114.96	108.20
36	B2	1031	A	O4'-C1'-C2'	-8.44	97.36	105.80
72	Ck	37	ARG	NE-CZ-NH2	-8.44	116.08	120.30
83	A5	3741	A	O4'-C1'-N9	8.45	114.96	108.20
36	B2	869	C	C1'-O4'-C4'	-8.44	103.15	109.90
83	A5	1417	G	N9-C1'-C2'	8.44	124.98	114.00
83	A5	1707	A	N9-C1'-C2'	8.44	124.97	114.00
83	A5	3809	U	O4'-C1'-N1	8.44	114.95	108.20
1	Az	834	LEU	N-CA-C	8.44	133.78	111.00
36	B2	235	G	O4'-C1'-N9	8.44	114.95	108.20
83	A5	1043	G	O4'-C1'-N9	8.44	114.95	108.20
36	B2	994	A	O4'-C1'-N9	8.44	114.95	108.20
36	B2	1861	U	O4'-C1'-N1	8.44	114.95	108.20
36	B2	1833	C	O4'-C1'-C2'	-8.43	97.37	105.80
83	A5	1087	G	C1'-O4'-C4'	-8.43	103.15	109.90
83	A5	1931	C	N1-C1'-C2'	8.43	124.97	114.00
36	B2	138	U	O4'-C1'-N1	-8.43	101.46	108.20
83	A5	800	C	C3'-C2'-C1'	8.43	108.24	101.50
83	A5	1249	A	P-O3'-C3'	8.43	129.81	119.70
83	A5	3558	U	O4'-C1'-N1	8.43	114.94	108.20
33	AI	110	ARG	NE-CZ-NH2	-8.42	116.09	120.30
83	A5	711	A	O4'-C1'-N9	8.42	114.94	108.20
37	BC	47	C	P-O5'-C5'	-8.42	107.43	120.90
83	A5	3335	A	O4'-C1'-N9	8.42	114.94	108.20
36	B2	65	A	C1'-O4'-C4'	8.42	116.64	109.90
36	B2	1703	G	O4'-C1'-N9	8.42	114.94	108.20
83	A5	523	C	C3'-C2'-C1'	8.42	108.24	101.50
36	B2	1156	U	O4'-C1'-N1	8.42	114.93	108.20
83	A5	3	A	O4'-C1'-N9	8.42	114.93	108.20
83	A5	1423	C	O4'-C1'-C2'	-8.42	97.38	105.80
83	A5	3948	U	O4'-C1'-N1	8.42	114.94	108.20
36	B2	1947	U	O4'-C1'-N1	8.41	114.93	108.20
83	A5	981	C	O4'-C1'-N1	8.41	114.93	108.20
83	A5	3807	G	C3'-C2'-C1'	8.41	108.23	101.50
83	A5	3272	A	N9-C1'-C2'	8.41	124.94	114.00
36	B2	226	C	O3'-P-O5'	8.41	119.98	104.00
83	A5	3926	C	O4'-C1'-C2'	-8.41	97.39	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	173	C	P-O3'-C3'	8.41	129.79	119.70
36	B2	484	C	C4'-C3'-O3'	-8.41	91.75	109.40
36	B2	973	U	O4'-C1'-N1	8.41	114.93	108.20
36	B2	1456	G	O4'-C1'-N9	8.41	114.93	108.20
83	A5	137	U	O4'-C1'-N1	8.41	114.92	108.20
83	A5	1237	G	C3'-C2'-C1'	-8.41	94.77	101.50
83	A5	2476	U	O4'-C1'-N1	8.41	114.92	108.20
42	CL	161	PRO	CA-N-CD	-8.40	99.73	111.50
48	CD	207	TYR	CB-CG-CD2	-8.40	115.96	121.00
36	B2	770	C	P-O3'-C3'	8.40	129.78	119.70
83	A5	3617	U	O4'-C1'-N1	8.40	114.92	108.20
26	AJ	14	TYR	CB-CG-CD1	8.40	126.04	121.00
36	B2	481	U	C5'-C4'-C3'	8.40	129.44	116.00
36	B2	1036	C	N1-C1'-C2'	8.40	124.92	114.00
36	B2	1089	G	C1'-O4'-C4'	-8.40	103.18	109.90
83	A5	2625	G	C1'-O4'-C4'	-8.40	103.18	109.90
83	A5	2737	C	N1-C1'-C2'	8.40	124.92	114.00
83	A5	1802	U	O4'-C1'-N1	8.40	114.92	108.20
37	BC	62	U	O4'-C1'-N1	8.39	114.92	108.20
83	A5	737	U	O4'-C1'-N1	8.39	114.92	108.20
83	A5	2043	G	P-O3'-C3'	8.39	129.77	119.70
83	A5	2207	A	O4'-C1'-N9	8.39	114.92	108.20
36	B2	139	U	O3'-P-O5'	8.39	119.94	104.00
2	Ag	173	ARG	NE-CZ-NH1	8.39	124.50	120.30
83	A5	2816	A	O4'-C1'-N9	8.39	114.91	108.20
83	A5	36	U	O4'-C1'-N1	8.39	114.91	108.20
83	A5	2226	A	O4'-C1'-N9	8.38	114.91	108.20
36	B2	1342	G	C3'-C2'-C1'	-8.38	94.80	101.50
83	A5	1312	G	O4'-C1'-N9	8.38	114.90	108.20
83	A5	3443	A	O4'-C1'-C2'	8.38	115.14	107.60
3	AU	57	ARG	NE-CZ-NH2	-8.38	116.11	120.30
36	B2	8	U	O4'-C1'-N1	8.38	114.90	108.20
36	B2	1349	U	O4'-C1'-N1	8.37	114.90	108.20
36	B2	1526	G	O4'-C1'-N9	8.38	114.90	108.20
83	A5	3580	G	O4'-C1'-N9	8.37	114.90	108.20
36	B2	75	U	N1-C1'-C2'	-8.37	102.79	112.00
36	B2	445	U	O4'-C1'-N1	8.37	114.90	108.20
36	B2	1418	A	O4'-C1'-N9	8.37	114.90	108.20
36	B2	1886	G	C1'-O4'-C4'	-8.37	103.20	109.90
83	A5	885	U	C1'-O4'-C4'	-8.37	103.20	109.90
83	A5	1907	U	O4'-C1'-N1	8.37	114.89	108.20
83	A5	2780	A	O4'-C1'-N9	8.37	114.89	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	380	G	O4'-C1'-N9	8.36	114.89	108.20
83	A5	3890	G	P-O3'-C3'	8.36	129.74	119.70
83	A5	1441	G	O4'-C1'-N9	8.36	114.89	108.20
36	B2	1596	C	C1'-O4'-C4'	-8.36	103.21	109.90
46	CN	53	TYR	CB-CG-CD2	-8.36	115.98	121.00
86	A8	90	U	O4'-C1'-N1	8.36	114.89	108.20
83	A5	1448	G	C3'-C2'-C1'	-8.36	94.81	101.50
36	B2	1819	U	P-O3'-C3'	-8.36	109.67	119.70
83	A5	833	U	O4'-C1'-N1	8.35	114.88	108.20
83	A5	1122	U	O4'-C1'-N1	8.35	114.88	108.20
83	A5	2198	G	C1'-O4'-C4'	-8.35	103.22	109.90
83	A5	3853	C	O4'-C1'-N1	8.35	114.88	108.20
83	A5	1554	C	N1-C1'-C2'	8.35	124.86	114.00
85	A7	116	G	O4'-C1'-N9	8.35	114.88	108.20
59	CZ	18	TYR	CB-CG-CD2	-8.35	115.99	121.00
36	B2	1806	A	C3'-C2'-C1'	-8.35	94.82	101.50
83	A5	1228	C	O4'-C1'-C2'	-8.35	97.45	105.80
86	A8	114	G	O4'-C1'-N9	8.35	114.88	108.20
36	B2	113	G	O4'-C1'-C2'	-8.35	97.45	105.80
36	B2	590	U	N1-C1'-C2'	8.35	124.85	114.00
1	Az	716	TYR	CB-CG-CD2	-8.34	116.00	121.00
37	BC	16	U	C3'-C2'-C1'	-8.34	94.83	101.50
83	A5	1565	A	O4'-C1'-N9	8.34	114.87	108.20
83	A5	3551	U	O4'-C1'-N1	8.34	114.87	108.20
83	A5	515	A	O4'-C1'-N9	8.33	114.87	108.20
83	A5	967	C	P-O3'-C3'	8.33	129.70	119.70
1	Az	746	TYR	CB-CG-CD1	-8.33	116.00	121.00
83	A5	1947	G	O4'-C1'-N9	8.33	114.86	108.20
83	A5	3180	G	O4'-C1'-N9	8.33	114.86	108.20
36	B2	1078	G	O4'-C1'-N9	8.33	114.86	108.20
83	A5	2123	G	O4'-C1'-N9	8.33	114.86	108.20
83	A5	2502	G	O4'-C1'-N9	8.33	114.86	108.20
14	AT	84	ARG	NE-CZ-NH2	-8.33	116.14	120.30
83	A5	2219	U	C1'-O4'-C4'	8.33	116.56	109.90
36	B2	120	U	C1'-O4'-C4'	-8.32	103.24	109.90
36	B2	356	C	O4'-C1'-N1	8.32	114.86	108.20
85	A7	58	A	O4'-C1'-N9	8.32	114.86	108.20
83	A5	3703	C	O4'-C1'-N1	8.32	114.86	108.20
83	A5	897	U	O4'-C1'-N1	8.32	114.86	108.20
83	A5	3925	G	N9-C1'-C2'	8.32	124.82	114.00
83	A5	878	U	O4'-C1'-N1	8.32	114.86	108.20
83	A5	3219	A	C1'-O4'-C4'	8.32	116.56	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	AZ	64	TYR	CB-CG-CD2	-8.32	116.01	121.00
83	A5	2141	A	N9-C1'-C2'	-8.32	102.85	112.00
83	A5	2503	G	O4'-C1'-C2'	8.32	115.08	107.60
36	B2	648	G	O4'-C1'-C2'	-8.31	97.49	105.80
80	CH	97	PHE	CB-CG-CD2	-8.31	114.98	120.80
83	A5	3257	U	O4'-C1'-N1	8.31	114.85	108.20
83	A5	562	U	N1-C1'-C2'	8.31	124.80	114.00
83	A5	2030	U	N1-C1'-C2'	8.31	124.80	114.00
36	B2	1220	A	O4'-C1'-N9	8.31	114.84	108.20
38	Cz	35	GLN	CB-CG-CD	8.31	133.20	111.60
83	A5	3711	G	N9-C1'-C2'	-8.31	102.86	112.00
83	A5	3002	U	C4'-C3'-O3'	8.30	129.61	113.00
86	A8	63	U	C1'-O4'-C4'	8.30	116.54	109.90
36	B2	1009	U	O4'-C1'-N1	8.30	114.84	108.20
83	A5	1266	A	O4'-C1'-C2'	-8.30	97.50	105.80
83	A5	3665	U	N1-C1'-C2'	8.30	124.79	114.00
83	A5	1293	A	N9-C1'-C2'	-8.30	102.87	112.00
83	A5	853	G	O4'-C1'-C2'	8.30	115.07	107.60
83	A5	2697	U	O4'-C1'-N1	8.30	114.84	108.20
83	A5	2718	U	O4'-C1'-N1	8.30	114.84	108.20
83	A5	641	A	C3'-C2'-C1'	8.29	108.14	101.50
83	A5	1421	G	O4'-C1'-N9	8.29	114.84	108.20
83	A5	2167	G	O4'-C1'-N9	8.29	114.83	108.20
36	B2	1247	C	C3'-C2'-C1'	8.29	108.14	101.50
83	A5	339	C	O4'-C1'-N1	8.29	114.83	108.20
83	A5	359	G	N9-C1'-C2'	-8.29	102.88	112.00
83	A5	3943	G	C3'-C2'-C1'	-8.29	94.87	101.50
83	A5	3946	G	O4'-C1'-N9	8.29	114.83	108.20
85	A7	98	G	O4'-C1'-N9	8.29	114.83	108.20
83	A5	122	C	O4'-C1'-N1	8.29	114.83	108.20
83	A5	1231	A	P-O5'-C5'	8.28	134.15	120.90
36	B2	1966	U	O4'-C1'-N1	8.28	114.82	108.20
83	A5	91	U	N1-C1'-C2'	8.28	124.76	114.00
36	B2	194	G	O4'-C1'-N9	8.28	114.82	108.20
36	B2	1346	C	P-O3'-C3'	8.28	129.63	119.70
83	A5	460	A	O4'-C1'-C2'	-8.28	97.52	105.80
83	A5	2520	U	N1-C1'-C2'	8.28	124.76	114.00
83	A5	1866	G	N9-C1'-C2'	-8.27	102.90	112.00
83	A5	3105	A	O4'-C1'-N9	8.27	114.82	108.20
83	A5	1447	C	O4'-C1'-N1	8.27	114.81	108.20
85	A7	28	U	C3'-C2'-C1'	8.27	108.11	101.50
36	B2	1913	C	P-O5'-C5'	8.27	134.12	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2776	A	C3'-C2'-C1'	8.27	108.11	101.50
83	A5	2627	G	P-O5'-C5'	8.26	134.12	120.90
36	B2	83	A	O4'-C1'-N9	8.26	114.81	108.20
36	B2	1105	U	O4'-C1'-N1	8.26	114.81	108.20
83	A5	572	A	O4'-C1'-N9	8.26	114.81	108.20
36	B2	11	A	N9-C1'-C2'	-8.25	102.92	112.00
36	B2	866	U	O4'-C1'-C2'	-8.25	97.55	105.80
83	A5	509	A	O4'-C1'-N9	8.25	114.80	108.20
83	A5	2801	U	O4'-C1'-N1	8.25	114.80	108.20
83	A5	178	U	C3'-C2'-C1'	8.25	108.10	101.50
83	A5	1146	U	O4'-C1'-N1	8.25	114.80	108.20
83	A5	3474	G	N9-C1'-C2'	8.25	124.72	114.00
36	B2	1455	U	C2'-C3'-O3'	8.25	127.64	109.50
86	A8	70	A	C1'-O4'-C4'	-8.25	103.30	109.90
66	Cd	47	ARG	NE-CZ-NH1	8.24	124.42	120.30
83	A5	2197	A	O4'-C1'-N9	8.24	114.80	108.20
83	A5	1976	G	O4'-C1'-C2'	8.24	115.02	107.60
83	A5	2464	A	O4'-C1'-N9	8.24	114.79	108.20
36	B2	521	U	O4'-C1'-C2'	-8.24	97.56	105.80
83	A5	3577	U	N1-C1'-C2'	8.24	124.71	114.00
36	B2	1076	U	O4'-C1'-N1	8.24	114.79	108.20
36	B2	1195	G	P-O3'-C3'	8.24	129.59	119.70
83	A5	3184	U	O4'-C1'-N1	8.24	114.79	108.20
83	A5	671	A	P-O3'-C3'	8.24	129.58	119.70
36	B2	1298	C	N1-C1'-C2'	8.23	124.70	114.00
36	B2	1399	A	P-O3'-C3'	-8.23	109.82	119.70
83	A5	1487	C	C3'-C2'-C1'	8.23	108.09	101.50
83	A5	1873	A	C1'-O4'-C4'	-8.23	103.31	109.90
83	A5	3712	G	O4'-C1'-N9	8.23	114.79	108.20
83	A5	476	U	O4'-C1'-N1	8.23	114.78	108.20
83	A5	1362	G	O4'-C1'-N9	8.23	114.78	108.20
83	A5	2701	G	O4'-C1'-C2'	-8.23	97.57	105.80
36	B2	237	U	P-O3'-C3'	8.22	129.57	119.70
36	B2	1749	C	C4'-C3'-O3'	8.22	129.44	113.00
36	B2	1544	G	O4'-C1'-N9	8.22	114.78	108.20
83	A5	1041	A	O4'-C1'-N9	8.22	114.77	108.20
83	A5	3369	A	O4'-C1'-C2'	-8.22	97.58	105.80
83	A5	1701	C	N1-C1'-C2'	8.22	124.68	114.00
83	A5	3737	A	O4'-C1'-N9	8.22	114.77	108.20
25	Af	106	TYR	CB-CG-CD2	-8.22	116.07	121.00
52	CS	93	MET	CG-SD-CE	-8.22	87.06	100.20
74	CC	195	GLY	C-N-CA	8.22	142.24	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	315	G	N9-C1'-C2'	-8.22	102.96	112.00
83	A5	463	C	P-O3'-C3'	8.22	129.56	119.70
83	A5	1195	U	P-O3'-C3'	8.22	129.56	119.70
83	A5	1327	G	C1'-O4'-C4'	-8.22	103.33	109.90
18	AY	42	ARG	NE-CZ-NH2	-8.21	116.19	120.30
36	B2	1044	G	O4'-C1'-N9	8.21	114.77	108.20
1	Az	226	PHE	CB-CG-CD2	-8.21	115.05	120.80
83	A5	2029	G	O4'-C1'-N9	8.21	114.77	108.20
36	B2	866	U	N1-C1'-C2'	8.21	124.67	114.00
36	B2	1545	U	C1'-O4'-C4'	8.20	116.46	109.90
83	A5	1657	G	C3'-C2'-C1'	8.21	108.06	101.50
83	A5	3469	G	O4'-C1'-N9	8.21	114.77	108.20
36	B2	263	A	O4'-C1'-N9	8.20	114.76	108.20
36	B2	1860	G	O4'-C1'-N9	8.20	114.76	108.20
36	B2	55	A	C1'-O4'-C4'	-8.20	103.34	109.90
36	B2	251	G	C3'-C2'-C1'	8.20	108.06	101.50
36	B2	450	A	O4'-C1'-N9	8.20	114.76	108.20
83	A5	2996	U	P-O3'-C3'	8.20	129.54	119.70
36	B2	1965	U	C1'-O4'-C4'	-8.20	103.34	109.90
83	A5	2783	C	C3'-C2'-C1'	8.20	108.06	101.50
69	Cg	10	ARG	NE-CZ-NH1	-8.20	116.20	120.30
83	A5	1684	G	O4'-C1'-N9	8.20	114.76	108.20
83	A5	2575	C	O4'-C1'-C2'	-8.20	97.60	105.80
83	A5	2926	G	C3'-C2'-C1'	-8.20	94.94	101.50
36	B2	638	A	O4'-C1'-N9	8.19	114.75	108.20
36	B2	1029	G	O4'-C1'-C2'	8.19	114.97	107.60
36	B2	1917	A	O4'-C1'-C2'	-8.19	97.61	105.80
54	CP	47	TYR	CB-CG-CD2	-8.20	116.08	121.00
59	CZ	106	ARG	NE-CZ-NH1	8.19	124.40	120.30
36	B2	162	G	O4'-C1'-N9	8.19	114.75	108.20
36	B2	1618	C	O4'-C1'-C2'	-8.19	97.61	105.80
83	A5	547	U	C3'-C2'-C1'	8.19	108.05	101.50
83	A5	1927	U	O5'-C5'-C4'	8.19	127.27	111.70
83	A5	3195	G	O4'-C1'-N9	8.19	114.75	108.20
86	A8	51	A	C3'-C2'-C1'	8.19	108.05	101.50
36	B2	371	A	O4'-C1'-C2'	-8.19	97.61	105.80
83	A5	1159	C	P-O3'-C3'	8.19	129.53	119.70
83	A5	2568	U	O4'-C1'-N1	8.19	114.75	108.20
83	A5	2601	A	C3'-C2'-C1'	8.19	108.05	101.50
36	B2	1147	U	C3'-C2'-C1'	-8.19	94.95	101.50
83	A5	1957	C	N1-C1'-C2'	8.19	124.64	114.00
83	A5	2997	C	O3'-P-O5'	8.19	119.55	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A7	29	C	N1-C1'-C2'	-8.19	103.00	112.00
36	B2	223	A	O3'-P-O5'	-8.18	88.45	104.00
36	B2	470	G	O4'-C1'-N9	8.18	114.75	108.20
83	A5	354	A	C1'-O4'-C4'	-8.18	103.35	109.90
83	A5	1812	C	C5'-C4'-O4'	-8.18	99.28	109.10
37	BC	52	G	O4'-C1'-N9	8.18	114.74	108.20
83	A5	498	U	O4'-C1'-N1	8.18	114.74	108.20
83	A5	3646	G	O4'-C1'-N9	8.18	114.74	108.20
83	A5	2769	G	N9-C1'-C2'	8.18	124.63	114.00
83	A5	97	C	C3'-C2'-C1'	8.17	108.04	101.50
83	A5	1657	G	N9-C1'-C2'	8.17	124.62	114.00
36	B2	449	C	N1-C1'-C2'	8.17	124.62	114.00
83	A5	1721	C	P-O3'-C3'	8.17	129.50	119.70
83	A5	3265	C	O4'-C1'-N1	8.17	114.73	108.20
27	AE	113	ARG	NE-CZ-NH2	-8.16	116.22	120.30
56	CX	258	TYR	CB-CG-CD2	-8.16	116.10	121.00
83	A5	2235	G	C3'-C2'-C1'	8.16	108.03	101.50
83	A5	2000	U	N1-C1'-C2'	8.16	124.61	114.00
36	B2	1062	C	O4'-C1'-N1	8.16	114.73	108.20
83	A5	2194	G	N9-C1'-C2'	8.16	124.61	114.00
36	B2	1181	G	O4'-C1'-C2'	8.16	114.94	107.60
45	Ca	93	LYS	C-N-CA	8.16	142.09	121.70
83	A5	212	U	P-O5'-C5'	8.16	133.95	120.90
83	A5	2086	U	O4'-C4'-C3'	-8.16	95.84	104.00
83	A5	299	G	C1'-O4'-C4'	-8.16	103.38	109.90
83	A5	2162	C	O4'-C1'-N1	8.16	114.72	108.20
64	CF	97	ARG	NE-CZ-NH1	8.15	124.38	120.30
28	AC	231	TYR	CB-CG-CD2	-8.15	116.11	121.00
83	A5	3383	A	N9-C1'-C2'	8.15	124.60	114.00
83	A5	3819	C	C4'-C3'-O3'	-8.15	92.28	109.40
86	A8	23	G	O4'-C1'-N9	8.15	114.72	108.20
83	A5	1003	C	N1-C1'-C2'	8.15	124.59	114.00
83	A5	1029	C	N1-C1'-C2'	8.15	124.59	114.00
83	A5	2134	A	C1'-O4'-C4'	8.15	116.42	109.90
85	A7	76	U	O4'-C1'-N1	8.15	114.72	108.20
36	B2	869	C	C5'-C4'-O4'	8.14	118.87	109.10
36	B2	1323	A	O4'-C1'-N9	8.14	114.71	108.20
83	A5	1797	A	O4'-C1'-C2'	-8.14	97.66	105.80
36	B2	857	G	C1'-O4'-C4'	-8.13	103.39	109.90
83	A5	1163	G	O4'-C1'-N9	8.13	114.71	108.20
36	B2	14	C	C1'-O4'-C4'	-8.13	103.39	109.90
83	A5	3713	C	N1-C1'-C2'	-8.13	103.05	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AQ	84	TYR	CB-CG-CD2	-8.13	116.12	121.00
36	B2	191	U	O4'-C1'-N1	8.13	114.70	108.20
36	B2	251	G	P-O3'-C3'	8.13	129.46	119.70
83	A5	464	G	O4'-C1'-N9	8.13	114.70	108.20
79	CJ	103	ASN	N-CA-C	8.13	132.94	111.00
37	BC	35	U	O4'-C1'-N1	8.12	114.70	108.20
83	A5	3565	G	O4'-C1'-C2'	8.12	114.91	107.60
85	A7	23	A	O3'-P-O5'	8.13	119.44	104.00
36	B2	1626	U	O4'-C1'-N1	8.12	114.70	108.20
83	A5	3527	A	P-O3'-C3'	8.12	129.44	119.70
2	Ag	94	ALA	C-N-CA	8.12	141.99	121.70
36	B2	1370	U	O4'-C1'-N1	8.12	114.69	108.20
83	A5	503	A	N9-C1'-C2'	8.12	124.56	114.00
36	B2	1411	G	O4'-C1'-N9	8.12	114.69	108.20
83	A5	1404	A	C1'-O4'-C4'	-8.12	103.41	109.90
83	A5	3103	U	O4'-C1'-N1	8.12	114.69	108.20
36	B2	328	A	N9-C1'-C2'	8.11	124.55	114.00
83	A5	286	A	O4'-C1'-N9	8.11	114.69	108.20
83	A5	1477	G	P-O3'-C3'	8.11	129.44	119.70
83	A5	2611	A	O4'-C1'-N9	8.11	114.69	108.20
36	B2	537	C	O4'-C1'-N1	8.11	114.69	108.20
36	B2	947	U	C1'-O4'-C4'	-8.11	103.41	109.90
83	A5	3559	A	C3'-C2'-C1'	8.11	107.99	101.50
85	A7	39	C	P-O3'-C3'	-8.11	109.97	119.70
36	B2	655	A	O4'-C1'-C2'	-8.11	97.69	105.80
36	B2	1357	G	C1'-O4'-C4'	-8.11	103.42	109.90
63	CB	123	TYR	CB-CG-CD1	-8.11	116.14	121.00
83	A5	1409	G	C3'-C2'-C1'	8.11	107.99	101.50
83	A5	1178	U	N1-C1'-C2'	8.10	124.54	114.00
83	A5	1435	A	O4'-C1'-N9	8.10	114.68	108.20
83	A5	2248	A	O4'-C1'-N9	8.10	114.68	108.20
36	B2	481	U	O4'-C1'-N1	8.10	114.68	108.20
36	B2	1398	U	O4'-C1'-N1	8.10	114.68	108.20
53	CT	17	ARG	NE-CZ-NH1	8.10	124.35	120.30
83	A5	2217	A	C1'-O4'-C4'	-8.10	103.42	109.90
83	A5	938	U	O4'-C1'-N1	8.10	114.68	108.20
83	A5	3246	G	O4'-C1'-N9	8.10	114.68	108.20
83	A5	3482	G	O4'-C1'-C2'	-8.10	97.70	105.80
84	A9	18	G	O4'-C1'-N9	8.10	114.68	108.20
83	A5	3762	G	C1'-O4'-C4'	-8.10	103.42	109.90
83	A5	834	G	O4'-C1'-N9	8.10	114.68	108.20
36	B2	908	G	O4'-C1'-N9	8.10	114.68	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1865	U	O4'-C1'-N1	8.10	114.68	108.20
83	A5	321	G	P-O3'-C3'	8.09	129.41	119.70
83	A5	535	A	O4'-C1'-N9	8.09	114.67	108.20
83	A5	3943	G	O4'-C1'-N9	8.09	114.67	108.20
36	B2	1622	U	P-O3'-C3'	8.09	129.41	119.70
34	AQ	128	ARG	NE-CZ-NH1	8.09	124.34	120.30
36	B2	419	C	N1-C1'-C2'	8.09	124.51	114.00
36	B2	1051	U	O4'-C1'-N1	8.09	114.67	108.20
83	A5	1699	A	P-O5'-C5'	8.09	133.84	120.90
83	A5	3162	C	N1-C1'-C2'	8.09	124.51	114.00
83	A5	1317	A	P-O5'-C5'	8.08	133.83	120.90
83	A5	2155	A	O4'-C1'-N9	-8.08	101.73	108.20
36	B2	1264	G	O4'-C1'-N9	8.08	114.66	108.20
83	A5	454	C	P-O3'-C3'	8.08	129.40	119.70
83	A5	1617	U	O4'-C1'-N1	8.08	114.67	108.20
36	B2	1318	A	O4'-C1'-C2'	-8.08	97.72	105.80
85	A7	49	A	C3'-C2'-C1'	8.08	107.96	101.50
36	B2	1127	G	O4'-C1'-C2'	8.07	114.87	107.60
36	B2	431	G	O4'-C1'-C2'	8.07	114.86	107.60
83	A5	641	A	O4'-C1'-C2'	-8.07	97.73	105.80
83	A5	1498	C	O4'-C1'-N1	8.07	114.66	108.20
83	A5	3544	G	O4'-C1'-N9	8.07	114.66	108.20
36	B2	267	G	O4'-C1'-C2'	8.07	114.86	107.60
36	B2	1582	C	P-O3'-C3'	8.07	129.38	119.70
36	B2	1690	G	O4'-C1'-N9	8.07	114.65	108.20
44	CM	141	ARG	NE-CZ-NH2	-8.07	116.27	120.30
83	A5	3523	U	O4'-C1'-N1	8.07	114.65	108.20
83	A5	588	U	P-O5'-C5'	8.06	133.81	120.90
83	A5	588	U	O4'-C1'-N1	8.06	114.65	108.20
83	A5	2108	U	O4'-C1'-N1	8.06	114.65	108.20
36	B2	1689	A	O4'-C1'-N9	8.06	114.65	108.20
36	B2	155	U	C3'-C2'-C1'	8.06	107.95	101.50
83	A5	1519	A	C1'-O4'-C4'	8.06	116.35	109.90
83	A5	2192	U	N1-C1'-C2'	8.06	124.48	114.00
36	B2	60	U	O4'-C1'-N1	8.06	114.64	108.20
36	B2	234	A	O4'-C1'-N9	8.05	114.64	108.20
83	A5	2260	U	O4'-C1'-N1	8.06	114.64	108.20
36	B2	483	A	O4'-C1'-N9	8.05	114.64	108.20
81	CE	225	TYR	CA-CB-CG	8.05	128.70	113.40
83	A5	1406	G	O4'-C1'-N9	8.05	114.64	108.20
83	A5	1786	G	N9-C1'-C2'	8.05	124.47	114.00
36	B2	1447	G	C1'-O4'-C4'	-8.05	103.46	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	931	A	O4'-C1'-N9	8.05	114.64	108.20
83	A5	3361	U	C1'-O4'-C4'	8.05	116.34	109.90
83	A5	1431	G	N9-C1'-C2'	-8.05	103.15	112.00
36	B2	897	A	O4'-C1'-N9	8.05	114.64	108.20
36	B2	1002	A	N9-C1'-C2'	8.05	124.46	114.00
36	B2	1357	G	O4'-C1'-C2'	8.05	114.84	107.60
83	A5	2574	C	O4'-C1'-N1	8.05	114.64	108.20
83	A5	2670	U	O4'-C1'-N1	8.05	114.64	108.20
36	B2	700	U	P-O3'-C3'	8.04	129.35	119.70
36	B2	1531	G	C3'-C2'-C1'	8.05	107.94	101.50
36	B2	1639	U	C3'-C2'-C1'	8.04	107.94	101.50
83	A5	2840	A	O4'-C1'-N9	8.04	114.64	108.20
83	A5	114	G	O4'-C1'-N9	8.04	114.64	108.20
36	B2	399	C	N1-C1'-C2'	8.04	124.45	114.00
83	A5	1077	C	N1-C1'-C2'	8.04	124.45	114.00
83	A5	3603	C	C3'-C2'-C1'	8.04	107.93	101.50
83	A5	1502	A	C3'-C2'-C1'	8.04	107.93	101.50
83	A5	1927	U	C4'-C3'-O3'	-8.04	92.53	109.40
85	A7	99	G	C1'-O4'-C4'	-8.04	103.47	109.90
36	B2	361	G	O4'-C1'-N9	8.03	114.63	108.20
16	AA	202	PHE	CB-CG-CD1	-8.03	115.18	120.80
36	B2	865	A	C3'-C2'-C1'	8.03	107.92	101.50
36	B2	1215	G	O4'-C1'-N9	8.03	114.63	108.20
83	A5	718	U	O4'-C1'-N1	8.03	114.63	108.20
83	A5	2570	C	O4'-C1'-N1	8.03	114.63	108.20
35	Ah	148	PHE	CB-CG-CD1	8.03	126.42	120.80
36	B2	1670	G	C1'-O4'-C4'	-8.03	103.48	109.90
83	A5	2735	A	C3'-C2'-C1'	8.03	107.92	101.50
83	A5	3598	U	N1-C1'-C2'	-8.03	103.17	112.00
26	AJ	132	ARG	NE-CZ-NH1	8.03	124.31	120.30
36	B2	1622	U	O4'-C1'-N1	8.03	114.62	108.20
83	A5	2913	G	C3'-C2'-C1'	-8.03	95.08	101.50
83	A5	3177	G	O4'-C1'-N9	8.03	114.62	108.20
83	A5	1138	C	C1'-O4'-C4'	-8.03	103.48	109.90
83	A5	362	A	O4'-C1'-N9	8.02	114.62	108.20
83	A5	910	C	C4'-C3'-O3'	8.02	129.05	113.00
83	A5	3553	C	O4'-C1'-N1	8.02	114.62	108.20
85	A7	84	U	O4'-C1'-N1	8.02	114.62	108.20
36	B2	1236	C	O4'-C1'-N1	8.02	114.62	108.20
83	A5	2911	U	O4'-C1'-N1	8.02	114.62	108.20
83	A5	1178	U	P-O3'-C3'	8.02	129.32	119.70
36	B2	325	U	O4'-C1'-N1	8.01	114.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1365	U	O4'-C1'-N1	8.01	114.61	108.20
36	B2	98	C	O4'-C1'-C2'	-8.01	97.79	105.80
36	B2	323	U	P-O3'-C3'	-8.01	110.09	119.70
67	Ce	124	PRO	C-N-CA	8.01	141.73	121.70
86	A8	45	G	O4'-C1'-N9	8.01	114.61	108.20
83	A5	1026	G	O4'-C1'-N9	8.01	114.61	108.20
36	B2	467	G	O4'-C1'-N9	8.01	114.61	108.20
36	B2	658	C	P-O3'-C3'	8.01	129.31	119.70
83	A5	3966	U	O4'-C1'-N1	8.01	114.61	108.20
36	B2	26	A	O4'-C1'-N9	8.01	114.60	108.20
83	A5	2602	A	C1'-O4'-C4'	8.01	116.30	109.90
36	B2	823	C	C3'-C2'-C1'	8.00	107.90	101.50
83	A5	1289	C	O4'-C1'-C2'	-8.00	97.80	105.80
83	A5	2544	U	O4'-C1'-N1	8.00	114.60	108.20
36	B2	1209	U	O4'-C1'-N1	8.00	114.60	108.20
36	B2	1618	C	C1'-O4'-C4'	8.00	116.30	109.90
37	BC	43	A	O4'-C1'-N9	8.00	114.60	108.20
81	CE	139	ARG	NE-CZ-NH2	-8.00	116.30	120.30
83	A5	1189	A	P-O3'-C3'	8.00	129.30	119.70
83	A5	863	U	N1-C1'-C2'	8.00	124.40	114.00
36	B2	421	A	C1'-O4'-C4'	7.99	116.30	109.90
83	A5	922	G	P-O3'-C3'	7.99	129.29	119.70
83	A5	1630	G	C1'-O4'-C4'	-7.99	103.51	109.90
83	A5	1800	U	P-O3'-C3'	-7.99	110.11	119.70
83	A5	1766	U	O4'-C1'-N1	7.99	114.59	108.20
36	B2	1402	U	C1'-O4'-C4'	-7.99	103.51	109.90
74	CC	309	ARG	NE-CZ-NH2	-7.99	116.31	120.30
83	A5	1492	C	P-O5'-C5'	-7.99	108.12	120.90
36	B2	1090	A	P-O3'-C3'	7.98	129.28	119.70
46	CN	129	TYR	CB-CG-CD1	7.98	125.79	121.00
83	A5	869	A	C3'-C2'-C1'	-7.98	95.11	101.50
83	A5	2932	C	C4'-C3'-O3'	-7.98	92.64	109.40
36	B2	565	G	O4'-C1'-N9	7.98	114.58	108.20
83	A5	1217	U	O4'-C1'-N1	7.98	114.58	108.20
83	A5	3191	G	O4'-C1'-N9	7.98	114.58	108.20
83	A5	3628	G	O4'-C1'-C2'	-7.98	97.82	105.80
36	B2	342	G	O4'-C1'-N9	7.98	114.58	108.20
83	A5	260	A	N9-C1'-C2'	7.98	124.37	114.00
83	A5	2686	C	C3'-C2'-C1'	7.97	107.88	101.50
36	B2	1373	U	N1-C1'-C2'	7.97	124.36	114.00
83	A5	3015	A	O4'-C1'-C2'	-7.97	97.83	105.80
36	B2	184	U	O4'-C1'-N1	7.97	114.57	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3661	C	N1-C1'-C2'	7.97	124.36	114.00
36	B2	83	A	N9-C1'-C2'	-7.96	103.25	112.00
36	B2	553	A	O4'-C1'-N9	7.96	114.57	108.20
83	A5	3751	C	O4'-C1'-N1	-7.96	101.83	108.20
36	B2	910	U	O4'-C1'-N1	7.96	114.56	108.20
39	Cq	199	PHE	CB-CG-CD1	-7.95	115.23	120.80
41	CO	59	TYR	C-N-CA	7.95	141.59	121.70
83	A5	69	A	O4'-C1'-N9	7.95	114.56	108.20
83	A5	3123	G	O4'-C1'-N9	7.95	114.56	108.20
46	CN	108	ARG	NE-CZ-NH2	-7.95	116.32	120.30
83	A5	1777	A	C4'-C3'-O3'	-7.95	92.70	109.40
1	Az	485	PHE	CB-CG-CD1	-7.95	115.24	120.80
83	A5	3188	A	O4'-C1'-C2'	7.95	114.75	107.60
8	AS	40	TYR	CB-CG-CD2	-7.94	116.23	121.00
36	B2	520	A	P-O3'-C3'	7.94	129.23	119.70
83	A5	677	G	C1'-O4'-C4'	-7.94	103.55	109.90
36	B2	1167	U	P-O3'-C3'	7.94	129.23	119.70
64	CF	39	ARG	NE-CZ-NH1	7.94	124.27	120.30
83	A5	841	A	C3'-C2'-C1'	7.94	107.85	101.50
83	A5	3740	U	O4'-C1'-N1	7.94	114.55	108.20
86	A8	76	A	C2'-C3'-O3'	7.94	126.97	109.50
36	B2	946	U	O4'-C1'-N1	7.94	114.55	108.20
83	A5	2770	C	N1-C1'-C2'	7.94	124.32	114.00
85	A7	117	G	N9-C1'-C2'	7.94	124.32	114.00
83	A5	3752	G	C3'-C2'-C1'	7.93	107.85	101.50
42	CL	134	ARG	NE-CZ-NH1	7.93	124.27	120.30
83	A5	2621	A	O4'-C1'-N9	-7.93	101.86	108.20
36	B2	776	A	P-O3'-C3'	7.93	129.21	119.70
83	A5	2015	G	O3'-P-O5'	-7.92	88.94	104.00
83	A5	2463	U	O4'-C1'-N1	7.92	114.54	108.20
83	A5	484	A	O4'-C1'-N9	7.92	114.54	108.20
83	A5	3572	G	C1'-O4'-C4'	-7.92	103.56	109.90
83	A5	3770	A	C4'-C3'-O3'	7.92	128.84	113.00
5	AO	100	THR	N-CA-C	7.92	132.38	111.00
36	B2	77	A	O4'-C1'-C2'	-7.92	97.88	105.80
36	B2	589	U	N1-C1'-C2'	7.92	124.29	114.00
8	AS	89	ASP	C-N-CA	7.92	141.49	121.70
29	AG	230	ARG	NE-CZ-NH1	7.91	124.26	120.30
83	A5	1719	G	C1'-O4'-C4'	-7.91	103.57	109.90
83	A5	2729	U	C1'-O4'-C4'	7.91	116.23	109.90
83	A5	2586	A	P-O3'-C3'	-7.91	110.20	119.70
83	A5	860	A	C3'-C2'-C1'	7.91	107.83	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3690	A	O4'-C1'-C2'	-7.91	97.89	105.80
83	A5	1497	G	O4'-C1'-N9	7.91	114.53	108.20
83	A5	2663	C	C3'-C2'-C1'	7.91	107.83	101.50
83	A5	3208	A	O4'-C1'-C2'	-7.91	97.89	105.80
86	A8	16	A	C3'-C2'-C1'	7.91	107.83	101.50
36	B2	1320	G	O4'-C1'-C2'	7.90	114.71	107.60
83	A5	1544	U	C3'-C2'-C1'	7.90	107.82	101.50
83	A5	3772	U	C1'-O4'-C4'	-7.90	103.58	109.90
53	CT	149	ALA	C-N-CA	7.90	141.45	121.70
83	A5	94	C	P-O3'-C3'	7.90	129.18	119.70
36	B2	186	A	P-O3'-C3'	7.90	129.18	119.70
36	B2	1233	U	O4'-C1'-N1	7.90	114.52	108.20
83	A5	180	U	O4'-C1'-N1	7.90	114.52	108.20
83	A5	816	A	O4'-C1'-N9	7.90	114.52	108.20
83	A5	3594	A	C3'-C2'-C1'	7.90	107.82	101.50
83	A5	3775	A	N9-C1'-C2'	7.89	124.26	114.00
83	A5	3874	A	O4'-C1'-N9	7.89	114.52	108.20
36	B2	932	U	O4'-C1'-N1	7.89	114.51	108.20
36	B2	1858	U	O4'-C1'-N1	7.89	114.51	108.20
83	A5	784	G	O4'-C1'-N9	7.89	114.51	108.20
36	B2	298	U	N1-C1'-C2'	7.89	124.26	114.00
83	A5	89	A	O4'-C1'-N9	7.89	114.51	108.20
83	A5	1637	U	P-O3'-C3'	-7.89	110.23	119.70
83	A5	2998	U	O4'-C1'-N1	7.89	114.51	108.20
83	A5	3587	U	O4'-C1'-N1	7.89	114.51	108.20
84	A9	23	G	O4'-C1'-N9	-7.89	101.89	108.20
83	A5	2762	A	C1'-O4'-C4'	7.89	116.21	109.90
83	A5	801	G	C1'-O4'-C4'	-7.88	103.59	109.90
83	A5	253	A	O4'-C1'-N9	7.88	114.51	108.20
83	A5	1039	U	O4'-C1'-N1	7.88	114.51	108.20
36	B2	152	U	O4'-C1'-C2'	-7.88	97.92	105.80
36	B2	137	C	O4'-C1'-C2'	-7.88	97.92	105.80
83	A5	1296	U	C1'-O4'-C4'	-7.88	103.60	109.90
19	AZ	79	ARG	NE-CZ-NH2	7.88	124.24	120.30
31	AH	124	TYR	CB-CG-CD2	-7.88	116.27	121.00
36	B2	123	A	O4'-C1'-N9	7.88	114.50	108.20
36	B2	276	A	N9-C1'-C2'	-7.88	103.33	112.00
64	CF	249	ARG	NE-CZ-NH1	7.88	124.24	120.30
83	A5	2685	G	C1'-O4'-C4'	-7.88	103.60	109.90
83	A5	3516	C	C3'-C2'-C1'	7.87	107.80	101.50
36	B2	1727	U	C2'-C3'-O3'	-7.87	92.18	109.50
36	B2	1562	A	O4'-C1'-N9	7.87	114.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	574	C	O4'-C1'-N1	7.87	114.49	108.20
78	Co	92	GLY	C-N-CA	7.86	138.81	122.30
83	A5	3411	C	O4'-C1'-N1	7.86	114.49	108.20
83	A5	1956	A	C1'-O4'-C4'	-7.86	103.61	109.90
36	B2	1385	U	C1'-O4'-C4'	-7.86	103.61	109.90
36	B2	1173	A	C1'-O4'-C4'	-7.86	103.61	109.90
36	B2	1297	C	C3'-C2'-C1'	7.86	107.79	101.50
83	A5	2106	C	O4'-C1'-C2'	-7.86	97.94	105.80
83	A5	3889	U	C3'-C2'-C1'	7.86	107.78	101.50
83	A5	3947	C	O4'-C1'-N1	7.85	114.48	108.20
83	A5	998	G	O4'-C1'-N9	7.85	114.48	108.20
85	A7	22	A	P-O3'-C3'	-7.85	110.28	119.70
36	B2	428	G	O4'-C1'-C2'	-7.84	97.95	105.80
83	A5	1269	U	O4'-C1'-N1	7.84	114.47	108.20
83	A5	2657	A	C3'-C2'-C1'	7.84	107.78	101.50
16	AA	147	PHE	CB-CG-CD1	-7.84	115.31	120.80
83	A5	995	G	O4'-C1'-C2'	7.84	114.66	107.60
83	A5	1452	A	C1'-O4'-C4'	7.84	116.17	109.90
83	A5	2184	G	O4'-C1'-N9	7.84	114.47	108.20
83	A5	2270	G	O4'-C1'-N9	7.84	114.47	108.20
36	B2	67	A	N9-C1'-C2'	7.84	124.19	114.00
83	A5	2674	A	O4'-C1'-N9	7.84	114.47	108.20
85	A7	27	A	O4'-C1'-C2'	-7.83	97.97	105.80
36	B2	345	U	N1-C1'-C2'	7.83	124.18	114.00
36	B2	1387	A	C1'-O4'-C4'	7.83	116.17	109.90
49	CQ	152	PHE	CB-CG-CD1	7.83	126.28	120.80
36	B2	1106	A	O4'-C1'-N9	7.83	114.46	108.20
36	B2	183	A	P-O3'-C3'	7.83	129.09	119.70
36	B2	1163	C	O4'-C1'-N1	7.83	114.46	108.20
1	Az	264	GLN	N-CA-C	7.83	132.13	111.00
36	B2	291	C	N1-C1'-C2'	7.82	124.17	114.00
83	A5	2107	U	O4'-C1'-N1	7.82	114.46	108.20
83	A5	2562	U	O4'-C1'-N1	7.82	114.46	108.20
36	B2	1721	C	O4'-C1'-N1	7.82	114.46	108.20
63	CB	49	TYR	CB-CG-CD1	-7.82	116.31	121.00
36	B2	1394	U	C3'-C2'-C1'	-7.82	95.25	101.50
36	B2	1690	G	C1'-O4'-C4'	-7.82	103.65	109.90
83	A5	507	U	O4'-C1'-N1	7.82	114.45	108.20
83	A5	3881	A	C3'-C2'-C1'	7.82	107.75	101.50
83	A5	1758	U	O4'-C1'-N1	7.82	114.45	108.20
86	A8	7	A	O4'-C1'-N9	7.82	114.45	108.20
36	B2	135	U	C5'-C4'-O4'	-7.81	99.72	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	595	C	C3'-C2'-C1'	7.81	107.75	101.50
36	B2	656	U	N1-C1'-C2'	-7.81	103.41	112.00
36	B2	1912	G	N9-C1'-C2'	7.81	124.16	114.00
85	A7	95	U	C1'-O4'-C4'	7.81	116.15	109.90
36	B2	871	G	N9-C1'-C2'	7.81	124.16	114.00
36	B2	1607	U	O4'-C1'-N1	7.81	114.45	108.20
83	A5	545	U	O4'-C1'-N1	7.81	114.45	108.20
83	A5	1400	A	O4'-C1'-N9	7.81	114.45	108.20
83	A5	2647	U	O4'-C1'-N1	7.81	114.45	108.20
36	B2	912	U	O4'-C1'-N1	7.81	114.45	108.20
83	A5	115	U	O4'-C1'-N1	7.81	114.45	108.20
83	A5	397	C	N1-C1'-C2'	7.81	124.15	114.00
83	A5	1645	G	O4'-C1'-N9	7.81	114.45	108.20
83	A5	2251	G	O4'-C1'-N9	7.81	114.45	108.20
83	A5	3934	C	O3'-P-O5'	7.81	118.84	104.00
36	B2	647	U	C1'-O4'-C4'	7.81	116.15	109.90
83	A5	122	C	N1-C1'-C2'	7.81	124.15	114.00
83	A5	162	U	O4'-C1'-N1	7.81	114.45	108.20
83	A5	1153	G	O4'-C1'-N9	7.80	114.44	108.20
83	A5	2006	U	P-O3'-C3'	-7.80	110.33	119.70
83	A5	2128	A	C4'-C3'-C2'	7.80	110.40	102.60
83	A5	3208	A	C1'-O4'-C4'	7.80	116.14	109.90
83	A5	3907	G	O4'-C1'-N9	7.80	114.44	108.20
36	B2	522	G	O4'-C1'-N9	7.80	114.44	108.20
83	A5	200	U	O4'-C1'-N1	7.80	114.44	108.20
83	A5	536	U	O4'-C1'-N1	7.80	114.44	108.20
41	CO	118	ARG	NE-CZ-NH1	7.80	124.20	120.30
83	A5	3872	C	O4'-C1'-N1	7.80	114.44	108.20
83	A5	3	A	N9-C1'-C2'	7.80	124.13	114.00
83	A5	881	G	O4'-C1'-N9	7.80	114.44	108.20
83	A5	630	U	O4'-C1'-N1	7.79	114.44	108.20
83	A5	1176	A	O4'-C1'-C2'	-7.79	98.00	105.80
83	A5	1256	C	N1-C1'-C2'	7.79	124.13	114.00
85	A7	64	G	C4'-C3'-O3'	-7.79	93.04	109.40
83	A5	533	A	C1'-O4'-C4'	-7.79	103.67	109.90
83	A5	3135	G	O4'-C1'-N9	7.79	114.43	108.20
83	A5	431	C	O4'-C1'-N1	7.79	114.43	108.20
83	A5	3687	A	P-O3'-C3'	7.79	129.04	119.70
36	B2	653	U	O4'-C1'-N1	7.79	114.43	108.20
36	B2	929	A	O4'-C1'-N9	7.79	114.43	108.20
72	Ck	40	ARG	CA-C-N	7.79	134.33	117.20
83	A5	1324	C	C3'-C2'-C1'	7.79	107.73	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	AG	28	TYR	CB-CG-CD2	-7.78	116.33	121.00
83	A5	203	A	O4'-C1'-N9	7.78	114.43	108.20
83	A5	549	A	C3'-C2'-C1'	7.78	107.73	101.50
83	A5	2620	C	O4'-C1'-C2'	-7.78	98.02	105.80
83	A5	631	A	N9-C1'-C2'	-7.78	103.44	112.00
83	A5	3692	G	C1'-O4'-C4'	-7.78	103.67	109.90
85	A7	97	G	O4'-C1'-N9	7.78	114.42	108.20
83	A5	476	U	P-O3'-C3'	7.78	129.03	119.70
83	A5	1805	A	O4'-C1'-C2'	-7.78	98.02	105.80
83	A5	1476	G	C3'-C2'-C1'	7.78	107.72	101.50
83	A5	489	U	O4'-C1'-N1	7.78	114.42	108.20
83	A5	1009	G	N9-C1'-C2'	7.78	124.11	114.00
83	A5	3394	U	O4'-C1'-N1	7.78	114.42	108.20
10	AN	20	ARG	NE-CZ-NH2	-7.77	116.41	120.30
36	B2	971	A	O4'-C1'-N9	7.77	114.42	108.20
49	CQ	152	PHE	CB-CG-CD2	-7.77	115.36	120.80
83	A5	862	U	O4'-C1'-C2'	-7.77	98.03	105.80
83	A5	3026	U	P-O3'-C3'	7.77	129.03	119.70
84	A9	20	U	O4'-C1'-N1	7.77	114.42	108.20
36	B2	1649	U	O4'-C1'-C2'	-7.77	98.03	105.80
36	B2	1659	C	N1-C1'-C2'	7.77	124.10	114.00
83	A5	2926	G	P-O3'-C3'	7.77	129.02	119.70
20	Aa	10	ARG	NE-CZ-NH2	-7.77	116.42	120.30
83	A5	3676	C	C1'-O4'-C4'	7.77	116.11	109.90
83	A5	35	C	N1-C1'-C2'	7.77	124.10	114.00
83	A5	195	A	O4'-C1'-N9	7.77	114.41	108.20
83	A5	542	C	O4'-C1'-C2'	-7.77	98.03	105.80
36	B2	1907	G	O4'-C1'-N9	7.76	114.41	108.20
83	A5	28	C	C3'-C2'-C1'	7.76	107.71	101.50
83	A5	1782	C	C3'-C2'-C1'	7.76	107.71	101.50
36	B2	1393	C	C3'-C2'-C1'	7.76	107.71	101.50
83	A5	2008	U	O4'-C1'-N1	7.76	114.41	108.20
36	B2	59	C	O4'-C1'-C2'	-7.76	98.04	105.80
36	B2	1072	A	O4'-C1'-N9	7.76	114.41	108.20
83	A5	312	U	O4'-C1'-N1	7.76	114.41	108.20
83	A5	1034	U	N1-C1'-C2'	7.76	124.09	114.00
83	A5	3179	A	O4'-C1'-N9	7.76	114.41	108.20
83	A5	3526	C	O4'-C1'-N1	7.76	114.41	108.20
37	BC	71	U	O4'-C1'-N1	7.76	114.41	108.20
83	A5	2987	A	O4'-C1'-N9	7.76	114.41	108.20
83	A5	2043	G	N9-C1'-C2'	-7.76	103.47	112.00
4	AK	16	PHE	CB-CG-CD1	-7.75	115.37	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	Cg	20	ARG	NE-CZ-NH2	-7.75	116.42	120.30
83	A5	3927	C	C3'-C2'-C1'	7.75	107.70	101.50
83	A5	2465	U	O4'-C1'-N1	7.75	114.40	108.20
83	A5	2466	C	C3'-C2'-C1'	7.75	107.70	101.50
75	Cm	97	ARG	NE-CZ-NH1	7.75	124.17	120.30
83	A5	1456	U	O4'-C1'-C2'	7.75	114.57	107.60
32	AW	46	TYR	CB-CG-CD2	-7.75	116.35	121.00
36	B2	1054	A	O4'-C1'-N9	7.75	114.40	108.20
36	B2	1162	U	N1-C1'-C2'	-7.75	103.48	112.00
83	A5	2683	G	O4'-C1'-N9	7.75	114.40	108.20
83	A5	1066	A	C4'-C3'-O3'	7.74	128.49	113.00
83	A5	2717	C	C3'-C2'-C1'	7.74	107.69	101.50
83	A5	3915	U	P-O3'-C3'	7.74	128.99	119.70
85	A7	64	G	O3'-P-O5'	7.74	118.71	104.00
83	A5	2267	U	O4'-C1'-N1	7.74	114.39	108.20
83	A5	2130	G	P-O5'-C5'	7.74	133.28	120.90
83	A5	1936	U	O4'-C1'-N1	7.74	114.39	108.20
63	CB	169	ARG	NE-CZ-NH1	7.74	124.17	120.30
74	CC	61	ALA	N-CA-CB	7.74	120.93	110.10
36	B2	1843	A	O4'-C1'-N9	7.74	114.39	108.20
83	A5	2586	A	O4'-C1'-N9	7.74	114.39	108.20
83	A5	2686	C	N1-C1'-C2'	7.74	124.06	114.00
83	A5	3621	A	O4'-C1'-C2'	-7.74	98.06	105.80
83	A5	3806	C	C3'-C2'-C1'	7.74	107.69	101.50
36	B2	618	G	O4'-C1'-C2'	7.73	114.56	107.60
42	CL	58	VAL	N-CA-C	7.73	131.88	111.00
1	Az	782	PHE	CB-CG-CD2	7.73	126.21	120.80
83	A5	3151	G	C1'-O4'-C4'	-7.73	103.71	109.90
83	A5	3368	C	O4'-C1'-C2'	7.73	114.56	107.60
83	A5	1241	C	P-O3'-C3'	7.73	128.98	119.70
83	A5	3727	A	P-O3'-C3'	7.73	128.98	119.70
20	Aa	97	PRO	CA-C-O	-7.73	101.65	120.20
36	B2	426	A	O4'-C1'-C2'	-7.73	98.07	105.80
36	B2	857	G	O4'-C1'-C2'	7.73	114.56	107.60
36	B2	1401	U	N1-C1'-C2'	-7.73	103.50	112.00
83	A5	3751	C	P-O3'-C3'	7.73	128.97	119.70
86	A8	108	A	O4'-C1'-N9	7.73	114.38	108.20
83	A5	3178	G	C1'-O4'-C4'	-7.73	103.72	109.90
83	A5	3963	U	O4'-C1'-N1	7.73	114.38	108.20
36	B2	97	U	O4'-C1'-N1	7.72	114.38	108.20
36	B2	1452	U	C1'-O4'-C4'	7.72	116.08	109.90
83	A5	875	G	C1'-O4'-C4'	-7.72	103.72	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	CL	109	ARG	NE-CZ-NH2	-7.72	116.44	120.30
83	A5	2003	U	O4'-C1'-N1	7.72	114.38	108.20
36	B2	827	U	O4'-C1'-N1	7.72	114.38	108.20
83	A5	12	C	C1'-O4'-C4'	-7.72	103.72	109.90
83	A5	3445	C	C3'-C2'-C1'	7.72	107.67	101.50
83	A5	3627	C	O4'-C1'-N1	7.72	114.37	108.20
36	B2	1646	G	O4'-C1'-N9	7.71	114.37	108.20
54	CP	18	ARG	NE-CZ-NH2	-7.71	116.44	120.30
83	A5	935	A	O4'-C1'-N9	7.71	114.37	108.20
83	A5	1462	U	O4'-C1'-N1	7.71	114.37	108.20
83	A5	1755	U	O4'-C1'-C2'	-7.71	98.09	105.80
83	A5	3395	G	N9-C1'-C2'	7.71	124.03	114.00
83	A5	1033	U	O4'-C1'-N1	7.71	114.37	108.20
36	B2	1135	G	O4'-C1'-N9	7.71	114.37	108.20
83	A5	1346	C	O4'-C1'-N1	7.71	114.37	108.20
83	A5	3102	C	O4'-C1'-N1	7.71	114.37	108.20
36	B2	1250	C	O4'-C1'-N1	7.71	114.37	108.20
72	Ck	41	PHE	N-CA-C	7.71	131.81	111.00
36	B2	1027	A	O4'-C1'-C2'	-7.71	98.09	105.80
36	B2	1708	A	O4'-C1'-N9	7.71	114.36	108.20
36	B2	462	G	O4'-C1'-N9	7.70	114.36	108.20
83	A5	1522	G	C3'-C2'-C1'	7.70	107.66	101.50
83	A5	1547	A	N9-C1'-C2'	7.70	124.02	114.00
83	A5	3540	G	O4'-C1'-N9	7.70	114.36	108.20
36	B2	1727	U	O4'-C1'-N1	7.70	114.36	108.20
49	CQ	152	PHE	C-N-CA	7.69	138.46	122.30
83	A5	2675	U	C3'-C2'-C1'	7.69	107.66	101.50
36	B2	106	C	N1-C1'-C2'	7.69	124.00	114.00
83	A5	681	G	N9-C1'-C2'	-7.69	103.54	112.00
29	AG	137	ARG	NE-CZ-NH1	7.69	124.14	120.30
83	A5	212	U	O4'-C1'-C2'	-7.69	98.11	105.80
74	CC	196	ARG	N-CA-C	7.69	131.76	111.00
36	B2	21	U	O4'-C1'-N1	7.69	114.35	108.20
64	CF	109	ARG	NE-CZ-NH1	7.69	124.14	120.30
85	A7	88	G	O4'-C1'-N9	7.69	114.35	108.20
47	CI	154	ARG	NE-CZ-NH2	-7.69	116.46	120.30
83	A5	1016	A	O4'-C1'-N9	7.69	114.35	108.20
36	B2	152	U	C1'-O4'-C4'	7.68	116.05	109.90
74	CC	73	GLY	N-CA-C	7.68	132.31	113.10
83	A5	2902	C	O4'-C1'-N1	7.68	114.35	108.20
83	A5	3557	G	O4'-C1'-N9	7.68	114.35	108.20
36	B2	1150	U	O4'-C1'-N1	7.68	114.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	736	A	O4'-C1'-N9	7.68	114.35	108.20
83	A5	1546	U	O4'-C1'-N1	7.68	114.34	108.20
36	B2	444	U	O4'-C1'-N1	7.68	114.34	108.20
36	B2	1280	C	O4'-C1'-N1	7.68	114.34	108.20
83	A5	844	C	O4'-C1'-N1	7.68	114.34	108.20
21	Ab	47	PHE	CB-CG-CD2	-7.68	115.43	120.80
36	B2	380	U	O4'-C1'-N1	7.67	114.34	108.20
83	A5	143	G	O4'-C1'-C2'	7.67	114.51	107.60
83	A5	533	A	O4'-C1'-C2'	7.67	114.51	107.60
83	A5	1292	G	C1'-O4'-C4'	7.67	116.04	109.90
83	A5	2680	G	C1'-O4'-C4'	-7.67	103.76	109.90
83	A5	326	A	O4'-C1'-N9	7.67	114.34	108.20
86	A8	79	A	O4'-C1'-N9	7.67	114.34	108.20
83	A5	1245	C	N1-C1'-C2'	7.67	123.97	114.00
16	AA	117	ARG	NE-CZ-NH1	7.67	124.13	120.30
83	A5	1514	U	O4'-C1'-N1	7.66	114.33	108.20
36	B2	1616	A	O4'-C1'-N9	7.66	114.33	108.20
83	A5	1080	G	O4'-C1'-N9	7.66	114.33	108.20
83	A5	3025	A	C4'-C3'-O3'	7.66	128.32	113.00
36	B2	108	G	O4'-C1'-N9	7.66	114.33	108.20
83	A5	2910	C	O4'-C1'-C2'	-7.66	98.14	105.80
86	A8	12	G	N9-C1'-C2'	7.66	123.96	114.00
36	B2	217	A	C3'-C2'-C1'	7.66	107.62	101.50
83	A5	1682	G	O4'-C1'-N9	7.66	114.32	108.20
36	B2	1496	U	P-O5'-C5'	-7.65	108.65	120.90
49	CQ	143	ARG	NE-CZ-NH1	7.65	124.13	120.30
36	B2	1991	C	O4'-C1'-C2'	-7.65	98.15	105.80
83	A5	662	A	P-O3'-C3'	7.65	128.88	119.70
83	A5	3711	G	C1'-O4'-C4'	7.65	116.02	109.90
36	B2	717	C	N1-C1'-C2'	7.65	123.94	114.00
36	B2	1354	G	O4'-C1'-N9	7.65	114.32	108.20
55	CU	284	ARG	NE-CZ-NH1	7.65	124.12	120.30
83	A5	281	C	O4'-C1'-N1	7.65	114.32	108.20
83	A5	3568	A	C1'-O4'-C4'	7.65	116.02	109.90
83	A5	3696	C	P-O3'-C3'	7.65	128.88	119.70
83	A5	2927	U	N1-C1'-C2'	7.65	123.94	114.00
36	B2	1086	U	N1-C1'-C2'	7.64	123.94	114.00
79	CJ	23	ARG	NE-CZ-NH1	7.64	124.12	120.30
83	A5	3839	A	C3'-C2'-C1'	-7.64	95.39	101.50
36	B2	394	G	O4'-C1'-C2'	7.64	114.47	107.60
36	B2	398	C	O4'-C1'-C2'	-7.64	98.16	105.80
78	Co	104	PHE	CB-CG-CD2	-7.64	115.45	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2837	A	C1'-O4'-C4'	-7.64	103.79	109.90
45	Ca	60	ARG	NE-CZ-NH1	7.64	124.12	120.30
83	A5	1022	A	O4'-C1'-N9	7.64	114.31	108.20
83	A5	1981	A	C3'-C2'-C1'	7.63	107.61	101.50
83	A5	3015	A	C1'-O4'-C4'	7.63	116.01	109.90
83	A5	3970	A	O4'-C1'-N9	7.63	114.31	108.20
85	A7	119	C	O4'-C1'-N1	7.63	114.31	108.20
74	CC	309	ARG	C-N-CA	7.63	140.78	121.70
36	B2	28	A	O4'-C1'-N9	7.63	114.31	108.20
36	B2	553	A	P-O3'-C3'	7.63	128.86	119.70
83	A5	3638	U	N1-C1'-C2'	7.63	123.92	114.00
36	B2	137	C	C2'-C3'-O3'	7.63	126.28	109.50
36	B2	1695	A	N9-C1'-C2'	-7.63	103.61	112.00
36	B2	1991	C	P-O3'-C3'	7.63	128.85	119.70
83	A5	894	U	P-O3'-C3'	7.63	128.85	119.70
83	A5	1469	C	N1-C1'-C2'	7.63	123.92	114.00
61	Ch	122	LYS	N-CA-CB	7.63	124.33	110.60
83	A5	77	A	O3'-P-O5'	-7.63	89.51	104.00
83	A5	309	C	C3'-C2'-C1'	7.63	107.60	101.50
83	A5	2006	U	P-O5'-C5'	-7.63	108.70	120.90
63	CB	277	ARG	NE-CZ-NH2	-7.62	116.49	120.30
36	B2	11	A	C1'-O4'-C4'	7.62	116.00	109.90
36	B2	1430	U	N1-C1'-C2'	7.62	123.91	114.00
39	Cq	14	PHE	CB-CG-CD2	-7.62	115.46	120.80
83	A5	770	C	C3'-C2'-C1'	7.62	107.60	101.50
83	A5	3661	C	O4'-C1'-N1	7.62	114.30	108.20
36	B2	989	G	O4'-C1'-N9	7.62	114.29	108.20
83	A5	2537	A	O4'-C1'-C2'	-7.62	98.18	105.80
83	A5	1174	G	C1'-O4'-C4'	-7.62	103.81	109.90
83	A5	675	C	O4'-C1'-N1	7.62	114.29	108.20
83	A5	3452	U	P-O3'-C3'	-7.62	110.56	119.70
36	B2	158	U	N1-C1'-C2'	-7.61	103.63	112.00
81	CE	187	ALA	N-CA-CB	7.61	120.75	110.10
83	A5	2059	U	O4'-C1'-N1	7.61	114.29	108.20
83	A5	2641	C	O4'-C1'-C2'	-7.61	98.19	105.80
83	A5	3418	U	C1'-C2'-O2'	-7.61	87.78	110.60
83	A5	1489	A	C3'-C2'-C1'	7.61	107.58	101.50
83	A5	421	C	O4'-C1'-C2'	-7.60	98.20	105.80
83	A5	3780	G	O4'-C1'-N9	7.60	114.28	108.20
36	B2	1525	A	N9-C1'-C2'	-7.60	103.64	112.00
83	A5	2632	U	O4'-C1'-N1	7.60	114.28	108.20
36	B2	1530	A	O4'-C1'-N9	7.60	114.28	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	CX	189	ARG	NE-CZ-NH1	7.60	124.10	120.30
83	A5	2789	U	O4'-C1'-N1	7.60	114.28	108.20
83	A5	1942	U	O4'-C1'-N1	7.60	114.28	108.20
83	A5	3588	G	C1'-O4'-C4'	-7.60	103.82	109.90
36	B2	899	A	N9-C1'-C2'	7.59	123.87	114.00
83	A5	2884	C	N1-C1'-C2'	7.59	123.87	114.00
36	B2	1809	U	O4'-C1'-N1	7.59	114.27	108.20
41	CO	103	ARG	NE-CZ-NH2	-7.59	116.50	120.30
83	A5	1977	A	O4'-C1'-N9	7.59	114.27	108.20
83	A5	3576	G	O4'-C1'-C2'	7.59	114.43	107.60
83	A5	3607	C	N1-C1'-C2'	7.59	123.87	114.00
54	CP	42	ARG	NE-CZ-NH1	7.59	124.09	120.30
83	A5	1585	U	P-O3'-C3'	7.59	128.81	119.70
83	A5	3584	C	C3'-C2'-C1'	7.59	107.57	101.50
83	A5	3137	A	O4'-C1'-N9	7.59	114.27	108.20
83	A5	3540	G	C1'-O4'-C4'	7.59	115.97	109.90
83	A5	2763	U	N1-C1'-C2'	7.59	123.86	114.00
83	A5	2270	G	N9-C1'-C2'	7.58	123.86	114.00
83	A5	1963	U	O4'-C1'-C2'	-7.58	98.22	105.80
83	A5	499	A	C3'-C2'-C1'	7.58	107.57	101.50
83	A5	3206	A	O4'-C1'-C2'	-7.58	98.22	105.80
36	B2	202	U	O4'-C1'-N1	7.58	114.26	108.20
83	A5	2185	U	O4'-C1'-N1	7.58	114.26	108.20
83	A5	2763	U	O4'-C1'-N1	7.58	114.26	108.20
83	A5	3828	U	O4'-C1'-N1	7.58	114.26	108.20
36	B2	1986	A	O4'-C1'-N9	7.58	114.26	108.20
83	A5	615	C	N1-C1'-C2'	7.58	123.85	114.00
83	A5	1280	C	C3'-C2'-C1'	7.58	107.56	101.50
36	B2	533	A	N9-C1'-C2'	7.58	123.85	114.00
36	B2	1119	G	C1'-O4'-C4'	-7.58	103.84	109.90
83	A5	193	U	O4'-C1'-N1	7.58	114.26	108.20
36	B2	156	U	P-O5'-C5'	7.57	133.02	120.90
83	A5	1221	U	O4'-C1'-N1	7.57	114.26	108.20
36	B2	1603	G	C1'-O4'-C4'	-7.57	103.84	109.90
83	A5	2590	C	O4'-C1'-N1	7.57	114.26	108.20
83	A5	3117	A	N9-C1'-C2'	-7.57	103.67	112.00
85	A7	90	A	C1'-O4'-C4'	7.57	115.96	109.90
36	B2	1179	A	C5'-C4'-O4'	7.57	118.18	109.10
83	A5	2141	A	O4'-C1'-N9	7.57	114.25	108.20
36	B2	294	C	O4'-C1'-N1	7.57	114.25	108.20
65	Cc	63	TYR	CB-CG-CD1	-7.57	116.46	121.00
83	A5	987	G	O4'-C1'-N9	7.57	114.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A7	64	G	C5'-C4'-O4'	7.57	118.18	109.10
83	A5	1109	G	O4'-C1'-N9	7.56	114.25	108.20
83	A5	1382	U	C1'-O4'-C4'	7.56	115.95	109.90
83	A5	2152	C	C1'-O4'-C4'	-7.56	103.85	109.90
83	A5	457	A	P-O3'-C3'	7.56	128.77	119.70
83	A5	653	U	O4'-C1'-N1	7.56	114.25	108.20
83	A5	1461	G	C1'-O4'-C4'	-7.56	103.85	109.90
83	A5	3895	A	N9-C1'-C2'	-7.56	103.69	112.00
36	B2	1851	A	O4'-C1'-N9	7.56	114.25	108.20
83	A5	3807	G	O4'-C1'-N9	-7.56	102.16	108.20
83	A5	2038	A	C3'-C2'-C1'	7.55	107.54	101.50
83	A5	3916	U	N1-C1'-C2'	7.55	123.82	114.00
36	B2	1240	A	O4'-C1'-N9	7.55	114.24	108.20
83	A5	3202	G	O4'-C1'-N9	7.55	114.24	108.20
36	B2	45	U	C3'-C2'-C1'	7.55	107.54	101.50
36	B2	1740	G	C3'-C2'-C1'	7.55	107.54	101.50
83	A5	842	A	O4'-C1'-N9	7.55	114.24	108.20
83	A5	1567	G	C1'-O4'-C4'	-7.55	103.86	109.90
83	A5	2672	U	O4'-C1'-N1	7.55	114.24	108.20
83	A5	827	A	O4'-C1'-N9	7.55	114.24	108.20
83	A5	1668	U	O4'-C1'-C2'	7.55	114.39	107.60
83	A5	361	U	O4'-C1'-N1	7.55	114.24	108.20
83	A5	1000	G	N9-C1'-C2'	7.54	123.81	114.00
83	A5	2807	G	O4'-C1'-N9	7.54	114.24	108.20
83	A5	3487	A	O4'-C1'-N9	7.54	114.24	108.20
36	B2	705	G	O4'-C1'-C2'	7.54	114.39	107.60
83	A5	2620	C	C3'-C2'-C1'	7.54	107.53	101.50
36	B2	493	A	P-O3'-C3'	7.54	128.75	119.70
83	A5	1427	G	O4'-C1'-N9	7.54	114.23	108.20
83	A5	1894	G	O4'-C1'-C2'	7.54	114.39	107.60
83	A5	3778	U	C1'-O4'-C4'	7.54	115.93	109.90
83	A5	1453	U	P-O5'-C5'	7.54	132.97	120.90
42	CL	134	ARG	N-CA-CB	7.54	124.17	110.60
83	A5	3560	C	N1-C1'-C2'	-7.54	103.71	112.00
16	AA	158	ASP	C-N-CA	7.54	140.54	121.70
36	B2	1131	U	P-O5'-C5'	7.54	132.96	120.90
42	CL	75	PHE	CB-CG-CD1	-7.54	115.53	120.80
83	A5	1084	A	O4'-C1'-C2'	-7.54	98.26	105.80
83	A5	2767	U	O4'-C1'-N1	-7.54	102.17	108.20
85	A7	50	A	P-O3'-C3'	7.54	128.74	119.70
83	A5	1683	U	O4'-C1'-N1	7.53	114.23	108.20
36	B2	151	G	O4'-C1'-N9	7.53	114.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	CC	334	TYR	CB-CG-CD1	-7.53	116.48	121.00
83	A5	1294	U	C1'-O4'-C4'	7.53	115.92	109.90
83	A5	3454	G	N9-C1'-C2'	7.53	123.79	114.00
83	A5	530	U	N1-C1'-C2'	-7.53	103.72	112.00
83	A5	1894	G	C1'-O4'-C4'	-7.53	103.88	109.90
36	B2	1678	G	O4'-C1'-C2'	7.53	114.37	107.60
85	A7	1	G	C1'-O4'-C4'	-7.53	103.88	109.90
83	A5	3706	U	P-O3'-C3'	-7.52	110.67	119.70
66	Cd	38	ARG	CA-C-N	7.52	133.75	117.20
83	A5	710	A	O4'-C1'-N9	7.52	114.22	108.20
83	A5	2053	A	N9-C1'-C2'	7.52	123.78	114.00
83	A5	2872	U	C3'-C2'-C1'	7.52	107.52	101.50
83	A5	3216	C	O4'-C1'-N1	7.52	114.22	108.20
83	A5	3543	A	O4'-C1'-N9	7.52	114.22	108.20
83	A5	3690	A	C3'-C2'-C1'	7.52	107.52	101.50
83	A5	299	G	O4'-C1'-C2'	7.52	114.37	107.60
83	A5	532	C	O4'-C1'-N1	7.52	114.22	108.20
83	A5	1744	U	O4'-C1'-N1	7.52	114.22	108.20
83	A5	416	C	O4'-C1'-N1	7.52	114.22	108.20
83	A5	1559	A	O4'-C1'-N9	7.52	114.22	108.20
83	A5	169	C	N1-C1'-C2'	7.52	123.77	114.00
83	A5	1356	G	C3'-C2'-C1'	7.52	107.51	101.50
83	A5	13	U	O4'-C1'-N1	7.51	114.21	108.20
83	A5	1722	U	N1-C1'-C2'	7.51	123.77	114.00
36	B2	1318	A	C3'-C2'-C1'	7.51	107.51	101.50
83	A5	925	C	O4'-C1'-C2'	-7.51	98.29	105.80
83	A5	1062	C	C3'-C2'-C1'	7.51	107.51	101.50
83	A5	2563	G	O4'-C1'-N9	7.51	114.21	108.20
83	A5	388	U	N1-C1'-C2'	7.51	123.76	114.00
36	B2	622	C	C3'-C2'-C1'	7.51	107.51	101.50
83	A5	1744	U	C3'-C2'-C1'	7.51	107.51	101.50
36	B2	394	G	N9-C1'-C2'	7.51	123.76	114.00
83	A5	491	U	O4'-C1'-C2'	-7.51	98.29	105.80
83	A5	590	U	O4'-C1'-N1	7.51	114.21	108.20
83	A5	1891	U	C1'-O4'-C4'	7.50	115.90	109.90
36	B2	963	G	O4'-C1'-C2'	7.50	114.35	107.60
36	B2	1654	G	N9-C1'-C2'	-7.50	103.75	112.00
36	B2	1871	G	C3'-C2'-C1'	7.50	107.50	101.50
83	A5	2119	G	O4'-C1'-N9	7.50	114.20	108.20
36	B2	647	U	O4'-C1'-C2'	-7.50	98.30	105.80
83	A5	26	G	O4'-C1'-N9	7.50	114.20	108.20
36	B2	715	U	O4'-C1'-N1	7.50	114.20	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A7	53	U	N1-C1'-C2'	-7.50	103.75	112.00
36	B2	448	C	O4'-C1'-N1	7.50	114.20	108.20
83	A5	1805	A	P-O5'-C5'	7.50	132.89	120.90
36	B2	979	G	O4'-C1'-N9	7.49	114.19	108.20
83	A5	1199	C	C3'-C2'-C1'	7.49	107.50	101.50
83	A5	3856	U	C1'-O4'-C4'	7.49	115.89	109.90
83	A5	676	A	O4'-C1'-N9	7.49	114.19	108.20
26	AJ	5	ARG	NE-CZ-NH2	-7.49	116.56	120.30
36	B2	409	G	O4'-C1'-N9	7.49	114.19	108.20
7	AM	39	VAL	CB-CA-C	7.49	125.63	111.40
56	CX	183	ARG	NE-CZ-NH1	7.49	124.04	120.30
83	A5	1424	G	C1'-O4'-C4'	-7.49	103.91	109.90
83	A5	3309	A	N9-C1'-C2'	7.49	123.74	114.00
36	B2	1885	U	O4'-C1'-N1	7.49	114.19	108.20
83	A5	1715	G	O4'-C1'-N9	7.49	114.19	108.20
83	A5	3695	G	O4'-C1'-C2'	7.49	114.34	107.60
36	B2	580	C	N1-C1'-C2'	7.49	123.73	114.00
36	B2	1131	U	P-O3'-C3'	-7.49	110.72	119.70
83	A5	541	A	P-O3'-C3'	-7.49	110.72	119.70
83	A5	3297	C	N1-C1'-C2'	7.49	123.73	114.00
36	B2	565	G	P-O3'-C3'	7.48	128.68	119.70
83	A5	279	U	O4'-C1'-N1	7.48	114.19	108.20
1	Az	71	LYS	C-N-CA	7.48	140.40	121.70
31	AH	141	ARG	NE-CZ-NH1	7.48	124.04	120.30
53	CT	144	LEU	C-N-CA	7.48	140.40	121.70
83	A5	277	U	O4'-C1'-N1	7.48	114.19	108.20
63	CB	100	ARG	NE-CZ-NH2	-7.48	116.56	120.30
83	A5	2794	U	C1'-O4'-C4'	-7.48	103.92	109.90
36	B2	1111	U	O4'-C1'-N1	7.48	114.18	108.20
83	A5	647	A	O4'-C1'-N9	7.48	114.18	108.20
83	A5	1173	U	O4'-C1'-C2'	-7.48	98.32	105.80
83	A5	3484	U	O4'-C1'-N1	7.48	114.18	108.20
64	CF	183	ARG	NE-CZ-NH1	7.47	124.04	120.30
83	A5	1369	C	N1-C1'-C2'	7.47	123.72	114.00
83	A5	3698	A	O4'-C1'-N9	7.47	114.18	108.20
83	A5	116	U	C1'-O4'-C4'	7.47	115.88	109.90
83	A5	460	A	C5'-C4'-O4'	7.47	118.07	109.10
83	A5	1078	G	N9-C1'-C2'	-7.47	103.78	112.00
83	A5	1585	U	C1'-O4'-C4'	7.47	115.88	109.90
83	A5	2551	U	N1-C1'-C2'	7.47	123.71	114.00
11	AL	41	PHE	CB-CG-CD1	7.47	126.03	120.80
83	A5	1202	A	O4'-C1'-N9	7.47	114.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	964	C	O4'-C1'-N1	7.46	114.17	108.20
83	A5	2124	G	C1'-O4'-C4'	-7.46	103.93	109.90
83	A5	2676	U	C3'-C2'-C1'	7.46	107.47	101.50
83	A5	3495	G	C3'-C2'-C1'	-7.46	95.53	101.50
83	A5	3762	G	O4'-C1'-C2'	7.46	114.32	107.60
14	AT	152	ILE	C-N-CA	7.46	140.36	121.70
83	A5	2587	U	P-O3'-C3'	7.46	128.66	119.70
31	AH	110	LEU	C-N-CA	7.46	140.35	121.70
83	A5	2865	G	O4'-C1'-N9	7.46	114.17	108.20
36	B2	1623	C	O4'-C1'-C2'	-7.46	98.34	105.80
83	A5	1691	A	P-O3'-C3'	7.46	128.65	119.70
83	A5	3002	U	P-O3'-C3'	7.46	128.65	119.70
83	A5	3393	U	O4'-C1'-C2'	-7.46	98.34	105.80
83	A5	3955	U	P-O3'-C3'	-7.46	110.75	119.70
36	B2	17	C	O4'-C1'-C2'	-7.46	98.34	105.80
36	B2	705	G	C1'-O4'-C4'	-7.45	103.94	109.90
47	CI	187	ASP	CB-CG-OD2	-7.45	111.59	118.30
83	A5	2614	G	O4'-C1'-N9	7.45	114.16	108.20
83	A5	2901	C	N1-C1'-C2'	7.45	123.69	114.00
83	A5	3674	G	O4'-C1'-C2'	-7.45	98.35	105.80
83	A5	3273	C	C3'-C2'-C1'	7.45	107.46	101.50
83	A5	3684	A	C3'-C2'-C1'	7.45	107.46	101.50
51	CA	76	PHE	CB-CG-CD2	-7.45	115.59	120.80
83	A5	1553	C	O4'-C1'-C2'	-7.45	98.35	105.80
85	A7	64	G	O5'-C5'-C4'	7.45	125.85	111.70
36	B2	376	G	O4'-C1'-N9	7.45	114.16	108.20
83	A5	1447	C	N1-C1'-C2'	7.45	123.68	114.00
83	A5	3793	U	O4'-C1'-N1	7.45	114.16	108.20
36	B2	66	C	P-O3'-C3'	7.44	128.63	119.70
63	CB	24	ARG	NE-CZ-NH2	-7.44	116.58	120.30
83	A5	2794	U	N1-C1'-C2'	7.44	123.68	114.00
84	A9	29	U	O4'-C1'-N1	7.44	114.16	108.20
36	B2	1599	U	O4'-C1'-N1	7.44	114.15	108.20
83	A5	138	A	C3'-C2'-C1'	-7.44	95.55	101.50
83	A5	1556	C	C3'-C2'-C1'	7.44	107.45	101.50
36	B2	1852	A	O4'-C1'-N9	7.44	114.15	108.20
85	A7	52	U	N1-C1'-C2'	7.44	123.67	114.00
1	Az	790	THR	C-N-CA	7.44	137.92	122.30
36	B2	1203	U	O4'-C1'-N1	7.44	114.15	108.20
83	A5	33	C	C3'-C2'-C1'	7.44	107.45	101.50
83	A5	3241	G	O4'-C1'-N9	7.44	114.15	108.20
36	B2	211	U	P-O3'-C3'	-7.44	110.78	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1575	A	C3'-C2'-C1'	-7.43	95.55	101.50
83	A5	1884	U	O4'-C1'-N1	7.43	114.15	108.20
36	B2	1443	U	O4'-C1'-N1	7.43	114.14	108.20
36	B2	1234	G	P-O3'-C3'	7.43	128.62	119.70
83	A5	154	A	P-O3'-C3'	7.43	128.62	119.70
83	A5	575	A	O4'-C1'-N9	7.43	114.14	108.20
83	A5	776	A	C4'-C3'-O3'	7.43	127.86	113.00
83	A5	1863	U	O4'-C1'-N1	7.43	114.14	108.20
83	A5	2837	A	N9-C1'-C2'	7.43	123.66	114.00
83	A5	1294	U	C3'-C2'-C1'	7.43	107.44	101.50
83	A5	1864	U	C3'-C2'-C1'	7.43	107.44	101.50
83	A5	3897	G	O4'-C1'-N9	7.43	114.14	108.20
36	B2	1567	A	P-O3'-C3'	7.42	128.61	119.70
83	A5	155	U	C5'-C4'-C3'	-7.42	104.12	116.00
63	CB	1	MET	CG-SD-CE	-7.42	88.32	100.20
83	A5	2238	A	O4'-C1'-N9	7.42	114.14	108.20
83	A5	3511	U	O4'-C1'-N1	7.42	114.14	108.20
83	A5	1225	G	C1'-O4'-C4'	-7.42	103.96	109.90
83	A5	2837	A	P-O3'-C3'	7.42	128.60	119.70
36	B2	1564	A	P-O3'-C3'	7.42	128.60	119.70
83	A5	3013	C	C3'-C2'-C1'	7.42	107.44	101.50
36	B2	72	A	P-O5'-C5'	7.42	132.77	120.90
36	B2	204	C	O4'-C1'-C2'	-7.42	98.38	105.80
36	B2	1184	U	C3'-C2'-C1'	7.42	107.43	101.50
83	A5	340	U	O4'-C1'-N1	7.42	114.13	108.20
83	A5	1535	U	O4'-C1'-N1	7.42	114.13	108.20
63	CB	100	ARG	NE-CZ-NH1	7.41	124.01	120.30
83	A5	560	U	O4'-C1'-N1	7.41	114.13	108.20
83	A5	1228	C	N1-C1'-C2'	-7.41	103.84	112.00
83	A5	1329	G	O4'-C1'-N9	7.41	114.13	108.20
83	A5	3375	U	C1'-O4'-C4'	7.41	115.83	109.90
83	A5	3516	C	N1-C1'-C2'	7.41	123.64	114.00
36	B2	160	G	P-O3'-C3'	-7.41	110.81	119.70
52	CS	118	ARG	NE-CZ-NH1	7.41	124.01	120.30
83	A5	1713	U	C1'-O4'-C4'	-7.41	103.97	109.90
83	A5	3472	A	C5'-C4'-C3'	-7.41	104.14	116.00
31	AH	114	ARG	NE-CZ-NH2	-7.41	116.59	120.30
34	AQ	30	GLY	C-N-CA	7.41	140.22	121.70
83	A5	1583	G	C1'-O4'-C4'	-7.41	103.97	109.90
83	A5	2475	A	O4'-C1'-N9	7.41	114.13	108.20
36	B2	100	U	O4'-C1'-N1	7.41	114.12	108.20
83	A5	1479	G	O4'-C1'-C2'	-7.41	98.39	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1028	A	C3'-C2'-C1'	7.40	107.42	101.50
36	B2	1052	U	N1-C1'-C2'	7.40	123.63	114.00
63	CB	38	SER	N-CA-CB	7.40	121.60	110.50
83	A5	682	U	O3'-P-O5'	-7.40	89.94	104.00
83	A5	1301	A	C4'-C3'-O3'	-7.40	93.86	109.40
83	A5	3115	C	O4'-C1'-N1	7.40	114.12	108.20
9	Ad	19	ARG	NE-CZ-NH1	7.40	124.00	120.30
83	A5	1690	U	O4'-C1'-N1	7.40	114.12	108.20
83	A5	329	C	C3'-C2'-C1'	7.40	107.42	101.50
83	A5	2075	A	P-O5'-C5'	-7.40	109.06	120.90
35	Ah	146	ARG	NE-CZ-NH1	7.40	124.00	120.30
83	A5	2461	A	O4'-C1'-N9	7.40	114.12	108.20
83	A5	3856	U	O4'-C1'-C2'	-7.40	98.40	105.80
1	Az	800	PHE	N-CA-C	7.39	130.97	111.00
83	A5	471	A	O4'-C1'-N9	7.39	114.11	108.20
83	A5	2494	G	N9-C1'-C2'	7.39	123.61	114.00
48	CD	232	ARG	NE-CZ-NH1	7.39	124.00	120.30
83	A5	822	G	O4'-C1'-N9	7.39	114.11	108.20
83	A5	1583	G	O4'-C1'-N9	7.39	114.11	108.20
48	CD	151	ALA	N-CA-CB	7.39	120.45	110.10
83	A5	1084	A	C1'-O4'-C4'	7.39	115.81	109.90
83	A5	1759	C	O4'-C1'-N1	7.39	114.11	108.20
59	CZ	122	LYS	C-N-CA	7.39	140.18	121.70
83	A5	3303	G	C5'-C4'-O4'	-7.39	100.23	109.10
36	B2	213	G	C3'-C2'-C1'	7.39	107.41	101.50
83	A5	833	U	P-O3'-C3'	7.39	128.57	119.70
36	B2	1588	G	O4'-C1'-N9	7.39	114.11	108.20
81	CE	78	ARG	NE-CZ-NH1	7.39	123.99	120.30
33	AI	121	LEU	C-N-CA	7.38	137.80	122.30
36	B2	938	G	O4'-C1'-N9	7.38	114.10	108.20
83	A5	586	C	P-O3'-C3'	7.38	128.56	119.70
83	A5	571	U	P-O3'-C3'	7.38	128.56	119.70
83	A5	1775	C	O4'-C1'-N1	7.38	114.10	108.20
83	A5	1492	C	O3'-P-O5'	-7.38	89.98	104.00
34	AQ	31	ASN	N-CA-C	7.38	130.92	111.00
36	B2	1194	C	O4'-C1'-N1	7.38	114.10	108.20
83	A5	514	A	C3'-C2'-C1'	-7.38	95.60	101.50
83	A5	1711	C	O3'-P-O5'	7.38	118.02	104.00
83	A5	624	A	O4'-C1'-N9	7.38	114.10	108.20
83	A5	2078	C	C3'-C2'-C1'	7.38	107.40	101.50
83	A5	3785	A	O4'-C1'-N9	7.38	114.10	108.20
36	B2	415	A	O4'-C1'-N9	7.37	114.10	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
72	Ck	40	ARG	O-C-N	-7.37	110.90	122.70
83	A5	1524	U	O4'-C1'-C2'	-7.37	98.43	105.80
83	A5	2776	A	O4'-C1'-C2'	-7.37	98.43	105.80
83	A5	2880	A	C1'-O4'-C4'	7.37	115.80	109.90
83	A5	3292	C	O4'-C1'-C2'	-7.37	98.43	105.80
83	A5	3920	C	C3'-C2'-C1'	7.37	107.40	101.50
36	B2	15	U	O4'-C1'-N1	7.37	114.10	108.20
83	A5	404	U	O4'-C1'-N1	7.37	114.10	108.20
83	A5	2043	G	O4'-C1'-N9	7.37	114.10	108.20
83	A5	3387	C	C3'-C2'-C1'	7.37	107.40	101.50
83	A5	2635	C	N1-C1'-C2'	7.37	123.58	114.00
83	A5	2768	A	C3'-C2'-C1'	7.37	107.39	101.50
83	A5	3778	U	N1-C1'-C2'	-7.37	103.89	112.00
83	A5	2626	C	C3'-C2'-C1'	7.37	107.39	101.50
36	B2	1817	C	C1'-O4'-C4'	-7.36	104.01	109.90
36	B2	1877	G	N9-C1'-C2'	7.36	123.57	114.00
45	Ca	65	ARG	NE-CZ-NH2	-7.36	116.62	120.30
83	A5	3962	A	N9-C1'-C2'	7.36	123.57	114.00
83	A5	3389	C	C1'-O4'-C4'	-7.36	104.01	109.90
30	AF	209	SER	C-N-CA	7.36	140.10	121.70
36	B2	1544	G	C3'-C2'-C1'	-7.36	95.61	101.50
83	A5	3345	A	C1'-O4'-C4'	-7.36	104.01	109.90
83	A5	3576	G	O4'-C1'-N9	7.36	114.09	108.20
83	A5	703	A	O4'-C1'-N9	7.36	114.08	108.20
83	A5	758	A	O4'-C1'-N9	7.36	114.08	108.20
85	A7	96	U	O4'-C1'-N1	7.36	114.08	108.20
60	Cr	30	SER	N-CA-CB	7.35	121.53	110.50
83	A5	985	G	C3'-C2'-C1'	-7.35	95.62	101.50
1	Az	310	LYS	N-CA-C	7.35	130.85	111.00
83	A5	889	G	O4'-C1'-N9	7.35	114.08	108.20
36	B2	1207	G	C1'-O4'-C4'	-7.35	104.02	109.90
83	A5	828	G	O4'-C1'-N9	7.35	114.08	108.20
83	A5	1536	U	O4'-C1'-N1	7.35	114.08	108.20
36	B2	1704	G	O4'-C1'-N9	7.35	114.08	108.20
83	A5	3157	U	C1'-O4'-C4'	7.35	115.78	109.90
13	AP	100	TYR	CB-CG-CD1	-7.35	116.59	121.00
36	B2	1108	C	N1-C1'-C2'	7.34	123.55	114.00
83	A5	2928	G	C1'-O4'-C4'	-7.34	104.02	109.90
83	A5	1417	G	C3'-C2'-C1'	-7.34	95.62	101.50
83	A5	743	C	C1'-O4'-C4'	-7.34	104.03	109.90
83	A5	1864	U	P-O3'-C3'	7.34	128.51	119.70
83	A5	2612	G	C1'-O4'-C4'	-7.34	104.03	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	563	A	C1'-O4'-C4'	-7.34	104.03	109.90
83	A5	2695	A	O4'-C1'-N9	7.34	114.07	108.20
36	B2	1419	C	N1-C1'-C2'	7.34	123.54	114.00
83	A5	3554	G	P-O3'-C3'	-7.34	110.89	119.70
33	AI	145	GLU	N-CA-CB	7.33	123.80	110.60
83	A5	3575	G	C1'-O4'-C4'	-7.33	104.03	109.90
58	CW	74	ARG	NE-CZ-NH1	7.33	123.97	120.30
83	A5	1293	A	C5'-C4'-O4'	7.33	117.90	109.10
83	A5	3344	U	O4'-C1'-N1	7.33	114.07	108.20
83	A5	817	C	O4'-C1'-C2'	-7.33	98.47	105.80
83	A5	2634	A	O4'-C1'-C2'	-7.33	98.47	105.80
67	Ce	46	ARG	NE-CZ-NH1	7.33	123.96	120.30
83	A5	157	C	C4'-C3'-C2'	-7.33	95.27	102.60
36	B2	652	U	O4'-C1'-N1	7.33	114.06	108.20
83	A5	1534	G	O4'-C1'-C2'	7.33	114.19	107.60
36	B2	1752	U	N1-C1'-C2'	-7.32	103.94	112.00
83	A5	304	U	C4'-C3'-O3'	-7.32	94.02	109.40
83	A5	1868	A	P-O3'-C3'	7.32	128.49	119.70
83	A5	131	U	O4'-C1'-N1	7.32	114.06	108.20
83	A5	1891	U	N1-C1'-C2'	-7.32	103.95	112.00
36	B2	429	C	C1'-O4'-C4'	-7.32	104.04	109.90
83	A5	2526	A	N9-C1'-C2'	7.32	123.52	114.00
83	A5	1176	A	O4'-C1'-N9	7.32	114.05	108.20
83	A5	2970	U	P-O5'-C5'	7.31	132.60	120.90
70	Ci	92	ARG	NE-CZ-NH2	7.31	123.96	120.30
83	A5	705	G	O4'-C1'-N9	7.31	114.05	108.20
83	A5	1030	A	O4'-C1'-N9	7.31	114.05	108.20
83	A5	2744	C	O4'-C1'-C2'	-7.31	98.49	105.80
83	A5	2880	A	O4'-C1'-N9	7.31	114.05	108.20
36	B2	175	A	O4'-C1'-C2'	-7.31	98.49	105.80
75	Cm	97	ARG	NE-CZ-NH2	-7.31	116.65	120.30
83	A5	1527	C	O4'-C1'-C2'	-7.31	98.49	105.80
83	A5	1567	G	O4'-C1'-N9	7.31	114.05	108.20
30	AF	121	PHE	CB-CG-CD2	-7.31	115.69	120.80
83	A5	2142	A	C3'-C2'-C1'	7.31	107.34	101.50
36	B2	590	U	C3'-C2'-C1'	7.30	107.34	101.50
36	B2	1295	U	P-O3'-C3'	7.30	128.47	119.70
83	A5	1052	U	N1-C1'-C2'	7.30	123.49	114.00
83	A5	709	U	N1-C1'-C2'	-7.30	103.97	112.00
83	A5	1791	A	O4'-C1'-N9	7.30	114.04	108.20
26	AJ	106	PHE	CB-CG-CD2	7.30	125.91	120.80
28	AC	231	TYR	CB-CG-CD1	7.30	125.38	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	229	U	O4'-C1'-N1	7.30	114.04	108.20
83	A5	2997	C	O4'-C1'-N1	7.30	114.04	108.20
83	A5	3755	A	O4'-C1'-N9	7.30	114.04	108.20
36	B2	1918	G	O4'-C1'-N9	7.30	114.04	108.20
83	A5	1493	A	C5'-C4'-C3'	-7.30	104.32	116.00
36	B2	421	A	O4'-C1'-N9	7.30	114.04	108.20
83	A5	1296	U	C3'-C2'-C1'	-7.30	95.66	101.50
83	A5	3584	C	O4'-C1'-C2'	-7.30	98.50	105.80
83	A5	3586	A	C1'-O4'-C4'	-7.29	104.06	109.90
36	B2	281	C	C3'-C2'-C1'	7.29	107.33	101.50
36	B2	1660	U	O4'-C1'-N1	7.29	114.03	108.20
82	CG	41	PRO	C-N-CA	7.29	139.93	121.70
83	A5	862	U	C3'-C2'-C1'	7.29	107.33	101.50
83	A5	2581	U	O4'-C1'-N1	7.29	114.03	108.20
83	A5	3527	A	O4'-C1'-N9	7.29	114.03	108.20
83	A5	3857	G	P-O3'-C3'	7.29	128.45	119.70
36	B2	1974	U	O4'-C1'-N1	7.29	114.03	108.20
39	Cq	183	PHE	CB-CG-CD2	7.29	125.90	120.80
45	Ca	130	PHE	CB-CG-CD1	7.29	125.90	120.80
51	CA	247	ARG	NE-CZ-NH2	-7.29	116.65	120.30
83	A5	2729	U	N1-C1'-C2'	-7.29	103.98	112.00
83	A5	1055	U	O4'-C1'-N1	7.29	114.03	108.20
83	A5	3239	C	O4'-C1'-C2'	-7.29	98.51	105.80
83	A5	3659	G	C3'-C2'-C1'	-7.29	95.67	101.50
64	CF	173	THR	O-C-N	-7.29	111.04	122.70
83	A5	3538	G	O4'-C1'-N9	7.29	114.03	108.20
36	B2	633	U	O4'-C1'-N1	7.28	114.03	108.20
83	A5	1244	U	O4'-C1'-N1	7.28	114.03	108.20
83	A5	1491	U	O3'-P-O5'	-7.28	90.16	104.00
29	AG	31	ARG	NE-CZ-NH1	7.28	123.94	120.30
79	CJ	80	ARG	NE-CZ-NH2	-7.28	116.66	120.30
83	A5	1373	A	P-O3'-C3'	-7.28	110.96	119.70
83	A5	1538	U	O4'-C1'-C2'	-7.28	98.52	105.80
83	A5	3333	A	O4'-C1'-N9	7.28	114.02	108.20
83	A5	3565	G	O4'-C1'-N9	7.28	114.02	108.20
36	B2	1571	U	C3'-C2'-C1'	-7.28	95.68	101.50
63	CB	63	PRO	C-N-CA	7.28	137.59	122.30
83	A5	2518	A	P-O3'-C3'	-7.28	110.97	119.70
83	A5	2275	U	O4'-C1'-N1	7.28	114.02	108.20
83	A5	3722	C	C3'-C2'-C1'	7.28	107.32	101.50
36	B2	120	U	O4'-C1'-N1	7.27	114.02	108.20
83	A5	570	U	P-O5'-C5'	7.27	132.54	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2766	U	O4'-C1'-N1	7.27	114.02	108.20
83	A5	3178	G	O4'-C1'-N9	7.27	114.02	108.20
36	B2	1767	G	C1'-O4'-C4'	-7.27	104.08	109.90
36	B2	1771	U	N1-C1'-C2'	7.27	123.45	114.00
83	A5	3173	U	N1-C1'-C2'	7.27	123.45	114.00
19	AZ	91	ARG	NE-CZ-NH1	7.27	123.94	120.30
36	B2	976	U	O4'-C1'-N1	7.27	114.02	108.20
37	BC	67	C	O4'-C1'-N1	7.27	114.02	108.20
83	A5	3354	U	O4'-C1'-N1	7.27	114.02	108.20
36	B2	1782	G	O4'-C1'-N9	7.27	114.01	108.20
83	A5	161	G	O4'-C1'-N9	-7.27	102.39	108.20
83	A5	623	C	C5'-C4'-C3'	7.27	127.63	116.00
83	A5	1809	A	C4'-C3'-C2'	-7.27	95.33	102.60
42	CL	51	SER	CB-CA-C	7.27	123.91	110.10
36	B2	887	G	O4'-C1'-N9	7.26	114.01	108.20
83	A5	2592	A	O4'-C1'-N9	7.26	114.01	108.20
36	B2	374	C	C3'-C2'-C1'	7.26	107.31	101.50
36	B2	719	G	O4'-C1'-N9	7.26	114.01	108.20
83	A5	250	U	O3'-P-O5'	7.26	117.80	104.00
83	A5	1722	U	C1'-O4'-C4'	-7.26	104.09	109.90
83	A5	2248	A	N9-C1'-C2'	-7.26	104.01	112.00
74	CC	36	ARG	NE-CZ-NH1	7.26	123.93	120.30
78	Co	97	ARG	NE-CZ-NH1	7.26	123.93	120.30
83	A5	199	U	C1'-O4'-C4'	-7.26	104.09	109.90
83	A5	263	A	O4'-C1'-C2'	-7.26	98.54	105.80
83	A5	297	U	O4'-C1'-C2'	-7.26	98.54	105.80
36	B2	846	U	O4'-C1'-N1	7.25	114.00	108.20
83	A5	495	A	O4'-C1'-N9	7.25	114.00	108.20
83	A5	665	U	O4'-C1'-N1	7.25	114.00	108.20
83	A5	805	C	C3'-C2'-C1'	7.25	107.30	101.50
36	B2	720	G	O4'-C1'-C2'	-7.25	98.55	105.80
83	A5	1776	U	C1'-O4'-C4'	7.25	115.70	109.90
36	B2	373	U	N1-C1'-C2'	-7.25	104.02	112.00
83	A5	516	U	O4'-C1'-N1	7.25	114.00	108.20
83	A5	577	A	P-O3'-C3'	7.25	128.40	119.70
72	Ck	59	SER	N-CA-C	7.25	130.57	111.00
36	B2	1006	U	O4'-C1'-N1	7.25	114.00	108.20
36	B2	1104	C	O4'-C1'-N1	7.25	114.00	108.20
36	B2	1455	U	C5'-C4'-C3'	-7.25	104.41	116.00
85	A7	75	G	C1'-O4'-C4'	-7.25	104.10	109.90
69	Cg	10	ARG	NE-CZ-NH2	7.24	123.92	120.30
83	A5	3012	A	N9-C1'-C2'	-7.24	104.03	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	A8	55	G	O4'-C1'-N9	7.24	113.99	108.20
36	B2	5	U	O4'-C1'-N1	7.24	113.99	108.20
36	B2	1702	C	P-O3'-C3'	7.24	128.39	119.70
83	A5	1959	A	C3'-C2'-C1'	7.24	107.29	101.50
83	A5	1133	A	O4'-C1'-C2'	-7.24	98.56	105.80
34	AQ	117	TYR	CB-CG-CD2	-7.24	116.66	121.00
83	A5	304	U	C5'-C4'-O4'	-7.23	100.42	109.10
83	A5	1182	A	P-O3'-C3'	7.23	128.38	119.70
83	A5	2270	G	C3'-C2'-C1'	-7.23	95.71	101.50
36	B2	313	C	C3'-C2'-C1'	-7.23	95.72	101.50
36	B2	1815	C	C3'-C2'-C1'	7.23	107.28	101.50
83	A5	2055	G	O4'-C1'-N9	7.23	113.98	108.20
83	A5	3023	A	O3'-P-O5'	7.23	117.74	104.00
83	A5	1987	G	P-O3'-C3'	7.23	128.38	119.70
83	A5	2847	G	O4'-C1'-N9	7.23	113.98	108.20
30	AF	170	ARG	NE-CZ-NH1	7.23	123.91	120.30
36	B2	1007	C	C3'-C2'-C1'	7.23	107.28	101.50
83	A5	100	G	O4'-C1'-N9	7.23	113.98	108.20
83	A5	2092	U	C2'-C3'-O3'	-7.23	93.60	109.50
83	A5	2098	C	O4'-C1'-C2'	-7.23	98.57	105.80
83	A5	1358	U	C1'-O4'-C4'	7.22	115.68	109.90
83	A5	1684	G	C1'-O4'-C4'	-7.22	104.12	109.90
83	A5	3683	G	N9-C1'-C2'	7.22	123.39	114.00
36	B2	890	U	N1-C1'-C2'	7.22	123.39	114.00
83	A5	108	A	O4'-C1'-N9	7.22	113.98	108.20
83	A5	488	U	C1'-O4'-C4'	-7.22	104.12	109.90
36	B2	657	A	N9-C1'-C2'	7.22	123.39	114.00
83	A5	3627	C	O4'-C1'-C2'	-7.22	98.58	105.80
83	A5	1671	U	N1-C1'-C2'	7.22	123.38	114.00
18	AY	94	ARG	NE-CZ-NH2	7.22	123.91	120.30
36	B2	178	A	O4'-C1'-N9	7.22	113.97	108.20
83	A5	36	U	C1'-O4'-C4'	7.22	115.67	109.90
83	A5	3414	U	O4'-C1'-N1	7.22	113.97	108.20
36	B2	489	C	C3'-C2'-C1'	7.21	107.27	101.50
36	B2	1036	C	C1'-O4'-C4'	-7.21	104.13	109.90
36	B2	1829	C	N1-C1'-C2'	7.21	123.38	114.00
83	A5	1511	C	C3'-C2'-C1'	7.21	107.27	101.50
83	A5	2833	U	O4'-C1'-N1	7.21	113.97	108.20
20	Aa	5	ARG	NE-CZ-NH1	7.21	123.91	120.30
36	B2	92	A	C5'-C4'-C3'	-7.21	104.46	116.00
59	CZ	49	TYR	CB-CG-CD1	-7.21	116.67	121.00
68	Cf	104	VAL	CB-CA-C	7.21	125.10	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	100	G	O4'-C1'-C2'	7.21	114.09	107.60
83	A5	3319	A	P-O3'-C3'	7.21	128.35	119.70
83	A5	2950	C	P-O5'-C5'	7.21	132.44	120.90
36	B2	52	U	O4'-C1'-N1	7.21	113.97	108.20
36	B2	1457	C	O4'-C1'-C2'	-7.21	98.59	105.80
83	A5	1727	U	O4'-C1'-N1	7.21	113.96	108.20
83	A5	3711	G	C5'-C4'-O4'	7.21	117.75	109.10
83	A5	280	C	C3'-C2'-C1'	7.21	107.26	101.50
83	A5	3563	G	N9-C1'-C2'	7.20	123.37	114.00
82	CG	254	ARG	NE-CZ-NH1	7.20	123.90	120.30
83	A5	3234	A	C3'-C2'-C1'	7.20	107.26	101.50
85	A7	109	U	C3'-C2'-C1'	7.20	107.26	101.50
86	A8	86	A	P-O3'-C3'	7.20	128.34	119.70
36	B2	924	U	O4'-C1'-N1	7.20	113.96	108.20
83	A5	107	G	O4'-C1'-N9	7.20	113.96	108.20
83	A5	1872	A	N9-C1'-C2'	7.20	123.36	114.00
83	A5	3815	G	O4'-C1'-N9	7.20	113.96	108.20
55	CU	256	TYR	CB-CG-CD1	7.20	125.32	121.00
26	AJ	66	GLU	C-N-CA	7.19	139.68	121.70
39	Cq	6	ARG	NE-CZ-NH2	-7.19	116.70	120.30
82	CG	58	ARG	NE-CZ-NH2	-7.19	116.70	120.30
83	A5	143	G	C1'-O4'-C4'	-7.19	104.15	109.90
83	A5	1324	C	N1-C1'-C2'	7.19	123.35	114.00
83	A5	3192	C	O4'-C1'-N1	7.19	113.95	108.20
36	B2	1	A	P-O3'-C3'	7.19	128.33	119.70
83	A5	2151	A	O4'-C1'-N9	-7.19	102.45	108.20
28	AC	60	SER	N-CA-CB	7.19	121.28	110.50
33	AI	155	GLN	N-CA-CB	7.19	123.54	110.60
83	A5	596	A	P-O3'-C3'	7.19	128.33	119.70
83	A5	2503	G	C1'-O4'-C4'	-7.19	104.15	109.90
7	AM	52	ARG	NE-CZ-NH1	7.19	123.89	120.30
36	B2	20	G	O4'-C1'-N9	7.19	113.95	108.20
36	B2	1102	U	P-O3'-C3'	7.19	128.32	119.70
36	B2	1658	G	N9-C1'-C2'	7.19	123.34	114.00
36	B2	103	U	P-O3'-C3'	-7.18	111.08	119.70
82	CG	260	ARG	NE-CZ-NH2	-7.18	116.71	120.30
83	A5	751	A	P-O3'-C3'	7.18	128.32	119.70
83	A5	1478	A	N9-C1'-C2'	7.18	123.34	114.00
83	A5	2751	A	O4'-C1'-N9	7.18	113.95	108.20
86	A8	101	A	C3'-C2'-C1'	7.18	107.25	101.50
36	B2	1022	A	O4'-C1'-C2'	-7.18	98.62	105.80
83	A5	1504	C	O4'-C1'-N1	7.18	113.95	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1860	A	C1'-O4'-C4'	7.18	115.65	109.90
81	CE	141	SER	N-CA-CB	7.18	121.27	110.50
74	CC	252	PHE	CB-CG-CD1	7.18	125.83	120.80
83	A5	217	G	C1'-O4'-C4'	-7.18	104.16	109.90
28	AC	153	TRP	CB-CG-CD2	-7.18	117.27	126.60
83	A5	241	C	O4'-C1'-C2'	7.18	114.06	107.60
83	A5	1633	G	P-O3'-C3'	7.18	128.31	119.70
83	A5	2261	G	O4'-C1'-N9	7.18	113.94	108.20
83	A5	3471	A	P-O3'-C3'	-7.18	111.09	119.70
83	A5	1320	U	O4'-C1'-C2'	-7.17	98.63	105.80
83	A5	1611	G	O4'-C1'-N9	7.17	113.94	108.20
83	A5	1901	G	O4'-C1'-N9	7.17	113.94	108.20
83	A5	3350	U	O4'-C1'-N1	7.17	113.94	108.20
16	AA	216	ALA	N-CA-CB	7.17	120.14	110.10
36	B2	701	G	N9-C1'-C2'	-7.17	104.11	112.00
36	B2	971	A	C1'-O4'-C4'	-7.17	104.16	109.90
36	B2	1287	G	N9-C1'-C2'	-7.17	104.11	112.00
47	CI	21	ARG	NE-CZ-NH2	-7.17	116.71	120.30
83	A5	3938	C	N1-C1'-C2'	7.17	123.32	114.00
8	AS	142	ARG	N-CA-CB	7.17	123.51	110.60
37	BC	7	G	N9-C1'-C2'	-7.17	104.11	112.00
37	BC	37	A	O4'-C1'-C2'	-7.17	98.63	105.80
83	A5	1031	G	O4'-C1'-N9	7.17	113.94	108.20
42	CL	170	THR	N-CA-C	7.17	130.35	111.00
83	A5	1937	G	N9-C1'-C2'	-7.17	104.11	112.00
83	A5	2671	C	O4'-C1'-C2'	-7.17	98.63	105.80
36	B2	1686	C	N1-C1'-C2'	7.17	123.32	114.00
36	B2	423	G	O4'-C1'-N9	7.17	113.93	108.20
83	A5	2109	G	O4'-C1'-N9	-7.17	102.47	108.20
1	Az	95	ARG	C-N-CA	7.16	139.61	121.70
39	Cq	156	SER	N-CA-CB	7.16	121.24	110.50
74	CC	221	ARG	NE-CZ-NH1	7.16	123.88	120.30
83	A5	567	A	N9-C1'-C2'	-7.16	104.12	112.00
70	Ci	97	ARG	NE-CZ-NH2	-7.16	116.72	120.30
83	A5	145	A	O4'-C1'-N9	7.16	113.93	108.20
83	A5	2607	A	O4'-C1'-N9	7.16	113.93	108.20
83	A5	3700	U	C4'-C3'-O3'	7.16	127.32	113.00
36	B2	386	C	N1-C1'-C2'	7.16	123.31	114.00
83	A5	1601	U	N1-C1'-C2'	-7.16	104.13	112.00
83	A5	2593	A	O4'-C1'-C2'	-7.16	98.64	105.80
10	AN	73	ARG	NE-CZ-NH2	-7.15	116.72	120.30
83	A5	1499	C	C3'-C2'-C1'	7.15	107.22	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	555	U	O4'-C1'-N1	7.15	113.92	108.20
36	B2	1945	A	O4'-C1'-C2'	-7.15	98.65	105.80
37	BC	69	G	C4'-C3'-C2'	-7.15	95.45	102.60
35	Ah	126	PHE	CB-CG-CD2	-7.15	115.79	120.80
83	A5	228	C	N1-C1'-C2'	7.15	123.30	114.00
36	B2	574	C	C1'-O4'-C4'	-7.15	104.18	109.90
36	B2	1635	U	N1-C1'-C2'	-7.15	104.14	112.00
36	B2	1821	G	O4'-C1'-C2'	7.15	114.03	107.60
83	A5	1916	G	O4'-C1'-N9	7.15	113.92	108.20
36	B2	426	A	O4'-C1'-N9	7.15	113.92	108.20
36	B2	1622	U	C1'-O4'-C4'	7.15	115.62	109.90
83	A5	3244	U	C3'-C2'-C1'	7.15	107.22	101.50
83	A5	3845	A	O4'-C1'-C2'	-7.15	98.65	105.80
5	AO	99	ALA	CA-C-N	7.14	132.92	117.20
24	Ae	95	GLU	N-CA-CB	7.14	123.46	110.60
36	B2	1042	A	C3'-C2'-C1'	7.14	107.22	101.50
83	A5	2489	G	O4'-C1'-N9	7.14	113.92	108.20
29	AG	59	GLN	C-N-CA	7.14	137.30	122.30
83	A5	660	A	O4'-C1'-N9	7.14	113.91	108.20
83	A5	2467	A	P-O3'-C3'	7.14	128.27	119.70
83	A5	1896	A	C4'-C3'-C2'	-7.14	95.46	102.60
83	A5	2048	G	O4'-C1'-N9	7.14	113.91	108.20
36	B2	1529	G	C1'-O4'-C4'	7.14	115.61	109.90
36	B2	282	U	O4'-C1'-C2'	-7.14	98.66	105.80
36	B2	1005	G	O4'-C1'-N9	7.14	113.91	108.20
22	Ac	34	GLN	C-N-CA	7.13	139.54	121.70
40	CK	114	ARG	NE-CZ-NH1	7.13	123.87	120.30
83	A5	828	G	C1'-O4'-C4'	7.13	115.61	109.90
83	A5	3596	A	O4'-C1'-N9	7.13	113.91	108.20
36	B2	919	A	O4'-C1'-N9	7.13	113.91	108.20
83	A5	1166	U	O4'-C1'-N1	7.13	113.91	108.20
83	A5	1960	C	P-O3'-C3'	7.13	128.26	119.70
83	A5	2466	C	O4'-C1'-C2'	-7.13	98.67	105.80
1	Az	840	TYR	CB-CG-CD1	7.13	125.28	121.00
25	Af	106	TYR	CB-CG-CD1	7.13	125.28	121.00
83	A5	1774	C	N1-C1'-C2'	7.13	123.27	114.00
83	A5	67	A	N9-C1'-C2'	7.13	123.27	114.00
83	A5	2883	C	C3'-C2'-C1'	7.13	107.20	101.50
83	A5	3436	U	O4'-C1'-C2'	-7.13	98.67	105.80
35	Ah	136	ARG	N-CA-CB	7.13	123.43	110.60
83	A5	2557	C	C3'-C2'-C1'	7.13	107.20	101.50
84	A9	30	A	C1'-O4'-C4'	7.13	115.60	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1756	C	O4'-C1'-N1	7.12	113.90	108.20
83	A5	2206	U	N1-C1'-C2'	7.12	123.26	114.00
36	B2	1290	A	O4'-C1'-N9	-7.12	102.50	108.20
83	A5	915	C	O4'-C1'-N1	7.12	113.90	108.20
83	A5	2908	U	O4'-C1'-C2'	-7.12	98.68	105.80
34	AQ	5	ARG	C-N-CA	7.12	139.50	121.70
36	B2	1699	G	O4'-C1'-N9	7.12	113.89	108.20
44	CM	66	TYR	CB-CG-CD2	-7.12	116.73	121.00
36	B2	1270	U	O4'-C1'-N1	7.12	113.89	108.20
83	A5	2655	C	C1'-O4'-C4'	-7.12	104.21	109.90
63	CB	357	ARG	NE-CZ-NH1	7.11	123.86	120.30
80	CH	51	ARG	NE-CZ-NH2	-7.11	116.74	120.30
83	A5	2096	C	O4'-C1'-N1	7.11	113.89	108.20
26	AJ	118	LEU	C-N-CA	7.11	137.23	122.30
83	A5	1492	C	C2'-C3'-O3'	7.11	125.14	109.50
28	AC	224	TYR	CB-CG-CD1	7.11	125.27	121.00
83	A5	1248	A	O4'-C1'-N9	7.11	113.89	108.20
36	B2	951	A	C1'-O4'-C4'	7.11	115.59	109.90
74	CC	365	LEU	N-CA-CB	7.11	124.62	110.40
83	A5	438	G	C1'-O4'-C4'	-7.11	104.21	109.90
83	A5	2240	U	O4'-C1'-N1	7.11	113.89	108.20
83	A5	3335	A	C1'-O4'-C4'	7.11	115.59	109.90
36	B2	1463	C	N1-C1'-C2'	7.11	123.24	114.00
83	A5	1317	A	C1'-O4'-C4'	7.11	115.58	109.90
83	A5	2217	A	O4'-C1'-N9	7.11	113.88	108.20
83	A5	3622	C	O4'-C1'-N1	7.11	113.88	108.20
86	A8	57	G	O4'-C1'-N9	7.11	113.89	108.20
68	Cf	128	THR	C-N-CA	7.10	137.22	122.30
62	Cb	44	ARG	NE-CZ-NH1	7.10	123.85	120.30
83	A5	1351	C	O4'-C1'-N1	7.10	113.88	108.20
83	A5	3223	A	O4'-C1'-N9	7.10	113.88	108.20
36	B2	829	C	N1-C1'-C2'	7.10	123.23	114.00
70	Ci	5	TYR	CB-CG-CD2	-7.10	116.74	121.00
78	Co	77	TYR	CB-CG-CD1	7.10	125.26	121.00
83	A5	2060	A	O4'-C1'-N9	7.10	113.88	108.20
83	A5	3190	G	O4'-C1'-C2'	7.10	113.99	107.60
83	A5	2792	G	C1'-O4'-C4'	-7.10	104.22	109.90
83	A5	3522	A	O4'-C1'-N9	7.10	113.88	108.20
16	AA	37	TYR	CB-CG-CD2	7.10	125.26	121.00
36	B2	243	U	C3'-C2'-C1'	7.10	107.18	101.50
83	A5	1341	G	O4'-C1'-N9	7.10	113.88	108.20
83	A5	1893	C	N1-C1'-C2'	7.10	123.23	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3375	U	O4'-C1'-N1	7.10	113.88	108.20
83	A5	3455	U	O4'-C1'-N1	7.10	113.88	108.20
83	A5	1361	G	C1'-O4'-C4'	-7.10	104.22	109.90
1	Az	251	TRP	N-CA-CB	7.09	123.37	110.60
83	A5	1779	G	O4'-C4'-C3'	-7.09	96.91	104.00
83	A5	2159	C	N1-C1'-C2'	7.09	123.22	114.00
83	A5	2282	U	P-O3'-C3'	7.09	128.21	119.70
83	A5	2867	U	O4'-C1'-N1	7.09	113.87	108.20
36	B2	936	G	N9-C1'-C2'	7.09	123.22	114.00
36	B2	1115	C	O4'-C1'-C2'	-7.09	98.71	105.80
83	A5	1523	A	O4'-C1'-N9	7.09	113.87	108.20
83	A5	3271	G	O4'-C1'-N9	7.09	113.87	108.20
83	A5	1777	A	P-O3'-C3'	-7.09	111.19	119.70
36	B2	1747	A	C3'-C2'-C1'	7.09	107.17	101.50
83	A5	2485	A	O4'-C1'-C2'	-7.09	98.71	105.80
74	CC	116	ARG	NE-CZ-NH2	-7.09	116.76	120.30
83	A5	3284	C	O4'-C1'-C2'	-7.09	98.71	105.80
36	B2	119	U	O4'-C1'-N1	7.08	113.87	108.20
36	B2	856	A	O4'-C1'-C2'	7.08	113.98	107.60
83	A5	697	U	O3'-P-O5'	-7.08	90.54	104.00
83	A5	1183	U	C3'-C2'-C1'	7.08	107.17	101.50
83	A5	3756	A	O4'-C1'-N9	7.08	113.87	108.20
36	B2	1176	C	N1-C1'-C2'	7.08	123.20	114.00
83	A5	3015	A	C3'-C2'-C1'	7.08	107.16	101.50
83	A5	3258	C	C3'-C2'-C1'	-7.08	95.83	101.50
74	CC	7	ARG	NE-CZ-NH2	-7.08	116.76	120.30
83	A5	719	U	O4'-C1'-N1	7.08	113.86	108.20
83	A5	1251	C	O4'-C1'-N1	7.08	113.86	108.20
83	A5	3952	C	N1-C1'-C2'	7.08	123.20	114.00
27	AE	100	ARG	NE-CZ-NH2	-7.08	116.76	120.30
31	AH	187	PHE	CB-CG-CD2	-7.08	115.84	120.80
19	AZ	91	ARG	NE-CZ-NH2	-7.08	116.76	120.30
36	B2	9	U	O4'-C1'-N1	7.08	113.86	108.20
36	B2	567	C	C3'-C2'-C1'	7.08	107.16	101.50
36	B2	1546	U	O4'-C1'-N1	7.08	113.86	108.20
83	A5	624	A	C1'-O4'-C4'	7.08	115.56	109.90
83	A5	1788	G	O4'-C1'-C2'	-7.08	98.72	105.80
83	A5	3404	A	C1'-O4'-C4'	7.08	115.56	109.90
1	Az	207	ARG	NE-CZ-NH1	7.07	123.84	120.30
36	B2	463	G	C3'-C2'-C1'	-7.07	95.84	101.50
83	A5	319	G	O4'-C1'-N9	7.07	113.86	108.20
36	B2	1714	U	O4'-C1'-C2'	-7.07	98.73	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	CL	56	PRO	N-CA-C	7.07	130.49	112.10
83	A5	319	G	N9-C1'-C2'	7.07	123.19	114.00
83	A5	557	G	C1'-O4'-C4'	-7.07	104.24	109.90
83	A5	620	U	C1'-O4'-C4'	7.07	115.56	109.90
83	A5	3777	U	O4'-C1'-N1	7.07	113.86	108.20
36	B2	39	A	N9-C1'-C2'	-7.07	104.22	112.00
36	B2	475	G	O4'-C1'-N9	7.07	113.86	108.20
83	A5	3806	C	C1'-O4'-C4'	-7.07	104.25	109.90
36	B2	1339	C	N1-C1'-C2'	7.07	123.19	114.00
82	CG	200	ARG	NE-CZ-NH1	7.07	123.83	120.30
83	A5	1322	U	O4'-C1'-N1	7.07	113.85	108.20
83	A5	1522	G	O4'-C1'-C2'	-7.07	98.73	105.80
83	A5	1583	G	C3'-C2'-C1'	-7.07	95.85	101.50
83	A5	3148	C	O4'-C1'-N1	7.07	113.85	108.20
83	A5	779	U	P-O5'-C5'	-7.07	109.59	120.90
83	A5	1635	A	O4'-C1'-N9	7.07	113.85	108.20
83	A5	3159	C	O4'-C1'-C2'	-7.07	98.73	105.80
83	A5	3374	U	O4'-C1'-N1	7.07	113.85	108.20
36	B2	107	A	C3'-C2'-C1'	7.06	107.15	101.50
43	CV	131	ARG	NE-CZ-NH1	7.06	123.83	120.30
83	A5	2131	C	P-O5'-C5'	7.06	132.20	120.90
83	A5	3331	A	C3'-C2'-C1'	7.06	107.15	101.50
83	A5	2092	U	C5'-C4'-C3'	7.06	127.30	116.00
36	B2	1606	A	O4'-C1'-C2'	7.06	113.95	107.60
59	CZ	81	MET	CG-SD-CE	-7.06	88.90	100.20
83	A5	458	A	C3'-C2'-C1'	7.06	107.15	101.50
83	A5	1637	U	O3'-P-O5'	7.06	117.41	104.00
36	B2	896	A	P-O3'-C3'	7.06	128.17	119.70
83	A5	439	U	N1-C1'-C2'	7.06	123.17	114.00
83	A5	1955	A	C3'-C2'-C1'	7.06	107.15	101.50
86	A8	50	A	O4'-C1'-C2'	7.06	113.95	107.60
52	CS	167	PHE	CB-CG-CD1	-7.06	115.86	120.80
83	A5	852	C	O4'-C1'-N1	7.05	113.84	108.20
83	A5	2126	A	O4'-C1'-N9	7.05	113.84	108.20
83	A5	3517	U	C3'-C2'-C1'	7.05	107.14	101.50
36	B2	956	C	O4'-C1'-N1	7.05	113.84	108.20
36	B2	1027	A	P-O3'-C3'	7.05	128.16	119.70
36	B2	1315	U	O4'-C1'-N1	7.05	113.84	108.20
83	A5	691	C	C3'-C2'-C1'	7.05	107.14	101.50
83	A5	3902	G	C1'-O4'-C4'	-7.05	104.26	109.90
36	B2	1774	C	O4'-C1'-C2'	-7.05	98.75	105.80
83	A5	2831	U	O4'-C1'-N1	7.05	113.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Az	827	ARG	NE-CZ-NH1	7.05	123.82	120.30
83	A5	1633	G	O4'-C1'-N9	7.05	113.84	108.20
83	A5	1783	A	P-O3'-C3'	7.04	128.16	119.70
83	A5	2050	U	O4'-C1'-N1	7.04	113.84	108.20
83	A5	3927	C	O4'-C1'-C2'	-7.04	98.75	105.80
11	AL	94	ARG	NE-CZ-NH1	7.04	123.82	120.30
36	B2	1303	C	C3'-C2'-C1'	7.04	107.14	101.50
83	A5	1797	A	C1'-O4'-C4'	7.04	115.53	109.90
83	A5	3844	U	C1'-O4'-C4'	-7.04	104.27	109.90
83	A5	831	A	C3'-C2'-C1'	7.04	107.13	101.50
83	A5	2549	G	O4'-C1'-N9	7.04	113.83	108.20
83	A5	3154	C	O4'-C1'-C2'	-7.04	98.76	105.80
83	A5	3893	A	C3'-C2'-C1'	-7.04	95.87	101.50
85	A7	87	G	P-O3'-C3'	-7.04	111.25	119.70
83	A5	2461	A	N9-C1'-C2'	-7.04	104.26	112.00
83	A5	148	U	P-O3'-C3'	7.04	128.15	119.70
83	A5	1597	A	O4'-C1'-N9	7.04	113.83	108.20
48	CD	28	THR	CA-CB-CG2	-7.04	102.55	112.40
83	A5	1013	G	C1'-O4'-C4'	-7.04	104.27	109.90
83	A5	2689	G	C1'-O4'-C4'	-7.04	104.27	109.90
36	B2	959	U	O4'-C1'-N1	7.03	113.83	108.20
83	A5	2795	U	O4'-C1'-N1	7.03	113.83	108.20
83	A5	637	U	O4'-C1'-C2'	-7.03	98.77	105.80
32	AW	37	PHE	CB-CG-CD2	-7.03	115.88	120.80
33	AI	180	ARG	NE-CZ-NH2	-7.03	116.78	120.30
36	B2	1731	U	C1'-O4'-C4'	7.03	115.52	109.90
54	CP	4	TYR	CB-CG-CD1	-7.03	116.78	121.00
36	B2	1246	C	O4'-C1'-C2'	-7.03	98.77	105.80
83	A5	469	G	O4'-C1'-N9	7.03	113.82	108.20
36	B2	1794	C	O4'-C1'-N1	7.03	113.82	108.20
62	Cb	38	LYS	C-N-CA	7.03	139.27	121.70
83	A5	2107	U	O4'-C1'-C2'	-7.03	98.78	105.80
36	B2	1545	U	N1-C1'-C2'	-7.02	104.27	112.00
51	CA	189	TYR	CB-CG-CD2	-7.02	116.79	121.00
36	B2	1829	C	C3'-C2'-C1'	7.02	107.12	101.50
83	A5	1102	G	C1'-O4'-C4'	-7.02	104.28	109.90
83	A5	1626	A	C3'-C2'-C1'	7.02	107.12	101.50
36	B2	1303	C	N1-C1'-C2'	7.02	123.13	114.00
36	B2	434	G	O4'-C1'-N9	7.02	113.82	108.20
36	B2	1000	G	O4'-C1'-N9	7.02	113.82	108.20
83	A5	1515	U	O4'-C1'-N1	7.02	113.81	108.20
36	B2	287	C	N1-C1'-C2'	7.02	123.12	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	626	U	O4'-C1'-N1	7.02	113.81	108.20
59	CZ	106	ARG	NE-CZ-NH2	-7.02	116.79	120.30
83	A5	1182	A	N9-C1'-C2'	7.02	123.12	114.00
36	B2	1165	C	O4'-C1'-N1	7.02	113.81	108.20
7	AM	121	PHE	CB-CG-CD2	-7.01	115.89	120.80
8	AS	124	ARG	NE-CZ-NH2	7.01	123.81	120.30
83	A5	1207	G	C3'-C2'-C1'	7.01	107.11	101.50
83	A5	1781	U	O4'-C1'-N1	7.01	113.81	108.20
83	A5	3124	G	C1'-O4'-C4'	-7.01	104.29	109.90
85	A7	5	A	O4'-C1'-N9	7.01	113.81	108.20
83	A5	33	C	N1-C1'-C2'	7.01	123.12	114.00
83	A5	1527	C	C3'-C2'-C1'	7.01	107.11	101.50
36	B2	645	C	O4'-C1'-C2'	-7.01	98.79	105.80
36	B2	1946	G	O4'-C1'-N9	7.01	113.81	108.20
55	CU	256	TYR	CB-CG-CD2	-7.01	116.79	121.00
84	A9	19	U	O4'-C1'-C2'	-7.01	98.79	105.80
36	B2	146	C	N1-C1'-C2'	7.01	123.11	114.00
36	B2	1116	G	O4'-C1'-C2'	-7.01	98.79	105.80
83	A5	3286	G	O4'-C1'-N9	7.01	113.81	108.20
36	B2	1043	U	O4'-C1'-N1	7.01	113.80	108.20
41	CO	60	LEU	N-CA-C	7.01	129.92	111.00
83	A5	1233	G	O4'-C1'-C2'	7.01	113.91	107.60
83	A5	2507	C	N1-C1'-C2'	7.01	123.11	114.00
83	A5	2699	A	O4'-C1'-N9	7.01	113.81	108.20
83	A5	1692	G	O4'-C1'-N9	7.00	113.80	108.20
36	B2	1056	C	C3'-C2'-C1'	7.00	107.10	101.50
36	B2	1880	C	N1-C1'-C2'	7.00	123.10	114.00
83	A5	3153	G	O4'-C1'-N9	7.00	113.80	108.20
83	A5	3768	C	C3'-C2'-C1'	7.00	107.10	101.50
36	B2	1144	C	C3'-C2'-C1'	7.00	107.10	101.50
83	A5	1357	C	O4'-C1'-C2'	-7.00	98.80	105.80
85	A7	8	A	C1'-O4'-C4'	-7.00	104.30	109.90
36	B2	198	C	C4'-C3'-O3'	7.00	127.00	113.00
83	A5	1139	U	C1'-O4'-C4'	-7.00	104.30	109.90
83	A5	1976	G	C3'-C2'-C1'	-7.00	95.90	101.50
83	A5	3130	G	C1'-O4'-C4'	-6.99	104.31	109.90
36	B2	155	U	N1-C1'-C2'	-6.99	104.31	112.00
36	B2	550	C	N1-C1'-C2'	-6.99	104.31	112.00
58	CW	78	PHE	N-CA-CB	6.99	123.18	110.60
83	A5	1869	C	C3'-C2'-C1'	6.99	107.09	101.50
36	B2	459	U	C3'-C2'-C1'	6.99	107.09	101.50
36	B2	1045	U	O4'-C1'-N1	6.99	113.79	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	Cf	59	TYR	CB-CG-CD2	-6.99	116.81	121.00
83	A5	427	A	O4'-C1'-N9	6.99	113.79	108.20
83	A5	475	U	O4'-C1'-N1	-6.99	102.61	108.20
83	A5	3136	U	C1'-O4'-C4'	-6.99	104.31	109.90
16	AA	221	LEU	C-N-CD	-6.99	105.23	120.60
83	A5	1794	G	O4'-C1'-C2'	6.99	113.89	107.60
15	AB	61	TYR	CB-CG-CD2	-6.99	116.81	121.00
30	AF	187	PHE	CB-CG-CD2	-6.99	115.91	120.80
36	B2	404	A	C1'-O4'-C4'	6.99	115.49	109.90
36	B2	619	U	O4'-C1'-N1	6.99	113.79	108.20
83	A5	2253	U	O4'-C1'-N1	6.99	113.79	108.20
83	A5	2747	G	C1'-O4'-C4'	-6.99	104.31	109.90
36	B2	819	G	O3'-P-O5'	-6.98	90.73	104.00
79	CJ	23	ARG	NE-CZ-NH2	-6.98	116.81	120.30
16	AA	139	TYR	CB-CG-CD1	6.98	125.19	121.00
36	B2	956	C	P-O3'-C3'	6.98	128.08	119.70
83	A5	295	G	O4'-C1'-N9	6.98	113.79	108.20
83	A5	372	U	O4'-C1'-N1	6.98	113.79	108.20
36	B2	998	U	C2'-C3'-O3'	6.98	124.87	113.70
83	A5	1145	C	N1-C1'-C2'	6.98	123.08	114.00
36	B2	1879	U	O4'-C1'-N1	6.98	113.78	108.20
36	B2	1125	U	O4'-C1'-N1	6.98	113.78	108.20
36	B2	698	U	C5'-C4'-C3'	6.97	127.16	116.00
83	A5	2208	G	C3'-C2'-C1'	-6.97	95.92	101.50
83	A5	2812	U	C1'-O4'-C4'	6.97	115.48	109.90
86	A8	98	U	N1-C1'-C2'	6.97	123.07	114.00
1	Az	691	TYR	CB-CG-CD2	6.97	125.18	121.00
36	B2	366	C	O4'-C1'-N1	6.97	113.78	108.20
36	B2	888	G	C1'-O4'-C4'	-6.97	104.32	109.90
36	B2	1049	C	N1-C1'-C2'	6.97	123.06	114.00
83	A5	403	A	N9-C1'-C2'	6.97	123.06	114.00
36	B2	136	A	O4'-C1'-N9	6.97	113.77	108.20
36	B2	949	A	P-O3'-C3'	6.97	128.06	119.70
36	B2	970	U	O4'-C1'-N1	6.97	113.78	108.20
83	A5	1937	G	O4'-C1'-N9	6.97	113.78	108.20
36	B2	11	A	O4'-C1'-N9	6.97	113.77	108.20
36	B2	1529	G	C3'-C2'-C1'	6.96	107.07	101.50
49	CQ	14	ARG	NE-CZ-NH2	-6.96	116.82	120.30
83	A5	1801	U	C5'-C4'-O4'	-6.96	100.74	109.10
83	A5	2124	G	C3'-C2'-C1'	-6.96	95.93	101.50
83	A5	3711	G	O4'-C1'-C2'	-6.96	98.84	105.80
36	B2	261	U	O4'-C1'-N1	6.96	113.77	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	906	C	P-O3'-C3'	6.96	128.05	119.70
83	A5	1195	U	C1'-O4'-C4'	-6.96	104.33	109.90
83	A5	1711	C	P-O3'-C3'	6.96	128.06	119.70
83	A5	3272	A	C1'-O4'-C4'	-6.96	104.33	109.90
1	Az	799	VAL	C-N-CA	6.96	139.10	121.70
83	A5	3351	A	C1'-O4'-C4'	-6.96	104.33	109.90
27	AE	86	TYR	CB-CG-CD2	-6.96	116.83	121.00
29	AG	51	ARG	NE-CZ-NH1	6.96	123.78	120.30
36	B2	332	U	O4'-C1'-N1	6.96	113.77	108.20
36	B2	1178	A	O4'-C1'-N9	6.96	113.77	108.20
36	B2	1311	A	O4'-C1'-N9	6.96	113.76	108.20
83	A5	6	U	O5'-C5'-C4'	6.96	124.92	111.70
83	A5	2527	A	O4'-C1'-N9	6.96	113.77	108.20
29	AG	156	PHE	CB-CG-CD2	-6.96	115.93	120.80
83	A5	3585	A	C3'-C2'-C1'	6.96	107.06	101.50
62	Cb	73	PRO	N-CA-CB	-6.95	94.95	102.60
83	A5	503	A	C1'-O4'-C4'	-6.95	104.34	109.90
83	A5	723	U	O4'-C1'-N1	6.95	113.76	108.20
83	A5	242	C	O4'-C1'-N1	6.95	113.76	108.20
83	A5	3779	U	C1'-O4'-C4'	-6.95	104.34	109.90
36	B2	252	A	C1'-O4'-C4'	-6.95	104.34	109.90
36	B2	1824	C	C1'-O4'-C4'	-6.95	104.34	109.90
45	Ca	51	PRO	CA-C-N	6.95	130.09	116.20
36	B2	1943	G	O4'-C1'-C2'	6.94	113.85	107.60
69	Cg	16	ARG	NE-CZ-NH2	-6.94	116.83	120.30
78	Co	48	PHE	CB-CG-CD2	-6.94	115.94	120.80
83	A5	372	U	O4'-C1'-C2'	-6.94	98.86	105.80
83	A5	1596	A	N9-C1'-C2'	6.94	123.03	114.00
83	A5	2883	C	O4'-C1'-N1	6.94	113.75	108.20
13	AP	64	ARG	NE-CZ-NH1	6.94	123.77	120.30
27	AE	221	ARG	NE-CZ-NH1	6.94	123.77	120.30
36	B2	1708	A	P-O3'-C3'	6.94	128.03	119.70
36	B2	156	U	O3'-P-O5'	6.94	117.18	104.00
36	B2	996	U	C3'-C2'-C1'	6.94	107.05	101.50
83	A5	594	U	O4'-C1'-N1	6.94	113.75	108.20
85	A7	74	A	O4'-C1'-C2'	-6.94	98.86	105.80
26	AJ	6	ILE	N-CA-C	6.94	129.73	111.00
83	A5	554	U	O4'-C1'-N1	6.94	113.75	108.20
83	A5	1563	A	O4'-C1'-N9	6.94	113.75	108.20
83	A5	1547	A	C3'-C2'-C1'	6.93	107.05	101.50
83	A5	2984	U	P-O3'-C3'	6.93	128.02	119.70
83	A5	3409	G	O4'-C1'-N9	6.93	113.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	A7	21	G	O4'-C1'-N9	6.93	113.75	108.20
36	B2	706	U	N1-C1'-C2'	6.93	123.01	114.00
36	B2	990	U	N1-C1'-C2'	6.93	123.01	114.00
43	CV	90	ARG	NE-CZ-NH1	6.93	123.77	120.30
83	A5	356	A	O4'-C1'-C2'	-6.93	98.87	105.80
83	A5	3487	A	C3'-C2'-C1'	6.93	107.05	101.50
66	Cd	20	ARG	NE-CZ-NH1	6.93	123.77	120.30
36	B2	61	A	C1'-O4'-C4'	-6.93	104.36	109.90
83	A5	3570	C	O4'-C1'-N1	-6.93	102.66	108.20
83	A5	1477	G	C3'-C2'-C1'	6.93	107.04	101.50
83	A5	831	A	O4'-C1'-C2'	-6.93	98.87	105.80
83	A5	1463	C	O4'-C1'-C2'	-6.93	98.87	105.80
36	B2	7	G	O4'-C1'-N9	6.92	113.74	108.20
36	B2	225	G	C4'-C3'-O3'	6.92	126.85	113.00
83	A5	2062	A	O4'-C1'-C2'	-6.92	98.88	105.80
83	A5	3145	U	O4'-C1'-C2'	-6.92	98.88	105.80
83	A5	3918	A	O4'-C1'-C2'	6.92	113.83	107.60
36	B2	1323	A	C3'-C2'-C1'	6.92	107.04	101.50
36	B2	1688	U	C4'-C3'-C2'	-6.92	95.68	102.60
69	Cg	74	ARG	NE-CZ-NH1	6.92	123.76	120.30
83	A5	317	G	C1'-O4'-C4'	-6.92	104.36	109.90
83	A5	481	A	O4'-C1'-C2'	-6.92	98.88	105.80
83	A5	883	U	O4'-C1'-N1	6.92	113.74	108.20
83	A5	1599	C	N1-C1'-C2'	6.92	123.00	114.00
83	A5	1649	G	N9-C1'-C2'	-6.92	104.39	112.00
83	A5	3552	G	O4'-C1'-N9	6.92	113.74	108.20
85	A7	96	U	O4'-C1'-C2'	-6.92	98.88	105.80
36	B2	1826	C	C5'-C4'-O4'	6.92	117.40	109.10
36	B2	1968	C	C3'-C2'-C1'	6.92	107.03	101.50
37	BC	20	A	O4'-C1'-N9	6.92	113.73	108.20
82	CG	200	ARG	NE-CZ-NH2	-6.92	116.84	120.30
83	A5	686	U	O4'-C1'-N1	6.92	113.73	108.20
83	A5	1340	G	C1'-O4'-C4'	-6.92	104.36	109.90
83	A5	1988	A	O4'-C1'-N9	6.92	113.73	108.20
83	A5	2995	U	C3'-C2'-C1'	-6.92	95.97	101.50
86	A8	35	G	O4'-C1'-N9	6.92	113.73	108.20
36	B2	1211	C	C3'-C2'-C1'	6.92	107.03	101.50
37	BC	24	U	O4'-C1'-N1	6.92	113.73	108.20
33	AI	121	LEU	CA-C-N	6.92	130.03	116.20
83	A5	1480	U	O4'-C1'-C2'	-6.92	98.89	105.80
83	A5	2049	G	O4'-C1'-N9	6.92	113.73	108.20
83	A5	2142	A	O4'-C1'-C2'	-6.92	98.89	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3423	U	O4'-C1'-N1	6.92	113.73	108.20
83	A5	1461	G	O4'-C1'-C2'	6.91	113.82	107.60
83	A5	1938	C	C1'-O4'-C4'	-6.91	104.37	109.90
83	A5	3498	A	C4'-C3'-O3'	6.91	126.83	113.00
83	A5	3721	C	O4'-C4'-C3'	-6.91	97.09	104.00
36	B2	1234	G	O4'-C1'-N9	6.91	113.73	108.20
5	AO	34	TYR	CB-CG-CD2	-6.91	116.85	121.00
7	AM	39	VAL	CA-C-N	6.91	132.41	117.20
27	AE	39	ARG	NE-CZ-NH2	-6.91	116.84	120.30
49	CQ	52	PHE	CB-CG-CD1	6.91	125.64	120.80
83	A5	2194	G	C1'-O4'-C4'	-6.91	104.37	109.90
83	A5	3030	C	P-O3'-C3'	6.91	127.99	119.70
85	A7	28	U	O4'-C1'-N1	6.91	113.73	108.20
83	A5	2121	U	O4'-C1'-N1	6.91	113.72	108.20
36	B2	1074	G	O4'-C1'-N9	6.90	113.72	108.20
36	B2	1096	C	C3'-C2'-C1'	6.90	107.02	101.50
83	A5	1472	C	P-O5'-C5'	6.90	131.94	120.90
36	B2	1090	A	O4'-C1'-N9	6.90	113.72	108.20
83	A5	2514	U	N1-C1'-C2'	6.90	122.97	114.00
83	A5	2618	G	O4'-C1'-N9	6.90	113.72	108.20
85	A7	74	A	O4'-C1'-N9	6.90	113.72	108.20
36	B2	547	G	N9-C1'-C2'	6.89	122.96	114.00
83	A5	1681	G	O4'-C1'-N9	6.89	113.72	108.20
83	A5	2462	U	O4'-C1'-N1	6.89	113.72	108.20
83	A5	3515	C	C3'-C2'-C1'	6.89	107.02	101.50
83	A5	835	G	C1'-O4'-C4'	-6.89	104.39	109.90
83	A5	3560	C	O4'-C1'-N1	6.89	113.71	108.20
16	AA	63	ARG	NE-CZ-NH1	6.89	123.75	120.30
36	B2	193	U	C3'-C2'-C1'	6.89	107.01	101.50
36	B2	777	A	P-O3'-C3'	-6.89	111.43	119.70
49	CQ	70	PHE	CB-CA-C	-6.89	96.62	110.40
63	CB	130	PHE	CB-CG-CD1	-6.89	115.98	120.80
83	A5	2564	U	O4'-C1'-N1	6.89	113.71	108.20
83	A5	3201	U	O4'-C1'-N1	6.89	113.71	108.20
36	B2	613	A	C3'-C2'-C1'	6.89	107.01	101.50
83	A5	1117	A	C3'-C2'-C1'	6.89	107.01	101.50
83	A5	3294	A	N9-C1'-C2'	-6.89	104.42	112.00
83	A5	1713	U	O4'-C1'-N1	6.89	113.71	108.20
83	A5	2027	A	O4'-C1'-C2'	-6.89	98.91	105.80
83	A5	2154	A	C3'-C2'-C1'	6.89	107.01	101.50
83	A5	3843	U	O4'-C1'-C2'	-6.89	98.91	105.80
85	A7	120	U	O4'-C1'-N1	6.89	113.71	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	A8	97	U	O4'-C1'-N1	6.89	113.71	108.20
29	AG	159	ARG	NE-CZ-NH2	-6.88	116.86	120.30
33	AI	110	ARG	NE-CZ-NH1	6.88	123.74	120.30
36	B2	589	U	O4'-C1'-N1	6.88	113.71	108.20
36	B2	1584	A	C3'-C2'-C1'	6.88	107.01	101.50
83	A5	1921	U	O3'-P-O5'	6.88	117.08	104.00
83	A5	2196	U	O4'-C1'-C2'	-6.88	98.92	105.80
36	B2	1581	A	C3'-C2'-C1'	6.88	107.01	101.50
83	A5	1235	U	N1-C1'-C2'	6.88	122.95	114.00
83	A5	1612	G	O4'-C1'-N9	6.88	113.71	108.20
36	B2	919	A	N9-C1'-C2'	-6.88	104.43	112.00
83	A5	1323	C	O4'-C1'-C2'	-6.88	98.92	105.80
86	A8	32	G	O4'-C1'-N9	6.88	113.71	108.20
36	B2	493	A	C1'-O4'-C4'	-6.88	104.40	109.90
83	A5	1976	G	N9-C1'-C2'	6.88	122.94	114.00
24	Ae	106	ARG	NE-CZ-NH1	-6.88	116.86	120.30
36	B2	1079	A	C3'-C2'-C1'	-6.88	96.00	101.50
78	Co	48	PHE	CB-CG-CD1	6.88	125.61	120.80
83	A5	500	A	O4'-C1'-N9	6.88	113.70	108.20
83	A5	1503	G	N9-C1'-C2'	6.88	122.94	114.00
83	A5	2268	G	O3'-P-O5'	-6.88	90.94	104.00
85	A7	78	C	O4'-C1'-N1	6.88	113.70	108.20
36	B2	414	C	O4'-C1'-C2'	-6.88	98.92	105.80
83	A5	1797	A	C3'-C2'-C1'	6.88	107.00	101.50
83	A5	123	U	C3'-C2'-C1'	6.87	107.00	101.50
83	A5	2098	C	C1'-O4'-C4'	6.87	115.40	109.90
86	A8	103	C	O4'-C1'-C2'	-6.87	98.93	105.80
36	B2	1030	C	C3'-C2'-C1'	6.87	107.00	101.50
36	B2	1065	A	O4'-C1'-N9	6.87	113.70	108.20
83	A5	3716	C	O4'-C1'-N1	6.87	113.70	108.20
85	A7	24	U	O3'-P-O5'	6.87	117.06	104.00
83	A5	296	C	C3'-C2'-C1'	6.87	107.00	101.50
82	CG	201	ARG	NE-CZ-NH1	6.87	123.73	120.30
83	A5	1028	U	O4'-C1'-N1	6.87	113.69	108.20
36	B2	231	G	N9-C1'-C2'	-6.87	104.45	112.00
83	A5	24	G	C1'-O4'-C4'	-6.87	104.41	109.90
83	A5	1300	G	C4'-C3'-O3'	6.87	126.73	113.00
54	CP	127	ARG	NE-CZ-NH1	6.86	123.73	120.30
83	A5	642	A	O4'-C1'-C2'	-6.86	98.94	105.80
83	A5	1178	U	O4'-C1'-N1	6.86	113.69	108.20
83	A5	3159	C	O4'-C1'-N1	6.86	113.69	108.20
36	B2	1278	C	P-O3'-C3'	6.86	127.93	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1628	A	O4'-C1'-N9	6.86	113.69	108.20
81	CE	78	ARG	NE-CZ-NH2	-6.86	116.87	120.30
83	A5	746	G	O4'-C1'-N9	6.86	113.69	108.20
83	A5	3770	A	C2'-C3'-O3'	-6.86	94.41	109.50
36	B2	1084	G	C3'-C2'-C1'	6.86	106.99	101.50
36	B2	1556	A	O4'-C1'-N9	6.86	113.69	108.20
25	Af	99	LYS	N-CA-CB	6.86	122.94	110.60
36	B2	650	G	C5'-C4'-C3'	6.86	126.97	116.00
36	B2	1368	G	O4'-C1'-N9	6.86	113.69	108.20
50	CR	61	TYR	CB-CG-CD1	6.86	125.11	121.00
51	CA	227	ARG	NE-CZ-NH1	6.86	123.73	120.30
36	B2	964	G	O4'-C1'-C2'	-6.85	98.95	105.80
36	B2	628	A	O3'-P-O5'	-6.85	90.98	104.00
36	B2	1902	C	O4'-C1'-N1	6.85	113.68	108.20
83	A5	223	A	O4'-C1'-C2'	-6.85	98.95	105.80
83	A5	1581	G	C3'-C2'-C1'	-6.85	96.02	101.50
83	A5	2145	G	O4'-C1'-N9	6.85	113.68	108.20
18	AY	108	ARG	NE-CZ-NH2	-6.85	116.88	120.30
83	A5	29	U	P-O3'-C3'	6.85	127.92	119.70
13	AP	64	ARG	NE-CZ-NH2	-6.85	116.88	120.30
36	B2	656	U	C1'-O4'-C4'	6.85	115.38	109.90
83	A5	2997	C	C2'-C3'-O3'	-6.85	94.43	109.50
83	A5	3401	U	O4'-C1'-N1	6.85	113.68	108.20
37	BC	21	G	C1'-O4'-C4'	-6.85	104.42	109.90
83	A5	579	A	O4'-C1'-N9	6.85	113.68	108.20
83	A5	1448	G	P-O5'-C5'	6.85	131.85	120.90
83	A5	2040	A	C2'-C3'-O3'	-6.85	94.43	109.50
36	B2	298	U	C1'-O4'-C4'	-6.85	104.42	109.90
36	B2	563	A	O4'-C1'-N9	6.84	113.67	108.20
36	B2	1424	A	N9-C1'-C2'	-6.84	104.47	112.00
83	A5	5	A	C3'-C2'-C1'	-6.84	96.02	101.50
83	A5	734	U	O4'-C1'-C2'	-6.84	98.96	105.80
83	A5	1348	G	C3'-C2'-C1'	-6.84	96.03	101.50
83	A5	2146	G	O4'-C1'-C2'	-6.84	98.96	105.80
83	A5	2693	G	O4'-C1'-N9	6.84	113.67	108.20
83	A5	3570	C	O4'-C1'-C2'	-6.84	98.96	105.80
83	A5	4	U	C3'-C2'-C1'	6.84	106.97	101.50
83	A5	3361	U	O4'-C1'-C2'	-6.84	98.96	105.80
83	A5	3725	U	O4'-C1'-N1	6.84	113.67	108.20
36	B2	433	A	O4'-C1'-N9	6.84	113.67	108.20
83	A5	3369	A	C1'-O4'-C4'	6.84	115.37	109.90
26	AJ	13	THR	CA-C-N	6.84	132.25	117.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	CE	191	ARG	NE-CZ-NH2	-6.84	116.88	120.30
83	A5	1470	C	C1'-O4'-C4'	-6.84	104.43	109.90
83	A5	2516	U	O4'-C1'-C2'	-6.84	98.96	105.80
83	A5	3721	C	C3'-C2'-C1'	6.84	106.97	101.50
36	B2	1526	G	C1'-O4'-C4'	-6.84	104.43	109.90
83	A5	926	U	N1-C1'-C2'	6.84	122.89	114.00
36	B2	1405	G	O4'-C1'-N9	6.84	113.67	108.20
83	A5	2162	C	O4'-C1'-C2'	-6.84	98.96	105.80
83	A5	2798	C	C1'-O4'-C4'	-6.84	104.43	109.90
85	A7	30	G	O4'-C1'-N9	6.84	113.67	108.20
36	B2	1940	G	C1'-O4'-C4'	-6.83	104.43	109.90
83	A5	2180	A	O4'-C1'-N9	-6.83	102.73	108.20
83	A5	3400	U	O4'-C1'-N1	6.83	113.67	108.20
83	A5	3693	G	O4'-C1'-N9	6.83	113.67	108.20
36	B2	1448	A	P-O3'-C3'	6.83	127.90	119.70
83	A5	2014	C	C1'-O4'-C4'	-6.83	104.43	109.90
83	A5	589	A	O4'-C1'-C2'	-6.83	98.97	105.80
83	A5	1317	A	O4'-C4'-C3'	-6.83	97.17	104.00
83	A5	1704	A	C1'-O4'-C4'	6.83	115.37	109.90
83	A5	2620	C	C1'-O4'-C4'	6.83	115.36	109.90
83	A5	989	A	C3'-C2'-C1'	6.83	106.96	101.50
36	B2	520	A	C2'-C3'-O3'	6.83	124.62	113.70
83	A5	1068	C	C3'-C2'-C1'	6.83	106.96	101.50
83	A5	1876	G	O4'-C1'-C2'	6.83	113.75	107.60
36	B2	1319	A	O4'-C1'-N9	6.83	113.66	108.20
85	A7	65	C	P-O3'-C3'	6.83	127.89	119.70
83	A5	125	A	O4'-C1'-C2'	-6.83	98.97	105.80
83	A5	205	U	C3'-C2'-C1'	6.83	106.96	101.50
83	A5	738	A	P-O3'-C3'	6.83	127.89	119.70
83	A5	783	G	O4'-C1'-N9	6.83	113.66	108.20
36	B2	1002	A	C3'-C2'-C1'	6.82	106.96	101.50
48	CD	13	PHE	CB-CG-CD1	6.82	125.58	120.80
83	A5	754	A	C3'-C2'-C1'	6.82	106.96	101.50
83	A5	3768	C	O4'-C1'-C2'	-6.82	98.98	105.80
83	A5	3751	C	C3'-C2'-C1'	6.82	106.96	101.50
83	A5	3911	G	C1'-O4'-C4'	-6.82	104.44	109.90
36	B2	330	G	O4'-C1'-N9	6.82	113.66	108.20
36	B2	1018	C	C3'-C2'-C1'	6.82	106.96	101.50
36	B2	1048	U	N1-C1'-C2'	6.82	122.87	114.00
83	A5	2094	U	O4'-C1'-N1	6.82	113.66	108.20
83	A5	262	G	P-O3'-C3'	6.82	127.88	119.70
83	A5	365	A	C3'-C2'-C1'	6.82	106.95	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	477	C	C3'-C2'-C1'	6.82	106.95	101.50
83	A5	935	A	N9-C1'-C2'	-6.82	104.50	112.00
83	A5	3618	A	C1'-O4'-C4'	-6.82	104.45	109.90
36	B2	515	U	N1-C1'-C2'	6.82	122.86	114.00
86	A8	51	A	O4'-C1'-C2'	-6.82	98.98	105.80
36	B2	883	C	N1-C1'-C2'	6.81	122.86	114.00
41	CO	28	TYR	CB-CG-CD1	-6.81	116.91	121.00
83	A5	3211	A	O4'-C1'-C2'	6.81	113.73	107.60
85	A7	63	C	C2'-C3'-O3'	6.81	124.60	113.70
36	B2	142	A	P-O3'-C3'	6.81	127.87	119.70
36	B2	1406	A	C3'-C2'-C1'	6.81	106.95	101.50
83	A5	1888	A	P-O3'-C3'	6.81	127.87	119.70
83	A5	2711	C	O4'-C1'-N1	6.81	113.65	108.20
83	A5	2887	U	C1'-O4'-C4'	-6.81	104.45	109.90
83	A5	3438	C	O4'-C1'-N1	6.81	113.65	108.20
83	A5	3835	U	O4'-C1'-N1	6.81	113.65	108.20
86	A8	73	U	C3'-C2'-C1'	6.81	106.95	101.50
36	B2	141	G	O4'-C1'-C2'	-6.81	98.99	105.80
36	B2	1192	U	O4'-C1'-N1	6.81	113.65	108.20
83	A5	1260	A	O4'-C1'-N9	6.81	113.65	108.20
83	A5	3141	A	N9-C1'-C2'	6.81	122.85	114.00
36	B2	1020	U	C3'-C2'-C1'	6.81	106.94	101.50
36	B2	1578	U	O4'-C1'-N1	6.81	113.64	108.20
26	AJ	160	PHE	CB-CG-CD2	-6.80	116.04	120.80
83	A5	1911	C	P-O3'-C3'	6.80	127.86	119.70
83	A5	2851	U	O4'-C1'-N1	6.80	113.64	108.20
83	A5	3528	A	C3'-C2'-C1'	6.80	106.94	101.50
36	B2	988	G	O4'-C1'-C2'	6.80	113.72	107.60
83	A5	1786	G	O4'-C1'-N9	6.80	113.64	108.20
36	B2	33	U	C1'-O4'-C4'	6.80	115.34	109.90
36	B2	1379	G	O4'-C1'-N9	6.80	113.64	108.20
36	B2	1904	G	O4'-C1'-N9	6.80	113.64	108.20
45	Ca	78	LYS	C-N-CA	6.80	138.71	121.70
83	A5	1011	U	O4'-C1'-N1	6.80	113.64	108.20
83	A5	3854	A	O4'-C1'-N9	6.80	113.64	108.20
36	B2	923	G	O4'-C1'-N9	6.80	113.64	108.20
83	A5	1748	C	C3'-C2'-C1'	6.80	106.94	101.50
83	A5	2235	G	O4'-C1'-C2'	-6.80	99.00	105.80
83	A5	3816	A	O4'-C1'-C2'	-6.80	99.00	105.80
50	CR	38	ARG	NE-CZ-NH2	6.80	123.70	120.30
83	A5	556	A	O4'-C1'-N9	6.80	113.64	108.20
83	A5	3838	A	C5'-C4'-O4'	6.80	117.25	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	A8	100	G	N9-C1'-C2'	6.80	122.84	114.00
36	B2	1118	U	O4'-C1'-C2'	-6.79	99.01	105.80
84	A9	2	G	C1'-O4'-C4'	-6.79	104.47	109.90
74	CC	116	ARG	NE-CZ-NH1	6.79	123.69	120.30
83	A5	2875	A	C1'-O4'-C4'	6.79	115.33	109.90
83	A5	3418	U	N1-C1'-C2'	6.79	122.83	114.00
33	AI	22	ARG	N-CA-CB	6.79	122.82	110.60
36	B2	1071	G	O4'-C1'-N9	6.79	113.63	108.20
48	CD	68	ARG	NE-CZ-NH2	-6.79	116.91	120.30
83	A5	966	U	C3'-C2'-C1'	6.79	106.93	101.50
83	A5	2877	G	N9-C1'-C2'	-6.79	104.53	112.00
36	B2	856	A	C3'-C2'-C1'	-6.79	96.07	101.50
83	A5	2595	U	C1'-O4'-C4'	6.79	115.33	109.90
83	A5	3547	U	O4'-C1'-N1	6.79	113.63	108.20
83	A5	164	U	O4'-C1'-N1	6.79	113.63	108.20
83	A5	685	A	O4'-C1'-N9	6.79	113.63	108.20
83	A5	1018	C	C3'-C2'-C1'	6.79	106.93	101.50
83	A5	3555	U	P-O3'-C3'	-6.79	111.56	119.70
83	A5	2391	G	P-O3'-C3'	6.78	127.84	119.70
36	B2	1528	G	P-O3'-C3'	6.78	127.84	119.70
83	A5	3864	C	P-O5'-C5'	6.78	131.75	120.90
37	BC	18	G	P-O3'-C3'	6.78	127.84	119.70
61	Ch	10	ARG	NE-CZ-NH2	-6.78	116.91	120.30
83	A5	2031	C	C3'-C2'-C1'	6.78	106.92	101.50
36	B2	427	G	P-O3'-C3'	6.78	127.83	119.70
83	A5	1034	U	C1'-O4'-C4'	-6.78	104.48	109.90
4	AK	86	GLU	N-CA-C	-6.78	92.70	111.00
83	A5	658	A	O4'-C1'-N9	6.78	113.62	108.20
83	A5	3322	A	O4'-C1'-N9	6.78	113.62	108.20
83	A5	388	U	C1'-O4'-C4'	-6.78	104.48	109.90
83	A5	1162	A	P-O3'-C3'	-6.78	111.57	119.70
83	A5	2085	G	C3'-C2'-C1'	-6.78	96.08	101.50
83	A5	3260	G	N9-C1'-C2'	6.78	122.81	114.00
83	A5	3131	C	C3'-C2'-C1'	6.77	106.92	101.50
83	A5	3487	A	O4'-C1'-C2'	-6.77	99.03	105.80
83	A5	3688	A	C3'-C2'-C1'	6.77	106.92	101.50
36	B2	217	A	P-O5'-C5'	6.77	131.74	120.90
85	A7	57	C	C1'-O4'-C4'	-6.77	104.48	109.90
36	B2	978	C	O4'-C1'-N1	6.77	113.61	108.20
36	B2	1662	C	N1-C1'-C2'	6.77	122.80	114.00
79	CJ	159	GLN	C-N-CA	6.77	138.62	121.70
83	A5	1522	G	C1'-O4'-C4'	6.77	115.31	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3376	C	C3'-C2'-C1'	6.77	106.91	101.50
52	CS	55	LYS	N-CA-CB	6.77	122.78	110.60
36	B2	112	U	P-O3'-C3'	6.76	127.82	119.70
83	A5	1675	G	C1'-O4'-C4'	-6.76	104.49	109.90
86	A8	97	U	N1-C1'-C2'	6.76	122.79	114.00
83	A5	1059	A	N9-C1'-C2'	-6.76	104.56	112.00
83	A5	1383	A	P-O3'-C3'	6.76	127.81	119.70
86	A8	56	U	N1-C1'-C2'	6.76	122.79	114.00
83	A5	54	U	O4'-C1'-N1	6.76	113.61	108.20
83	A5	515	A	O4'-C1'-C2'	-6.76	99.04	105.80
83	A5	1294	U	O4'-C1'-C2'	-6.76	99.04	105.80
83	A5	373	A	O4'-C1'-N9	6.76	113.61	108.20
83	A5	1077	C	C1'-O4'-C4'	-6.76	104.49	109.90
83	A5	2266	U	N1-C1'-C2'	6.76	122.79	114.00
83	A5	3260	G	O4'-C1'-N9	6.76	113.61	108.20
30	AF	187	PHE	CB-CG-CD1	6.76	125.53	120.80
36	B2	398	C	C1'-O4'-C4'	6.76	115.31	109.90
36	B2	521	U	C1'-O4'-C4'	6.76	115.31	109.90
36	B2	1141	C	O4'-C1'-N1	6.76	113.61	108.20
36	B2	1254	A	C1'-O4'-C4'	6.76	115.31	109.90
83	A5	850	A	O4'-C1'-N9	6.76	113.61	108.20
83	A5	1583	G	O4'-C1'-C2'	6.76	113.68	107.60
83	A5	2097	U	O4'-C1'-N1	6.76	113.61	108.20
83	A5	2175	A	O4'-C1'-C2'	-6.76	99.04	105.80
83	A5	2926	G	N9-C1'-C2'	6.76	122.78	114.00
83	A5	7	A	N9-C1'-C2'	-6.75	104.57	112.00
86	A8	63	U	O4'-C1'-N1	6.75	113.60	108.20
36	B2	1859	A	O4'-C1'-N9	6.75	113.60	108.20
37	BC	9	G	O4'-C1'-C2'	-6.75	99.05	105.80
83	A5	269	A	O4'-C1'-N9	6.75	113.60	108.20
83	A5	527	U	N1-C1'-C2'	6.75	122.78	114.00
83	A5	1902	U	N1-C1'-C2'	-6.75	104.57	112.00
86	A8	46	C	O4'-C1'-N1	6.75	113.60	108.20
36	B2	243	U	N1-C1'-C2'	6.75	122.78	114.00
36	B2	1677	C	C1'-O4'-C4'	-6.75	104.50	109.90
83	A5	1065	A	O4'-C1'-N9	6.75	113.60	108.20
83	A5	1649	G	C3'-C2'-C1'	-6.75	96.10	101.50
83	A5	3670	G	N9-C1'-C2'	6.75	122.78	114.00
85	A7	85	G	O4'-C1'-N9	6.75	113.60	108.20
83	A5	2791	A	O4'-C1'-N9	6.75	113.60	108.20
83	A5	3224	G	N9-C1'-C2'	6.75	122.78	114.00
36	B2	276	A	O4'-C1'-C2'	-6.75	99.05	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	CA	98	ILE	C-N-CA	6.75	136.47	122.30
83	A5	982	C	N1-C1'-C2'	6.75	122.77	114.00
83	A5	2101	C	O4'-C1'-C2'	-6.75	99.05	105.80
83	A5	2461	A	C1'-O4'-C4'	6.75	115.30	109.90
36	B2	218	A	C3'-C2'-C1'	6.75	106.90	101.50
37	BC	33	C	C1'-O4'-C4'	-6.75	104.50	109.90
70	Ci	78	ARG	NE-CZ-NH2	-6.75	116.93	120.30
83	A5	781	C	O4'-C1'-N1	6.75	113.60	108.20
83	A5	3531	C	O4'-C1'-N1	6.75	113.60	108.20
36	B2	528	A	O4'-C1'-N9	6.75	113.60	108.20
36	B2	955	G	C1'-O4'-C4'	-6.75	104.50	109.90
83	A5	1690	U	P-O3'-C3'	-6.75	111.61	119.70
83	A5	2141	A	C1'-O4'-C4'	6.74	115.30	109.90
83	A5	3406	G	O4'-C1'-N9	6.74	113.59	108.20
36	B2	157	C	O4'-C1'-C2'	-6.74	99.06	105.80
83	A5	3695	G	C1'-O4'-C4'	-6.74	104.51	109.90
36	B2	1027	A	C1'-O4'-C4'	6.74	115.29	109.90
36	B2	1352	G	O4'-C1'-N9	6.74	113.59	108.20
49	CQ	37	ARG	NE-CZ-NH1	6.74	123.67	120.30
83	A5	1367	A	C1'-O4'-C4'	-6.74	104.51	109.90
83	A5	1413	C	C3'-C2'-C1'	6.74	106.89	101.50
36	B2	233	A	O4'-C1'-N9	6.74	113.59	108.20
36	B2	1576	A	C3'-C2'-C1'	6.74	106.89	101.50
83	A5	411	U	O4'-C1'-N1	6.74	113.59	108.20
83	A5	1401	C	P-O3'-C3'	-6.74	111.61	119.70
83	A5	1921	U	C4'-C3'-C2'	-6.74	95.86	102.60
83	A5	3025	A	O3'-P-O5'	6.74	116.80	104.00
83	A5	3771	A	P-O3'-C3'	-6.74	111.61	119.70
36	B2	600	A	C4'-C3'-O3'	6.74	126.47	113.00
36	B2	1583	A	N9-C1'-C2'	-6.74	104.59	112.00
36	B2	964	G	C1'-O4'-C4'	6.74	115.29	109.90
81	CE	64	LYS	N-CA-C	6.74	129.18	111.00
83	A5	624	A	N9-C1'-C2'	-6.74	104.59	112.00
83	A5	1079	U	C4'-C3'-C2'	-6.74	95.86	102.60
86	A8	83	A	P-O3'-C3'	-6.74	111.62	119.70
1	Az	840	TYR	CB-CG-CD2	-6.73	116.96	121.00
36	B2	551	C	P-O3'-C3'	6.73	127.78	119.70
36	B2	627	A	C1'-O4'-C4'	-6.73	104.51	109.90
83	A5	928	U	O4'-C1'-N1	6.73	113.58	108.20
83	A5	1005	G	O4'-C1'-N9	6.73	113.58	108.20
83	A5	1665	C	C3'-C2'-C1'	6.73	106.89	101.50
36	B2	1734	G	C4'-C3'-O3'	6.73	126.46	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	Cz	57	HIS	C-N-CA	6.73	138.53	121.70
64	CF	174	ASP	N-CA-C	6.73	129.17	111.00
83	A5	2022	C	N1-C1'-C2'	6.73	122.75	114.00
83	A5	2716	C	N1-C1'-C2'	6.73	122.75	114.00
83	A5	3155	G	O4'-C1'-N9	6.73	113.58	108.20
80	CH	120	TYR	CB-CG-CD2	-6.73	116.96	121.00
83	A5	2880	A	P-O5'-C5'	6.73	131.67	120.90
3	AU	53	LYS	C-N-CA	6.73	136.43	122.30
36	B2	1380	U	N1-C1'-C2'	-6.73	104.60	112.00
83	A5	1410	A	C1'-O4'-C4'	6.73	115.28	109.90
83	A5	1548	C	N1-C1'-C2'	6.73	122.75	114.00
83	A5	2671	C	C1'-O4'-C4'	6.73	115.28	109.90
83	A5	3745	U	C3'-C2'-C1'	6.73	106.88	101.50
83	A5	3886	U	C4'-C3'-O3'	-6.73	95.27	109.40
36	B2	1414	C	O4'-C1'-N1	6.73	113.58	108.20
69	Cg	74	ARG	NE-CZ-NH2	-6.73	116.94	120.30
85	A7	32	U	N1-C1'-C2'	-6.73	104.60	112.00
59	CZ	5	MET	N-CA-CB	6.72	122.70	110.60
83	A5	890	C	O4'-C1'-N1	6.72	113.58	108.20
83	A5	1503	G	O4'-C1'-C2'	6.72	113.65	107.60
83	A5	2481	U	N1-C1'-C2'	6.72	122.74	114.00
83	A5	2994	C	C3'-C2'-C1'	6.72	106.88	101.50
83	A5	3925	G	P-O3'-C3'	6.72	127.77	119.70
83	A5	1724	A	P-O3'-C3'	6.72	127.77	119.70
1	Az	827	ARG	NE-CZ-NH2	-6.72	116.94	120.30
36	B2	511	G	O4'-C1'-N9	6.72	113.58	108.20
36	B2	1359	U	N1-C1'-C2'	6.72	122.74	114.00
63	CB	249	ARG	NE-CZ-NH2	-6.72	116.94	120.30
79	CJ	80	ARG	NE-CZ-NH1	6.72	123.66	120.30
83	A5	32	C	N1-C1'-C2'	6.72	122.73	114.00
83	A5	3866	U	O4'-C1'-N1	6.72	113.58	108.20
83	A5	169	C	C3'-C2'-C1'	6.72	106.87	101.50
83	A5	2028	A	P-O3'-C3'	6.72	127.76	119.70
83	A5	2499	U	C3'-C2'-C1'	6.72	106.87	101.50
23	AD	78	ARG	NE-CZ-NH2	6.72	123.66	120.30
36	B2	295	A	C1'-O4'-C4'	-6.72	104.53	109.90
83	A5	315	G	C1'-O4'-C4'	6.72	115.27	109.90
36	B2	1271	A	C3'-C2'-C1'	6.71	106.87	101.50
34	AQ	147	TYR	CB-CG-CD2	-6.71	116.97	121.00
83	A5	1036	A	C3'-C2'-C1'	6.71	106.87	101.50
83	A5	1353	G	O4'-C1'-N9	6.71	113.57	108.20
28	AC	224	TYR	CB-CG-CD2	-6.71	116.97	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1278	C	O4'-C1'-C2'	-6.71	99.09	105.80
36	B2	1445	A	C1'-O4'-C4'	6.71	115.27	109.90
83	A5	290	G	C3'-C2'-C1'	-6.71	96.13	101.50
83	A5	2992	A	P-O5'-C5'	6.71	131.64	120.90
83	A5	2993	G	C3'-C2'-C1'	6.71	106.87	101.50
45	Ca	52	GLY	N-CA-C	6.71	129.87	113.10
36	B2	452	U	O4'-C1'-N1	6.71	113.57	108.20
2	Ag	156	ARG	NE-CZ-NH2	-6.71	116.95	120.30
35	Ah	133	GLY	CA-C-N	6.71	135.88	117.10
36	B2	655	A	P-O3'-C3'	6.71	127.75	119.70
83	A5	2907	U	C3'-C2'-C1'	6.71	106.86	101.50
18	AY	114	ARG	NE-CZ-NH1	6.70	123.65	120.30
83	A5	3595	U	O4'-C1'-N1	6.70	113.56	108.20
37	BC	34	A	O4'-C1'-N9	6.70	113.56	108.20
37	BC	41	A	O4'-C1'-C2'	-6.70	99.10	105.80
83	A5	2030	U	C1'-O4'-C4'	-6.70	104.54	109.90
36	B2	155	U	C1'-O4'-C4'	6.70	115.26	109.90
36	B2	1266	G	O4'-C1'-N9	6.70	113.56	108.20
51	CA	128	ARG	NE-CZ-NH2	-6.70	116.95	120.30
77	Cp	29	MET	CG-SD-CE	-6.70	89.48	100.20
83	A5	1024	U	O4'-C1'-N1	6.70	113.56	108.20
83	A5	1355	C	C1'-O4'-C4'	-6.70	104.54	109.90
36	B2	917	U	N1-C1'-C2'	-6.70	104.63	112.00
45	Ca	60	ARG	NE-CZ-NH2	-6.70	116.95	120.30
83	A5	455	U	C1'-O4'-C4'	-6.70	104.54	109.90
83	A5	1110	G	O4'-C1'-C2'	6.70	113.63	107.60
36	B2	1740	G	C1'-O4'-C4'	6.70	115.26	109.90
63	CB	62	ARG	NE-CZ-NH2	-6.70	116.95	120.30
30	AF	57	ILE	C-N-CA	6.70	138.44	121.70
36	B2	1284	A	O4'-C1'-C2'	-6.70	99.11	105.80
36	B2	1314	G	C3'-C2'-C1'	6.70	106.86	101.50
83	A5	176	A	O4'-C1'-C2'	6.70	113.63	107.60
36	B2	512	U	P-O3'-C3'	6.69	127.73	119.70
36	B2	1335	C	O4'-C1'-N1	6.69	113.55	108.20
83	A5	795	A	O4'-C1'-C2'	-6.69	99.11	105.80
83	A5	1130	U	O4'-C1'-N1	6.69	113.55	108.20
83	A5	1559	A	O4'-C4'-C3'	-6.69	97.31	104.00
36	B2	1829	C	P-O3'-C3'	6.69	127.73	119.70
37	BC	69	G	O4'-C1'-N9	6.69	113.55	108.20
83	A5	2999	U	O4'-C1'-C2'	-6.69	99.11	105.80
83	A5	3820	C	C3'-C2'-C1'	6.69	106.85	101.50
85	A7	76	U	N1-C1'-C2'	6.69	122.70	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1813	U	O4'-C1'-N1	6.69	113.55	108.20
37	BC	55	C	O4'-C1'-N1	6.69	113.55	108.20
1	Az	346	SER	CA-C-N	6.69	135.82	117.10
83	A5	1728	G	O4'-C1'-N9	6.69	113.55	108.20
83	A5	3293	G	N9-C1'-C2'	-6.69	104.64	112.00
83	A5	3294	A	C1'-O4'-C4'	6.69	115.25	109.90
83	A5	1339	U	O4'-C1'-N1	6.69	113.55	108.20
36	B2	859	C	O4'-C1'-N1	6.68	113.55	108.20
36	B2	1128	C	N1-C1'-C2'	6.68	122.69	114.00
82	CG	194	ARG	NE-CZ-NH1	6.68	123.64	120.30
83	A5	1767	A	O4'-C1'-N9	6.68	113.55	108.20
83	A5	3198	C	N1-C1'-C2'	6.68	122.69	114.00
36	B2	75	U	C1'-O4'-C4'	6.68	115.25	109.90
83	A5	2203	A	O4'-C1'-N9	6.68	113.55	108.20
83	A5	2671	C	C3'-C2'-C1'	6.68	106.84	101.50
83	A5	1739	U	O4'-C1'-C2'	-6.68	99.12	105.80
83	A5	3693	G	O4'-C1'-C2'	6.68	113.61	107.60
31	AH	86	SER	C-N-CA	6.68	136.32	122.30
36	B2	1427	U	O4'-C1'-N1	6.68	113.54	108.20
83	A5	3361	U	C5'-C4'-O4'	6.67	117.11	109.10
85	A7	119	C	O4'-C1'-C2'	-6.67	99.12	105.80
36	B2	82	G	O4'-C1'-N9	6.67	113.54	108.20
83	A5	657	G	O4'-C1'-N9	6.67	113.54	108.20
83	A5	3237	U	C3'-C2'-C1'	6.67	106.84	101.50
36	B2	126	G	O4'-C1'-C2'	-6.67	99.13	105.80
36	B2	1432	A	O4'-C1'-N9	6.67	113.54	108.20
36	B2	1855	A	C1'-O4'-C4'	6.67	115.24	109.90
83	A5	2409	U	P-O3'-C3'	6.67	127.71	119.70
83	A5	3699	U	P-O3'-C3'	-6.67	111.69	119.70
83	A5	3905	U	C1'-O4'-C4'	-6.67	104.56	109.90
83	A5	3933	G	N9-C1'-C2'	6.67	122.67	114.00
36	B2	600	A	N9-C1'-C2'	-6.67	104.66	112.00
53	CT	6	GLY	N-CA-C	6.67	129.77	113.10
83	A5	1752	G	N9-C1'-C2'	6.67	122.67	114.00
83	A5	1567	G	C3'-C2'-C1'	-6.67	96.17	101.50
83	A5	2759	G	O4'-C1'-N9	6.67	113.53	108.20
83	A5	3034	A	O3'-P-O5'	6.67	116.67	104.00
83	A5	3363	G	O4'-C1'-N9	6.67	113.53	108.20
36	B2	1086	U	C1'-O4'-C4'	-6.67	104.57	109.90
37	BC	73	C	N1-C1'-C2'	6.67	122.67	114.00
83	A5	227	A	C3'-C2'-C1'	6.67	106.83	101.50
83	A5	265	U	O4'-C1'-N1	6.67	113.53	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2705	U	O4'-C1'-N1	6.67	113.53	108.20
36	B2	655	A	C1'-O4'-C4'	6.67	115.23	109.90
83	A5	311	C	N1-C1'-C2'	6.67	122.66	114.00
83	A5	3268	A	O4'-C1'-N9	6.67	113.53	108.20
36	B2	1401	U	O4'-C1'-C2'	-6.66	99.14	105.80
83	A5	1274	A	O4'-C1'-N9	6.66	113.53	108.20
83	A5	3654	C	N1-C1'-C2'	6.66	122.66	114.00
41	CO	103	ARG	NE-CZ-NH1	6.66	123.63	120.30
83	A5	186	G	C3'-C2'-C1'	6.66	106.83	101.50
83	A5	1145	C	C1'-O4'-C4'	-6.66	104.57	109.90
42	CL	171	LYS	N-CA-C	6.66	128.98	111.00
83	A5	3161	U	N1-C1'-C2'	6.66	122.66	114.00
83	A5	3430	G	O4'-C1'-C2'	6.66	113.59	107.60
83	A5	3928	A	C3'-C2'-C1'	-6.66	96.17	101.50
1	Az	26	ALA	N-CA-CB	6.66	119.42	110.10
83	A5	617	U	C3'-C2'-C1'	6.66	106.83	101.50
36	B2	1284	A	C1'-O4'-C4'	6.66	115.22	109.90
83	A5	1642	G	O4'-C1'-N9	6.66	113.53	108.20
83	A5	2998	U	C5'-C4'-C3'	-6.66	105.35	116.00
42	CL	161	PRO	N-CA-C	6.65	129.40	112.10
36	B2	1812	C	C3'-C2'-C1'	6.65	106.82	101.50
83	A5	655	C	O4'-C1'-N1	6.65	113.52	108.20
83	A5	2137	U	O4'-C1'-C2'	-6.65	99.15	105.80
84	A9	29	U	N1-C1'-C2'	6.65	122.65	114.00
85	A7	75	G	O4'-C1'-N9	6.65	113.52	108.20
83	A5	293	U	O4'-C1'-N1	6.65	113.52	108.20
83	A5	1159	C	N1-C1'-C2'	6.65	122.64	114.00
83	A5	1369	C	O4'-C1'-C2'	-6.65	99.15	105.80
83	A5	3255	G	C3'-C2'-C1'	-6.65	96.18	101.50
36	B2	1350	G	O4'-C1'-N9	6.65	113.52	108.20
83	A5	184	A	N9-C1'-C2'	-6.65	104.69	112.00
83	A5	1540	U	O4'-C1'-N1	6.65	113.52	108.20
83	A5	2700	C	O4'-C1'-N1	6.65	113.52	108.20
28	AC	249	TYR	CB-CG-CD2	-6.64	117.01	121.00
83	A5	2693	G	C1'-O4'-C4'	-6.64	104.58	109.90
36	B2	55	A	N9-C1'-C2'	6.64	122.63	114.00
36	B2	549	A	O4'-C1'-N9	6.64	113.51	108.20
36	B2	1781	U	O4'-C1'-N1	6.64	113.51	108.20
83	A5	2137	U	C1'-O4'-C4'	6.64	115.22	109.90
83	A5	2479	A	C3'-C2'-C1'	-6.64	96.19	101.50
83	A5	2499	U	O4'-C1'-N1	6.64	113.52	108.20
26	AJ	80	ARG	NE-CZ-NH2	-6.64	116.98	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	48	G	N9-C1'-C2'	6.64	122.63	114.00
83	A5	714	A	O4'-C1'-N9	6.64	113.51	108.20
83	A5	3600	G	O4'-C1'-C2'	6.64	113.58	107.60
36	B2	1944	A	C1'-O4'-C4'	6.64	115.21	109.90
83	A5	3378	U	O4'-C1'-N1	6.64	113.51	108.20
36	B2	1181	G	O4'-C1'-N9	6.64	113.51	108.20
36	B2	1939	A	O4'-C1'-N9	6.64	113.51	108.20
36	B2	883	C	C1'-O4'-C4'	-6.63	104.59	109.90
37	BC	46	U	P-O3'-C3'	-6.63	111.74	119.70
48	CD	207	TYR	CB-CG-CD1	6.63	124.98	121.00
83	A5	1378	A	C3'-C2'-C1'	6.63	106.81	101.50
36	B2	1738	G	O4'-C1'-N9	6.63	113.51	108.20
83	A5	219	G	O4'-C1'-N9	6.63	113.51	108.20
83	A5	1289	C	C3'-C2'-C1'	6.63	106.81	101.50
83	A5	1415	A	C1'-O4'-C4'	6.63	115.21	109.90
83	A5	142	G	O4'-C1'-N9	6.63	113.50	108.20
83	A5	694	A	O4'-C1'-N9	6.63	113.51	108.20
30	AF	176	TRP	CB-CG-CD2	-6.63	117.98	126.60
43	CV	61	PHE	CB-CG-CD1	-6.63	116.16	120.80
77	Cp	33	GLN	N-CA-CB	6.63	122.53	110.60
10	AN	59	GLY	N-CA-C	6.63	129.67	113.10
36	B2	305	A	P-O3'-C3'	6.63	127.66	119.70
83	A5	2209	G	O4'-C1'-N9	6.63	113.50	108.20
83	A5	3506	U	O4'-C1'-N1	6.63	113.50	108.20
83	A5	3722	C	P-O5'-C5'	6.63	131.51	120.90
64	CF	118	ARG	NE-CZ-NH2	-6.63	116.99	120.30
83	A5	475	U	N1-C1'-C2'	6.63	122.61	114.00
83	A5	1296	U	O4'-C1'-C2'	6.63	113.56	107.60
27	AE	109	PHE	CB-CG-CD2	-6.62	116.16	120.80
36	B2	1021	A	P-O3'-C3'	6.62	127.65	119.70
83	A5	538	A	O4'-C1'-N9	6.62	113.50	108.20
83	A5	716	C	O4'-C1'-N1	6.62	113.50	108.20
83	A5	2899	U	P-O5'-C5'	6.62	131.50	120.90
5	AO	128	ARG	N-CA-CB	6.62	122.52	110.60
49	CQ	68	ARG	NE-CZ-NH2	-6.62	116.99	120.30
83	A5	701	U	N1-C1'-C2'	-6.62	104.72	112.00
34	AQ	4	LYS	N-CA-C	6.62	128.88	111.00
83	A5	2203	A	C3'-C2'-C1'	6.62	106.79	101.50
84	A9	27	U	O4'-C1'-N1	6.62	113.50	108.20
36	B2	1121	C	O4'-C1'-C2'	-6.62	99.18	105.80
83	A5	932	G	N9-C1'-C2'	6.62	122.60	114.00
83	A5	3931	C	N1-C1'-C2'	6.62	122.60	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AX	17	ARG	NE-CZ-NH1	6.62	123.61	120.30
36	B2	515	U	C1'-O4'-C4'	-6.62	104.61	109.90
43	CV	85	ARG	NE-CZ-NH2	-6.62	116.99	120.30
36	B2	1438	U	C3'-C2'-C1'	6.61	106.79	101.50
46	CN	159	ARG	NE-CZ-NH1	-6.61	116.99	120.30
83	A5	2793	C	O4'-C1'-N1	6.61	113.49	108.20
84	A9	22	A	O4'-C1'-N9	6.61	113.49	108.20
36	B2	1353	U	O4'-C1'-C2'	-6.61	99.19	105.80
83	A5	2606	A	O4'-C1'-N9	6.61	113.49	108.20
83	A5	2903	U	O4'-C1'-N1	6.61	113.49	108.20
27	AE	6	LYS	N-CA-CB	6.61	122.50	110.60
36	B2	544	C	N1-C1'-C2'	6.61	122.59	114.00
83	A5	151	G	C5'-C4'-O4'	6.61	117.03	109.10
83	A5	3687	A	C1'-O4'-C4'	-6.61	104.61	109.90
36	B2	1061	A	O4'-C1'-N9	6.61	113.48	108.20
83	A5	3461	C	O4'-C1'-N1	6.61	113.48	108.20
83	A5	1533	A	O4'-C1'-N9	6.60	113.48	108.20
83	A5	3125	A	P-O3'-C3'	6.60	127.62	119.70
36	B2	1239	A	O4'-C1'-N9	6.60	113.48	108.20
36	B2	1986	A	N9-C1'-C2'	-6.60	104.74	112.00
42	CL	159	GLU	N-CA-CB	6.60	122.48	110.60
48	CD	184	SER	N-CA-CB	6.60	120.40	110.50
83	A5	422	G	O4'-C1'-N9	6.60	113.48	108.20
83	A5	1432	C	N1-C1'-C2'	6.60	122.58	114.00
83	A5	3332	G	O4'-C1'-C2'	-6.60	99.20	105.80
83	A5	3406	G	P-O5'-C5'	6.60	131.47	120.90
1	Az	467	LYS	C-N-CA	6.60	138.20	121.70
36	B2	466	G	O4'-C1'-N9	6.60	113.48	108.20
43	CV	131	ARG	NE-CZ-NH2	-6.60	117.00	120.30
83	A5	3567	A	C1'-O4'-C4'	6.60	115.18	109.90
83	A5	922	G	C1'-O4'-C4'	-6.60	104.62	109.90
18	AY	61	PHE	N-CA-CB	6.60	122.47	110.60
36	B2	869	C	N1-C1'-C2'	6.60	122.58	114.00
36	B2	1796	C	N1-C1'-C2'	6.60	122.58	114.00
83	A5	784	G	O4'-C1'-C2'	6.60	113.54	107.60
83	A5	3812	C	C3'-C2'-C1'	6.60	106.78	101.50
86	A8	4	U	O4'-C1'-N1	6.60	113.48	108.20
36	B2	1764	U	O4'-C1'-C2'	6.60	113.54	107.60
83	A5	2593	A	C3'-C2'-C1'	6.59	106.77	101.50
83	A5	2750	A	O4'-C1'-N9	6.59	113.47	108.20
36	B2	1345	U	C4'-C3'-O3'	6.59	126.18	113.00
36	B2	1758	A	C5'-C4'-O4'	6.59	117.01	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3890	G	N9-C1'-C2'	6.59	122.57	114.00
51	CA	40	TYR	CB-CG-CD1	-6.59	117.05	121.00
83	A5	836	G	P-O5'-C5'	6.59	131.44	120.90
83	A5	1489	A	O4'-C1'-C2'	-6.59	99.21	105.80
36	B2	567	C	O4'-C1'-C2'	-6.59	99.21	105.80
83	A5	3371	G	C3'-C2'-C1'	-6.59	96.23	101.50
1	Az	207	ARG	NE-CZ-NH2	-6.59	117.01	120.30
83	A5	770	C	O4'-C1'-C2'	-6.59	99.21	105.80
83	A5	3820	C	O4'-C1'-C2'	-6.59	99.21	105.80
60	Cr	132	GLY	C-N-CA	6.58	138.16	121.70
84	A9	13	A	O4'-C1'-N9	6.58	113.47	108.20
36	B2	290	A	C3'-C2'-C1'	6.58	106.77	101.50
36	B2	1913	C	O4'-C1'-C2'	-6.58	99.22	105.80
36	B2	1977	A	O4'-C1'-N9	6.58	113.47	108.20
83	A5	2764	A	O4'-C1'-C2'	-6.58	99.22	105.80
83	A5	2943	C	P-O3'-C3'	6.58	127.60	119.70
2	Ag	141	PHE	CB-CG-CD2	-6.58	116.19	120.80
36	B2	873	A	O3'-P-O5'	6.58	116.51	104.00
83	A5	3794	U	O4'-C1'-N1	6.58	113.47	108.20
49	CQ	145	ALA	CB-CA-C	-6.58	100.23	110.10
74	CC	314	ARG	NE-CZ-NH1	6.58	123.59	120.30
36	B2	635	C	C1'-O4'-C4'	-6.58	104.64	109.90
83	A5	1011	U	N1-C1'-C2'	6.58	122.55	114.00
83	A5	3136	U	C3'-C2'-C1'	-6.58	96.24	101.50
83	A5	135	U	O4'-C1'-N1	6.58	113.46	108.20
18	AY	111	ARG	NE-CZ-NH1	6.58	123.59	120.30
83	A5	304	U	C3'-C2'-C1'	-6.58	96.24	101.50
83	A5	1463	C	O4'-C1'-N1	6.58	113.46	108.20
83	A5	1927	U	O3'-P-O5'	-6.58	91.50	104.00
83	A5	3652	C	N1-C1'-C2'	6.58	122.55	114.00
35	Ah	117	PHE	C-N-CA	6.57	136.11	122.30
36	B2	1126	A	P-O3'-C3'	6.57	127.59	119.70
83	A5	357	C	N1-C1'-C2'	6.57	122.55	114.00
83	A5	878	U	C1'-O4'-C4'	-6.57	104.64	109.90
83	A5	1284	A	C1'-O4'-C4'	6.57	115.16	109.90
83	A5	631	A	O4'-C1'-C2'	-6.57	99.23	105.80
83	A5	1299	A	P-O3'-C3'	-6.57	111.81	119.70
83	A5	2836	A	O4'-C1'-C2'	-6.57	99.23	105.80
83	A5	835	G	O4'-C1'-C2'	6.57	113.51	107.60
83	A5	1436	A	C4'-C3'-O3'	-6.57	95.60	109.40
83	A5	3466	A	C1'-O4'-C4'	6.57	115.16	109.90
83	A5	3573	C	O4'-C1'-N1	6.57	113.46	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2788	U	O4'-C1'-N1	6.57	113.45	108.20
36	B2	1736	U	O4'-C1'-C2'	-6.57	99.23	105.80
83	A5	3191	G	C1'-O4'-C4'	-6.57	104.65	109.90
83	A5	3207	C	O4'-C1'-C2'	-6.57	99.23	105.80
16	AA	147	PHE	CB-CG-CD2	6.57	125.40	120.80
83	A5	514	A	O4'-C1'-N9	6.57	113.45	108.20
83	A5	3173	U	O4'-C1'-N1	6.57	113.45	108.20
27	AE	30	ARG	NE-CZ-NH1	6.56	123.58	120.30
36	B2	1261	C	N1-C1'-C2'	6.56	122.53	114.00
83	A5	90	G	O4'-C1'-C2'	-6.56	99.24	105.80
83	A5	1303	C	C3'-C2'-C1'	6.56	106.75	101.50
83	A5	3671	C	C1'-O4'-C4'	-6.56	104.65	109.90
83	A5	3789	U	P-O3'-C3'	6.56	127.58	119.70
86	A8	74	G	N9-C1'-C2'	6.56	122.53	114.00
83	A5	1311	U	O4'-C1'-C2'	-6.56	99.24	105.80
37	BC	49	G	O4'-C1'-C2'	6.56	113.50	107.60
46	CN	189	ARG	NE-CZ-NH2	-6.56	117.02	120.30
83	A5	547	U	N1-C1'-C2'	6.56	122.53	114.00
83	A5	3006	A	C3'-C2'-C1'	6.56	106.75	101.50
83	A5	3333	A	P-O3'-C3'	6.56	127.57	119.70
83	A5	3439	A	O4'-C1'-N9	6.56	113.45	108.20
36	B2	1748	A	O4'-C1'-N9	6.55	113.44	108.20
36	B2	1913	C	O4'-C1'-N1	6.55	113.44	108.20
44	CM	3	PHE	CB-CG-CD1	-6.55	116.21	120.80
83	A5	243	A	O4'-C1'-C2'	-6.55	99.25	105.80
83	A5	1144	C	N1-C1'-C2'	6.55	122.52	114.00
83	A5	2603	U	O4'-C1'-C2'	-6.55	99.25	105.80
83	A5	3402	C	O4'-C1'-C2'	-6.55	99.25	105.80
83	A5	2189	U	O4'-C1'-N1	6.55	113.44	108.20
44	CM	9	THR	C-N-CA	6.55	136.06	122.30
70	Ci	78	ARG	NE-CZ-NH1	6.55	123.58	120.30
68	Cf	40	SER	O-C-N	-6.55	112.22	122.70
83	A5	899	G	O4'-C1'-N9	6.55	113.44	108.20
83	A5	3439	A	N9-C1'-C2'	-6.55	104.80	112.00
83	A5	826	A	O4'-C1'-C2'	-6.55	99.25	105.80
48	CD	163	MET	CG-SD-CE	-6.54	89.73	100.20
49	CQ	180	ARG	NE-CZ-NH1	6.54	123.57	120.30
83	A5	995	G	C3'-C2'-C1'	-6.54	96.26	101.50
81	CE	230	PHE	CB-CG-CD2	-6.54	116.22	120.80
83	A5	534	U	O4'-C1'-N1	6.54	113.43	108.20
83	A5	1406	G	C1'-O4'-C4'	-6.54	104.67	109.90
83	A5	1520	U	N1-C1'-C2'	-6.54	104.80	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1728	G	C3'-C2'-C1'	-6.54	96.27	101.50
83	A5	3237	U	O4'-C1'-N1	-6.54	102.97	108.20
36	B2	222	C	O4'-C1'-N1	6.54	113.43	108.20
81	CE	71	THR	N-CA-CB	6.54	122.73	110.30
83	A5	2193	C	O4'-C1'-N1	6.54	113.43	108.20
85	A7	19	C	C3'-C2'-C1'	6.54	106.73	101.50
86	A8	81	A	O4'-C1'-C2'	-6.54	99.26	105.80
35	Ah	148	PHE	CB-CG-CD2	-6.54	116.22	120.80
36	B2	613	A	O4'-C1'-C2'	-6.54	99.26	105.80
83	A5	669	U	C4'-C3'-O3'	-6.54	95.67	109.40
83	A5	1088	A	O4'-C1'-N9	6.54	113.43	108.20
83	A5	1323	C	C3'-C2'-C1'	6.54	106.73	101.50
83	A5	3117	A	C4'-C3'-O3'	6.54	126.07	113.00
37	BC	21	G	O4'-C1'-N9	6.54	113.43	108.20
83	A5	2579	G	N9-C1'-C2'	6.54	122.50	114.00
36	B2	49	C	C3'-C2'-C1'	6.53	106.73	101.50
36	B2	198	C	O3'-P-O5'	-6.53	91.59	104.00
36	B2	464	G	C4'-C3'-O3'	-6.53	95.68	109.40
36	B2	1301	G	O4'-C1'-N9	6.53	113.43	108.20
83	A5	353	G	O4'-C1'-C2'	6.53	113.48	107.60
83	A5	1138	C	N1-C1'-C2'	6.53	122.49	114.00
83	A5	1250	C	C3'-C2'-C1'	-6.53	96.27	101.50
83	A5	1493	A	P-O3'-C3'	-6.53	111.86	119.70
83	A5	787	C	O4'-C1'-C2'	-6.53	99.27	105.80
83	A5	3441	C	C3'-C2'-C1'	6.53	106.72	101.50
5	AO	99	ALA	N-CA-CB	6.53	119.24	110.10
29	AG	28	TYR	CB-CG-CD1	6.53	124.92	121.00
83	A5	1424	G	O4'-C1'-N9	6.53	113.42	108.20
83	A5	1740	C	O4'-C1'-N1	6.53	113.42	108.20
83	A5	2218	G	N9-C1'-C2'	6.53	122.49	114.00
83	A5	3261	U	O4'-C1'-N1	6.53	113.42	108.20
13	AP	93	THR	C-N-CA	6.53	136.01	122.30
77	Cp	85	ARG	NE-CZ-NH2	-6.53	117.04	120.30
83	A5	2070	G	O4'-C1'-C2'	6.53	113.48	107.60
83	A5	3576	G	C3'-C2'-C1'	-6.53	96.28	101.50
36	B2	823	C	P-O5'-C5'	6.53	131.34	120.90
16	AA	208	GLU	C-N-CA	6.53	138.01	121.70
36	B2	459	U	O4'-C1'-N1	-6.53	102.98	108.20
49	CQ	143	ARG	NE-CZ-NH2	-6.53	117.04	120.30
83	A5	853	G	C1'-O4'-C4'	-6.53	104.68	109.90
83	A5	3814	U	O4'-C1'-C2'	-6.53	99.28	105.80
36	B2	1052	U	C3'-C2'-C1'	-6.52	96.28	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1110	G	O4'-C1'-N9	6.52	113.42	108.20
34	AQ	3	GLN	CA-C-N	6.52	131.55	117.20
36	B2	341	G	O4'-C1'-C2'	6.52	113.47	107.60
36	B2	650	G	O4'-C1'-C2'	6.52	113.47	107.60
63	CB	177	LYS	N-CA-CB	6.52	122.34	110.60
83	A5	690	U	O4'-C1'-N1	6.52	113.42	108.20
83	A5	2524	A	O4'-C1'-C2'	-6.52	99.28	105.80
83	A5	3162	C	O4'-C1'-N1	6.52	113.42	108.20
83	A5	431	C	O4'-C1'-C2'	-6.52	99.28	105.80
36	B2	1390	U	O4'-C1'-N1	6.52	113.42	108.20
66	Cd	84	ARG	NE-CZ-NH1	-6.52	117.04	120.30
83	A5	3816	A	C1'-O4'-C4'	6.52	115.12	109.90
37	BC	49	G	C3'-C2'-C1'	-6.52	96.29	101.50
83	A5	213	A	C3'-C2'-C1'	6.52	106.71	101.50
83	A5	2837	A	C5'-C4'-C3'	-6.52	105.57	116.00
83	A5	1674	A	C5'-C4'-O4'	6.52	116.92	109.10
83	A5	53	A	C1'-O4'-C4'	-6.51	104.69	109.90
83	A5	400	U	N1-C1'-C2'	6.51	122.47	114.00
83	A5	3505	U	O4'-C1'-N1	6.51	113.41	108.20
29	AG	154	ARG	NE-CZ-NH1	6.51	123.56	120.30
36	B2	1845	C	N1-C1'-C2'	6.51	122.47	114.00
83	A5	2907	U	N1-C1'-C2'	-6.51	104.84	112.00
27	AE	240	LYS	C-N-CA	6.51	135.97	122.30
36	B2	848	C	N1-C1'-C2'	6.51	122.46	114.00
36	B2	1719	C	O4'-C1'-C2'	-6.51	99.29	105.80
36	B2	1758	A	O4'-C1'-C2'	6.51	113.46	107.60
68	Cf	105	PRO	N-CA-C	6.51	129.03	112.10
81	CE	225	TYR	CB-CG-CD1	6.51	124.91	121.00
83	A5	2459	C	N1-C1'-C2'	6.51	122.46	114.00
83	A5	3583	C	N1-C1'-C2'	6.51	122.46	114.00
36	B2	1047	U	O4'-C1'-N1	6.51	113.41	108.20
83	A5	662	A	N9-C1'-C2'	-6.51	104.84	112.00
83	A5	3814	U	C1'-O4'-C4'	6.51	115.11	109.90
36	B2	1847	A	N9-C1'-C2'	-6.51	104.84	112.00
83	A5	1450	U	O4'-C1'-N1	6.51	113.41	108.20
83	A5	2150	U	C5'-C4'-O4'	6.51	116.91	109.10
36	B2	1003	C	C3'-C2'-C1'	6.50	106.70	101.50
50	CR	132	PHE	N-CA-CB	6.50	122.31	110.60
83	A5	2092	U	C4'-C3'-O3'	6.50	126.01	113.00
36	B2	1576	A	O4'-C1'-C2'	-6.50	99.30	105.80
53	CT	28	SER	N-CA-CB	6.50	120.25	110.50
66	Cd	111	PHE	CB-CG-CD1	6.50	125.35	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	366	A	C3'-C2'-C1'	6.50	106.70	101.50
36	B2	1077	C	N1-C1'-C2'	6.50	122.45	114.00
83	A5	2273	A	C1'-O4'-C4'	6.50	115.10	109.90
36	B2	495	U	O3'-P-O5'	6.50	116.35	104.00
36	B2	859	C	C3'-C2'-C1'	6.50	106.70	101.50
36	B2	992	A	O4'-C1'-C2'	-6.50	99.30	105.80
36	B2	1049	C	C3'-C2'-C1'	6.50	106.70	101.50
83	A5	624	A	O4'-C1'-C2'	-6.50	99.30	105.80
83	A5	2747	G	O4'-C1'-C2'	6.50	113.45	107.60
36	B2	574	C	N1-C1'-C2'	6.50	122.44	114.00
36	B2	1625	G	O4'-C1'-N9	6.50	113.40	108.20
83	A5	424	G	O4'-C1'-N9	6.50	113.40	108.20
83	A5	2583	U	O4'-C1'-N1	6.50	113.40	108.20
85	A7	34	C	O4'-C1'-N1	6.50	113.40	108.20
36	B2	596	U	C1'-O4'-C4'	6.50	115.10	109.90
36	B2	1596	C	N1-C1'-C2'	6.50	122.44	114.00
50	CR	103	ARG	NE-CZ-NH2	-6.50	117.05	120.30
83	A5	376	G	O4'-C1'-N9	6.50	113.40	108.20
83	A5	2991	A	P-O5'-C5'	6.50	131.29	120.90
26	AJ	73	PHE	CB-CG-CD1	6.49	125.35	120.80
36	B2	1257	G	C1'-O4'-C4'	-6.49	104.70	109.90
83	A5	986	A	C5'-C4'-O4'	6.49	116.89	109.10
83	A5	1310	A	C3'-C2'-C1'	6.49	106.69	101.50
11	AL	41	PHE	CB-CG-CD2	-6.49	116.25	120.80
83	A5	3561	G	O4'-C1'-N9	6.49	113.39	108.20
29	AG	72	ARG	NE-CZ-NH2	-6.49	117.06	120.30
36	B2	282	U	C5'-C4'-C3'	-6.49	105.62	116.00
36	B2	1452	U	N1-C1'-C2'	-6.49	104.86	112.00
83	A5	280	C	N1-C1'-C2'	6.49	122.43	114.00
36	B2	1546	U	P-O5'-C5'	-6.49	110.52	120.90
36	B2	1724	U	N1-C1'-C2'	6.49	122.43	114.00
83	A5	1557	U	C5'-C4'-O4'	6.49	116.89	109.10
83	A5	1793	C	P-O3'-C3'	6.49	127.48	119.70
36	B2	405	A	O4'-C1'-N9	6.49	113.39	108.20
49	CQ	9	TYR	CB-CG-CD1	6.49	124.89	121.00
83	A5	1586	A	O4'-C1'-N9	6.49	113.39	108.20
83	A5	3234	A	O4'-C1'-N9	6.49	113.39	108.20
86	A8	112	C	O4'-C1'-N1	6.49	113.39	108.20
83	A5	1079	U	O4'-C1'-N1	6.48	113.39	108.20
85	A7	33	U	O4'-C1'-N1	6.48	113.39	108.20
36	B2	109	U	O4'-C1'-N1	6.48	113.39	108.20
36	B2	842	A	O4'-C1'-N9	6.48	113.39	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1673	C	O4'-C1'-C2'	-6.48	99.32	105.80
36	B2	322	C	O4'-C1'-N1	6.48	113.38	108.20
1	Az	309	LEU	N-CA-C	6.48	128.49	111.00
83	A5	1756	G	C3'-C2'-C1'	6.48	106.68	101.50
83	A5	2070	G	C1'-O4'-C4'	-6.48	104.72	109.90
83	A5	3727	A	C3'-C2'-C1'	-6.48	96.32	101.50
36	B2	416	C	N1-C1'-C2'	6.48	122.42	114.00
83	A5	1529	C	N1-C1'-C2'	6.48	122.42	114.00
83	A5	2131	C	O4'-C1'-C2'	-6.48	99.32	105.80
83	A5	3713	C	C1'-O4'-C4'	6.48	115.08	109.90
83	A5	2109	G	P-O3'-C3'	6.47	127.47	119.70
86	A8	69	G	O4'-C1'-N9	6.47	113.38	108.20
1	Az	620	TYR	CB-CG-CD1	6.47	124.88	121.00
36	B2	706	U	O4'-C1'-N1	-6.47	103.02	108.20
36	B2	78	A	O4'-C1'-N9	6.47	113.38	108.20
83	A5	780	U	N1-C1'-C2'	-6.47	104.88	112.00
83	A5	1128	C	O4'-C1'-N1	6.47	113.38	108.20
83	A5	1368	A	C1'-O4'-C4'	6.47	115.08	109.90
83	A5	2923	A	C1'-O4'-C4'	6.47	115.08	109.90
83	A5	3841	C	O4'-C1'-C2'	-6.47	99.33	105.80
83	A5	2234	C	C3'-C2'-C1'	6.47	106.67	101.50
36	B2	1371	C	O4'-C1'-C2'	-6.47	99.33	105.80
36	B2	1740	G	O4'-C1'-C2'	-6.47	99.33	105.80
83	A5	644	U	N1-C1'-C2'	6.47	122.41	114.00
83	A5	2710	A	C1'-O4'-C4'	-6.47	104.73	109.90
85	A7	17	C	C1'-O4'-C4'	6.47	115.07	109.90
36	B2	821	U	P-O5'-C5'	6.46	131.25	120.90
83	A5	959	U	N1-C1'-C2'	6.46	122.40	114.00
83	A5	1173	U	C3'-C2'-C1'	6.46	106.67	101.50
83	A5	1859	U	N1-C1'-C2'	6.46	122.40	114.00
42	CL	169	VAL	CA-C-N	6.46	131.42	117.20
60	Cr	43	ARG	NE-CZ-NH1	-6.46	117.07	120.30
29	AG	58	LYS	C-N-CA	6.46	137.85	121.70
83	A5	34	C	C3'-C2'-C1'	6.46	106.67	101.50
83	A5	1029	C	C1'-O4'-C4'	-6.46	104.73	109.90
83	A5	2134	A	O4'-C1'-C2'	-6.46	99.34	105.80
83	A5	2835	G	N9-C1'-C2'	6.46	122.40	114.00
83	A5	3227	A	C1'-O4'-C4'	6.46	115.07	109.90
31	AH	171	PHE	CB-CG-CD1	6.46	125.32	120.80
36	B2	127	U	O4'-C1'-N1	6.46	113.37	108.20
83	A5	1213	C	P-O3'-C3'	-6.46	111.95	119.70
27	AE	11	ARG	NE-CZ-NH1	-6.46	117.07	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	AE	185	GLY	C-N-CA	6.46	135.86	122.30
83	A5	673	U	O4'-C1'-N1	6.46	113.37	108.20
57	CY	121	ARG	CB-CA-C	-6.46	97.49	110.40
83	A5	712	U	O4'-C1'-N1	6.46	113.36	108.20
83	A5	1742	U	O4'-C1'-N1	6.46	113.36	108.20
83	A5	2031	C	N1-C1'-C2'	6.46	122.39	114.00
83	A5	3433	A	O4'-C1'-N9	6.46	113.36	108.20
36	B2	71	G	O4'-C1'-N9	6.46	113.36	108.20
44	CM	8	GLN	C-N-CA	6.46	137.84	121.70
83	A5	165	G	O4'-C1'-N9	6.45	113.36	108.20
83	A5	260	A	O4'-C1'-N9	-6.45	103.04	108.20
83	A5	2847	G	O3'-P-O5'	-6.45	91.74	104.00
36	B2	525	U	C3'-C2'-C1'	-6.45	96.34	101.50
46	CN	144	ARG	NE-CZ-NH1	6.45	123.53	120.30
83	A5	2164	G	N9-C1'-C2'	6.45	122.39	114.00
83	A5	3498	A	O3'-P-O5'	6.45	116.26	104.00
34	AQ	3	GLN	O-C-N	-6.45	112.38	122.70
36	B2	1866	U	O4'-C1'-N1	6.45	113.36	108.20
56	CX	164	ASN	N-CA-CB	6.45	122.21	110.60
83	A5	2736	A	C3'-C2'-C1'	6.45	106.66	101.50
36	B2	1580	G	C3'-C2'-C1'	6.45	106.66	101.50
1	Az	266	GLN	N-CA-C	6.45	128.40	111.00
36	B2	1181	G	C1'-O4'-C4'	-6.45	104.74	109.90
78	Co	32	ARG	NE-CZ-NH2	-6.45	117.08	120.30
83	A5	1936	U	P-O3'-C3'	6.45	127.44	119.70
83	A5	3732	U	C4'-C3'-O3'	-6.45	95.87	109.40
36	B2	1361	C	N1-C1'-C2'	6.44	122.38	114.00
36	B2	1244	C	O4'-C1'-C2'	-6.44	99.36	105.80
37	BC	40	C	O4'-C1'-N1	6.44	113.35	108.20
83	A5	1384	C	C3'-C2'-C1'	6.44	106.65	101.50
83	A5	1575	U	O4'-C1'-N1	6.44	113.36	108.20
83	A5	1614	A	O4'-C1'-N9	6.44	113.36	108.20
83	A5	3119	U	N1-C1'-C2'	6.44	122.38	114.00
83	A5	3144	U	C1'-O4'-C4'	6.44	115.05	109.90
83	A5	3763	U	P-O3'-C3'	6.44	127.43	119.70
36	B2	113	G	C1'-O4'-C4'	-6.44	104.75	109.90
36	B2	983	C	C3'-C2'-C1'	6.44	106.65	101.50
36	B2	1089	G	N9-C1'-C2'	6.44	122.37	114.00
36	B2	1730	U	O4'-C1'-N1	6.44	113.35	108.20
69	Cg	32	TYR	CB-CG-CD1	6.44	124.86	121.00
83	A5	867	U	C3'-C2'-C1'	6.44	106.65	101.50
83	A5	1277	A	O4'-C1'-N9	6.44	113.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2915	U	O4'-C1'-N1	6.44	113.35	108.20
36	B2	1026	A	C3'-C2'-C1'	6.44	106.65	101.50
36	B2	1268	C	N1-C1'-C2'	6.44	122.37	114.00
42	CL	127	PRO	N-CA-C	6.44	128.84	112.10
85	A7	1	G	N9-C1'-C2'	6.44	122.37	114.00
83	A5	713	U	O4'-C1'-N1	6.44	113.35	108.20
36	B2	1836	C	C1'-O4'-C4'	-6.43	104.75	109.90
44	CM	156	ALA	N-CA-CB	6.43	119.11	110.10
83	A5	1317	A	O4'-C1'-C2'	-6.43	99.36	105.80
83	A5	1454	C	C5'-C4'-O4'	6.43	116.82	109.10
83	A5	2124	G	O4'-C1'-C2'	6.43	113.39	107.60
83	A5	2554	U	O4'-C1'-N1	6.43	113.35	108.20
36	B2	375	A	C1'-O4'-C4'	-6.43	104.75	109.90
36	B2	1229	G	P-O3'-C3'	-6.43	111.98	119.70
83	A5	2243	G	O4'-C1'-C2'	6.43	113.39	107.60
36	B2	45	U	O4'-C1'-N1	6.43	113.34	108.20
42	CL	119	TYR	CB-CG-CD1	-6.43	117.14	121.00
1	Az	353	TYR	CB-CG-CD2	-6.43	117.14	121.00
36	B2	170	A	P-O5'-C5'	6.43	131.18	120.90
36	B2	1358	G	C1'-O4'-C4'	-6.43	104.76	109.90
83	A5	661	G	O4'-C1'-C2'	6.43	113.39	107.60
83	A5	3781	U	O4'-C1'-C2'	-6.43	99.37	105.80
36	B2	1032	U	O4'-C1'-N1	6.43	113.34	108.20
83	A5	128	C	C3'-C2'-C1'	6.43	106.64	101.50
83	A5	273	G	C3'-C2'-C1'	6.43	106.64	101.50
83	A5	3499	G	O3'-P-O5'	-6.43	91.79	104.00
83	A5	3591	A	N9-C1'-C2'	-6.43	104.93	112.00
84	A9	19	U	C3'-C2'-C1'	6.43	106.64	101.50
6	AX	27	TYR	CB-CG-CD1	-6.42	117.14	121.00
36	B2	660	G	P-O3'-C3'	6.42	127.41	119.70
36	B2	857	G	C3'-C2'-C1'	-6.42	96.36	101.50
83	A5	3563	G	C1'-O4'-C4'	-6.42	104.76	109.90
34	AQ	6	ARG	N-CA-C	6.42	128.34	111.00
36	B2	1174	A	N9-C1'-C2'	6.42	122.35	114.00
36	B2	1993	U	C1'-O4'-C4'	6.42	115.04	109.90
83	A5	1743	G	O4'-C1'-N9	6.42	113.34	108.20
83	A5	1893	C	C3'-C2'-C1'	6.42	106.64	101.50
83	A5	3263	C	N1-C1'-C2'	6.42	122.35	114.00
83	A5	2077	A	O4'-C1'-C2'	-6.42	99.38	105.80
83	A5	2875	A	N9-C1'-C2'	-6.42	104.94	112.00
36	B2	347	C	C3'-C2'-C1'	6.42	106.64	101.50
80	CH	110	ILE	N-CA-CB	6.42	125.56	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	187	A	C5'-C4'-C3'	6.42	126.27	116.00
83	A5	1987	G	C4'-C3'-C2'	-6.42	96.18	102.60
84	A9	21	G	P-O5'-C5'	6.42	131.17	120.90
36	B2	30	G	O4'-C1'-C2'	6.42	113.38	107.60
83	A5	3966	U	N1-C1'-C2'	6.42	122.34	114.00
36	B2	41	A	C1'-O4'-C4'	6.41	115.03	109.90
36	B2	263	A	N9-C1'-C2'	-6.41	104.94	112.00
46	CN	176	LYS	C-N-CA	6.41	135.77	122.30
50	CR	62	ARG	NE-CZ-NH2	6.41	123.51	120.30
71	Cj	11	ARG	NE-CZ-NH2	-6.41	117.09	120.30
83	A5	942	A	O4'-C1'-C2'	-6.41	99.39	105.80
83	A5	1581	G	N9-C1'-C2'	-6.41	104.94	112.00
83	A5	3600	G	C1'-O4'-C4'	-6.41	104.77	109.90
83	A5	685	A	C1'-O4'-C4'	-6.41	104.77	109.90
83	A5	2573	C	C3'-C2'-C1'	6.41	106.63	101.50
36	B2	1752	U	C3'-C2'-C1'	-6.41	96.37	101.50
83	A5	793	U	C3'-C2'-C1'	6.41	106.63	101.50
83	A5	2584	G	C3'-C2'-C1'	6.41	106.63	101.50
83	A5	3160	A	C1'-O4'-C4'	-6.41	104.77	109.90
28	AC	150	ARG	NE-CZ-NH1	6.41	123.50	120.30
36	B2	1098	C	N1-C1'-C2'	6.41	122.33	114.00
83	A5	1911	C	C3'-C2'-C1'	6.41	106.63	101.50
83	A5	1963	U	O4'-C1'-N1	6.41	113.33	108.20
83	A5	2216	A	P-O3'-C3'	6.41	127.39	119.70
46	CN	11	TYR	CB-CG-CD1	-6.41	117.16	121.00
78	Co	31	GLU	N-CA-C	6.41	128.30	111.00
36	B2	916	U	O4'-C1'-C2'	-6.41	99.39	105.80
36	B2	1431	A	C3'-C2'-C1'	6.41	106.62	101.50
36	B2	1682	A	P-O3'-C3'	6.41	127.39	119.70
83	A5	1210	A	O4'-C1'-N9	6.41	113.33	108.20
83	A5	2109	G	C3'-C2'-C1'	6.41	106.62	101.50
83	A5	2639	G	P-O3'-C3'	-6.41	112.01	119.70
83	A5	3964	G	O4'-C1'-N9	6.41	113.32	108.20
68	Cf	40	SER	CA-C-N	6.40	131.29	117.20
83	A5	3158	A	O4'-C1'-N9	6.40	113.32	108.20
16	AA	116	PHE	CB-CG-CD1	-6.40	116.32	120.80
36	B2	1525	A	P-O3'-C3'	6.40	127.38	119.70
74	CC	48	ARG	NE-CZ-NH1	6.40	123.50	120.30
83	A5	262	G	P-O5'-C5'	6.40	131.15	120.90
83	A5	333	C	O4'-C1'-N1	6.40	113.32	108.20
83	A5	1630	G	N9-C1'-C2'	6.40	122.32	114.00
36	B2	826	U	O4'-C1'-N1	6.40	113.32	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1207	G	O4'-C1'-N9	6.40	113.32	108.20
83	A5	1501	A	N9-C1'-C2'	-6.40	104.96	112.00
83	A5	3447	U	O4'-C1'-N1	6.40	113.32	108.20
83	A5	3929	U	P-O5'-C5'	6.40	131.14	120.90
8	AS	86	ARG	NE-CZ-NH2	-6.40	117.10	120.30
82	CG	108	ARG	NE-CZ-NH1	6.40	123.50	120.30
83	A5	1087	G	O4'-C1'-C2'	6.40	113.36	107.60
83	A5	2721	C	O4'-C1'-N1	6.40	113.32	108.20
32	AW	118	ARG	NE-CZ-NH2	-6.40	117.10	120.30
36	B2	30	G	C1'-O4'-C4'	-6.40	104.78	109.90
36	B2	852	A	N9-C1'-C2'	-6.40	104.96	112.00
83	A5	1098	U	O4'-C1'-N1	6.40	113.32	108.20
83	A5	3510	U	N1-C1'-C2'	6.40	122.32	114.00
83	A5	3675	A	C3'-C2'-C1'	6.40	106.62	101.50
36	B2	560	G	C3'-C2'-C1'	-6.40	96.38	101.50
83	A5	2900	U	O4'-C1'-N1	6.40	113.32	108.20
83	A5	3925	G	C5'-C4'-O4'	6.40	116.78	109.10
1	Az	835	PRO	N-CA-C	6.39	128.73	112.10
34	AQ	84	TYR	CB-CG-CD1	6.39	124.84	121.00
83	A5	992	U	C3'-C2'-C1'	6.39	106.61	101.50
83	A5	1292	G	N9-C1'-C2'	-6.39	104.97	112.00
83	A5	2762	A	C3'-C2'-C1'	6.39	106.62	101.50
1	Az	198	ASP	O-C-N	-6.39	112.47	122.70
36	B2	885	U	N1-C1'-C2'	-6.39	104.97	112.00
36	B2	1671	U	O4'-C1'-C2'	-6.39	99.41	105.80
83	A5	2847	G	C1'-O4'-C4'	-6.39	104.79	109.90
36	B2	586	U	O4'-C1'-C2'	-6.39	99.41	105.80
49	CQ	124	ASP	CB-CG-OD2	-6.39	112.55	118.30
83	A5	325	A	C5'-C4'-O4'	6.39	116.77	109.10
39	Cq	48	ARG	NE-CZ-NH2	-6.39	117.11	120.30
83	A5	3316	U	O4'-C1'-N1	6.39	113.31	108.20
1	Az	226	PHE	N-CA-C	6.38	128.24	111.00
33	AI	92	ARG	NE-CZ-NH2	-6.38	117.11	120.30
36	B2	397	G	N9-C1'-C2'	-6.38	104.98	112.00
36	B2	480	A	C4'-C3'-O3'	-6.38	95.99	109.40
36	B2	1632	C	C3'-C2'-C1'	6.38	106.61	101.50
51	CA	67	TYR	CB-CG-CD1	-6.38	117.17	121.00
74	CC	251	ARG	NE-CZ-NH2	-6.38	117.11	120.30
83	A5	1197	A	C4'-C3'-O3'	6.38	125.77	113.00
64	CF	99	ARG	NE-CZ-NH2	-6.38	117.11	120.30
81	CE	237	TYR	CB-CG-CD2	-6.38	117.17	121.00
83	A5	2066	G	O4'-C1'-C2'	-6.38	99.42	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3302	G	O4'-C1'-N9	6.38	113.31	108.20
83	A5	3428	A	C3'-C2'-C1'	6.38	106.61	101.50
36	B2	442	A	C1'-O4'-C4'	6.38	115.00	109.90
83	A5	3933	G	C1'-O4'-C4'	-6.38	104.80	109.90
83	A5	1131	C	C1'-O4'-C4'	-6.38	104.80	109.90
83	A5	2866	G	O4'-C1'-N9	6.38	113.30	108.20
83	A5	3472	A	C4'-C3'-O3'	-6.38	96.00	109.40
1	Az	235	TYR	CB-CG-CD1	-6.38	117.17	121.00
68	Cf	41	ALA	N-CA-C	6.38	128.22	111.00
83	A5	1550	U	O4'-C1'-N1	6.38	113.30	108.20
83	A5	1560	A	O4'-C1'-N9	6.38	113.30	108.20
83	A5	3590	C	C3'-C2'-C1'	6.38	106.60	101.50
3	AU	68	ARG	NE-CZ-NH2	-6.38	117.11	120.30
63	CB	334	LYS	C-N-CA	6.38	135.69	122.30
83	A5	859	A	C3'-C2'-C1'	6.38	106.60	101.50
37	BC	12	G	C1'-O4'-C4'	-6.37	104.80	109.90
83	A5	2481	U	P-O3'-C3'	6.37	127.35	119.70
83	A5	2662	C	N1-C1'-C2'	6.37	122.28	114.00
83	A5	3292	C	C3'-C2'-C1'	6.37	106.60	101.50
83	A5	3352	A	O4'-C1'-N9	6.37	113.30	108.20
36	B2	1757	G	O4'-C1'-N9	6.37	113.30	108.20
40	CK	38	SER	C-N-CD	-6.37	106.58	120.60
47	CI	11	TYR	CB-CG-CD2	-6.37	117.18	121.00
83	A5	2782	A	C3'-C2'-C1'	-6.37	96.40	101.50
83	A5	3778	U	O4'-C1'-C2'	-6.37	99.43	105.80
83	A5	2128	A	O4'-C1'-C2'	6.37	113.33	107.60
83	A5	3857	G	O3'-P-O5'	-6.37	91.90	104.00
57	CY	75	ARG	NE-CZ-NH1	6.37	123.48	120.30
83	A5	1265	U	O4'-C1'-N1	6.37	113.30	108.20
83	A5	1907	U	C3'-C2'-C1'	6.37	106.59	101.50
36	B2	90	A	O4'-C1'-C2'	-6.37	99.43	105.80
36	B2	833	G	O4'-C1'-N9	6.37	113.29	108.20
52	CS	52	LYS	N-CA-CB	6.37	122.06	110.60
83	A5	3949	U	O4'-C1'-N1	6.37	113.29	108.20
12	AR	23	ARG	NE-CZ-NH2	-6.37	117.12	120.30
36	B2	1005	G	C3'-C2'-C1'	-6.37	96.41	101.50
36	B2	1199	G	C1'-O4'-C4'	-6.37	104.81	109.90
36	B2	1790	U	O4'-C1'-N1	6.37	113.29	108.20
68	Cf	107	HIS	C-N-CD	-6.37	106.60	120.60
83	A5	590	U	P-O3'-C3'	6.37	127.34	119.70
83	A5	3248	U	O4'-C1'-N1	6.37	113.29	108.20
20	Aa	107	ALA	C-N-CA	6.36	137.61	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	574	C	C3'-C2'-C1'	6.36	106.59	101.50
83	A5	623	C	O3'-P-O5'	-6.36	91.91	104.00
83	A5	840	U	O4'-C1'-N1	6.36	113.29	108.20
83	A5	2775	A	O4'-C1'-C2'	6.36	113.33	107.60
36	B2	1550	C	C3'-C2'-C1'	6.36	106.59	101.50
42	CL	5	ASN	N-CA-CB	6.36	122.05	110.60
83	A5	1959	A	O5'-C5'-C4'	6.36	123.79	111.70
83	A5	3508	G	C3'-C2'-C1'	6.36	106.59	101.50
83	A5	833	U	O4'-C1'-C2'	-6.36	99.44	105.80
83	A5	1001	A	C3'-C2'-C1'	6.36	106.59	101.50
83	A5	1666	A	C3'-C2'-C1'	6.36	106.59	101.50
85	A7	37	G	C3'-C2'-C1'	6.36	106.59	101.50
36	B2	538	C	C3'-C2'-C1'	6.36	106.59	101.50
21	Ab	67	THR	CA-CB-CG2	-6.36	103.50	112.40
36	B2	801	C	P-O5'-C5'	-6.36	110.73	120.90
83	A5	1722	U	O4'-C1'-C2'	6.36	113.32	107.60
83	A5	2482	C	C1'-O4'-C4'	6.36	114.98	109.90
83	A5	3282	C	N1-C1'-C2'	6.36	122.27	114.00
83	A5	3951	U	O4'-C1'-N1	6.36	113.29	108.20
36	B2	1923	C	O4'-C1'-N1	6.36	113.28	108.20
83	A5	1264	U	C3'-C2'-C1'	6.36	106.58	101.50
83	A5	3188	A	C1'-O4'-C4'	-6.36	104.81	109.90
36	B2	197	A	O4'-C1'-C2'	-6.35	99.45	105.80
83	A5	1524	U	C1'-O4'-C4'	6.35	114.98	109.90
10	AN	64	ARG	NE-CZ-NH1	6.35	123.48	120.30
86	A8	40	A	N9-C1'-C2'	-6.35	105.01	112.00
48	CD	21	ARG	NE-CZ-NH2	-6.35	117.12	120.30
83	A5	1468	U	O4'-C1'-N1	6.35	113.28	108.20
36	B2	1467	U	O4'-C1'-N1	6.35	113.28	108.20
83	A5	1732	A	O4'-C1'-N9	6.35	113.28	108.20
16	AA	39	TYR	CB-CG-CD2	-6.35	117.19	121.00
83	A5	1082	A	P-O3'-C3'	6.35	127.32	119.70
83	A5	1288	U	C3'-C2'-C1'	6.35	106.58	101.50
83	A5	1567	G	O4'-C1'-C2'	6.35	113.31	107.60
83	A5	1644	C	O4'-C1'-C2'	-6.35	99.45	105.80
86	A8	43	A	C3'-C2'-C1'	6.35	106.58	101.50
83	A5	87	U	N1-C1'-C2'	-6.35	105.02	112.00
83	A5	1723	G	O4'-C1'-C2'	-6.35	99.45	105.80
86	A8	83	A	P-O5'-C5'	6.35	131.05	120.90
50	CR	109	TYR	CB-CG-CD1	6.34	124.81	121.00
81	CE	89	ARG	NE-CZ-NH1	6.34	123.47	120.30
83	A5	1695	A	N9-C1'-C2'	6.34	122.25	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3647	A	C3'-C2'-C1'	6.34	106.58	101.50
83	A5	3904	G	C3'-C2'-C1'	6.34	106.58	101.50
51	CA	125	ARG	NE-CZ-NH2	-6.34	117.13	120.30
36	B2	962	G	C1'-O4'-C4'	-6.34	104.83	109.90
36	B2	1278	C	C3'-C2'-C1'	6.34	106.57	101.50
83	A5	187	A	C1'-O4'-C4'	-6.34	104.83	109.90
83	A5	1987	G	O4'-C1'-N9	6.34	113.27	108.20
83	A5	2024	U	N1-C1'-C2'	6.34	122.24	114.00
83	A5	2996	U	O4'-C1'-N1	6.34	113.27	108.20
36	B2	1321	A	C3'-C2'-C1'	6.34	106.57	101.50
83	A5	220	G	C1'-O4'-C4'	-6.34	104.83	109.90
83	A5	434	A	O4'-C1'-N9	6.34	113.27	108.20
1	Az	637	CYS	N-CA-CB	6.34	122.01	110.60
36	B2	74	U	C1'-O4'-C4'	6.34	114.97	109.90
36	B2	337	U	N1-C1'-C2'	6.34	122.24	114.00
36	B2	1915	A	C1'-O4'-C4'	6.34	114.97	109.90
83	A5	3287	C	N1-C1'-C2'	6.34	122.24	114.00
85	A7	83	A	P-O3'-C3'	6.34	127.30	119.70
36	B2	1686	C	C1'-O4'-C4'	-6.33	104.83	109.90
83	A5	3296	C	C3'-C2'-C1'	6.33	106.57	101.50
36	B2	280	U	N1-C1'-C2'	-6.33	105.03	112.00
36	B2	1957	A	O4'-C1'-N9	6.33	113.27	108.20
83	A5	102	G	C1'-O4'-C4'	-6.33	104.83	109.90
83	A5	397	C	C3'-C2'-C1'	6.33	106.57	101.50
83	A5	1797	A	N9-C1'-C2'	-6.33	105.03	112.00
36	B2	532	U	O4'-C1'-N1	6.33	113.27	108.20
83	A5	1957	C	C3'-C2'-C1'	6.33	106.56	101.50
83	A5	3892	A	C1'-O4'-C4'	6.33	114.96	109.90
84	A9	3	C	C3'-C2'-C1'	6.33	106.57	101.50
55	CU	268	ARG	NE-CZ-NH1	6.33	123.46	120.30
68	Cf	44	TYR	CA-CB-CG	6.33	125.42	113.40
83	A5	3491	C	O4'-C1'-N1	6.33	113.26	108.20
83	A5	3790	A	O3'-P-O5'	6.33	116.02	104.00
36	B2	420	U	C1'-O4'-C4'	6.33	114.96	109.90
39	Cq	6	ARG	NE-CZ-NH1	6.33	123.46	120.30
83	A5	860	A	O4'-C1'-C2'	-6.33	99.47	105.80
83	A5	3666	C	C1'-O4'-C4'	-6.33	104.84	109.90
83	A5	3856	U	N1-C1'-C2'	-6.33	105.04	112.00
86	A8	45	G	C5'-C4'-O4'	6.33	116.69	109.10
36	B2	472	G	O4'-C1'-N9	6.33	113.26	108.20
83	A5	661	G	C1'-O4'-C4'	-6.33	104.84	109.90
74	CC	310	LYS	N-CA-C	6.32	128.07	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	CG	58	ARG	NE-CZ-NH1	6.32	123.46	120.30
83	A5	1081	C	N1-C1'-C2'	6.32	122.22	114.00
83	A5	2018	C	C1'-O4'-C4'	-6.32	104.84	109.90
2	Ag	114	PHE	CB-CG-CD2	-6.32	116.38	120.80
36	B2	1495	A	P-O3'-C3'	-6.32	112.11	119.70
83	A5	614	G	N9-C1'-C2'	-6.32	105.05	112.00
83	A5	2141	A	O4'-C1'-C2'	-6.32	99.48	105.80
36	B2	221	C	O4'-C1'-C2'	-6.32	99.48	105.80
83	A5	2722	U	N1-C1'-C2'	6.32	122.22	114.00
36	B2	77	A	O4'-C1'-N9	6.32	113.25	108.20
36	B2	77	A	C1'-O4'-C4'	6.32	114.95	109.90
63	CB	117	ARG	NE-CZ-NH1	6.32	123.46	120.30
83	A5	2656	C	N1-C1'-C2'	6.32	122.21	114.00
36	B2	441	A	C1'-O4'-C4'	6.32	114.95	109.90
36	B2	826	U	C1'-O4'-C4'	-6.32	104.85	109.90
83	A5	1343	A	N9-C1'-C2'	6.32	122.21	114.00
83	A5	1385	G	O4'-C1'-C2'	-6.32	99.48	105.80
36	B2	822	A	P-O3'-C3'	6.31	127.28	119.70
36	B2	885	U	C1'-O4'-C4'	6.31	114.95	109.90
36	B2	1826	C	C3'-C2'-C1'	6.31	106.55	101.50
83	A5	2163	A	O4'-C1'-C2'	-6.31	99.49	105.80
83	A5	3237	U	O4'-C1'-C2'	-6.31	99.49	105.80
36	B2	662	U	C4'-C3'-O3'	-6.31	96.14	109.40
36	B2	1107	A	O4'-C1'-N9	6.31	113.25	108.20
36	B2	1783	U	O4'-C1'-N1	6.31	113.25	108.20
36	B2	1840	A	O4'-C1'-N9	6.31	113.25	108.20
36	B2	899	A	C1'-O4'-C4'	-6.31	104.85	109.90
36	B2	1222	C	O4'-C1'-N1	6.31	113.25	108.20
36	B2	1711	C	O4'-C1'-C2'	-6.31	99.49	105.80
36	B2	1257	G	N9-C1'-C2'	6.31	122.20	114.00
83	A5	1660	G	N9-C1'-C2'	-6.31	105.06	112.00
36	B2	596	U	O4'-C1'-C2'	-6.31	99.49	105.80
83	A5	1488	A	O4'-C1'-N9	6.31	113.25	108.20
83	A5	1557	U	N1-C1'-C2'	-6.31	105.06	112.00
83	A5	2555	G	C1'-O4'-C4'	-6.31	104.85	109.90
83	A5	3548	U	O4'-C1'-N1	6.31	113.25	108.20
83	A5	3621	A	C3'-C2'-C1'	6.31	106.55	101.50
36	B2	1710	C	O4'-C1'-N1	6.31	113.24	108.20
83	A5	666	A	N9-C1'-C2'	-6.31	105.06	112.00
36	B2	1990	U	N1-C1'-C2'	6.30	122.20	114.00
49	CQ	146	ARG	NE-CZ-NH2	-6.30	117.15	120.30
83	A5	2934	U	P-O3'-C3'	6.30	127.27	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3208	A	O4'-C1'-N9	6.30	113.24	108.20
11	AL	119	HIS	C-N-CA	6.30	135.53	122.30
36	B2	832	U	O4'-C1'-N1	6.30	113.24	108.20
36	B2	1004	C	O4'-C1'-C2'	-6.30	99.50	105.80
83	A5	1043	G	C1'-O4'-C4'	-6.30	104.86	109.90
83	A5	3709	A	P-O3'-C3'	6.30	127.26	119.70
86	A8	59	G	O4'-C1'-N9	6.30	113.24	108.20
36	B2	1469	U	O4'-C1'-C2'	-6.30	99.50	105.80
36	B2	1960	A	C3'-C2'-C1'	6.30	106.54	101.50
83	A5	737	U	O4'-C1'-C2'	-6.30	99.50	105.80
83	A5	2160	C	N1-C1'-C2'	6.30	122.19	114.00
83	A5	3602	U	O4'-C1'-N1	6.30	113.24	108.20
83	A5	3472	A	O3'-P-O5'	6.30	115.97	104.00
6	AX	90	SER	N-CA-C	6.30	128.00	111.00
36	B2	577	C	O4'-C1'-N1	6.30	113.24	108.20
36	B2	1444	C	O4'-C1'-C2'	-6.30	99.50	105.80
83	A5	639	U	C4'-C3'-O3'	-6.30	96.18	109.40
83	A5	3514	C	C1'-O4'-C4'	6.30	114.94	109.90
83	A5	3656	A	O4'-C1'-N9	6.30	113.24	108.20
36	B2	208	U	O4'-C1'-N1	6.29	113.24	108.20
83	A5	3535	G	C3'-C2'-C1'	6.29	106.54	101.50
36	B2	878	C	O4'-C1'-N1	6.29	113.23	108.20
36	B2	889	A	C3'-C2'-C1'	6.29	106.53	101.50
36	B2	1808	G	O4'-C1'-N9	6.29	113.23	108.20
61	Ch	109	ARG	NE-CZ-NH1	6.29	123.45	120.30
83	A5	1217	U	C1'-O4'-C4'	-6.29	104.86	109.90
83	A5	2216	A	O4'-C1'-N9	6.29	113.23	108.20
83	A5	2487	C	C1'-O4'-C4'	-6.29	104.86	109.90
83	A5	3633	U	O4'-C1'-N1	6.29	113.23	108.20
59	CZ	84	ARG	NE-CZ-NH2	-6.29	117.15	120.30
83	A5	285	G	C1'-O4'-C4'	6.29	114.93	109.90
83	A5	624	A	C5'-C4'-C3'	6.29	126.07	116.00
83	A5	3615	G	C1'-O4'-C4'	-6.29	104.87	109.90
36	B2	651	C	C1'-O4'-C4'	-6.29	104.87	109.90
83	A5	985	G	N9-C1'-C2'	-6.29	105.08	112.00
36	B2	979	G	C1'-O4'-C4'	-6.29	104.87	109.90
36	B2	1544	G	O4'-C1'-C2'	6.29	113.26	107.60
64	CF	186	HIS	O-C-N	-6.29	112.64	122.70
83	A5	1644	C	C3'-C2'-C1'	6.29	106.53	101.50
83	A5	1712	C	C5'-C4'-O4'	6.29	116.65	109.10
83	A5	3358	U	P-O3'-C3'	-6.29	112.15	119.70
85	A7	90	A	O4'-C1'-N9	6.29	113.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1425	U	C1'-O4'-C4'	6.29	114.93	109.90
83	A5	518	G	O4'-C1'-N9	6.29	113.23	108.20
83	A5	1982	U	P-O3'-C3'	6.29	127.25	119.70
83	A5	3536	U	O4'-C1'-C2'	-6.29	99.51	105.80
6	AX	71	ARG	NE-CZ-NH2	-6.29	117.16	120.30
36	B2	64	U	O4'-C1'-N1	6.29	113.23	108.20
36	B2	1532	C	C3'-C2'-C1'	6.29	106.53	101.50
83	A5	2466	C	O4'-C1'-N1	6.29	113.23	108.20
83	A5	3377	A	O3'-P-O5'	6.29	115.94	104.00
36	B2	1833	C	C3'-C2'-C1'	6.28	106.53	101.50
83	A5	2245	G	C3'-C2'-C1'	6.28	106.53	101.50
83	A5	2871	G	O4'-C1'-C2'	-6.28	99.52	105.80
36	B2	38	C	C3'-C2'-C1'	6.28	106.53	101.50
36	B2	156	U	C4'-C3'-C2'	-6.28	96.32	102.60
36	B2	352	G	O4'-C1'-N9	6.28	113.22	108.20
36	B2	438	C	C1'-O4'-C4'	-6.28	104.88	109.90
36	B2	1726	A	O4'-C1'-C2'	-6.28	99.52	105.80
83	A5	1671	U	O4'-C1'-N1	6.28	113.22	108.20
83	A5	1709	A	O4'-C1'-C2'	-6.28	99.52	105.80
83	A5	3904	G	N9-C1'-C2'	6.28	122.17	114.00
83	A5	3586	A	N9-C1'-C2'	6.28	122.16	114.00
83	A5	3790	A	N9-C1'-C2'	-6.28	105.09	112.00
83	A5	3811	A	C1'-O4'-C4'	-6.28	104.88	109.90
85	A7	105	C	C3'-C2'-C1'	6.28	106.52	101.50
36	B2	1434	U	O4'-C1'-N1	6.28	113.22	108.20
83	A5	1459	A	O4'-C1'-N9	6.28	113.22	108.20
83	A5	1757	A	C3'-C2'-C1'	6.28	106.52	101.50
83	A5	2756	C	N1-C1'-C2'	6.28	122.16	114.00
36	B2	431	G	N9-C1'-C2'	6.28	122.16	114.00
42	CL	38	ARG	NE-CZ-NH2	-6.28	117.16	120.30
83	A5	91	U	O4'-C1'-N1	6.28	113.22	108.20
51	CA	138	ALA	N-CA-CB	6.27	118.88	110.10
83	A5	784	G	C3'-C2'-C1'	-6.27	96.48	101.50
83	A5	1373	A	C4'-C3'-O3'	6.27	125.55	113.00
36	B2	25	U	C1'-O4'-C4'	6.27	114.92	109.90
83	A5	568	A	C1'-O4'-C4'	-6.27	104.88	109.90
83	A5	3615	G	O4'-C1'-N9	6.27	113.22	108.20
83	A5	3636	G	O4'-C1'-N9	6.27	113.22	108.20
83	A5	990	U	C3'-C2'-C1'	6.27	106.52	101.50
83	A5	1877	A	C1'-O4'-C4'	-6.27	104.88	109.90
83	A5	1937	G	C1'-O4'-C4'	6.27	114.92	109.90
83	A5	2200	A	C3'-C2'-C1'	6.27	106.52	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AB	221	LEU	N-CA-C	6.27	127.92	111.00
36	B2	1414	C	O4'-C1'-C2'	-6.27	99.53	105.80
36	B2	1912	G	O3'-P-O5'	-6.27	92.09	104.00
83	A5	1084	A	N9-C1'-C2'	-6.27	105.10	112.00
83	A5	2577	G	O4'-C1'-N9	6.27	113.22	108.20
83	A5	3215	A	O4'-C1'-N9	6.27	113.22	108.20
36	B2	588	A	O4'-C1'-C2'	-6.27	99.53	105.80
57	CY	115	ARG	NE-CZ-NH2	-6.27	117.17	120.30
83	A5	2	U	P-O3'-C3'	-6.27	112.18	119.70
83	A5	464	G	P-O3'-C3'	6.27	127.22	119.70
85	A7	80	U	O4'-C1'-N1	6.27	113.21	108.20
36	B2	969	U	C5'-C4'-O4'	6.27	116.62	109.10
83	A5	1061	A	C4'-C3'-C2'	-6.27	96.33	102.60
85	A7	42	A	O4'-C1'-C2'	-6.27	99.53	105.80
36	B2	197	A	C5'-C4'-O4'	6.26	116.62	109.10
36	B2	1022	A	O4'-C1'-N9	6.26	113.21	108.20
83	A5	209	U	O4'-C1'-N1	6.26	113.21	108.20
83	A5	396	A	O4'-C1'-C2'	-6.26	99.53	105.80
83	A5	398	U	C1'-O4'-C4'	-6.26	104.89	109.90
83	A5	1715	G	C1'-O4'-C4'	-6.26	104.89	109.90
83	A5	1763	A	O4'-C1'-N9	6.26	113.21	108.20
83	A5	3538	G	C1'-O4'-C4'	-6.26	104.89	109.90
36	B2	333	A	N9-C1'-C2'	-6.26	105.11	112.00
36	B2	1382	G	O4'-C1'-N9	6.26	113.21	108.20
36	B2	173	C	N1-C1'-C2'	6.26	122.14	114.00
83	A5	390	A	N9-C1'-C2'	6.26	122.14	114.00
82	CG	92	LEU	N-CA-CB	6.26	122.92	110.40
83	A5	2999	U	O3'-P-O5'	-6.26	92.11	104.00
36	B2	41	A	O4'-C1'-C2'	-6.26	99.54	105.80
83	A5	2039	G	C1'-O4'-C4'	-6.26	104.89	109.90
83	A5	2140	C	C3'-C2'-C1'	6.26	106.51	101.50
16	AA	105	PRO	C-N-CA	6.26	135.44	122.30
26	AJ	39	ARG	NE-CZ-NH2	-6.26	117.17	120.30
36	B2	1292	A	O4'-C1'-N9	6.26	113.20	108.20
83	A5	1205	U	O4'-C1'-N1	6.26	113.21	108.20
83	A5	3489	A	P-O3'-C3'	6.26	127.21	119.70
83	A5	1790	A	P-O3'-C3'	6.25	127.21	119.70
83	A5	2506	U	C1'-O4'-C4'	6.25	114.90	109.90
36	B2	1727	U	O3'-P-O5'	-6.25	92.12	104.00
83	A5	1708	G	N9-C1'-C2'	6.25	122.13	114.00
83	A5	3479	C	N1-C1'-C2'	6.25	122.13	114.00
14	AT	68	SER	CB-CA-C	6.25	121.98	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	853	A	C1'-O4'-C4'	-6.25	104.90	109.90
37	BC	2	G	C1'-O4'-C4'	-6.25	104.90	109.90
51	CA	233	ARG	NE-CZ-NH1	6.25	123.43	120.30
83	A5	1064	G	O4'-C1'-N9	6.25	113.20	108.20
83	A5	2138	C	C3'-C2'-C1'	6.25	106.50	101.50
83	A5	3431	C	C3'-C2'-C1'	-6.25	96.50	101.50
83	A5	3804	U	N1-C1'-C2'	6.25	122.13	114.00
36	B2	413	C	C3'-C2'-C1'	6.25	106.50	101.50
83	A5	3955	U	C4'-C3'-O3'	-6.25	96.28	109.40
1	Az	815	SER	N-CA-C	6.25	127.87	111.00
30	AF	206	LYS	C-N-CA	6.25	135.42	122.30
36	B2	334	G	O4'-C1'-N9	6.25	113.20	108.20
83	A5	1245	C	O4'-C1'-N1	6.25	113.20	108.20
1	Az	354	ARG	NE-CZ-NH2	-6.25	117.18	120.30
83	A5	2634	A	N9-C1'-C2'	-6.25	105.13	112.00
83	A5	2931	U	O3'-P-O5'	6.25	115.87	104.00
86	A8	3	C	C1'-O4'-C4'	-6.25	104.90	109.90
36	B2	1578	U	O4'-C1'-C2'	-6.25	99.56	105.80
83	A5	3466	A	O4'-C1'-C2'	-6.25	99.56	105.80
36	B2	1031	A	C1'-O4'-C4'	6.24	114.89	109.90
36	B2	1137	G	C4'-C3'-O3'	6.24	125.49	113.00
36	B2	1190	G	C1'-O4'-C4'	-6.24	104.91	109.90
36	B2	1232	U	O4'-C1'-N1	6.24	113.19	108.20
83	A5	1446	A	C1'-O4'-C4'	6.24	114.89	109.90
83	A5	1451	G	P-O3'-C3'	6.24	127.19	119.70
83	A5	3398	C	C3'-C2'-C1'	6.24	106.49	101.50
36	B2	1044	G	C1'-O4'-C4'	-6.24	104.91	109.90
45	Ca	110	TYR	CB-CG-CD1	-6.24	117.25	121.00
83	A5	2131	C	N1-C1'-C2'	6.24	122.11	114.00
83	A5	3327	U	O4'-C1'-N1	6.24	113.19	108.20
83	A5	3635	G	P-O5'-C5'	6.24	130.88	120.90
86	A8	60	U	C4'-C3'-O3'	6.24	125.48	113.00
34	AQ	76	GLY	C-N-CA	6.24	135.40	122.30
36	B2	573	C	O4'-C1'-C2'	-6.24	99.56	105.80
66	Cd	111	PHE	CB-CG-CD2	-6.24	116.43	120.80
83	A5	637	U	C1'-O4'-C4'	6.24	114.89	109.90
83	A5	1685	G	C1'-O4'-C4'	-6.24	104.91	109.90
86	A8	99	U	C1'-O4'-C4'	-6.24	104.91	109.90
83	A5	1301	A	O4'-C4'-C3'	-6.24	97.76	104.00
28	AC	116	ASN	N-CA-C	6.24	127.84	111.00
36	B2	1071	G	C1'-O4'-C4'	-6.24	104.91	109.90
83	A5	1228	C	C1'-O4'-C4'	6.24	114.89	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2766	U	N1-C1'-C2'	6.24	122.11	114.00
83	A5	1728	G	O4'-C1'-C2'	6.23	113.21	107.60
83	A5	128	C	O4'-C1'-N1	6.23	113.19	108.20
83	A5	2169	U	O4'-C1'-N1	6.23	113.19	108.20
83	A5	3919	G	O4'-C1'-C2'	6.23	113.21	107.60
28	AC	51	ARG	NE-CZ-NH2	-6.23	117.19	120.30
36	B2	1383	A	C1'-O4'-C4'	-6.23	104.92	109.90
36	B2	1631	C	C3'-C2'-C1'	6.23	106.48	101.50
48	CD	189	SER	CB-CA-C	6.23	121.93	110.10
86	A8	20	C	P-O3'-C3'	-6.23	112.23	119.70
31	AH	124	TYR	CB-CG-CD1	6.23	124.74	121.00
36	B2	1315	U	P-O3'-C3'	6.23	127.17	119.70
37	BC	11	C	O4'-C1'-N1	6.23	113.18	108.20
83	A5	3482	G	C3'-C2'-C1'	6.22	106.48	101.50
36	B2	437	G	C1'-O4'-C4'	-6.22	104.92	109.90
36	B2	702	U	O4'-C1'-N1	6.22	113.18	108.20
83	A5	1382	U	O4'-C1'-C2'	-6.22	99.58	105.80
83	A5	2503	G	O4'-C1'-N9	6.22	113.18	108.20
83	A5	2600	A	O4'-C1'-N9	6.22	113.18	108.20
43	CV	48	ARG	N-CA-CB	6.22	121.80	110.60
83	A5	603	U	P-O5'-C5'	6.22	130.85	120.90
36	B2	1588	G	C1'-O4'-C4'	-6.22	104.92	109.90
83	A5	1502	A	C5'-C4'-O4'	6.22	116.56	109.10
83	A5	3722	C	O4'-C1'-C2'	-6.22	99.58	105.80
32	AW	46	TYR	CB-CG-CD1	6.22	124.73	121.00
83	A5	101	C	O4'-C1'-N1	6.22	113.17	108.20
83	A5	1542	C	N1-C1'-C2'	6.22	122.08	114.00
83	A5	2682	C	C3'-C2'-C1'	6.22	106.47	101.50
28	AC	39	ASP	C-N-CA	6.21	137.24	121.70
36	B2	1975	G	C1'-O4'-C4'	-6.21	104.93	109.90
63	CB	305	THR	CA-CB-CG2	-6.21	103.70	112.40
64	CF	173	THR	CA-C-N	6.21	130.87	117.20
83	A5	1461	G	O4'-C1'-N9	6.21	113.17	108.20
83	A5	1592	U	P-O5'-C5'	-6.21	110.96	120.90
83	A5	1689	G	C1'-O4'-C4'	-6.21	104.93	109.90
83	A5	1194	A	O4'-C1'-N9	6.21	113.17	108.20
83	A5	3768	C	O4'-C1'-N1	6.21	113.17	108.20
36	B2	1729	C	P-O3'-C3'	6.21	127.15	119.70
83	A5	392	A	C3'-C2'-C1'	-6.21	96.53	101.50
83	A5	1704	A	N9-C1'-C2'	-6.21	105.17	112.00
46	CN	129	TYR	CB-CG-CD2	-6.21	117.27	121.00
83	A5	3597	C	O4'-C1'-N1	6.21	113.17	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3819	C	O4'-C1'-N1	6.21	113.17	108.20
79	CJ	2	ALA	N-CA-CB	6.21	118.79	110.10
83	A5	536	U	C1'-O4'-C4'	6.21	114.87	109.90
83	A5	1907	U	C1'-O4'-C4'	6.21	114.87	109.90
83	A5	2727	U	N1-C1'-C2'	6.21	122.07	114.00
83	A5	3330	C	N1-C1'-C2'	6.21	122.07	114.00
36	B2	97	U	N1-C1'-C2'	6.21	122.07	114.00
36	B2	820	G	O3'-P-O5'	6.21	115.79	104.00
16	AA	139	TYR	CB-CG-CD2	-6.21	117.28	121.00
36	B2	594	G	C1'-O4'-C4'	-6.21	104.94	109.90
36	B2	1934	U	C1'-O4'-C4'	-6.21	104.94	109.90
83	A5	3373	G	N9-C1'-C2'	-6.21	105.17	112.00
39	Cq	137	PHE	CB-CG-CD1	6.20	125.14	120.80
83	A5	672	U	O4'-C1'-N1	6.20	113.16	108.20
83	A5	1074	U	C4'-C3'-O3'	-6.20	96.37	109.40
33	AI	117	TYR	CB-CG-CD2	-6.20	117.28	121.00
36	B2	398	C	O4'-C1'-N1	6.20	113.16	108.20
83	A5	2906	C	N1-C1'-C2'	6.20	122.06	114.00
83	A5	3936	A	C1'-O4'-C4'	-6.20	104.94	109.90
36	B2	73	A	O4'-C1'-C2'	6.20	113.18	107.60
36	B2	858	G	O4'-C1'-N9	6.20	113.16	108.20
83	A5	476	U	P-O5'-C5'	-6.20	110.98	120.90
83	A5	2204	U	O4'-C1'-C2'	-6.20	99.60	105.80
83	A5	3207	C	O4'-C1'-N1	6.20	113.16	108.20
46	CN	144	ARG	NE-CZ-NH2	-6.20	117.20	120.30
83	A5	1061	A	C1'-O4'-C4'	-6.20	104.94	109.90
83	A5	1990	G	O4'-C1'-N9	6.20	113.16	108.20
83	A5	2489	G	C3'-C2'-C1'	6.20	106.46	101.50
36	B2	319	C	O4'-C1'-N1	6.20	113.16	108.20
36	B2	451	C	O4'-C1'-N1	6.20	113.16	108.20
83	A5	2739	A	C1'-O4'-C4'	-6.20	104.94	109.90
83	A5	3339	U	P-O3'-C3'	6.20	127.14	119.70
36	B2	914	C	O4'-C1'-C2'	-6.19	99.61	105.80
83	A5	1896	A	C3'-C2'-C1'	6.19	106.45	101.50
29	AG	132	ARG	NE-CZ-NH1	6.19	123.40	120.30
83	A5	1656	U	O4'-C1'-N1	6.19	113.16	108.20
83	A5	2191	G	O4'-C1'-N9	6.19	113.16	108.20
83	A5	3574	A	C1'-O4'-C4'	-6.19	104.95	109.90
36	B2	715	U	N1-C1'-C2'	6.19	122.05	114.00
83	A5	497	U	P-O3'-C3'	6.19	127.13	119.70
83	A5	1045	G	O4'-C1'-N9	6.19	113.15	108.20
83	A5	1940	C	C3'-C2'-C1'	6.19	106.45	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2743	C	C3'-C2'-C1'	6.19	106.45	101.50
36	B2	910	U	N1-C1'-C2'	6.19	122.04	114.00
83	A5	570	U	P-O3'-C3'	-6.19	112.28	119.70
83	A5	2037	C	C1'-O4'-C4'	6.19	114.85	109.90
83	A5	2482	C	O4'-C1'-N1	6.19	113.15	108.20
83	A5	3214	C	P-O3'-C3'	-6.19	112.27	119.70
36	B2	1606	A	C1'-O4'-C4'	-6.19	104.95	109.90
74	CC	74	ARG	NE-CZ-NH2	-6.19	117.21	120.30
83	A5	392	A	P-O3'-C3'	6.19	127.12	119.70
83	A5	3505	U	C5'-C4'-O4'	6.19	116.52	109.10
36	B2	367	G	C1'-O4'-C4'	-6.18	104.95	109.90
36	B2	1573	U	P-O3'-C3'	6.18	127.12	119.70
3	AU	39	ARG	NE-CZ-NH2	-6.18	117.21	120.30
36	B2	1021	A	O4'-C1'-C2'	6.18	113.16	107.60
36	B2	1218	G	C3'-C2'-C1'	6.18	106.45	101.50
36	B2	333	A	O4'-C1'-N9	6.18	113.14	108.20
36	B2	1454	G	O3'-P-O5'	-6.18	92.26	104.00
36	B2	1647	G	C1'-O4'-C4'	-6.18	104.96	109.90
83	A5	2832	G	C1'-O4'-C4'	-6.18	104.96	109.90
86	A8	50	A	N9-C1'-C2'	6.18	122.03	114.00
83	A5	454	C	O4'-C1'-N1	6.18	113.14	108.20
83	A5	2202	A	C1'-O4'-C4'	-6.18	104.96	109.90
36	B2	70	C	O4'-C1'-C2'	-6.18	99.62	105.80
36	B2	313	C	O4'-C1'-C2'	6.18	113.16	107.60
36	B2	1285	C	O4'-C1'-C2'	-6.18	99.62	105.80
83	A5	156	G	P-O5'-C5'	6.18	130.78	120.90
83	A5	477	C	O4'-C1'-N1	6.18	113.14	108.20
83	A5	1434	U	O4'-C1'-N1	6.18	113.14	108.20
83	A5	3370	A	O4'-C1'-N9	6.17	113.14	108.20
44	CM	23	ARG	NE-CZ-NH1	6.17	123.39	120.30
83	A5	20	A	O4'-C1'-N9	6.17	113.14	108.20
83	A5	376	G	P-O3'-C3'	-6.17	112.29	119.70
83	A5	2547	C	N1-C1'-C2'	6.17	122.02	114.00
83	A5	2859	C	O4'-C1'-N1	6.17	113.14	108.20
83	A5	2869	U	P-O5'-C5'	-6.17	111.02	120.90
85	A7	49	A	C1'-O4'-C4'	6.17	114.84	109.90
1	Az	694	THR	C-N-CA	6.17	137.13	121.70
83	A5	1526	G	C1'-O4'-C4'	-6.17	104.96	109.90
83	A5	2224	A	C3'-C2'-C1'	6.17	106.44	101.50
83	A5	3627	C	C2'-C3'-O3'	6.17	123.57	113.70
62	Cb	51	LEU	N-CA-C	6.17	127.66	111.00
36	B2	1256	U	O4'-C1'-N1	6.17	113.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	CK	105	GLY	N-CA-C	6.17	128.52	113.10
60	Cr	33	PRO	N-CA-C	6.17	128.14	112.10
62	Cb	39	PHE	N-CA-C	6.17	127.66	111.00
83	A5	128	C	O4'-C1'-C2'	-6.17	99.63	105.80
83	A5	410	G	O4'-C1'-N9	6.17	113.14	108.20
83	A5	3870	A	C4'-C3'-C2'	-6.17	96.43	102.60
85	A7	64	G	O5'-P-OP1	6.17	118.10	110.70
86	A8	121	C	N1-C1'-C2'	6.17	122.02	114.00
36	B2	717	C	C1'-O4'-C4'	-6.17	104.97	109.90
83	A5	763	A	N9-C1'-C2'	-6.17	105.22	112.00
83	A5	1618	A	C1'-O4'-C4'	-6.17	104.97	109.90
81	CE	65	SER	CA-C-N	6.16	130.76	117.20
83	A5	198	A	O4'-C1'-N9	6.16	113.13	108.20
36	B2	1679	U	O4'-C1'-C2'	-6.16	99.64	105.80
83	A5	629	A	O4'-C1'-N9	6.16	113.13	108.20
36	B2	72	A	C1'-O4'-C4'	6.16	114.83	109.90
83	A5	653	U	P-O5'-C5'	6.16	130.76	120.90
83	A5	826	A	C3'-C2'-C1'	6.16	106.43	101.50
83	A5	939	A	O4'-C1'-N9	6.16	113.13	108.20
83	A5	1084	A	O4'-C1'-N9	6.16	113.13	108.20
83	A5	3258	C	C1'-O4'-C4'	-6.16	104.97	109.90
83	A5	3677	U	C3'-C2'-C1'	6.16	106.43	101.50
36	B2	231	G	O4'-C1'-C2'	-6.16	99.64	105.80
83	A5	222	C	O4'-C1'-N1	6.16	113.13	108.20
14	AT	7	LYS	N-CA-CB	6.16	121.68	110.60
15	AB	51	ARG	NE-CZ-NH1	6.16	123.38	120.30
36	B2	581	C	C3'-C2'-C1'	6.16	106.42	101.50
36	B2	603	G	C5'-C4'-O4'	6.16	116.49	109.10
36	B2	1689	A	N9-C1'-C2'	-6.16	105.23	112.00
83	A5	2810	A	C3'-C2'-C1'	6.16	106.42	101.50
36	B2	1701	C	C3'-C2'-C1'	6.15	106.42	101.50
83	A5	1312	G	C1'-O4'-C4'	-6.15	104.98	109.90
83	A5	2269	A	P-O3'-C3'	6.15	127.08	119.70
83	A5	3090	U	P-O3'-C3'	6.15	127.08	119.70
4	AK	34	GLU	N-CA-CB	6.15	121.67	110.60
83	A5	139	U	N1-C1'-C2'	6.15	122.00	114.00
36	B2	1353	U	N1-C1'-C2'	-6.15	105.23	112.00
63	CB	123	TYR	CB-CG-CD2	6.15	124.69	121.00
83	A5	702	A	O4'-C1'-N9	6.15	113.12	108.20
12	AR	105	MET	CG-SD-CE	-6.15	90.36	100.20
36	B2	1140	G	C3'-C2'-C1'	6.15	106.42	101.50
83	A5	2485	A	C1'-O4'-C4'	6.15	114.82	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	749	U	C4'-C3'-O3'	6.15	125.30	113.00
83	A5	1395	U	O4'-C1'-N1	6.15	113.12	108.20
36	B2	1449	U	O3'-P-O5'	6.15	115.68	104.00
83	A5	57	G	O4'-C1'-N9	6.15	113.12	108.20
83	A5	1372	A	N9-C1'-C2'	-6.15	105.24	112.00
83	A5	2078	C	N1-C1'-C2'	6.15	121.99	114.00
36	B2	944	G	C4-N9-C1'	6.14	134.49	126.50
83	A5	2690	A	O4'-C1'-C2'	-6.14	99.66	105.80
82	CG	65	TYR	N-CA-CB	6.14	121.66	110.60
83	A5	2134	A	O4'-C1'-N9	6.14	113.11	108.20
83	A5	1926	A	O3'-P-O5'	-6.14	92.33	104.00
83	A5	2744	C	C3'-C2'-C1'	6.14	106.41	101.50
83	A5	3924	U	O4'-C1'-C2'	-6.14	99.66	105.80
83	A5	1658	G	O4'-C1'-N9	6.14	113.11	108.20
29	AG	27	PHE	CB-CG-CD2	6.14	125.10	120.80
83	A5	3161	U	C1'-O4'-C4'	-6.14	104.99	109.90
8	AS	142	ARG	NE-CZ-NH2	-6.14	117.23	120.30
37	BC	65	C	N1-C1'-C2'	6.14	121.98	114.00
83	A5	1517	A	N9-C1'-C2'	-6.14	105.25	112.00
83	A5	2228	U	N1-C1'-C2'	6.14	121.98	114.00
30	AF	189	ASN	N-CA-CB	6.13	121.64	110.60
81	CE	232	LEU	N-CA-CB	6.13	122.67	110.40
83	A5	3148	C	N1-C1'-C2'	6.13	121.97	114.00
83	A5	3373	G	C1'-O4'-C4'	6.13	114.81	109.90
1	Az	684	ARG	N-CA-CB	6.13	121.64	110.60
80	CH	178	TYR	CB-CG-CD2	-6.13	117.32	121.00
83	A5	118	A	N9-C1'-C2'	6.13	121.97	114.00
83	A5	756	C	O4'-C1'-C2'	-6.13	99.67	105.80
36	B2	189	C	P-O3'-C3'	6.13	127.06	119.70
83	A5	201	U	C1'-O4'-C4'	6.13	114.81	109.90
83	A5	371	G	O4'-C1'-C2'	-6.13	99.67	105.80
83	A5	377	U	N1-C1'-C2'	6.13	121.97	114.00
86	A8	36	A	O4'-C1'-N9	6.13	113.11	108.20
83	A5	431	C	N1-C1'-C2'	6.13	121.97	114.00
83	A5	1139	U	C3'-C2'-C1'	6.13	106.40	101.50
83	A5	1693	C	O4'-C1'-N1	6.13	113.10	108.20
83	A5	3643	C	O4'-C1'-N1	6.13	113.10	108.20
70	Ci	8	ALA	N-CA-CB	6.13	118.68	110.10
83	A5	1142	U	O4'-C1'-N1	6.13	113.10	108.20
85	A7	106	G	N9-C1'-C2'	6.13	121.97	114.00
36	B2	87	C	C3'-C2'-C1'	6.13	106.40	101.50
36	B2	143	U	N1-C1'-C2'	6.13	121.97	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	840	U	O4'-C1'-N1	6.13	113.10	108.20
36	B2	1552	C	C1'-O4'-C4'	6.13	114.80	109.90
36	B2	251	G	O4'-C1'-N9	-6.12	103.30	108.20
83	A5	1721	C	C4'-C3'-O3'	-6.12	96.54	109.40
36	B2	705	G	N9-C1'-C2'	6.12	121.96	114.00
80	CH	106	ASN	C-N-CA	6.12	137.01	121.70
83	A5	752	U	P-O3'-C3'	6.12	127.05	119.70
83	A5	1234	G	O4'-C1'-N9	6.12	113.10	108.20
83	A5	2926	G	O4'-C1'-C2'	6.12	113.11	107.60
27	AE	11	ARG	NE-CZ-NH2	6.12	123.36	120.30
69	Cg	44	CYS	C-N-CA	6.12	135.16	122.30
83	A5	3209	G	O4'-C1'-N9	6.12	113.10	108.20
36	B2	709	G	C1'-O4'-C4'	-6.12	105.00	109.90
36	B2	559	G	C1'-O4'-C4'	-6.12	105.01	109.90
36	B2	1945	A	C3'-C2'-C1'	6.12	106.39	101.50
83	A5	300	A	C3'-C2'-C1'	6.12	106.39	101.50
83	A5	372	U	C3'-C2'-C1'	6.12	106.39	101.50
83	A5	1123	C	O4'-C1'-C2'	-6.12	99.68	105.80
83	A5	2727	U	C1'-O4'-C4'	-6.12	105.00	109.90
83	A5	2839	A	O5'-C5'-C4'	6.12	123.33	111.70
83	A5	3297	C	P-O3'-C3'	-6.12	112.36	119.70
83	A5	1155	U	O4'-C1'-N1	6.12	113.09	108.20
83	A5	1284	A	N9-C1'-C2'	-6.12	105.27	112.00
83	A5	1501	A	C1'-O4'-C4'	6.12	114.79	109.90
83	A5	1595	G	C1'-O4'-C4'	6.12	114.79	109.90
83	A5	3372	C	O4'-C1'-N1	6.12	113.09	108.20
83	A5	3466	A	O4'-C1'-N9	6.12	113.09	108.20
36	B2	936	G	O4'-C1'-C2'	6.11	113.10	107.60
36	B2	972	G	C1'-O4'-C4'	-6.11	105.01	109.90
57	CY	7	VAL	CG1-CB-CG2	6.11	120.68	110.90
83	A5	671	A	N9-C1'-C2'	6.11	121.95	114.00
85	A7	7	G	P-O5'-C5'	6.11	130.68	120.90
83	A5	946	A	O3'-P-O5'	6.11	115.61	104.00
48	CD	189	SER	N-CA-CB	6.11	119.66	110.50
67	Ce	59	TYR	CB-CG-CD2	-6.11	117.33	121.00
36	B2	84	A	O4'-C1'-N9	6.11	113.08	108.20
73	Cl	3	ALA	N-CA-CB	6.11	118.65	110.10
83	A5	618	U	P-O5'-C5'	6.11	130.67	120.90
83	A5	3550	C	C3'-C2'-C1'	6.11	106.39	101.50
36	B2	460	C	O4'-C1'-C2'	-6.11	99.69	105.80
69	Cg	93	PHE	CB-CG-CD2	-6.11	116.53	120.80
83	A5	391	A	C3'-C2'-C1'	6.11	106.38	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1126	A	C1'-O4'-C4'	-6.10	105.02	109.90
83	A5	3292	C	O4'-C1'-N1	6.10	113.08	108.20
8	AS	139	THR	C-N-CA	6.10	135.11	122.30
36	B2	449	C	C3'-C2'-C1'	6.10	106.38	101.50
36	B2	1447	G	C4'-C3'-C2'	-6.10	96.50	102.60
83	A5	1009	G	C1'-O4'-C4'	-6.10	105.02	109.90
83	A5	1164	G	O4'-C1'-N9	6.10	113.08	108.20
83	A5	2709	U	O4'-C1'-N1	6.10	113.08	108.20
48	CD	186	GLU	C-N-CA	6.10	136.94	121.70
52	CS	98	ARG	NE-CZ-NH2	-6.10	117.25	120.30
60	Cr	22	LYS	C-N-CA	6.10	136.95	121.70
83	A5	2062	A	C1'-O4'-C4'	6.10	114.78	109.90
36	B2	543	A	O4'-C1'-N9	-6.09	103.33	108.20
86	A8	111	G	P-O3'-C3'	-6.09	112.39	119.70
6	AX	119	ARG	NE-CZ-NH2	-6.09	117.25	120.30
36	B2	1878	A	N9-C1'-C2'	-6.09	105.30	112.00
83	A5	876	G	C3'-C2'-C1'	-6.09	96.63	101.50
83	A5	1143	U	C1'-O4'-C4'	-6.09	105.03	109.90
83	A5	1901	G	C1'-O4'-C4'	-6.09	105.03	109.90
83	A5	2507	C	C1'-O4'-C4'	-6.09	105.03	109.90
57	CY	121	ARG	NE-CZ-NH1	6.09	123.34	120.30
59	CZ	18	TYR	CB-CG-CD1	6.09	124.65	121.00
74	CC	20	ALA	N-CA-CB	6.09	118.63	110.10
83	A5	1739	U	C3'-C2'-C1'	6.09	106.37	101.50
83	A5	1754	U	O4'-C1'-N1	6.09	113.07	108.20
83	A5	2819	A	O4'-C1'-C2'	-6.09	99.71	105.80
84	A9	21	G	O4'-C1'-C2'	6.09	113.08	107.60
36	B2	1378	C	C3'-C2'-C1'	6.09	106.37	101.50
83	A5	31	C	C1'-O4'-C4'	-6.09	105.03	109.90
83	A5	271	A	C1'-O4'-C4'	-6.09	105.03	109.90
36	B2	1042	A	O4'-C1'-C2'	-6.09	99.71	105.80
36	B2	1383	A	O4'-C1'-C2'	6.09	113.08	107.60
44	CM	3	PHE	CB-CG-CD2	6.09	125.06	120.80
83	A5	573	U	N1-C1'-C2'	-6.09	105.31	112.00
83	A5	1801	U	O4'-C1'-C2'	-6.09	99.71	105.80
83	A5	2533	U	O4'-C1'-N1	6.09	113.07	108.20
85	A7	75	G	P-O3'-C3'	6.09	127.00	119.70
83	A5	1707	A	C1'-O4'-C4'	-6.08	105.03	109.90
83	A5	2242	C	O4'-C1'-C2'	-6.08	99.72	105.80
1	Az	199	ASP	N-CA-CB	6.08	121.55	110.60
36	B2	89	C	O4'-C1'-N1	6.08	113.07	108.20
36	B2	144	A	P-O3'-C3'	-6.08	112.40	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1602	U	O4'-C1'-N1	6.08	113.07	108.20
83	A5	1424	G	N9-C1'-C2'	6.08	121.91	114.00
83	A5	1601	U	O4'-C1'-C2'	-6.08	99.72	105.80
41	CO	59	TYR	CA-C-N	6.08	130.58	117.20
83	A5	2665	C	O4'-C1'-C2'	-6.08	99.72	105.80
83	A5	3864	C	P-O3'-C3'	6.08	127.00	119.70
18	AY	74	ALA	N-CA-CB	6.08	118.61	110.10
36	B2	647	U	C3'-C2'-C1'	6.08	106.36	101.50
36	B2	1062	C	N1-C1'-C2'	6.08	121.90	114.00
83	A5	1204	C	C1'-O4'-C4'	-6.08	105.04	109.90
83	A5	1955	A	P-O3'-C3'	6.08	126.99	119.70
83	A5	3417	C	P-O3'-C3'	6.08	126.99	119.70
36	B2	1304	G	N9-C1'-C2'	6.08	121.90	114.00
36	B2	1695	A	O4'-C1'-C2'	6.08	113.07	107.60
83	A5	708	A	O4'-C1'-N9	6.08	113.06	108.20
83	A5	812	U	C3'-C2'-C1'	6.08	106.36	101.50
83	A5	776	A	O3'-P-O5'	6.07	115.54	104.00
83	A5	3458	A	N9-C1'-C2'	6.07	121.89	114.00
83	A5	3799	G	O3'-P-O5'	-6.07	92.46	104.00
36	B2	1601	A	O4'-C1'-N9	6.07	113.06	108.20
36	B2	1663	A	O4'-C1'-N9	6.07	113.06	108.20
74	CC	204	ARG	N-CA-CB	6.07	121.53	110.60
83	A5	486	A	O4'-C1'-C2'	-6.07	99.73	105.80
36	B2	831	U	N1-C1'-C2'	6.07	121.89	114.00
83	A5	1666	A	O4'-C1'-C2'	-6.07	99.73	105.80
83	A5	1926	A	C4'-C3'-O3'	6.07	125.14	113.00
85	A7	94	C	C3'-C2'-C1'	6.07	106.36	101.50
36	B2	1962	G	O4'-C1'-N9	-6.07	103.34	108.20
83	A5	1120	A	P-O5'-C5'	-6.07	111.19	120.90
83	A5	1616	G	C1'-O4'-C4'	-6.07	105.05	109.90
83	A5	1806	G	O4'-C1'-N9	6.07	113.06	108.20
83	A5	3460	C	O4'-C1'-N1	6.07	113.06	108.20
11	AL	104	ARG	NE-CZ-NH1	6.07	123.33	120.30
36	B2	388	G	C1'-O4'-C4'	-6.07	105.05	109.90
36	B2	1148	U	C4'-C3'-O3'	6.07	125.14	113.00
36	B2	1205	U	C1'-O4'-C4'	-6.07	105.05	109.90
36	B2	1624	U	O4'-C1'-N1	6.07	113.05	108.20
36	B2	1669	A	O4'-C1'-N9	6.07	113.05	108.20
45	Ca	13	ARG	C-N-CA	6.07	135.04	122.30
83	A5	1079	U	C1'-O4'-C4'	-6.07	105.05	109.90
15	AB	182	ALA	N-CA-CB	6.07	118.59	110.10
30	AF	188	ARG	NE-CZ-NH1	6.07	123.33	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	54	C	O4'-C1'-C2'	-6.07	99.73	105.80
64	CF	56	ARG	NE-CZ-NH2	6.07	123.33	120.30
83	A5	766	G	C1'-O4'-C4'	-6.07	105.05	109.90
85	A7	113	G	O4'-C1'-N9	6.07	113.05	108.20
36	B2	908	G	P-O5'-C5'	6.06	130.60	120.90
36	B2	1324	G	O4'-C1'-N9	6.06	113.05	108.20
36	B2	1900	U	N1-C1'-C2'	-6.06	105.33	112.00
83	A5	791	C	O4'-C1'-C2'	-6.06	99.74	105.80
83	A5	2664	U	C3'-C2'-C1'	6.06	106.35	101.50
36	B2	1565	C	O4'-C1'-C2'	-6.06	99.74	105.80
42	CL	109	ARG	NE-CZ-NH1	6.06	123.33	120.30
70	Ci	92	ARG	NE-CZ-NH1	-6.06	117.27	120.30
83	A5	210	C	C1'-O4'-C4'	-6.06	105.05	109.90
83	A5	388	U	C5'-C4'-O4'	6.06	116.37	109.10
83	A5	1408	A	N9-C1'-C2'	6.06	121.88	114.00
84	A9	4	U	C1'-O4'-C4'	6.06	114.75	109.90
83	A5	2819	A	P-O5'-C5'	6.06	130.60	120.90
1	Az	308	THR	N-CA-C	6.06	127.36	111.00
36	B2	33	U	N1-C1'-C2'	-6.06	105.33	112.00
36	B2	1775	A	O4'-C1'-C2'	-6.06	99.74	105.80
45	Ca	53	TYR	CB-CG-CD1	-6.06	117.36	121.00
83	A5	514	A	O4'-C1'-C2'	6.06	113.05	107.60
83	A5	2713	G	O4'-C1'-N9	6.06	113.05	108.20
84	A9	30	A	N9-C1'-C2'	-6.06	105.33	112.00
85	A7	63	C	P-O3'-C3'	-6.06	112.43	119.70
36	B2	521	U	N1-C1'-C2'	-6.06	105.34	112.00
36	B2	1176	C	C1'-O4'-C4'	-6.06	105.06	109.90
83	A5	800	C	O4'-C1'-C2'	-6.06	99.74	105.80
83	A5	1711	C	C3'-C2'-C1'	6.06	106.35	101.50
83	A5	2061	G	O4'-C1'-C2'	6.06	113.05	107.60
85	A7	10	C	O4'-C1'-C2'	-6.06	99.74	105.80
37	BC	41	A	C1'-O4'-C4'	6.06	114.75	109.90
83	A5	3746	A	N9-C1'-C2'	-6.06	105.34	112.00
42	CL	149	LEU	C-N-CA	6.05	136.84	121.70
54	CP	41	LEU	CB-CG-CD2	6.05	121.29	111.00
74	CC	252	PHE	CB-CG-CD2	-6.05	116.56	120.80
83	A5	2462	U	O4'-C1'-C2'	-6.05	99.75	105.80
83	A5	2779	A	O4'-C1'-N9	6.05	113.04	108.20
83	A5	3196	C	O4'-C1'-N1	6.05	113.04	108.20
83	A5	3721	C	C5'-C4'-C3'	6.05	125.69	116.00
28	AC	162	THR	CA-CB-CG2	-6.05	103.92	112.40
36	B2	1100	A	C1'-O4'-C4'	-6.05	105.06	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1726	A	O4'-C1'-N9	6.05	113.04	108.20
78	Co	77	TYR	CB-CG-CD2	-6.05	117.37	121.00
80	CH	84	PHE	CB-CG-CD1	6.05	125.04	120.80
83	A5	2066	G	P-O5'-C5'	6.05	130.58	120.90
83	A5	3727	A	C4'-C3'-C2'	-6.05	96.55	102.60
83	A5	3008	U	O4'-C1'-N1	6.05	113.04	108.20
86	A8	121	C	C1'-O4'-C4'	-6.05	105.06	109.90
75	Cm	125	LYS	N-CA-CB	6.05	121.49	110.60
83	A5	2214	G	O4'-C1'-C2'	6.05	113.04	107.60
9	Ad	8	TYR	CB-CG-CD2	-6.05	117.37	121.00
83	A5	853	G	C3'-C2'-C1'	-6.05	96.66	101.50
83	A5	2168	G	N9-C1'-C2'	6.05	121.86	114.00
83	A5	2652	U	C1'-O4'-C4'	6.05	114.74	109.90
67	Ce	4	ARG	NE-CZ-NH2	-6.04	117.28	120.30
36	B2	1389	U	O4'-C1'-N1	6.04	113.03	108.20
36	B2	1970	U	O4'-C1'-N1	6.04	113.03	108.20
36	B2	1972	G	O4'-C1'-N9	6.04	113.04	108.20
42	CL	68	LYS	N-CA-CB	6.04	121.48	110.60
46	CN	182	GLN	C-N-CA	6.04	136.81	121.70
51	CA	242	ARG	NE-CZ-NH2	-6.04	117.28	120.30
83	A5	1024	U	N1-C1'-C2'	6.04	121.86	114.00
83	A5	1577	A	O4'-C1'-N9	6.04	113.03	108.20
2	Ag	309	ARG	NE-CZ-NH1	6.04	123.32	120.30
4	AK	8	ARG	NE-CZ-NH2	-6.04	117.28	120.30
36	B2	1381	G	O4'-C1'-N9	6.04	113.03	108.20
83	A5	670	G	O4'-C1'-C2'	-6.04	99.76	105.80
83	A5	878	U	N1-C1'-C2'	6.04	121.86	114.00
83	A5	3575	G	O4'-C1'-N9	6.04	113.03	108.20
36	B2	1535	U	C1'-O4'-C4'	6.04	114.73	109.90
83	A5	290	G	C1'-O4'-C4'	-6.04	105.07	109.90
83	A5	1225	G	O4'-C1'-N9	6.04	113.03	108.20
3	AU	51	ARG	NE-CZ-NH2	6.04	123.32	120.30
30	AF	62	TYR	CB-CG-CD2	-6.04	117.38	121.00
36	B2	702	U	N1-C1'-C2'	6.04	121.85	114.00
36	B2	1025	G	O4'-C1'-N9	6.04	113.03	108.20
74	CC	349	ARG	NE-CZ-NH2	6.04	123.32	120.30
83	A5	1052	U	C1'-O4'-C4'	-6.04	105.07	109.90
83	A5	3642	G	C1'-O4'-C4'	-6.04	105.07	109.90
36	B2	1844	C	C3'-C2'-C1'	6.04	106.33	101.50
83	A5	404	U	O4'-C1'-C2'	-6.04	99.76	105.80
83	A5	2504	A	O4'-C1'-N9	6.04	113.03	108.20
86	A8	39	A	N9-C1'-C2'	6.04	121.85	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	CR	139	MET	N-CA-CB	6.04	121.46	110.60
83	A5	286	A	C3'-C2'-C1'	-6.04	96.67	101.50
83	A5	2276	C	C1'-O4'-C4'	-6.04	105.07	109.90
28	AC	252	TYR	CB-CG-CD1	6.03	124.62	121.00
36	B2	1359	U	P-O3'-C3'	6.03	126.94	119.70
36	B2	1604	A	C3'-C2'-C1'	6.03	106.33	101.50
36	B2	1290	A	C1'-O4'-C4'	-6.03	105.07	109.90
83	A5	3801	A	C5'-C4'-O4'	-6.03	101.86	109.10
83	A5	3861	A	N9-C1'-C2'	-6.03	105.36	112.00
36	B2	457	G	N9-C1'-C2'	6.03	121.84	114.00
83	A5	372	U	C1'-O4'-C4'	6.03	114.72	109.90
83	A5	1397	A	N9-C1'-C2'	6.03	121.84	114.00
83	A5	1778	A	O3'-P-O5'	6.03	115.46	104.00
83	A5	3865	C	N1-C1'-C2'	6.03	121.84	114.00
83	A5	3903	U	O4'-C1'-N1	6.03	113.03	108.20
84	A9	23	G	C2'-C3'-O3'	6.03	123.35	113.70
36	B2	1206	G	C1'-O4'-C4'	-6.03	105.08	109.90
50	CR	117	ARG	NE-CZ-NH2	-6.03	117.29	120.30
83	A5	3353	C	C3'-C2'-C1'	6.03	106.32	101.50
83	A5	1229	U	C3'-C2'-C1'	6.03	106.32	101.50
83	A5	3456	U	O4'-C1'-N1	6.03	113.02	108.20
29	AG	68	LEU	CA-C-N	6.03	130.46	117.20
36	B2	331	G	O4'-C1'-C2'	6.03	113.02	107.60
36	B2	1733	G	C3'-C2'-C1'	6.03	106.32	101.50
83	A5	2774	G	N9-C1'-C2'	6.03	121.83	114.00
36	B2	1424	A	O4'-C1'-N9	6.02	113.02	108.20
36	B2	1917	A	C5'-C4'-O4'	6.02	116.33	109.10
83	A5	11	C	C1'-O4'-C4'	-6.02	105.08	109.90
83	A5	433	U	O4'-C1'-N1	6.02	113.02	108.20
83	A5	455	U	N1-C1'-C2'	6.02	121.83	114.00
83	A5	2830	G	N9-C1'-C2'	6.02	121.83	114.00
36	B2	1915	A	O4'-C1'-C2'	-6.02	99.78	105.80
83	A5	342	A	O4'-C1'-N9	-6.02	103.38	108.20
83	A5	2500	G	C3'-C2'-C1'	6.02	106.32	101.50
8	AS	40	TYR	N-CA-CB	6.02	121.43	110.60
36	B2	1461	A	O4'-C1'-C2'	-6.02	99.78	105.80
4	AK	16	PHE	CB-CG-CD2	6.02	125.01	120.80
83	A5	1585	U	O4'-C1'-C2'	-6.02	99.78	105.80
84	A9	29	U	C1'-O4'-C4'	-6.02	105.09	109.90
83	A5	2724	C	C3'-C2'-C1'	6.02	106.31	101.50
83	A5	3920	C	O4'-C1'-C2'	-6.02	99.78	105.80
5	AO	124	MET	CG-SD-CE	-6.01	90.58	100.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1434	U	P-O3'-C3'	6.01	126.92	119.70
36	B2	1912	G	C1'-O4'-C4'	-6.01	105.09	109.90
83	A5	1457	G	O4'-C1'-N9	6.01	113.01	108.20
46	CN	49	ARG	NE-CZ-NH1	6.01	123.31	120.30
83	A5	9	A	N9-C1'-C2'	-6.01	105.39	112.00
83	A5	1127	C	O4'-C1'-N1	6.01	113.01	108.20
83	A5	2062	A	O4'-C1'-N9	6.01	113.01	108.20
83	A5	2839	A	P-O5'-C5'	-6.01	111.28	120.90
5	AO	147	ARG	C-N-CA	6.01	134.92	122.30
36	B2	67	A	C3'-C2'-C1'	6.01	106.31	101.50
36	B2	509	C	P-O5'-C5'	6.01	130.52	120.90
36	B2	604	C	C3'-C2'-C1'	6.01	106.31	101.50
36	B2	969	U	O4'-C1'-N1	6.01	113.01	108.20
36	B2	1378	C	N1-C1'-C2'	6.01	121.81	114.00
36	B2	1709	A	C3'-C2'-C1'	6.01	106.31	101.50
42	CL	150	LYS	N-CA-C	6.01	127.23	111.00
60	Cr	23	ARG	CB-CA-C	6.01	122.42	110.40
83	A5	374	C	O4'-C1'-N1	6.01	113.01	108.20
83	A5	1432	C	P-O3'-C3'	6.01	126.92	119.70
14	AT	62	ARG	NE-CZ-NH1	-6.01	117.30	120.30
36	B2	1739	U	O4'-C1'-N1	6.01	113.01	108.20
83	A5	2468	A	O4'-C1'-C2'	-6.01	99.79	105.80
83	A5	100	G	C1'-O4'-C4'	-6.01	105.09	109.90
83	A5	3253	G	O4'-C1'-N9	6.01	113.00	108.20
36	B2	1115	C	C3'-C2'-C1'	6.00	106.30	101.50
8	AS	138	THR	CA-CB-CG2	-6.00	104.00	112.40
36	B2	565	G	C3'-C2'-C1'	6.00	106.30	101.50
83	A5	1971	C	N1-C1'-C2'	6.00	121.81	114.00
83	A5	2480	U	C1'-O4'-C4'	6.00	114.70	109.90
83	A5	3918	A	P-O3'-C3'	6.00	126.90	119.70
36	B2	457	G	C3'-C2'-C1'	6.00	106.30	101.50
36	B2	1087	C	N1-C1'-C2'	-6.00	105.40	112.00
36	B2	1169	C	C2'-C3'-O3'	6.00	123.30	113.70
36	B2	1664	A	O4'-C1'-C2'	-6.00	99.80	105.80
48	CD	188	LYS	C-N-CA	6.00	136.70	121.70
83	A5	899	G	C4'-C3'-C2'	-6.00	96.60	102.60
83	A5	1114	A	C5'-C4'-O4'	6.00	116.30	109.10
83	A5	843	A	C5'-C4'-C3'	-6.00	106.40	116.00
83	A5	3651	C	O4'-C1'-N1	6.00	113.00	108.20
36	B2	502	C	O4'-C1'-N1	6.00	113.00	108.20
40	CK	88	PRO	CA-C-N	6.00	133.89	117.10
48	CD	162	ALA	N-CA-CB	6.00	118.50	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	CA	174	ARG	NE-CZ-NH2	-6.00	117.30	120.30
83	A5	36	U	O4'-C1'-C2'	-6.00	99.80	105.80
83	A5	1969	A	P-O3'-C3'	6.00	126.90	119.70
36	B2	90	A	C3'-C2'-C1'	6.00	106.30	101.50
83	A5	418	G	O4'-C1'-C2'	-6.00	99.80	105.80
83	A5	3402	C	O4'-C1'-N1	6.00	113.00	108.20
83	A5	3405	U	C3'-C2'-C1'	6.00	106.30	101.50
86	A8	44	C	O4'-C1'-C2'	-6.00	99.80	105.80
36	B2	134	U	C4'-C3'-O3'	5.99	124.98	113.00
36	B2	1836	C	O4'-C1'-N1	5.99	112.99	108.20
83	A5	1196	A	P-O3'-C3'	5.99	126.89	119.70
83	A5	1422	G	O4'-C1'-N9	5.99	113.00	108.20
83	A5	1690	U	N1-C1'-C2'	-5.99	105.41	112.00
83	A5	2787	U	O4'-C1'-N1	5.99	112.99	108.20
36	B2	425	A	C3'-C2'-C1'	5.99	106.29	101.50
36	B2	1182	C	C3'-C2'-C1'	5.99	106.29	101.50
36	B2	1391	G	O4'-C1'-C2'	5.99	112.99	107.60
36	B2	356	C	O4'-C1'-C2'	-5.99	99.81	105.80
36	B2	1925	G	C1'-O4'-C4'	-5.99	105.11	109.90
42	CL	58	VAL	C-N-CA	5.99	136.67	121.70
83	A5	527	U	O4'-C1'-C2'	-5.99	99.81	105.80
83	A5	2473	C	O4'-C1'-C2'	-5.99	99.81	105.80
18	AY	77	TYR	CB-CG-CD1	-5.99	117.41	121.00
83	A5	3335	A	N9-C1'-C2'	-5.99	105.41	112.00
36	B2	1333	C	C3'-C2'-C1'	-5.99	96.71	101.50
83	A5	830	U	O4'-C1'-N1	5.99	112.99	108.20
83	A5	941	A	C3'-C2'-C1'	5.99	106.29	101.50
86	A8	123	G	O4'-C1'-N9	5.99	112.99	108.20
68	Cf	16	LYS	C-N-CA	5.99	136.67	121.70
83	A5	640	U	C2'-C3'-O3'	5.99	123.28	113.70
83	A5	1938	C	O4'-C1'-N1	5.99	112.99	108.20
36	B2	1118	U	O4'-C1'-N1	5.98	112.99	108.20
63	CB	234	ARG	NE-CZ-NH1	5.98	123.29	120.30
83	A5	2200	A	C1'-O4'-C4'	5.98	114.69	109.90
83	A5	3173	U	C1'-O4'-C4'	-5.98	105.11	109.90
27	AE	30	ARG	NE-CZ-NH2	-5.98	117.31	120.30
36	B2	1416	A	O4'-C1'-C2'	-5.98	99.82	105.80
83	A5	25	G	C3'-C2'-C1'	-5.98	96.72	101.50
83	A5	1225	G	N9-C1'-C2'	5.98	121.78	114.00
83	A5	1483	G	C5'-C4'-O4'	5.98	116.28	109.10
83	A5	1972	C	O4'-C1'-C2'	-5.98	99.82	105.80
83	A5	2794	U	O4'-C1'-N1	5.98	112.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3493	U	O4'-C1'-N1	5.98	112.99	108.20
36	B2	1953	U	N1-C1'-C2'	5.98	121.78	114.00
81	CE	221	PHE	N-CA-C	5.98	127.15	111.00
83	A5	2525	C	N1-C1'-C2'	5.98	121.78	114.00
83	A5	2701	G	N9-C1'-C2'	-5.98	105.42	112.00
83	A5	2707	C	C3'-C2'-C1'	5.98	106.28	101.50
83	A5	3835	U	C1'-O4'-C4'	-5.98	105.12	109.90
83	A5	2400	U	P-O5'-C5'	-5.98	111.33	120.90
23	AD	181	GLN	CA-C-N	5.98	128.15	116.20
36	B2	397	G	O4'-C1'-N9	5.98	112.98	108.20
36	B2	1803	A	C4'-C3'-O3'	5.98	124.95	113.00
67	Ce	129	ARG	N-CA-CB	5.98	121.36	110.60
36	B2	513	A	C1'-O4'-C4'	5.97	114.68	109.90
36	B2	1115	C	N1-C1'-C2'	5.97	121.77	114.00
83	A5	233	A	P-O3'-C3'	5.97	126.87	119.70
83	A5	479	U	C1'-O4'-C4'	5.97	114.68	109.90
83	A5	553	A	N9-C1'-C2'	-5.97	105.43	112.00
83	A5	1374	C	P-O3'-C3'	5.97	126.87	119.70
83	A5	2237	A	C3'-C2'-C1'	5.97	106.28	101.50
83	A5	2531	A	O4'-C1'-N9	5.97	112.98	108.20
10	AN	106	ARG	NE-CZ-NH1	5.97	123.29	120.30
36	B2	591	C	C1'-O4'-C4'	-5.97	105.12	109.90
36	B2	1761	A	P-O3'-C3'	5.97	126.87	119.70
83	A5	1164	G	O4'-C1'-C2'	5.97	112.98	107.60
83	A5	3331	A	P-O3'-C3'	5.97	126.87	119.70
83	A5	3407	U	C1'-O4'-C4'	-5.97	105.12	109.90
83	A5	3418	U	C4'-C3'-O3'	5.97	124.95	113.00
1	Az	674	LYS	C-N-CA	5.97	136.63	121.70
83	A5	717	A	C3'-C2'-C1'	5.97	106.28	101.50
85	A7	55	A	O4'-C1'-N9	5.97	112.98	108.20
36	B2	50	C	N1-C1'-C2'	5.97	121.76	114.00
36	B2	419	C	C1'-O4'-C4'	-5.97	105.12	109.90
36	B2	1195	G	O3'-P-O5'	-5.97	92.66	104.00
37	BC	7	G	O4'-C1'-N9	5.97	112.97	108.20
51	CA	6	ARG	NE-CZ-NH2	-5.97	117.31	120.30
83	A5	1123	C	O4'-C1'-N1	5.97	112.97	108.20
83	A5	1761	C	O4'-C1'-N1	5.97	112.97	108.20
86	A8	51	A	C5'-C4'-O4'	5.97	116.26	109.10
36	B2	252	A	O4'-C1'-C2'	5.97	112.97	107.60
37	BC	12	G	C3'-C2'-C1'	-5.97	96.72	101.50
36	B2	960	U	C1'-O4'-C4'	5.97	114.67	109.90
36	B2	1243	G	N9-C1'-C2'	5.97	121.76	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BC	32	C	O4'-C1'-N1	5.97	112.97	108.20
63	CB	156	TYR	CB-CG-CD1	-5.97	117.42	121.00
83	A5	235	A	C4'-C3'-C2'	-5.97	96.63	102.60
83	A5	1877	A	N9-C1'-C2'	5.97	121.76	114.00
83	A5	2921	G	O4'-C1'-C2'	5.97	112.97	107.60
83	A5	3120	C	O4'-C1'-N1	5.97	112.97	108.20
36	B2	516	U	O4'-C1'-N1	5.96	112.97	108.20
36	B2	1029	G	C3'-C2'-C1'	-5.96	96.73	101.50
53	CT	6	GLY	C-N-CA	5.96	136.61	121.70
83	A5	765	A	C3'-C2'-C1'	5.96	106.27	101.50
25	Af	92	LYS	C-N-CA	5.96	136.61	121.70
83	A5	2146	G	C5'-C4'-O4'	5.96	116.26	109.10
1	Az	713	ARG	NE-CZ-NH2	-5.96	117.32	120.30
36	B2	1127	G	N9-C1'-C2'	5.96	121.75	114.00
15	AB	165	ARG	NE-CZ-NH1	5.96	123.28	120.30
16	AA	156	TYR	CB-CG-CD1	-5.96	117.42	121.00
27	AE	195	VAL	N-CA-CB	5.96	124.61	111.50
36	B2	1328	G	O4'-C1'-C2'	5.96	112.96	107.60
36	B2	1763	C	C3'-C2'-C1'	5.96	106.27	101.50
36	B2	1889	G	O4'-C1'-C2'	5.96	112.96	107.60
57	CY	62	PHE	C-N-CA	5.96	136.60	121.70
82	CG	210	THR	CA-CB-CG2	-5.96	104.06	112.40
83	A5	1354	G	C1'-O4'-C4'	-5.96	105.13	109.90
83	A5	1619	C	O4'-C1'-C2'	-5.96	99.84	105.80
83	A5	1724	A	C1'-O4'-C4'	-5.96	105.13	109.90
83	A5	3163	U	O4'-C1'-N1	5.96	112.97	108.20
36	B2	880	G	O4'-C1'-C2'	5.96	112.96	107.60
83	A5	1712	C	C3'-C2'-C1'	5.96	106.27	101.50
36	B2	44	U	O4'-C1'-C2'	-5.96	99.84	105.80
36	B2	1328	G	C3'-C2'-C1'	-5.96	96.74	101.50
83	A5	61	A	C3'-C2'-C1'	5.96	106.26	101.50
11	AL	34	SER	C-N-CA	5.95	136.58	121.70
23	AD	79	PHE	CB-CG-CD1	-5.95	116.63	120.80
36	B2	497	A	N9-C1'-C2'	5.95	121.74	114.00
36	B2	920	U	N1-C1'-C2'	5.95	121.74	114.00
36	B2	962	G	O4'-C1'-N9	5.95	112.96	108.20
36	B2	1404	C	C3'-C2'-C1'	5.95	106.26	101.50
36	B2	1648	C	O4'-C1'-C2'	5.95	112.96	107.60
83	A5	1230	U	C5'-C4'-C3'	5.95	125.53	116.00
83	A5	1702	G	O4'-C1'-N9	5.95	112.96	108.20
83	A5	2588	G	N9-C1'-C2'	5.95	121.74	114.00
83	A5	3205	G	N9-C1'-C2'	-5.95	105.45	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3884	A	P-O3'-C3'	5.95	126.84	119.70
36	B2	1049	C	O4'-C1'-N1	5.95	112.96	108.20
83	A5	1331	G	O4'-C1'-C2'	5.95	112.96	107.60
83	A5	1677	U	O4'-C1'-C2'	-5.95	99.85	105.80
83	A5	2055	G	N9-C1'-C2'	5.95	121.74	114.00
83	A5	2729	U	O4'-C1'-C2'	-5.95	99.85	105.80
36	B2	1407	U	C3'-C2'-C1'	-5.95	96.74	101.50
36	B2	1658	G	C3'-C2'-C1'	-5.95	96.74	101.50
83	A5	207	C	O4'-C1'-N1	5.95	112.96	108.20
83	A5	1331	G	C1'-O4'-C4'	-5.95	105.14	109.90
83	A5	2880	A	O4'-C1'-C2'	-5.95	99.85	105.80
83	A5	3901	G	N9-C1'-C2'	-5.95	105.45	112.00
36	B2	75	U	C5'-C4'-O4'	5.95	116.24	109.10
83	A5	2132	A	P-O5'-C5'	5.95	130.42	120.90
83	A5	2154	A	O4'-C1'-C2'	-5.95	99.85	105.80
83	A5	3596	A	N9-C1'-C2'	-5.95	105.46	112.00
27	AE	100	ARG	NE-CZ-NH1	5.95	123.27	120.30
36	B2	1045	U	O4'-C1'-C2'	-5.95	99.85	105.80
83	A5	732	U	O4'-C1'-C2'	-5.95	99.85	105.80
33	AI	49	ARG	C-N-CA	5.95	134.79	122.30
36	B2	303	C	P-O3'-C3'	5.95	126.83	119.70
83	A5	1002	C	N1-C1'-C2'	5.95	121.73	114.00
36	B2	1215	G	C3'-C2'-C1'	-5.94	96.75	101.50
67	Ce	7	TYR	CB-CG-CD2	-5.94	117.43	121.00
83	A5	2901	C	C1'-O4'-C4'	-5.94	105.14	109.90
83	A5	248	C	C4'-C3'-C2'	-5.94	96.66	102.60
83	A5	323	U	C3'-C2'-C1'	5.94	106.25	101.50
33	AI	109	PHE	CB-CG-CD2	-5.94	116.64	120.80
36	B2	52	U	O4'-C1'-C2'	-5.94	99.86	105.80
36	B2	1322	C	O4'-C1'-N1	5.94	112.95	108.20
50	CR	110	ARG	NE-CZ-NH1	5.94	123.27	120.30
83	A5	491	U	C1'-O4'-C4'	5.94	114.65	109.90
83	A5	1574	A	C1'-O4'-C4'	-5.94	105.15	109.90
83	A5	1771	G	O4'-C1'-N9	5.94	112.95	108.20
83	A5	2870	C	O4'-C1'-N1	5.94	112.95	108.20
83	A5	3876	U	C1'-O4'-C4'	-5.94	105.15	109.90
16	AA	222	PRO	CB-CA-C	-5.94	97.15	112.00
16	AA	203	PHE	N-CA-CB	5.94	121.29	110.60
32	AW	20	ARG	NE-CZ-NH2	5.94	123.27	120.30
36	B2	31	C	N1-C1'-C2'	5.94	121.72	114.00
36	B2	152	U	O4'-C1'-N1	5.94	112.95	108.20
36	B2	594	G	N9-C1'-C2'	5.94	121.72	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	947	U	P-O3'-C3'	5.94	126.83	119.70
36	B2	1552	C	O4'-C1'-N1	5.94	112.95	108.20
36	B2	1963	G	P-O3'-C3'	5.94	126.83	119.70
29	AG	68	LEU	O-C-N	-5.94	113.20	122.70
83	A5	3639	U	O4'-C1'-N1	5.94	112.95	108.20
29	AG	60	GLY	N-CA-C	5.93	127.94	113.10
36	B2	1877	G	C1'-O4'-C4'	-5.93	105.15	109.90
68	Cf	56	PHE	N-CA-C	-5.93	94.98	111.00
83	A5	486	A	C1'-O4'-C4'	5.93	114.65	109.90
83	A5	1972	C	O4'-C1'-N1	5.93	112.95	108.20
83	A5	2516	U	N1-C1'-C2'	5.93	121.72	114.00
83	A5	3302	G	C5'-C4'-O4'	5.93	116.22	109.10
36	B2	523	A	O4'-C1'-N9	5.93	112.94	108.20
83	A5	959	U	O4'-C1'-C2'	-5.93	99.87	105.80
83	A5	1323	C	O4'-C1'-N1	5.93	112.95	108.20
83	A5	1746	A	C1'-O4'-C4'	-5.93	105.15	109.90
83	A5	2662	C	C3'-C2'-C1'	5.93	106.25	101.50
83	A5	3626	A	O4'-C1'-C2'	-5.93	99.87	105.80
83	A5	525	U	C1'-O4'-C4'	5.93	114.64	109.90
83	A5	2882	A	P-O3'-C3'	5.93	126.82	119.70
15	AB	88	ARG	NE-CZ-NH2	-5.93	117.34	120.30
34	AQ	142	ARG	NE-CZ-NH1	5.93	123.27	120.30
36	B2	1973	G	N9-C1'-C2'	-5.93	105.48	112.00
36	B2	1993	U	C4'-C3'-C2'	5.93	108.53	102.60
83	A5	431	C	C3'-C2'-C1'	5.93	106.24	101.50
83	A5	1310	A	O4'-C1'-C2'	-5.93	99.87	105.80
83	A5	3544	G	C1'-O4'-C4'	-5.93	105.16	109.90
83	A5	3697	A	C2'-C3'-O3'	5.93	123.19	113.70
36	B2	1552	C	O4'-C1'-C2'	-5.93	99.87	105.80
83	A5	94	C	N1-C1'-C2'	5.93	121.71	114.00
36	B2	182	C	O4'-C1'-N1	5.93	112.94	108.20
36	B2	961	U	N1-C1'-C2'	5.93	121.70	114.00
83	A5	216	U	N1-C1'-C2'	5.93	121.70	114.00
83	A5	2512	U	N1-C1'-C2'	5.93	121.71	114.00
9	Ad	39	CYS	N-CA-CB	5.92	121.27	110.60
36	B2	124	U	C3'-C2'-C1'	5.92	106.24	101.50
36	B2	329	U	C1'-O4'-C4'	5.92	114.64	109.90
36	B2	983	C	O4'-C1'-C2'	-5.92	99.88	105.80
37	BC	60	C	N1-C1'-C2'	5.92	121.70	114.00
27	AE	51	ARG	NE-CZ-NH2	-5.92	117.34	120.30
36	B2	225	G	O3'-P-O5'	-5.92	92.75	104.00
83	A5	2599	G	O4'-C1'-N9	5.92	112.94	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	459	U	N1-C1'-C2'	5.92	121.70	114.00
83	A5	527	U	C3'-C2'-C1'	5.92	106.24	101.50
83	A5	642	A	C3'-C2'-C1'	5.92	106.24	101.50
83	A5	2515	C	P-O3'-C3'	5.92	126.81	119.70
83	A5	2664	U	O4'-C1'-N1	5.92	112.94	108.20
36	B2	1732	G	C1'-O4'-C4'	-5.92	105.16	109.90
83	A5	1371	A	O4'-C1'-N9	5.92	112.94	108.20
83	A5	1444	G	N9-C1'-C2'	-5.92	105.49	112.00
83	A5	2213	G	O4'-C1'-N9	5.92	112.94	108.20
36	B2	1159	C	C4'-C3'-O3'	-5.92	96.98	109.40
36	B2	1302	U	O4'-C1'-N1	5.92	112.93	108.20
67	Ce	21	ARG	NE-CZ-NH1	5.92	123.26	120.30
83	A5	2080	G	O4'-C1'-N9	5.92	112.93	108.20
83	A5	2126	A	P-O5'-C5'	5.92	130.37	120.90
83	A5	2146	G	C3'-C2'-C1'	5.92	106.23	101.50
83	A5	3550	C	O4'-C1'-C2'	-5.92	99.88	105.80
83	A5	3664	A	C3'-C2'-C1'	-5.92	96.77	101.50
83	A5	3840	G	P-O3'-C3'	-5.92	112.60	119.70
36	B2	600	A	P-O3'-C3'	-5.92	112.60	119.70
83	A5	1060	G	O4'-C1'-C2'	5.92	112.92	107.60
83	A5	2627	G	C1'-O4'-C4'	-5.92	105.17	109.90
36	B2	96	C	C1'-O4'-C4'	-5.91	105.17	109.90
36	B2	900	A	O4'-C1'-C2'	-5.91	99.89	105.80
83	A5	212	U	C4'-C3'-C2'	-5.91	96.69	102.60
83	A5	2153	C	N1-C1'-C2'	5.91	121.69	114.00
2	Ag	36	ARG	CB-CA-C	-5.91	98.58	110.40
22	Ac	11	MET	CG-SD-CE	-5.91	90.74	100.20
83	A5	113	A	P-O3'-C3'	5.91	126.79	119.70
83	A5	179	C	C3'-C2'-C1'	5.91	106.23	101.50
83	A5	867	U	N1-C1'-C2'	5.91	121.68	114.00
83	A5	3775	A	O4'-C4'-C3'	-5.91	98.09	104.00
36	B2	1314	G	C5'-C4'-O4'	5.91	116.19	109.10
83	A5	682	U	C4'-C3'-O3'	5.91	124.82	113.00
83	A5	1053	G	N9-C1'-C2'	-5.91	105.50	112.00
83	A5	3295	U	O4'-C1'-C2'	-5.91	99.89	105.80
83	A5	3770	A	O4'-C1'-N9	5.91	112.93	108.20
83	A5	3951	U	C1'-O4'-C4'	5.91	114.63	109.90
83	A5	1318	A	O4'-C1'-N9	5.91	112.92	108.20
83	A5	1869	C	N1-C1'-C2'	5.91	121.68	114.00
10	AN	19	ARG	NE-CZ-NH2	-5.91	117.35	120.30
29	AG	63	MET	N-CA-CB	5.91	121.23	110.60
36	B2	256	C	P-O3'-C3'	5.91	126.79	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	CL	190	ARG	NE-CZ-NH2	-5.91	117.35	120.30
83	A5	123	U	O4'-C1'-C2'	-5.91	99.89	105.80
83	A5	3239	C	C3'-C2'-C1'	5.91	106.22	101.50
86	A8	118	A	N9-C1'-C2'	-5.91	105.50	112.00
36	B2	416	C	C5'-C4'-O4'	5.90	116.18	109.10
41	CO	60	LEU	CB-CA-C	-5.90	98.98	110.20
83	A5	1943	C	O4'-C1'-N1	5.90	112.92	108.20
83	A5	2036	G	C1'-O4'-C4'	5.90	114.62	109.90
83	A5	2810	A	P-O3'-C3'	5.90	126.78	119.70
21	Ab	51	GLN	N-CA-CB	5.90	121.23	110.60
83	A5	1480	U	O4'-C1'-N1	5.90	112.92	108.20
83	A5	3788	G	O4'-C1'-C2'	5.90	112.91	107.60
36	B2	26	A	O4'-C1'-C2'	-5.90	99.90	105.80
36	B2	196	G	C1'-O4'-C4'	-5.90	105.18	109.90
36	B2	1204	A	C1'-O4'-C4'	-5.90	105.18	109.90
36	B2	1743	C	C1'-O4'-C4'	-5.90	105.18	109.90
83	A5	220	G	C5'-C4'-O4'	5.90	116.18	109.10
83	A5	2920	U	C3'-C2'-C1'	5.90	106.22	101.50
83	A5	3115	C	C3'-C2'-C1'	5.90	106.22	101.50
36	B2	870	U	O4'-C1'-N1	5.90	112.92	108.20
36	B2	1215	G	C1'-O4'-C4'	-5.90	105.18	109.90
83	A5	1231	A	N9-C1'-C2'	5.90	121.67	114.00
83	A5	1284	A	P-O3'-C3'	5.90	126.78	119.70
83	A5	1399	A	O4'-C1'-N9	5.90	112.92	108.20
83	A5	1640	U	C2'-C3'-O3'	5.90	123.14	113.70
83	A5	2107	U	C3'-C2'-C1'	5.90	106.22	101.50
81	CE	237	TYR	N-CA-CB	-5.90	99.99	110.60
83	A5	27	A	C3'-C2'-C1'	5.90	106.22	101.50
83	A5	1965	A	C1'-O4'-C4'	5.90	114.62	109.90
15	AB	114	ARG	NE-CZ-NH1	5.89	123.25	120.30
36	B2	2	U	N1-C1'-C2'	5.89	121.66	114.00
36	B2	426	A	N9-C1'-C2'	-5.89	105.52	112.00
83	A5	259	A	O4'-C1'-C2'	-5.89	99.91	105.80
83	A5	370	A	C1'-O4'-C4'	5.89	114.61	109.90
83	A5	1481	G	P-O3'-C3'	-5.89	112.62	119.70
33	AI	98	LYS	N-CA-CB	5.89	121.21	110.60
36	B2	1867	C	O4'-C1'-N1	5.89	112.91	108.20
83	A5	98	G	C1'-O4'-C4'	-5.89	105.19	109.90
83	A5	462	C	C3'-C2'-C1'	5.89	106.21	101.50
83	A5	2897	G	C3'-C2'-C1'	-5.89	96.79	101.50
1	Az	450	VAL	CA-C-N	5.89	133.59	117.10
28	AC	252	TYR	CB-CG-CD2	-5.89	117.47	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	152	A	P-O3'-C3'	-5.89	112.63	119.70
83	A5	188	G	O5'-C5'-C4'	5.89	122.89	111.70
83	A5	1606	G	O4'-C1'-C2'	-5.89	99.91	105.80
83	A5	1789	A	C3'-C2'-C1'	5.89	106.21	101.50
83	A5	2187	U	C1'-O4'-C4'	5.89	114.61	109.90
83	A5	108	A	N9-C1'-C2'	-5.89	105.52	112.00
83	A5	1750	G	N9-C1'-C2'	-5.89	105.52	112.00
36	B2	465	A	C5'-C4'-C3'	5.89	125.42	116.00
53	CT	5	LYS	CA-C-N	5.89	127.97	116.20
63	CB	281	ASN	N-CA-CB	5.89	121.19	110.60
83	A5	2511	C	C3'-C2'-C1'	5.89	106.21	101.50
83	A5	3186	C	O4'-C1'-N1	5.89	112.91	108.20
83	A5	3622	C	P-O5'-C5'	-5.89	111.48	120.90
83	A5	3645	U	O4'-C1'-N1	5.89	112.91	108.20
86	A8	88	C	P-O5'-C5'	5.89	130.32	120.90
1	Az	198	ASP	CA-C-N	5.88	130.15	117.20
45	Ca	66	ARG	NE-CZ-NH1	5.88	123.24	120.30
74	CC	214	TYR	CB-CG-CD2	-5.88	117.47	121.00
83	A5	530	U	C4'-C3'-C2'	-5.88	96.72	102.60
83	A5	2928	G	O4'-C1'-C2'	5.88	112.89	107.60
36	B2	577	C	P-O3'-C3'	5.88	126.76	119.70
36	B2	1604	A	C1'-O4'-C4'	5.88	114.61	109.90
36	B2	1722	U	O4'-C1'-N1	5.88	112.91	108.20
36	B2	1880	C	C3'-C2'-C1'	5.88	106.20	101.50
49	CQ	58	ARG	NE-CZ-NH1	5.88	123.24	120.30
83	A5	1174	G	O4'-C1'-C2'	5.88	112.89	107.60
83	A5	2036	G	N9-C1'-C2'	-5.88	105.53	112.00
2	Ag	309	ARG	NE-CZ-NH2	-5.88	117.36	120.30
36	B2	242	A	P-O3'-C3'	5.88	126.76	119.70
83	A5	1342	U	O4'-C1'-C2'	-5.88	99.92	105.80
83	A5	2836	A	O4'-C1'-N9	5.88	112.90	108.20
36	B2	523	A	P-O5'-C5'	-5.88	111.50	120.90
36	B2	835	A	C1'-O4'-C4'	5.88	114.60	109.90
37	BC	20	A	O4'-C1'-C2'	-5.88	99.92	105.80
83	A5	1973	G	C1'-O4'-C4'	-5.88	105.20	109.90
83	A5	2187	U	O4'-C1'-C2'	-5.88	99.92	105.80
15	AB	109	THR	N-CA-CB	5.88	121.47	110.30
36	B2	150	G	O4'-C1'-N9	5.88	112.90	108.20
36	B2	416	C	O4'-C1'-C2'	-5.88	99.92	105.80
36	B2	902	A	O4'-C1'-C2'	-5.88	99.92	105.80
36	B2	1426	A	O4'-C1'-N9	5.88	112.90	108.20
36	B2	1825	A	N9-C1'-C2'	-5.88	105.53	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	CA	26	ALA	N-CA-CB	5.88	118.33	110.10
63	CB	311	ASP	CB-CG-OD1	5.88	123.59	118.30
83	A5	2787	U	C3'-C2'-C1'	5.88	106.20	101.50
83	A5	3604	G	N9-C1'-C2'	5.88	121.64	114.00
36	B2	1126	A	O4'-C1'-C2'	-5.88	99.92	105.80
83	A5	693	G	C1'-O4'-C4'	-5.88	105.20	109.90
36	B2	324	U	P-O3'-C3'	-5.87	112.65	119.70
36	B2	1610	A	C3'-C2'-C1'	5.87	106.20	101.50
82	CG	43	ASN	N-CA-CB	5.87	121.17	110.60
83	A5	695	A	C1'-O4'-C4'	-5.87	105.20	109.90
83	A5	2569	U	O4'-C1'-N1	5.87	112.90	108.20
83	A5	2904	U	C4'-C3'-C2'	-5.87	96.73	102.60
83	A5	3287	C	C1'-O4'-C4'	-5.87	105.20	109.90
83	A5	3923	C	C3'-C2'-C1'	5.87	106.20	101.50
29	AG	142	ARG	NE-CZ-NH2	-5.87	117.36	120.30
83	A5	665	U	C1'-O4'-C4'	-5.87	105.20	109.90
83	A5	2149	G	P-O3'-C3'	5.87	126.75	119.70
83	A5	2276	C	O4'-C1'-N1	5.87	112.90	108.20
85	A7	4	A	O4'-C1'-C2'	5.87	112.88	107.60
36	B2	974	A	N9-C1'-C2'	5.87	121.63	114.00
83	A5	2715	C	N1-C1'-C2'	5.87	121.63	114.00
85	A7	34	C	C1'-O4'-C4'	-5.87	105.20	109.90
10	AN	58	HIS	CA-C-N	5.87	127.94	116.20
27	AE	82	TYR	CB-CG-CD2	-5.87	117.48	121.00
36	B2	1956	U	C3'-C2'-C1'	5.87	106.19	101.50
69	Cg	20	ARG	NE-CZ-NH1	5.87	123.23	120.30
83	A5	273	G	O4'-C1'-C2'	-5.87	99.93	105.80
83	A5	1632	A	O4'-C1'-C2'	-5.87	99.93	105.80
83	A5	1981	A	O4'-C1'-C2'	-5.87	99.93	105.80
83	A5	2534	G	O4'-C1'-N9	5.87	112.89	108.20
83	A5	2559	C	O4'-C1'-N1	5.87	112.89	108.20
83	A5	3216	C	C3'-C2'-C1'	5.87	106.19	101.50
26	AJ	13	THR	O-C-N	-5.87	113.31	122.70
36	B2	400	U	O4'-C1'-N1	5.87	112.89	108.20
83	A5	911	A	O4'-C4'-C3'	-5.87	98.13	104.00
83	A5	2121	U	P-O5'-C5'	5.87	130.29	120.90
36	B2	1154	U	O4'-C1'-N1	5.87	112.89	108.20
36	B2	1334	U	O4'-C1'-N1	5.87	112.89	108.20
51	CA	212	GLY	C-N-CA	-5.87	109.98	122.30
83	A5	1229	U	C4'-C3'-C2'	5.87	108.47	102.60
81	CE	97	PRO	C-N-CA	5.86	134.61	122.30
83	A5	2546	G	O4'-C1'-N9	5.86	112.89	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3362	G	C1'-O4'-C4'	-5.86	105.21	109.90
42	CL	71	ALA	C-N-CA	5.86	134.61	122.30
83	A5	3249	C	C1'-O4'-C4'	-5.86	105.21	109.90
36	B2	220	A	O4'-C1'-C2'	-5.86	99.94	105.80
36	B2	1282	A	O4'-C1'-N9	5.86	112.89	108.20
36	B2	1728	G	P-O5'-C5'	-5.86	111.52	120.90
37	BC	13	C	C3'-C2'-C1'	5.86	106.19	101.50
83	A5	1029	C	O4'-C1'-N1	5.86	112.89	108.20
83	A5	3692	G	C4'-C3'-C2'	-5.86	96.74	102.60
36	B2	1441	C	O4'-C1'-N1	5.86	112.89	108.20
83	A5	3117	A	P-O3'-C3'	5.86	126.73	119.70
20	Aa	29	CYS	N-CA-CB	5.86	121.14	110.60
36	B2	279	G	O4'-C1'-N9	5.86	112.89	108.20
36	B2	552	A	N9-C1'-C2'	5.86	121.62	114.00
45	Ca	47	ASP	O-C-N	-5.86	113.33	122.70
83	A5	971	C	O4'-C1'-N1	5.86	112.89	108.20
83	A5	1734	G	P-O5'-C5'	-5.86	111.53	120.90
2	Ag	278	PRO	C-N-CA	5.86	136.34	121.70
83	A5	1301	A	O4'-C1'-N9	5.86	112.88	108.20
83	A5	1876	G	C1'-O4'-C4'	-5.86	105.22	109.90
83	A5	3421	C	O4'-C1'-N1	5.86	112.88	108.20
62	Cb	19	ASN	C-N-CA	5.85	134.59	122.30
83	A5	3577	U	O4'-C1'-N1	5.85	112.88	108.20
36	B2	944	G	C8-N9-C1'	-5.85	119.39	127.00
45	Ca	129	TYR	CB-CG-CD2	5.85	124.51	121.00
61	Ch	89	ARG	NE-CZ-NH2	-5.85	117.37	120.30
68	Cf	46	ARG	N-CA-C	5.85	126.80	111.00
83	A5	3160	A	N9-C1'-C2'	5.85	121.61	114.00
36	B2	1	A	O4'-C1'-C2'	-5.85	99.95	105.80
36	B2	187	A	O3'-P-O5'	5.85	115.12	104.00
36	B2	529	C	C3'-C2'-C1'	5.85	106.18	101.50
83	A5	290	G	O4'-C1'-C2'	5.85	112.86	107.60
83	A5	660	A	N9-C1'-C2'	-5.85	105.56	112.00
83	A5	894	U	O4'-C1'-N1	5.85	112.88	108.20
83	A5	2177	G	O4'-C1'-N9	5.85	112.88	108.20
83	A5	2503	G	P-O3'-C3'	-5.85	112.68	119.70
83	A5	3744	U	N1-C1'-C2'	-5.85	105.57	112.00
83	A5	3882	C	P-O3'-C3'	-5.85	112.68	119.70
84	A9	24	G	C1'-O4'-C4'	5.85	114.58	109.90
83	A5	1606	G	C3'-C2'-C1'	5.85	106.18	101.50
36	B2	1247	C	O4'-C1'-C2'	-5.85	99.95	105.80
83	A5	1696	A	N9-C1'-C2'	-5.85	105.57	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2814	U	C1'-O4'-C4'	5.85	114.58	109.90
6	AX	87	ARG	N-CA-CB	5.84	121.12	110.60
44	CM	113	ARG	NE-CZ-NH2	-5.84	117.38	120.30
83	A5	172	C	C3'-C2'-C1'	5.84	106.18	101.50
83	A5	1900	U	O4'-C1'-C2'	-5.84	99.95	105.80
36	B2	459	U	O4'-C1'-C2'	-5.84	99.96	105.80
83	A5	3720	A	C4'-C3'-C2'	-5.84	96.76	102.60
20	Aa	102	PHE	N-CA-CB	5.84	121.11	110.60
36	B2	396	A	C3'-C2'-C1'	5.84	106.17	101.50
36	B2	712	U	C5'-C4'-O4'	5.84	116.11	109.10
36	B2	1138	U	O4'-C4'-C3'	-5.84	98.16	104.00
36	B2	1390	U	N1-C1'-C2'	5.84	121.59	114.00
43	CV	22	VAL	C-N-CA	5.84	134.57	122.30
83	A5	756	C	C3'-C2'-C1'	5.84	106.17	101.50
83	A5	1023	C	N1-C1'-C2'	5.84	121.59	114.00
83	A5	2923	A	C3'-C2'-C1'	5.84	106.17	101.50
83	A5	3183	G	C3'-C2'-C1'	-5.84	96.83	101.50
85	A7	68	G	N9-C1'-C2'	5.84	121.59	114.00
15	AB	21	VAL	C-N-CA	5.84	136.30	121.70
36	B2	188	C	N1-C1'-C2'	5.84	121.59	114.00
36	B2	1692	C	O4'-C1'-N1	5.84	112.87	108.20
36	B2	1701	C	C1'-O4'-C4'	-5.84	105.23	109.90
83	A5	687	U	P-O3'-C3'	5.84	126.71	119.70
83	A5	1095	G	C1'-O4'-C4'	-5.84	105.23	109.90
83	A5	2735	A	O4'-C1'-C2'	-5.84	99.96	105.80
83	A5	2788	U	C3'-C2'-C1'	5.84	106.17	101.50
26	AJ	160	PHE	CB-CG-CD1	5.84	124.89	120.80
63	CB	292	HIS	N-CA-CB	5.84	121.11	110.60
14	AT	97	ASP	C-N-CA	5.84	134.56	122.30
42	CL	126	PHE	N-CA-CB	5.84	121.11	110.60
83	A5	2126	A	O4'-C1'-C2'	-5.84	99.96	105.80
83	A5	2624	G	O4'-C1'-N9	5.84	112.87	108.20
83	A5	3664	A	C5'-C4'-C3'	-5.84	106.66	116.00
60	Cr	123	ARG	NE-CZ-NH1	5.83	123.22	120.30
63	CB	285	TYR	CB-CG-CD1	5.83	124.50	121.00
83	A5	2013	C	C3'-C2'-C1'	5.83	106.17	101.50
83	A5	3654	C	C1'-O4'-C4'	-5.83	105.23	109.90
85	A7	25	A	P-O5'-C5'	-5.83	111.56	120.90
83	A5	544	U	O4'-C1'-N1	5.83	112.87	108.20
83	A5	1526	G	O4'-C1'-C2'	5.83	112.85	107.60
83	A5	2658	A	C3'-C2'-C1'	5.83	106.17	101.50
83	A5	2818	G	O4'-C4'-C3'	-5.83	98.17	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	A8	110	C	O3'-P-O5'	-5.83	92.92	104.00
1	Az	835	PRO	CA-C-N	5.83	130.03	117.20
12	AR	47	ARG	NE-CZ-NH2	-5.83	117.38	120.30
53	CT	7	TYR	CB-CG-CD2	-5.83	117.50	121.00
54	CP	26	PHE	CB-CA-C	-5.83	98.74	110.40
83	A5	3779	U	P-O5'-C5'	5.83	130.23	120.90
36	B2	338	C	O4'-C1'-N1	5.83	112.86	108.20
36	B2	1108	C	C1'-O4'-C4'	-5.83	105.24	109.90
36	B2	1969	G	C1'-O4'-C4'	-5.83	105.24	109.90
85	A7	10	C	O4'-C1'-N1	5.83	112.86	108.20
36	B2	327	G	P-O3'-C3'	5.83	126.69	119.70
36	B2	969	U	N1-C1'-C2'	5.83	121.58	114.00
67	Ce	128	LEU	C-N-CA	5.83	136.27	121.70
78	Co	48	PHE	N-CA-CB	5.83	121.09	110.60
83	A5	2467	A	O4'-C1'-N9	5.83	112.86	108.20
83	A5	3570	C	C3'-C2'-C1'	5.83	106.16	101.50
83	A5	3791	A	O3'-P-O5'	5.83	115.07	104.00
36	B2	458	C	C1'-O4'-C4'	-5.83	105.24	109.90
36	B2	1953	U	C1'-O4'-C4'	-5.83	105.24	109.90
37	BC	34	A	C1'-O4'-C4'	5.83	114.56	109.90
61	Ch	38	GLY	C-N-CA	5.83	134.53	122.30
83	A5	523	C	O4'-C1'-C2'	-5.83	99.97	105.80
83	A5	1364	A	O4'-C1'-C2'	-5.83	99.97	105.80
83	A5	1886	C	C1'-O4'-C4'	-5.83	105.24	109.90
85	A7	107	C	P-O3'-C3'	5.83	126.69	119.70
36	B2	1875	G	C4'-C3'-C2'	-5.82	96.78	102.60
69	Cg	15	THR	CA-CB-CG2	-5.82	104.25	112.40
2	Ag	53	TYR	CB-CG-CD1	5.82	124.49	121.00
36	B2	189	C	O4'-C1'-C2'	-5.82	99.98	105.80
36	B2	326	U	P-O5'-C5'	-5.82	111.59	120.90
36	B2	998	U	C5'-C4'-O4'	-5.82	102.11	109.10
36	B2	1199	G	O4'-C1'-N9	5.82	112.86	108.20
36	B2	1797	G	O4'-C1'-N9	5.82	112.86	108.20
83	A5	228	C	O3'-P-O5'	5.82	115.06	104.00
83	A5	854	U	O4'-C1'-N1	5.82	112.86	108.20
36	B2	1642	C	O4'-C1'-C2'	-5.82	99.98	105.80
36	B2	1685	U	C3'-C2'-C1'	5.82	106.15	101.50
65	Cc	57	LYS	CB-CA-C	-5.82	98.77	110.40
81	CE	40	LYS	C-N-CA	5.82	136.25	121.70
83	A5	1048	A	O4'-C1'-N9	5.82	112.85	108.20
83	A5	1534	G	N9-C1'-C2'	5.82	121.56	114.00
83	A5	1793	C	C4'-C3'-C2'	5.82	108.42	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3381	C	C3'-C2'-C1'	5.82	106.15	101.50
84	A9	24	G	O4'-C1'-C2'	-5.82	99.98	105.80
31	AH	98	ILE	N-CA-C	5.82	126.70	111.00
36	B2	615	G	C1'-O4'-C4'	-5.82	105.25	109.90
83	A5	380	G	C3'-C2'-C1'	-5.82	96.85	101.50
83	A5	1333	C	O4'-C1'-N1	5.82	112.85	108.20
83	A5	2010	U	C3'-C2'-C1'	5.82	106.15	101.50
83	A5	2923	A	N9-C1'-C2'	-5.82	105.60	112.00
85	A7	70	G	O4'-C1'-N9	5.82	112.85	108.20
83	A5	1292	G	C5'-C4'-C3'	5.81	125.30	116.00
1	Az	605	ASN	C-N-CA	5.81	134.51	122.30
36	B2	246	U	P-O3'-C3'	5.81	126.68	119.70
36	B2	849	U	N1-C1'-C2'	5.81	121.56	114.00
36	B2	1692	C	N1-C1'-C2'	5.81	121.56	114.00
83	A5	543	A	O4'-C1'-N9	5.81	112.85	108.20
83	A5	1719	G	O4'-C1'-C2'	5.81	112.83	107.60
85	A7	31	G	O4'-C1'-N9	5.81	112.85	108.20
83	A5	536	U	O4'-C1'-C2'	-5.81	99.99	105.80
83	A5	911	A	P-O3'-C3'	-5.81	112.73	119.70
83	A5	1760	A	P-O3'-C3'	5.81	126.67	119.70
29	AG	156	PHE	CB-CG-CD1	5.81	124.87	120.80
36	B2	1851	A	O4'-C1'-C2'	-5.81	99.99	105.80
60	Cr	73	TYR	CB-CG-CD1	-5.81	117.51	121.00
83	A5	2584	G	N9-C1'-C2'	5.81	121.55	114.00
5	AO	25	GLU	N-CA-CB	5.81	121.05	110.60
36	B2	220	A	O4'-C1'-N9	5.81	112.85	108.20
36	B2	520	A	O4'-C1'-C2'	-5.81	99.99	105.80
83	A5	3406	G	N9-C1'-C2'	-5.81	105.61	112.00
34	AQ	15	PHE	CB-CG-CD2	-5.81	116.74	120.80
36	B2	977	A	O4'-C1'-N9	5.81	112.84	108.20
83	A5	3117	A	P-O5'-C5'	-5.81	111.61	120.90
36	B2	1123	G	O4'-C1'-C2'	5.80	112.82	107.60
36	B2	1993	U	N1-C1'-C2'	-5.80	105.61	112.00
83	A5	15	A	N9-C1'-C2'	5.80	121.55	114.00
83	A5	748	A	P-O3'-C3'	5.80	126.67	119.70
83	A5	1765	U	O4'-C1'-N1	5.80	112.84	108.20
83	A5	2227	U	O4'-C1'-N1	5.80	112.84	108.20
83	A5	2524	A	C1'-O4'-C4'	5.80	114.54	109.90
83	A5	3293	G	O4'-C1'-C2'	-5.80	100.00	105.80
36	B2	206	U	N1-C1'-C2'	5.80	121.54	114.00
36	B2	474	C	C1'-O4'-C4'	-5.80	105.26	109.90
36	B2	1679	U	C1'-O4'-C4'	5.80	114.54	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1762	A	N9-C1'-C2'	5.80	121.54	114.00
52	CS	87	ARG	NE-CZ-NH2	-5.80	117.40	120.30
83	A5	3970	A	N9-C1'-C2'	-5.80	105.62	112.00
36	B2	440	U	C3'-C2'-C1'	5.80	106.14	101.50
36	B2	1700	U	O4'-C1'-N1	5.80	112.84	108.20
42	CL	126	PHE	C-N-CD	-5.80	107.84	120.60
46	CN	68	ARG	N-CA-CB	5.80	121.04	110.60
54	CP	174	LYS	CB-CA-C	-5.80	98.80	110.40
83	A5	1269	U	O4'-C1'-C2'	-5.80	100.00	105.80
83	A5	1543	C	N1-C1'-C2'	5.80	121.54	114.00
83	A5	3420	U	O4'-C1'-C2'	-5.80	100.00	105.80
1	Az	256	PHE	N-CA-C	5.80	126.66	111.00
83	A5	724	U	C5'-C4'-O4'	5.80	116.06	109.10
83	A5	2172	C	N1-C1'-C2'	5.80	121.54	114.00
86	A8	22	C	P-O5'-C5'	5.80	130.18	120.90
36	B2	377	G	O4'-C1'-C2'	-5.80	100.00	105.80
65	Cc	88	TYR	CB-CG-CD2	5.80	124.48	121.00
70	Ci	112	THR	CA-CB-CG2	-5.80	104.28	112.40
83	A5	528	U	O4'-C1'-N1	5.80	112.84	108.20
83	A5	1074	U	P-O3'-C3'	-5.80	112.75	119.70
83	A5	1107	G	O4'-C1'-N9	5.80	112.84	108.20
36	B2	1599	U	N1-C1'-C2'	5.79	121.53	114.00
36	B2	198	C	P-O3'-C3'	5.79	126.65	119.70
52	CS	118	ARG	NE-CZ-NH2	-5.79	117.40	120.30
83	A5	50	U	C1'-O4'-C4'	-5.79	105.27	109.90
83	A5	280	C	P-O3'-C3'	5.79	126.65	119.70
83	A5	1864	U	O4'-C1'-C2'	-5.79	100.01	105.80
36	B2	143	U	C5'-C4'-O4'	5.79	116.05	109.10
68	Cf	111	LYS	C-N-CA	5.79	136.18	121.70
83	A5	6	U	C3'-C2'-C1'	5.79	106.13	101.50
83	A5	1923	A	C5'-C4'-C3'	-5.79	106.73	116.00
36	B2	175	A	C3'-C2'-C1'	5.79	106.13	101.50
36	B2	1380	U	C1'-O4'-C4'	5.79	114.53	109.90
83	A5	49	A	C3'-C2'-C1'	5.79	106.13	101.50
83	A5	506	A	C1'-O4'-C4'	-5.79	105.27	109.90
83	A5	1148	C	C1'-O4'-C4'	-5.79	105.27	109.90
83	A5	3968	C	O3'-P-O5'	-5.79	93.00	104.00
36	B2	1800	U	O4'-C1'-N1	5.79	112.83	108.20
74	CC	225	ARG	NE-CZ-NH2	-5.79	117.41	120.30
83	A5	739	U	O4'-C1'-N1	5.79	112.83	108.20
36	B2	522	G	C1'-O4'-C4'	5.79	114.53	109.90
36	B2	1788	C	N1-C1'-C2'	-5.79	105.64	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	496	U	C1'-O4'-C4'	-5.79	105.27	109.90
83	A5	1266	A	C3'-C2'-C1'	5.79	106.13	101.50
83	A5	3211	A	C3'-C2'-C1'	-5.79	96.87	101.50
36	B2	124	U	C1'-O4'-C4'	5.78	114.53	109.90
36	B2	1748	A	P-O3'-C3'	5.78	126.64	119.70
60	Cr	76	ARG	NE-CZ-NH2	5.78	123.19	120.30
83	A5	904	U	O3'-P-O5'	5.78	114.99	104.00
83	A5	2140	C	O4'-C1'-C2'	-5.78	100.02	105.80
83	A5	2219	U	O4'-C1'-C2'	-5.78	100.02	105.80
83	A5	2496	A	N9-C1'-C2'	5.78	121.52	114.00
83	A5	2665	C	C5'-C4'-O4'	5.78	116.04	109.10
83	A5	2882	A	C1'-O4'-C4'	-5.78	105.27	109.90
83	A5	3575	G	O4'-C1'-C2'	5.78	112.81	107.60
83	A5	3958	C	O3'-P-O5'	-5.78	93.01	104.00
6	AX	129	SER	N-CA-CB	5.78	119.17	110.50
33	AI	123	ARG	NE-CZ-NH2	-5.78	117.41	120.30
36	B2	1886	G	C4'-C3'-C2'	-5.78	96.82	102.60
36	B2	1985	A	C1'-O4'-C4'	-5.78	105.27	109.90
83	A5	2229	A	O4'-C1'-N9	5.78	112.83	108.20
85	A7	2	C	N1-C1'-C2'	5.78	121.52	114.00
85	A7	59	G	O4'-C1'-N9	5.78	112.83	108.20
33	AI	25	ARG	NE-CZ-NH2	-5.78	117.41	120.30
36	B2	1886	G	P-O3'-C3'	5.78	126.64	119.70
52	CS	10	TYR	CG-CD2-CE2	-5.78	116.67	121.30
83	A5	1780	U	O4'-C1'-N1	5.78	112.83	108.20
83	A5	3878	U	P-O5'-C5'	-5.78	111.65	120.90
36	B2	246	U	O4'-C1'-N1	5.78	112.82	108.20
83	A5	2888	A	C5'-C4'-O4'	5.78	116.03	109.10
83	A5	3345	A	O4'-C1'-N9	5.78	112.82	108.20
36	B2	114	G	O4'-C1'-N9	5.78	112.82	108.20
36	B2	906	C	N1-C1'-C2'	5.78	121.51	114.00
36	B2	1170	G	P-O3'-C3'	-5.78	112.77	119.70
36	B2	1222	C	C3'-C2'-C1'	5.78	106.12	101.50
83	A5	751	A	O4'-C1'-C2'	5.78	112.80	107.60
83	A5	2612	G	O4'-C1'-C2'	5.78	112.80	107.60
83	A5	2809	C	O4'-C1'-C2'	-5.78	100.02	105.80
83	A5	3458	A	C3'-C2'-C1'	-5.78	96.88	101.50
83	A5	3934	C	P-O3'-C3'	-5.78	112.77	119.70
2	Ag	114	PHE	CB-CG-CD1	5.78	124.84	120.80
36	B2	1547	U	P-O5'-C5'	5.78	130.14	120.90
36	B2	1563	C	O4'-C1'-N1	5.78	112.82	108.20
36	B2	1817	C	N1-C1'-C2'	5.78	121.51	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	CT	128	LEU	N-CA-C	5.78	126.59	111.00
83	A5	531	C	O4'-C1'-N1	5.78	112.82	108.20
83	A5	1316	U	P-O3'-C3'	5.78	126.63	119.70
83	A5	2120	G	O4'-C1'-N9	5.78	112.82	108.20
83	A5	2217	A	P-O3'-C3'	5.78	126.63	119.70
83	A5	3721	C	P-O3'-C3'	5.78	126.63	119.70
83	A5	103	A	C5'-C4'-O4'	5.77	116.03	109.10
20	Aa	10	ARG	NE-CZ-NH1	5.77	123.19	120.30
26	AJ	134	ARG	NE-CZ-NH1	-5.77	117.41	120.30
27	AE	148	ARG	NE-CZ-NH2	5.77	123.19	120.30
36	B2	1620	G	N9-C1'-C2'	5.77	121.50	114.00
43	CV	73	ARG	NE-CZ-NH1	5.77	123.19	120.30
83	A5	1394	U	N1-C1'-C2'	-5.77	105.65	112.00
83	A5	3569	C	C1'-O4'-C4'	-5.77	105.28	109.90
83	A5	587	U	N1-C1'-C2'	5.77	121.50	114.00
83	A5	1066	A	O3'-P-O5'	5.77	114.96	104.00
83	A5	1174	G	N9-C1'-C2'	5.77	121.50	114.00
83	A5	1311	U	C1'-O4'-C4'	5.77	114.52	109.90
83	A5	3619	U	O4'-C1'-C2'	-5.77	100.03	105.80
83	A5	3933	G	O4'-C1'-C2'	5.77	112.79	107.60
27	AE	76	VAL	CA-CB-CG1	5.77	119.55	110.90
36	B2	568	U	C3'-C2'-C1'	-5.77	96.89	101.50
36	B2	1593	U	O4'-C1'-N1	5.77	112.81	108.20
36	B2	1905	U	C4'-C3'-C2'	-5.77	96.83	102.60
39	Cq	14	PHE	CB-CG-CD1	5.77	124.84	120.80
83	A5	3017	U	C1'-O4'-C4'	-5.77	105.29	109.90
36	B2	1776	G	O4'-C1'-C2'	-5.77	100.03	105.80
83	A5	1765	U	C3'-C2'-C1'	5.77	106.11	101.50
83	A5	2254	U	O4'-C1'-N1	5.77	112.81	108.20
83	A5	2597	A	O4'-C1'-N9	5.77	112.81	108.20
18	AY	36	VAL	N-CA-CB	5.76	124.18	111.50
23	AD	115	LEU	N-CA-C	5.76	126.56	111.00
36	B2	317	A	O4'-C1'-N9	5.76	112.81	108.20
83	A5	531	C	N1-C1'-C2'	5.76	121.49	114.00
83	A5	1480	U	C1'-O4'-C4'	5.76	114.51	109.90
83	A5	3154	C	O4'-C1'-N1	5.76	112.81	108.20
36	B2	1717	A	C1'-O4'-C4'	5.76	114.51	109.90
60	Cr	94	LEU	CB-CA-C	-5.76	99.25	110.20
83	A5	1183	U	P-O5'-C5'	5.76	130.12	120.90
83	A5	2622	A	C1'-O4'-C4'	-5.76	105.29	109.90
83	A5	2782	A	O4'-C1'-C2'	5.76	112.79	107.60
83	A5	3397	U	C4'-C3'-C2'	-5.76	96.84	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	336	A	O4'-C1'-N9	5.76	112.81	108.20
36	B2	463	G	O4'-C1'-C2'	5.76	112.78	107.60
36	B2	509	C	O4'-C1'-C2'	-5.76	100.04	105.80
36	B2	1133	G	O4'-C1'-N9	5.76	112.81	108.20
36	B2	1919	U	O4'-C1'-N1	5.76	112.81	108.20
83	A5	986	A	O4'-C1'-N9	-5.76	103.59	108.20
83	A5	1510	G	P-O3'-C3'	5.76	126.61	119.70
83	A5	2205	G	N9-C1'-C2'	5.76	121.49	114.00
85	A7	115	U	C1'-O4'-C4'	5.76	114.51	109.90
86	A8	47	A	O4'-C1'-C2'	-5.76	100.04	105.80
36	B2	290	A	P-O3'-C3'	5.76	126.61	119.70
51	CA	69	TYR	CB-CG-CD1	-5.76	117.55	121.00
83	A5	267	C	C4'-C3'-C2'	-5.76	96.84	102.60
83	A5	3562	A	C3'-C2'-C1'	5.76	106.11	101.50
29	AG	85	ARG	NE-CZ-NH1	5.76	123.18	120.30
36	B2	711	G	O4'-C1'-N9	5.76	112.81	108.20
36	B2	1162	U	C1'-O4'-C4'	5.76	114.50	109.90
83	A5	2586	A	P-O5'-C5'	-5.76	111.69	120.90
83	A5	3517	U	N1-C1'-C2'	5.76	121.48	114.00
83	A5	3613	G	O4'-C1'-N9	5.76	112.81	108.20
83	A5	3790	A	C1'-O4'-C4'	5.76	114.50	109.90
84	A9	2	G	O4'-C1'-C2'	5.76	112.78	107.60
85	A7	80	U	N1-C1'-C2'	5.76	121.48	114.00
36	B2	963	G	C3'-C2'-C1'	-5.75	96.90	101.50
45	Ca	65	ARG	NE-CZ-NH1	5.75	123.18	120.30
83	A5	681	G	C5'-C4'-O4'	5.75	116.01	109.10
83	A5	1388	C	O4'-C1'-N1	5.75	112.80	108.20
83	A5	3827	G	C3'-C2'-C1'	5.75	106.10	101.50
6	AX	5	ARG	NE-CZ-NH1	5.75	123.18	120.30
36	B2	1851	A	C1'-O4'-C4'	5.75	114.50	109.90
83	A5	615	C	O4'-C1'-C2'	-5.75	100.05	105.80
83	A5	733	A	O4'-C1'-N9	5.75	112.80	108.20
83	A5	1099	U	C5'-C4'-O4'	5.75	116.00	109.10
85	A7	20	U	C1'-O4'-C4'	-5.75	105.30	109.90
23	AD	152	MET	CG-SD-CE	-5.75	91.00	100.20
32	AW	41	MET	CG-SD-CE	-5.75	91.00	100.20
36	B2	114	G	N9-C1'-C2'	-5.75	105.67	112.00
36	B2	592	C	N1-C1'-C2'	5.75	121.48	114.00
83	A5	784	G	C4'-C3'-C2'	-5.75	96.85	102.60
83	A5	1543	C	C3'-C2'-C1'	5.75	106.10	101.50
83	A5	1772	G	O4'-C1'-C2'	5.75	112.78	107.60
83	A5	2035	C	O4'-C1'-N1	5.75	112.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2148	C	O4'-C1'-N1	5.75	112.80	108.20
83	A5	3364	C	C3'-C2'-C1'	5.75	106.10	101.50
83	A5	1792	G	C3'-C2'-C1'	5.75	106.10	101.50
36	B2	924	U	O4'-C1'-C2'	-5.75	100.05	105.80
58	CW	33	ASP	N-CA-CB	5.75	120.95	110.60
60	Cr	45	SER	N-CA-CB	5.75	119.12	110.50
83	A5	1158	C	C3'-C2'-C1'	5.75	106.10	101.50
83	A5	3817	U	P-O3'-C3'	5.75	126.60	119.70
83	A5	3877	G	O4'-C1'-C2'	-5.75	100.05	105.80
1	Az	687	ARG	NE-CZ-NH1	-5.75	117.43	120.30
36	B2	1621	G	O4'-C1'-N9	5.75	112.80	108.20
36	B2	1830	G	O4'-C1'-C2'	-5.75	100.05	105.80
71	Cj	73	ARG	NE-CZ-NH2	-5.75	117.43	120.30
81	CE	225	TYR	N-CA-CB	-5.75	100.25	110.60
83	A5	1181	A	C1'-O4'-C4'	-5.75	105.30	109.90
83	A5	1679	U	O4'-C1'-N1	5.75	112.80	108.20
83	A5	1725	A	C3'-C2'-C1'	-5.75	96.90	101.50
83	A5	2566	A	O3'-P-O5'	5.75	114.92	104.00
83	A5	2991	A	P-O3'-C3'	-5.75	112.81	119.70
83	A5	3224	G	C1'-O4'-C4'	-5.75	105.30	109.90
36	B2	286	A	O4'-C1'-N9	5.75	112.80	108.20
36	B2	422	A	O4'-C1'-N9	5.75	112.80	108.20
83	A5	3490	C	O4'-C1'-N1	5.75	112.80	108.20
83	A5	3848	U	P-O3'-C3'	5.75	126.59	119.70
83	A5	855	A	P-O3'-C3'	5.74	126.59	119.70
83	A5	871	A	C1'-O4'-C4'	5.74	114.50	109.90
83	A5	1404	A	C3'-C2'-C1'	5.74	106.09	101.50
83	A5	1720	A	C4'-C3'-O3'	5.74	124.49	113.00
36	B2	1647	G	O4'-C1'-N9	5.74	112.79	108.20
55	CU	284	ARG	NE-CZ-NH2	-5.74	117.43	120.30
83	A5	211	U	C5'-C4'-C3'	5.74	125.19	116.00
83	A5	2673	A	C1'-O4'-C4'	-5.74	105.31	109.90
85	A7	98	G	C1'-O4'-C4'	-5.74	105.31	109.90
28	AC	149	ARG	NE-CZ-NH2	-5.74	117.43	120.30
36	B2	1097	C	O4'-C1'-N1	5.74	112.79	108.20
36	B2	1191	C	O4'-C1'-C2'	-5.74	100.06	105.80
36	B2	1706	U	N1-C1'-C2'	5.74	121.46	114.00
36	B2	1814	G	O4'-C1'-N9	5.74	112.79	108.20
83	A5	117	C	C5'-C4'-C3'	-5.74	106.81	116.00
83	A5	832	U	C3'-C2'-C1'	5.74	106.09	101.50
83	A5	1569	U	C1'-O4'-C4'	5.74	114.49	109.90
83	A5	2106	C	C3'-C2'-C1'	5.74	106.09	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3789	U	O4'-C1'-N1	5.74	112.79	108.20
1	Az	620	TYR	CB-CG-CD2	-5.74	117.56	121.00
9	Ad	19	ARG	NE-CZ-NH2	-5.74	117.43	120.30
42	CL	132	LYS	CB-CA-C	-5.74	98.92	110.40
48	CD	259	LYS	C-N-CA	5.74	136.04	121.70
83	A5	102	G	C3'-C2'-C1'	5.74	106.09	101.50
1	Az	91	HIS	N-CA-CB	5.74	120.93	110.60
36	B2	1407	U	O4'-C1'-N1	5.74	112.79	108.20
2	Ag	53	TYR	CB-CG-CD2	-5.74	117.56	121.00
83	A5	1733	A	N9-C1'-C2'	-5.74	105.69	112.00
83	A5	2998	U	OP2-P-O3'	5.74	117.82	105.20
36	B2	599	A	C3'-C2'-C1'	5.73	106.09	101.50
51	CA	242	ARG	NE-CZ-NH1	5.73	123.17	120.30
83	A5	210	C	N1-C1'-C2'	5.73	121.45	114.00
36	B2	489	C	N1-C1'-C2'	5.73	121.45	114.00
36	B2	1560	G	O4'-C1'-N9	5.73	112.79	108.20
36	B2	1764	U	C1'-O4'-C4'	-5.73	105.31	109.90
49	CQ	97	LYS	N-CA-C	5.73	126.48	111.00
83	A5	699	U	P-O3'-C3'	-5.73	112.82	119.70
83	A5	829	U	O4'-C1'-C2'	-5.73	100.07	105.80
83	A5	2022	C	C3'-C2'-C1'	5.73	106.09	101.50
85	A7	81	A	O4'-C1'-N9	5.73	112.79	108.20
36	B2	307	U	O4'-C1'-N1	5.73	112.78	108.20
83	A5	14	C	O4'-C1'-N1	5.73	112.78	108.20
83	A5	1264	U	O4'-C1'-N1	5.73	112.78	108.20
83	A5	2129	C	P-O5'-C5'	5.73	130.07	120.90
83	A5	2201	U	C5'-C4'-O4'	5.73	115.98	109.10
83	A5	3106	G	N9-C1'-C2'	-5.73	105.70	112.00
42	CL	55	ARG	NE-CZ-NH2	-5.73	117.44	120.30
45	Ca	109	TYR	CB-CG-CD2	-5.73	117.56	121.00
83	A5	1075	G	P-O3'-C3'	-5.73	112.83	119.70
83	A5	1881	C	O4'-C1'-N1	5.73	112.78	108.20
83	A5	991	A	O4'-C4'-C3'	-5.73	98.27	104.00
83	A5	2843	G	P-O3'-C3'	5.73	126.57	119.70
36	B2	331	G	C1'-O4'-C4'	-5.72	105.32	109.90
83	A5	874	G	O4'-C1'-N9	-5.72	103.62	108.20
83	A5	1973	G	O4'-C1'-N9	5.72	112.78	108.20
83	A5	2714	U	O4'-C1'-N1	5.72	112.78	108.20
83	A5	3000	G	P-O3'-C3'	-5.72	112.83	119.70
85	A7	103	A	N9-C1'-C2'	5.72	121.44	114.00
36	B2	1703	G	C3'-C2'-C1'	-5.72	96.92	101.50
83	A5	28	C	O4'-C1'-C2'	-5.72	100.08	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2738	C	O4'-C1'-C2'	-5.72	100.08	105.80
83	A5	3200	G	C1'-O4'-C4'	5.72	114.48	109.90
36	B2	1166	U	O3'-P-O5'	-5.72	93.13	104.00
42	CL	101	ARG	NE-CZ-NH2	-5.72	117.44	120.30
83	A5	2086	U	N1-C1'-C2'	-5.72	105.71	112.00
1	Az	449	ASP	C-N-CA	5.72	136.00	121.70
1	Az	713	ARG	NE-CZ-NH1	5.72	123.16	120.30
36	B2	1052	U	O4'-C1'-C2'	5.72	112.75	107.60
83	A5	236	G	P-O3'-C3'	5.72	126.56	119.70
86	A8	8	A	O4'-C1'-N9	5.72	112.78	108.20
37	BC	46	U	C4'-C3'-O3'	5.72	124.44	113.00
47	CI	173	PHE	CB-CG-CD1	5.72	124.80	120.80
83	A5	3537	U	C1'-O4'-C4'	5.72	114.47	109.90
36	B2	1982	C	C1'-O4'-C4'	5.72	114.47	109.90
37	BC	69	G	C1'-O4'-C4'	-5.72	105.33	109.90
51	CA	227	ARG	NE-CZ-NH2	-5.72	117.44	120.30
73	Cl	38	ASN	C-N-CA	5.72	135.99	121.70
36	B2	194	G	C4'-C3'-C2'	-5.71	96.89	102.60
36	B2	1591	U	C5'-C4'-C3'	-5.71	106.86	116.00
37	BC	31	C	N1-C1'-C2'	5.71	121.43	114.00
67	Ce	124	PRO	CA-C-N	5.71	129.77	117.20
83	A5	40	U	C1'-O4'-C4'	5.71	114.47	109.90
83	A5	941	A	O4'-C1'-C2'	-5.71	100.08	105.80
83	A5	1634	A	C1'-O4'-C4'	-5.71	105.33	109.90
83	A5	1885	U	N1-C1'-C2'	5.71	121.43	114.00
83	A5	2746	A	O4'-C1'-N9	5.71	112.77	108.20
83	A5	3035	A	P-O3'-C3'	5.71	126.56	119.70
36	B2	1148	U	O4'-C1'-N1	5.71	112.77	108.20
83	A5	873	U	P-O3'-C3'	-5.71	112.84	119.70
83	A5	1160	U	C1'-O4'-C4'	-5.71	105.33	109.90
1	Az	794	ALA	N-CA-C	5.71	126.42	111.00
36	B2	197	A	P-O3'-C3'	5.71	126.55	119.70
52	CS	83	ARG	NE-CZ-NH2	-5.71	117.44	120.30
78	Co	25	GLN	C-N-CA	5.71	135.98	121.70
83	A5	1175	C	P-O3'-C3'	5.71	126.56	119.70
83	A5	3590	C	N1-C1'-C2'	5.71	121.42	114.00
12	AR	3	ARG	NE-CZ-NH1	5.71	123.16	120.30
36	B2	855	C	C3'-C2'-C1'	5.71	106.07	101.50
36	B2	1132	U	O4'-C1'-N1	5.71	112.77	108.20
83	A5	622	A	N9-C1'-C2'	-5.71	105.72	112.00
83	A5	809	G	P-O3'-C3'	5.71	126.55	119.70
36	B2	476	A	O4'-C1'-N9	5.71	112.77	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	998	U	C4'-C3'-O3'	5.71	124.41	113.00
36	B2	1944	A	O4'-C1'-C2'	-5.71	100.09	105.80
48	CD	142	PHE	CB-CA-C	-5.71	98.99	110.40
80	CH	174	LEU	C-N-CA	5.71	135.97	121.70
83	A5	221	C	N1-C1'-C2'	5.71	121.42	114.00
83	A5	581	U	O4'-C1'-N1	5.71	112.77	108.20
83	A5	3475	U	O4'-C1'-C2'	-5.71	100.09	105.80
36	B2	203	G	N9-C1'-C2'	5.71	121.42	114.00
36	B2	1650	G	P-O3'-C3'	5.71	126.55	119.70
15	AB	42	ARG	NE-CZ-NH2	-5.70	117.45	120.30
36	B2	573	C	N1-C1'-C2'	5.70	121.42	114.00
83	A5	382	G	O4'-C1'-N9	5.70	112.76	108.20
83	A5	684	A	C1'-O4'-C4'	-5.70	105.34	109.90
83	A5	1311	U	O4'-C1'-N1	5.70	112.76	108.20
83	A5	1567	G	C4'-C3'-C2'	-5.70	96.90	102.60
83	A5	2162	C	C1'-O4'-C4'	5.70	114.46	109.90
83	A5	3206	A	N9-C1'-C2'	5.70	121.42	114.00
83	A5	3297	C	C1'-O4'-C4'	-5.70	105.34	109.90
83	A5	3486	U	C4'-C3'-C2'	-5.70	96.90	102.60
36	B2	395	G	N9-C1'-C2'	-5.70	105.73	112.00
49	CQ	69	PHE	CB-CG-CD2	-5.70	116.81	120.80
56	CX	162	ARG	N-CA-CB	5.70	120.86	110.60
83	A5	1407	C	O4'-C1'-N1	5.70	112.76	108.20
37	BC	65	C	O4'-C1'-N1	5.70	112.76	108.20
46	CN	143	ARG	NE-CZ-NH1	5.70	123.15	120.30
82	CG	41	PRO	CA-C-N	5.70	129.74	117.20
83	A5	568	A	O4'-C1'-C2'	5.70	112.73	107.60
83	A5	591	A	P-O3'-C3'	-5.70	112.86	119.70
83	A5	1251	C	N1-C1'-C2'	5.70	121.41	114.00
83	A5	1631	U	N1-C1'-C2'	-5.70	105.73	112.00
83	A5	2632	U	O4'-C1'-C2'	-5.70	100.10	105.80
79	CJ	30	CYS	N-CA-CB	5.70	120.86	110.60
83	A5	621	A	P-O3'-C3'	-5.70	112.86	119.70
83	A5	2129	C	O4'-C1'-C2'	-5.70	100.10	105.80
83	A5	2813	G	C3'-C2'-C1'	5.70	106.06	101.50
36	B2	237	U	N1-C1'-C2'	5.70	121.41	114.00
74	CC	389	LYS	N-CA-CB	-5.70	100.34	110.60
80	CH	103	THR	N-CA-CB	5.70	121.12	110.30
35	Ah	133	GLY	CA-C-O	-5.70	110.35	120.60
83	A5	920	G	C5'-C4'-O4'	5.70	115.94	109.10
83	A5	3382	G	O4'-C1'-N9	5.70	112.76	108.20
86	A8	30	G	C1'-O4'-C4'	-5.70	105.34	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	CQ	52	PHE	CB-CG-CD2	-5.69	116.81	120.80
64	CF	225	ARG	NE-CZ-NH2	-5.69	117.45	120.30
83	A5	2041	G	O4'-C1'-N9	5.69	112.75	108.20
83	A5	3553	C	C3'-C2'-C1'	5.69	106.06	101.50
36	B2	1522	G	O4'-C1'-N9	5.69	112.75	108.20
47	CI	181	TYR	CA-CB-CG	5.69	124.21	113.40
83	A5	3367	C	O4'-C1'-N1	5.69	112.75	108.20
83	A5	3600	G	C3'-C2'-C1'	-5.69	96.95	101.50
83	A5	3960	U	C1'-O4'-C4'	5.69	114.45	109.90
36	B2	1564	A	O4'-C1'-N9	5.69	112.75	108.20
81	CE	91	THR	CA-CB-CG2	-5.69	104.43	112.40
83	A5	1226	G	C4'-C3'-O3'	5.69	124.38	113.00
36	B2	1633	C	C3'-C2'-C1'	5.69	106.05	101.50
83	A5	436	A	O4'-C1'-C2'	-5.69	100.11	105.80
83	A5	3778	U	O5'-C5'-C4'	5.69	122.51	111.70
6	AX	10	ALA	N-CA-CB	-5.69	102.14	110.10
24	Ae	77	SER	N-CA-CB	5.69	119.03	110.50
36	B2	1099	U	P-O5'-C5'	-5.69	111.80	120.90
36	B2	1192	U	C1'-O4'-C4'	-5.69	105.35	109.90
83	A5	1129	A	O4'-C1'-C2'	5.69	112.72	107.60
83	A5	1690	U	C1'-O4'-C4'	5.69	114.45	109.90
83	A5	2147	C	C3'-C2'-C1'	5.69	106.05	101.50
83	A5	2981	G	O3'-P-O5'	5.69	114.81	104.00
60	Cr	13	ARG	CB-CA-C	-5.68	99.03	110.40
83	A5	426	A	O4'-C1'-N9	-5.68	103.65	108.20
83	A5	2099	C	C3'-C2'-C1'	5.68	106.05	101.50
36	B2	81	U	O4'-C1'-N1	5.68	112.75	108.20
36	B2	138	U	N1-C1'-C2'	5.68	121.39	114.00
36	B2	1045	U	C1'-O4'-C4'	5.68	114.44	109.90
36	B2	1704	G	P-O3'-C3'	-5.68	112.88	119.70
36	B2	1978	C	O4'-C1'-N1	5.68	112.75	108.20
39	Cq	182	PRO	C-N-CA	5.68	135.91	121.70
57	CY	74	TYR	CB-CG-CD1	-5.68	117.59	121.00
83	A5	1606	G	C5'-C4'-O4'	5.68	115.92	109.10
36	B2	1056	C	O4'-C1'-N1	5.68	112.74	108.20
36	B2	1275	U	P-O3'-C3'	5.68	126.52	119.70
36	B2	1677	C	N1-C1'-C2'	5.68	121.38	114.00
36	B2	1940	G	O4'-C1'-C2'	5.68	112.71	107.60
70	Ci	38	ARG	N-CA-C	5.68	126.33	111.00
83	A5	2116	U	O4'-C1'-N1	5.68	112.74	108.20
83	A5	3696	C	P-O5'-C5'	-5.68	111.81	120.90
83	A5	3842	A	C1'-O4'-C4'	5.68	114.44	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AK	2	PHE	N-CA-CB	5.68	120.82	110.60
36	B2	232	C	O4'-C1'-N1	5.68	112.74	108.20
37	BC	29	G	O4'-C1'-N9	5.68	112.74	108.20
79	CJ	161	ARG	NE-CZ-NH2	-5.68	117.46	120.30
86	A8	24	G	C4'-C3'-C2'	-5.68	96.92	102.60
36	B2	431	G	O4'-C1'-N9	5.67	112.74	108.20
36	B2	835	A	C3'-C2'-C1'	5.67	106.04	101.50
36	B2	1168	C	O3'-P-O5'	5.67	114.78	104.00
83	A5	1212	G	C4'-C3'-O3'	-5.67	97.48	109.40
83	A5	3773	G	P-O5'-C5'	5.67	129.98	120.90
8	AS	39	ARG	NE-CZ-NH1	5.67	123.14	120.30
36	B2	43	A	C3'-C2'-C1'	5.67	106.04	101.50
83	A5	424	G	N9-C1'-C2'	-5.67	105.76	112.00
83	A5	1558	A	P-O5'-C5'	5.67	129.98	120.90
83	A5	1609	U	O4'-C1'-C2'	-5.67	100.13	105.80
83	A5	2859	C	C3'-C2'-C1'	5.67	106.04	101.50
36	B2	1345	U	O4'-C1'-N1	5.67	112.74	108.20
46	CN	54	ARG	NE-CZ-NH1	5.67	123.14	120.30
49	CQ	136	THR	CA-CB-CG2	-5.67	104.46	112.40
63	CB	129	ALA	C-N-CA	5.67	135.88	121.70
65	Cc	62	TYR	CB-CG-CD2	-5.67	117.60	121.00
83	A5	1966	A	O4'-C1'-N9	5.67	112.74	108.20
83	A5	2709	U	C1'-O4'-C4'	-5.67	105.36	109.90
83	A5	2764	A	C3'-C2'-C1'	5.67	106.04	101.50
83	A5	3128	U	O4'-C1'-N1	5.67	112.74	108.20
29	AG	132	ARG	NE-CZ-NH2	-5.67	117.47	120.30
36	B2	1254	A	O4'-C1'-N9	5.67	112.73	108.20
48	CD	188	LYS	N-CA-C	5.67	126.31	111.00
63	CB	139	ASP	C-N-CA	5.67	135.87	121.70
83	A5	410	G	N9-C1'-C2'	5.67	121.37	114.00
83	A5	521	U	C1'-O4'-C4'	5.67	114.44	109.90
83	A5	1938	C	N1-C1'-C2'	5.67	121.37	114.00
19	AZ	62	PRO	C-N-CA	5.67	135.87	121.70
36	B2	138	U	P-O3'-C3'	5.67	126.50	119.70
36	B2	1748	A	C5'-C4'-O4'	5.67	115.90	109.10
83	A5	1922	A	C2'-C3'-O3'	5.67	122.77	113.70
83	A5	2501	G	C4'-C3'-C2'	-5.67	96.93	102.60
83	A5	2784	C	O4'-C1'-N1	5.67	112.73	108.20
83	A5	3752	G	N9-C1'-C2'	5.67	121.37	114.00
36	B2	1944	A	N9-C1'-C2'	-5.67	105.77	112.00
80	CH	22	ALA	N-CA-CB	5.67	118.03	110.10
83	A5	2774	G	O4'-C1'-N9	5.67	112.73	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2831	U	O4'-C1'-C2'	-5.67	100.14	105.80
1	Az	231	PHE	CB-CG-CD2	5.66	124.76	120.80
30	AF	146	ARG	NE-CZ-NH1	5.66	123.13	120.30
35	Ah	124	ARG	NE-CZ-NH2	-5.66	117.47	120.30
36	B2	17	C	N1-C1'-C2'	5.66	121.36	114.00
36	B2	451	C	C5'-C4'-O4'	5.66	115.90	109.10
69	Cg	4	ARG	NE-CZ-NH2	-5.66	117.47	120.30
83	A5	67	A	C1'-O4'-C4'	-5.66	105.37	109.90
83	A5	825	C	C3'-C2'-C1'	5.66	106.03	101.50
83	A5	1630	G	O4'-C1'-C2'	5.66	112.70	107.60
83	A5	1999	U	P-O3'-C3'	-5.66	112.90	119.70
83	A5	2543	C	O4'-C1'-C2'	-5.66	100.14	105.80
85	A7	79	U	C3'-C2'-C1'	5.66	106.03	101.50
83	A5	1719	G	O4'-C1'-N9	5.66	112.73	108.20
36	B2	270	G	C3'-C2'-C1'	5.66	106.03	101.50
36	B2	439	G	N9-C1'-C2'	-5.66	105.77	112.00
47	CI	21	ARG	NE-CZ-NH1	5.66	123.13	120.30
83	A5	1930	G	C3'-C2'-C1'	-5.66	96.97	101.50
83	A5	3651	C	C4'-C3'-C2'	-5.66	96.94	102.60
36	B2	360	G	O4'-C1'-N9	5.66	112.73	108.20
66	Cd	23	THR	CA-CB-CG2	-5.66	104.48	112.40
83	A5	917	G	O4'-C1'-N9	5.66	112.73	108.20
83	A5	1145	C	O4'-C1'-N1	5.66	112.73	108.20
83	A5	2531	A	C4'-C3'-C2'	-5.66	96.94	102.60
83	A5	3604	G	C1'-O4'-C4'	-5.66	105.37	109.90
83	A5	3724	U	C1'-O4'-C4'	5.66	114.43	109.90
83	A5	1780	U	O4'-C1'-C2'	-5.66	100.14	105.80
30	AF	46	ARG	NE-CZ-NH1	5.66	123.13	120.30
36	B2	79	A	P-O3'-C3'	5.66	126.48	119.70
36	B2	1746	A	C1'-O4'-C4'	-5.66	105.38	109.90
50	CR	100	ARG	NE-CZ-NH1	5.66	123.13	120.30
64	CF	64	TYR	CB-CG-CD2	-5.66	117.61	121.00
83	A5	815	A	C1'-O4'-C4'	-5.66	105.38	109.90
83	A5	3559	A	P-O5'-C5'	-5.66	111.85	120.90
36	B2	1667	A	C1'-O4'-C4'	-5.65	105.38	109.90
36	B2	1823	A	C5'-C4'-O4'	5.65	115.88	109.10
36	B2	854	G	O4'-C1'-N9	5.65	112.72	108.20
36	B2	1297	C	N1-C1'-C2'	5.65	121.35	114.00
36	B2	1625	G	N9-C1'-C2'	5.65	121.35	114.00
64	CF	81	ARG	NE-CZ-NH2	-5.65	117.47	120.30
83	A5	512	A	C1'-O4'-C4'	5.65	114.42	109.90
83	A5	2095	U	P-O5'-C5'	5.65	129.94	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2509	G	O4'-C1'-N9	5.65	112.72	108.20
83	A5	299	G	O4'-C1'-N9	5.65	112.72	108.20
83	A5	1043	G	C3'-C2'-C1'	-5.65	96.98	101.50
83	A5	1809	A	P-O5'-C5'	5.65	129.94	120.90
83	A5	1990	G	P-O5'-C5'	-5.65	111.86	120.90
83	A5	3664	A	N9-C1'-C2'	5.65	121.34	114.00
86	A8	33	U	O4'-C1'-C2'	5.65	112.68	107.60
23	AD	204	LYS	CA-C-N	5.65	132.91	117.10
36	B2	1167	U	O3'-P-O5'	5.65	114.73	104.00
36	B2	1675	A	C3'-C2'-C1'	5.65	106.02	101.50
36	B2	1777	U	O3'-P-O5'	5.65	114.73	104.00
79	CJ	37	ARG	NE-CZ-NH2	-5.65	117.48	120.30
83	A5	405	A	C1'-O4'-C4'	5.65	114.42	109.90
83	A5	741	C	O4'-C1'-C2'	5.65	112.68	107.60
83	A5	1782	C	N1-C1'-C2'	5.65	121.34	114.00
83	A5	2631	G	O4'-C1'-C2'	5.65	112.68	107.60
83	A5	3411	C	O4'-C1'-C2'	-5.65	100.15	105.80
85	A7	50	A	O4'-C1'-N9	5.65	112.72	108.20
1	Az	799	VAL	CA-C-N	5.65	129.62	117.20
83	A5	1979	A	C1'-O4'-C4'	-5.65	105.38	109.90
83	A5	2001	U	O4'-C1'-N1	5.65	112.72	108.20
83	A5	3667	C	O4'-C1'-N1	5.65	112.72	108.20
85	A7	27	A	C3'-C2'-C1'	5.65	106.02	101.50
36	B2	1496	U	P-O3'-C3'	5.64	126.47	119.70
41	CO	73	PHE	CB-CG-CD2	-5.64	116.85	120.80
55	CU	220	LYS	N-CA-CB	5.64	120.76	110.60
83	A5	643	U	C4'-C3'-C2'	-5.64	96.96	102.60
83	A5	1161	C	O4'-C1'-C2'	-5.64	100.16	105.80
83	A5	1738	U	C3'-C2'-C1'	5.64	106.02	101.50
83	A5	2061	G	O3'-P-O5'	-5.64	93.28	104.00
83	A5	2832	G	O4'-C1'-N9	5.64	112.72	108.20
83	A5	3774	U	N1-C1'-C2'	5.64	121.34	114.00
83	A5	3903	U	O4'-C1'-C2'	-5.64	100.16	105.80
36	B2	23	G	P-O5'-C5'	-5.64	111.87	120.90
36	B2	1277	A	O4'-C1'-N9	5.64	112.71	108.20
45	Ca	48	LYS	N-CA-C	5.64	126.23	111.00
54	CP	26	PHE	CB-CG-CD2	-5.64	116.85	120.80
78	Co	38	ARG	NE-CZ-NH2	-5.64	117.48	120.30
78	Co	56	PHE	CB-CG-CD1	-5.64	116.85	120.80
83	A5	666	A	O4'-C1'-N9	5.64	112.71	108.20
83	A5	1007	A	C1'-O4'-C4'	-5.64	105.39	109.90
83	A5	2645	C	O4'-C1'-N1	5.64	112.71	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	CQ	116	ALA	C-N-CA	5.64	134.15	122.30
83	A5	586	C	N1-C1'-C2'	5.64	121.33	114.00
83	A5	1621	A	O4'-C1'-N9	5.64	112.71	108.20
83	A5	2225	A	O4'-C1'-N9	5.64	112.71	108.20
83	A5	3555	U	P-O5'-C5'	-5.64	111.88	120.90
83	A5	3745	U	O4'-C1'-C2'	-5.64	100.16	105.80
36	B2	972	G	O4'-C1'-N9	5.64	112.71	108.20
83	A5	161	G	O4'-C1'-C2'	-5.64	100.16	105.80
83	A5	1353	G	P-O5'-C5'	-5.64	111.88	120.90
36	B2	1799	A	C1'-O4'-C4'	-5.64	105.39	109.90
13	AP	131	HIS	CA-CB-CG	-5.64	104.02	113.60
83	A5	397	C	C1'-O4'-C4'	-5.64	105.39	109.90
83	A5	856	A	C5'-C4'-C3'	5.64	125.02	116.00
83	A5	937	G	C1'-O4'-C4'	-5.64	105.39	109.90
83	A5	1323	C	C1'-O4'-C4'	5.64	114.41	109.90
86	A8	30	G	C3'-C2'-C1'	-5.64	96.99	101.50
36	B2	76	A	P-O3'-C3'	-5.63	112.94	119.70
36	B2	584	G	O4'-C1'-N9	5.63	112.71	108.20
83	A5	3002	U	O4'-C1'-N1	-5.63	103.69	108.20
35	Ah	124	ARG	NE-CZ-NH1	5.63	123.12	120.30
36	B2	1554	U	N1-C1'-C2'	-5.63	105.80	112.00
36	B2	545	A	C1'-O4'-C4'	-5.63	105.39	109.90
36	B2	905	U	C3'-C2'-C1'	-5.63	96.99	101.50
70	Ci	86	ARG	NE-CZ-NH2	-5.63	117.48	120.30
81	CE	20	HIS	C-N-CD	-5.63	108.21	120.60
81	CE	93	ARG	NE-CZ-NH2	5.63	123.12	120.30
83	A5	707	C	N1-C1'-C2'	5.63	121.32	114.00
83	A5	1149	C	C1'-O4'-C4'	-5.63	105.39	109.90
83	A5	3354	U	P-O5'-C5'	-5.63	111.89	120.90
84	A9	20	U	P-O3'-C3'	5.63	126.46	119.70
36	B2	1598	A	O4'-C1'-N9	5.63	112.70	108.20
83	A5	1053	G	O4'-C1'-N9	5.63	112.70	108.20
83	A5	2553	U	C3'-C2'-C1'	5.63	106.00	101.50
83	A5	2896	U	C1'-O4'-C4'	-5.63	105.40	109.90
29	AG	69	THR	N-CA-C	5.63	126.20	111.00
31	AH	64	ILE	CA-C-N	5.63	132.86	117.10
83	A5	682	U	P-O3'-C3'	5.63	126.45	119.70
83	A5	1350	A	C1'-O4'-C4'	-5.63	105.40	109.90
83	A5	1455	A	C1'-O4'-C4'	5.63	114.40	109.90
83	A5	2052	G	N9-C1'-C2'	5.63	121.32	114.00
83	A5	1922	A	P-O3'-C3'	-5.63	112.95	119.70
83	A5	3725	U	C1'-O4'-C4'	5.63	114.40	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	383	A	O4'-C1'-N9	5.62	112.70	108.20
51	CA	67	TYR	CG-CD2-CE2	-5.62	116.80	121.30
36	B2	118	C	N1-C1'-C2'	5.62	121.31	114.00
36	B2	692	U	P-O5'-C5'	5.62	129.90	120.90
36	B2	863	A	O3'-P-O5'	5.62	114.69	104.00
36	B2	1687	C	N1-C1'-C2'	5.62	121.31	114.00
60	Cr	28	PRO	N-CA-CB	-5.62	96.41	102.60
81	CE	62	ILE	C-N-CA	5.62	135.76	121.70
83	A5	587	U	O4'-C1'-N1	5.62	112.70	108.20
83	A5	1158	C	O4'-C1'-C2'	-5.62	100.18	105.80
83	A5	1907	U	C4'-C3'-C2'	-5.62	96.98	102.60
83	A5	1984	U	N1-C1'-C2'	5.62	121.31	114.00
83	A5	2903	U	O4'-C1'-C2'	-5.62	100.18	105.80
83	A5	3515	C	O4'-C1'-N1	-5.62	103.70	108.20
83	A5	3925	G	C3'-C2'-C1'	5.62	106.00	101.50
84	A9	11	A	C5'-C4'-O4'	5.62	115.85	109.10
1	Az	72	SER	N-CA-C	5.62	126.18	111.00
15	AB	141	PHE	CB-CG-CD2	-5.62	116.86	120.80
83	A5	450	G	C3'-C2'-C1'	-5.62	97.00	101.50
83	A5	533	A	C3'-C2'-C1'	-5.62	97.00	101.50
83	A5	717	A	O4'-C1'-N9	-5.62	103.70	108.20
83	A5	3207	C	O4'-C4'-C3'	-5.62	98.38	104.00
30	AF	103	LYS	N-CA-CB	5.62	120.72	110.60
83	A5	2038	A	C4'-C3'-C2'	-5.62	96.98	102.60
83	A5	2725	U	C3'-C2'-C1'	5.62	106.00	101.50
43	CV	140	ALA	N-CA-CB	5.62	117.97	110.10
83	A5	1934	C	C1'-O4'-C4'	-5.62	105.41	109.90
36	B2	510	U	O4'-C1'-N1	5.62	112.69	108.20
36	B2	987	A	C3'-C2'-C1'	5.62	105.99	101.50
45	Ca	47	ASP	CA-C-N	5.62	129.56	117.20
83	A5	3384	C	N1-C1'-C2'	5.62	121.30	114.00
36	B2	527	C	N1-C1'-C2'	5.62	121.30	114.00
36	B2	1113	A	C3'-C2'-C1'	-5.62	97.01	101.50
36	B2	1126	A	O4'-C1'-N9	5.62	112.69	108.20
36	B2	1915	A	O4'-C1'-N9	5.62	112.69	108.20
80	CH	124	VAL	CA-CB-CG2	-5.62	102.47	110.90
83	A5	524	A	N9-C1'-C2'	-5.62	105.82	112.00
83	A5	1794	G	C3'-C2'-C1'	-5.62	97.01	101.50
83	A5	2822	C	C4'-C3'-C2'	-5.62	96.98	102.60
83	A5	2999	U	P-O3'-C3'	5.62	126.44	119.70
83	A5	3935	G	P-O5'-C5'	5.62	129.88	120.90
36	B2	250	U	O4'-C1'-N1	5.61	112.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1933	U	O4'-C1'-N1	5.61	112.69	108.20
77	Cp	65	ALA	N-CA-CB	5.61	117.96	110.10
83	A5	1156	U	N1-C1'-C2'	5.61	121.30	114.00
83	A5	1310	A	C1'-O4'-C4'	5.61	114.39	109.90
83	A5	1772	G	C1'-O4'-C4'	-5.61	105.41	109.90
83	A5	3643	C	O4'-C1'-C2'	-5.61	100.19	105.80
83	A5	206	C	N1-C1'-C2'	5.61	121.30	114.00
83	A5	3855	A	N9-C1'-C2'	-5.61	105.83	112.00
36	B2	340	A	C3'-C2'-C1'	5.61	105.99	101.50
58	CW	70	LYS	N-CA-CB	5.61	120.70	110.60
83	A5	3200	G	N9-C1'-C2'	-5.61	105.83	112.00
85	A7	115	U	N1-C1'-C2'	-5.61	105.83	112.00
33	AI	67	TRP	CB-CG-CD1	5.61	134.29	127.00
36	B2	323	U	C4'-C3'-O3'	-5.61	97.62	109.40
36	B2	421	A	O4'-C1'-C2'	-5.61	100.19	105.80
83	A5	791	C	C3'-C2'-C1'	5.61	105.99	101.50
83	A5	2629	G	O4'-C1'-N9	5.61	112.69	108.20
2	Ag	300	PHE	CB-CG-CD2	-5.61	116.88	120.80
28	AC	206	TYR	CB-CG-CD2	-5.61	117.64	121.00
36	B2	1119	G	N9-C1'-C2'	5.61	121.29	114.00
39	Cq	86	VAL	CA-CB-CG2	-5.61	102.49	110.90
40	CK	92	ARG	NE-CZ-NH1	5.61	123.10	120.30
63	CB	248	LEU	N-CA-C	5.61	126.14	111.00
83	A5	465	U	C4'-C3'-C2'	-5.61	96.99	102.60
83	A5	1068	C	O4'-C1'-C2'	-5.61	100.19	105.80
83	A5	1220	U	N1-C1'-C2'	-5.61	105.83	112.00
83	A5	1492	C	C5'-C4'-C3'	-5.61	107.03	116.00
83	A5	1729	G	C1'-O4'-C4'	-5.61	105.41	109.90
83	A5	3662	G	P-O3'-C3'	5.61	126.43	119.70
16	AA	158	ASP	CA-C-N	5.61	129.53	117.20
36	B2	1453	G	N9-C1'-C2'	-5.61	105.83	112.00
36	B2	1657	C	P-O5'-C5'	-5.61	111.93	120.90
36	B2	1705	G	C4'-C3'-C2'	-5.61	97.00	102.60
46	CN	50	ARG	N-CA-CB	5.61	120.69	110.60
69	Cg	4	ARG	NE-CZ-NH1	5.61	123.10	120.30
83	A5	2631	G	O4'-C1'-N9	5.61	112.69	108.20
62	Cb	38	LYS	CA-C-N	5.60	129.53	117.20
83	A5	1179	U	P-O3'-C3'	5.60	126.42	119.70
83	A5	3872	C	P-O3'-C3'	5.60	126.42	119.70
36	B2	110	U	O4'-C1'-N1	5.60	112.68	108.20
36	B2	1276	G	O4'-C1'-N9	5.60	112.68	108.20
49	CQ	33	ARG	NE-CZ-NH1	5.60	123.10	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	354	A	O4'-C1'-C2'	5.60	112.64	107.60
83	A5	3700	U	O4'-C1'-N1	5.60	112.68	108.20
83	A5	3906	U	P-O5'-C5'	5.60	129.86	120.90
36	B2	924	U	C4'-C3'-C2'	-5.60	97.00	102.60
36	B2	1286	G	C1'-O4'-C4'	-5.60	105.42	109.90
36	B2	160	G	O4'-C1'-N9	5.60	112.68	108.20
80	CH	91	ARG	NE-CZ-NH1	-5.60	117.50	120.30
83	A5	461	U	C2'-C3'-O3'	5.60	122.66	113.70
83	A5	1132	U	C3'-C2'-C1'	5.60	105.98	101.50
83	A5	1639	U	P-O3'-C3'	5.60	126.42	119.70
83	A5	3166	C	N1-C1'-C2'	5.60	121.28	114.00
84	A9	24	G	O4'-C1'-N9	5.60	112.68	108.20
36	B2	18	C	O4'-C1'-C2'	-5.60	100.20	105.80
36	B2	636	G	C3'-C2'-C1'	5.60	105.98	101.50
36	B2	1837	G	C1'-O4'-C4'	-5.60	105.42	109.90
83	A5	748	A	O4'-C1'-N9	5.60	112.68	108.20
83	A5	866	C	C5'-C4'-C3'	5.60	124.95	116.00
83	A5	995	G	C1'-O4'-C4'	-5.60	105.42	109.90
83	A5	1803	C	C3'-C2'-C1'	5.60	105.98	101.50
83	A5	3252	G	C3'-C2'-C1'	-5.60	97.02	101.50
36	B2	1383	A	C3'-C2'-C1'	-5.60	97.02	101.50
48	CD	12	TYR	CB-CG-CD2	5.60	124.36	121.00
83	A5	365	A	O4'-C1'-N9	5.60	112.68	108.20
83	A5	1800	U	O4'-C1'-N1	5.60	112.68	108.20
83	A5	1916	G	O4'-C1'-C2'	-5.60	100.20	105.80
36	B2	1243	G	C1'-O4'-C4'	-5.59	105.42	109.90
36	B2	1446	G	C1'-O4'-C4'	-5.59	105.42	109.90
83	A5	1749	A	O4'-C1'-N9	5.59	112.67	108.20
83	A5	2016	U	O4'-C1'-N1	5.59	112.67	108.20
83	A5	3458	A	C1'-O4'-C4'	-5.59	105.42	109.90
83	A5	3767	G	N9-C1'-C2'	-5.59	105.84	112.00
83	A5	3851	U	C3'-C2'-C1'	5.59	105.98	101.50
48	CD	95	TYR	CB-CA-C	-5.59	99.21	110.40
83	A5	2833	U	C3'-C2'-C1'	5.59	105.97	101.50
36	B2	1423	A	C1'-O4'-C4'	-5.59	105.43	109.90
36	B2	1434	U	C1'-O4'-C4'	-5.59	105.43	109.90
83	A5	1907	U	N1-C1'-C2'	-5.59	105.85	112.00
83	A5	3454	G	O4'-C1'-N9	5.59	112.67	108.20
83	A5	3618	A	C3'-C2'-C1'	-5.59	97.03	101.50
39	Cq	151	THR	CA-CB-CG2	-5.59	104.57	112.40
83	A5	1385	G	O4'-C1'-N9	5.59	112.67	108.20
83	A5	2587	U	O5'-C5'-C4'	-5.59	101.08	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	CV	48	ARG	NE-CZ-NH2	-5.59	117.51	120.30
83	A5	2885	A	C2'-C3'-O3'	5.59	122.64	113.70
85	A7	109	U	P-O3'-C3'	5.59	126.41	119.70
83	A5	1001	A	O4'-C1'-C2'	-5.59	100.21	105.80
83	A5	1127	C	N1-C1'-C2'	5.59	121.26	114.00
85	A7	10	C	N1-C1'-C2'	-5.59	105.86	112.00
60	Cr	27	LYS	N-CA-CB	-5.58	100.55	110.60
36	B2	992	A	O4'-C1'-N9	5.58	112.67	108.20
36	B2	1801	U	C4'-C3'-C2'	-5.58	97.02	102.60
70	Ci	37	SER	C-N-CA	5.58	135.66	121.70
83	A5	245	G	O4'-C1'-C2'	5.58	112.62	107.60
83	A5	3144	U	O4'-C1'-C2'	-5.58	100.22	105.80
83	A5	3251	C	N1-C1'-C2'	5.58	121.26	114.00
1	Az	684	ARG	CB-CA-C	5.58	121.56	110.40
36	B2	1079	A	P-O3'-C3'	5.58	126.40	119.70
36	B2	1344	A	C3'-C2'-C1'	5.58	105.97	101.50
83	A5	398	U	O4'-C1'-N1	5.58	112.67	108.20
83	A5	1268	A	P-O5'-C5'	-5.58	111.97	120.90
83	A5	1374	C	N1-C1'-C2'	5.58	121.26	114.00
83	A5	628	A	O4'-C1'-N9	5.58	112.66	108.20
83	A5	1313	A	O4'-C1'-N9	5.58	112.66	108.20
74	CC	193	ARG	NE-CZ-NH1	5.58	123.09	120.30
83	A5	1382	U	P-O3'-C3'	5.58	126.39	119.70
83	A5	2489	G	N9-C1'-C2'	-5.58	105.86	112.00
83	A5	2857	C	C3'-C2'-C1'	5.58	105.96	101.50
83	A5	3417	C	C2'-C3'-O3'	5.58	122.63	113.70
81	CE	21	PRO	CA-N-CD	-5.58	103.69	111.50
83	A5	1556	C	C1'-O4'-C4'	-5.58	105.44	109.90
83	A5	2069	U	O4'-C1'-N1	5.58	112.66	108.20
83	A5	2686	C	C1'-O4'-C4'	-5.58	105.44	109.90
83	A5	3631	C	O4'-C1'-N1	5.58	112.66	108.20
1	Az	268	GLU	CA-C-N	5.58	129.47	117.20
36	B2	897	A	C3'-C2'-C1'	-5.58	97.04	101.50
36	B2	1623	C	C3'-C2'-C1'	5.58	105.96	101.50
37	BC	18	G	O3'-P-O5'	5.58	114.59	104.00
83	A5	764	A	O4'-C1'-N9	5.58	112.66	108.20
83	A5	2543	C	C3'-C2'-C1'	5.58	105.96	101.50
83	A5	3274	A	C3'-C2'-C1'	5.58	105.96	101.50
83	A5	3647	A	O4'-C1'-C2'	-5.58	100.22	105.80
83	A5	3685	U	P-O5'-C5'	5.58	129.82	120.90
85	A7	40	C	O5'-C5'-C4'	-5.58	101.11	111.70
85	A7	53	U	O4'-C1'-C2'	-5.58	100.22	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	Aa	107	ALA	CA-C-N	5.57	129.46	117.20
36	B2	1183	U	O4'-C1'-N1	5.57	112.66	108.20
39	Cq	44	ARG	NE-CZ-NH2	-5.57	117.51	120.30
83	A5	549	A	O4'-C1'-C2'	-5.57	100.23	105.80
83	A5	3485	U	C5'-C4'-O4'	5.57	115.79	109.10
37	BC	41	A	N9-C1'-C2'	-5.57	105.87	112.00
41	CO	73	PHE	CB-CG-CD1	5.57	124.70	120.80
83	A5	1332	C	C5'-C4'-O4'	5.57	115.78	109.10
83	A5	2288	G	P-O5'-C5'	-5.57	111.99	120.90
36	B2	1581	A	O4'-C1'-C2'	-5.57	100.23	105.80
83	A5	1390	C	C3'-C2'-C1'	5.57	105.95	101.50
36	B2	543	A	C1'-O4'-C4'	-5.57	105.45	109.90
52	CS	23	PRO	N-CA-C	5.57	126.57	112.10
83	A5	1598	A	C3'-C2'-C1'	5.57	105.95	101.50
83	A5	1661	C	C3'-C2'-C1'	5.57	105.95	101.50
83	A5	2212	A	N9-C1'-C2'	5.57	121.24	114.00
83	A5	2541	C	O4'-C1'-N1	5.57	112.65	108.20
9	Ad	48	ASN	C-N-CA	5.57	135.61	121.70
36	B2	248	G	C3'-C2'-C1'	5.57	105.95	101.50
36	B2	932	U	O4'-C4'-C3'	-5.57	98.43	104.00
83	A5	2928	G	O4'-C1'-N9	5.57	112.65	108.20
83	A5	3792	A	O4'-C4'-C3'	-5.57	98.44	104.00
83	A5	3834	A	C3'-C2'-C1'	5.57	105.95	101.50
83	A5	1362	G	C1'-O4'-C4'	-5.56	105.45	109.90
36	B2	651	C	O4'-C1'-N1	5.56	112.65	108.20
74	CC	152	GLU	N-CA-CB	5.56	120.61	110.60
83	A5	1873	A	N9-C1'-C2'	5.56	121.23	114.00
83	A5	2131	C	O3'-P-O5'	5.56	114.57	104.00
83	A5	2634	A	C5'-C4'-O4'	5.56	115.77	109.10
83	A5	3845	A	N9-C1'-C2'	-5.56	105.88	112.00
83	A5	3949	U	C3'-C2'-C1'	5.56	105.95	101.50
42	CL	96	ALA	N-CA-C	5.56	126.01	111.00
83	A5	2085	G	O4'-C1'-N9	5.56	112.65	108.20
24	Ae	107	ARG	NE-CZ-NH2	-5.56	117.52	120.30
36	B2	1288	G	O4'-C1'-N9	-5.56	103.75	108.20
48	CD	289	TYR	CB-CG-CD1	5.56	124.34	121.00
83	A5	967	C	O4'-C1'-N1	5.56	112.65	108.20
83	A5	3004	A	O4'-C1'-C2'	-5.56	100.24	105.80
83	A5	3238	G	O4'-C1'-N9	5.56	112.65	108.20
83	A5	3263	C	C1'-O4'-C4'	-5.56	105.45	109.90
36	B2	643	A	P-O3'-C3'	5.56	126.37	119.70
36	B2	1464	U	O4'-C1'-N1	5.56	112.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2100	U	N1-C1'-C2'	-5.56	105.89	112.00
83	A5	2530	C	C3'-C2'-C1'	5.56	105.95	101.50
83	A5	3335	A	O4'-C1'-C2'	-5.56	100.24	105.80
83	A5	1071	U	C5'-C4'-C3'	-5.56	107.11	116.00
83	A5	3824	C	O4'-C1'-C2'	-5.56	100.24	105.80
5	AO	99	ALA	O-C-N	-5.55	113.81	122.70
8	AS	38	ARG	NE-CZ-NH2	5.55	123.08	120.30
36	B2	1732	G	O4'-C1'-N9	5.55	112.64	108.20
36	B2	1874	C	P-O5'-C5'	5.55	129.79	120.90
83	A5	1810	A	P-O3'-C3'	5.55	126.37	119.70
83	A5	2086	U	C1'-O4'-C4'	5.55	114.34	109.90
83	A5	2095	U	O4'-C1'-N1	5.55	112.64	108.20
83	A5	3145	U	C1'-O4'-C4'	5.55	114.34	109.90
83	A5	3376	C	O4'-C1'-C2'	-5.55	100.25	105.80
83	A5	1409	G	C1'-O4'-C4'	-5.55	105.46	109.90
83	A5	2156	U	O4'-C1'-C2'	-5.55	100.25	105.80
63	CB	300	LYS	N-CA-CB	5.55	120.59	110.60
83	A5	194	A	O4'-C1'-N9	5.55	112.64	108.20
83	A5	1647	A	O4'-C1'-N9	-5.55	103.76	108.20
7	AM	124	GLU	N-CA-CB	5.55	120.59	110.60
33	AI	53	THR	CA-CB-CG2	-5.55	104.63	112.40
36	B2	1622	U	O4'-C1'-C2'	-5.55	100.25	105.80
42	CL	125	LEU	N-CA-C	5.55	125.98	111.00
70	Ci	33	GLY	C-N-CA	5.55	135.57	121.70
83	A5	1715	G	O4'-C1'-C2'	5.55	112.59	107.60
83	A5	2041	G	OP1-P-O3'	5.55	117.41	105.20
83	A5	2669	A	C1'-O4'-C4'	-5.55	105.46	109.90
83	A5	3357	C	O4'-C1'-C2'	-5.55	100.25	105.80
83	A5	3623	G	C1'-O4'-C4'	-5.55	105.46	109.90
28	AC	207	THR	N-CA-CB	5.55	120.84	110.30
36	B2	1110	A	O3'-P-O5'	-5.55	93.46	104.00
36	B2	1663	A	O4'-C1'-C2'	5.55	112.59	107.60
83	A5	3228	A	O4'-C1'-N9	-5.55	103.76	108.20
83	A5	3316	U	N1-C1'-C2'	5.55	121.21	114.00
36	B2	518	G	C4'-C3'-C2'	-5.55	97.05	102.60
83	A5	401	G	O4'-C1'-N9	5.55	112.64	108.20
83	A5	562	U	O4'-C1'-N1	5.55	112.64	108.20
83	A5	1403	C	O4'-C1'-N1	5.55	112.64	108.20
83	A5	3701	U	O4'-C4'-C3'	-5.55	98.45	104.00
83	A5	3754	C	O4'-C1'-C2'	-5.55	100.25	105.80
36	B2	287	C	C3'-C2'-C1'	5.54	105.94	101.50
36	B2	1231	A	O4'-C1'-N9	5.54	112.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	CP	69	ARG	NE-CZ-NH2	-5.54	117.53	120.30
83	A5	1210	A	C3'-C2'-C1'	5.54	105.94	101.50
83	A5	2241	U	O4'-C1'-C2'	-5.54	100.26	105.80
47	CI	3	ARG	NE-CZ-NH1	5.54	123.07	120.30
60	Cr	28	PRO	N-CA-C	5.54	126.51	112.10
83	A5	161	G	P-O3'-C3'	5.54	126.35	119.70
83	A5	1392	A	N9-C1'-C2'	-5.54	105.90	112.00
83	A5	2160	C	C1'-O4'-C4'	-5.54	105.47	109.90
85	A7	29	C	C5'-C4'-C3'	5.54	124.87	116.00
36	B2	1653	C	C5'-C4'-O4'	5.54	115.75	109.10
61	Ch	117	ARG	C-N-CA	5.54	135.55	121.70
63	CB	340	SER	N-CA-CB	5.54	118.81	110.50
83	A5	2257	C	N1-C1'-C2'	5.54	121.20	114.00
83	A5	3656	A	C1'-O4'-C4'	-5.54	105.47	109.90
36	B2	200	U	O4'-C4'-C3'	5.54	110.53	106.10
36	B2	547	G	C1'-O4'-C4'	-5.54	105.47	109.90
36	B2	1367	C	O4'-C1'-N1	5.54	112.63	108.20
52	CS	10	TYR	CB-CG-CD1	-5.54	117.68	121.00
70	Ci	37	SER	N-CA-CB	5.54	118.81	110.50
83	A5	504	A	O4'-C1'-N9	5.54	112.63	108.20
83	A5	1956	A	O4'-C1'-C2'	5.54	112.58	107.60
85	A7	39	C	O3'-P-O5'	5.54	114.52	104.00
36	B2	513	A	C3'-C2'-C1'	5.54	105.93	101.50
50	CR	172	ARG	NE-CZ-NH1	5.54	123.07	120.30
83	A5	458	A	O4'-C1'-C2'	-5.54	100.26	105.80
83	A5	1372	A	O4'-C1'-N9	5.54	112.63	108.20
83	A5	3677	U	O4'-C1'-N1	5.54	112.63	108.20
36	B2	567	C	O4'-C1'-N1	5.54	112.63	108.20
36	B2	615	G	O4'-C1'-C2'	5.54	112.58	107.60
56	CX	258	TYR	CB-CG-CD1	5.54	124.32	121.00
83	A5	223	A	C1'-O4'-C4'	5.54	114.33	109.90
83	A5	2020	A	O4'-C1'-N9	5.54	112.63	108.20
83	A5	2680	G	N9-C1'-C2'	5.54	121.20	114.00
84	A9	14	U	P-O3'-C3'	-5.54	113.06	119.70
36	B2	360	G	C1'-O4'-C4'	-5.53	105.47	109.90
47	CI	119	PHE	CB-CG-CD2	5.53	124.67	120.80
81	CE	167	TYR	CB-CG-CD1	-5.53	117.68	121.00
83	A5	195	A	N9-C1'-C2'	-5.53	105.91	112.00
83	A5	3475	U	O4'-C1'-N1	5.53	112.63	108.20
83	A5	167	A	C1'-O4'-C4'	5.53	114.33	109.90
83	A5	3348	G	O5'-C5'-C4'	-5.53	101.19	111.70
36	B2	657	A	O4'-C1'-N9	-5.53	103.78	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1092	A	O4'-C1'-N9	5.53	112.62	108.20
83	A5	201	U	O3'-P-O5'	-5.53	93.49	104.00
83	A5	285	G	O4'-C1'-C2'	-5.53	100.27	105.80
83	A5	844	C	O4'-C1'-C2'	-5.53	100.27	105.80
83	A5	1356	G	O4'-C1'-C2'	-5.53	100.27	105.80
37	BC	63	U	C4'-C3'-C2'	-5.53	97.07	102.60
74	CC	14	THR	CA-CB-CG2	-5.53	104.66	112.40
83	A5	113	A	C5'-C4'-C3'	-5.53	107.16	116.00
83	A5	3703	C	N1-C1'-C2'	5.53	121.19	114.00
36	B2	1073	G	O4'-C1'-N9	5.53	112.62	108.20
36	B2	1538	C	C3'-C2'-C1'	5.53	105.92	101.50
36	B2	1862	G	P-O3'-C3'	5.53	126.33	119.70
83	A5	177	U	C5'-C4'-O4'	5.53	115.73	109.10
83	A5	1130	U	N1-C1'-C2'	5.53	121.18	114.00
36	B2	272	U	C5'-C4'-O4'	5.52	115.73	109.10
36	B2	1452	U	O4'-C1'-C2'	-5.52	100.28	105.80
36	B2	1880	C	O4'-C1'-N1	5.52	112.62	108.20
53	CT	150	LEU	N-CA-C	5.52	125.91	111.00
28	AC	101	ALA	C-N-CA	5.52	133.90	122.30
36	B2	196	G	C3'-C2'-C1'	5.52	105.92	101.50
36	B2	617	U	O4'-C1'-C2'	-5.52	100.28	105.80
36	B2	1775	A	P-O3'-C3'	5.52	126.33	119.70
83	A5	3259	A	O4'-C1'-C2'	-5.52	100.28	105.80
83	A5	3774	U	O4'-C1'-N1	5.52	112.62	108.20
83	A5	3923	C	C1'-O4'-C4'	5.52	114.32	109.90
83	A5	3935	G	P-O3'-C3'	-5.52	113.07	119.70
86	A8	108	A	C5'-C4'-O4'	5.52	115.73	109.10
83	A5	461	U	O4'-C1'-N1	5.52	112.62	108.20
83	A5	3168	A	N9-C1'-C2'	5.52	121.18	114.00
83	A5	3953	C	C1'-O4'-C4'	-5.52	105.48	109.90
86	A8	17	U	O4'-C1'-N1	5.52	112.62	108.20
36	B2	247	G	N9-C1'-C2'	5.52	121.17	114.00
36	B2	340	A	C4'-C3'-C2'	-5.52	97.08	102.60
36	B2	905	U	O3'-P-O5'	5.52	114.49	104.00
36	B2	1590	G	O4'-C1'-N9	5.52	112.61	108.20
83	A5	141	U	O4'-C1'-N1	5.52	112.62	108.20
83	A5	268	U	N1-C1'-C2'	-5.52	105.93	112.00
83	A5	1812	C	O5'-C5'-C4'	5.52	122.19	111.70
83	A5	3408	C	O4'-C1'-N1	5.52	112.61	108.20
36	B2	422	A	N9-C1'-C2'	-5.52	105.93	112.00
36	B2	1952	G	C1'-O4'-C4'	-5.52	105.49	109.90
62	Cb	37	VAL	C-N-CA	5.52	135.50	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1144	C	C1'-O4'-C4'	-5.52	105.49	109.90
83	A5	3143	U	O4'-C1'-C2'	-5.52	100.28	105.80
83	A5	3164	C	O4'-C1'-N1	5.52	112.61	108.20
83	A5	3387	C	O4'-C1'-N1	5.52	112.61	108.20
36	B2	324	U	P-O5'-C5'	-5.52	112.08	120.90
51	CA	200	ARG	NE-CZ-NH1	5.51	123.06	120.30
83	A5	1457	G	C5'-C4'-O4'	5.51	115.72	109.10
83	A5	2713	G	C1'-O4'-C4'	5.51	114.31	109.90
6	AX	136	GLU	N-CA-CB	5.51	120.52	110.60
83	A5	3534	U	O4'-C1'-C2'	-5.51	100.29	105.80
36	B2	1101	G	N9-C1'-C2'	-5.51	105.94	112.00
36	B2	1982	C	O4'-C1'-N1	5.51	112.61	108.20
83	A5	284	A	O4'-C1'-N9	5.51	112.61	108.20
83	A5	2014	C	N1-C1'-C2'	5.51	121.17	114.00
83	A5	2859	C	N1-C1'-C2'	-5.51	105.94	112.00
83	A5	3684	A	C5'-C4'-O4'	5.51	115.71	109.10
83	A5	3788	G	O4'-C4'-C3'	-5.51	98.49	104.00
83	A5	3939	C	O4'-C1'-N1	5.51	112.61	108.20
36	B2	417	A	O4'-C1'-N9	5.51	112.61	108.20
36	B2	596	U	N1-C1'-C2'	-5.51	105.94	112.00
36	B2	1032	U	O4'-C1'-C2'	-5.51	100.29	105.80
44	CM	119	ARG	CB-CA-C	-5.51	99.38	110.40
83	A5	305	G	C1'-O4'-C4'	-5.51	105.49	109.90
83	A5	725	U	O4'-C1'-C2'	-5.51	100.29	105.80
83	A5	768	U	O4'-C1'-C2'	-5.51	100.29	105.80
83	A5	2479	A	N9-C1'-C2'	-5.51	105.94	112.00
84	A9	6	G	O4'-C1'-N9	5.51	112.61	108.20
17	AV	49	GLY	N-CA-C	-5.51	99.33	113.10
34	AQ	6	ARG	C-N-CA	5.51	135.47	121.70
36	B2	925	U	N1-C1'-C2'	-5.51	105.94	112.00
7	AM	39	VAL	O-C-N	-5.51	113.89	122.70
36	B2	284	G	C3'-C2'-C1'	5.51	105.91	101.50
36	B2	1318	A	O4'-C1'-N9	-5.51	103.79	108.20
83	A5	3437	U	O4'-C1'-N1	5.51	112.60	108.20
83	A5	3520	U	C3'-C2'-C1'	5.51	105.91	101.50
23	AD	42	ARG	NE-CZ-NH2	-5.50	117.55	120.30
83	A5	2725	U	O4'-C1'-N1	5.50	112.60	108.20
83	A5	2871	G	O4'-C1'-N9	5.50	112.60	108.20
36	B2	157	C	N1-C1'-C2'	5.50	121.15	114.00
83	A5	206	C	C3'-C2'-C1'	5.50	105.90	101.50
83	A5	573	U	C4'-C3'-C2'	-5.50	97.10	102.60
83	A5	2178	U	O4'-C1'-N1	5.50	112.60	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3244	U	O4'-C1'-C2'	-5.50	100.30	105.80
1	Az	384	ILE	N-CA-C	-5.50	96.15	111.00
36	B2	50	C	C3'-C2'-C1'	5.50	105.90	101.50
36	B2	201	G	O4'-C1'-N9	5.50	112.60	108.20
83	A5	346	U	O4'-C1'-N1	5.50	112.60	108.20
83	A5	1164	G	C3'-C2'-C1'	-5.50	97.10	101.50
83	A5	2277	G	O4'-C1'-N9	5.50	112.60	108.20
83	A5	3758	G	C5'-C4'-O4'	5.50	115.70	109.10
83	A5	111	A	O4'-C1'-N9	5.50	112.60	108.20
85	A7	91	C	O4'-C1'-C2'	-5.50	100.30	105.80
86	A8	39	A	C3'-C2'-C1'	5.50	105.90	101.50
36	B2	509	C	N1-C1'-C2'	5.50	121.15	114.00
36	B2	1545	U	O4'-C1'-C2'	-5.50	100.30	105.80
83	A5	2755	G	N9-C1'-C2'	-5.50	105.95	112.00
85	A7	72	U	C4'-C3'-C2'	-5.50	97.10	102.60
86	A8	30	G	O4'-C1'-C2'	5.50	112.55	107.60
86	A8	33	U	P-O3'-C3'	5.50	126.30	119.70
36	B2	965	G	O4'-C1'-N9	5.50	112.60	108.20
36	B2	995	U	O4'-C1'-N1	5.50	112.60	108.20
81	CE	242	ARG	NE-CZ-NH1	-5.50	117.55	120.30
83	A5	1110	G	C1'-O4'-C4'	-5.50	105.50	109.90
83	A5	2193	C	C3'-C2'-C1'	-5.50	97.10	101.50
83	A5	2201	U	C3'-C2'-C1'	5.50	105.90	101.50
83	A5	2490	G	C5'-C4'-C3'	-5.50	107.20	116.00
2	Ag	78	TYR	CB-CG-CD2	-5.50	117.70	121.00
28	AC	51	ARG	NE-CZ-NH1	5.50	123.05	120.30
42	CL	52	GLY	C-N-CA	5.50	135.44	121.70
49	CQ	13	VAL	N-CA-C	5.50	125.84	111.00
49	CQ	164	ARG	NE-CZ-NH1	5.50	123.05	120.30
36	B2	117	C	O4'-C1'-N1	5.49	112.59	108.20
36	B2	137	C	C5'-C4'-O4'	5.49	115.69	109.10
50	CR	120	TYR	CB-CG-CD2	-5.49	117.70	121.00
83	A5	548	A	C1'-O4'-C4'	5.49	114.29	109.90
83	A5	623	C	N1-C1'-C2'	5.49	121.14	114.00
83	A5	1809	A	O3'-P-O5'	5.49	114.44	104.00
83	A5	1864	U	C5'-C4'-C3'	-5.49	107.21	116.00
83	A5	3801	A	O3'-P-O5'	-5.49	93.56	104.00
4	AK	1	MET	CG-SD-CE	-5.49	91.41	100.20
36	B2	1805	U	O4'-C1'-N1	5.49	112.59	108.20
2	Ag	253	TYR	CB-CG-CD2	-5.49	117.70	121.00
16	AA	167	SER	N-CA-CB	5.49	118.74	110.50
83	A5	61	A	O4'-C1'-C2'	-5.49	100.31	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	486	A	N9-C1'-C2'	-5.49	105.96	112.00
83	A5	499	A	N9-C1'-C2'	5.49	121.14	114.00
36	B2	777	A	O3'-P-O5'	5.49	114.43	104.00
36	B2	948	A	P-O3'-C3'	5.49	126.28	119.70
83	A5	1311	U	P-O3'-C3'	-5.49	113.11	119.70
83	A5	1787	C	O4'-C1'-N1	5.49	112.59	108.20
83	A5	2198	G	O4'-C1'-C2'	5.49	112.54	107.60
83	A5	2896	U	N1-C1'-C2'	5.49	121.14	114.00
6	AX	41	PHE	CB-CG-CD2	-5.49	116.96	120.80
36	B2	302	U	O4'-C1'-N1	5.49	112.59	108.20
36	B2	1296	A	C5'-C4'-O4'	5.49	115.68	109.10
52	CS	176	PHE	CB-CG-CD2	5.49	124.64	120.80
83	A5	672	U	C1'-O4'-C4'	5.49	114.29	109.90
83	A5	911	A	O4'-C1'-N9	5.49	112.59	108.20
83	A5	1076	A	N9-C1'-C2'	5.49	121.13	114.00
83	A5	1794	G	C1'-O4'-C4'	-5.49	105.51	109.90
83	A5	1961	C	C4'-C3'-O3'	5.49	123.97	113.00
83	A5	2036	G	O4'-C1'-C2'	-5.49	100.31	105.80
83	A5	2808	G	O4'-C1'-N9	5.49	112.59	108.20
83	A5	47	A	O4'-C1'-N9	5.48	112.59	108.20
83	A5	3219	A	O4'-C1'-C2'	-5.48	100.32	105.80
4	AK	65	PHE	CB-CG-CD1	-5.48	116.96	120.80
36	B2	315	C	C3'-C2'-C1'	5.48	105.89	101.50
36	B2	1252	G	C4'-C3'-C2'	-5.48	97.12	102.60
36	B2	1745	G	C1'-O4'-C4'	5.48	114.29	109.90
49	CQ	180	ARG	NE-CZ-NH2	-5.48	117.56	120.30
83	A5	1436	A	N9-C1'-C2'	5.48	121.13	114.00
83	A5	1908	A	C3'-C2'-C1'	5.48	105.89	101.50
83	A5	3603	C	O4'-C1'-C2'	-5.48	100.32	105.80
83	A5	3746	A	P-O5'-C5'	-5.48	112.13	120.90
36	B2	240	U	C4'-C3'-C2'	-5.48	97.12	102.60
36	B2	964	G	N9-C1'-C2'	-5.48	105.97	112.00
36	B2	1181	G	C3'-C2'-C1'	-5.48	97.12	101.50
36	B2	1305	A	C3'-C2'-C1'	-5.48	97.12	101.50
36	B2	1430	U	C1'-O4'-C4'	-5.48	105.52	109.90
81	CE	39	TYR	CB-CG-CD1	5.48	124.29	121.00
83	A5	531	C	P-O5'-C5'	5.48	129.67	120.90
83	A5	746	G	C4'-C3'-C2'	-5.48	97.12	102.60
83	A5	3260	G	C4'-C3'-C2'	5.48	108.08	102.60
83	A5	1650	C	O4'-C1'-N1	5.48	112.58	108.20
83	A5	1725	A	N9-C1'-C2'	-5.48	105.97	112.00
83	A5	3811	A	N9-C1'-C2'	5.48	121.12	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	AF	42	LYS	N-CA-CB	5.48	120.46	110.60
36	B2	997	C	O3'-P-O5'	-5.48	93.59	104.00
36	B2	1717	A	O4'-C1'-N9	5.48	112.58	108.20
83	A5	306	C	C3'-C2'-C1'	5.48	105.88	101.50
83	A5	419	U	O4'-C1'-N1	5.48	112.58	108.20
83	A5	775	U	C5'-C4'-C3'	5.48	124.76	116.00
83	A5	2721	C	C3'-C2'-C1'	5.48	105.88	101.50
83	A5	3328	G	P-O3'-C3'	-5.48	113.13	119.70
36	B2	289	G	C5'-C4'-C3'	5.48	124.76	116.00
83	A5	347	A	O4'-C1'-N9	5.48	112.58	108.20
83	A5	1412	A	C1'-O4'-C4'	5.48	114.28	109.90
83	A5	3905	U	N1-C1'-C2'	5.48	121.12	114.00
1	Az	203	MET	C-N-CA	5.47	133.80	122.30
36	B2	872	A	C3'-C2'-C1'	5.47	105.88	101.50
36	B2	1018	C	C1'-O4'-C4'	5.47	114.28	109.90
36	B2	1271	A	N9-C1'-C2'	5.47	121.12	114.00
36	B2	1339	C	C3'-C2'-C1'	5.47	105.88	101.50
83	A5	1201	U	O4'-C1'-N1	5.47	112.58	108.20
83	A5	3714	U	C1'-O4'-C4'	5.47	114.28	109.90
32	AW	129	PHE	CB-CG-CD1	5.47	124.63	120.80
36	B2	473	A	P-O3'-C3'	-5.47	113.13	119.70
36	B2	714	U	O4'-C1'-C2'	-5.47	100.33	105.80
36	B2	1870	C	O4'-C1'-N1	5.47	112.58	108.20
83	A5	144	C	O4'-C1'-C2'	-5.47	100.33	105.80
83	A5	2092	U	P-O3'-C3'	5.47	126.27	119.70
83	A5	3132	C	P-O3'-C3'	-5.47	113.13	119.70
42	CL	172	ASP	C-N-CA	5.47	135.38	121.70
36	B2	277	U	N1-C1'-C2'	5.47	121.11	114.00
36	B2	940	U	P-O3'-C3'	5.47	126.26	119.70
36	B2	1527	U	C1'-O4'-C4'	-5.47	105.53	109.90
83	A5	297	U	C1'-O4'-C4'	5.47	114.28	109.90
83	A5	464	G	C5'-C4'-O4'	5.47	115.66	109.10
83	A5	776	A	C2'-C3'-O3'	-5.47	97.47	109.50
83	A5	829	U	O4'-C1'-N1	5.47	112.58	108.20
83	A5	976	A	O4'-C1'-N9	5.47	112.58	108.20
83	A5	1114	A	O4'-C1'-C2'	-5.47	100.33	105.80
83	A5	1805	A	O4'-C4'-C3'	-5.47	98.53	104.00
54	CP	47	TYR	CB-CG-CD1	5.47	124.28	121.00
83	A5	2857	C	O4'-C1'-N1	5.47	112.57	108.20
83	A5	3880	A	C5'-C4'-O4'	5.47	115.66	109.10
15	AB	25	PHE	CB-CG-CD1	-5.47	116.97	120.80
36	B2	1890	C	P-O3'-C3'	5.47	126.26	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BC	59	A	C5'-C4'-O4'	5.47	115.66	109.10
74	CC	251	ARG	NE-CZ-NH1	5.47	123.03	120.30
83	A5	980	A	C1'-O4'-C4'	-5.47	105.53	109.90
36	B2	903	C	C3'-C2'-C1'	5.46	105.87	101.50
83	A5	561	A	N9-C1'-C2'	-5.46	105.99	112.00
83	A5	2907	U	C4'-C3'-C2'	5.46	108.06	102.60
83	A5	3819	C	C5'-C4'-O4'	-5.46	102.54	109.10
83	A5	3969	G	N9-C1'-C2'	5.46	121.11	114.00
36	B2	231	G	C1'-O4'-C4'	5.46	114.27	109.90
36	B2	393	G	C3'-C2'-C1'	-5.46	97.13	101.50
46	CN	11	TYR	CB-CG-CD2	5.46	124.28	121.00
51	CA	3	ARG	C-N-CA	5.46	135.36	121.70
54	CP	87	SER	N-CA-CB	5.46	118.69	110.50
83	A5	1997	C	O4'-C1'-C2'	-5.46	100.34	105.80
4	AK	66	TYR	CB-CG-CD1	-5.46	117.72	121.00
36	B2	899	A	P-O3'-C3'	5.46	126.25	119.70
36	B2	1674	C	O4'-C1'-C2'	-5.46	100.34	105.80
41	CO	4	LEU	N-CA-CB	-5.46	99.48	110.40
83	A5	172	C	P-O5'-C5'	-5.46	112.16	120.90
83	A5	729	G	O4'-C1'-N9	5.46	112.57	108.20
83	A5	1104	A	C1'-O4'-C4'	-5.46	105.53	109.90
83	A5	1711	C	C1'-O4'-C4'	5.46	114.27	109.90
83	A5	2857	C	C4'-C3'-C2'	-5.46	97.14	102.60
83	A5	3504	G	C5'-C4'-O4'	5.46	115.65	109.10
85	A7	110	G	C1'-O4'-C4'	-5.46	105.53	109.90
13	AP	54	ARG	NE-CZ-NH2	-5.46	117.57	120.30
36	B2	51	A	O4'-C1'-N9	5.46	112.57	108.20
36	B2	408	G	O4'-C1'-C2'	5.46	112.51	107.60
36	B2	1149	A	O4'-C1'-N9	5.46	112.57	108.20
36	B2	1571	U	C5'-C4'-C3'	-5.46	107.26	116.00
57	CY	96	TYR	CB-CG-CD1	-5.46	117.72	121.00
72	Ck	28	ASN	CB-CA-C	-5.46	99.48	110.40
83	A5	42	U	O4'-C1'-N1	5.46	112.57	108.20
36	B2	526	A	O4'-C1'-N9	5.46	112.57	108.20
36	B2	1534	G	O4'-C1'-N9	5.46	112.57	108.20
36	B2	1849	U	O4'-C4'-C3'	-5.46	98.54	104.00
74	CC	193	ARG	NE-CZ-NH2	-5.46	117.57	120.30
83	A5	1886	C	C3'-C2'-C1'	5.46	105.87	101.50
83	A5	2620	C	C5'-C4'-C3'	-5.46	107.27	116.00
83	A5	3594	A	O4'-C1'-C2'	-5.46	100.34	105.80
85	A7	18	G	O4'-C1'-N9	5.46	112.57	108.20
85	A7	117	G	C1'-O4'-C4'	-5.46	105.53	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	A8	109	U	N1-C1'-C2'	5.46	121.10	114.00
83	A5	2171	U	O4'-C1'-N1	5.46	112.56	108.20
83	A5	3518	A	C3'-C2'-C1'	5.46	105.87	101.50
36	B2	1431	A	O4'-C1'-C2'	-5.46	100.34	105.80
83	A5	3539	C	C1'-O4'-C4'	-5.46	105.54	109.90
26	AJ	138	VAL	CA-CB-CG2	-5.45	102.72	110.90
83	A5	161	G	P-O5'-C5'	5.45	129.63	120.90
83	A5	262	G	C2'-C3'-O3'	5.45	122.42	113.70
83	A5	1019	U	C1'-O4'-C4'	5.45	114.26	109.90
83	A5	2595	U	O4'-C1'-C2'	-5.45	100.35	105.80
36	B2	1281	A	P-O3'-C3'	5.45	126.24	119.70
81	CE	65	SER	O-C-N	-5.45	113.98	122.70
83	A5	2747	G	O4'-C1'-N9	5.45	112.56	108.20
84	A9	12	C	O4'-C1'-N1	5.45	112.56	108.20
23	AD	224	PRO	N-CA-C	5.45	126.27	112.10
33	AI	144	SER	CA-C-N	5.45	129.19	117.20
36	B2	825	A	O4'-C1'-C2'	-5.45	100.35	105.80
36	B2	1451	A	N9-C1'-C2'	-5.45	106.00	112.00
36	B2	1714	U	C3'-C2'-C1'	5.45	105.86	101.50
50	CR	64	ARG	NE-CZ-NH2	-5.45	117.58	120.30
81	CE	52	SER	N-CA-C	5.45	125.71	111.00
83	A5	1588	A	N9-C1'-C2'	-5.45	106.00	112.00
83	A5	2040	A	O3'-P-O5'	-5.45	93.64	104.00
83	A5	2739	A	N9-C1'-C2'	5.45	121.08	114.00
83	A5	478	A	C3'-C2'-C1'	5.45	105.86	101.50
83	A5	581	U	C3'-C2'-C1'	5.45	105.86	101.50
83	A5	1641	U	O4'-C1'-C2'	-5.45	100.35	105.80
83	A5	1801	U	N1-C1'-C2'	-5.45	106.01	112.00
83	A5	2645	C	O4'-C1'-C2'	-5.45	100.35	105.80
83	A5	2884	C	C5'-C4'-O4'	5.45	115.64	109.10
83	A5	3485	U	O4'-C1'-C2'	-5.45	100.35	105.80
83	A5	3868	G	C3'-C2'-C1'	5.45	105.86	101.50
83	A5	3917	G	O4'-C1'-N9	5.45	112.56	108.20
36	B2	49	C	N1-C1'-C2'	5.45	121.08	114.00
83	A5	2	U	O4'-C1'-N1	5.45	112.56	108.20
83	A5	180	U	C3'-C2'-C1'	5.45	105.86	101.50
83	A5	3666	C	C3'-C2'-C1'	5.45	105.86	101.50
36	B2	290	A	O4'-C1'-N9	5.45	112.56	108.20
36	B2	885	U	O4'-C4'-C3'	-5.45	98.55	104.00
74	CC	224	PHE	CB-CG-CD1	-5.45	116.99	120.80
83	A5	2075	A	O3'-P-O5'	-5.45	93.65	104.00
83	A5	2783	C	O4'-C1'-C2'	-5.45	100.35	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3189	A	O4'-C1'-N9	5.45	112.56	108.20
83	A5	3406	G	C5'-C4'-C3'	-5.45	107.29	116.00
36	B2	228	A	N9-C1'-C2'	-5.44	106.01	112.00
49	CQ	38	ARG	NE-CZ-NH1	5.44	123.02	120.30
36	B2	440	U	N1-C1'-C2'	5.44	121.08	114.00
36	B2	506	G	P-O3'-C3'	-5.44	113.17	119.70
36	B2	1012	G	O4'-C1'-N9	5.44	112.55	108.20
36	B2	1759	U	O4'-C1'-N1	5.44	112.55	108.20
42	CL	97	VAL	N-CA-C	5.44	125.69	111.00
57	CY	75	ARG	NE-CZ-NH2	-5.44	117.58	120.30
81	CE	188	LYS	CA-CB-CG	5.44	125.37	113.40
83	A5	1865	U	P-O5'-C5'	5.44	129.61	120.90
83	A5	2868	A	N9-C1'-C2'	5.44	121.08	114.00
83	A5	2914	A	P-O3'-C3'	-5.44	113.17	119.70
83	A5	3477	A	N9-C1'-C2'	-5.44	106.01	112.00
11	AL	3	ASP	CB-CG-OD2	-5.44	113.40	118.30
36	B2	595	C	O4'-C1'-C2'	-5.44	100.36	105.80
36	B2	1240	A	C4'-C3'-C2'	-5.44	97.16	102.60
83	A5	788	C	N1-C1'-C2'	5.44	121.07	114.00
83	A5	1179	U	O4'-C1'-N1	5.44	112.55	108.20
83	A5	3254	U	C3'-C2'-C1'	5.44	105.85	101.50
28	AC	101	ALA	CA-C-N	5.44	127.08	116.20
36	B2	1379	G	C1'-O4'-C4'	-5.44	105.55	109.90
83	A5	3433	A	P-O5'-C5'	5.44	129.60	120.90
83	A5	3655	U	O4'-C1'-C2'	-5.44	100.36	105.80
83	A5	3915	U	C5'-C4'-C3'	-5.44	107.30	116.00
10	AN	58	HIS	O-C-N	-5.44	113.96	123.20
19	AZ	112	THR	N-CA-C	5.44	125.68	111.00
36	B2	1587	U	O4'-C1'-C2'	-5.44	100.36	105.80
36	B2	1818	U	O3'-P-O5'	5.44	114.33	104.00
37	BC	70	C	C1'-O4'-C4'	-5.44	105.55	109.90
83	A5	42	U	N1-C1'-C2'	5.44	121.07	114.00
83	A5	1997	C	O4'-C1'-N1	5.44	112.55	108.20
83	A5	2921	G	C1'-O4'-C4'	-5.44	105.55	109.90
1	Az	722	ALA	N-CA-C	5.44	125.68	111.00
74	CC	269	THR	N-CA-CB	5.44	120.63	110.30
83	A5	1799	U	O3'-P-O5'	5.44	114.33	104.00
83	A5	3016	G	C1'-O4'-C4'	-5.44	105.55	109.90
83	A5	3898	C	P-O5'-C5'	5.44	129.60	120.90
20	Aa	38	LYS	C-N-CA	5.43	135.29	121.70
36	B2	288	C	O4'-C1'-C2'	-5.43	100.37	105.80
36	B2	388	G	N9-C1'-C2'	5.43	121.06	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1024	C	N1-C1'-C2'	5.43	121.06	114.00
36	B2	1159	C	P-O3'-C3'	-5.43	113.18	119.70
83	A5	36	U	C3'-C2'-C1'	5.43	105.85	101.50
83	A5	2233	C	C3'-C2'-C1'	5.43	105.85	101.50
83	A5	3479	C	C3'-C2'-C1'	5.43	105.85	101.50
83	A5	3715	U	O4'-C1'-C2'	-5.43	100.36	105.80
36	B2	1787	U	P-O3'-C3'	5.43	126.22	119.70
49	CQ	30	LYS	CA-CB-CG	5.43	125.35	113.40
83	A5	181	A	O4'-C1'-N9	5.43	112.55	108.20
83	A5	757	A	O4'-C1'-N9	5.43	112.55	108.20
36	B2	1434	U	O4'-C1'-C2'	-5.43	100.37	105.80
5	AO	34	TYR	CB-CG-CD1	5.43	124.26	121.00
52	CS	6	LEU	N-CA-C	5.43	125.66	111.00
83	A5	2112	A	O4'-C1'-N9	5.43	112.54	108.20
83	A5	3013	C	P-O3'-C3'	5.43	126.22	119.70
83	A5	3519	C	O4'-C1'-N1	5.43	112.54	108.20
76	Cn	14	LYS	N-CA-CB	5.43	120.37	110.60
15	AB	72	ALA	CB-CA-C	-5.43	101.96	110.10
20	Aa	42	ARG	NE-CZ-NH2	-5.43	117.59	120.30
36	B2	392	A	N9-C1'-C2'	-5.43	106.03	112.00
36	B2	1063	G	C3'-C2'-C1'	5.43	105.84	101.50
83	A5	493	A	O4'-C1'-N9	5.43	112.54	108.20
83	A5	671	A	P-O5'-C5'	5.43	129.58	120.90
83	A5	2040	A	P-O3'-C3'	5.43	126.21	119.70
83	A5	3500	A	C1'-O4'-C4'	-5.43	105.56	109.90
36	B2	975	U	C3'-C2'-C1'	5.42	105.84	101.50
36	B2	1755	A	C1'-O4'-C4'	-5.42	105.56	109.90
46	CN	181	SER	N-CA-CB	5.42	118.64	110.50
71	Cj	43	LYS	CB-CA-C	-5.42	99.55	110.40
83	A5	525	U	P-O3'-C3'	5.42	126.21	119.70
83	A5	566	A	C3'-C2'-C1'	5.42	105.84	101.50
83	A5	3742	C	O4'-C1'-N1	5.42	112.54	108.20
85	A7	24	U	P-O3'-C3'	-5.42	113.19	119.70
1	Az	43	ALA	C-N-CA	5.42	133.68	122.30
29	AG	149	LYS	N-CA-C	5.42	125.64	111.00
37	BC	9	G	O4'-C1'-N9	5.42	112.54	108.20
53	CT	149	ALA	N-CA-CB	5.42	117.69	110.10
83	A5	707	C	O4'-C1'-N1	5.42	112.54	108.20
83	A5	854	U	N1-C1'-C2'	-5.42	106.04	112.00
83	A5	916	C	O4'-C1'-N1	5.42	112.54	108.20
83	A5	1875	G	O4'-C1'-N9	5.42	112.54	108.20
83	A5	3355	G	C1'-O4'-C4'	-5.42	105.56	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3842	A	C2'-C3'-O3'	5.42	122.37	113.70
83	A5	163	A	O4'-C1'-C2'	-5.42	100.38	105.80
86	A8	52	A	O4'-C1'-N9	5.42	112.54	108.20
1	Az	499	ASN	CA-C-N	5.42	132.27	117.10
34	AQ	93	ALA	N-CA-CB	5.42	117.69	110.10
36	B2	171	U	P-O5'-C5'	5.42	129.57	120.90
36	B2	451	C	C3'-C2'-C1'	5.42	105.83	101.50
36	B2	556	G	O4'-C1'-N9	5.42	112.53	108.20
83	A5	177	U	P-O3'-C3'	5.42	126.20	119.70
83	A5	2527	A	C1'-O4'-C4'	5.42	114.23	109.90
83	A5	2788	U	C4'-C3'-C2'	-5.42	97.18	102.60
83	A5	3262	A	C3'-C2'-C1'	5.42	105.83	101.50
83	A5	3371	G	C1'-O4'-C4'	-5.42	105.57	109.90
15	AB	40	GLN	N-CA-CB	5.42	120.35	110.60
36	B2	213	G	O4'-C1'-N9	-5.42	103.87	108.20
36	B2	561	G	O4'-C1'-N9	5.42	112.53	108.20
36	B2	1183	U	P-O5'-C5'	-5.42	112.23	120.90
36	B2	1226	A	O4'-C1'-N9	5.42	112.53	108.20
64	CF	142	TYR	CB-CG-CD2	5.42	124.25	121.00
83	A5	3128	U	C1'-O4'-C4'	-5.42	105.57	109.90
4	AK	32	HIS	N-CA-CB	5.42	120.35	110.60
67	Ce	125	ASN	N-CA-C	5.42	125.62	111.00
83	A5	732	U	C1'-O4'-C4'	5.42	114.23	109.90
1	Az	15	LYS	N-CA-C	5.41	125.62	111.00
33	AI	144	SER	C-N-CA	5.41	135.24	121.70
36	B2	138	U	C5'-C4'-O4'	5.41	115.60	109.10
36	B2	427	G	O4'-C1'-N9	5.41	112.53	108.20
57	CY	66	GLN	N-CA-CB	5.41	120.34	110.60
83	A5	2140	C	O4'-C1'-N1	5.41	112.53	108.20
85	A7	46	C	O4'-C1'-C2'	-5.41	100.39	105.80
86	A8	120	G	O4'-C1'-N9	5.41	112.53	108.20
25	Af	151	SER	C-N-CA	5.41	135.23	121.70
83	A5	875	G	O4'-C1'-C2'	5.41	112.47	107.60
1	Az	802	HIS	N-CA-CB	5.41	120.34	110.60
36	B2	31	C	C1'-O4'-C4'	-5.41	105.57	109.90
36	B2	1177	C	C4'-C3'-C2'	-5.41	97.19	102.60
41	CO	49	PHE	CB-CG-CD2	5.41	124.59	120.80
83	A5	1111	C	C3'-C2'-C1'	5.41	105.83	101.50
19	AZ	111	ALA	C-N-CA	5.41	135.22	121.70
20	Aa	102	PHE	CB-CA-C	5.41	121.22	110.40
36	B2	366	C	O4'-C1'-C2'	-5.41	100.39	105.80
36	B2	604	C	O4'-C1'-C2'	-5.41	100.39	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	859	C	C5'-C4'-C3'	-5.41	107.35	116.00
36	B2	1393	C	N1-C1'-C2'	5.41	121.03	114.00
83	A5	358	C	C3'-C2'-C1'	5.41	105.83	101.50
83	A5	1133	A	O4'-C1'-N9	5.41	112.53	108.20
83	A5	1520	U	C1'-O4'-C4'	5.41	114.23	109.90
83	A5	2631	G	C1'-O4'-C4'	-5.41	105.57	109.90
83	A5	3953	C	N1-C1'-C2'	5.41	121.03	114.00
36	B2	1647	G	C3'-C2'-C1'	-5.41	97.17	101.50
52	CS	116	ARG	NE-CZ-NH2	-5.41	117.60	120.30
81	CE	18	LYS	N-CA-CB	5.41	120.33	110.60
18	AY	105	ARG	NE-CZ-NH2	-5.41	117.60	120.30
18	AY	108	ARG	NE-CZ-NH1	5.41	123.00	120.30
36	B2	363	U	O4'-C1'-N1	5.41	112.53	108.20
83	A5	1239	A	O4'-C1'-N9	5.41	112.52	108.20
83	A5	1728	G	C1'-O4'-C4'	-5.41	105.58	109.90
83	A5	2990	C	O4'-C1'-N1	5.41	112.53	108.20
83	A5	3017	U	O4'-C1'-N1	5.41	112.53	108.20
83	A5	3829	U	P-O3'-C3'	-5.41	113.21	119.70
85	A7	67	G	C1'-O4'-C4'	-5.41	105.58	109.90
86	A8	50	A	C1'-O4'-C4'	-5.41	105.58	109.90
83	A5	426	A	C3'-C2'-C1'	5.40	105.82	101.50
86	A8	59	G	P-O3'-C3'	5.40	126.19	119.70
86	A8	110	C	C5'-C4'-O4'	5.40	115.58	109.10
43	CV	20	LEU	CB-CA-C	-5.40	99.94	110.20
45	Ca	7	LYS	N-CA-CB	5.40	120.33	110.60
45	Ca	130	PHE	CB-CG-CD2	-5.40	117.02	120.80
83	A5	793	U	N1-C1'-C2'	5.40	121.02	114.00
83	A5	996	C	C3'-C2'-C1'	5.40	105.82	101.50
83	A5	3425	G	O4'-C1'-N9	5.40	112.52	108.20
36	B2	657	A	C3'-C2'-C1'	5.40	105.82	101.50
36	B2	1837	G	O4'-C1'-C2'	5.40	112.46	107.60
41	CO	160	ARG	NE-CZ-NH1	5.40	123.00	120.30
63	CB	378	ARG	NE-CZ-NH2	-5.40	117.60	120.30
83	A5	190	A	O4'-C1'-C2'	-5.40	100.40	105.80
83	A5	1987	G	O3'-P-O5'	5.40	114.26	104.00
83	A5	3606	G	O4'-C1'-N9	5.40	112.52	108.20
36	B2	267	G	O4'-C1'-N9	5.40	112.52	108.20
60	Cr	2	ALA	N-CA-CB	-5.40	102.54	110.10
83	A5	1370	C	C1'-O4'-C4'	-5.40	105.58	109.90
83	A5	2467	A	O4'-C1'-C2'	-5.40	100.40	105.80
83	A5	2920	U	C5'-C4'-O4'	5.40	115.58	109.10
20	Aa	97	PRO	CA-N-CD	-5.40	103.94	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1129	A	O4'-C1'-N9	5.40	112.52	108.20
83	A5	316	U	OP2-P-O3'	5.40	117.08	105.20
83	A5	367	A	O4'-C1'-C2'	-5.40	100.40	105.80
83	A5	1526	G	O4'-C1'-N9	5.40	112.52	108.20
86	A8	110	C	C2'-C3'-O3'	-5.40	97.63	109.50
36	B2	301	U	O4'-C1'-N1	5.40	112.52	108.20
83	A5	2719	A	C1'-O4'-C4'	5.40	114.22	109.90
83	A5	2861	G	O4'-C1'-N9	5.40	112.52	108.20
83	A5	3349	A	C1'-O4'-C4'	5.40	114.22	109.90
28	AC	65	TYR	CB-CG-CD1	5.39	124.24	121.00
36	B2	148	G	O4'-C1'-N9	5.39	112.52	108.20
36	B2	944	G	C4'-C3'-O3'	-5.39	98.07	109.40
71	Cj	27	TYR	CB-CG-CD1	-5.39	117.76	121.00
83	A5	286	A	O4'-C1'-C2'	-5.39	100.41	105.80
36	B2	607	A	C3'-C2'-C1'	5.39	105.81	101.50
36	B2	1630	G	C1'-O4'-C4'	-5.39	105.59	109.90
43	CV	73	ARG	NE-CZ-NH2	-5.39	117.60	120.30
44	CM	60	TYR	CB-CG-CD1	-5.39	117.76	121.00
74	CC	314	ARG	N-CA-C	5.39	125.56	111.00
83	A5	409	A	O4'-C1'-N9	5.39	112.51	108.20
83	A5	570	U	O4'-C1'-N1	5.39	112.51	108.20
83	A5	1738	U	P-O3'-C3'	5.39	126.17	119.70
83	A5	3724	U	O4'-C1'-C2'	-5.39	100.41	105.80
1	Az	268	GLU	CB-CA-C	5.39	121.18	110.40
83	A5	741	C	C1'-O4'-C4'	-5.39	105.59	109.90
83	A5	1381	U	O4'-C1'-N1	5.39	112.51	108.20
86	A8	31	G	C1'-O4'-C4'	-5.39	105.59	109.90
36	B2	1269	U	C1'-O4'-C4'	5.39	114.21	109.90
37	BC	48	C	O4'-C1'-N1	5.39	112.51	108.20
83	A5	98	G	N9-C1'-C2'	5.39	121.01	114.00
85	A7	108	G	N9-C1'-C2'	5.39	121.01	114.00
83	A5	1457	G	C3'-C2'-C1'	5.39	105.81	101.50
83	A5	2809	C	C3'-C2'-C1'	5.39	105.81	101.50
36	B2	126	G	C3'-C2'-C1'	5.39	105.81	101.50
36	B2	418	U	O4'-C1'-N1	5.39	112.51	108.20
74	CC	98	MET	CG-SD-CE	-5.39	91.58	100.20
83	A5	841	A	O4'-C1'-N9	5.39	112.51	108.20
83	A5	1785	G	P-O3'-C3'	-5.39	113.23	119.70
83	A5	3844	U	C3'-C2'-C1'	5.39	105.81	101.50
85	A7	42	A	C3'-C2'-C1'	5.39	105.81	101.50
36	B2	1188	G	O4'-C1'-N9	-5.38	103.89	108.20
52	CS	119	ALA	N-CA-C	5.38	125.54	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	470	G	O4'-C1'-N9	5.38	112.51	108.20
83	A5	1143	U	O4'-C1'-N1	5.38	112.51	108.20
83	A5	2180	A	C3'-C2'-C1'	5.38	105.81	101.50
83	A5	2719	A	N9-C1'-C2'	-5.38	106.08	112.00
83	A5	2913	G	O4'-C1'-N9	5.38	112.51	108.20
1	Az	452	SER	C-N-CA	5.38	133.60	122.30
36	B2	449	C	C5'-C4'-O4'	5.38	115.56	109.10
36	B2	710	C	O4'-C1'-N1	5.38	112.51	108.20
83	A5	802	G	O4'-C1'-N9	5.38	112.51	108.20
83	A5	2180	A	N9-C1'-C2'	5.38	121.00	114.00
83	A5	2524	A	C3'-C2'-C1'	5.38	105.81	101.50
83	A5	2850	A	N9-C1'-C2'	-5.38	106.08	112.00
36	B2	419	C	P-O5'-C5'	-5.38	112.29	120.90
36	B2	603	G	O4'-C1'-N9	5.38	112.51	108.20
36	B2	931	A	O3'-P-O5'	5.38	114.22	104.00
36	B2	1757	G	C5'-C4'-O4'	5.38	115.56	109.10
36	B2	1843	A	C4'-C3'-C2'	-5.38	97.22	102.60
40	CK	123	ARG	NE-CZ-NH1	-5.38	117.61	120.30
83	A5	1360	U	C3'-C2'-C1'	5.38	105.81	101.50
83	A5	1538	U	N1-C1'-C2'	-5.38	106.08	112.00
83	A5	1554	C	C3'-C2'-C1'	5.38	105.81	101.50
36	B2	1669	A	N9-C1'-C2'	-5.38	106.08	112.00
83	A5	1454	C	N1-C1'-C2'	5.38	120.99	114.00
83	A5	3664	A	C1'-O4'-C4'	-5.38	105.60	109.90
48	CD	289	TYR	CB-CG-CD2	-5.38	117.77	121.00
49	CQ	11	ARG	NE-CZ-NH2	-5.38	117.61	120.30
52	CS	98	ARG	NE-CZ-NH1	5.38	122.99	120.30
83	A5	66	A	O4'-C1'-N9	5.38	112.50	108.20
83	A5	1809	A	C1'-O4'-C4'	-5.38	105.60	109.90
83	A5	2141	A	C4'-C3'-C2'	-5.38	97.22	102.60
83	A5	3178	G	C3'-C2'-C1'	-5.38	97.20	101.50
29	AG	217	ARG	NE-CZ-NH2	-5.38	117.61	120.30
36	B2	248	G	N9-C1'-C2'	5.38	120.99	114.00
36	B2	473	A	O4'-C1'-C2'	-5.38	100.42	105.80
36	B2	1733	G	C1'-O4'-C4'	-5.38	105.60	109.90
36	B2	1881	A	P-O3'-C3'	5.38	126.15	119.70
83	A5	28	C	C4'-C3'-C2'	-5.38	97.22	102.60
83	A5	1320	U	C1'-O4'-C4'	5.38	114.20	109.90
83	A5	1624	G	O4'-C1'-N9	5.38	112.50	108.20
83	A5	2630	A	P-O3'-C3'	5.38	126.15	119.70
83	A5	2691	A	C3'-C2'-C1'	5.38	105.80	101.50
36	B2	1080	A	O4'-C1'-N9	5.38	112.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	Cf	23	ALA	N-CA-C	5.38	125.51	111.00
83	A5	2067	C	O4'-C1'-N1	5.38	112.50	108.20
36	B2	206	U	O4'-C1'-N1	5.37	112.50	108.20
36	B2	1118	U	N1-C1'-C2'	-5.37	106.09	112.00
49	CQ	159	PRO	N-CA-C	5.37	126.07	112.10
83	A5	1004	C	C3'-C2'-C1'	5.37	105.80	101.50
83	A5	1721	C	O3'-P-O5'	-5.37	93.79	104.00
83	A5	2719	A	O4'-C1'-C2'	-5.37	100.43	105.80
83	A5	3222	G	O4'-C1'-N9	5.37	112.50	108.20
36	B2	83	A	C1'-O4'-C4'	5.37	114.20	109.90
83	A5	95	G	C1'-O4'-C4'	-5.37	105.60	109.90
83	A5	403	A	O4'-C1'-N9	5.37	112.50	108.20
83	A5	1139	U	C4'-C3'-C2'	-5.37	97.23	102.60
83	A5	2168	G	O4'-C1'-N9	5.37	112.50	108.20
83	A5	3639	U	C1'-O4'-C4'	-5.37	105.60	109.90
36	B2	434	G	C1'-O4'-C4'	-5.37	105.61	109.90
36	B2	1550	C	O4'-C1'-C2'	-5.37	100.43	105.80
83	A5	567	A	C4'-C3'-C2'	-5.37	97.23	102.60
83	A5	826	A	O4'-C1'-N9	5.37	112.50	108.20
83	A5	2194	G	O4'-C1'-C2'	5.37	112.43	107.60
83	A5	3741	A	C1'-O4'-C4'	5.37	114.19	109.90
83	A5	3769	C	C3'-C2'-C1'	5.37	105.80	101.50
1	Az	61	LYS	C-N-CA	5.37	135.12	121.70
44	CM	157	LYS	C-N-CA	5.37	133.57	122.30
83	A5	2493	C	O4'-C1'-N1	5.37	112.49	108.20
83	A5	3865	C	O4'-C1'-N1	5.37	112.49	108.20
1	Az	618	ALA	N-CA-CB	5.37	117.61	110.10
31	AH	141	ARG	CA-CB-CG	5.37	125.21	113.40
36	B2	421	A	C5'-C4'-O4'	5.37	115.54	109.10
36	B2	1968	C	O4'-C1'-C2'	-5.37	100.43	105.80
80	CH	91	ARG	N-CA-C	5.37	125.49	111.00
83	A5	2104	A	C3'-C2'-C1'	5.37	105.79	101.50
83	A5	2234	C	O4'-C1'-N1	5.37	112.49	108.20
83	A5	3244	U	C1'-O4'-C4'	5.37	114.19	109.90
86	A8	45	G	C5'-C4'-C3'	5.37	124.58	116.00
86	A8	49	C	C3'-C2'-C1'	5.37	105.79	101.50
36	B2	183	A	O4'-C1'-C2'	-5.36	100.44	105.80
36	B2	1357	G	C5'-C4'-C3'	-5.36	107.42	116.00
83	A5	1132	U	N1-C1'-C2'	5.36	120.97	114.00
83	A5	1659	A	O3'-P-O5'	-5.36	93.81	104.00
83	A5	2174	A	O4'-C1'-C2'	5.36	112.43	107.60
83	A5	2558	A	O4'-C1'-C2'	5.36	112.43	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	479	A	O3'-P-O5'	5.36	114.19	104.00
36	B2	1044	G	C3'-C2'-C1'	-5.36	97.21	101.50
83	A5	2668	C	O4'-C1'-N1	5.36	112.49	108.20
85	A7	8	A	N9-C1'-C2'	5.36	120.97	114.00
7	AM	114	SER	N-CA-CB	5.36	118.54	110.50
74	CC	392	VAL	N-CA-CB	5.36	123.29	111.50
83	A5	32	C	C3'-C2'-C1'	5.36	105.79	101.50
83	A5	324	A	C1'-O4'-C4'	5.36	114.19	109.90
83	A5	1521	G	O4'-C1'-N9	-5.36	103.91	108.20
83	A5	3430	G	C1'-O4'-C4'	-5.36	105.61	109.90
1	Az	564	SER	N-CA-C	5.36	125.47	111.00
16	AA	204	TYR	CB-CG-CD2	-5.36	117.78	121.00
1	Az	404	ALA	N-CA-CB	5.36	117.60	110.10
36	B2	207	U	C1'-O4'-C4'	5.36	114.19	109.90
36	B2	408	G	C1'-O4'-C4'	-5.36	105.61	109.90
36	B2	990	U	C1'-O4'-C4'	-5.36	105.61	109.90
36	B2	1564	A	C5'-C4'-O4'	5.36	115.53	109.10
36	B2	1619	A	P-O3'-C3'	5.36	126.13	119.70
36	B2	1911	C	O4'-C1'-N1	5.36	112.49	108.20
83	A5	250	U	P-O3'-C3'	-5.36	113.27	119.70
83	A5	1315	A	O4'-C1'-N9	5.36	112.49	108.20
83	A5	1721	C	O5'-C5'-C4'	-5.36	101.52	111.70
83	A5	2688	U	O4'-C1'-N1	5.36	112.48	108.20
83	A5	3916	U	O4'-C1'-N1	5.36	112.49	108.20
36	B2	192	A	C1'-O4'-C4'	5.36	114.19	109.90
36	B2	436	C	O4'-C1'-N1	5.36	112.48	108.20
83	A5	1157	C	O4'-C1'-C2'	-5.36	100.44	105.80
86	A8	8	A	N9-C1'-C2'	-5.36	106.11	112.00
36	B2	285	U	C2'-C3'-O3'	5.35	122.27	113.70
33	AI	113	TYR	CB-CG-CD1	5.35	124.21	121.00
36	B2	1913	C	C3'-C2'-C1'	5.35	105.78	101.50
83	A5	812	U	O4'-C1'-N1	5.35	112.48	108.20
83	A5	842	A	C4'-C3'-C2'	-5.35	97.25	102.60
83	A5	2503	G	C3'-C2'-C1'	-5.35	97.22	101.50
83	A5	3805	U	O4'-C1'-C2'	-5.35	100.45	105.80
83	A5	3275	G	C1'-O4'-C4'	-5.35	105.62	109.90
16	AA	216	ALA	C-N-CA	5.35	135.07	121.70
36	B2	1615	U	O4'-C1'-N1	5.35	112.48	108.20
44	CM	66	TYR	CB-CG-CD1	5.35	124.21	121.00
53	CT	147	PRO	C-N-CA	5.35	135.07	121.70
83	A5	785	A	C5'-C4'-O4'	5.35	115.52	109.10
83	A5	1232	G	C5'-C4'-O4'	5.35	115.52	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1681	G	C3'-C2'-C1'	-5.35	97.22	101.50
30	AF	153	GLY	N-CA-C	5.35	126.47	113.10
19	AZ	93	LYS	N-CA-CB	5.35	120.22	110.60
36	B2	56	U	N1-C1'-C2'	5.35	120.95	114.00
36	B2	1106	A	C4'-C3'-C2'	-5.35	97.25	102.60
40	CK	102	GLY	N-CA-C	5.35	126.46	113.10
74	CC	54	ALA	CB-CA-C	-5.35	102.08	110.10
83	A5	2156	U	C4'-C3'-C2'	-5.35	97.25	102.60
83	A5	3408	C	N1-C1'-C2'	5.35	120.95	114.00
2	Ag	248	TRP	CA-CB-CG	5.34	123.86	113.70
8	AS	15	ILE	N-CA-C	-5.34	96.57	111.00
34	AQ	145	LYS	N-CA-CB	5.34	120.22	110.60
36	B2	542	A	P-O3'-C3'	-5.34	113.29	119.70
36	B2	771	U	P-O3'-C3'	5.34	126.11	119.70
36	B2	1357	G	C3'-C2'-C1'	-5.34	97.22	101.50
39	Cq	183	PHE	CA-C-N	5.34	128.96	117.20
46	CN	109	ARG	NE-CZ-NH1	5.34	122.97	120.30
83	A5	1180	U	O4'-C1'-C2'	-5.34	100.45	105.80
83	A5	1217	U	N1-C1'-C2'	5.34	120.95	114.00
83	A5	1359	G	O4'-C1'-N9	5.34	112.48	108.20
83	A5	2733	G	C3'-C2'-C1'	5.34	105.78	101.50
83	A5	3851	U	C4'-C3'-C2'	-5.34	97.25	102.60
36	B2	1274	U	C3'-C2'-C1'	5.34	105.77	101.50
61	Ch	102	ARG	NE-CZ-NH2	-5.34	117.63	120.30
36	B2	651	C	C3'-C2'-C1'	5.34	105.77	101.50
36	B2	1837	G	C3'-C2'-C1'	-5.34	97.23	101.50
82	CG	129	GLY	C-N-CA	5.34	135.05	121.70
83	A5	371	G	C4'-C3'-C2'	-5.34	97.26	102.60
83	A5	2923	A	O4'-C1'-C2'	-5.34	100.46	105.80
18	AY	95	HIS	C-N-CA	5.34	133.51	122.30
25	Af	152	LYS	CB-CA-C	5.34	121.08	110.40
36	B2	1057	A	O4'-C1'-C2'	-5.34	100.46	105.80
36	B2	1428	A	C3'-C2'-C1'	5.34	105.77	101.50
36	B2	1906	U	P-O5'-C5'	5.34	129.44	120.90
64	CF	115	PHE	CB-CG-CD2	-5.34	117.06	120.80
83	A5	72	C	O4'-C1'-N1	5.34	112.47	108.20
83	A5	974	G	O4'-C1'-N9	5.34	112.47	108.20
83	A5	977	C	P-O5'-C5'	5.34	129.44	120.90
83	A5	1473	U	P-O5'-C5'	5.34	129.44	120.90
83	A5	2181	A	C3'-C2'-C1'	5.34	105.77	101.50
83	A5	3399	C	N1-C1'-C2'	5.34	120.94	114.00
3	AU	39	ARG	NE-CZ-NH1	5.34	122.97	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1365	G	O4'-C1'-N9	5.34	112.47	108.20
80	CH	106	ASN	O-C-N	-5.34	114.16	122.70
83	A5	668	A	O4'-C1'-N9	5.34	112.47	108.20
83	A5	974	G	N9-C1'-C2'	-5.34	106.13	112.00
83	A5	1480	U	P-O5'-C5'	-5.34	112.36	120.90
86	A8	56	U	O4'-C1'-N1	5.34	112.47	108.20
36	B2	241	U	O4'-C1'-N1	5.34	112.47	108.20
36	B2	634	U	O4'-C1'-N1	5.34	112.47	108.20
83	A5	1160	U	N1-C1'-C2'	5.34	120.94	114.00
83	A5	1293	A	O4'-C4'-C3'	-5.34	98.66	104.00
36	B2	195	G	C3'-C2'-C1'	-5.33	97.23	101.50
36	B2	1691	A	O4'-C1'-N9	5.33	112.47	108.20
75	Cm	94	MET	N-CA-CB	5.33	120.20	110.60
83	A5	1081	C	C3'-C2'-C1'	5.33	105.77	101.50
83	A5	1454	C	O4'-C1'-N1	5.33	112.47	108.20
83	A5	1560	A	N9-C1'-C2'	-5.33	106.13	112.00
83	A5	1984	U	C1'-O4'-C4'	-5.33	105.63	109.90
83	A5	2750	A	C1'-O4'-C4'	5.33	114.17	109.90
36	B2	1753	U	C1'-O4'-C4'	-5.33	105.63	109.90
36	B2	1818	U	C2'-C3'-O3'	5.33	122.23	113.70
37	BC	41	A	O4'-C1'-N9	5.33	112.47	108.20
28	AC	150	ARG	NE-CZ-NH2	-5.33	117.63	120.30
30	AF	226	SER	C-N-CA	5.33	135.03	121.70
79	CJ	8	ILE	C-N-CA	5.33	135.03	121.70
81	CE	193	VAL	CA-C-N	5.33	132.03	117.10
83	A5	26	G	N9-C1'-C2'	-5.33	106.14	112.00
83	A5	785	A	O3'-P-O5'	-5.33	93.87	104.00
83	A5	1452	A	O4'-C1'-N9	5.33	112.47	108.20
83	A5	2651	G	C2'-C3'-O3'	5.33	122.23	113.70
83	A5	3713	C	O4'-C4'-C3'	-5.33	98.67	104.00
10	AN	85	PRO	N-CA-CB	5.33	109.70	103.30
16	AA	87	VAL	CA-CB-CG2	-5.33	102.91	110.90
83	A5	1368	A	C3'-C2'-C1'	-5.33	97.24	101.50
83	A5	3690	A	N9-C1'-C2'	5.33	120.93	114.00
36	B2	1631	C	O4'-C1'-C2'	-5.33	100.47	105.80
83	A5	3367	C	C1'-O4'-C4'	-5.33	105.64	109.90
83	A5	3521	A	N9-C1'-C2'	-5.33	106.14	112.00
24	Ae	116	ASN	C-N-CA	5.33	135.02	121.70
42	CL	157	LYS	C-N-CA	5.33	135.02	121.70
83	A5	49	A	O4'-C1'-N9	-5.33	103.94	108.20
83	A5	196	C	C3'-C2'-C1'	5.33	105.76	101.50
36	B2	1338	U	N1-C1'-C2'	5.33	120.92	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	CE	29	GLY	C-N-CA	5.33	135.01	121.70
83	A5	2838	U	O3'-P-O5'	-5.33	93.88	104.00
85	A7	75	G	N9-C1'-C2'	5.33	120.92	114.00
36	B2	1537	C	N1-C1'-C2'	5.32	120.92	114.00
36	B2	1865	G	O4'-C1'-N9	5.32	112.46	108.20
52	CS	148	SER	C-N-CA	5.32	135.01	121.70
74	CC	267	PHE	CB-CG-CD2	-5.32	117.07	120.80
83	A5	1692	G	O4'-C1'-C2'	5.32	112.39	107.60
83	A5	2055	G	C1'-O4'-C4'	-5.32	105.64	109.90
83	A5	3642	G	O4'-C1'-N9	5.32	112.46	108.20
83	A5	3869	A	O4'-C4'-C3'	-5.32	98.68	104.00
36	B2	2	U	C3'-C2'-C1'	5.32	105.76	101.50
68	Cf	50	LEU	N-CA-CB	5.32	121.04	110.40
83	A5	428	C	N1-C1'-C2'	5.32	120.92	114.00
83	A5	3970	A	P-O5'-C5'	5.32	129.41	120.90
1	Az	790	THR	CA-CB-CG2	-5.32	104.95	112.40
36	B2	1115	C	C5'-C4'-O4'	5.32	115.48	109.10
64	CF	167	ARG	N-CA-CB	5.32	120.17	110.60
73	Cl	39	ALA	N-CA-C	5.32	125.36	111.00
80	CH	49	ASP	CB-CG-OD1	-5.32	113.51	118.30
83	A5	1569	U	O4'-C1'-C2'	-5.32	100.48	105.80
83	A5	1687	U	C1'-O4'-C4'	-5.32	105.64	109.90
36	B2	486	A	C1'-O4'-C4'	-5.32	105.64	109.90
36	B2	1979	C	O3'-P-O5'	-5.32	93.89	104.00
77	Cp	57	CYS	CA-CB-SG	-5.32	104.42	114.00
83	A5	2674	A	P-O5'-C5'	-5.32	112.39	120.90
36	B2	1617	A	O4'-C1'-N9	5.32	112.45	108.20
54	CP	128	ARG	N-CA-CB	5.32	120.17	110.60
83	A5	979	U	N1-C1'-C2'	5.32	120.91	114.00
83	A5	1309	U	C3'-C2'-C1'	5.32	105.75	101.50
83	A5	1447	C	C4'-C3'-C2'	-5.32	97.28	102.60
83	A5	1878	A	C3'-C2'-C1'	5.32	105.75	101.50
83	A5	2174	A	C3'-C2'-C1'	-5.32	97.25	101.50
26	AJ	73	PHE	CB-CG-CD2	-5.32	117.08	120.80
36	B2	1824	C	N1-C1'-C2'	5.32	120.91	114.00
37	BC	54	U	N1-C1'-C2'	-5.32	106.15	112.00
83	A5	2925	C	C3'-C2'-C1'	5.32	105.75	101.50
36	B2	1295	U	C3'-C2'-C1'	5.31	105.75	101.50
83	A5	1889	A	C1'-O4'-C4'	-5.31	105.65	109.90
83	A5	2707	C	C5'-C4'-O4'	-5.31	102.72	109.10
83	A5	3562	A	N9-C1'-C2'	5.31	120.91	114.00
2	Ag	19	THR	CA-CB-CG2	-5.31	104.96	112.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2135	C	O4'-C1'-C2'	-5.31	100.49	105.80
86	A8	27	C	C1'-O4'-C4'	-5.31	105.65	109.90
83	A5	2199	A	C3'-C2'-C1'	5.31	105.75	101.50
83	A5	3367	C	N1-C1'-C2'	5.31	120.91	114.00
36	B2	451	C	O4'-C1'-C2'	-5.31	100.49	105.80
36	B2	1630	G	N9-C1'-C2'	5.31	120.90	114.00
83	A5	13	U	O4'-C1'-C2'	-5.31	100.49	105.80
83	A5	908	C	O4'-C1'-C2'	-5.31	100.49	105.80
83	A5	1136	A	C3'-C2'-C1'	5.31	105.75	101.50
83	A5	2192	U	O4'-C1'-N1	5.31	112.45	108.20
83	A5	3937	U	C1'-O4'-C4'	5.31	114.15	109.90
36	B2	1047	U	O4'-C1'-C2'	-5.31	100.49	105.80
36	B2	1329	A	C2'-C3'-O3'	5.31	122.19	113.70
36	B2	1366	C	N1-C1'-C2'	5.31	120.90	114.00
83	A5	2085	G	N9-C1'-C2'	5.31	120.90	114.00
83	A5	2930	A	O4'-C1'-N9	5.31	112.45	108.20
83	A5	3578	A	O4'-C1'-N9	5.31	112.45	108.20
36	B2	284	G	P-O3'-C3'	5.31	126.07	119.70
83	A5	3400	U	C1'-O4'-C4'	-5.31	105.66	109.90
36	B2	1170	G	C5'-C4'-C3'	-5.30	107.51	116.00
36	B2	1471	G	P-O3'-C3'	5.30	126.06	119.70
83	A5	986	A	C3'-C2'-C1'	5.30	105.74	101.50
83	A5	1927	U	O4'-C4'-C3'	-5.30	98.70	104.00
83	A5	2743	C	C1'-O4'-C4'	-5.30	105.66	109.90
83	A5	3576	G	C1'-O4'-C4'	-5.30	105.66	109.90
85	A7	27	A	O4'-C1'-N9	5.30	112.44	108.20
1	Az	311	HIS	N-CA-CB	5.30	120.14	110.60
36	B2	1657	C	C4'-C3'-C2'	-5.30	97.30	102.60
83	A5	1741	G	O4'-C1'-N9	5.30	112.44	108.20
68	Cf	24	VAL	C-N-CA	5.30	134.95	121.70
83	A5	238	G	O4'-C1'-C2'	5.30	112.37	107.60
83	A5	619	U	C1'-O4'-C4'	-5.30	105.66	109.90
83	A5	1271	G	P-O3'-C3'	-5.30	113.34	119.70
83	A5	2781	G	O4'-C1'-C2'	-5.30	100.50	105.80
29	AG	165	LYS	N-CA-CB	5.30	120.14	110.60
33	AI	109	PHE	CB-CG-CD1	5.30	124.51	120.80
36	B2	121	A	N9-C1'-C2'	-5.30	106.17	112.00
83	A5	1010	A	O4'-C1'-N9	5.30	112.44	108.20
83	A5	1195	U	N1-C1'-C2'	5.30	120.89	114.00
83	A5	1971	C	P-O3'-C3'	-5.30	113.34	119.70
83	A5	2999	U	C2'-C3'-O3'	5.30	122.18	113.70
83	A5	3714	U	P-O3'-C3'	5.30	126.06	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3754	C	P-O3'-C3'	5.30	126.06	119.70
25	Af	148	PHE	N-CA-CB	5.30	120.14	110.60
45	Ca	63	HIS	N-CA-CB	5.30	120.14	110.60
83	A5	479	U	C5'-C4'-O4'	5.30	115.46	109.10
83	A5	1181	A	P-O3'-C3'	5.30	126.06	119.70
36	B2	858	G	O4'-C4'-C3'	-5.30	98.70	104.00
38	Cz	1	MET	CG-SD-CE	-5.30	91.73	100.20
83	A5	202	A	C4'-C3'-C2'	-5.30	97.30	102.60
83	A5	1157	C	N1-C1'-C2'	5.30	120.89	114.00
83	A5	2277	G	O4'-C1'-C2'	-5.30	100.50	105.80
83	A5	2908	U	C3'-C2'-C1'	5.30	105.74	101.50
83	A5	3298	U	O4'-C1'-C2'	-5.30	100.50	105.80
83	A5	3795	G	O4'-C1'-N9	5.30	112.44	108.20
85	A7	46	C	C3'-C2'-C1'	5.30	105.74	101.50
83	A5	289	C	O4'-C1'-N1	5.29	112.44	108.20
83	A5	1537	G	C3'-C2'-C1'	-5.29	97.26	101.50
83	A5	2772	G	C1'-O4'-C4'	-5.29	105.66	109.90
35	Ah	138	ARG	N-CA-CB	5.29	120.13	110.60
36	B2	641	U	C5'-C4'-C3'	-5.29	107.53	116.00
36	B2	1835	U	N1-C1'-C2'	5.29	120.88	114.00
83	A5	255	C	P-O5'-C5'	-5.29	112.43	120.90
83	A5	460	A	N9-C1'-C2'	5.29	120.88	114.00
83	A5	1474	A	C1'-O4'-C4'	5.29	114.14	109.90
85	A7	86	G	O4'-C1'-N9	5.29	112.44	108.20
36	B2	1077	C	O4'-C1'-C2'	-5.29	100.51	105.80
36	B2	1668	A	O4'-C1'-N9	5.29	112.43	108.20
83	A5	323	U	N1-C1'-C2'	5.29	120.88	114.00
83	A5	1587	U	C1'-O4'-C4'	5.29	114.13	109.90
83	A5	3187	C	O4'-C1'-C2'	-5.29	100.51	105.80
36	B2	828	A	C1'-O4'-C4'	-5.29	105.67	109.90
1	Az	782	PHE	CB-CG-CD1	-5.29	117.10	120.80
36	B2	508	C	O4'-C1'-N1	5.29	112.43	108.20
36	B2	605	G	O4'-C1'-N9	5.29	112.43	108.20
36	B2	1069	U	O4'-C1'-N1	5.29	112.43	108.20
39	Cq	69	LEU	C-N-CA	5.29	134.92	121.70
81	CE	193	VAL	CA-C-O	-5.29	108.99	120.10
84	A9	6	G	C1'-O4'-C4'	5.29	114.13	109.90
86	A8	29	U	C1'-O4'-C4'	5.29	114.13	109.90
36	B2	1290	A	C3'-C2'-C1'	5.29	105.73	101.50
36	B2	1655	C	C1'-O4'-C4'	-5.29	105.67	109.90
83	A5	252	U	O4'-C1'-N1	5.29	112.43	108.20
83	A5	1307	G	C1'-O4'-C4'	-5.29	105.67	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1946	G	C5'-C4'-C3'	5.29	124.46	116.00
36	B2	26	A	C4'-C3'-C2'	-5.29	97.31	102.60
36	B2	595	C	N1-C1'-C2'	5.29	120.87	114.00
36	B2	1544	G	C4'-C3'-C2'	-5.29	97.31	102.60
36	B2	1696	G	N9-C1'-C2'	5.29	120.87	114.00
57	CY	28	ARG	NE-CZ-NH1	5.29	122.94	120.30
83	A5	3228	A	N9-C1'-C2'	5.29	120.87	114.00
85	A7	96	U	C3'-C2'-C1'	5.29	105.73	101.50
10	AN	65	PHE	CB-CG-CD1	5.28	124.50	120.80
36	B2	252	A	C5'-C4'-O4'	5.28	115.44	109.10
36	B2	834	A	C3'-C2'-C1'	5.28	105.73	101.50
81	CE	130	PHE	CB-CG-CD2	-5.28	117.10	120.80
83	A5	1046	A	C3'-C2'-C1'	5.28	105.73	101.50
83	A5	3033	A	P-O3'-C3'	5.28	126.04	119.70
83	A5	3583	C	C1'-O4'-C4'	-5.28	105.67	109.90
86	A8	91	C	N1-C1'-C2'	5.28	120.87	114.00
83	A5	853	G	O4'-C1'-N9	5.28	112.43	108.20
83	A5	2666	G	C2'-C3'-O3'	5.28	122.15	113.70
36	B2	531	U	O4'-C1'-N1	5.28	112.42	108.20
36	B2	658	C	O4'-C1'-N1	5.28	112.42	108.20
36	B2	1430	U	C3'-C2'-C1'	5.28	105.72	101.50
36	B2	1782	G	O4'-C1'-C2'	-5.28	100.52	105.80
39	Cq	87	GLY	N-CA-C	-5.28	99.90	113.10
42	CL	69	LEU	CB-CA-C	5.28	120.23	110.20
78	Co	46	GLN	N-CA-CB	5.28	120.11	110.60
83	A5	552	U	N1-C1'-C2'	-5.28	106.19	112.00
83	A5	2775	A	N9-C1'-C2'	5.28	120.86	114.00
36	B2	987	A	O4'-C1'-N9	5.28	112.42	108.20
36	B2	1752	U	C1'-O4'-C4'	5.28	114.12	109.90
83	A5	1695	A	C3'-C2'-C1'	5.28	105.72	101.50
86	A8	62	A	P-O5'-C5'	-5.28	112.45	120.90
36	B2	93	A	P-O3'-C3'	5.28	126.03	119.70
36	B2	140	G	O5'-C5'-C4'	-5.28	101.67	111.70
36	B2	1206	G	O4'-C1'-C2'	5.28	112.35	107.60
81	CE	193	VAL	CB-CA-C	5.28	121.43	111.40
83	A5	400	U	C1'-O4'-C4'	-5.28	105.68	109.90
83	A5	2996	U	C5'-C4'-O4'	5.28	115.43	109.10
83	A5	3204	G	C5'-C4'-O4'	5.28	115.43	109.10
85	A7	88	G	N9-C1'-C2'	5.28	120.86	114.00
86	A8	44	C	O3'-P-O5'	-5.28	93.97	104.00
19	AZ	63	ALA	N-CA-C	5.28	125.25	111.00
31	AH	116	ARG	NE-CZ-NH2	-5.28	117.66	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	AI	125	ARG	NE-CZ-NH2	-5.28	117.66	120.30
36	B2	220	A	C1'-O4'-C4'	5.28	114.12	109.90
83	A5	101	C	N1-C1'-C2'	5.28	120.86	114.00
83	A5	115	U	N1-C1'-C2'	-5.28	106.20	112.00
83	A5	2862	U	O4'-C1'-C2'	-5.28	100.53	105.80
83	A5	3779	U	O4'-C1'-N1	5.28	112.42	108.20
36	B2	527	C	O4'-C1'-N1	5.27	112.42	108.20
36	B2	1870	C	N1-C1'-C2'	5.27	120.86	114.00
41	CO	118	ARG	NE-CZ-NH2	-5.27	117.66	120.30
83	A5	1297	G	C5'-C4'-C3'	-5.27	107.56	116.00
83	A5	1453	U	P-O3'-C3'	5.27	126.03	119.70
83	A5	1812	C	P-O5'-C5'	-5.27	112.46	120.90
14	AT	10	ASP	CB-CA-C	5.27	120.94	110.40
28	AC	83	SER	N-CA-C	-5.27	96.76	111.00
36	B2	1835	U	O4'-C1'-N1	5.27	112.42	108.20
37	BC	23	G	C3'-C2'-C1'	5.27	105.72	101.50
83	A5	2068	A	O4'-C1'-N9	5.27	112.42	108.20
83	A5	2122	G	O5'-C5'-C4'	-5.27	101.68	111.70
83	A5	3209	G	O4'-C1'-C2'	5.27	112.35	107.60
83	A5	3294	A	P-O3'-C3'	5.27	126.03	119.70
36	B2	1909	U	P-O3'-C3'	-5.27	113.38	119.70
83	A5	1246	U	O4'-C1'-N1	5.27	112.42	108.20
1	Az	790	THR	CA-C-N	5.27	126.74	116.20
8	AS	40	TYR	CG-CD1-CE1	-5.27	117.08	121.30
36	B2	312	G	P-O5'-C5'	-5.27	112.47	120.90
83	A5	626	A	C3'-C2'-C1'	5.27	105.72	101.50
83	A5	925	C	C3'-C2'-C1'	5.27	105.72	101.50
83	A5	1542	C	C1'-O4'-C4'	-5.27	105.68	109.90
83	A5	2641	C	C3'-C2'-C1'	5.27	105.72	101.50
83	A5	3460	C	C5'-C4'-C3'	-5.27	107.57	116.00
36	B2	1401	U	C1'-O4'-C4'	5.27	114.11	109.90
54	CP	127	ARG	NE-CZ-NH2	-5.27	117.67	120.30
83	A5	245	G	C3'-C2'-C1'	-5.27	97.29	101.50
83	A5	1443	A	O4'-C1'-C2'	-5.27	100.53	105.80
83	A5	2212	A	O4'-C1'-N9	5.27	112.41	108.20
83	A5	2998	U	C5'-C4'-O4'	5.27	115.42	109.10
83	A5	2130	G	C4'-C3'-C2'	-5.27	97.33	102.60
30	AF	44	PHE	CB-CG-CD1	-5.26	117.11	120.80
83	A5	260	A	C1'-O4'-C4'	-5.26	105.69	109.90
83	A5	399	C	O4'-C1'-N1	5.26	112.41	108.20
83	A5	491	U	N1-C1'-C2'	-5.26	106.21	112.00
83	A5	3369	A	O4'-C1'-N9	5.26	112.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	116	U	O4'-C1'-N1	5.26	112.41	108.20
36	B2	1070	A	O4'-C1'-N9	5.26	112.41	108.20
36	B2	1587	U	N1-C1'-C2'	-5.26	106.21	112.00
83	A5	1750	G	C1'-O4'-C4'	5.26	114.11	109.90
83	A5	1885	U	C3'-C2'-C1'	5.26	105.71	101.50
83	A5	3894	C	N1-C1'-C2'	5.26	120.84	114.00
36	B2	915	U	N1-C1'-C2'	5.26	120.84	114.00
63	CB	58	ARG	NE-CZ-NH1	5.26	122.93	120.30
68	Cf	25	LYS	N-CA-C	5.26	125.20	111.00
83	A5	982	C	P-O3'-C3'	5.26	126.01	119.70
83	A5	1251	C	C1'-O4'-C4'	-5.26	105.69	109.90
83	A5	1302	U	C3'-C2'-C1'	-5.26	97.29	101.50
83	A5	2726	A	O4'-C4'-C3'	-5.26	98.74	104.00
47	CI	154	ARG	NE-CZ-NH1	5.26	122.93	120.30
83	A5	1694	A	P-O3'-C3'	5.26	126.01	119.70
83	A5	2000	U	O3'-P-O5'	-5.26	94.01	104.00
83	A5	2646	U	N1-C1'-C2'	-5.26	106.22	112.00
36	B2	396	A	C4'-C3'-C2'	-5.26	97.34	102.60
36	B2	899	A	O4'-C1'-C2'	5.26	112.33	107.60
36	B2	1941	A	O4'-C1'-N9	5.26	112.41	108.20
50	CR	89	MET	N-CA-CB	5.26	120.06	110.60
83	A5	1601	U	C4'-C3'-C2'	-5.26	97.34	102.60
83	A5	1660	G	P-O5'-C5'	5.26	129.31	120.90
52	CS	116	ARG	NE-CZ-NH1	5.25	122.93	120.30
74	CC	204	ARG	NE-CZ-NH2	-5.25	117.67	120.30
83	A5	307	A	O4'-C1'-N9	5.25	112.40	108.20
83	A5	1776	U	O4'-C1'-C2'	-5.25	100.55	105.80
83	A5	3138	G	C5'-C4'-O4'	5.25	115.41	109.10
83	A5	3871	U	C3'-C2'-C1'	-5.25	97.30	101.50
1	Az	49	ALA	N-CA-CB	5.25	117.45	110.10
36	B2	229	U	C1'-O4'-C4'	-5.25	105.70	109.90
36	B2	562	C	O4'-C1'-C2'	-5.25	100.55	105.80
36	B2	820	G	O5'-C5'-C4'	-5.25	101.72	111.70
45	Ca	88	PHE	CB-CG-CD1	5.25	124.48	120.80
83	A5	553	A	O4'-C1'-N9	5.25	112.40	108.20
29	AG	88	ARG	NE-CZ-NH2	-5.25	117.67	120.30
32	AW	129	PHE	CB-CG-CD2	-5.25	117.12	120.80
33	AI	180	ARG	NE-CZ-NH1	5.25	122.93	120.30
36	B2	663	A	P-O3'-C3'	5.25	126.00	119.70
36	B2	1358	G	O4'-C1'-C2'	5.25	112.33	107.60
41	CO	201	TYR	C-N-CA	5.25	133.33	122.30
83	A5	1491	U	C2'-C3'-O3'	5.25	122.10	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3655	U	C1'-O4'-C4'	5.25	114.10	109.90
37	BC	39	U	C3'-C2'-C1'	5.25	105.70	101.50
83	A5	636	U	N1-C1'-C2'	-5.25	106.22	112.00
83	A5	1568	A	C1'-O4'-C4'	-5.25	105.70	109.90
83	A5	3929	U	C3'-C2'-C1'	-5.25	97.30	101.50
23	AD	115	LEU	N-CA-CB	5.25	120.90	110.40
27	AE	54	TYR	CB-CG-CD1	-5.25	117.85	121.00
36	B2	711	G	C5'-C4'-O4'	5.25	115.40	109.10
36	B2	936	G	C3'-C2'-C1'	-5.25	97.30	101.50
36	B2	1706	U	C5'-C4'-C3'	-5.25	107.60	116.00
36	B2	1788	C	O4'-C1'-C2'	5.25	112.32	107.60
57	CY	74	TYR	CB-CG-CD2	5.25	124.15	121.00
66	Cd	52	ARG	NE-CZ-NH2	-5.25	117.68	120.30
81	CE	180	GLY	N-CA-C	-5.25	99.98	113.10
83	A5	132	U	O3'-P-O5'	-5.25	94.03	104.00
83	A5	1768	G	O3'-P-O5'	5.25	113.97	104.00
83	A5	2079	U	O4'-C1'-N1	5.25	112.40	108.20
83	A5	2467	A	C1'-O4'-C4'	5.25	114.10	109.90
83	A5	3489	A	N9-C1'-C2'	-5.25	106.23	112.00
83	A5	3734	A	O4'-C1'-C2'	-5.25	100.55	105.80
17	AV	12	TYR	CB-CG-CD2	-5.25	117.85	121.00
36	B2	23	G	O4'-C1'-N9	5.25	112.40	108.20
36	B2	689	C	P-O3'-C3'	5.25	126.00	119.70
51	CA	72	ARG	NE-CZ-NH2	-5.25	117.68	120.30
83	A5	271	A	C5'-C4'-O4'	5.25	115.40	109.10
83	A5	2135	C	C5'-C4'-O4'	-5.25	102.80	109.10
1	Az	191	VAL	CA-CB-CG1	5.25	118.77	110.90
36	B2	216	U	C4'-C3'-C2'	-5.25	97.36	102.60
36	B2	1551	C	O4'-C1'-N1	5.25	112.40	108.20
36	B2	1874	C	C5'-C4'-C3'	-5.25	107.61	116.00
83	A5	1695	A	P-O5'-C5'	5.25	129.29	120.90
1	Az	56	PHE	CB-CG-CD2	-5.24	117.13	120.80
1	Az	95	ARG	CA-C-N	5.24	128.74	117.20
36	B2	249	U	N1-C1'-C2'	5.24	120.82	114.00
36	B2	523	A	O4'-C1'-C2'	-5.24	100.56	105.80
36	B2	916	U	O4'-C1'-N1	5.24	112.39	108.20
36	B2	1007	C	O4'-C1'-C2'	-5.24	100.56	105.80
36	B2	1523	U	O4'-C1'-N1	5.24	112.39	108.20
83	A5	993	A	O4'-C1'-N9	5.24	112.39	108.20
83	A5	1208	U	C1'-O4'-C4'	5.24	114.09	109.90
83	A5	1612	G	O4'-C1'-C2'	5.24	112.32	107.60
83	A5	3639	U	P-O5'-C5'	-5.24	112.51	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3766	U	O4'-C1'-N1	5.24	112.39	108.20
85	A7	95	U	N1-C1'-C2'	-5.24	106.23	112.00
27	AE	33	THR	N-CA-C	5.24	125.15	111.00
49	CQ	39	THR	CA-CB-CG2	-5.24	105.06	112.40
83	A5	211	U	OP1-P-OP2	-5.24	111.74	119.60
83	A5	2645	C	C3'-C2'-C1'	5.24	105.69	101.50
1	Az	251	TRP	CA-CB-CG	5.24	123.66	113.70
30	AF	176	TRP	CB-CG-CD1	5.24	133.81	127.00
36	B2	1230	A	O4'-C1'-N9	5.24	112.39	108.20
64	CF	180	ARG	N-CA-CB	5.24	120.03	110.60
70	Ci	93	ALA	N-CA-CB	5.24	117.44	110.10
80	CH	84	PHE	CB-CG-CD2	-5.24	117.13	120.80
83	A5	644	U	O4'-C1'-N1	5.24	112.39	108.20
8	AS	99	THR	CA-CB-CG2	-5.24	105.06	112.40
83	A5	214	A	O4'-C1'-C2'	-5.24	100.56	105.80
83	A5	517	A	N9-C1'-C2'	-5.24	106.24	112.00
83	A5	1875	G	C1'-O4'-C4'	-5.24	105.71	109.90
83	A5	1958	G	C3'-C2'-C1'	5.24	105.69	101.50
3	AU	109	GLU	CA-C-N	5.24	131.76	117.10
42	CL	101	ARG	NE-CZ-NH1	5.24	122.92	120.30
1	Az	300	THR	CA-CB-CG2	-5.24	105.07	112.40
79	CJ	68	ARG	NE-CZ-NH1	5.24	122.92	120.30
83	A5	3746	A	C3'-C2'-C1'	-5.24	97.31	101.50
2	Ag	291	ALA	N-CA-CB	5.23	117.43	110.10
83	A5	771	A	O4'-C1'-C2'	-5.23	100.57	105.80
81	CE	187	ALA	C-N-CA	5.23	134.78	121.70
83	A5	396	A	C1'-O4'-C4'	5.23	114.09	109.90
83	A5	498	U	O4'-C4'-C3'	-5.23	98.77	104.00
83	A5	503	A	C3'-C2'-C1'	-5.23	97.31	101.50
83	A5	1367	A	N9-C1'-C2'	5.23	120.80	114.00
83	A5	3880	A	O4'-C1'-N9	5.23	112.39	108.20
85	A7	17	C	O4'-C1'-C2'	-5.23	100.57	105.80
36	B2	489	C	P-O3'-C3'	5.23	125.98	119.70
36	B2	542	A	C3'-C2'-C1'	5.23	105.68	101.50
36	B2	698	U	O5'-C5'-C4'	5.23	121.64	111.70
36	B2	1174	A	P-O3'-C3'	5.23	125.98	119.70
63	CB	308	ASP	CB-CA-C	-5.23	99.94	110.40
68	Cf	102	LYS	N-CA-CB	5.23	120.01	110.60
83	A5	555	U	N1-C1'-C2'	5.23	120.80	114.00
83	A5	758	A	N9-C1'-C2'	-5.23	106.25	112.00
83	A5	1177	U	P-O5'-C5'	5.23	129.27	120.90
83	A5	2207	A	N9-C1'-C2'	-5.23	106.25	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3508	G	P-O3'-C3'	-5.23	113.42	119.70
83	A5	3764	G	C1'-O4'-C4'	5.23	114.08	109.90
83	A5	3829	U	C4'-C3'-C2'	-5.23	97.37	102.60
83	A5	3888	U	N1-C1'-C2'	5.23	120.80	114.00
5	AO	55	ARG	NE-CZ-NH1	5.23	122.91	120.30
36	B2	424	G	C3'-C2'-C1'	5.23	105.68	101.50
36	B2	1684	U	O4'-C1'-C2'	-5.23	100.57	105.80
36	B2	1725	C	C3'-C2'-C1'	5.23	105.68	101.50
83	A5	450	G	O4'-C1'-N9	5.23	112.38	108.20
1	Az	640	PRO	C-N-CA	5.23	134.77	121.70
36	B2	1112	A	C5'-C4'-O4'	5.23	115.37	109.10
83	A5	136	C	N1-C1'-C2'	5.23	120.80	114.00
9	Ad	10	HIS	N-CA-CB	5.23	120.01	110.60
83	A5	404	U	C4'-C3'-C2'	-5.23	97.37	102.60
83	A5	626	A	P-O3'-C3'	-5.23	113.43	119.70
83	A5	854	U	C3'-C2'-C1'	5.23	105.68	101.50
83	A5	1861	A	N9-C1'-C2'	-5.23	106.25	112.00
83	A5	3383	A	C1'-O4'-C4'	-5.23	105.72	109.90
83	A5	3410	G	P-O5'-C5'	5.23	129.26	120.90
83	A5	3817	U	O3'-P-O5'	5.23	113.93	104.00
36	B2	85	A	O4'-C1'-N9	5.22	112.38	108.20
36	B2	263	A	C1'-O4'-C4'	5.22	114.08	109.90
36	B2	465	A	O4'-C1'-N9	5.22	112.38	108.20
36	B2	575	A	O4'-C1'-N9	5.22	112.38	108.20
36	B2	1834	G	N9-C1'-C2'	5.22	120.79	114.00
83	A5	838	U	N1-C1'-C2'	5.22	120.79	114.00
83	A5	2688	U	C1'-O4'-C4'	-5.22	105.72	109.90
5	AO	141	ARG	NE-CZ-NH2	-5.22	117.69	120.30
9	Ad	43	PHE	CB-CG-CD1	5.22	124.46	120.80
23	AD	100	ALA	N-CA-CB	5.22	117.41	110.10
27	AE	221	ARG	NE-CZ-NH2	-5.22	117.69	120.30
36	B2	1599	U	P-O5'-C5'	-5.22	112.54	120.90
36	B2	1670	G	C3'-C2'-C1'	-5.22	97.32	101.50
83	A5	561	A	O4'-C1'-N9	5.22	112.38	108.20
83	A5	1619	C	C3'-C2'-C1'	5.22	105.68	101.50
83	A5	3182	U	N1-C1'-C2'	5.22	120.79	114.00
83	A5	117	C	C1'-O4'-C4'	-5.22	105.72	109.90
83	A5	3684	A	C4'-C3'-C2'	-5.22	97.38	102.60
83	A5	3840	G	C4'-C3'-C2'	-5.22	97.38	102.60
36	B2	1800	U	C1'-O4'-C4'	-5.22	105.72	109.90
70	Ci	38	ARG	NE-CZ-NH1	5.22	122.91	120.30
83	A5	88	U	O4'-C1'-N1	5.22	112.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3385	G	O4'-C1'-N9	5.22	112.38	108.20
36	B2	339	U	P-O5'-C5'	-5.22	112.55	120.90
36	B2	358	A	O3'-P-O5'	5.22	113.92	104.00
36	B2	435	G	C1'-O4'-C4'	-5.22	105.72	109.90
83	A5	333	C	O4'-C1'-C2'	-5.22	100.58	105.80
83	A5	1146	U	C5'-C4'-O4'	5.22	115.36	109.10
1	Az	264	GLN	CA-C-N	5.22	128.68	117.20
36	B2	636	G	N9-C1'-C2'	5.22	120.78	114.00
36	B2	1271	A	O4'-C1'-N9	-5.22	104.03	108.20
36	B2	1434	U	P-O5'-C5'	5.22	129.25	120.90
36	B2	1742	A	C3'-C2'-C1'	5.22	105.67	101.50
83	A5	3507	A	C1'-O4'-C4'	-5.22	105.73	109.90
1	Az	346	SER	CA-C-O	-5.21	109.15	120.10
1	Az	482	VAL	C-N-CA	5.21	134.73	121.70
23	AD	226	THR	CA-CB-CG2	-5.21	105.10	112.40
33	AI	186	ARG	NE-CZ-NH1	-5.21	117.69	120.30
36	B2	608	U	O4'-C1'-N1	5.21	112.37	108.20
36	B2	876	U	C1'-O4'-C4'	5.21	114.07	109.90
48	CD	35	ARG	NE-CZ-NH1	5.21	122.91	120.30
83	A5	327	C	C1'-O4'-C4'	-5.21	105.73	109.90
83	A5	466	U	O4'-C1'-N1	5.21	112.37	108.20
83	A5	1859	U	C1'-O4'-C4'	-5.21	105.73	109.90
83	A5	2170	C	O4'-C1'-C2'	-5.21	100.59	105.80
36	B2	1205	U	N1-C1'-C2'	5.21	120.78	114.00
83	A5	227	A	C1'-O4'-C4'	5.21	114.07	109.90
83	A5	2105	C	O4'-C1'-C2'	-5.21	100.59	105.80
36	B2	406	A	C3'-C2'-C1'	5.21	105.67	101.50
36	B2	511	G	O4'-C1'-C2'	-5.21	100.59	105.80
36	B2	1569	C	N1-C1'-C2'	5.21	120.78	114.00
83	A5	928	U	P-O5'-C5'	5.21	129.24	120.90
83	A5	1368	A	N9-C1'-C2'	-5.21	106.27	112.00
83	A5	1988	A	C1'-O4'-C4'	5.21	114.07	109.90
83	A5	3371	G	O4'-C1'-N9	5.21	112.37	108.20
83	A5	3931	C	O4'-C1'-C2'	-5.21	100.59	105.80
1	Az	223	GLY	N-CA-C	5.21	126.12	113.10
83	A5	167	A	N9-C1'-C2'	-5.21	106.27	112.00
36	B2	396	A	O4'-C1'-C2'	-5.21	100.59	105.80
36	B2	475	G	C5'-C4'-C3'	-5.21	107.67	116.00
83	A5	3692	G	O4'-C1'-C2'	5.21	112.29	107.60
33	AI	65	PHE	CB-CG-CD2	-5.21	117.16	120.80
44	CM	6	PHE	CB-CG-CD2	-5.21	117.16	120.80
83	A5	301	U	C1'-O4'-C4'	-5.21	105.73	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1124	G	P-O3'-C3'	-5.21	113.45	119.70
83	A5	2665	C	C3'-C2'-C1'	5.21	105.67	101.50
83	A5	3402	C	C3'-C2'-C1'	5.21	105.67	101.50
7	AM	121	PHE	N-CA-CB	5.21	119.97	110.60
36	B2	779	A	P-O3'-C3'	5.21	125.95	119.70
39	Cq	108	PRO	CA-N-CD	-5.21	104.21	111.50
83	A5	1490	C	O4'-C1'-N1	5.21	112.36	108.20
83	A5	3577	U	C5'-C4'-O4'	5.21	115.35	109.10
36	B2	1064	A	O4'-C1'-N9	5.20	112.36	108.20
41	CO	192	GLU	CA-C-N	5.20	131.67	117.10
44	CM	56	HIS	CB-CA-C	5.20	120.81	110.40
58	CW	72	THR	N-CA-CB	5.20	120.19	110.30
82	CG	63	PRO	C-N-CA	5.20	134.71	121.70
83	A5	981	C	P-O3'-C3'	5.20	125.94	119.70
83	A5	2691	A	O4'-C1'-C2'	-5.20	100.60	105.80
83	A5	3393	U	C1'-O4'-C4'	5.20	114.06	109.90
83	A5	3911	G	O4'-C1'-C2'	5.20	112.28	107.60
36	B2	272	U	C3'-C2'-C1'	5.20	105.66	101.50
36	B2	56	U	C3'-C2'-C1'	5.20	105.66	101.50
36	B2	167	U	C5'-C4'-O4'	5.20	115.34	109.10
36	B2	382	G	O4'-C1'-N9	5.20	112.36	108.20
36	B2	1990	U	C1'-O4'-C4'	-5.20	105.74	109.90
41	CO	117	ARG	NE-CZ-NH2	-5.20	117.70	120.30
41	CO	162	ARG	NE-CZ-NH2	-5.20	117.70	120.30
80	CH	48	PRO	C-N-CA	5.20	134.70	121.70
83	A5	356	A	P-O5'-C5'	5.20	129.22	120.90
25	Af	140	TYR	CB-CG-CD2	-5.20	117.88	121.00
36	B2	455	C	C3'-C2'-C1'	5.20	105.66	101.50
36	B2	874	U	O5'-C5'-C4'	-5.20	101.82	111.70
36	B2	1855	A	O4'-C1'-C2'	-5.20	100.60	105.80
69	Cg	1	MET	CG-SD-CE	-5.20	91.88	100.20
83	A5	235	A	N9-C1'-C2'	-5.20	106.28	112.00
83	A5	1013	G	O4'-C1'-C2'	5.20	112.28	107.60
83	A5	2228	U	C1'-O4'-C4'	-5.20	105.74	109.90
83	A5	3470	G	C5'-C4'-O4'	5.20	115.34	109.10
83	A5	3582	A	C3'-C2'-C1'	5.20	105.66	101.50
83	A5	3626	A	C3'-C2'-C1'	5.20	105.66	101.50
19	AZ	62	PRO	CA-C-N	5.20	128.63	117.20
29	AG	148	SER	C-N-CA	5.20	134.69	121.70
36	B2	1888	C	O4'-C1'-C2'	-5.20	100.60	105.80
46	CN	123	GLN	CB-CA-C	-5.20	100.01	110.40
83	A5	1298	A	P-O3'-C3'	-5.20	113.47	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3878	U	C5'-C4'-C3'	-5.20	107.69	116.00
83	A5	3956	U	O3'-P-O5'	-5.20	94.13	104.00
86	A8	45	G	P-O5'-C5'	5.20	129.21	120.90
36	B2	1	A	O4'-C1'-N9	-5.19	104.05	108.20
36	B2	1332	G	C5'-C4'-C3'	-5.19	107.69	116.00
49	CQ	110	ARG	NE-CZ-NH1	5.19	122.90	120.30
65	Cc	39	ARG	NE-CZ-NH1	5.19	122.90	120.30
83	A5	1368	A	O4'-C1'-C2'	5.19	112.28	107.60
83	A5	3143	U	C1'-O4'-C4'	5.19	114.06	109.90
11	AL	147	GLY	N-CA-C	-5.19	100.12	113.10
34	AQ	5	ARG	NE-CZ-NH1	5.19	122.90	120.30
36	B2	871	G	C1'-O4'-C4'	-5.19	105.75	109.90
36	B2	1785	A	O4'-C1'-N9	5.19	112.35	108.20
36	B2	1888	C	C1'-O4'-C4'	5.19	114.05	109.90
83	A5	620	U	P-O3'-C3'	5.19	125.93	119.70
83	A5	922	G	N9-C1'-C2'	5.19	120.75	114.00
83	A5	2919	A	O4'-C1'-N9	5.19	112.36	108.20
83	A5	3893	A	C4'-C3'-C2'	-5.19	97.41	102.60
7	AM	38	LEU	N-CA-CB	5.19	120.78	110.40
36	B2	1847	A	O4'-C1'-N9	5.19	112.35	108.20
36	B2	1873	A	P-O3'-C3'	-5.19	113.47	119.70
39	Cq	23	ASP	CB-CG-OD2	-5.19	113.63	118.30
40	CK	106	PHE	N-CA-C	5.19	125.01	111.00
83	A5	1037	A	C3'-C2'-C1'	5.19	105.65	101.50
83	A5	1791	A	P-O3'-C3'	5.19	125.93	119.70
85	A7	36	C	C5'-C4'-C3'	5.19	124.30	116.00
20	Aa	58	ILE	CB-CA-C	-5.19	101.22	111.60
20	Aa	106	MET	N-CA-CB	5.19	119.94	110.60
50	CR	95	TRP	CG-CD2-CE3	-5.19	129.23	133.90
82	CG	130	LYS	N-CA-C	5.19	125.01	111.00
83	A5	1599	C	C3'-C2'-C1'	5.19	105.65	101.50
83	A5	2057	G	O4'-C1'-N9	5.19	112.35	108.20
83	A5	2241	U	O4'-C1'-N1	-5.19	104.05	108.20
83	A5	3869	A	O4'-C1'-N9	5.19	112.35	108.20
36	B2	900	A	P-O3'-C3'	5.19	125.93	119.70
36	B2	908	G	C4'-C3'-C2'	5.19	107.79	102.60
39	Cq	109	ALA	C-N-CA	5.19	134.67	121.70
83	A5	1069	A	P-O3'-C3'	5.19	125.92	119.70
83	A5	2493	C	O4'-C1'-C2'	-5.19	100.61	105.80
83	A5	2697	U	C3'-C2'-C1'	5.19	105.65	101.50
2	Ag	157	PHE	CB-CG-CD1	-5.19	117.17	120.80
36	B2	985	A	O5'-C5'-C4'	5.19	121.55	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Cr	28	PRO	CB-CA-C	-5.19	99.04	112.00
83	A5	3670	G	O4'-C1'-N9	-5.19	104.05	108.20
1	Az	764	GLY	N-CA-C	5.18	126.06	113.10
83	A5	3810	C	O4'-C1'-C2'	-5.18	100.62	105.80
1	Az	787	ARG	NE-CZ-NH2	5.18	122.89	120.30
32	AW	20	ARG	CB-CA-C	-5.18	100.04	110.40
36	B2	1044	G	O4'-C1'-C2'	5.18	112.26	107.60
39	Cq	210	ASP	CB-CG-OD2	-5.18	113.64	118.30
64	CF	171	PRO	N-CA-C	5.18	125.57	112.10
69	Cg	1	MET	C-N-CA	5.18	134.66	121.70
83	A5	518	G	N9-C1'-C2'	-5.18	106.30	112.00
83	A5	1258	C	N1-C1'-C2'	5.18	120.74	114.00
83	A5	3147	A	C1'-O4'-C4'	5.18	114.05	109.90
36	B2	393	G	C1'-O4'-C4'	-5.18	105.75	109.90
83	A5	3129	U	O4'-C1'-N1	5.18	112.34	108.20
36	B2	351	G	O4'-C1'-N9	5.18	112.34	108.20
36	B2	1355	G	O4'-C1'-N9	5.18	112.34	108.20
36	B2	1845	C	C3'-C2'-C1'	5.18	105.64	101.50
48	CD	232	ARG	NE-CZ-NH2	-5.18	117.71	120.30
11	AL	26	THR	C-N-CA	5.18	134.65	121.70
36	B2	640	U	P-O5'-C5'	-5.18	112.62	120.90
36	B2	1207	G	O4'-C1'-C2'	5.18	112.26	107.60
83	A5	3669	U	N1-C1'-C2'	5.18	120.73	114.00
34	AQ	144	GLN	N-CA-CB	5.18	119.92	110.60
83	A5	462	C	P-O5'-C5'	-5.18	112.62	120.90
83	A5	475	U	C3'-C2'-C1'	5.18	105.64	101.50
83	A5	3542	C	O4'-C1'-C2'	-5.18	100.62	105.80
83	A5	3775	A	O4'-C1'-C2'	-5.18	100.62	105.80
83	A5	3812	C	N1-C1'-C2'	5.18	120.73	114.00
13	AP	13	ARG	C-N-CA	5.17	134.63	121.70
36	B2	228	A	O4'-C1'-N9	5.17	112.34	108.20
36	B2	238	C	P-O3'-C3'	-5.17	113.49	119.70
36	B2	1933	U	C1'-O4'-C4'	-5.17	105.76	109.90
37	BC	2	G	O4'-C1'-N9	5.17	112.34	108.20
83	A5	312	U	C3'-C2'-C1'	5.17	105.64	101.50
83	A5	621	A	O3'-P-O5'	5.17	113.83	104.00
83	A5	779	U	C5'-C4'-O4'	5.17	115.31	109.10
83	A5	1880	A	C3'-C2'-C1'	5.17	105.64	101.50
83	A5	3952	C	C1'-O4'-C4'	-5.17	105.76	109.90
83	A5	650	A	P-O3'-C3'	-5.17	113.49	119.70
83	A5	3204	G	O4'-C1'-N9	5.17	112.34	108.20
83	A5	3892	A	N9-C1'-C2'	-5.17	106.31	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	AQ	139	ALA	CB-CA-C	-5.17	102.34	110.10
43	CV	125	CYS	CB-CA-C	-5.17	100.06	110.40
67	Ce	113	ARG	NE-CZ-NH1	5.17	122.89	120.30
83	A5	66	A	O4'-C1'-C2'	-5.17	100.63	105.80
83	A5	214	A	P-O5'-C5'	-5.17	112.63	120.90
83	A5	1202	A	C1'-O4'-C4'	5.17	114.04	109.90
83	A5	2155	A	C1'-O4'-C4'	-5.17	105.76	109.90
32	AW	106	THR	N-CA-CB	5.17	120.12	110.30
36	B2	1021	A	C5'-C4'-C3'	-5.17	107.73	116.00
38	Cz	27	GLY	C-N-CA	5.17	134.62	121.70
86	A8	62	A	O3'-P-O5'	-5.17	94.18	104.00
1	Az	271	ASN	CB-CA-C	-5.17	100.06	110.40
36	B2	168	A	O4'-C1'-N9	5.17	112.33	108.20
36	B2	392	A	C1'-O4'-C4'	5.17	114.03	109.90
36	B2	819	G	C5'-C4'-C3'	-5.17	107.73	116.00
36	B2	1388	U	O4'-C1'-C2'	-5.17	100.63	105.80
41	CO	174	ARG	NE-CZ-NH1	-5.17	117.72	120.30
83	A5	110	A	P-O5'-C5'	-5.17	112.63	120.90
83	A5	693	G	N9-C1'-C2'	5.17	120.72	114.00
83	A5	884	U	O4'-C1'-C2'	-5.17	100.63	105.80
83	A5	1457	G	N9-C1'-C2'	5.17	120.72	114.00
83	A5	2816	A	O4'-C4'-C3'	-5.17	98.83	104.00
83	A5	3621	A	C1'-O4'-C4'	5.17	114.03	109.90
83	A5	3862	A	N9-C1'-C2'	-5.17	106.31	112.00
85	A7	107	C	C3'-C2'-C1'	5.17	105.63	101.50
18	AY	60	GLY	N-CA-C	-5.17	100.18	113.10
23	AD	194	TYR	CA-CB-CG	5.17	123.22	113.40
36	B2	1413	A	O4'-C1'-C2'	-5.17	100.63	105.80
40	CK	90	ARG	NE-CZ-NH2	-5.17	117.72	120.30
83	A5	361	U	O4'-C1'-C2'	-5.17	100.63	105.80
83	A5	1616	G	O4'-C1'-C2'	5.17	112.25	107.60
83	A5	2587	U	C3'-C2'-C1'	5.17	105.63	101.50
86	A8	109	U	C4'-C3'-O3'	5.17	123.33	113.00
30	AF	130	GLU	N-CA-CB	5.17	119.90	110.60
36	B2	1943	G	C1'-O4'-C4'	-5.17	105.77	109.90
83	A5	1374	C	C4'-C3'-O3'	-5.17	98.55	109.40
36	B2	1732	G	N9-C1'-C2'	5.16	120.71	114.00
83	A5	304	U	O4'-C1'-N1	5.16	112.33	108.20
83	A5	456	G	C3'-C2'-C1'	-5.16	97.37	101.50
83	A5	567	A	O3'-P-O5'	5.16	113.81	104.00
83	A5	1941	A	P-O5'-C5'	-5.16	112.64	120.90
83	A5	2790	G	C1'-O4'-C4'	-5.16	105.77	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	2802	A	C3'-C2'-C1'	5.16	105.63	101.50
83	A5	3223	A	C3'-C2'-C1'	5.16	105.63	101.50
83	A5	3357	C	C3'-C2'-C1'	5.16	105.63	101.50
83	A5	1089	U	O4'-C1'-C2'	-5.16	100.64	105.80
85	A7	94	C	N1-C1'-C2'	5.16	120.71	114.00
1	Az	739	GLU	N-CA-C	5.16	124.93	111.00
36	B2	1675	A	O4'-C1'-C2'	-5.16	100.64	105.80
83	A5	381	G	C3'-C2'-C1'	-5.16	97.37	101.50
83	A5	850	A	C1'-O4'-C4'	-5.16	105.77	109.90
83	A5	2581	U	N1-C1'-C2'	5.16	120.71	114.00
83	A5	2989	G	C3'-C2'-C1'	5.16	105.63	101.50
83	A5	3136	U	N1-C1'-C2'	5.16	120.71	114.00
83	A5	3561	G	P-O5'-C5'	-5.16	112.64	120.90
29	AG	72	ARG	NE-CZ-NH1	5.16	122.88	120.30
37	BC	32	C	O4'-C1'-C2'	-5.16	100.64	105.80
83	A5	86	C	C1'-O4'-C4'	-5.16	105.77	109.90
83	A5	97	C	N1-C1'-C2'	5.16	120.71	114.00
83	A5	2163	A	C1'-O4'-C4'	5.16	114.03	109.90
83	A5	3009	A	O4'-C1'-N9	5.16	112.33	108.20
83	A5	3111	G	C1'-O4'-C4'	-5.16	105.77	109.90
83	A5	3682	U	C4'-C3'-C2'	-5.16	97.44	102.60
85	A7	44	C	C1'-O4'-C4'	-5.16	105.77	109.90
29	AG	188	ARG	NE-CZ-NH2	-5.16	117.72	120.30
63	CB	10	ARG	NE-CZ-NH1	5.16	122.88	120.30
83	A5	51	U	O4'-C1'-N1	5.16	112.33	108.20
83	A5	314	A	N9-C1'-C2'	-5.16	106.33	112.00
83	A5	3541	A	O4'-C1'-N9	5.16	112.33	108.20
83	A5	3716	C	O4'-C4'-C3'	-5.16	98.84	104.00
8	AS	40	TYR	CG-CD2-CE2	-5.16	117.17	121.30
36	B2	387	C	N1-C1'-C2'	5.16	120.70	114.00
36	B2	856	A	C5'-C4'-O4'	5.16	115.29	109.10
51	CA	218	HIS	C-N-CA	5.16	134.59	121.70
54	CP	146	VAL	CA-CB-CG2	-5.16	103.17	110.90
63	CB	125	SER	N-CA-CB	5.16	118.23	110.50
66	Cd	38	ARG	C-N-CA	5.16	134.59	121.70
83	A5	1001	A	P-O3'-C3'	5.16	125.89	119.70
83	A5	3504	G	C1'-O4'-C4'	-5.16	105.78	109.90
36	B2	173	C	C1'-O4'-C4'	-5.15	105.78	109.90
36	B2	488	A	O4'-C1'-C2'	-5.15	100.65	105.80
36	B2	1182	C	O4'-C1'-N1	5.15	112.32	108.20
36	B2	1406	A	O4'-C1'-N9	5.15	112.32	108.20
37	BC	39	U	O4'-C1'-N1	5.15	112.32	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	Cf	80	ARG	NE-CZ-NH2	-5.15	117.72	120.30
83	A5	3826	A	N9-C1'-C2'	-5.15	106.33	112.00
36	B2	1403	C	O4'-C1'-N1	5.15	112.32	108.20
77	Cp	25	MET	CG-SD-CE	-5.15	91.95	100.20
83	A5	37	G	N9-C1'-C2'	-5.15	106.33	112.00
83	A5	238	G	N9-C1'-C2'	5.15	120.70	114.00
83	A5	2006	U	O3'-P-O5'	-5.15	94.21	104.00
83	A5	2243	G	C3'-C2'-C1'	-5.15	97.38	101.50
36	B2	1001	G	C3'-C2'-C1'	5.15	105.62	101.50
36	B2	1015	U	C3'-C2'-C1'	5.15	105.62	101.50
36	B2	1782	G	C1'-O4'-C4'	5.15	114.02	109.90
47	CI	143	ARG	NE-CZ-NH2	5.15	122.88	120.30
81	CE	112	ARG	NE-CZ-NH2	-5.15	117.72	120.30
83	A5	2181	A	N9-C1'-C2'	5.15	120.69	114.00
83	A5	2715	C	C3'-C2'-C1'	5.15	105.62	101.50
83	A5	3881	A	O4'-C1'-C2'	-5.15	100.65	105.80
85	A7	89	G	C1'-O4'-C4'	-5.15	105.78	109.90
36	B2	1657	C	C3'-C2'-C1'	5.15	105.62	101.50
58	CW	122	ALA	CB-CA-C	-5.15	102.38	110.10
83	A5	1496	U	O4'-C1'-C2'	-5.15	100.65	105.80
83	A5	1675	G	C5'-C4'-O4'	5.15	115.28	109.10
83	A5	2106	C	O4'-C1'-N1	-5.15	104.08	108.20
83	A5	2163	A	C3'-C2'-C1'	5.15	105.62	101.50
83	A5	2706	U	C4'-C3'-C2'	-5.15	97.45	102.60
83	A5	2830	G	C5'-C4'-C3'	-5.15	107.76	116.00
5	AO	31	ALA	CB-CA-C	-5.15	102.38	110.10
12	AR	39	ALA	N-CA-CB	5.15	117.31	110.10
18	AY	42	ARG	NE-CZ-NH1	5.15	122.87	120.30
27	AE	189	LEU	CB-CG-CD1	5.15	119.75	111.00
36	B2	649	U	O4'-C1'-N1	5.15	112.32	108.20
36	B2	1666	G	P-O5'-C5'	5.15	129.13	120.90
49	CQ	41	LYS	N-CA-CB	-5.15	101.34	110.60
67	Ce	107	ARG	NE-CZ-NH1	5.15	122.87	120.30
83	A5	1019	U	O4'-C1'-C2'	-5.15	100.65	105.80
83	A5	1245	C	C1'-O4'-C4'	-5.15	105.78	109.90
83	A5	1799	U	P-O3'-C3'	5.15	125.88	119.70
36	B2	264	C	C3'-C2'-C1'	5.15	105.62	101.50
36	B2	1981	G	O4'-C1'-N9	5.15	112.32	108.20
83	A5	1723	G	P-O3'-C3'	-5.15	113.53	119.70
83	A5	1779	G	O4'-C1'-N9	5.15	112.32	108.20
83	A5	1965	A	O4'-C1'-C2'	-5.15	100.65	105.80
83	A5	3924	U	N1-C1'-C2'	-5.15	106.34	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AT	68	SER	CA-C-N	5.14	131.51	117.10
36	B2	1195	G	C4'-C3'-O3'	-5.14	98.59	109.40
45	Ca	129	TYR	CB-CG-CD1	-5.14	117.91	121.00
83	A5	1407	C	C3'-C2'-C1'	5.14	105.62	101.50
83	A5	2875	A	O4'-C1'-C2'	-5.14	100.66	105.80
83	A5	3311	A	P-O3'-C3'	5.14	125.87	119.70
83	A5	3833	U	O4'-C1'-C2'	-5.14	100.66	105.80
5	AO	139	SER	C-N-CA	5.14	134.56	121.70
7	AM	108	ARG	N-CA-C	-5.14	97.12	111.00
35	Ah	214	GLU	CB-CA-C	5.14	120.69	110.40
83	A5	155	U	C1'-O4'-C4'	-5.14	105.78	109.90
83	A5	1939	U	P-O3'-C3'	-5.14	113.53	119.70
83	A5	2206	U	C1'-O4'-C4'	-5.14	105.78	109.90
83	A5	2875	A	O4'-C1'-N9	5.14	112.31	108.20
83	A5	3716	C	P-O3'-C3'	5.14	125.87	119.70
36	B2	140	G	C4'-C3'-O3'	-5.14	98.60	109.40
72	Ck	20	ALA	N-CA-CB	5.14	117.30	110.10
83	A5	126	G	P-O3'-C3'	5.14	125.87	119.70
85	A7	49	A	C5'-C4'-C3'	5.14	124.22	116.00
36	B2	373	U	C4'-C3'-C2'	-5.14	97.46	102.60
36	B2	454	C	C3'-C2'-C1'	5.14	105.61	101.50
36	B2	1082	G	O4'-C1'-C2'	5.14	112.22	107.60
83	A5	1989	A	O4'-C1'-N9	5.14	112.31	108.20
31	AH	185	PHE	CB-CG-CD1	-5.14	117.20	120.80
36	B2	10	G	C3'-C2'-C1'	5.14	105.61	101.50
52	CS	174	THR	CA-CB-CG2	-5.14	105.21	112.40
69	Cg	47	CYS	N-CA-C	-5.14	97.13	111.00
83	A5	727	G	P-O5'-C5'	-5.14	112.68	120.90
83	A5	3651	C	C3'-C2'-C1'	5.14	105.61	101.50
36	B2	1010	A	C3'-C2'-C1'	5.13	105.61	101.50
36	B2	1753	U	P-O5'-C5'	-5.13	112.68	120.90
52	CS	175	TYR	C-N-CA	5.13	134.54	121.70
64	CF	234	GLY	C-N-CA	5.13	133.08	122.30
83	A5	801	G	O4'-C1'-N9	-5.13	104.09	108.20
83	A5	1256	C	O4'-C1'-N1	5.13	112.31	108.20
83	A5	3255	G	O4'-C1'-C2'	5.13	112.22	107.60
83	A5	3822	C	O4'-C1'-N1	5.13	112.31	108.20
83	A5	3834	A	C1'-O4'-C4'	5.13	114.01	109.90
85	A7	42	A	C1'-O4'-C4'	5.13	114.01	109.90
36	B2	156	U	C1'-O4'-C4'	-5.13	105.79	109.90
36	B2	1144	C	C1'-O4'-C4'	5.13	114.01	109.90
69	Cg	13	TYR	CG-CD1-CE1	-5.13	117.19	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	3541	A	P-O3'-C3'	-5.13	113.54	119.70
36	B2	616	U	O4'-C1'-N1	5.13	112.31	108.20
36	B2	825	A	C3'-C2'-C1'	5.13	105.61	101.50
36	B2	1055	U	C3'-C2'-C1'	5.13	105.61	101.50
76	Cn	6	ARG	NE-CZ-NH1	5.13	122.87	120.30
83	A5	1928	G	P-O5'-C5'	-5.13	112.69	120.90
83	A5	3220	U	O4'-C1'-N1	5.13	112.31	108.20
36	B2	68	C	C3'-C2'-C1'	-5.13	97.40	101.50
46	CN	28	TRP	CB-CG-CD2	-5.13	119.93	126.60
30	AF	121	PHE	CB-CA-C	-5.13	100.14	110.40
49	CQ	159	PRO	C-N-CA	5.13	134.52	121.70
69	Cg	20	ARG	N-CA-CB	5.13	119.83	110.60
83	A5	292	G	C1'-O4'-C4'	-5.13	105.80	109.90
83	A5	1521	G	O4'-C1'-C2'	-5.13	100.67	105.80
83	A5	2585	A	C2'-C3'-O3'	-5.13	98.22	109.50
83	A5	3241	G	C5'-C4'-O4'	5.13	115.25	109.10
83	A5	3569	C	C3'-C2'-C1'	5.13	105.60	101.50
36	B2	909	U	O4'-C1'-C2'	-5.13	100.67	105.80
36	B2	1057	A	O4'-C1'-N9	5.13	112.30	108.20
83	A5	827	A	P-O3'-C3'	5.13	125.85	119.70
83	A5	3154	C	C3'-C2'-C1'	5.13	105.60	101.50
83	A5	3831	C	O4'-C1'-C2'	-5.13	100.67	105.80
86	A8	56	U	C1'-O4'-C4'	-5.13	105.80	109.90
36	B2	292	G	C3'-C2'-C1'	-5.12	97.40	101.50
83	A5	769	U	O4'-C1'-C2'	-5.12	100.67	105.80
1	Az	271	ASN	N-CA-C	5.12	124.83	111.00
18	AY	86	PHE	C-N-CA	5.12	134.51	121.70
25	Af	95	ARG	NE-CZ-NH2	-5.12	117.74	120.30
36	B2	514	A	C5'-C4'-O4'	5.12	115.25	109.10
36	B2	1289	A	C3'-C2'-C1'	5.12	105.60	101.50
46	CN	4	TYR	CB-CG-CD1	-5.12	117.93	121.00
58	CW	52	THR	CA-CB-CG2	-5.12	105.23	112.40
63	CB	3	HIS	CA-CB-CG	-5.12	104.89	113.60
83	A5	774	A	O4'-C1'-N9	5.12	112.30	108.20
83	A5	2262	A	O4'-C1'-N9	5.12	112.30	108.20
83	A5	2901	C	O4'-C1'-N1	5.12	112.30	108.20
83	A5	3900	A	O4'-C1'-C2'	-5.12	100.68	105.80
64	CF	179	GLU	C-N-CA	5.12	134.50	121.70
77	Cp	18	TYR	CB-CG-CD1	5.12	124.07	121.00
83	A5	77	A	N9-C1'-C2'	-5.12	106.37	112.00
83	A5	847	A	O4'-C1'-N9	5.12	112.30	108.20
83	A5	2072	C	O4'-C1'-N1	5.12	112.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	301	U	N1-C1'-C2'	5.12	120.66	114.00
83	A5	764	A	C3'-C2'-C1'	5.12	105.60	101.50
83	A5	3394	U	C1'-O4'-C4'	5.12	114.00	109.90
83	A5	3414	U	C5'-C4'-O4'	5.12	115.24	109.10
27	AE	54	TYR	CB-CG-CD2	5.12	124.07	121.00
36	B2	846	U	O4'-C1'-C2'	-5.12	100.68	105.80
36	B2	1814	G	C1'-O4'-C4'	-5.12	105.81	109.90
49	CQ	176	ARG	NE-CZ-NH1	5.12	122.86	120.30
83	A5	370	A	C3'-C2'-C1'	-5.12	97.41	101.50
83	A5	1028	U	C5'-C4'-C3'	-5.12	107.81	116.00
83	A5	1150	G	C1'-O4'-C4'	5.12	113.99	109.90
83	A5	1896	A	N9-C1'-C2'	-5.12	106.37	112.00
42	CL	169	VAL	O-C-N	-5.12	114.51	122.70
66	Cd	38	ARG	O-C-N	-5.12	114.51	122.70
83	A5	2125	G	N9-C1'-C2'	-5.12	106.37	112.00
83	A5	3488	G	O4'-C1'-C2'	-5.12	100.68	105.80
36	B2	449	C	C5'-C4'-C3'	-5.12	107.82	116.00
36	B2	1157	C	O4'-C1'-N1	5.12	112.29	108.20
36	B2	1917	A	C3'-C2'-C1'	5.12	105.59	101.50
50	CR	132	PHE	N-CA-C	-5.12	97.19	111.00
58	CW	75	THR	N-CA-C	5.12	124.81	111.00
86	A8	93	A	O4'-C1'-C2'	5.12	112.20	107.60
83	A5	828	G	O4'-C1'-C2'	-5.11	100.69	105.80
36	B2	340	A	N9-C1'-C2'	5.11	120.64	114.00
83	A5	3880	A	O5'-C5'-C4'	5.11	121.41	111.70
11	AL	19	ARG	NE-CZ-NH1	5.11	122.86	120.30
18	AY	18	LEU	CB-CA-C	-5.11	100.49	110.20
23	AD	202	PRO	N-CA-C	5.11	125.39	112.10
28	AC	224	TYR	CB-CA-C	-5.11	100.18	110.40
36	B2	365	A	O4'-C1'-N9	5.11	112.29	108.20
36	B2	936	G	O4'-C1'-N9	5.11	112.29	108.20
36	B2	1904	G	C1'-O4'-C4'	-5.11	105.81	109.90
42	CL	173	GLU	N-CA-C	5.11	124.80	111.00
45	Ca	109	TYR	CB-CG-CD1	5.11	124.07	121.00
80	CH	52	THR	N-CA-CB	5.11	120.01	110.30
83	A5	2826	A	P-O3'-C3'	-5.11	113.57	119.70
86	A8	72	C	N1-C1'-C2'	5.11	120.64	114.00
86	A8	73	U	O4'-C1'-C2'	-5.11	100.69	105.80
34	AQ	5	ARG	CA-C-N	5.11	128.44	117.20
36	B2	374	C	O4'-C1'-N1	5.11	112.29	108.20
36	B2	490	A	C1'-O4'-C4'	-5.11	105.81	109.90
83	A5	540	G	C2'-C3'-O3'	5.11	121.88	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	682	U	O4'-C1'-N1	5.11	112.29	108.20
83	A5	1731	G	C1'-O4'-C4'	-5.11	105.81	109.90
83	A5	3459	C	C3'-C2'-C1'	5.11	105.59	101.50
36	B2	818	C	C4'-C3'-O3'	-5.11	98.67	109.40
37	BC	64	G	C4'-C3'-C2'	-5.11	97.49	102.60
60	Cr	18	PHE	CB-CG-CD2	-5.11	117.22	120.80
67	Ce	14	LYS	C-N-CA	5.11	134.47	121.70
83	A5	2888	A	P-O5'-C5'	5.11	129.07	120.90
1	Az	755	HIS	N-CA-CB	5.11	119.79	110.60
36	B2	1457	C	O4'-C1'-N1	5.11	112.28	108.20
40	CK	99	LYS	N-CA-CB	5.11	119.79	110.60
45	Ca	10	ARG	NE-CZ-NH2	-5.11	117.75	120.30
63	CB	156	TYR	CA-CB-CG	-5.11	103.70	113.40
74	CC	27	LEU	CB-CA-C	-5.11	100.50	110.20
83	A5	265	U	O4'-C1'-C2'	-5.11	100.69	105.80
83	A5	3819	C	C2'-C3'-O3'	5.11	121.87	113.70
36	B2	1318	A	C1'-O4'-C4'	5.10	113.98	109.90
56	CX	227	LYS	N-CA-CB	5.10	119.79	110.60
83	A5	3678	G	O4'-C1'-N9	5.10	112.28	108.20
1	Az	276	CYS	N-CA-CB	5.10	119.78	110.60
5	AO	75	MET	CG-SD-CE	-5.10	92.04	100.20
76	Cn	11	ARG	NE-CZ-NH2	-5.10	117.75	120.30
83	A5	544	U	N1-C1'-C2'	5.10	120.63	114.00
83	A5	925	C	C4'-C3'-C2'	-5.10	97.50	102.60
83	A5	1309	U	N1-C1'-C2'	5.10	120.63	114.00
83	A5	1791	A	C1'-O4'-C4'	5.10	113.98	109.90
83	A5	2273	A	N9-C1'-C2'	-5.10	106.39	112.00
83	A5	3522	A	C5'-C4'-C3'	-5.10	107.84	116.00
21	Ab	33	MET	CA-CB-CG	5.10	121.97	113.30
27	AE	239	PRO	C-N-CA	5.10	134.45	121.70
41	CO	137	TYR	CB-CG-CD1	5.10	124.06	121.00
83	A5	282	A	P-O3'-C3'	5.10	125.82	119.70
83	A5	1861	A	O4'-C1'-C2'	-5.10	100.70	105.80
83	A5	1892	C	N1-C1'-C2'	5.10	120.63	114.00
83	A5	2785	C	N1-C1'-C2'	5.10	120.63	114.00
1	Az	44	GLY	N-CA-C	5.10	125.85	113.10
1	Az	166	ARG	NE-CZ-NH2	-5.10	117.75	120.30
15	AB	28	LYS	C-N-CA	5.10	134.45	121.70
25	Af	118	ARG	NE-CZ-NH2	-5.10	117.75	120.30
33	AI	22	ARG	NE-CZ-NH1	5.10	122.85	120.30
36	B2	933	C	N1-C1'-C2'	5.10	120.63	114.00
44	CM	141	ARG	NE-CZ-NH1	5.10	122.85	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	58	U	C1'-O4'-C4'	5.10	113.98	109.90
36	B2	360	G	C3'-C2'-C1'	-5.10	97.42	101.50
36	B2	519	A	P-O3'-C3'	-5.10	113.58	119.70
36	B2	888	G	O4'-C1'-C2'	5.10	112.19	107.60
83	A5	30	A	C1'-O4'-C4'	-5.10	105.82	109.90
83	A5	1139	U	N1-C1'-C2'	5.10	120.63	114.00
83	A5	1326	A	O4'-C1'-C2'	-5.10	100.70	105.80
83	A5	1524	U	C5'-C4'-O4'	5.10	115.22	109.10
83	A5	3596	A	C1'-O4'-C4'	5.10	113.98	109.90
83	A5	3699	U	O3'-P-O5'	5.10	113.69	104.00
36	B2	1651	C	N1-C1'-C2'	5.10	120.62	114.00
78	Co	93	GLY	N-CA-C	5.10	125.84	113.10
83	A5	2513	G	O4'-C1'-C2'	-5.10	100.70	105.80
1	Az	267	LYS	C-N-CA	5.09	134.44	121.70
1	Az	309	LEU	CB-CA-C	-5.09	100.52	110.20
36	B2	527	C	C3'-C2'-C1'	5.09	105.58	101.50
36	B2	551	C	O4'-C1'-N1	5.09	112.28	108.20
83	A5	45	G	N9-C1'-C2'	5.09	120.62	114.00
86	A8	92	G	C5'-C4'-O4'	5.09	115.21	109.10
36	B2	256	C	C2'-C3'-O3'	5.09	121.85	113.70
83	A5	545	U	C1'-O4'-C4'	5.09	113.97	109.90
83	A5	2910	C	O4'-C1'-N1	5.09	112.27	108.20
40	CK	147	HIS	C-N-CD	-5.09	109.40	120.60
83	A5	1574	A	C3'-C2'-C1'	5.09	105.57	101.50
83	A5	2505	A	C1'-O4'-C4'	5.09	113.97	109.90
83	A5	2805	C	C3'-C2'-C1'	5.09	105.57	101.50
83	A5	2906	C	C3'-C2'-C1'	5.09	105.57	101.50
83	A5	3416	C	C5'-C4'-C3'	5.09	124.15	116.00
36	B2	1396	G	C1'-O4'-C4'	-5.09	105.83	109.90
36	B2	1815	C	O4'-C1'-C2'	-5.09	100.71	105.80
36	B2	1869	C	N1-C1'-C2'	5.09	120.62	114.00
49	CQ	156	PRO	C-N-CA	5.09	132.99	122.30
83	A5	55	U	OP1-P-OP2	-5.09	111.97	119.60
83	A5	1144	C	C3'-C2'-C1'	5.09	105.57	101.50
83	A5	1923	A	P-O3'-C3'	-5.09	113.59	119.70
83	A5	2077	A	C1'-O4'-C4'	5.09	113.97	109.90
83	A5	2656	C	O4'-C1'-N1	5.09	112.27	108.20
83	A5	2715	C	O4'-C1'-C2'	-5.09	100.71	105.80
83	A5	2819	A	P-O3'-C3'	-5.09	113.59	119.70
83	A5	2841	G	C3'-C2'-C1'	5.09	105.57	101.50
83	A5	3157	U	O4'-C1'-C2'	-5.09	100.71	105.80
15	AB	51	ARG	NE-CZ-NH2	-5.09	117.76	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1015	G	P-O5'-C5'	-5.09	112.76	120.90
34	AQ	45	GLU	N-CA-C	5.09	124.73	111.00
36	B2	86	C	N1-C1'-C2'	5.09	120.61	114.00
81	CE	107	ARG	NE-CZ-NH1	5.09	122.84	120.30
83	A5	342	A	C3'-C2'-C1'	5.09	105.57	101.50
83	A5	3463	U	C3'-C2'-C1'	5.09	105.57	101.50
15	AB	22	VAL	N-CA-CB	5.08	122.69	111.50
36	B2	102	A	P-O3'-C3'	5.08	125.80	119.70
36	B2	103	U	O4'-C1'-N1	5.08	112.27	108.20
36	B2	252	A	C4'-C3'-C2'	-5.08	97.52	102.60
36	B2	1249	C	O4'-C1'-N1	5.08	112.27	108.20
36	B2	1282	A	C4'-C3'-C2'	-5.08	97.52	102.60
83	A5	2482	C	C3'-C2'-C1'	5.08	105.57	101.50
83	A5	2992	A	C1'-O4'-C4'	-5.08	105.83	109.90
86	A8	110	C	C1'-O4'-C4'	-5.08	105.83	109.90
11	AL	94	ARG	NE-CZ-NH2	-5.08	117.76	120.30
36	B2	66	C	C1'-O4'-C4'	5.08	113.97	109.90
36	B2	780	A	P-O3'-C3'	-5.08	113.60	119.70
36	B2	900	A	C3'-C2'-C1'	-5.08	97.43	101.50
36	B2	1145	U	C5'-C4'-C3'	-5.08	107.87	116.00
36	B2	1905	U	P-O3'-C3'	5.08	125.80	119.70
48	CD	46	THR	N-CA-CB	5.08	119.96	110.30
83	A5	1119	C	C4'-C3'-O3'	-5.08	98.73	109.40
83	A5	1362	G	O4'-C1'-C2'	5.08	112.17	107.60
83	A5	2498	U	C3'-C2'-C1'	5.08	105.57	101.50
83	A5	2662	C	O4'-C1'-N1	5.08	112.27	108.20
83	A5	3317	U	C3'-C2'-C1'	-5.08	97.43	101.50
83	A5	3842	A	C5'-C4'-C3'	5.08	124.13	116.00
3	AU	76	SER	C-N-CA	5.08	134.40	121.70
36	B2	1968	C	O4'-C1'-N1	5.08	112.27	108.20
83	A5	96	G	C3'-C2'-C1'	5.08	105.57	101.50
83	A5	272	U	C2'-C3'-O3'	5.08	121.83	113.70
83	A5	1519	A	N9-C1'-C2'	-5.08	106.41	112.00
83	A5	2969	U	O3'-P-O5'	5.08	113.66	104.00
86	A8	63	U	C3'-C2'-C1'	5.08	105.56	101.50
36	B2	1220	A	P-O3'-C3'	-5.08	113.60	119.70
83	A5	396	A	C3'-C2'-C1'	5.08	105.56	101.50
83	A5	1116	G	C1'-O4'-C4'	-5.08	105.84	109.90
83	A5	1310	A	O4'-C1'-N9	5.08	112.26	108.20
83	A5	2061	G	N9-C1'-C2'	5.08	120.60	114.00
12	AR	72	LYS	N-CA-CB	5.08	119.74	110.60
15	AB	46	LYS	N-CA-CB	5.08	119.74	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	AG	30	LYS	N-CA-CB	5.08	119.74	110.60
36	B2	405	A	O4'-C1'-C2'	-5.08	100.72	105.80
36	B2	445	U	C3'-C2'-C1'	5.08	105.56	101.50
36	B2	1551	C	C3'-C2'-C1'	5.08	105.56	101.50
81	CE	32	ARG	NE-CZ-NH1	-5.08	117.76	120.30
17	AV	43	THR	C-N-CA	5.08	132.96	122.30
36	B2	321	A	C3'-C2'-C1'	5.08	105.56	101.50
36	B2	1925	G	C5'-C4'-O4'	5.08	115.19	109.10
65	Cc	59	GLU	CB-CA-C	-5.08	100.25	110.40
5	AO	112	ALA	CB-CA-C	-5.08	102.49	110.10
36	B2	197	A	C3'-C2'-C1'	5.08	105.56	101.50
36	B2	972	G	O4'-C1'-C2'	5.08	112.17	107.60
36	B2	1315	U	O4'-C1'-C2'	-5.08	100.72	105.80
64	CF	115	PHE	CB-CG-CD1	5.08	124.35	120.80
83	A5	1872	A	O4'-C1'-N9	-5.08	104.14	108.20
83	A5	2068	A	O4'-C4'-C3'	-5.08	98.92	104.00
83	A5	3013	C	O4'-C1'-C2'	-5.08	100.72	105.80
1	Az	262	LYS	N-CA-C	5.07	124.70	111.00
7	AM	86	VAL	C-N-CA	5.07	134.38	121.70
36	B2	591	C	C3'-C2'-C1'	5.07	105.56	101.50
36	B2	1293	C	N1-C1'-C2'	5.07	120.60	114.00
36	B2	1435	A	P-O3'-C3'	-5.07	113.61	119.70
36	B2	1759	U	N1-C1'-C2'	5.07	120.60	114.00
83	A5	197	G	C3'-C2'-C1'	5.07	105.56	101.50
83	A5	460	A	C1'-O4'-C4'	-5.07	105.84	109.90
83	A5	767	A	P-O3'-C3'	5.07	125.79	119.70
83	A5	2402	G	P-O3'-C3'	5.07	125.79	119.70
83	A5	3147	A	O4'-C1'-C2'	-5.07	100.73	105.80
1	Az	407	VAL	N-CA-C	5.07	124.69	111.00
32	AW	78	ARG	NE-CZ-NH1	5.07	122.84	120.30
83	A5	2000	U	O4'-C1'-N1	5.07	112.26	108.20
39	Cq	183	PHE	N-CA-CB	5.07	119.73	110.60
77	Cp	71	TYR	CG-CD1-CE1	-5.07	117.24	121.30
83	A5	993	A	O4'-C1'-C2'	5.07	112.16	107.60
83	A5	2483	A	O4'-C1'-N9	5.07	112.26	108.20
83	A5	3814	U	N1-C1'-C2'	-5.07	106.42	112.00
36	B2	1524	A	C1'-O4'-C4'	-5.07	105.84	109.90
36	B2	1772	C	C4'-C3'-C2'	-5.07	97.53	102.60
36	B2	1871	G	O4'-C1'-N9	-5.07	104.14	108.20
65	Cc	62	TYR	CA-CB-CG	-5.07	103.77	113.40
83	A5	3118	U	N1-C1'-C2'	5.07	120.59	114.00
10	AN	128	TYR	CZ-CE2-CD2	-5.07	115.24	119.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	142	A	O4'-C1'-C2'	-5.07	100.73	105.80
36	B2	948	A	C3'-C2'-C1'	5.07	105.55	101.50
36	B2	1171	G	C5'-C4'-O4'	5.07	115.18	109.10
36	B2	1178	A	O4'-C1'-C2'	5.07	112.16	107.60
40	CK	86	LYS	CB-CA-C	-5.07	100.27	110.40
63	CB	153	MET	CG-SD-CE	-5.07	92.09	100.20
63	CB	198	ARG	NE-CZ-NH2	5.07	122.83	120.30
83	A5	122	C	C5'-C4'-O4'	5.07	115.18	109.10
83	A5	593	U	O4'-C1'-C2'	-5.07	100.73	105.80
83	A5	1947	G	N9-C1'-C2'	-5.07	106.43	112.00
83	A5	2897	G	N9-C1'-C2'	-5.07	106.42	112.00
83	A5	3290	A	O4'-C1'-N9	5.07	112.25	108.20
14	AT	34	MET	N-CA-C	5.07	124.68	111.00
47	CI	187	ASP	CB-CG-OD1	5.07	122.86	118.30
60	Cr	70	LYS	N-CA-C	5.07	124.68	111.00
83	A5	3499	G	O4'-C4'-C3'	-5.07	98.93	104.00
83	A5	3573	C	C3'-C2'-C1'	5.07	105.55	101.50
1	Az	731	TYR	CB-CA-C	-5.06	100.27	110.40
24	Ae	110	TYR	CB-CG-CD1	-5.06	117.96	121.00
33	AI	180	ARG	N-CA-CB	5.06	119.72	110.60
37	BC	61	C	N1-C1'-C2'	5.06	120.58	114.00
43	CV	90	ARG	NE-CZ-NH2	-5.06	117.77	120.30
83	A5	194	A	O4'-C1'-C2'	-5.06	100.74	105.80
83	A5	773	G	C2'-C3'-O3'	5.06	121.80	113.70
83	A5	2208	G	C5'-C4'-O4'	5.06	115.18	109.10
36	B2	1813	U	C1'-O4'-C4'	-5.06	105.85	109.90
83	A5	202	A	O4'-C1'-N9	5.06	112.25	108.20
83	A5	613	U	O4'-C1'-C2'	-5.06	100.74	105.80
83	A5	2711	C	O4'-C1'-C2'	-5.06	100.74	105.80
83	A5	1327	G	O4'-C1'-N9	5.06	112.25	108.20
85	A7	22	A	C4'-C3'-O3'	-5.06	98.77	109.40
36	B2	228	A	C1'-O4'-C4'	5.06	113.95	109.90
36	B2	1928	C	O4'-C1'-N1	5.06	112.25	108.20
77	Cp	4	ARG	NE-CZ-NH1	5.06	122.83	120.30
83	A5	898	A	C5'-C4'-O4'	5.06	115.17	109.10
83	A5	2231	A	N9-C1'-C2'	5.06	120.58	114.00
83	A5	3656	A	N9-C1'-C2'	5.06	120.58	114.00
85	A7	59	G	N9-C1'-C2'	5.06	120.58	114.00
1	Az	332	ALA	N-CA-CB	5.06	117.18	110.10
36	B2	1045	U	C3'-C2'-C1'	5.06	105.55	101.50
36	B2	1083	C	N1-C1'-C2'	5.06	120.58	114.00
46	CN	4	TYR	CB-CG-CD2	5.06	124.03	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	CS	18	PRO	CA-C-N	5.06	128.32	117.20
82	CG	54	ARG	NE-CZ-NH1	5.06	122.83	120.30
83	A5	620	U	O4'-C1'-C2'	-5.06	100.74	105.80
83	A5	1267	A	C3'-C2'-C1'	5.06	105.55	101.50
83	A5	1682	G	C1'-O4'-C4'	-5.06	105.86	109.90
83	A5	2616	G	C1'-O4'-C4'	-5.06	105.85	109.90
36	B2	879	U	N1-C1'-C2'	5.06	120.57	114.00
42	CL	100	ARG	N-CA-C	-5.06	97.35	111.00
44	CM	153	ALA	CA-C-N	5.06	128.32	117.20
83	A5	3784	C	C1'-O4'-C4'	-5.06	105.86	109.90
20	Aa	22	ARG	NE-CZ-NH2	-5.05	117.77	120.30
83	A5	1478	A	C3'-C2'-C1'	5.05	105.54	101.50
83	A5	1946	G	P-O3'-C3'	-5.05	113.63	119.70
20	Aa	107	ALA	CB-CA-C	5.05	117.68	110.10
36	B2	1007	C	O4'-C1'-N1	5.05	112.24	108.20
83	A5	445	C	O4'-C1'-C2'	-5.05	100.75	105.80
85	A7	37	G	O4'-C1'-C2'	-5.05	100.75	105.80
40	CK	102	GLY	CA-C-N	5.05	128.31	117.20
83	A5	996	C	C1'-O4'-C4'	-5.05	105.86	109.90
83	A5	2103	G	P-O3'-C3'	-5.05	113.64	119.70
83	A5	3527	A	O4'-C1'-C2'	-5.05	100.75	105.80
83	A5	3714	U	O4'-C1'-C2'	-5.05	100.75	105.80
83	A5	3837	A	C4'-C3'-C2'	-5.05	97.55	102.60
83	A5	3849	A	O3'-P-O5'	5.05	113.60	104.00
32	AW	28	ARG	NE-CZ-NH1	5.05	122.83	120.30
36	B2	83	A	O4'-C1'-C2'	-5.05	100.75	105.80
36	B2	124	U	O4'-C1'-C2'	-5.05	100.75	105.80
36	B2	1696	G	C1'-O4'-C4'	-5.05	105.86	109.90
36	B2	1826	C	N1-C1'-C2'	5.05	120.56	114.00
36	B2	1932	A	O4'-C1'-C2'	-5.05	100.75	105.80
62	Cb	53	ARG	NE-CZ-NH1	5.05	122.83	120.30
83	A5	3275	G	O4'-C1'-N9	5.05	112.24	108.20
28	AC	81	LEU	N-CA-C	-5.05	97.37	111.00
42	CL	128	ILE	N-CA-C	5.05	124.63	111.00
83	A5	488	U	C3'-C2'-C1'	-5.05	97.46	101.50
83	A5	2542	C	O4'-C1'-C2'	-5.05	100.75	105.80
83	A5	3559	A	O4'-C1'-C2'	-5.05	100.75	105.80
8	AS	140	GLY	N-CA-C	5.05	125.71	113.10
36	B2	11	A	O4'-C1'-C2'	-5.05	100.75	105.80
36	B2	1571	U	P-O5'-C5'	-5.05	112.83	120.90
83	A5	193	U	O4'-C1'-C2'	-5.05	100.75	105.80
83	A5	1151	A	C1'-O4'-C4'	-5.05	105.86	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	1318	A	O4'-C1'-C2'	-5.05	100.75	105.80
83	A5	1547	A	C5'-C4'-C3'	-5.05	107.93	116.00
83	A5	1727	U	C2'-C3'-O3'	5.05	121.78	113.70
83	A5	2784	C	C5'-C4'-O4'	5.05	115.16	109.10
86	A8	62	A	O4'-C1'-N9	5.05	112.24	108.20
1	Az	13	MET	CG-SD-CE	-5.04	92.13	100.20
31	AH	17	ASP	CB-CG-OD1	5.04	122.84	118.30
36	B2	550	C	C1'-O4'-C4'	5.04	113.94	109.90
83	A5	2845	G	C5'-C4'-O4'	5.04	115.15	109.10
36	B2	27	U	N1-C1'-C2'	-5.04	106.45	112.00
36	B2	1041	G	O4'-C1'-N9	5.04	112.23	108.20
36	B2	1533	C	O4'-C1'-N1	5.04	112.23	108.20
36	B2	1926	A	C3'-C2'-C1'	5.04	105.53	101.50
83	A5	449	U	P-O3'-C3'	-5.04	113.65	119.70
83	A5	1766	U	C5'-C4'-O4'	5.04	115.15	109.10
83	A5	2086	U	O4'-C1'-C2'	-5.04	100.76	105.80
1	Az	389	PRO	N-CA-C	5.04	125.21	112.10
15	AB	170	ARG	NE-CZ-NH1	5.04	122.82	120.30
36	B2	1349	U	O4'-C1'-C2'	-5.04	100.76	105.80
36	B2	1804	U	O5'-C5'-C4'	-5.04	102.12	111.70
49	CQ	11	ARG	NE-CZ-NH1	5.04	122.82	120.30
49	CQ	12	LYS	N-CA-C	5.04	124.61	111.00
83	A5	522	G	C5'-C4'-O4'	5.04	115.15	109.10
83	A5	874	G	P-O3'-C3'	-5.04	113.65	119.70
83	A5	1458	G	C1'-O4'-C4'	-5.04	105.87	109.90
83	A5	2093	U	O4'-C1'-N1	5.04	112.23	108.20
36	B2	1912	G	O4'-C4'-C3'	-5.04	98.96	104.00
44	CM	12	ILE	N-CA-CB	-5.04	99.21	110.80
83	A5	1937	G	P-O3'-C3'	5.04	125.75	119.70
83	A5	2166	U	P-O3'-C3'	5.04	125.75	119.70
83	A5	3890	G	C1'-O4'-C4'	-5.04	105.87	109.90
24	Ae	101	THR	C-N-CA	5.04	132.88	122.30
29	AG	152	ASP	N-CA-C	5.04	124.61	111.00
83	A5	203	A	O4'-C4'-C3'	-5.04	98.96	104.00
83	A5	558	C	O4'-C1'-N1	5.04	112.23	108.20
83	A5	826	A	C1'-O4'-C4'	5.04	113.93	109.90
80	CH	123	ARG	NE-CZ-NH1	5.04	122.82	120.30
81	CE	44	LEU	N-CA-CB	5.04	120.47	110.40
83	A5	3110	U	C1'-O4'-C4'	-5.04	105.87	109.90
83	A5	3188	A	N9-C1'-C2'	5.04	120.55	114.00
36	B2	838	A	O4'-C1'-C2'	-5.04	100.77	105.80
36	B2	1807	C	C1'-O4'-C4'	-5.04	105.87	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	A5	47	A	P-O5'-C5'	-5.04	112.84	120.90
83	A5	103	A	C3'-C2'-C1'	5.04	105.53	101.50
83	A5	1500	G	O4'-C1'-N9	5.04	112.23	108.20
83	A5	1916	G	C3'-C2'-C1'	5.04	105.53	101.50
83	A5	3391	U	O3'-P-O5'	-5.04	94.43	104.00
83	A5	3425	G	C4'-C3'-C2'	-5.04	97.56	102.60
1	Az	280	LEU	N-CA-CB	5.03	120.47	110.40
36	B2	1138	U	O5'-C5'-C4'	5.03	121.27	111.70
36	B2	1184	U	P-O3'-C3'	5.03	125.74	119.70
36	B2	1264	G	O4'-C1'-C2'	5.03	112.13	107.60
36	B2	1566	U	O4'-C1'-N1	5.03	112.23	108.20
50	CR	61	TYR	CB-CA-C	-5.03	100.33	110.40
83	A5	404	U	C3'-C2'-C1'	5.03	105.53	101.50
83	A5	2540	G	O4'-C1'-N9	5.03	112.23	108.20
83	A5	2726	A	P-O3'-C3'	5.03	125.74	119.70
83	A5	2949	A	O3'-P-O5'	5.03	113.56	104.00
17	AV	41	PRO	N-CA-C	5.03	125.18	112.10
36	B2	1149	A	P-O5'-C5'	5.03	128.95	120.90
83	A5	2027	A	O4'-C1'-N9	-5.03	104.17	108.20
83	A5	3888	U	C1'-O4'-C4'	-5.03	105.87	109.90
36	B2	1131	U	O3'-P-O5'	-5.03	94.44	104.00
36	B2	1342	G	C1'-C2'-O2'	5.03	125.69	110.60
36	B2	1870	C	C3'-C2'-C1'	5.03	105.53	101.50
42	CL	73	ARG	C-N-CA	5.03	132.86	122.30
83	A5	1285	C	C3'-C2'-C1'	5.03	105.52	101.50
45	Ca	83	VAL	CA-CB-CG2	5.03	118.44	110.90
82	CG	83	PRO	CA-C-N	5.03	131.18	117.10
83	A5	1427	G	P-O3'-C3'	5.03	125.73	119.70
83	A5	3319	A	O5'-C5'-C4'	-5.03	102.15	111.70
14	AT	153	VAL	N-CA-CB	5.03	122.56	111.50
39	Cq	150	GLY	N-CA-C	5.03	125.67	113.10
83	A5	1708	G	C3'-C2'-C1'	5.03	105.52	101.50
16	AA	203	PHE	CB-CA-C	-5.03	100.35	110.40
34	AQ	142	ARG	NE-CZ-NH2	-5.03	117.79	120.30
36	B2	1756	C	C1'-O4'-C4'	-5.03	105.88	109.90
74	CC	112	ARG	NE-CZ-NH1	5.03	122.81	120.30
83	A5	80	G	C5'-C4'-O4'	5.03	115.13	109.10
83	A5	1073	C	P-O3'-C3'	5.03	125.73	119.70
83	A5	1450	U	N1-C1'-C2'	5.03	120.53	114.00
83	A5	2646	U	C1'-O4'-C4'	5.03	113.92	109.90
83	A5	3654	C	C3'-C2'-C1'	5.03	105.52	101.50
86	A8	43	A	O4'-C1'-C2'	-5.03	100.78	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
86	A8	57	G	N9-C1'-C2'	-5.03	106.47	112.00
36	B2	586	U	O4'-C1'-N1	5.02	112.22	108.20
57	CY	65	ASN	N-CA-CB	5.02	119.64	110.60
83	A5	1483	G	O4'-C1'-N9	5.02	112.22	108.20
83	A5	2900	U	P-O3'-C3'	-5.02	113.67	119.70
83	A5	3943	G	N9-C1'-C2'	5.02	120.53	114.00
13	AP	126	TYR	C-N-CA	5.02	134.26	121.70
36	B2	1113	A	O4'-C1'-C2'	-5.02	100.78	105.80
36	B2	1329	A	N9-C1'-C2'	5.02	120.53	114.00
36	B2	1543	G	P-O5'-C5'	-5.02	112.86	120.90
36	B2	1639	U	N1-C1'-C2'	5.02	120.53	114.00
42	CL	38	ARG	NE-CZ-NH1	5.02	122.81	120.30
44	CM	126	ALA	CB-CA-C	-5.02	102.57	110.10
49	CQ	184	CYS	C-N-CA	5.02	132.84	122.30
83	A5	455	U	O4'-C1'-N1	5.02	112.22	108.20
83	A5	2666	G	P-O3'-C3'	-5.02	113.67	119.70
36	B2	13	C	N1-C1'-C2'	5.02	120.53	114.00
36	B2	1582	C	C4'-C3'-C2'	5.02	107.62	102.60
64	CF	171	PRO	C-N-CA	5.02	134.25	121.70
83	A5	34	C	N1-C1'-C2'	5.02	120.53	114.00
83	A5	2028	A	C1'-O4'-C4'	-5.02	105.88	109.90
83	A5	2731	G	O4'-C1'-N9	5.02	112.22	108.20
36	B2	881	U	C4'-C3'-C2'	-5.02	97.58	102.60
36	B2	1277	A	C1'-O4'-C4'	5.02	113.92	109.90
51	CA	247	ARG	NE-CZ-NH1	5.02	122.81	120.30
83	A5	696	U	P-O5'-C5'	5.02	128.93	120.90
83	A5	3115	C	O4'-C1'-C2'	-5.02	100.78	105.80
83	A5	3566	G	C1'-O4'-C4'	-5.02	105.88	109.90
83	A5	232	U	P-O3'-C3'	-5.02	113.68	119.70
83	A5	303	G	P-O5'-C5'	-5.02	112.87	120.90
83	A5	1621	A	C3'-C2'-C1'	5.02	105.51	101.50
83	A5	2043	G	C1'-O4'-C4'	5.02	113.92	109.90
83	A5	3402	C	C1'-O4'-C4'	5.02	113.91	109.90
83	A5	3419	A	C3'-C2'-C1'	5.02	105.51	101.50
48	CD	79	TYR	CB-CG-CD2	-5.02	117.99	121.00
49	CQ	164	ARG	NE-CZ-NH2	-5.02	117.79	120.30
83	A5	566	A	O4'-C1'-C2'	-5.02	100.78	105.80
83	A5	653	U	C5'-C4'-C3'	-5.02	107.97	116.00
1	Az	231	PHE	CB-CG-CD1	-5.01	117.29	120.80
15	AB	215	ILE	C-N-CA	5.01	134.24	121.70
16	AA	158	ASP	O-C-N	-5.01	114.68	122.70
36	B2	111	A	C1'-O4'-C4'	-5.01	105.89	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1520	A	C3'-C2'-C1'	5.01	105.51	101.50
36	B2	1552	C	N1-C1'-C2'	-5.01	106.48	112.00
51	CA	179	ILE	N-CA-CB	5.01	122.33	110.80
83	A5	487	A	C5'-C4'-C3'	5.01	124.02	116.00
83	A5	749	U	O3'-P-O5'	-5.01	94.47	104.00
83	A5	1709	A	C1'-O4'-C4'	5.01	113.91	109.90
83	A5	3392	U	C5'-C4'-C3'	-5.01	107.98	116.00
83	A5	3512	U	N1-C1'-C2'	5.01	120.52	114.00
85	A7	20	U	C3'-C2'-C1'	-5.01	97.49	101.50
85	A7	51	A	C3'-C2'-C1'	5.01	105.51	101.50
2	Ag	247	TYR	CB-CG-CD2	5.01	124.01	121.00
36	B2	558	A	P-O3'-C3'	-5.01	113.69	119.70
32	AW	28	ARG	NE-CZ-NH2	-5.01	117.79	120.30
33	AI	106	ALA	CB-CA-C	-5.01	102.58	110.10
36	B2	169	C	C5'-C4'-O4'	5.01	115.11	109.10
36	B2	202	U	P-O5'-C5'	5.01	128.92	120.90
83	A5	620	U	O4'-C1'-N1	5.01	112.21	108.20
83	A5	1091	G	C5'-C4'-O4'	5.01	115.11	109.10
83	A5	2506	U	O4'-C1'-C2'	-5.01	100.79	105.80
83	A5	2522	A	P-O3'-C3'	-5.01	113.69	119.70
83	A5	3598	U	C1'-O4'-C4'	5.01	113.91	109.90
36	B2	312	G	O4'-C1'-N9	5.01	112.21	108.20
36	B2	1035	G	O4'-C1'-N9	5.01	112.21	108.20
83	A5	2155	A	O3'-P-O5'	5.01	113.52	104.00
32	AW	5	ASN	N-CA-CB	5.01	119.61	110.60
36	B2	420	U	O4'-C1'-C2'	-5.01	100.79	105.80
83	A5	402	A	O4'-C1'-N9	5.01	112.21	108.20
83	A5	623	C	C3'-C2'-C1'	5.01	105.51	101.50
83	A5	1183	U	C1'-O4'-C4'	5.01	113.91	109.90
83	A5	3525	A	C3'-C2'-C1'	5.01	105.51	101.50
27	AE	235	TYR	CB-CG-CD2	-5.01	118.00	121.00
33	AI	22	ARG	NE-CZ-NH2	-5.01	117.80	120.30
83	A5	79	G	O4'-C1'-N9	5.01	112.21	108.20
83	A5	849	U	N1-C1'-C2'	5.01	120.51	114.00
83	A5	1931	C	C3'-C2'-C1'	5.01	105.51	101.50
60	Cr	23	ARG	CA-CB-CG	5.00	124.41	113.40
83	A5	1160	U	O4'-C1'-N1	-5.00	104.20	108.20
83	A5	3250	U	O4'-C1'-C2'	-5.00	100.80	105.80
83	A5	3947	C	C3'-C2'-C1'	5.00	105.50	101.50
2	Ag	110	LEU	CB-CA-C	-5.00	100.69	110.20
27	AE	32	SER	C-N-CA	5.00	134.21	121.70
36	B2	1119	G	C3'-C2'-C1'	-5.00	97.50	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	B2	1437	A	C3'-C2'-C1'	5.00	105.50	101.50
45	Ca	33	ARG	NE-CZ-NH2	5.00	122.80	120.30
46	CN	119	TYR	CB-CG-CD1	-5.00	118.00	121.00
48	CD	49	TYR	N-CA-CB	5.00	119.61	110.60
72	Ck	10	ASP	CB-CG-OD2	-5.00	113.80	118.30
83	A5	677	G	N9-C1'-C2'	5.00	120.50	114.00
83	A5	805	C	C5'-C4'-C3'	5.00	124.01	116.00
83	A5	1392	A	C1'-O4'-C4'	5.00	113.90	109.90
85	A7	52	U	C1'-O4'-C4'	-5.00	105.90	109.90
36	B2	159	A	P-O3'-C3'	-5.00	113.70	119.70
36	B2	631	C	P-O3'-C3'	5.00	125.70	119.70
36	B2	1170	G	C2'-C3'-O3'	5.00	121.70	113.70
42	CL	26	ASN	CB-CA-C	-5.00	100.40	110.40
83	A5	1059	A	C1'-O4'-C4'	5.00	113.90	109.90
83	A5	1326	A	N9-C1'-C2'	5.00	120.50	114.00
83	A5	3244	U	P-O5'-C5'	5.00	128.90	120.90

All (208) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	Az	4	PHE	CA
1	Az	15	LYS	CA
1	Az	49	ALA	CA
1	Az	55	ARG	CA
1	Az	68	ILE	CA
1	Az	71	LYS	CA
1	Az	72	SER	CA
1	Az	74	ALA	CA
1	Az	81	VAL	CA
1	Az	82	GLU	CA
1	Az	91	HIS	CA
1	Az	92	PRO	CA
1	Az	108	ASP	CA
1	Az	109	SER	CA
1	Az	112	HIS	CA
1	Az	116	SER	CA
1	Az	126	THR	CA
1	Az	140	CYS	CA
1	Az	155	ILE	CA
1	Az	173	LEU	CA
1	Az	174	ASP	CA
1	Az	199	ASP	CA

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Mol	Chain	Res	Type	Atom
1	Az	207	ARG	CA
1	Az	219	SER	CA
1	Az	224	TRP	CA
1	Az	225	ALA	CA
1	Az	226	PHE	CA
1	Az	227	THR	CA
1	Az	241	ILE	CA
1	Az	242	ASP	CA
1	Az	251	TRP	CA
1	Az	254	ASN	CA
1	Az	255	PHE	CA
1	Az	256	PHE	CA
1	Az	262	LYS	CA
1	Az	264	GLN	CA
1	Az	266	GLN	CA
1	Az	268	GLU	CA
1	Az	271	ASN	CA
1	Az	272	LYS	CA
1	Az	307	VAL	CA
1	Az	308	THR	CA
1	Az	309	LEU	CA
1	Az	310	LYS	CA
1	Az	330	LEU	CA
1	Az	331	PRO	CA
1	Az	344	LEU	CA
1	Az	345	PRO	CA
1	Az	346	SER	CA
1	Az	362	PRO	CA
1	Az	385	SER	CA
1	Az	389	PRO	CA
1	Az	395	ARG	CA
1	Az	396	PHE	CA
1	Az	404	ALA	CA
1	Az	407	VAL	CA
1	Az	408	ALA	CA
1	Az	420	TYR	CA
1	Az	424	LYS	CA
1	Az	450	VAL	CA
1	Az	465	LEU	CA
1	Az	467	LYS	CA
1	Az	468	THR	CA
1	Az	474	PHE	CA

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Mol	Chain	Res	Type	Atom
1	Az	478	HIS	CA
1	Az	480	MET	CA
1	Az	483	MET	CA
1	Az	499	ASN	CA
1	Az	520	VAL	CA
1	Az	554	ILE	CA
1	Az	555	PRO	CA
1	Az	564	SER	CA
1	Az	565	TYR	CA
1	Az	572	GLU	CA
1	Az	575	GLN	CA
1	Az	576	MET	CA
1	Az	586	ASN	CA
1	Az	595	MET	CA
1	Az	608	VAL	CA
1	Az	609	SER	CA
1	Az	612	ASP	CA
1	Az	625	TYR	CA
1	Az	627	TYR	CA
1	Az	636	TRP	CA
1	Az	637	CYS	CA
1	Az	657	TYR	CA
1	Az	675	GLU	CA
1	Az	681	GLU	CA
1	Az	683	LEU	CA
1	Az	684	ARG	CA
1	Az	691	TYR	CA
1	Az	695	LEU	CA
1	Az	722	ALA	CA
1	Az	755	HIS	CA
1	Az	757	PHE	CA
1	Az	766	PRO	CA
1	Az	794	ALA	CA
1	Az	802	HIS	CA
1	Az	814	SER	CA
1	Az	815	SER	CA
1	Az	830	LEU	CA
1	Az	834	LEU	CA
1	Az	835	PRO	CA
1	Az	842	ASP	CA
1	Az	843	LYS	CA
5	AO	138	ASP	CA

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Mol	Chain	Res	Type	Atom
5	AO	140	THR	CB
7	AM	40	HIS	CA
13	AP	128	PRO	CA
14	AT	7	LYS	CA
14	AT	153	VAL	CA
19	AZ	112	THR	CA
20	Aa	88	SER	CA
23	AD	198	ASN	CA
31	AH	104	ARG	CA
31	AH	106	ALA	CA
36	B2	713	A	C1'
38	Cz	28	PHE	CA
39	Cq	57	LYS	CA
42	CL	3	LYS	CA
42	CL	5	ASN	CA
42	CL	6	ASN	CA
42	CL	7	MET	CA
42	CL	46	PHE	CA
42	CL	48	ARG	CA
42	CL	53	ALA	CA
42	CL	55	ARG	CA
42	CL	56	PRO	CA
42	CL	62	THR	CA
42	CL	68	LYS	CA
42	CL	69	LEU	CA
42	CL	75	PHE	CA
42	CL	76	THR	CA
42	CL	85	ILE	CA
42	CL	95	ILE	CA
42	CL	96	ALA	CA
42	CL	97	VAL	CA
42	CL	102	LYS	CA
42	CL	125	LEU	CA
42	CL	126	PHE	CA
42	CL	127	PRO	CA
42	CL	132	LYS	CA
42	CL	134	ARG	CA
42	CL	138	SER	CA
42	CL	157	LYS	CA
42	CL	167	ARG	CA
42	CL	171	LYS	CA
42	CL	176	PHE	CA

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Mol	Chain	Res	Type	Atom
44	CM	140	PRO	CA
44	CM	156	ALA	CA
45	Ca	98	LYS	CA
46	CN	144	ARG	CA
48	CD	189	SER	CA
52	CS	6	LEU	CA
52	CS	7	LEU	CA
52	CS	18	PRO	CA
52	CS	22	GLU	CA
52	CS	23	PRO	CA
52	CS	36	ASP	CA
52	CS	52	LYS	CA
52	CS	55	LYS	CA
52	CS	60	GLU	CA
52	CS	62	VAL	CA
52	CS	68	TYR	CA
52	CS	74	LYS	CA
52	CS	75	ILE	CA
52	CS	101	THR	CA
52	CS	119	ALA	CA
52	CS	120	ARG	CA
52	CS	127	ILE	CA
52	CS	134	ALA	CA
52	CS	139	ARG	CA
52	CS	154	LEU	CA
52	CS	155	VAL	CA
52	CS	158	VAL	CA
52	CS	159	HIS	CA
52	CS	163	ASN	CA
52	CS	165	LYS	CA
52	CS	167	PHE	CA
52	CS	173	ARG	CA
52	CS	176	PHE	CA
53	CT	157	PHE	CA
54	CP	168	LYS	CA
56	CX	186	VAL	CA
63	CB	103	VAL	CA
64	CF	180	ARG	CA
66	Cd	122	SER	CA
68	Cf	19	LYS	CA
68	Cf	20	ALA	CA
68	Cf	22	LYS	CA

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Mol	Chain	Res	Type	Atom
68	Cf	23	ALA	CA
68	Cf	41	ALA	CA
68	Cf	43	LYS	CA
68	Cf	45	LYS	CA
74	CC	362	ASN	CA
79	CJ	158	PHE	CA
80	CH	190	SER	CA
81	CE	71	THR	CA
81	CE	105	ALA	CA
81	CE	176	ASP	CA
82	CG	65	TYR	CA
83	A5	1594	U	C1'
83	A5	1668	U	C1'
83	A5	2077	A	C2'
83	A5	3258	C	C1'
83	A5	3714	U	C1'
83	A5	3768	C	C2'
83	A5	3846	U	C1'

All (716) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
16	AA	152	SER	Peptide
16	AA	158	ASP	Peptide
16	AA	163	CYS	Peptide
16	AA	206	ASP	Peptide
16	AA	66	VAL	Peptide
16	AA	67	ALA	Peptide
15	AB	27	ARG	Sidechain
15	AB	31	TYR	Sidechain
15	AB	39	PHE	Peptide
15	AB	40	GLN	Peptide
28	AC	102	GLY	Peptide
28	AC	115	ASP	Peptide
28	AC	150	ARG	Sidechain
28	AC	152	TYR	Sidechain
28	AC	153	TRP	Peptide
28	AC	186	GLY	Peptide
28	AC	210	ARG	Peptide
28	AC	224	TYR	Sidechain
28	AC	258	LYS	Peptide
28	AC	260	THR	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
28	AC	261	PRO	Peptide
28	AC	39	ASP	Peptide
28	AC	65	TYR	Sidechain
28	AC	99	THR	Peptide
23	AD	114	GLY	Peptide
23	AD	175	ARG	Sidechain
23	AD	181	GLN	Peptide
23	AD	194	TYR	Sidechain
23	AD	196	PRO	Peptide
23	AD	197	LYS	Peptide
23	AD	200	ILE	Peptide
23	AD	220	ILE	Peptide
23	AD	228	TYR	Sidechain
23	AD	6	PRO	Peptide
27	AE	109	PHE	Sidechain
27	AE	135	GLY	Peptide
27	AE	148	ARG	Sidechain
27	AE	177	SER	Peptide
27	AE	185	GLY	Peptide
27	AE	189	LEU	Peptide
27	AE	240	LYS	Peptide
27	AE	258	ALA	Peptide
27	AE	259	LYS	Peptide
27	AE	3	ARG	Sidechain,Peptide
27	AE	54	TYR	Sidechain
27	AE	95	THR	Peptide
30	AF	103	LYS	Peptide
30	AF	160	ARG	Sidechain
30	AF	41	ILE	Peptide
30	AF	45	GLY	Peptide
30	AF	62	TYR	Sidechain
30	AF	71	ARG	Peptide
30	AF	95	ARG	Sidechain
29	AG	129	ILE	Peptide
29	AG	150	GLU	Peptide
29	AG	153	VAL	Peptide
29	AG	166	ASP	Peptide
29	AG	167	ASN	Peptide
29	AG	192	ARG	Sidechain
29	AG	57	ASP	Peptide
29	AG	60	GLY	Peptide
29	AG	79	LYS	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
29	AG	84	TYR	Sidechain
29	AG	99	GLY	Peptide
31	AH	10	PRO	Peptide
31	AH	103	THR	Peptide
31	AH	104	ARG	Sidechain
31	AH	112	GLN	Peptide
31	AH	113	LYS	Peptide
31	AH	116	ARG	Sidechain
31	AH	157	ASP	Peptide
31	AH	187	PHE	Peptide
33	AI	113	TYR	Sidechain
33	AI	145	GLU	Peptide
33	AI	146	LYS	Peptide
33	AI	155	GLN	Peptide
33	AI	190	TYR	Sidechain
33	AI	22	ARG	Peptide
33	AI	23	LYS	Peptide
33	AI	25	ARG	Sidechain
33	AI	49	ARG	Sidechain,Peptide
33	AI	5	ARG	Sidechain
33	AI	98	LYS	Peptide
26	AJ	128	ARG	Sidechain
26	AJ	13	THR	Peptide
26	AJ	14	TYR	Peptide
26	AJ	164	SER	Peptide
26	AJ	170	ARG	Peptide
26	AJ	19	ARG	Sidechain
26	AJ	7	PRO	Peptide
4	AK	2	PHE	Sidechain
4	AK	27	SER	Peptide
4	AK	54	GLY	Peptide
4	AK	61	ALA	Peptide
4	AK	63	ARG	Sidechain
4	AK	83	LEU	Peptide
4	AK	85	PRO	Peptide
4	AK	92	LEU	Peptide
11	AL	129	ARG	Peptide
11	AL	130	PRO	Peptide
11	AL	145	GLY	Peptide
11	AL	146	GLN	Peptide
11	AL	24	GLY	Peptide
11	AL	38	GLY	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
11	AL	66	ARG	Peptide
11	AL	96	TYR	Sidechain
11	AL	99	PHE	Peptide
7	AM	125	THR	Peptide
7	AM	38	LEU	Peptide
7	AM	51	LYS	Peptide
7	AM	64	ASP	Peptide
7	AM	68	TYR	Sidechain
7	AM	88	SER	Peptide
7	AM	89	HIS	Sidechain
10	AN	114	ARG	Sidechain
10	AN	141	TYR	Sidechain
10	AN	18	TYR	Sidechain
10	AN	19	ARG	Sidechain
10	AN	22	VAL	Peptide
10	AN	73	ARG	Sidechain
5	AO	25	GLU	Peptide
13	AP	21	ARG	Peptide
13	AP	30	ASP	Peptide
13	AP	31	MET	Peptide
13	AP	93	THR	Peptide
34	AQ	13	GLN	Peptide
34	AQ	140	ARG	Sidechain
34	AQ	143	TYR	Peptide
34	AQ	144	GLN	Peptide
34	AQ	23	ALA	Peptide
34	AQ	26	TYR	Sidechain
34	AQ	30	GLY	Peptide
34	AQ	33	LEU	Peptide
34	AQ	45	GLU	Peptide
34	AQ	5	ARG	Peptide
34	AQ	8	PRO	Peptide
34	AQ	9	VAL	Peptide
12	AR	118	GLN	Peptide
12	AR	2	GLY	Peptide
12	AR	86	PRO	Peptide
12	AR	89	SER	Peptide
12	AR	90	ALA	Peptide
8	AS	15	ILE	Peptide
8	AS	40	TYR	Sidechain
8	AS	8	LYS	Peptide
8	AS	86	ARG	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
8	AS	88	LYS	Peptide
8	AS	9	PHE	Peptide
14	AT	101	ARG	Sidechain
14	AT	151	PRO	Peptide
14	AT	152	ILE	Peptide
14	AT	2	PRO	Peptide
14	AT	3	GLY	Peptide
14	AT	39	THR	Peptide
14	AT	40	ALA	Peptide
14	AT	6	VAL	Peptide
14	AT	65	TYR	Sidechain
14	AT	8	ASP	Peptide
14	AT	81	GLY	Peptide
3	AU	106	ILE	Peptide
3	AU	54	GLY	Peptide
3	AU	70	THR	Peptide
17	AV	48	ASP	Peptide
17	AV	9	VAL	Peptide
32	AW	3	ARG	Sidechain
32	AW	54	ASP	Peptide
6	AX	107	ARG	Sidechain
6	AX	87	ARG	Peptide
6	AX	9	THR	Peptide
18	AY	100	GLN	Peptide
18	AY	103	GLN	Peptide
18	AY	104	THR	Peptide
18	AY	105	ARG	Sidechain
18	AY	119	ARG	Sidechain
18	AY	23	GLN	Peptide
18	AY	30	HIS	Peptide
18	AY	60	GLY	Peptide
18	AY	67	GLY	Peptide
18	AY	87	GLU	Peptide
18	AY	96	GLY	Peptide
19	AZ	54	TYR	Sidechain
19	AZ	79	ARG	Sidechain
20	Aa	105	ASP	Peptide
20	Aa	107	ALA	Peptide
20	Aa	108	ARG	Sidechain
20	Aa	5	ARG	Sidechain
20	Aa	87	ARG	Peptide
20	Aa	95	ARG	Sidechain

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Mol	Chain	Res	Type	Group
21	Ab	47	PHE	Sidechain
21	Ab	49	HIS	Peptide
21	Ab	5	LYS	Peptide
21	Ab	53	VAL	Peptide
22	Ac	40	ARG	Sidechain
22	Ac	49	GLY	Peptide
22	Ac	62	ARG	Peptide
9	Ad	20	CYS	Peptide
9	Ad	33	LYS	Peptide
9	Ad	34	TYR	Sidechain
9	Ad	8	TYR	Sidechain
24	Ae	110	TYR	Sidechain
24	Ae	119	GLN	Peptide
25	Af	102	VAL	Peptide
25	Af	116	ARG	Sidechain
25	Af	128	ALA	Peptide
25	Af	136	GLU	Peptide
25	Af	144	CYS	Peptide
25	Af	151	SER	Peptide
25	Af	80	ARG	Sidechain
25	Af	84	ASN	Peptide
25	Af	93	HIS	Peptide
25	Af	95	ARG	Peptide
2	Ag	145	GLU	Peptide
2	Ag	214	ASP	Peptide
2	Ag	277	SER	Peptide
2	Ag	89	ARG	Sidechain
35	Ah	109	GLY	Peptide
35	Ah	110	ASN	Peptide
35	Ah	118	GLY	Peptide
35	Ah	132	ARG	Sidechain
35	Ah	134	PRO	Peptide
35	Ah	214	GLU	Peptide
1	Az	107	ILE	Peptide
1	Az	111	GLY	Peptide
1	Az	115	PHE	Peptide
1	Az	125	VAL	Peptide
1	Az	139	VAL	Peptide
1	Az	14	ASP	Peptide
1	Az	154	ARG	Peptide
1	Az	172	GLN	Peptide
1	Az	173	LEU	Peptide

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Mol	Chain	Res	Type	Group
1	Az	179	TYR	Sidechain
1	Az	196	TYR	Sidechain
1	Az	20	ARG	Sidechain
1	Az	200	GLY	Peptide
1	Az	206	VAL	Peptide
1	Az	207	ARG	Sidechain
1	Az	212	LYS	Peptide
1	Az	223	GLY	Peptide
1	Az	241	ILE	Peptide
1	Az	251	TRP	Peptide
1	Az	252	GLY	Peptide
1	Az	255	PHE	Peptide
1	Az	263	TRP	Peptide
1	Az	265	LYS	Peptide
1	Az	27	HIS	Peptide
1	Az	270	ASP	Peptide
1	Az	271	ASN	Peptide
1	Az	309	LEU	Peptide
1	Az	317	ASP	Peptide
1	Az	330	LEU	Peptide
1	Az	344	LEU	Peptide
1	Az	345	PRO	Peptide
1	Az	361	GLY	Peptide
1	Az	384	ILE	Peptide
1	Az	388	VAL	Peptide
1	Az	395	ARG	Peptide
1	Az	406	LYS	Peptide
1	Az	408	ALA	Peptide
1	Az	420	TYR	Sidechain
1	Az	436	THR	Peptide
1	Az	440	MET	Peptide
1	Az	459	VAL	Peptide
1	Az	47	ALA	Peptide
1	Az	477	ALA	Peptide
1	Az	479	ASN	Peptide
1	Az	486	SER	Peptide
1	Az	487	VAL	Peptide
1	Az	49	ALA	Peptide
1	Az	55	ARG	Peptide
1	Az	554	ILE	Peptide
1	Az	560	ASP	Peptide
1	Az	563	VAL	Peptide

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Mol	Chain	Res	Type	Group
1	Az	575	GLN	Peptide
1	Az	594	PRO	Peptide
1	Az	626	ASP	Peptide
1	Az	635	ILE	Peptide
1	Az	636	TRP	Peptide
1	Az	641	ASP	Peptide
1	Az	647	PHE	Sidechain
1	Az	653	LYS	Peptide
1	Az	67	CYS	Peptide
1	Az	680	ASP	Peptide
1	Az	682	ASN	Peptide
1	Az	690	ILE	Peptide
1	Az	70	ILE	Peptide
1	Az	701	HIS	Peptide
1	Az	72	SER	Peptide
1	Az	73	THR	Peptide
1	Az	746	TYR	Sidechain
1	Az	754	GLY	Peptide
1	Az	756	VAL	Peptide
1	Az	763	VAL	Peptide
1	Az	765	THR	Peptide
1	Az	773	TYR	Sidechain
1	Az	791	GLY	Peptide
1	Az	799	VAL	Peptide
1	Az	80	GLU	Peptide
1	Az	801	ASP	Peptide
1	Az	807	PRO	Peptide
1	Az	81	VAL	Peptide
1	Az	813	PRO	Peptide
1	Az	829	GLY	Peptide
1	Az	833	GLY	Peptide
1	Az	834	LEU	Peptide
1	Az	91	HIS	Peptide
1	Az	96	GLU	Peptide
1	Az	97	LYS	Peptide
51	CA	125	ARG	Sidechain
51	CA	133	TYR	Sidechain
51	CA	170	ALA	Peptide
51	CA	212	GLY	Peptide
51	CA	213	GLY	Peptide
51	CA	216	HIS	Sidechain,Peptide
51	CA	54	ARG	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
63	CB	117	ARG	Sidechain
63	CB	156	TYR	Sidechain
63	CB	226	LYS	Peptide
63	CB	227	GLY	Peptide
63	CB	255	GLY	Peptide
63	CB	268	ARG	Sidechain
63	CB	270	GLY	Peptide
63	CB	274	TYR	Sidechain
63	CB	277	ARG	Sidechain
63	CB	290	GLY	Peptide
63	CB	292	HIS	Peptide
63	CB	320	PHE	Sidechain,Peptide
63	CB	323	TYR	Sidechain,Peptide
63	CB	327	ASN	Peptide
63	CB	334	LYS	Peptide
63	CB	359	ALA	Peptide
63	CB	374	MET	Peptide
63	CB	378	ARG	Sidechain
63	CB	39	LYS	Peptide
63	CB	49	TYR	Sidechain
63	CB	55	HIS	Sidechain
63	CB	63	PRO	Peptide
74	CC	104	MET	Peptide
74	CC	105	PHE	Peptide
74	CC	113	ARG	Sidechain
74	CC	214	TYR	Sidechain
74	CC	218	GLU	Peptide
74	CC	297	LYS	Peptide
74	CC	298	SER	Peptide
74	CC	308	PRO	Peptide
74	CC	310	LYS	Peptide
74	CC	318	ARG	Peptide
74	CC	321	PRO	Peptide
74	CC	332	ASN	Peptide
74	CC	362	ASN	Peptide
74	CC	364	GLU	Peptide
74	CC	390	LYS	Peptide
74	CC	4	GLY	Peptide
74	CC	48	ARG	Sidechain
74	CC	55	TYR	Sidechain
74	CC	72	THR	Peptide
74	CC	91	GLY	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
74	CC	92	GLN	Peptide
48	CD	143	ARG	Sidechain
48	CD	187	THR	Peptide
48	CD	219	PHE	Sidechain
48	CD	221	ARG	Sidechain
48	CD	267	ARG	Peptide
48	CD	278	ARG	Sidechain
48	CD	57	ASN	Peptide
48	CD	95	TYR	Sidechain
81	CE	104	LEU	Peptide
81	CE	128	GLY	Peptide
81	CE	144	TYR	Sidechain
81	CE	157	PHE	Sidechain
81	CE	174	LYS	Peptide
81	CE	175	LYS	Peptide
81	CE	184	ILE	Peptide
81	CE	186	ALA	Peptide
81	CE	187	ALA	Peptide
81	CE	192	PHE	Peptide
81	CE	193	VAL	Peptide
81	CE	20	HIS	Peptide
81	CE	222	PHE	Sidechain
81	CE	227	GLN	Peptide
81	CE	231	ALA	Peptide
81	CE	236	GLN	Peptide
81	CE	28	GLY	Peptide
81	CE	30	ILE	Peptide
81	CE	33	TYR	Sidechain
81	CE	56	GLU	Peptide
81	CE	60	VAL	Peptide
81	CE	69	TYR	Peptide
81	CE	70	PRO	Peptide
81	CE	73	THR	Peptide
81	CE	84	PHE	Sidechain
81	CE	92	ARG	Peptide
64	CF	100	GLY	Peptide
64	CF	158	TYR	Sidechain
64	CF	180	ARG	Sidechain
64	CF	181	LYS	Peptide
64	CF	220	PRO	Peptide
64	CF	235	GLY	Peptide
64	CF	38	ARG	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
82	CG	131	ASP	Peptide
82	CG	168	PRO	Peptide
82	CG	213	ASP	Peptide
82	CG	33	VAL	Peptide
82	CG	58	ARG	Sidechain
82	CG	65	TYR	Sidechain
82	CG	85	ILE	Peptide
80	CH	105	GLU	Peptide
80	CH	108	THR	Peptide
80	CH	115	PHE	Sidechain,Peptide
80	CH	178	TYR	Sidechain
80	CH	187	LYS	Peptide
80	CH	2	ARG	Sidechain
80	CH	23	ARG	Sidechain
80	CH	48	PRO	Peptide
80	CH	50	LYS	Peptide
80	CH	94	TYR	Sidechain
47	CI	112	GLN	Peptide
47	CI	116	ARG	Peptide
47	CI	166	TYR	Sidechain
47	CI	185	ARG	Sidechain
47	CI	193	ASP	Peptide
47	CI	199	TYR	Peptide
47	CI	200	ARG	Peptide
47	CI	201	PRO	Peptide
47	CI	203	HIS	Peptide
47	CI	7	ARG	Sidechain
47	CI	9	TYR	Sidechain
79	CJ	11	ASP	Peptide
79	CJ	124	TYR	Sidechain
79	CJ	136	TYR	Sidechain
79	CJ	156	VAL	Peptide
79	CJ	157	GLY	Peptide
79	CJ	160	HIS	Peptide
79	CJ	175	TYR	Sidechain
79	CJ	18	ARG	Peptide
79	CJ	37	ARG	Sidechain
79	CJ	6	LYS	Peptide
40	CK	100	HIS	Sidechain
40	CK	117	ARG	Peptide
40	CK	147	HIS	Peptide
40	CK	148	PRO	Peptide

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Mol	Chain	Res	Type	Group
40	CK	29	ALA	Peptide
40	CK	30	PRO	Peptide
40	CK	38	SER	Peptide
40	CK	54	LYS	Peptide
40	CK	87	GLU	Peptide
40	CK	88	PRO	Peptide
40	CK	89	PRO	Peptide
40	CK	93	LYS	Peptide
40	CK	94	LYS	Peptide
42	CL	109	ARG	Sidechain
42	CL	118	GLU	Peptide
42	CL	119	TYR	Sidechain
42	CL	124	ILE	Peptide
42	CL	128	ILE	Peptide
42	CL	129	ASN	Peptide
42	CL	13	TYR	Sidechain
42	CL	130	GLU	Peptide
42	CL	137	GLU	Peptide
42	CL	151	GLY	Peptide
42	CL	152	PRO	Peptide
42	CL	154	LEU	Peptide
42	CL	167	ARG	Peptide
42	CL	4	GLY	Peptide
42	CL	49	PRO	Peptide
42	CL	55	ARG	Peptide
42	CL	58	VAL	Peptide
42	CL	6	ASN	Peptide
42	CL	70	ARG	Peptide
42	CL	75	PHE	Sidechain,Peptide
44	CM	101	ARG	Peptide
44	CM	105	ASN	Peptide
44	CM	130	LEU	Peptide
44	CM	132	LYS	Peptide
44	CM	135	LYS	Peptide
44	CM	139	THR	Peptide
44	CM	140	PRO	Peptide
44	CM	141	ARG	Peptide
44	CM	151	LEU	Peptide
44	CM	153	ALA	Peptide
44	CM	155	LYS	Peptide
44	CM	156	ALA	Peptide
44	CM	17	ALA	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
44	CM	47	ARG	Sidechain
44	CM	65	PRO	Peptide
46	CN	108	ARG	Sidechain
46	CN	119	TYR	Sidechain
46	CN	145	ASP	Peptide
46	CN	178	TYR	Sidechain
46	CN	187	SER	Peptide
46	CN	202	ARG	Sidechain
46	CN	30	TYR	Sidechain
46	CN	38	ARG	Peptide
46	CN	50	ARG	Sidechain
46	CN	65	ARG	Sidechain
46	CN	68	ARG	Peptide
46	CN	71	ARG	Sidechain
46	CN	95	TYR	Sidechain
41	CO	111	PRO	Peptide
41	CO	112	SER	Peptide
41	CO	118	ARG	Sidechain
41	CO	127	ARG	Sidechain
41	CO	137	TYR	Sidechain
41	CO	4	LEU	Peptide
41	CO	50	TYR	Sidechain
41	CO	59	TYR	Peptide
41	CO	7	ARG	Sidechain
54	CP	162	ASP	Peptide
54	CP	165	PRO	Peptide
54	CP	20	PRO	Peptide
54	CP	5	SER	Peptide
49	CQ	11	ARG	Sidechain
49	CQ	12	LYS	Peptide
49	CQ	160	HIS	Peptide
49	CQ	166	TYR	Sidechain
49	CQ	186	TYR	Sidechain
49	CQ	26	ARG	Sidechain
49	CQ	8	LYS	Peptide
50	CR	112	SER	Peptide
50	CR	124	TYR	Sidechain
50	CR	129	GLY	Peptide
50	CR	132	PHE	Sidechain
50	CR	16	ARG	Sidechain
52	CS	118	ARG	Peptide
52	CS	119	ALA	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
52	CS	126	ILE	Peptide
52	CS	133	PRO	Peptide
52	CS	149	LYS	Peptide
52	CS	153	PRO	Peptide
52	CS	154	LEU	Peptide
52	CS	157	ARG	Sidechain,Peptide
52	CS	158	VAL	Peptide
52	CS	162	GLY	Peptide
52	CS	17	LEU	Peptide
52	CS	172	PRO	Peptide
52	CS	176	PHE	Sidechain
52	CS	23	PRO	Peptide
52	CS	25	THR	Peptide
52	CS	46	TYR	Sidechain
52	CS	56	LYS	Peptide
52	CS	61	ILE	Peptide
52	CS	67	VAL	Peptide
52	CS	74	LYS	Peptide
52	CS	88	SER	Peptide
53	CT	124	GLN	Peptide
53	CT	136	LYS	Peptide
53	CT	145	GLU	Peptide
53	CT	147	PRO	Peptide
53	CT	148	ILE	Peptide
53	CT	152	PRO	Peptide
53	CT	153	ILE	Peptide
53	CT	154	PRO	Peptide
53	CT	155	TYR	Sidechain
53	CT	157	PHE	Peptide
53	CT	2	THR	Peptide
53	CT	5	LYS	Peptide
55	CU	186	LYS	Peptide
55	CU	237	SER	Peptide
55	CU	251	LYS	Peptide
55	CU	297	ASP	Peptide
43	CV	29	ALA	Peptide
43	CV	46	ARG	Sidechain
43	CV	83	ARG	Sidechain
43	CV	89	ARG	Peptide
58	CW	101	ARG	Sidechain
58	CW	15	PRO	Peptide
58	CW	18	GLY	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
58	CW	32	LEU	Peptide
58	CW	38	ARG	Sidechain
58	CW	40	TYR	Sidechain
58	CW	71	ARG	Peptide
58	CW	77	LYS	Peptide
58	CW	80	ARG	Sidechain
58	CW	81	ALA	Peptide
56	CX	159	ARG	Sidechain
56	CX	162	ARG	Peptide
56	CX	166	HIS	Peptide
56	CX	191	ARG	Peptide
57	CY	6	PHE	Peptide
57	CY	60	GLY	Peptide
57	CY	61	HIS	Peptide
57	CY	83	GLU	Peptide
59	CZ	114	ARG	Sidechain
59	CZ	134	ARG	Sidechain
59	CZ	38	PHE	Sidechain
59	CZ	4	ILE	Peptide
59	CZ	49	TYR	Sidechain
59	CZ	51	ARG	Sidechain
45	Ca	10	ARG	Sidechain
45	Ca	110	TYR	Sidechain
45	Ca	114	GLY	Peptide
45	Ca	115	ARG	Sidechain
45	Ca	130	PHE	Peptide
45	Ca	14	GLY	Peptide
45	Ca	147	LEU	Peptide
45	Ca	51	PRO	Peptide
45	Ca	58	GLY	Peptide
45	Ca	92	GLU	Peptide
45	Ca	93	LYS	Peptide
45	Ca	97	THR	Peptide
62	Cb	52	SER	Peptide
62	Cb	53	ARG	Sidechain
62	Cb	67	GLN	Peptide
62	Cb	68	LYS	Peptide
65	Cc	102	SER	Peptide
65	Cc	11	LEU	Peptide
65	Cc	12	GLU	Peptide
65	Cc	62	TYR	Sidechain
65	Cc	74	TYR	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
66	Cd	119	VAL	Peptide
66	Cd	38	ARG	Peptide
66	Cd	87	ARG	Sidechain
67	Ce	113	ARG	Sidechain
67	Ce	124	PRO	Peptide
67	Ce	129	ARG	Peptide
67	Ce	14	LYS	Peptide
67	Ce	27	TYR	Sidechain
67	Ce	52	TYR	Sidechain
67	Ce	59	TYR	Sidechain
67	Ce	7	TYR	Sidechain
68	Cf	107	HIS	Peptide
68	Cf	108	PRO	Peptide
68	Cf	137	ARG	Peptide
68	Cf	148	ILE	Peptide
68	Cf	17	ALA	Peptide
68	Cf	18	GLN	Peptide
68	Cf	21	PRO	Peptide
68	Cf	22	LYS	Peptide
68	Cf	24	VAL	Peptide
68	Cf	26	ALA	Peptide
68	Cf	28	LYS	Peptide
68	Cf	29	ALA	Peptide
68	Cf	30	GLU	Peptide
68	Cf	34	ALA	Peptide
68	Cf	37	ALA	Peptide
68	Cf	38	LYS	Peptide
68	Cf	41	ALA	Peptide
68	Cf	44	TYR	Sidechain,Peptide
68	Cf	48	GLY	Peptide
68	Cf	49	ARG	Peptide
68	Cf	61	ARG	Peptide
69	Cg	10	ARG	Sidechain
69	Cg	24	ARG	Sidechain
69	Cg	32	TYR	Sidechain
69	Cg	45	GLY	Peptide
69	Cg	74	ARG	Sidechain
69	Cg	8	ARG	Sidechain
69	Cg	80	LEU	Peptide
61	Ch	121	VAL	Peptide
61	Ch	48	ARG	Sidechain
61	Ch	89	ARG	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
70	Ci	10	GLY	Peptide
70	Ci	16	LYS	Peptide
70	Ci	24	LYS	Peptide
70	Ci	37	SER	Peptide
70	Ci	88	GLY	Peptide
71	Cj	27	TYR	Sidechain
71	Cj	43	LYS	Peptide
71	Cj	63	ARG	Sidechain
72	Ck	1	MET	Peptide
72	Ck	38	CYS	Peptide
73	Cl	41	ARG	Sidechain
73	Cl	47	THR	Peptide
73	Cl	48	LYS	Peptide
73	Cl	50	LYS	Peptide
75	Cm	112	LYS	Peptide
75	Cm	113	LYS	Peptide
76	Cn	11	ARG	Sidechain
76	Cn	9	ARG	Sidechain
78	Co	101	MET	Peptide
78	Co	46	GLN	Peptide
78	Co	48	PHE	Peptide
78	Co	91	LEU	Peptide
78	Co	97	ARG	Sidechain
77	Cp	52	VAL	Peptide
77	Cp	59	ARG	Peptide
39	Cq	107	VAL	Peptide
39	Cq	13	TYR	Sidechain
39	Cq	14	PHE	Sidechain
39	Cq	142	GLY	Peptide
39	Cq	148	SER	Peptide
39	Cq	149	ARG	Peptide
39	Cq	183	PHE	Peptide
39	Cq	25	PRO	Peptide
39	Cq	36	GLY	Peptide
39	Cq	55	MET	Peptide
39	Cq	56	GLY	Peptide
39	Cq	57	LYS	Peptide
39	Cq	6	ARG	Peptide
39	Cq	71	ASN	Peptide
39	Cq	83	ARG	Peptide
39	Cq	86	VAL	Peptide
60	Cr	110	LEU	Peptide

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Mol	Chain	Res	Type	Group
60	Cr	132	GLY	Peptide
60	Cr	133	LYS	Peptide
60	Cr	24	ASP	Peptide
60	Cr	27	LYS	Peptide
60	Cr	28	PRO	Peptide
60	Cr	39	VAL	Peptide
60	Cr	42	TYR	Sidechain
60	Cr	46	GLY	Peptide
60	Cr	49	HIS	Peptide
60	Cr	72	LYS	Peptide
60	Cr	75	GLN	Peptide
60	Cr	79	LYS	Peptide
60	Cr	92	ARG	Sidechain
38	Cz	210	MET	Peptide
38	Cz	41	TYR	Sidechain

## 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Az	6574	0	6616	0	0
2	Ag	2511	0	2438	0	0
3	AU	815	0	871	0	0
4	AK	797	0	817	6	0
5	AO	1003	0	1035	8	0
6	AX	1131	0	1190	4	0
7	AM	924	0	960	17	0
8	AS	1128	0	1177	13	0
9	Ad	433	0	424	0	0
10	AN	1202	0	1291	4	0
11	AL	1274	0	1351	9	0
12	AR	981	0	1038	0	0
13	AP	1016	0	1086	6	0
14	AT	1203	0	1250	7	0
15	AB	1798	0	1867	11	0
16	AA	1737	0	1750	7	0
17	AV	617	0	613	1	0
18	AY	1016	0	1073	17	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	AZ	608	0	658	5	0
20	Aa	867	0	920	0	0
21	Ab	653	0	680	0	0
22	Ac	498	0	525	0	0
23	AD	1782	0	1862	4	0
24	Ae	469	0	503	0	0
25	Af	659	0	695	0	0
26	AJ	1503	0	1620	34	0
27	AE	2054	0	2165	10	0
28	AC	1746	0	1827	12	0
29	AG	1866	0	2028	16	0
30	AF	1497	0	1556	9	0
31	AH	1566	0	1664	9	0
32	AW	1028	0	1071	9	0
33	AI	1665	0	1746	3	0
34	AQ	1183	0	1255	10	0
35	Ah	486	0	458	0	0
36	B2	39523	0	19572	367	0
37	BC	1605	0	814	15	0
38	Cz	1702	0	1814	0	0
39	Cq	1710	0	1777	0	0
40	CK	1180	0	1246	6	0
41	CO	1668	0	1783	13	0
42	CL	1695	0	1790	21	0
43	CV	998	0	1046	2	0
44	CM	1302	0	1388	22	0
45	Ca	1204	0	1260	0	0
46	CN	1710	0	1778	10	0
47	CI	1785	0	1805	16	0
48	CD	2334	0	2354	24	0
49	CQ	1518	0	1626	10	0
50	CR	1683	0	1827	5	0
51	CA	1935	0	2037	22	0
52	CS	1454	0	1503	21	0
53	CT	1297	0	1364	5	0
54	CP	1505	0	1556	5	0
55	CU	961	0	975	2	0
56	CX	984	0	1058	4	0
57	CY	1078	0	1159	8	0
58	CW	1047	0	1140	4	0
59	CZ	1115	0	1199	7	0
60	Cr	1051	0	1148	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	Ch	1015	0	1163	0	0
62	Cb	619	0	650	0	0
63	CB	3287	0	3432	52	0
64	CF	1921	0	2039	17	0
65	Cc	770	0	802	0	0
66	Cd	924	0	942	0	0
67	Ce	1110	0	1181	0	0
68	Cf	1244	0	1316	0	0
69	Cg	926	0	1013	0	0
70	Ci	934	0	1029	0	0
71	Cj	737	0	770	0	0
72	Ck	576	0	633	0	0
73	Cl	437	0	483	0	0
74	CC	3109	0	3298	23	0
75	Cm	429	0	472	0	0
76	Cn	236	0	286	0	0
77	Cp	710	0	756	0	0
78	Co	874	0	956	0	0
79	CJ	1468	0	1507	10	0
80	CH	1499	0	1569	12	0
81	CE	1845	0	1981	27	0
82	CG	1936	0	2103	4	0
83	A5	77967	0	38740	799	0
84	A9	639	0	321	5	0
85	A7	2554	0	1296	37	0
86	A8	2621	0	1328	45	0
All	All	230721	0	173165	1591	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 5.

All (1591) 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)
18:AY:77:TYR:CZ	18:AY:77:TYR:CE1	1.77	1.73
18:AY:77:TYR:CG	18:AY:77:TYR:CD1	1.74	1.64
18:AY:77:TYR:CE2	18:AY:77:TYR:CZ	1.76	1.63
83:A5:3843:U:C2'	83:A5:3843:U:C1'	1.74	1.47
42:CL:59:ARG:HG2	83:A5:77:A:N3	1.17	1.44
83:A5:1940:C:O4'	83:A5:1940:C:C1'	1.63	1.35
29:AG:149:LYS:NZ	36:B2:139:U:OP1	1.57	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:623:C:O4'	83:A5:623:C:C1'	1.64	1.34
83:A5:3384:C:C1'	83:A5:3384:C:O4'	1.63	1.33
83:A5:864:G:C1'	83:A5:864:G:O4'	1.64	1.32
83:A5:1803:C:O4'	83:A5:1803:C:C1'	1.63	1.31
83:A5:3357:C:O4'	83:A5:3357:C:C1'	1.63	1.30
26:AJ:147:SER:CB	36:B2:479:A:OP1	1.79	1.29
36:B2:1833:C:C1'	36:B2:1833:C:O4'	1.64	1.29
83:A5:669:U:OP1	83:A5:1592:U:H5''	1.21	1.28
36:B2:651:C:O4'	36:B2:651:C:C1'	1.63	1.28
83:A5:542:C:C1'	83:A5:542:C:O4'	1.67	1.27
83:A5:1886:C:O4'	83:A5:1886:C:C1'	1.63	1.27
36:B2:1674:C:C1'	36:B2:1674:C:O4'	1.64	1.26
29:AG:149:LYS:CE	36:B2:139:U:OP1	1.82	1.26
26:AJ:147:SER:HB3	36:B2:479:A:OP1	1.12	1.26
42:CL:59:ARG:CG	83:A5:77:A:N3	1.98	1.25
36:B2:1569:C:O4'	36:B2:1569:C:C1'	1.66	1.23
83:A5:2487:C:O4'	83:A5:2487:C:C1'	1.63	1.22
83:A5:117:C:O4'	83:A5:117:C:C1'	1.65	1.21
83:A5:2066:G:O4'	83:A5:2066:G:C1'	1.63	1.20
83:A5:959:U:C1'	83:A5:959:U:O4'	1.64	1.19
83:A5:2767:U:C1'	83:A5:2767:U:O4'	1.66	1.18
83:A5:1689:G:C1'	83:A5:1689:G:O4'	1.63	1.17
36:B2:458:C:O4'	36:B2:458:C:C1'	1.63	1.17
14:AT:87:VAL:HB	36:B2:1735:A:OP1	1.41	1.17
86:A8:109:U:O2'	86:A8:111:G:H5'	1.44	1.17
26:AJ:132:ARG:NE	36:B2:480:A:OP2	1.80	1.13
47:CI:205:PRO:CB	85:A7:63:C:H5''	1.79	1.09
48:CD:81:HIS:HE1	85:A7:25:A:OP1	1.34	1.09
83:A5:973:G:O4'	83:A5:973:G:C1'	1.68	1.08
48:CD:81:HIS:CE1	85:A7:25:A:OP1	2.07	1.07
47:CI:205:PRO:HB3	85:A7:63:C:H5''	1.33	1.07
83:A5:669:U:OP1	83:A5:1592:U:C5'	2.01	1.06
18:AY:21:ARG:CD	18:AY:77:TYR:CZ	2.38	1.06
26:AJ:42:ARG:HG2	36:B2:601:U:OP1	1.54	1.06
83:A5:3801:A:H8	83:A5:3801:A:H5''	1.20	1.04
18:AY:21:ARG:CD	18:AY:77:TYR:CE1	2.41	1.04
18:AY:21:ARG:CD	18:AY:77:TYR:CE2	2.41	1.03
18:AY:21:ARG:CD	18:AY:77:TYR:CG	2.43	1.02
18:AY:21:ARG:CD	18:AY:77:TYR:CD2	2.42	1.01
83:A5:3801:A:C8	83:A5:3801:A:H5''	1.95	1.01
18:AY:21:ARG:CD	18:AY:77:TYR:CD1	2.44	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:322:G:OP1	83:A5:3310:G:OP1	1.83	0.97
83:A5:2269:A:N6	83:A5:2468:A:H61	1.62	0.95
42:CL:59:ARG:O	83:A5:79:G:OP1	1.85	0.95
36:B2:998:U:H5''	36:B2:998:U:H6	1.32	0.94
86:A8:69:G:H22	86:A8:85:G:H2'	1.31	0.94
83:A5:1926:A:H61	83:A5:2128:A:H61	1.15	0.92
36:B2:1338:U:H2'	36:B2:1339:C:C6	2.04	0.92
63:CB:156:TYR:CZ	83:A5:3801:A:OP2	2.23	0.92
83:A5:3791:A:H61	83:A5:3818:G:H1	1.16	0.92
83:A5:2842:U:H3	83:A5:2885:A:H61	1.13	0.91
83:A5:3790:A:H2'	83:A5:3791:A:H5''	1.51	0.91
83:A5:1811:A:H5''	83:A5:1812:C:OP2	1.71	0.91
14:AT:87:VAL:CB	36:B2:1735:A:OP1	2.19	0.90
26:AJ:42:ARG:CG	36:B2:601:U:OP1	2.19	0.90
83:A5:1926:A:H2'	83:A5:1927:U:H5'	1.54	0.90
29:AG:149:LYS:CD	36:B2:139:U:OP1	2.19	0.89
83:A5:2269:A:H61	83:A5:2468:A:H61	0.97	0.89
83:A5:1073:C:H4'	83:A5:1074:U:OP2	1.69	0.89
36:B2:998:U:H5''	36:B2:998:U:C6	2.07	0.88
83:A5:3843:U:N1	83:A5:3843:U:C2'	2.35	0.88
83:A5:1926:A:C2'	83:A5:1927:U:H5'	2.04	0.88
86:A8:69:G:N2	86:A8:85:G:H2'	1.88	0.87
83:A5:3771:A:OP2	83:A5:3826:A:OP1	1.92	0.87
36:B2:479:A:N6	36:B2:602:A:H3'	1.91	0.86
86:A8:84:U:H4'	86:A8:85:G:C8	2.10	0.86
83:A5:2838:U:O2'	83:A5:2839:A:H5'	1.75	0.86
83:A5:2998:U:H5''	83:A5:2999:U:OP2	1.76	0.85
83:A5:1813:A:H5''	83:A5:1859:U:H5''	1.56	0.85
36:B2:160:G:OP2	36:B2:160:G:N2	2.09	0.85
83:A5:3418:U:O2'	83:A5:3419:A:H2'	1.76	0.84
36:B2:226:C:N4	36:B2:239:G:O6	2.10	0.84
83:A5:425:A:OP2	83:A5:1637:U:O2'	1.94	0.84
83:A5:3116:A:H2'	83:A5:3117:A:H5''	1.59	0.84
63:CB:1:MET:CB	83:A5:3472:A:OP2	2.26	0.84
83:A5:1947:G:N2	83:A5:1950:A:OP2	2.10	0.84
63:CB:1:MET:HB2	83:A5:3472:A:OP2	1.79	0.83
81:CE:107:ARG:NH2	83:A5:1653:G:OP1	48.39	0.83
42:CL:59:ARG:O	83:A5:79:G:P	2.37	0.83
83:A5:302:A:H61	83:A5:3317:U:H1'	1.44	0.83
83:A5:1119:C:OP1	83:A5:2517:A:N6	2.12	0.83
83:A5:3495:G:N2	83:A5:3498:A:OP2	2.11	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2585:A:H3'	83:A5:2586:A:H5''	1.60	0.82
83:A5:3790:A:C2'	83:A5:3791:A:H5''	2.09	0.82
36:B2:1455:U:C6	36:B2:1455:U:H5''	2.14	0.82
63:CB:1:MET:HE3	83:A5:3472:A:H5''	1.59	0.81
83:A5:640:U:H2'	83:A5:641:A:C8	2.15	0.81
83:A5:2041:G:H4'	83:A5:2042:A:H5'	1.60	0.81
83:A5:1989:A:H61	83:A5:2003:U:H3	1.27	0.81
86:A8:70:A:N6	86:A8:85:G:O2'	2.13	0.81
83:A5:2041:G:H5''	83:A5:2042:A:H5''	1.63	0.81
36:B2:1332:G:H1	36:B2:1337:U:H3	1.28	0.81
83:A5:302:A:N6	83:A5:3317:U:H1'	1.96	0.81
36:B2:94:G:N2	36:B2:465:A:OP1	2.14	0.80
83:A5:748:A:H2'	83:A5:749:U:H5'	1.62	0.80
83:A5:3415:U:H3	83:A5:3471:A:H61	1.28	0.80
83:A5:3712:G:C4	83:A5:3775:A:C2	2.69	0.80
83:A5:2269:A:H61	83:A5:2468:A:N6	1.77	0.80
83:A5:1782:C:N4	83:A5:1798:A:H61	1.79	0.80
86:A8:61:C:H5''	86:A8:62:A:H5'	1.64	0.79
63:CB:156:TYR:CE2	83:A5:3801:A:OP2	2.35	0.79
83:A5:134:G:H5''	83:A5:134:G:C8	2.18	0.79
47:CI:205:PRO:HG2	85:A7:63:C:OP1	1.83	0.79
41:CO:1:MET:HG2	83:A5:3718:A:OP2	1.82	0.79
83:A5:3414:U:H3	83:A5:3472:A:H61	1.31	0.78
83:A5:1176:A:N1	83:A5:1318:A:N1	2.31	0.78
42:CL:59:ARG:CG	83:A5:77:A:C2	2.66	0.78
36:B2:485:A:H61	36:B2:516:U:H3	1.31	0.78
83:A5:3876:U:H3	83:A5:3886:U:H3	1.32	0.78
86:A8:61:C:H5''	86:A8:62:A:C5'	2.13	0.77
36:B2:1455:U:H6	36:B2:1455:U:H5''	1.48	0.77
83:A5:2854:G:H1	83:A5:2863:U:H3	1.33	0.77
49:CQ:143:ARG:HB2	83:A5:912:A:OP1	1.85	0.77
83:A5:865:A:H5'	83:A5:866:C:H5'	1.67	0.77
37:BC:18:G:H4'	37:BC:19:A:OP2	1.85	0.77
41:CO:60:LEU:HD12	41:CO:60:LEU:H	1.49	0.76
83:A5:1780:U:H3'	83:A5:1796:A:H61	1.51	0.76
29:AG:149:LYS:HD2	36:B2:139:U:OP1	1.85	0.76
86:A8:76:A:C8	86:A8:76:A:H5''	2.20	0.76
42:CL:59:ARG:HG2	83:A5:77:A:C4	2.19	0.76
36:B2:984:G:O2'	36:B2:985:A:H5'	1.85	0.76
36:B2:255:U:H4'	36:B2:256:C:OP2	1.85	0.76
42:CL:66:HIS:HB3	83:A5:77:A:C6	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:998:U:C5'	36:B2:998:U:H6	1.98	0.75
83:A5:586:C:H42	83:A5:624:A:H61	1.34	0.75
26:AJ:147:SER:OG	36:B2:479:A:OP1	2.04	0.75
36:B2:103:U:H4'	36:B2:104:A:O5'	1.86	0.75
83:A5:1908:A:H61	83:A5:2132:A:H62	1.33	0.75
36:B2:1160:A:H2'	36:B2:1161:G:H5''	1.69	0.75
83:A5:3923:C:H42	83:A5:3930:A:H61	1.33	0.75
83:A5:1199:C:H42	83:A5:1311:U:H3	1.34	0.75
36:B2:200:U:C5'	36:B2:200:U:H6	2.00	0.75
83:A5:1927:U:H2'	83:A5:1928:G:H8	1.52	0.75
48:CD:10:LYS:HE2	85:A7:65:C:H5''	1.67	0.75
29:AG:149:LYS:NZ	36:B2:139:U:P	2.59	0.74
42:CL:59:ARG:O	83:A5:78:A:O3'	2.04	0.74
83:A5:3116:A:C2'	83:A5:3117:A:H5''	2.18	0.74
83:A5:1172:G:H1	83:A5:1322:U:H3	1.35	0.74
30:AF:176:TRP:HE1	36:B2:1804:U:H4'	1.53	0.74
26:AJ:132:ARG:HG2	36:B2:480:A:OP2	1.88	0.73
47:CI:205:PRO:HB2	85:A7:63:C:H5''	1.68	0.73
37:BC:49:G:H1	37:BC:63:U:H3	1.37	0.73
36:B2:199:G:H2'	36:B2:200:U:C6	2.23	0.73
64:CF:49:ARG:HH11	81:CE:232:LEU:H	67.73	0.73
83:A5:3117:A:H2'	84:A9:24:G:O6	1.89	0.73
36:B2:1573:U:O2	36:B2:1708:A:N1	2.21	0.73
36:B2:1338:U:O2'	36:B2:1339:C:O4'	2.06	0.73
83:A5:2041:G:H4'	83:A5:2042:A:C5'	2.18	0.73
83:A5:3535:G:H1	83:A5:3682:U:H3	1.35	0.73
52:CS:174:THR:C	83:A5:3729:A:N6	2.43	0.72
81:CE:184:ILE:HG23	81:CE:185:PHE:H	1.52	0.72
29:AG:149:LYS:HE3	36:B2:139:U:OP1	1.88	0.72
83:A5:623:C:OP1	83:A5:623:C:H4'	1.89	0.72
85:A7:25:A:H2'	85:A7:26:C:C6	2.24	0.72
83:A5:1985:C:H42	83:A5:2087:C:H42	1.38	0.72
32:AW:31:SER:HA	36:B2:644:A:H5''	1.72	0.72
83:A5:2070:G:H1	83:A5:2082:U:H3	1.38	0.71
83:A5:777:C:O2'	83:A5:778:C:H5'	1.91	0.71
26:AJ:132:ARG:HA	36:B2:480:A:OP1	1.89	0.71
36:B2:280:U:H3	36:B2:286:A:H61	1.38	0.70
36:B2:193:U:N1	36:B2:226:C:H5'	2.06	0.70
83:A5:1926:A:H2'	83:A5:1927:U:C5'	2.21	0.70
83:A5:2041:G:H5''	83:A5:2042:A:C5'	2.21	0.70
83:A5:1722:U:H3	83:A5:2190:A:H61	1.38	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:154:A:H5''	83:A5:156:G:H1'	1.73	0.70
36:B2:198:C:H2'	36:B2:199:G:H8	1.57	0.70
83:A5:3800:G:H1	83:A5:3809:U:H3	1.37	0.70
83:A5:3790:A:H2'	83:A5:3791:A:C5'	2.20	0.70
83:A5:1813:A:C5'	83:A5:1859:U:H5''	2.21	0.70
83:A5:632:A:C5'	83:A5:633:A:OP1	2.40	0.70
83:A5:425:A:P	83:A5:1637:U:O2'	2.49	0.69
83:A5:3791:A:N6	83:A5:3818:G:H1	1.89	0.69
83:A5:570:U:O2'	83:A5:571:U:H5'	1.92	0.69
36:B2:145:A:OP2	36:B2:146:C:C5	2.45	0.69
83:A5:458:A:H61	83:A5:761:C:H1'	1.55	0.69
83:A5:3906:U:H3	83:A5:3945:A:H61	1.40	0.69
36:B2:1336:U:H2'	36:B2:1337:U:H5'	1.75	0.69
42:CL:59:ARG:HG3	83:A5:77:A:C2	2.28	0.69
51:CA:213:GLY:O	83:A5:3498:A:H5''	1.92	0.69
83:A5:3887:U:H2'	83:A5:3888:U:C5'	2.23	0.69
83:A5:3532:G:N3	83:A5:3969:G:O2'	2.26	0.69
83:A5:1722:U:OP2	83:A5:1723:G:N7	2.26	0.68
83:A5:1290:U:H3	83:A5:1297:G:H1	1.40	0.68
26:AJ:39:ARG:NH2	36:B2:479:A:O2'	2.26	0.68
29:AG:185:VAL:HG12	36:B2:138:U:O4	1.92	0.68
36:B2:1824:C:H2'	36:B2:1824:C:O2	1.94	0.68
83:A5:3722:C:H42	83:A5:3731:U:H5''	1.58	0.68
83:A5:1812:C:H4'	83:A5:1813:A:OP2	1.94	0.68
74:CC:195:GLY:HA3	74:CC:197:GLY:H	1.58	0.68
36:B2:939:G:H2'	36:B2:940:U:H5'	1.75	0.68
83:A5:1769:U:H4'	83:A5:1878:A:C5	2.28	0.68
36:B2:1435:A:C2	36:B2:1572:C:O2	2.47	0.68
36:B2:958:G:H1	36:B2:1043:U:H3	1.41	0.68
74:CC:191:ARG:HH12	83:A5:1628:G:H3'	1.59	0.68
83:A5:682:U:H4'	83:A5:682:U:OP1	1.94	0.68
83:A5:1926:A:O2'	83:A5:1927:U:H5'	1.92	0.67
63:CB:1:MET:HB3	83:A5:3472:A:OP2	1.93	0.67
36:B2:479:A:H61	36:B2:602:A:H3'	1.59	0.67
83:A5:1337:U:H3	83:A5:1349:A:H61	1.42	0.67
83:A5:134:G:H5''	83:A5:134:G:H8	1.58	0.67
83:A5:2820:G:H1	83:A5:2899:U:H3	1.42	0.67
36:B2:484:C:H2'	36:B2:485:A:C8	2.30	0.67
36:B2:1319:A:C2	36:B2:1320:G:C5	2.83	0.67
83:A5:2177:G:H1	83:A5:2185:U:H3	1.42	0.67
83:A5:2091:A:H1'	83:A5:2092:U:C6	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AJ:172:GLY:HA3	26:AJ:175:LYS:H	1.59	0.67
36:B2:984:G:H1	36:B2:1003:C:H42	1.41	0.67
36:B2:200:U:C6	36:B2:200:U:H5''	2.28	0.67
26:AJ:132:ARG:CG	36:B2:480:A:OP2	2.42	0.67
86:A8:55:G:N2	86:A8:61:C:C6	2.62	0.67
83:A5:3601:U:H3	83:A5:3610:A:H61	1.43	0.67
36:B2:856:A:H61	36:B2:870:U:H3	1.43	0.67
36:B2:1233:U:H3	36:B2:1825:A:H61	1.42	0.67
36:B2:1159:C:H3'	36:B2:1160:A:C8	2.30	0.67
83:A5:632:A:H5''	83:A5:633:A:OP1	1.93	0.67
36:B2:1971:A:H61	36:B2:1980:U:H3	1.43	0.67
83:A5:3701:U:H2'	83:A5:3702:G:C5'	2.25	0.66
86:A8:109:U:O2'	86:A8:111:G:C5'	2.34	0.66
83:A5:748:A:C2'	83:A5:749:U:H5'	2.25	0.66
47:CI:203:HIS:HA	85:A7:64:G:OP1	1.94	0.66
83:A5:3754:C:H2'	83:A5:3755:A:C8	2.31	0.66
83:A5:1975:C:H42	83:A5:2099:C:H42	1.42	0.66
83:A5:1073:C:C4'	83:A5:1074:U:OP2	2.42	0.65
83:A5:429:U:H3	86:A8:11:G:H1	1.44	0.65
83:A5:2852:U:H3	83:A5:2865:G:H1	1.43	0.65
36:B2:1552:C:H42	36:B2:1559:A:H61	1.44	0.65
36:B2:1336:U:C2'	36:B2:1337:U:H5'	2.26	0.65
83:A5:1924:A:H3'	83:A5:1925:U:H5''	1.78	0.65
48:CD:64:ILE:HD12	48:CD:109:VAL:HG21	1.78	0.65
18:AY:21:ARG:CG	18:AY:77:TYR:CG	2.79	0.65
36:B2:55:A:O2'	36:B2:465:A:OP1	2.09	0.65
83:A5:1178:U:C5	83:A5:1181:A:C8	2.85	0.64
64:CF:183:ARG:HB3	83:A5:1189:A:OP1	1.97	0.64
63:CB:225:GLY:C	83:A5:3880:A:OP2	2.36	0.64
83:A5:1791:A:C5	83:A5:1792:G:H1'	2.33	0.64
83:A5:2851:U:H3	83:A5:2866:G:H1	1.45	0.64
36:B2:1961:A:C8	36:B2:1989:A:C2	2.85	0.64
36:B2:1883:U:H3	36:B2:1903:G:H1	1.44	0.64
11:AL:133:LYS:HE2	33:AI:18:ARG:HH22	1.62	0.64
7:AM:39:VAL:HG13	7:AM:41:GLY:H	1.62	0.64
83:A5:1782:C:H42	83:A5:1798:A:H61	1.46	0.64
83:A5:1565:A:H1'	83:A5:1567:G:C4	2.33	0.64
50:CR:105:LEU:HD13	83:A5:2471:A:H61	1.63	0.64
26:AJ:132:ARG:HB3	36:B2:480:A:P	2.38	0.64
83:A5:2885:A:H3'	83:A5:2886:C:C5	2.33	0.64
83:A5:2585:A:C3'	83:A5:2586:A:H5''	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:154:A:H4'	83:A5:156:G:N9	2.13	0.64
79:CJ:80:ARG:HG3	85:A7:40:C:O2'	1.98	0.64
15:AB:35:ALA:HB1	15:AB:36:PRO:HD2	1.79	0.64
83:A5:706:G:H1	83:A5:731:U:H3	1.46	0.63
83:A5:3751:C:H2'	83:A5:3751:C:O2	1.98	0.63
36:B2:940:U:O2'	36:B2:941:A:H5'	1.99	0.63
63:CB:3:HIS:CE1	83:A5:3470:G:C5	2.85	0.63
83:A5:1784:A:H1'	83:A5:1799:U:C4	2.33	0.63
44:CM:125:ILE:HG23	83:A5:3789:U:H5'	1.81	0.63
83:A5:2886:C:O5'	83:A5:2886:C:H6	1.81	0.63
83:A5:2091:A:H1'	83:A5:2092:U:H6	1.63	0.63
79:CJ:80:ARG:HB2	85:A7:40:C:O2'	1.97	0.63
83:A5:1476:G:H1'	83:A5:1493:A:H61	1.62	0.63
36:B2:224:A:C8	36:B2:224:A:H5''	2.34	0.63
52:CS:174:THR:HG22	83:A5:3727:A:H61	1.63	0.63
83:A5:1813:A:N3	83:A5:1813:A:H2'	2.12	0.63
86:A8:76:A:H8	86:A8:76:A:H5''	1.62	0.63
49:CQ:160:HIS:CG	49:CQ:161:SER:HA	2.33	0.63
43:CV:40:ILE:HG23	83:A5:2673:A:C2	2.33	0.63
54:CP:178:GLN:OE1	83:A5:3850:A:H5'	1.99	0.63
83:A5:541:A:H5'	83:A5:542:C:C5	2.34	0.63
47:CI:205:PRO:CG	85:A7:63:C:OP1	2.47	0.63
83:A5:3958:C:H2'	83:A5:3959:U:O4'	1.99	0.63
36:B2:479:A:N6	36:B2:603:G:OP1	2.32	0.62
36:B2:1455:U:H6	36:B2:1455:U:C5'	2.11	0.62
83:A5:3887:U:H2'	83:A5:3888:U:H5''	1.81	0.62
83:A5:568:A:H5''	83:A5:569:U:OP1	1.99	0.62
36:B2:831:U:H3	36:B2:885:U:H3	1.46	0.62
83:A5:3840:G:H1'	83:A5:3843:U:C4	2.34	0.62
83:A5:642:A:H3'	83:A5:643:U:H5''	1.81	0.62
83:A5:1196:A:O2'	83:A5:1197:A:H5'	1.99	0.62
83:A5:1799:U:O2	83:A5:1799:U:H2'	2.00	0.62
83:A5:1801:U:H3'	83:A5:1802:U:H5'	1.80	0.62
26:AJ:132:ARG:HB3	36:B2:480:A:O5'	2.00	0.62
83:A5:3712:G:O6	83:A5:3771:A:C2	2.53	0.62
83:A5:576:U:H3	83:A5:635:G:H1	1.47	0.62
36:B2:200:U:C5'	36:B2:200:U:C6	2.83	0.62
36:B2:258:A:O2'	36:B2:259:G:H5'	1.99	0.61
86:A8:22:C:H6	86:A8:22:C:O5'	1.83	0.61
83:A5:631:A:C2	83:A5:633:A:H5'	2.35	0.61
83:A5:3794:U:H3	83:A5:3815:G:H1	1.47	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:248:G:H2'	36:B2:249:U:C5	2.35	0.61
83:A5:3701:U:C2'	83:A5:3702:G:H5''	2.30	0.61
63:CB:225:GLY:O	83:A5:3880:A:OP2	2.18	0.61
83:A5:2212:A:H61	83:A5:2717:C:H42	1.48	0.61
83:A5:1173:U:H3	83:A5:1321:G:H1	1.48	0.61
36:B2:1319:A:C4	36:B2:1341:C:O2	2.54	0.61
83:A5:3712:G:N3	83:A5:3775:A:C2	2.69	0.61
48:CD:183:TYR:CE2	48:CD:195:HIS:CE1	2.88	0.61
36:B2:1290:A:H1'	36:B2:1648:C:N4	2.15	0.61
86:A8:85:G:HO2'	86:A8:86:A:H8	1.49	0.61
83:A5:803:A:H61	83:A5:1683:U:H3	1.48	0.61
83:A5:132:U:H2'	83:A5:133:U:O4'	2.01	0.61
83:A5:2839:A:H4'	83:A5:2840:A:OP2	2.01	0.61
83:A5:481:A:H61	83:A5:519:U:H3	1.48	0.61
26:AJ:41:LYS:HB2	36:B2:601:U:OP2	2.01	0.61
51:CA:87:PHE:HD2	83:A5:2998:U:OP2	1.83	0.61
26:AJ:42:ARG:CB	36:B2:601:U:OP1	2.49	0.61
83:A5:1809:A:H2'	83:A5:1810:A:H5''	1.83	0.61
36:B2:485:A:N6	36:B2:516:U:H3	1.98	0.61
83:A5:3887:U:C2'	83:A5:3888:U:H5''	2.30	0.61
83:A5:1576:U:H3	83:A5:1583:G:H1	1.48	0.61
36:B2:1425:U:H3	36:B2:1579:G:H1	1.48	0.61
83:A5:2091:A:C1'	83:A5:2092:U:C6	2.84	0.60
36:B2:970:U:H3	36:B2:1032:U:H3	1.49	0.60
83:A5:938:U:H3	83:A5:963:G:H1	1.49	0.60
83:A5:3422:A:H61	83:A5:3445:C:H42	1.47	0.60
83:A5:490:G:H1	83:A5:510:U:H3	1.49	0.60
83:A5:304:U:H2'	83:A5:305:G:C8	2.36	0.60
36:B2:1429:U:H3	36:B2:1576:A:H61	1.48	0.60
56:CX:165:VAL:HG12	83:A5:2916:U:C6	2.36	0.60
86:A8:107:U:O2'	86:A8:109:U:OP1	2.12	0.60
83:A5:2842:U:H3	83:A5:2885:A:N6	1.93	0.60
86:A8:22:C:C6	86:A8:22:C:OP1	2.54	0.60
83:A5:1022:A:H61	83:A5:1103:U:H3	1.47	0.60
36:B2:212:A:O2'	36:B2:246:U:O5'	2.20	0.60
83:A5:2016:U:O2'	83:A5:2017:A:H5''	2.02	0.60
36:B2:489:C:H42	36:B2:511:G:H1	1.50	0.60
83:A5:3841:C:O3'	83:A5:3842:A:C8	2.55	0.60
37:BC:47:C:OP1	37:BC:49:G:OP1	2.20	0.60
83:A5:1284:A:N1	83:A5:1301:A:C2	2.70	0.60
37:BC:19:A:N6	37:BC:47:C:H42	2.00	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1160:A:C2'	36:B2:1161:G:H5''	2.32	0.60
83:A5:652:G:H4'	83:A5:653:U:H5'	1.83	0.60
36:B2:121:A:H61	36:B2:300:U:H3	1.50	0.60
63:CB:234:ARG:HH21	63:CB:272:LYS:H	1.50	0.60
83:A5:1798:A:OP1	83:A5:1798:A:H4'	2.01	0.59
36:B2:193:U:C2	36:B2:226:C:C5'	2.86	0.59
52:CS:175:TYR:N	83:A5:3729:A:N6	2.50	0.59
36:B2:1855:A:H61	36:B2:1933:U:H3	1.49	0.59
36:B2:140:G:OP2	36:B2:140:G:C8	2.55	0.59
83:A5:2130:G:H2'	83:A5:2131:C:C6	2.36	0.59
83:A5:482:U:H3	83:A5:518:G:H1	1.48	0.59
83:A5:2030:U:H3	83:A5:2040:A:H61	1.49	0.59
81:CE:174:LYS:HB2	81:CE:176:ASP:H	1.66	0.59
36:B2:199:G:H3'	36:B2:200:U:C5	2.38	0.59
63:CB:1:MET:HE3	83:A5:3472:A:C8	2.37	0.59
83:A5:591:A:H2'	83:A5:592:G:C8	2.37	0.59
81:CE:223:ALA:H	81:CE:225:TYR:HB3	1.68	0.59
48:CD:115:LEU:HD21	83:A5:1293:A:C2	2.38	0.59
83:A5:3795:G:H1	83:A5:3814:U:H3	1.50	0.59
83:A5:3917:G:H1'	83:A5:3936:A:H61	1.68	0.59
36:B2:1727:U:OP1	36:B2:1727:U:H4'	2.02	0.59
36:B2:1727:U:H1'	36:B2:1728:G:C5	2.37	0.59
36:B2:193:U:O5'	36:B2:226:C:OP1	2.20	0.59
26:AJ:136:ILE:HG23	26:AJ:143:VAL:HG23	1.84	0.59
37:BC:18:G:C8	37:BC:56:G:N2	2.71	0.59
36:B2:1802:G:H2'	36:B2:1803:A:O5'	2.02	0.59
46:CN:18:VAL:HA	82:CG:82:PRO:HG3	1.84	0.59
83:A5:3427:G:H2'	83:A5:3428:A:H5''	1.84	0.59
83:A5:3701:U:H2'	83:A5:3702:G:H5'	1.85	0.59
36:B2:65:A:H2	36:B2:67:A:C8	2.20	0.59
85:A7:26:C:O5'	85:A7:26:C:H6	1.85	0.58
83:A5:1910:C:H5'	83:A5:2128:A:C2	2.38	0.58
83:A5:1721:C:H2'	83:A5:1722:U:C6	2.38	0.58
83:A5:1797:A:H2'	83:A5:1798:A:C8	2.39	0.58
83:A5:866:C:O2	83:A5:866:C:H2'	2.03	0.58
36:B2:1338:U:C2'	36:B2:1339:C:C6	2.84	0.58
36:B2:200:U:H5''	36:B2:200:U:H6	1.61	0.58
83:A5:3701:U:H2'	83:A5:3702:G:H5''	1.85	0.58
83:A5:2041:G:C4'	83:A5:2042:A:H5'	2.31	0.58
5:AO:99:ALA:HB3	5:AO:101:GLY:H	1.68	0.58
83:A5:1969:A:H61	83:A5:2111:A:H62	1.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2885:A:H2'	83:A5:2886:C:C6	2.38	0.58
83:A5:3116:A:C3'	83:A5:3117:A:H5''	2.34	0.58
26:AJ:146:PRO:CG	36:B2:479:A:H5'	2.34	0.58
36:B2:227:G:O6	36:B2:238:C:N4	2.36	0.58
56:CX:162:ARG:HB2	83:A5:1813:A:C2	2.39	0.58
83:A5:3771:A:O2'	83:A5:3779:U:H5'	2.04	0.58
36:B2:193:U:C2	36:B2:226:C:H5'	2.39	0.58
83:A5:3117:A:H5'	83:A5:3117:A:H8	1.69	0.58
83:A5:1738:U:C5	83:A5:2151:A:N1	2.72	0.58
83:A5:3732:U:H5'	83:A5:3742:C:O2	2.04	0.58
83:A5:1508:U:O2'	83:A5:1509:A:H5'	2.04	0.58
6:AX:13:HIS:CE1	11:AL:98:ARG:HH11	2.22	0.58
83:A5:3418:U:C5	83:A5:3443:A:C8	2.90	0.58
64:CF:183:ARG:NH1	83:A5:1189:A:OP1	2.37	0.58
36:B2:1245:A:H61	36:B2:1813:U:H3	1.52	0.58
81:CE:194:PRO:HA	83:A5:3839:A:H61	1.69	0.57
47:CI:205:PRO:HB3	85:A7:63:C:C5'	2.21	0.57
42:CL:61:PRO:HB3	83:A5:78:A:O2'	2.04	0.57
36:B2:140:G:OP2	36:B2:140:G:H8	1.86	0.57
36:B2:107:A:H61	36:B2:311:U:H3	1.50	0.57
83:A5:3593:A:C5	83:A5:3614:U:H4'	2.40	0.57
26:AJ:42:ARG:N	36:B2:601:U:OP1	2.37	0.57
83:A5:3771:A:H5''	83:A5:3772:U:OP2	2.04	0.57
83:A5:3499:G:O2'	83:A5:3500:A:H5'	2.03	0.57
83:A5:561:A:N1	83:A5:650:A:N1	2.52	0.57
63:CB:156:TYR:OH	83:A5:3800:G:H5'	2.05	0.57
79:CJ:80:ARG:CG	85:A7:40:C:O2'	2.53	0.57
42:CL:61:PRO:HB3	83:A5:78:A:H1'	1.85	0.57
36:B2:258:A:OP1	36:B2:299:C:H5'	2.05	0.57
81:CE:109:GLN:HB3	83:A5:3714:U:H3	1.69	0.57
74:CC:204:ARG:HG2	74:CC:205:ILE:H	1.69	0.57
36:B2:1585:A:N6	36:B2:1598:A:H61	2.01	0.57
36:B2:1874:C:O2'	36:B2:1875:G:H5'	2.04	0.57
23:AD:198:ASN:HB2	23:AD:201:GLY:HA2	1.86	0.57
83:A5:748:A:H2'	83:A5:749:U:C5'	2.33	0.57
83:A5:2125:G:H3'	83:A5:2126:A:H5''	1.87	0.57
36:B2:896:A:C4	36:B2:944:G:H1'	2.40	0.57
83:A5:3655:U:C4	83:A5:3658:G:O6	2.58	0.57
81:CE:188:LYS:HG2	81:CE:189:LYS:H	1.69	0.57
29:AG:181:ILE:HD11	36:B2:139:U:P	2.45	0.57
83:A5:541:A:H5'	83:A5:542:C:H5	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3898:C:H2'	83:A5:3899:A:C8	2.40	0.57
48:CD:35:ARG:HB2	83:A5:3280:A:C2	2.39	0.57
36:B2:486:A:H2	36:B2:515:U:H3	1.52	0.57
41:CO:1:MET:H3	41:CO:7:ARG:HE	1.53	0.57
83:A5:425:A:OP1	83:A5:425:A:H4'	2.04	0.57
83:A5:3338:U:O2'	83:A5:3499:G:H4'	2.05	0.57
83:A5:640:U:H2'	83:A5:641:A:H8	1.66	0.57
64:CF:49:ARG:HH22	81:CE:230:PHE:HB3	70.84	0.57
36:B2:84:A:N3	36:B2:145:A:O2'	2.36	0.57
6:AX:67:ARG:HH22	6:AX:114:ASP:HB2	1.69	0.56
83:A5:3418:U:C4	83:A5:3443:A:C5	2.92	0.56
83:A5:3887:U:C2'	83:A5:3888:U:C5'	2.82	0.56
36:B2:939:G:C2'	36:B2:940:U:H5'	2.35	0.56
83:A5:302:A:N6	83:A5:3317:U:O2'	2.38	0.56
86:A8:61:C:H5''	86:A8:62:A:O4'	2.04	0.56
37:BC:19:A:H62	37:BC:47:C:H42	1.50	0.56
83:A5:705:G:H1	83:A5:732:U:H3	1.50	0.56
48:CD:179:ARG:NH2	83:A5:3278:A:OP1	2.38	0.56
59:CZ:134:ARG:HE	83:A5:2120:G:H4'	1.70	0.56
83:A5:3822:C:H3'	83:A5:3823:G:H5''	1.88	0.56
34:AQ:15:PHE:CZ	36:B2:1571:U:H6	2.23	0.56
83:A5:2041:G:C5'	83:A5:2042:A:H5'	2.35	0.56
63:CB:3:HIS:HE1	83:A5:3470:G:C6	2.23	0.56
28:AC:82:GLY:H	28:AC:85:LEU:HG	1.70	0.56
36:B2:156:U:O2'	36:B2:157:C:H5'	2.05	0.56
83:A5:651:A:C2	83:A5:653:U:C6	2.94	0.56
27:AE:248:ILE:HD12	27:AE:248:ILE:H	1.69	0.56
83:A5:3418:U:H3	83:A5:3468:G:H1	1.52	0.56
83:A5:3726:U:H1'	83:A5:3729:A:H2'	1.87	0.56
83:A5:74:A:H2'	83:A5:75:A:C8	2.40	0.56
83:A5:89:A:H61	83:A5:103:A:H3'	1.70	0.56
53:CT:12:ARG:HH21	83:A5:3230:G:H4'	1.70	0.56
83:A5:2843:G:H1	83:A5:2884:C:H42	1.54	0.56
83:A5:3887:U:H2'	83:A5:3888:U:H5'	1.87	0.56
44:CM:67:THR:HG21	83:A5:633:A:O2'	2.05	0.56
36:B2:65:A:C2	36:B2:67:A:C8	2.94	0.56
83:A5:1630:G:C2	83:A5:1660:G:C6	2.94	0.56
83:A5:1633:G:H1'	83:A5:1659:A:N6	2.21	0.56
83:A5:837:A:C2	83:A5:843:A:N6	2.69	0.56
36:B2:451:C:N4	36:B2:466:G:H21	2.03	0.56
5:AO:43:HIS:HE1	36:B2:982:G:H21	1.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:1927:U:O2'	83:A5:1928:G:O4'	2.14	0.55
86:A8:76:A:C8	86:A8:76:A:C5'	2.89	0.55
49:CQ:8:LYS:HB2	49:CQ:9:TYR:HA	1.88	0.55
81:CE:101:LEU:HD22	81:CE:145:VAL:HG11	1.86	0.55
83:A5:3801:A:H2'	83:A5:3807:G:N1	2.21	0.55
36:B2:1319:A:C2	36:B2:1340:U:O2	2.59	0.55
85:A7:61:G:O2'	85:A7:62:U:H5'	2.06	0.55
84:A9:22:A:H2'	84:A9:23:G:C8	2.41	0.55
83:A5:2584:G:H1	83:A5:2615:C:H42	1.53	0.55
83:A5:3010:U:H3	83:A5:3107:G:H1	1.52	0.55
54:CP:142:SER:HB3	83:A5:1688:A:H62	1.70	0.55
86:A8:76:A:H2	86:A8:77:G:O6	1.89	0.55
36:B2:198:C:O2'	36:B2:199:G:O4'	2.17	0.55
63:CB:117:ARG:HH22	63:CB:165:HIS:HB3	1.70	0.55
36:B2:600:A:H2'	36:B2:601:U:H5'	1.87	0.55
83:A5:2091:A:C4	83:A5:2092:U:C6	2.94	0.55
46:CN:50:ARG:HB2	46:CN:51:LEU:HD22	1.88	0.55
83:A5:2269:A:H3'	83:A5:2270:G:H8	1.72	0.55
36:B2:145:A:OP2	36:B2:146:C:H5	1.88	0.55
83:A5:3731:U:H2'	83:A5:3731:U:O2	2.05	0.55
83:A5:668:A:N6	83:A5:1599:C:HO2'	2.05	0.55
36:B2:1168:C:O2'	36:B2:1169:C:H3'	2.07	0.55
36:B2:554:U:H3	36:B2:600:A:H61	1.55	0.55
86:A8:82:C:O3'	86:A8:85:G:N2	2.39	0.55
36:B2:226:C:N4	36:B2:239:G:C6	2.73	0.55
56:CX:165:VAL:HG12	83:A5:2916:U:C5	2.41	0.55
83:A5:3354:U:H5'	83:A5:3473:C:C6	2.42	0.55
18:AY:21:ARG:HG2	18:AY:77:TYR:HA	1.89	0.55
63:CB:1:MET:CE	83:A5:3472:A:C8	2.89	0.55
83:A5:2041:G:C5'	83:A5:2042:A:C5'	2.84	0.55
63:CB:3:HIS:CE1	83:A5:3471:A:N7	2.75	0.55
36:B2:1434:U:H2'	36:B2:1435:A:C5'	2.36	0.55
83:A5:458:A:N6	83:A5:761:C:H1'	2.21	0.55
83:A5:1121:A:H1'	83:A5:2518:A:H61	1.72	0.55
83:A5:2191:G:H2'	83:A5:2192:U:H5''	1.89	0.55
83:A5:2810:A:H61	83:A5:3129:U:H3	1.55	0.55
28:AC:115:ASP:CB	28:AC:117:ASN:H	2.19	0.55
36:B2:155:U:H3'	36:B2:156:U:H5''	1.88	0.55
31:AH:96:ARG:HB2	31:AH:123:VAL:HG13	1.89	0.55
83:A5:1926:A:H61	83:A5:2128:A:N6	1.97	0.54
30:AF:176:TRP:NE1	36:B2:1804:U:H4'	2.21	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3532:G:H21	83:A5:3969:G:H1'	1.73	0.54
18:AY:21:ARG:CG	18:AY:77:TYR:CD1	2.90	0.54
83:A5:3801:A:C8	83:A5:3807:G:N2	2.75	0.54
52:CS:173:ARG:HG3	52:CS:175:TYR:H	1.73	0.54
31:AH:93:ILE:HD12	31:AH:94:ALA:H	1.73	0.54
83:A5:2803:A:H61	83:A5:3136:U:H3	1.54	0.54
83:A5:3774:U:H4'	83:A5:3775:A:C8	2.42	0.54
86:A8:76:A:H8	86:A8:76:A:C5'	2.19	0.54
36:B2:198:C:O2'	36:B2:199:G:H5'	2.08	0.54
52:CS:174:THR:CB	83:A5:3729:A:H61	2.20	0.54
74:CC:191:ARG:NH2	83:A5:1629:C:OP2	2.40	0.54
36:B2:521:U:H2'	36:B2:522:G:C8	2.42	0.54
83:A5:2933:A:C8	83:A5:2982:U:OP2	2.60	0.54
85:A7:65:C:H2'	85:A7:66:G:O4'	2.07	0.54
83:A5:1927:U:H2'	83:A5:1928:G:C8	2.38	0.54
63:CB:229:LYS:H	63:CB:234:ARG:CZ	2.20	0.54
36:B2:216:U:C5	36:B2:915:U:C5	2.95	0.54
36:B2:998:U:C6	36:B2:998:U:C5'	2.82	0.54
50:CR:136:ARG:HA	83:A5:2471:A:C8	2.43	0.54
85:A7:28:U:H1'	85:A7:54:A:H61	1.73	0.54
83:A5:489:U:H3	83:A5:511:G:H1	1.54	0.54
7:AM:47:LYS:HA	30:AF:129:GLY:H	121.66	0.54
83:A5:541:A:OP1	83:A5:542:C:N4	2.40	0.54
83:A5:2839:A:N6	83:A5:2880:A:H1'	2.23	0.54
83:A5:3497:G:C6	83:A5:3498:A:C6	2.96	0.54
44:CM:135:LYS:H	44:CM:136:ALA:HB2	1.73	0.54
36:B2:1779:A:H61	36:B2:1801:U:H3	1.56	0.54
46:CN:28:TRP:CE3	46:CN:28:TRP:HA	2.43	0.54
83:A5:777:C:H2'	83:A5:778:C:C6	2.43	0.54
36:B2:305:A:H2'	36:B2:306:A:C8	2.43	0.54
16:AA:54:THR:HG22	16:AA:162:PRO:HG2	1.89	0.54
36:B2:187:A:H3'	36:B2:188:C:H5''	1.89	0.54
83:A5:154:A:H4'	83:A5:156:G:C8	2.43	0.54
86:A8:22:C:OP1	86:A8:22:C:H6	1.90	0.54
83:A5:291:U:H3	83:A5:310:A:H61	1.56	0.54
36:B2:1209:U:H3	36:B2:1214:A:H61	1.56	0.54
36:B2:947:U:C5	36:B2:948:A:N7	2.76	0.54
83:A5:2593:A:H61	83:A5:2608:G:H22	1.55	0.54
48:CD:28:THR:HG22	48:CD:33:ARG:HH21	1.72	0.54
83:A5:1689:G:N9	83:A5:1689:G:O4'	2.37	0.53
83:A5:1812:C:H5'	83:A5:1812:C:N1	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3117:A:H4'	83:A5:3118:U:OP1	2.08	0.53
49:CQ:156:PRO:HG2	49:CQ:157:GLY:H	1.72	0.53
83:A5:2255:G:H4'	83:A5:2495:G:H22	1.73	0.53
36:B2:1420:U:H3	36:B2:1610:A:H61	1.56	0.53
81:CE:220:LYS:CE	81:CE:231:ALA:H	2.21	0.53
83:A5:2268:G:C6	83:A5:2473:C:N4	2.75	0.53
83:A5:3969:G:C2'	83:A5:3970:A:N7	2.72	0.53
7:AM:41:GLY:HA3	36:B2:1316:G:C6	2.42	0.53
79:CJ:80:ARG:CB	85:A7:40:C:O2'	2.55	0.53
63:CB:79:LEU:HD13	63:CB:347:LEU:HD21	1.88	0.53
36:B2:1979:C:H2'	36:B2:1980:U:O4'	2.08	0.53
83:A5:3017:U:H3	83:A5:3101:A:H61	1.56	0.53
83:A5:1448:G:H1	83:A5:1470:C:H42	1.56	0.53
34:AQ:15:PHE:CZ	36:B2:1571:U:C6	2.96	0.53
83:A5:3486:U:C5	83:A5:3508:G:N2	2.76	0.53
51:CA:207:VAL:HG13	51:CA:208:GLU:HG3	1.91	0.53
26:AJ:146:PRO:HG2	36:B2:479:A:H5'	1.90	0.53
46:CN:27:VAL:HG11	46:CN:124:ASP:HB2	1.90	0.53
86:A8:101:A:C8	86:A8:102:A:C8	2.97	0.53
83:A5:1979:A:H61	83:A5:2095:U:H3	1.55	0.53
83:A5:404:U:C4	83:A5:405:A:H1'	2.43	0.53
7:AM:71:LEU:HA	7:AM:74:ALA:HB3	1.91	0.53
36:B2:917:U:H2'	36:B2:918:C:H5''	1.91	0.53
80:CH:40:HIS:CG	83:A5:3658:G:H4'	2.44	0.53
83:A5:815:A:H61	83:A5:997:U:H3	1.57	0.53
83:A5:3810:C:H2'	83:A5:3811:A:H5''	1.89	0.53
83:A5:167:A:H61	83:A5:280:C:H42	1.57	0.53
32:AW:47:ILE:HG23	32:AW:65:LEU:HD23	1.89	0.53
36:B2:1338:U:H2'	36:B2:1339:C:C5	2.44	0.53
36:B2:1455:U:H3	36:B2:1531:G:H1	1.57	0.53
83:A5:2041:G:C4'	83:A5:2042:A:C5'	2.85	0.53
44:CM:67:THR:CG2	83:A5:633:A:O2'	2.57	0.53
36:B2:1226:A:C4	36:B2:1227:A:C8	2.97	0.53
83:A5:1372:A:H2'	83:A5:1373:A:H4'	1.91	0.53
63:CB:262:VAL:HG23	83:A5:2772:G:C4	2.43	0.53
36:B2:599:A:H2'	36:B2:600:A:C8	2.44	0.53
36:B2:1666:G:H8	36:B2:1666:G:O5'	1.92	0.53
63:CB:142:GLY:HA2	63:CB:147:GLU:H	1.74	0.53
8:AS:122:GLY:HA2	8:AS:125:HIS:CD2	2.44	0.53
31:AH:15:PRO:HB2	31:AH:16:ASP:HA	1.90	0.53
83:A5:3801:A:C8	83:A5:3801:A:C5'	2.83	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CO:60:LEU:CD1	41:CO:60:LEU:H	2.18	0.52
83:A5:3899:A:H61	83:A5:3955:U:H3	1.55	0.52
83:A5:1294:U:C5	83:A5:1296:U:C5	2.97	0.52
83:A5:594:U:H3	83:A5:615:C:H42	1.56	0.52
57:CY:2:LYS:HG2	83:A5:250:U:H5''	1.91	0.52
83:A5:1519:A:H62	83:A5:3391:U:H5''	1.74	0.52
28:AC:107:PHE:CE1	28:AC:130:VAL:HG22	2.44	0.52
83:A5:2843:G:H2'	83:A5:2844:G:O4'	2.09	0.52
84:A9:20:U:H3'	84:A9:21:G:H5''	1.91	0.52
83:A5:201:U:O2	83:A5:233:A:C2	2.62	0.52
36:B2:266:U:O2	36:B2:267:G:N7	2.42	0.52
37:BC:53:A:C2	37:BC:57:A:N7	2.77	0.52
36:B2:1336:U:C5	36:B2:1337:U:C4	2.97	0.52
83:A5:2904:U:H2'	83:A5:2905:A:H5''	1.91	0.52
83:A5:474:A:N6	83:A5:527:U:H3	2.06	0.52
36:B2:650:G:H2'	36:B2:651:C:C6	2.44	0.52
83:A5:3774:U:H5'	83:A5:3774:U:C6	2.45	0.52
83:A5:302:A:N6	83:A5:3317:U:HO2'	2.07	0.52
36:B2:138:U:H2'	36:B2:138:U:O2	2.09	0.52
83:A5:3880:A:H1'	83:A5:3884:A:N6	2.24	0.52
36:B2:212:A:H2'	36:B2:246:U:H5''	1.91	0.52
83:A5:74:A:O2'	83:A5:75:A:H5'	2.10	0.52
83:A5:1634:A:C8	83:A5:1659:A:C6	2.97	0.52
36:B2:1557:U:H2'	36:B2:1558:A:O4'	2.10	0.52
83:A5:709:U:H3	83:A5:727:G:H1	1.58	0.52
36:B2:1696:G:H22	36:B2:1741:A:H1'	1.74	0.52
51:CA:87:PHE:HD2	83:A5:2998:U:P	2.33	0.52
36:B2:224:A:H8	36:B2:224:A:H5''	1.74	0.52
36:B2:509:C:H2'	36:B2:510:U:C6	2.45	0.52
83:A5:3556:A:H8	83:A5:3569:C:H41	1.57	0.52
83:A5:1197:A:C2	83:A5:1198:U:C4	2.98	0.52
57:CY:48:PRO:HG2	57:CY:50:ARG:HH21	1.74	0.52
83:A5:3700:U:H3	83:A5:3862:A:H61	1.58	0.52
80:CH:50:LYS:HA	83:A5:591:A:C5'	2.39	0.52
81:CE:195:ASN:H	83:A5:3839:A:H61	1.57	0.52
36:B2:1421:C:H2'	36:B2:1422:A:C8	2.44	0.52
58:CW:87:LEU:H	58:CW:87:LEU:HD12	1.75	0.52
26:AJ:132:ARG:CB	36:B2:480:A:P	2.98	0.52
86:A8:86:A:H3'	86:A8:87:A:C8	2.45	0.52
36:B2:243:U:H3	36:B2:920:U:H5''	1.75	0.52
51:CA:69:TYR:CD2	83:A5:3003:C:H4'	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:CY:2:LYS:HB3	57:CY:7:VAL:CG1	2.40	0.52
14:AT:6:VAL:HG22	14:AT:7:LYS:H	1.75	0.52
36:B2:1455:U:C6	36:B2:1455:U:C5'	2.88	0.52
83:A5:3887:U:C3'	83:A5:3888:U:C5'	2.88	0.52
83:A5:3969:G:H2'	83:A5:3970:A:N7	2.25	0.52
41:CO:124:ILE:HD11	83:A5:1394:U:C6	2.45	0.52
83:A5:1926:A:C2'	83:A5:1927:U:C5'	2.81	0.51
83:A5:1633:G:H1'	83:A5:1659:A:H61	1.75	0.51
57:CY:2:LYS:HD2	83:A5:235:A:C2	2.45	0.51
11:AL:14:GLY:HA2	36:B2:210:U:OP2	2.10	0.51
46:CN:114:ARG:HH12	46:CN:154:HIS:HA	1.75	0.51
83:A5:1446:A:C2	83:A5:1492:C:C5	2.99	0.51
49:CQ:161:SER:HB3	49:CQ:163:THR:HB	1.92	0.51
83:A5:201:U:O2	83:A5:233:A:H2	1.93	0.51
28:AC:104:ARG:HG2	28:AC:105:THR:H	1.74	0.51
64:CF:137:ARG:HB3	83:A5:449:U:OP1	55.05	0.51
36:B2:985:A:N7	36:B2:1001:G:N2	2.58	0.51
36:B2:1570:U:O2'	36:B2:1572:C:N4	2.44	0.51
80:CH:50:LYS:HG3	83:A5:591:A:H5'	1.92	0.51
85:A7:22:A:H2'	85:A7:23:A:C8	2.45	0.51
58:CW:51:TRP:CZ2	83:A5:3907:G:C2	2.97	0.51
28:AC:112:ALA:HB2	28:AC:122:LEU:HD23	1.91	0.51
83:A5:816:A:H61	83:A5:996:C:H42	1.58	0.51
80:CH:170:ILE:HD13	80:CH:170:ILE:H	1.75	0.51
83:A5:3818:G:H4'	83:A5:3818:G:OP1	2.11	0.51
36:B2:1159:C:H3'	36:B2:1160:A:H8	1.74	0.51
34:AQ:8:PRO:HA	34:AQ:9:VAL:HG13	1.92	0.51
83:A5:3712:G:C2	83:A5:3775:A:N1	2.78	0.51
85:A7:64:G:H2'	85:A7:64:G:N3	2.26	0.51
83:A5:3390:U:C4	83:A5:3391:U:C4	2.99	0.51
54:CP:27:LYS:HB3	54:CP:63:PHE:CD2	2.46	0.51
14:AT:87:VAL:CG1	36:B2:1735:A:OP1	2.59	0.51
83:A5:910:C:C5	83:A5:911:A:C8	2.99	0.51
11:AL:82:THR:HA	11:AL:110:CYS:H	1.75	0.51
74:CC:358:ALA:HA	74:CC:363:VAL:HG22	1.91	0.51
36:B2:41:A:H61	36:B2:471:U:H3	1.59	0.51
74:CC:65:THR:HG22	74:CC:67:ALA:H	1.75	0.51
83:A5:3159:C:C2	83:A5:3329:U:H5'	2.46	0.51
36:B2:827:U:H3	36:B2:891:A:H61	1.57	0.51
83:A5:1491:U:H2'	83:A5:1491:U:O2	2.10	0.51
83:A5:3117:A:H5'	83:A5:3117:A:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:13:PHE:CD2	85:A7:65:C:O2'	2.64	0.51
52:CS:175:TYR:HA	83:A5:3729:A:H62	1.76	0.51
83:A5:1631:U:O4	83:A5:1659:A:O2'	2.29	0.51
36:B2:1022:A:H4'	36:B2:1131:U:O2'	2.11	0.51
63:CB:275:HIS:CD2	63:CB:277:ARG:HH21	2.29	0.51
10:AN:15:ALA:HA	32:AW:57:ARG:HH22	1.76	0.51
85:A7:25:A:H2'	85:A7:26:C:C5	2.47	0.50
83:A5:3420:U:C6	83:A5:3443:A:N6	2.79	0.50
28:AC:122:LEU:HD22	28:AC:224:TYR:CE1	2.46	0.50
83:A5:1316:U:H3'	83:A5:1317:A:H5'	1.93	0.50
85:A7:24:U:O4'	85:A7:118:C:H4'	2.11	0.50
83:A5:634:U:O5'	83:A5:634:U:H6	1.94	0.50
36:B2:1435:A:H61	36:B2:1570:U:H3	1.57	0.50
83:A5:1492:C:C2	83:A5:1493:A:C8	2.99	0.50
83:A5:837:A:H2	83:A5:843:A:H61	1.49	0.50
83:A5:3792:A:O2'	83:A5:3793:U:H5'	2.12	0.50
36:B2:1049:C:C4	36:B2:1050:A:C2	2.99	0.50
83:A5:173:A:H2'	83:A5:174:A:C8	2.45	0.50
8:AS:135:HIS:H	8:AS:135:HIS:CD2	2.29	0.50
83:A5:3840:G:H1'	83:A5:3843:U:O4	2.11	0.50
83:A5:2269:A:N6	83:A5:2468:A:N6	2.45	0.50
83:A5:3417:C:H2'	83:A5:3418:U:C6	2.47	0.50
83:A5:2091:A:N9	83:A5:2092:U:C6	2.80	0.50
83:A5:1212:G:C6	83:A5:1213:C:N4	2.79	0.50
83:A5:1242:G:H2'	83:A5:1243:A:C8	2.46	0.50
36:B2:94:G:N2	36:B2:465:A:H5'	2.26	0.50
63:CB:175:GLN:O	83:A5:3887:U:O3'	2.30	0.50
86:A8:76:A:H2'	86:A8:77:G:C8	2.46	0.50
15:AB:35:ALA:HB1	15:AB:36:PRO:CD	2.42	0.50
11:AL:16:ASN:OD1	36:B2:210:U:OP1	2.29	0.50
47:CI:41:ALA:HB3	47:CI:86:HIS:CE1	2.47	0.50
5:AO:47:LEU:H	15:AB:47:THR:HG21	1.76	0.50
83:A5:1638:G:H2'	83:A5:1639:U:O4'	2.12	0.50
42:CL:66:HIS:HB3	83:A5:77:A:N1	2.27	0.50
83:A5:3587:U:H3	83:A5:3626:A:H61	1.59	0.50
36:B2:413:C:H2'	36:B2:414:C:C6	2.46	0.50
31:AH:10:PRO:HA	31:AH:12:GLY:H	1.77	0.50
83:A5:3701:U:C2'	83:A5:3702:G:C5'	2.89	0.50
83:A5:1267:A:H5''	83:A5:3169:A:H61	1.77	0.50
26:AJ:23:LYS:HA	26:AJ:26:LEU:HD12	1.93	0.50
41:CO:4:LEU:HD11	64:CF:55:VAL:HG22	66.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AT:40:ALA:HB1	14:AT:43:LYS:H	1.75	0.50
11:AL:43:THR:HG22	11:AL:59:TRP:HE1	1.77	0.50
63:CB:229:LYS:H	63:CB:234:ARG:NH2	2.10	0.50
36:B2:217:A:H61	36:B2:927:U:H3	1.60	0.50
63:CB:75:ALA:HB2	83:A5:3585:A:C6	2.47	0.50
51:CA:20:VAL:HB	83:A5:2553:U:C5	2.47	0.50
83:A5:455:U:H3	83:A5:771:A:H61	1.60	0.50
86:A8:109:U:H2'	86:A8:110:C:H5''	1.92	0.50
36:B2:93:A:H2'	36:B2:94:G:H8	1.77	0.50
83:A5:651:A:H2'	83:A5:653:U:H5''	1.94	0.50
36:B2:1783:U:H3	36:B2:1797:G:H1	1.60	0.50
36:B2:1690:G:H2'	36:B2:1691:A:H5'	1.93	0.50
44:CM:15:ALA:HB3	44:CM:20:LEU:HD22	1.94	0.50
83:A5:3244:U:H2'	83:A5:3245:U:C6	2.46	0.50
18:AY:21:ARG:HG2	18:AY:77:TYR:CG	2.46	0.49
83:A5:3969:G:O2'	83:A5:3970:A:N7	2.36	0.49
83:A5:1300:G:H2'	83:A5:1301:A:O4'	2.13	0.49
83:A5:1600:U:C4	83:A5:1601:U:C5	2.99	0.49
46:CN:64:ILE:HD12	46:CN:132:VAL:HG21	1.94	0.49
83:A5:420:A:H3'	83:A5:421:C:H5'	1.94	0.49
63:CB:46:PHE:CE2	63:CB:207:VAL:HA	2.47	0.49
83:A5:973:G:O4'	83:A5:973:G:N9	2.40	0.49
36:B2:199:G:H2'	36:B2:200:U:C5	2.46	0.49
36:B2:211:U:H3	36:B2:259:G:H1	1.59	0.49
32:AW:102:VAL:HB	32:AW:113:HIS:CD2	2.46	0.49
36:B2:317:A:C2	36:B2:320:A:C8	2.99	0.49
63:CB:108:GLN:HG2	63:CB:137:TRP:CD2	2.48	0.49
36:B2:822:A:H3'	36:B2:823:C:H5''	1.94	0.49
36:B2:199:G:H3'	36:B2:200:U:H5	1.75	0.49
81:CE:101:LEU:HD22	81:CE:145:VAL:CG1	2.42	0.49
36:B2:493:A:H62	36:B2:506:G:H21	1.61	0.49
74:CC:286:LYS:CE	74:CC:286:LYS:H	2.25	0.49
49:CQ:40:ASN:HD22	74:CC:306:ARG:HD3	1.77	0.49
36:B2:483:A:H62	36:B2:547:G:H22	1.60	0.49
23:AD:176:HIS:CD2	36:B2:1364:G:H21	2.30	0.49
48:CD:13:PHE:HD2	85:A7:65:C:O2'	1.96	0.49
83:A5:3900:A:H61	83:A5:3954:U:H3	1.59	0.49
83:A5:3777:U:C5	83:A5:3835:U:H1'	2.47	0.49
36:B2:1803:A:C6	36:B2:1804:U:C4	3.00	0.49
36:B2:155:U:H3'	36:B2:156:U:C5'	2.42	0.49
36:B2:111:A:H61	36:B2:306:A:N6	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:220:LYS:HE2	81:CE:231:ALA:H	1.77	0.49
28:AC:174:VAL:HG11	28:AC:219:PHE:HA	1.94	0.49
83:A5:2999:U:H1'	83:A5:3000:G:OP1	2.12	0.49
83:A5:134:G:H2'	83:A5:135:U:O4'	2.12	0.49
81:CE:222:PHE:HB2	81:CE:225:TYR:CD2	2.47	0.49
36:B2:1468:G:H1	36:B2:1521:U:H3	1.60	0.49
36:B2:371:A:H61	36:B2:380:U:H3	1.58	0.49
83:A5:3712:G:N2	83:A5:3770:A:H62	2.10	0.49
83:A5:3418:U:HO2'	83:A5:3419:A:H2'	1.77	0.49
51:CA:233:ARG:HH22	83:A5:2802:A:H61	1.60	0.49
40:CK:105:GLY:HA2	40:CK:144:ASP:H	1.78	0.49
83:A5:3929:U:OP1	83:A5:3929:U:H4'	2.13	0.49
36:B2:193:U:C1'	36:B2:226:C:H5'	2.42	0.49
83:A5:3390:U:O2'	83:A5:3391:U:H5'	2.12	0.49
83:A5:3376:C:H42	83:A5:3430:G:H22	1.59	0.49
36:B2:1434:U:H2'	36:B2:1435:A:O5'	2.12	0.49
83:A5:668:A:N6	83:A5:1599:C:O2'	2.46	0.49
54:CP:169:LYS:HB3	81:CE:191:ARG:HE	1.78	0.49
36:B2:1377:U:H3	36:B2:1412:A:H61	1.60	0.49
26:AJ:39:ARG:CZ	36:B2:479:A:O2'	2.61	0.48
83:A5:777:C:H5'	86:A8:7:A:H4'	1.94	0.48
36:B2:1435:A:H2	36:B2:1572:C:C2	2.31	0.48
83:A5:559:A:H2	83:A5:653:U:H3	1.61	0.48
83:A5:74:A:H2	83:A5:76:C:H42	1.61	0.48
51:CA:19:HIS:CE1	83:A5:1023:C:H5'	2.48	0.48
44:CM:24:LEU:HD23	44:CM:86:TRP:CE2	2.48	0.48
83:A5:2776:A:H61	83:A5:3512:U:H3	1.59	0.48
36:B2:1195:G:H3'	36:B2:1196:G:H21	1.77	0.48
83:A5:1927:U:O2'	83:A5:1928:G:H5'	2.13	0.48
83:A5:2998:U:H5''	83:A5:2999:U:P	2.53	0.48
36:B2:1691:A:H61	36:B2:1700:U:H3	1.60	0.48
83:A5:1005:G:H2'	83:A5:1136:A:H61	1.78	0.48
50:CR:62:ARG:HH12	83:A5:3603:C:H5	1.61	0.48
83:A5:3843:U:H4'	83:A5:3844:U:H4'	1.95	0.48
86:A8:61:C:C5'	86:A8:62:A:H5'	2.40	0.48
36:B2:140:G:O2'	36:B2:141:G:H5'	2.13	0.48
83:A5:3622:C:C5	83:A5:3623:G:C8	3.01	0.48
41:CO:197:ILE:HD12	44:CM:119:ARG:HE	1.78	0.48
63:CB:179:HIS:CE1	63:CB:344:ILE:HD11	2.48	0.48
83:A5:2847:G:H1	83:A5:2870:C:H42	1.60	0.48
83:A5:903:A:H2'	83:A5:904:U:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AY:56:VAL:HG12	18:AY:56:VAL:O	2.14	0.48
48:CD:56:SER:HB3	85:A7:26:C:H5''	1.95	0.48
52:CS:174:THR:C	83:A5:3729:A:H61	2.16	0.48
51:CA:3:ARG:H	51:CA:207:VAL:HG22	1.79	0.48
85:A7:12:U:C4'	85:A7:13:A:OP2	2.59	0.48
83:A5:170:G:H1	83:A5:277:U:H3	1.60	0.48
86:A8:75:C:H2'	86:A8:76:A:O4'	2.13	0.48
36:B2:1825:A:H4'	36:B2:1826:C:H5''	1.96	0.48
36:B2:1167:U:H2'	36:B2:1168:C:H5''	1.94	0.48
47:CI:95:HIS:CD2	47:CI:128:ARG:HG3	2.49	0.48
82:CG:161:VAL:HG11	82:CG:195:LEU:HD21	1.95	0.48
36:B2:1781:U:H3	36:B2:1799:A:H61	1.61	0.48
83:A5:168:G:H2'	83:A5:169:C:H5''	1.96	0.48
36:B2:1149:A:C2	36:B2:1149:A:OP2	2.67	0.48
83:A5:3431:C:H1'	83:A5:3435:A:H61	1.78	0.48
83:A5:3594:A:H61	83:A5:3619:U:H3	1.61	0.48
83:A5:1709:A:H1'	83:A5:1712:C:H42	1.78	0.48
36:B2:1371:C:H4'	36:B2:1372:U:H5'	1.96	0.48
83:A5:1384:C:N4	83:A5:1543:C:H42	2.10	0.48
86:A8:111:G:O2'	86:A8:112:C:H5'	2.14	0.48
83:A5:474:A:H61	83:A5:527:U:H3	1.60	0.48
28:AC:67:TYR:CD1	28:AC:247:THR:HG22	2.48	0.48
83:A5:424:G:H1'	86:A8:16:A:N6	2.27	0.48
36:B2:525:U:H3	36:B2:543:A:H61	1.62	0.48
83:A5:2742:G:H22	83:A5:2774:G:H1'	1.78	0.48
83:A5:3686:A:C8	83:A5:3687:A:C8	3.02	0.48
63:CB:291:ILE:O	63:CB:292:HIS:CG	2.67	0.48
40:CK:99:LYS:HB2	83:A5:1454:C:H5'	1.95	0.48
36:B2:93:A:H2'	36:B2:94:G:C8	2.49	0.48
83:A5:2591:A:H2'	83:A5:2592:A:C8	2.49	0.48
8:AS:15:ILE:HG22	8:AS:16:MET:H	1.78	0.48
83:A5:520:G:OP2	83:A5:523:C:C5	2.67	0.48
83:A5:775:U:H4'	83:A5:775:U:OP2	2.13	0.48
83:A5:1809:A:C2	83:A5:1859:U:O2	2.67	0.48
79:CJ:3:ALA:HB2	85:A7:61:G:H21	1.79	0.48
36:B2:1166:U:H2'	36:B2:1167:U:O4'	2.13	0.48
11:AL:82:THR:HG21	36:B2:330:G:H4'	1.95	0.48
83:A5:3429:A:H2'	83:A5:3431:C:H5'	1.95	0.48
36:B2:1371:C:H4'	36:B2:1372:U:C5'	2.44	0.48
83:A5:539:G:H4'	83:A5:540:G:H5'	1.96	0.48
36:B2:1570:U:O2	36:B2:1572:C:N3	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:CE:223:ALA:N	81:CE:225:TYR:HB3	2.28	0.48
83:A5:1631:U:C4	83:A5:1659:A:O2'	2.67	0.48
59:CZ:96:SER:HB2	59:CZ:109:HIS:CD2	2.48	0.48
53:CT:151:ALA:HB1	53:CT:152:PRO:CD	2.44	0.48
36:B2:53:G:H2'	36:B2:54:C:C6	2.49	0.48
15:AB:141:PHE:HB3	15:AB:216:ARG:HH21	1.79	0.48
4:AK:51:ASN:HA	4:AK:56:VAL:HG13	1.96	0.48
18:AY:77:TYR:CD1	18:AY:77:TYR:CB	2.81	0.47
83:A5:2839:A:H61	83:A5:2880:A:C1'	2.27	0.47
83:A5:3896:G:H1	83:A5:3959:U:H3	1.62	0.47
64:CF:108:VAL:HG11	64:CF:142:TYR:CD2	2.49	0.47
84:A9:8:A:H61	86:A8:115:U:H3	1.61	0.47
63:CB:171:ILE:HG22	63:CB:173:GLN:H	1.79	0.47
50:CR:121:HIS:CE1	83:A5:2031:C:C5	3.02	0.47
36:B2:477:A:H2'	36:B2:478:A:H8	1.79	0.47
83:A5:2091:A:C1'	83:A5:2092:U:H6	2.25	0.47
83:A5:1969:A:C8	83:A5:2110:A:H5''	2.49	0.47
63:CB:87:VAL:HB	63:CB:165:HIS:CE1	2.49	0.47
29:AG:191:ARG:HH22	36:B2:277:U:H3	1.61	0.47
83:A5:2216:A:H61	83:A5:2224:A:H61	1.62	0.47
83:A5:1225:G:H2'	83:A5:1226:G:O4'	2.14	0.47
36:B2:1886:G:H1	36:B2:1900:U:H3	1.60	0.47
74:CC:7:ARG:H	74:CC:8:PRO:HD3	1.78	0.47
36:B2:1213:A:C5	36:B2:1214:A:H1'	2.49	0.47
55:CU:262:LEU:HD22	55:CU:271:ILE:HD11	1.96	0.47
63:CB:156:TYR:OH	83:A5:3801:A:OP2	2.32	0.47
83:A5:2586:A:H4'	83:A5:2587:U:OP2	2.15	0.47
15:AB:36:PRO:HG2	15:AB:39:PHE:CD1	2.49	0.47
36:B2:53:G:H2'	36:B2:54:C:H6	1.80	0.47
83:A5:1395:U:H4'	83:A5:1396:A:OP1	2.14	0.47
74:CC:161:VAL:O	74:CC:164:VAL:HG12	2.14	0.47
83:A5:3844:U:H2'	83:A5:3847:U:H3	1.80	0.47
83:A5:3887:U:C3'	83:A5:3888:U:H5'	2.44	0.47
83:A5:568:A:C5'	83:A5:569:U:OP1	2.62	0.47
83:A5:3261:U:H3	83:A5:3331:A:H61	1.62	0.47
13:AP:129:VAL:HG13	13:AP:130:LYS:H	1.79	0.47
37:BC:8:U:C2	37:BC:15:G:O6	2.68	0.47
83:A5:485:A:H61	83:A5:514:A:H61	1.63	0.47
83:A5:2116:U:H2'	83:A5:2117:A:H8	1.79	0.47
83:A5:1912:G:OP2	83:A5:1913:U:C5	2.67	0.47
44:CM:7:VAL:H	52:CS:154:LEU:H	1.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:CH:70:THR:CG2	83:A5:3656:A:H61	2.28	0.47
83:A5:1455:A:H3'	83:A5:1456:U:C5'	2.45	0.47
83:A5:542:C:O4'	83:A5:542:C:C6	2.68	0.47
63:CB:258:HIS:O	83:A5:3472:A:O2'	2.19	0.47
86:A8:48:G:C8	86:A8:77:G:C2	3.03	0.47
36:B2:254:C:N4	36:B2:256:C:H1'	2.30	0.47
83:A5:1565:A:H1'	83:A5:1567:G:N3	2.30	0.47
83:A5:2268:G:O6	83:A5:2473:C:N4	2.47	0.47
83:A5:401:G:H21	83:A5:404:U:H5	1.61	0.47
8:AS:125:HIS:ND1	8:AS:131:VAL:HG21	2.29	0.47
34:AQ:127:ARG:HB3	36:B2:1776:G:C8	2.49	0.47
7:AM:40:HIS:HA	7:AM:44:GLN:NE2	2.30	0.47
44:CM:11:ARG:HH12	44:CM:61:ARG:HE	1.63	0.47
36:B2:193:U:O2	36:B2:226:C:H4'	2.15	0.47
83:A5:1118:C:H2'	83:A5:1119:C:C6	2.50	0.47
83:A5:1924:A:H3'	83:A5:1925:U:C5'	2.44	0.47
83:A5:756:C:O2	83:A5:3842:A:C2	2.68	0.47
83:A5:1555:G:H22	83:A5:1605:U:H3	1.61	0.47
83:A5:3602:U:H3	83:A5:3609:A:H61	1.63	0.47
86:A8:22:C:C5	86:A8:22:C:OP1	2.68	0.47
83:A5:653:U:H6	83:A5:653:U:H5''	1.80	0.47
5:AO:141:ARG:HH12	36:B2:1982:C:H5''	1.80	0.47
63:CB:268:ARG:HG3	63:CB:268:ARG:HH11	1.79	0.47
36:B2:514:A:C2	36:B2:548:G:H5'	2.50	0.47
26:AJ:42:ARG:HG2	36:B2:601:U:P	2.50	0.47
83:A5:1941:A:H2'	83:A5:1942:U:C6	2.50	0.47
83:A5:3418:U:C5	83:A5:3443:A:N7	2.83	0.47
83:A5:1020:A:N6	83:A5:1104:A:H61	2.13	0.47
83:A5:3767:G:C4	83:A5:3768:C:O2'	2.64	0.47
83:A5:3736:A:N6	83:A5:3745:U:H3	2.13	0.46
83:A5:3967:U:O2'	83:A5:3968:C:H5'	2.15	0.46
83:A5:547:U:H2'	83:A5:548:A:C8	2.50	0.46
51:CA:201:GLY:HA3	51:CA:209:HIS:CD2	2.50	0.46
27:AE:7:LYS:H	27:AE:7:LYS:HD3	1.79	0.46
83:A5:1074:U:O4	83:A5:3481:G:H2'	2.15	0.46
83:A5:154:A:C5'	83:A5:156:G:H1'	2.43	0.46
83:A5:400:U:H3	83:A5:405:A:H61	1.63	0.46
36:B2:1195:G:H3'	36:B2:1196:G:N2	2.29	0.46
36:B2:575:A:H61	36:B2:588:A:H61	1.62	0.46
83:A5:1227:C:H2'	83:A5:1228:C:H5'	1.97	0.46
83:A5:2901:C:H2'	83:A5:2902:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1735:A:H62	36:B2:1760:G:H1'	1.80	0.46
86:A8:82:C:OP2	86:A8:85:G:H1'	2.16	0.46
83:A5:1908:A:H2'	83:A5:1909:U:C5'	2.45	0.46
32:AW:31:SER:CA	36:B2:644:A:H5''	2.44	0.46
64:CF:172:ILE:HG23	64:CF:173:THR:N	2.30	0.46
44:CM:1:MET:H3	80:CH:46:TYR:HB2	1.80	0.46
8:AS:26:VAL:HB	8:AS:45:LEU:HD11	1.97	0.46
81:CE:221:PHE:HA	81:CE:226:LEU:HA	1.97	0.46
83:A5:177:U:H3'	83:A5:178:U:H5'	1.96	0.46
83:A5:1094:A:C2	83:A5:1972:C:H5'	2.51	0.46
83:A5:1783:A:H3'	83:A5:1784:A:C5'	2.45	0.46
36:B2:255:U:C4'	36:B2:256:C:OP2	2.57	0.46
36:B2:198:C:O2'	36:B2:199:G:C5'	2.64	0.46
36:B2:1434:U:C4	36:B2:1435:A:C5	3.03	0.46
44:CM:51:ARG:O	44:CM:55:LEU:HD13	2.15	0.46
34:AQ:45:GLU:HA	34:AQ:47:LYS:H	1.81	0.46
83:A5:697:U:H2'	83:A5:698:A:O5'	2.16	0.46
74:CC:383:LYS:O	74:CC:386:ALA:HB3	2.16	0.46
83:A5:3760:A:H2'	83:A5:3762:G:C8	2.50	0.46
8:AS:136:THR:HG23	8:AS:140:GLY:HA3	1.96	0.46
63:CB:243:LYS:HA	83:A5:1074:U:OP1	2.15	0.46
51:CA:218:HIS:CE1	83:A5:3497:G:H5''	2.51	0.46
36:B2:985:A:C8	36:B2:1001:G:N2	2.84	0.46
83:A5:2090:U:H3	83:A5:2091:A:N6	2.13	0.46
64:CF:183:ARG:CZ	83:A5:1189:A:OP1	2.64	0.46
27:AE:132:GLY:HA3	36:B2:258:A:C4'	2.46	0.46
86:A8:22:C:H6	86:A8:22:C:P	2.38	0.46
63:CB:271:GLN:H	83:A5:3521:A:H4'	1.81	0.46
74:CC:48:ARG:HH22	83:A5:1667:U:H1'	1.81	0.46
7:AM:25:LEU:HD11	7:AM:58:ILE:HD13	1.98	0.46
14:AT:88:HIS:CG	36:B2:1793:A:C5	3.03	0.46
7:AM:59:LEU:H	7:AM:59:LEU:HD23	1.80	0.46
83:A5:117:C:O4'	83:A5:117:C:C6	2.68	0.46
26:AJ:132:ARG:CA	36:B2:480:A:OP1	2.61	0.46
83:A5:1908:A:H2'	83:A5:1909:U:H5'	1.98	0.46
57:CY:4:ASN:O	57:CY:7:VAL:HB	2.15	0.46
83:A5:211:U:H2'	83:A5:212:U:C6	2.51	0.46
48:CD:22:ARG:HH12	85:A7:9:C:H41	1.64	0.46
55:CU:272:ARG:HH22	55:CU:284:ARG:HH21	1.62	0.46
83:A5:1780:U:H2'	83:A5:1781:U:C6	2.51	0.46
36:B2:1434:U:O2'	36:B2:1435:A:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2017:A:N6	83:A5:2054:U:C6	2.83	0.46
83:A5:386:G:C6	83:A5:387:U:C4	3.04	0.46
83:A5:2841:G:H2'	83:A5:2842:U:C6	2.50	0.46
63:CB:3:HIS:CE1	83:A5:3470:G:C6	3.04	0.46
36:B2:256:C:C6	36:B2:256:C:O5'	2.69	0.46
83:A5:202:A:C5	83:A5:233:A:C2	3.04	0.46
14:AT:6:VAL:HG23	34:AQ:39:ARG:HG2	1.98	0.46
81:CE:42:ARG:HD3	83:A5:738:A:C2	2.51	0.46
52:CS:45:TRP:HE1	52:CS:61:ILE:HD11	1.81	0.46
83:A5:1910:C:H5'	83:A5:2128:A:N1	2.31	0.46
59:CZ:107:LYS:HB3	83:A5:1926:A:O2'	2.16	0.46
36:B2:484:C:H2'	36:B2:485:A:H8	1.79	0.46
83:A5:586:C:N4	83:A5:624:A:H61	2.08	0.46
36:B2:200:U:O5'	36:B2:200:U:H6	1.98	0.46
81:CE:184:ILE:HG23	81:CE:185:PHE:N	2.27	0.46
83:A5:1790:A:H2'	83:A5:1791:A:C8	2.50	0.46
83:A5:3319:A:H2'	83:A5:3320:C:C6	2.50	0.46
83:A5:1227:C:O2'	83:A5:1228:C:H5'	2.16	0.46
32:AW:3:ARG:HH21	36:B2:1123:G:H4'	1.80	0.46
41:CO:66:VAL:HG23	41:CO:67:ASN:H	1.81	0.46
83:A5:1793:C:H3'	83:A5:1795:A:C8	2.51	0.46
5:AO:47:LEU:N	15:AB:47:THR:HG21	2.31	0.46
83:A5:2032:U:C5	83:A5:2033:U:C5	3.04	0.46
36:B2:1761:A:H2'	36:B2:1762:A:C8	2.51	0.46
59:CZ:13:VAL:HG12	59:CZ:15:SER:H	1.81	0.46
8:AS:124:ARG:HH12	13:AP:124:LEU:HD22	1.81	0.46
81:CE:125:LEU:HD23	81:CE:126:VAL:H	1.80	0.45
83:A5:3726:U:O2'	83:A5:3729:A:O2'	2.14	0.45
83:A5:3727:A:H4'	83:A5:3728:A:OP1	2.16	0.45
83:A5:2017:A:N6	83:A5:2054:U:H6	2.14	0.45
74:CC:49:ARG:HH22	74:CC:52:ARG:HH11	1.64	0.45
83:A5:3798:A:C6	83:A5:3811:A:N6	2.84	0.45
83:A5:2929:U:H3	83:A5:2989:G:H1	1.64	0.45
36:B2:393:G:H4'	36:B2:430:A:N6	2.31	0.45
83:A5:3726:U:O2	83:A5:3729:A:C2	2.69	0.45
83:A5:3958:C:H2'	83:A5:3959:U:C6	2.52	0.45
36:B2:1138:U:H4'	36:B2:1139:A:OP1	2.16	0.45
83:A5:1986:G:H1	83:A5:2086:U:H3	1.64	0.45
64:CF:181:LYS:O	83:A5:1190:U:OP2	2.35	0.45
83:A5:3517:U:H2'	83:A5:3518:A:C8	2.52	0.45
47:CI:204:GLY:HA2	47:CI:205:PRO:HA	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2920:U:H3	83:A5:3116:A:H61	1.63	0.45
37:BC:46:U:H2'	37:BC:47:C:OP1	2.17	0.45
83:A5:3728:A:OP2	83:A5:3728:A:C8	2.70	0.45
28:AC:115:ASP:HB2	28:AC:117:ASN:H	1.81	0.45
63:CB:291:ILE:HG23	63:CB:292:HIS:H	1.81	0.45
26:AJ:135:HIS:HE1	26:AJ:160:PHE:HA	1.81	0.45
83:A5:566:A:H61	83:A5:645:U:H3	1.64	0.45
52:CS:30:MET:SD	52:CS:47:PHE:HB2	2.57	0.45
83:A5:3876:U:C2	83:A5:3887:U:C2	3.05	0.45
36:B2:938:G:H2'	36:B2:939:G:C8	2.52	0.45
36:B2:1434:U:O4	36:B2:1435:A:C6	2.69	0.45
36:B2:1147:U:H3'	36:B2:1148:U:H5''	1.98	0.45
36:B2:1844:C:H2'	36:B2:1845:C:C6	2.51	0.45
83:A5:1433:U:H3	83:A5:1502:A:H61	1.64	0.45
74:CC:171:VAL:HG11	83:A5:227:A:C2	2.52	0.45
83:A5:760:G:N7	83:A5:761:C:C5	2.84	0.45
86:A8:61:C:H5''	86:A8:62:A:C4'	2.46	0.45
83:A5:132:U:H2'	83:A5:133:U:C6	2.51	0.45
49:CQ:158:VAL:HG22	83:A5:3261:U:OP1	2.16	0.45
83:A5:1011:U:H3	83:A5:1129:A:H61	1.64	0.45
30:AF:147:GLU:H	30:AF:221:GLU:HG2	1.82	0.45
4:AK:60:PHE:CE2	4:AK:63:ARG:HA	2.52	0.45
37:BC:71:U:H2'	37:BC:72:A:C8	2.51	0.45
83:A5:3843:U:C1'	83:A5:3843:U:O2'	2.52	0.45
83:A5:3843:U:C6	83:A5:3843:U:C2'	2.98	0.45
83:A5:3596:A:H61	83:A5:3617:U:H3	1.65	0.45
80:CH:23:ARG:HH11	80:CH:42:ALA:HA	1.81	0.45
36:B2:1259:A:C2	36:B2:1661:A:C2	3.04	0.45
31:AH:110:LEU:O	36:B2:713:A:C5	2.70	0.45
46:CN:55:ALA:O	83:A5:153:G:H5'	2.16	0.45
36:B2:1905:U:H3'	36:B2:1906:U:H5'	1.99	0.45
83:A5:2843:G:O5'	83:A5:2843:G:H8	1.99	0.45
83:A5:135:U:H3	83:A5:143:G:H1	1.63	0.45
83:A5:631:A:H3'	83:A5:632:A:C5'	2.46	0.45
83:A5:3759:G:H2'	83:A5:3760:A:C8	2.51	0.45
86:A8:72:C:C5	86:A8:73:U:C4	3.04	0.45
83:A5:2004:G:C6	83:A5:2005:U:O4	2.70	0.45
83:A5:78:A:H2'	83:A5:79:G:O4'	2.16	0.45
36:B2:1672:A:N6	36:B2:1719:C:H42	2.15	0.45
83:A5:3728:A:P	83:A5:3728:A:C8	3.10	0.45
27:AE:146:THR:HB	36:B2:122:G:H21	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2656:C:H42	83:A5:2683:G:H2'	1.81	0.45
86:A8:84:U:C4'	86:A8:85:G:C8	2.92	0.45
83:A5:570:U:H2'	83:A5:571:U:H6	1.82	0.45
83:A5:1659:A:H4'	83:A5:1660:G:O5'	2.17	0.45
56:CX:166:HIS:CE1	83:A5:1864:U:C5	3.04	0.45
51:CA:211:HIS:CG	51:CA:219:ILE:HG23	2.52	0.45
42:CL:169:VAL:CG2	51:CA:101:VAL:HG21	121.58	0.45
36:B2:912:U:H3	36:B2:931:A:H61	1.65	0.45
86:A8:62:A:N1	86:A8:95:A:C2	2.85	0.45
80:CH:16:ILE:HD13	80:CH:27:ILE:CD1	2.47	0.45
5:AO:94:HIS:CD2	5:AO:127:GLY:O	2.70	0.45
36:B2:24:U:H3	36:B2:609:A:H61	1.65	0.45
15:AB:211:HIS:CG	15:AB:212:ASP:H	2.35	0.45
59:CZ:100:LEU:HD12	59:CZ:100:LEU:H	1.80	0.45
83:A5:669:U:P	83:A5:1592:U:C5'	3.03	0.44
83:A5:323:U:OP1	83:A5:323:U:H3'	2.17	0.44
44:CM:107:PHE:HA	81:CE:220:LYS:HB3	1.99	0.44
41:CO:192:GLU:H	41:CO:193:PRO:CD	2.30	0.44
28:AC:153:TRP:HA	28:AC:153:TRP:CE3	2.52	0.44
36:B2:910:U:H3	36:B2:933:C:H42	1.64	0.44
8:AS:85:ASN:H	8:AS:97:GLN:HG2	1.81	0.44
36:B2:35:U:C4	36:B2:479:A:H2	2.35	0.44
63:CB:3:HIS:HB3	63:CB:5:LYS:H	1.82	0.44
37:BC:19:A:OP2	37:BC:19:A:C8	2.70	0.44
36:B2:1435:A:C2	36:B2:1572:C:C2	3.06	0.44
83:A5:653:U:C5'	83:A5:653:U:H6	2.30	0.44
64:CF:95:VAL:CG1	64:CF:117:LEU:HD11	2.47	0.44
83:A5:169:C:H42	83:A5:278:U:H3	1.65	0.44
83:A5:927:A:H3'	83:A5:928:U:H5''	1.98	0.44
85:A7:8:A:H61	85:A7:111:U:H3	1.64	0.44
83:A5:3790:A:C2'	83:A5:3791:A:C5'	2.86	0.44
36:B2:984:G:C5	36:B2:1001:G:C2	3.05	0.44
48:CD:10:LYS:HB3	85:A7:66:G:OP1	2.17	0.44
83:A5:2091:A:O2'	83:A5:2092:U:C6	2.70	0.44
57:CY:2:LYS:HA	83:A5:250:U:O3'	2.17	0.44
44:CM:24:LEU:O	44:CM:43:THR:HG21	2.16	0.44
83:A5:698:A:C2'	83:A5:699:U:OP2	2.61	0.44
6:AX:100:VAL:HG13	6:AX:122:VAL:HG13	1.99	0.44
36:B2:1110:A:H4'	36:B2:1111:U:O4'	2.16	0.44
83:A5:2566:A:N6	83:A5:2698:A:N6	2.65	0.44
36:B2:1786:G:H2'	36:B2:1787:U:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3552:G:C6	83:A5:3553:C:C4	3.05	0.44
83:A5:515:A:H2'	83:A5:516:U:C6	2.52	0.44
36:B2:1759:U:H2'	36:B2:1760:G:H5'	1.99	0.44
83:A5:322:G:P	83:A5:3310:G:OP1	2.74	0.44
83:A5:2842:U:OP2	83:A5:2879:A:H1'	2.18	0.44
48:CD:14:LYS:HG2	85:A7:66:G:H5''	2.00	0.44
36:B2:1777:U:H3	36:B2:1803:A:H2	1.65	0.44
83:A5:3841:C:O3'	83:A5:3842:A:N7	2.50	0.44
30:AF:112:MET:CE	36:B2:1666:G:OP1	2.66	0.44
83:A5:1555:G:H1	83:A5:1605:U:H3	1.65	0.44
36:B2:143:U:C5	36:B2:164:U:C4	3.05	0.44
36:B2:1807:C:H4'	36:B2:1808:G:O5'	2.17	0.44
83:A5:593:U:H3	83:A5:616:A:H61	1.66	0.44
83:A5:3781:U:H2'	83:A5:3782:A:C5'	2.47	0.44
83:A5:2767:U:C6	83:A5:2767:U:O4'	2.70	0.44
83:A5:1911:C:H42	83:A5:1941:A:N6	2.15	0.44
83:A5:2042:A:H3'	83:A5:2043:G:H5''	1.99	0.44
49:CQ:156:PRO:CG	49:CQ:157:GLY:H	2.30	0.44
40:CK:123:ARG:HE	40:CK:125:LEU:H	1.65	0.44
83:A5:2222:G:H21	83:A5:2225:A:H61	1.64	0.44
26:AJ:33:ILE:HG23	26:AJ:38:LEU:O	2.18	0.44
83:A5:1952:A:N6	83:A5:1953:G:O6	2.51	0.44
26:AJ:10:PHE:CE2	36:B2:25:U:H2'	2.52	0.44
83:A5:83:U:C2	83:A5:343:A:C2	3.05	0.44
36:B2:1452:U:H3	36:B2:1534:G:H1	1.66	0.44
48:CD:48:LYS:CD	48:CD:48:LYS:H	2.30	0.44
7:AM:43:HIS:NE2	36:B2:1341:C:OP2	2.51	0.44
83:A5:3774:U:H6	83:A5:3774:U:C5'	2.31	0.44
83:A5:154:A:C4'	83:A5:156:G:C4	3.00	0.44
11:AL:58:PRO:HG2	11:AL:59:TRP:CE3	2.53	0.44
36:B2:71:G:H3'	36:B2:72:A:H5''	1.99	0.44
4:AK:20:VAL:HG21	23:AD:73:ALA:HB3	1.99	0.44
36:B2:1273:U:H4'	36:B2:1274:U:H5''	1.99	0.44
83:A5:1801:U:C3'	83:A5:1802:U:H5'	2.45	0.44
36:B2:106:C:H2'	36:B2:107:A:C8	2.52	0.44
29:AG:192:ARG:NH1	36:B2:272:U:C5	2.86	0.44
4:AK:54:GLY:HA2	4:AK:56:VAL:H	1.83	0.44
83:A5:1573:U:H3	83:A5:1586:A:H61	1.66	0.44
52:CS:39:VAL:HB	64:CF:232:VAL:HG23	1.99	0.44
42:CL:12:HIS:CE1	83:A5:101:C:C6	3.05	0.44
36:B2:999:U:C6	36:B2:999:U:OP2	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CB:175:GLN:O	83:A5:3888:U:P	2.76	0.44
37:BC:19:A:H62	37:BC:47:C:N4	2.16	0.44
52:CS:174:THR:HB	83:A5:3729:A:N1	2.33	0.44
36:B2:155:U:C5	36:B2:156:U:C2	3.06	0.44
36:B2:72:A:C2	36:B2:78:A:OP2	2.71	0.44
36:B2:214:G:H4'	36:B2:215:C:OP2	2.18	0.44
52:CS:150:ILE:HD11	52:CS:152:PHE:CZ	2.52	0.44
83:A5:2669:A:H61	83:A5:2679:U:H3	1.63	0.44
83:A5:3583:C:H2'	83:A5:3584:C:H5''	1.99	0.44
23:AD:110:LYS:HB3	23:AD:115:LEU:HD13	2.00	0.44
83:A5:1287:U:O3'	83:A5:1289:C:OP2	2.35	0.44
64:CF:183:ARG:HG2	64:CF:186:HIS:CE1	2.53	0.44
83:A5:1300:G:O6	83:A5:1301:A:C2	2.70	0.44
44:CM:15:ALA:HB2	44:CM:55:LEU:HB3	2.00	0.44
42:CL:12:HIS:CD2	42:CL:12:HIS:N	2.86	0.44
83:A5:3432:A:H61	83:A5:3564:A:H61	1.64	0.44
16:AA:93:TYR:HB3	16:AA:183:LEU:HD11	1.99	0.44
17:AV:15:ARG:HH12	17:AV:33:GLN:HB3	1.83	0.44
83:A5:316:U:H4'	83:A5:317:G:OP2	2.18	0.44
36:B2:1664:A:C2	36:B2:1726:A:C4	3.06	0.44
27:AE:65:VAL:HG22	27:AE:70:VAL:HG21	1.98	0.44
83:A5:3672:U:H2'	83:A5:3673:G:H5''	2.00	0.44
18:AY:6:ALA:HB2	18:AY:30:HIS:CE1	2.53	0.44
36:B2:226:C:N3	36:B2:239:G:N1	2.66	0.43
83:A5:624:A:C2	83:A5:626:A:C8	3.06	0.43
50:CR:18:GLY:HA3	83:A5:2190:A:H5''	2.00	0.43
7:AM:41:GLY:O	7:AM:45:ALA:HB2	2.18	0.43
80:CH:40:HIS:CD2	83:A5:3658:G:H4'	2.53	0.43
36:B2:1398:U:C2	36:B2:1400:A:OP2	2.71	0.43
40:CK:97:ASN:HA	40:CK:98:ILE:HG23	2.00	0.43
83:A5:147:A:O3'	83:A5:148:U:H4'	2.18	0.43
63:CB:251:VAL:HG21	63:CB:267:ALA:HB3	1.99	0.43
83:A5:243:A:C2	83:A5:246:C:C5	3.06	0.43
36:B2:599:A:H2'	36:B2:600:A:H8	1.82	0.43
83:A5:1798:A:H2'	83:A5:1865:U:C2	2.53	0.43
7:AM:48:ALA:HB3	7:AM:117:VAL:HG11	1.99	0.43
83:A5:837:A:H2	83:A5:843:A:N6	2.11	0.43
83:A5:1084:A:C2	83:A5:2518:A:H4'	2.53	0.43
83:A5:3390:U:C4	83:A5:3391:U:O4	2.71	0.43
83:A5:3329:U:H4'	83:A5:3330:C:OP2	2.18	0.43
30:AF:80:TYR:CZ	30:AF:90:CYS:HB3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1113:A:C2	36:B2:1987:G:C4	3.06	0.43
81:CE:237:TYR:CE2	81:CE:240:ARG:HB2	2.53	0.43
36:B2:1373:U:C5	36:B2:1374:A:C5	3.06	0.43
83:A5:667:U:H2'	83:A5:669:U:OP2	2.18	0.43
36:B2:1804:U:O5'	36:B2:1804:U:H6	2.01	0.43
83:A5:1630:G:N1	83:A5:1660:G:O6	2.51	0.43
83:A5:2614:G:C5	83:A5:2615:C:C5	3.06	0.43
83:A5:2672:U:C2	83:A5:2675:U:C5	3.06	0.43
5:AO:20:GLN:HG2	5:AO:21:VAL:H	1.83	0.43
47:CI:139:ARG:HH21	47:CI:173:PHE:H	1.66	0.43
36:B2:825:A:OP2	36:B2:825:A:H4'	2.18	0.43
83:A5:1651:C:H2'	83:A5:1652:U:O4'	2.18	0.43
36:B2:896:A:N3	36:B2:944:G:H1'	2.33	0.43
16:AA:50:ASN:O	16:AA:54:THR:HG23	2.18	0.43
63:CB:268:ARG:HH12	83:A5:3519:C:H1'	1.84	0.43
86:A8:43:A:H2'	86:A8:44:C:C6	2.52	0.43
36:B2:848:C:N4	36:B2:851:A:C8	2.86	0.43
49:CQ:62:SER:H	49:CQ:142:ARG:HH22	1.65	0.43
83:A5:3189:A:C2	83:A5:3226:A:C8	3.06	0.43
79:CJ:117:HIS:CD2	79:CJ:131:TYR:H	2.36	0.43
83:A5:3156:G:C6	83:A5:3157:U:C4	3.06	0.43
83:A5:2838:U:HO2'	83:A5:2839:A:H5'	1.81	0.43
83:A5:302:A:C6	83:A5:3317:U:H1'	2.53	0.43
36:B2:217:A:N7	36:B2:915:U:C5	2.86	0.43
83:A5:3766:U:C2	83:A5:3767:G:H1'	2.52	0.43
83:A5:208:U:H3	83:A5:218:A:H61	1.66	0.43
36:B2:1376:U:H4'	36:B2:1615:U:O2	2.17	0.43
83:A5:425:A:OP1	83:A5:1637:U:O2'	2.36	0.43
83:A5:3887:U:C2'	83:A5:3888:U:H5'	2.46	0.43
83:A5:3728:A:H8	83:A5:3728:A:H3'	1.83	0.43
83:A5:154:A:H4'	83:A5:156:G:C4	2.52	0.43
74:CC:49:ARG:HH22	74:CC:52:ARG:NH1	2.17	0.43
83:A5:903:A:C2'	83:A5:904:U:H5'	2.49	0.43
83:A5:698:A:H2'	83:A5:699:U:OP2	2.19	0.43
36:B2:1138:U:O2'	36:B2:1139:A:OP1	2.29	0.43
63:CB:54:THR:HG23	63:CB:78:VAL:HG21	2.01	0.43
83:A5:1960:C:H4'	83:A5:1961:C:OP1	2.18	0.43
7:AM:118:ILE:HG21	7:AM:121:PHE:CD2	2.53	0.43
83:A5:2842:U:H2'	83:A5:2843:G:C8	2.54	0.43
52:CS:175:TYR:N	83:A5:3729:A:H62	2.16	0.43
36:B2:1979:C:O2'	36:B2:1980:U:H5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:511:G:H2'	36:B2:512:U:C5	2.54	0.43
83:A5:3567:A:H3'	83:A5:3569:C:C6	2.53	0.43
83:A5:1930:G:H22	83:A5:1937:G:H1	1.67	0.43
30:AF:115:ARG:O	30:AF:119:HIS:CD2	2.72	0.43
83:A5:395:A:H1'	83:A5:410:G:C2	2.54	0.43
6:AX:124:LYS:HA	6:AX:129:SER:HA	2.00	0.43
83:A5:1358:U:C5	83:A5:1607:A:C2	3.07	0.43
36:B2:1170:G:H2'	36:B2:1171:G:O5'	2.19	0.43
83:A5:3607:C:H4'	83:A5:3910:A:H4'	2.00	0.43
83:A5:1950:A:H5''	83:A5:1951:C:OP2	2.18	0.43
83:A5:1299:A:H2'	83:A5:1300:G:C8	2.53	0.43
83:A5:3797:G:C6	83:A5:3798:A:C6	3.07	0.43
83:A5:1227:C:H2'	83:A5:1228:C:C5'	2.48	0.43
83:A5:1921:U:H2'	83:A5:1922:A:O4'	2.19	0.43
83:A5:1484:U:C4	83:A5:1486:A:H5''	2.54	0.43
63:CB:326:VAL:HG12	63:CB:330:PHE:CE1	2.54	0.43
83:A5:875:G:C6	83:A5:876:G:C5	3.07	0.43
36:B2:633:U:H3	36:B2:1061:A:H61	1.67	0.43
86:A8:108:A:H5''	86:A8:109:U:P	2.59	0.43
83:A5:1073:C:H3'	83:A5:1074:U:H4'	2.00	0.43
83:A5:3722:C:H42	83:A5:3731:U:C5'	2.28	0.43
83:A5:1120:A:OP1	83:A5:1122:U:H5	2.00	0.43
83:A5:2999:U:O2'	83:A5:3000:G:OP1	2.23	0.43
83:A5:3736:A:H61	83:A5:3745:U:H3	1.66	0.43
83:A5:3767:G:C5	83:A5:3768:C:O2'	2.69	0.43
8:AS:124:ARG:HD2	36:B2:1750:U:OP1	2.18	0.43
83:A5:3781:U:H2'	83:A5:3782:A:H5'	2.01	0.43
36:B2:1683:U:H4'	36:B2:1684:U:C6	2.54	0.43
47:CI:206:ILE:HD13	48:CD:285:HIS:CD2	2.54	0.43
48:CD:41:LYS:NZ	53:CT:93:ILE:H	2.17	0.43
7:AM:108:ARG:C	7:AM:110:VAL:H	2.23	0.43
63:CB:103:VAL:HG23	63:CB:104:ASN:N	2.33	0.43
83:A5:542:C:N4	83:A5:760:G:C6	2.87	0.42
83:A5:2128:A:C8	83:A5:2130:G:C2	3.07	0.42
83:A5:1073:C:C5'	83:A5:1074:U:OP2	2.67	0.42
83:A5:154:A:O4'	83:A5:156:G:C4	2.72	0.42
83:A5:2091:A:N9	83:A5:2092:U:C5	2.87	0.42
83:A5:3879:A:H2'	83:A5:3880:A:O4'	2.19	0.42
31:AH:64:ILE:CG1	31:AH:94:ALA:HB1	2.49	0.42
83:A5:1249:A:H3'	83:A5:1250:C:H6	1.83	0.42
29:AG:172:SER:H	36:B2:73:A:N6	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:30:G:H2'	36:B2:31:C:C6	2.54	0.42
34:AQ:10:GLN:HG2	34:AQ:11:ALA:H	1.84	0.42
83:A5:1782:C:H42	83:A5:1798:A:N6	2.14	0.42
36:B2:1585:A:H61	36:B2:1598:A:N6	2.17	0.42
83:A5:2037:C:H1'	83:A5:2038:A:C8	2.54	0.42
28:AC:236:PRO:HA	28:AC:239:TRP:CE2	2.54	0.42
83:A5:3444:G:C6	83:A5:3664:A:C5	3.07	0.42
52:CS:32:ILE:HG21	52:CS:40:ALA:HA	2.01	0.42
53:CT:44:GLY:HA3	53:CT:58:HIS:CE1	2.54	0.42
83:A5:669:U:O5'	83:A5:1592:U:H4'	2.19	0.42
83:A5:1798:A:HO2'	83:A5:1799:U:H5	1.60	0.42
86:A8:76:A:C2	86:A8:77:G:O6	2.70	0.42
31:AH:64:ILE:HG12	31:AH:94:ALA:HB1	2.01	0.42
83:A5:449:U:H2'	83:A5:450:G:H8	1.84	0.42
36:B2:17:C:OP1	36:B2:1196:G:O2'	2.36	0.42
83:A5:2741:A:H2'	83:A5:2742:G:C8	2.54	0.42
83:A5:539:G:C3'	83:A5:540:G:H5'	2.50	0.42
42:CL:56:PRO:HA	42:CL:72:GLY:HA3	2.01	0.42
83:A5:3200:G:C6	83:A5:3219:A:C2	3.07	0.42
36:B2:1828:C:H4'	36:B2:1829:C:H5'	2.01	0.42
26:AJ:132:ARG:CD	36:B2:480:A:OP2	2.62	0.42
83:A5:1911:C:C2	83:A5:1927:U:C5	3.08	0.42
83:A5:1809:A:H2	83:A5:1859:U:O2	2.01	0.42
36:B2:1804:U:C6	36:B2:1804:U:OP2	2.72	0.42
83:A5:1289:C:C5	83:A5:1290:U:C4	3.08	0.42
36:B2:901:G:H1	36:B2:941:A:H2	1.68	0.42
44:CM:136:ALA:HB1	44:CM:137:ASP:HB2	2.00	0.42
83:A5:2823:A:C2	83:A5:2896:U:N3	2.87	0.42
83:A5:1603:A:C2	83:A5:1604:G:C5	3.07	0.42
36:B2:273:C:H2'	36:B2:274:G:C8	2.54	0.42
83:A5:2845:G:H21	83:A5:2883:C:H42	1.67	0.42
83:A5:1949:A:C6	83:A5:1950:A:C6	3.08	0.42
83:A5:2091:A:O2'	83:A5:2092:U:H6	2.02	0.42
79:CJ:80:ARG:NE	85:A7:40:C:O2	2.42	0.42
83:A5:2116:U:H2'	83:A5:2117:A:C8	2.54	0.42
4:AK:60:PHE:CE2	36:B2:1627:G:C4	3.08	0.42
49:CQ:30:LYS:HE2	83:A5:1596:A:C2	2.55	0.42
43:CV:43:HIS:CE1	83:A5:3463:U:H5''	2.54	0.42
36:B2:1436:G:O2'	36:B2:1437:A:H5'	2.20	0.42
34:AQ:132:LYS:HA	34:AQ:139:ALA:HA	2.01	0.42
83:A5:1987:G:H2'	83:A5:1988:A:C5'	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:924:U:H2'	36:B2:925:U:H5'	2.01	0.42
59:CZ:107:LYS:CB	83:A5:1926:A:O2'	2.67	0.42
36:B2:183:A:H3'	36:B2:184:U:C6	2.54	0.42
83:A5:3751:C:O2	83:A5:3751:C:C2'	2.60	0.42
74:CC:77:ALA:HA	83:A5:1677:U:C4	2.54	0.42
83:A5:3810:C:H2'	83:A5:3811:A:C5'	2.49	0.42
83:A5:200:U:H5''	83:A5:201:U:OP2	2.20	0.42
83:A5:3587:U:H3	83:A5:3626:A:N6	2.17	0.42
44:CM:7:VAL:HA	44:CM:57:LEU:HD22	2.01	0.42
83:A5:129:A:H61	83:A5:150:U:H3	1.67	0.42
36:B2:142:A:O2'	36:B2:143:U:H6	2.02	0.42
36:B2:1664:A:C2	36:B2:1726:A:C5	3.07	0.42
36:B2:853:A:H2'	36:B2:854:G:C8	2.55	0.42
84:A9:15:A:H2'	84:A9:16:U:C6	2.55	0.42
80:CH:87:GLN:HB2	80:CH:185:VAL:HG22	2.02	0.42
74:CC:210:PRO:HD2	74:CC:230:ILE:HG22	2.02	0.42
46:CN:67:ARG:HE	83:A5:1787:C:H5''	1.84	0.42
52:CS:176:PHE:HA	83:A5:3753:A:H4'	2.00	0.42
47:CI:7:ARG:H	47:CI:7:ARG:HD2	1.84	0.42
19:AZ:79:ARG:HB3	19:AZ:79:ARG:HH21	1.85	0.42
36:B2:1749:C:O2	36:B2:1749:C:C2'	2.67	0.42
86:A8:108:A:C5'	86:A8:109:U:P	3.07	0.42
83:A5:134:G:C6	83:A5:135:U:C4	3.07	0.42
83:A5:3726:U:O2	83:A5:3729:A:N3	2.53	0.42
83:A5:303:G:H5''	83:A5:304:U:OP1	2.19	0.42
36:B2:1727:U:H1'	36:B2:1728:G:C6	2.54	0.42
36:B2:155:U:H2'	36:B2:156:U:O4'	2.19	0.42
44:CM:134:THR:HA	44:CM:135:LYS:HB2	2.01	0.42
36:B2:483:A:C2	36:B2:519:A:C2	3.08	0.42
30:AF:79:ARG:HH22	34:AQ:127:ARG:H	1.67	0.42
36:B2:1274:U:H3	36:B2:1624:U:H3	1.66	0.42
83:A5:741:C:H2'	83:A5:742:A:C8	2.54	0.42
51:CA:95:THR:HG22	83:A5:2996:U:C5	2.55	0.42
19:AZ:96:ILE:HD12	19:AZ:108:TYR:CD1	2.54	0.42
83:A5:251:A:H2'	83:A5:252:U:C5'	2.50	0.42
10:AN:30:ALA:HB1	10:AN:67:ASN:HD22	1.84	0.42
74:CC:282:LEU:H	74:CC:282:LEU:HD23	1.85	0.42
83:A5:2767:U:N1	83:A5:2767:U:O4'	2.43	0.42
36:B2:94:G:H21	36:B2:465:A:H5'	1.85	0.42
83:A5:1784:A:H1'	83:A5:1799:U:N3	2.34	0.42
36:B2:199:G:C2'	36:B2:200:U:C6	2.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3726:U:H1'	83:A5:3729:A:O2'	2.20	0.42
63:CB:79:LEU:CD1	63:CB:347:LEU:HD21	2.50	0.42
83:A5:1787:C:H1'	83:A5:2546:G:H21	1.85	0.42
36:B2:1866:U:H2'	36:B2:1867:C:C6	2.55	0.42
83:A5:3904:G:H2'	83:A5:3905:U:C6	2.55	0.42
83:A5:88:U:H1'	83:A5:105:A:H61	1.85	0.42
33:AI:132:LYS:HA	33:AI:135:GLU:H	1.85	0.42
48:CD:251:PRO:HB2	48:CD:253:HIS:CE1	2.55	0.42
16:AA:140:VAL:O	16:AA:140:VAL:HG12	2.19	0.42
41:CO:1:MET:HB3	83:A5:3717:U:OP1	2.20	0.42
83:A5:3731:U:O4	83:A5:3750:A:N1	2.53	0.42
29:AG:65:GLN:NE2	36:B2:1874:C:H5''	2.34	0.42
42:CL:12:HIS:CE1	83:A5:101:C:C5	3.08	0.42
83:A5:3524:G:H2'	83:A5:3676:C:H41	1.85	0.42
46:CN:7:MET:SD	82:CG:171:LEU:HA	2.60	0.42
42:CL:85:ILE:HG22	42:CL:86:GLY:HA3	2.02	0.42
83:A5:2706:U:C2'	83:A5:2707:C:H5''	2.50	0.42
16:AA:169:HIS:HA	16:AA:203:PHE:CE1	2.55	0.42
79:CJ:109:ASN:HD22	79:CJ:139:LEU:H	1.68	0.42
13:AP:127:LYS:H	13:AP:127:LYS:HD3	1.84	0.42
83:A5:1927:U:O2'	83:A5:1928:G:C5'	2.68	0.42
36:B2:1341:C:OP2	36:B2:1342:G:O6	2.37	0.42
44:CM:143:LEU:HB2	83:A5:3790:A:C6	2.55	0.42
83:A5:2920:U:H3	83:A5:3116:A:N6	2.18	0.42
83:A5:134:G:C5'	83:A5:134:G:H8	2.28	0.42
36:B2:644:A:C2	36:B2:947:U:C2	3.08	0.42
29:AG:65:GLN:CD	36:B2:1874:C:H5'	2.40	0.42
44:CM:20:LEU:HD11	44:CM:25:VAL:HG21	2.02	0.42
83:A5:1961:C:H2'	83:A5:1962:A:O4'	2.20	0.42
44:CM:6:PHE:HA	52:CS:153:PRO:HA	2.02	0.42
36:B2:1099:U:H4'	51:CA:247:ARG:HB3	2.01	0.42
5:AO:28:PHE:CD1	5:AO:92:ALA:HB1	2.54	0.42
83:A5:873:U:H1'	83:A5:983:U:C2	2.55	0.42
36:B2:1716:A:H2'	36:B2:1717:A:C8	2.54	0.42
83:A5:1156:U:H3	83:A5:1165:A:H61	1.68	0.42
83:A5:3689:U:H1'	83:A5:3691:A:C5	2.55	0.42
32:AW:6:VAL:HG13	32:AW:29:PRO:HD2	2.02	0.42
83:A5:3843:U:C6	83:A5:3843:U:H3'	2.55	0.41
36:B2:159:A:H3'	36:B2:160:G:H21	1.84	0.41
85:A7:62:U:HO2'	85:A7:64:G:H8	1.67	0.41
81:CE:223:ALA:H	81:CE:225:TYR:CB	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:AE:248:ILE:HD11	36:B2:874:U:H5'	2.01	0.41
81:CE:220:LYS:HE3	81:CE:231:ALA:H	1.85	0.41
37:BC:53:A:C2	37:BC:57:A:C8	3.08	0.41
15:AB:29:ASP:H	15:AB:51:ARG:HG3	1.85	0.41
29:AG:172:SER:H	36:B2:73:A:H61	1.66	0.41
19:AZ:79:ARG:HA	19:AZ:79:ARG:HD2	1.76	0.41
83:A5:833:U:H3	83:A5:847:A:N6	2.18	0.41
40:CK:110:LEU:HD11	40:CK:137:GLN:HE22	1.85	0.41
83:A5:1148:C:H2'	83:A5:1149:C:C6	2.55	0.41
10:AN:22:VAL:HG22	10:AN:23:PRO:HA	2.02	0.41
42:CL:165:GLU:C	42:CL:167:ARG:H	2.23	0.41
85:A7:26:C:H2'	85:A7:27:A:O4'	2.21	0.41
36:B2:1342:G:O5'	36:B2:1342:G:C1'	2.68	0.41
86:A8:61:C:H4'	86:A8:62:A:O5'	2.20	0.41
37:BC:18:G:O6	83:A5:2832:G:C5	2.73	0.41
36:B2:1988:G:H1'	36:B2:1989:A:H2'	2.02	0.41
36:B2:259:G:H2'	36:B2:260:A:H8	1.86	0.41
83:A5:2016:U:O2'	83:A5:2017:A:C8	2.70	0.41
31:AH:62:VAL:H	31:AH:94:ALA:HA	1.85	0.41
83:A5:211:U:H6	83:A5:211:U:OP2	2.02	0.41
83:A5:3352:A:C8	83:A5:3353:C:C5	3.07	0.41
85:A7:41:G:N2	85:A7:45:A:C4	2.88	0.41
36:B2:953:A:H61	36:B2:1048:U:H3	1.68	0.41
52:CS:155:VAL:HG22	52:CS:156:GLN:H	1.85	0.41
13:AP:78:ILE:HD12	13:AP:107:GLN:HG2	2.02	0.41
29:AG:131:ARG:H	58:CW:82:ILE:HG13	1.85	0.41
40:CK:21:GLU:O	40:CK:22:VAL:HG13	2.20	0.41
83:A5:1977:A:H61	83:A5:2097:U:H3	1.67	0.41
16:AA:82:ILE:HA	16:AA:204:TYR:HB2	2.01	0.41
83:A5:1711:C:C5	83:A5:1752:G:C2	3.08	0.41
83:A5:365:A:H2'	83:A5:366:A:C8	2.56	0.41
41:CO:119:ARG:H	41:CO:119:ARG:HD3	1.85	0.41
36:B2:1672:A:N7	36:B2:1673:U:C5	2.88	0.41
63:CB:258:HIS:HB2	83:A5:3472:A:O2'	2.20	0.41
83:A5:1798:A:O2'	83:A5:1799:U:C5	2.70	0.41
83:A5:3726:U:H1'	83:A5:3729:A:C2'	2.48	0.41
83:A5:2091:A:HO2'	83:A5:2092:U:H5	1.61	0.41
83:A5:2030:U:H3	83:A5:2040:A:N6	2.17	0.41
36:B2:15:U:H3	36:B2:1227:A:N6	2.18	0.41
83:A5:3555:U:C5	83:A5:3556:A:C8	3.07	0.41
83:A5:125:A:N6	83:A5:153:G:O2'	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AM:89:HIS:CE1	7:AM:114:SER:N	2.88	0.41
13:AP:60:ILE:HD11	13:AP:64:ARG:HH22	1.86	0.41
31:AH:3:ILE:O	31:AH:27:VAL:HG21	2.20	0.41
36:B2:1697:A:C5	36:B2:1698:G:H1'	2.55	0.41
79:CJ:102:GLU:HA	79:CJ:104:PHE:H	1.85	0.41
7:AM:45:ALA:HB1	7:AM:117:VAL:CG2	2.50	0.41
7:AM:47:LYS:HA	30:AF:129:GLY:N	122.50	0.41
26:AJ:13:THR:HA	26:AJ:49:TYR:CD2	2.55	0.41
54:CP:122:ALA:HA	54:CP:145:HIS:CE1	2.56	0.41
8:AS:28:ILE:H	8:AS:28:ILE:HD12	1.86	0.41
36:B2:479:A:C6	36:B2:602:A:H3'	2.53	0.41
36:B2:1825:A:H4'	36:B2:1826:C:C5'	2.49	0.41
48:CD:192:ALA:HA	48:CD:195:HIS:CD2	2.56	0.41
83:A5:3354:U:C5'	83:A5:3473:C:C6	3.02	0.41
83:A5:2926:G:C6	83:A5:2927:U:C5	3.08	0.41
36:B2:1553:A:H61	36:B2:1557:U:H5''	1.85	0.41
7:AM:100:LYS:H	7:AM:108:ARG:HH11	1.67	0.41
83:A5:1387:G:C6	83:A5:1533:A:C2	3.09	0.41
19:AZ:57:LEU:O	19:AZ:61:VAL:HG23	2.21	0.41
41:CO:118:ARG:NH2	83:A5:3721:C:C6	2.88	0.41
81:CE:60:VAL:H	81:CE:62:ILE:H	1.67	0.41
36:B2:974:A:H2'	36:B2:975:U:C6	2.55	0.41
52:CS:164:ARG:HE	64:CF:42:LYS:H	70.58	0.41
26:AJ:6:ILE:HA	26:AJ:7:PRO:HD2	1.91	0.41
79:CJ:171:PHE:CE2	79:CJ:177:GLY:HA3	2.55	0.41
83:A5:3296:C:C5	83:A5:3297:C:C5	3.09	0.41
74:CC:194:ALA:HA	83:A5:1661:C:C5	2.55	0.41
47:CI:59:GLN:HB3	47:CI:126:VAL:HG22	2.02	0.41
15:AB:215:ILE:HD13	15:AB:215:ILE:H	1.85	0.41
13:AP:41:HIS:CE1	13:AP:44:ALA:HB2	2.56	0.41
27:AE:132:GLY:HA3	36:B2:258:A:H5'	2.03	0.41
83:A5:1227:C:C2'	83:A5:1228:C:H5'	2.51	0.41
83:A5:1957:C:N3	83:A5:2123:G:C6	2.89	0.41
29:AG:131:ARG:HB3	58:CW:80:ARG:HA	2.01	0.41
32:AW:7:LEU:HD11	32:AW:78:ARG:HH21	1.85	0.41
83:A5:2227:U:C5	83:A5:2228:U:C5	3.09	0.41
63:CB:86:VAL:HG13	63:CB:162:VAL:HG13	2.03	0.41
83:A5:986:A:H4'	83:A5:987:G:H5'	2.02	0.41
83:A5:444:C:C2	83:A5:785:A:C2	3.09	0.41
26:AJ:132:ARG:HH22	36:B2:481:U:H5	1.68	0.41
83:A5:3712:G:N3	83:A5:3775:A:N1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3769:C:H5'	83:A5:3771:A:H61	1.85	0.41
85:A7:14:C:N4	85:A7:66:G:C2	2.89	0.41
48:CD:115:LEU:HA	48:CD:115:LEU:HD23	1.81	0.41
83:A5:2120:G:N2	83:A5:3003:C:H42	2.19	0.41
36:B2:209:A:O2'	36:B2:210:U:H5'	2.21	0.41
83:A5:927:A:H3'	83:A5:928:U:C5'	2.51	0.41
83:A5:2566:A:C6	83:A5:2698:A:N6	2.89	0.41
83:A5:1580:U:H3'	83:A5:1581:G:C8	2.56	0.41
36:B2:1170:G:C2'	36:B2:1171:G:O5'	2.68	0.41
36:B2:495:U:H2'	36:B2:496:C:C6	2.55	0.41
83:A5:3358:U:C4	83:A5:3359:U:C4	3.09	0.41
74:CC:309:ARG:NH2	74:CC:311:ARG:H	2.19	0.41
83:A5:3293:G:C2	83:A5:3327:U:C5	3.08	0.41
52:CS:38:ILE:HG21	64:CF:231:TYR:HB3	2.03	0.41
8:AS:86:ARG:HE	8:AS:98:LEU:HD11	1.85	0.41
83:A5:1926:A:H2'	83:A5:1927:U:O5'	2.20	0.41
83:A5:3774:U:C6	83:A5:3774:U:C5'	3.03	0.41
83:A5:3906:U:H3	83:A5:3945:A:N6	2.15	0.41
83:A5:2904:U:C2'	83:A5:2905:A:H5''	2.51	0.41
57:CY:2:LYS:HB3	57:CY:7:VAL:HG13	2.03	0.41
83:A5:3700:U:O2	83:A5:3862:A:N1	2.53	0.41
44:CM:13:ALA:CB	44:CM:55:LEU:HD23	2.51	0.41
36:B2:905:U:H2'	36:B2:906:C:C6	2.55	0.41
74:CC:212:VAL:HG21	74:CC:224:PHE:CE2	2.56	0.41
26:AJ:43:GLU:HA	26:AJ:46:ARG:HE	1.85	0.41
63:CB:17:TYR:HA	63:CB:19:LYS:H	1.85	0.41
59:CZ:76:ASN:HB3	59:CZ:79:HIS:CD2	2.56	0.41
83:A5:3315:U:C5	83:A5:3316:U:C5	3.08	0.41
36:B2:479:A:H61	36:B2:603:G:P	2.44	0.41
36:B2:1320:G:C6	36:B2:1321:A:C6	3.08	0.41
51:CA:213:GLY:O	83:A5:3499:G:OP2	2.38	0.41
36:B2:103:U:H4'	36:B2:104:A:C5'	2.50	0.41
83:A5:1721:C:H2'	83:A5:1722:U:H6	1.84	0.41
83:A5:3702:G:H2'	83:A5:3703:C:H5'	2.01	0.41
51:CA:29:LEU:HB3	51:CA:163:ARG:HH12	1.85	0.41
46:CN:47:LYS:O	46:CN:51:LEU:HD23	2.20	0.41
36:B2:1168:C:O5'	36:B2:1169:C:OP1	2.38	0.41
83:A5:3390:U:C5	83:A5:3391:U:C4	3.09	0.41
83:A5:3625:U:H2'	83:A5:3626:A:H8	1.85	0.41
83:A5:539:G:C4'	83:A5:540:G:H5'	2.51	0.41
83:A5:2900:U:H2'	83:A5:2901:C:H5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:2505:A:C2	83:A5:2706:U:C2	3.09	0.41
83:A5:3358:U:C5	83:A5:3359:U:O4	2.74	0.41
74:CC:123:ARG:CZ	83:A5:831:A:H61	2.33	0.41
33:AI:23:LYS:HB3	33:AI:24:LYS:H	1.82	0.41
32:AW:93:LEU:HB2	32:AW:128:PHE:CE1	2.55	0.41
74:CC:82:VAL:HG23	74:CC:92:GLN:O	2.21	0.41
11:AL:45:ARG:NH2	36:B2:932:U:O2'	2.54	0.41
83:A5:688:U:H3	83:A5:693:G:H1	1.68	0.41
83:A5:93:G:C6	83:A5:102:G:C2	3.09	0.41
83:A5:203:A:C6	83:A5:245:G:H4'	2.56	0.41
83:A5:2581:U:H2'	83:A5:2582:C:C6	2.56	0.41
4:AK:11:ILE:HD11	4:AK:38:ILE:CD1	2.51	0.41
83:A5:3633:U:H3	83:A5:3669:U:H3	1.69	0.41
36:B2:1467:U:H3	36:B2:1522:G:H1	1.69	0.41
83:A5:2014:C:H2'	83:A5:2015:G:O4'	2.20	0.41
83:A5:2754:G:C6	83:A5:2755:G:C6	3.08	0.41
27:AE:102:VAL:HG22	27:AE:103:TYR:H	1.86	0.41
83:A5:3756:A:H2'	83:A5:3756:A:N3	2.36	0.41
83:A5:755:A:H5''	83:A5:756:C:C5	2.56	0.41
83:A5:449:U:H2'	83:A5:450:G:C8	2.56	0.41
36:B2:1661:A:H2'	36:B2:1662:C:C6	2.55	0.41
36:B2:24:U:H2'	36:B2:26:A:C8	2.56	0.41
27:AE:107:GLY:HA2	27:AE:189:LEU:HG	2.03	0.41
8:AS:11:HIS:CE1	8:AS:55:ARG:NH1	2.89	0.41
83:A5:1618:A:C2	83:A5:1672:A:C5	3.09	0.41
16:AA:42:ARG:HE	16:AA:48:ILE:HG12	1.85	0.41
47:CI:171:TRP:HB3	47:CI:181:TYR:CE1	2.55	0.41
83:A5:2528:A:C8	83:A5:2529:G:C8	3.09	0.41
83:A5:1419:A:C8	83:A5:1420:A:C8	3.09	0.41
15:AB:100:LEU:HD13	15:AB:235:HIS:CD2	2.56	0.41
36:B2:446:A:H61	36:B2:468:U:H3	1.69	0.41
48:CD:267:ARG:HB3	48:CD:268:TRP:HA	2.03	0.41
34:AQ:13:GLN:O	34:AQ:14:VAL:HG22	2.21	0.41
83:A5:2840:A:H61	83:A5:2887:U:H3	1.68	0.40
36:B2:944:G:OP2	36:B2:944:G:N2	2.49	0.40
83:A5:2159:C:H2'	83:A5:2160:C:C6	2.56	0.40
18:AY:26:CYS:SG	18:AY:74:ALA:HB2	2.61	0.40
83:A5:1523:A:H61	83:A5:2759:G:H1'	1.86	0.40
64:CF:178:ILE:HD13	64:CF:178:ILE:HA	1.96	0.40
7:AM:38:LEU:HD23	7:AM:38:LEU:HA	1.89	0.40
83:A5:3843:U:C3'	83:A5:3843:U:C6	3.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:B2:1673:U:HO2'	36:B2:1674:C:H6	1.64	0.40
83:A5:1689:G:O4'	83:A5:1689:G:C8	2.74	0.40
36:B2:149:U:H3	36:B2:159:A:H61	1.70	0.40
83:A5:1782:C:N4	83:A5:1798:A:N6	2.60	0.40
83:A5:1599:C:H2'	83:A5:1600:U:C6	2.56	0.40
44:CM:20:LEU:HD12	44:CM:45:VAL:HG21	2.03	0.40
83:A5:3686:A:H3'	83:A5:3687:A:C2	2.56	0.40
83:A5:1226:G:H1	83:A5:1250:C:H42	1.69	0.40
42:CL:56:PRO:HG2	42:CL:75:PHE:CE2	2.56	0.40
52:CS:164:ARG:NE	64:CF:42:LYS:H	71.38	0.40
83:A5:736:A:C5	83:A5:737:U:C5	3.09	0.40
51:CA:179:ILE:HG23	51:CA:180:LEU:N	2.36	0.40
27:AE:15:PRO:HG2	27:AE:18:TRP:CE2	2.56	0.40
57:CY:52:ASP:H	57:CY:110:LYS:HD2	1.86	0.40
26:AJ:145:ILE:O	26:AJ:148:PHE:CE2	2.73	0.40
36:B2:1833:C:H2'	36:B2:1834:G:C8	2.56	0.40
83:A5:3712:G:N2	83:A5:3770:A:N6	2.69	0.40
83:A5:2845:G:H22	83:A5:2880:A:H3'	1.87	0.40
63:CB:3:HIS:CE1	83:A5:3470:G:N7	2.89	0.40
37:BC:18:G:O6	83:A5:2832:G:C4	2.74	0.40
41:CO:60:LEU:HD22	83:A5:3667:C:H5''	2.04	0.40
36:B2:1434:U:C2'	36:B2:1435:A:O5'	2.70	0.40
83:A5:2091:A:C4	83:A5:2092:U:C5	3.09	0.40
63:CB:228:PHE:HA	63:CB:234:ARG:HH22	1.86	0.40
48:CD:35:ARG:CB	83:A5:3280:A:C2	3.05	0.40
83:A5:2926:G:H3'	83:A5:2927:U:H5''	2.04	0.40
36:B2:1049:C:C5	36:B2:1050:A:C2	3.10	0.40
83:A5:1639:U:H2'	83:A5:1641:U:OP2	2.22	0.40
83:A5:1249:A:H3'	83:A5:1250:C:C6	2.57	0.40
28:AC:153:TRP:CH2	28:AC:181:ALA:O	2.74	0.40
51:CA:1:MET:HG3	83:A5:1108:G:N3	2.36	0.40
80:CH:28:THR:HG22	80:CH:33:THR:HG22	2.03	0.40
83:A5:81:A:H61	83:A5:341:A:N6	2.20	0.40
8:AS:58:GLU:HG2	19:AZ:48:LEU:HD11	2.03	0.40
83:A5:1556:C:H2'	83:A5:1557:U:C6	2.56	0.40
83:A5:1463:C:C5	83:A5:1464:G:C8	3.09	0.40
83:A5:2630:A:H61	83:A5:2642:U:H3	1.68	0.40
51:CA:216:HIS:CE1	83:A5:3492:G:N7	2.89	0.40
51:CA:6:ARG:HA	51:CA:9:ARG:HE	1.87	0.40
10:AN:2:GLY:HA3	36:B2:952:G:H5''	2.03	0.40
83:A5:3799:G:H2'	83:A5:3800:G:O4'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
83:A5:3817:U:H2'	83:A5:3818:G:C1'	2.52	0.40
36:B2:193:U:O4'	36:B2:226:C:H5'	2.22	0.40
83:A5:1176:A:C2	83:A5:1318:A:C2	3.09	0.40
80:CH:43:LEU:HA	83:A5:3728:A:H62	1.86	0.40
83:A5:777:C:H2'	83:A5:778:C:H6	1.83	0.40
83:A5:1801:U:H5	83:A5:1802:U:C2	2.39	0.40
81:CE:165:ASP:HA	83:A5:3841:C:H2'	2.02	0.40
36:B2:1377:U:H2'	36:B2:1378:C:C6	2.56	0.40
83:A5:3263:C:H2'	83:A5:3264:A:C8	2.56	0.40
51:CA:240:ALA:HB2	83:A5:2533:U:H4'	2.03	0.40
83:A5:3194:A:H61	83:A5:3240:U:H3	1.69	0.40
82:CG:78:ARG:HG3	83:A5:2908:U:C6	2.57	0.40
83:A5:2194:G:H3'	83:A5:2195:A:H5''	2.04	0.40
48:CD:259:LYS:HA	48:CD:260:SER:CB	2.51	0.40
83:A5:191:A:N6	83:A5:261:U:H3	2.20	0.40
26:AJ:132:ARG:HB3	36:B2:480:A:C5'	2.51	0.40
63:CB:256:ALA:HB2	83:A5:3472:A:C2	2.57	0.40
83:A5:3415:U:H3	83:A5:3471:A:N6	2.06	0.40
36:B2:1822:U:H2'	36:B2:1824:C:C5	2.57	0.40
47:CI:201:PRO:C	47:CI:203:HIS:H	2.24	0.40
15:AB:35:ALA:HB2	15:AB:44:ILE:HG23	2.03	0.40
63:CB:234:ARG:HG2	63:CB:272:LYS:HB2	2.03	0.40
83:A5:2933:A:O2'	83:A5:2934:U:H5'	2.21	0.40
42:CL:58:VAL:HG11	42:CL:108:SER:HA	2.03	0.40
83:A5:1871:A:H3'	83:A5:1872:A:H5'	2.02	0.40
53:CT:19:PHE:HA	53:CT:22:HIS:CE1	2.57	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	Az	835/844 (99%)	647 (78%)	96 (12%)	92 (11%)	0	11
2	Ag	316/318 (99%)	274 (87%)	25 (8%)	17 (5%)	2	29
3	AU	100/120 (83%)	84 (84%)	6 (6%)	10 (10%)	1	14
4	AK	93/163 (57%)	75 (81%)	7 (8%)	11 (12%)	0	9
5	AO	132/151 (87%)	104 (79%)	13 (10%)	15 (11%)	0	10
6	AX	141/143 (99%)	118 (84%)	15 (11%)	8 (6%)	2	27
7	AM	117/139 (84%)	85 (73%)	16 (14%)	16 (14%)	0	6
8	AS	135/152 (89%)	107 (79%)	16 (12%)	12 (9%)	1	17
9	Ad	50/56 (89%)	30 (60%)	10 (20%)	10 (20%)	0	3
10	AN	148/151 (98%)	136 (92%)	7 (5%)	5 (3%)	5	40
11	AL	153/155 (99%)	128 (84%)	16 (10%)	9 (6%)	2	26
12	AR	118/131 (90%)	99 (84%)	12 (10%)	7 (6%)	2	26
13	AP	122/148 (82%)	95 (78%)	13 (11%)	14 (12%)	0	9
14	AT	152/156 (97%)	125 (82%)	17 (11%)	10 (7%)	1	24
15	AB	218/268 (81%)	179 (82%)	23 (11%)	16 (7%)	1	21
16	AA	216/313 (69%)	174 (81%)	22 (10%)	20 (9%)	1	16
17	AV	80/83 (96%)	64 (80%)	6 (8%)	10 (12%)	0	8
18	AY	124/131 (95%)	96 (77%)	10 (8%)	18 (14%)	0	6
19	AZ	72/117 (62%)	49 (68%)	11 (15%)	12 (17%)	0	5
20	Aa	105/114 (92%)	75 (71%)	14 (13%)	16 (15%)	0	5
21	Ab	82/84 (98%)	64 (78%)	12 (15%)	6 (7%)	1	21
22	Ac	60/65 (92%)	53 (88%)	1 (2%)	6 (10%)	1	14
23	AD	225/246 (92%)	183 (81%)	29 (13%)	13 (6%)	2	27
24	Ae	56/132 (42%)	37 (66%)	10 (18%)	9 (16%)	0	5
25	Af	78/80 (98%)	46 (59%)	15 (19%)	17 (22%)	0	2
26	AJ	179/195 (92%)	148 (83%)	17 (10%)	14 (8%)	1	20
27	AE	259/261 (99%)	204 (79%)	37 (14%)	18 (7%)	1	22
28	AC	225/267 (84%)	186 (83%)	17 (8%)	22 (10%)	1	14
29	AG	229/248 (92%)	196 (86%)	20 (9%)	13 (6%)	2	27
30	AF	188/228 (82%)	152 (81%)	20 (11%)	16 (8%)	1	17
31	AH	192/194 (99%)	147 (77%)	28 (15%)	17 (9%)	1	17
32	AW	127/130 (98%)	114 (90%)	10 (8%)	3 (2%)	7	47

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
33	AI	205/208 (99%)	164 (80%)	12 (6%)	29 (14%)	0	6
34	AQ	146/148 (99%)	114 (78%)	14 (10%)	18 (12%)	0	8
35	Ah	54/121 (45%)	31 (57%)	6 (11%)	17 (32%)	0	0
38	Cz	215/218 (99%)	186 (86%)	17 (8%)	12 (6%)	2	28
39	Cq	221/223 (99%)	183 (83%)	21 (10%)	17 (8%)	1	20
40	CK	156/165 (94%)	95 (61%)	29 (19%)	32 (20%)	0	3
41	CO	203/205 (99%)	183 (90%)	12 (6%)	8 (4%)	4	36
42	CL	208/218 (95%)	141 (68%)	28 (14%)	39 (19%)	0	3
43	CV	132/140 (94%)	116 (88%)	13 (10%)	3 (2%)	8	48
44	CM	157/166 (95%)	123 (78%)	20 (13%)	14 (9%)	1	17
45	Ca	147/149 (99%)	116 (79%)	17 (12%)	14 (10%)	1	15
46	CN	201/204 (98%)	175 (87%)	20 (10%)	6 (3%)	5	42
47	CI	215/218 (99%)	176 (82%)	19 (9%)	20 (9%)	1	16
48	CD	288/299 (96%)	242 (84%)	20 (7%)	26 (9%)	1	17
49	CQ	185/188 (98%)	153 (83%)	18 (10%)	14 (8%)	1	20
50	CR	201/203 (99%)	187 (93%)	7 (4%)	7 (4%)	4	39
51	CA	251/256 (98%)	205 (82%)	27 (11%)	19 (8%)	1	20
52	CS	171/177 (97%)	131 (77%)	18 (10%)	22 (13%)	0	7
53	CT	156/159 (98%)	122 (78%)	17 (11%)	17 (11%)	0	11
54	CP	183/186 (98%)	154 (84%)	16 (9%)	13 (7%)	1	22
55	CU	114/299 (38%)	88 (77%)	18 (16%)	8 (7%)	1	22
56	CX	118/277 (43%)	96 (81%)	15 (13%)	7 (6%)	2	26
57	CY	129/149 (87%)	113 (88%)	9 (7%)	7 (5%)	2	29
58	CW	128/155 (83%)	102 (80%)	12 (9%)	14 (11%)	0	11
59	CZ	132/135 (98%)	111 (84%)	15 (11%)	6 (4%)	3	33
60	Cr	132/144 (92%)	88 (67%)	22 (17%)	22 (17%)	0	5
61	Ch	121/123 (98%)	99 (82%)	10 (8%)	12 (10%)	1	14
62	Cb	73/76 (96%)	53 (73%)	11 (15%)	9 (12%)	0	8
63	CB	412/416 (99%)	325 (79%)	56 (14%)	31 (8%)	1	20
64	CF	227/252 (90%)	195 (86%)	17 (8%)	15 (7%)	1	24
65	Cc	98/111 (88%)	91 (93%)	3 (3%)	4 (4%)	3	35

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
66	Cd	109/124 (88%)	91 (84%)	14 (13%)	4 (4%)	4	37
67	Ce	130/134 (97%)	101 (78%)	16 (12%)	13 (10%)	1	14
68	Cf	155/157 (99%)	115 (74%)	14 (9%)	26 (17%)	0	5
69	Cg	111/162 (68%)	92 (83%)	12 (11%)	7 (6%)	2	25
70	Ci	111/115 (96%)	82 (74%)	16 (14%)	13 (12%)	0	9
71	Cj	90/93 (97%)	75 (83%)	9 (10%)	6 (7%)	1	23
72	Ck	68/70 (97%)	61 (90%)	4 (6%)	3 (4%)	3	33
73	Cl	48/51 (94%)	40 (83%)	4 (8%)	4 (8%)	1	18
74	CC	390/401 (97%)	309 (79%)	36 (9%)	45 (12%)	0	9
75	Cm	50/52 (96%)	38 (76%)	6 (12%)	6 (12%)	0	8
76	Cn	23/25 (92%)	22 (96%)	0	1 (4%)	3	34
77	Cp	89/92 (97%)	77 (86%)	8 (9%)	4 (4%)	3	33
78	Co	102/104 (98%)	79 (78%)	10 (10%)	13 (13%)	0	8
79	CJ	180/184 (98%)	139 (77%)	17 (9%)	24 (13%)	0	7
80	CH	188/190 (99%)	160 (85%)	16 (8%)	12 (6%)	2	25
81	CE	226/243 (93%)	149 (66%)	34 (15%)	43 (19%)	0	3
82	CG	239/271 (88%)	197 (82%)	22 (9%)	20 (8%)	1	18
All	All	13015/14439 (90%)	10459 (80%)	1348 (10%)	1208 (9%)	2	16

All (1208) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	Az	5	THR
1	Az	15	LYS
1	Az	44	GLY
1	Az	54	THR
1	Az	82	GLU
1	Az	89	ILE
1	Az	92	PRO
1	Az	100	LYS
1	Az	116	SER
1	Az	140	CYS
1	Az	174	ASP
1	Az	204	GLY
1	Az	209	ASP
1	Az	210	PRO

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Mol	Chain	Res	Type
1	Az	213	GLY
1	Az	218	GLY
1	Az	223	GLY
1	Az	256	PHE
1	Az	266	GLN
1	Az	270	ASP
1	Az	272	LYS
1	Az	307	VAL
1	Az	308	THR
1	Az	309	LEU
1	Az	311	HIS
1	Az	331	PRO
1	Az	345	PRO
1	Az	389	PRO
1	Az	395	ARG
1	Az	405	GLY
1	Az	427	ASP
1	Az	450	VAL
1	Az	467	LYS
1	Az	481	LYS
1	Az	484	LYS
1	Az	487	VAL
1	Az	520	VAL
1	Az	528	GLY
1	Az	555	PRO
1	Az	560	ASP
1	Az	584	LYS
1	Az	636	TRP
1	Az	642	GLY
1	Az	675	GLU
1	Az	691	TYR
1	Az	722	ALA
1	Az	739	GLU
1	Az	762	VAL
1	Az	766	PRO
1	Az	792	GLY
1	Az	794	ALA
1	Az	814	SER
1	Az	834	LEU
1	Az	835	PRO
2	Ag	137	ALA
2	Ag	146	ASP

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Mol	Chain	Res	Type
2	Ag	215	SER
2	Ag	277	SER
2	Ag	279	THR
3	AU	49	ASN
3	AU	54	GLY
3	AU	73	GLY
3	AU	77	LYS
3	AU	96	PRO
3	AU	109	GLU
4	AK	28	PRO
4	AK	34	GLU
4	AK	62	TRP
4	AK	88	VAL
4	AK	89	PRO
5	AO	20	GLN
5	AO	56	VAL
5	AO	100	THR
5	AO	101	GLY
5	AO	128	ARG
5	AO	140	THR
5	AO	148	GLY
5	AO	149	ARG
6	AX	90	SER
6	AX	95	GLU
6	AX	110	HIS
6	AX	112	VAL
6	AX	142	ARG
7	AM	40	HIS
7	AM	85	ARG
7	AM	86	VAL
7	AM	87	ASP
7	AM	121	PHE
7	AM	123	GLU
7	AM	124	GLU
8	AS	11	HIS
8	AS	129	LEU
8	AS	140	GLY
9	Ad	13	LYS
9	Ad	16	GLN
9	Ad	21	CYS
9	Ad	52	PHE
11	AL	22	LYS

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Mol	Chain	Res	Type
11	AL	24	GLY
11	AL	27	LYS
11	AL	28	LYS
11	AL	133	LYS
12	AR	6	THR
12	AR	23	ARG
12	AR	64	SER
12	AR	86	PRO
12	AR	114	ILE
13	AP	10	LYS
13	AP	14	THR
13	AP	17	LYS
13	AP	18	PHE
13	AP	94	GLY
13	AP	128	PRO
14	AT	6	VAL
14	AT	32	ASP
14	AT	34	MET
14	AT	68	SER
15	AB	21	VAL
15	AB	22	VAL
15	AB	29	ASP
15	AB	35	ALA
15	AB	40	GLN
15	AB	119	LYS
15	AB	120	TRP
15	AB	183	ASP
15	AB	212	ASP
15	AB	216	ARG
15	AB	221	LEU
16	AA	10	LEU
16	AA	67	ALA
16	AA	165	ASN
16	AA	167	SER
16	AA	190	SER
16	AA	192	SER
16	AA	194	GLU
16	AA	206	ASP
16	AA	216	ALA
16	AA	217	ALA
16	AA	221	LEU
16	AA	222	PRO

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Mol	Chain	Res	Type
17	AV	4	ASP
17	AV	10	ASP
17	AV	23	ILE
17	AV	40	ASP
17	AV	41	PRO
18	AY	34	SER
18	AY	35	SER
18	AY	36	VAL
18	AY	37	ASN
18	AY	52	THR
18	AY	57	PHE
18	AY	61	PHE
18	AY	64	ASN
18	AY	87	GLU
19	AZ	45	ASN
19	AZ	48	LEU
19	AZ	67	ILE
19	AZ	76	LEU
19	AZ	77	LYS
19	AZ	93	LYS
19	AZ	112	THR
20	Aa	28	ARG
20	Aa	46	GLU
20	Aa	86	ASN
20	Aa	88	SER
20	Aa	96	THR
20	Aa	97	PRO
20	Aa	98	PRO
20	Aa	102	PHE
20	Aa	103	PRO
20	Aa	106	MET
21	Ab	5	LYS
21	Ab	18	LYS
21	Ab	57	ALA
21	Ab	62	ILE
22	Ac	35	ASN
22	Ac	62	ARG
23	AD	6	PRO
23	AD	96	ARG
23	AD	204	LYS
23	AD	205	PRO
23	AD	225	GLU

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Mol	Chain	Res	Type
24	Ae	77	SER
24	Ae	94	GLN
24	Ae	95	GLU
24	Ae	100	LYS
24	Ae	119	GLN
25	Af	90	LYS
25	Af	93	HIS
25	Af	99	LYS
25	Af	100	LEU
25	Af	102	VAL
25	Af	103	LEU
25	Af	137	ASP
25	Af	148	PHE
25	Af	152	LYS
25	Af	153	PRO
26	AJ	7	PRO
26	AJ	12	LYS
26	AJ	14	TYR
26	AJ	119	GLY
26	AJ	134	ARG
26	AJ	139	ARG
26	AJ	167	GLY
26	AJ	170	ARG
26	AJ	171	PRO
27	AE	33	THR
27	AE	136	VAL
27	AE	171	ASP
27	AE	190	GLY
27	AE	232	ASN
27	AE	241	GLY
28	AC	41	LYS
28	AC	60	SER
28	AC	116	ASN
28	AC	186	GLY
28	AC	216	LEU
28	AC	241	GLU
28	AC	242	MET
28	AC	247	THR
28	AC	258	LYS
28	AC	259	PRO
28	AC	260	THR
28	AC	261	PRO

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Mol	Chain	Res	Type
29	AG	60	GLY
29	AG	69	THR
29	AG	117	GLY
29	AG	148	SER
29	AG	149	LYS
29	AG	152	ASP
29	AG	154	ARG
30	AF	42	LYS
30	AF	65	VAL
30	AF	70	ALA
30	AF	103	LYS
30	AF	130	GLU
30	AF	154	ARG
30	AF	207	GLY
31	AH	64	ILE
31	AH	104	ARG
31	AH	110	LEU
31	AH	111	LYS
31	AH	112	GLN
31	AH	114	ARG
31	AH	157	ASP
31	AH	188	PRO
32	AW	30	CYS
33	AI	6	ASP
33	AI	8	ALA
33	AI	23	LYS
33	AI	41	GLY
33	AI	52	ASN
33	AI	99	ASN
33	AI	105	ASP
33	AI	120	PRO
33	AI	141	LYS
33	AI	144	SER
33	AI	145	GLU
33	AI	155	GLN
34	AQ	4	LYS
34	AQ	31	ASN
34	AQ	47	LYS
34	AQ	61	GLY
34	AQ	102	VAL
34	AQ	144	GLN
34	AQ	145	LYS

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Mol	Chain	Res	Type
35	Ah	114	ASN
35	Ah	115	GLY
35	Ah	119	ASN
35	Ah	122	PRO
35	Ah	124	ARG
35	Ah	136	ARG
35	Ah	137	VAL
35	Ah	140	GLY
35	Ah	142	LYS
35	Ah	143	PHE
35	Ah	144	GLY
35	Ah	215	PRO
35	Ah	225	ALA
38	Cz	19	GLU
38	Cz	58	ILE
38	Cz	71	GLN
38	Cz	98	LYS
38	Cz	143	SER
38	Cz	196	LYS
39	Cq	27	CYS
39	Cq	70	GLU
39	Cq	73	PRO
39	Cq	108	PRO
39	Cq	150	GLY
39	Cq	156	SER
40	CK	8	THR
40	CK	30	PRO
40	CK	39	PRO
40	CK	40	LYS
40	CK	75	PRO
40	CK	77	ALA
40	CK	86	LYS
40	CK	87	GLU
40	CK	88	PRO
40	CK	106	PHE
40	CK	119	ARG
40	CK	121	MET
40	CK	124	GLU
40	CK	144	ASP
40	CK	147	HIS
40	CK	148	PRO
41	CO	112	SER

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Mol	Chain	Res	Type
41	CO	113	PRO
41	CO	192	GLU
41	CO	202	GLY
41	CO	203	TYR
42	CL	21	VAL
42	CL	46	PHE
42	CL	50	ALA
42	CL	53	ALA
42	CL	54	LEU
42	CL	56	PRO
42	CL	58	VAL
42	CL	95	ILE
42	CL	96	ALA
42	CL	106	LEU
42	CL	125	LEU
42	CL	128	ILE
42	CL	133	ILE
42	CL	137	GLU
42	CL	138	SER
42	CL	149	LEU
42	CL	152	PRO
42	CL	155	PRO
42	CL	160	GLN
42	CL	161	PRO
42	CL	171	LYS
42	CL	173	GLU
43	CV	15	ARG
43	CV	139	ILE
44	CM	3	PHE
44	CM	31	ILE
44	CM	128	ASN
44	CM	135	LYS
44	CM	140	PRO
44	CM	157	LYS
45	Ca	21	GLY
45	Ca	25	LYS
45	Ca	48	LYS
45	Ca	54	PHE
45	Ca	79	LEU
45	Ca	100	PRO
46	CN	81	TYR
46	CN	125	ALA

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Mol	Chain	Res	Type
46	CN	178	TYR
47	CI	4	ARG
47	CI	5	PRO
47	CI	105	CYS
47	CI	110	ARG
47	CI	112	GLN
47	CI	178	ARG
47	CI	202	GLU
47	CI	205	PRO
48	CD	20	PHE
48	CD	44	TYR
48	CD	121	GLY
48	CD	122	CYS
48	CD	129	GLU
48	CD	189	SER
48	CD	232	ARG
48	CD	260	SER
48	CD	264	THR
48	CD	272	LYS
48	CD	274	THR
49	CQ	13	VAL
49	CQ	40	ASN
49	CQ	41	LYS
49	CQ	98	LEU
49	CQ	156	PRO
49	CQ	159	PRO
50	CR	113	LYS
50	CR	131	VAL
50	CR	132	PHE
51	CA	32	LEU
51	CA	138	ALA
51	CA	170	ALA
51	CA	179	ILE
51	CA	230	SER
52	CS	6	LEU
52	CS	18	PRO
52	CS	53	LYS
52	CS	119	ALA
52	CS	120	ARG
52	CS	134	ALA
52	CS	154	LEU
52	CS	155	VAL

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Mol	Chain	Res	Type
52	CS	158	VAL
52	CS	163	ASN
53	CT	3	ASN
53	CT	84	ILE
53	CT	127	SER
53	CT	128	LEU
53	CT	144	LEU
53	CT	148	ILE
53	CT	149	ALA
53	CT	150	LEU
53	CT	151	ALA
53	CT	152	PRO
53	CT	154	PRO
54	CP	7	GLU
54	CP	11	VAL
54	CP	163	ASP
54	CP	168	LYS
55	CU	248	HIS
55	CU	278	LYS
55	CU	288	ILE
56	CX	173	LEU
56	CX	182	PRO
56	CX	186	VAL
56	CX	267	ALA
57	CY	60	GLY
57	CY	63	LYS
57	CY	65	ASN
57	CY	66	GLN
57	CY	84	LYS
58	CW	16	GLY
58	CW	34	LYS
58	CW	63	ILE
58	CW	64	GLU
58	CW	70	LYS
58	CW	71	ARG
58	CW	72	THR
58	CW	78	PHE
58	CW	87	LEU
59	CZ	5	MET
59	CZ	97	PRO
59	CZ	100	LEU
59	CZ	124	GLY

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Mol	Chain	Res	Type
60	Cr	23	ARG
60	Cr	28	PRO
60	Cr	33	PRO
60	Cr	39	VAL
60	Cr	70	LYS
60	Cr	74	ALA
60	Cr	78	ALA
60	Cr	134	LYS
61	Ch	39	GLY
61	Ch	87	LYS
61	Ch	118	LYS
61	Ch	122	LYS
62	Cb	5	LYS
62	Cb	24	PRO
62	Cb	33	LEU
62	Cb	36	ASP
62	Cb	37	VAL
62	Cb	51	LEU
62	Cb	52	SER
62	Cb	68	LYS
63	CB	3	HIS
63	CB	19	LYS
63	CB	30	LYS
63	CB	34	LYS
63	CB	112	GLU
63	CB	140	ASP
63	CB	242	ARG
63	CB	248	LEU
63	CB	274	TYR
63	CB	281	ASN
63	CB	291	ILE
63	CB	292	HIS
63	CB	298	VAL
63	CB	311	ASP
63	CB	320	PHE
63	CB	335	GLY
63	CB	391	PRO
63	CB	394	LYS
64	CF	171	PRO
64	CF	172	ILE
64	CF	174	ASP
64	CF	180	ARG

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Mol	Chain	Res	Type
64	CF	186	HIS
64	CF	218	ASN
64	CF	224	TRP
64	CF	227	LYS
64	CF	237	PHE
65	Cc	11	LEU
65	Cc	12	GLU
66	Cd	73	GLY
66	Cd	74	ILE
67	Ce	14	LYS
67	Ce	20	ILE
67	Ce	21	ARG
67	Ce	52	TYR
67	Ce	129	ARG
68	Cf	19	LYS
68	Cf	21	PRO
68	Cf	23	ALA
68	Cf	25	LYS
68	Cf	45	LYS
68	Cf	101	LYS
68	Cf	102	LYS
68	Cf	104	VAL
68	Cf	108	PRO
68	Cf	112	THR
68	Cf	129	GLY
69	Cg	45	GLY
69	Cg	50	LYS
69	Cg	62	ARG
69	Cg	63	PRO
70	Ci	4	ARG
70	Ci	11	LEU
70	Ci	28	ASP
70	Ci	38	ARG
70	Ci	44	THR
71	Cj	36	GLN
71	Cj	38	GLY
71	Cj	39	TYR
71	Cj	40	PRO
71	Cj	42	ALA
72	Ck	59	SER
73	Cl	39	ALA
73	Cl	48	LYS

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Mol	Chain	Res	Type
74	CC	7	ARG
74	CC	20	ALA
74	CC	73	GLY
74	CC	83	ARG
74	CC	84	GLY
74	CC	178	LYS
74	CC	186	VAL
74	CC	187	TYR
74	CC	196	ARG
74	CC	269	THR
74	CC	290	THR
74	CC	310	LYS
74	CC	315	SER
74	CC	316	VAL
74	CC	332	ASN
74	CC	333	PRO
74	CC	364	GLU
74	CC	365	LEU
74	CC	392	VAL
77	Cp	19	GLY
77	Cp	60	CYS
78	Co	30	LYS
78	Co	31	GLU
78	Co	32	ARG
78	Co	58	LYS
78	Co	61	LYS
78	Co	93	GLY
78	Co	102	ILE
79	CJ	2	ALA
79	CJ	9	LYS
79	CJ	11	ASP
79	CJ	16	PRO
79	CJ	20	LEU
79	CJ	103	ASN
79	CJ	122	ILE
79	CJ	156	VAL
79	CJ	160	HIS
79	CJ	180	LEU
80	CH	49	ASP
80	CH	61	THR
80	CH	103	THR
80	CH	104	SER

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Mol	Chain	Res	Type
80	CH	110	ILE
80	CH	163	THR
81	CE	20	HIS
81	CE	21	PRO
81	CE	31	LEU
81	CE	41	ARG
81	CE	52	SER
81	CE	64	LYS
81	CE	65	SER
81	CE	69	TYR
81	CE	70	PRO
81	CE	73	THR
81	CE	75	VAL
81	CE	84	PHE
81	CE	176	ASP
81	CE	181	GLU
81	CE	183	ASP
81	CE	187	ALA
81	CE	188	LYS
81	CE	193	VAL
81	CE	218	GLU
82	CG	34	ASN
82	CG	41	PRO
82	CG	43	ASN
82	CG	45	GLY
82	CG	64	LYS
82	CG	109	PRO
82	CG	168	PRO
82	CG	212	VAL
1	Az	72	SER
1	Az	97	LYS
1	Az	138	GLY
1	Az	155	ILE
1	Az	205	GLU
1	Az	242	ASP
1	Az	255	PHE
1	Az	262	LYS
1	Az	310	LYS
1	Az	346	SER
1	Az	362	PRO
1	Az	420	TYR
1	Az	468	THR

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Mol	Chain	Res	Type
1	Az	563	VAL
1	Az	573	SER
1	Az	627	TYR
1	Az	764	GLY
1	Az	808	GLY
1	Az	815	SER
1	Az	843	LYS
2	Ag	47	ARG
2	Ag	95	ALA
2	Ag	145	GLU
2	Ag	162	SER
2	Ag	265	LYS
2	Ag	276	VAL
2	Ag	296	GLY
3	AU	31	VAL
3	AU	52	VAL
3	AU	76	SER
3	AU	97	SER
4	AK	30	GLN
4	AK	54	GLY
4	AK	55	TRP
4	AK	61	ALA
5	AO	32	HIS
5	AO	99	ALA
5	AO	145	GLY
6	AX	113	GLY
6	AX	136	GLU
7	AM	39	VAL
7	AM	82	PRO
7	AM	101	ILE
7	AM	114	SER
8	AS	7	GLU
8	AS	12	ILE
8	AS	16	MET
9	Ad	15	GLY
9	Ad	39	CYS
10	AN	10	GLY
11	AL	29	LYS
11	AL	54	ASP
13	AP	11	LYS
13	AP	12	LYS
13	AP	32	PRO

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Mol	Chain	Res	Type
13	AP	129	VAL
14	AT	31	PRO
14	AT	153	VAL
15	AB	19	LYS
15	AB	96	ASP
15	AB	157	CYS
16	AA	11	LYS
16	AA	31	ASN
16	AA	96	THR
16	AA	191	ARG
17	AV	9	VAL
17	AV	26	ALA
17	AV	44	GLY
18	AY	66	GLY
18	AY	88	PRO
18	AY	96	GLY
18	AY	121	THR
19	AZ	78	ILE
19	AZ	95	LEU
20	Aa	3	LYS
20	Aa	16	GLY
22	Ac	34	GLN
22	Ac	59	ARG
23	AD	200	ILE
23	AD	220	ILE
23	AD	221	TYR
25	Af	89	LYS
25	Af	98	VAL
26	AJ	37	GLY
26	AJ	93	MET
26	AJ	173	ARG
27	AE	73	ASP
27	AE	98	PHE
27	AE	186	GLY
27	AE	205	PHE
27	AE	246	LEU
28	AC	172	GLY
30	AF	41	ILE
30	AF	44	PHE
30	AF	155	ALA
30	AF	227	ASN
31	AH	33	SER

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Mol	Chain	Res	Type
31	AH	53	GLY
31	AH	74	GLN
31	AH	102	PRO
31	AH	105	LYS
32	AW	83	ILE
33	AI	5	ARG
33	AI	11	ARG
33	AI	19	LYS
33	AI	22	ARG
33	AI	40	SER
33	AI	51	GLY
33	AI	123	ARG
33	AI	124	LYS
33	AI	147	VAL
33	AI	160	VAL
34	AQ	8	PRO
34	AQ	9	VAL
34	AQ	44	ILE
34	AQ	77	GLY
34	AQ	129	CYS
35	Ah	130	ASP
35	Ah	138	ARG
38	Cz	95	LYS
38	Cz	153	SER
39	Cq	84	GLY
39	Cq	85	ASN
39	Cq	109	ALA
39	Cq	125	ALA
39	Cq	149	ARG
39	Cq	163	THR
40	CK	7	PRO
40	CK	34	PRO
40	CK	54	LYS
40	CK	89	PRO
40	CK	96	LYS
40	CK	99	LYS
40	CK	123	ARG
41	CO	48	HIS
42	CL	7	MET
42	CL	59	ARG
42	CL	72	GLY
42	CL	74	GLY

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Mol	Chain	Res	Type
42	CL	100	ARG
42	CL	119	TYR
42	CL	124	ILE
42	CL	169	VAL
44	CM	21	LYS
44	CM	103	SER
44	CM	136	ALA
44	CM	142	VAL
44	CM	158	GLY
45	Ca	15	HIS
45	Ca	52	GLY
45	Ca	55	GLY
45	Ca	94	GLU
47	CI	6	ALA
47	CI	103	LEU
47	CI	109	ASP
48	CD	18	VAL
48	CD	30	TYR
48	CD	188	LYS
48	CD	271	LYS
49	CQ	12	LYS
49	CQ	36	GLN
49	CQ	185	GLY
51	CA	4	VAL
51	CA	171	GLY
51	CA	198	LYS
51	CA	238	ILE
51	CA	245	ARG
51	CA	250	LYS
51	CA	251	GLY
52	CS	7	LEU
52	CS	23	PRO
52	CS	62	VAL
52	CS	68	TYR
52	CS	139	ARG
53	CT	5	LYS
53	CT	55	LYS
53	CT	133	GLU
54	CP	3	ARG
54	CP	6	ARG
54	CP	156	LEU
54	CP	165	PRO

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Mol	Chain	Res	Type
55	CU	222	ASN
55	CU	247	VAL
55	CU	289	SER
55	CU	291	ASN
55	CU	292	ASP
56	CX	164	ASN
57	CY	61	HIS
57	CY	67	VAL
58	CW	17	HIS
58	CW	82	ILE
59	CZ	58	GLY
60	Cr	5	SER
60	Cr	32	GLU
60	Cr	47	ILE
60	Cr	81	THR
60	Cr	92	ARG
60	Cr	130	VAL
61	Ch	2	VAL
61	Ch	3	LYS
61	Ch	86	LYS
61	Ch	95	LEU
62	Cb	20	GLY
63	CB	36	ASP
63	CB	38	SER
63	CB	41	VAL
63	CB	141	LEU
63	CB	319	GLY
63	CB	357	ARG
63	CB	375	GLY
64	CF	28	GLN
64	CF	167	ARG
64	CF	168	GLN
67	Ce	6	ALA
67	Ce	7	TYR
67	Ce	15	ARG
67	Ce	124	PRO
67	Ce	125	ASN
68	Cf	28	LYS
68	Cf	40	SER
68	Cf	138	ASN
69	Cg	14	ASN
70	Ci	25	TYR

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Mol	Chain	Res	Type
70	Ci	43	GLN
70	Ci	60	HIS
71	Cj	89	ALA
72	Ck	20	ALA
72	Ck	41	PHE
74	CC	78	ARG
74	CC	92	GLN
74	CC	93	GLY
74	CC	145	HIS
74	CC	146	VAL
74	CC	164	VAL
74	CC	195	GLY
74	CC	204	ARG
74	CC	207	ARG
74	CC	209	GLY
74	CC	210	PRO
74	CC	264	ASN
74	CC	305	LEU
74	CC	362	ASN
75	Cm	78	ILE
75	Cm	125	LYS
77	Cp	15	GLY
78	Co	92	GLY
78	Co	100	GLN
79	CJ	14	LYS
79	CJ	81	GLY
79	CJ	97	TYR
79	CJ	129	GLY
80	CH	22	ALA
80	CH	129	GLY
80	CH	165	VAL
80	CH	189	GLU
81	CE	30	ILE
81	CE	43	ALA
81	CE	44	LEU
81	CE	60	VAL
81	CE	90	ASN
81	CE	93	ARG
81	CE	106	GLY
81	CE	120	ALA
81	CE	130	PHE
81	CE	178	LYS

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Mol	Chain	Res	Type
81	CE	179	THR
81	CE	184	ILE
82	CG	47	GLY
82	CG	89	SER
82	CG	246	ILE
82	CG	248	GLY
1	Az	61	LYS
1	Az	71	LYS
1	Az	113	VAL
1	Az	553	CYS
1	Az	656	GLN
1	Az	799	VAL
2	Ag	278	PRO
8	AS	26	VAL
8	AS	37	GLY
8	AS	135	HIS
10	AN	107	LYS
11	AL	35	ARG
12	AR	100	ALA
13	AP	104	ASP
18	AY	89	LYS
18	AY	101	LYS
18	AY	119	ARG
19	AZ	42	LYS
20	Aa	64	LEU
23	AD	62	GLY
23	AD	213	VAL
23	AD	224	PRO
24	Ae	91	VAL
24	Ae	97	LYS
25	Af	118	ARG
25	Af	124	GLU
25	Af	131	PHE
27	AE	6	LYS
27	AE	85	GLY
27	AE	134	LYS
28	AC	61	LEU
28	AC	183	ARG
29	AG	181	ILE
30	AF	148	ASP
33	AI	17	LYS
34	AQ	6	ARG

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Mol	Chain	Res	Type
34	AQ	37	ASN
34	AQ	62	LYS
38	Cz	29	LEU
39	Cq	111	ALA
40	CK	10	VAL
40	CK	18	VAL
41	CO	115	ASP
42	CL	61	PRO
43	CV	18	LEU
45	Ca	49	TYR
47	CI	24	ARG
47	CI	82	LYS
47	CI	162	ARG
48	CD	142	PHE
48	CD	221	ARG
48	CD	259	LYS
49	CQ	157	GLY
49	CQ	160	HIS
50	CR	2	SER
51	CA	204	MET
52	CS	127	ILE
52	CS	152	PHE
52	CS	175	TYR
54	CP	8	SER
54	CP	20	PRO
54	CP	159	LYS
56	CX	177	ARG
58	CW	33	ASP
58	CW	96	MET
60	Cr	82	VAL
60	Cr	111	THR
60	Cr	132	GLY
61	Ch	81	LEU
63	CB	64	GLY
64	CF	92	LEU
65	Cc	54	ALA
67	Ce	11	ILE
68	Cf	18	GLN
69	Cg	26	PRO
70	Ci	10	GLY
73	Cl	20	ASN
73	Cl	50	LYS

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Mol	Chain	Res	Type
74	CC	5	ASN
74	CC	8	PRO
74	CC	306	ARG
75	Cm	126	LYS
76	Cn	2	ARG
78	Co	29	SER
78	Co	50	GLY
78	Co	51	GLN
79	CJ	130	ILE
79	CJ	161	ARG
79	CJ	173	GLN
80	CH	175	ASP
81	CE	18	LYS
81	CE	53	PRO
81	CE	67	ALA
81	CE	105	ALA
81	CE	129	PRO
81	CE	194	PRO
82	CG	244	GLY
82	CG	247	LEU
1	Az	344	LEU
1	Az	613	GLU
1	Az	767	MET
2	Ag	138	GLU
4	AK	83	LEU
4	AK	92	LEU
5	AO	65	ASP
5	AO	138	ASP
5	AO	146	ARG
7	AM	96	SER
7	AM	113	CYS
7	AM	125	THR
8	AS	59	CYS
8	AS	60	THR
9	Ad	6	LEU
9	Ad	10	HIS
10	AN	3	ARG
10	AN	14	SER
12	AR	65	GLN
14	AT	69	PRO
16	AA	103	PHE
17	AV	43	THR

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Mol	Chain	Res	Type
18	AY	6	ALA
18	AY	120	GLY
19	AZ	49	PHE
22	Ac	61	ALA
23	AD	57	THR
23	AD	223	THR
25	Af	87	THR
28	AC	159	LYS
28	AC	243	PRO
28	AC	244	LEU
29	AG	68	LEU
29	AG	175	PRO
33	AI	161	GLU
34	AQ	19	LYS
34	AQ	124	GLY
35	Ah	133	GLY
38	Cz	99	LEU
39	Cq	33	ASP
39	Cq	182	PRO
40	CK	28	LEU
40	CK	67	ARG
41	CO	60	LEU
42	CL	85	ILE
42	CL	120	ARG
44	CM	134	THR
45	Ca	28	LYS
45	Ca	115	ARG
47	CI	81	GLY
47	CI	201	PRO
48	CD	251	PRO
48	CD	265	LYS
49	CQ	166	TYR
50	CR	53	LYS
52	CS	54	PHE
52	CS	156	GLN
52	CS	171	LYS
54	CP	162	ASP
59	CZ	16	GLY
61	Ch	40	ALA
63	CB	189	SER
65	Cc	88	TYR
67	Ce	67	HIS

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Mol	Chain	Res	Type
68	Cf	24	VAL
68	Cf	38	LYS
68	Cf	43	LYS
68	Cf	47	HIS
68	Cf	111	LYS
68	Cf	139	LEU
70	Ci	87	LEU
74	CC	17	ASN
74	CC	18	GLU
74	CC	238	LEU
74	CC	311	ARG
74	CC	319	LEU
78	Co	56	PHE
79	CJ	6	LYS
79	CJ	34	SER
79	CJ	96	GLU
80	CH	109	VAL
81	CE	22	VAL
81	CE	107	ARG
81	CE	159	VAL
82	CG	44	PHE
82	CG	131	ASP
82	CG	213	ASP
82	CG	243	GLY
1	Az	112	HIS
1	Az	114	ASP
1	Az	139	VAL
1	Az	316	LYS
1	Az	683	LEU
2	Ag	104	GLY
5	AO	25	GLU
6	AX	129	SER
7	AM	110	VAL
7	AM	126	PRO
9	Ad	34	TYR
10	AN	23	PRO
13	AP	15	PHE
13	AP	31	MET
14	AT	10	ASP
14	AT	47	PRO
15	AB	184	LEU
16	AA	104	THR

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Mol	Chain	Res	Type
16	AA	168	ALA
19	AZ	62	PRO
20	Aa	62	TYR
20	Aa	63	VAL
20	Aa	100	ARG
21	Ab	2	PRO
21	Ab	83	PRO
22	Ac	45	PRO
24	Ae	102	GLY
24	Ae	130	ASN
25	Af	111	ASN
27	AE	7	LYS
27	AE	245	LYS
28	AC	45	PRO
28	AC	145	VAL
29	AG	164	ALA
29	AG	165	LYS
30	AF	156	GLY
33	AI	10	LYS
33	AI	50	GLY
33	AI	142	LYS
34	AQ	118	ASP
39	Cq	74	ALA
40	CK	22	VAL
40	CK	155	LEU
42	CL	97	VAL
42	CL	158	ASN
45	Ca	51	PRO
46	CN	50	ARG
46	CN	68	ARG
46	CN	158	HIS
47	CI	12	CYS
47	CI	119	PHE
47	CI	171	TRP
48	CD	38	PHE
48	CD	58	LYS
48	CD	254	LYS
49	CQ	164	ARG
51	CA	26	ALA
51	CA	130	SER
53	CT	146	GLU
60	Cr	76	ARG

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Mol	Chain	Res	Type
60	Cr	90	PRO
61	Ch	42	SER
63	CB	33	PRO
63	CB	377	GLY
67	Ce	19	PHE
68	Cf	26	ALA
68	Cf	37	ALA
68	Cf	51	PHE
70	Ci	30	LYS
74	CC	4	GLY
74	CC	135	GLY
74	CC	322	LEU
75	Cm	114	LYS
75	Cm	127	LEU
79	CJ	99	LEU
79	CJ	144	TYR
79	CJ	158	PHE
8	AS	133	GLY
14	AT	26	GLY
15	AB	223	LYS
26	AJ	11	SER
28	AC	160	PRO
30	AF	72	TYR
31	AH	98	ILE
31	AH	187	PHE
33	AI	106	ALA
38	Cz	13	GLY
38	Cz	49	PHE
40	CK	58	ILE
40	CK	60	VAL
40	CK	92	ARG
42	CL	9	PRO
42	CL	168	GLU
44	CM	28	VAL
47	CI	169	LYS
48	CD	9	ASN
48	CD	273	LEU
51	CA	5	ILE
51	CA	33	ASP
51	CA	239	ALA
52	CS	17	LEU
54	CP	164	GLU

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Mol	Chain	Res	Type
58	CW	98	PRO
60	Cr	57	PRO
60	Cr	131	LYS
61	Ch	80	PRO
64	CF	220	PRO
64	CF	230	HIS
66	Cd	91	ASP
68	Cf	27	PRO
74	CC	136	VAL
77	Cp	53	GLY
82	CG	40	ARG
1	Az	81	VAL
2	Ag	191	GLY
2	Ag	315	VAL
11	AL	147	GLY
27	AE	195	VAL
28	AC	164	PRO
30	AF	153	GLY
32	AW	82	PRO
33	AI	104	ILE
81	CE	61	PRO
1	Az	490	VAL
1	Az	817	PRO
13	AP	56	PRO
16	AA	199	VAL
29	AG	153	VAL
31	AH	15	PRO
50	CR	18	GLY
51	CA	196	TRP
53	CT	126	VAL
60	Cr	48	VAL
66	Cd	39	ALA
70	Ci	36	GLY
70	Ci	59	GLY
79	CJ	125	ASP
1	Az	68	ILE
31	AH	115	PRO
42	CL	55	ARG
50	CR	55	VAL
75	Cm	116	GLY
81	CE	160	PRO
9	Ad	50	ILE

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Mol	Chain	Res	Type
17	AV	49	GLY
26	AJ	6	ILE
27	AE	193	GLY
30	AF	129	GLY
44	CM	89	SER
48	CD	125	VAL
53	CT	135	PRO
56	CX	165	VAL
63	CB	338	ILE
68	Cf	154	PRO
81	CE	54	VAL
39	Cq	107	VAL
42	CL	60	CYS
49	CQ	58	ARG
69	Cg	2	VAL
82	CG	33	VAL
35	Ah	134	PRO
63	CB	18	PRO

### 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	Az	721/726 (99%)	667 (92%)	54 (8%)	17	54
2	Ag	280/280 (100%)	268 (96%)	12 (4%)	35	70
3	AU	95/108 (88%)	93 (98%)	2 (2%)	61	84
4	AK	88/132 (67%)	80 (91%)	8 (9%)	12	44
5	AO	103/118 (87%)	92 (89%)	11 (11%)	8	36
6	AX	116/116 (100%)	109 (94%)	7 (6%)	24	61
7	AM	104/119 (87%)	98 (94%)	6 (6%)	25	61
8	AS	123/136 (90%)	120 (98%)	3 (2%)	57	82
9	Ad	45/47 (96%)	43 (96%)	2 (4%)	35	69
10	AN	130/131 (99%)	122 (94%)	8 (6%)	23	60

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	AL	138/138 (100%)	130 (94%)	8 (6%)	25	61
12	AR	108/118 (92%)	98 (91%)	10 (9%)	11	43
13	AP	111/130 (85%)	105 (95%)	6 (5%)	27	64
14	AT	125/127 (98%)	113 (90%)	12 (10%)	10	41
15	AB	199/233 (85%)	182 (92%)	17 (8%)	13	48
16	AA	190/271 (70%)	178 (94%)	12 (6%)	22	59
17	AV	67/68 (98%)	61 (91%)	6 (9%)	12	44
18	AY	105/110 (96%)	103 (98%)	2 (2%)	65	86
19	AZ	67/100 (67%)	57 (85%)	10 (15%)	4	24
20	Aa	94/101 (93%)	92 (98%)	2 (2%)	61	84
21	Ab	72/72 (100%)	69 (96%)	3 (4%)	36	70
22	Ac	54/57 (95%)	50 (93%)	4 (7%)	17	54
23	AD	192/210 (91%)	179 (93%)	13 (7%)	20	57
24	Ae	47/108 (44%)	45 (96%)	2 (4%)	35	70
25	Af	70/70 (100%)	58 (83%)	12 (17%)	2	18
26	AJ	161/169 (95%)	152 (94%)	9 (6%)	26	62
27	AE	220/220 (100%)	209 (95%)	11 (5%)	30	66
28	AC	188/209 (90%)	178 (95%)	10 (5%)	28	64
29	AG	200/216 (93%)	185 (92%)	15 (8%)	17	54
30	AF	161/193 (83%)	156 (97%)	5 (3%)	47	77
31	AH	175/175 (100%)	157 (90%)	18 (10%)	9	37
32	AW	113/114 (99%)	107 (95%)	6 (5%)	28	64
33	AI	175/176 (99%)	167 (95%)	8 (5%)	33	68
34	AQ	122/122 (100%)	115 (94%)	7 (6%)	25	62
35	Ah	51/100 (51%)	47 (92%)	4 (8%)	16	52
38	Cz	190/191 (100%)	173 (91%)	17 (9%)	12	44
39	Cq	186/186 (100%)	170 (91%)	16 (9%)	13	47
40	CK	131/137 (96%)	126 (96%)	5 (4%)	40	73
41	CO	175/175 (100%)	158 (90%)	17 (10%)	10	40
42	CL	173/180 (96%)	157 (91%)	16 (9%)	11	43
43	CV	101/106 (95%)	100 (99%)	1 (1%)	82	92

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
44	CM	138/142 (97%)	124 (90%)	14 (10%)	9	38
45	Ca	122/122 (100%)	112 (92%)	10 (8%)	14	49
46	CN	174/175 (99%)	165 (95%)	9 (5%)	29	65
47	CI	187/188 (100%)	181 (97%)	6 (3%)	46	76
48	CD	241/248 (97%)	234 (97%)	7 (3%)	50	78
49	CQ	164/165 (99%)	151 (92%)	13 (8%)	15	51
50	CR	176/176 (100%)	171 (97%)	5 (3%)	51	78
51	CA	195/198 (98%)	180 (92%)	15 (8%)	16	53
52	CS	156/159 (98%)	142 (91%)	14 (9%)	12	44
53	CT	137/138 (99%)	129 (94%)	8 (6%)	25	61
54	CP	160/161 (99%)	153 (96%)	7 (4%)	35	69
55	CU	108/203 (53%)	104 (96%)	4 (4%)	41	73
56	CX	106/205 (52%)	102 (96%)	4 (4%)	40	73
57	CY	116/130 (89%)	114 (98%)	2 (2%)	68	87
58	CW	107/124 (86%)	100 (94%)	7 (6%)	21	58
59	CZ	121/122 (99%)	108 (89%)	13 (11%)	8	36
60	Cr	112/120 (93%)	102 (91%)	10 (9%)	12	44
61	Ch	112/112 (100%)	110 (98%)	2 (2%)	66	87
62	Cb	67/68 (98%)	62 (92%)	5 (8%)	17	54
63	CB	349/350 (100%)	335 (96%)	14 (4%)	38	71
64	CF	203/222 (91%)	194 (96%)	9 (4%)	35	69
65	Cc	84/93 (90%)	78 (93%)	6 (7%)	18	55
66	Cd	103/114 (90%)	96 (93%)	7 (7%)	20	57
67	Ce	120/122 (98%)	108 (90%)	12 (10%)	9	38
68	Cf	123/123 (100%)	111 (90%)	12 (10%)	10	40
69	Cg	104/137 (76%)	97 (93%)	7 (7%)	20	57
70	Ci	100/101 (99%)	89 (89%)	11 (11%)	8	34
71	Cj	77/78 (99%)	67 (87%)	10 (13%)	5	28
72	Ck	65/65 (100%)	59 (91%)	6 (9%)	11	43
73	Cl	45/46 (98%)	43 (96%)	2 (4%)	35	69
74	CC	323/329 (98%)	294 (91%)	29 (9%)	12	44

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
75	Cm	48/48 (100%)	47 (98%)	1 (2%)	61	84
76	Cn	23/23 (100%)	21 (91%)	2 (9%)	13	45
77	Cp	74/75 (99%)	71 (96%)	3 (4%)	37	71
78	Co	94/94 (100%)	89 (95%)	5 (5%)	28	64
79	CJ	155/157 (99%)	148 (96%)	7 (4%)	34	69
80	CH	169/169 (100%)	156 (92%)	13 (8%)	16	53
81	CE	197/208 (95%)	177 (90%)	20 (10%)	9	37
82	CG	210/237 (89%)	196 (93%)	14 (7%)	20	57
All	All	11331/12242 (93%)	10589 (94%)	742 (6%)	26	58

All (742) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Az	13	MET
1	Az	17	ARG
1	Az	27	HIS
1	Az	46	ILE
1	Az	75	ILE
1	Az	91	HIS
1	Az	126	THR
1	Az	143	THR
1	Az	173	LEU
1	Az	199	ASP
1	Az	255	PHE
1	Az	256	PHE
1	Az	271	ASN
1	Az	309	LEU
1	Az	330	LEU
1	Az	344	LEU
1	Az	383	TYR
1	Az	396	PHE
1	Az	420	TYR
1	Az	424	LYS
1	Az	450	VAL
1	Az	462	ASP
1	Az	467	LYS
1	Az	470	THR
1	Az	480	MET
1	Az	506	LEU

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Mol	Chain	Res	Type
1	Az	519	MET
1	Az	538	LEU
1	Az	540	LEU
1	Az	547	LEU
1	Az	565	TYR
1	Az	569	VAL
1	Az	572	GLU
1	Az	576	MET
1	Az	578	LEU
1	Az	586	ASN
1	Az	595	MET
1	Az	599	LEU
1	Az	625	TYR
1	Az	627	TYR
1	Az	641	ASP
1	Az	652	THR
1	Az	657	TYR
1	Az	669	PHE
1	Az	677	ILE
1	Az	681	GLU
1	Az	683	LEU
1	Az	692	ASP
1	Az	695	LEU
1	Az	714	CYS
1	Az	755	HIS
1	Az	757	PHE
1	Az	782	PHE
1	Az	801	ASP
2	Ag	20	GLN
2	Ag	32	ILE
2	Ag	75	ASP
2	Ag	114	PHE
2	Ag	171	TRP
2	Ag	187	ASN
2	Ag	201	VAL
2	Ag	214	ASP
2	Ag	232	GLU
2	Ag	237	ILE
2	Ag	259	ILE
2	Ag	278	PRO
3	AU	28	SER
3	AU	34	LEU

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Mol	Chain	Res	Type
4	AK	3	ILE
4	AK	5	LYS
4	AK	28	PRO
4	AK	32	HIS
4	AK	50	LEU
4	AK	57	LYS
4	AK	83	LEU
4	AK	91	THR
5	AO	25	GLU
5	AO	51	GLU
5	AO	52	THR
5	AO	55	ARG
5	AO	66	ARG
5	AO	93	LEU
5	AO	100	THR
5	AO	116	LEU
5	AO	117	ARG
5	AO	128	ARG
5	AO	146	ARG
6	AX	11	ARG
6	AX	22	TRP
6	AX	35	ARG
6	AX	68	LYS
6	AX	98	ASP
6	AX	105	PHE
6	AX	112	VAL
7	AM	39	VAL
7	AM	59	LEU
7	AM	63	PHE
7	AM	116	VAL
7	AM	121	PHE
7	AM	126	PRO
8	AS	26	VAL
8	AS	40	TYR
8	AS	126	TYR
9	Ad	19	ARG
9	Ad	25	SER
10	AN	3	ARG
10	AN	11	ILE
10	AN	16	LEU
10	AN	22	VAL
10	AN	76	LYS

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Mol	Chain	Res	Type
10	AN	115	LEU
10	AN	140	LYS
10	AN	149	LEU
11	AL	11	LYS
11	AL	32	ARG
11	AL	37	VAL
11	AL	64	ARG
11	AL	66	ARG
11	AL	69	ILE
11	AL	93	VAL
11	AL	153	LYS
12	AR	4	VAL
12	AR	5	ARG
12	AR	46	LEU
12	AR	65	GLN
12	AR	69	ILE
12	AR	71	ILE
12	AR	72	LYS
12	AR	95	ILE
12	AR	96	ILE
12	AR	101	ASP
13	AP	15	PHE
13	AP	81	THR
13	AP	93	THR
13	AP	99	VAL
13	AP	110	VAL
13	AP	127	LYS
14	AT	5	THR
14	AT	48	TYR
14	AT	52	TRP
14	AT	84	ARG
14	AT	92	PHE
14	AT	102	LYS
14	AT	105	GLN
14	AT	111	ARG
14	AT	121	ARG
14	AT	126	ILE
14	AT	130	ASP
14	AT	153	VAL
15	AB	31	TYR
15	AB	55	GLN
15	AB	65	ARG

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Mol	Chain	Res	Type
15	AB	71	LEU
15	AB	84	PHE
15	AB	99	VAL
15	AB	109	THR
15	AB	117	VAL
15	AB	119	LYS
15	AB	143	ILE
15	AB	155	LYS
15	AB	158	TYR
15	AB	213	VAL
15	AB	215	ILE
15	AB	223	LYS
15	AB	226	PHE
15	AB	231	LEU
16	AA	28	GLU
16	AA	39	TYR
16	AA	51	LEU
16	AA	66	VAL
16	AA	103	PHE
16	AA	116	PHE
16	AA	119	PRO
16	AA	121	LEU
16	AA	130	ASP
16	AA	158	ASP
16	AA	200	ASP
16	AA	218	LYS
17	AV	11	LEU
17	AV	24	ILE
17	AV	41	PRO
17	AV	43	THR
17	AV	78	ILE
17	AV	81	LYS
18	AY	55	VAL
18	AY	105	ARG
19	AZ	53	THR
19	AZ	67	ILE
19	AZ	81	SER
19	AZ	93	LYS
19	AZ	102	HIS
19	AZ	103	HIS
19	AZ	105	GLN
19	AZ	106	VAL

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Mol	Chain	Res	Type
19	AZ	109	THR
19	AZ	112	THR
20	Aa	15	ARG
20	Aa	62	TYR
21	Ab	33	MET
21	Ab	43	ILE
21	Ab	51	GLN
22	Ac	26	VAL
22	Ac	31	LEU
22	Ac	46	VAL
22	Ac	60	GLU
23	AD	6	PRO
23	AD	39	VAL
23	AD	47	ARG
23	AD	50	ILE
23	AD	68	ILE
23	AD	96	ARG
23	AD	125	LEU
23	AD	134	LYS
23	AD	170	VAL
23	AD	194	TYR
23	AD	200	ILE
23	AD	220	ILE
23	AD	226	THR
24	Ae	98	LYS
24	Ae	108	ILE
25	Af	79	LYS
25	Af	80	ARG
25	Af	87	THR
25	Af	97	LYS
25	Af	102	VAL
25	Af	105	TYR
25	Af	113	LYS
25	Af	119	ARG
25	Af	120	GLU
25	Af	141	CYS
25	Af	143	LYS
25	Af	154	GLU
26	AJ	5	ARG
26	AJ	6	ILE
26	AJ	13	THR
26	AJ	41	LYS

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Mol	Chain	Res	Type
26	AJ	93	MET
26	AJ	143	VAL
26	AJ	171	PRO
26	AJ	173	ARG
26	AJ	175	LYS
27	AE	1	MET
27	AE	7	LYS
27	AE	9	LEU
27	AE	16	LYS
27	AE	37	LYS
27	AE	110	VAL
27	AE	127	LYS
27	AE	149	TYR
27	AE	183	ILE
27	AE	222	LEU
27	AE	259	LYS
28	AC	74	PHE
28	AC	92	ILE
28	AC	95	VAL
28	AC	97	LYS
28	AC	108	LYS
28	AC	120	ILE
28	AC	122	LEU
28	AC	150	ARG
28	AC	210	ARG
28	AC	249	TYR
29	AG	1	MET
29	AG	68	LEU
29	AG	84	TYR
29	AG	98	ARG
29	AG	106	MET
29	AG	121	ILE
29	AG	136	LYS
29	AG	142	ARG
29	AG	145	TYR
29	AG	155	ARG
29	AG	165	LYS
29	AG	168	LYS
29	AG	180	LEU
29	AG	186	LEU
29	AG	189	LYS
30	AF	42	LYS

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Mol	Chain	Res	Type
30	AF	115	ARG
30	AF	146	ARG
30	AF	148	ASP
30	AF	193	ILE
31	AH	8	ILE
31	AH	35	LEU
31	AH	36	LYS
31	AH	77	LEU
31	AH	85	PHE
31	AH	93	ILE
31	AH	105	LYS
31	AH	108	ASN
31	AH	116	ARG
31	AH	118	ARG
31	AH	120	LEU
31	AH	141	ARG
31	AH	145	LYS
31	AH	158	LYS
31	AH	170	THR
31	AH	188	PRO
31	AH	191	TYR
31	AH	194	VAL
32	AW	37	PHE
32	AW	53	VAL
32	AW	54	ASP
32	AW	75	ILE
32	AW	83	ILE
32	AW	105	THR
33	AI	29	LEU
33	AI	75	LYS
33	AI	97	VAL
33	AI	120	PRO
33	AI	125	ARG
33	AI	132	LYS
33	AI	146	LYS
33	AI	169	THR
34	AQ	10	GLN
34	AQ	12	VAL
34	AQ	14	VAL
34	AQ	53	LEU
34	AQ	104	GLU
34	AQ	134	PHE

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Mol	Chain	Res	Type
34	AQ	143	TYR
35	Ah	126	PHE
35	Ah	129	ARG
35	Ah	214	GLU
35	Ah	216	LYS
38	Cz	8	ASP
38	Cz	35	GLN
38	Cz	49	PHE
38	Cz	63	MET
38	Cz	111	LEU
38	Cz	120	ILE
38	Cz	122	ARG
38	Cz	141	GLN
38	Cz	143	SER
38	Cz	154	THR
38	Cz	157	PHE
38	Cz	159	MET
38	Cz	161	LYS
38	Cz	163	LEU
38	Cz	164	CYS
38	Cz	200	ASN
38	Cz	203	SER
39	Cq	6	ARG
39	Cq	35	VAL
39	Cq	45	MET
39	Cq	48	ARG
39	Cq	50	LYS
39	Cq	61	MET
39	Cq	78	LEU
39	Cq	95	LEU
39	Cq	97	GLU
39	Cq	108	PRO
39	Cq	149	ARG
39	Cq	183	PHE
39	Cq	191	GLN
39	Cq	199	PHE
39	Cq	201	PRO
39	Cq	205	ASP
40	CK	22	VAL
40	CK	30	PRO
40	CK	44	ASP
40	CK	104	ILE

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Mol	Chain	Res	Type
40	CK	123	ARG
41	CO	4	LEU
41	CO	18	LEU
41	CO	41	GLU
41	CO	48	HIS
41	CO	60	LEU
41	CO	108	ASP
41	CO	115	ASP
41	CO	117	ARG
41	CO	119	ARG
41	CO	162	ARG
41	CO	166	LEU
41	CO	172	HIS
41	CO	176	LEU
41	CO	182	LYS
41	CO	189	LYS
41	CO	197	ILE
41	CO	205	VAL
42	CL	6	ASN
42	CL	46	PHE
42	CL	47	PRO
42	CL	59	ARG
42	CL	63	ILE
42	CL	68	LYS
42	CL	70	ARG
42	CL	85	ILE
42	CL	125	LEU
42	CL	127	PRO
42	CL	128	ILE
42	CL	150	LYS
42	CL	164	VAL
42	CL	176	PHE
42	CL	182	LEU
42	CL	183	ARG
43	CV	51	ARG
44	CM	4	GLU
44	CM	5	ARG
44	CM	25	VAL
44	CM	50	TYR
44	CM	55	LEU
44	CM	62	ILE
44	CM	97	ASN

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Mol	Chain	Res	Type
44	CM	104	LEU
44	CM	114	TYR
44	CM	117	ARG
44	CM	127	PHE
44	CM	142	VAL
44	CM	147	ARG
44	CM	157	LYS
45	Ca	10	ARG
45	Ca	47	ASP
45	Ca	53	TYR
45	Ca	70	PHE
45	Ca	73	GLU
45	Ca	100	PRO
45	Ca	110	TYR
45	Ca	115	ARG
45	Ca	130	PHE
45	Ca	137	LYS
46	CN	37	HIS
46	CN	39	SER
46	CN	46	ASP
46	CN	53	TYR
46	CN	62	TYR
46	CN	87	HIS
46	CN	129	TYR
46	CN	144	ARG
46	CN	184	ILE
47	CI	89	MET
47	CI	93	PRO
47	CI	113	THR
47	CI	119	PHE
47	CI	181	TYR
47	CI	200	ARG
48	CD	15	ARG
48	CD	40	ASP
48	CD	48	LYS
48	CD	146	LEU
48	CD	190	PHE
48	CD	207	TYR
48	CD	223	PHE
49	CQ	12	LYS
49	CQ	14	ARG
49	CQ	41	LYS

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Mol	Chain	Res	Type
49	CQ	46	ILE
49	CQ	61	LEU
49	CQ	68	ARG
49	CQ	92	LEU
49	CQ	101	CYS
49	CQ	108	THR
49	CQ	135	ASN
49	CQ	142	ARG
49	CQ	144	THR
49	CQ	159	PRO
50	CR	25	ASP
50	CR	62	ARG
50	CR	115	ILE
50	CR	138	LEU
50	CR	163	ARG
51	CA	45	VAL
51	CA	49	ILE
51	CA	69	TYR
51	CA	82	MET
51	CA	92	ARG
51	CA	107	MET
51	CA	109	GLU
51	CA	113	ILE
51	CA	136	VAL
51	CA	169	VAL
51	CA	193	ARG
51	CA	209	HIS
51	CA	221	LYS
51	CA	233	ARG
51	CA	245	ARG
52	CS	7	LEU
52	CS	36	ASP
52	CS	39	VAL
52	CS	48	LEU
52	CS	54	PHE
52	CS	64	ILE
52	CS	68	TYR
52	CS	93	MET
52	CS	120	ARG
52	CS	139	ARG
52	CS	157	ARG
52	CS	167	PHE

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Mol	Chain	Res	Type
52	CS	175	TYR
52	CS	176	PHE
53	CT	17	ARG
53	CT	22	HIS
53	CT	126	VAL
53	CT	127	SER
53	CT	128	LEU
53	CT	140	PHE
53	CT	150	LEU
53	CT	157	PHE
54	CP	11	VAL
54	CP	23	ARG
54	CP	25	HIS
54	CP	69	ARG
54	CP	139	TYR
54	CP	168	LYS
54	CP	182	MET
55	CU	192	ARG
55	CU	204	SER
55	CU	234	PHE
55	CU	276	ASN
56	CX	161	ILE
56	CX	165	VAL
56	CX	240	ILE
56	CX	248	LEU
57	CY	7	VAL
57	CY	126	ARG
58	CW	32	LEU
58	CW	34	LYS
58	CW	59	HIS
58	CW	70	LYS
58	CW	72	THR
58	CW	77	LYS
58	CW	80	ARG
59	CZ	5	MET
59	CZ	7	GLN
59	CZ	10	ILE
59	CZ	11	VAL
59	CZ	17	ARG
59	CZ	21	ARG
59	CZ	34	PRO
59	CZ	46	ILE

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Mol	Chain	Res	Type
59	CZ	73	LYS
59	CZ	107	LYS
59	CZ	116	LYS
59	CZ	125	LYS
59	CZ	126	ASN
60	Cr	9	TRP
60	Cr	23	ARG
60	Cr	52	THR
60	Cr	62	LYS
60	Cr	84	VAL
60	Cr	86	PHE
60	Cr	100	LEU
60	Cr	107	ARG
60	Cr	110	LEU
60	Cr	112	GLN
61	Ch	77	LYS
61	Ch	121	VAL
62	Cb	29	HIS
62	Cb	51	LEU
62	Cb	53	ARG
62	Cb	70	LYS
62	Cb	73	PRO
63	CB	26	ARG
63	CB	29	VAL
63	CB	77	THR
63	CB	122	TRP
63	CB	123	TYR
63	CB	128	LYS
63	CB	245	HIS
63	CB	246	LYS
63	CB	248	LEU
63	CB	264	THR
63	CB	274	TYR
63	CB	365	LEU
63	CB	391	PRO
63	CB	394	LYS
64	CF	118	ARG
64	CF	160	ARG
64	CF	162	PHE
64	CF	171	PRO
64	CF	219	THR
64	CF	232	VAL

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Mol	Chain	Res	Type
64	CF	237	PHE
64	CF	248	LEU
64	CF	250	LYS
65	Cc	27	TYR
65	Cc	29	LEU
65	Cc	55	LEU
65	Cc	62	TYR
65	Cc	92	CYS
65	Cc	93	THR
66	Cd	66	ASN
66	Cd	89	ARG
66	Cd	98	LYS
66	Cd	106	VAL
66	Cd	112	LYS
66	Cd	116	THR
66	Cd	119	VAL
67	Ce	5	PRO
67	Ce	20	ILE
67	Ce	64	ARG
67	Ce	84	LEU
67	Ce	88	LEU
67	Ce	92	ARG
67	Ce	93	VAL
67	Ce	100	HIS
67	Ce	105	LYS
67	Ce	121	LEU
67	Ce	129	ARG
67	Ce	132	GLU
68	Cf	25	LYS
68	Cf	32	PRO
68	Cf	44	TYR
68	Cf	45	LYS
68	Cf	46	ARG
68	Cf	49	ARG
68	Cf	50	LEU
68	Cf	138	ASN
68	Cf	151	MET
68	Cf	154	PRO
68	Cf	156	ARG
68	Cf	157	ILE
69	Cg	20	ARG
69	Cg	26	PRO

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Mol	Chain	Res	Type
69	Cg	32	TYR
69	Cg	74	ARG
69	Cg	81	CYS
69	Cg	85	LEU
69	Cg	93	PHE
70	Ci	5	TYR
70	Ci	21	ARG
70	Ci	26	THR
70	Ci	34	LEU
70	Ci	38	ARG
70	Ci	40	LYS
70	Ci	44	THR
70	Ci	71	LEU
70	Ci	81	LYS
70	Ci	86	ARG
70	Ci	96	LYS
71	Cj	5	THR
71	Cj	20	ARG
71	Cj	27	TYR
71	Cj	40	PRO
71	Cj	43	LYS
71	Cj	52	LYS
71	Cj	67	LEU
71	Cj	83	GLN
71	Cj	85	LYS
71	Cj	87	LYS
72	Ck	9	LYS
72	Ck	27	LYS
72	Ck	41	PHE
72	Ck	47	VAL
72	Ck	55	LYS
72	Ck	64	LEU
73	Cl	5	LYS
73	Cl	48	LYS
74	CC	7	ARG
74	CC	21	LYS
74	CC	32	LYS
74	CC	39	VAL
74	CC	60	LEU
74	CC	87	THR
74	CC	92	GLN
74	CC	98	MET

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Mol	Chain	Res	Type
74	CC	123	ARG
74	CC	125	TYR
74	CC	152	GLU
74	CC	153	PHE
74	CC	165	GLN
74	CC	173	PHE
74	CC	179	ILE
74	CC	183	ILE
74	CC	211	LEU
74	CC	226	ASN
74	CC	230	ILE
74	CC	251	ARG
74	CC	266	LEU
74	CC	270	TRP
74	CC	282	LEU
74	CC	286	LYS
74	CC	287	MET
74	CC	311	ARG
74	CC	326	ARG
74	CC	332	ASN
74	CC	363	VAL
75	Cm	111	ARG
76	Cn	1	MET
76	Cn	15	ARG
77	Cp	16	THR
77	Cp	73	THR
77	Cp	90	LYS
78	Co	6	LYS
78	Co	36	GLN
78	Co	64	LYS
78	Co	76	LYS
78	Co	102	ILE
79	CJ	5	THR
79	CJ	6	LYS
79	CJ	20	LEU
79	CJ	24	LYS
79	CJ	60	TYR
79	CJ	68	ARG
79	CJ	120	LEU
80	CH	16	ILE
80	CH	34	LEU
80	CH	44	ASP

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Mol	Chain	Res	Type
80	CH	54	LYS
80	CH	57	LYS
80	CH	84	PHE
80	CH	97	PHE
80	CH	105	GLU
80	CH	110	ILE
80	CH	161	GLN
80	CH	170	ILE
80	CH	171	ARG
80	CH	177	LEU
81	CE	30	ILE
81	CE	32	ARG
81	CE	75	VAL
81	CE	101	LEU
81	CE	102	ILE
81	CE	109	GLN
81	CE	117	LYS
81	CE	125	LEU
81	CE	126	VAL
81	CE	140	VAL
81	CE	144	TYR
81	CE	145	VAL
81	CE	154	LEU
81	CE	174	LYS
81	CE	176	ASP
81	CE	213	ILE
81	CE	220	LYS
81	CE	225	TYR
81	CE	236	GLN
81	CE	237	TYR
82	CG	41	PRO
82	CG	65	TYR
82	CG	66	ILE
82	CG	75	LEU
82	CG	81	VAL
82	CG	88	PHE
82	CG	102	LYS
82	CG	104	LEU
82	CG	113	LEU
82	CG	116	LYS
82	CG	126	LYS
82	CG	130	LYS

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Mol	Chain	Res	Type
82	CG	164	HIS
82	CG	178	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (147) such sidechains are listed below:

Mol	Chain	Res	Type
1	Az	27	HIS
1	Az	30	HIS
1	Az	190	ASN
1	Az	257	ASN
1	Az	363	HIS
1	Az	585	HIS
1	Az	696	HIS
2	Ag	20	GLN
2	Ag	160	ASN
2	Ag	187	ASN
2	Ag	189	HIS
2	Ag	192	HIS
2	Ag	193	ASN
3	AU	87	HIS
3	AU	107	ASN
5	AO	32	HIS
5	AO	43	HIS
6	AX	13	HIS
6	AX	110	HIS
7	AM	26	GLN
7	AM	43	HIS
7	AM	44	GLN
8	AS	10	GLN
8	AS	11	HIS
8	AS	135	HIS
10	AN	67	ASN
11	AL	91	HIS
12	AR	63	HIS
13	AP	41	HIS
13	AP	82	HIS
13	AP	107	GLN
13	AP	117	HIS
14	AT	12	HIS
15	AB	211	HIS
16	AA	24	HIS
16	AA	110	ASN

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Mol	Chain	Res	Type
17	AV	33	GLN
17	AV	35	ASN
17	AV	82	ASN
18	AY	30	HIS
18	AY	64	ASN
18	AY	95	HIS
19	AZ	45	ASN
20	Aa	72	HIS
22	Ac	20	GLN
23	AD	176	HIS
25	Af	93	HIS
26	AJ	125	HIS
26	AJ	133	GLN
26	AJ	135	HIS
26	AJ	178	ASN
27	AE	36	HIS
27	AE	50	ASN
28	AC	161	HIS
28	AC	218	ASN
28	AC	250	GLN
31	AH	112	GLN
31	AH	150	GLN
33	AI	167	GLN
38	Cz	94	ASN
38	Cz	184	ASN
39	Cq	72	ASN
40	CK	100	HIS
41	CO	52	ASN
41	CO	65	ASN
41	CO	172	HIS
42	CL	11	GLN
42	CL	12	HIS
42	CL	14	HIS
42	CL	66	HIS
42	CL	158	ASN
44	CM	105	ASN
45	Ca	20	HIS
45	Ca	29	HIS
45	Ca	41	HIS
46	CN	139	HIS
47	CI	84	GLN
47	CI	86	HIS

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Mol	Chain	Res	Type
47	CI	95	HIS
48	CD	81	HIS
48	CD	195	HIS
48	CD	253	HIS
48	CD	285	HIS
49	CQ	125	GLN
50	CR	118	HIS
50	CR	121	HIS
50	CR	130	ASN
50	CR	188	HIS
51	CA	100	ASN
51	CA	132	ASN
51	CA	209	HIS
51	CA	215	ASN
51	CA	216	HIS
52	CS	91	HIS
52	CS	125	GLN
53	CT	22	HIS
53	CT	58	HIS
54	CP	34	GLN
54	CP	118	GLN
54	CP	145	HIS
56	CX	166	HIS
56	CX	246	ASN
57	CY	61	HIS
58	CW	17	HIS
58	CW	59	HIS
59	CZ	79	HIS
60	Cr	80	ASN
60	Cr	99	ASN
63	CB	3	HIS
63	CB	11	HIS
63	CB	109	HIS
63	CB	165	HIS
63	CB	179	HIS
63	CB	271	GLN
63	CB	276	HIS
64	CF	62	ASN
64	CF	186	HIS
64	CF	189	GLN
64	CF	218	ASN
65	Cc	51	ASN

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Mol	Chain	Res	Type
66	Cd	25	HIS
66	Cd	66	ASN
67	Ce	91	ASN
67	Ce	100	HIS
68	Cf	47	HIS
68	Cf	106	GLN
73	Cl	4	HIS
73	Cl	38	ASN
74	CC	44	HIS
74	CC	145	HIS
74	CC	234	ASN
74	CC	284	GLN
75	Cm	104	HIS
77	Cp	33	GLN
77	Cp	34	HIS
78	Co	3	ASN
78	Co	46	GLN
79	CJ	103	ASN
79	CJ	109	ASN
80	CH	114	ASN
81	CE	216	HIS
81	CE	228	ASN
81	CE	233	HIS
81	CE	236	GLN
81	CE	239	HIS
82	CG	158	GLN
82	CG	241	HIS

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
36	B2	1794/1995 (89%)	501 (27%)	117 (6%)
37	BC	74/75 (98%)	12 (16%)	3 (4%)
83	A5	3568/3970 (89%)	947 (26%)	263 (7%)
84	A9	29/30 (96%)	7 (24%)	2 (6%)
85	A7	119/120 (99%)	23 (19%)	5 (4%)
86	A8	122/123 (99%)	18 (14%)	4 (3%)
All	All	5706/6313 (90%)	1508 (26%)	394 (6%)

All (1508) RNA backbone outliers are listed below:



Mol	Chain	Res	Type
36	B2	2	U
36	B2	3	U
36	B2	4	C
36	B2	8	U
36	B2	16	G
36	B2	25	U
36	B2	26	A
36	B2	27	U
36	B2	34	G
36	B2	42	G
36	B2	46	A
36	B2	47	A
36	B2	57	G
36	B2	63	G
36	B2	66	C
36	B2	67	A
36	B2	68	C
36	B2	69	A
36	B2	72	A
36	B2	73	A
36	B2	74	U
36	B2	75	U
36	B2	76	A
36	B2	77	A
36	B2	78	A
36	B2	80	G
36	B2	110	U
36	B2	113	G
36	B2	114	G
36	B2	126	G
36	B2	127	U
36	B2	136	A
36	B2	137	C
36	B2	138	U
36	B2	142	A
36	B2	143	U
36	B2	150	G
36	B2	155	U
36	B2	156	U
36	B2	157	C
36	B2	165	A
36	B2	170	A
36	B2	173	C

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Mol	Chain	Res	Type
36	B2	174	A
36	B2	175	A
36	B2	176	U
36	B2	184	U
36	B2	185	G
36	B2	186	A
36	B2	188	C
36	B2	189	C
36	B2	190	U
36	B2	191	U
36	B2	193	U
36	B2	194	G
36	B2	195	G
36	B2	196	G
36	B2	197	A
36	B2	198	C
36	B2	214	G
36	B2	215	C
36	B2	216	U
36	B2	217	A
36	B2	218	A
36	B2	220	A
36	B2	221	C
36	B2	223	A
36	B2	225	G
36	B2	227	G
36	B2	235	G
36	B2	237	U
36	B2	238	C
36	B2	240	U
36	B2	246	U
36	B2	247	G
36	B2	248	G
36	B2	249	U
36	B2	250	U
36	B2	251	G
36	B2	252	A
36	B2	253	A
36	B2	254	C
36	B2	255	U
36	B2	257	U
36	B2	266	U

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Mol	Chain	Res	Type
36	B2	267	G
36	B2	270	G
36	B2	271	A
36	B2	274	G
36	B2	276	A
36	B2	277	U
36	B2	279	G
36	B2	280	U
36	B2	281	C
36	B2	282	U
36	B2	283	U
36	B2	284	G
36	B2	285	U
36	B2	286	A
36	B2	289	G
36	B2	293	A
36	B2	299	C
36	B2	304	A
36	B2	319	C
36	B2	321	A
36	B2	327	G
36	B2	328	A
36	B2	330	G
36	B2	338	C
36	B2	342	G
36	B2	343	A
36	B2	346	A
36	B2	349	A
36	B2	357	A
36	B2	364	A
36	B2	365	A
36	B2	366	C
36	B2	374	C
36	B2	379	U
36	B2	382	G
36	B2	383	A
36	B2	405	A
36	B2	406	A
36	B2	407	C
36	B2	408	G
36	B2	409	G
36	B2	416	C

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Mol	Chain	Res	Type
36	B2	421	A
36	B2	423	G
36	B2	427	G
36	B2	428	G
36	B2	429	C
36	B2	430	A
36	B2	431	G
36	B2	433	A
36	B2	439	G
36	B2	444	U
36	B2	449	C
36	B2	451	C
36	B2	453	C
36	B2	464	G
36	B2	475	G
36	B2	482	A
36	B2	489	C
36	B2	490	A
36	B2	491	G
36	B2	494	C
36	B2	496	C
36	B2	497	A
36	B2	498	U
36	B2	499	A
36	B2	510	U
36	B2	511	G
36	B2	512	U
36	B2	513	A
36	B2	514	A
36	B2	515	U
36	B2	516	U
36	B2	518	G
36	B2	519	A
36	B2	521	U
36	B2	523	A
36	B2	524	G
36	B2	535	A
36	B2	540	U
36	B2	547	G
36	B2	549	A
36	B2	551	C
36	B2	552	A

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Mol	Chain	Res	Type
36	B2	555	U
36	B2	563	A
36	B2	564	A
36	B2	565	G
36	B2	566	U
36	B2	567	C
36	B2	569	G
36	B2	573	C
36	B2	578	A
36	B2	587	A
36	B2	588	A
36	B2	593	A
36	B2	600	A
36	B2	602	A
36	B2	603	G
36	B2	615	G
36	B2	616	U
36	B2	618	G
36	B2	619	U
36	B2	627	A
36	B2	628	A
36	B2	630	A
36	B2	632	G
36	B2	638	A
36	B2	647	U
36	B2	648	G
36	B2	649	U
36	B2	655	A
36	B2	656	U
36	B2	657	A
36	B2	701	G
36	B2	702	U
36	B2	703	A
36	B2	704	U
36	B2	705	G
36	B2	709	G
36	B2	711	G
36	B2	712	U
36	B2	713	A
36	B2	714	U
36	B2	715	U
36	B2	717	C

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Mol	Chain	Res	Type
36	B2	718	C
36	B2	719	G
36	B2	823	C
36	B2	824	U
36	B2	825	A
36	B2	826	U
36	B2	833	G
36	B2	836	C
36	B2	837	A
36	B2	838	A
36	B2	847	G
36	B2	848	C
36	B2	853	A
36	B2	856	A
36	B2	857	G
36	B2	858	G
36	B2	866	U
36	B2	867	G
36	B2	868	C
36	B2	869	C
36	B2	873	A
36	B2	879	U
36	B2	891	A
36	B2	895	A
36	B2	896	A
36	B2	897	A
36	B2	898	U
36	B2	900	A
36	B2	901	G
36	B2	903	C
36	B2	904	C
36	B2	905	U
36	B2	906	C
36	B2	908	G
36	B2	909	U
36	B2	916	U
36	B2	918	C
36	B2	922	G
36	B2	923	G
36	B2	925	U
36	B2	926	U
36	B2	929	A

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Mol	Chain	Res	Type
36	B2	930	G
36	B2	940	U
36	B2	942	A
36	B2	948	A
36	B2	949	A
36	B2	950	U
36	B2	958	G
36	B2	963	G
36	B2	996	U
36	B2	999	U
36	B2	1000	G
36	B2	1001	G
36	B2	1002	A
36	B2	1008	G
36	B2	1020	U
36	B2	1022	A
36	B2	1029	G
36	B2	1031	A
36	B2	1047	U
36	B2	1053	A
36	B2	1055	U
36	B2	1061	A
36	B2	1069	U
36	B2	1079	A
36	B2	1080	A
36	B2	1081	G
36	B2	1084	G
36	B2	1090	A
36	B2	1091	U
36	B2	1092	A
36	B2	1102	U
36	B2	1103	U
36	B2	1107	A
36	B2	1108	C
36	B2	1113	A
36	B2	1115	C
36	B2	1118	U
36	B2	1126	A
36	B2	1127	G
36	B2	1139	A
36	B2	1140	G
36	B2	1141	C

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Mol	Chain	Res	Type
36	B2	1145	U
36	B2	1146	U
36	B2	1147	U
36	B2	1148	U
36	B2	1153	C
36	B2	1161	G
36	B2	1166	U
36	B2	1168	C
36	B2	1169	C
36	B2	1171	G
36	B2	1173	A
36	B2	1178	A
36	B2	1179	A
36	B2	1180	A
36	B2	1183	U
36	B2	1184	U
36	B2	1185	U
36	B2	1186	U
36	B2	1187	U
36	B2	1188	G
36	B2	1189	G
36	B2	1192	U
36	B2	1197	G
36	B2	1199	G
36	B2	1201	A
36	B2	1226	A
36	B2	1227	A
36	B2	1234	G
36	B2	1237	G
36	B2	1239	A
36	B2	1240	A
36	B2	1243	G
36	B2	1245	A
36	B2	1246	C
36	B2	1247	C
36	B2	1248	A
36	B2	1252	G
36	B2	1255	G
36	B2	1267	G
36	B2	1268	C
36	B2	1273	U
36	B2	1276	G

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Mol	Chain	Res	Type
36	B2	1279	U
36	B2	1281	A
36	B2	1282	A
36	B2	1283	C
36	B2	1284	A
36	B2	1285	C
36	B2	1287	G
36	B2	1288	G
36	B2	1290	A
36	B2	1291	A
36	B2	1295	U
36	B2	1296	A
36	B2	1305	A
36	B2	1308	A
36	B2	1313	U
36	B2	1314	G
36	B2	1315	U
36	B2	1316	G
36	B2	1320	G
36	B2	1330	U
36	B2	1331	A
36	B2	1332	G
36	B2	1337	U
36	B2	1339	C
36	B2	1342	G
36	B2	1344	A
36	B2	1345	U
36	B2	1347	U
36	B2	1354	G
36	B2	1359	U
36	B2	1372	U
36	B2	1373	U
36	B2	1375	G
36	B2	1378	C
36	B2	1385	U
36	B2	1388	U
36	B2	1401	U
36	B2	1402	U
36	B2	1403	C
36	B2	1408	A
36	B2	1425	U
36	B2	1427	U

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Mol	Chain	Res	Type
36	B2	1428	A
36	B2	1430	U
36	B2	1431	A
36	B2	1433	A
36	B2	1434	U
36	B2	1435	A
36	B2	1437	A
36	B2	1448	A
36	B2	1449	U
36	B2	1531	G
36	B2	1537	C
36	B2	1547	U
36	B2	1548	G
36	B2	1551	C
36	B2	1565	C
36	B2	1566	U
36	B2	1567	A
36	B2	1569	C
36	B2	1570	U
36	B2	1572	C
36	B2	1574	U
36	B2	1575	A
36	B2	1581	A
36	B2	1583	A
36	B2	1585	A
36	B2	1588	G
36	B2	1591	U
36	B2	1592	C
36	B2	1594	A
36	B2	1605	G
36	B2	1606	A
36	B2	1619	A
36	B2	1620	G
36	B2	1623	C
36	B2	1626	U
36	B2	1638	A
36	B2	1640	G
36	B2	1646	G
36	B2	1649	U
36	B2	1650	G
36	B2	1651	C
36	B2	1654	G

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Mol	Chain	Res	Type
36	B2	1663	A
36	B2	1665	U
36	B2	1667	A
36	B2	1670	G
36	B2	1673	U
36	B2	1674	C
36	B2	1680	G
36	B2	1681	U
36	B2	1682	A
36	B2	1683	U
36	B2	1684	U
36	B2	1691	A
36	B2	1692	C
36	B2	1698	G
36	B2	1703	G
36	B2	1706	U
36	B2	1708	A
36	B2	1710	C
36	B2	1713	C
36	B2	1715	G
36	B2	1716	A
36	B2	1727	U
36	B2	1729	C
36	B2	1730	U
36	B2	1732	G
36	B2	1739	U
36	B2	1749	C
36	B2	1751	G
36	B2	1756	C
36	B2	1758	A
36	B2	1760	G
36	B2	1761	A
36	B2	1765	U
36	B2	1766	G
36	B2	1767	G
36	B2	1776	G
36	B2	1782	G
36	B2	1793	A
36	B2	1807	C
36	B2	1808	G
36	B2	1810	C
36	B2	1816	C

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Mol	Chain	Res	Type
36	B2	1823	A
36	B2	1826	C
36	B2	1829	C
36	B2	1830	G
36	B2	1849	U
36	B2	1850	G
36	B2	1855	A
36	B2	1857	U
36	B2	1875	G
36	B2	1876	U
36	B2	1882	C
36	B2	1905	U
36	B2	1906	U
36	B2	1911	C
36	B2	1912	G
36	B2	1913	C
36	B2	1922	A
36	B2	1924	C
36	B2	1931	G
36	B2	1949	A
36	B2	1950	A
36	B2	1951	A
36	B2	1952	G
36	B2	1954	C
36	B2	1955	G
36	B2	1957	A
36	B2	1958	A
36	B2	1964	U
36	B2	1965	U
36	B2	1977	A
36	B2	1978	C
36	B2	1984	G
36	B2	1987	G
36	B2	1988	G
36	B2	1989	A
36	B2	1991	C
36	B2	1992	A
36	B2	1993	U
37	BC	9	G
37	BC	16	U
37	BC	17	G
37	BC	19	A

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Mol	Chain	Res	Type
37	BC	20	A
37	BC	21	G
37	BC	46	U
37	BC	48	C
37	BC	53	A
37	BC	57	A
37	BC	59	A
37	BC	75	A
83	A5	2	U
83	A5	3	A
83	A5	4	U
83	A5	5	A
83	A5	6	U
83	A5	10	A
83	A5	17	C
83	A5	18	U
83	A5	20	A
83	A5	44	A
83	A5	49	A
83	A5	53	A
83	A5	63	G
83	A5	64	A
83	A5	69	A
83	A5	70	A
83	A5	80	G
83	A5	87	U
83	A5	96	G
83	A5	97	C
83	A5	100	G
83	A5	103	A
83	A5	113	A
83	A5	114	G
83	A5	117	C
83	A5	120	C
83	A5	121	A
83	A5	122	C
83	A5	124	A
83	A5	125	A
83	A5	127	U
83	A5	131	U
83	A5	138	A
83	A5	139	U

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Mol	Chain	Res	Type
83	A5	140	A
83	A5	148	U
83	A5	149	G
83	A5	155	U
83	A5	156	G
83	A5	158	A
83	A5	162	U
83	A5	163	A
83	A5	164	U
83	A5	165	G
83	A5	169	C
83	A5	176	A
83	A5	177	U
83	A5	178	U
83	A5	179	C
83	A5	182	G
83	A5	185	U
83	A5	186	G
83	A5	187	A
83	A5	188	G
83	A5	189	A
83	A5	190	A
83	A5	191	A
83	A5	193	U
83	A5	195	A
83	A5	201	U
83	A5	202	A
83	A5	205	U
83	A5	206	C
83	A5	207	C
83	A5	211	U
83	A5	212	U
83	A5	213	A
83	A5	216	U
83	A5	226	U
83	A5	228	C
83	A5	229	C
83	A5	232	U
83	A5	236	G
83	A5	240	G
83	A5	241	C
83	A5	246	C

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Mol	Chain	Res	Type
83	A5	252	U
83	A5	262	G
83	A5	263	A
83	A5	271	A
83	A5	273	G
83	A5	283	A
83	A5	284	A
83	A5	285	G
83	A5	286	A
83	A5	287	G
83	A5	293	U
83	A5	301	U
83	A5	313	A
83	A5	316	U
83	A5	317	G
83	A5	323	U
83	A5	325	A
83	A5	333	C
83	A5	341	A
83	A5	347	A
83	A5	356	A
83	A5	357	C
83	A5	364	U
83	A5	367	A
83	A5	369	A
83	A5	370	A
83	A5	388	U
83	A5	394	G
83	A5	405	A
83	A5	412	U
83	A5	413	A
83	A5	415	A
83	A5	416	C
83	A5	417	A
83	A5	419	U
83	A5	421	C
83	A5	425	A
83	A5	440	U
83	A5	441	A
83	A5	453	C
83	A5	459	U
83	A5	460	A

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Mol	Chain	Res	Type
83	A5	462	C
83	A5	464	G
83	A5	465	U
83	A5	466	U
83	A5	471	A
83	A5	476	U
83	A5	477	C
83	A5	478	A
83	A5	479	U
83	A5	485	A
83	A5	488	U
83	A5	494	U
83	A5	498	U
83	A5	514	A
83	A5	516	U
83	A5	521	U
83	A5	522	G
83	A5	523	C
83	A5	524	A
83	A5	525	U
83	A5	526	U
83	A5	536	U
83	A5	540	G
83	A5	542	C
83	A5	565	C
83	A5	568	A
83	A5	569	U
83	A5	572	A
83	A5	574	C
83	A5	578	A
83	A5	579	A
83	A5	580	A
83	A5	581	U
83	A5	584	A
83	A5	587	U
83	A5	588	U
83	A5	591	A
83	A5	613	U
83	A5	616	A
83	A5	619	U
83	A5	621	A
83	A5	623	C

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Mol	Chain	Res	Type
83	A5	625	C
83	A5	626	A
83	A5	632	A
83	A5	633	A
83	A5	638	A
83	A5	641	A
83	A5	642	A
83	A5	643	U
83	A5	644	U
83	A5	652	G
83	A5	653	U
83	A5	654	G
83	A5	663	U
83	A5	664	U
83	A5	667	U
83	A5	668	A
83	A5	669	U
83	A5	670	G
83	A5	671	A
83	A5	672	U
83	A5	673	U
83	A5	676	A
83	A5	681	G
83	A5	682	U
83	A5	691	C
83	A5	707	C
83	A5	718	U
83	A5	719	U
83	A5	739	U
83	A5	741	C
83	A5	746	G
83	A5	747	U
83	A5	749	U
83	A5	751	A
83	A5	752	U
83	A5	755	A
83	A5	763	A
83	A5	765	A
83	A5	766	G
83	A5	772	G
83	A5	774	A
83	A5	775	U

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Mol	Chain	Res	Type
83	A5	776	A
83	A5	786	C
83	A5	798	C
83	A5	799	A
83	A5	806	A
83	A5	808	G
83	A5	810	A
83	A5	811	G
83	A5	812	U
83	A5	818	A
83	A5	827	A
83	A5	831	A
83	A5	832	U
83	A5	833	U
83	A5	841	A
83	A5	842	A
83	A5	843	A
83	A5	847	A
83	A5	858	U
83	A5	862	U
83	A5	865	A
83	A5	867	U
83	A5	868	A
83	A5	869	A
83	A5	870	U
83	A5	872	A
83	A5	873	U
83	A5	878	U
83	A5	879	U
83	A5	881	G
83	A5	891	U
83	A5	894	U
83	A5	909	A
83	A5	923	U
83	A5	926	U
83	A5	928	U
83	A5	929	A
83	A5	930	U
83	A5	937	G
83	A5	966	U
83	A5	967	C
83	A5	968	U

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Mol	Chain	Res	Type
83	A5	977	C
83	A5	980	A
83	A5	981	C
83	A5	984	U
83	A5	986	A
83	A5	1001	A
83	A5	1006	A
83	A5	1017	A
83	A5	1030	A
83	A5	1037	A
83	A5	1049	C
83	A5	1051	C
83	A5	1061	A
83	A5	1062	C
83	A5	1070	G
83	A5	1074	U
83	A5	1079	U
83	A5	1091	G
83	A5	1095	G
83	A5	1096	A
83	A5	1097	A
83	A5	1107	G
83	A5	1108	G
83	A5	1113	A
83	A5	1114	A
83	A5	1116	G
83	A5	1117	A
83	A5	1124	G
83	A5	1125	A
83	A5	1137	G
83	A5	1138	C
83	A5	1143	U
83	A5	1144	C
83	A5	1147	U
83	A5	1159	C
83	A5	1160	U
83	A5	1161	C
83	A5	1163	G
83	A5	1174	G
83	A5	1176	A
83	A5	1178	U
83	A5	1179	U

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Mol	Chain	Res	Type
83	A5	1180	U
83	A5	1181	A
83	A5	1182	A
83	A5	1183	U
83	A5	1192	A
83	A5	1193	A
83	A5	1194	A
83	A5	1195	U
83	A5	1196	A
83	A5	1199	C
83	A5	1207	G
83	A5	1214	G
83	A5	1215	A
83	A5	1219	A
83	A5	1223	G
83	A5	1226	G
83	A5	1228	C
83	A5	1229	U
83	A5	1230	U
83	A5	1231	A
83	A5	1232	G
83	A5	1233	G
83	A5	1234	G
83	A5	1237	G
83	A5	1243	A
83	A5	1249	A
83	A5	1250	C
83	A5	1260	A
83	A5	1262	C
83	A5	1265	U
83	A5	1270	G
83	A5	1277	A
83	A5	1278	A
83	A5	1285	C
83	A5	1288	U
83	A5	1289	C
83	A5	1293	A
83	A5	1294	U
83	A5	1295	A
83	A5	1296	U
83	A5	1297	G
83	A5	1298	A

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Mol	Chain	Res	Type
83	A5	1307	G
83	A5	1308	U
83	A5	1309	U
83	A5	1311	U
83	A5	1316	U
83	A5	1317	A
83	A5	1324	C
83	A5	1325	C
83	A5	1326	A
83	A5	1330	G
83	A5	1331	G
83	A5	1345	G
83	A5	1347	A
83	A5	1367	A
83	A5	1373	A
83	A5	1378	A
83	A5	1383	A
83	A5	1384	C
83	A5	1393	A
83	A5	1394	U
83	A5	1395	U
83	A5	1396	A
83	A5	1397	A
83	A5	1399	A
83	A5	1406	G
83	A5	1407	C
83	A5	1408	A
83	A5	1416	U
83	A5	1421	G
83	A5	1424	G
83	A5	1428	G
83	A5	1435	A
83	A5	1436	A
83	A5	1438	A
83	A5	1440	A
83	A5	1442	C
83	A5	1447	C
83	A5	1448	G
83	A5	1449	G
83	A5	1452	A
83	A5	1454	C
83	A5	1456	U

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Mol	Chain	Res	Type
83	A5	1457	G
83	A5	1458	G
83	A5	1460	A
83	A5	1461	G
83	A5	1462	U
83	A5	1463	C
83	A5	1464	G
83	A5	1467	A
83	A5	1472	C
83	A5	1473	U
83	A5	1477	G
83	A5	1478	A
83	A5	1479	G
83	A5	1480	U
83	A5	1481	G
83	A5	1484	U
83	A5	1486	A
83	A5	1487	C
83	A5	1489	A
83	A5	1497	G
83	A5	1500	G
83	A5	1501	A
83	A5	1502	A
83	A5	1519	A
83	A5	1520	U
83	A5	1523	A
83	A5	1524	U
83	A5	1528	G
83	A5	1545	A
83	A5	1557	U
83	A5	1558	A
83	A5	1562	U
83	A5	1563	A
83	A5	1564	G
83	A5	1565	A
83	A5	1566	U
83	A5	1567	G
83	A5	1574	A
83	A5	1579	U
83	A5	1581	G
83	A5	1582	U
83	A5	1586	A

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Mol	Chain	Res	Type
83	A5	1593	U
83	A5	1594	U
83	A5	1595	G
83	A5	1596	A
83	A5	1598	A
83	A5	1601	U
83	A5	1606	G
83	A5	1627	U
83	A5	1628	G
83	A5	1632	A
83	A5	1640	U
83	A5	1641	U
83	A5	1642	G
83	A5	1659	A
83	A5	1663	G
83	A5	1674	A
83	A5	1675	G
83	A5	1678	C
83	A5	1681	G
83	A5	1686	A
83	A5	1687	U
83	A5	1688	A
83	A5	1689	G
83	A5	1692	G
83	A5	1695	A
83	A5	1696	A
83	A5	1697	U
83	A5	1699	A
83	A5	1703	A
83	A5	1712	C
83	A5	1713	U
83	A5	1718	G
83	A5	1724	A
83	A5	1725	A
83	A5	1727	U
83	A5	1728	G
83	A5	1738	U
83	A5	1739	U
83	A5	1745	G
83	A5	1746	A
83	A5	1751	U
83	A5	1753	G

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Mol	Chain	Res	Type
83	A5	1766	U
83	A5	1770	C
83	A5	1771	G
83	A5	1772	G
83	A5	1776	U
83	A5	1781	U
83	A5	1782	C
83	A5	1783	A
83	A5	1784	A
83	A5	1792	G
83	A5	1794	G
83	A5	1795	A
83	A5	1797	A
83	A5	1798	A
83	A5	1800	U
83	A5	1801	U
83	A5	1802	U
83	A5	1803	C
83	A5	1804	A
83	A5	1805	A
83	A5	1809	A
83	A5	1810	A
83	A5	1811	A
83	A5	1813	A
83	A5	1863	U
83	A5	1864	U
83	A5	1865	U
83	A5	1866	G
83	A5	1867	A
83	A5	1872	A
83	A5	1873	A
83	A5	1877	A
83	A5	1889	A
83	A5	1891	U
83	A5	1892	C
83	A5	1909	U
83	A5	1911	C
83	A5	1912	G
83	A5	1913	U
83	A5	1924	A
83	A5	1925	U
83	A5	1926	A

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Mol	Chain	Res	Type
83	A5	1937	G
83	A5	1940	C
83	A5	1943	C
83	A5	1955	A
83	A5	1956	A
83	A5	1957	C
83	A5	1958	G
83	A5	1959	A
83	A5	1961	C
83	A5	1967	G
83	A5	1970	G
83	A5	1988	A
83	A5	1989	A
83	A5	1995	U
83	A5	1996	U
83	A5	2004	G
83	A5	2028	A
83	A5	2030	U
83	A5	2037	C
83	A5	2038	A
83	A5	2042	A
83	A5	2043	G
83	A5	2049	G
83	A5	2059	U
83	A5	2063	A
83	A5	2064	G
83	A5	2065	A
83	A5	2066	G
83	A5	2083	G
83	A5	2093	U
83	A5	2094	U
83	A5	2095	U
83	A5	2110	A
83	A5	2117	A
83	A5	2123	G
83	A5	2124	G
83	A5	2125	G
83	A5	2126	A
83	A5	2127	C
83	A5	2128	A
83	A5	2129	C
83	A5	2130	G

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Mol	Chain	Res	Type
83	A5	2132	A
83	A5	2135	C
83	A5	2136	U
83	A5	2138	C
83	A5	2150	U
83	A5	2155	A
83	A5	2156	U
83	A5	2157	A
83	A5	2158	U
83	A5	2162	C
83	A5	2166	U
83	A5	2171	U
83	A5	2174	A
83	A5	2175	A
83	A5	2182	G
83	A5	2192	U
83	A5	2195	A
83	A5	2196	U
83	A5	2202	A
83	A5	2209	G
83	A5	2221	G
83	A5	2222	G
83	A5	2267	U
83	A5	2270	G
83	A5	2467	A
83	A5	2468	A
83	A5	2469	U
83	A5	2471	A
83	A5	2472	A
83	A5	2480	U
83	A5	2481	U
83	A5	2490	G
83	A5	2491	C
83	A5	2492	A
83	A5	2500	G
83	A5	2501	G
83	A5	2509	G
83	A5	2510	A
83	A5	2512	U
83	A5	2519	U
83	A5	2537	A
83	A5	2553	U

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Mol	Chain	Res	Type
83	A5	2554	U
83	A5	2565	G
83	A5	2571	U
83	A5	2572	G
83	A5	2582	C
83	A5	2583	U
83	A5	2587	U
83	A5	2588	G
83	A5	2601	A
83	A5	2603	U
83	A5	2606	A
83	A5	2622	A
83	A5	2626	C
83	A5	2627	G
83	A5	2628	G
83	A5	2630	A
83	A5	2631	G
83	A5	2633	A
83	A5	2634	A
83	A5	2635	C
83	A5	2641	C
83	A5	2650	G
83	A5	2651	G
83	A5	2652	U
83	A5	2658	A
83	A5	2659	A
83	A5	2660	U
83	A5	2666	G
83	A5	2673	A
83	A5	2683	G
83	A5	2684	C
83	A5	2685	G
83	A5	2687	A
83	A5	2688	U
83	A5	2691	A
83	A5	2692	U
83	A5	2693	G
83	A5	2704	A
83	A5	2707	C
83	A5	2708	C
83	A5	2712	U
83	A5	2714	U

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Mol	Chain	Res	Type
83	A5	2740	C
83	A5	2749	G
83	A5	2751	A
83	A5	2752	C
83	A5	2753	G
83	A5	2755	G
83	A5	2756	C
83	A5	2764	A
83	A5	2766	U
83	A5	2771	G
83	A5	2775	A
83	A5	2780	A
83	A5	2781	G
83	A5	2782	A
83	A5	2784	C
83	A5	2789	U
83	A5	2796	G
83	A5	2797	A
83	A5	2811	G
83	A5	2813	G
83	A5	2821	A
83	A5	2823	A
83	A5	2829	G
83	A5	2832	G
83	A5	2834	A
83	A5	2836	A
83	A5	2838	U
83	A5	2840	A
83	A5	2846	A
83	A5	2847	G
83	A5	2848	A
83	A5	2861	G
83	A5	2869	U
83	A5	2870	C
83	A5	2876	U
83	A5	2877	G
83	A5	2880	A
83	A5	2881	U
83	A5	2882	A
83	A5	2883	C
83	A5	2884	C
83	A5	2885	A

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Mol	Chain	Res	Type
83	A5	2887	U
83	A5	2901	C
83	A5	2905	A
83	A5	2907	U
83	A5	2908	U
83	A5	2909	A
83	A5	2914	A
83	A5	2916	U
83	A5	2917	A
83	A5	2918	A
83	A5	2920	U
83	A5	2923	A
83	A5	2925	C
83	A5	2927	U
83	A5	2930	A
83	A5	2989	G
83	A5	2990	C
83	A5	2991	A
83	A5	2992	A
83	A5	2993	G
83	A5	2994	C
83	A5	2995	U
83	A5	2997	C
83	A5	2999	U
83	A5	3000	G
83	A5	3004	A
83	A5	3005	A
83	A5	3011	C
83	A5	3012	A
83	A5	3013	C
83	A5	3014	G
83	A5	3101	A
83	A5	3108	U
83	A5	3113	U
83	A5	3114	C
83	A5	3116	A
83	A5	3118	U
83	A5	3119	U
83	A5	3125	A
83	A5	3126	C
83	A5	3128	U
83	A5	3130	G

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Mol	Chain	Res	Type
83	A5	3138	G
83	A5	3139	G
83	A5	3146	G
83	A5	3167	A
83	A5	3169	A
83	A5	3184	U
83	A5	3187	C
83	A5	3188	A
83	A5	3193	C
83	A5	3204	G
83	A5	3206	A
83	A5	3207	C
83	A5	3208	A
83	A5	3209	G
83	A5	3210	A
83	A5	3213	C
83	A5	3220	U
83	A5	3221	A
83	A5	3222	G
83	A5	3223	A
83	A5	3225	C
83	A5	3226	A
83	A5	3228	A
83	A5	3231	G
83	A5	3235	A
83	A5	3236	A
83	A5	3240	U
83	A5	3241	G
83	A5	3246	G
83	A5	3251	C
83	A5	3258	C
83	A5	3260	G
83	A5	3269	G
83	A5	3283	U
83	A5	3284	C
83	A5	3285	G
83	A5	3286	G
83	A5	3287	C
83	A5	3294	A
83	A5	3302	G
83	A5	3303	G
83	A5	3304	U

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Mol	Chain	Res	Type
83	A5	3305	U
83	A5	3311	A
83	A5	3328	G
83	A5	3331	A
83	A5	3332	G
83	A5	3333	A
83	A5	3334	A
83	A5	3338	U
83	A5	3342	C
83	A5	3348	G
83	A5	3349	A
83	A5	3350	U
83	A5	3361	U
83	A5	3374	U
83	A5	3377	A
83	A5	3381	C
83	A5	3393	U
83	A5	3399	C
83	A5	3403	G
83	A5	3404	A
83	A5	3405	U
83	A5	3406	G
83	A5	3407	U
83	A5	3410	G
83	A5	3411	C
83	A5	3419	A
83	A5	3421	C
83	A5	3428	A
83	A5	3429	A
83	A5	3430	G
83	A5	3431	C
83	A5	3455	U
83	A5	3459	C
83	A5	3465	C
83	A5	3467	A
83	A5	3468	G
83	A5	3473	C
83	A5	3476	G
83	A5	3478	G
83	A5	3481	G
83	A5	3482	G
83	A5	3486	U

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Mol	Chain	Res	Type
83	A5	3488	G
83	A5	3502	A
83	A5	3504	G
83	A5	3514	C
83	A5	3521	A
83	A5	3523	U
83	A5	3528	A
83	A5	3529	A
83	A5	3530	A
83	A5	3531	C
83	A5	3532	G
83	A5	3547	U
83	A5	3556	A
83	A5	3558	U
83	A5	3568	A
83	A5	3592	C
83	A5	3593	A
83	A5	3594	A
83	A5	3613	G
83	A5	3615	G
83	A5	3621	A
83	A5	3623	G
83	A5	3626	A
83	A5	3627	C
83	A5	3628	G
83	A5	3647	A
83	A5	3650	G
83	A5	3651	C
83	A5	3653	U
83	A5	3662	G
83	A5	3664	A
83	A5	3665	U
83	A5	3668	G
83	A5	3673	G
83	A5	3676	C
83	A5	3677	U
83	A5	3678	G
83	A5	3685	U
83	A5	3686	A
83	A5	3687	A
83	A5	3688	A
83	A5	3690	A

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Mol	Chain	Res	Type
83	A5	3691	A
83	A5	3692	G
83	A5	3693	G
83	A5	3696	C
83	A5	3697	A
83	A5	3698	A
83	A5	3699	U
83	A5	3702	G
83	A5	3703	C
83	A5	3709	A
83	A5	3710	U
83	A5	3711	G
83	A5	3712	G
83	A5	3713	C
83	A5	3714	U
83	A5	3715	U
83	A5	3716	C
83	A5	3720	A
83	A5	3723	A
83	A5	3727	A
83	A5	3728	A
83	A5	3742	C
83	A5	3743	U
83	A5	3751	C
83	A5	3752	G
83	A5	3753	A
83	A5	3756	A
83	A5	3757	U
83	A5	3758	G
83	A5	3759	G
83	A5	3761	U
83	A5	3763	U
83	A5	3764	G
83	A5	3765	A
83	A5	3766	U
83	A5	3767	G
83	A5	3769	C
83	A5	3772	U
83	A5	3773	G
83	A5	3774	U
83	A5	3775	A
83	A5	3776	A

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Mol	Chain	Res	Type
83	A5	3777	U
83	A5	3778	U
83	A5	3779	U
83	A5	3782	A
83	A5	3783	A
83	A5	3785	A
83	A5	3790	A
83	A5	3791	A
83	A5	3802	U
83	A5	3803	C
83	A5	3805	U
83	A5	3806	C
83	A5	3807	G
83	A5	3808	A
83	A5	3809	U
83	A5	3811	A
83	A5	3818	G
83	A5	3820	C
83	A5	3821	G
83	A5	3822	C
83	A5	3823	G
83	A5	3824	C
83	A5	3836	A
83	A5	3837	A
83	A5	3838	A
83	A5	3839	A
83	A5	3840	G
83	A5	3841	C
83	A5	3842	A
83	A5	3843	U
83	A5	3844	U
83	A5	3846	U
83	A5	3847	U
83	A5	3849	A
83	A5	3854	A
83	A5	3860	A
83	A5	3863	G
83	A5	3864	C
83	A5	3868	G
83	A5	3869	A
83	A5	3877	G
83	A5	3878	U

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Mol	Chain	Res	Type
83	A5	3881	A
83	A5	3888	U
83	A5	3891	U
83	A5	3892	A
83	A5	3893	A
83	A5	3894	C
83	A5	3904	G
83	A5	3905	U
83	A5	3906	U
83	A5	3909	A
83	A5	3915	U
83	A5	3916	U
83	A5	3919	G
83	A5	3921	A
83	A5	3922	G
83	A5	3923	C
83	A5	3925	G
83	A5	3926	C
83	A5	3927	C
83	A5	3929	U
83	A5	3930	A
83	A5	3943	G
83	A5	3944	A
83	A5	3949	U
83	A5	3950	A
83	A5	3952	C
83	A5	3957	G
83	A5	3963	U
83	A5	3964	G
83	A5	3968	C
83	A5	3970	A
84	A9	11	A
84	A9	21	G
84	A9	22	A
84	A9	23	G
84	A9	24	G
84	A9	25	G
84	A9	30	A
85	A7	11	A
85	A7	21	G
85	A7	22	A
85	A7	29	C

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Mol	Chain	Res	Type
85	A7	33	U
85	A7	41	G
85	A7	42	A
85	A7	45	A
85	A7	48	G
85	A7	50	A
85	A7	52	U
85	A7	53	U
85	A7	54	A
85	A7	72	U
85	A7	73	U
85	A7	74	A
85	A7	76	U
85	A7	93	G
85	A7	100	A
85	A7	110	G
85	A7	112	U
85	A7	113	G
85	A7	120	U
86	A8	33	U
86	A8	34	C
86	A8	45	G
86	A8	47	A
86	A8	50	A
86	A8	51	A
86	A8	58	C
86	A8	60	U
86	A8	74	G
86	A8	75	C
86	A8	80	C
86	A8	81	A
86	A8	88	C
86	A8	90	U
86	A8	92	G
86	A8	101	A
86	A8	102	A
86	A8	103	C

All (394) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
36	B2	3	U

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Mol	Chain	Res	Type
36	B2	25	U
36	B2	66	C
36	B2	67	A
36	B2	68	C
36	B2	73	A
36	B2	74	U
36	B2	77	A
36	B2	113	G
36	B2	126	G
36	B2	135	U
36	B2	137	C
36	B2	154	A
36	B2	155	U
36	B2	172	G
36	B2	197	A
36	B2	214	G
36	B2	215	C
36	B2	216	U
36	B2	226	C
36	B2	239	G
36	B2	248	G
36	B2	250	U
36	B2	251	G
36	B2	252	A
36	B2	253	A
36	B2	256	C
36	B2	266	U
36	B2	276	A
36	B2	278	G
36	B2	282	U
36	B2	283	U
36	B2	285	U
36	B2	327	G
36	B2	339	U
36	B2	378	G
36	B2	381	C
36	B2	405	A
36	B2	422	A
36	B2	473	A
36	B2	488	A
36	B2	509	C
36	B2	511	G

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Mol	Chain	Res	Type
36	B2	520	A
36	B2	549	A
36	B2	563	A
36	B2	565	G
36	B2	566	U
36	B2	631	C
36	B2	646	U
36	B2	647	U
36	B2	701	G
36	B2	703	A
36	B2	704	U
36	B2	713	A
36	B2	718	C
36	B2	824	U
36	B2	825	A
36	B2	835	A
36	B2	837	A
36	B2	857	G
36	B2	866	U
36	B2	878	C
36	B2	896	A
36	B2	897	A
36	B2	904	C
36	B2	905	U
36	B2	907	U
36	B2	908	G
36	B2	929	A
36	B2	1000	G
36	B2	1091	U
36	B2	1116	G
36	B2	1117	A
36	B2	1118	U
36	B2	1138	U
36	B2	1145	U
36	B2	1168	C
36	B2	1185	U
36	B2	1186	U
36	B2	1187	U
36	B2	1188	G
36	B2	1245	A
36	B2	1246	C
36	B2	1284	A

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Mol	Chain	Res	Type
36	B2	1295	U
36	B2	1313	U
36	B2	1316	G
36	B2	1329	A
36	B2	1330	U
36	B2	1331	A
36	B2	1342	G
36	B2	1371	C
36	B2	1408	A
36	B2	1426	A
36	B2	1427	U
36	B2	1434	U
36	B2	1448	A
36	B2	1530	A
36	B2	1546	U
36	B2	1547	U
36	B2	1550	C
36	B2	1649	U
36	B2	1673	U
36	B2	1679	U
36	B2	1729	C
36	B2	1760	G
36	B2	1765	U
36	B2	1792	A
36	B2	1807	C
36	B2	1829	C
36	B2	1849	U
36	B2	1881	A
36	B2	1949	A
36	B2	1956	U
36	B2	1991	C
36	B2	1992	A
37	BC	18	G
37	BC	45	G
37	BC	74	C
83	A5	9	A
83	A5	17	C
83	A5	69	A
83	A5	116	U
83	A5	121	A
83	A5	123	U
83	A5	130	C

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Mol	Chain	Res	Type
83	A5	147	A
83	A5	157	C
83	A5	164	U
83	A5	175	U
83	A5	176	A
83	A5	178	U
83	A5	181	A
83	A5	186	G
83	A5	187	A
83	A5	188	G
83	A5	189	A
83	A5	190	A
83	A5	201	U
83	A5	211	U
83	A5	225	U
83	A5	227	A
83	A5	228	C
83	A5	245	G
83	A5	262	G
83	A5	270	G
83	A5	272	U
83	A5	300	A
83	A5	303	G
83	A5	316	U
83	A5	323	U
83	A5	346	U
83	A5	368	C
83	A5	415	A
83	A5	420	A
83	A5	452	A
83	A5	460	A
83	A5	461	U
83	A5	463	C
83	A5	470	G
83	A5	475	U
83	A5	478	A
83	A5	484	A
83	A5	493	A
83	A5	513	G
83	A5	523	C
83	A5	535	A
83	A5	573	U

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Mol	Chain	Res	Type
83	A5	580	A
83	A5	583	U
83	A5	615	C
83	A5	618	U
83	A5	620	U
83	A5	624	A
83	A5	631	A
83	A5	632	A
83	A5	640	U
83	A5	641	A
83	A5	643	U
83	A5	652	G
83	A5	662	A
83	A5	667	U
83	A5	675	C
83	A5	680	C
83	A5	740	G
83	A5	745	U
83	A5	746	G
83	A5	751	A
83	A5	764	A
83	A5	773	G
83	A5	774	A
83	A5	798	C
83	A5	831	A
83	A5	841	A
83	A5	871	A
83	A5	872	A
83	A5	880	A
83	A5	929	A
83	A5	967	C
83	A5	1016	A
83	A5	1073	C
83	A5	1096	A
83	A5	1107	G
83	A5	1116	G
83	A5	1137	G
83	A5	1143	U
83	A5	1177	U
83	A5	1178	U
83	A5	1180	U
83	A5	1181	A

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Mol	Chain	Res	Type
83	A5	1182	A
83	A5	1183	U
83	A5	1193	A
83	A5	1195	U
83	A5	1229	U
83	A5	1231	A
83	A5	1248	A
83	A5	1277	A
83	A5	1288	U
83	A5	1293	A
83	A5	1294	U
83	A5	1297	G
83	A5	1306	G
83	A5	1308	U
83	A5	1310	A
83	A5	1323	C
83	A5	1324	C
83	A5	1394	U
83	A5	1395	U
83	A5	1406	G
83	A5	1407	C
83	A5	1411	U
83	A5	1423	C
83	A5	1436	A
83	A5	1488	A
83	A5	1501	A
83	A5	1516	A
83	A5	1522	G
83	A5	1544	U
83	A5	1562	U
83	A5	1565	A
83	A5	1573	U
83	A5	1581	G
83	A5	1593	U
83	A5	1594	U
83	A5	1600	U
83	A5	1639	U
83	A5	1640	U
83	A5	1675	G
83	A5	1688	A
83	A5	1698	A
83	A5	1709	A

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Mol	Chain	Res	Type
83	A5	1717	A
83	A5	1724	A
83	A5	1727	U
83	A5	1744	U
83	A5	1745	G
83	A5	1780	U
83	A5	1782	C
83	A5	1793	C
83	A5	1801	U
83	A5	1808	A
83	A5	1810	A
83	A5	1812	C
83	A5	1862	U
83	A5	1863	U
83	A5	1864	U
83	A5	1872	A
83	A5	1889	A
83	A5	1891	U
83	A5	1960	C
83	A5	2003	U
83	A5	2029	G
83	A5	2064	G
83	A5	2093	U
83	A5	2094	U
83	A5	2106	C
83	A5	2107	U
83	A5	2124	G
83	A5	2126	A
83	A5	2128	A
83	A5	2129	C
83	A5	2134	A
83	A5	2137	U
83	A5	2155	A
83	A5	2200	A
83	A5	2471	A
83	A5	2480	U
83	A5	2491	C
83	A5	2552	G
83	A5	2571	U
83	A5	2587	U
83	A5	2605	C
83	A5	2627	G

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Mol	Chain	Res	Type
83	A5	2634	A
83	A5	2651	G
83	A5	2658	A
83	A5	2659	A
83	A5	2683	G
83	A5	2750	A
83	A5	2751	A
83	A5	2762	A
83	A5	2781	G
83	A5	2796	G
83	A5	2820	G
83	A5	2833	U
83	A5	2837	A
83	A5	2846	A
83	A5	2868	A
83	A5	2879	A
83	A5	2904	U
83	A5	2907	U
83	A5	2908	U
83	A5	2916	U
83	A5	2917	A
83	A5	2919	A
83	A5	2988	U
83	A5	2990	C
83	A5	2993	G
83	A5	2994	C
83	A5	2999	U
83	A5	3004	A
83	A5	3017	U
83	A5	3117	A
83	A5	3118	U
83	A5	3125	A
83	A5	3284	C
83	A5	3303	G
83	A5	3304	U
83	A5	3350	U
83	A5	3404	A
83	A5	3405	U
83	A5	3481	G
83	A5	3514	C
83	A5	3527	A
83	A5	3529	A

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Mol	Chain	Res	Type
83	A5	3530	A
83	A5	3531	C
83	A5	3567	A
83	A5	3591	A
83	A5	3592	C
83	A5	3621	A
83	A5	3626	A
83	A5	3627	C
83	A5	3673	G
83	A5	3676	C
83	A5	3687	A
83	A5	3692	G
83	A5	3695	G
83	A5	3697	A
83	A5	3708	U
83	A5	3712	G
83	A5	3727	A
83	A5	3758	G
83	A5	3760	A
83	A5	3762	G
83	A5	3765	A
83	A5	3774	U
83	A5	3775	A
83	A5	3790	A
83	A5	3802	U
83	A5	3803	C
83	A5	3806	C
83	A5	3808	A
83	A5	3819	C
83	A5	3838	A
83	A5	3839	A
83	A5	3841	C
83	A5	3842	A
83	A5	3843	U
83	A5	3844	U
83	A5	3846	U
83	A5	3848	U
83	A5	3853	C
83	A5	3890	G
83	A5	3891	U
83	A5	3904	G
83	A5	3915	U

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Mol	Chain	Res	Type
83	A5	3924	U
83	A5	3925	G
83	A5	3949	U
83	A5	3962	A
84	A9	21	G
84	A9	22	A
85	A7	47	C
85	A7	49	A
85	A7	71	G
85	A7	72	U
85	A7	119	C
86	A8	44	C
86	A8	45	G
86	A8	79	A
86	A8	108	A

#### 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](#)

There are no chain breaks in this entry.