



# Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Mar 2, 2017 – 12:40 pm GMT

PDB ID : 4V6U  
EMDB ID: : EMD-2009  
Title : Promiscuous behavior of proteins in archaeal ribosomes revealed by cryo-EM:  
implications for evolution of eukaryotic ribosomes  
Authors : Armache, J.-P.; Anger, A.M.; Marquez, V.; Frankenberg, S.; Froehlich, T.;  
Villa, E.; Berninghausen, O.; Thomm, M.; Arnold, G.J.; Beckmann, R.; Wil-  
son, D.N.  
Deposited on : 2012-08-09  
Resolution : 6.60 Å(reported)

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

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

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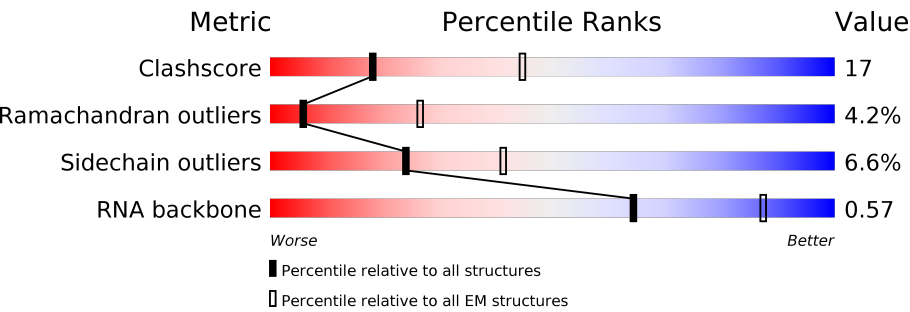
MolProbity : 4.02b-467  
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : recalc29047

# 1 Overall quality at a glance i

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

The reported resolution of this entry is 6.60 Å.

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





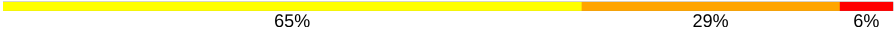













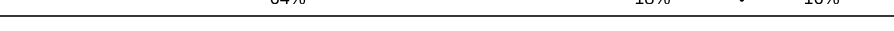

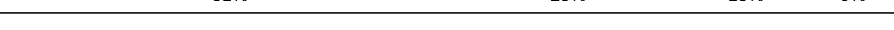
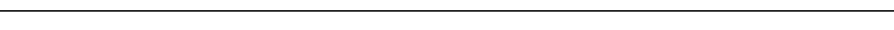
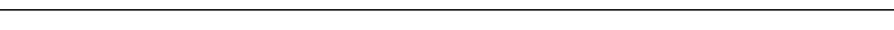
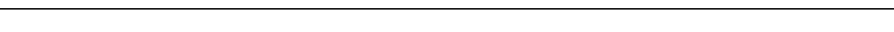
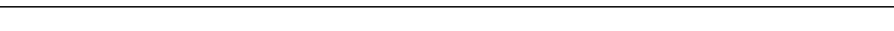
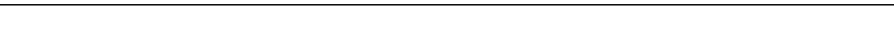

Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	125131	1336
Ramachandran outliers	121729	1120
Sidechain outliers	121581	1026
RNA backbone	3398	335

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 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	AQ	158	70% 24% 6%
2	AK	135	65% 25% 10%
3	AI	130	67% 28% ...
4	AG	125	44% 36% 14% 6%
5	AW	63	75% 21% 5%
6	AC	210	63% 20% 5% 11%
7	AB	202	68% 26% 5%
8	AR	113	66% 26% 8%


























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Mol	Chain	Length	Quality of chain
9	A9	57	
10	AD	180	
11	A1	77	
12	AN	147	
13	AX	71	
14	AM	137	
15	AE	243	
16	AJ	127	
17	AO	148	
18	AF	236	
19	AS	67	
20	A3	123	
20	B4	123	
20	BG	123	
21	A2	1495	
22	AY	50	
23	AT	132	
24	AA	198	
25	AH	215	
26	AP	56	
27	A0	76	
28	AV	99	
28	B6	99	
29	AL	102	
30	AU	150	

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Mol	Chain	Length	Quality of chain
31	BY	155	
32	BO	203	
33	BC	365	
34	B5	83	
34	BK	83	
35	BL	147	
36	Bf	51	
37	BU	121	
38	Bb	130	
39	Be	62	
40	BE	186	
41	Ba	95	
42	BT	86	
43	Bk	339	
44	BW	72	
45	Bi	83	
46	BA	216	
47	BI	142	
48	BR	97	
49	BQ	150	
50	BV	66	
51	Bj	94	
52	BB	239	
53	BD	255	
54	BF	184	

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Mol	Chain	Length	Quality of chain
55	Bh	24	 92% 8%
56	BH	164	 40% 26% 10% 7% 18%
57	BZ	99	 66% 26% 6% •
58	BP	120	 69% 28% •
59	BM	194	 68% 27% • •
60	BS	155	 70% 21% 6% •
61	Bd	89	 52% 35% 10% •
62	BN	181	 65% 21% 7% • 7%
63	Bg	51	 43% 27% 12% 6% 12%
64	Bc	87	 63% 29% 7% •
65	BJ	141	 55% 32% 6% 6%
66	Bl	77	 71% 23% 5%
67	B1	3049	 • 59% 34% 6%
68	B3	126	 51% 37% 12%

## 2 Entry composition [i](#)

There are 68 unique types of molecules in this entry. The entry contains 173979 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 30S ribosomal protein S15P/S13e.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	AQ	158	Total	C	N	O	S	0	0
			1310	834	250	221	5		

- Molecule 2 is a protein called 30S ribosomal protein S9P.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AK	135	Total	C	N	O	S	0	0
			1072	671	205	190	6		

- Molecule 3 is a protein called 30S ribosomal protein S8P.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AI	129	Total	C	N	O	S	0	0
			1028	668	178	180	2		

- Molecule 4 is a protein called 30S ribosomal protein S6e.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AG	125	Total	C	N	O	S	0	0
			984	623	180	179	2		

- Molecule 5 is a protein called 30S ribosomal protein S27e.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AW	63	Total	C	N	O	S	0	0
			478	306	85	81	6		

- Molecule 6 is a protein called 30S ribosomal protein S3P.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AC	186	Total	C	N	O	S	0	0
			1459	933	271	251	4		

- Molecule 7 is a protein called 30S ribosomal protein S2P.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AB	202	Total	C	N	O	S	0	0
			1623	1046	282	290	5		

- Molecule 8 is a protein called 30S ribosomal protein S17P.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AR	113	Total	C	N	O	S	0	0
			934	592	177	160	5		

- Molecule 9 is a protein called unknown 30S ribosomal protein SX.

Mol	Chain	Residues	Atoms				AltConf	Trace
9	A9	57	Total	C	N	O	0	0
			286	171	57	58		

- Molecule 10 is a protein called 30S ribosomal protein S4P.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AD	172	Total	C	N	O	S	0	0
			1434	902	273	255	4		

- Molecule 11 is a RNA chain called E-tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	A1	77	Total	C	N	O	P	0	0
			1649	734	303	535	77		

- Molecule 12 is a protein called 30S ribosomal protein S12P.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AN	145	Total	C	N	O	S	0	0
			1140	722	222	193	3		

- Molecule 13 is a protein called 30S ribosomal protein S28e.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AX	71	Total	C	N	O	S	0	0
			568	345	115	107	1		

- Molecule 14 is a protein called 30S ribosomal protein S11P.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AM	133	Total	C	N	O	S	0	0
			1004	623	200	179	2		

- Molecule 15 is a protein called 30S ribosomal protein S4e.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AE	241	Total	C	N	O	S	0	0
			1976	1277	355	339	5		

- Molecule 16 is a protein called 30S ribosomal protein S8e.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AJ	127	Total	C	N	O	S	0	0
			1004	622	207	174	1		

- Molecule 17 is a protein called 30S ribosomal protein S13P.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AO	148	Total	C	N	O	S	0	0
			1189	746	237	200	6		

- Molecule 18 is a protein called 30S ribosomal protein S5P.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AF	217	Total	C	N	O	S	0	0
			1716	1084	319	305	8		

- Molecule 19 is a protein called 30S ribosomal protein S17e.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AS	67	Total	C	N	O	S	0	0
			556	353	105	95	3		

- Molecule 20 is a protein called 50S ribosomal protein L7Ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	A3	123	Total	C	N	O	S	0	0
			939	599	155	181	4		
20	BG	123	Total	C	N	O	S	0	0
			939	599	155	181	4		
20	B4	123	Total	C	N	O	S	0	0
			939	599	155	181	4		



- Molecule 21 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	A2	1495	Total	C	N	O	P	0	0
			32135	14297	5954	10389	1495		

- Molecule 22 is a protein called 30S ribosomal protein S27ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AY	50	Total	C	N	O	S	0	0
			409	262	75	66	6		

- Molecule 23 is a protein called 30S ribosomal protein S19P.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AT	111	Total	C	N	O	S	0	0
			923	594	173	150	6		

- Molecule 24 is a protein called 30S ribosomal protein S3Ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AA	190	Total	C	N	O	S	0	0
			1559	1007	273	274	5		

- Molecule 25 is a protein called 30S ribosomal protein S7P.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AH	215	Total	C	N	O	S	0	0
			1736	1100	326	302	8		

- Molecule 26 is a protein called 30S ribosomal protein S14P type Z.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AP	56	Total	C	N	O	S	0	0
			462	292	95	69	6		

- Molecule 27 is a RNA chain called P-tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	A0	76	Total	C	N	O	P	0	0
			1625	722	291	536	76		

- Molecule 28 is a protein called 30S ribosomal protein S24e.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	AV	99	Total	C	N	O	S	0	0
			823	532	134	154	3		
28	B6	94	Total	C	N	O	S	0	0
			782	508	127	144	3		

- Molecule 29 is a protein called 30S ribosomal protein S10P.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AL	102	Total	C	N	O	S	0	0
			822	507	159	152	4		

- Molecule 30 is a protein called SSU ribosomal protein S19E.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	AU	144	Total	C	N	O	S	0	0
			1175	758	212	204	1		

- Molecule 31 is a protein called 50S ribosomal protein L30P.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BY	155	Total	C	N	O	S	0	0
			1243	788	235	213	7		

- Molecule 32 is a protein called 50S ribosomal protein L18P.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	BO	197	Total	C	N	O	S	0	0
			1597	1021	299	274	3		

- Molecule 33 is a protein called 50S ribosomal protein L3P.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	BC	365	Total	C	N	O	S	0	0
			2912	1870	527	500	15		

- Molecule 34 is a protein called 50S ribosomal protein L14e.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	B5	81	Total	C	N	O	S	0	0
			614	386	119	108	1		
34	BK	81	Total	C	N	O	S	0	0
			614	386	119	108	1		

- Molecule 35 is a protein called 50S ribosomal protein L15P.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BL	147	Total	C	N	O	S	0	0
			1154	727	227	195	5		

- Molecule 36 is a protein called 50S ribosomal protein L39e.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Bf	51	Total	C	N	O	S	0	0
			445	284	98	62	1		

- Molecule 37 is a protein called 50S ribosomal protein L24P.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BU	121	Total	C	N	O	S	0	0
			1008	637	195	172	4		

- Molecule 38 is a protein called 50S ribosomal protein L32e.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Bb	127	Total	C	N	O	S	0	0
			1074	689	217	167	1		

- Molecule 39 is a protein called 50S ribosomal protein L37e.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Be	62	Total	C	N	O	S	0	0
			506	312	111	78	5		

- Molecule 40 is a protein called 50S ribosomal protein L5P.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BE	186	Total	C	N	O	S	0	0
			1489	937	278	265	9		

- Molecule 41 is a protein called 50S ribosomal protein L31e.

Mol	Chain	Residues	Atoms				AltConf	Trace
41	Ba	90	Total	C	N	O	0	0
			746	483	138	125		

- Molecule 42 is a protein called 50S ribosomal protein L23P.

Mol	Chain	Residues	Atoms				AltConf	Trace
42	BT	84	Total	C	N	O		
			680	440	118	122	0	0

- Molecule 43 is a protein called Acidic ribosomal protein P0 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Bk	212	Total	C	N	O	S		
			1632	1051	272	303	6	0	0

- Molecule 44 is a protein called 50S ribosomal protein L29P.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BW	72	Total	C	N	O	S		
			594	369	115	106	4	0	0

- Molecule 45 is a protein called 50S ribosomal protein L37Ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Bi	78	Total	C	N	O	S		
			590	368	122	95	5	0	0

- Molecule 46 is a protein called 50S ribosomal protein L1P.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BA	216	Total	C	N	O	S		
			1677	1068	300	304	5	0	0

- Molecule 47 is a protein called 50S ribosomal protein L13P.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BI	142	Total	C	N	O	S		
			1150	737	215	195	3	0	0

- Molecule 48 is a protein called 50S ribosomal protein L21e.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	BR	95	Total	C	N	O	S		
			787	501	160	125	1	0	0

- Molecule 49 is a protein called 50S ribosomal protein L19e.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	BQ	150	Total	C	N	O	S	0	0
			1256	794	255	202	5		

- Molecule 50 is a protein called 50S ribosomal protein L24e.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	BV	66	Total	C	N	O	S	0	0
			555	351	106	91	7		

- Molecule 51 is a protein called 50S ribosomal protein L44E.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	Bj	94	Total	C	N	O	S	0	0
			787	499	161	122	5		

- Molecule 52 is a protein called 50S ribosomal protein L2P.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	BB	239	Total	C	N	O	S	0	0
			1838	1169	347	317	5		

- Molecule 53 is a protein called 50S ribosomal protein L4P.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	BD	255	Total	C	N	O	S	0	0
			2026	1288	391	342	5		

- Molecule 54 is a protein called 50S ribosomal protein L6P.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	BF	184	Total	C	N	O	S	0	0
			1476	956	252	266	2		

- Molecule 55 is a protein called 50S ribosomal protein L41e.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Bh	24	Total	C	N	O	S	0	0
			230	147	54	28	1		

- Molecule 56 is a protein called 50S ribosomal protein L11P.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	BH	134	Total	C	N	O	S	0	0
			988	635	164	183	6		

- Molecule 57 is a protein called 50S ribosomal protein L30e.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	BZ	99	Total	C	N	O	S	0	0
			754	489	121	142	2		

- Molecule 58 is a protein called 50S ribosomal protein L18e.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	BP	120	Total	C	N	O	S	0	0
			966	606	186	171	3		

- Molecule 59 is a protein called 50S ribosomal protein L15e.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	BM	194	Total	C	N	O	S	0	0
			1595	1020	316	253	6		

- Molecule 60 is a protein called 50S ribosomal protein L22P.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	BS	150	Total	C	N	O	S	0	0
			1200	764	230	202	4		

- Molecule 61 is a protein called 50S ribosomal protein L34e.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Bd	89	Total	C	N	O	S	0	0
			740	463	158	108	11		

- Molecule 62 is a protein called 50S ribosomal protein L10e.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	BN	168	Total	C	N	O	S	0	0
			1378	872	268	232	6		

- Molecule 63 is a protein called 50S ribosomal protein L40e.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	Bg	45	Total	C	N	O	S	0	0
			371	236	76	55	4		

- Molecule 64 is a protein called 50S ribosomal protein L35Ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Bc	87	Total	C	N	O	S	0	0
			685	434	132	117	2		

- Molecule 65 is a protein called 50S ribosomal protein L14P.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	BJ	132	Total	C	N	O	S	0	0
			1014	631	204	176	3		

- Molecule 66 is a protein called 50S ribosomal protein LX.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Bl	77	Total	C	N	O	S	0	0
			659	425	118	115	1		

- Molecule 67 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	B1	3049	Total	C	N	O	P	0	0
			65577	29172	12191	21165	3049		

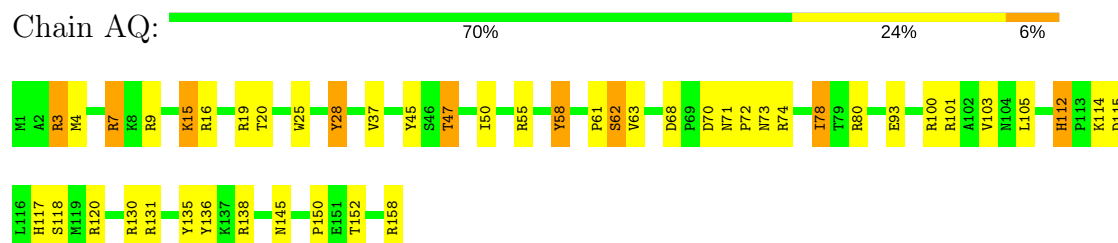
- Molecule 68 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	B3	126	Total	C	N	O	P	0	0
			2694	1199	492	877	126		

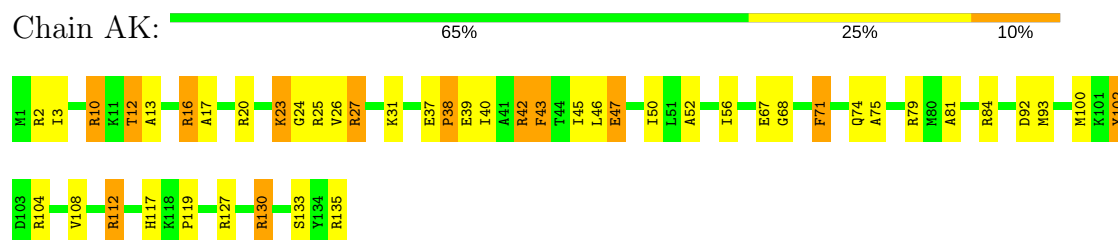
### 3 Residue-property plots

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

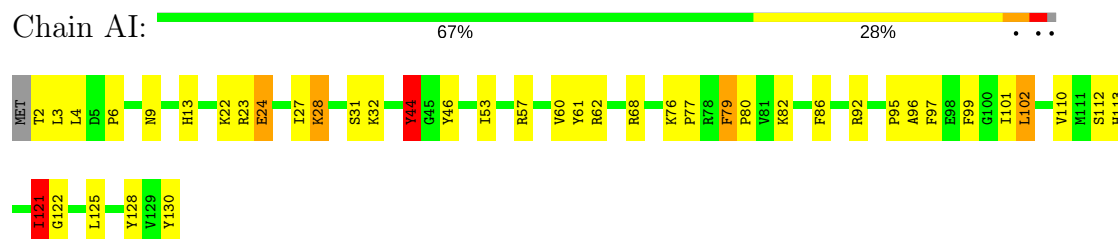
#### • Molecule 1: 30S ribosomal protein S15P/S13e



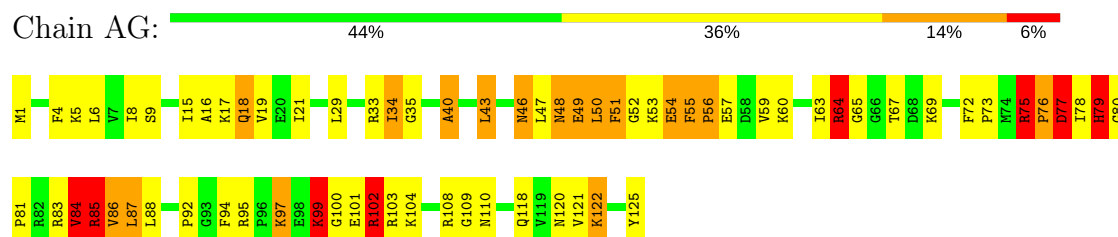
#### • Molecule 2: 30S ribosomal protein S9P



#### • Molecule 3: 30S ribosomal protein S8P

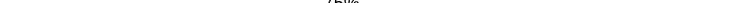


#### • Molecule 4: 30S ribosomal protein S6e





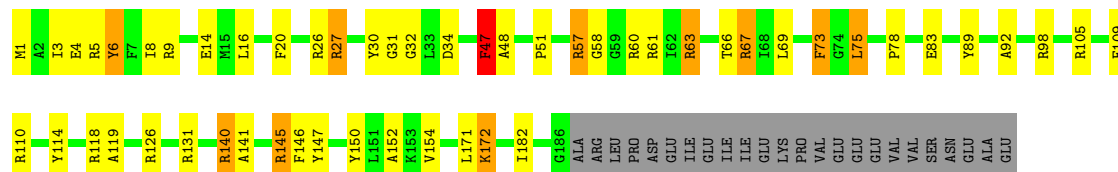
- Molecule 5: 30S ribosomal protein S27e

Chain AW: 



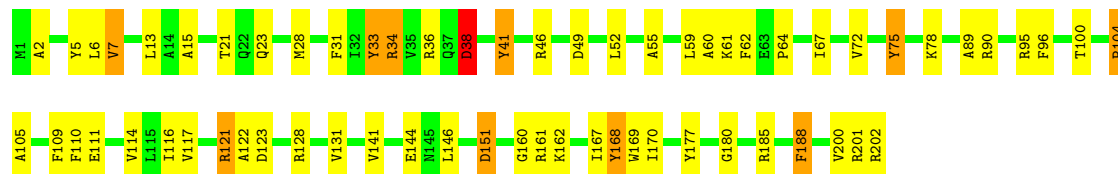
- Molecule 6: 30S ribosomal protein S3P

Chain AC: 



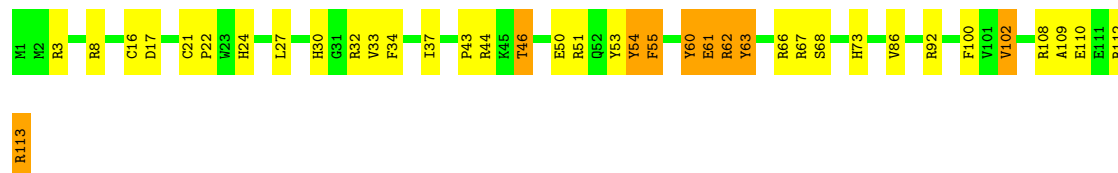
- Molecule 7: 30S ribosomal protein S2P

Chain AB: 



- Molecule 8: 30S ribosomal protein S17P

Chain AR: 



- Molecule 9: unknown 30S ribosomal protein SX

Chain A9:  93% 7%



- Molecule 10: 30S ribosomal protein S4P

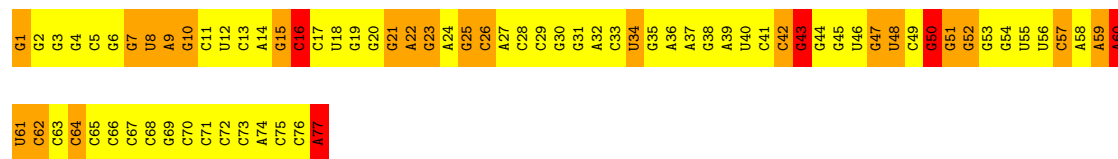
Chain AD:  63% 25% 8% 4%





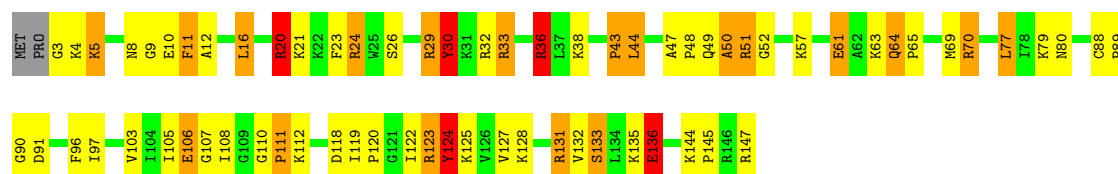
• Molecule 11: E-tRNA

Chain A1: 65% 29% 6%



• Molecule 12: 30S ribosomal protein S12P

Chain AN: 52% 31% 13%



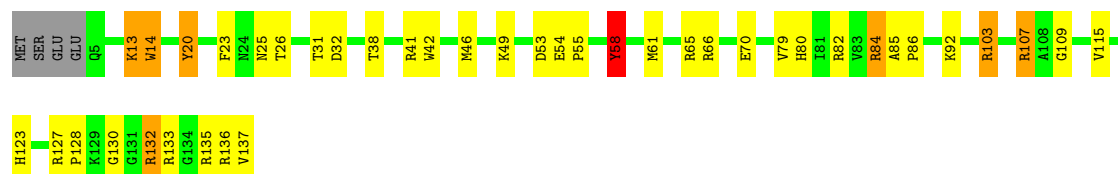
• Molecule 13: 30S ribosomal protein S28e

Chain AX: 59% 21% 13%



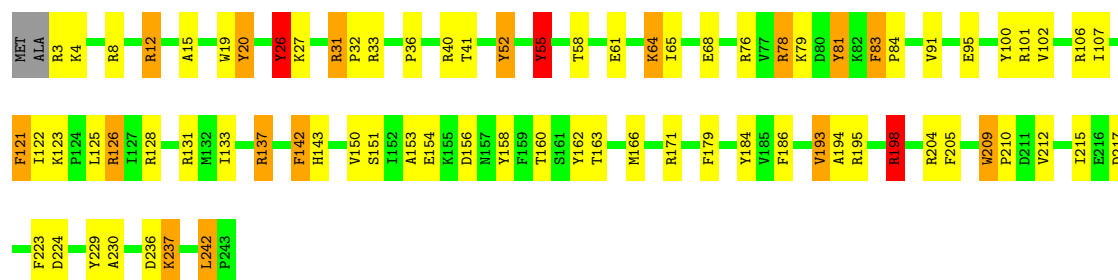
• Molecule 14: 30S ribosomal protein S11P

Chain AM: 67% 24% 5%

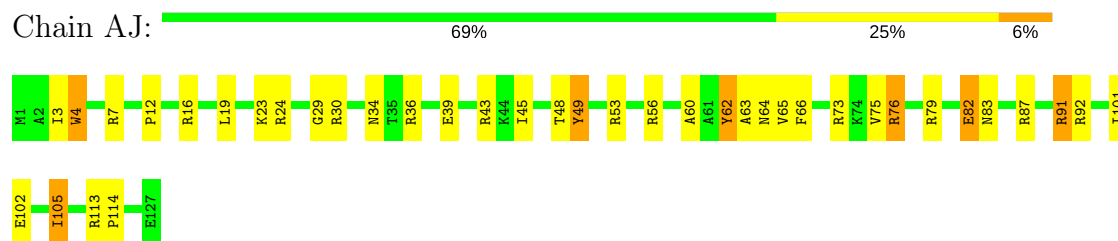


• Molecule 15: 30S ribosomal protein S4e

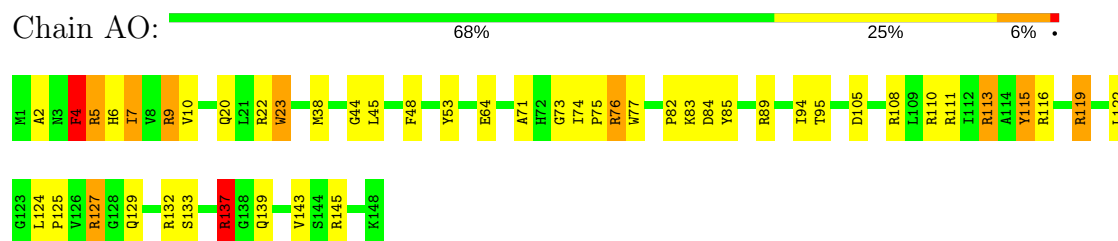
Chain AE: 67% 24% 7%



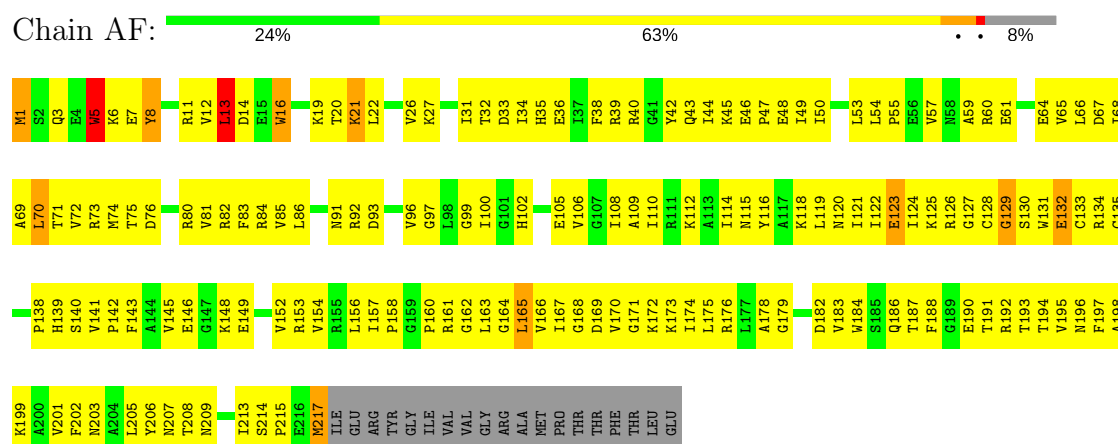
- Molecule 16: 30S ribosomal protein S8e



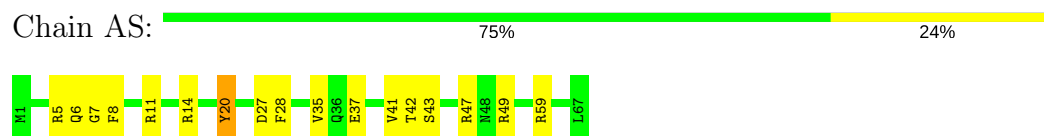
- Molecule 17: 30S ribosomal protein S13P



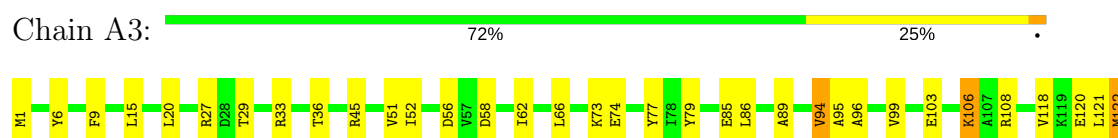
- Molecule 18: 30S ribosomal protein S5P



- Molecule 19: 30S ribosomal protein S17e

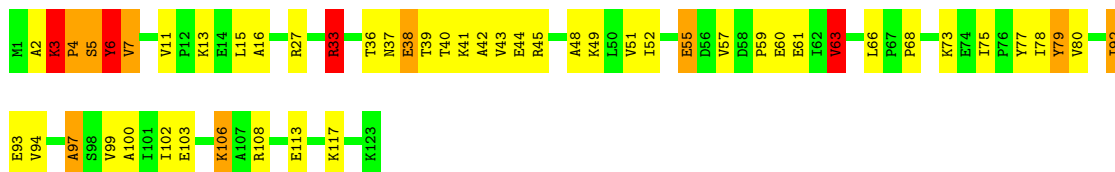


- Molecule 20: 50S ribosomal protein L7Ae


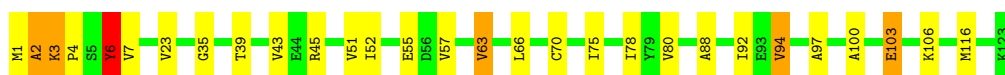


K123

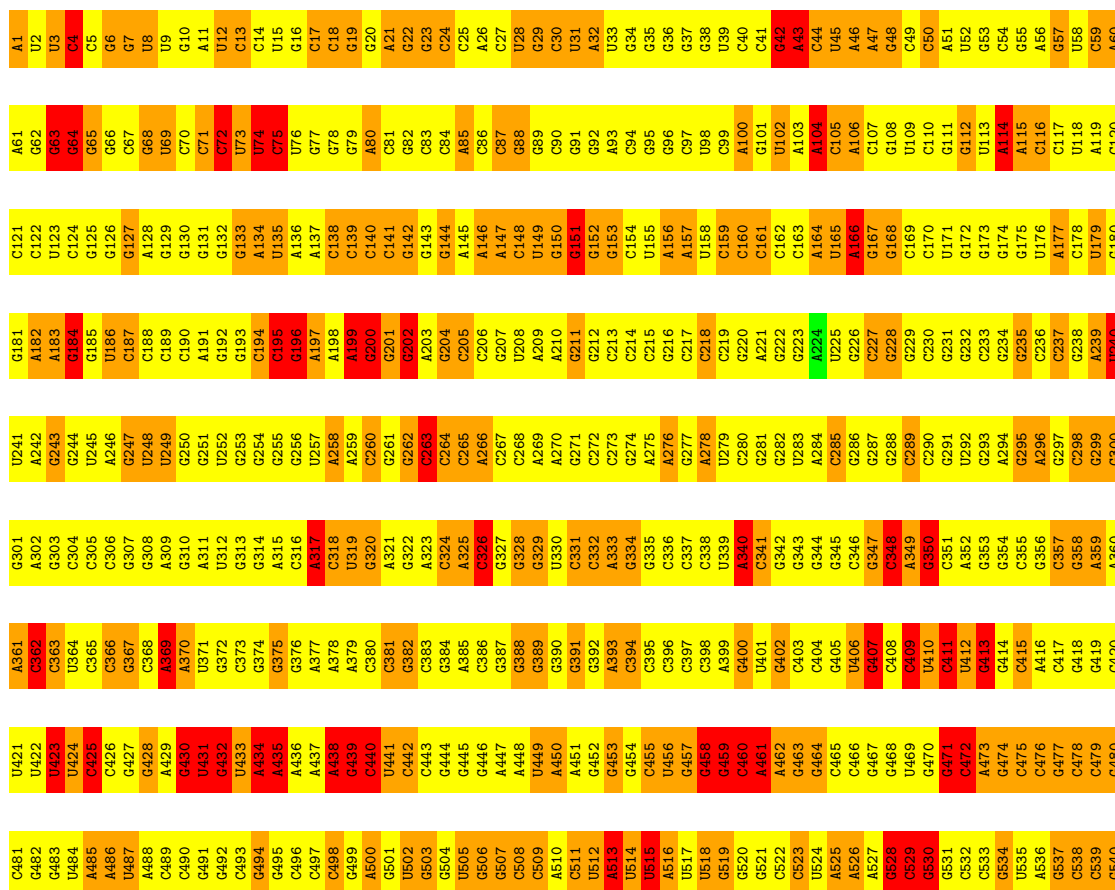
- Molecule 20: 50S ribosomal protein L7Ae

Chain BG:  58% 32% 7%

- Molecule 20: 50S ribosomal protein L7Ae

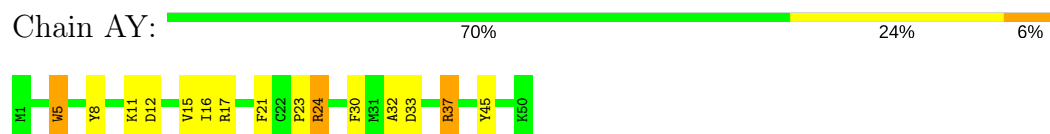
Chain B4:  76% 19%

- Molecule 21: 16S rRNA

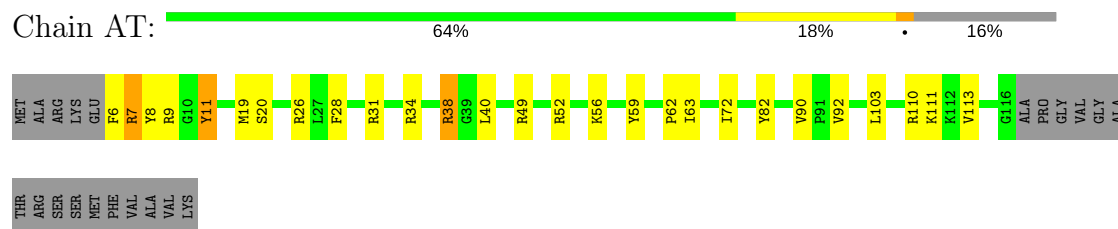
Chain A2:  57% 35% 8%

G1441	G1381	U1321	U1261	G1201	G1141	C1081	C1021	U961	G901	C841	U781	A721	C661	G601	G541
G1442	G1382	C1322	U1262	G1202	G1142	A1062	U1022	G962	U902	U842	A782	G722	C662	G602	G542
G1443	A1383	A1323	G1263	G1203	G1143	U1083	G1023	A963	G903	G843	G783	G723	G663	G603	C543
G1444	G1384	A1324	G1264	C1204	G1144	U1084	G1024	A964	G904	G844	G784	G724	G664	C604	C544
G1445	U1385	G1325	G1265	G1205	C1145	C1085	A1025	G965	A905	G845	G785	G725	G665	C605	C545
G1446	C1386	G1326	A1266	G1206	G1146	C1086	U1026	G966	G906	G846	G786	A726	G666	U606	C546
G1447	C1387	C1327	U1267	G1207	G1147	C1087	C1027	C967	C907	A847	U787	G727	G667	U607	U547
G1448	G1388	G1328	C1268	A1208	G1148	U1088	C1028	C968	G908	G848	G788	G728	G668	G608	A548
G1449	C1389	C1329	G1269	C1209	G1149	C1089	G1029	A969	G909	U849	G789	G729	G669	G609	A549
G1450	G1390	C1330	C1270	A1210	A1150	C1090	U1030	G970	C910	A850	G790	G730	C670	G610	G550
C1451	U1391	G1331	G1271	A1211	A1151	C1091	G1031	G971	C911	C851	G791	A731	C671	A611	U551
G1452	G1392	G1332	G1272	U1212	G1152	G1092	A1032	C972	G912	G852	G792	G732	G672	C612	C552
U1453	A1393	G1333	G1273	G1213	G1153	C1093	G1033	U973	G913	G853	G793	G733	C673	C613	C553
G1454	G1394	A1334	C1274	G1214	G1154	U1094	G1034	G974	U914	C854	A794	G734	C674	G614	C554
G1455	G1395	U1335	U1275	G1215	U1155	C1095	C1035	A975	U915	C855	G795	A735	A675	G615	U555
C1456	C1396	A1336	G1276	A1216	A1156	G1096	G1036	A976	U916	G856	G796	A736	G676	G616	G556
A1457	U1337	C1337	C1277	C1217	G1157	G1097	U1037	G977	A917	C857	U797	G737	U677	G617	G557
G1458	U1398	G1338	A1278	C1218	G1158	G1098	C1038	G978	A918	A858	U798	G738	G678	G618	C558
G1459	G1399	U1339	A1279	C1219	U1159	A1099	C1039	U979	U919	A859	G799	G739	G679	A619	G559
G1460	A1400	U1340	C1280	G1220	C1160	G1100	A1040	C980	U920	G860	G800	G740	C680	G620	A560
A1461	U1401	A1221	U1281	A1221	A1161	G1101	C1041	U981	G921	G861	A901	A741	C681	G621	A561
A1462	C1402	C1342	C1282	C1222	G1162	A1102	U1042	U982	A922	U862	G802	U742	A682	C622	A562
A1463	U1403	G1343	G1283	C1223	U1163	G1103	U1043	G983	A923	U863	C803	U743	A683	C623	U563
C1464	A1404	U1344	C1284	U1224	A1164	G1104	A1044	C984	U924	G864	U804	A744	G684	G624	C564
C1465	C1405	G1345	C1285	G1225	U1165	C1105	A1045	C985	U925	A865	C805	G745	G685	G625	C565
G1466	U1406	C1346	C1286	G1226	G1166	A1106	G1046	G986	C926	A866	G806	A746	C686	G626	C566
U1467	U1407	U1347	G1287	A1227	C1167	C1107	U1047	G987	A927	A867	C807	U747	G687	G627	A567
A1468	C1408	C1348	G1288	A1228	C1168	U1108	U1048	A988	A928	U868	C808	U748	G688	G628	C568
G1469	G1409	U1349	A1229	C1229	C1169	C1109	U1049	C989	C929	U869	C809	C749	C689	U629	G569
G1470	G1410	U1350	U1290	G1230	C1170	U1110	G1050	U890	G930	U870	G810	C750	C690	A630	G570
G1471	G1411	U1351	G1291	G1231	G1171	G1111	G1051	C991	C931	A871	G811	C751	G691	C631	C571
G1472	C1412	G1352	A1292	G1232	A1172	G1112	U1052	G992	C932	A872	U812	G752	G692	C632	U572
A1473	G1413	C1353	A1293	G1233	A1173	G1113	A1053	C993	G933	A873	G813	G753	C693	C633	C573
A1474	G1414	A1354	G1294	A1234	A1174	G1114	A1054	C994	G934	G874	C814	G754	U694	C634	A574
C1475	U1415	C1355	C1295	A1235	C1175	G1115	C1055	G995	G935	G875	C815	U755	C695	C635	A575
U1476	U1416	U1356	U1296	G1236	C1176	G1116	G1056	A996	A936	A876	G816	A756	G696	G636	C576
G1477	A1417	C1357	G1297	G1237	G1177	A1117	A1057	G997	A937	A877	U817	G757	A697	G637	C577
G1478	G1418	A1358	G1298	G1238	C1178	C1118	G1058	A998	C938	U878	A818	U758	A698	G638	G578
C1479	G1419	C1359	A1299	A1239	C1179	U1119	C1059	G999	C939	U879	G819	C759	C699	G639	U579
G1480	U1420	C1360	A1300	A1240	G1180	G1120	G1060	G1000	U940	G880	G820	G760	G700	U640	G580
C1481	C1421	G1361	U1301	U1241	G1181	C1121	A1061	A1001	C941	G881	G821	U761	G701	A641	G581
U1483	A1423	C1363	C1303	G1243	C1183	G1123	G1063	G1003	C943	G883	A823	G763	G703	G643	G583
C1484	G1424	G1362	C1302	C1242	C1182	C1122	G1062	A942	A942	C882	A822	G762	G702	G642	G582
G1485	C1425	C1364	C1304	C1244	U1184	G1124	C1064	U1004	C944	G884	G824	C764	C704	G644	C584
U1486	U1426	G1365	U1305	C1245	A1185	C1125	C1065	G1005	G945	G885	C825	U765	C705	G645	U585
C1487	C1427	U1366	A1306	U1246	C1186	G1126	C1066	C1006	G946	G886	C826	G766	G706	U646	C586
A1488	G1428	C1367	G1307	A1247	A1187	A1127	G1067	G947	G948	G887	G827	U767	A707	G647	G587
G1489	G1429	U1368	U1308	A1248	C1188	U1128	C1068	U1008	G949	A888	U828	A768	C708	A648	C588
C1490	G1430	C1369	A1309	A1249	G1189	A1129	G1069	G889	G949	G889	U829	A769	A649	U589	U589
C1491	C1431	C1371	C1311	C1251	C1190	A1130	C1070	G1010	C950	C890	A830	A770	G710	A650	G590
U1492	U1432	C1372	C1312	C1252	G1191	G1131	C1071	C1011	G951	A891	A831	G771	U711	G651	G591
C1493	C1433	A1373	G1313	G1253	G1193	C1133	C1073	A952	A952	C892	G832	G772	G712	G652	G592
C1494	C1434	C1374	C1314	C1254	G1194	C1134	C1074	C953	C953	U893	C833	A773	A713	C653	G593
G1495	G1435	C1375	G1315	C1255	U1195	G1135	G1075	C954	G954	A894	C834	U774	G714	U654	A594
U1496	U1436	C1376	U1316	C1256	A1196	G1136	A1076	C955	G955	C895	G835	G775	C715	A655	U595
G1497	G1437	G1377	G1317	U1257	C1197	G1137	U1077	C956	C956	A896	G836	G776	G716	U656	A596
A1498	A1438	A1378	U1318	C1258	A1198	G1138	U1078	C1018	A957	A897	C837	G777	C717	A657	C597
G1499	G1439	C1379	U1319	A1259	A1199	G1139	U1079	C1019	G958	G898	C838	G778	G718	U658	U598
G1440	G1440	C1380	A1320	G1260	U1200	A1140	C1080	G1020	A960	G900	C840	C780	A720	C660	C600

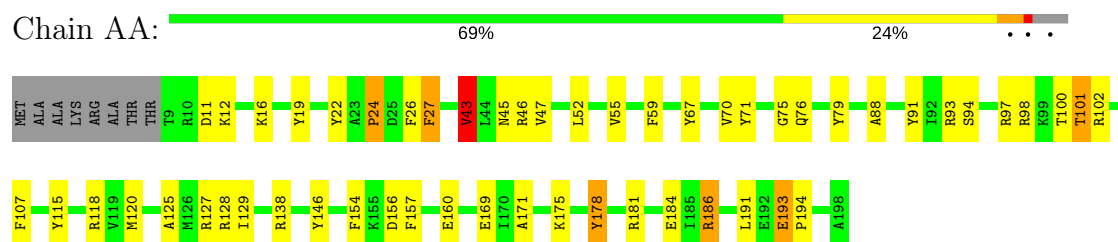
• Molecule 22: 30S ribosomal protein S27ae



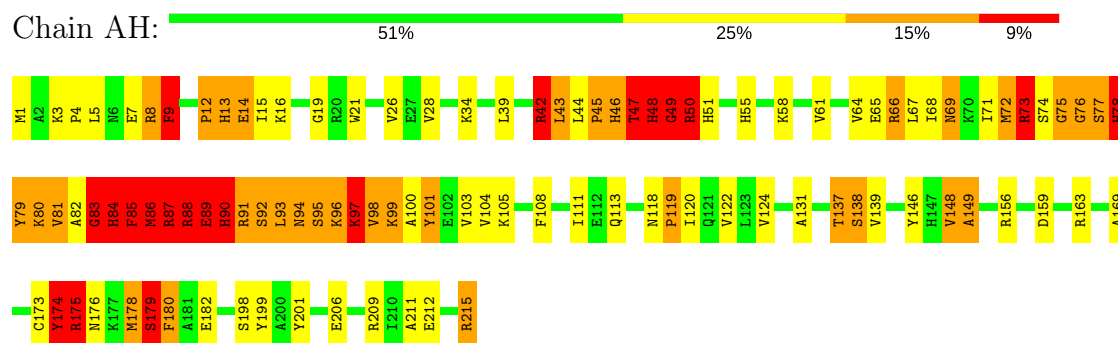
- Molecule 23: 30S ribosomal protein S19P



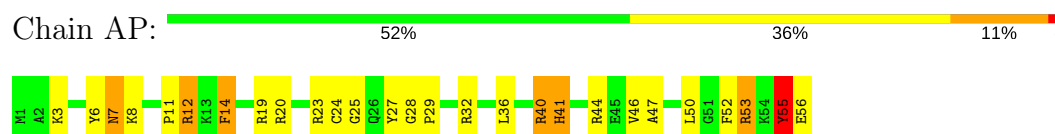
- Molecule 24: 30S ribosomal protein S3Ae



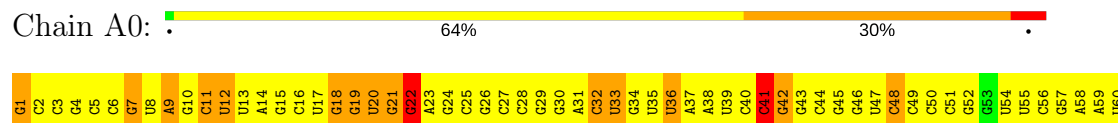
- Molecule 25: 30S ribosomal protein S7P



- Molecule 26: 30S ribosomal protein S14P type Z



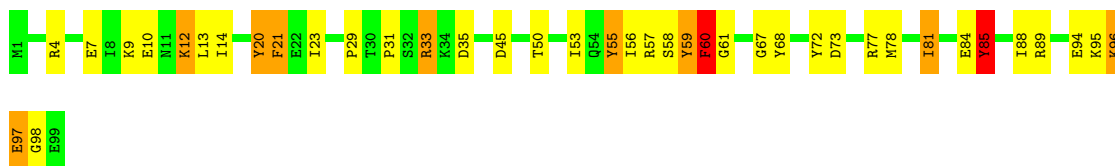
- Molecule 27: P-tRNA





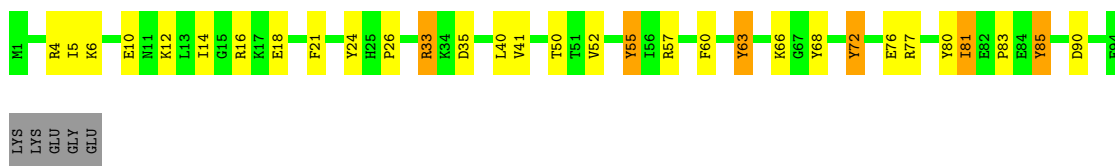
- Molecule 28: 30S ribosomal protein S24e

Chain AV: 60% 29% 9%



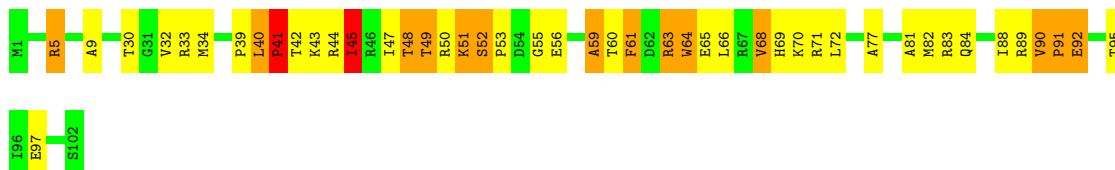
- Molecule 28: 30S ribosomal protein S24e

Chain B6: 64% 25% 6% 5%



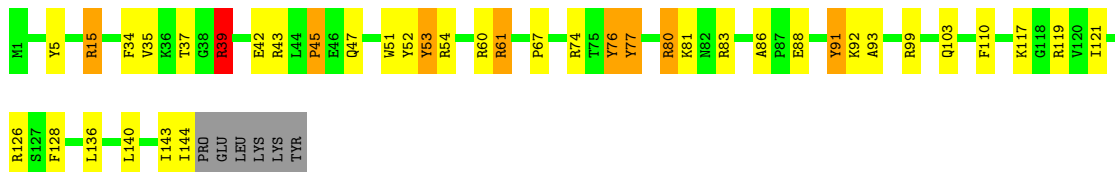
- Molecule 29: 30S ribosomal protein S10P

Chain AL: 55% 29% 14%



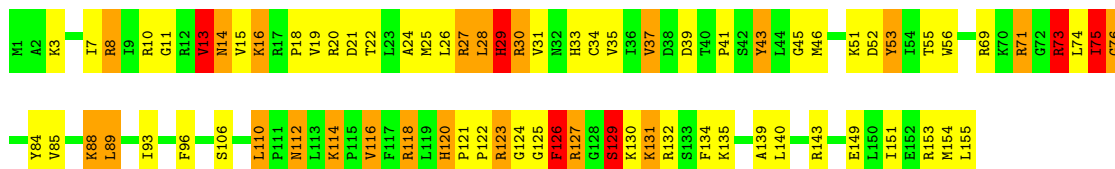
- Molecule 30: SSU ribosomal protein S19E

Chain AU: 69% 21% 5%

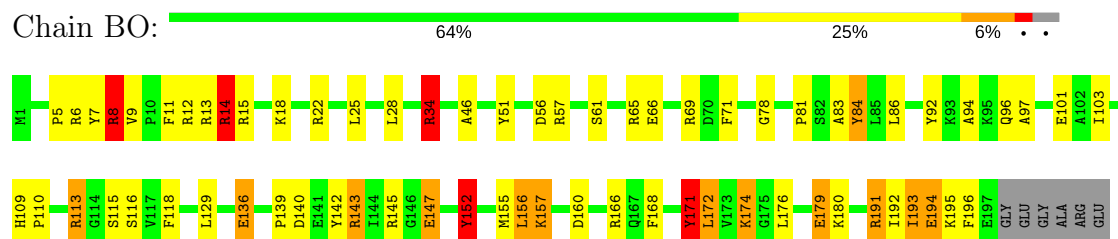


- Molecule 31: 50S ribosomal protein L30P

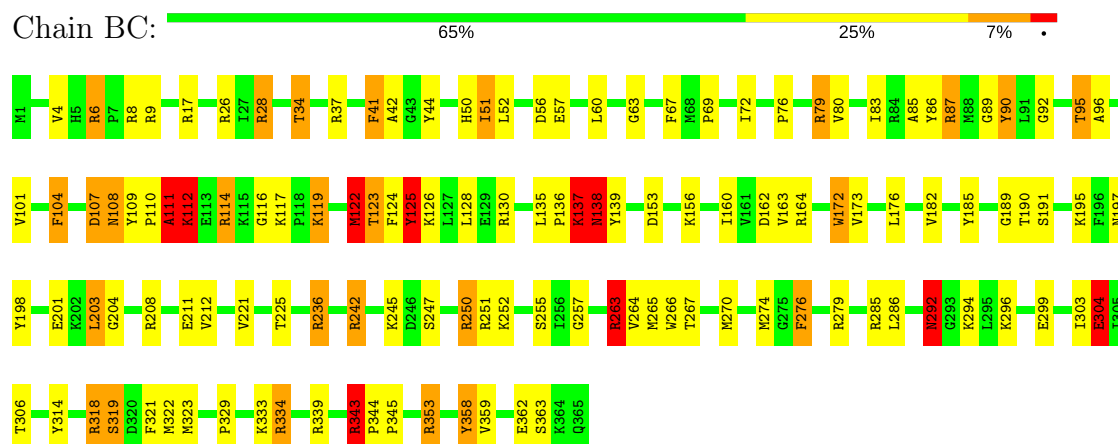
Chain BY: 51% 31% 14%



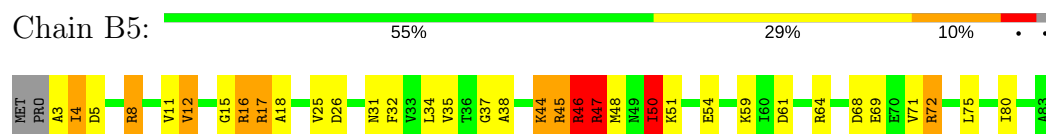
- Molecule 32: 50S ribosomal protein L18P



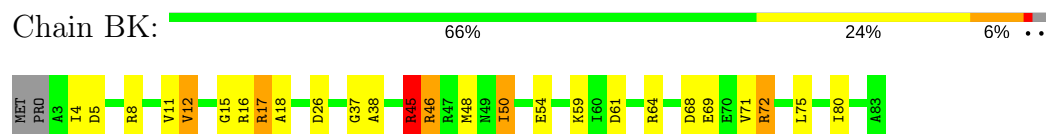
- Molecule 33: 50S ribosomal protein L3P



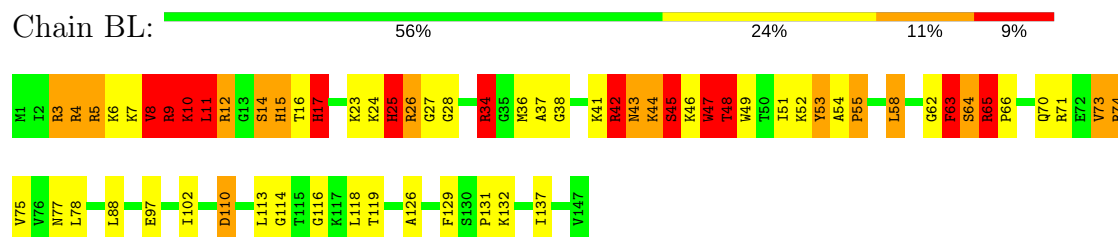
- Molecule 34: 50S ribosomal protein L14e



- Molecule 34: 50S ribosomal protein L14e

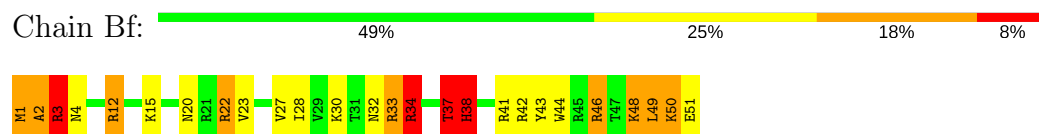


- Molecule 35: 50S ribosomal protein L15P

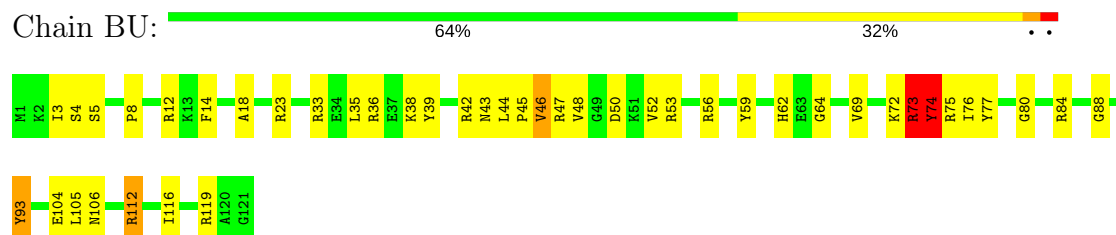


- Molecule 36: 50S ribosomal protein L39e

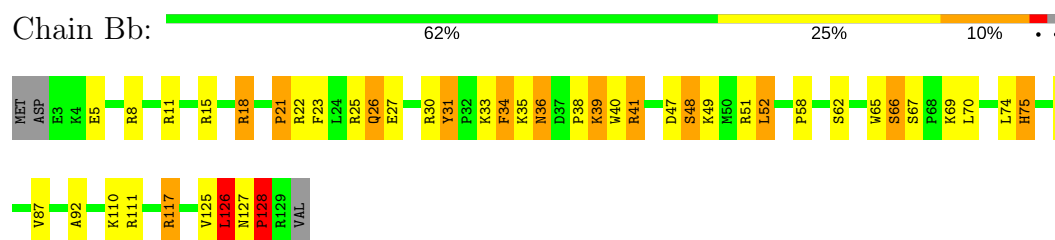




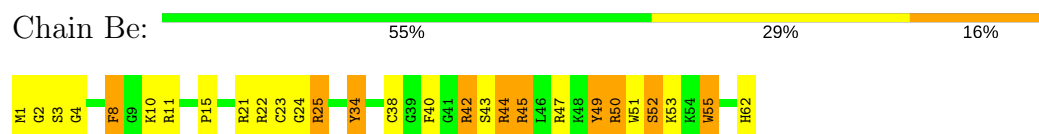
- Molecule 37: 50S ribosomal protein L24P



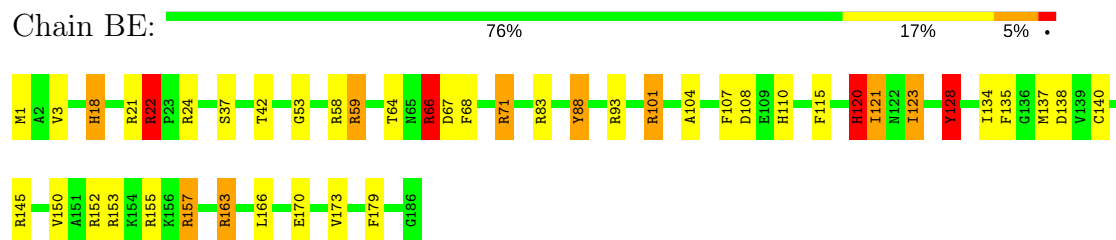
- Molecule 38: 50S ribosomal protein L32e



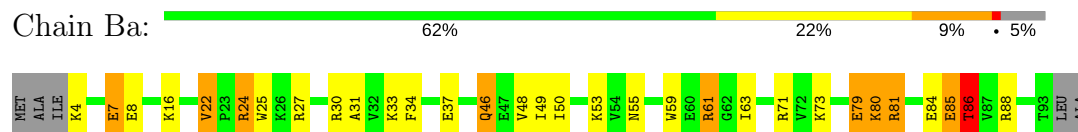
- Molecule 39: 50S ribosomal protein L37e




- Molecule 40: 50S ribosomal protein L5P



- Molecule 41: 50S ribosomal protein L31e



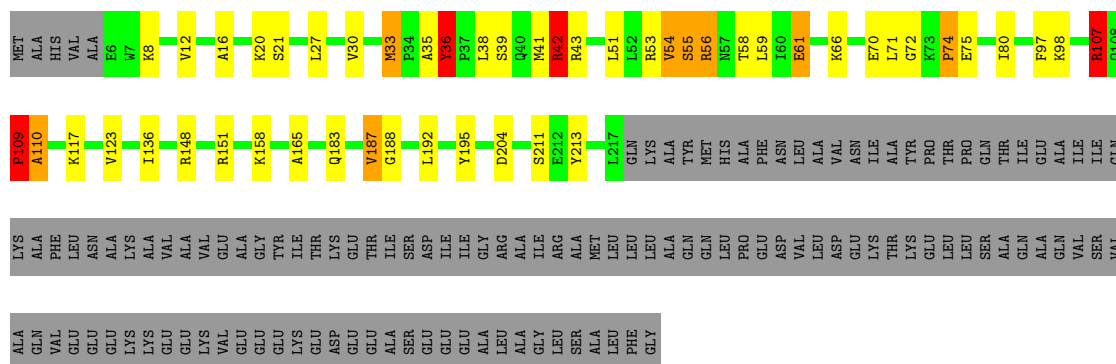
- Molecule 42: 50S ribosomal protein L23P

Chain BT:  73% 21% ..



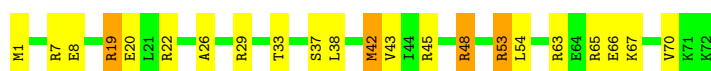
- Molecule 43: Acidic ribosomal protein P0 homolog

Chain Bk:  48% 11% .. 37%




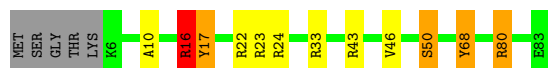
- Molecule 44: 50S ribosomal protein L29P

Chain BW:  69% 25% 6%



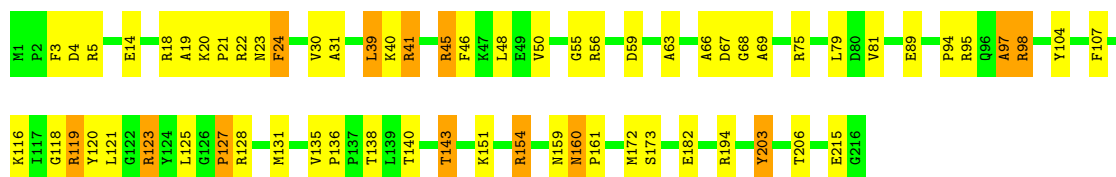
- Molecule 45: 50S ribosomal protein L37Ae

Chain Bi:  80% 8% 5% 6%



- Molecule 46: 50S ribosomal protein L1P

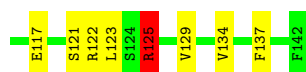
Chain BA:  70% 24% 6%



- Molecule 47: 50S ribosomal protein L13P

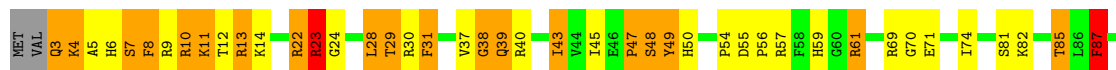
Chain BI:  70% 26% ..





- Molecule 48: 50S ribosomal protein L21e

Chain BR: 51% 26% 20%



- Molecule 49: 50S ribosomal protein L19e

Chain BQ: 54% 30% 11% 5%



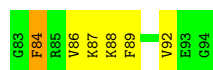
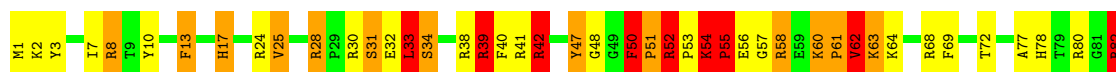
- Molecule 50: 50S ribosomal protein L24e

Chain BV: 42% 33% 23%



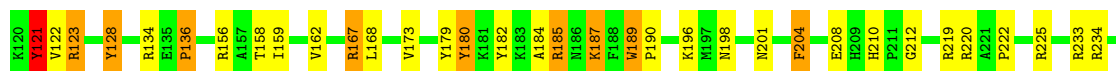
- Molecule 51: 50S ribosomal protein L44E

Chain Bj: 47% 29% 15% 10%



- Molecule 52: 50S ribosomal protein L2P

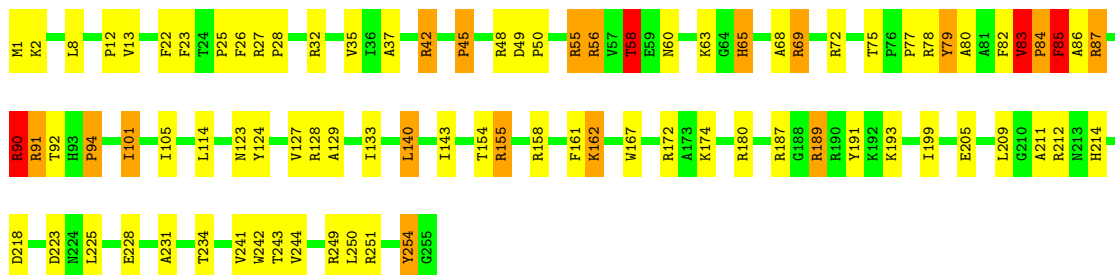
Chain BB: 70% 22% 8%





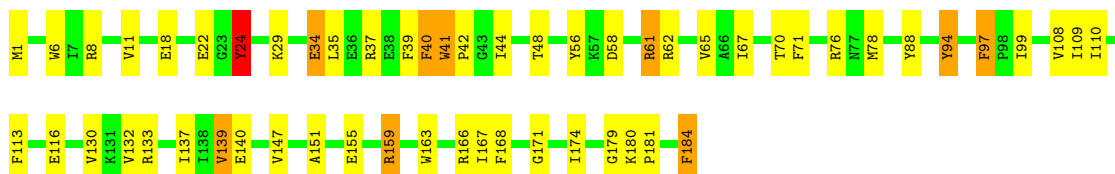
• Molecule 53: 50S ribosomal protein L4P

Chain BD: 66% 26% 7%



• Molecule 54: 50S ribosomal protein L6P

Chain BF: 70% 25% 5%



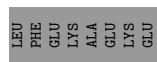
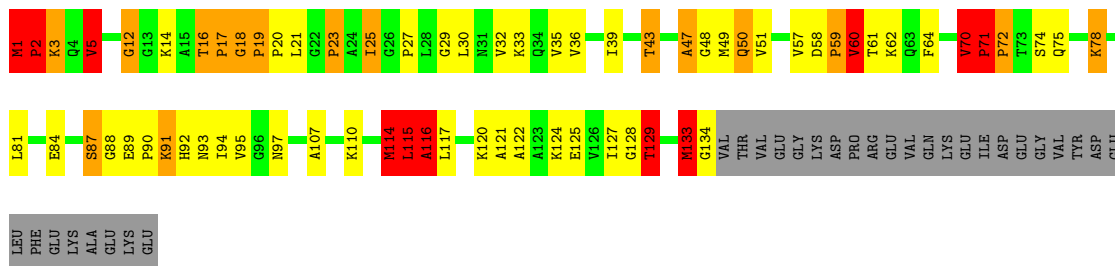
• Molecule 55: 50S ribosomal protein L41e

Chain Bh: 92% 8%



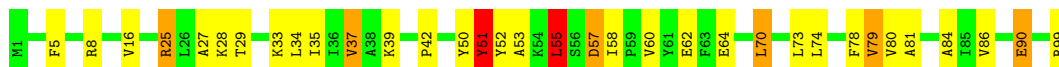
• Molecule 56: 50S ribosomal protein L11P

Chain BH: 40% 26% 10% 7% 18%

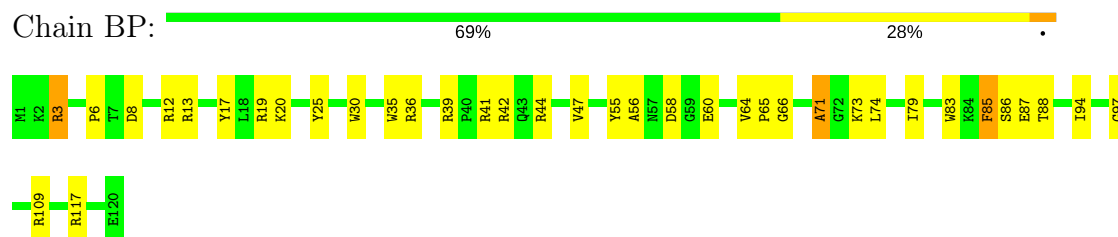


• Molecule 57: 50S ribosomal protein L30e

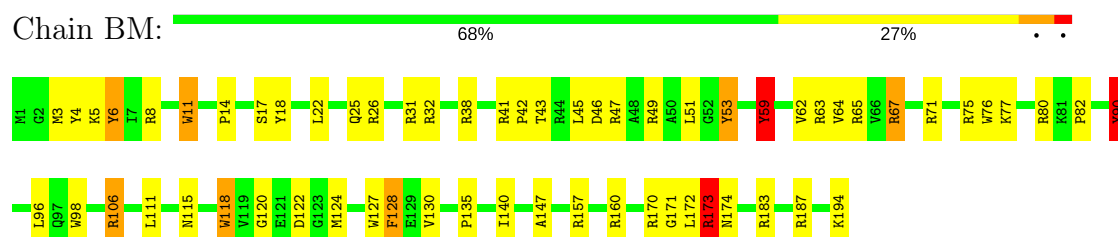
Chain BZ: 66% 26% 6%



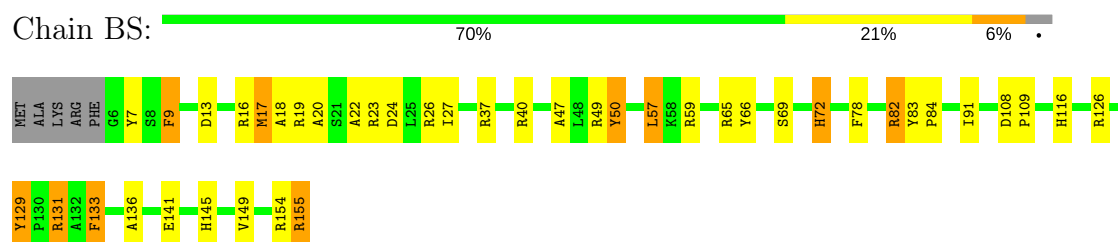
- Molecule 58: 50S ribosomal protein L18e



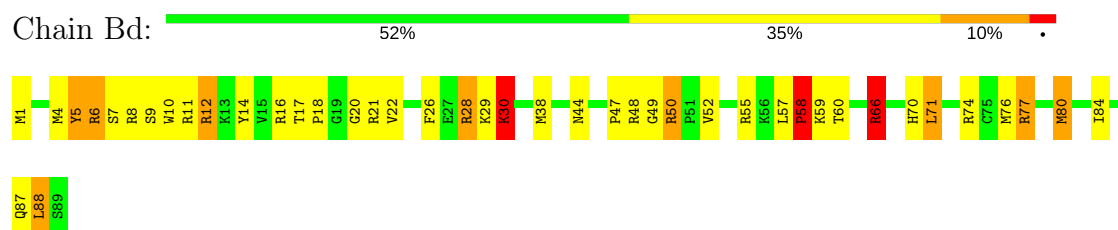
- Molecule 59: 50S ribosomal protein L15e



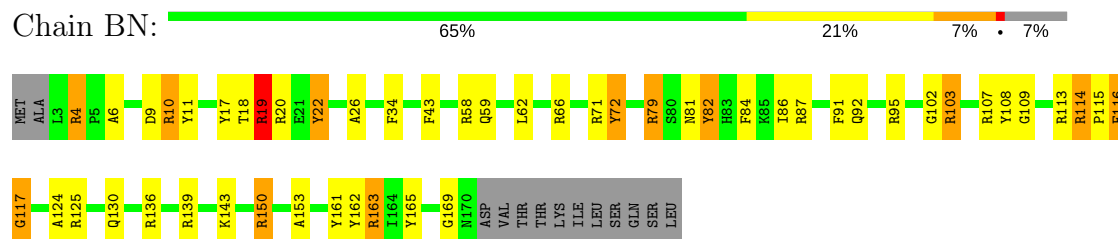
- Molecule 60: 50S ribosomal protein L22P



- Molecule 61: 50S ribosomal protein L34e



- Molecule 62: 50S ribosomal protein L10e



- Molecule 63: 50S ribosomal protein L40e

Chain Bg: 



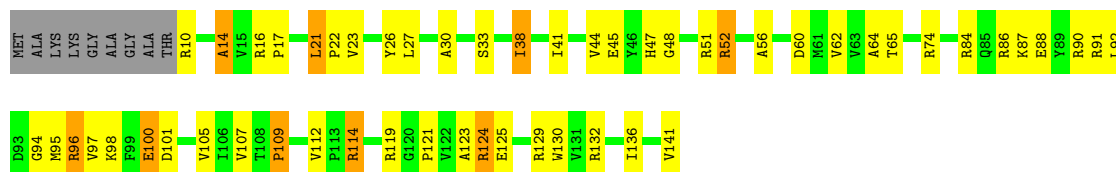
- Molecule 64: 50S ribosomal protein L35Ae

Chain Bc: 



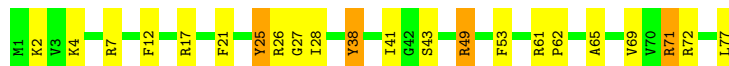
- Molecule 65: 50S ribosomal protein L14P

Chain BJ: 



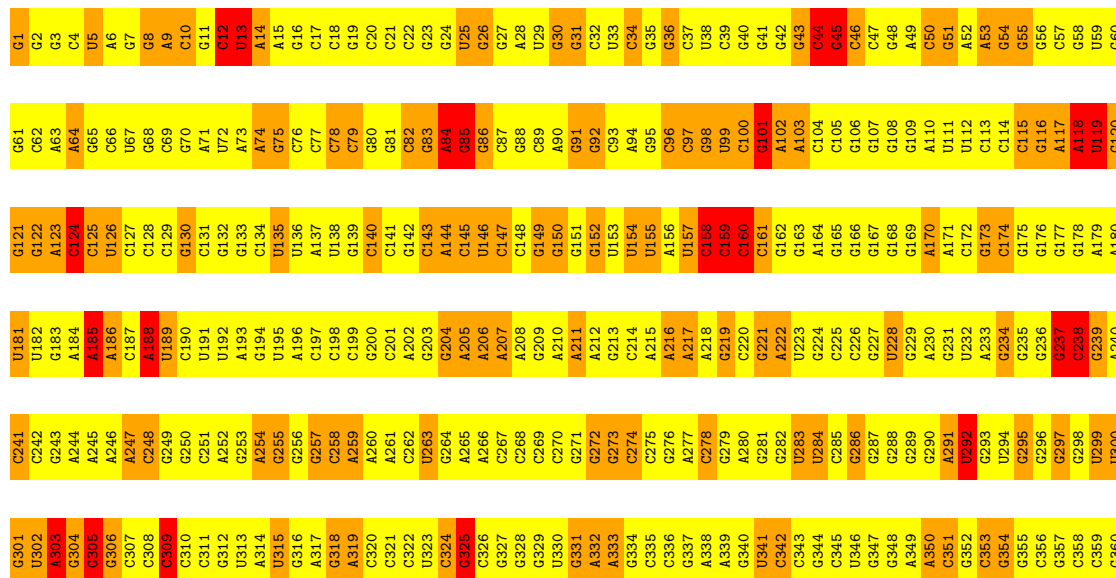
- Molecule 66: 50S ribosomal protein LX

Chain Bl: 



- Molecule 67: 23S rRNA

Chain B1: 






G2282	G2222	A2161	U2041	G1981	U1921	G1861	C1801	G1741	G1681	G1621	G1561	G1501	G1441	C1381
G2283	G2223	G2162	A2042	C1982	A1922	G1862	G1802	C1742	C1682	G1622	U1562	C1502	G1442	C1382
G2284	G2224	G2163	A2043	G1983	A1923	G1863	U1803	G1743	C1683	G1623	G1563	C1503	G1443	C1383
G2285	G2225	G2164	C2044	G1984	A1924	G1864	G1804	A1744	C1684	U1624	C1564	C1504	A1444	C1384
G2286	G2226	A2165	C2045	G1985	A1925	U1865	U1805	U1745	C1685	A1625	G1565	U1505	G1445	C1385
G2287	G2227	G2166	C2046	U1986	A1926	G1866	G1806	G1746	C1686	G1626	U1566	U1506	G1446	C1386
G2288	G2228	C2167	U2047	A1987	C1927	C1867	G1807	C1747	C1687	G1627	C1567	A1507	G1447	C1387
A2289	G2229	C2168	C2048	U1988	A1928	C1868	G1808	C1748	C1688	C1628	A1568	A1508	G1448	U1388
G2290	G2230	C2169	U2049	G1989	C1929	U1869	G1809	C1749	G1689	G1629	A1569	C1509	G1449	U1389
G2291	G2231	G2170	U2050	U1990	A1930	C1870	G1810	C1750	U1690	U1630	U1570	A1450	C1450	U1390
A2292	U2232	C2171	A2051	G1991	G1931	C1871	G1811	G1751	U1691	A1631	U1571	C1511	A1451	C1391
G2293	G2233	G2172	A2052	A1992	G1932	G1872	A1812	G1752	A1692	U1632	C1572	G1512	G1452	C1392
G2294	C2234	G2173	G2053	A1993	G1933	G1873	A1813	G1753	C1693	U1633	A1573	G1513	G1453	C1393
G2295	G2235	G2174	G2054	G1994	C1934	G1874	A1814	A1754	G1694	A1634	A1574	C1514	G1454	G1394
A2296	G2236	G2175	U2055	C1995	C1935	U1875	C1815	C1755	G1695	G1635	A1575	G1515	U1455	G1395
G2297	A2237	G2176	A2056	C1996	C1936	G1876	C1816	C1756	G1696	G1636	C1576	C1516	U1456	A1396
G2298	G2238	A2177	G2057	C1997	A1937	C1877	C1817	G1757	G1697	C1637	C1577	U1517	C1457	U1397
G2299	G2239	A2178	C2058	G1998	G1938	G1878	C1818	U1758	G1698	C1638	C1578	G1518	C1458	C1398
G2300	G2240	C2179	G2059	G1999	C1939	U1879	C1819	A1759	U1699	G1639	G1579	G1519	A1459	C1399
C2301	U2241	C2180	A2060	G2000	U1940	A1880	C1820	C1760	U1700	G1640	U1580	G1520	C1460	U1400
A2302	A2242	C2181	A2061	U2001	A1941	A1881	C1821	C1761	C1701	A1641	A1581	G1521	G1461	G1401
A2303	G2243	A2182	A2062	A2002	G1942	C1882	A1822	G1762	C1702	G1642	G1582	A1522	G1462	C1402
G2304	G2244	A2183	U2063	C2003	C1943	C1883	A1823	A1763	C1703	A1643	G1583	A1523	C1463	C1403
U2305	G2245	C2124	U2064	A2004	C1944	C1884	G1824	G1764	C1704	G1644	G1584	A1524	A1464	G1404
G2246	C2065	A2185	C2065	A2005	C1945	G1885	G1825	A1765	C1705	U1645	U1585	G1525	A1465	G1405
G2247	C2066	C2126	C2066	C2006	G1946	C1886	G1826	A1766	G1706	G1646	G1586	G1526	U1466	G1406
G2248	U2067	G2127	U2067	C2007	A1947	A1887	A1827	C1767	A1707	C1647	A1587	G1527	G1467	A1407
A2309	A2249	G2128	G2068	G2008	A1948	G1888	A1828	C1768	U1708	C1648	G1588	A1528	G1468	G1408
G2310	G2250	G2129	G2069	G2009	A1949	G1889	C1829	G1769	C1709	G1649	G1589	A1529	U1469	U1409
G2311	G2251	C2130	U2070	G2010	G1950	U1890	U1830	A1770	C1710	U1650	C1590	A1530	U1470	A1410
G2312	G2252	C2131	C2071	U2011	G1951	C1891	C1831	C1771	C1711	A1651	U1591	G1531	G1471	G1411
G2313	G2253	C2132	G2072	G2012	G1952	G1892	C1832	A1772	U1712	A1652	U1592	G1532	U1472	C1412
U2314	U2254	G2133	G2073	A2013	U1953	C1893	G1833	C1773	C1713	G1653	C1593	G1533	C1473	A1413
G2315	G2255	A2194	U2074	A2014	G1954	A1894	A1834	A1774	G1714	G1654	G1594	G1534	G1474	G1414
G2316	G2256	G2195	C2075	G2015	U1955	G1895	A1835	G1775	G1715	G1655	G1595	U1535	G1475	C1415
G2317	A2257	C2196	A2076	C2016	G1956	U1896	A1836	G1776	G1716	C1656	G1596	U1536	C1476	G1416
G2318	G2258	U2197	A2077	A2017	U1957	G1897	A1837	U1777	C1717	G1657	G1597	U1537	C1477	U1417
G2319	G2259	U2198	A2078	C2018	A1958	A1898	C1838	G1778	C1718	A1658	U1598	A1538	G1478	A1418
U2320	C2260	U2199	A2079	C2019	C1959	C1899	U1839	C1779	C1719	G1659	A1599	U1539	U1479	G1419
A2321	C2261	A2200	G2080	G2020	U1960	U1900	C1840	C1780	G1720	A1660	G1600	A1540	G1480	U1420
A2322	C2262	C2201	C2081	G2021	G1961	A1901	G1841	C1781	U1721	A1661	G1601	U1541	G1481	C1421
C2323	G2263	U2142	C2082	U2022	G1962	C1902	C1842	C1782	G1722	C1662	C1602	U1542	G1482	G1422
G2324	G2264	C2143	G2083	A2023	G1963	G1903	C1843	U1783	A1723	G1663	G1603	C1543	G1483	G1423
C2325	C2265	U2144	A2084	A2024	G1964	G1904	C1844	G1784	A1724	G1664	G1604	C1544	U1484	G1424
G2326	C2266	G2145	C2085	A2025	C1965	G1905	C1845	G1785	A1725	G1665	A1605	C1545	A1485	U1425
U2327	U2267	C2146	C2086	C2026	C1966	G1906	C1846	G1786	A1726	G1666	C1606	G1546	G1486	G1426
G2328	C2268	C2147	U2087	G2027	G1967	G1907	U1847	U1787	G1727	U1667	C1607	U1547	U1487	G1427
A2329	C2269	U2148	G2088	G2028	A1968	C1908	A1848	G1788	C1728	G1668	A1548	C1548	G1488	G1428
A2330	G2270	G2149	C2089	C2029	C1969	C1909	A1849	A1789	G1729	A1669	G1609	C1549	G1489	A1429
A2331	G2271	G2150	A2090	G2030	G1970	C1910	C1850	G1790	C1730	A1670	C1610	C1550	G1490	A1430
G2332	G2272	C2151	U2091	G2031	C1971	G1911	U1851	A1791	U1731	A1671	C1611	G1551	U1491	U1431
G2333	U2273	C2152	G2092	G2032	C1972	A1912	C1852	A1792	C1732	G1672	C1612	C1552	C1492	C1432
G2334	C2274	C2153	A2093	G2033	C1973	C1913	C1853	G1793	C1733	C1673	A1613	G1553	C1493	C1433
G2335	U2275	G2154	A2094	G2034	G1974	U1914	G1854	C1794	G1734	G1674	U1614	G1554	U1494	C1434
G2336	G2276	C2155	U2095	U2035	C1975	G1915	G1855	C1795	G1735	C1675	G1615	G1555	A1495	G1435
G2337	G2277	G2156	G2096	A2036	C1976	U1916	G1856	U1796	G1736	C1676	A1616	G1556	A1496	A1436
U2338	U2278	U2157	G2097	A2037	C1977	U1917	A1857	A1797	A1737	A1677	G1617	G1557	C1497	C1437
A2339	G2279	C2158	C2098	C2038	A1978	U1918	G1858	A1798	A1738	A1678	G1618	U1558	C1498	G1438
A2340	G2280	U2159	G2099	U2039	A1979	A1859	G1859	G1799	A1739	A1679	C1619	U1559	C1499	G1439
G2341	A2281	C2160	U2100	A2040	U1980	A1920	A1860	G1800	U1740	G1680	C1620	G1560	C1500	G1440



A121	C61	A3002	G2942	G2882	G2762	C9642	C9582	C9522	U2462	A2402	C2342
C122	A62	A3003	G2943	G2883	U2763	U2643	G2583	C2523	G2463	G2403	G2343
U123	G63	C3004	G2944	C2884	G2764	G2644	G2584	C2524	G2464	G2404	G2344
A124	C64	C3005	A2945	C2885	C2765	G2645	G2585	C2525	A2465	G2405	U2345
U125	G65	C3006	G2946	C2886	C2766	G2646	G2586	C2526	C2466	C2406	C2346
C126	G66	A3007	G2947	C2887	C2767	G2647	G2587	C2527	C2467	G2407	G2347
	U67	C3008	A2948	G2888	C2768	C2648	C2588	U2528	C2468	G2408	G2348
	C68	C3009	G2949	A2889	U2769	A2649	C2589	U2529	C2469	C2409	U2349
	C69	C3010	G2950	A2890	A2770	G2650	C2590	G2530	U2470	U2410	G2350
	U70	G3011	G2951	A2891	G2771	G2651	A2591	G2531	A2471	G2411	G2351
	G71	C3012	G2952	A2892	G2772	G2652	U2592	G2532	A2472	A2412	G2352
	G72	U3013	U2953	G2893	A2773	G2653	A2593	G2533	C2473	G2413	C2353
	G73	U3014	C2954	G2894	C2774	C2654	U2594	C2534	A2474	G2414	A2354
	U74	A3015	G2955	G2895	G2775	C2655	C2595	C2535	G2475	C2415	G2355
	G75	G3016	G2956	G2896	A2776	A2656	G2596	A2536	A2476	G2416	U2356
	U76	U3017	G2957	C2897	G2777	A2657	C2597	G2537	G2477	G2417	U2357
	A77	C3018	U2958	G2898	A2778	G2658	C2598	G2538	G2478	G2418	U2358
	C78	C3019	A2959	G2899	G2779	G2659	C2599	G2539	C2479	U2419	G2359
	U79	G3020	G2960	C2900	G2780	G2660	C2600	A2540	G2480	C2420	G2360
	G80	C3021	A2961	G2901	G2781	U2661	C2601	U2541	G2481	A2421	C2361
	C81	C3022	A2962	G2902	A2782	G2662	G2602	G2542	G2482	G2422	U2362
	C82	G3023	G2963	U2903	C2783	G2663	A2603	A2543	U2483	G2423	G2363
	C83	C3024	A2964	U2904	A2784	G2664	G2604	C2544	C2484	A2424	G2364
	U84	C3025	C2965	G2905	G2785	G2665	G2605	A2545	A2485	A2425	G2365
	G85	C3026	C2966	C2906	G2786	G2666	G2606	G2546	A2486	U2426	G2366
	C86	C3027	C2967	C2907	G2787	U2667	U2607	A2547	G2487	C2427	C2367
	U87	U3028	G2968	U2908	U2788	G2668	U2608	A2548	C2488	C2428	G2368
	A88	A3029	G2969	G2909	A2789	G2669	G2609	U2549	U2489	G2429	G2369
	C89	C3030	U2970	G2910	G2790	C2670	G2610	A2550	C2490	C2430	C2370
	G90	G3031	U2971	C2911	C2791	G2671	U2611	G2551	C2491	C2431	A2371
	G91	C3032	G2972	G2912	G2792	A2672	A2612	C2552	G2492	G2432	C2372
	G92	C3033	A2973	C2913	A2793	C2673	C2613	U2553	A2493	U2433	C2373
	G93	U3034	U2974	U2914	G2794	C2674	G2614	A2554	A2494	A2434	C2374
	G94	C3035	A2975	G2915	G2795	C2675	U2615	C2555	A2495	G2435	C2375
	A95	C3036	G2976	G2916	G2796	A2676	G2616	C2556	G2496	A2436	U2376
	U96	G3037	G2977	G2917	C2797	U2677	C2617	C2557	G2497	C2437	C2377
	U97	A3038	G2978	G2918	U2798	U2678	C2618	U2558	G2498	U2438	C2378
	U98	G3039	C2979	C2919	C2799	A2679	U2619	G2559	U2499	C2439	G2379
	C99	G3040	G2980	C2920	G2800	A2680	G2620	G2560	G2500	C2440	A2380
	U100	U3041	G2981	U2921	U2801	A2681	U2621	G2561	G2501	A2441	A2381
	A101	C3042	G2982	G2922	G2802	G2682	C2622	G2562	C2502	A2442	A2382
	G102	G3043	G2983	G2923	U2803	G2683	G2623	C2563	C2503	G2443	A2383
	C103	U3044	A2984	G2924	C2804	G2684	G2624	U2564	U2504	G2444	G2384
	C104	G3045	U2985	C2925	U2805	G2685	C2625	A2565	A2505	G2445	G2385
	G105	C3046	G2986	G2926	A2806	A2686	U2626	A2566	G2506	C2446	U2386
	U106	C3047	U2987	A2927	U2807	A2687	C2627	C2567	C2507	A2447	A2387
	G107	A2988	A2989	C2928	C2808	G2688	U2628	A2568	G2508	A2448	U2388
	C108	G2990	C2929	G2809	G2749	G2689	U2629	C2569	A2509	A2449	C2389
	A109	C2991	G2930	G2810	C2750	U2690	C2630	A2570	A2510	A2450	G2390
	C110	C2992	C2931	U2811	C2751	G2691	C2631	G2571	C2511	G2451	G2391
	G111	G2993	C2932	U2812	U2752	A2692	C2632	U2572	C2512	C2452	A2392
	C112	U2994	G2933	G2813	G2753	G2693	A2633	C2573	C2513	C2453	G2393
	A53	G2995	C2934	U2814	A2754	C2694	U2634	G2574	G2514	G2454	G2394
	G114	A2996	A2995	C2815	G2755	U2695	C2635	U2575	U2515	G2455	C2395
	C115	G2997	U2936	G2816	G2756	G2696	G2636	C2576	G2516	C2456	G2396
	U116	A2998	G2937	U2817	G2757	G2697	U2637	U2577	U2517	G2457	C2397
	C57	C2999	G2938	C2818	G2758	G2698	G2638	C2578	G2518	U2458	C2398
	C58	U3000	C2939	C2819	A2759	U2699	G2639	G2579	C2519	G2459	C2399
	C119	C3001	U3000	C2820	A2760	U2700	C2640	U2580	C2520	A2460	U2400
	C120			G2821	G2761	U2701	C2641	G2581	U2521	A2461	A2401

• Molecule 68: 5S rRNA

Chain B3:

51%

37%

12%

## 4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of particles used	10000	Depositor
Resolution determination method	FSC at 0.5 cut-off	Depositor
CTF correction method	Wiener Filter	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	200	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	25	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	3600	Depositor
Magnification	75000	Depositor
Image detector	TemCam-F416 CMOS camera	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	AQ	1.71	11/1338 (0.8%)	1.93	30/1797 (1.7%)
10	AD	1.73	15/1457 (1.0%)	1.93	36/1953 (1.8%)
11	A1	3.43	155/1843 (8.4%)	2.59	167/2873 (5.8%)
12	AN	1.58	12/1156 (1.0%)	1.95	31/1535 (2.0%)
13	AX	1.92	9/570 (1.6%)	2.14	19/760 (2.5%)
14	AM	1.71	11/1022 (1.1%)	1.98	27/1375 (2.0%)
15	AE	1.80	28/2025 (1.4%)	2.16	66/2732 (2.4%)
16	AJ	1.85	16/1013 (1.6%)	2.04	20/1349 (1.5%)
17	AO	1.88	16/1208 (1.3%)	2.11	39/1619 (2.4%)
18	AF	1.23	5/1745 (0.3%)	1.38	18/2350 (0.8%)
19	AS	1.71	8/562 (1.4%)	1.86	14/744 (1.9%)
2	AK	1.74	12/1088 (1.1%)	2.01	32/1455 (2.2%)
20	A3	1.67	7/951 (0.7%)	1.95	24/1281 (1.9%)
20	B4	1.41	2/951 (0.2%)	1.64	11/1281 (0.9%)
20	BG	1.34	0/951	1.79	21/1281 (1.6%)
21	A2	3.29	2781/35966 (7.7%)	2.59	3540/56138 (6.3%)
22	AY	1.72	4/421 (1.0%)	1.85	8/558 (1.4%)
23	AT	1.81	7/942 (0.7%)	1.95	24/1257 (1.9%)
24	AA	1.71	13/1585 (0.8%)	2.12	53/2124 (2.5%)
25	AH	1.62	20/1773 (1.1%)	2.11	75/2381 (3.1%)
26	AP	1.87	6/471 (1.3%)	2.06	15/620 (2.4%)
27	A0	3.33	158/1814 (8.7%)	2.51	182/2828 (6.4%)
28	AV	1.57	7/839 (0.8%)	1.75	17/1122 (1.5%)
28	B6	1.73	9/798 (1.1%)	2.09	32/1071 (3.0%)
29	AL	1.52	3/830 (0.4%)	2.03	28/1113 (2.5%)
3	AI	1.54	5/1049 (0.5%)	1.70	9/1408 (0.6%)
30	AU	1.79	14/1203 (1.2%)	2.05	29/1621 (1.8%)
31	BY	1.73	13/1262 (1.0%)	2.04	31/1687 (1.8%)
32	BO	1.85	29/1635 (1.8%)	1.96	37/2196 (1.7%)
33	BC	1.72	27/2978 (0.9%)	2.06	96/4003 (2.4%)
34	B5	1.76	7/618 (1.1%)	2.12	24/829 (2.9%)
34	BK	1.80	8/618 (1.3%)	1.98	19/829 (2.3%)
35	BL	1.71	13/1175 (1.1%)	2.07	46/1563 (2.9%)
36	Bf	1.94	13/453 (2.9%)	2.75	38/603 (6.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
37	BU	1.77	16/1024 (1.6%)	2.05	29/1365 (2.1%)
38	Bb	1.77	12/1099 (1.1%)	2.14	36/1466 (2.5%)
39	Be	1.82	10/517 (1.9%)	2.11	19/681 (2.8%)
4	AG	1.48	3/999 (0.3%)	1.97	31/1337 (2.3%)
40	BE	1.72	12/1513 (0.8%)	1.99	39/2026 (1.9%)
41	Ba	1.61	1/760 (0.1%)	2.04	30/1019 (2.9%)
42	BT	1.66	5/689 (0.7%)	1.97	19/924 (2.1%)
43	Bk	1.48	8/1659 (0.5%)	1.82	44/2253 (2.0%)
44	BW	1.85	13/595 (2.2%)	2.02	19/784 (2.4%)
45	Bi	1.57	0/599	1.85	16/798 (2.0%)
46	BA	1.73	23/1702 (1.4%)	1.98	46/2293 (2.0%)
47	BI	1.80	18/1168 (1.5%)	1.96	30/1561 (1.9%)
48	BR	1.65	4/808 (0.5%)	1.92	22/1080 (2.0%)
49	BQ	1.69	15/1272 (1.2%)	2.17	43/1676 (2.6%)
5	AW	1.76	3/485 (0.6%)	1.86	11/651 (1.7%)
50	BV	1.67	3/570 (0.5%)	2.07	23/758 (3.0%)
51	Bj	1.75	6/805 (0.7%)	2.36	51/1064 (4.8%)
52	BB	1.77	19/1883 (1.0%)	2.08	56/2540 (2.2%)
53	BD	1.81	25/2068 (1.2%)	1.99	57/2787 (2.0%)
54	BF	1.74	13/1507 (0.9%)	2.01	44/2033 (2.2%)
55	Bh	1.34	2/233 (0.9%)	1.11	3/301 (1.0%)
56	BH	1.46	5/1001 (0.5%)	1.88	31/1351 (2.3%)
57	BZ	1.69	6/764 (0.8%)	1.99	20/1028 (1.9%)
58	BP	1.89	12/980 (1.2%)	1.97	24/1313 (1.8%)
59	BM	1.84	23/1634 (1.4%)	1.97	35/2179 (1.6%)
6	AC	1.81	19/1480 (1.3%)	1.99	34/1985 (1.7%)
60	BS	1.76	7/1226 (0.6%)	2.16	38/1649 (2.3%)
61	Bd	1.60	5/758 (0.7%)	2.22	41/1007 (4.1%)
62	BN	1.86	16/1409 (1.1%)	2.09	51/1890 (2.7%)
63	Bg	1.58	2/380 (0.5%)	2.02	17/504 (3.4%)
64	Bc	1.67	6/694 (0.9%)	2.12	30/926 (3.2%)
65	BJ	1.88	14/1027 (1.4%)	1.95	24/1385 (1.7%)
66	Bl	1.81	7/669 (1.0%)	1.92	15/884 (1.7%)
67	B1	3.31	5858/73410 (8.0%)	2.59	7158/114595 (6.2%)
68	B3	3.47	234/3010 (7.8%)	2.74	322/4693 (6.9%)
7	AB	1.79	18/1654 (1.1%)	2.06	51/2233 (2.3%)
8	AR	1.83	14/956 (1.5%)	2.07	35/1287 (2.7%)
All	All	2.81	9901/187317 (5.3%)	2.41	13452/276642 (4.9%)

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	AQ	0	7
10	AD	0	6
12	AN	0	10
13	AX	0	7
14	AM	0	2
15	AE	0	11
16	AJ	0	4
17	AO	0	11
18	AF	0	1
19	AS	0	1
2	AK	0	4
20	B4	0	1
20	BG	0	3
21	A2	1	7
22	AY	0	4
23	AT	0	5
24	AA	0	2
25	AH	4	21
26	AP	0	6
28	AV	0	10
28	B6	0	2
29	AL	1	5
3	AI	0	5
30	AU	0	6
31	BY	0	7
32	BO	0	11
33	BC	0	18
34	B5	1	3
34	BK	1	1
35	BL	3	12
36	Bf	0	13
37	BU	0	3
38	Bb	0	10
39	Be	1	12
4	AG	1	9
40	BE	0	6
41	Ba	0	7
42	BT	0	3
43	Bk	0	10
44	BW	0	2
45	Bi	0	4
46	BA	0	4
47	BI	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
48	BR	0	6
49	BQ	3	10
5	AW	0	2
50	BV	1	4
51	Bj	1	18
52	BB	0	16
53	BD	0	8
54	BF	0	8
56	BH	1	9
57	BZ	0	1
58	BP	0	2
59	BM	0	7
6	AC	0	11
60	BS	0	7
61	Bd	1	7
62	BN	0	8
63	Bg	1	4
64	Bc	1	7
65	BJ	0	3
66	Bl	0	3
67	B1	0	12
7	AB	0	6
8	AR	0	3
9	A9	0	1
All	All	22	442

All (9901) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1565	G	O4'-C1'	51.72	2.08	1.41
67	B1	2507	C	O4'-C1'	37.95	1.91	1.41
67	B1	1570	C	O4'-C1'	37.84	1.90	1.41
67	B1	1642	G	C2'-C1'	35.02	1.91	1.53
21	A2	85	A	C2'-C1'	34.42	1.91	1.53
21	A2	434	A	C2'-C1'	33.74	1.90	1.53
67	B1	1440	C	C2'-C1'	-33.42	1.16	1.53
67	B1	1567	C	O4'-C1'	33.29	1.84	1.41
21	A2	440	C	O4'-C1'	33.15	1.84	1.41
67	B1	1566	G	O4'-C1'	32.91	1.84	1.41
21	A2	367	G	C2'-C1'	-32.62	1.17	1.53
67	B1	1045	A	C2'-C1'	32.47	1.89	1.53
67	B1	2926	G	C2'-C1'	-31.85	1.18	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	A1	51	G	C2'-C1'	-31.08	1.19	1.53
67	B1	2587	G	C2'-C1'	-30.80	1.19	1.53
21	A2	63	G	C2'-C1'	-30.77	1.19	1.53
21	A2	1177	C	C2'-C1'	-30.34	1.20	1.53
67	B1	934	G	C2'-C1'	-30.09	1.20	1.53
21	A2	1154	G	C2'-C1'	-30.08	1.20	1.53
67	B1	2304	C	C2'-C1'	-29.98	1.20	1.53
67	B1	2735	C	C2'-C1'	-29.72	1.20	1.53
67	B1	1158	G	C2'-C1'	-29.71	1.20	1.53
67	B1	1592	U	C2'-C1'	-29.44	1.21	1.53
67	B1	2304	C	O4'-C1'	29.32	1.79	1.41
67	B1	2516	G	C2'-C1'	-29.25	1.21	1.53
67	B1	3027	C	C2'-C1'	-29.04	1.21	1.53
21	A2	88	G	O4'-C1'	28.83	1.79	1.41
67	B1	1570	C	P-O5'	28.76	1.88	1.59
67	B1	424	U	C2'-C1'	-28.69	1.21	1.53
67	B1	1	G	P-OP2	-28.58	1.00	1.49
27	A0	1	G	P-OP2	-28.55	1.00	1.49
27	A0	1	G	P-OP1	-28.55	1.00	1.49
21	A2	1	A	P-OP2	-28.54	1.00	1.49
68	B3	1	C	P-OP1	-28.52	1.00	1.49
11	A1	1	G	P-OP2	-28.52	1.00	1.49
21	A2	1	A	P-OP1	-28.52	1.00	1.49
11	A1	1	G	P-OP1	-28.52	1.00	1.49
68	B3	1	C	P-OP2	-28.51	1.00	1.49
67	B1	1	G	P-OP1	-28.50	1.00	1.49
67	B1	2088	G	O4'-C1'	28.39	1.78	1.41
67	B1	366	G	C2'-C1'	-28.28	1.22	1.53
67	B1	1411	G	C2'-C1'	-28.04	1.22	1.53
67	B1	1707	A	C2'-C1'	28.04	1.84	1.53
67	B1	537	U	C2'-C1'	-27.99	1.22	1.53
21	A2	255	G	C2'-C1'	-27.90	1.22	1.53
67	B1	2990	G	C2'-C1'	-27.88	1.22	1.53
67	B1	715	G	O4'-C1'	27.57	1.77	1.41
67	B1	435	G	C2'-C1'	-27.53	1.23	1.53
67	B1	2892	A	C2'-C1'	-27.52	1.23	1.53
21	A2	541	G	C2'-C1'	-27.21	1.23	1.53
21	A2	1490	C	C2'-C1'	-26.98	1.23	1.53
21	A2	1200	U	C2'-C1'	26.91	1.82	1.53
67	B1	474	G	C2'-C1'	-26.85	1.23	1.53
67	B1	1673	C	O4'-C1'	26.61	1.76	1.41
67	B1	1201	G	C2'-C1'	-26.46	1.24	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	455	C	C2'-C1'	-26.28	1.24	1.53
21	A2	367	G	O4'-C1'	26.21	1.75	1.41
21	A2	1290	U	C2'-C1'	-26.15	1.24	1.53
67	B1	2507	C	C2'-C1'	26.14	1.82	1.53
67	B1	2134	G	C2'-C1'	-26.11	1.24	1.53
67	B1	409	C	C2'-C1'	-26.09	1.24	1.53
68	B3	26	C	C2'-C1'	-25.95	1.24	1.53
67	B1	565	A	C2'-C1'	25.91	1.81	1.53
21	A2	832	G	C2'-C1'	-25.90	1.24	1.53
67	B1	318	G	C2'-C1'	-25.87	1.24	1.53
21	A2	581	G	C2'-C1'	-25.83	1.25	1.53
21	A2	1190	C	C2'-C1'	-25.69	1.25	1.53
21	A2	439	G	C2'-C1'	-25.54	1.25	1.53
21	A2	562	A	C2'-C1'	25.46	1.81	1.53
67	B1	956	U	C2'-C1'	25.42	1.81	1.53
21	A2	583	G	C2'-C1'	-25.36	1.25	1.53
21	A2	806	G	O4'-C1'	25.22	1.74	1.41
21	A2	689	C	O4'-C1'	25.12	1.74	1.41
67	B1	2897	C	O4'-C1'	25.03	1.74	1.41
67	B1	412	G	O4'-C1'	24.99	1.74	1.41
67	B1	745	C	C2'-C1'	-24.92	1.25	1.53
67	B1	1037	C	C2'-C1'	24.85	1.80	1.53
21	A2	553	C	O4'-C1'	24.73	1.73	1.41
67	B1	2510	A	C2'-C1'	-24.71	1.26	1.53
21	A2	1329	C	O4'-C1'	24.66	1.73	1.41
67	B1	42	G	C2'-C1'	-24.66	1.26	1.53
67	B1	2920	C	O4'-C1'	24.60	1.73	1.41
21	A2	531	G	C2'-C1'	-24.59	1.26	1.53
21	A2	1322	C	O4'-C1'	24.59	1.73	1.41
67	B1	2115	U	C2'-C1'	24.54	1.80	1.53
67	B1	1230	G	C2'-C1'	-24.45	1.26	1.53
67	B1	1134	A	C2'-C1'	-24.38	1.26	1.53
27	A0	11	C	O4'-C1'	24.36	1.73	1.41
67	B1	795	G	C2'-C1'	-24.34	1.26	1.53
67	B1	147	C	O4'-C1'	24.32	1.73	1.41
67	B1	325	G	O4'-C1'	24.32	1.73	1.41
67	B1	2407	G	C2'-C1'	-24.29	1.26	1.53
21	A2	978	G	C2'-C1'	-24.22	1.26	1.53
67	B1	434	G	C2'-C1'	-24.21	1.26	1.53
67	B1	2587	G	O4'-C1'	24.16	1.73	1.41
67	B1	851	G	C2'-C1'	-24.15	1.26	1.53
67	B1	2544	C	O4'-C1'	24.12	1.73	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2636	C	O4'-C1'	24.05	1.73	1.41
21	A2	1157	G	C2'-C1'	-24.01	1.26	1.53
67	B1	1405	G	C2'-C1'	-23.97	1.26	1.53
67	B1	1322	G	C2'-C1'	-23.95	1.27	1.53
67	B1	1473	C	O4'-C1'	23.93	1.72	1.41
67	B1	1029	C	O4'-C1'	23.87	1.72	1.41
21	A2	8	U	C2'-C1'	23.84	1.79	1.53
67	B1	1751	G	C2'-C1'	-23.81	1.27	1.53
67	B1	1891	C	C2'-C1'	-23.73	1.27	1.53
67	B1	2554	A	C2'-C1'	23.72	1.79	1.53
67	B1	1179	G	C2'-C1'	23.69	1.79	1.53
67	B1	2319	C	O4'-C1'	23.65	1.72	1.41
67	B1	1290	G	C2'-C1'	-23.61	1.27	1.53
67	B1	1600	G	C2'-C1'	23.61	1.79	1.53
67	B1	1124	G	C2'-C1'	-23.60	1.27	1.53
21	A2	1253	G	C2'-C1'	-23.58	1.27	1.53
21	A2	88	G	C2'-C1'	-23.47	1.27	1.53
21	A2	857	C	O4'-C1'	23.42	1.72	1.41
67	B1	2520	C	C2'-C1'	-23.37	1.27	1.53
67	B1	937	A	C2'-C1'	-23.36	1.27	1.53
67	B1	1082	A	C2'-C1'	-23.36	1.27	1.53
67	B1	116	G	C2'-C1'	-23.35	1.27	1.53
67	B1	185	A	C2'-C1'	-23.25	1.27	1.53
67	B1	1035	G	C2'-C1'	-23.23	1.27	1.53
67	B1	337	G	C2'-C1'	-23.19	1.27	1.53
67	B1	2021	G	C2'-C1'	-23.15	1.27	1.53
67	B1	979	G	C2'-C1'	-23.12	1.27	1.53
67	B1	719	C	O4'-C1'	23.11	1.71	1.41
67	B1	426	G	C2'-C1'	-23.11	1.27	1.53
21	A2	1424	G	C2'-C1'	-23.04	1.28	1.53
67	B1	2833	G	C2'-C1'	-23.04	1.28	1.53
67	B1	1567	C	C5'-C4'	23.04	1.78	1.51
21	A2	205	C	C2'-C1'	-22.99	1.28	1.53
21	A2	806	G	C2'-C1'	-22.99	1.28	1.53
68	B3	120	C	C2'-C1'	-22.99	1.28	1.53
67	B1	366	G	O4'-C1'	22.98	1.71	1.41
67	B1	1787	U	C2'-C1'	-22.97	1.28	1.53
21	A2	615	G	C2'-C1'	-22.96	1.28	1.53
21	A2	1072	C	C2'-C1'	-22.95	1.28	1.53
21	A2	212	G	C2'-C1'	-22.94	1.28	1.53
21	A2	1144	G	O4'-C1'	22.93	1.71	1.41
21	A2	798	U	C2'-C1'	22.93	1.78	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	A0	11	C	C2'-C1'	-22.92	1.28	1.53
21	A2	152	G	C2'-C1'	-22.91	1.28	1.53
21	A2	1053	A	O4'-C1'	22.91	1.71	1.41
67	B1	1036	C	O4'-C1'	22.77	1.71	1.41
21	A2	965	G	O4'-C1'	22.73	1.71	1.41
21	A2	382	G	C2'-C1'	22.72	1.78	1.53
21	A2	440	C	C2'-C1'	-22.68	1.28	1.53
21	A2	805	C	C2'-C1'	-22.68	1.28	1.53
68	B3	35	A	C2'-C1'	22.67	1.78	1.53
67	B1	2671	C	O4'-C1'	22.65	1.71	1.41
21	A2	100	A	C2'-C1'	-22.64	1.28	1.53
67	B1	237	G	C2'-C1'	22.64	1.78	1.53
67	B1	614	G	O4'-C1'	22.60	1.71	1.41
67	B1	2858	C	O4'-C1'	22.58	1.71	1.41
67	B1	1222	U	C2'-C1'	-22.56	1.28	1.53
21	A2	992	G	C2'-C1'	-22.53	1.28	1.53
67	B1	1982	C	O4'-C1'	22.52	1.71	1.41
21	A2	1352	G	C2'-C1'	-22.43	1.28	1.53
21	A2	1282	C	O4'-C1'	22.42	1.70	1.41
68	B3	55	G	C2'-C1'	-22.41	1.28	1.53
67	B1	2837	C	C2'-C1'	-22.39	1.28	1.53
11	A1	54	G	C2'-C1'	-22.39	1.28	1.53
67	B1	370	A	O4'-C1'	22.37	1.70	1.41
67	B1	2636	C	C2'-C1'	-22.34	1.28	1.53
67	B1	1653	U	C2'-C1'	-22.26	1.28	1.53
21	A2	357	C	O4'-C1'	22.22	1.70	1.41
21	A2	1490	C	O4'-C1'	22.17	1.70	1.41
67	B1	2877	A	C2'-C1'	-22.16	1.28	1.53
67	B1	118	A	C2'-C1'	-22.13	1.29	1.53
67	B1	1566	G	P-O5'	22.10	1.81	1.59
21	A2	260	C	O4'-C1'	22.10	1.70	1.41
67	B1	44	C	O4'-C1'	22.05	1.70	1.41
67	B1	738	C	C2'-C1'	-22.01	1.29	1.53
67	B1	1655	G	C2'-C1'	-21.98	1.29	1.53
67	B1	350	A	C2'-C1'	21.97	1.77	1.53
21	A2	1255	C	C2'-C1'	-21.94	1.29	1.53
67	B1	297	G	O4'-C1'	21.93	1.70	1.41
67	B1	2476	A	O4'-C1'	21.89	1.70	1.41
67	B1	2489	C	C2'-C1'	-21.89	1.29	1.53
67	B1	2382	A	C2'-C1'	21.85	1.77	1.53
21	A2	1100	G	C2'-C1'	-21.84	1.29	1.53
67	B1	1501	G	C2'-C1'	-21.84	1.29	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2489	C	O4'-C1'	21.83	1.70	1.41
68	B3	43	C	O4'-C1'	21.81	1.70	1.41
67	B1	2735	C	O4'-C1'	21.81	1.70	1.41
67	B1	2884	C	O4'-C1'	21.79	1.70	1.41
67	B1	2844	G	C2'-C1'	-21.77	1.29	1.53
67	B1	1960	U	C2'-C1'	-21.77	1.29	1.53
21	A2	356	G	C2'-C1'	-21.76	1.29	1.53
67	B1	2218	C	C2'-C1'	-21.72	1.29	1.53
67	B1	775	C	O4'-C1'	21.69	1.69	1.41
67	B1	241	C	C2'-C1'	-21.68	1.29	1.53
67	B1	1470	C	C2'-C1'	-21.66	1.29	1.53
68	B3	57	C	C2'-C1'	-21.59	1.29	1.53
21	A2	573	C	O4'-C1'	21.55	1.69	1.41
67	B1	2086	C	C2'-C1'	-21.55	1.29	1.53
67	B1	161	C	C2'-C1'	-21.49	1.29	1.53
67	B1	409	C	O4'-C1'	21.49	1.69	1.41
67	B1	884	C	O4'-C1'	21.46	1.69	1.41
67	B1	2702	A	C2'-C1'	21.43	1.76	1.53
67	B1	768	C	C2'-C1'	-21.43	1.29	1.53
21	A2	1151	A	C2'-C1'	-21.42	1.29	1.53
21	A2	181	G	C2'-C1'	-21.40	1.29	1.53
67	B1	1504	C	O4'-C1'	21.37	1.69	1.41
67	B1	3036	C	C2'-C1'	-21.33	1.29	1.53
21	A2	369	A	C2'-C1'	-21.32	1.29	1.53
67	B1	1969	C	C2'-C1'	-21.31	1.29	1.53
21	A2	605	C	C2'-C1'	-21.31	1.29	1.53
67	B1	1678	A	C2'-C1'	21.29	1.76	1.53
21	A2	72	C	O4'-C1'	21.28	1.69	1.41
67	B1	1439	G	C2'-C1'	-21.25	1.29	1.53
67	B1	1243	C	C2'-C1'	-21.25	1.29	1.53
67	B1	1619	C	C2'-C1'	-21.23	1.29	1.53
67	B1	915	G	C2'-C1'	-21.20	1.30	1.53
67	B1	559	G	C2'-C1'	-21.19	1.30	1.53
68	B3	65	G	C2'-C1'	-21.17	1.30	1.53
21	A2	757	G	C2'-C1'	-21.16	1.30	1.53
67	B1	1289	C	C2'-C1'	-21.16	1.30	1.53
67	B1	744	G	C2'-C1'	-21.15	1.30	1.53
67	B1	2318	G	C2'-C1'	-21.15	1.30	1.53
67	B1	2890	A	O4'-C1'	21.14	1.69	1.41
67	B1	1568	A	C2'-O2'	21.13	1.69	1.41
21	A2	64	G	O4'-C1'	21.11	1.69	1.41
67	B1	2969	G	C2'-C1'	-21.10	1.30	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1754	A	C2'-C1'	21.10	1.76	1.53
21	A2	1074	C	C2'-C1'	-21.08	1.30	1.53
21	A2	1003	G	C2'-C1'	-21.08	1.30	1.53
67	B1	1394	G	O4'-C1'	21.07	1.69	1.41
67	B1	1243	C	O4'-C1'	21.05	1.69	1.41
21	A2	570	G	C2'-C1'	-21.01	1.30	1.53
67	B1	165	G	C2'-C1'	-21.00	1.30	1.53
67	B1	2427	C	C2'-C1'	-20.97	1.30	1.53
11	A1	41	C	C2'-C1'	-20.94	1.30	1.53
67	B1	1180	G	C2'-C1'	-20.92	1.30	1.53
21	A2	1401	U	C2'-C1'	-20.91	1.30	1.53
21	A2	1298	G	C2'-C1'	-20.91	1.30	1.53
67	B1	2169	C	O4'-C1'	20.91	1.68	1.41
67	B1	610	C	O4'-C1'	20.90	1.68	1.41
21	A2	807	C	O4'-C1'	20.86	1.68	1.41
67	B1	1298	C	O4'-C1'	20.86	1.68	1.41
67	B1	1152	C	C2'-C1'	-20.85	1.30	1.53
21	A2	726	A	C2'-C1'	-20.83	1.30	1.53
21	A2	1179	C	O4'-C1'	20.81	1.68	1.41
67	B1	1575	G	C2'-C1'	20.78	1.76	1.53
67	B1	2493	A	C2'-C1'	-20.77	1.30	1.53
21	A2	1242	C	C2'-C1'	-20.76	1.30	1.53
67	B1	248	C	O4'-C1'	20.76	1.68	1.41
67	B1	404	G	C2'-C1'	20.74	1.76	1.53
67	B1	880	U	C2'-C1'	-20.66	1.30	1.53
67	B1	817	G	O4'-C1'	20.65	1.68	1.41
67	B1	2422	G	C2'-C1'	-20.65	1.30	1.53
67	B1	1048	C	C2'-C1'	-20.62	1.30	1.53
67	B1	2189	C	O4'-C1'	20.56	1.68	1.41
67	B1	876	C	O4'-C1'	20.55	1.68	1.41
21	A2	423	U	C2'-C1'	20.54	1.75	1.53
21	A2	439	G	O4'-C1'	20.53	1.68	1.41
67	B1	1628	C	C2'-C1'	-20.52	1.30	1.53
67	B1	1245	C	O4'-C1'	20.52	1.68	1.41
67	B1	158	C	O4'-C1'	20.50	1.68	1.41
67	B1	1039	C	O4'-C1'	20.50	1.68	1.41
67	B1	1521	G	C2'-C1'	-20.48	1.30	1.53
67	B1	1152	C	O4'-C1'	20.46	1.68	1.41
67	B1	1348	G	O4'-C1'	-20.42	1.15	1.41
21	A2	1101	G	O4'-C1'	-20.41	1.15	1.41
21	A2	804	U	C2'-C1'	20.41	1.75	1.53
67	B1	2895	G	C2'-C1'	-20.40	1.30	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	347	G	C2'-C1'	-20.38	1.30	1.53
21	A2	1272	G	C2'-C1'	-20.37	1.30	1.53
67	B1	1140	C	C2'-C1'	-20.37	1.30	1.53
67	B1	2850	G	C2'-C1'	-20.37	1.30	1.53
67	B1	905	G	C2'-C1'	-20.36	1.30	1.53
67	B1	685	G	O4'-C1'	20.36	1.68	1.41
21	A2	424	U	C2'-C1'	-20.33	1.30	1.53
67	B1	2189	C	C2'-C1'	-20.32	1.30	1.53
67	B1	1568	A	P-O5'	20.32	1.80	1.59
68	B3	110	C	O4'-C1'	20.30	1.68	1.41
67	B1	1920	A	O4'-C1'	20.29	1.68	1.41
67	B1	2151	C	C2'-C1'	-20.28	1.31	1.53
21	A2	374	G	C2'-C1'	-20.25	1.31	1.53
67	B1	2959	A	C2'-C1'	-20.25	1.31	1.53
67	B1	2284	C	O4'-C1'	20.24	1.68	1.41
67	B1	1976	C	O4'-C1'	20.20	1.68	1.41
67	B1	2337	G	O4'-C1'	20.18	1.67	1.41
21	A2	605	C	O4'-C1'	20.15	1.67	1.41
21	A2	966	G	C2'-C1'	20.09	1.75	1.53
67	B1	1636	C	C2'-C1'	-20.09	1.31	1.53
67	B1	14	A	O4'-C1'	20.07	1.67	1.41
21	A2	1353	C	O4'-C1'	20.07	1.67	1.41
67	B1	2178	A	C2'-C1'	-20.07	1.31	1.53
21	A2	1221	A	C2'-C1'	-20.07	1.31	1.53
21	A2	407	G	C2'-C1'	-20.06	1.31	1.53
67	B1	1278	C	O4'-C1'	20.05	1.67	1.41
21	A2	1354	A	O4'-C1'	20.05	1.67	1.41
67	B1	898	G	O4'-C1'	20.03	1.67	1.41
67	B1	817	G	C2'-C1'	-20.03	1.31	1.53
67	B1	2514	C	C2'-C1'	-20.02	1.31	1.53
11	A1	25	G	O4'-C1'	20.01	1.67	1.41
67	B1	186	A	O4'-C1'	20.00	1.67	1.41
67	B1	1610	C	O4'-C1'	19.99	1.67	1.41
67	B1	1745	U	O4'-C1'	19.99	1.67	1.41
21	A2	556	G	C2'-C1'	-19.98	1.31	1.53
21	A2	357	C	C2'-C1'	-19.98	1.31	1.53
67	B1	1117	C	C2'-C1'	-19.96	1.31	1.53
21	A2	1082	A	O4'-C1'	19.95	1.67	1.41
21	A2	1106	A	O4'-C1'	19.94	1.67	1.41
67	B1	162	G	C2'-C1'	-19.94	1.31	1.53
67	B1	2144	U	C2'-C1'	19.91	1.75	1.53
67	B1	2426	U	C2'-C1'	-19.91	1.31	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	874	U	O4'-C1'	19.90	1.67	1.41
67	B1	1234	A	O4'-C1'	19.89	1.67	1.41
67	B1	837	G	C2'-C1'	-19.88	1.31	1.53
67	B1	1392	G	C2'-C1'	-19.85	1.31	1.53
21	A2	387	G	C2'-C1'	-19.84	1.31	1.53
21	A2	326	C	O4'-C1'	19.81	1.67	1.41
21	A2	321	A	C2'-C1'	-19.81	1.31	1.53
67	B1	1402	C	C2'-C1'	-19.77	1.31	1.53
21	A2	467	G	C2'-C1'	-19.75	1.31	1.53
67	B1	2311	C	C2'-C1'	-19.74	1.31	1.53
21	A2	941	C	O4'-C1'	19.73	1.67	1.41
21	A2	1155	U	O4'-C1'	19.72	1.67	1.41
67	B1	1574	A	O4'-C1'	19.72	1.67	1.41
21	A2	1217	C	O4'-C1'	19.71	1.67	1.41
67	B1	3031	U	C2'-C1'	-19.68	1.31	1.53
67	B1	2430	C	C2'-C1'	-19.68	1.31	1.53
21	A2	1259	A	O4'-C1'	19.67	1.67	1.41
67	B1	1178	G	C2'-C1'	-19.67	1.31	1.53
67	B1	1085	G	C2'-C1'	-19.66	1.31	1.53
67	B1	898	G	C2'-C1'	-19.63	1.31	1.53
11	A1	37	A	C2'-C1'	-19.62	1.31	1.53
67	B1	2727	C	C2'-C1'	-19.61	1.31	1.53
67	B1	1767	C	C2'-C1'	-19.60	1.31	1.53
21	A2	1371	C	O4'-C1'	19.53	1.67	1.41
21	A2	1458	A	C2'-C1'	19.53	1.74	1.53
21	A2	1339	G	C2'-C1'	-19.51	1.31	1.53
67	B1	2836	G	C2'-C1'	-19.50	1.31	1.53
21	A2	172	G	C2'-C1'	-19.49	1.31	1.53
21	A2	1240	A	C2'-C1'	-19.48	1.31	1.53
67	B1	2028	G	C2'-C1'	-19.46	1.31	1.53
67	B1	2842	C	C2'-C1'	-19.46	1.31	1.53
67	B1	1406	G	C2'-C1'	-19.46	1.31	1.53
67	B1	2427	C	O4'-C1'	19.44	1.67	1.41
67	B1	1328	G	C2'-C1'	-19.42	1.31	1.53
21	A2	802	G	C2'-C1'	-19.42	1.31	1.53
67	B1	1817	C	C2'-C1'	-19.41	1.31	1.53
68	B3	73	U	C2'-C1'	-19.41	1.31	1.53
67	B1	355	G	C2'-C1'	-19.40	1.32	1.53
68	B3	57	C	O4'-C1'	19.40	1.66	1.41
21	A2	205	C	O4'-C1'	19.40	1.66	1.41
21	A2	218	C	C2'-C1'	-19.39	1.32	1.53
21	A2	340	A	C2'-C1'	19.39	1.74	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	666	A	C2'-C1'	-19.39	1.32	1.53
21	A2	17	C	O4'-C1'	19.37	1.66	1.41
67	B1	1794	C	O4'-C1'	19.34	1.66	1.41
21	A2	30	C	O4'-C1'	19.33	1.66	1.41
27	A0	41	C	O4'-C1'	19.32	1.66	1.41
21	A2	1037	U	C2'-C1'	-19.32	1.32	1.53
67	B1	2053	G	O4'-C1'	-19.32	1.16	1.41
67	B1	2260	C	O4'-C1'	19.32	1.66	1.41
67	B1	2227	G	C2'-C1'	-19.31	1.32	1.53
67	B1	92	G	C2'-C1'	-19.30	1.32	1.53
67	B1	614	G	C2'-C1'	-19.30	1.32	1.53
67	B1	2754	A	C2'-C1'	-19.30	1.32	1.53
67	B1	1453	G	C2'-C1'	-19.27	1.32	1.53
21	A2	218	C	O4'-C1'	19.26	1.66	1.41
67	B1	1566	G	C5'-C4'	19.25	1.74	1.51
21	A2	402	G	C2'-C1'	-19.24	1.32	1.53
67	B1	1504	C	C2'-C1'	-19.23	1.32	1.53
21	A2	633	C	O4'-C1'	19.23	1.66	1.41
67	B1	2590	C	C2'-C1'	-19.22	1.32	1.53
21	A2	64	G	C2'-C1'	-19.22	1.32	1.53
11	A1	52	G	C2'-C1'	-19.21	1.32	1.53
21	A2	1346	C	C2'-C1'	-19.20	1.32	1.53
21	A2	803	C	O4'-C1'	19.19	1.66	1.41
67	B1	274	C	O4'-C1'	19.19	1.66	1.41
67	B1	1000	G	C2'-C1'	-19.18	1.32	1.53
67	B1	1324	G	C2'-C1'	19.17	1.74	1.53
67	B1	1336	G	C2'-C1'	19.15	1.74	1.53
67	B1	976	C	O4'-C1'	19.14	1.66	1.41
67	B1	1569	A	C2'-O2'	19.13	1.66	1.41
67	B1	135	U	O4'-C1'	19.13	1.66	1.41
21	A2	1079	G	C2'-C1'	19.12	1.74	1.53
67	B1	2209	U	C2'-C1'	19.11	1.74	1.53
21	A2	161	C	O4'-C1'	19.10	1.66	1.41
21	A2	483	G	O4'-C1'	-19.09	1.16	1.41
67	B1	636	G	C2'-C1'	-19.08	1.32	1.53
68	B3	119	C	O4'-C1'	19.08	1.66	1.41
21	A2	575	A	C2'-C1'	19.07	1.74	1.53
21	A2	554	C	C2'-C1'	-19.07	1.32	1.53
67	B1	249	G	C2'-C1'	-19.06	1.32	1.53
21	A2	304	C	C2'-C1'	-19.03	1.32	1.53
67	B1	2598	C	O4'-C1'	19.01	1.66	1.41
67	B1	2869	U	O4'-C1'	18.99	1.66	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2819	C	O4'-C1'	18.99	1.66	1.41
67	B1	2335	G	C2'-C1'	-18.98	1.32	1.53
67	B1	2077	A	C2'-C1'	18.97	1.74	1.53
67	B1	2511	C	O4'-C1'	18.96	1.66	1.41
67	B1	1301	G	C2'-C1'	-18.96	1.32	1.53
21	A2	1282	C	C2'-C1'	-18.95	1.32	1.53
21	A2	1469	G	C2'-C1'	-18.95	1.32	1.53
67	B1	1395	G	O4'-C1'	18.95	1.66	1.41
67	B1	374	C	O4'-C1'	18.94	1.66	1.41
67	B1	745	C	O4'-C1'	18.93	1.66	1.41
21	A2	1059	C	C2'-C1'	-18.92	1.32	1.53
67	B1	685	G	C2'-C1'	-18.91	1.32	1.53
67	B1	1340	G	C2'-C1'	-18.90	1.32	1.53
21	A2	705	C	C2'-C1'	-18.90	1.32	1.53
21	A2	974	G	O4'-C1'	18.89	1.66	1.41
67	B1	2859	U	C2'-C1'	-18.88	1.32	1.53
21	A2	146	A	O4'-C1'	18.88	1.66	1.41
21	A2	686	C	O4'-C1'	18.87	1.66	1.41
21	A2	1120	G	C2'-C1'	-18.87	1.32	1.53
67	B1	1450	C	O4'-C1'	18.84	1.66	1.41
68	B3	56	C	C2'-C1'	-18.83	1.32	1.53
68	B3	49	A	C2'-C1'	18.82	1.74	1.53
67	B1	2146	C	O4'-C1'	18.82	1.66	1.41
67	B1	2630	C	C2'-C1'	-18.79	1.32	1.53
67	B1	2600	C	C2'-C1'	-18.79	1.32	1.53
67	B1	2492	G	C2'-C1'	18.79	1.74	1.53
21	A2	746	A	C2'-C1'	18.77	1.74	1.53
67	B1	147	C	C2'-C1'	-18.77	1.32	1.53
67	B1	621	G	C2'-C1'	-18.77	1.32	1.53
21	A2	1043	U	C2'-C1'	18.76	1.74	1.53
67	B1	2069	G	C2'-C1'	-18.75	1.32	1.53
67	B1	2047	U	O4'-C1'	18.75	1.66	1.41
27	A0	6	C	C2'-C1'	-18.73	1.32	1.53
67	B1	2231	G	O4'-C1'	18.73	1.66	1.41
67	B1	2855	G	C2'-C1'	-18.73	1.32	1.53
67	B1	921	C	C2'-C1'	-18.71	1.32	1.53
67	B1	1643	A	C2'-C1'	-18.70	1.32	1.53
67	B1	2448	A	C2'-C1'	18.70	1.74	1.53
67	B1	70	G	C2'-C1'	-18.70	1.32	1.53
21	A2	1080	C	O4'-C1'	18.69	1.66	1.41
67	B1	1619	C	O4'-C1'	18.69	1.66	1.41
21	A2	1020	G	C2'-C1'	-18.68	1.32	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1111	G	C2'-C1'	18.67	1.73	1.53
67	B1	2916	G	C2'-C1'	18.67	1.73	1.53
21	A2	1173	A	C2'-C1'	-18.66	1.32	1.53
67	B1	2287	C	O4'-C1'	-18.66	1.17	1.41
21	A2	1449	G	C2'-C1'	-18.66	1.32	1.53
67	B1	2620	G	C2'-C1'	-18.64	1.32	1.53
21	A2	232	G	C2'-C1'	-18.64	1.32	1.53
67	B1	1086	U	C2'-C1'	-18.64	1.32	1.53
67	B1	878	G	C2'-C1'	-18.62	1.32	1.53
21	A2	475	C	C2'-C1'	-18.62	1.32	1.53
67	B1	470	A	C2'-C1'	18.59	1.73	1.53
21	A2	1378	A	C2'-C1'	18.59	1.73	1.53
21	A2	1426	C	C2'-C1'	-18.57	1.32	1.53
67	B1	700	A	C2'-C1'	18.57	1.73	1.53
67	B1	1364	C	C2'-C1'	-18.57	1.32	1.53
67	B1	58	G	C2'-C1'	-18.57	1.32	1.53
21	A2	1255	C	O4'-C1'	18.56	1.65	1.41
21	A2	421	U	C2'-C1'	-18.55	1.32	1.53
67	B1	2098	C	O4'-C1'	18.54	1.65	1.41
21	A2	34	G	C2'-C1'	18.53	1.73	1.53
67	B1	2439	G	C2'-C1'	-18.53	1.32	1.53
67	B1	2506	G	O3'-P	18.52	1.83	1.61
21	A2	136	A	C2'-C1'	-18.52	1.32	1.53
67	B1	2272	G	C2'-C1'	-18.52	1.32	1.53
21	A2	855	C	C2'-C1'	-18.51	1.32	1.53
68	B3	120	C	O4'-C1'	18.49	1.65	1.41
21	A2	807	C	C2'-C1'	-18.46	1.33	1.53
68	B3	115	C	O4'-C1'	18.46	1.65	1.41
67	B1	2586	A	C2'-C1'	18.46	1.73	1.53
67	B1	1118	A	C2'-C1'	-18.45	1.33	1.53
67	B1	3027	C	O4'-C1'	18.45	1.65	1.41
67	B1	1787	U	O4'-C1'	18.44	1.65	1.41
21	A2	175	G	O4'-C1'	-18.40	1.17	1.41
67	B1	2618	C	C2'-C1'	18.39	1.73	1.53
67	B1	2826	U	C2'-C1'	18.39	1.73	1.53
21	A2	153	G	C2'-C1'	-18.39	1.33	1.53
21	A2	475	C	O4'-C1'	18.37	1.65	1.41
67	B1	2807	C	O4'-C1'	18.37	1.65	1.41
21	A2	651	U	C2'-C1'	-18.36	1.33	1.53
21	A2	797	U	O4'-C1'	18.36	1.65	1.41
67	B1	1098	C	O4'-C1'	18.35	1.65	1.41
67	B1	2402	A	O4'-C1'	18.35	1.65	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1162	C	O4'-C1'	18.34	1.65	1.41
67	B1	2575	U	C2'-C1'	-18.34	1.33	1.53
21	A2	687	G	C2'-C1'	-18.33	1.33	1.53
21	A2	547	U	C2'-C1'	-18.33	1.33	1.53
67	B1	2019	C	O4'-C1'	18.32	1.65	1.41
11	A1	44	G	C2'-C1'	-18.32	1.33	1.53
67	B1	1814	A	C2'-C1'	-18.32	1.33	1.53
21	A2	1273	G	C2'-C1'	-18.31	1.33	1.53
21	A2	1073	C	C2'-C1'	-18.30	1.33	1.53
67	B1	362	A	C2'-C1'	18.28	1.73	1.53
67	B1	143	C	O4'-C1'	18.28	1.65	1.41
67	B1	2122	G	O4'-C1'	18.27	1.65	1.41
67	B1	1567	C	C3'-C2'	18.27	1.73	1.52
67	B1	1989	G	C2'-C1'	-18.26	1.33	1.53
21	A2	1072	C	O4'-C1'	18.23	1.65	1.41
21	A2	91	G	C2'-C1'	-18.23	1.33	1.53
21	A2	396	C	C2'-C1'	-18.23	1.33	1.53
67	B1	1726	A	C2'-C1'	18.23	1.73	1.53
21	A2	463	G	C2'-C1'	-18.22	1.33	1.53
21	A2	1372	C	C2'-C1'	-18.21	1.33	1.53
21	A2	1455	A	C2'-C1'	-18.18	1.33	1.53
21	A2	509	C	C2'-C1'	-18.17	1.33	1.53
67	B1	622	A	C2'-C1'	-18.16	1.33	1.53
21	A2	1254	C	O4'-C1'	18.16	1.65	1.41
67	B1	2596	G	C2'-C1'	-18.16	1.33	1.53
21	A2	199	A	O4'-C1'	18.16	1.65	1.41
21	A2	250	G	C2'-C1'	-18.15	1.33	1.53
67	B1	3024	C	O4'-C1'	18.14	1.65	1.41
21	A2	718	G	C2'-C1'	-18.13	1.33	1.53
21	A2	842	U	C2'-C1'	18.13	1.73	1.53
67	B1	2651	G	C2'-C1'	-18.13	1.33	1.53
67	B1	2642	C	O4'-C1'	18.09	1.65	1.41
67	B1	1688	C	O4'-C1'	18.09	1.65	1.41
21	A2	1149	C	O4'-C1'	18.08	1.65	1.41
21	A2	814	C	C2'-C1'	-18.08	1.33	1.53
68	B3	41	A	O4'-C1'	18.08	1.65	1.41
67	B1	1586	G	O4'-C1'	18.07	1.65	1.41
67	B1	2545	A	O4'-C1'	18.06	1.65	1.41
67	B1	1107	G	C2'-C1'	-18.04	1.33	1.53
21	A2	670	C	C2'-C1'	-18.03	1.33	1.53
11	A1	61	U	O4'-C1'	18.02	1.65	1.41
67	B1	2865	C	C2'-C1'	-18.02	1.33	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	30	C	C2'-C1'	-18.02	1.33	1.53
21	A2	1457	A	C2'-C1'	-18.01	1.33	1.53
21	A2	751	C	O4'-C1'	17.99	1.65	1.41
67	B1	325	G	C2'-C1'	-17.99	1.33	1.53
67	B1	2869	U	C2'-C1'	-17.99	1.33	1.53
68	B3	27	C	O4'-C1'	17.98	1.65	1.41
67	B1	1411	G	O4'-C1'	17.96	1.65	1.41
67	B1	1440	C	O4'-C1'	17.96	1.65	1.41
21	A2	336	C	C2'-C1'	-17.96	1.33	1.53
67	B1	1163	U	C2'-C1'	17.94	1.73	1.53
21	A2	419	G	C2'-C1'	-17.93	1.33	1.53
67	B1	1567	C	C2'-C1'	-17.93	1.33	1.53
67	B1	719	C	C2'-C1'	-17.90	1.33	1.53
67	B1	1525	G	C2'-C1'	-17.89	1.33	1.53
67	B1	1435	G	C2'-C1'	-17.89	1.33	1.53
67	B1	92	G	O4'-C1'	17.88	1.64	1.41
67	B1	835	G	C2'-C1'	-17.88	1.33	1.53
67	B1	2433	U	O4'-C1'	17.88	1.64	1.41
21	A2	691	G	C2'-C1'	-17.87	1.33	1.53
67	B1	863	C	C2'-C1'	-17.87	1.33	1.53
67	B1	2020	G	C2'-C1'	-17.86	1.33	1.53
67	B1	1984	G	C2'-C1'	-17.85	1.33	1.53
67	B1	665	C	O4'-C1'	17.85	1.64	1.41
21	A2	1342	C	C2'-C1'	-17.84	1.33	1.53
67	B1	3004	C	C2'-C1'	-17.84	1.33	1.53
67	B1	2201	C	O4'-C1'	17.83	1.64	1.41
53	BD	91	ARG	C-N	-17.83	0.93	1.34
21	A2	415	C	O4'-C1'	17.82	1.64	1.41
21	A2	1101	G	C2'-C1'	17.80	1.73	1.53
67	B1	769	G	C2'-C1'	-17.78	1.33	1.53
21	A2	400	G	C2'-C1'	17.76	1.72	1.53
67	B1	1090	G	C2'-C1'	-17.76	1.33	1.53
67	B1	486	A	O4'-C1'	-17.75	1.18	1.41
67	B1	2907	C	C2'-C1'	-17.74	1.33	1.53
67	B1	1393	C	O4'-C1'	-17.74	1.18	1.41
67	B1	750	C	C2'-C1'	-17.74	1.33	1.53
67	B1	1909	C	O4'-C1'	17.73	1.64	1.41
67	B1	3042	C	O4'-C1'	17.73	1.64	1.41
67	B1	2849	C	C2'-C1'	-17.73	1.33	1.53
21	A2	491	G	C2'-C1'	-17.71	1.33	1.53
67	B1	704	G	O4'-C1'	-17.71	1.18	1.41
21	A2	1190	C	O4'-C1'	17.70	1.64	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	438	A	C2'-C1'	-17.70	1.33	1.53
67	B1	2706	C	O4'-C1'	17.70	1.64	1.41
67	B1	177	G	C2'-C1'	-17.70	1.33	1.53
67	B1	585	G	C2'-C1'	-17.69	1.33	1.53
27	A0	62	C	O4'-C1'	17.69	1.64	1.41
21	A2	343	G	C2'-C1'	17.67	1.72	1.53
67	B1	927	G	O4'-C1'	17.67	1.64	1.41
21	A2	788	C	O4'-C1'	17.66	1.64	1.41
67	B1	244	A	C2'-C1'	-17.66	1.33	1.53
67	B1	1570	C	C4'-C3'	17.66	1.72	1.53
67	B1	688	G	O4'-C1'	17.64	1.64	1.41
21	A2	788	C	C2'-C1'	-17.64	1.33	1.53
67	B1	1394	G	C2'-C1'	-17.63	1.33	1.53
67	B1	307	C	C2'-C1'	-17.63	1.33	1.53
67	B1	920	G	C2'-C1'	-17.63	1.33	1.53
21	A2	1209	C	C2'-C1'	-17.61	1.33	1.53
67	B1	2884	C	C2'-C1'	-17.61	1.33	1.53
67	B1	1147	G	C2'-C1'	-17.61	1.33	1.53
67	B1	2594	U	C2'-C1'	-17.60	1.33	1.53
67	B1	858	G	C2'-C1'	-17.58	1.34	1.53
21	A2	754	G	C2'-C1'	-17.58	1.34	1.53
21	A2	1064	C	C2'-C1'	-17.52	1.34	1.53
67	B1	2265	C	O4'-C1'	17.52	1.64	1.41
21	A2	1265	G	C2'-C1'	-17.52	1.34	1.53
67	B1	990	G	C2'-C1'	-17.51	1.34	1.53
11	A1	26	C	O4'-C1'	17.50	1.64	1.41
67	B1	2647	G	O4'-C1'	17.49	1.64	1.41
21	A2	392	G	C2'-C1'	-17.48	1.34	1.53
21	A2	768	A	C2'-C1'	17.48	1.72	1.53
67	B1	2377	C	C2'-C1'	-17.48	1.34	1.53
67	B1	1137	G	C2'-C1'	-17.47	1.34	1.53
67	B1	2238	G	C2'-C1'	17.46	1.72	1.53
67	B1	849	C	O4'-C1'	17.46	1.64	1.41
67	B1	2313	G	O4'-C1'	17.45	1.64	1.41
21	A2	1125	C	O4'-C1'	17.45	1.64	1.41
21	A2	62	G	C2'-C1'	-17.44	1.34	1.53
67	B1	50	C	C2'-C1'	17.44	1.72	1.53
67	B1	883	G	O4'-C1'	17.43	1.64	1.41
21	A2	94	C	C2'-C1'	-17.43	1.34	1.53
21	A2	797	U	C2'-C1'	-17.40	1.34	1.53
67	B1	168	G	C2'-C1'	-17.40	1.34	1.53
68	B3	58	C	C2'-C1'	-17.39	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1185	A	O4'-C1'	17.37	1.64	1.41
67	B1	2225	C	O4'-C1'	17.37	1.64	1.41
67	B1	392	G	O4'-C1'	17.36	1.64	1.41
67	B1	2761	G	C2'-C1'	17.36	1.72	1.53
21	A2	455	C	O4'-C1'	17.36	1.64	1.41
21	A2	138	C	O4'-C1'	17.35	1.64	1.41
27	A0	22	G	C2'-C1'	-17.35	1.34	1.53
67	B1	864	C	C2'-C1'	-17.34	1.34	1.53
67	B1	1031	C	C2'-C1'	-17.34	1.34	1.53
21	A2	362	C	O4'-C1'	17.33	1.64	1.41
67	B1	1214	C	O4'-C1'	17.33	1.64	1.41
67	B1	2195	G	C2'-C1'	-17.32	1.34	1.53
67	B1	2535	C	C2'-C1'	-17.32	1.34	1.53
21	A2	1122	C	O4'-C1'	17.31	1.64	1.41
21	A2	945	G	C2'-C1'	-17.30	1.34	1.53
67	B1	1934	C	O4'-C1'	17.29	1.64	1.41
68	B3	94	G	C2'-C1'	-17.29	1.34	1.53
21	A2	309	A	C2'-C1'	17.28	1.72	1.53
21	A2	1121	C	C2'-C1'	-17.28	1.34	1.53
67	B1	1569	A	P-OP2	17.27	1.78	1.49
67	B1	2937	U	C2'-C1'	17.27	1.72	1.53
11	A1	49	C	O4'-C1'	-17.25	1.19	1.41
21	A2	1194	C	C2'-C1'	-17.24	1.34	1.53
21	A2	1053	A	C2'-C1'	-17.23	1.34	1.53
67	B1	1296	A	C2'-C1'	-17.23	1.34	1.53
67	B1	77	C	C2'-C1'	-17.23	1.34	1.53
67	B1	857	U	C2'-C1'	-17.22	1.34	1.53
67	B1	2590	C	O4'-C1'	17.20	1.64	1.41
67	B1	2434	A	C2'-C1'	-17.19	1.34	1.53
67	B1	441	A	C2'-C1'	-17.18	1.34	1.53
21	A2	1167	C	O4'-C1'	17.18	1.64	1.41
67	B1	1988	U	O4'-C1'	17.17	1.64	1.41
67	B1	1566	G	C4'-C3'	17.17	1.72	1.53
21	A2	705	C	O4'-C1'	17.17	1.64	1.41
21	A2	1360	C	O4'-C1'	17.16	1.64	1.41
67	B1	1554	G	C2'-C1'	-17.16	1.34	1.53
68	B3	39	C	C2'-C1'	-17.15	1.34	1.53
67	B1	140	C	O4'-C1'	17.15	1.64	1.41
67	B1	405	G	C2'-C1'	-17.14	1.34	1.53
67	B1	935	A	C2'-C1'	17.14	1.72	1.53
21	A2	60	A	O4'-C1'	-17.13	1.19	1.41
67	B1	318	G	O4'-C1'	17.11	1.63	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	787	G	C2'-C1'	-17.11	1.34	1.53
11	A1	57	C	O4'-C1'	17.11	1.63	1.41
67	B1	78	C	C2'-C1'	-17.09	1.34	1.53
67	B1	1102	C	C2'-C1'	-17.09	1.34	1.53
67	B1	785	C	O4'-C1'	17.09	1.63	1.41
67	B1	2498	G	C2'-C1'	-17.09	1.34	1.53
21	A2	409	C	O4'-C1'	17.09	1.63	1.41
67	B1	2599	C	C2'-C1'	-17.09	1.34	1.53
21	A2	647	G	C2'-C1'	-17.08	1.34	1.53
67	B1	266	A	C2'-C1'	-17.08	1.34	1.53
67	B1	1609	G	C2'-C1'	-17.08	1.34	1.53
67	B1	2134	G	O4'-C1'	17.08	1.63	1.41
67	B1	1186	G	O4'-C1'	17.07	1.63	1.41
21	A2	626	G	C2'-C1'	17.07	1.72	1.53
67	B1	1051	C	C2'-C1'	-17.06	1.34	1.53
67	B1	1614	U	C2'-C1'	-17.05	1.34	1.53
11	A1	51	G	O4'-C1'	17.04	1.63	1.41
67	B1	1229	U	O4'-C1'	17.04	1.63	1.41
21	A2	381	C	C2'-C1'	-17.03	1.34	1.53
68	B3	19	G	C2'-C1'	-17.03	1.34	1.53
67	B1	1229	U	C2'-C1'	-17.03	1.34	1.53
67	B1	1273	C	O4'-C1'	17.03	1.63	1.41
67	B1	1592	U	O4'-C1'	17.03	1.63	1.41
67	B1	1618	G	C2'-C1'	-17.02	1.34	1.53
21	A2	1038	C	O4'-C1'	17.02	1.63	1.41
67	B1	2671	C	C2'-C1'	-17.01	1.34	1.53
67	B1	1565	G	C4'-C3'	17.01	1.71	1.53
67	B1	1186	G	C2'-C1'	-17.01	1.34	1.53
67	B1	701	G	C2'-C1'	-16.97	1.34	1.53
67	B1	1559	A	O4'-C1'	16.97	1.63	1.41
67	B1	1406	G	O4'-C1'	16.95	1.63	1.41
21	A2	523	C	O4'-C1'	16.95	1.63	1.41
67	B1	2617	G	O4'-C1'	16.94	1.63	1.41
67	B1	2170	C	C2'-C1'	-16.94	1.34	1.53
21	A2	295	G	O4'-C1'	16.93	1.63	1.41
67	B1	1363	C	O4'-C1'	16.92	1.63	1.41
21	A2	1372	C	O4'-C1'	16.90	1.63	1.41
21	A2	710	G	C2'-C1'	-16.89	1.34	1.53
67	B1	121	G	C2'-C1'	-16.89	1.34	1.53
67	B1	1779	C	C2'-C1'	-16.89	1.34	1.53
21	A2	1018	C	O4'-C1'	16.88	1.63	1.41
67	B1	1161	A	O4'-C1'	16.86	1.63	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	68	G	C2'-C1'	-16.86	1.34	1.53
67	B1	110	A	C2'-C1'	16.86	1.71	1.53
67	B1	822	A	C2'-C1'	-16.85	1.34	1.53
67	B1	2520	C	O4'-C1'	16.84	1.63	1.41
67	B1	778	A	C2'-C1'	-16.83	1.34	1.53
21	A2	1303	C	C2'-C1'	-16.82	1.34	1.53
67	B1	751	U	C2'-C1'	16.82	1.71	1.53
21	A2	724	C	C2'-C1'	-16.81	1.34	1.53
21	A2	1336	U	C2'-C1'	16.79	1.71	1.53
68	B3	92	G	C2'-C1'	-16.78	1.34	1.53
67	B1	957	C	O4'-C1'	16.77	1.63	1.41
67	B1	2076	A	C2'-C1'	-16.77	1.34	1.53
21	A2	184	G	O4'-C1'	-16.75	1.19	1.41
68	B3	27	C	C2'-C1'	-16.73	1.34	1.53
21	A2	980	C	C2'-C1'	-16.72	1.34	1.53
27	A0	43	G	O4'-C1'	16.70	1.63	1.41
21	A2	1040	A	C2'-C1'	-16.70	1.34	1.53
67	B1	2334	G	C2'-C1'	-16.69	1.34	1.53
21	A2	217	C	C2'-C1'	-16.68	1.34	1.53
67	B1	1449	C	O4'-C1'	16.68	1.63	1.41
21	A2	566	C	O4'-C1'	16.68	1.63	1.41
21	A2	470	G	O4'-C1'	-16.67	1.20	1.41
21	A2	1213	G	C2'-C1'	-16.67	1.35	1.53
67	B1	2952	C	C2'-C1'	-16.66	1.35	1.53
67	B1	872	G	C2'-C1'	-16.65	1.35	1.53
21	A2	1198	A	O4'-C1'	16.62	1.63	1.41
67	B1	2208	C	O4'-C1'	16.61	1.63	1.41
67	B1	3009	C	O4'-C1'	16.61	1.63	1.41
67	B1	2925	C	C2'-C1'	-16.61	1.35	1.53
21	A2	1321	U	C2'-C1'	16.60	1.71	1.53
67	B1	1081	U	O4'-C1'	16.60	1.63	1.41
67	B1	2734	C	O4'-C1'	16.60	1.63	1.41
21	A2	723	G	C2'-C1'	-16.58	1.35	1.53
67	B1	858	G	O4'-C1'	16.58	1.63	1.41
67	B1	2326	C	O4'-C1'	16.58	1.63	1.41
67	B1	1950	G	C2'-C1'	16.55	1.71	1.53
67	B1	380	A	C2'-C1'	-16.55	1.35	1.53
21	A2	620	G	O4'-C1'	16.55	1.63	1.41
21	A2	1037	U	O4'-C1'	16.54	1.63	1.41
67	B1	2206	G	C2'-C1'	-16.54	1.35	1.53
67	B1	2178	A	O4'-C1'	16.54	1.63	1.41
67	B1	1117	C	O4'-C1'	16.53	1.63	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1692	A	C2'-C1'	-16.53	1.35	1.53
67	B1	1767	C	O4'-C1'	16.52	1.63	1.41
21	A2	1009	G	C2'-C1'	-16.51	1.35	1.53
67	B1	466	C	O4'-C1'	16.51	1.63	1.41
67	B1	558	C	C2'-C1'	-16.51	1.35	1.53
21	A2	952	A	O4'-C1'	16.50	1.63	1.41
67	B1	821	U	C2'-C1'	16.50	1.71	1.53
68	B3	1	C	O4'-C1'	16.50	1.63	1.41
67	B1	2103	C	O4'-C1'	16.49	1.63	1.41
21	A2	183	A	C2'-C1'	-16.49	1.35	1.53
67	B1	1157	U	C2'-C1'	16.48	1.71	1.53
21	A2	162	C	C2'-C1'	-16.48	1.35	1.53
67	B1	2173	U	O4'-C1'	16.47	1.63	1.41
67	B1	988	C	C2'-C1'	-16.46	1.35	1.53
21	A2	1155	U	C2'-C1'	-16.44	1.35	1.53
67	B1	2815	C	O4'-C1'	16.43	1.63	1.41
21	A2	1273	G	O4'-C1'	16.43	1.63	1.41
21	A2	1335	A	O4'-C1'	16.43	1.63	1.41
67	B1	2217	C	C2'-C1'	-16.42	1.35	1.53
67	B1	2883	C	O4'-C1'	16.42	1.62	1.41
21	A2	156	A	O4'-C1'	16.41	1.62	1.41
67	B1	1943	C	O4'-C1'	16.41	1.62	1.41
67	B1	239	G	C2'-C1'	-16.41	1.35	1.53
21	A2	936	A	C2'-C1'	-16.41	1.35	1.53
67	B1	2767	C	C2'-C1'	-16.41	1.35	1.53
21	A2	1327	C	O4'-C1'	16.40	1.62	1.41
67	B1	2238	G	O4'-C1'	-16.39	1.20	1.41
67	B1	129	C	C2'-C1'	16.37	1.71	1.53
67	B1	476	C	C2'-C1'	-16.37	1.35	1.53
67	B1	1717	C	O4'-C1'	16.37	1.62	1.41
67	B1	513	C	C2'-C1'	-16.36	1.35	1.53
67	B1	1549	C	C2'-C1'	-16.36	1.35	1.53
67	B1	2003	C	O4'-C1'	16.36	1.62	1.41
67	B1	182	U	C2'-C1'	-16.35	1.35	1.53
67	B1	2157	U	O4'-C1'	16.35	1.62	1.41
21	A2	1444	G	C2'-C1'	-16.35	1.35	1.53
67	B1	1141	C	O4'-C1'	16.34	1.62	1.41
67	B1	1562	U	O4'-C1'	16.32	1.62	1.41
67	B1	447	G	C2'-C1'	-16.31	1.35	1.53
67	B1	2129	G	C2'-C1'	-16.31	1.35	1.53
67	B1	1699	U	C2'-C1'	-16.31	1.35	1.53
21	A2	117	C	C2'-C1'	-16.30	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1511	C	O4'-C1'	16.30	1.62	1.41
21	A2	117	C	O4'-C1'	16.30	1.62	1.41
67	B1	636	G	O4'-C1'	16.30	1.62	1.41
21	A2	217	C	O4'-C1'	16.30	1.62	1.41
27	A0	58	A	C2'-C1'	16.30	1.71	1.53
67	B1	888	U	C2'-C1'	-16.29	1.35	1.53
21	A2	930	G	C2'-C1'	-16.28	1.35	1.53
67	B1	1694	G	C2'-C1'	-16.28	1.35	1.53
67	B1	2654	C	O4'-C1'	16.27	1.62	1.41
21	A2	593	G	C2'-C1'	-16.27	1.35	1.53
21	A2	941	C	C2'-C1'	-16.27	1.35	1.53
67	B1	880	U	O4'-C1'	16.26	1.62	1.41
21	A2	926	C	O4'-C1'	16.24	1.62	1.41
67	B1	800	G	C2'-C1'	-16.24	1.35	1.53
67	B1	2881	G	C2'-C1'	-16.24	1.35	1.53
21	A2	978	G	O4'-C1'	16.24	1.62	1.41
21	A2	552	C	O4'-C1'	16.24	1.62	1.41
67	B1	371	U	O4'-C1'	16.23	1.62	1.41
67	B1	1465	A	O4'-C1'	-16.23	1.20	1.41
67	B1	324	C	C2'-C1'	16.21	1.71	1.53
21	A2	1437	G	C2'-C1'	-16.20	1.35	1.53
67	B1	187	C	C2'-C1'	-16.19	1.35	1.53
21	A2	1298	G	O4'-C1'	16.18	1.62	1.41
68	B3	41	A	C2'-C1'	-16.18	1.35	1.53
67	B1	1270	G	O4'-C1'	16.18	1.62	1.41
67	B1	2967	C	C2'-C1'	-16.17	1.35	1.53
67	B1	2283	C	O4'-C1'	16.17	1.62	1.41
21	A2	265	C	C2'-C1'	-16.17	1.35	1.53
67	B1	1460	C	C2'-C1'	-16.16	1.35	1.53
67	B1	2969	G	O4'-C1'	16.15	1.62	1.41
21	A2	694	U	C2'-C1'	16.14	1.71	1.53
21	A2	981	U	O4'-C1'	16.14	1.62	1.41
67	B1	2523	C	O4'-C1'	16.14	1.62	1.41
21	A2	492	G	C2'-C1'	-16.14	1.35	1.53
68	B3	90	A	O4'-C1'	16.13	1.62	1.41
67	B1	2622	C	O4'-C1'	16.11	1.62	1.41
21	A2	1164	A	C2'-C1'	-16.10	1.35	1.53
67	B1	2482	G	C2'-C1'	-16.10	1.35	1.53
67	B1	1259	G	C2'-C1'	-16.09	1.35	1.53
67	B1	2753	G	C2'-C1'	16.09	1.71	1.53
21	A2	1132	C	O4'-C1'	16.09	1.62	1.41
67	B1	1029	C	C2'-C1'	-16.08	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	847	A	C2'-C1'	16.08	1.71	1.53
21	A2	1133	C	O4'-C1'	16.07	1.62	1.41
67	B1	2513	C	O4'-C1'	16.07	1.62	1.41
11	A1	2	G	C2'-C1'	-16.07	1.35	1.53
21	A2	1153	G	C2'-C1'	-16.06	1.35	1.53
67	B1	1624	U	O4'-C1'	-16.06	1.20	1.41
67	B1	1179	G	O4'-C1'	-16.06	1.20	1.41
67	B1	215	A	C2'-C1'	16.05	1.71	1.53
21	A2	418	G	C2'-C1'	16.04	1.71	1.53
21	A2	87	C	C2'-C1'	-16.03	1.35	1.53
21	A2	693	C	C2'-C1'	-16.03	1.35	1.53
67	B1	1499	C	C2'-C1'	-16.03	1.35	1.53
67	B1	2006	C	C2'-C1'	-16.03	1.35	1.53
67	B1	3013	U	C2'-C1'	-16.02	1.35	1.53
21	A2	314	G	C2'-C1'	-16.02	1.35	1.53
67	B1	1165	C	O4'-C1'	16.01	1.62	1.41
67	B1	1404	G	C2'-C1'	-16.01	1.35	1.53
21	A2	384	G	O4'-C1'	16.01	1.62	1.41
67	B1	1758	U	O4'-C1'	16.00	1.62	1.41
67	B1	116	G	O4'-C1'	16.00	1.62	1.41
67	B1	2068	U	O4'-C1'	16.00	1.62	1.41
67	B1	963	G	C2'-C1'	-15.99	1.35	1.53
67	B1	1439	G	O4'-C1'	15.98	1.62	1.41
21	A2	263	C	O4'-C1'	15.98	1.62	1.41
67	B1	1080	G	C2'-C1'	15.98	1.71	1.53
67	B1	2364	G	C2'-C1'	-15.97	1.35	1.53
68	B3	22	C	O4'-C1'	15.97	1.62	1.41
67	B1	1054	A	C2'-C1'	-15.97	1.35	1.53
21	A2	485	A	C2'-C1'	15.95	1.70	1.53
67	B1	115	C	C2'-C1'	-15.96	1.35	1.53
67	B1	1700	U	C2'-C1'	15.95	1.70	1.53
67	B1	1339	C	C2'-C1'	-15.95	1.35	1.53
27	A0	43	G	C2'-C1'	-15.92	1.35	1.53
21	A2	1437	G	O4'-C1'	15.92	1.62	1.41
67	B1	1783	U	C2'-C1'	-15.91	1.35	1.53
21	A2	329	G	C2'-C1'	-15.90	1.35	1.53
67	B1	947	C	O4'-C1'	15.90	1.62	1.41
67	B1	473	C	O4'-C1'	15.89	1.62	1.41
67	B1	610	C	C2'-C1'	-15.88	1.35	1.53
67	B1	640	C	O4'-C1'	15.88	1.62	1.41
21	A2	366	C	C2'-C1'	-15.88	1.35	1.53
67	B1	306	G	O4'-C1'	15.87	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	973	C	C2'-C1'	-15.87	1.35	1.53
67	B1	887	U	C2'-C1'	15.87	1.70	1.53
67	B1	1470	C	O4'-C1'	15.87	1.62	1.41
67	B1	684	G	C2'-C1'	-15.86	1.35	1.53
67	B1	1139	C	O4'-C1'	15.86	1.62	1.41
21	A2	497	C	O4'-C1'	15.86	1.62	1.41
21	A2	13	C	C2'-C1'	-15.85	1.35	1.53
67	B1	1098	C	C2'-C1'	-15.85	1.35	1.53
21	A2	703	U	C2'-C1'	15.85	1.70	1.53
21	A2	1242	C	O4'-C1'	15.85	1.62	1.41
21	A2	666	G	C2'-C1'	-15.85	1.35	1.53
67	B1	2260	C	C2'-C1'	-15.85	1.35	1.53
21	A2	304	C	O4'-C1'	15.84	1.62	1.41
67	B1	436	C	O4'-C1'	15.84	1.62	1.41
67	B1	2308	C	O4'-C1'	15.84	1.62	1.41
21	A2	1047	U	C2'-C1'	-15.84	1.35	1.53
21	A2	749	C	O4'-C1'	15.83	1.62	1.41
67	B1	1607	C	O4'-C1'	15.83	1.62	1.41
67	B1	486	A	C2'-C1'	15.83	1.70	1.53
67	B1	1369	G	C2'-C1'	-15.82	1.35	1.53
67	B1	2645	C	O4'-C1'	15.82	1.62	1.41
67	B1	558	C	O4'-C1'	15.80	1.62	1.41
21	A2	551	U	O4'-C1'	15.80	1.62	1.41
67	B1	2236	C	O4'-C1'	15.80	1.62	1.41
21	A2	1396	C	O4'-C1'	15.79	1.62	1.41
67	B1	1050	C	O4'-C1'	15.79	1.62	1.41
67	B1	2089	C	C2'-C1'	-15.79	1.35	1.53
21	A2	792	C	O4'-C1'	15.79	1.62	1.41
67	B1	1297	C	C2'-C1'	-15.79	1.35	1.53
67	B1	528	G	C2'-C1'	-15.78	1.35	1.53
67	B1	2009	G	C2'-C1'	-15.78	1.35	1.53
27	A0	9	A	O4'-C1'	-15.78	1.21	1.41
67	B1	889	C	O4'-C1'	15.78	1.62	1.41
67	B1	1457	C	O4'-C1'	15.78	1.62	1.41
67	B1	2176	G	C2'-C1'	-15.77	1.36	1.53
21	A2	699	C	C2'-C1'	-15.76	1.36	1.53
21	A2	1439	G	C2'-C1'	15.76	1.70	1.53
67	B1	48	G	C2'-C1'	15.75	1.70	1.53
67	B1	216	A	C2'-C1'	15.75	1.70	1.53
67	B1	1709	C	O4'-C1'	15.75	1.62	1.41
67	B1	2858	C	C2'-C1'	-15.75	1.36	1.53
67	B1	2880	C	O4'-C1'	15.75	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1698	G	C2'-C1'	-15.75	1.36	1.53
67	B1	1586	G	C2'-C1'	-15.75	1.36	1.53
67	B1	1294	A	O4'-C1'	15.74	1.62	1.41
67	B1	2766	C	C2'-C1'	-15.74	1.36	1.53
67	B1	1187	A	C2'-C1'	-15.73	1.36	1.53
67	B1	1377	G	O4'-C1'	15.73	1.62	1.41
67	B1	1473	C	C2'-C1'	-15.72	1.36	1.53
67	B1	1570	C	C5'-C4'	15.72	1.70	1.51
21	A2	1169	C	O4'-C1'	15.71	1.62	1.41
67	B1	1509	C	O4'-C1'	15.71	1.62	1.41
67	B1	1646	G	C2'-C1'	15.70	1.70	1.53
21	A2	926	C	C2'-C1'	-15.70	1.36	1.53
21	A2	279	U	O4'-C1'	15.69	1.62	1.41
21	A2	1121	C	O4'-C1'	15.69	1.62	1.41
21	A2	168	G	C2'-C1'	-15.68	1.36	1.53
67	B1	1424	G	C2'-C1'	-15.68	1.36	1.53
21	A2	1328	G	C2'-C1'	-15.68	1.36	1.53
67	B1	1200	A	C2'-C1'	15.68	1.70	1.53
67	B1	2006	C	O4'-C1'	15.68	1.62	1.41
21	A2	1259	A	C2'-C1'	-15.68	1.36	1.53
21	A2	354	G	C2'-C1'	-15.66	1.36	1.53
67	B1	2482	G	O4'-C1'	15.66	1.62	1.41
21	A2	1223	C	C2'-C1'	-15.66	1.36	1.53
67	B1	671	G	C2'-C1'	-15.66	1.36	1.53
67	B1	1867	C	O4'-C1'	15.65	1.62	1.41
67	B1	568	A	O4'-C1'	15.65	1.61	1.41
67	B1	1384	C	O4'-C1'	15.63	1.61	1.41
21	A2	473	A	C2'-C1'	-15.62	1.36	1.53
67	B1	603	G	C2'-C1'	-15.62	1.36	1.53
67	B1	1191	C	O4'-C1'	15.62	1.61	1.41
21	A2	135	U	C2'-C1'	-15.62	1.36	1.53
67	B1	1681	G	C2'-C1'	-15.61	1.36	1.53
67	B1	923	A	C2'-C1'	15.60	1.70	1.53
67	B1	2331	A	O4'-C1'	15.60	1.61	1.41
21	A2	787	U	C2'-C1'	-15.60	1.36	1.53
67	B1	2840	C	O4'-C1'	15.60	1.61	1.41
21	A2	373	C	O4'-C1'	15.59	1.61	1.41
67	B1	66	C	O4'-C1'	15.59	1.61	1.41
67	B1	1673	C	C2'-C1'	-15.59	1.36	1.53
68	B3	47	G	C2'-C1'	-15.58	1.36	1.53
21	A2	11	A	O4'-C1'	15.57	1.61	1.41
21	A2	435	A	O4'-C1'	15.56	1.61	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2638	G	C2'-C1'	-15.55	1.36	1.53
21	A2	1199	A	O4'-C1'	-15.55	1.21	1.41
21	A2	1136	A	O4'-C1'	15.54	1.61	1.41
67	B1	1567	C	P-O5'	15.54	1.75	1.59
67	B1	729	A	C2'-C1'	-15.53	1.36	1.53
67	B1	1370	G	C2'-C1'	-15.53	1.36	1.53
21	A2	1250	C	O4'-C1'	15.53	1.61	1.41
68	B3	8	C	C2'-C1'	15.52	1.70	1.53
21	A2	1234	A	C2'-C1'	-15.52	1.36	1.53
67	B1	727	A	C2'-C1'	-15.52	1.36	1.53
67	B1	2490	C	C2'-C1'	-15.52	1.36	1.53
21	A2	698	A	C2'-C1'	-15.51	1.36	1.53
21	A2	616	G	C2'-C1'	-15.49	1.36	1.53
21	A2	1448	A	C2'-C1'	15.49	1.70	1.53
67	B1	1910	C	O4'-C1'	15.48	1.61	1.41
21	A2	1117	A	C2'-C1'	-15.48	1.36	1.53
67	B1	2818	C	O4'-C1'	15.47	1.61	1.41
27	A0	25	C	O4'-C1'	15.47	1.61	1.41
21	A2	492	G	O4'-C1'	15.46	1.61	1.41
67	B1	1576	C	C2'-C1'	-15.46	1.36	1.53
21	A2	1115	G	C2'-C1'	-15.46	1.36	1.53
67	B1	2722	G	C2'-C1'	-15.45	1.36	1.53
67	B1	1495	A	C2'-C1'	-15.45	1.36	1.53
67	B1	1530	A	O4'-C1'	-15.44	1.21	1.41
67	B1	2848	C	C2'-C1'	-15.45	1.36	1.53
21	A2	754	G	O4'-C1'	15.44	1.61	1.41
67	B1	462	A	O4'-C1'	15.44	1.61	1.41
21	A2	1421	C	O4'-C1'	15.43	1.61	1.41
67	B1	2196	C	O4'-C1'	15.43	1.61	1.41
67	B1	131	C	O4'-C1'	15.43	1.61	1.41
67	B1	924	A	C2'-C1'	15.43	1.70	1.53
21	A2	651	U	O4'-C1'	15.42	1.61	1.41
67	B1	2296	A	C2'-C1'	-15.41	1.36	1.53
67	B1	932	C	O4'-C1'	15.40	1.61	1.41
68	B3	56	C	O4'-C1'	15.40	1.61	1.41
67	B1	204	G	C2'-C1'	15.39	1.70	1.53
67	B1	3049	C	O4'-C1'	15.39	1.61	1.41
27	A0	6	C	O4'-C1'	15.39	1.61	1.41
68	B3	81	C	O4'-C1'	15.39	1.61	1.41
11	A1	69	G	C2'-C1'	-15.38	1.36	1.53
21	A2	841	C	C2'-C1'	-15.38	1.36	1.53
21	A2	1406	U	C2'-C1'	15.38	1.70	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	456	G	C2'-C1'	-15.38	1.36	1.53
67	B1	592	C	O4'-C1'	15.37	1.61	1.41
67	B1	2635	C	O4'-C1'	15.36	1.61	1.41
67	B1	1042	G	C2'-C1'	15.36	1.70	1.53
67	B1	1383	G	C2'-C1'	-15.35	1.36	1.53
21	A2	1086	C	O4'-C1'	15.35	1.61	1.41
67	B1	2421	A	C2'-C1'	-15.34	1.36	1.53
67	B1	220	C	O4'-C1'	15.34	1.61	1.41
67	B1	128	C	O4'-C1'	15.33	1.61	1.41
67	B1	1651	A	C2'-C1'	-15.33	1.36	1.53
67	B1	764	G	C2'-C1'	15.32	1.70	1.53
67	B1	1571	G	C2'-C1'	-15.31	1.36	1.53
67	B1	2104	G	O4'-C1'	15.31	1.61	1.41
67	B1	130	G	O4'-C1'	15.30	1.61	1.41
21	A2	1239	A	C2'-C1'	-15.28	1.36	1.53
67	B1	369	G	O4'-C1'	15.28	1.61	1.41
67	B1	1288	C	O4'-C1'	15.28	1.61	1.41
67	B1	1072	U	C2'-C1'	15.28	1.70	1.53
67	B1	1515	G	C2'-C1'	-15.28	1.36	1.53
67	B1	2808	C	C2'-C1'	-15.27	1.36	1.53
67	B1	2187	C	O4'-C1'	15.26	1.61	1.41
21	A2	1363	C	O4'-C1'	15.26	1.61	1.41
21	A2	92	G	O4'-C1'	-15.25	1.21	1.41
21	A2	700	G	C2'-C1'	-15.24	1.36	1.53
21	A2	175	G	C2'-C1'	15.24	1.70	1.53
67	B1	473	C	C2'-C1'	-15.24	1.36	1.53
67	B1	2625	C	O4'-C1'	15.24	1.61	1.41
67	B1	1084	G	C2'-C1'	-15.23	1.36	1.53
67	B1	1056	C	O4'-C1'	15.23	1.61	1.41
21	A2	362	C	C2'-C1'	-15.22	1.36	1.53
27	A0	38	A	C2'-C1'	-15.22	1.36	1.53
67	B1	1514	C	O4'-C1'	15.21	1.61	1.41
67	B1	1852	U	O4'-C1'	15.21	1.61	1.41
67	B1	2099	G	C2'-C1'	-15.20	1.36	1.53
67	B1	1308	G	C2'-C1'	-15.19	1.36	1.53
67	B1	1840	G	O4'-C1'	15.20	1.61	1.41
67	B1	2622	C	C2'-C1'	-15.19	1.36	1.53
21	A2	636	G	C2'-C1'	-15.19	1.36	1.53
21	A2	1365	G	C2'-C1'	-15.19	1.36	1.53
67	B1	2776	A	C2'-C1'	-15.18	1.36	1.53
21	A2	383	C	C2'-C1'	-15.18	1.36	1.53
67	B1	124	C	O4'-C1'	15.18	1.61	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1219	C	O4'-C1'	15.18	1.61	1.41
67	B1	2537	G	C2'-C1'	-15.18	1.36	1.53
67	B1	1741	C	O4'-C1'	15.17	1.61	1.41
67	B1	1887	A	O4'-C1'	15.17	1.61	1.41
21	A2	34	G	O4'-C1'	-15.16	1.22	1.41
67	B1	1497	C	O4'-C1'	15.15	1.61	1.41
67	B1	790	U	C2'-C1'	-15.15	1.36	1.53
67	B1	708	A	C2'-C1'	-15.15	1.36	1.53
21	A2	660	C	O4'-C1'	15.14	1.61	1.41
67	B1	493	A	C2'-C1'	-15.13	1.36	1.53
67	B1	2505	A	O4'-C1'	15.13	1.61	1.41
21	A2	138	C	C2'-C1'	-15.12	1.36	1.53
67	B1	226	C	O4'-C1'	15.12	1.61	1.41
67	B1	2434	A	O4'-C1'	15.12	1.61	1.41
67	B1	160	C	C2'-C1'	-15.12	1.36	1.53
67	B1	2358	U	O4'-C1'	15.11	1.61	1.41
67	B1	2131	C	O4'-C1'	15.08	1.61	1.41
68	B3	16	G	C2'-C1'	-15.08	1.36	1.53
21	A2	120	C	O4'-C1'	15.08	1.61	1.41
67	B1	934	G	O4'-C1'	15.08	1.61	1.41
67	B1	2468	C	O4'-C1'	15.07	1.61	1.41
67	B1	1134	A	O4'-C1'	15.07	1.61	1.41
67	B1	1577	C	O4'-C1'	15.06	1.61	1.41
67	B1	775	C	C2'-C1'	-15.06	1.36	1.53
67	B1	2032	G	C2'-C1'	-15.06	1.36	1.53
67	B1	2508	G	O4'-C1'	15.05	1.61	1.41
67	B1	467	U	O4'-C1'	15.04	1.61	1.41
67	B1	1860	A	C2'-C1'	15.04	1.69	1.53
67	B1	2215	U	C2'-C1'	-15.04	1.36	1.53
67	B1	1139	C	C2'-C1'	-15.03	1.36	1.53
67	B1	1477	C	O4'-C1'	15.03	1.61	1.41
68	B3	38	U	C2'-C1'	-15.03	1.36	1.53
67	B1	418	C	C2'-C1'	-15.01	1.36	1.53
67	B1	2990	G	O4'-C1'	15.01	1.61	1.41
21	A2	1047	U	O4'-C1'	15.00	1.61	1.41
68	B3	50	G	O4'-C1'	15.00	1.61	1.41
67	B1	716	U	O4'-C1'	14.99	1.61	1.41
21	A2	267	C	O4'-C1'	14.99	1.61	1.41
21	A2	409	C	C2'-C1'	-14.99	1.36	1.53
67	B1	121	G	O4'-C1'	14.98	1.61	1.41
21	A2	1394	G	O4'-C1'	14.96	1.61	1.41
67	B1	492	A	C2'-C1'	14.96	1.69	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1252	C	O4'-C1'	14.96	1.61	1.41
67	B1	2395	C	C2'-C1'	-14.95	1.36	1.53
68	B3	53	A	C2'-C1'	-14.94	1.36	1.53
67	B1	2088	G	C2'-C1'	-14.94	1.36	1.53
67	B1	2133	G	C2'-C1'	-14.92	1.36	1.53
67	B1	2958	U	C2'-C1'	14.91	1.69	1.53
21	A2	456	U	C2'-C1'	-14.91	1.36	1.53
67	B1	2122	G	C2'-C1'	-14.91	1.36	1.53
21	A2	81	C	O4'-C1'	14.90	1.61	1.41
67	B1	1928	A	C2'-C1'	-14.89	1.36	1.53
67	B1	268	C	O4'-C1'	14.89	1.61	1.41
67	B1	1188	C	C2'-C1'	-14.88	1.36	1.53
67	B1	2859	U	O4'-C1'	14.88	1.60	1.41
67	B1	1303	C	O4'-C1'	14.88	1.60	1.41
67	B1	2926	G	O4'-C1'	14.88	1.60	1.41
21	A2	660	C	C2'-C1'	-14.87	1.36	1.53
21	A2	147	A	O4'-C1'	14.87	1.60	1.41
21	A2	529	C	O4'-C1'	14.87	1.60	1.41
67	B1	2647	G	C2'-C1'	-14.87	1.36	1.53
67	B1	2808	C	O4'-C1'	14.87	1.60	1.41
67	B1	866	G	C2'-C1'	-14.86	1.37	1.53
67	B1	2136	G	C2'-C1'	-14.86	1.37	1.53
21	A2	96	G	C2'-C1'	-14.86	1.37	1.53
67	B1	1963	G	C2'-C1'	-14.85	1.37	1.53
67	B1	537	U	O4'-C1'	14.85	1.60	1.41
67	B1	1934	C	C2'-C1'	-14.85	1.37	1.53
11	A1	74	A	C2'-C1'	-14.85	1.37	1.53
67	B1	900	C	O4'-C1'	14.84	1.60	1.41
67	B1	160	C	O4'-C1'	14.84	1.60	1.41
21	A2	1162	G	C2'-C1'	-14.84	1.37	1.53
67	B1	181	U	C2'-C1'	14.84	1.69	1.53
67	B1	634	G	C2'-C1'	14.84	1.69	1.53
67	B1	1701	C	O4'-C1'	14.84	1.60	1.41
67	B1	2288	C	C2'-C1'	-14.83	1.37	1.53
67	B1	2326	C	C2'-C1'	-14.83	1.37	1.53
67	B1	1711	C	C2'-C1'	14.83	1.69	1.53
67	B1	1752	C	O4'-C1'	14.82	1.60	1.41
67	B1	2010	G	C2'-C1'	-14.82	1.37	1.53
67	B1	190	C	O4'-C1'	14.81	1.60	1.41
21	A2	1081	C	C2'-C1'	14.80	1.69	1.53
67	B1	1475	G	C2'-C1'	-14.80	1.37	1.53
67	B1	2886	C	O4'-C1'	14.80	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1105	C	O4'-C1'	14.80	1.60	1.41
67	B1	2739	G	C2'-C1'	-14.80	1.37	1.53
67	B1	593	C	O4'-C1'	14.80	1.60	1.41
67	B1	2684	G	C2'-C1'	-14.79	1.37	1.53
67	B1	1438	C	O4'-C1'	14.78	1.60	1.41
67	B1	2380	A	C2'-C1'	-14.78	1.37	1.53
68	B3	13	C	C2'-C1'	-14.78	1.37	1.53
21	A2	363	C	C2'-C1'	14.78	1.69	1.53
67	B1	901	C	O4'-C1'	14.78	1.60	1.41
67	B1	85	G	C2'-C1'	-14.78	1.37	1.53
67	B1	2594	U	O4'-C1'	14.77	1.60	1.41
67	B1	2871	A	C2'-C1'	14.77	1.69	1.53
67	B1	2266	C	O4'-C1'	14.76	1.60	1.41
21	A2	273	C	O4'-C1'	14.75	1.60	1.41
67	B1	1059	C	C2'-C1'	-14.75	1.37	1.53
67	B1	1747	C	C2'-C1'	-14.74	1.37	1.53
67	B1	2086	C	O4'-C1'	14.73	1.60	1.41
67	B1	2753	G	O4'-C1'	-14.72	1.22	1.41
67	B1	2836	G	O4'-C1'	14.71	1.60	1.41
21	A2	1147	G	C2'-C1'	-14.70	1.37	1.53
11	A1	47	G	C2'-C1'	14.70	1.69	1.53
67	B1	274	C	C2'-C1'	-14.69	1.37	1.53
67	B1	2430	C	O4'-C1'	14.69	1.60	1.41
67	B1	258	C	O4'-C1'	14.68	1.60	1.41
21	A2	337	C	C2'-C1'	-14.68	1.37	1.53
67	B1	1143	A	O4'-C1'	14.68	1.60	1.41
67	B1	2213	G	C2'-C1'	-14.67	1.37	1.53
67	B1	712	C	O4'-C1'	14.67	1.60	1.41
21	A2	724	C	O4'-C1'	14.67	1.60	1.41
67	B1	2632	C	C2'-C1'	14.67	1.69	1.53
67	B1	1296	A	O4'-C1'	14.66	1.60	1.41
67	B1	661	G	C2'-C1'	-14.65	1.37	1.53
67	B1	2033	G	O4'-C1'	14.65	1.60	1.41
21	A2	321	A	O4'-C1'	14.64	1.60	1.41
21	A2	1066	C	C2'-C1'	-14.64	1.37	1.53
67	B1	822	A	O4'-C1'	14.64	1.60	1.41
67	B1	178	G	C2'-C1'	-14.63	1.37	1.53
21	A2	1026	A	C2'-C1'	-14.63	1.37	1.53
21	A2	1436	U	C2'-C1'	14.63	1.69	1.53
67	B1	1484	U	C2'-C1'	-14.63	1.37	1.53
67	B1	1568	A	O5'-C5'	14.62	1.67	1.44
67	B1	1640	G	C2'-C1'	-14.61	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	166	A	C2'-C1'	-14.61	1.37	1.53
67	B1	921	C	O4'-C1'	14.60	1.60	1.41
67	B1	122	G	C2'-C1'	-14.60	1.37	1.53
67	B1	1773	C	O4'-C1'	14.60	1.60	1.41
67	B1	2182	A	C2'-C1'	14.59	1.69	1.53
27	A0	75	C	O4'-C1'	14.59	1.60	1.41
67	B1	2068	U	C2'-C1'	14.58	1.69	1.53
21	A2	366	C	O4'-C1'	14.57	1.60	1.41
67	B1	154	U	C2'-C1'	14.57	1.69	1.53
27	A0	14	A	O4'-C1'	14.57	1.60	1.41
67	B1	3048	C	O4'-C1'	14.56	1.60	1.41
21	A2	1204	C	O4'-C1'	14.56	1.60	1.41
21	A2	760	C	O4'-C1'	14.56	1.60	1.41
21	A2	867	A	C2'-C1'	14.55	1.69	1.53
67	B1	1746	C	O4'-C1'	14.55	1.60	1.41
67	B1	1907	G	C2'-C1'	-14.55	1.37	1.53
67	B1	1576	C	O4'-C1'	14.54	1.60	1.41
21	A2	971	G	C2'-C1'	-14.54	1.37	1.53
68	B3	68	C	C2'-C1'	-14.54	1.37	1.53
21	A2	833	C	C2'-C1'	-14.54	1.37	1.53
67	B1	1218	C	O4'-C1'	14.52	1.60	1.41
21	A2	880	G	C2'-C1'	-14.52	1.37	1.53
67	B1	2764	G	C2'-C1'	-14.52	1.37	1.53
21	A2	1004	U	O4'-C1'	14.52	1.60	1.41
67	B1	1272	A	C2'-C1'	14.51	1.69	1.53
21	A2	1194	C	O4'-C1'	14.50	1.60	1.41
67	B1	210	A	O4'-C1'	14.50	1.60	1.41
21	A2	1494	C	O4'-C1'	14.49	1.60	1.41
67	B1	652	G	O4'-C1'	14.49	1.60	1.41
67	B1	32	C	C2'-C1'	-14.49	1.37	1.53
21	A2	774	U	O4'-C1'	14.49	1.60	1.41
67	B1	463	A	C2'-C1'	-14.49	1.37	1.53
67	B1	521	C	O4'-C1'	14.49	1.60	1.41
21	A2	472	C	C2'-C1'	-14.48	1.37	1.53
67	B1	452	A	C2'-C1'	-14.48	1.37	1.53
67	B1	2424	A	O4'-C1'	14.48	1.60	1.41
21	A2	45	U	C2'-C1'	14.48	1.69	1.53
67	B1	1289	C	O4'-C1'	14.48	1.60	1.41
67	B1	1251	G	O4'-C1'	14.47	1.60	1.41
67	B1	1040	C	O4'-C1'	14.47	1.60	1.41
67	B1	1939	C	O4'-C1'	14.47	1.60	1.41
67	B1	1794	C	C2'-C1'	-14.46	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	392	G	C2'-C1'	-14.45	1.37	1.53
67	B1	1231	C	O4'-C1'	14.45	1.60	1.41
67	B1	778	A	O4'-C1'	14.44	1.60	1.41
67	B1	2887	C	O4'-C1'	14.44	1.60	1.41
67	B1	571	G	C2'-C1'	-14.43	1.37	1.53
67	B1	152	G	C2'-C1'	14.43	1.69	1.53
67	B1	2989	A	C2'-C1'	-14.43	1.37	1.53
67	B1	44	C	C2'-C1'	-14.43	1.37	1.53
67	B1	493	A	O4'-C1'	14.42	1.60	1.41
21	A2	280	C	C2'-C1'	-14.42	1.37	1.53
21	A2	1185	A	C2'-C1'	-14.41	1.37	1.53
67	B1	1763	A	C2'-C1'	-14.41	1.37	1.53
21	A2	60	A	C2'-C1'	14.41	1.69	1.53
21	A2	1076	G	C2'-C1'	-14.41	1.37	1.53
67	B1	2674	C	O4'-C1'	14.40	1.60	1.41
67	B1	1511	C	C2'-C1'	-14.40	1.37	1.53
67	B1	2849	C	O4'-C1'	14.40	1.60	1.41
67	B1	603	G	O4'-C1'	14.39	1.60	1.41
21	A2	1348	C	C2'-C1'	-14.39	1.37	1.53
11	A1	28	C	O4'-C1'	14.38	1.60	1.41
21	A2	464	G	C2'-C1'	-14.38	1.37	1.53
21	A2	1024	G	C2'-C1'	-14.38	1.37	1.53
67	B1	1106	C	C2'-C1'	-14.37	1.37	1.53
67	B1	1395	G	C2'-C1'	-14.37	1.37	1.53
67	B1	1603	G	C2'-C1'	-14.37	1.37	1.53
67	B1	1838	C	C2'-C1'	-14.37	1.37	1.53
67	B1	2556	C	C2'-C1'	-14.37	1.37	1.53
21	A2	381	C	O4'-C1'	14.37	1.60	1.41
21	A2	1035	C	C2'-C1'	-14.37	1.37	1.53
67	B1	2951	G	C2'-C1'	-14.37	1.37	1.53
67	B1	3013	U	O4'-C1'	14.37	1.60	1.41
21	A2	1470	G	C2'-C1'	-14.36	1.37	1.53
27	A0	50	C	C2'-C1'	-14.36	1.37	1.53
67	B1	2824	C	C2'-C1'	-14.36	1.37	1.53
21	A2	474	G	C2'-C1'	-14.36	1.37	1.53
67	B1	1960	U	O4'-C1'	14.36	1.60	1.41
67	B1	1441	C	O4'-C1'	14.36	1.60	1.41
68	B3	94	G	O4'-C1'	14.36	1.60	1.41
21	A2	878	U	C2'-C1'	-14.35	1.37	1.53
67	B1	2713	A	C2'-C1'	14.35	1.69	1.53
11	A1	71	C	C2'-C1'	-14.35	1.37	1.53
11	A1	73	C	O4'-C1'	14.35	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2170	C	O4'-C1'	14.35	1.60	1.41
67	B1	2381	A	C5'-C4'	14.34	1.68	1.51
67	B1	1953	U	C2'-C1'	-14.34	1.37	1.53
21	A2	294	A	C2'-C1'	-14.33	1.37	1.53
21	A2	652	C	C2'-C1'	-14.33	1.37	1.53
27	A0	68	G	C2'-C1'	-14.33	1.37	1.53
67	B1	359	C	C2'-C1'	-14.32	1.37	1.53
67	B1	2905	C	O4'-C1'	14.32	1.60	1.41
21	A2	627	G	C2'-C1'	-14.32	1.37	1.53
67	B1	2913	C	O4'-C1'	14.31	1.60	1.41
67	B1	1811	G	O4'-C1'	-14.31	1.23	1.41
67	B1	1047	A	O4'-C1'	14.30	1.60	1.41
67	B1	2073	G	C2'-C1'	-14.30	1.37	1.53
21	A2	933	G	C2'-C1'	-14.30	1.37	1.53
67	B1	644	G	O4'-C1'	14.29	1.60	1.41
67	B1	956	U	O4'-C1'	14.29	1.60	1.41
67	B1	344	G	C2'-C1'	-14.29	1.37	1.53
21	A2	1472	G	C2'-C1'	-14.29	1.37	1.53
67	B1	1790	G	O4'-C1'	14.28	1.60	1.41
21	A2	248	U	O4'-C1'	14.27	1.60	1.41
21	A2	457	G	O4'-C1'	14.27	1.60	1.41
67	B1	2288	C	O4'-C1'	14.27	1.60	1.41
67	B1	1407	A	O4'-C1'	14.27	1.60	1.41
67	B1	293	G	C2'-C1'	14.26	1.69	1.53
67	B1	2029	C	O4'-C1'	14.26	1.60	1.41
68	B3	26	C	O4'-C1'	14.26	1.60	1.41
21	A2	715	C	O4'-C1'	14.25	1.60	1.41
67	B1	2607	U	C2'-C1'	14.25	1.69	1.53
11	A1	54	G	O4'-C1'	14.24	1.60	1.41
21	A2	393	A	O4'-C1'	-14.24	1.23	1.41
67	B1	466	C	C2'-C1'	-14.24	1.37	1.53
21	A2	681	G	C2'-C1'	14.24	1.69	1.53
67	B1	737	G	C2'-C1'	-14.24	1.37	1.53
67	B1	1651	A	O4'-C1'	14.23	1.60	1.41
67	B1	2094	A	C2'-C1'	-14.23	1.37	1.53
68	B3	68	C	O4'-C1'	14.23	1.60	1.41
67	B1	1391	C	O4'-C1'	14.23	1.60	1.41
67	B1	2822	G	C2'-C1'	-14.23	1.37	1.53
67	B1	844	C	O4'-C1'	14.22	1.60	1.41
21	A2	715	C	C2'-C1'	-14.22	1.37	1.53
21	A2	847	A	C2'-C1'	-14.22	1.37	1.53
21	A2	42	G	C2'-C1'	-14.20	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	796	C	O4'-C1'	14.20	1.60	1.41
67	B1	2066	C	O4'-C1'	14.20	1.60	1.41
67	B1	1141	C	C2'-C1'	-14.19	1.37	1.53
21	A2	279	U	C2'-C1'	-14.19	1.37	1.53
67	B1	3036	C	O4'-C1'	14.19	1.60	1.41
11	A1	62	C	O4'-C1'	14.18	1.60	1.41
68	B3	5	G	C2'-C1'	-14.17	1.37	1.53
21	A2	613	C	O4'-C1'	14.17	1.60	1.41
67	B1	2683	G	C2'-C1'	-14.17	1.37	1.53
67	B1	936	G	C2'-C1'	-14.16	1.37	1.53
67	B1	2012	G	O4'-C1'	-14.16	1.23	1.41
67	B1	2039	U	O4'-C1'	14.16	1.60	1.41
67	B1	173	G	C2'-C1'	-14.16	1.37	1.53
67	B1	2750	C	O4'-C1'	14.16	1.60	1.41
21	A2	229	G	C2'-C1'	-14.15	1.37	1.53
67	B1	1756	C	O4'-C1'	14.14	1.60	1.41
67	B1	2498	G	O4'-C1'	14.13	1.60	1.41
67	B1	1820	C	C2'-C1'	-14.13	1.37	1.53
67	B1	2319	C	C2'-C1'	-14.13	1.37	1.53
21	A2	6	G	C2'-C1'	-14.13	1.37	1.53
67	B1	408	C	C2'-C1'	-14.13	1.37	1.53
67	B1	605	A	O4'-C1'	14.13	1.60	1.41
67	B1	2529	G	C2'-C1'	-14.12	1.37	1.53
67	B1	1628	C	O4'-C1'	14.12	1.60	1.41
67	B1	119	U	O4'-C1'	14.12	1.60	1.41
67	B1	2475	G	C2'-C1'	-14.11	1.37	1.53
67	B1	2945	A	C2'-C1'	-14.11	1.37	1.53
67	B1	1377	G	C2'-C1'	-14.10	1.37	1.53
21	A2	792	C	C2'-C1'	-14.10	1.37	1.53
21	A2	44	C	O4'-C1'	14.09	1.59	1.41
67	B1	2877	A	O4'-C1'	14.09	1.59	1.41
67	B1	1571	G	O4'-C1'	14.08	1.59	1.41
67	B1	297	G	C2'-C1'	-14.08	1.37	1.53
21	A2	373	C	C2'-C1'	-14.08	1.37	1.53
67	B1	1048	C	O4'-C1'	14.07	1.59	1.41
67	B1	905	G	O4'-C1'	14.07	1.59	1.41
67	B1	1799	G	C2'-C1'	-14.07	1.37	1.53
21	A2	437	A	C2'-C1'	-14.06	1.37	1.53
67	B1	2727	C	O4'-C1'	14.06	1.59	1.41
21	A2	4	C	C2'-C1'	14.06	1.68	1.53
67	B1	2043	A	O4'-C1'	14.06	1.59	1.41
68	B3	79	U	C2'-C1'	14.06	1.68	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1051	C	O4'-C1'	14.05	1.59	1.41
67	B1	1086	U	O4'-C1'	14.05	1.59	1.41
67	B1	2648	C	O4'-C1'	14.04	1.59	1.41
67	B1	1472	U	C2'-C1'	-14.04	1.38	1.53
67	B1	454	C	O4'-C1'	14.04	1.59	1.41
67	B1	2306	C	C2'-C1'	-14.04	1.38	1.53
21	A2	268	C	O4'-C1'	14.03	1.59	1.41
67	B1	1271	G	O4'-C1'	14.02	1.59	1.41
67	B1	2151	C	O4'-C1'	14.02	1.59	1.41
11	A1	76	C	O4'-C1'	14.02	1.59	1.41
21	A2	548	A	C2'-C1'	-14.01	1.38	1.53
21	A2	426	C	O4'-C1'	14.01	1.59	1.41
67	B1	502	G	O4'-C1'	-14.00	1.23	1.41
67	B1	2629	U	C2'-C1'	-14.00	1.38	1.53
67	B1	1547	U	C2'-C1'	14.00	1.68	1.53
67	B1	2503	C	O4'-C1'	13.99	1.59	1.41
67	B1	2474	A	C2'-C1'	-13.99	1.38	1.53
21	A2	75	C	C2'-C1'	13.99	1.68	1.53
67	B1	2759	A	C2'-C1'	-13.99	1.38	1.53
67	B1	1403	C	O4'-C1'	13.98	1.59	1.41
67	B1	2642	C	C2'-C1'	-13.98	1.38	1.53
21	A2	1178	C	O4'-C1'	13.98	1.59	1.41
67	B1	2559	G	C2'-C1'	-13.98	1.38	1.53
67	B1	2410	U	O4'-C1'	13.98	1.59	1.41
68	B3	65	G	O4'-C1'	13.97	1.59	1.41
67	B1	1941	A	C2'-C1'	-13.97	1.38	1.53
21	A2	1271	G	O4'-C1'	13.97	1.59	1.41
21	A2	554	C	O4'-C1'	13.96	1.59	1.41
21	A2	344	G	O4'-C1'	13.95	1.59	1.41
21	A2	1286	C	O4'-C1'	13.94	1.59	1.41
67	B1	136	U	O4'-C1'	13.94	1.59	1.41
67	B1	1429	A	C2'-C1'	13.94	1.68	1.53
67	B1	1747	C	O4'-C1'	13.94	1.59	1.41
67	B1	2234	C	O4'-C1'	13.94	1.59	1.41
21	A2	375	G	O4'-C1'	13.93	1.59	1.41
67	B1	1071	A	O4'-C1'	13.92	1.59	1.41
67	B1	1675	C	C2'-C1'	-13.92	1.38	1.53
67	B1	2562	G	O4'-C1'	13.92	1.59	1.41
67	B1	1979	G	C2'-C1'	-13.91	1.38	1.53
67	B1	1548	A	C2'-C1'	13.91	1.68	1.53
67	B1	1924	A	C2'-C1'	-13.91	1.38	1.53
67	B1	2273	U	C2'-C1'	-13.91	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1411	G	O4'-C1'	13.90	1.59	1.41
67	B1	977	C	O4'-C1'	13.90	1.59	1.41
68	B3	29	G	C2'-C1'	-13.89	1.38	1.53
67	B1	725	G	C2'-C1'	-13.88	1.38	1.53
67	B1	208	A	O4'-C1'	13.88	1.59	1.41
67	B1	512	G	C2'-C1'	-13.88	1.38	1.53
21	A2	23	G	O4'-C1'	13.88	1.59	1.41
67	B1	2829	C	O4'-C1'	13.87	1.59	1.41
67	B1	2145	G	C2'-C1'	13.87	1.68	1.53
67	B1	3011	G	C2'-C1'	-13.86	1.38	1.53
67	B1	2439	G	O4'-C1'	13.86	1.59	1.41
21	A2	1357	C	C2'-C1'	13.85	1.68	1.53
67	B1	2641	C	C2'-C1'	-13.84	1.38	1.53
67	B1	1471	G	C2'-C1'	-13.84	1.38	1.53
67	B1	1390	U	O4'-C1'	-13.83	1.23	1.41
21	A2	162	C	O4'-C1'	13.82	1.59	1.41
21	A2	746	A	O4'-C1'	-13.82	1.23	1.41
21	A2	1347	U	C2'-C1'	-13.82	1.38	1.53
21	A2	420	C	O4'-C1'	13.82	1.59	1.41
67	B1	691	G	C2'-C1'	-13.82	1.38	1.53
21	A2	1124	G	C2'-C1'	-13.81	1.38	1.53
67	B1	2403	G	C2'-C1'	-13.81	1.38	1.53
67	B1	2254	U	O4'-C1'	13.81	1.59	1.41
67	B1	3001	C	O4'-C1'	13.81	1.59	1.41
21	A2	1067	G	C2'-C1'	13.81	1.68	1.53
21	A2	583	G	O4'-C1'	13.81	1.59	1.41
27	A0	63	G	C2'-C1'	-13.80	1.38	1.53
67	B1	2466	C	C2'-C1'	-13.80	1.38	1.53
67	B1	2790	C	O4'-C1'	13.80	1.59	1.41
67	B1	1432	C	O4'-C1'	13.79	1.59	1.41
67	B1	1955	U	C2'-C1'	13.79	1.68	1.53
21	A2	20	G	C2'-C1'	-13.78	1.38	1.53
67	B1	1500	C	O4'-C1'	13.78	1.59	1.41
21	A2	781	U	C2'-C1'	-13.78	1.38	1.53
21	A2	542	G	C2'-C1'	-13.78	1.38	1.53
67	B1	161	C	O4'-C1'	13.78	1.59	1.41
67	B1	2276	G	C2'-C1'	13.78	1.68	1.53
67	B1	575	G	C2'-C1'	-13.77	1.38	1.53
67	B1	594	U	C2'-C1'	13.77	1.68	1.53
67	B1	1552	C	O4'-C1'	13.77	1.59	1.41
67	B1	2303	A	O4'-C1'	13.77	1.59	1.41
21	A2	108	G	C2'-C1'	-13.76	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	116	C	C2'-C1'	-13.75	1.38	1.53
67	B1	640	C	C2'-C1'	-13.75	1.38	1.53
67	B1	2927	A	O4'-C1'	13.75	1.59	1.41
21	A2	1442	G	C2'-C1'	-13.74	1.38	1.53
67	B1	2081	C	O4'-C1'	13.74	1.59	1.41
67	B1	2375	C	O4'-C1'	13.73	1.59	1.41
27	A0	61	C	O4'-C1'	13.73	1.59	1.41
67	B1	1721	U	C2'-C1'	-13.73	1.38	1.53
21	A2	215	C	C2'-C1'	-13.73	1.38	1.53
67	B1	1834	C	C2'-C1'	-13.72	1.38	1.53
21	A2	736	A	C2'-C1'	13.72	1.68	1.53
67	B1	2484	C	C2'-C1'	-13.72	1.38	1.53
67	B1	1228	G	C2'-C1'	13.72	1.68	1.53
21	A2	132	G	P-O5'	-13.71	1.46	1.59
67	B1	2535	C	O4'-C1'	13.71	1.59	1.41
67	B1	1222	U	O4'-C1'	13.71	1.59	1.41
67	B1	2900	C	O4'-C1'	13.71	1.59	1.41
67	B1	777	A	C2'-C1'	13.71	1.68	1.53
67	B1	1164	C	O4'-C1'	13.71	1.59	1.41
21	A2	278	A	C2'-C1'	13.70	1.68	1.53
67	B1	474	G	O4'-C1'	13.70	1.59	1.41
21	A2	1219	C	O4'-C1'	13.69	1.59	1.41
67	B1	472	A	C2'-C1'	-13.69	1.38	1.53
67	B1	598	C	O4'-C1'	13.69	1.59	1.41
21	A2	1200	U	O4'-C1'	-13.69	1.23	1.41
67	B1	428	A	C2'-C1'	13.69	1.68	1.53
67	B1	336	C	O4'-C1'	13.68	1.59	1.41
67	B1	117	A	O4'-C1'	13.67	1.59	1.41
67	B1	1468	G	O4'-C1'	13.67	1.59	1.41
67	B1	1309	G	C2'-C1'	-13.67	1.38	1.53
67	B1	190	C	C2'-C1'	-13.66	1.38	1.53
21	A2	121	C	C2'-C1'	-13.66	1.38	1.53
21	A2	1195	U	C2'-C1'	-13.66	1.38	1.53
21	A2	263	C	C2'-C1'	-13.65	1.38	1.53
21	A2	628	G	C2'-C1'	-13.64	1.38	1.53
21	A2	633	C	C2'-C1'	-13.64	1.38	1.53
67	B1	2337	G	C2'-C1'	-13.64	1.38	1.53
67	B1	1364	C	O4'-C1'	13.63	1.59	1.41
67	B1	2486	A	O4'-C1'	13.63	1.59	1.41
21	A2	552	C	C2'-C1'	-13.63	1.38	1.53
67	B1	2666	G	C2'-C1'	-13.63	1.38	1.53
21	A2	1409	G	C2'-C1'	13.62	1.68	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	928	A	O4'-C1'	13.62	1.59	1.41
67	B1	2215	U	O4'-C1'	13.62	1.59	1.41
21	A2	613	C	C2'-C1'	-13.62	1.38	1.53
21	A2	565	C	O4'-C1'	13.61	1.59	1.41
21	A2	1021	C	O4'-C1'	13.60	1.59	1.41
67	B1	2295	C	O4'-C1'	13.60	1.59	1.41
21	A2	184	G	C2'-C1'	13.60	1.68	1.53
68	B3	6	G	C2'-C1'	-13.59	1.38	1.53
67	B1	1488	C	C2'-C1'	-13.59	1.38	1.53
11	A1	35	G	O4'-C1'	13.59	1.59	1.41
21	A2	943	C	O4'-C1'	13.59	1.59	1.41
67	B1	2338	A	O4'-C1'	13.59	1.59	1.41
67	B1	2721	C	O4'-C1'	13.59	1.59	1.41
67	B1	1916	U	O4'-C1'	13.58	1.59	1.41
21	A2	1100	G	O4'-C1'	13.57	1.59	1.41
21	A2	643	G	C2'-C1'	-13.56	1.38	1.53
67	B1	2715	A	C2'-C1'	-13.56	1.38	1.53
67	B1	2774	C	C2'-C1'	-13.55	1.38	1.53
21	A2	967	C	O4'-C1'	13.55	1.59	1.41
67	B1	1544	C	C2'-C1'	-13.55	1.38	1.53
67	B1	1724	A	O4'-C1'	13.54	1.59	1.41
67	B1	2353	C	C2'-C1'	-13.55	1.38	1.53
67	B1	2688	C	O4'-C1'	13.54	1.59	1.41
67	B1	3048	C	C2'-C1'	-13.54	1.38	1.53
67	B1	2158	G	C2'-C1'	-13.54	1.38	1.53
11	A1	3	G	C2'-C1'	13.54	1.68	1.53
67	B1	172	C	C2'-C1'	-13.53	1.38	1.53
68	B3	13	C	O4'-C1'	13.53	1.59	1.41
21	A2	738	C	O4'-C1'	13.52	1.59	1.41
67	B1	2300	C	O4'-C1'	13.52	1.59	1.41
67	B1	1454	G	O4'-C1'	-13.52	1.24	1.41
67	B1	1569	A	O5'-C5'	13.52	1.66	1.44
67	B1	2251	G	C2'-C1'	-13.52	1.38	1.53
21	A2	1329	C	C2'-C1'	-13.51	1.38	1.53
67	B1	2069	G	O4'-C1'	13.51	1.59	1.41
67	B1	2555	C	O4'-C1'	13.51	1.59	1.41
21	A2	1057	A	C2'-C1'	13.51	1.68	1.53
67	B1	823	G	C2'-C1'	-13.51	1.38	1.53
67	B1	2292	A	O4'-C1'	13.51	1.59	1.41
67	B1	2314	U	O4'-C1'	13.51	1.59	1.41
67	B1	544	A	O4'-C1'	13.50	1.59	1.41
21	A2	1211	A	C2'-C1'	13.50	1.68	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2750	C	C2'-C1'	-13.50	1.38	1.53
21	A2	425	C	O4'-C1'	13.49	1.59	1.41
27	A0	48	C	O4'-C1'	13.49	1.59	1.41
67	B1	743	A	C2'-C1'	-13.49	1.38	1.53
67	B1	2529	G	O4'-C1'	13.49	1.59	1.41
67	B1	1011	A	O4'-C1'	13.49	1.59	1.41
67	B1	2515	U	C2'-C1'	-13.49	1.38	1.53
21	A2	1196	A	O4'-C1'	13.49	1.59	1.41
21	A2	1424	G	O4'-C1'	13.49	1.59	1.41
67	B1	1478	G	C2'-C1'	-13.49	1.38	1.53
21	A2	512	U	C2'-C1'	-13.48	1.38	1.53
67	B1	2207	C	O4'-C1'	13.48	1.59	1.41
67	B1	681	C	C2'-C1'	-13.48	1.38	1.53
21	A2	674	C	O4'-C1'	13.47	1.59	1.41
21	A2	733	C	O4'-C1'	13.47	1.59	1.41
67	B1	1307	C	O4'-C1'	13.47	1.59	1.41
67	B1	2774	C	O4'-C1'	13.47	1.59	1.41
67	B1	1905	G	C2'-C1'	13.47	1.68	1.53
21	A2	750	C	O4'-C1'	13.46	1.59	1.41
21	A2	1237	G	C2'-C1'	-13.46	1.38	1.53
67	B1	396	G	C2'-C1'	-13.46	1.38	1.53
67	B1	766	G	C2'-C1'	-13.46	1.38	1.53
21	A2	967	C	C2'-C1'	-13.46	1.38	1.53
21	A2	1386	C	O4'-C1'	13.46	1.59	1.41
67	B1	1276	G	C2'-C1'	-13.45	1.38	1.53
67	B1	2283	C	C2'-C1'	-13.46	1.38	1.53
67	B1	138	U	O4'-C1'	13.45	1.59	1.41
67	B1	53	A	C2'-C1'	13.44	1.68	1.53
21	A2	72	C	C2'-C1'	-13.44	1.38	1.53
67	B1	39	C	O4'-C1'	13.44	1.59	1.41
67	B1	184	A	C2'-C1'	13.44	1.68	1.53
67	B1	1313	G	O4'-C1'	-13.44	1.24	1.41
21	A2	1263	C	O4'-C1'	13.43	1.59	1.41
21	A2	50	C	O4'-C1'	13.43	1.59	1.41
67	B1	2801	G	C2'-C1'	-13.43	1.38	1.53
67	B1	1070	G	O4'-C1'	13.42	1.59	1.41
67	B1	2801	G	O4'-C1'	13.42	1.59	1.41
67	B1	2101	A	O4'-C1'	13.41	1.59	1.41
67	B1	1835	A	O4'-C1'	13.41	1.59	1.41
67	B1	2662	G	C2'-C1'	-13.41	1.38	1.53
21	A2	292	U	C2'-C1'	-13.40	1.38	1.53
67	B1	81	G	C2'-C1'	-13.40	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	70	C	O4'-C1'	13.39	1.59	1.41
21	A2	355	C	C2'-C1'	-13.39	1.38	1.53
67	B1	1331	U	C2'-C1'	-13.39	1.38	1.53
21	A2	291	G	C2'-C1'	-13.38	1.38	1.53
21	A2	919	U	C2'-C1'	-13.38	1.38	1.53
21	A2	165	U	O4'-C1'	13.37	1.59	1.41
67	B1	120	G	C2'-C1'	-13.37	1.38	1.53
67	B1	1355	A	O4'-C1'	13.37	1.59	1.41
67	B1	557	G	C2'-C1'	-13.36	1.38	1.53
67	B1	2048	C	O4'-C1'	13.36	1.59	1.41
67	B1	202	A	C2'-C1'	13.36	1.68	1.53
67	B1	2834	C	O4'-C1'	13.36	1.59	1.41
67	B1	1225	A	C2'-C1'	-13.36	1.38	1.53
67	B1	1261	C	O4'-C1'	13.36	1.59	1.41
21	A2	564	C	O4'-C1'	13.35	1.59	1.41
21	A2	803	C	C2'-C1'	-13.35	1.38	1.53
67	B1	2317	G	C2'-C1'	-13.35	1.38	1.53
21	A2	163	C	C2'-C1'	-13.34	1.38	1.53
67	B1	1164	C	C2'-C1'	-13.34	1.38	1.53
67	B1	1131	G	C2'-C1'	-13.34	1.38	1.53
67	B1	720	C	C2'-C1'	-13.33	1.38	1.53
67	B1	2627	C	O4'-C1'	13.32	1.58	1.41
21	A2	59	C	O4'-C1'	13.32	1.58	1.41
67	B1	1095	A	C2'-C1'	-13.32	1.38	1.53
67	B1	2699	U	C2'-C1'	-13.32	1.38	1.53
21	A2	230	C	C2'-C1'	-13.32	1.38	1.53
21	A2	980	C	O4'-C1'	13.31	1.58	1.41
67	B1	2353	C	O4'-C1'	13.31	1.58	1.41
67	B1	937	A	O4'-C1'	13.31	1.58	1.41
67	B1	2796	C	O4'-C1'	13.30	1.58	1.41
67	B1	901	C	C2'-C1'	-13.30	1.38	1.53
67	B1	930	G	C2'-C1'	-13.30	1.38	1.53
67	B1	1462	G	C2'-C1'	-13.29	1.38	1.53
67	B1	2710	G	C2'-C1'	13.29	1.68	1.53
21	A2	262	G	O4'-C1'	13.29	1.58	1.41
21	A2	372	G	C2'-C1'	-13.29	1.38	1.53
21	A2	1170	C	O4'-C1'	13.29	1.58	1.41
67	B1	517	A	C2'-C1'	13.28	1.68	1.53
21	A2	236	C	O4'-C1'	13.27	1.58	1.41
67	B1	928	A	C2'-C1'	-13.27	1.38	1.53
67	B1	1270	G	C2'-C1'	-13.27	1.38	1.53
67	B1	2447	A	O4'-C1'	13.26	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2824	C	O4'-C1'	13.26	1.58	1.41
67	B1	1321	C	C2'-C1'	-13.26	1.38	1.53
68	B3	43	C	C2'-C1'	-13.26	1.38	1.53
21	A2	1086	C	C2'-C1'	-13.26	1.38	1.53
21	A2	144	G	O4'-C1'	13.26	1.58	1.41
21	A2	1054	A	O4'-C1'	13.26	1.58	1.41
67	B1	61	G	C2'-C1'	-13.26	1.38	1.53
21	A2	468	G	C2'-C1'	-13.25	1.38	1.53
67	B1	1545	C	C2'-C1'	-13.24	1.38	1.53
67	B1	2604	G	C2'-C1'	-13.24	1.38	1.53
67	B1	115	C	O4'-C1'	13.24	1.58	1.41
67	B1	32	C	O4'-C1'	13.24	1.58	1.41
67	B1	351	C	O4'-C1'	13.23	1.58	1.41
67	B1	1856	G	C2'-C1'	-13.23	1.38	1.53
67	B1	1906	G	O4'-C1'	-13.23	1.24	1.41
67	B1	740	C	O4'-C1'	13.23	1.58	1.41
67	B1	1158	G	O4'-C1'	13.23	1.58	1.41
67	B1	2772	U	O4'-C1'	13.22	1.58	1.41
67	B1	2091	U	O4'-C1'	13.22	1.58	1.41
67	B1	1388	U	O4'-C1'	13.22	1.58	1.41
21	A2	104	A	O4'-C1'	13.21	1.58	1.41
67	B1	1760	C	O4'-C1'	13.21	1.58	1.41
67	B1	2268	C	C2'-C1'	13.21	1.67	1.53
21	A2	189	C	O4'-C1'	13.20	1.58	1.41
67	B1	1913	C	O4'-C1'	13.20	1.58	1.41
67	B1	2791	C	O4'-C1'	13.19	1.58	1.41
67	B1	1115	A	O4'-C1'	13.19	1.58	1.41
67	B1	1023	C	O4'-C1'	13.19	1.58	1.41
21	A2	26	A	O4'-C1'	13.18	1.58	1.41
21	A2	1400	A	O4'-C1'	13.18	1.58	1.41
67	B1	2994	G	C2'-C1'	-13.18	1.38	1.53
67	B1	2311	C	O4'-C1'	13.17	1.58	1.41
21	A2	112	G	O4'-C1'	13.17	1.58	1.41
21	A2	1059	C	O4'-C1'	13.17	1.58	1.41
67	B1	1402	C	O4'-C1'	13.17	1.58	1.41
21	A2	271	G	C2'-C1'	-13.16	1.38	1.53
67	B1	2112	C	O4'-C1'	13.16	1.58	1.41
21	A2	481	C	O4'-C1'	13.16	1.58	1.41
67	B1	2198	U	C2'-C1'	-13.16	1.38	1.53
67	B1	2914	U	O4'-C1'	13.16	1.58	1.41
67	B1	953	G	C2'-C1'	13.15	1.67	1.53
67	B1	927	G	C2'-C1'	-13.15	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1637	C	O4'-C1'	13.15	1.58	1.41
67	B1	1328	G	O4'-C1'	13.15	1.58	1.41
67	B1	1735	G	C2'-C1'	13.15	1.67	1.53
21	A2	1039	C	C2'-C1'	-13.14	1.38	1.53
67	B1	731	C	O4'-C1'	13.14	1.58	1.41
21	A2	1388	G	C2'-C1'	-13.14	1.38	1.53
67	B1	1287	G	O4'-C1'	13.13	1.58	1.41
67	B1	439	G	O4'-C1'	13.13	1.58	1.41
67	B1	676	G	C2'-C1'	-13.12	1.39	1.53
67	B1	2833	G	O4'-C1'	13.12	1.58	1.41
67	B1	1259	G	O4'-C1'	13.12	1.58	1.41
21	A2	558	C	C2'-C1'	-13.12	1.39	1.53
67	B1	884	C	C2'-C1'	-13.12	1.39	1.53
67	B1	2214	U	O4'-C1'	13.11	1.58	1.41
67	B1	1100	G	C2'-C1'	-13.11	1.39	1.53
21	A2	943	C	C2'-C1'	-13.11	1.39	1.53
67	B1	647	G	C2'-C1'	-13.11	1.39	1.53
67	B1	513	C	O4'-C1'	13.11	1.58	1.41
67	B1	694	A	C2'-C1'	13.11	1.67	1.53
67	B1	1649	G	C2'-C1'	-13.11	1.39	1.53
68	B3	40	G	O4'-C1'	13.11	1.58	1.41
21	A2	1020	G	O4'-C1'	13.10	1.58	1.41
67	B1	2502	C	O4'-C1'	13.10	1.58	1.41
27	A0	47	U	O4'-C1'	-13.10	1.24	1.41
67	B1	1559	A	C2'-C1'	-13.10	1.39	1.53
67	B1	1909	C	C2'-C1'	-13.09	1.39	1.53
67	B1	1271	G	C2'-C1'	-13.09	1.39	1.53
21	A2	862	C	O4'-C1'	13.09	1.58	1.41
67	B1	2015	G	O4'-C1'	13.08	1.58	1.41
67	B1	1338	G	C2'-C1'	-13.07	1.39	1.53
21	A2	56	A	C4'-C3'	13.07	1.67	1.53
21	A2	204	G	C2'-C1'	-13.07	1.39	1.53
67	B1	729	A	O4'-C1'	13.06	1.58	1.41
21	A2	96	G	O4'-C1'	13.06	1.58	1.41
21	A2	299	G	O4'-C1'	-13.06	1.24	1.41
67	B1	494	C	O4'-C1'	13.06	1.58	1.41
67	B1	2599	C	O4'-C1'	13.06	1.58	1.41
67	B1	1233	U	C2'-C1'	13.06	1.67	1.53
67	B1	732	G	C2'-C1'	-13.05	1.39	1.53
67	B1	1736	G	C2'-C1'	-13.05	1.39	1.53
21	A2	516	A	C2'-C1'	-13.05	1.39	1.53
21	A2	1308	U	O4'-C1'	13.05	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1121	C	C2'-C1'	-13.05	1.39	1.53
67	B1	2541	U	O4'-C1'	13.05	1.58	1.41
67	B1	125	C	C2'-C1'	-13.04	1.39	1.53
21	A2	324	C	O4'-C1'	-13.04	1.24	1.41
67	B1	826	C	C2'-C1'	-13.04	1.39	1.53
67	B1	103	A	C2'-C1'	-13.03	1.39	1.53
67	B1	449	G	O4'-C1'	13.03	1.58	1.41
21	A2	1336	U	O4'-C1'	-13.03	1.24	1.41
67	B1	2556	C	O4'-C1'	13.03	1.58	1.41
67	B1	359	C	O4'-C1'	13.02	1.58	1.41
21	A2	1440	G	C2'-C1'	13.02	1.67	1.53
27	A0	9	A	C2'-C1'	13.02	1.67	1.53
21	A2	1029	G	C2'-C1'	13.01	1.67	1.53
67	B1	2211	C	O4'-C1'	13.01	1.58	1.41
21	A2	48	G	C2'-C1'	-13.00	1.39	1.53
67	B1	2659	G	C2'-C1'	-13.00	1.39	1.53
11	A1	17	C	O4'-C1'	13.00	1.58	1.41
21	A2	83	C	O4'-C1'	13.00	1.58	1.41
67	B1	1523	A	C2'-C1'	13.00	1.67	1.53
67	B1	806	C	C2'-C1'	-12.99	1.39	1.53
67	B1	2081	C	C2'-C1'	-12.99	1.39	1.53
67	B1	1278	C	C2'-C1'	-12.99	1.39	1.53
67	B1	957	C	C2'-C1'	-12.99	1.39	1.53
11	A1	22	A	C2'-C1'	-12.98	1.39	1.53
67	B1	568	A	C2'-C1'	-12.98	1.39	1.53
21	A2	548	A	O4'-C1'	12.98	1.58	1.41
67	B1	1795	C	O4'-C1'	12.98	1.58	1.41
67	B1	2197	U	O4'-C1'	12.98	1.58	1.41
67	B1	2967	C	O4'-C1'	12.98	1.58	1.41
67	B1	2371	A	C2'-C1'	-12.97	1.39	1.53
21	A2	1353	C	C2'-C1'	-12.96	1.39	1.53
21	A2	163	C	O4'-C1'	12.96	1.58	1.41
67	B1	2327	C	O4'-C1'	12.96	1.58	1.41
67	B1	1500	C	C2'-C1'	-12.96	1.39	1.53
67	B1	1674	G	O4'-C1'	-12.96	1.24	1.41
67	B1	301	G	O4'-C1'	12.95	1.58	1.41
21	A2	831	A	O4'-C1'	12.95	1.58	1.41
21	A2	982	U	C2'-C1'	-12.94	1.39	1.53
21	A2	1410	G	C2'-C1'	-12.94	1.39	1.53
21	A2	260	C	C2'-C1'	-12.94	1.39	1.53
67	B1	1374	G	C2'-C1'	-12.94	1.39	1.53
67	B1	2167	C	O4'-C1'	12.94	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2920	C	C2'-C1'	-12.93	1.39	1.53
67	B1	2613	C	O4'-C1'	12.93	1.58	1.41
67	B1	1732	C	O4'-C1'	12.93	1.58	1.41
21	A2	1394	G	C2'-C1'	-12.93	1.39	1.53
67	B1	2065	C	O4'-C1'	12.93	1.58	1.41
21	A2	160	C	C2'-C1'	-12.92	1.39	1.53
67	B1	2257	A	O4'-C1'	-12.92	1.24	1.41
67	B1	1525	G	O4'-C1'	12.91	1.58	1.41
11	A1	61	U	C2'-C1'	-12.91	1.39	1.53
67	B1	2978	G	C2'-C1'	-12.91	1.39	1.53
21	A2	168	G	O4'-C1'	12.90	1.58	1.41
67	B1	844	C	C2'-C1'	-12.90	1.39	1.53
21	A2	46	A	O4'-C1'	-12.90	1.24	1.41
67	B1	849	C	C2'-C1'	-12.89	1.39	1.53
67	B1	2610	C	O4'-C1'	12.89	1.58	1.41
67	B1	2938	G	C2'-C1'	-12.88	1.39	1.53
67	B1	431	U	O4'-C1'	12.88	1.58	1.41
11	A1	41	C	O4'-C1'	12.88	1.58	1.41
21	A2	762	G	C2'-C1'	12.87	1.67	1.53
21	A2	1202	G	C2'-C1'	-12.87	1.39	1.53
21	A2	302	A	C2'-C1'	12.87	1.67	1.53
68	B3	111	G	C2'-C1'	-12.87	1.39	1.53
21	A2	375	G	C2'-C1'	-12.87	1.39	1.53
67	B1	2924	G	C2'-C1'	12.87	1.67	1.53
21	A2	1431	C	O4'-C1'	12.87	1.58	1.41
67	B1	2940	C	O4'-C1'	12.86	1.58	1.41
67	B1	1235	A	C2'-C1'	12.86	1.67	1.53
67	B1	281	G	C2'-C1'	-12.84	1.39	1.53
67	B1	952	C	O4'-C1'	12.84	1.58	1.41
67	B1	707	U	C2'-C1'	-12.84	1.39	1.53
68	B3	58	C	O4'-C1'	12.84	1.58	1.41
21	A2	1369	C	O4'-C1'	12.83	1.58	1.41
67	B1	2409	C	O4'-C1'	12.82	1.58	1.41
67	B1	1754	A	O4'-C1'	-12.82	1.25	1.41
21	A2	672	G	C2'-C1'	-12.81	1.39	1.53
21	A2	902	U	C2'-C1'	-12.81	1.39	1.53
67	B1	1344	C	O4'-C1'	12.81	1.58	1.41
67	B1	1297	C	O4'-C1'	12.80	1.58	1.41
21	A2	200	G	C2'-C1'	12.80	1.67	1.53
67	B1	660	U	C2'-C1'	-12.80	1.39	1.53
67	B1	753	A	C2'-C1'	12.80	1.67	1.53
67	B1	1303	C	C2'-C1'	-12.80	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	78	C	O4'-C1'	12.80	1.58	1.41
21	A2	830	A	C2'-C1'	-12.80	1.39	1.53
21	A2	1465	C	O4'-C1'	12.79	1.58	1.41
21	A2	329	G	O4'-C1'	12.79	1.58	1.41
67	B1	1192	G	C2'-C1'	-12.79	1.39	1.53
67	B1	811	C	C2'-C1'	-12.78	1.39	1.53
68	B3	22	C	C2'-C1'	12.78	1.67	1.53
21	A2	958	G	C2'-C1'	12.78	1.67	1.53
67	B1	2071	C	C2'-C1'	-12.78	1.39	1.53
21	A2	473	A	O4'-C1'	12.77	1.58	1.41
67	B1	2651	G	O4'-C1'	12.77	1.58	1.41
67	B1	955	A	C2'-C1'	12.77	1.67	1.53
67	B1	2853	A	C2'-C1'	-12.77	1.39	1.53
67	B1	51	G	O4'-C1'	12.76	1.58	1.41
21	A2	394	C	P-O5'	-12.76	1.47	1.59
67	B1	2875	C	C2'-C1'	-12.75	1.39	1.53
67	B1	89	C	O4'-C1'	12.75	1.58	1.41
27	A0	40	C	O4'-C1'	12.75	1.58	1.41
67	B1	1864	G	O4'-C1'	-12.75	1.25	1.41
68	B3	69	C	O4'-C1'	12.75	1.58	1.41
67	B1	1760	C	C2'-C1'	-12.74	1.39	1.53
67	B1	2219	A	C2'-C1'	-12.74	1.39	1.53
21	A2	1258	C	C2'-C1'	12.74	1.67	1.53
67	B1	1669	A	C2'-C1'	-12.74	1.39	1.53
21	A2	821	G	C2'-C1'	12.73	1.67	1.53
27	A0	7	G	C2'-C1'	-12.73	1.39	1.53
21	A2	1410	G	O4'-C1'	12.72	1.58	1.41
67	B1	1201	G	O4'-C1'	12.72	1.58	1.41
67	B1	2159	C	O4'-C1'	12.72	1.58	1.41
67	B1	2516	G	O4'-C1'	12.72	1.58	1.41
21	A2	631	C	O4'-C1'	12.71	1.58	1.41
67	B1	1492	C	O4'-C1'	12.71	1.58	1.41
27	A0	2	C	O4'-C1'	12.71	1.58	1.41
67	B1	415	U	C2'-C1'	12.70	1.67	1.53
21	A2	895	C	O4'-C1'	12.69	1.58	1.41
67	B1	254	A	O4'-C1'	12.69	1.58	1.41
67	B1	1855	G	C2'-C1'	-12.69	1.39	1.53
67	B1	498	U	C2'-C1'	-12.69	1.39	1.53
67	B1	2545	A	C2'-C1'	-12.69	1.39	1.53
67	B1	1059	C	O4'-C1'	12.68	1.58	1.41
67	B1	710	G	C2'-C1'	-12.68	1.39	1.53
67	B1	90	A	O4'-C1'	12.67	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1298	C	C2'-C1'	-12.67	1.39	1.53
21	A2	1402	C	O4'-C1'	12.67	1.58	1.41
67	B1	2395	C	O4'-C1'	12.67	1.58	1.41
67	B1	2612	A	C2'-C1'	12.67	1.67	1.53
67	B1	750	C	O4'-C1'	12.66	1.58	1.41
67	B1	1082	A	O4'-C1'	12.66	1.58	1.41
67	B1	1084	G	O4'-C1'	12.66	1.58	1.41
67	B1	273	G	C2'-C1'	-12.66	1.39	1.53
11	A1	67	C	O4'-C1'	12.66	1.58	1.41
67	B1	903	C	O4'-C1'	12.66	1.58	1.41
67	B1	2263	G	C2'-C1'	12.66	1.67	1.53
21	A2	1125	C	C2'-C1'	-12.65	1.39	1.53
67	B1	980	G	C2'-C1'	-12.65	1.39	1.53
67	B1	1172	U	O4'-C1'	12.65	1.58	1.41
68	B3	69	C	C2'-C1'	-12.65	1.39	1.53
67	B1	2216	G	C2'-C1'	12.64	1.67	1.53
67	B1	2818	C	C2'-C1'	-12.64	1.39	1.53
21	A2	699	C	O4'-C1'	12.64	1.58	1.41
21	A2	1491	C	C2'-C1'	-12.63	1.39	1.53
67	B1	1984	G	O4'-C1'	12.63	1.58	1.41
67	B1	82	C	C2'-C1'	-12.63	1.39	1.53
67	B1	128	C	C2'-C1'	-12.63	1.39	1.53
67	B1	824	C	O4'-C1'	12.63	1.58	1.41
67	B1	993	G	C2'-C1'	-12.62	1.39	1.53
21	A2	1017	U	O4'-C1'	12.61	1.58	1.41
67	B1	741	G	C2'-C1'	-12.61	1.39	1.53
68	B3	40	G	C2'-C1'	-12.61	1.39	1.53
67	B1	1102	C	O4'-C1'	12.61	1.58	1.41
67	B1	1386	G	C2'-C1'	-12.60	1.39	1.53
67	B1	125	C	O4'-C1'	12.60	1.58	1.41
67	B1	2765	C	C2'-C1'	-12.60	1.39	1.53
21	A2	326	C	C2'-C1'	-12.58	1.39	1.53
21	A2	875	G	C2'-C1'	-12.58	1.39	1.53
67	B1	112	U	C2'-C1'	-12.58	1.39	1.53
67	B1	867	C	C2'-C1'	12.58	1.67	1.53
21	A2	689	C	C2'-C1'	-12.57	1.39	1.53
67	B1	222	A	C2'-C1'	-12.57	1.39	1.53
67	B1	2866	A	C2'-C1'	-12.57	1.39	1.53
67	B1	2972	G	C2'-C1'	-12.57	1.39	1.53
21	A2	1314	C	C2'-C1'	-12.56	1.39	1.53
67	B1	207	A	O4'-C1'	12.56	1.57	1.41
67	B1	826	C	O4'-C1'	12.56	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	74	U	O4'-C1'	12.56	1.57	1.41
67	B1	1057	C	O4'-C1'	12.56	1.57	1.41
67	B1	2837	C	O4'-C1'	12.56	1.57	1.41
67	B1	1138	C	O4'-C1'	12.55	1.57	1.41
67	B1	1704	C	C2'-C1'	-12.56	1.39	1.53
67	B1	374	C	C2'-C1'	-12.55	1.39	1.53
67	B1	2293	G	C2'-C1'	12.55	1.67	1.53
67	B1	1390	U	C2'-C1'	12.54	1.67	1.53
67	B1	523	C	C2'-C1'	-12.54	1.39	1.53
67	B1	349	A	C2'-C1'	12.54	1.67	1.53
67	B1	1676	G	C2'-C1'	-12.54	1.39	1.53
21	A2	648	A	C2'-C1'	-12.53	1.39	1.53
21	A2	976	A	C2'-C1'	12.53	1.67	1.53
27	A0	39	U	O4'-C1'	12.53	1.57	1.41
67	B1	1223	A	O4'-C1'	12.53	1.57	1.41
67	B1	2342	C	O4'-C1'	12.53	1.57	1.41
67	B1	2279	G	C2'-C1'	-12.52	1.39	1.53
21	A2	619	A	C2'-C1'	12.52	1.67	1.53
21	A2	771	G	C2'-C1'	-12.52	1.39	1.53
67	B1	2054	G	C2'-C1'	-12.52	1.39	1.53
67	B1	2630	C	O4'-C1'	12.52	1.57	1.41
21	A2	610	G	C2'-C1'	-12.52	1.39	1.53
21	A2	1197	C	C2'-C1'	-12.51	1.39	1.53
21	A2	1463	A	O4'-C1'	12.51	1.57	1.41
67	B1	1472	U	O4'-C1'	12.51	1.57	1.41
67	B1	210	A	C2'-C1'	-12.50	1.39	1.53
67	B1	367	G	O4'-C1'	-12.50	1.25	1.41
21	A2	696	G	C2'-C1'	-12.50	1.39	1.53
67	B1	12	C	O4'-C1'	12.50	1.57	1.41
67	B1	768	C	O4'-C1'	12.49	1.57	1.41
67	B1	2987	U	C2'-C1'	-12.49	1.39	1.53
21	A2	981	U	C2'-C1'	-12.49	1.39	1.53
27	A0	76	A	C2'-C1'	12.49	1.67	1.53
67	B1	74	A	C2'-C1'	-12.49	1.39	1.53
67	B1	936	G	O4'-C1'	12.48	1.57	1.41
67	B1	1616	A	O4'-C1'	-12.48	1.25	1.41
67	B1	1820	C	O4'-C1'	12.48	1.57	1.41
67	B1	2299	G	C2'-C1'	-12.48	1.39	1.53
67	B1	1011	A	C2'-C1'	-12.48	1.39	1.53
67	B1	767	G	C2'-C1'	-12.47	1.39	1.53
67	B1	1089	C	O4'-C1'	12.47	1.57	1.41
67	B1	2907	C	O4'-C1'	12.47	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	459	C	O4'-C1'	12.47	1.57	1.41
67	B1	2694	C	C2'-C1'	-12.46	1.39	1.53
67	B1	1817	C	O4'-C1'	12.46	1.57	1.41
67	B1	1931	G	C2'-C1'	-12.46	1.39	1.53
21	A2	1340	U	O4'-C1'	12.46	1.57	1.41
67	B1	2322	A	O4'-C1'	12.46	1.57	1.41
67	B1	1913	C	C2'-C1'	-12.45	1.39	1.53
67	B1	906	G	C2'-C1'	-12.44	1.39	1.53
67	B1	1758	U	C2'-C1'	-12.44	1.39	1.53
67	B1	2392	A	O4'-C1'	12.44	1.57	1.41
21	A2	365	C	O4'-C1'	12.44	1.57	1.41
21	A2	69	U	C2'-C1'	-12.44	1.39	1.53
67	B1	1407	A	C2'-C1'	12.44	1.67	1.53
67	B1	119	U	C2'-C1'	-12.43	1.39	1.53
67	B1	2246	G	C2'-C1'	-12.43	1.39	1.53
67	B1	347	G	C2'-C1'	-12.42	1.39	1.53
67	B1	2363	G	C2'-C1'	12.42	1.67	1.53
21	A2	110	C	O4'-C1'	12.42	1.57	1.41
21	A2	801	A	O4'-C1'	-12.40	1.25	1.41
21	A2	1449	G	O4'-C1'	12.40	1.57	1.41
21	A2	1451	C	O4'-C1'	12.40	1.57	1.41
21	A2	130	G	C2'-C1'	12.40	1.67	1.53
21	A2	563	U	O4'-C1'	12.40	1.57	1.41
21	A2	1303	C	O4'-C1'	12.39	1.57	1.41
67	B1	670	G	C2'-C1'	-12.39	1.39	1.53
67	B1	2052	A	O4'-C1'	-12.39	1.25	1.41
21	A2	393	A	C2'-C1'	12.39	1.67	1.53
67	B1	434	G	O4'-C1'	12.39	1.57	1.41
21	A2	497	C	C2'-C1'	-12.39	1.39	1.53
67	B1	2448	A	O4'-C1'	-12.39	1.25	1.41
67	B1	2923	G	C2'-C1'	12.39	1.67	1.53
67	B1	1520	G	C2'-C1'	-12.38	1.39	1.53
67	B1	1494	U	C2'-C1'	12.38	1.67	1.53
67	B1	1428	G	C2'-C1'	-12.38	1.39	1.53
67	B1	1908	C	O4'-C1'	12.36	1.57	1.41
67	B1	1250	A	C2'-C1'	12.36	1.67	1.53
21	A2	505	U	C2'-C1'	12.35	1.67	1.53
67	B1	2579	G	C2'-C1'	12.35	1.67	1.53
21	A2	71	C	O4'-C1'	12.35	1.57	1.41
21	A2	1044	A	O4'-C1'	12.35	1.57	1.41
67	B1	451	C	O4'-C1'	12.34	1.57	1.41
67	B1	2800	U	C2'-C1'	12.33	1.67	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	127	G	O4'-C1'	12.33	1.57	1.41
67	B1	1481	G	O4'-C1'	12.33	1.57	1.41
21	A2	759	C	O4'-C1'	12.33	1.57	1.41
21	A2	759	C	C2'-C1'	-12.32	1.39	1.53
67	B1	1305	C	O4'-C1'	12.31	1.57	1.41
67	B1	1231	C	C2'-C1'	-12.31	1.39	1.53
67	B1	1933	U	C2'-C1'	-12.31	1.39	1.53
67	B1	1593	C	C2'-C1'	-12.30	1.39	1.53
21	A2	764	C	C2'-C1'	-12.30	1.39	1.53
21	A2	1152	C	O4'-C1'	12.30	1.57	1.41
67	B1	1666	G	C2'-C1'	-12.30	1.39	1.53
67	B1	975	C	O4'-C1'	12.30	1.57	1.41
67	B1	852	A	C2'-C1'	-12.29	1.39	1.53
67	B1	2514	C	O4'-C1'	12.29	1.57	1.41
67	B1	666	A	O4'-C1'	12.29	1.57	1.41
67	B1	2776	A	O4'-C1'	12.29	1.57	1.41
21	A2	335	G	C2'-C1'	-12.28	1.39	1.53
21	A2	670	C	O4'-C1'	12.28	1.57	1.41
67	B1	2675	C	C2'-C1'	-12.28	1.39	1.53
67	B1	211	A	O4'-C1'	12.28	1.57	1.41
67	B1	94	A	C2'-C1'	12.27	1.66	1.53
67	B1	597	C	O4'-C1'	12.27	1.57	1.41
67	B1	1193	G	O4'-C1'	12.27	1.57	1.41
21	A2	1136	A	C2'-C1'	-12.27	1.39	1.53
67	B1	855	G	O4'-C1'	-12.27	1.25	1.41
67	B1	1502	C	O4'-C1'	12.27	1.57	1.41
67	B1	1127	C	O4'-C1'	12.26	1.57	1.41
21	A2	1317	G	C2'-C1'	-12.26	1.39	1.53
67	B1	2103	C	C2'-C1'	-12.26	1.39	1.53
67	B1	2598	C	C2'-C1'	-12.26	1.39	1.53
21	A2	526	A	C2'-C1'	-12.25	1.39	1.53
67	B1	1982	C	C2'-C1'	-12.25	1.39	1.53
67	B1	1656	C	O4'-C1'	12.25	1.57	1.41
67	B1	1945	C	O4'-C1'	12.25	1.57	1.41
67	B1	370	A	C2'-C1'	-12.25	1.39	1.53
67	B1	2454	G	C2'-C1'	-12.25	1.39	1.53
67	B1	922	C	O4'-C1'	12.24	1.57	1.41
67	B1	2118	C	C2'-C1'	12.24	1.66	1.53
67	B1	2085	C	O4'-C1'	12.24	1.57	1.41
67	B1	300	U	O4'-C1'	12.24	1.57	1.41
67	B1	2004	A	C2'-C1'	-12.23	1.39	1.53
67	B1	1896	U	C2'-C1'	12.23	1.66	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2838	U	C2'-C1'	-12.23	1.39	1.53
67	B1	1030	C	O4'-C1'	12.22	1.57	1.41
67	B1	1348	G	C2'-C1'	12.22	1.66	1.53
67	B1	2895	G	O4'-C1'	12.22	1.57	1.41
67	B1	2962	A	C2'-C1'	-12.22	1.40	1.53
21	A2	1392	G	C2'-C1'	-12.22	1.40	1.53
21	A2	1310	C	O4'-C1'	12.22	1.57	1.41
21	A2	31	U	O4'-C1'	12.21	1.57	1.41
67	B1	1263	C	C2'-C1'	-12.20	1.40	1.53
21	A2	1227	A	C2'-C1'	-12.20	1.40	1.53
67	B1	1522	A	C2'-C1'	12.20	1.66	1.53
21	A2	1295	C	O4'-C1'	12.20	1.57	1.41
67	B1	2868	C	O4'-C1'	12.20	1.57	1.41
21	A2	511	C	O4'-C1'	12.20	1.57	1.41
21	A2	751	C	C2'-C1'	-12.20	1.40	1.53
67	B1	1335	C	O4'-C1'	12.19	1.57	1.41
21	A2	533	C	C2'-C1'	-12.19	1.40	1.53
67	B1	2192	G	C2'-C1'	-12.19	1.40	1.53
67	B1	1738	A	C2'-C1'	12.19	1.66	1.53
21	A2	645	G	C2'-C1'	12.18	1.66	1.53
21	A2	181	G	O4'-C1'	12.18	1.57	1.41
67	B1	2677	U	O4'-C1'	12.18	1.57	1.41
67	B1	1584	G	C2'-C1'	-12.17	1.40	1.53
67	B1	2842	C	O4'-C1'	12.16	1.57	1.41
21	A2	350	G	C2'-C1'	-12.16	1.40	1.53
67	B1	2792	G	C2'-C1'	-12.16	1.40	1.53
67	B1	123	A	C2'-C1'	-12.16	1.40	1.53
21	A2	1367	C	O4'-C1'	12.16	1.57	1.41
67	B1	798	G	C2'-C1'	-12.16	1.40	1.53
67	B1	1156	G	O4'-C1'	12.16	1.57	1.41
67	B1	1967	G	C2'-C1'	-12.15	1.40	1.53
68	B3	99	G	C2'-C1'	-12.15	1.40	1.53
67	B1	2722	G	O4'-C1'	12.15	1.57	1.41
21	A2	830	A	O4'-C1'	12.14	1.57	1.41
67	B1	2707	G	C2'-C1'	-12.14	1.40	1.53
67	B1	1948	A	O4'-C1'	12.14	1.57	1.41
67	B1	1121	C	O4'-C1'	12.14	1.57	1.41
21	A2	532	C	O4'-C1'	12.13	1.57	1.41
67	B1	1244	C	C2'-C1'	12.13	1.66	1.53
21	A2	342	G	C2'-C1'	-12.13	1.40	1.53
21	A2	953	C	O4'-C1'	12.13	1.57	1.41
67	B1	1545	C	O4'-C1'	12.12	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	857	C	C2'-C1'	-12.12	1.40	1.53
67	B1	2879	G	O4'-C1'	12.12	1.57	1.41
67	B1	2431	C	O4'-C1'	12.11	1.57	1.41
68	B3	76	U	C2'-C1'	12.10	1.66	1.53
11	A1	26	C	C2'-C1'	-12.10	1.40	1.53
21	A2	292	U	O4'-C1'	12.10	1.57	1.41
67	B1	730	C	O4'-C1'	12.09	1.57	1.41
68	B3	28	C	C2'-C1'	-12.09	1.40	1.53
67	B1	797	C	O4'-C1'	12.09	1.57	1.41
21	A2	369	A	O4'-C1'	12.08	1.57	1.41
21	A2	794	A	C2'-C1'	-12.08	1.40	1.53
67	B1	961	C	O4'-C1'	12.08	1.57	1.41
67	B1	1550	C	O4'-C1'	12.08	1.57	1.41
18	AF	217	MET	C-O	-12.08	1.00	1.23
67	B1	84	A	C2'-C1'	-12.07	1.40	1.53
67	B1	1445	G	C2'-C1'	-12.06	1.40	1.53
67	B1	2544	C	C2'-C1'	-12.06	1.40	1.53
67	B1	1736	G	O4'-C1'	12.06	1.57	1.41
21	A2	167	G	O4'-C1'	12.06	1.57	1.41
55	Bh	24	ILE	C-O	-12.06	1.00	1.23
67	B1	1593	C	O4'-C1'	12.06	1.57	1.41
67	B1	1474	A	C2'-C1'	-12.06	1.40	1.53
67	B1	2223	G	O4'-C1'	-12.05	1.25	1.41
67	B1	2436	A	C2'-C1'	-12.05	1.40	1.53
68	B3	31	U	O4'-C1'	12.05	1.57	1.41
67	B1	1566	G	C3'-C2'	12.05	1.66	1.52
67	B1	66	C	C2'-C1'	-12.04	1.40	1.53
67	B1	500	C	C2'-C1'	-12.04	1.40	1.53
21	A2	819	G	C2'-C1'	-12.04	1.40	1.53
67	B1	2446	C	C2'-C1'	-12.04	1.40	1.53
67	B1	2433	U	C2'-C1'	-12.04	1.40	1.53
67	B1	2783	C	O4'-C1'	12.04	1.57	1.41
21	A2	1028	C	C2'-C1'	-12.03	1.40	1.53
55	Bh	24	ILE	C-OXT	-12.03	1.00	1.23
67	B1	882	U	C2'-C1'	-12.03	1.40	1.53
21	A2	1188	C	C2'-C1'	-12.03	1.40	1.53
67	B1	1379	A	C2'-C1'	12.03	1.66	1.53
67	B1	2816	C	O4'-C1'	12.02	1.57	1.41
67	B1	827	G	C2'-C1'	-12.02	1.40	1.53
67	B1	484	C	O4'-C1'	12.02	1.57	1.41
21	A2	332	C	C2'-C1'	-12.01	1.40	1.53
67	B1	2191	U	C2'-C1'	-12.01	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2867	U	O4'-C1'	12.00	1.57	1.41
67	B1	546	C	O4'-C1'	11.99	1.57	1.41
21	A2	709	G	C2'-C1'	11.99	1.66	1.53
21	A2	634	C	O4'-C1'	11.99	1.57	1.41
67	B1	1184	U	O4'-C1'	-11.98	1.26	1.41
21	A2	387	G	O4'-C1'	11.98	1.57	1.41
67	B1	112	U	O4'-C1'	11.97	1.57	1.41
67	B1	257	G	C2'-C1'	-11.96	1.40	1.53
67	B1	1902	G	O4'-C1'	11.96	1.57	1.41
21	A2	1435	G	C2'-C1'	-11.96	1.40	1.53
67	B1	2044	C	O4'-C1'	11.96	1.57	1.41
21	A2	834	C	O4'-C1'	11.96	1.57	1.41
67	B1	2218	C	O4'-C1'	11.96	1.57	1.41
21	A2	632	C	O4'-C1'	11.95	1.57	1.41
67	B1	2143	C	C2'-C1'	-11.94	1.40	1.53
21	A2	109	U	C2'-C1'	-11.94	1.40	1.53
21	A2	673	C	C2'-C1'	-11.94	1.40	1.53
67	B1	460	C	C2'-C1'	-11.94	1.40	1.53
67	B1	1441	C	C2'-C1'	-11.93	1.40	1.53
21	A2	264	C	O4'-C1'	11.93	1.57	1.41
67	B1	2078	A	C2'-C1'	11.93	1.66	1.53
67	B1	2249	A	C2'-C1'	11.92	1.66	1.53
67	B1	2474	A	O4'-C1'	11.92	1.57	1.41
67	B1	1829	C	C2'-C1'	-11.92	1.40	1.53
67	B1	676	G	O4'-C1'	11.91	1.57	1.41
21	A2	1069	G	C2'-C1'	-11.91	1.40	1.53
21	A2	698	A	O4'-C1'	11.91	1.57	1.41
67	B1	2777	G	C2'-C1'	-11.91	1.40	1.53
67	B1	2523	C	C2'-C1'	-11.90	1.40	1.53
21	A2	1367	C	C2'-C1'	-11.90	1.40	1.53
67	B1	2098	C	C2'-C1'	-11.90	1.40	1.53
67	B1	2889	A	C2'-C1'	-11.89	1.40	1.53
68	B3	3	G	O4'-C1'	11.89	1.57	1.41
68	B3	67	U	C2'-C1'	11.89	1.66	1.53
67	B1	346	U	C2'-C1'	-11.88	1.40	1.53
67	B1	2405	U	C2'-C1'	-11.88	1.40	1.53
67	B1	980	G	O4'-C1'	11.88	1.57	1.41
67	B1	1428	G	O4'-C1'	11.88	1.57	1.41
67	B1	575	G	O4'-C1'	11.88	1.57	1.41
21	A2	1131	G	C2'-C1'	-11.87	1.40	1.53
21	A2	1176	C	C2'-C1'	-11.87	1.40	1.53
67	B1	1800	G	C2'-C1'	-11.87	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1902	G	C2'-C1'	-11.87	1.40	1.53
21	A2	1214	G	C2'-C1'	-11.86	1.40	1.53
67	B1	30	G	C2'-C1'	-11.86	1.40	1.53
67	B1	830	G	C2'-C1'	-11.86	1.40	1.53
67	B1	2152	G	C2'-C1'	11.86	1.66	1.53
21	A2	1207	G	O4'-C1'	-11.86	1.26	1.41
11	A1	56	U	C2'-C1'	-11.86	1.40	1.53
21	A2	1404	C	C2'-C1'	-11.86	1.40	1.53
67	B1	362	A	O4'-C1'	-11.86	1.26	1.41
67	B1	2370	C	C2'-C1'	11.86	1.66	1.53
67	B1	2687	A	C2'-C1'	11.86	1.66	1.53
67	B1	104	C	O4'-C1'	11.86	1.57	1.41
67	B1	2391	G	C2'-C1'	-11.86	1.40	1.53
67	B1	1110	A	C2'-C1'	-11.85	1.40	1.53
67	B1	2906	C	O4'-C1'	11.85	1.57	1.41
67	B1	225	C	O4'-C1'	11.85	1.57	1.41
67	B1	578	C	O4'-C1'	11.85	1.57	1.41
21	A2	1192	C	O4'-C1'	11.85	1.57	1.41
67	B1	2219	A	O4'-C1'	11.85	1.57	1.41
67	B1	2865	C	O4'-C1'	11.84	1.57	1.41
67	B1	1327	C	O4'-C1'	11.84	1.57	1.41
67	B1	2658	G	O4'-C1'	11.84	1.57	1.41
21	A2	1333	G	C2'-C1'	11.84	1.66	1.53
67	B1	1537	U	C2'-C1'	-11.83	1.40	1.53
67	B1	2461	C	O4'-C1'	11.82	1.57	1.41
21	A2	627	G	O4'-C1'	11.82	1.57	1.41
67	B1	269	C	O4'-C1'	11.81	1.57	1.41
67	B1	484	C	C2'-C1'	-11.81	1.40	1.53
67	B1	306	G	C2'-C1'	-11.81	1.40	1.53
67	B1	457	C	C2'-C1'	-11.81	1.40	1.53
67	B1	2582	C	O4'-C1'	11.81	1.57	1.41
67	B1	2425	A	O4'-C1'	11.81	1.57	1.41
67	B1	2568	A	P-O5'	-11.81	1.48	1.59
21	A2	913	G	C2'-C1'	-11.81	1.40	1.53
68	B3	44	C	O4'-C1'	11.80	1.56	1.41
21	A2	94	C	O4'-C1'	11.80	1.56	1.41
67	B1	2843	C	O4'-C1'	11.79	1.56	1.41
67	B1	407	A	O4'-C1'	11.79	1.56	1.41
11	A1	12	U	O4'-C1'	11.79	1.56	1.41
67	B1	2490	C	O4'-C1'	11.79	1.56	1.41
67	B1	686	C	O4'-C1'	11.79	1.56	1.41
67	B1	1526	G	O4'-C1'	11.79	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2201	C	C2'-C1'	-11.78	1.40	1.53
21	A2	145	A	O4'-C1'	11.77	1.56	1.41
67	B1	369	G	C2'-C1'	-11.77	1.40	1.53
67	B1	2696	G	C2'-C1'	11.77	1.66	1.53
67	B1	2399	C	O4'-C1'	11.77	1.56	1.41
67	B1	2679	A	C2'-C1'	-11.77	1.40	1.53
21	A2	1066	C	O4'-C1'	11.76	1.56	1.41
67	B1	2377	C	O4'-C1'	11.76	1.56	1.41
21	A2	116	C	O4'-C1'	11.75	1.56	1.41
67	B1	2310	G	C2'-C1'	11.75	1.66	1.53
21	A2	82	G	C2'-C1'	-11.74	1.40	1.53
67	B1	2670	U	C2'-C1'	11.74	1.66	1.53
67	B1	393	C	O4'-C1'	11.73	1.56	1.41
21	A2	671	C	O4'-C1'	11.73	1.56	1.41
68	B3	112	C	C2'-C1'	-11.73	1.40	1.53
21	A2	66	G	C2'-C1'	-11.73	1.40	1.53
21	A2	282	G	C2'-C1'	-11.73	1.40	1.53
21	A2	841	C	O4'-C1'	11.72	1.56	1.41
21	A2	1177	C	O4'-C1'	11.71	1.56	1.41
21	A2	829	U	C2'-C1'	11.71	1.66	1.53
21	A2	638	G	C2'-C1'	-11.71	1.40	1.53
67	B1	1204	U	O4'-C1'	11.71	1.56	1.41
21	A2	755	U	O4'-C1'	11.70	1.56	1.41
67	B1	582	A	O4'-C1'	11.70	1.56	1.41
21	A2	420	C	C2'-C1'	-11.69	1.40	1.53
67	B1	617	G	C2'-C1'	11.69	1.66	1.53
67	B1	166	G	O4'-C1'	-11.69	1.26	1.41
67	B1	307	C	O4'-C1'	11.69	1.56	1.41
67	B1	2521	U	C2'-C1'	-11.68	1.40	1.53
67	B1	2557	C	O4'-C1'	11.68	1.56	1.41
67	B1	2696	G	O4'-C1'	-11.68	1.26	1.41
21	A2	1231	G	O4'-C1'	11.67	1.56	1.41
67	B1	1779	C	O4'-C1'	11.67	1.56	1.41
21	A2	760	C	C2'-C1'	-11.67	1.40	1.53
67	B1	1589	G	O4'-C1'	11.67	1.56	1.41
67	B1	1096	A	C2'-C1'	-11.66	1.40	1.53
67	B1	941	C	O4'-C1'	11.66	1.56	1.41
21	A2	422	U	C2'-C1'	11.66	1.66	1.53
67	B1	194	G	C2'-C1'	11.66	1.66	1.53
67	B1	624	U	O4'-C1'	11.66	1.56	1.41
67	B1	1898	A	C2'-C1'	11.65	1.66	1.53
21	A2	382	G	O4'-C1'	-11.65	1.26	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	697	U	C2'-C1'	11.65	1.66	1.53
21	A2	1281	U	C2'-C1'	-11.65	1.40	1.53
21	A2	1068	C	O4'-C1'	11.65	1.56	1.41
67	B1	2892	A	O4'-C1'	11.64	1.56	1.41
67	B1	710	G	O4'-C1'	11.64	1.56	1.41
11	A1	77	A	O4'-C1'	-11.64	1.26	1.41
67	B1	2100	U	O4'-C1'	11.63	1.56	1.41
67	B1	2650	G	C2'-C1'	-11.63	1.40	1.53
67	B1	1433	C	O4'-C1'	11.63	1.56	1.41
67	B1	2085	C	C2'-C1'	-11.62	1.40	1.53
21	A2	410	U	C2'-C1'	-11.62	1.40	1.53
21	A2	1417	A	O4'-C1'	11.62	1.56	1.41
67	B1	1124	G	O4'-C1'	11.62	1.56	1.41
67	B1	2231	G	P-O5'	-11.62	1.48	1.59
67	B1	102	A	C2'-C1'	-11.62	1.40	1.53
67	B1	2441	A	O4'-C1'	11.62	1.56	1.41
21	A2	733	C	C2'-C1'	-11.61	1.40	1.53
68	B3	20	G	C2'-C1'	-11.61	1.40	1.53
67	B1	2432	G	C2'-C1'	11.61	1.66	1.53
67	B1	2970	U	C2'-C1'	11.61	1.66	1.53
67	B1	714	C	O3'-P	-11.60	1.47	1.61
67	B1	962	C	O4'-C1'	11.60	1.56	1.41
21	A2	1104	G	C2'-C1'	11.60	1.66	1.53
27	A0	17	U	O4'-C1'	11.60	1.56	1.41
67	B1	2092	G	C2'-C1'	-11.60	1.40	1.53
67	B1	2918	G	C2'-C1'	-11.60	1.40	1.53
67	B1	450	G	C2'-C1'	-11.60	1.40	1.53
67	B1	1512	G	C2'-C1'	-11.60	1.40	1.53
21	A2	1476	C	O4'-C1'	11.59	1.56	1.41
67	B1	2848	C	O4'-C1'	11.59	1.56	1.41
67	B1	2935	A	O4'-C1'	11.59	1.56	1.41
67	B1	305	G	C5'-C4'	11.58	1.65	1.51
67	B1	2406	C	O4'-C1'	11.57	1.56	1.41
21	A2	42	G	O4'-C1'	11.57	1.56	1.41
67	B1	2491	C	O4'-C1'	11.57	1.56	1.41
21	A2	1399	G	O4'-C1'	11.57	1.56	1.41
21	A2	630	A	C2'-C1'	-11.57	1.40	1.53
67	B1	1042	G	O4'-C1'	11.56	1.56	1.41
67	B1	816	C	C2'-C1'	-11.56	1.40	1.53
67	B1	2239	C	O4'-C1'	11.56	1.56	1.41
21	A2	749	C	C2'-C1'	-11.56	1.40	1.53
67	B1	2649	A	C2'-C1'	-11.55	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1019	A	O4'-C1'	11.55	1.56	1.41
21	A2	1308	U	C2'-C1'	-11.55	1.40	1.53
21	A2	1158	G	C2'-C1'	11.55	1.66	1.53
67	B1	2467	C	O4'-C1'	11.54	1.56	1.41
21	A2	932	C	O4'-C1'	11.54	1.56	1.41
21	A2	836	G	C2'-C1'	-11.54	1.40	1.53
21	A2	1142	G	O4'-C1'	11.53	1.56	1.41
21	A2	1179	C	C2'-C1'	-11.53	1.40	1.53
21	A2	305	C	O4'-C1'	11.52	1.56	1.41
67	B1	891	C	O4'-C1'	11.52	1.56	1.41
67	B1	2119	C	O4'-C1'	11.52	1.56	1.41
67	B1	2269	C	C2'-C1'	11.52	1.66	1.53
21	A2	1422	G	C2'-C1'	11.51	1.66	1.53
67	B1	54	G	O4'-C1'	11.51	1.56	1.41
67	B1	1828	A	C2'-C1'	-11.51	1.40	1.53
67	B1	2035	U	C2'-C1'	-11.51	1.40	1.53
67	B1	2717	A	C2'-C1'	11.51	1.66	1.53
21	A2	1359	C	C5'-C4'	11.51	1.65	1.51
67	B1	2314	U	C2'-C1'	11.51	1.66	1.53
67	B1	2241	U	C2'-C1'	11.50	1.66	1.53
21	A2	1256	C	O4'-C1'	11.50	1.56	1.41
67	B1	1846	G	C2'-C1'	-11.49	1.40	1.53
21	A2	1183	C	O4'-C1'	11.49	1.56	1.41
67	B1	2398	C	C2'-C1'	-11.49	1.40	1.53
67	B1	899	A	C2'-C1'	11.49	1.66	1.53
21	A2	1235	A	C2'-C1'	-11.48	1.40	1.53
67	B1	673	A	C2'-C1'	-11.48	1.40	1.53
67	B1	643	G	C2'-C1'	-11.48	1.40	1.53
67	B1	1993	A	C2'-C1'	11.48	1.66	1.53
21	A2	955	G	C2'-C1'	-11.47	1.40	1.53
67	B1	358	C	C2'-C1'	-11.47	1.40	1.53
67	B1	2928	C	C2'-C1'	11.47	1.66	1.53
67	B1	1603	G	O4'-C1'	11.46	1.56	1.41
21	A2	1364	C	O4'-C1'	11.46	1.56	1.41
67	B1	2694	C	O4'-C1'	11.46	1.56	1.41
67	B1	2543	A	C2'-C1'	11.46	1.66	1.53
21	A2	838	C	O4'-C1'	11.45	1.56	1.41
67	B1	2131	C	C2'-C1'	-11.45	1.40	1.53
21	A2	780	C	O4'-C1'	11.45	1.56	1.41
67	B1	615	A	C2'-C1'	11.44	1.66	1.53
67	B1	871	G	C2'-C1'	-11.44	1.40	1.53
67	B1	1085	G	O4'-C1'	11.44	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1848	A	O4'-C1'	11.43	1.56	1.41
67	B1	2470	U	C2'-C1'	11.43	1.66	1.53
67	B1	2635	C	P-O5'	-11.43	1.48	1.59
68	B3	97	G	O4'-C1'	-11.43	1.26	1.41
27	A0	12	U	O4'-C1'	11.42	1.56	1.41
67	B1	314	A	C2'-C1'	11.42	1.66	1.53
67	B1	2117	U	C2'-C1'	-11.42	1.40	1.53
67	B1	431	U	C2'-C1'	-11.41	1.40	1.53
67	B1	3004	C	O4'-C1'	11.41	1.56	1.41
67	B1	1264	G	C2'-C1'	-11.41	1.40	1.53
21	A2	635	C	O4'-C1'	11.41	1.56	1.41
67	B1	418	C	O4'-C1'	11.41	1.56	1.41
21	A2	815	C	O4'-C1'	11.40	1.56	1.41
67	B1	2882	G	C2'-C1'	11.40	1.65	1.53
67	B1	1845	C	O4'-C1'	11.40	1.56	1.41
67	B1	207	A	C2'-C1'	-11.39	1.40	1.53
67	B1	214	C	O4'-C1'	11.39	1.56	1.41
67	B1	234	G	O4'-C1'	-11.39	1.26	1.41
68	B3	71	G	C2'-C1'	-11.39	1.40	1.53
67	B1	345	C	O4'-C1'	11.39	1.56	1.41
67	B1	2284	C	C2'-C1'	-11.39	1.40	1.53
11	A1	7	G	O4'-C1'	-11.38	1.26	1.41
21	A2	1414	G	O4'-C1'	11.38	1.56	1.41
67	B1	1412	C	C2'-C1'	-11.38	1.40	1.53
67	B1	1801	C	O4'-C1'	11.38	1.56	1.41
21	A2	5	C	C4'-C3'	11.38	1.65	1.53
67	B1	182	U	O4'-C1'	11.38	1.56	1.41
67	B1	2174	G	C2'-C1'	11.38	1.65	1.53
21	A2	102	U	O4'-C1'	11.37	1.56	1.41
67	B1	421	C	O4'-C1'	11.37	1.56	1.41
67	B1	2889	A	O4'-C1'	11.37	1.56	1.41
67	B1	358	C	O4'-C1'	11.37	1.56	1.41
67	B1	1177	C	C2'-C1'	-11.37	1.40	1.53
67	B1	2700	U	O4'-C1'	11.37	1.56	1.41
21	A2	466	C	C2'-C1'	-11.37	1.40	1.53
21	A2	1007	A	C2'-C1'	11.37	1.65	1.53
67	B1	2908	U	C2'-C1'	11.37	1.65	1.53
21	A2	1286	C	C2'-C1'	-11.36	1.40	1.53
27	A0	20	U	O4'-C1'	11.36	1.56	1.41
21	A2	1285	C	C2'-C1'	-11.35	1.40	1.53
67	B1	2592	U	C2'-C1'	-11.35	1.40	1.53
67	B1	1772	A	O4'-C1'	11.35	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	3005	C	O4'-C1'	11.35	1.56	1.41
21	A2	40	C	C2'-C1'	-11.35	1.40	1.53
67	B1	1414	G	O4'-C1'	11.35	1.56	1.41
21	A2	264	C	C2'-C1'	-11.34	1.40	1.53
67	B1	1206	A	O4'-C1'	11.34	1.56	1.41
67	B1	1757	G	C2'-C1'	-11.34	1.40	1.53
21	A2	903	G	C2'-C1'	-11.34	1.40	1.53
67	B1	1752	C	C2'-C1'	-11.34	1.40	1.53
67	B1	606	A	C2'-C1'	-11.33	1.40	1.53
21	A2	424	U	C5'-C4'	11.32	1.65	1.51
21	A2	1000	G	C2'-C1'	-11.32	1.40	1.53
67	B1	833	G	C2'-C1'	-11.32	1.40	1.53
21	A2	882	C	O4'-C1'	11.32	1.56	1.41
67	B1	950	G	O4'-C1'	11.32	1.56	1.41
67	B1	606	A	O4'-C1'	11.32	1.56	1.41
67	B1	402	G	C2'-C1'	-11.31	1.41	1.53
21	A2	1174	A	O4'-C1'	11.30	1.56	1.41
67	B1	1865	U	C2'-C1'	11.31	1.65	1.53
21	A2	855	C	O4'-C1'	11.30	1.56	1.41
21	A2	1264	G	C2'-C1'	-11.30	1.41	1.53
21	A2	861	G	O4'-C1'	11.30	1.56	1.41
67	B1	2586	A	O4'-C1'	-11.30	1.26	1.41
67	B1	784	C	O4'-C1'	11.29	1.56	1.41
67	B1	1537	U	O4'-C1'	11.29	1.56	1.41
67	B1	1713	G	C2'-C1'	-11.28	1.41	1.53
21	A2	526	A	O4'-C1'	11.28	1.56	1.41
21	A2	1440	G	O4'-C1'	-11.28	1.26	1.41
67	B1	2076	A	O4'-C1'	11.28	1.56	1.41
21	A2	157	A	O4'-C1'	11.28	1.56	1.41
21	A2	104	A	C2'-C1'	-11.27	1.41	1.53
67	B1	1165	C	C2'-C1'	11.27	1.65	1.53
21	A2	358	G	O4'-C1'	-11.27	1.26	1.41
67	B1	1497	C	C2'-C1'	-11.27	1.41	1.53
21	A2	209	A	O4'-C1'	11.26	1.56	1.41
21	A2	697	A	O4'-C1'	-11.26	1.27	1.41
67	B1	2070	U	C2'-C1'	-11.25	1.41	1.53
21	A2	13	C	O4'-C1'	11.25	1.56	1.41
67	B1	537	U	P-O5'	11.25	1.71	1.59
67	B1	2354	A	O4'-C1'	11.25	1.56	1.41
67	B1	2174	G	O4'-C1'	-11.25	1.27	1.41
21	A2	139	C	O4'-C1'	11.24	1.56	1.41
67	B1	1356	A	O4'-C1'	11.24	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2488	C	O4'-C1'	11.24	1.56	1.41
21	A2	1174	A	C2'-C1'	-11.23	1.41	1.53
21	A2	573	C	C2'-C1'	-11.23	1.41	1.53
67	B1	306	G	P-O5'	-11.23	1.48	1.59
68	B3	53	A	O4'-C1'	11.23	1.56	1.41
21	A2	577	C	O4'-C1'	11.23	1.56	1.41
67	B1	2330	A	O4'-C1'	11.23	1.56	1.41
21	A2	423	U	O4'-C1'	-11.23	1.27	1.41
11	A1	66	C	O4'-C1'	11.21	1.56	1.41
21	A2	352	A	C2'-C1'	11.21	1.65	1.53
67	B1	2096	G	C2'-C1'	-11.20	1.41	1.53
67	B1	2342	C	C2'-C1'	-11.20	1.41	1.53
67	B1	1036	C	C2'-C1'	-11.20	1.41	1.53
67	B1	2309	C	O4'-C1'	11.20	1.56	1.41
21	A2	766	G	C2'-C1'	-11.19	1.41	1.53
68	B3	24	C	O4'-C1'	11.19	1.56	1.41
21	A2	144	G	P-O5'	-11.18	1.48	1.59
21	A2	676	G	O4'-C1'	11.18	1.56	1.41
67	B1	1682	C	O4'-C1'	11.17	1.56	1.41
21	A2	1021	C	C2'-C1'	-11.17	1.41	1.53
67	B1	1684	C	O4'-C1'	11.16	1.56	1.41
67	B1	907	C	O4'-C1'	11.16	1.56	1.41
21	A2	1010	G	O4'-C1'	11.16	1.56	1.41
67	B1	740	C	C2'-C1'	-11.16	1.41	1.53
21	A2	736	A	O4'-C1'	-11.15	1.27	1.41
67	B1	911	G	C2'-C1'	-11.15	1.41	1.53
67	B1	2984	A	O4'-C1'	11.15	1.56	1.41
67	B1	478	C	O4'-C1'	11.14	1.56	1.41
67	B1	1873	G	C2'-C1'	-11.14	1.41	1.53
21	A2	313	G	C2'-C1'	-11.13	1.41	1.53
68	B3	25	A	O4'-C1'	11.13	1.56	1.41
67	B1	1526	G	C2'-C1'	-11.12	1.41	1.53
21	A2	202	G	C2'-C1'	11.12	1.65	1.53
67	B1	277	A	O4'-C1'	11.12	1.56	1.41
27	A0	66	C	O4'-C1'	11.12	1.56	1.41
67	B1	2298	C	O4'-C1'	11.12	1.56	1.41
21	A2	90	C	C2'-C1'	-11.11	1.41	1.53
21	A2	473	A	C3'-C2'	11.11	1.65	1.52
67	B1	140	C	C2'-C1'	-11.11	1.41	1.53
21	A2	1494	C	C2'-C1'	-11.11	1.41	1.53
67	B1	674	G	C2'-C1'	-11.11	1.41	1.53
67	B1	855	G	C2'-C1'	11.11	1.65	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	886	G	O4'-C1'	-11.10	1.27	1.41
67	B1	2172	G	O4'-C1'	-11.10	1.27	1.41
67	B1	3031	U	O4'-C1'	11.10	1.56	1.41
67	B1	2959	A	O4'-C1'	11.10	1.56	1.41
67	B1	780	G	P-O5'	-11.10	1.48	1.59
67	B1	2758	G	O4'-C1'	-11.10	1.27	1.41
68	B3	93	G	C2'-C1'	-11.09	1.41	1.53
67	B1	465	C	O4'-C1'	11.09	1.56	1.41
67	B1	2378	C	C2'-C1'	-11.09	1.41	1.53
67	B1	2819	C	C2'-C1'	-11.09	1.41	1.53
21	A2	550	G	C2'-C1'	-11.09	1.41	1.53
67	B1	63	A	O4'-C1'	11.08	1.56	1.41
67	B1	2102	A	C2'-C1'	-11.08	1.41	1.53
67	B1	179	A	C2'-C1'	-11.08	1.41	1.53
21	A2	271	G	O4'-C1'	11.08	1.56	1.41
21	A2	520	G	C2'-C1'	11.08	1.65	1.53
21	A2	670	C	C4'-C3'	11.08	1.65	1.53
67	B1	644	G	C2'-C1'	-11.07	1.41	1.53
67	B1	2440	C	O4'-C1'	11.07	1.56	1.41
21	A2	1171	G	C2'-C1'	11.06	1.65	1.53
67	B1	1568	A	P-OP2	11.06	1.67	1.49
67	B1	2111	C	C2'-C1'	-11.06	1.41	1.53
11	A1	11	C	C2'-C1'	-11.06	1.41	1.53
67	B1	318	G	C4'-C3'	11.06	1.65	1.53
21	A2	49	C	C2'-C1'	-11.05	1.41	1.53
21	A2	1088	U	C2'-C1'	-11.05	1.41	1.53
21	A2	1116	G	C2'-C1'	-11.05	1.41	1.53
67	B1	171	A	O4'-C1'	11.05	1.56	1.41
21	A2	1412	A	O4'-C1'	11.05	1.56	1.41
67	B1	2577	U	C2'-C1'	-11.05	1.41	1.53
67	B1	576	G	C2'-C1'	-11.04	1.41	1.53
67	B1	631	G	C2'-C1'	-11.04	1.41	1.53
67	B1	950	G	C2'-C1'	-11.04	1.41	1.53
67	B1	3014	U	O4'-C1'	-11.04	1.27	1.41
67	B1	2574	G	O4'-C1'	11.04	1.55	1.41
21	A2	1313	G	C2'-C1'	-11.03	1.41	1.53
67	B1	835	G	O4'-C1'	11.03	1.55	1.41
67	B1	2588	C	O4'-C1'	11.03	1.55	1.41
67	B1	1742	C	O4'-C1'	11.03	1.55	1.41
67	B1	2511	C	C2'-C1'	-11.02	1.41	1.53
67	B1	320	C	O4'-C1'	11.02	1.55	1.41
67	B1	438	G	C2'-C1'	-11.01	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1139	A	C2'-C1'	-11.01	1.41	1.53
67	B1	2806	A	C2'-C1'	-11.01	1.41	1.53
67	B1	2963	G	C2'-C1'	11.01	1.65	1.53
67	B1	895	C	O4'-C1'	11.01	1.55	1.41
67	B1	1357	G	C2'-C1'	11.01	1.65	1.53
67	B1	1502	C	C2'-C1'	-11.00	1.41	1.53
21	A2	1488	C	O4'-C1'	11.00	1.55	1.41
21	A2	1387	C	C2'-C1'	-11.00	1.41	1.53
67	B1	743	A	O4'-C1'	11.00	1.55	1.41
67	B1	1003	C	O4'-C1'	10.99	1.55	1.41
67	B1	1020	G	C2'-C1'	-10.99	1.41	1.53
68	B3	96	C	O4'-C1'	10.99	1.55	1.41
21	A2	600	C	O4'-C1'	10.99	1.55	1.41
21	A2	139	C	C2'-C1'	-10.99	1.41	1.53
67	B1	1136	G	O4'-C1'	-10.99	1.27	1.41
67	B1	2614	C	O4'-C1'	10.99	1.55	1.41
27	A0	72	C	O4'-C1'	10.99	1.55	1.41
21	A2	1071	C	C2'-C1'	-10.99	1.41	1.53
67	B1	465	C	C2'-C1'	-10.99	1.41	1.53
21	A2	408	C	O4'-C1'	10.98	1.55	1.41
67	B1	1052	G	C2'-C1'	-10.98	1.41	1.53
21	A2	1376	C	O4'-C1'	10.97	1.55	1.41
21	A2	93	A	C2'-C1'	-10.97	1.41	1.53
21	A2	1345	G	O4'-C1'	-10.96	1.27	1.41
21	A2	908	G	C2'-C1'	-10.96	1.41	1.53
67	B1	1047	A	C2'-C1'	10.96	1.65	1.53
21	A2	977	G	C2'-C1'	-10.96	1.41	1.53
67	B1	1422	G	C2'-C1'	-10.96	1.41	1.53
67	B1	2160	C	O4'-C1'	10.96	1.55	1.41
21	A2	538	C	O4'-C1'	10.96	1.55	1.41
21	A2	796	C	O4'-C1'	10.96	1.55	1.41
67	B1	2181	G	C2'-C1'	-10.95	1.41	1.53
68	B3	25	A	C2'-C1'	-10.95	1.41	1.53
21	A2	1180	G	O4'-C1'	10.95	1.55	1.41
67	B1	1274	G	C2'-C1'	-10.95	1.41	1.53
21	A2	1484	C	O4'-C1'	-10.95	1.27	1.41
67	B1	1196	A	C2'-C1'	10.94	1.65	1.53
67	B1	1432	C	C2'-C1'	-10.94	1.41	1.53
67	B1	1670	A	C5'-C4'	10.94	1.64	1.51
67	B1	1261	C	C2'-C1'	-10.94	1.41	1.53
68	B3	107	G	O4'-C1'	-10.94	1.27	1.41
67	B1	1067	G	C2'-C1'	-10.93	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2726	G	C2'-C1'	-10.93	1.41	1.53
67	B1	1445	G	C5'-C4'	10.93	1.64	1.51
67	B1	2029	C	C2'-C1'	-10.93	1.41	1.53
21	A2	1191	G	C2'-C1'	-10.93	1.41	1.53
67	B1	2492	G	O4'-C1'	-10.93	1.27	1.41
68	B3	45	C	C2'-C1'	10.93	1.65	1.53
67	B1	1695	G	O4'-C1'	10.93	1.55	1.41
67	B1	2522	C	C2'-C1'	10.93	1.65	1.53
67	B1	2591	A	O4'-C1'	10.93	1.55	1.41
67	B1	141	C	O4'-C1'	10.92	1.55	1.41
11	A1	46	U	C2'-C1'	10.91	1.65	1.53
21	A2	584	C	C2'-C1'	-10.91	1.41	1.53
21	A2	490	C	O4'-C1'	10.90	1.55	1.41
67	B1	2517	U	C2'-C1'	-10.90	1.41	1.53
21	A2	18	C	C2'-C1'	-10.90	1.41	1.53
21	A2	1126	G	C2'-C1'	-10.89	1.41	1.53
67	B1	2421	A	O4'-C1'	10.89	1.55	1.41
67	B1	2125	C	C2'-C1'	-10.89	1.41	1.53
67	B1	955	A	O4'-C1'	-10.88	1.27	1.41
67	B1	1624	U	C4'-C3'	10.88	1.65	1.53
21	A2	1332	C	O4'-C1'	10.88	1.55	1.41
67	B1	555	G	C2'-C1'	-10.88	1.41	1.53
67	B1	1118	A	O4'-C1'	10.88	1.55	1.41
67	B1	945	U	C2'-C1'	-10.88	1.41	1.53
67	B1	2445	G	C2'-C1'	-10.87	1.41	1.53
67	B1	1140	C	O4'-C1'	10.87	1.55	1.41
67	B1	519	A	O4'-C1'	10.87	1.55	1.41
21	A2	1230	G	C2'-C1'	-10.87	1.41	1.53
67	B1	1111	G	O4'-C1'	10.87	1.55	1.41
21	A2	614	G	C2'-C1'	-10.86	1.41	1.53
67	B1	2220	C	O4'-C1'	10.86	1.55	1.41
67	B1	2765	C	O4'-C1'	10.86	1.55	1.41
21	A2	1188	C	O4'-C1'	10.86	1.55	1.41
67	B1	2866	A	O4'-C1'	10.86	1.55	1.41
21	A2	62	G	O4'-C1'	10.85	1.55	1.41
67	B1	924	A	O4'-C1'	-10.85	1.27	1.41
67	B1	728	A	C2'-C1'	-10.85	1.41	1.53
21	A2	219	C	C2'-C1'	-10.85	1.41	1.53
67	B1	1148	C	O4'-C1'	10.84	1.55	1.41
21	A2	441	U	O4'-C1'	10.84	1.55	1.41
67	B1	2812	U	C2'-C1'	-10.83	1.41	1.53
21	A2	1476	C	C2'-C1'	-10.83	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2146	C	C2'-C1'	-10.83	1.41	1.53
67	B1	395	G	C2'-C1'	-10.83	1.41	1.53
21	A2	1232	G	C2'-C1'	-10.83	1.41	1.53
67	B1	1713	G	O4'-C1'	10.83	1.55	1.41
21	A2	241	U	O4'-C1'	10.82	1.55	1.41
67	B1	1510	U	C2'-C1'	10.82	1.65	1.53
67	B1	836	U	C2'-C1'	-10.82	1.41	1.53
67	B1	33	U	O4'-C1'	10.82	1.55	1.41
67	B1	446	G	O4'-C1'	10.82	1.55	1.41
67	B1	1509	C	C2'-C1'	-10.82	1.41	1.53
67	B1	2795	G	C2'-C1'	-10.82	1.41	1.53
67	B1	2356	U	C2'-C1'	10.80	1.65	1.53
67	B1	2960	G	C2'-C1'	-10.80	1.41	1.53
21	A2	594	A	O4'-C1'	10.79	1.55	1.41
67	B1	612	G	O4'-C1'	-10.79	1.27	1.41
21	A2	509	C	O4'-C1'	10.79	1.55	1.41
67	B1	1925	A	C2'-C1'	-10.79	1.41	1.53
67	B1	1699	U	O4'-C1'	10.79	1.55	1.41
67	B1	998	G	C2'-C1'	10.79	1.65	1.53
68	B3	66	A	C2'-C1'	-10.79	1.41	1.53
67	B1	1961	G	C2'-C1'	10.78	1.65	1.53
21	A2	1352	G	O4'-C1'	10.78	1.55	1.41
67	B1	341	U	O4'-C1'	10.77	1.55	1.41
67	B1	1534	G	C2'-C1'	-10.77	1.41	1.53
67	B1	1975	C	C2'-C1'	10.77	1.65	1.53
67	B1	2790	C	C2'-C1'	-10.77	1.41	1.53
21	A2	325	A	C4'-C3'	10.77	1.65	1.53
21	A2	725	C	O4'-C1'	10.77	1.55	1.41
21	A2	1417	A	C2'-C1'	-10.77	1.41	1.53
67	B1	2465	A	O4'-C1'	10.77	1.55	1.41
67	B1	1464	A	O4'-C1'	10.76	1.55	1.41
67	B1	2435	G	O4'-C1'	-10.76	1.27	1.41
67	B1	1126	C	O4'-C1'	10.76	1.55	1.41
21	A2	54	C	O4'-C1'	10.76	1.55	1.41
67	B1	1926	A	O4'-C1'	10.76	1.55	1.41
67	B1	2227	G	P-O5'	-10.76	1.49	1.59
67	B1	1480	G	O4'-C1'	10.76	1.55	1.41
21	A2	789	G	C2'-C1'	10.75	1.65	1.53
67	B1	2059	G	O4'-C1'	10.75	1.55	1.41
67	B1	2202	U	O4'-C1'	10.75	1.55	1.41
21	A2	336	C	O4'-C1'	10.74	1.55	1.41
67	B1	663	A	P-O5'	-10.74	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	820	G	C2'-C1'	-10.73	1.41	1.53
21	A2	873	A	O4'-C1'	10.73	1.55	1.41
67	B1	744	G	O4'-C1'	10.73	1.55	1.41
67	B1	2028	G	O4'-C1'	10.73	1.55	1.41
21	A2	1374	C	O4'-C1'	10.73	1.55	1.41
67	B1	2246	G	P-O5'	-10.73	1.49	1.59
21	A2	389	G	C2'-C1'	-10.73	1.41	1.53
21	A2	904	G	C2'-C1'	10.73	1.65	1.53
21	A2	1295	C	O3'-P	-10.73	1.48	1.61
67	B1	114	C	O4'-C1'	10.73	1.55	1.41
67	B1	2952	C	O4'-C1'	10.73	1.55	1.41
67	B1	1654	G	O3'-P	-10.72	1.48	1.61
67	B1	1870	G	C2'-C1'	-10.72	1.41	1.53
67	B1	2617	G	C2'-C1'	-10.72	1.41	1.53
21	A2	1088	U	O4'-C1'	10.71	1.55	1.41
67	B1	2007	C	C2'-C1'	-10.71	1.41	1.53
67	B1	1997	C	C2'-C1'	-10.71	1.41	1.53
21	A2	1093	C	C2'-C1'	10.70	1.65	1.53
67	B1	1181	C	O4'-C1'	10.70	1.55	1.41
67	B1	2915	U	O4'-C1'	10.71	1.55	1.41
67	B1	789	G	C2'-C1'	-10.70	1.41	1.53
67	B1	2719	G	O4'-C1'	10.70	1.55	1.41
67	B1	2392	A	C2'-C1'	-10.70	1.41	1.53
67	B1	2797	C	O4'-C1'	-10.70	1.27	1.41
67	B1	3046	C	O4'-C1'	10.70	1.55	1.41
21	A2	38	G	C2'-C1'	-10.70	1.41	1.53
67	B1	789	G	C5'-C4'	10.69	1.64	1.51
67	B1	2870	A	O4'-C1'	10.70	1.55	1.41
67	B1	2891	A	O4'-C1'	10.70	1.55	1.41
67	B1	1671	A	C2'-C1'	10.69	1.65	1.53
21	A2	283	U	C2'-C1'	-10.69	1.41	1.53
21	A2	32	A	O4'-C1'	-10.69	1.27	1.41
21	A2	1426	C	O4'-C1'	10.69	1.55	1.41
67	B1	408	C	O4'-C1'	10.69	1.55	1.41
67	B1	1668	G	C2'-C1'	-10.69	1.41	1.53
21	A2	1110	U	O4'-C1'	10.69	1.55	1.41
21	A2	103	A	C2'-C1'	10.68	1.65	1.53
21	A2	1107	C	O4'-C1'	10.67	1.55	1.41
67	B1	1587	A	C2'-C1'	-10.67	1.41	1.53
67	B1	2297	C	O4'-C1'	10.67	1.55	1.41
67	B1	391	C	O4'-C1'	10.67	1.55	1.41
21	A2	14	C	O4'-C1'	10.67	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	835	C	O4'-C1'	10.67	1.55	1.41
67	B1	700	A	P-O5'	-10.67	1.49	1.59
67	B1	1638	C	O4'-C1'	10.67	1.55	1.41
67	B1	782	G	O4'-C1'	10.66	1.55	1.41
67	B1	203	G	O4'-C1'	10.66	1.55	1.41
67	B1	476	C	O4'-C1'	10.66	1.55	1.41
67	B1	2571	G	C2'-C1'	10.66	1.65	1.53
67	B1	2708	U	O4'-C1'	10.66	1.55	1.41
67	B1	1852	U	C2'-C1'	-10.66	1.41	1.53
67	B1	2463	G	C2'-C1'	-10.66	1.41	1.53
21	A2	828	U	C4'-C3'	10.66	1.64	1.53
67	B1	583	A	C2'-C1'	10.66	1.65	1.53
21	A2	157	A	C2'-C1'	10.65	1.65	1.53
21	A2	298	C	P-O5'	-10.65	1.49	1.59
67	B1	1295	G	O4'-C1'	10.65	1.55	1.41
67	B1	1330	G	C2'-C1'	-10.65	1.41	1.53
67	B1	1647	C	C2'-C1'	-10.65	1.41	1.53
67	B1	2500	G	C2'-C1'	10.65	1.65	1.53
67	B1	1871	C	O4'-C1'	10.64	1.55	1.41
21	A2	47	A	O4'-C1'	10.64	1.55	1.41
67	B1	3009	C	C2'-C1'	-10.64	1.41	1.53
67	B1	1341	U	O4'-C1'	10.64	1.55	1.41
67	B1	33	U	C2'-C1'	-10.63	1.41	1.53
67	B1	679	U	C4'-C3'	10.63	1.64	1.53
67	B1	373	G	O4'-C1'	10.63	1.55	1.41
21	A2	1074	C	O4'-C1'	10.62	1.55	1.41
21	A2	1359	C	O4'-C1'	10.62	1.55	1.41
67	B1	2591	A	C2'-C1'	-10.62	1.41	1.53
67	B1	746	C	O4'-C1'	10.62	1.55	1.41
67	B1	443	C	O4'-C1'	10.62	1.55	1.41
67	B1	1033	C	C2'-C1'	10.62	1.65	1.53
21	A2	1156	A	C2'-C1'	10.62	1.65	1.53
21	A2	1478	A	C2'-C1'	-10.62	1.41	1.53
67	B1	1822	G	O4'-C1'	-10.61	1.27	1.41
67	B1	3017	U	O4'-C1'	10.61	1.55	1.41
67	B1	881	G	C5'-C4'	10.61	1.64	1.51
67	B1	1684	C	C2'-C1'	-10.61	1.41	1.53
67	B1	2851	A	O4'-C1'	-10.61	1.27	1.41
21	A2	207	G	C2'-C1'	10.60	1.65	1.53
21	A2	938	C	O4'-C1'	10.60	1.55	1.41
21	A2	1322	C	C2'-C1'	-10.60	1.41	1.53
21	A2	1480	G	O4'-C1'	-10.60	1.27	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1435	G	O4'-C1'	10.59	1.55	1.41
67	B1	2245	C	C2'-C1'	-10.59	1.41	1.53
21	A2	897	A	O4'-C1'	10.59	1.55	1.41
67	B1	2615	U	C2'-C1'	-10.58	1.41	1.53
21	A2	17	C	C2'-C1'	-10.57	1.41	1.53
67	B1	495	U	O4'-C1'	10.57	1.55	1.41
67	B1	1106	C	O4'-C1'	10.57	1.55	1.41
67	B1	1947	A	C2'-C1'	-10.57	1.41	1.53
67	B1	2037	A	C2'-C1'	10.57	1.65	1.53
21	A2	1161	A	C2'-C1'	-10.57	1.41	1.53
21	A2	877	A	O4'-C1'	10.56	1.55	1.41
67	B1	2090	A	O4'-C1'	10.56	1.55	1.41
21	A2	89	G	C2'-C1'	-10.56	1.41	1.53
21	A2	617	A	C2'-C1'	10.56	1.65	1.53
21	A2	348	C	O4'-C1'	10.56	1.55	1.41
67	B1	2120	C	O4'-C1'	10.55	1.55	1.41
21	A2	1316	U	O4'-C1'	10.55	1.55	1.41
21	A2	1323	A	C2'-C1'	-10.55	1.41	1.53
67	B1	2669	U	C5'-C4'	10.54	1.64	1.51
21	A2	566	C	C2'-C1'	-10.54	1.41	1.53
67	B1	739	C	C2'-C1'	-10.54	1.41	1.53
68	B3	18	G	C2'-C1'	-10.54	1.41	1.53
67	B1	977	C	C2'-C1'	-10.54	1.41	1.53
67	B1	686	C	C2'-C1'	-10.54	1.41	1.53
21	A2	242	A	C2'-C1'	10.53	1.65	1.53
21	A2	723	G	O4'-C1'	10.53	1.55	1.41
27	A0	55	U	C2'-C1'	10.53	1.65	1.53
67	B1	682	G	O4'-C1'	-10.53	1.27	1.41
67	B1	521	C	C2'-C1'	-10.53	1.41	1.53
67	B1	1483	U	O4'-C1'	10.53	1.55	1.41
67	B1	2767	C	O4'-C1'	10.53	1.55	1.41
21	A2	518	U	O4'-C1'	10.52	1.55	1.41
21	A2	1448	A	O4'-C1'	-10.52	1.27	1.41
68	B3	32	C	O4'-C1'	10.52	1.55	1.41
67	B1	812	C	C2'-C1'	-10.52	1.41	1.53
67	B1	2354	A	C2'-C1'	-10.52	1.41	1.53
67	B1	371	U	O3'-P	-10.52	1.48	1.61
67	B1	2059	G	C2'-C1'	-10.52	1.41	1.53
67	B1	2770	A	C2'-C1'	-10.52	1.41	1.53
68	B3	6	G	O4'-C1'	10.51	1.55	1.41
67	B1	1230	G	O4'-C1'	10.51	1.55	1.41
21	A2	318	C	O4'-C1'	10.51	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1055	C	O4'-C1'	10.51	1.55	1.41
67	B1	632	G	C2'-C1'	-10.51	1.41	1.53
21	A2	167	G	C2'-C1'	-10.51	1.41	1.53
67	B1	946	U	C2'-C1'	-10.51	1.41	1.53
21	A2	470	G	C2'-C1'	10.50	1.65	1.53
67	B1	742	C	O4'-C1'	10.50	1.55	1.41
21	A2	919	U	O4'-C1'	10.50	1.55	1.41
21	A2	1458	A	O4'-C1'	10.50	1.55	1.41
67	B1	672	C	O4'-C1'	10.50	1.55	1.41
11	A1	47	G	O4'-C1'	-10.49	1.28	1.41
67	B1	1665	G	O4'-C1'	10.49	1.55	1.41
67	B1	2914	U	C2'-C1'	10.49	1.64	1.53
21	A2	227	C	O4'-C1'	10.49	1.55	1.41
67	B1	1797	A	O4'-C1'	10.49	1.55	1.41
67	B1	946	U	O4'-C1'	10.48	1.55	1.41
67	B1	2904	U	C2'-C1'	-10.48	1.41	1.53
67	B1	2966	C	C2'-C1'	-10.48	1.41	1.53
21	A2	81	C	C2'-C1'	-10.48	1.41	1.53
21	A2	383	C	O4'-C1'	10.48	1.55	1.41
21	A2	1202	G	O4'-C1'	10.47	1.55	1.41
67	B1	1965	C	C2'-C1'	-10.47	1.41	1.53
67	B1	2850	G	O4'-C1'	10.47	1.55	1.41
67	B1	3037	G	C2'-C1'	10.47	1.64	1.53
21	A2	487	U	C5'-C4'	10.47	1.64	1.51
21	A2	272	C	C2'-C1'	-10.47	1.41	1.53
21	A2	1270	C	C2'-C1'	10.47	1.64	1.53
27	A0	50	C	O4'-C1'	10.46	1.55	1.41
67	B1	151	G	O4'-C1'	10.46	1.55	1.41
67	B1	515	G	C2'-C1'	10.46	1.64	1.53
21	A2	1054	A	C2'-C1'	-10.46	1.41	1.53
67	B1	766	G	O4'-C1'	10.46	1.55	1.41
67	B1	226	C	C2'-C1'	-10.46	1.41	1.53
67	B1	148	C	C2'-C1'	-10.45	1.41	1.53
67	B1	354	G	O4'-C1'	-10.45	1.28	1.41
67	B1	988	C	O4'-C1'	10.45	1.55	1.41
67	B1	2652	G	O4'-C1'	-10.45	1.28	1.41
21	A2	1143	G	C2'-C1'	10.45	1.64	1.53
67	B1	2707	G	O4'-C1'	10.45	1.55	1.41
21	A2	1432	U	O4'-C1'	10.45	1.55	1.41
67	B1	1938	G	C4'-C3'	10.45	1.64	1.53
21	A2	849	U	O4'-C1'	10.44	1.55	1.41
11	A1	11	C	O4'-C1'	10.44	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	651	C	O4'-C1'	10.43	1.55	1.41
67	B1	1573	A	C5'-C4'	10.43	1.63	1.51
21	A2	215	C	O4'-C1'	10.43	1.55	1.41
21	A2	1142	G	C2'-C1'	-10.43	1.41	1.53
67	B1	21	C	O4'-C1'	10.43	1.55	1.41
67	B1	235	G	C2'-C1'	-10.43	1.41	1.53
67	B1	2135	C	C2'-C1'	-10.43	1.41	1.53
21	A2	1089	C	O4'-C1'	10.42	1.55	1.41
67	B1	1844	C	O4'-C1'	10.42	1.55	1.41
67	B1	497	G	C2'-C1'	-10.42	1.41	1.53
21	A2	826	C	O4'-C1'	10.42	1.55	1.41
21	A2	1175	C	O4'-C1'	10.41	1.55	1.41
67	B1	1378	G	C5'-C4'	10.40	1.63	1.51
67	B1	1865	U	O4'-C1'	-10.40	1.28	1.41
67	B1	693	G	O4'-C1'	-10.40	1.28	1.41
67	B1	2991	C	O4'-C1'	10.40	1.55	1.41
67	B1	922	C	C2'-C1'	-10.39	1.42	1.53
67	B1	485	G	C4'-C3'	-10.39	1.41	1.53
21	A2	188	C	O4'-C1'	10.39	1.55	1.41
67	B1	275	C	O4'-C1'	10.39	1.55	1.41
67	B1	1519	G	C2'-C1'	10.38	1.64	1.53
67	B1	1549	C	O4'-C1'	10.38	1.55	1.41
67	B1	1477	C	C2'-C1'	-10.38	1.42	1.53
67	B1	2464	G	C2'-C1'	10.38	1.64	1.53
21	A2	489	C	O4'-C1'	10.38	1.55	1.41
27	A0	27	C	O4'-C1'	10.38	1.55	1.41
67	B1	669	G	C2'-C1'	-10.38	1.42	1.53
67	B1	2080	G	C2'-C1'	-10.38	1.42	1.53
21	A2	592	G	C2'-C1'	10.38	1.64	1.53
67	B1	1553	G	O4'-C1'	-10.37	1.28	1.41
11	A1	49	C	C2'-C1'	10.37	1.64	1.53
67	B1	1311	C	C2'-C1'	-10.37	1.42	1.53
67	B1	1865	U	C5'-C4'	10.37	1.63	1.51
67	B1	2229	G	O4'-C1'	10.37	1.55	1.41
67	B1	1539	U	C2'-C1'	10.36	1.64	1.53
67	B1	2565	A	O4'-C1'	10.36	1.55	1.41
67	B1	1103	C	O4'-C1'	10.36	1.55	1.41
67	B1	2844	G	O4'-C1'	10.36	1.55	1.41
21	A2	1376	C	C2'-C1'	-10.35	1.42	1.53
67	B1	2277	G	P-O5'	-10.35	1.49	1.59
67	B1	2792	G	O4'-C1'	10.35	1.55	1.41
21	A2	1358	A	C2'-C1'	10.35	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	809	C	O4'-C1'	10.34	1.55	1.41
21	A2	623	C	C2'-C1'	-10.34	1.42	1.53
67	B1	742	C	C2'-C1'	-10.34	1.42	1.53
21	A2	466	C	O4'-C1'	10.34	1.55	1.41
21	A2	693	C	O4'-C1'	10.33	1.55	1.41
67	B1	183	G	C2'-C1'	-10.33	1.42	1.53
67	B1	485	G	O4'-C1'	10.33	1.55	1.41
67	B1	1743	G	C2'-C1'	10.33	1.64	1.53
67	B1	3040	G	O4'-C1'	10.33	1.55	1.41
67	B1	1149	C	O4'-C1'	10.33	1.55	1.41
67	B1	991	U	O4'-C1'	10.32	1.55	1.41
67	B1	2932	C	O4'-C1'	10.32	1.55	1.41
21	A2	1269	G	O4'-C1'	10.32	1.55	1.41
21	A2	702	G	C2'-C1'	-10.31	1.42	1.53
21	A2	1022	U	C2'-C1'	10.31	1.64	1.53
27	A0	27	C	C2'-C1'	-10.31	1.42	1.53
17	AO	145	ARG	NE-CZ	10.31	1.46	1.33
67	B1	2655	C	C2'-C1'	-10.31	1.42	1.53
67	B1	268	C	C2'-C1'	-10.31	1.42	1.53
67	B1	2898	G	C2'-C1'	-10.31	1.42	1.53
21	A2	1418	G	O4'-C1'	10.31	1.55	1.41
21	A2	1416	C	C2'-C1'	10.30	1.64	1.53
21	A2	1478	A	O4'-C1'	10.30	1.55	1.41
21	A2	637	G	C2'-C1'	-10.30	1.42	1.53
67	B1	561	C	O4'-C1'	10.30	1.55	1.41
67	B1	2292	A	C2'-C1'	-10.30	1.42	1.53
27	A0	69	C	C2'-C1'	-10.30	1.42	1.53
21	A2	242	A	O4'-C1'	-10.29	1.28	1.41
67	B1	2925	C	O4'-C1'	10.29	1.55	1.41
67	B1	3007	A	C2'-C1'	10.29	1.64	1.53
21	A2	1102	A	C2'-C1'	-10.29	1.42	1.53
21	A2	474	G	O4'-C1'	10.28	1.55	1.41
21	A2	582	G	O4'-C1'	10.28	1.55	1.41
21	A2	1209	C	O4'-C1'	10.28	1.55	1.41
67	B1	2635	C	C2'-C1'	-10.28	1.42	1.53
21	A2	472	C	O4'-C1'	10.27	1.55	1.41
67	B1	1218	C	C2'-C1'	-10.27	1.42	1.53
67	B1	2390	G	C2'-C1'	10.27	1.64	1.53
27	A0	29	G	C2'-C1'	-10.27	1.42	1.53
67	B1	1262	C	O4'-C1'	10.27	1.54	1.41
67	B1	42	G	O4'-C1'	10.26	1.54	1.41
67	B1	2762	G	O4'-C1'	10.26	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2042	A	O4'-C1'	-10.26	1.28	1.41
11	A1	35	G	C2'-C1'	-10.26	1.42	1.53
67	B1	1325	A	O4'-C1'	10.26	1.54	1.41
21	A2	477	G	O4'-C1'	10.25	1.54	1.41
67	B1	86	G	C2'-C1'	-10.25	1.42	1.53
67	B1	1180	G	O4'-C1'	10.24	1.54	1.41
21	A2	543	C	O4'-C1'	10.24	1.54	1.41
21	A2	747	U	C2'-C1'	10.24	1.64	1.53
21	A2	808	C	O4'-C1'	10.23	1.54	1.41
67	B1	687	C	O4'-C1'	10.23	1.54	1.41
67	B1	2549	A	O4'-C1'	10.23	1.54	1.41
67	B1	1632	U	C2'-C1'	10.23	1.64	1.53
67	B1	2431	C	C2'-C1'	-10.23	1.42	1.53
67	B1	885	A	O4'-C1'	10.23	1.54	1.41
67	B1	1483	U	C5'-C4'	10.23	1.63	1.51
67	B1	2781	A	O4'-C1'	10.23	1.54	1.41
67	B1	308	C	O4'-C1'	10.22	1.54	1.41
21	A2	1090	C	C2'-C1'	-10.22	1.42	1.53
67	B1	806	C	O4'-C1'	10.22	1.54	1.41
67	B1	1829	C	O4'-C1'	10.22	1.54	1.41
67	B1	809	A	O4'-C1'	-10.21	1.28	1.41
67	B1	2104	G	C2'-C1'	-10.21	1.42	1.53
21	A2	711	U	O4'-C1'	10.21	1.54	1.41
67	B1	1211	C	C2'-C1'	10.21	1.64	1.53
68	B3	8	C	O4'-C1'	10.21	1.54	1.41
21	A2	1338	C	O4'-C1'	10.21	1.54	1.41
67	B1	2145	G	O4'-C1'	-10.20	1.28	1.41
67	B1	2560	G	C4'-C3'	10.21	1.64	1.53
21	A2	210	A	C2'-C1'	-10.20	1.42	1.53
21	A2	1223	C	O4'-C1'	10.20	1.54	1.41
21	A2	939	C	O4'-C1'	10.20	1.54	1.41
21	A2	794	A	O4'-C1'	10.20	1.54	1.41
67	B1	933	G	C2'-C1'	-10.20	1.42	1.53
21	A2	852	G	C2'-C1'	-10.20	1.42	1.53
67	B1	2512	C	O4'-C1'	10.20	1.54	1.41
67	B1	913	G	C2'-C1'	-10.19	1.42	1.53
21	A2	403	C	C2'-C1'	-10.19	1.42	1.53
67	B1	3014	U	C2'-C1'	10.19	1.64	1.53
67	B1	270	C	O4'-C1'	10.19	1.54	1.41
67	B1	437	G	C2'-C1'	10.18	1.64	1.53
67	B1	799	C	O4'-C1'	10.18	1.54	1.41
21	A2	280	C	O4'-C1'	10.18	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1691	U	C2'-C1'	-10.18	1.42	1.53
67	B1	1841	G	C5'-C4'	10.18	1.63	1.51
67	B1	389	C	O4'-C1'	10.17	1.54	1.41
67	B1	1580	G	C2'-C1'	-10.17	1.42	1.53
21	A2	965	G	C2'-C1'	-10.17	1.42	1.53
67	B1	1343	C	C2'-C1'	-10.17	1.42	1.53
67	B1	907	C	C2'-C1'	-10.17	1.42	1.53
21	A2	765	U	C2'-C1'	10.17	1.64	1.53
21	A2	1354	A	C2'-C1'	-10.17	1.42	1.53
21	A2	1445	A	C2'-C1'	-10.16	1.42	1.53
67	B1	1241	C	O4'-C1'	10.16	1.54	1.41
68	B3	21	C	O4'-C1'	10.16	1.54	1.41
11	A1	5	C	P-O5'	-10.16	1.49	1.59
21	A2	258	A	C2'-C1'	-10.16	1.42	1.53
21	A2	1311	C	O4'-C1'	10.16	1.54	1.41
21	A2	239	A	C2'-C1'	-10.15	1.42	1.53
21	A2	779	G	C2'-C1'	-10.15	1.42	1.53
67	B1	351	C	C2'-C1'	10.15	1.64	1.53
21	A2	1077	U	O4'-C1'	10.15	1.54	1.41
67	B1	1329	G	O4'-C1'	10.14	1.54	1.41
67	B1	94	A	O4'-C1'	10.14	1.54	1.41
67	B1	206	A	O4'-C1'	10.14	1.54	1.41
67	B1	3040	G	C2'-C1'	-10.14	1.42	1.53
67	B1	2005	A	C2'-C1'	-10.14	1.42	1.53
21	A2	903	G	O4'-C1'	10.14	1.54	1.41
67	B1	3012	C	C2'-C1'	-10.13	1.42	1.53
11	A1	1	G	C2'-C1'	-10.13	1.42	1.53
67	B1	2569	G	O4'-C1'	10.13	1.54	1.41
21	A2	1225	C	O4'-C1'	10.13	1.54	1.41
21	A2	1266	A	C2'-C1'	-10.13	1.42	1.53
67	B1	1448	G	C2'-C1'	-10.13	1.42	1.53
67	B1	1488	C	O4'-C1'	10.13	1.54	1.41
67	B1	2547	A	C4'-C3'	-10.13	1.42	1.53
67	B1	2989	A	O4'-C1'	10.13	1.54	1.41
67	B1	449	G	O3'-P	-10.12	1.49	1.61
67	B1	2116	G	O4'-C1'	10.12	1.54	1.41
67	B1	2672	A	C4'-C3'	10.12	1.64	1.53
67	B1	365	G	O4'-C1'	-10.12	1.28	1.41
21	A2	668	G	C2'-C1'	-10.12	1.42	1.53
67	B1	2583	G	O4'-C1'	-10.12	1.28	1.41
67	B1	3006	G	O4'-C1'	10.12	1.54	1.41
21	A2	165	U	C2'-C1'	-10.11	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1035	G	P-O5'	-10.11	1.49	1.59
21	A2	523	C	P-O5'	-10.11	1.49	1.59
67	B1	43	G	C2'-C1'	10.11	1.64	1.53
67	B1	554	C	O4'-C1'	10.11	1.54	1.41
67	B1	1839	U	C2'-C1'	10.11	1.64	1.53
67	B1	2517	U	O4'-C1'	10.11	1.54	1.41
67	B1	407	A	C2'-C1'	-10.10	1.42	1.53
67	B1	1206	A	C2'-C1'	-10.10	1.42	1.53
67	B1	2341	G	O3'-P	-10.10	1.49	1.61
21	A2	11	A	C2'-C1'	-10.10	1.42	1.53
67	B1	802	G	O4'-C1'	10.10	1.54	1.41
67	B1	2675	C	O4'-C1'	10.10	1.54	1.41
67	B1	1396	A	C2'-C1'	10.09	1.64	1.53
67	B1	2548	A	C2'-C1'	10.09	1.64	1.53
21	A2	814	C	O4'-C1'	10.09	1.54	1.41
67	B1	137	A	O4'-C1'	10.09	1.54	1.41
21	A2	1492	U	C2'-C1'	-10.08	1.42	1.53
67	B1	967	G	C2'-C1'	-10.08	1.42	1.53
67	B1	1474	A	O3'-P	-10.08	1.49	1.61
21	A2	1218	C	C2'-C1'	-10.08	1.42	1.53
67	B1	205	A	O4'-C1'	10.08	1.54	1.41
67	B1	2846	A	C2'-C1'	-10.08	1.42	1.53
67	B1	1622	G	C2'-C1'	10.08	1.64	1.53
67	B1	2345	U	O4'-C1'	10.08	1.54	1.41
67	B1	3012	C	O4'-C1'	10.07	1.54	1.41
21	A2	272	C	O4'-C1'	10.07	1.54	1.41
67	B1	1484	U	O4'-C1'	10.07	1.54	1.41
67	B1	192	U	C2'-C1'	-10.07	1.42	1.53
67	B1	1800	G	O4'-C1'	10.07	1.54	1.41
67	B1	1770	A	O4'-C1'	10.06	1.54	1.41
67	B1	1953	U	O4'-C1'	10.06	1.54	1.41
67	B1	2110	C	O4'-C1'	10.06	1.54	1.41
67	B1	3035	C	O3'-P	-10.06	1.49	1.61
67	B1	738	C	O4'-C1'	10.06	1.54	1.41
67	B1	397	G	O4'-C1'	-10.06	1.28	1.41
67	B1	2361	C	C2'-C1'	-10.06	1.42	1.53
67	B1	2540	A	C2'-C1'	-10.06	1.42	1.53
21	A2	232	G	O4'-C1'	10.05	1.54	1.41
21	A2	872	A	C2'-C1'	-10.05	1.42	1.53
67	B1	2306	C	O4'-C1'	10.05	1.54	1.41
67	B1	796	C	C2'-C1'	-10.05	1.42	1.53
67	B1	1339	C	O4'-C1'	10.05	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2566	A	C2'-C1'	10.04	1.64	1.53
67	B1	93	C	O4'-C1'	10.04	1.54	1.41
67	B1	2601	C	O4'-C1'	10.04	1.54	1.41
68	B3	11	A	C2'-C1'	-10.04	1.42	1.53
67	B1	2891	A	C2'-C1'	-10.04	1.42	1.53
21	A2	748	A	C2'-C1'	-10.03	1.42	1.53
67	B1	2655	C	O3'-P	-10.03	1.49	1.61
21	A2	1039	C	O4'-C1'	10.02	1.54	1.41
21	A2	1310	C	C2'-C1'	-10.02	1.42	1.53
21	A2	516	A	O4'-C1'	10.02	1.54	1.41
21	A2	1087	C	O4'-C1'	10.02	1.54	1.41
67	B1	709	A	C2'-C1'	-10.02	1.42	1.53
67	B1	800	G	O4'-C1'	10.02	1.54	1.41
67	B1	2222	C	O4'-C1'	10.02	1.54	1.41
67	B1	2367	C	O4'-C1'	10.02	1.54	1.41
21	A2	1030	U	C2'-C1'	-10.01	1.42	1.53
67	B1	476	C	C5'-C4'	10.01	1.63	1.51
67	B1	2262	C	O4'-C1'	10.01	1.54	1.41
67	B1	2840	C	C2'-C1'	-10.01	1.42	1.53
21	A2	1097	G	C2'-C1'	-10.01	1.42	1.53
67	B1	2235	G	O4'-C1'	10.01	1.54	1.41
67	B1	2919	C	C2'-C1'	-10.01	1.42	1.53
21	A2	1035	C	O4'-C1'	10.00	1.54	1.41
67	B1	1936	C	O4'-C1'	10.00	1.54	1.41
67	B1	997	A	O4'-C1'	10.00	1.54	1.41
21	A2	312	U	O4'-C1'	10.00	1.54	1.41
67	B1	2629	U	O4'-C1'	10.00	1.54	1.41
67	B1	1544	C	O4'-C1'	9.99	1.54	1.41
67	B1	2301	C	O4'-C1'	9.99	1.54	1.41
67	B1	3022	C	O4'-C1'	9.99	1.54	1.41
67	B1	2237	A	C2'-C1'	-9.99	1.42	1.53
67	B1	2463	G	O4'-C1'	9.99	1.54	1.41
67	B1	2510	A	O4'-C1'	9.99	1.54	1.41
21	A2	1221	A	O4'-C1'	9.99	1.54	1.41
67	B1	82	C	O4'-C1'	9.99	1.54	1.41
67	B1	573	G	C2'-C1'	-9.99	1.42	1.53
67	B1	1710	C	O4'-C1'	9.98	1.54	1.41
11	A1	46	U	O4'-C1'	-9.98	1.28	1.41
67	B1	1937	A	C2'-C1'	9.98	1.64	1.53
67	B1	1653	U	O4'-C1'	9.98	1.54	1.41
67	B1	2977	G	C2'-C1'	-9.97	1.42	1.53
67	B1	198	C	O4'-C1'	9.97	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	258	C	C2'-C1'	-9.97	1.42	1.53
67	B1	285	C	O4'-C1'	9.97	1.54	1.41
67	B1	2774	C	C5'-C4'	9.97	1.63	1.51
67	B1	1554	G	O4'-C1'	9.97	1.54	1.41
21	A2	1280	C	O4'-C1'	9.96	1.54	1.41
67	B1	1194	G	C2'-C1'	-9.96	1.42	1.53
67	B1	2230	G	C2'-C1'	9.96	1.64	1.53
67	B1	629	G	C2'-C1'	9.95	1.64	1.53
67	B1	1534	G	O3'-P	-9.95	1.49	1.61
67	B1	601	A	C2'-C1'	9.95	1.64	1.53
21	A2	190	C	O4'-C1'	9.95	1.54	1.41
27	A0	28	C	O4'-C1'	9.94	1.54	1.41
67	B1	2991	C	C2'-C1'	-9.94	1.42	1.53
67	B1	769	G	O4'-C1'	9.94	1.54	1.41
67	B1	801	A	C2'-C1'	9.94	1.64	1.53
67	B1	1675	C	O4'-C1'	9.93	1.54	1.41
67	B1	1408	G	C2'-C1'	-9.93	1.42	1.53
67	B1	2928	C	O4'-C1'	9.93	1.54	1.41
67	B1	356	C	C2'-C1'	-9.93	1.42	1.53
67	B1	37	C	O4'-C1'	9.92	1.54	1.41
67	B1	833	G	O4'-C1'	9.92	1.54	1.41
67	B1	65	G	C2'-C1'	-9.92	1.42	1.53
67	B1	2828	G	C2'-C1'	-9.91	1.42	1.53
67	B1	1182	C	C2'-C1'	-9.91	1.42	1.53
67	B1	1415	C	O4'-C1'	9.91	1.54	1.41
21	A2	673	C	O4'-C1'	9.91	1.54	1.41
67	B1	688	G	C2'-C1'	-9.91	1.42	1.53
21	A2	1225	C	C2'-C1'	-9.90	1.42	1.53
67	B1	1511	C	P-O5'	9.90	1.69	1.59
67	B1	2385	G	C2'-C1'	-9.90	1.42	1.53
67	B1	1541	U	O4'-C1'	-9.90	1.28	1.41
67	B1	1143	A	C2'-C1'	-9.89	1.42	1.53
67	B1	1341	U	C2'-C1'	-9.89	1.42	1.53
11	A1	23	G	C2'-C1'	9.89	1.64	1.53
21	A2	191	A	C2'-C1'	-9.89	1.42	1.53
67	B1	278	C	O4'-C1'	-9.89	1.28	1.41
67	B1	758	C	C3'-C2'	9.89	1.63	1.52
67	B1	1217	U	C2'-C1'	-9.88	1.42	1.53
67	B1	2838	U	O4'-C1'	9.89	1.54	1.41
67	B1	2074	U	C2'-C1'	-9.88	1.42	1.53
21	A2	70	C	O4'-C1'	9.88	1.54	1.41
67	B1	418	C	P-O5'	-9.88	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	983	G	C2'-C1'	-9.88	1.42	1.53
21	A2	43	A	C2'-C1'	-9.88	1.42	1.53
21	A2	740	G	O4'-C1'	9.88	1.54	1.41
21	A2	360	A	O4'-C1'	9.87	1.54	1.41
67	B1	761	U	O3'-P	-9.87	1.49	1.61
67	B1	1905	G	P-O5'	-9.87	1.49	1.59
67	B1	2711	U	O4'-C1'	9.87	1.54	1.41
21	A2	536	A	C2'-C1'	-9.87	1.42	1.53
21	A2	702	G	O4'-C1'	9.86	1.54	1.41
21	A2	971	G	O4'-C1'	9.86	1.54	1.41
67	B1	162	G	O4'-C1'	9.86	1.54	1.41
67	B1	1474	A	O4'-C1'	9.86	1.54	1.41
67	B1	1093	G	O4'-C1'	-9.86	1.28	1.41
67	B1	1717	C	C2'-C1'	-9.86	1.42	1.53
67	B1	2673	C	O4'-C1'	9.86	1.54	1.41
21	A2	219	C	O4'-C1'	9.86	1.54	1.41
67	B1	1570	C	C2'-C1'	-9.86	1.42	1.53
67	B1	2659	G	O4'-C1'	9.86	1.54	1.41
21	A2	972	C	O4'-C1'	9.85	1.54	1.41
67	B1	363	G	C2'-C1'	9.85	1.64	1.53
67	B1	940	G	C4'-C3'	9.85	1.64	1.53
67	B1	1473	C	P-O5'	-9.85	1.49	1.59
67	B1	2162	G	C2'-C1'	-9.85	1.42	1.53
67	B1	2369	G	C2'-C1'	-9.85	1.42	1.53
21	A2	679	G	O4'-C1'	9.84	1.54	1.41
67	B1	1195	G	C2'-C1'	9.84	1.64	1.53
27	A0	14	A	C2'-C1'	9.84	1.64	1.53
11	A1	28	C	C2'-C1'	-9.84	1.42	1.53
21	A2	338	C	C2'-C1'	9.84	1.64	1.53
67	B1	902	C	O4'-C1'	9.83	1.54	1.41
68	B3	30	G	C2'-C1'	9.83	1.64	1.53
67	B1	2018	C	O4'-C1'	9.83	1.54	1.41
67	B1	87	C	O4'-C1'	9.82	1.54	1.41
21	A2	368	C	C2'-C1'	-9.82	1.42	1.53
21	A2	692	G	C2'-C1'	-9.82	1.42	1.53
67	B1	2867	U	P-O5'	-9.82	1.50	1.59
67	B1	1217	U	O4'-C1'	9.81	1.54	1.41
67	B1	1346	G	C2'-C1'	-9.81	1.42	1.53
67	B1	1977	C	O4'-C1'	9.81	1.54	1.41
21	A2	210	A	O4'-C1'	9.81	1.54	1.41
21	A2	1144	G	C2'-C1'	-9.81	1.42	1.53
67	B1	1738	A	O3'-P	-9.81	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2235	G	C2'-C1'	-9.81	1.42	1.53
67	B1	2893	U	C2'-C1'	-9.81	1.42	1.53
67	B1	1686	C	C2'-C1'	-9.81	1.42	1.53
21	A2	1105	C	C2'-C1'	9.80	1.64	1.53
68	B3	99	G	O4'-C1'	9.80	1.54	1.41
67	B1	1567	C	P-OP2	9.80	1.65	1.49
21	A2	1312	C	O4'-C1'	9.80	1.54	1.41
67	B1	2349	U	C2'-C1'	-9.80	1.42	1.53
67	B1	2807	C	C2'-C1'	-9.79	1.42	1.53
21	A2	255	G	O4'-C1'	9.79	1.54	1.41
67	B1	269	C	C2'-C1'	-9.79	1.42	1.53
67	B1	2899	G	C2'-C1'	-9.79	1.42	1.53
67	B1	2691	G	C2'-C1'	-9.79	1.42	1.53
67	B1	2733	A	O4'-C1'	9.79	1.54	1.41
21	A2	786	G	C2'-C1'	-9.79	1.42	1.53
21	A2	1233	G	O4'-C1'	-9.79	1.28	1.41
67	B1	609	G	C2'-C1'	-9.79	1.42	1.53
67	B1	1314	A	O4'-C1'	-9.79	1.28	1.41
21	A2	578	G	C2'-C1'	-9.78	1.42	1.53
67	B1	2882	G	O4'-C1'	-9.78	1.28	1.41
21	A2	1346	C	O4'-C1'	9.78	1.54	1.41
67	B1	130	G	C2'-C1'	-9.78	1.42	1.53
67	B1	505	A	C2'-C1'	9.77	1.64	1.53
67	B1	2470	U	O4'-C1'	9.77	1.54	1.41
21	A2	1243	C	O4'-C1'	9.77	1.54	1.41
27	A0	26	G	C2'-C1'	9.77	1.64	1.53
67	B1	865	C	O4'-C1'	9.77	1.54	1.41
67	B1	18	C	C2'-C1'	9.77	1.64	1.53
67	B1	1543	C	C2'-C1'	-9.76	1.42	1.53
67	B1	2788	U	C2'-C1'	-9.76	1.42	1.53
21	A2	5	C	C2'-C1'	-9.76	1.42	1.53
21	A2	80	A	P-O5'	-9.76	1.50	1.59
21	A2	300	G	O4'-C1'	-9.76	1.28	1.41
67	B1	3005	C	C2'-C1'	-9.75	1.42	1.53
11	A1	38	G	O4'-C1'	9.75	1.54	1.41
21	A2	361	A	O4'-C1'	9.75	1.54	1.41
67	B1	621	G	O4'-C1'	9.75	1.54	1.41
21	A2	861	G	C2'-C1'	-9.74	1.42	1.53
67	B1	2569	G	C2'-C1'	-9.74	1.42	1.53
11	A1	27	A	O4'-C1'	9.74	1.54	1.41
67	B1	911	G	O4'-C1'	9.74	1.54	1.41
67	B1	2915	U	C2'-C1'	-9.73	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	170	A	C2'-C1'	9.73	1.64	1.53
67	B1	723	A	O4'-C1'	9.73	1.54	1.41
67	B1	1615	G	O4'-C1'	-9.73	1.28	1.41
67	B1	2799	C	O4'-C1'	9.73	1.54	1.41
21	A2	464	G	O4'-C1'	9.73	1.54	1.41
67	B1	548	U	O4'-C1'	9.73	1.54	1.41
67	B1	805	C	O4'-C1'	9.73	1.54	1.41
67	B1	824	C	C3'-C2'	9.73	1.63	1.52
67	B1	1564	C	O4'-C1'	9.73	1.54	1.41
67	B1	2059	G	O3'-P	-9.73	1.49	1.61
68	B3	2	G	C2'-C1'	9.73	1.64	1.53
67	B1	2834	C	C2'-C1'	-9.72	1.42	1.53
21	A2	1385	U	O4'-C1'	9.72	1.54	1.41
67	B1	2794	G	O4'-C1'	-9.72	1.29	1.41
67	B1	2934	C	C2'-C1'	-9.72	1.42	1.53
67	B1	1068	U	O4'-C1'	9.72	1.54	1.41
21	A2	1241	U	C2'-C1'	9.71	1.64	1.53
27	A0	60	U	C2'-C1'	-9.71	1.42	1.53
67	B1	998	G	O4'-C1'	-9.71	1.29	1.41
68	B3	36	U	C5'-C4'	9.71	1.62	1.51
21	A2	1433	C	O4'-C1'	9.70	1.54	1.41
67	B1	847	A	O4'-C1'	9.70	1.54	1.41
67	B1	509	A	O4'-C1'	9.70	1.54	1.41
67	B1	634	G	O4'-C1'	-9.70	1.29	1.41
67	B1	1572	C	O4'-C1'	9.70	1.54	1.41
67	B1	1621	G	C2'-C1'	-9.70	1.42	1.53
21	A2	1073	C	O4'-C1'	9.70	1.54	1.41
67	B1	483	C	C2'-C1'	-9.70	1.42	1.53
67	B1	1568	A	C5'-C4'	9.69	1.62	1.51
67	B1	1899	C	O4'-C1'	9.69	1.54	1.41
21	A2	1272	G	O4'-C1'	9.69	1.54	1.41
67	B1	197	C	O4'-C1'	9.69	1.54	1.41
67	B1	1170	G	C2'-C1'	9.69	1.64	1.53
67	B1	1843	C	O4'-C1'	9.69	1.54	1.41
67	B1	2121	C	O4'-C1'	9.69	1.54	1.41
67	B1	1405	G	O4'-C1'	9.69	1.54	1.41
67	B1	2420	C	O4'-C1'	9.68	1.54	1.41
67	B1	2843	C	C2'-C1'	-9.68	1.42	1.53
67	B1	1023	C	C2'-C1'	-9.68	1.42	1.53
67	B1	2351	G	O4'-C1'	-9.68	1.29	1.41
21	A2	124	C	O4'-C1'	9.68	1.54	1.41
67	B1	124	C	C2'-C1'	-9.68	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2147	C	O4'-C1'	9.68	1.54	1.41
21	A2	1040	A	O4'-C1'	9.67	1.54	1.41
21	A2	1162	G	O4'-C1'	9.67	1.54	1.41
21	A2	1232	G	P-O5'	9.67	1.69	1.59
67	B1	1300	C	C2'-C1'	-9.67	1.42	1.53
67	B1	1093	G	C2'-C1'	9.66	1.64	1.53
21	A2	1465	C	C2'-C1'	-9.66	1.42	1.53
21	A2	1193	G	C2'-C1'	-9.66	1.42	1.53
67	B1	2972	G	O4'-C1'	9.66	1.54	1.41
67	B1	2684	G	O4'-C1'	9.66	1.54	1.41
67	B1	2695	U	C2'-C1'	-9.66	1.42	1.53
21	A2	1081	C	C3'-O3'	9.65	1.55	1.42
21	A2	1432	U	C2'-C1'	-9.65	1.42	1.53
67	B1	1644	G	C2'-C1'	9.65	1.64	1.53
67	B1	2749	G	C3'-C2'	9.65	1.63	1.52
21	A2	1048	G	C2'-C1'	-9.65	1.42	1.53
67	B1	2198	U	O4'-C1'	9.65	1.54	1.41
67	B1	1689	G	O4'-C1'	9.65	1.54	1.41
68	B3	20	G	O4'-C1'	9.64	1.54	1.41
21	A2	584	C	O4'-C1'	9.64	1.54	1.41
67	B1	1097	G	C2'-C1'	-9.64	1.42	1.53
67	B1	2065	C	C2'-C1'	-9.64	1.42	1.53
67	B1	2697	G	O4'-C1'	9.64	1.54	1.41
68	B3	91	G	C2'-C1'	-9.63	1.42	1.53
21	A2	811	G	C2'-C1'	9.63	1.64	1.53
21	A2	1093	C	O4'-C1'	9.63	1.54	1.41
67	B1	1751	G	O4'-C1'	9.63	1.54	1.41
21	A2	553	C	C2'-C1'	-9.62	1.42	1.53
67	B1	1637	C	C2'-C1'	-9.62	1.42	1.53
21	A2	1297	G	O4'-C1'	9.62	1.54	1.41
67	B1	1796	U	O4'-C1'	-9.62	1.29	1.41
67	B1	2968	G	C2'-C1'	-9.62	1.42	1.53
21	A2	496	C	C2'-C1'	-9.62	1.42	1.53
67	B1	1747	C	O3'-P	-9.62	1.49	1.61
21	A2	1012	C	O4'-C1'	9.61	1.54	1.41
67	B1	2721	C	C2'-C1'	-9.61	1.42	1.53
21	A2	337	C	O4'-C1'	9.61	1.54	1.41
21	A2	1008	U	O4'-C1'	9.61	1.54	1.41
67	B1	1481	G	C2'-C1'	-9.61	1.42	1.53
11	A1	30	G	C2'-C1'	-9.60	1.42	1.53
21	A2	755	U	C2'-C1'	-9.60	1.42	1.53
21	A2	1318	U	O4'-C1'	9.60	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2817	U	O4'-C1'	9.60	1.54	1.41
67	B1	334	G	C5'-C4'	9.60	1.62	1.51
67	B1	1302	G	C2'-C1'	-9.60	1.42	1.53
67	B1	1451	A	O4'-C1'	9.60	1.54	1.41
67	B1	2857	C	O4'-C1'	9.60	1.54	1.41
67	B1	142	G	C2'-C1'	9.59	1.64	1.53
67	B1	618	C	C2'-C1'	-9.59	1.42	1.53
67	B1	815	U	C2'-C1'	9.59	1.64	1.53
67	B1	1676	G	O4'-C1'	9.59	1.54	1.41
67	B1	2205	A	O4'-C1'	9.59	1.54	1.41
67	B1	2452	C	P-O5'	-9.59	1.50	1.59
67	B1	884	C	P-O5'	-9.59	1.50	1.59
21	A2	27	C	O4'-C1'	9.59	1.54	1.41
27	A0	33	U	P-O5'	-9.58	1.50	1.59
67	B1	2640	C	C2'-C1'	-9.58	1.42	1.53
67	B1	475	U	O4'-C1'	9.58	1.54	1.41
67	B1	485	G	C2'-C1'	-9.58	1.42	1.53
67	B1	2998	G	O4'-C1'	-9.58	1.29	1.41
21	A2	930	G	O4'-C1'	9.58	1.54	1.41
21	A2	815	C	C2'-C1'	-9.58	1.42	1.53
21	A2	1103	G	C2'-C1'	-9.58	1.42	1.53
27	A0	15	G	C3'-C2'	-9.57	1.42	1.52
21	A2	1431	C	C2'-C1'	-9.57	1.42	1.53
67	B1	868	U	O4'-C1'	9.57	1.54	1.41
67	B1	980	G	C3'-C2'	9.57	1.63	1.52
21	A2	1154	G	O4'-C1'	9.57	1.54	1.41
67	B1	2309	C	C2'-C1'	-9.57	1.42	1.53
21	A2	491	G	O4'-C1'	9.56	1.54	1.41
21	A2	263	C	C5'-C4'	9.56	1.62	1.51
67	B1	186	A	O3'-P	-9.56	1.49	1.61
67	B1	730	C	C2'-C1'	-9.56	1.42	1.53
67	B1	2394	G	C2'-C1'	-9.56	1.42	1.53
67	B1	2835	A	O4'-C1'	9.56	1.54	1.41
67	B1	2907	C	C3'-O3'	9.56	1.55	1.42
21	A2	1380	C	C2'-C1'	-9.56	1.42	1.53
21	A2	518	U	C2'-C1'	-9.56	1.42	1.53
67	B1	906	G	O4'-C1'	-9.55	1.29	1.41
67	B1	931	C	O4'-C1'	9.56	1.54	1.41
67	B1	1513	G	O4'-C1'	-9.55	1.29	1.41
67	B1	2313	G	C2'-C1'	-9.55	1.42	1.53
67	B1	1239	C	O4'-C1'	9.55	1.54	1.41
67	B1	1921	U	C2'-C1'	-9.55	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1112	G	C2'-C1'	-9.54	1.42	1.53
67	B1	1087	G	O4'-C1'	-9.54	1.29	1.41
21	A2	136	A	O4'-C1'	9.54	1.54	1.41
67	B1	963	G	O4'-C1'	9.54	1.54	1.41
67	B1	1148	C	C2'-C1'	-9.54	1.42	1.53
67	B1	1823	A	O4'-C1'	9.54	1.54	1.41
67	B1	1253	U	O4'-C1'	9.53	1.54	1.41
67	B1	1682	C	C2'-C1'	-9.53	1.42	1.53
68	B3	42	A	C2'-C1'	-9.53	1.42	1.53
21	A2	589	U	C2'-C1'	9.53	1.63	1.53
21	A2	146	A	C4'-C3'	9.52	1.63	1.53
21	A2	1090	C	O4'-C1'	9.52	1.54	1.41
67	B1	2322	A	C2'-C1'	-9.52	1.42	1.53
67	B1	2437	G	C2'-C1'	-9.52	1.42	1.53
67	B1	1388	U	C2'-C1'	-9.52	1.42	1.53
67	B1	84	A	O4'-C1'	9.51	1.54	1.41
67	B1	1755	C	O4'-C1'	9.51	1.54	1.41
21	A2	1325	C	O4'-C1'	9.51	1.54	1.41
21	A2	154	C	C2'-C1'	9.51	1.63	1.53
67	B1	2555	C	C2'-C1'	-9.51	1.42	1.53
67	B1	2712	G	O4'-C1'	9.51	1.54	1.41
67	B1	875	G	O4'-C1'	9.51	1.54	1.41
67	B1	2231	G	C2'-C1'	-9.50	1.42	1.53
67	B1	2563	A	C2'-C1'	9.50	1.63	1.53
21	A2	830	A	C4'-C3'	9.50	1.63	1.53
21	A2	674	C	C5'-C4'	9.49	1.62	1.51
21	A2	409	C	C5'-C4'	9.49	1.62	1.51
21	A2	1198	A	C5'-C4'	9.49	1.62	1.51
67	B1	2393	G	O4'-C1'	-9.49	1.29	1.41
67	B1	2870	A	P-O5'	-9.49	1.50	1.59
21	A2	957	A	C2'-C1'	9.48	1.63	1.53
67	B1	545	G	O4'-C1'	-9.48	1.29	1.41
67	B1	892	U	C2'-C1'	-9.48	1.43	1.53
67	B1	1430	A	C2'-C1'	9.48	1.63	1.53
21	A2	1109	C	C2'-C1'	-9.48	1.43	1.53
67	B1	1470	C	C5'-C4'	9.48	1.62	1.51
67	B1	2188	C	O4'-C1'	9.48	1.53	1.41
21	A2	927	A	C2'-C1'	-9.47	1.43	1.53
27	A0	68	G	C5'-C4'	9.47	1.62	1.51
21	A2	738	C	C2'-C1'	-9.47	1.43	1.53
67	B1	1566	G	C2'-C1'	-9.46	1.43	1.53
67	B1	1604	G	C2'-C1'	-9.46	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2407	G	O4'-C1'	9.46	1.53	1.41
67	B1	926	C	O4'-C1'	9.46	1.53	1.41
67	B1	1099	C	O4'-C1'	9.46	1.53	1.41
67	B1	1723	A	O4'-C1'	9.45	1.53	1.41
21	A2	338	C	O4'-C1'	9.45	1.53	1.41
67	B1	1168	A	O4'-C1'	9.45	1.53	1.41
67	B1	2389	C	O4'-C1'	9.45	1.53	1.41
67	B1	335	C	C2'-C1'	-9.44	1.43	1.53
67	B1	730	C	P-O5'	-9.44	1.50	1.59
21	A2	488	A	C2'-C1'	-9.44	1.43	1.53
68	B3	89	G	C2'-C1'	-9.44	1.43	1.53
21	A2	1455	A	O4'-C1'	9.44	1.53	1.41
21	A2	401	U	C2'-C1'	9.44	1.63	1.53
67	B1	424	U	O4'-C1'	9.43	1.53	1.41
21	A2	638	G	O4'-C1'	9.43	1.53	1.41
21	A2	1050	G	O4'-C1'	-9.43	1.29	1.41
67	B1	3032	C	O4'-C1'	9.43	1.53	1.41
11	A1	22	A	P-O5'	-9.43	1.50	1.59
21	A2	71	C	C2'-C1'	-9.42	1.43	1.53
67	B1	872	G	O4'-C1'	9.42	1.53	1.41
67	B1	1294	A	C5'-C4'	9.42	1.62	1.51
67	B1	1480	G	C2'-C1'	9.42	1.63	1.53
67	B1	148	C	O4'-C1'	9.41	1.53	1.41
67	B1	1333	G	C2'-C1'	-9.41	1.43	1.53
67	B1	1573	A	O4'-C1'	-9.41	1.29	1.41
67	B1	1882	C	O4'-C1'	9.41	1.53	1.41
67	B1	2246	G	O4'-C1'	9.41	1.53	1.41
21	A2	1276	G	O4'-C1'	9.41	1.53	1.41
67	B1	1948	A	C2'-C1'	-9.41	1.43	1.53
67	B1	2155	C	C5'-C4'	9.41	1.62	1.51
67	B1	811	C	O4'-C1'	9.41	1.53	1.41
67	B1	1162	C	C2'-C1'	-9.40	1.43	1.53
67	B1	2381	A	C2'-C1'	-9.40	1.43	1.53
67	B1	1368	A	C2'-C1'	9.40	1.63	1.53
67	B1	2514	C	P-O5'	-9.40	1.50	1.59
67	B1	1848	A	C3'-C2'	-9.40	1.42	1.52
21	A2	5	C	O4'-C1'	9.39	1.53	1.41
67	B1	2243	G	O4'-C1'	-9.39	1.29	1.41
67	B1	226	C	P-O5'	-9.39	1.50	1.59
67	B1	356	C	P-O5'	9.39	1.69	1.59
27	A0	74	C	O4'-C1'	9.38	1.53	1.41
67	B1	596	C	C2'-C1'	-9.38	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	233	A	C2'-C1'	-9.38	1.43	1.53
21	A2	334	G	O4'-C1'	-9.37	1.29	1.41
67	B1	141	C	C2'-C1'	-9.37	1.43	1.53
21	A2	438	A	O4'-C1'	9.37	1.53	1.41
21	A2	580	G	O4'-C1'	-9.37	1.29	1.41
67	B1	68	G	O4'-C1'	9.37	1.53	1.41
67	B1	37	C	C2'-C1'	-9.37	1.43	1.53
21	A2	284	A	C2'-C1'	9.36	1.63	1.53
67	B1	242	C	O4'-C1'	9.36	1.53	1.41
67	B1	762	G	C5'-C4'	9.36	1.62	1.51
67	B1	791	C	O4'-C1'	9.36	1.53	1.41
68	B3	126	C	O4'-C1'	9.36	1.53	1.41
21	A2	822	A	O4'-C1'	9.36	1.53	1.41
67	B1	661	G	O4'-C1'	9.36	1.53	1.41
21	A2	261	G	C4'-C3'	-9.35	1.42	1.53
21	A2	495	G	C2'-C1'	-9.35	1.43	1.53
21	A2	1360	C	C5'-C4'	9.35	1.62	1.51
67	B1	2206	G	O4'-C1'	9.35	1.53	1.41
21	A2	1111	G	P-O5'	-9.35	1.50	1.59
67	B1	655	C	O4'-C1'	9.35	1.53	1.41
67	B1	2214	U	C2'-C1'	-9.35	1.43	1.53
21	A2	1022	U	O4'-C1'	9.35	1.53	1.41
67	B1	79	C	O4'-C1'	9.35	1.53	1.41
67	B1	551	A	C2'-C1'	-9.35	1.43	1.53
67	B1	1615	G	C2'-C1'	9.35	1.63	1.53
21	A2	933	G	O4'-C1'	9.34	1.53	1.41
11	A1	60	A	O4'-C1'	9.34	1.53	1.41
21	A2	944	C	O4'-C1'	9.34	1.53	1.41
67	B1	843	C	C2'-C1'	-9.34	1.43	1.53
67	B1	1542	U	C2'-C1'	9.34	1.63	1.53
67	B1	2693	G	P-O5'	-9.33	1.50	1.59
11	A1	2	G	O4'-C1'	9.33	1.53	1.41
67	B1	175	G	O4'-C1'	-9.33	1.29	1.41
67	B1	2639	G	C2'-C1'	-9.33	1.43	1.53
21	A2	188	C	C2'-C1'	-9.33	1.43	1.53
67	B1	1908	C	C2'-C1'	-9.33	1.43	1.53
67	B1	261	A	O4'-C1'	9.33	1.53	1.41
67	B1	352	G	C2'-C1'	-9.32	1.43	1.53
67	B1	2957	G	O4'-C1'	9.32	1.53	1.41
21	A2	1434	C	O4'-C1'	9.32	1.53	1.41
67	B1	2856	G	C2'-C1'	-9.32	1.43	1.53
67	B1	1711	C	P-O5'	-9.32	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	A1	8	U	C4'-O4'	9.32	1.57	1.45
67	B1	1596	G	C2'-C1'	9.32	1.63	1.53
67	B1	1780	C	O4'-C1'	9.32	1.53	1.41
67	B1	2110	C	C2'-C1'	-9.32	1.43	1.53
68	B3	102	G	C5'-C4'	9.32	1.62	1.51
21	A2	1129	A	O4'-C1'	9.31	1.53	1.41
67	B1	827	G	O4'-C1'	-9.31	1.29	1.41
67	B1	249	G	O4'-C1'	9.31	1.53	1.41
67	B1	2130	C	C2'-C1'	-9.31	1.43	1.53
67	B1	2494	A	O4'-C1'	9.31	1.53	1.41
21	A2	265	C	O4'-C1'	9.31	1.53	1.41
21	A2	444	G	C2'-C1'	-9.30	1.43	1.53
67	B1	2631	C	O4'-C1'	9.30	1.53	1.41
67	B1	448	A	C2'-C1'	9.30	1.63	1.53
21	A2	12	U	C2'-C1'	-9.30	1.43	1.53
21	A2	1197	C	O4'-C1'	9.30	1.53	1.41
67	B1	34	C	C2'-C1'	9.30	1.63	1.53
67	B1	266	A	O4'-C1'	9.30	1.53	1.41
67	B1	1317	G	C2'-C1'	-9.30	1.43	1.53
67	B1	1891	C	O4'-C1'	9.29	1.53	1.41
21	A2	1238	G	O4'-C1'	-9.29	1.29	1.41
21	A2	1315	G	C2'-C1'	-9.29	1.43	1.53
67	B1	345	C	C2'-C1'	-9.29	1.43	1.53
67	B1	1133	U	C5'-C4'	9.29	1.62	1.51
67	B1	699	A	C2'-C1'	-9.29	1.43	1.53
67	B1	3001	C	C2'-C1'	-9.29	1.43	1.53
68	B3	97	G	C2'-C1'	9.29	1.63	1.53
67	B1	1993	A	O4'-C1'	-9.28	1.29	1.41
67	B1	2312	U	C2'-C1'	9.28	1.63	1.53
67	B1	630	G	C2'-C1'	9.28	1.63	1.53
67	B1	2135	C	P-O5'	-9.28	1.50	1.59
67	B1	1192	G	O4'-C1'	9.28	1.53	1.41
67	B1	3038	A	P-O5'	-9.28	1.50	1.59
67	B1	234	G	C5'-C4'	9.27	1.62	1.51
67	B1	2777	G	C5'-C4'	9.27	1.62	1.51
67	B1	2272	G	O4'-C1'	9.27	1.53	1.41
21	A2	1263	C	C2'-C1'	-9.27	1.43	1.53
67	B1	830	G	O4'-C1'	9.27	1.53	1.41
21	A2	632	C	C2'-C1'	-9.26	1.43	1.53
67	B1	1729	C	O4'-C1'	9.26	1.53	1.41
27	A0	35	U	O4'-C1'	9.26	1.53	1.41
21	A2	442	C	O4'-C1'	9.26	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	499	G	C2'-C1'	-9.26	1.43	1.53
67	B1	804	C	O4'-C1'	9.26	1.53	1.41
21	A2	1159	U	O4'-C1'	9.25	1.53	1.41
67	B1	1173	G	C2'-C1'	-9.25	1.43	1.53
21	A2	17	C	O3'-P	-9.25	1.50	1.61
67	B1	188	A	C2'-C1'	9.24	1.63	1.53
67	B1	61	G	O4'-C1'	9.24	1.53	1.41
67	B1	664	A	O4'-C1'	9.24	1.53	1.41
67	B1	1602	C	O3'-P	-9.24	1.50	1.61
67	B1	2157	U	C2'-C1'	-9.24	1.43	1.53
67	B1	1031	C	O4'-C1'	9.23	1.53	1.41
67	B1	2547	A	O4'-C1'	9.23	1.53	1.41
67	B1	2875	C	O4'-C1'	9.23	1.53	1.41
21	A2	654	U	C2'-C1'	9.23	1.63	1.53
67	B1	1033	C	O4'-C1'	9.23	1.53	1.41
67	B1	2874	C	O4'-C1'	9.23	1.53	1.41
21	A2	931	C	O4'-C1'	9.23	1.53	1.41
67	B1	845	U	O4'-C1'	9.23	1.53	1.41
67	B1	865	C	C2'-C1'	-9.22	1.43	1.53
67	B1	3047	C	O4'-C1'	9.22	1.53	1.41
67	B1	2124	C	O4'-C1'	9.22	1.53	1.41
21	A2	868	C	O4'-C1'	9.21	1.53	1.41
21	A2	704	C	C2'-C1'	9.21	1.63	1.53
67	B1	423	G	C2'-C1'	-9.21	1.43	1.53
68	B3	36	U	C2'-C1'	-9.21	1.43	1.53
21	A2	262	G	C2'-C1'	-9.21	1.43	1.53
67	B1	291	A	C2'-C1'	-9.21	1.43	1.53
67	B1	1087	G	C2'-C1'	9.20	1.63	1.53
67	B1	2965	C	O4'-C1'	9.21	1.53	1.41
67	B1	996	U	C2'-C1'	9.20	1.63	1.53
21	A2	1486	A	C2'-C1'	9.20	1.63	1.53
67	B1	850	C	C2'-C1'	-9.20	1.43	1.53
67	B1	2534	C	O4'-C1'	9.20	1.53	1.41
67	B1	190	C	C4'-C3'	9.19	1.63	1.53
67	B1	441	A	O4'-C1'	9.19	1.53	1.41
67	B1	3029	A	C2'-C1'	9.19	1.63	1.53
67	B1	1778	G	O4'-C1'	9.19	1.53	1.41
21	A2	1250	C	C2'-C1'	-9.19	1.43	1.53
67	B1	926	C	C5'-C4'	9.19	1.62	1.51
67	B1	1216	A	C2'-C1'	-9.19	1.43	1.53
67	B1	2159	C	C2'-C1'	-9.19	1.43	1.53
21	A2	1203	G	C2'-C1'	-9.18	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	562	G	O4'-C1'	-9.18	1.29	1.41
67	B1	943	G	C4'-C3'	9.18	1.63	1.53
67	B1	1067	G	O3'-P	-9.18	1.50	1.61
67	B1	1926	A	C2'-C1'	-9.18	1.43	1.53
67	B1	3026	C	O4'-C1'	-9.18	1.29	1.41
67	B1	2744	U	C2'-C1'	-9.18	1.43	1.53
21	A2	516	A	O3'-P	-9.17	1.50	1.61
67	B1	770	G	O4'-C1'	-9.17	1.29	1.41
67	B1	1052	G	C5'-C4'	9.17	1.62	1.51
67	B1	2830	C	C2'-C1'	9.17	1.63	1.53
21	A2	1234	A	O4'-C1'	9.17	1.53	1.41
67	B1	848	A	O3'-P	-9.17	1.50	1.61
21	A2	501	G	C2'-C1'	-9.17	1.43	1.53
67	B1	2686	A	C2'-C1'	-9.17	1.43	1.53
21	A2	187	C	O4'-C1'	9.16	1.53	1.41
21	A2	1377	G	O4'-C1'	-9.16	1.29	1.41
67	B1	174	C	O4'-C1'	9.16	1.53	1.41
67	B1	569	G	O4'-C1'	9.16	1.53	1.41
67	B1	1381	C	C2'-C1'	-9.16	1.43	1.53
67	B1	1753	G	O4'-C1'	9.16	1.53	1.41
67	B1	2766	C	O4'-C1'	9.16	1.53	1.41
21	A2	1108	U	P-O5'	-9.16	1.50	1.59
21	A2	1159	U	C2'-C1'	9.16	1.63	1.53
67	B1	1810	G	O4'-C1'	9.16	1.53	1.41
21	A2	902	U	O4'-C1'	9.15	1.53	1.41
21	A2	131	G	C2'-C1'	-9.15	1.43	1.53
21	A2	264	C	P-O5'	-9.15	1.50	1.59
21	A2	1061	A	O4'-C1'	9.15	1.53	1.41
67	B1	654	C	C2'-C1'	-9.15	1.43	1.53
67	B1	1998	G	C4'-O4'	9.15	1.57	1.45
67	B1	113	C	O4'-C1'	9.15	1.53	1.41
58	BP	39	ARG	CZ-NH1	9.15	1.45	1.33
67	B1	602	G	C2'-C1'	-9.15	1.43	1.53
67	B1	851	G	O4'-C1'	9.15	1.53	1.41
67	B1	2162	G	O4'-C1'	9.15	1.53	1.41
68	B3	72	G	C2'-C1'	-9.15	1.43	1.53
21	A2	211	G	O4'-C1'	9.14	1.53	1.41
67	B1	2223	G	C2'-C1'	-9.14	1.43	1.53
67	B1	1312	C	O4'-C1'	9.14	1.53	1.41
67	B1	1682	C	C4'-C3'	-9.14	1.43	1.53
67	B1	1637	C	C5'-C4'	9.14	1.62	1.51
67	B1	100	C	O4'-C1'	9.14	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1890	U	C2'-C1'	-9.13	1.43	1.53
67	B1	2376	U	O4'-C1'	9.13	1.53	1.41
67	B1	1381	C	O4'-C1'	9.13	1.53	1.41
67	B1	77	C	O4'-C1'	9.13	1.53	1.41
67	B1	935	A	O4'-C1'	-9.13	1.29	1.41
67	B1	2394	G	O4'-C1'	9.13	1.53	1.41
21	A2	197	A	C5'-C4'	9.12	1.62	1.51
27	A0	69	C	O4'-C1'	9.13	1.53	1.41
67	B1	939	A	O4'-C1'	9.13	1.53	1.41
67	B1	173	G	O4'-C1'	9.12	1.53	1.41
67	B1	1397	U	O3'-P	-9.12	1.50	1.61
67	B1	1215	C	O4'-C1'	9.12	1.53	1.41
67	B1	2652	G	C2'-C1'	9.12	1.63	1.53
67	B1	1295	G	C2'-C1'	-9.12	1.43	1.53
67	B1	2623	G	O4'-C1'	-9.12	1.29	1.41
21	A2	73	U	C2'-C1'	-9.12	1.43	1.53
21	A2	1351	U	C2'-C1'	-9.12	1.43	1.53
67	B1	2951	G	C3'-C2'	-9.12	1.42	1.52
67	B1	970	G	O4'-C1'	-9.11	1.29	1.41
67	B1	17	C	O4'-C1'	9.11	1.53	1.41
67	B1	1421	C	O4'-C1'	9.11	1.53	1.41
67	B1	2003	C	C2'-C1'	-9.11	1.43	1.53
67	B1	1841	G	C2'-C1'	-9.11	1.43	1.53
21	A2	1025	U	O4'-C1'	9.11	1.53	1.41
67	B1	1728	C	O4'-C1'	9.11	1.53	1.41
67	B1	2931	G	C2'-C1'	-9.11	1.43	1.53
67	B1	462	A	C2'-C1'	-9.10	1.43	1.53
67	B1	2155	C	C2'-C1'	9.10	1.63	1.53
67	B1	2179	G	C2'-C1'	9.10	1.63	1.53
67	B1	2885	C	O4'-C1'	9.10	1.53	1.41
67	B1	1449	C	C2'-C1'	-9.10	1.43	1.53
67	B1	1034	G	O4'-C1'	-9.10	1.29	1.41
67	B1	1069	A	O4'-C1'	-9.10	1.29	1.41
67	B1	694	A	O4'-C1'	-9.10	1.29	1.41
67	B1	1105	C	C2'-C1'	-9.10	1.43	1.53
67	B1	1828	A	O4'-C1'	9.10	1.53	1.41
21	A2	1208	A	O4'-C1'	9.09	1.53	1.41
21	A2	1474	A	C2'-C1'	9.09	1.63	1.53
67	B1	917	A	C2'-C1'	9.09	1.63	1.53
67	B1	1185	A	O3'-P	-9.09	1.50	1.61
67	B1	1597	G	C2'-C1'	9.09	1.63	1.53
67	B1	1854	G	O4'-C1'	-9.09	1.29	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	A0	47	U	C2'-C1'	9.08	1.63	1.53
67	B1	357	G	O4'-C1'	-9.07	1.29	1.41
67	B1	1312	C	C2'-C1'	-9.07	1.43	1.53
67	B1	2731	C	C2'-C1'	9.07	1.63	1.53
67	B1	2937	U	O4'-C1'	9.07	1.53	1.41
67	B1	871	G	O4'-C1'	9.07	1.53	1.41
21	A2	625	G	C2'-C1'	-9.06	1.43	1.53
67	B1	1080	G	O4'-C1'	-9.06	1.29	1.41
67	B1	1623	C	O4'-C1'	9.06	1.53	1.41
21	A2	1007	A	O4'-C1'	9.06	1.53	1.41
67	B1	837	G	O4'-C1'	9.06	1.53	1.41
67	B1	2500	G	O4'-C1'	-9.06	1.29	1.41
67	B1	783	C	O4'-C1'	9.06	1.53	1.41
67	B1	2036	A	O4'-C1'	-9.06	1.29	1.41
67	B1	1307	C	C2'-C1'	-9.06	1.43	1.53
21	A2	465	C	O4'-C1'	9.06	1.53	1.41
21	A2	481	C	C5'-C4'	9.05	1.62	1.51
67	B1	1842	C	O4'-C1'	9.05	1.53	1.41
67	B1	2894	A	C2'-C1'	-9.05	1.43	1.53
21	A2	287	G	C2'-C1'	-9.05	1.43	1.53
67	B1	79	C	C2'-C1'	-9.05	1.43	1.53
67	B1	731	C	C2'-C1'	-9.05	1.43	1.53
27	A0	2	C	C2'-C1'	-9.05	1.43	1.53
21	A2	99	C	O4'-C1'	9.04	1.53	1.41
67	B1	1614	U	C4'-C3'	9.04	1.63	1.53
67	B1	1138	C	C2'-C1'	-9.04	1.43	1.53
68	B3	107	G	C5'-C4'	9.04	1.62	1.51
21	A2	503	G	O4'-C1'	-9.04	1.29	1.41
67	B1	1868	C	O4'-C1'	9.04	1.53	1.41
21	A2	180	G	O4'-C1'	9.03	1.53	1.41
67	B1	2546	G	O4'-C1'	9.03	1.53	1.41
67	B1	2609	G	C2'-C1'	-9.03	1.43	1.53
67	B1	496	A	C2'-C1'	9.03	1.63	1.53
67	B1	2302	C	O4'-C1'	9.03	1.53	1.41
67	B1	460	C	O4'-C1'	9.03	1.53	1.41
21	A2	506	G	C2'-C1'	-9.03	1.43	1.53
21	A2	700	G	O4'-C1'	9.03	1.53	1.41
21	A2	1303	C	P-O5'	-9.03	1.50	1.59
67	B1	229	G	C2'-C1'	-9.03	1.43	1.53
67	B1	464	C	C2'-C1'	9.03	1.63	1.53
67	B1	1030	C	C2'-C1'	-9.03	1.43	1.53
11	A1	36	A	C2'-C1'	9.02	1.63	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	457	G	C2'-C1'	-9.02	1.43	1.53
67	B1	759	G	C2'-C1'	-9.02	1.43	1.53
21	A2	569	G	C2'-C1'	-9.01	1.43	1.53
67	B1	1299	C	O4'-C1'	9.01	1.53	1.41
67	B1	1460	C	O4'-C1'	9.01	1.53	1.41
67	B1	658	C	C2'-C1'	9.01	1.63	1.53
67	B1	923	A	O4'-C1'	-9.01	1.29	1.41
67	B1	1194	G	O4'-C1'	9.01	1.53	1.41
21	A2	653	C	O4'-C1'	9.01	1.53	1.41
59	BM	75	ARG	NE-CZ	9.01	1.44	1.33
67	B1	285	C	C2'-C1'	-9.01	1.43	1.53
11	A1	44	G	O4'-C1'	9.00	1.53	1.41
67	B1	943	G	O4'-C1'	9.00	1.53	1.41
67	B1	617	G	O4'-C1'	9.00	1.53	1.41
21	A2	1391	U	C2'-C1'	9.00	1.63	1.53
67	B1	2097	G	O4'-C1'	9.00	1.53	1.41
21	A2	1378	A	C4'-C3'	9.00	1.63	1.53
67	B1	1436	A	C2'-C1'	-9.00	1.43	1.53
21	A2	969	A	O4'-C1'	8.99	1.53	1.41
21	A2	1160	C	O4'-C1'	8.99	1.53	1.41
67	B1	988	C	C5'-C4'	8.99	1.62	1.51
21	A2	239	A	O4'-C1'	8.99	1.53	1.41
67	B1	2046	C	O4'-C1'	8.99	1.53	1.41
67	B1	535	G	C2'-C1'	8.99	1.63	1.53
68	B3	54	A	C2'-C1'	8.99	1.63	1.53
21	A2	880	G	O4'-C1'	8.98	1.53	1.41
21	A2	1408	C	O4'-C1'	8.98	1.53	1.41
67	B1	2545	A	C5'-C4'	8.98	1.62	1.51
67	B1	646	U	C2'-C1'	8.98	1.63	1.53
68	B3	35	A	O4'-C1'	8.98	1.53	1.41
67	B1	1150	G	O4'-C1'	8.98	1.53	1.41
67	B1	539	A	O4'-C1'	8.98	1.53	1.41
21	A2	355	C	O4'-C1'	8.97	1.53	1.41
21	A2	397	C	O4'-C1'	8.97	1.53	1.41
67	B1	721	G	O4'-C1'	8.97	1.53	1.41
67	B1	2113	G	C2'-C1'	-8.97	1.43	1.53
67	B1	2674	C	C2'-C1'	-8.97	1.43	1.53
67	B1	2091	U	C2'-C1'	-8.97	1.43	1.53
21	A2	185	G	C2'-C1'	-8.97	1.43	1.53
21	A2	359	A	C2'-C1'	-8.96	1.43	1.53
27	A0	4	G	O4'-C1'	8.96	1.53	1.41
67	B1	88	G	C2'-C1'	-8.96	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	707	U	O4'-C1'	8.96	1.53	1.41
67	B1	199	C	O4'-C1'	8.96	1.53	1.41
21	A2	47	A	C2'-C1'	-8.96	1.43	1.53
21	A2	950	C	O4'-C1'	8.95	1.53	1.41
11	A1	29	C	O4'-C1'	8.95	1.53	1.41
67	B1	1061	G	C2'-C1'	-8.95	1.43	1.53
67	B1	1485	A	O4'-C1'	8.95	1.53	1.41
67	B1	1710	C	C2'-C1'	-8.95	1.43	1.53
67	B1	2484	C	O4'-C1'	8.95	1.53	1.41
67	B1	2752	U	O4'-C1'	8.95	1.53	1.41
67	B1	635	G	C2'-C1'	-8.95	1.43	1.53
67	B1	1641	G	C2'-C1'	-8.95	1.43	1.53
67	B1	1735	G	O4'-C1'	8.95	1.53	1.41
67	B1	2378	C	O4'-C1'	8.95	1.53	1.41
21	A2	208	U	O4'-C1'	8.94	1.53	1.41
67	B1	961	C	C2'-C1'	-8.94	1.43	1.53
67	B1	1062	C	C2'-C1'	-8.94	1.43	1.53
21	A2	386	C	C3'-C2'	8.94	1.62	1.52
21	A2	1240	A	O4'-C1'	8.94	1.53	1.41
21	A2	1337	A	C2'-C1'	8.94	1.63	1.53
67	B1	2597	A	O4'-C1'	8.94	1.53	1.41
21	A2	237	C	O4'-C1'	8.93	1.53	1.41
21	A2	324	C	C4'-O4'	-8.93	1.33	1.45
46	BA	120	TYR	CD2-CE2	8.93	1.52	1.39
67	B1	650	C	O4'-C1'	8.93	1.53	1.41
67	B1	2874	C	C2'-C1'	-8.93	1.43	1.53
67	B1	251	C	O4'-C1'	8.92	1.53	1.41
67	B1	2699	U	O4'-C1'	8.92	1.53	1.41
68	B3	52	U	C2'-C1'	-8.92	1.43	1.53
21	A2	285	C	O4'-C1'	8.92	1.53	1.41
21	A2	114	A	C2'-C1'	-8.92	1.43	1.53
21	A2	737	C	O4'-C1'	8.92	1.53	1.41
21	A2	278	A	O4'-C1'	8.92	1.53	1.41
67	B1	2813	G	C5'-C4'	8.92	1.62	1.51
67	B1	1502	C	P-O5'	-8.91	1.50	1.59
67	B1	1920	A	C2'-C1'	-8.91	1.43	1.53
68	B3	34	C	C2'-C1'	-8.91	1.43	1.53
19	AS	7	GLY	N-CA	-8.91	1.32	1.46
21	A2	1033	G	C2'-C1'	8.91	1.63	1.53
67	B1	349	A	O4'-C1'	8.91	1.53	1.41
67	B1	1083	G	C2'-C1'	-8.91	1.43	1.53
21	A2	1058	G	C2'-C1'	-8.90	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	18	C	O4'-C1'	8.90	1.53	1.41
67	B1	57	C	C2'-C1'	-8.90	1.43	1.53
68	B3	108	G	O4'-C1'	-8.90	1.30	1.41
67	B1	1188	C	O4'-C1'	8.89	1.53	1.41
21	A2	970	G	C2'-C1'	-8.89	1.43	1.53
67	B1	1791	A	C2'-C1'	8.89	1.63	1.53
67	B1	2946	C	O4'-C1'	8.89	1.53	1.41
67	B1	1624	U	C2'-C1'	8.88	1.63	1.53
67	B1	2287	C	C2'-C1'	8.88	1.63	1.53
67	B1	2158	G	O4'-C1'	8.88	1.53	1.41
67	B1	2698	G	O4'-C1'	-8.88	1.30	1.41
67	B1	402	G	C5'-C4'	8.88	1.62	1.51
67	B1	2903	U	C2'-C1'	-8.87	1.43	1.53
67	B1	748	G	O4'-C1'	-8.87	1.30	1.41
67	B1	1307	C	C5'-C4'	8.87	1.61	1.51
21	A2	816	G	C2'-C1'	-8.87	1.43	1.53
68	B3	36	U	O4'-C1'	8.87	1.53	1.41
67	B1	1623	C	C2'-C1'	-8.87	1.43	1.53
67	B1	2255	C	O4'-C1'	8.87	1.53	1.41
67	B1	2899	G	O4'-C1'	8.87	1.53	1.41
21	A2	825	C	C2'-C1'	-8.87	1.43	1.53
21	A2	1248	A	O4'-C1'	8.87	1.53	1.41
67	B1	832	A	C2'-C1'	-8.86	1.43	1.53
67	B1	2449	A	O4'-C1'	8.86	1.53	1.41
67	B1	1382	C	O4'-C1'	8.86	1.53	1.41
67	B1	48	G	O4'-C1'	-8.85	1.30	1.41
67	B1	499	A	C2'-C1'	-8.85	1.43	1.53
67	B1	3025	C	C2'-C1'	-8.85	1.43	1.53
21	A2	328	G	C2'-C1'	-8.85	1.43	1.53
21	A2	929	C	O4'-C1'	8.85	1.53	1.41
67	B1	2032	G	O4'-C1'	8.85	1.53	1.41
67	B1	2906	C	C3'-C2'	-8.85	1.43	1.52
67	B1	313	U	O4'-C1'	8.85	1.53	1.41
67	B1	1557	G	C2'-C1'	8.85	1.63	1.53
67	B1	294	U	C2'-C1'	-8.85	1.43	1.53
67	B1	2867	U	C2'-C1'	-8.85	1.43	1.53
67	B1	2286	U	C4'-C3'	8.84	1.62	1.53
67	B1	449	G	C2'-C1'	-8.84	1.43	1.53
67	B1	1193	G	C2'-C1'	-8.84	1.43	1.53
67	B1	2916	G	O4'-C1'	-8.84	1.30	1.41
21	A2	551	U	C2'-C1'	-8.84	1.43	1.53
67	B1	607	C	O4'-C1'	8.84	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	171	A	C2'-C1'	-8.84	1.43	1.53
21	A2	1205	G	O4'-C1'	-8.84	1.30	1.41
27	A0	44	C	O4'-C1'	8.84	1.53	1.41
67	B1	2412	A	C2'-C1'	-8.84	1.43	1.53
67	B1	224	G	C2'-C1'	-8.84	1.43	1.53
67	B1	1991	G	C2'-C1'	8.83	1.63	1.53
67	B1	2714	G	O4'-C1'	8.83	1.53	1.41
67	B1	427	G	O4'-C1'	8.83	1.53	1.41
67	B1	1320	C	O4'-C1'	8.83	1.53	1.41
67	B1	1613	A	O4'-C1'	-8.83	1.30	1.41
67	B1	2153	C	O4'-C1'	8.83	1.53	1.41
67	B1	2716	C	C2'-C1'	8.82	1.63	1.53
67	B1	2784	A	C2'-C1'	-8.82	1.43	1.53
67	B1	2949	G	C2'-C1'	8.81	1.63	1.53
67	B1	174	C	P-O5'	-8.81	1.50	1.59
67	B1	1332	A	C2'-C1'	-8.81	1.43	1.53
67	B1	1568	A	C4'-O4'	-8.81	1.34	1.45
67	B1	2345	U	C2'-C1'	-8.81	1.43	1.53
67	B1	2487	G	C2'-C1'	-8.81	1.43	1.53
67	B1	2148	U	C5'-C4'	8.81	1.61	1.51
21	A2	1222	C	O4'-C1'	8.81	1.53	1.41
67	B1	1648	C	O4'-C1'	8.81	1.53	1.41
67	B1	2372	C	C2'-C1'	8.81	1.63	1.53
67	B1	1942	G	C2'-C1'	-8.80	1.43	1.53
67	B1	1988	U	P-O5'	-8.80	1.50	1.59
21	A2	1062	G	C2'-C1'	-8.80	1.43	1.53
67	B1	2109	C	O4'-C1'	8.80	1.53	1.41
11	A1	42	C	O4'-C1'	8.79	1.53	1.41
67	B1	1939	C	C2'-C1'	-8.79	1.43	1.53
67	B1	2219	A	C4'-O4'	-8.80	1.34	1.45
67	B1	2259	G	O4'-C1'	8.79	1.53	1.41
67	B1	2297	C	C2'-C1'	-8.79	1.43	1.53
67	B1	2344	G	C3'-C2'	-8.79	1.43	1.52
67	B1	104	C	C2'-C1'	-8.79	1.43	1.53
68	B3	121	A	C2'-C1'	-8.79	1.43	1.53
21	A2	54	C	C5'-C4'	8.79	1.61	1.51
67	B1	733	A	O3'-P	-8.79	1.50	1.61
21	A2	1208	A	C4'-O4'	-8.78	1.34	1.45
67	B1	230	A	C4'-C3'	8.78	1.62	1.53
67	B1	1962	G	C2'-C1'	-8.78	1.43	1.53
21	A2	1475	C	O4'-C1'	8.78	1.53	1.41
67	B1	1796	U	C2'-C1'	8.78	1.63	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2660	G	C2'-C1'	-8.78	1.43	1.53
67	B1	2897	C	C2'-C1'	-8.78	1.43	1.53
67	B1	1888	G	P-O5'	8.77	1.68	1.59
67	B1	1743	G	O4'-C1'	-8.77	1.30	1.41
67	B1	1911	G	C2'-C1'	8.77	1.62	1.53
68	B3	59	C	C2'-C1'	-8.77	1.43	1.53
67	B1	1969	C	O4'-C1'	8.77	1.53	1.41
67	B1	2585	G	O4'-C1'	-8.77	1.30	1.41
67	B1	1380	G	O4'-C1'	8.77	1.53	1.41
67	B1	1956	G	O3'-P	-8.77	1.50	1.61
67	B1	411	U	C2'-C1'	8.77	1.62	1.53
67	B1	487	U	C2'-C1'	8.77	1.62	1.53
68	B3	122	C	O4'-C1'	-8.77	1.30	1.41
67	B1	2213	G	O4'-C1'	8.76	1.53	1.41
67	B1	1769	G	C2'-C1'	-8.76	1.43	1.53
21	A2	313	G	O4'-C1'	8.76	1.53	1.41
21	A2	1253	G	O4'-C1'	8.76	1.53	1.41
11	A1	41	C	C4'-C3'	-8.75	1.43	1.53
21	A2	229	G	O4'-C1'	8.75	1.53	1.41
21	A2	341	C	O4'-C1'	8.75	1.53	1.41
21	A2	362	C	C4'-C3'	8.75	1.62	1.53
67	B1	620	G	C2'-C1'	-8.75	1.43	1.53
68	B3	112	C	C4'-C3'	8.75	1.62	1.53
67	B1	1120	C	O4'-C1'	8.74	1.53	1.41
67	B1	1600	G	O4'-C1'	8.74	1.53	1.41
67	B1	302	U	O4'-C1'	-8.74	1.30	1.41
67	B1	2016	C	P-O5'	8.74	1.68	1.59
67	B1	1226	G	C2'-C1'	8.74	1.62	1.53
21	A2	240	U	C2'-C1'	8.73	1.62	1.53
21	A2	824	G	O4'-C1'	8.73	1.53	1.41
67	B1	479	G	C2'-C1'	-8.73	1.43	1.53
27	A0	59	A	C2'-C1'	8.73	1.62	1.53
21	A2	775	G	O4'-C1'	8.73	1.52	1.41
67	B1	1737	A	O4'-C1'	8.73	1.52	1.41
68	B3	9	A	C2'-C1'	8.73	1.62	1.53
21	A2	1342	C	O4'-C1'	8.72	1.52	1.41
67	B1	1132	U	C2'-C1'	-8.72	1.43	1.53
67	B1	1569	A	C3'-C2'	-8.72	1.43	1.52
67	B1	2416	G	C2'-C1'	8.72	1.62	1.53
67	B1	2664	G	O4'-C1'	8.72	1.52	1.41
68	B3	119	C	C2'-C1'	-8.72	1.43	1.53
67	B1	2106	G	C4'-C3'	-8.72	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1478	A	P-O5'	-8.72	1.51	1.59
67	B1	241	C	O4'-C1'	8.71	1.52	1.41
21	A2	100	A	O4'-C1'	8.71	1.52	1.41
67	B1	1679	U	O4'-C1'	8.71	1.52	1.41
67	B1	2809	G	C2'-C1'	-8.71	1.43	1.53
21	A2	144	G	C2'-C1'	-8.71	1.43	1.53
67	B1	572	U	O4'-C1'	8.71	1.52	1.41
67	B1	1833	G	C2'-C1'	-8.71	1.43	1.53
21	A2	1127	A	C2'-C1'	-8.70	1.43	1.53
67	B1	580	G	O4'-C1'	8.71	1.52	1.41
67	B1	873	G	O4'-C1'	8.71	1.52	1.41
67	B1	1498	C	O4'-C1'	8.71	1.52	1.41
67	B1	2383	A	O4'-C1'	8.70	1.52	1.41
67	B1	2475	G	O4'-C1'	8.71	1.52	1.41
67	B1	1345	G	C2'-C1'	-8.70	1.43	1.53
21	A2	1023	C	C2'-C1'	-8.70	1.43	1.53
67	B1	1028	G	O4'-C1'	8.70	1.52	1.41
67	B1	1971	C	O4'-C1'	8.70	1.52	1.41
67	B1	2026	C	O4'-C1'	8.70	1.52	1.41
21	A2	214	C	C2'-C1'	-8.69	1.43	1.53
67	B1	2066	C	C2'-C1'	-8.69	1.43	1.53
67	B1	1476	C	O4'-C1'	8.69	1.52	1.41
67	B1	4	C	C2'-C1'	-8.69	1.43	1.53
67	B1	469	A	P-O5'	-8.69	1.51	1.59
67	B1	2485	C	C2'-C1'	8.69	1.62	1.53
68	B3	107	G	O3'-P	-8.69	1.50	1.61
21	A2	90	C	O4'-C1'	8.68	1.52	1.41
27	A0	57	G	C2'-C1'	-8.68	1.43	1.53
67	B1	232	U	C5'-C4'	8.68	1.61	1.51
67	B1	2074	U	O4'-C1'	8.68	1.52	1.41
67	B1	1182	C	O4'-C1'	8.67	1.52	1.41
21	A2	148	C	O4'-C1'	8.67	1.52	1.41
21	A2	177	A	C2'-C1'	8.67	1.62	1.53
21	A2	386	C	O4'-C1'	8.67	1.52	1.41
21	A2	798	U	C5'-C4'	8.67	1.61	1.51
67	B1	715	G	C2'-C1'	8.67	1.62	1.53
67	B1	1576	C	O3'-P	-8.67	1.50	1.61
21	A2	645	G	O4'-C1'	-8.66	1.30	1.41
67	B1	1991	G	O4'-C1'	-8.66	1.30	1.41
67	B1	1305	C	C2'-C1'	-8.66	1.43	1.53
21	A2	269	A	C2'-C1'	-8.66	1.43	1.53
67	B1	804	C	C2'-C1'	-8.66	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1300	C	O4'-C1'	8.66	1.52	1.41
67	B1	1358	C	O4'-C1'	8.66	1.52	1.41
27	A0	47	U	O3'-P	-8.65	1.50	1.61
11	A1	62	C	C2'-C1'	-8.65	1.43	1.53
21	A2	209	A	C2'-C1'	-8.65	1.43	1.53
67	B1	983	G	O4'-C1'	8.65	1.52	1.41
21	A2	68	G	O4'-C1'	8.65	1.52	1.41
67	B1	2662	G	C3'-C2'	8.65	1.62	1.52
21	A2	227	C	P-O5'	-8.65	1.51	1.59
27	A0	16	C	O4'-C1'	8.65	1.52	1.41
67	B1	1705	C	O4'-C1'	8.65	1.52	1.41
67	B1	2868	C	C2'-C1'	-8.65	1.43	1.53
67	B1	2174	G	C4'-O4'	-8.64	1.34	1.45
21	A2	949	G	O4'-C1'	-8.64	1.30	1.41
67	B1	1147	G	P-O5'	-8.64	1.51	1.59
67	B1	2954	C	O4'-C1'	8.64	1.52	1.41
67	B1	760	G	C2'-C1'	-8.64	1.43	1.53
67	B1	1567	C	C3'-O3'	-8.64	1.30	1.42
67	B1	1833	G	O4'-C1'	8.64	1.52	1.41
67	B1	2030	G	C5'-C4'	8.64	1.61	1.51
67	B1	127	C	O4'-C1'	8.63	1.52	1.41
67	B1	311	C	O4'-C1'	8.63	1.52	1.41
67	B1	1115	A	C2'-C1'	-8.63	1.43	1.53
21	A2	948	G	C2'-C1'	8.63	1.62	1.53
21	A2	150	G	O4'-C1'	-8.63	1.30	1.41
67	B1	809	A	C2'-C1'	8.63	1.62	1.53
67	B1	1162	C	C3'-C2'	8.62	1.62	1.52
67	B1	2919	C	O4'-C1'	8.62	1.52	1.41
67	B1	2992	G	P-O5'	-8.62	1.51	1.59
67	B1	1734	G	C2'-C1'	8.62	1.62	1.53
67	B1	2034	G	C2'-C1'	-8.62	1.43	1.53
21	A2	284	A	O4'-C1'	8.62	1.52	1.41
67	B1	218	A	C4'-C3'	8.62	1.62	1.53
21	A2	505	U	O4'-C1'	-8.61	1.30	1.41
67	B1	1414	G	C2'-C1'	-8.61	1.43	1.53
67	B1	1555	G	P-O5'	-8.61	1.51	1.59
67	B1	2712	G	C2'-C1'	-8.61	1.43	1.53
11	A1	53	G	C2'-C1'	-8.61	1.43	1.53
21	A2	615	G	P-O5'	-8.61	1.51	1.59
67	B1	348	G	C2'-C1'	-8.61	1.43	1.53
67	B1	2048	C	C2'-C1'	-8.61	1.43	1.53
67	B1	2464	G	O4'-C1'	-8.61	1.30	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	44	C	C2'-C1'	8.61	1.62	1.53
67	B1	1540	A	C4'-C3'	-8.60	1.43	1.53
67	B1	696	G	C4'-C3'	-8.60	1.43	1.53
7	AB	33	TYR	CG-CD1	8.60	1.50	1.39
21	A2	657	A	C2'-C1'	8.60	1.62	1.53
21	A2	1489	A	C2'-C1'	-8.60	1.43	1.53
21	A2	498	C	C5'-C4'	8.60	1.61	1.51
21	A2	519	G	C3'-C2'	-8.60	1.43	1.52
21	A2	1137	G	O4'-C1'	8.60	1.52	1.41
67	B1	2927	A	C4'-C3'	8.60	1.62	1.53
21	A2	1375	C	O4'-C1'	8.60	1.52	1.41
21	A2	368	C	P-O5'	-8.59	1.51	1.59
67	B1	428	A	O4'-C1'	8.59	1.52	1.41
67	B1	3010	C	C2'-C1'	-8.59	1.44	1.53
67	B1	960	C	O4'-C1'	8.59	1.52	1.41
67	B1	1499	C	O4'-C1'	8.59	1.52	1.41
67	B1	1436	A	O4'-C1'	8.58	1.52	1.41
21	A2	86	C	C2'-C1'	8.58	1.62	1.53
67	B1	1899	C	O3'-P	-8.58	1.50	1.61
67	B1	1220	U	O4'-C1'	8.58	1.52	1.41
67	B1	2131	C	C4'-C3'	8.58	1.62	1.53
21	A2	1219	C	C2'-C1'	-8.57	1.44	1.53
67	B1	1900	U	O4'-C1'	8.57	1.52	1.41
67	B1	2423	G	C2'-C1'	-8.57	1.44	1.53
21	A2	36	G	O4'-C1'	-8.57	1.30	1.41
67	B1	2449	A	C2'-C1'	-8.57	1.44	1.53
67	B1	472	A	O4'-C1'	8.57	1.52	1.41
21	A2	1000	G	C3'-C2'	-8.57	1.43	1.52
67	B1	1843	C	C2'-C1'	-8.57	1.44	1.53
67	B1	2999	G	O4'-C1'	8.57	1.52	1.41
67	B1	2072	G	C2'-C1'	-8.57	1.44	1.53
21	A2	710	G	C4'-C3'	8.56	1.62	1.53
67	B1	118	A	O4'-C1'	8.56	1.52	1.41
67	B1	758	C	C2'-C1'	8.56	1.62	1.53
67	B1	2656	A	C5'-C4'	8.56	1.61	1.51
67	B1	553	C	O4'-C1'	8.56	1.52	1.41
67	B1	1329	G	C5'-C4'	8.56	1.61	1.51
21	A2	622	C	C5'-C4'	8.56	1.61	1.51
67	B1	233	A	O4'-C1'	8.56	1.52	1.41
21	A2	123	U	O4'-C1'	8.56	1.52	1.41
67	B1	2595	C	O4'-C1'	8.55	1.52	1.41
21	A2	107	C	C2'-C1'	-8.55	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	578	C	C2'-C1'	-8.55	1.44	1.53
67	B1	2210	G	O4'-C1'	-8.55	1.30	1.41
68	B3	125	U	O4'-C1'	8.55	1.52	1.41
21	A2	311	A	C2'-C1'	8.55	1.62	1.53
21	A2	426	C	C2'-C1'	-8.55	1.44	1.53
67	B1	1484	U	P-O5'	-8.55	1.51	1.59
21	A2	521	G	C2'-C1'	-8.55	1.44	1.53
67	B1	2239	C	C2'-C1'	-8.54	1.44	1.53
67	B1	2446	C	O4'-C1'	8.54	1.52	1.41
67	B1	436	C	C2'-C1'	-8.54	1.44	1.53
67	B1	2020	G	O4'-C1'	8.54	1.52	1.41
67	B1	1863	G	C3'-O3'	8.54	1.54	1.42
21	A2	1481	G	O4'-C1'	8.54	1.52	1.41
11	A1	8	U	O4'-C1'	8.54	1.52	1.41
21	A2	305	C	C2'-C1'	-8.53	1.44	1.53
67	B1	681	C	O4'-C1'	8.53	1.52	1.41
67	B1	2245	C	O4'-C1'	8.53	1.52	1.41
67	B1	29	U	O4'-C1'	8.53	1.52	1.41
67	B1	1991	G	O3'-P	-8.53	1.50	1.61
67	B1	246	A	C2'-C1'	8.53	1.62	1.53
21	A2	1460	G	O4'-C1'	8.53	1.52	1.41
21	A2	634	C	C2'-C1'	-8.52	1.44	1.53
67	B1	345	C	C5'-C4'	8.52	1.61	1.51
67	B1	2540	A	O4'-C1'	8.52	1.52	1.41
68	B3	123	U	C2'-C1'	8.52	1.62	1.53
67	B1	1583	G	C3'-C2'	-8.52	1.43	1.52
67	B1	2531	G	O4'-C1'	8.52	1.52	1.41
21	A2	2	U	C2'-C1'	-8.52	1.44	1.53
67	B1	788	A	O3'-P	-8.52	1.50	1.61
67	B1	2901	C	C4'-C3'	-8.52	1.43	1.53
21	A2	510	A	C2'-C1'	8.52	1.62	1.53
21	A2	802	G	P-O5'	-8.51	1.51	1.59
67	B1	1785	G	C2'-C1'	-8.51	1.44	1.53
21	A2	877	A	C2'-C1'	-8.51	1.44	1.53
67	B1	890	G	C2'-C1'	-8.51	1.44	1.53
67	B1	1180	G	O3'-P	-8.51	1.50	1.61
67	B1	794	G	C2'-C1'	-8.50	1.44	1.53
67	B1	2005	A	P-O5'	-8.50	1.51	1.59
67	B1	882	U	O4'-C1'	8.50	1.52	1.41
67	B1	1351	G	C2'-C1'	-8.50	1.44	1.53
67	B1	2791	C	C4'-C3'	8.50	1.62	1.53
67	B1	1242	A	O4'-C1'	8.50	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2460	A	O4'-C1'	8.50	1.52	1.41
21	A2	213	C	C2'-C1'	-8.49	1.44	1.53
21	A2	1418	G	C2'-C1'	-8.49	1.44	1.53
67	B1	177	G	P-O5'	-8.49	1.51	1.59
67	B1	445	G	C5'-C4'	8.49	1.61	1.51
67	B1	2730	U	O4'-C1'	8.49	1.52	1.41
67	B1	426	G	P-O5'	-8.49	1.51	1.59
21	A2	649	A	C2'-C1'	-8.49	1.44	1.53
67	B1	2169	C	C2'-C1'	-8.49	1.44	1.53
21	A2	764	C	O4'-C1'	8.49	1.52	1.41
67	B1	2804	C	O4'-C1'	8.49	1.52	1.41
67	B1	2258	A	O4'-C1'	8.48	1.52	1.41
67	B1	389	C	O3'-P	-8.48	1.50	1.61
67	B1	1983	C	O4'-C1'	8.48	1.52	1.41
21	A2	302	A	O4'-C1'	8.48	1.52	1.41
67	B1	1436	A	C4'-C3'	8.48	1.62	1.53
21	A2	1023	C	O4'-C1'	8.47	1.52	1.41
67	B1	770	G	C2'-C1'	8.47	1.62	1.53
21	A2	306	C	P-O5'	-8.47	1.51	1.59
21	A2	1243	C	C4'-C3'	8.47	1.62	1.53
67	B1	1923	A	C2'-C1'	8.47	1.62	1.53
67	B1	863	C	O4'-C1'	8.47	1.52	1.41
68	B3	115	C	C2'-C1'	-8.47	1.44	1.53
67	B1	1263	C	O4'-C1'	8.47	1.52	1.41
21	A2	391	G	O4'-C1'	-8.47	1.30	1.41
67	B1	2410	U	C2'-C1'	-8.47	1.44	1.53
67	B1	10	C	C2'-C1'	8.46	1.62	1.53
67	B1	839	A	O4'-C1'	8.46	1.52	1.41
67	B1	491	G	C4'-C3'	8.46	1.62	1.53
67	B1	530	A	P-O5'	-8.46	1.51	1.59
67	B1	918	A	P-O5'	-8.46	1.51	1.59
21	A2	938	C	C2'-C1'	-8.46	1.44	1.53
67	B1	1268	A	C2'-C1'	8.46	1.62	1.53
21	A2	1387	C	C5'-C4'	8.45	1.61	1.51
21	A2	1454	A	O4'-C1'	8.45	1.52	1.41
67	B1	779	A	C5'-C4'	8.45	1.61	1.51
67	B1	1398	C	C2'-C1'	-8.44	1.44	1.53
67	B1	2390	G	O4'-C1'	-8.44	1.30	1.41
67	B1	2106	G	C2'-C1'	-8.44	1.44	1.53
67	B1	1055	C	O4'-C1'	8.43	1.52	1.41
67	B1	1569	A	O4'-C1'	8.43	1.52	1.41
21	A2	1491	C	C3'-C2'	8.43	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2042	A	C3'-C2'	8.43	1.62	1.52
21	A2	454	G	C2'-C1'	-8.43	1.44	1.53
67	B1	926	C	C2'-C1'	8.43	1.62	1.53
67	B1	1450	C	C2'-C1'	-8.43	1.44	1.53
67	B1	1901	A	C2'-C1'	8.43	1.62	1.53
21	A2	722	G	C2'-C1'	-8.42	1.44	1.53
67	B1	1280	C	O4'-C1'	8.42	1.52	1.41
67	B1	2385	G	O4'-C1'	8.42	1.52	1.41
21	A2	1349	C	C2'-C1'	-8.42	1.44	1.53
67	B1	2711	U	C2'-C1'	-8.42	1.44	1.53
67	B1	281	G	O4'-C1'	8.42	1.52	1.41
21	A2	1387	C	O4'-C1'	8.42	1.52	1.41
67	B1	1396	A	O4'-C1'	8.41	1.52	1.41
68	B3	98	G	C2'-C1'	8.41	1.62	1.53
67	B1	2272	G	C4'-C3'	8.41	1.62	1.53
67	B1	951	C	C2'-C1'	-8.41	1.44	1.53
67	B1	1565	G	C3'-O3'	-8.41	1.30	1.42
67	B1	1597	G	O4'-C1'	8.41	1.52	1.41
67	B1	372	A	C2'-C1'	8.41	1.62	1.53
67	B1	538	G	C2'-C1'	-8.41	1.44	1.53
67	B1	1491	U	O4'-C1'	-8.41	1.30	1.41
67	B1	2111	C	O4'-C1'	8.41	1.52	1.41
21	A2	680	C	O4'-C1'	8.40	1.52	1.41
21	A2	1362	C	O4'-C1'	8.40	1.52	1.41
48	BR	9	ARG	CZ-NH2	8.40	1.44	1.33
67	B1	326	C	O4'-C1'	8.40	1.52	1.41
67	B1	1285	C	C2'-C1'	-8.40	1.44	1.53
67	B1	1846	G	O4'-C1'	8.40	1.52	1.41
67	B1	2320	U	C2'-C1'	8.40	1.62	1.53
67	B1	2348	G	C2'-C1'	8.40	1.62	1.53
67	B1	1788	G	O4'-C1'	-8.40	1.30	1.41
67	B1	2380	A	O4'-C1'	8.40	1.52	1.41
21	A2	972	C	C2'-C1'	-8.40	1.44	1.53
21	A2	1350	U	C2'-C1'	-8.39	1.44	1.53
21	A2	1151	A	O4'-C1'	8.39	1.52	1.41
21	A2	332	C	O4'-C1'	8.39	1.52	1.41
67	B1	412	G	C2'-C1'	-8.39	1.44	1.53
67	B1	1447	G	O4'-C1'	8.39	1.52	1.41
21	A2	1070	C	C2'-C1'	-8.39	1.44	1.53
67	B1	1889	G	O4'-C1'	-8.39	1.30	1.41
21	A2	290	C	O4'-C1'	8.38	1.52	1.41
21	A2	885	G	O4'-C1'	-8.38	1.30	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1691	U	O4'-C1'	8.38	1.52	1.41
67	B1	1614	U	O4'-C1'	8.38	1.52	1.41
21	A2	348	C	C2'-C1'	-8.38	1.44	1.53
67	B1	2075	U	C3'-C2'	-8.37	1.43	1.52
67	B1	1643	A	C5'-C4'	8.37	1.61	1.51
67	B1	2071	C	O4'-C1'	8.37	1.52	1.41
15	AE	32	PRO	N-CD	-8.37	1.36	1.47
21	A2	1146	G	C4'-C3'	8.37	1.62	1.53
67	B1	90	A	C2'-C1'	-8.37	1.44	1.53
21	A2	1199	A	C2'-C1'	8.37	1.62	1.53
21	A2	1327	C	C2'-C1'	-8.37	1.44	1.53
62	BN	71	ARG	CZ-NH1	8.37	1.44	1.33
67	B1	22	C	O4'-C1'	8.37	1.52	1.41
67	B1	1986	U	C2'-C1'	-8.37	1.44	1.53
67	B1	2339	C	O4'-C1'	8.37	1.52	1.41
21	A2	763	G	O3'-P	-8.36	1.51	1.61
67	B1	678	G	O4'-C1'	8.37	1.52	1.41
21	A2	351	C	C2'-C1'	-8.36	1.44	1.53
67	B1	1858	G	C2'-C1'	-8.36	1.44	1.53
21	A2	965	G	C5'-C4'	8.36	1.61	1.51
21	A2	1080	C	C4'-O4'	8.36	1.56	1.45
21	A2	1393	A	C2'-C1'	8.36	1.62	1.53
67	B1	187	C	O4'-C1'	8.36	1.52	1.41
67	B1	1675	C	C5'-C4'	8.36	1.61	1.51
67	B1	2931	G	O4'-C1'	8.36	1.52	1.41
67	B1	2269	C	O4'-C1'	8.36	1.52	1.41
67	B1	2483	U	O4'-C1'	8.36	1.52	1.41
67	B1	189	U	C2'-C1'	-8.35	1.44	1.53
67	B1	2663	G	O4'-C1'	8.35	1.52	1.41
11	A1	5	C	C2'-C1'	8.35	1.62	1.53
67	B1	3019	C	O4'-C1'	8.35	1.52	1.41
21	A2	281	G	C2'-C1'	-8.34	1.44	1.53
67	B1	953	G	O3'-P	-8.34	1.51	1.61
67	B1	1107	G	O4'-C1'	8.34	1.52	1.41
67	B1	1201	G	P-O5'	-8.34	1.51	1.59
67	B1	458	U	O4'-C1'	8.34	1.52	1.41
21	A2	1167	C	C2'-C1'	-8.34	1.44	1.53
67	B1	712	C	C2'-C1'	-8.34	1.44	1.53
67	B1	2294	A	O4'-C1'	8.34	1.52	1.41
21	A2	549	A	C4'-C3'	8.33	1.62	1.53
21	A2	1046	G	O4'-C1'	-8.33	1.30	1.41
67	B1	1205	U	C2'-C1'	8.33	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1334	A	O4'-C1'	8.33	1.52	1.41
67	B1	626	C	O3'-P	-8.33	1.51	1.61
67	B1	1081	U	C2'-C1'	-8.32	1.44	1.53
67	B1	1975	C	P-O5'	-8.32	1.51	1.59
67	B1	2878	A	C2'-C1'	-8.32	1.44	1.53
67	B1	1611	C	P-O5'	-8.32	1.51	1.59
21	A2	1088	U	C4'-C3'	8.32	1.62	1.53
67	B1	2321	A	O4'-C1'	-8.32	1.30	1.41
21	A2	85	A	O4'-C1'	8.32	1.52	1.41
67	B1	715	G	C5'-C4'	8.32	1.61	1.51
67	B1	861	G	O4'-C1'	-8.32	1.30	1.41
67	B1	1821	C	C2'-C1'	-8.32	1.44	1.53
67	B1	2856	G	C5'-C4'	8.32	1.61	1.51
21	A2	576	C	C2'-C1'	-8.31	1.44	1.53
67	B1	1048	C	O3'-P	-8.31	1.51	1.61
67	B1	253	G	C2'-C1'	-8.31	1.44	1.53
67	B1	626	C	C5'-C4'	8.31	1.61	1.51
67	B1	1764	G	C2'-C1'	-8.31	1.44	1.53
67	B1	1771	C	O4'-C1'	8.31	1.52	1.41
67	B1	2275	G	C4'-C3'	8.30	1.62	1.53
67	B1	2957	G	C2'-C1'	-8.31	1.44	1.53
21	A2	1220	G	C3'-C2'	-8.30	1.43	1.52
21	A2	838	C	C2'-C1'	-8.30	1.44	1.53
67	B1	2716	C	O4'-C1'	8.30	1.52	1.41
67	B1	1389	A	C2'-C1'	8.30	1.62	1.53
67	B1	395	G	O4'-C1'	8.29	1.52	1.41
68	B3	14	G	O4'-C1'	-8.29	1.30	1.41
21	A2	849	U	C2'-C1'	-8.29	1.44	1.53
67	B1	501	C	O4'-C1'	8.29	1.52	1.41
67	B1	896	G	C4'-C3'	-8.29	1.44	1.53
67	B1	1174	U	P-O5'	-8.29	1.51	1.59
67	B1	1465	A	P-O5'	-8.29	1.51	1.59
67	B1	111	U	C2'-C1'	8.29	1.62	1.53
21	A2	1443	G	O4'-C1'	-8.29	1.30	1.41
67	B1	2655	C	O4'-C1'	8.29	1.52	1.41
21	A2	562	A	O3'-P	-8.28	1.51	1.61
27	A0	26	G	O4'-C1'	8.28	1.52	1.41
67	B1	2163	G	C4'-C3'	8.28	1.62	1.53
67	B1	2771	G	O4'-C1'	-8.28	1.30	1.41
67	B1	973	C	C5'-C4'	8.28	1.61	1.51
21	A2	885	G	C4'-C3'	8.28	1.62	1.53
67	B1	40	G	C2'-C1'	-8.28	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2708	U	C2'-C1'	-8.28	1.44	1.53
67	B1	2514	C	C3'-O3'	8.28	1.53	1.42
21	A2	101	G	O4'-C1'	-8.27	1.30	1.41
67	B1	461	C	O4'-C1'	8.27	1.52	1.41
21	A2	565	C	C2'-C1'	-8.27	1.44	1.53
67	B1	1561	G	P-O5'	8.27	1.68	1.59
67	B1	1866	G	C2'-C1'	-8.27	1.44	1.53
67	B1	559	G	O4'-C1'	8.26	1.52	1.41
67	B1	628	A	O4'-C1'	8.26	1.52	1.41
67	B1	2493	A	C3'-O3'	8.26	1.53	1.42
67	B1	2347	G	C2'-C1'	-8.26	1.44	1.53
33	BC	9	ARG	CD-NE	8.26	1.60	1.46
67	B1	273	G	O4'-C1'	8.26	1.52	1.41
67	B1	324	C	P-O5'	-8.26	1.51	1.59
67	B1	390	C	O4'-C1'	8.26	1.52	1.41
67	B1	2830	C	O4'-C1'	8.26	1.52	1.41
67	B1	544	A	C2'-C1'	-8.25	1.44	1.53
67	B1	2116	G	C2'-C1'	-8.25	1.44	1.53
21	A2	121	C	O4'-C1'	8.25	1.52	1.41
21	A2	779	G	P-O5'	-8.25	1.51	1.59
21	A2	1138	G	C2'-C1'	8.25	1.62	1.53
21	A2	105	C	C2'-C1'	-8.25	1.44	1.53
68	B3	118	G	C5'-C4'	8.25	1.61	1.51
21	A2	494	G	O4'-C1'	-8.25	1.30	1.41
21	A2	1453	U	O3'-P	-8.25	1.51	1.61
67	B1	193	A	C2'-C1'	-8.24	1.44	1.53
67	B1	1367	A	C2'-C1'	-8.24	1.44	1.53
67	B1	944	G	C2'-C1'	-8.24	1.44	1.53
21	A2	1470	G	O4'-C1'	8.24	1.52	1.41
67	B1	1949	A	C3'-C2'	-8.23	1.43	1.52
67	B1	2456	C	O4'-C1'	8.23	1.52	1.41
21	A2	126	G	O4'-C1'	-8.23	1.30	1.41
67	B1	1516	C	O4'-C1'	8.23	1.52	1.41
21	A2	925	U	C2'-C1'	-8.22	1.44	1.53
21	A2	1148	G	P-O5'	-8.22	1.51	1.59
67	B1	941	C	C2'-C1'	-8.22	1.44	1.53
21	A2	1118	C	C5'-C4'	8.22	1.61	1.51
67	B1	1241	C	C5'-C4'	8.22	1.61	1.51
67	B1	2061	A	O4'-C1'	8.22	1.52	1.41
67	B1	3041	U	O4'-C1'	8.22	1.52	1.41
67	B1	2866	A	C4'-O4'	8.22	1.56	1.45
68	B3	95	G	C4'-C3'	8.22	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2827	C	C4'-O4'	-8.22	1.34	1.45
67	B1	783	C	C2'-C1'	-8.21	1.44	1.53
67	B1	267	C	O4'-C1'	8.21	1.52	1.41
67	B1	2333	G	O4'-C1'	8.21	1.52	1.41
67	B1	2414	G	O4'-C1'	-8.21	1.30	1.41
67	B1	1938	G	O4'-C1'	-8.21	1.30	1.41
21	A2	18	C	O4'-C1'	8.21	1.52	1.41
27	A0	8	U	C5'-C4'	8.21	1.61	1.51
67	B1	2386	U	O4'-C1'	8.21	1.52	1.41
67	B1	1169	G	C2'-C1'	-8.21	1.44	1.53
67	B1	2634	U	C2'-C1'	-8.21	1.44	1.53
21	A2	380	C	C2'-C1'	-8.20	1.44	1.53
36	Bf	2	ALA	N-CA	-8.20	1.29	1.46
67	B1	1286	G	C2'-C1'	-8.20	1.44	1.53
67	B1	1947	A	O4'-C1'	8.20	1.52	1.41
21	A2	719	G	O4'-C1'	8.20	1.52	1.41
21	A2	1078	U	C2'-C1'	-8.20	1.44	1.53
21	A2	1098	G	C4'-C3'	8.20	1.62	1.53
67	B1	1242	A	O3'-P	-8.20	1.51	1.61
21	A2	622	C	O4'-C1'	8.19	1.52	1.41
67	B1	490	C	C2'-C1'	-8.20	1.44	1.53
67	B1	2465	A	C2'-C1'	-8.19	1.44	1.53
67	B1	2800	U	C5'-C4'	8.19	1.61	1.51
21	A2	149	U	O4'-C1'	-8.19	1.31	1.41
67	B1	1469	U	C2'-C1'	-8.19	1.44	1.53
67	B1	1838	C	O4'-C1'	8.19	1.52	1.41
67	B1	509	A	O3'-P	-8.19	1.51	1.61
67	B1	2135	C	O4'-C1'	8.19	1.52	1.41
21	A2	1275	U	C2'-C1'	-8.19	1.44	1.53
21	A2	1398	U	C2'-C1'	8.19	1.62	1.53
27	A0	75	C	C2'-C1'	-8.19	1.44	1.53
21	A2	315	A	C5'-C4'	8.18	1.61	1.51
21	A2	8	U	O4'-C1'	-8.18	1.31	1.41
67	B1	2497	G	C2'-C1'	-8.18	1.44	1.53
21	A2	275	A	O4'-C1'	-8.18	1.31	1.41
21	A2	1425	C	O4'-C1'	8.18	1.52	1.41
67	B1	2293	G	C5'-C4'	8.18	1.61	1.51
67	B1	1190	G	C2'-C1'	-8.18	1.44	1.53
67	B1	511	A	C2'-C1'	8.17	1.62	1.53
67	B1	2919	C	C4'-C3'	8.17	1.62	1.53
21	A2	307	G	C2'-C1'	-8.16	1.44	1.53
21	A2	1173	A	O4'-C1'	8.16	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	820	C	O4'-C1'	8.16	1.52	1.41
67	B1	1410	A	P-O5'	-8.16	1.51	1.59
67	B1	668	G	C2'-C1'	-8.16	1.44	1.53
21	A2	1166	G	C2'-C1'	-8.16	1.44	1.53
67	B1	864	C	O4'-C1'	8.16	1.52	1.41
67	B1	1320	C	P-O5'	-8.16	1.51	1.59
27	A0	61	C	C2'-C1'	-8.16	1.44	1.53
67	B1	2532	G	O4'-C1'	8.15	1.52	1.41
67	B1	1224	A	C2'-C1'	8.15	1.62	1.53
67	B1	2129	G	O4'-C1'	8.15	1.52	1.41
67	B1	2903	U	C4'-C3'	8.15	1.62	1.53
67	B1	2188	C	C5'-C4'	8.15	1.61	1.51
67	B1	2382	A	P-O5'	-8.15	1.51	1.59
67	B1	2450	A	C3'-C2'	-8.15	1.43	1.52
21	A2	1371	C	C2'-C1'	-8.15	1.44	1.53
67	B1	97	C	O4'-C1'	8.15	1.52	1.41
67	B1	1313	G	C5'-C4'	8.15	1.61	1.51
67	B1	1746	C	C2'-C1'	-8.15	1.44	1.53
67	B1	3023	G	C2'-C1'	-8.15	1.44	1.53
67	B1	2633	A	C2'-C1'	-8.15	1.44	1.53
21	A2	839	G	C2'-C1'	-8.14	1.44	1.53
67	B1	2871	A	P-O5'	-8.14	1.51	1.59
67	B1	1063	C	O4'-C1'	8.14	1.52	1.41
21	A2	436	A	C2'-C1'	-8.14	1.44	1.53
67	B1	1252	G	O4'-C1'	8.14	1.52	1.41
67	B1	2036	A	C2'-C1'	8.14	1.62	1.53
67	B1	3015	A	O4'-C1'	8.14	1.52	1.41
21	A2	429	A	O4'-C1'	8.13	1.52	1.41
21	A2	850	A	O4'-C1'	8.13	1.52	1.41
44	BW	29	ARG	CZ-NH2	8.13	1.43	1.33
67	B1	1249	G	C2'-C1'	-8.13	1.44	1.53
67	B1	2642	C	P-O5'	-8.13	1.51	1.59
21	A2	956	C	C2'-C1'	-8.13	1.44	1.53
67	B1	2871	A	O4'-C1'	-8.13	1.31	1.41
67	B1	2118	C	O4'-C1'	8.13	1.52	1.41
67	B1	2384	G	C2'-C1'	-8.13	1.44	1.53
11	A1	12	U	C2'-C1'	-8.13	1.44	1.53
21	A2	922	G	C2'-C1'	-8.13	1.44	1.53
21	A2	1089	C	C2'-C1'	-8.13	1.44	1.53
67	B1	1166	A	O4'-C1'	8.13	1.52	1.41
68	B3	19	G	O3'-P	-8.13	1.51	1.61
67	B1	2644	G	C2'-C1'	-8.12	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	672	G	O4'-C1'	8.12	1.52	1.41
21	A2	79	G	C2'-C1'	8.12	1.62	1.53
21	A2	441	U	C2'-C1'	-8.12	1.44	1.53
67	B1	2207	C	C2'-C1'	-8.12	1.44	1.53
46	BA	89	GLU	CG-CD	8.12	1.64	1.51
67	B1	3017	U	C2'-C1'	-8.11	1.44	1.53
21	A2	385	A	P-O5'	-8.11	1.51	1.59
67	B1	2336	G	C2'-C1'	-8.11	1.44	1.53
67	B1	1032	C	O3'-P	8.11	1.70	1.61
21	A2	1482	C	O4'-C1'	8.11	1.52	1.41
67	B1	577	C	O4'-C1'	8.11	1.52	1.41
67	B1	1465	A	C2'-C1'	8.11	1.62	1.53
21	A2	727	G	C2'-C1'	8.11	1.62	1.53
67	B1	2362	U	C2'-C1'	8.10	1.62	1.53
67	B1	2436	A	O4'-C1'	8.10	1.52	1.41
21	A2	467	G	C5'-C4'	8.10	1.61	1.51
21	A2	374	G	O4'-C1'	8.10	1.52	1.41
67	B1	611	G	C2'-C1'	-8.10	1.44	1.53
67	B1	2625	C	C2'-C1'	-8.10	1.44	1.53
67	B1	1282	A	O4'-C1'	8.10	1.52	1.41
67	B1	1446	G	C2'-C1'	8.10	1.62	1.53
67	B1	2182	A	O4'-C1'	-8.10	1.31	1.41
21	A2	825	C	O4'-C1'	8.09	1.52	1.41
67	B1	1038	U	C2'-C1'	8.09	1.62	1.53
67	B1	1076	G	P-O5'	-8.09	1.51	1.59
21	A2	597	C	O4'-C1'	8.09	1.52	1.41
21	A2	784	G	C2'-C1'	8.09	1.62	1.53
67	B1	1242	A	C2'-C1'	-8.09	1.44	1.53
67	B1	2562	G	C4'-O4'	-8.09	1.35	1.45
67	B1	2841	G	O4'-C1'	8.09	1.52	1.41
27	A0	55	U	C3'-C2'	-8.09	1.43	1.52
67	B1	439	G	C2'-C1'	-8.08	1.44	1.53
67	B1	572	U	C2'-C1'	-8.08	1.44	1.53
21	A2	620	G	C2'-C1'	-8.08	1.44	1.53
67	B1	2980	G	P-O5'	-8.08	1.51	1.59
21	A2	576	C	O4'-C1'	8.08	1.52	1.41
21	A2	1016	G	C2'-C1'	-8.08	1.44	1.53
21	A2	1058	G	O4'-C1'	8.08	1.52	1.41
67	B1	288	G	C2'-C1'	-8.08	1.44	1.53
67	B1	1283	G	C2'-C1'	8.07	1.62	1.53
67	B1	1663	C	O4'-C1'	8.07	1.52	1.41
67	B1	1095	A	O4'-C1'	8.07	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1646	G	C3'-O3'	8.07	1.53	1.42
67	B1	2332	G	C2'-C1'	-8.06	1.44	1.53
21	A2	1408	C	C2'-C1'	-8.06	1.44	1.53
67	B1	2030	G	O4'-C1'	8.06	1.52	1.41
67	B1	252	A	O4'-C1'	8.06	1.52	1.41
67	B1	380	A	O4'-C1'	8.06	1.52	1.41
67	B1	2820	C	C2'-C1'	-8.06	1.44	1.53
67	B1	502	G	C2'-C1'	8.06	1.62	1.53
21	A2	813	G	C2'-C1'	-8.05	1.44	1.53
67	B1	457	C	O4'-C1'	8.05	1.52	1.41
67	B1	592	C	C2'-C1'	-8.05	1.44	1.53
67	B1	1471	G	O4'-C1'	8.05	1.52	1.41
67	B1	1882	C	C2'-C1'	-8.05	1.44	1.53
67	B1	2637	U	C2'-C1'	-8.05	1.44	1.53
68	B3	84	U	C2'-C1'	8.05	1.62	1.53
21	A2	990	G	C2'-C1'	8.05	1.62	1.53
67	B1	807	G	O4'-C1'	-8.05	1.31	1.41
67	B1	1665	G	C5'-C4'	8.05	1.61	1.51
67	B1	1912	A	P-O5'	-8.05	1.51	1.59
67	B1	2781	A	C2'-C1'	-8.05	1.44	1.53
67	B1	564	U	O3'-P	-8.04	1.51	1.61
67	B1	633	A	C2'-C1'	8.04	1.62	1.53
67	B1	825	C	O4'-C1'	8.04	1.52	1.41
67	B1	574	C	O4'-C1'	8.04	1.52	1.41
67	B1	1313	G	C2'-C1'	8.04	1.62	1.53
21	A2	276	A	C2'-C1'	-8.04	1.44	1.53
21	A2	1176	C	P-O5'	-8.04	1.51	1.59
67	B1	1174	U	C2'-C1'	-8.04	1.44	1.53
67	B1	2966	C	O4'-C1'	8.04	1.52	1.41
21	A2	129	G	O4'-C1'	8.04	1.52	1.41
21	A2	658	A	O4'-C1'	8.04	1.52	1.41
68	B3	95	G	C2'-C1'	-8.04	1.44	1.53
67	B1	2081	C	O3'-P	-8.03	1.51	1.61
67	B1	442	G	C2'-C1'	8.03	1.62	1.53
67	B1	2186	C	C4'-C3'	8.03	1.61	1.53
67	B1	1569	A	C4'-O4'	-8.03	1.35	1.45
21	A2	644	G	C2'-C1'	-8.03	1.44	1.53
67	B1	2425	A	C2'-C1'	-8.03	1.44	1.53
21	A2	999	G	O4'-C1'	8.03	1.52	1.41
21	A2	1018	C	C5'-C4'	8.03	1.60	1.51
67	B1	2217	C	O4'-C1'	8.03	1.52	1.41
67	B1	2782	A	O4'-C1'	8.03	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	920	G	O4'-C1'	8.02	1.52	1.41
21	A2	270	A	C2'-C1'	8.02	1.62	1.53
67	B1	184	A	C4'-C3'	8.02	1.61	1.53
67	B1	2559	G	O4'-C1'	8.02	1.52	1.41
67	B1	2019	C	C2'-C1'	-8.02	1.44	1.53
67	B1	2062	A	C3'-C2'	8.01	1.61	1.52
67	B1	2645	C	C2'-C1'	-8.01	1.44	1.53
11	A1	37	A	O4'-C1'	8.01	1.52	1.41
67	B1	1001	C	C2'-C1'	8.01	1.62	1.53
21	A2	350	G	O4'-C1'	8.01	1.52	1.41
67	B1	292	U	C2'-C1'	8.00	1.62	1.53
67	B1	1937	A	C2'-O2'	-8.00	1.31	1.41
67	B1	2873	G	O4'-C1'	-8.00	1.31	1.41
21	A2	994	C	O4'-C1'	8.00	1.52	1.41
67	B1	1489	G	C5'-C4'	7.99	1.60	1.51
67	B1	1690	U	C3'-C2'	-7.99	1.44	1.52
21	A2	478	C	C2'-C1'	-7.99	1.44	1.53
67	B1	776	G	O4'-C1'	7.99	1.52	1.41
21	A2	742	U	C2'-C1'	-7.99	1.44	1.53
67	B1	1265	A	O4'-C1'	7.99	1.52	1.41
67	B1	629	G	C4'-C3'	7.98	1.61	1.53
21	A2	1184	U	C5'-C4'	7.98	1.60	1.51
67	B1	296	G	C2'-C1'	-7.98	1.44	1.53
67	B1	653	U	O4'-C1'	7.98	1.52	1.41
67	B1	810	A	C2'-C1'	-7.98	1.44	1.53
67	B1	1999	G	C2'-C1'	7.98	1.62	1.53
21	A2	50	C	C2'-C1'	-7.98	1.44	1.53
67	B1	1273	C	C2'-C1'	-7.98	1.44	1.53
67	B1	2380	A	P-O5'	-7.98	1.51	1.59
21	A2	277	G	C2'-C1'	-7.97	1.44	1.53
21	A2	1460	G	C2'-C1'	7.97	1.62	1.53
67	B1	714	C	O4'-C1'	7.97	1.52	1.41
67	B1	1268	A	P-O5'	-7.97	1.51	1.59
67	B1	1774	A	C2'-C1'	7.97	1.62	1.53
67	B1	866	G	O3'-P	-7.97	1.51	1.61
67	B1	2063	U	P-O5'	-7.97	1.51	1.59
67	B1	2452	C	O4'-C1'	7.97	1.52	1.41
67	B1	1397	U	C4'-C3'	7.97	1.61	1.53
33	BC	185	TYR	CD1-CE1	7.97	1.51	1.39
67	B1	97	C	C2'-C1'	-7.97	1.44	1.53
67	B1	1412	C	O4'-C1'	7.97	1.52	1.41
67	B1	1766	A	C2'-C1'	-7.97	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2905	C	C2'-C1'	-7.96	1.44	1.53
67	B1	1567	C	C4'-C3'	7.96	1.61	1.53
67	B1	2692	A	P-O5'	-7.96	1.51	1.59
21	A2	146	A	C2'-C1'	-7.95	1.44	1.53
67	B1	231	G	O4'-C1'	-7.95	1.31	1.41
67	B1	2389	C	O3'-P	-7.95	1.51	1.61
67	B1	1431	U	P-O5'	7.95	1.67	1.59
67	B1	2451	G	C2'-C1'	-7.95	1.44	1.53
67	B1	2927	A	C2'-C1'	-7.95	1.44	1.53
67	B1	607	C	C2'-C1'	-7.95	1.44	1.53
67	B1	808	A	P-O5'	-7.94	1.51	1.59
67	B1	2578	C	O4'-C1'	7.94	1.51	1.41
21	A2	540	G	C2'-C1'	7.94	1.62	1.53
67	B1	893	C	O4'-C1'	7.94	1.51	1.41
58	BP	13	ARG	CD-NE	7.94	1.59	1.46
67	B1	323	U	O4'-C1'	7.94	1.51	1.41
67	B1	1570	C	C3'-C2'	7.94	1.61	1.52
21	A2	320	G	C5'-C4'	7.94	1.60	1.51
67	B1	516	A	C2'-C1'	-7.94	1.44	1.53
21	A2	50	C	P-O5'	-7.93	1.51	1.59
67	B1	3006	G	C5'-C4'	7.93	1.60	1.51
67	B1	733	A	C2'-C1'	7.93	1.62	1.53
67	B1	2237	A	O4'-C1'	7.93	1.51	1.41
21	A2	395	C	O4'-C1'	7.93	1.51	1.41
67	B1	660	U	O4'-C1'	7.93	1.51	1.41
11	A1	26	C	O3'-P	-7.93	1.51	1.61
67	B1	2996	A	O4'-C1'	7.93	1.51	1.41
21	A2	1424	G	O3'-P	-7.92	1.51	1.61
67	B1	1854	G	C4'-C3'	7.92	1.61	1.53
21	A2	952	A	C2'-C1'	-7.92	1.44	1.53
21	A2	1302	C	C5'-C4'	7.92	1.60	1.51
67	B1	697	U	O4'-C1'	7.92	1.51	1.41
21	A2	1481	G	C2'-C1'	-7.92	1.44	1.53
21	A2	758	U	O4'-C1'	7.92	1.51	1.41
67	B1	403	G	C3'-C2'	7.92	1.61	1.52
67	B1	2112	C	O3'-P	-7.92	1.51	1.61
21	A2	1316	U	C5'-C4'	7.92	1.60	1.51
67	B1	1154	A	O4'-C1'	-7.92	1.31	1.41
67	B1	1574	A	C2'-C1'	7.92	1.62	1.53
67	B1	2419	U	C5'-C4'	7.92	1.60	1.51
68	B3	87	G	O4'-C1'	7.92	1.51	1.41
67	B1	31	G	O4'-C1'	-7.91	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	91	G	O4'-C1'	7.91	1.51	1.41
67	B1	840	G	C4'-C3'	7.91	1.61	1.53
67	B1	1629	G	P-O5'	-7.91	1.51	1.59
21	A2	917	A	O4'-C1'	7.91	1.51	1.41
11	A1	56	U	O4'-C1'	7.91	1.51	1.41
21	A2	647	G	C3'-C2'	-7.91	1.44	1.52
67	B1	262	C	O4'-C1'	7.91	1.51	1.41
67	B1	1888	G	C4'-C3'	7.91	1.61	1.53
67	B1	2971	U	C3'-O3'	7.91	1.53	1.42
67	B1	1568	A	O3'-P	-7.90	1.51	1.61
21	A2	723	G	P-O5'	-7.90	1.51	1.59
67	B1	302	U	P-O5'	-7.90	1.51	1.59
68	B3	114	G	P-O5'	-7.90	1.51	1.59
21	A2	530	G	C2'-C1'	-7.89	1.44	1.53
11	A1	19	G	O4'-C1'	-7.89	1.31	1.41
21	A2	1405	C	O4'-C1'	7.89	1.51	1.41
67	B1	550	A	P-O5'	-7.89	1.51	1.59
67	B1	2711	U	C3'-C2'	7.89	1.61	1.52
67	B1	2473	C	O4'-C1'	7.89	1.51	1.41
67	B1	789	G	O4'-C1'	7.89	1.51	1.41
67	B1	2609	G	C4'-C3'	-7.89	1.44	1.53
67	B1	2863	A	C2'-C1'	-7.89	1.44	1.53
21	A2	27	C	P-O5'	-7.89	1.51	1.59
21	A2	118	U	C2'-C1'	-7.89	1.44	1.53
21	A2	254	G	C2'-C1'	7.89	1.62	1.53
21	A2	1380	C	O4'-C1'	7.89	1.51	1.41
67	B1	92	G	P-O5'	-7.89	1.51	1.59
67	B1	193	A	C4'-C3'	7.89	1.61	1.53
67	B1	303	A	O4'-C1'	7.89	1.51	1.41
67	B1	653	U	C2'-C1'	-7.89	1.44	1.53
67	B1	2606	C	C3'-C2'	-7.88	1.44	1.52
68	B3	2	G	C5'-C4'	7.88	1.60	1.51
67	B1	1210	G	C2'-C1'	-7.88	1.44	1.53
67	B1	2359	G	C4'-C3'	-7.88	1.44	1.53
67	B1	1578	C	C4'-C3'	-7.88	1.44	1.53
67	B1	1824	G	O4'-C1'	7.88	1.51	1.41
67	B1	1987	A	O4'-C1'	7.88	1.51	1.41
67	B1	801	A	O4'-C1'	-7.88	1.31	1.41
67	B1	1409	U	C2'-C1'	-7.88	1.44	1.53
67	B1	2983	G	C2'-C1'	-7.88	1.44	1.53
68	B3	23	A	C2'-C1'	-7.88	1.44	1.53
21	A2	1389	G	O4'-C1'	-7.88	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	536	G	C4'-C3'	7.87	1.61	1.53
67	B1	739	C	O4'-C1'	7.87	1.51	1.41
67	B1	1702	C	O4'-C1'	7.87	1.51	1.41
21	A2	1019	A	C2'-C1'	-7.87	1.44	1.53
21	A2	192	G	C2'-C1'	-7.87	1.44	1.53
67	B1	2547	A	C2'-C1'	-7.87	1.44	1.53
68	B3	26	C	C5'-C4'	7.87	1.60	1.51
67	B1	560	G	O4'-C1'	-7.87	1.31	1.41
67	B1	583	A	P-O5'	-7.87	1.51	1.59
67	B1	1250	A	O4'-C1'	-7.87	1.31	1.41
67	B1	2579	G	P-O5'	-7.86	1.51	1.59
67	B1	972	C	P-O5'	-7.86	1.51	1.59
67	B1	1925	A	C4'-C3'	7.86	1.61	1.53
21	A2	214	C	O4'-C1'	7.86	1.51	1.41
68	B3	80	G	O4'-C1'	7.86	1.51	1.41
67	B1	2126	G	P-O5'	-7.86	1.51	1.59
21	A2	653	C	C2'-C1'	-7.86	1.44	1.53
21	A2	907	C	O4'-C1'	7.86	1.51	1.41
21	A2	1219	C	C4'-C3'	7.86	1.61	1.53
67	B1	1698	G	C4'-O4'	-7.86	1.35	1.45
67	B1	1011	A	P-O5'	-7.85	1.51	1.59
68	B3	73	U	O4'-C1'	7.85	1.51	1.41
21	A2	968	C	O4'-C1'	7.85	1.51	1.41
21	A2	1351	U	P-O5'	-7.85	1.51	1.59
21	A2	992	G	O4'-C1'	7.84	1.51	1.41
67	B1	1299	C	C3'-C2'	-7.84	1.44	1.52
44	BW	67	LYS	C-N	7.84	1.47	1.33
67	B1	64	A	C2'-C1'	7.84	1.61	1.53
35	BL	45	SER	N-CA	-7.84	1.30	1.46
67	B1	20	C	C4'-C3'	7.84	1.61	1.53
67	B1	1044	C	O4'-C1'	7.84	1.51	1.41
21	A2	196	G	C4'-C3'	7.84	1.61	1.53
21	A2	1191	G	O4'-C1'	7.84	1.51	1.41
67	B1	1841	G	O4'-C1'	7.84	1.51	1.41
67	B1	670	G	O4'-C1'	7.83	1.51	1.41
21	A2	1041	C	C4'-C3'	7.83	1.61	1.53
67	B1	180	A	O4'-C1'	7.83	1.51	1.41
67	B1	1949	A	O4'-C1'	7.83	1.51	1.41
21	A2	1170	C	C2'-C1'	-7.83	1.44	1.53
67	B1	1100	G	O3'-P	-7.83	1.51	1.61
67	B1	215	A	O4'-C1'	-7.83	1.31	1.41
67	B1	2872	G	P-O5'	-7.83	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	379	A	C2'-C1'	7.82	1.61	1.53
21	A2	784	G	O3'-P	-7.82	1.51	1.61
67	B1	2466	C	O4'-C1'	7.82	1.51	1.41
21	A2	196	G	C5'-C4'	7.82	1.60	1.51
67	B1	1199	U	O4'-C1'	7.82	1.51	1.41
21	A2	1345	G	C3'-C2'	7.82	1.61	1.52
67	B1	2955	G	O4'-C1'	7.81	1.51	1.41
21	A2	1302	C	O4'-C1'	7.81	1.51	1.41
67	B1	1552	C	O3'-P	-7.81	1.51	1.61
67	B1	1766	A	O4'-C1'	7.81	1.51	1.41
67	B1	2785	G	C2'-C1'	-7.81	1.44	1.53
67	B1	545	G	C2'-C1'	7.81	1.61	1.53
67	B1	803	A	C2'-C1'	-7.81	1.44	1.53
67	B1	1050	C	C2'-C1'	-7.81	1.44	1.53
35	BL	9	ARG	N-CA	-7.81	1.30	1.46
67	B1	2080	G	O4'-C1'	7.81	1.51	1.41
67	B1	1351	G	O4'-C1'	7.81	1.51	1.41
21	A2	293	G	C2'-C1'	-7.80	1.44	1.53
27	A0	23	A	O4'-C1'	7.80	1.51	1.41
67	B1	1133	U	O4'-C1'	7.80	1.51	1.41
67	B1	2355	G	O4'-C1'	7.80	1.51	1.41
21	A2	1172	A	C2'-C1'	7.80	1.61	1.53
67	B1	2114	C	C2'-C1'	-7.80	1.44	1.53
67	B1	634	G	O3'-P	-7.80	1.51	1.61
67	B1	1477	C	P-O5'	-7.80	1.51	1.59
67	B1	951	C	O4'-C1'	7.80	1.51	1.41
21	A2	38	G	C5'-C4'	7.80	1.60	1.51
21	A2	1248	A	C2'-C1'	7.80	1.61	1.53
36	Bf	3	ARG	CD-NE	7.80	1.59	1.46
67	B1	849	C	C5'-C4'	7.80	1.60	1.51
67	B1	2869	U	C5'-C4'	7.79	1.60	1.51
21	A2	479	C	C4'-C3'	7.79	1.61	1.53
21	A2	1459	G	C2'-C1'	-7.79	1.44	1.53
67	B1	2172	G	O3'-P	-7.79	1.51	1.61
21	A2	231	G	O4'-C1'	-7.79	1.31	1.41
21	A2	504	G	O4'-C1'	7.79	1.51	1.41
67	B1	1421	C	C2'-C1'	-7.79	1.44	1.53
27	A0	27	C	C5'-C4'	7.79	1.60	1.51
21	A2	140	C	C2'-C1'	-7.79	1.44	1.53
27	A0	72	C	C2'-C1'	-7.79	1.44	1.53
67	B1	2779	G	C3'-C2'	7.79	1.61	1.52
15	AE	8	ARG	CZ-NH2	7.78	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2500	G	C5'-C4'	7.78	1.60	1.51
67	B1	2700	U	P-O5'	-7.78	1.51	1.59
68	B3	8	C	C4'-O4'	-7.78	1.35	1.45
67	B1	106	G	C2'-C1'	-7.78	1.44	1.53
21	A2	643	G	O4'-C1'	7.78	1.51	1.41
21	A2	1030	U	P-O5'	7.78	1.67	1.59
67	B1	176	G	O3'-P	-7.78	1.51	1.61
67	B1	762	G	O4'-C1'	7.78	1.51	1.41
21	A2	664	G	C2'-C1'	-7.78	1.44	1.53
67	B1	114	C	C2'-C1'	-7.78	1.44	1.53
67	B1	2241	U	O4'-C1'	-7.77	1.31	1.41
67	B1	760	G	O4'-C1'	7.77	1.51	1.41
21	A2	243	G	O4'-C1'	-7.77	1.31	1.41
21	A2	1377	G	C2'-C1'	-7.77	1.44	1.53
67	B1	477	C	C2'-C1'	-7.77	1.44	1.53
67	B1	623	G	C2'-C1'	-7.76	1.44	1.53
21	A2	185	G	O4'-C1'	7.76	1.51	1.41
67	B1	2180	C	C2'-C1'	-7.76	1.44	1.53
67	B1	2212	C	O4'-C1'	7.76	1.51	1.41
21	A2	201	G	C2'-C1'	7.76	1.61	1.53
67	B1	34	C	O3'-P	-7.76	1.51	1.61
67	B1	678	G	C2'-C1'	-7.76	1.44	1.53
67	B1	2524	C	O4'-C1'	7.76	1.51	1.41
67	B1	972	C	O4'-C1'	7.75	1.51	1.41
21	A2	742	U	O4'-C1'	7.75	1.51	1.41
36	Bf	3	ARG	NE-CZ	7.75	1.43	1.33
47	BI	49	TYR	CZ-OH	7.75	1.51	1.37
67	B1	343	C	C2'-C1'	-7.75	1.44	1.53
67	B1	2384	G	O4'-C1'	7.75	1.51	1.41
21	A2	142	G	C2'-C1'	-7.75	1.44	1.53
21	A2	321	A	P-O5'	-7.75	1.52	1.59
67	B1	1980	U	C2'-C1'	-7.75	1.44	1.53
67	B1	1987	A	C2'-C1'	-7.75	1.44	1.53
27	A0	62	C	C4'-C3'	-7.75	1.44	1.53
67	B1	2043	A	C2'-C1'	7.75	1.61	1.53
67	B1	842	C	P-O5'	-7.75	1.52	1.59
67	B1	2390	G	C3'-C2'	-7.75	1.44	1.52
67	B1	547	C	O4'-C1'	7.74	1.51	1.41
21	A2	36	G	C5'-C4'	7.74	1.60	1.51
67	B1	1568	A	O4'-C1'	-7.74	1.31	1.41
67	B1	2495	A	O3'-P	-7.74	1.51	1.61
32	BO	71	PHE	CG-CD1	7.74	1.50	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	A1	1	G	O4'-C1'	7.74	1.51	1.41
67	B1	1728	C	C2'-C1'	-7.74	1.44	1.53
67	B1	2670	U	C5'-C4'	7.74	1.60	1.51
67	B1	428	A	C3'-O3'	7.73	1.52	1.42
67	B1	1432	C	C5'-C4'	-7.73	1.42	1.51
11	A1	13	C	C2'-C1'	-7.73	1.44	1.53
67	B1	1515	G	O4'-C1'	7.73	1.51	1.41
21	A2	1118	C	P-O5'	-7.73	1.52	1.59
67	B1	824	C	C2'-C1'	-7.73	1.44	1.53
27	A0	33	U	O4'-C1'	7.72	1.51	1.41
67	B1	2830	C	P-O5'	-7.72	1.52	1.59
27	A0	5	C	C2'-C1'	-7.72	1.44	1.53
67	B1	1471	G	O3'-P	-7.72	1.51	1.61
67	B1	2175	G	C5'-C4'	7.72	1.60	1.51
67	B1	733	A	O4'-C1'	-7.72	1.31	1.41
67	B1	2445	G	O4'-C1'	7.72	1.51	1.41
21	A2	428	G	C2'-C1'	-7.72	1.44	1.53
21	A2	701	G	C2'-C1'	7.72	1.61	1.53
21	A2	765	U	O4'-C1'	7.72	1.51	1.41
67	B1	891	C	C2'-C1'	-7.72	1.44	1.53
21	A2	1292	A	O4'-C1'	7.72	1.51	1.41
67	B1	2579	G	O4'-C1'	-7.72	1.31	1.41
21	A2	1341	C	C2'-C1'	-7.71	1.44	1.53
67	B1	1208	A	O4'-C1'	-7.71	1.31	1.41
67	B1	1436	A	P-O5'	-7.71	1.52	1.59
67	B1	1935	C	O4'-C1'	7.71	1.51	1.41
21	A2	373	C	C5'-C4'	7.71	1.60	1.51
67	B1	2241	U	C5'-C4'	7.71	1.60	1.51
21	A2	1206	G	C2'-C1'	-7.71	1.44	1.53
67	B1	1795	C	C2'-C1'	-7.71	1.44	1.53
67	B1	2709	C	P-O5'	-7.71	1.52	1.59
21	A2	884	G	C2'-C1'	-7.71	1.44	1.53
29	AL	5	ARG	NE-CZ	7.71	1.43	1.33
67	B1	695	G	O4'-C1'	7.71	1.51	1.41
67	B1	1492	C	C5'-C4'	7.71	1.60	1.51
56	BH	18	GLY	C-N	-7.70	1.19	1.34
21	A2	911	C	O4'-C1'	7.70	1.51	1.41
21	A2	948	G	O4'-C1'	-7.70	1.31	1.41
67	B1	1003	C	C2'-C1'	-7.70	1.44	1.53
67	B1	2914	U	C5'-C4'	7.70	1.60	1.51
21	A2	384	G	C2'-C1'	-7.70	1.44	1.53
21	A2	581	G	C5'-C4'	7.70	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2796	C	C2'-C1'	-7.70	1.44	1.53
67	B1	857	U	O4'-C1'	7.70	1.51	1.41
67	B1	941	C	O3'-P	-7.70	1.51	1.61
68	B3	105	G	C5'-C4'	7.70	1.60	1.51
67	B1	1921	U	C3'-O3'	7.69	1.52	1.42
67	B1	1886	C	C2'-C1'	-7.69	1.44	1.53
21	A2	983	G	C2'-C1'	-7.69	1.44	1.53
67	B1	1595	G	C2'-C1'	7.69	1.61	1.53
67	B1	2109	C	C5'-C4'	7.69	1.60	1.51
21	A2	225	U	C2'-C1'	7.69	1.61	1.53
21	A2	1030	U	O4'-C1'	7.69	1.51	1.41
67	B1	1333	G	O4'-C1'	7.69	1.51	1.41
21	A2	582	G	C2'-C1'	-7.69	1.44	1.53
67	B1	2469	G	C5'-C4'	7.69	1.60	1.51
11	A1	65	C	O4'-C1'	7.68	1.51	1.41
21	A2	334	G	C2'-C1'	7.68	1.61	1.53
21	A2	1102	A	P-O5'	7.68	1.67	1.59
67	B1	1813	A	C2'-C1'	7.68	1.61	1.53
67	B1	688	G	P-O5'	-7.68	1.52	1.59
21	A2	192	G	O4'-C1'	-7.68	1.31	1.41
67	B1	1827	A	C2'-C1'	7.68	1.61	1.53
21	A2	1319	C	C2'-C1'	-7.68	1.45	1.53
27	A0	32	C	O4'-C1'	7.68	1.51	1.41
67	B1	165	G	O4'-C1'	7.67	1.51	1.41
67	B1	848	A	O4'-C1'	7.67	1.51	1.41
67	B1	1805	U	O4'-C1'	7.67	1.51	1.41
21	A2	425	C	C2'-C1'	-7.67	1.45	1.53
27	A0	5	C	O4'-C1'	7.67	1.51	1.41
67	B1	231	G	C2'-C1'	7.67	1.61	1.53
67	B1	1856	G	O4'-C1'	7.67	1.51	1.41
68	B3	90	A	C2'-C1'	-7.67	1.45	1.53
67	B1	194	G	C5'-C4'	7.67	1.60	1.51
67	B1	1073	G	C2'-C1'	-7.67	1.45	1.53
67	B1	2171	G	C2'-C1'	-7.67	1.45	1.53
21	A2	755	U	O3'-P	-7.67	1.51	1.61
21	A2	1146	G	C2'-C1'	7.67	1.61	1.53
67	B1	2618	C	O4'-C1'	7.67	1.51	1.41
67	B1	2641	C	O4'-C1'	7.67	1.51	1.41
68	B3	83	C	C2'-C1'	7.67	1.61	1.53
67	B1	2755	G	C5'-C4'	7.67	1.60	1.51
67	B1	1930	A	O3'-P	-7.66	1.51	1.61
21	A2	142	G	O4'-C1'	-7.66	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	673	A	O4'-C1'	7.66	1.51	1.41
67	B1	1424	G	C4'-O4'	-7.66	1.35	1.45
67	B1	2202	U	O3'-P	7.66	1.70	1.61
21	A2	40	C	O4'-C1'	7.66	1.51	1.41
21	A2	836	G	O4'-C1'	7.66	1.51	1.41
67	B1	1900	U	C4'-C3'	7.66	1.61	1.53
21	A2	497	C	O3'-P	-7.66	1.51	1.61
21	A2	837	C	O4'-C1'	7.65	1.51	1.41
21	A2	377	A	C4'-C3'	7.65	1.61	1.53
27	A0	3	C	C2'-C1'	-7.65	1.45	1.53
67	B1	2049	U	O4'-C1'	7.65	1.51	1.41
67	B1	1177	C	O4'-C1'	7.64	1.51	1.41
67	B1	2250	G	C2'-C1'	-7.64	1.45	1.53
27	A0	49	C	O4'-C1'	7.64	1.51	1.41
67	B1	1244	C	O4'-C1'	7.64	1.51	1.41
67	B1	843	C	C5'-C4'	7.64	1.60	1.51
11	A1	34	U	O4'-C1'	7.64	1.51	1.41
21	A2	521	G	O4'-C1'	7.64	1.51	1.41
67	B1	1746	C	O3'-P	-7.64	1.51	1.61
67	B1	2338	A	C2'-C1'	-7.64	1.45	1.53
67	B1	547	C	C3'-C2'	-7.63	1.44	1.52
67	B1	659	U	O4'-C1'	7.63	1.51	1.41
67	B1	1962	G	C4'-C3'	7.63	1.61	1.53
67	B1	2979	C	O4'-C1'	7.63	1.51	1.41
59	BM	17	SER	CA-CB	7.63	1.64	1.52
67	B1	741	G	O4'-C1'	7.63	1.51	1.41
67	B1	342	C	C3'-O3'	7.63	1.52	1.42
21	A2	41	C	C3'-C2'	-7.63	1.44	1.52
67	B1	199	C	C5'-C4'	7.63	1.60	1.51
67	B1	321	C	O4'-C1'	7.63	1.51	1.41
67	B1	1513	G	C2'-C1'	-7.63	1.45	1.53
67	B1	1981	G	O4'-C1'	-7.63	1.31	1.41
68	B3	103	C	C4'-C3'	7.63	1.61	1.53
67	B1	725	G	P-O5'	-7.62	1.52	1.59
21	A2	24	C	C2'-C1'	-7.62	1.45	1.53
21	A2	252	U	P-O5'	-7.62	1.52	1.59
67	B1	363	G	O4'-C1'	-7.62	1.31	1.41
67	B1	2144	U	C4'-C3'	-7.62	1.44	1.53
67	B1	1032	C	O4'-C1'	7.62	1.51	1.41
67	B1	1342	G	O4'-C1'	7.62	1.51	1.41
21	A2	833	C	O4'-C1'	7.62	1.51	1.41
21	A2	1359	C	C2'-C1'	-7.62	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1401	U	O4'-C1'	7.62	1.51	1.41
67	B1	798	G	C4'-O4'	7.62	1.55	1.45
21	A2	954	G	C5'-C4'	7.62	1.60	1.51
21	A2	322	G	C2'-C1'	-7.61	1.45	1.53
49	BQ	100	ARG	NE-CZ	7.61	1.43	1.33
67	B1	2876	G	P-O5'	-7.61	1.52	1.59
67	B1	1131	G	O4'-C1'	7.61	1.51	1.41
21	A2	508	C	C2'-C1'	-7.61	1.45	1.53
67	B1	2022	U	C5'-C4'	7.61	1.60	1.51
67	B1	303	A	C2'-C1'	7.61	1.61	1.53
67	B1	599	G	O4'-C1'	7.61	1.51	1.41
67	B1	1344	C	C2'-C1'	-7.61	1.45	1.53
67	B1	1816	C	C2'-C1'	-7.61	1.45	1.53
21	A2	668	G	C5'-C4'	7.61	1.60	1.51
21	A2	700	G	C5'-C4'	7.61	1.60	1.51
27	A0	64	G	C5'-C4'	7.61	1.60	1.51
67	B1	1809	G	C2'-C1'	7.61	1.61	1.53
67	B1	2021	G	O4'-C1'	7.61	1.51	1.41
67	B1	2337	G	C3'-C2'	-7.61	1.44	1.52
67	B1	704	G	C4'-C3'	-7.60	1.44	1.53
67	B1	1149	C	C2'-C1'	-7.60	1.45	1.53
67	B1	1321	C	O4'-C1'	7.60	1.51	1.41
21	A2	854	C	C2'-C1'	-7.60	1.45	1.53
21	A2	1122	C	C2'-C1'	-7.60	1.45	1.53
67	B1	92	G	O3'-P	-7.60	1.52	1.61
21	A2	1457	A	O4'-C1'	7.60	1.51	1.41
67	B1	312	G	C2'-C1'	-7.60	1.45	1.53
67	B1	433	C	P-O5'	-7.60	1.52	1.59
67	B1	403	G	C5'-C4'	7.59	1.60	1.51
67	B1	959	U	C2'-C1'	-7.59	1.45	1.53
67	B1	2604	G	O4'-C1'	7.59	1.51	1.41
68	B3	37	U	C2'-C1'	7.59	1.61	1.53
67	B1	75	G	C2'-C1'	-7.59	1.45	1.53
27	A0	41	C	C2'-C1'	-7.59	1.45	1.53
67	B1	2095	U	O4'-C1'	-7.59	1.31	1.41
67	B1	3022	C	O3'-P	-7.58	1.52	1.61
21	A2	351	C	O4'-C1'	7.58	1.51	1.41
21	A2	1411	G	C2'-C1'	-7.58	1.45	1.53
67	B1	1606	C	O4'-C1'	7.58	1.51	1.41
21	A2	610	G	O4'-C1'	7.58	1.51	1.41
21	A2	865	A	C2'-C1'	7.58	1.61	1.53
21	A2	1126	G	O4'-C1'	7.58	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	734	G	C5'-C4'	7.58	1.60	1.51
21	A2	810	G	O3'-P	-7.58	1.52	1.61
67	B1	1503	C	O4'-C1'	7.58	1.51	1.41
67	B1	1735	G	O3'-P	-7.58	1.52	1.61
67	B1	2310	G	O4'-C1'	-7.58	1.31	1.41
21	A2	461	A	O4'-C1'	7.57	1.51	1.41
64	Bc	12	ARG	CZ-NH2	7.57	1.42	1.33
67	B1	828	G	P-O5'	-7.57	1.52	1.59
25	AH	94	ASN	C-N	7.57	1.51	1.34
67	B1	854	G	C3'-C2'	7.57	1.61	1.52
67	B1	1670	A	O4'-C1'	-7.57	1.31	1.41
67	B1	2307	C	O4'-C1'	7.57	1.51	1.41
27	A0	65	G	O4'-C1'	7.57	1.51	1.41
67	B1	814	G	C5'-C4'	7.57	1.60	1.51
67	B1	2114	C	O4'-C1'	7.57	1.51	1.41
67	B1	2728	U	C2'-C1'	-7.57	1.45	1.53
67	B1	360	G	O3'-P	-7.57	1.52	1.61
67	B1	779	A	C2'-C1'	7.57	1.61	1.53
21	A2	300	G	P-O5'	-7.56	1.52	1.59
67	B1	2102	A	C5'-C4'	7.56	1.60	1.51
21	A2	103	A	C3'-C2'	7.56	1.61	1.52
67	B1	1444	A	P-O5'	-7.56	1.52	1.59
21	A2	412	U	C4'-C3'	7.56	1.61	1.53
67	B1	2982	G	O4'-C1'	7.56	1.51	1.41
67	B1	453	U	O3'-P	-7.56	1.52	1.61
67	B1	2887	C	C2'-C1'	-7.56	1.45	1.53
21	A2	589	U	C5'-C4'	7.56	1.60	1.51
21	A2	1265	G	C3'-C2'	7.56	1.61	1.52
21	A2	363	C	P-O5'	-7.55	1.52	1.59
21	A2	398	C	C2'-C1'	-7.55	1.45	1.53
67	B1	954	A	O4'-C1'	7.55	1.51	1.41
67	B1	1304	G	C2'-C1'	-7.55	1.45	1.53
67	B1	1375	G	P-O5'	7.55	1.67	1.59
67	B1	2647	G	P-O5'	-7.55	1.52	1.59
21	A2	478	C	O4'-C1'	7.55	1.51	1.41
67	B1	787	G	O4'-C1'	7.55	1.51	1.41
67	B1	1618	G	O4'-C1'	7.55	1.51	1.41
67	B1	1938	G	C2'-C1'	7.55	1.61	1.53
67	B1	2932	C	C5'-C4'	7.55	1.60	1.51
21	A2	339	U	O4'-C1'	7.55	1.51	1.41
21	A2	1117	A	O4'-C1'	7.55	1.51	1.41
67	B1	1784	G	O4'-C1'	7.55	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	200	G	C5'-C4'	7.55	1.60	1.51
21	A2	1077	U	C5'-C4'	7.55	1.60	1.51
67	B1	1892	G	C2'-C1'	7.55	1.61	1.53
67	B1	2055	U	O4'-C1'	7.55	1.51	1.41
21	A2	1028	C	O4'-C1'	7.54	1.51	1.41
6	AC	57	ARG	CZ-NH2	7.54	1.42	1.33
10	AD	168	ARG	CD-NE	7.54	1.59	1.46
11	A1	73	C	C2'-C1'	-7.54	1.45	1.53
21	A2	732	G	O4'-C1'	7.54	1.51	1.41
67	B1	868	U	C3'-C2'	-7.54	1.44	1.52
67	B1	962	C	C2'-C1'	-7.54	1.45	1.53
11	A1	69	G	O4'-C1'	7.54	1.51	1.41
67	B1	1372	C	O4'-C1'	7.54	1.51	1.41
67	B1	3007	A	P-O5'	-7.54	1.52	1.59
67	B1	1653	U	C4'-C3'	-7.54	1.44	1.53
21	A2	237	C	O3'-P	-7.54	1.52	1.61
67	B1	932	C	C2'-C1'	-7.54	1.45	1.53
67	B1	3009	C	P-O5'	-7.54	1.52	1.59
21	A2	956	C	O3'-P	-7.53	1.52	1.61
27	A0	15	G	C2'-C1'	-7.53	1.45	1.53
67	B1	1397	U	C2'-C1'	-7.53	1.45	1.53
21	A2	1471	G	C3'-C2'	7.53	1.61	1.52
67	B1	500	C	O4'-C1'	7.53	1.51	1.41
21	A2	776	C	P-O5'	-7.53	1.52	1.59
21	A2	837	C	C2'-C1'	7.53	1.61	1.53
21	A2	1485	G	C2'-C1'	-7.53	1.45	1.53
67	B1	899	A	O4'-C1'	-7.53	1.31	1.41
67	B1	2117	U	C4'-C3'	7.53	1.61	1.53
21	A2	622	C	C2'-C1'	7.52	1.61	1.53
21	A2	889	G	P-O5'	-7.52	1.52	1.59
21	A2	369	A	P-O5'	-7.52	1.52	1.59
21	A2	498	C	C2'-C1'	-7.52	1.45	1.53
67	B1	2679	A	O4'-C1'	7.52	1.51	1.41
67	B1	1254	C	O4'-C1'	7.52	1.51	1.41
51	Bj	8	ARG	CZ-NH2	7.52	1.42	1.33
67	B1	2513	C	C2'-C1'	-7.52	1.45	1.53
68	B3	104	C	O4'-C1'	7.52	1.51	1.41
67	B1	875	G	C2'-C1'	-7.52	1.45	1.53
67	B1	1672	G	C2'-C1'	-7.52	1.45	1.53
67	B1	2355	G	C2'-C1'	-7.52	1.45	1.53
67	B1	1080	G	C4'-C3'	7.51	1.61	1.53
21	A2	1137	G	C4'-C3'	7.51	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	447	G	P-O5'	-7.51	1.52	1.59
24	AA	138	ARG	CZ-NH1	7.51	1.42	1.33
67	B1	361	G	C4'-C3'	7.51	1.61	1.53
67	B1	1038	U	O4'-C1'	7.51	1.51	1.41
67	B1	1862	G	C2'-C1'	-7.51	1.45	1.53
21	A2	210	A	C4'-O4'	7.51	1.55	1.45
67	B1	765	G	O4'-C1'	7.51	1.51	1.41
67	B1	3016	G	C2'-C1'	-7.51	1.45	1.53
21	A2	72	C	C3'-C2'	7.50	1.61	1.52
21	A2	1290	U	O4'-C1'	7.50	1.51	1.41
67	B1	261	A	C2'-C1'	-7.50	1.45	1.53
67	B1	1292	C	C2'-C1'	-7.50	1.45	1.53
67	B1	2294	A	P-O5'	-7.50	1.52	1.59
21	A2	1063	A	O4'-C1'	7.50	1.51	1.41
21	A2	1346	C	P-O5'	-7.50	1.52	1.59
67	B1	179	A	O4'-C1'	7.50	1.51	1.41
21	A2	545	C	O4'-C1'	7.50	1.51	1.41
67	B1	1150	G	C2'-C1'	-7.50	1.45	1.53
67	B1	2620	G	P-O5'	7.50	1.67	1.59
21	A2	173	G	C3'-C2'	-7.50	1.44	1.52
21	A2	415	C	P-O5'	-7.50	1.52	1.59
27	A0	36	U	P-O5'	7.50	1.67	1.59
34	B5	45	ARG	CZ-NH2	7.50	1.42	1.33
67	B1	2173	U	C3'-C2'	-7.50	1.44	1.52
68	B3	111	G	C4'-C3'	7.50	1.61	1.53
67	B1	2718	G	C2'-C1'	-7.50	1.45	1.53
67	B1	1044	C	C2'-C1'	-7.49	1.45	1.53
67	B1	2702	A	O3'-P	-7.49	1.52	1.61
21	A2	1395	G	C2'-C1'	-7.49	1.45	1.53
21	A2	1239	A	C5'-C4'	7.49	1.60	1.51
67	B1	526	C	C4'-C3'	7.49	1.61	1.53
67	B1	2665	G	C2'-C1'	7.49	1.61	1.53
67	B1	1968	A	C2'-C1'	7.49	1.61	1.53
67	B1	720	C	C4'-C3'	7.49	1.61	1.53
67	B1	2769	U	C2'-C1'	-7.49	1.45	1.53
67	B1	2789	G	C2'-C1'	-7.49	1.45	1.53
67	B1	716	U	C3'-C2'	7.49	1.61	1.52
67	B1	110	A	C4'-C3'	7.48	1.61	1.53
67	B1	1072	U	O4'-C1'	7.48	1.51	1.41
67	B1	3003	A	C2'-C1'	7.48	1.61	1.53
67	B1	2296	A	C4'-C3'	7.48	1.61	1.53
21	A2	73	U	O4'-C1'	7.48	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	542	G	O4'-C1'	7.48	1.51	1.41
67	B1	543	G	C2'-C1'	7.48	1.61	1.53
21	A2	670	C	C5'-C4'	7.48	1.60	1.51
21	A2	1118	C	O4'-C1'	-7.48	1.31	1.41
47	BI	91	ARG	CD-NE	7.48	1.59	1.46
67	B1	800	G	C3'-C2'	-7.48	1.44	1.52
68	B3	13	C	C5'-C4'	7.48	1.60	1.51
21	A2	691	G	O4'-C1'	7.48	1.51	1.41
21	A2	230	C	O4'-C1'	7.47	1.51	1.41
21	A2	388	G	C2'-C1'	-7.47	1.45	1.53
53	BD	56	ARG	CZ-NH1	7.47	1.42	1.33
67	B1	626	C	O4'-C1'	7.47	1.51	1.41
11	A1	14	A	O4'-C1'	7.47	1.51	1.41
67	B1	289	G	C2'-C1'	-7.47	1.45	1.53
67	B1	2700	U	C2'-C1'	-7.47	1.45	1.53
21	A2	554	C	P-O5'	-7.47	1.52	1.59
67	B1	2600	C	P-O5'	-7.47	1.52	1.59
67	B1	214	C	C2'-C1'	7.47	1.61	1.53
67	B1	622	A	O4'-C1'	7.47	1.51	1.41
67	B1	3023	G	O4'-C1'	7.47	1.51	1.41
67	B1	1944	C	C2'-C1'	7.47	1.61	1.53
67	B1	680	U	O4'-C1'	7.46	1.51	1.41
67	B1	1536	U	O3'-P	-7.46	1.52	1.61
67	B1	1582	G	C2'-C1'	-7.46	1.45	1.53
21	A2	151	G	P-O5'	7.46	1.67	1.59
21	A2	712	G	P-O5'	7.46	1.67	1.59
67	B1	669	G	C5'-C4'	7.46	1.60	1.51
67	B1	819	U	O4'-C1'	7.46	1.51	1.41
67	B1	885	A	C3'-C2'	-7.46	1.44	1.52
67	B1	942	U	C4'-C3'	7.46	1.61	1.53
67	B1	2142	U	O3'-P	-7.46	1.52	1.61
67	B1	2692	A	C2'-C1'	-7.46	1.45	1.53
67	B1	716	U	C4'-C3'	7.46	1.61	1.53
67	B1	1569	A	C2'-C1'	7.45	1.61	1.53
21	A2	640	U	C5'-C4'	7.45	1.60	1.51
67	B1	2756	G	C2'-C1'	-7.45	1.45	1.53
21	A2	278	A	C5'-C4'	7.45	1.60	1.51
67	B1	514	U	O3'-P	-7.45	1.52	1.61
67	B1	1619	C	C3'-C2'	7.45	1.61	1.52
67	B1	2986	G	C3'-O3'	7.45	1.52	1.42
67	B1	2399	C	C2'-C1'	-7.45	1.45	1.53
21	A2	1279	A	O4'-C1'	7.45	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1176	C	O4'-C1'	7.45	1.51	1.41
67	B1	1216	A	O4'-C1'	7.45	1.51	1.41
67	B1	1854	G	C2'-C1'	7.45	1.61	1.53
67	B1	1041	U	O3'-P	-7.44	1.52	1.61
67	B1	1712	U	C2'-C1'	-7.44	1.45	1.53
21	A2	921	G	C2'-C1'	-7.44	1.45	1.53
67	B1	1524	A	C2'-C1'	7.44	1.61	1.53
67	B1	2167	C	C2'-C1'	-7.44	1.45	1.53
67	B1	2471	A	C5'-C4'	7.44	1.60	1.51
67	B1	989	G	C2'-C1'	-7.44	1.45	1.53
21	A2	194	C	O4'-C1'	7.44	1.51	1.41
21	A2	414	G	O4'-C1'	7.44	1.51	1.41
67	B1	574	C	C2'-C1'	-7.44	1.45	1.53
67	B1	1340	G	C5'-C4'	7.44	1.60	1.51
67	B1	1789	A	O4'-C1'	7.44	1.51	1.41
67	B1	2672	A	O4'-C1'	7.44	1.51	1.41
21	A2	533	C	O4'-C1'	7.44	1.51	1.41
67	B1	2697	G	C5'-C4'	7.44	1.60	1.51
21	A2	683	A	P-O5'	-7.43	1.52	1.59
21	A2	347	G	O4'-C1'	7.43	1.51	1.41
67	B1	2602	G	C2'-O2'	-7.43	1.31	1.41
21	A2	768	A	O4'-C1'	-7.43	1.31	1.41
21	A2	1046	G	C2'-C1'	7.43	1.61	1.53
67	B1	27	G	C4'-C3'	7.43	1.61	1.53
67	B1	1207	G	C2'-C1'	7.43	1.61	1.53
21	A2	221	A	C3'-C2'	7.42	1.61	1.52
67	B1	561	C	C5'-C4'	7.42	1.60	1.51
67	B1	675	G	C2'-C1'	-7.42	1.45	1.53
67	B1	1706	G	C2'-C1'	7.42	1.61	1.53
67	B1	1790	G	C2'-C1'	-7.42	1.45	1.53
67	B1	1904	G	C2'-C1'	7.42	1.61	1.53
67	B1	470	A	O4'-C1'	-7.42	1.32	1.41
67	B1	713	C	O4'-C1'	7.42	1.51	1.41
21	A2	196	G	O4'-C1'	7.42	1.51	1.41
21	A2	528	G	C2'-C1'	-7.42	1.45	1.53
21	A2	630	A	C4'-C3'	7.42	1.61	1.53
67	B1	1981	G	P-O5'	-7.42	1.52	1.59
21	A2	1441	G	O3'-P	-7.42	1.52	1.61
32	BO	13	ARG	NE-CZ	7.42	1.42	1.33
67	B1	1146	U	C2'-C1'	7.42	1.61	1.53
67	B1	1765	A	C2'-C1'	-7.42	1.45	1.53
21	A2	763	G	O4'-C1'	-7.41	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1299	A	C4'-C3'	7.41	1.61	1.53
67	B1	2552	C	O4'-C1'	7.41	1.51	1.41
67	B1	1476	C	C2'-C1'	7.41	1.61	1.53
67	B1	2525	C	C5'-C4'	7.41	1.60	1.51
67	B1	1753	G	C4'-C3'	7.41	1.61	1.53
23	AT	9	ARG	CD-NE	7.41	1.59	1.46
67	B1	420	U	C5'-C4'	7.41	1.60	1.51
67	B1	1130	G	O4'-C1'	7.41	1.51	1.41
21	A2	1392	G	O4'-C1'	7.41	1.51	1.41
67	B1	1596	G	C5'-C4'	7.41	1.60	1.51
21	A2	1427	C	O3'-P	-7.40	1.52	1.61
27	A0	24	G	C4'-C3'	7.40	1.61	1.53
67	B1	2942	G	P-O5'	7.40	1.67	1.59
67	B1	1309	G	O4'-C1'	7.40	1.51	1.41
67	B1	1360	G	C4'-C3'	7.40	1.61	1.53
21	A2	862	C	C2'-C1'	-7.40	1.45	1.53
67	B1	2413	G	C4'-C3'	7.40	1.61	1.53
67	B1	411	U	P-O5'	-7.39	1.52	1.59
67	B1	109	G	C2'-C1'	7.39	1.61	1.53
21	A2	399	A	C5'-C4'	7.39	1.60	1.51
21	A2	318	C	C2'-C1'	-7.39	1.45	1.53
67	B1	443	C	C2'-C1'	-7.39	1.45	1.53
67	B1	3041	U	C5'-C4'	7.39	1.60	1.51
67	B1	2697	G	C2'-C1'	7.39	1.61	1.53
21	A2	443	C	O4'-C1'	7.38	1.51	1.41
67	B1	937	A	O3'-P	-7.38	1.52	1.61
67	B1	2018	C	C4'-C3'	7.38	1.61	1.53
21	A2	463	G	O4'-C1'	7.38	1.51	1.41
67	B1	577	C	P-O5'	-7.38	1.52	1.59
67	B1	3035	C	O4'-C1'	7.38	1.51	1.41
21	A2	1077	U	C3'-O3'	7.38	1.52	1.42
53	BD	158	ARG	CD-NE	7.38	1.58	1.46
67	B1	220	C	C4'-C3'	-7.38	1.45	1.53
67	B1	2089	C	C5'-C4'	7.38	1.60	1.51
21	A2	1006	C	C2'-C1'	7.38	1.61	1.53
67	B1	1458	C	C5'-C4'	7.38	1.60	1.51
67	B1	431	U	O3'-P	-7.38	1.52	1.61
67	B1	3026	C	C2'-C1'	7.38	1.61	1.53
67	B1	28	A	C3'-C2'	7.38	1.61	1.52
67	B1	2880	C	C2'-C1'	-7.37	1.45	1.53
21	A2	50	C	C5'-C4'	7.37	1.60	1.51
67	B1	1020	G	C5'-C4'	7.37	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	3045	G	C2'-C1'	7.37	1.61	1.53
67	B1	720	C	O4'-C1'	7.37	1.51	1.41
67	B1	1568	A	C2'-C1'	7.37	1.61	1.53
21	A2	317	A	C2'-C1'	-7.37	1.45	1.53
67	B1	1096	A	C4'-C3'	7.37	1.61	1.53
67	B1	2294	A	C2'-C1'	7.37	1.61	1.53
67	B1	1702	C	C5'-C4'	7.36	1.60	1.51
2	AK	67	GLU	CB-CG	7.36	1.66	1.52
21	A2	640	U	O3'-P	-7.36	1.52	1.61
67	B1	1851	U	O3'-P	-7.36	1.52	1.61
67	B1	2363	G	O3'-P	-7.36	1.52	1.61
21	A2	816	G	C5'-C4'	7.36	1.60	1.51
26	AP	20	ARG	CZ-NH2	7.36	1.42	1.33
67	B1	454	C	C5'-C4'	7.36	1.60	1.51
21	A2	1278	A	O4'-C1'	7.36	1.51	1.41
21	A2	547	U	O4'-C1'	7.35	1.51	1.41
67	B1	2334	G	O4'-C1'	7.35	1.51	1.41
67	B1	2602	G	P-O5'	-7.35	1.52	1.59
67	B1	1851	U	C2'-C1'	7.35	1.61	1.53
67	B1	2186	C	P-O5'	7.35	1.67	1.59
21	A2	1176	C	O4'-C1'	7.35	1.51	1.41
67	B1	305	G	C2'-C1'	7.35	1.61	1.53
67	B1	2580	G	C2'-C1'	-7.35	1.45	1.53
21	A2	611	A	C2'-C1'	7.35	1.61	1.53
59	BM	14	PRO	N-CD	-7.35	1.37	1.47
67	B1	2155	C	C3'-O3'	7.35	1.52	1.42
67	B1	2435	G	P-O5'	7.35	1.67	1.59
67	B1	2655	C	C5'-C4'	7.35	1.60	1.51
67	B1	1510	U	P-O5'	-7.35	1.52	1.59
11	A1	10	G	O4'-C1'	7.34	1.51	1.41
21	A2	457	G	P-O5'	-7.34	1.52	1.59
67	B1	917	A	O4'-C1'	-7.34	1.32	1.41
21	A2	137	A	O4'-C1'	7.34	1.51	1.41
2	AK	25	ARG	CD-NE	7.34	1.58	1.46
21	A2	1118	C	O3'-P	-7.34	1.52	1.61
21	A2	78	G	C2'-C1'	-7.33	1.45	1.53
21	A2	1285	C	C5'-C4'	7.33	1.60	1.51
67	B1	1111	G	C2'-C1'	-7.33	1.45	1.53
67	B1	737	G	O4'-C1'	7.33	1.51	1.41
67	B1	909	A	P-O5'	-7.33	1.52	1.59
67	B1	2934	C	O4'-C1'	7.33	1.51	1.41
67	B1	2183	A	C4'-O4'	7.33	1.55	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2573	C	C4'-C3'	-7.33	1.45	1.53
67	B1	2941	A	C2'-C1'	7.33	1.61	1.53
21	A2	758	U	C2'-C1'	-7.32	1.45	1.53
21	A2	1196	A	C2'-C1'	-7.32	1.45	1.53
67	B1	2214	U	O3'-P	-7.32	1.52	1.61
13	AX	39	ARG	CZ-NH1	7.32	1.42	1.33
67	B1	1643	A	C3'-C2'	7.32	1.61	1.52
67	B1	1626	A	C4'-C3'	7.32	1.61	1.53
21	A2	767	U	C2'-C1'	7.32	1.61	1.53
67	B1	1399	C	O3'-P	-7.32	1.52	1.61
67	B1	1684	C	C5'-C4'	7.31	1.60	1.51
67	B1	2903	U	O4'-C1'	7.31	1.51	1.41
67	B1	1002	A	O4'-C1'	7.31	1.51	1.41
24	AA	138	ARG	CD-NE	7.31	1.58	1.46
67	B1	2978	G	O4'-C1'	7.31	1.51	1.41
21	A2	1289	G	C2'-C1'	7.31	1.61	1.53
21	A2	1465	C	O3'-P	-7.31	1.52	1.61
53	BD	249	ARG	CD-NE	7.30	1.58	1.46
67	B1	1613	A	C2'-C1'	7.30	1.61	1.53
67	B1	2275	G	C5'-C4'	7.30	1.60	1.51
67	B1	2586	A	P-O5'	-7.30	1.52	1.59
21	A2	256	G	C2'-C1'	-7.30	1.45	1.53
21	A2	738	C	O3'-P	-7.30	1.52	1.61
67	B1	1871	C	C2'-C1'	-7.30	1.45	1.53
67	B1	2045	C	O4'-C1'	7.30	1.51	1.41
27	A0	38	A	O4'-C1'	7.30	1.51	1.41
38	Bb	8	ARG	NE-CZ	7.30	1.42	1.33
67	B1	1656	C	C5'-C4'	7.30	1.60	1.51
67	B1	1807	G	C2'-C1'	7.30	1.61	1.53
67	B1	1894	A	C2'-C1'	7.30	1.61	1.53
67	B1	2003	C	C3'-O3'	7.30	1.52	1.42
67	B1	1831	C	C5'-C4'	7.30	1.60	1.51
21	A2	1441	G	O4'-C1'	7.30	1.51	1.41
67	B1	174	C	O3'-P	-7.30	1.52	1.61
67	B1	2120	C	C2'-C1'	-7.30	1.45	1.53
67	B1	2607	U	O4'-C1'	-7.30	1.32	1.41
27	A0	60	U	C4'-C3'	7.29	1.61	1.53
21	A2	1436	U	O4'-C1'	-7.29	1.32	1.41
67	B1	563	A	C2'-C1'	-7.29	1.45	1.53
67	B1	1287	G	P-O5'	-7.29	1.52	1.59
67	B1	1509	C	O3'-P	-7.29	1.52	1.61
67	B1	2443	G	C2'-C1'	-7.29	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2558	U	O4'-C1'	7.29	1.51	1.41
67	B1	2573	C	O4'-C1'	7.29	1.51	1.41
21	A2	512	U	C5'-C4'	7.29	1.60	1.51
21	A2	939	C	C2'-C1'	-7.29	1.45	1.53
67	B1	1083	G	C3'-O3'	7.29	1.52	1.42
21	A2	285	C	C2'-C1'	-7.29	1.45	1.53
21	A2	1094	U	O4'-C1'	7.29	1.51	1.41
67	B1	2241	U	P-O5'	-7.29	1.52	1.59
21	A2	186	U	O4'-C1'	7.28	1.51	1.41
21	A2	225	U	O4'-C1'	7.28	1.51	1.41
21	A2	817	U	C5'-C4'	7.28	1.60	1.51
67	B1	2567	C	O4'-C1'	7.28	1.51	1.41
67	B1	2644	G	O4'-C1'	7.28	1.51	1.41
67	B1	1214	C	C3'-C2'	7.28	1.60	1.52
67	B1	1989	G	O4'-C1'	7.28	1.51	1.41
67	B1	2441	A	C5'-C4'	7.28	1.60	1.51
67	B1	1933	U	O4'-C1'	7.28	1.51	1.41
67	B1	640	C	C5'-C4'	7.28	1.60	1.51
67	B1	2950	G	C2'-C1'	7.28	1.61	1.53
67	B1	2293	G	C4'-C3'	7.28	1.61	1.53
67	B1	14	A	C2'-C1'	-7.27	1.45	1.53
67	B1	2786	G	C5'-C4'	7.27	1.60	1.51
21	A2	69	U	O4'-C1'	7.27	1.51	1.41
67	B1	580	G	C2'-C1'	-7.27	1.45	1.53
67	B1	1173	G	O4'-C1'	7.27	1.51	1.41
67	B1	2095	U	O3'-P	-7.27	1.52	1.61
67	B1	1341	U	O3'-P	-7.27	1.52	1.61
21	A2	79	G	C5'-C4'	7.27	1.60	1.51
21	A2	714	G	C2'-C1'	7.27	1.61	1.53
21	A2	982	U	O4'-C1'	7.27	1.51	1.41
67	B1	488	A	O4'-C1'	7.27	1.51	1.41
67	B1	1761	C	C2'-C1'	-7.27	1.45	1.53
68	B3	18	G	O4'-C1'	-7.27	1.32	1.41
21	A2	377	A	O4'-C1'	7.27	1.51	1.41
67	B1	2573	C	C2'-C1'	7.27	1.61	1.53
67	B1	2105	A	O4'-C1'	7.27	1.51	1.41
21	A2	1396	C	C2'-C1'	-7.26	1.45	1.53
67	B1	339	A	P-O5'	-7.26	1.52	1.59
67	B1	541	A	C5'-C4'	7.26	1.60	1.51
67	B1	2536	A	C2'-C1'	-7.26	1.45	1.53
21	A2	1405	C	C3'-C2'	7.26	1.60	1.52
67	B1	149	G	C3'-C2'	-7.26	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	385	U	O4'-C1'	-7.26	1.32	1.41
21	A2	1032	A	P-O5'	-7.26	1.52	1.59
67	B1	105	C	O4'-C1'	7.26	1.51	1.41
67	B1	258	C	C5'-C4'	7.26	1.60	1.51
67	B1	495	U	O3'-P	-7.26	1.52	1.61
67	B1	877	U	C4'-O4'	7.26	1.54	1.45
21	A2	993	C	O4'-C1'	7.26	1.51	1.41
67	B1	1075	G	O4'-C1'	-7.26	1.32	1.41
68	B3	79	U	C5'-C4'	7.26	1.60	1.51
21	A2	82	G	C4'-O4'	7.26	1.54	1.45
67	B1	1308	G	O4'-C1'	7.26	1.51	1.41
67	B1	1941	A	O3'-P	-7.26	1.52	1.61
67	B1	2027	G	C2'-C1'	-7.26	1.45	1.53
21	A2	700	G	P-O5'	-7.25	1.52	1.59
67	B1	2152	G	P-O5'	7.25	1.67	1.59
21	A2	236	C	C2'-C1'	7.25	1.61	1.53
21	A2	10	G	C2'-C1'	-7.25	1.45	1.53
21	A2	823	A	O4'-C1'	7.25	1.51	1.41
67	B1	2527	G	C5'-C4'	7.25	1.60	1.51
21	A2	1302	C	C2'-C1'	7.25	1.61	1.53
67	B1	139	G	O4'-C1'	-7.25	1.32	1.41
67	B1	675	G	P-O5'	-7.25	1.52	1.59
67	B1	1783	U	O3'-P	-7.25	1.52	1.61
67	B1	1998	G	C2'-C1'	7.25	1.61	1.53
67	B1	1449	C	P-O5'	-7.25	1.52	1.59
67	B1	1255	C	O4'-C1'	7.24	1.51	1.41
67	B1	808	A	C2'-C1'	7.24	1.61	1.53
67	B1	819	U	C2'-C1'	7.24	1.61	1.53
67	B1	1989	G	C5'-C4'	7.24	1.60	1.51
67	B1	2793	C	O3'-P	-7.24	1.52	1.61
21	A2	855	C	C4'-C3'	-7.24	1.45	1.53
67	B1	1258	G	C5'-C4'	7.24	1.60	1.51
67	B1	405	G	O4'-C1'	7.24	1.51	1.41
21	A2	1032	A	C2'-C1'	7.24	1.61	1.53
21	A2	1038	C	C2'-C1'	-7.24	1.45	1.53
67	B1	1511	C	C5'-C4'	7.24	1.60	1.51
67	B1	2457	C	O4'-C1'	7.24	1.51	1.41
67	B1	2855	G	C4'-C3'	7.24	1.61	1.53
21	A2	39	U	O4'-C1'	7.23	1.51	1.41
21	A2	63	G	O3'-P	-7.23	1.52	1.61
67	B1	1874	G	C2'-C1'	-7.23	1.45	1.53
67	B1	1552	C	P-O5'	7.23	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2672	A	C2'-C1'	7.23	1.61	1.53
21	A2	422	U	O4'-C1'	-7.23	1.32	1.41
21	A2	602	G	C2'-C1'	7.23	1.61	1.53
21	A2	732	G	C2'-C1'	-7.23	1.45	1.53
67	B1	687	C	C2'-C1'	-7.23	1.45	1.53
67	B1	2998	G	O3'-P	-7.23	1.52	1.61
67	B1	1587	A	O4'-C1'	7.23	1.51	1.41
21	A2	107	C	O3'-P	-7.23	1.52	1.61
21	A2	796	C	C2'-C1'	-7.23	1.45	1.53
21	A2	1296	U	C5'-C4'	7.23	1.60	1.51
67	B1	353	C	O4'-C1'	7.23	1.51	1.41
67	B1	2305	U	C3'-C2'	7.23	1.60	1.52
21	A2	1036	G	O4'-C1'	-7.22	1.32	1.41
21	A2	1146	G	O4'-C1'	7.22	1.51	1.41
67	B1	96	C	O4'-C1'	7.22	1.51	1.41
67	B1	2600	C	O4'-C1'	7.22	1.51	1.41
21	A2	1001	A	O4'-C1'	7.22	1.51	1.41
21	A2	1464	C	O4'-C1'	7.22	1.51	1.41
46	BA	173	SER	CA-CB	7.22	1.63	1.52
67	B1	2650	G	C4'-C3'	-7.22	1.45	1.53
67	B1	625	A	C3'-C2'	7.21	1.60	1.52
67	B1	1802	G	O4'-C1'	7.21	1.51	1.41
11	A1	62	C	C3'-C2'	7.21	1.60	1.52
67	B1	1884	C	O4'-C1'	7.21	1.51	1.41
67	B1	2995	A	C5'-C4'	7.21	1.60	1.51
11	A1	76	C	C2'-C1'	7.21	1.61	1.53
67	B1	232	U	C2'-C1'	7.21	1.61	1.53
67	B1	1625	A	C2'-C1'	-7.21	1.45	1.53
21	A2	924	U	O4'-C1'	7.21	1.51	1.41
67	B1	154	U	C3'-O3'	-7.21	1.32	1.42
67	B1	404	G	C5'-C4'	7.21	1.59	1.51
21	A2	409	C	O3'-P	-7.21	1.52	1.61
67	B1	2280	G	C2'-C1'	7.21	1.61	1.53
21	A2	93	A	C4'-C3'	7.20	1.61	1.53
67	B1	776	G	C5'-C4'	7.20	1.59	1.51
67	B1	1512	G	P-O5'	7.20	1.67	1.59
21	A2	89	G	O4'-C1'	7.20	1.51	1.41
21	A2	1401	U	C4'-O4'	7.20	1.54	1.45
27	A0	18	G	C2'-C1'	7.20	1.61	1.53
67	B1	800	G	C5'-C4'	7.20	1.59	1.51
67	B1	2231	G	C4'-O4'	-7.20	1.36	1.45
67	B1	2494	A	C3'-C2'	-7.20	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	778	G	P-O5'	-7.20	1.52	1.59
67	B1	718	G	C5'-C4'	7.20	1.59	1.51
21	A2	676	G	O3'-P	-7.20	1.52	1.61
53	BD	55	ARG	CD-NE	7.20	1.58	1.46
67	B1	215	A	O3'-P	-7.19	1.52	1.61
67	B1	755	G	C2'-C1'	7.19	1.61	1.53
67	B1	1832	G	C2'-C1'	-7.19	1.45	1.53
67	B1	1834	C	O4'-C1'	7.19	1.51	1.41
67	B1	2377	C	P-O5'	-7.19	1.52	1.59
21	A2	77	G	C4'-O4'	7.19	1.54	1.45
67	B1	1567	C	C4'-O4'	-7.19	1.36	1.45
67	B1	2544	C	P-O5'	-7.19	1.52	1.59
32	BO	191	ARG	CD-NE	7.19	1.58	1.46
67	B1	2022	U	C2'-C1'	7.19	1.61	1.53
21	A2	647	G	O4'-C1'	7.19	1.50	1.41
21	A2	1114	G	O4'-C1'	-7.19	1.32	1.41
67	B1	2013	A	C2'-C1'	7.18	1.61	1.53
1	AQ	80	ARG	CZ-NH2	7.18	1.42	1.33
67	B1	2480	G	O4'-C1'	7.18	1.50	1.41
21	A2	185	G	C5'-C4'	7.18	1.59	1.51
21	A2	315	A	C2'-C1'	7.18	1.61	1.53
67	B1	2481	G	O3'-P	-7.18	1.52	1.61
67	B1	2511	C	O3'-P	-7.18	1.52	1.61
43	Bk	148	ARG	CZ-NH2	7.18	1.42	1.33
67	B1	477	C	O4'-C1'	7.18	1.50	1.41
67	B1	2245	C	C4'-O4'	-7.18	1.36	1.45
67	B1	467	U	C2'-O2'	7.18	1.50	1.41
67	B1	1818	G	C2'-C1'	-7.17	1.45	1.53
67	B1	112	U	C5'-C4'	7.17	1.59	1.51
67	B1	964	C	O4'-C1'	7.17	1.50	1.41
67	B1	2259	G	C5'-C4'	7.17	1.59	1.51
67	B1	2845	C	C3'-O3'	7.17	1.52	1.42
21	A2	623	C	O4'-C1'	7.17	1.50	1.41
46	BA	95	ARG	CZ-NH1	7.17	1.42	1.33
21	A2	790	G	C4'-O4'	7.17	1.54	1.45
21	A2	1488	C	C2'-C1'	-7.17	1.45	1.53
67	B1	2743	U	C2'-C1'	7.17	1.61	1.53
21	A2	704	C	C5'-C4'	7.17	1.59	1.51
21	A2	896	A	O3'-P	-7.17	1.52	1.61
21	A2	503	G	O3'-P	-7.17	1.52	1.61
67	B1	96	C	C2'-C1'	-7.17	1.45	1.53
21	A2	1348	C	O4'-C1'	7.16	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	A0	10	G	C4'-C3'	7.16	1.61	1.53
46	BA	45	ARG	NE-CZ	7.16	1.42	1.33
21	A2	233	C	P-O5'	7.16	1.67	1.59
27	A0	49	C	C4'-C3'	7.16	1.61	1.53
46	BA	56	ARG	NE-CZ	7.16	1.42	1.33
21	A2	1477	U	C4'-C3'	-7.16	1.45	1.53
67	B1	139	G	C4'-C3'	7.16	1.61	1.53
67	B1	696	G	O4'-C1'	-7.16	1.32	1.41
67	B1	2883	C	O3'-P	-7.16	1.52	1.61
67	B1	2917	G	P-O5'	-7.16	1.52	1.59
67	B1	2996	A	C2'-C1'	-7.16	1.45	1.53
21	A2	832	G	O4'-C1'	7.15	1.50	1.41
27	A0	21	G	O4'-C1'	7.15	1.50	1.41
67	B1	360	G	C3'-C2'	-7.15	1.44	1.52
67	B1	992	G	C3'-C2'	-7.15	1.44	1.52
67	B1	2408	G	C2'-C1'	-7.15	1.45	1.53
67	B1	546	C	C4'-O4'	7.14	1.54	1.45
21	A2	900	G	C2'-C1'	-7.14	1.45	1.53
67	B1	27	G	C3'-C2'	-7.14	1.44	1.52
27	A0	34	G	C3'-O3'	7.14	1.52	1.42
27	A0	52	G	O4'-C1'	7.14	1.50	1.41
67	B1	539	A	O3'-P	-7.14	1.52	1.61
67	B1	657	U	P-O5'	-7.14	1.52	1.59
67	B1	876	C	P-O5'	-7.14	1.52	1.59
67	B1	52	A	C2'-C1'	-7.14	1.45	1.53
67	B1	1417	U	C3'-C2'	7.14	1.60	1.52
67	B1	2262	C	C2'-C1'	-7.14	1.45	1.53
68	B3	116	C	P-O5'	-7.14	1.52	1.59
18	AF	5	TRP	CA-CB	7.13	1.69	1.53
67	B1	3	G	P-O5'	-7.13	1.52	1.59
67	B1	1840	G	O3'-P	-7.13	1.52	1.61
67	B1	2885	C	C2'-C1'	-7.13	1.45	1.53
67	B1	1783	U	O4'-C1'	7.13	1.50	1.41
67	B1	1842	C	C2'-C1'	-7.13	1.45	1.53
21	A2	887	G	C2'-C1'	-7.13	1.45	1.53
67	B1	2961	A	C2'-C1'	7.13	1.61	1.53
67	B1	429	U	C2'-O2'	-7.13	1.32	1.41
67	B1	1118	A	C4'-C3'	7.13	1.60	1.53
21	A2	1033	G	O3'-P	-7.13	1.52	1.61
67	B1	539	A	P-O5'	-7.13	1.52	1.59
67	B1	1735	G	P-O5'	-7.13	1.52	1.59
67	B1	1904	G	P-O5'	-7.13	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	766	G	C4'-C3'	7.13	1.60	1.53
67	B1	2346	A	P-O5'	7.13	1.66	1.59
67	B1	2401	A	C5'-C4'	7.13	1.59	1.51
67	B1	1732	C	O3'-P	-7.12	1.52	1.61
21	A2	1277	C	C2'-C1'	-7.12	1.45	1.53
67	B1	1843	C	C5'-C4'	7.12	1.59	1.51
67	B1	1921	U	P-O5'	-7.12	1.52	1.59
67	B1	38	U	C2'-C1'	-7.12	1.45	1.53
67	B1	1151	G	C2'-C1'	-7.12	1.45	1.53
67	B1	2909	G	P-O5'	7.12	1.66	1.59
21	A2	567	A	O4'-C1'	7.12	1.50	1.41
67	B1	1175	C	O4'-C1'	7.12	1.50	1.41
67	B1	895	C	C4'-C3'	-7.12	1.45	1.53
67	B1	1288	C	C2'-C1'	-7.12	1.45	1.53
67	B1	856	A	O4'-C1'	7.12	1.50	1.41
67	B1	2705	C	O3'-P	-7.12	1.52	1.61
67	B1	892	U	O4'-C1'	7.12	1.50	1.41
67	B1	2614	C	C3'-C2'	-7.12	1.45	1.52
68	B3	46	G	O3'-P	-7.12	1.52	1.61
67	B1	419	G	C4'-C3'	7.11	1.60	1.53
67	B1	3016	G	C3'-C2'	7.11	1.60	1.52
25	AH	76	GLY	CA-C	-7.11	1.40	1.51
67	B1	902	C	C5'-C4'	7.11	1.59	1.51
67	B1	2994	G	O4'-C1'	7.11	1.50	1.41
67	B1	495	U	C2'-C1'	-7.11	1.45	1.53
21	A2	853	G	C2'-C1'	-7.11	1.45	1.53
21	A2	854	C	O4'-C1'	7.11	1.50	1.41
67	B1	693	G	C2'-C1'	7.11	1.61	1.53
67	B1	2836	G	O3'-P	-7.11	1.52	1.61
67	B1	417	C	O4'-C1'	7.10	1.50	1.41
67	B1	1076	G	O4'-C1'	-7.10	1.32	1.41
67	B1	199	C	C2'-C1'	-7.10	1.45	1.53
67	B1	613	C	O4'-C1'	-7.10	1.32	1.41
67	B1	1423	G	C5'-C4'	7.10	1.59	1.51
11	A1	34	U	C2'-C1'	7.10	1.61	1.53
21	A2	612	C	O3'-P	-7.10	1.52	1.61
21	A2	760	C	C4'-O4'	7.10	1.54	1.45
67	B1	2781	A	C4'-C3'	-7.10	1.45	1.53
21	A2	404	C	C2'-C1'	-7.10	1.45	1.53
21	A2	1249	A	C4'-O4'	7.10	1.54	1.45
21	A2	1277	C	O4'-C1'	7.10	1.50	1.41
27	A0	56	C	P-O5'	-7.10	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1357	G	C4'-C3'	-7.10	1.45	1.53
68	B3	17	G	C4'-O4'	-7.10	1.36	1.45
11	A1	38	G	C5'-C4'	7.10	1.59	1.51
21	A2	105	C	O4'-C1'	7.10	1.50	1.41
67	B1	1744	A	O4'-C1'	-7.10	1.32	1.41
67	B1	631	G	O4'-C1'	7.09	1.50	1.41
21	A2	367	G	C5'-C4'	7.09	1.59	1.51
21	A2	53	G	O4'-C1'	7.09	1.50	1.41
21	A2	513	A	C3'-C2'	7.09	1.60	1.52
21	A2	648	A	O4'-C1'	7.09	1.50	1.41
21	A2	727	G	P-O5'	-7.09	1.52	1.59
21	A2	1428	G	O3'-P	-7.09	1.52	1.61
21	A2	1393	A	O4'-C1'	7.09	1.50	1.41
15	AE	19	TRP	CE3-CZ3	7.09	1.50	1.38
34	BK	45	ARG	NE-CZ	7.08	1.42	1.33
67	B1	2549	A	C5'-C4'	7.08	1.59	1.51
21	A2	501	G	C4'-C3'	7.08	1.60	1.53
67	B1	530	A	C2'-C1'	7.08	1.61	1.53
67	B1	1507	A	C2'-C1'	-7.08	1.45	1.53
67	B1	1685	C	O4'-C1'	7.08	1.50	1.41
21	A2	1237	G	C5'-C4'	7.08	1.59	1.51
62	BN	136	ARG	NE-CZ	7.08	1.42	1.33
21	A2	38	G	O4'-C1'	7.08	1.50	1.41
67	B1	1655	G	O3'-P	-7.08	1.52	1.61
67	B1	2000	G	O4'-C1'	7.08	1.50	1.41
67	B1	3019	C	O3'-P	-7.08	1.52	1.61
21	A2	1206	G	C4'-C3'	-7.08	1.45	1.53
67	B1	2793	C	O4'-C1'	7.08	1.50	1.41
21	A2	165	U	C3'-O3'	7.08	1.52	1.42
67	B1	2617	G	O3'-P	-7.08	1.52	1.61
21	A2	1138	G	O4'-C1'	7.07	1.50	1.41
67	B1	326	C	P-O5'	-7.07	1.52	1.59
67	B1	1831	C	C2'-C1'	-7.07	1.45	1.53
67	B1	949	C	O4'-C1'	7.07	1.50	1.41
67	B1	1147	G	O4'-C1'	7.07	1.50	1.41
21	A2	525	A	C2'-C1'	7.07	1.61	1.53
31	BY	129	SER	CA-CB	7.07	1.63	1.52
68	B3	7	C	O4'-C1'	7.07	1.50	1.41
21	A2	238	G	O3'-P	-7.07	1.52	1.61
21	A2	363	C	C4'-C3'	7.07	1.60	1.53
67	B1	667	C	O4'-C1'	7.07	1.50	1.41
67	B1	2011	U	C2'-C1'	7.07	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1481	G	O3'-P	-7.06	1.52	1.61
67	B1	2628	U	C4'-O4'	7.06	1.54	1.45
8	AR	62	ARG	CZ-NH2	7.06	1.42	1.33
67	B1	2922	G	C5'-C4'	7.06	1.59	1.51
67	B1	1610	C	C2'-C1'	-7.06	1.45	1.53
67	B1	2934	C	C3'-O3'	7.06	1.52	1.42
21	A2	62	G	C4'-C3'	-7.06	1.45	1.53
21	A2	1064	C	P-O5'	-7.06	1.52	1.59
27	A0	51	C	O4'-C1'	7.06	1.50	1.41
21	A2	1040	A	C3'-O3'	7.05	1.52	1.42
67	B1	2519	C	P-O5'	-7.05	1.52	1.59
21	A2	504	G	C2'-C1'	-7.05	1.45	1.53
21	A2	815	C	O3'-P	-7.05	1.52	1.61
21	A2	1150	G	O3'-P	-7.05	1.52	1.61
27	A0	41	C	C4'-O4'	-7.05	1.36	1.45
67	B1	840	G	O3'-P	-7.05	1.52	1.61
67	B1	1272	A	O3'-P	-7.05	1.52	1.61
11	A1	32	A	O4'-C1'	7.05	1.50	1.41
21	A2	152	G	O3'-P	-7.05	1.52	1.61
21	A2	261	G	C2'-C1'	-7.05	1.45	1.53
67	B1	1358	C	C2'-C1'	-7.05	1.45	1.53
67	B1	200	G	O4'-C1'	7.05	1.50	1.41
67	B1	1120	C	C2'-C1'	-7.05	1.45	1.53
68	B3	21	C	C2'-C1'	-7.05	1.45	1.53
21	A2	178	C	C2'-C1'	7.04	1.61	1.53
21	A2	1152	C	C2'-C1'	-7.04	1.45	1.53
21	A2	1187	A	C2'-C1'	-7.04	1.45	1.53
67	B1	1695	G	C2'-C1'	-7.04	1.45	1.53
67	B1	2986	G	O3'-P	-7.04	1.52	1.61
21	A2	195	C	C4'-C3'	7.04	1.60	1.53
67	B1	672	C	C2'-C1'	-7.04	1.45	1.53
67	B1	800	G	P-O5'	-7.04	1.52	1.59
67	B1	1286	G	O4'-C1'	7.04	1.50	1.41
67	B1	2138	A	C2'-C1'	-7.04	1.45	1.53
68	B3	71	G	O4'-C1'	-7.04	1.32	1.41
67	B1	1583	G	O3'-P	-7.04	1.52	1.61
67	B1	167	G	C2'-C1'	-7.04	1.45	1.53
67	B1	1602	C	O4'-C1'	7.04	1.50	1.41
67	B1	1259	G	P-O5'	-7.04	1.52	1.59
67	B1	1596	G	O4'-C1'	7.04	1.50	1.41
67	B1	2317	G	O4'-C1'	-7.04	1.32	1.41
21	A2	384	G	C5'-C4'	7.03	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	914	U	C2'-C1'	-7.03	1.45	1.53
67	B1	1566	G	C4'-O4'	-7.03	1.36	1.45
67	B1	2178	A	C5'-C4'	7.03	1.59	1.51
6	AC	83	GLU	CD-OE1	7.03	1.33	1.25
21	A2	1141	G	C2'-C1'	-7.03	1.45	1.53
21	A2	1324	U	C3'-C2'	7.03	1.60	1.52
67	B1	705	G	C2'-C1'	-7.03	1.45	1.53
21	A2	995	G	C2'-C1'	-7.03	1.45	1.53
67	B1	784	C	C5'-C4'	7.03	1.59	1.51
68	B3	117	G	O4'-C1'	7.03	1.50	1.41
35	BL	12	ARG	C-N	7.02	1.45	1.33
67	B1	2577	U	O4'-C1'	7.02	1.50	1.41
67	B1	797	C	C2'-C1'	7.02	1.61	1.53
67	B1	1462	G	O3'-P	-7.02	1.52	1.61
67	B1	2415	C	O4'-C1'	7.02	1.50	1.41
68	B3	69	C	P-O5'	7.02	1.66	1.59
67	B1	1279	U	C2'-C1'	7.02	1.61	1.53
67	B1	1517	G	C2'-C1'	7.02	1.61	1.53
21	A2	401	U	O4'-C1'	7.02	1.50	1.41
67	B1	2252	C	O4'-C1'	7.02	1.50	1.41
11	A1	14	A	C3'-C2'	7.01	1.60	1.52
21	A2	424	U	P-O5'	7.01	1.66	1.59
67	B1	1634	A	C5'-C4'	7.01	1.59	1.51
21	A2	741	A	C5'-C4'	7.01	1.59	1.51
22	AY	30	PHE	CG-CD1	7.01	1.49	1.38
67	B1	2174	G	O3'-P	-7.01	1.52	1.61
67	B1	172	C	O4'-C1'	7.01	1.50	1.41
67	B1	570	G	C2'-C1'	-7.01	1.45	1.53
67	B1	2361	C	O4'-C1'	7.01	1.50	1.41
67	B1	2754	A	O4'-C1'	7.00	1.50	1.41
68	B3	49	A	O4'-C1'	7.00	1.50	1.41
21	A2	26	A	C2'-C1'	-7.00	1.45	1.53
21	A2	686	C	C2'-C1'	-7.00	1.45	1.53
21	A2	1326	G	O4'-C1'	-7.00	1.32	1.41
67	B1	1853	C	P-O5'	-7.00	1.52	1.59
21	A2	1062	G	O4'-C1'	7.00	1.50	1.41
67	B1	1644	G	O4'-C1'	7.00	1.50	1.41
21	A2	141	C	C5'-C4'	7.00	1.59	1.51
67	B1	722	C	C5'-C4'	7.00	1.59	1.51
67	B1	788	A	C2'-O2'	7.00	1.50	1.41
67	B1	2957	G	P-O5'	-7.00	1.52	1.59
21	A2	796	C	C4'-C3'	7.00	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	898	G	O3'-P	-7.00	1.52	1.61
67	B1	2583	G	C5'-C4'	7.00	1.59	1.51
21	A2	1029	G	C4'-C3'	7.00	1.60	1.53
11	A1	20	G	C2'-C1'	6.99	1.61	1.53
21	A2	168	G	P-O5'	-6.99	1.52	1.59
21	A2	968	C	C2'-C1'	-6.99	1.45	1.53
67	B1	2282	G	O4'-C1'	-6.99	1.32	1.41
68	B3	55	G	O4'-C1'	6.99	1.50	1.41
21	A2	45	U	C5'-C4'	6.99	1.59	1.51
21	A2	1476	C	C3'-C2'	-6.99	1.45	1.52
67	B1	131	C	O3'-P	-6.99	1.52	1.61
21	A2	1235	A	O4'-C1'	6.99	1.50	1.41
67	B1	356	C	O4'-C1'	6.99	1.50	1.41
67	B1	566	G	P-O5'	6.99	1.66	1.59
67	B1	2092	G	O4'-C1'	6.99	1.50	1.41
8	AR	21	CYS	CB-SG	6.99	1.94	1.82
21	A2	577	C	C2'-C1'	-6.99	1.45	1.53
67	B1	984	U	C2'-C1'	-6.99	1.45	1.53
67	B1	1909	C	C5'-C4'	6.99	1.59	1.51
67	B1	3025	C	O4'-C1'	6.99	1.50	1.41
21	A2	624	G	C2'-C1'	-6.98	1.45	1.53
67	B1	2743	U	O4'-C1'	6.98	1.50	1.41
21	A2	367	G	C4'-C3'	-6.98	1.45	1.53
67	B1	2500	G	C3'-C2'	6.98	1.60	1.52
67	B1	26	G	C2'-C1'	-6.98	1.45	1.53
67	B1	2033	G	C2'-C1'	6.98	1.61	1.53
52	BB	82	GLU	CG-CD	6.98	1.62	1.51
67	B1	1343	C	C5'-C4'	6.98	1.59	1.51
67	B1	1949	A	C3'-O3'	6.98	1.51	1.42
67	B1	703	G	C3'-O3'	6.98	1.51	1.42
21	A2	692	G	O3'-P	-6.97	1.52	1.61
21	A2	1421	C	P-O5'	6.97	1.66	1.59
27	A0	1	G	O3'-P	-6.97	1.52	1.61
67	B1	927	G	O3'-P	-6.97	1.52	1.61
21	A2	1222	C	C5'-C4'	6.97	1.59	1.51
21	A2	838	C	O3'-P	-6.97	1.52	1.61
27	A0	73	G	O4'-C1'	-6.97	1.32	1.41
67	B1	1628	C	C5'-C4'	6.97	1.59	1.51
66	B1	7	ARG	CD-NE	6.97	1.58	1.46
67	B1	2534	C	C2'-O2'	-6.97	1.32	1.41
67	B1	3006	G	C4'-C3'	6.97	1.60	1.53
21	A2	386	C	C2'-C1'	-6.97	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	A1	45	G	C3'-O3'	6.96	1.51	1.42
21	A2	335	G	O3'-P	-6.96	1.52	1.61
67	B1	1450	C	P-O5'	6.96	1.66	1.59
67	B1	2950	G	C5'-C4'	-6.96	1.43	1.51
21	A2	206	C	P-O5'	-6.96	1.52	1.59
67	B1	1041	U	P-O5'	-6.96	1.52	1.59
67	B1	1761	C	O4'-C1'	6.96	1.50	1.41
67	B1	2576	C	P-O5'	-6.96	1.52	1.59
67	B1	222	A	O4'-C1'	6.96	1.50	1.41
21	A2	1391	U	O4'-C1'	6.96	1.50	1.41
67	B1	1558	U	C2'-C1'	6.96	1.61	1.53
67	B1	705	G	O4'-C1'	6.96	1.50	1.41
67	B1	1553	G	C2'-C1'	6.96	1.61	1.53
67	B1	1836	A	C5'-C4'	6.96	1.59	1.51
67	B1	2285	G	C2'-C1'	6.96	1.61	1.53
67	B1	1367	A	P-O5'	-6.95	1.52	1.59
21	A2	1370	U	C2'-C1'	6.95	1.60	1.53
33	BC	92	GLY	CA-C	-6.95	1.40	1.51
67	B1	475	U	C4'-O4'	-6.95	1.36	1.45
67	B1	1990	U	O3'-P	-6.95	1.52	1.61
21	A2	306	C	C2'-C1'	6.95	1.60	1.53
67	B1	1707	A	C3'-O3'	6.95	1.51	1.42
21	A2	268	C	C5'-C4'	6.94	1.59	1.51
21	A2	621	G	O4'-C1'	6.94	1.50	1.41
68	B3	63	G	C2'-C1'	-6.94	1.45	1.53
21	A2	742	U	P-O5'	-6.94	1.52	1.59
67	B1	347	G	P-O5'	6.94	1.66	1.59
67	B1	497	G	O4'-C1'	6.94	1.50	1.41
67	B1	2015	G	P-O5'	-6.94	1.52	1.59
67	B1	2773	A	C5'-C4'	6.94	1.59	1.51
67	B1	1837	A	C3'-C2'	6.94	1.60	1.52
21	A2	603	G	C2'-C1'	-6.94	1.45	1.53
5	AW	10	ARG	CD-NE	6.94	1.58	1.46
21	A2	12	U	O4'-C1'	6.94	1.50	1.41
67	B1	1530	A	C2'-C1'	6.94	1.60	1.53
67	B1	2565	A	C2'-C1'	-6.93	1.45	1.53
21	A2	1186	C	C2'-C1'	-6.93	1.45	1.53
21	A2	1444	G	P-O5'	-6.93	1.52	1.59
67	B1	970	G	C5'-C4'	6.93	1.59	1.51
67	B1	3012	C	O3'-P	-6.93	1.52	1.61
21	A2	1088	U	C3'-O3'	6.93	1.51	1.42
67	B1	248	C	O3'-P	-6.93	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	501	C	C4'-C3'	6.93	1.60	1.53
67	B1	768	C	C4'-O4'	-6.93	1.36	1.45
67	B1	1323	U	O4'-C1'	6.93	1.50	1.41
67	B1	41	G	C5'-C4'	6.93	1.59	1.51
67	B1	848	A	C2'-C1'	6.93	1.60	1.53
67	B1	1753	G	C2'-C1'	6.93	1.60	1.53
68	B3	15	G	C2'-C1'	-6.93	1.45	1.53
67	B1	1034	G	C4'-C3'	-6.92	1.45	1.53
67	B1	390	C	C2'-C1'	-6.92	1.45	1.53
67	B1	1585	U	P-O5'	-6.92	1.52	1.59
21	A2	799	C	C2'-C1'	-6.92	1.45	1.53
67	B1	1610	C	C3'-O3'	6.92	1.51	1.42
21	A2	1274	C	O4'-C1'	6.92	1.50	1.41
58	BP	86	SER	CA-CB	6.92	1.63	1.52
67	B1	449	G	C4'-C3'	-6.92	1.45	1.53
67	B1	1514	C	C2'-C1'	-6.92	1.45	1.53
67	B1	1599	A	P-O5'	-6.92	1.52	1.59
21	A2	932	C	C2'-C1'	-6.91	1.45	1.53
67	B1	1741	C	C2'-C1'	-6.91	1.45	1.53
67	B1	2481	G	C2'-C1'	6.91	1.60	1.53
21	A2	1233	G	C5'-C4'	6.91	1.59	1.51
67	B1	662	A	O4'-C1'	6.91	1.50	1.41
8	AR	67	ARG	CD-NE	6.91	1.58	1.46
67	B1	408	C	P-O5'	6.91	1.66	1.59
67	B1	1533	G	O4'-C1'	-6.91	1.32	1.41
21	A2	473	A	C5'-C4'	6.91	1.59	1.51
64	Bc	32	ARG	NE-CZ	6.91	1.42	1.33
67	B1	2835	A	C4'-C3'	6.91	1.60	1.53
67	B1	2577	U	C4'-C3'	-6.90	1.45	1.53
67	B1	2756	G	P-O5'	-6.90	1.52	1.59
67	B1	667	C	C2'-C1'	-6.90	1.45	1.53
67	B1	1893	C	C2'-C1'	-6.90	1.45	1.53
67	B1	2198	U	C5'-C4'	6.90	1.59	1.51
21	A2	325	A	C2'-C1'	-6.90	1.45	1.53
67	B1	2844	G	C5'-C4'	6.90	1.59	1.51
67	B1	386	A	C2'-C1'	-6.90	1.45	1.53
21	A2	1168	C	O4'-C1'	6.90	1.50	1.41
67	B1	1823	A	C5'-C4'	6.90	1.59	1.51
21	A2	979	U	O4'-C1'	6.89	1.50	1.41
21	A2	1425	C	C2'-C1'	-6.89	1.45	1.53
67	B1	1173	G	C5'-C4'	6.89	1.59	1.51
21	A2	292	U	P-O5'	-6.89	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1311	C	C2'-C1'	6.89	1.60	1.53
15	AE	142	PHE	CA-CB	6.89	1.69	1.53
67	B1	1227	A	C2'-C1'	6.89	1.60	1.53
21	A2	1110	U	C4'-C3'	6.89	1.60	1.53
30	AU	60	ARG	CZ-NH2	6.89	1.42	1.33
67	B1	1566	G	C3'-O3'	-6.89	1.32	1.42
21	A2	25	C	C2'-C1'	-6.89	1.45	1.53
21	A2	728	G	O4'-C1'	-6.89	1.32	1.41
67	B1	386	A	O4'-C1'	6.89	1.50	1.41
67	B1	2103	C	C3'-O3'	6.89	1.51	1.42
67	B1	2456	C	P-O5'	-6.89	1.52	1.59
21	A2	1262	U	C4'-C3'	6.88	1.60	1.53
59	BM	90	TYR	CG-CD1	6.88	1.48	1.39
67	B1	1709	C	C2'-C1'	-6.88	1.45	1.53
67	B1	2825	A	O4'-C1'	6.88	1.50	1.41
11	A1	54	G	P-O5'	-6.88	1.52	1.59
21	A2	230	C	C5'-C4'	6.88	1.59	1.51
21	A2	723	G	C4'-O4'	-6.88	1.36	1.45
67	B1	1227	A	O4'-C1'	-6.88	1.32	1.41
67	B1	1467	G	C2'-C1'	-6.88	1.45	1.53
67	B1	1972	C	C2'-C1'	-6.88	1.45	1.53
67	B1	254	A	C2'-C1'	-6.88	1.45	1.53
67	B1	2761	G	C5'-C4'	6.88	1.59	1.51
1	AQ	19	ARG	CZ-NH1	6.88	1.42	1.33
67	B1	689	U	P-O5'	-6.88	1.52	1.59
67	B1	1031	C	C4'-C3'	-6.88	1.45	1.53
67	B1	1615	G	C3'-C2'	6.88	1.60	1.52
21	A2	810	G	C2'-C1'	-6.87	1.45	1.53
21	A2	1078	U	O4'-C1'	6.87	1.50	1.41
67	B1	1867	C	P-O5'	-6.87	1.52	1.59
67	B1	1967	G	C4'-C3'	6.87	1.60	1.53
21	A2	1355	C	C2'-C1'	-6.87	1.45	1.53
21	A2	94	C	O3'-P	6.87	1.69	1.61
21	A2	186	U	C4'-C3'	6.87	1.60	1.53
67	B1	1921	U	O3'-P	-6.87	1.52	1.61
21	A2	1251	C	O3'-P	-6.87	1.52	1.61
67	B1	811	C	C5'-C4'	6.87	1.59	1.51
67	B1	2337	G	C5'-C4'	6.87	1.59	1.51
11	A1	50	G	C2'-C1'	6.86	1.60	1.53
67	B1	73	A	C3'-O3'	6.86	1.51	1.42
67	B1	2816	C	C2'-C1'	6.86	1.60	1.53
21	A2	590	G	C4'-C3'	6.86	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	463	A	C3'-C2'	-6.86	1.45	1.52
67	B1	2869	U	C4'-C3'	6.86	1.60	1.53
67	B1	3008	C	O4'-C1'	6.86	1.50	1.41
21	A2	646	U	C3'-O3'	6.86	1.51	1.42
67	B1	250	G	P-O5'	-6.86	1.52	1.59
21	A2	331	C	C2'-C1'	6.86	1.60	1.53
21	A2	1098	G	C2'-C1'	-6.86	1.45	1.53
21	A2	1477	U	O3'-P	6.86	1.69	1.61
67	B1	1962	G	O3'-P	-6.86	1.52	1.61
17	AO	111	ARG	CZ-NH1	6.85	1.42	1.33
67	B1	2816	C	C4'-C3'	6.85	1.60	1.53
21	A2	1275	U	O4'-C1'	6.85	1.50	1.41
67	B1	1323	U	C3'-O3'	6.85	1.51	1.42
67	B1	2584	A	C3'-C2'	-6.85	1.45	1.52
67	B1	1904	G	O4'-C1'	-6.85	1.32	1.41
21	A2	68	G	C4'-O4'	6.85	1.54	1.45
21	A2	159	C	O4'-C1'	6.85	1.50	1.41
67	B1	830	G	C5'-C4'	6.85	1.59	1.51
67	B1	1156	G	C2'-C1'	-6.85	1.45	1.53
67	B1	1763	A	O4'-C1'	6.85	1.50	1.41
21	A2	1071	C	P-O5'	-6.85	1.52	1.59
21	A2	1451	C	C2'-C1'	-6.85	1.45	1.53
67	B1	1116	A	C2'-C1'	-6.85	1.45	1.53
67	B1	1510	U	O3'-P	-6.85	1.52	1.61
67	B1	2751	C	C2'-C1'	-6.85	1.45	1.53
21	A2	1052	U	C5'-C4'	6.85	1.59	1.51
67	B1	1066	C	C2'-C1'	6.84	1.60	1.53
21	A2	197	A	O4'-C1'	6.84	1.50	1.41
67	B1	393	C	P-O5'	-6.84	1.52	1.59
68	B3	103	C	P-O5'	-6.84	1.52	1.59
21	A2	1169	C	C4'-C3'	6.84	1.60	1.53
67	B1	1612	G	P-O5'	-6.84	1.52	1.59
67	B1	2398	C	C3'-C2'	-6.84	1.45	1.52
67	B1	2860	G	O4'-C1'	-6.83	1.32	1.41
21	A2	613	C	C5'-C4'	6.83	1.59	1.51
67	B1	2	G	C2'-C1'	-6.83	1.45	1.53
67	B1	1361	G	C2'-C1'	-6.83	1.45	1.53
67	B1	2281	A	C5'-C4'	6.83	1.59	1.51
27	A0	24	G	C2'-C1'	-6.83	1.45	1.53
67	B1	750	C	O3'-P	-6.83	1.52	1.61
67	B1	759	G	C4'-O4'	6.83	1.54	1.45
67	B1	2010	G	P-O5'	-6.83	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1461	U	P-O5'	6.83	1.66	1.59
67	B1	2264	G	O4'-C1'	-6.83	1.32	1.41
67	B1	2436	A	C3'-C2'	6.83	1.60	1.52
21	A2	1004	U	C2'-C1'	-6.83	1.45	1.53
27	A0	76	A	C4'-C3'	6.83	1.60	1.53
67	B1	909	A	O4'-C1'	-6.83	1.32	1.41
21	A2	599	G	C2'-C1'	-6.83	1.45	1.53
53	BD	42	ARG	NE-CZ	6.83	1.42	1.33
21	A2	407	G	O4'-C1'	6.83	1.50	1.41
21	A2	1066	C	O3'-P	-6.83	1.52	1.61
67	B1	36	G	C5'-C4'	6.83	1.59	1.51
67	B1	408	C	O3'-P	-6.83	1.52	1.61
67	B1	2209	U	O4'-C1'	-6.83	1.32	1.41
67	B1	2367	C	C4'-C3'	-6.83	1.45	1.53
21	A2	571	C	O4'-C1'	6.82	1.50	1.41
27	A0	18	G	C3'-O3'	6.82	1.51	1.42
67	B1	1089	C	C2'-C1'	-6.82	1.45	1.53
67	B1	1171	G	C3'-C2'	6.82	1.60	1.52
21	A2	124	C	C4'-C3'	6.82	1.60	1.53
67	B1	2151	C	C4'-O4'	6.82	1.54	1.45
25	AH	92	SER	CA-CB	6.81	1.63	1.52
67	B1	111	U	C5'-C4'	6.81	1.59	1.51
21	A2	428	G	C3'-C2'	6.81	1.60	1.52
67	B1	1221	U	C3'-C2'	6.81	1.60	1.52
67	B1	1567	C	O3'-P	-6.81	1.52	1.61
21	A2	1139	A	C4'-C3'	6.81	1.60	1.53
27	A0	21	G	C2'-C1'	-6.81	1.45	1.53
1	AQ	135	TYR	CD1-CE1	6.81	1.49	1.39
27	A0	45	G	P-O5'	-6.81	1.52	1.59
67	B1	563	A	O4'-C1'	6.81	1.50	1.41
67	B1	900	C	C4'-C3'	6.81	1.60	1.53
67	B1	1045	A	O4'-C1'	6.81	1.50	1.41
67	B1	1733	C	O4'-C1'	6.81	1.50	1.41
67	B1	2578	C	P-O5'	-6.81	1.52	1.59
67	B1	490	C	O4'-C1'	6.81	1.50	1.41
21	A2	607	U	P-O5'	-6.80	1.52	1.59
53	BD	249	ARG	CZ-NH1	6.80	1.41	1.33
67	B1	2041	U	O4'-C1'	6.80	1.50	1.41
67	B1	2914	U	C4'-C3'	6.80	1.60	1.53
68	B3	107	G	C2'-C1'	6.80	1.60	1.53
67	B1	2375	C	C4'-C3'	6.80	1.60	1.53
21	A2	234	G	C3'-C2'	-6.80	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	806	G	C3'-C2'	6.80	1.60	1.52
67	B1	58	G	C5'-C4'	-6.80	1.43	1.51
67	B1	1452	G	C4'-C3'	6.80	1.60	1.53
21	A2	1021	C	C4'-C3'	-6.80	1.45	1.53
21	A2	1097	G	O4'-C1'	6.80	1.50	1.41
21	A2	1361	G	O4'-C1'	6.80	1.50	1.41
67	B1	2825	A	O3'-P	-6.80	1.52	1.61
21	A2	1384	G	C4'-C3'	6.79	1.60	1.53
64	Bc	15	GLU	CA-C	6.79	1.70	1.52
67	B1	2749	G	C2'-C1'	-6.79	1.45	1.53
21	A2	123	U	C2'-C1'	-6.79	1.45	1.53
35	BL	10	LYS	N-CA	-6.79	1.32	1.46
44	BW	7	ARG	NE-CZ	6.79	1.41	1.33
67	B1	2716	C	C3'-C2'	-6.79	1.45	1.52
67	B1	463	A	O4'-C1'	6.79	1.50	1.41
67	B1	2114	C	C4'-C3'	6.79	1.60	1.53
21	A2	1034	G	O3'-P	-6.79	1.53	1.61
21	A2	1092	G	O4'-C1'	6.79	1.50	1.41
67	B1	529	G	O4'-C1'	-6.79	1.32	1.41
11	A1	76	C	O3'-P	6.79	1.69	1.61
20	A3	27	ARG	NE-CZ	6.79	1.41	1.33
67	B1	2506	G	C4'-C3'	6.79	1.60	1.53
67	B1	1495	A	O3'-P	-6.78	1.53	1.61
67	B1	2067	U	C2'-C1'	6.78	1.60	1.53
21	A2	787	U	O4'-C1'	6.78	1.50	1.41
67	B1	1981	G	C2'-C1'	6.78	1.60	1.53
67	B1	2090	A	C4'-C3'	6.78	1.60	1.53
27	A0	67	G	C4'-C3'	6.78	1.60	1.53
67	B1	599	G	C2'-C1'	-6.78	1.45	1.53
67	B1	1513	G	C3'-C2'	6.78	1.60	1.52
67	B1	2145	G	C4'-O4'	6.78	1.54	1.45
68	B3	38	U	O4'-C1'	6.78	1.50	1.41
7	AB	144	GLU	CD-OE2	6.78	1.33	1.25
67	B1	2933	C	C2'-C1'	6.78	1.60	1.53
21	A2	555	U	C2'-C1'	-6.78	1.45	1.53
67	B1	1113	G	C2'-C1'	-6.78	1.45	1.53
67	B1	1486	G	C3'-C2'	6.78	1.60	1.52
15	AE	12	ARG	CZ-NH2	6.77	1.41	1.33
21	A2	278	A	C4'-C3'	6.77	1.60	1.53
67	B1	218	A	C3'-C2'	6.77	1.60	1.52
21	A2	558	C	P-O5'	-6.77	1.52	1.59
67	B1	2333	G	P-O5'	-6.77	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1371	U	O4'-C1'	6.77	1.50	1.41
3	AI	68	ARG	NE-CZ	6.77	1.41	1.33
67	B1	1337	G	O4'-C1'	6.77	1.50	1.41
21	A2	297	G	C2'-C1'	6.77	1.60	1.53
17	AO	22	ARG	CD-NE	6.76	1.57	1.46
21	A2	840	C	C2'-C1'	-6.76	1.46	1.53
67	B1	859	G	O3'-P	-6.76	1.53	1.61
67	B1	1405	G	O5'-C5'	6.76	1.55	1.44
68	B3	70	C	C2'-C1'	-6.76	1.46	1.53
21	A2	59	C	C5'-C4'	6.76	1.59	1.51
21	A2	694	U	C3'-C2'	6.76	1.60	1.52
67	B1	948	C	O4'-C1'	6.76	1.50	1.41
67	B1	1265	A	C4'-O4'	-6.76	1.36	1.45
67	B1	1779	C	C4'-C3'	6.76	1.60	1.53
67	B1	2650	G	O4'-C1'	-6.76	1.32	1.41
21	A2	713	A	C4'-O4'	6.76	1.54	1.45
21	A2	970	G	O4'-C1'	6.76	1.50	1.41
21	A2	1051	G	O4'-C1'	-6.76	1.32	1.41
67	B1	304	G	C2'-C1'	6.76	1.60	1.53
67	B1	2195	G	O3'-P	-6.76	1.53	1.61
67	B1	2621	U	C2'-C1'	6.76	1.60	1.53
11	A1	16	C	C2'-C1'	-6.76	1.46	1.53
17	AO	137	ARG	NE-CZ	6.76	1.41	1.33
21	A2	413	G	C2'-C1'	-6.76	1.46	1.53
21	A2	710	G	O4'-C1'	6.76	1.50	1.41
67	B1	52	A	O4'-C1'	6.76	1.50	1.41
67	B1	1837	A	C2'-C1'	-6.76	1.46	1.53
67	B1	2346	A	O4'-C1'	6.76	1.50	1.41
67	B1	2859	U	O3'-P	-6.76	1.53	1.61
21	A2	748	A	O3'-P	-6.75	1.53	1.61
37	BU	64	GLY	CA-C	-6.75	1.41	1.51
67	B1	419	G	C2'-C1'	-6.75	1.46	1.53
67	B1	1201	G	C4'-O4'	-6.75	1.36	1.45
67	B1	2062	A	O3'-P	-6.75	1.53	1.61
21	A2	4	C	C5'-C4'	6.75	1.59	1.51
67	B1	1104	A	C2'-C1'	-6.75	1.46	1.53
21	A2	311	A	P-O5'	6.75	1.66	1.59
21	A2	661	C	O4'-C1'	6.75	1.50	1.41
67	B1	35	G	C2'-C1'	-6.75	1.46	1.53
67	B1	1172	U	C5'-C4'	6.75	1.59	1.51
67	B1	2515	U	O4'-C1'	6.75	1.50	1.41
67	B1	3034	C	P-O5'	-6.75	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	266	A	C3'-C2'	-6.74	1.45	1.52
67	B1	420	U	C2'-C1'	6.74	1.60	1.53
67	B1	69	C	O4'-C1'	6.74	1.50	1.41
67	B1	1077	G	O4'-C1'	-6.74	1.32	1.41
67	B1	1730	C	C2'-C1'	-6.74	1.46	1.53
11	A1	43	G	O4'-C1'	-6.74	1.32	1.41
21	A2	228	G	C5'-C4'	6.74	1.59	1.51
21	A2	999	G	C2'-C1'	-6.74	1.46	1.53
67	B1	1750	C	C4'-O4'	6.74	1.54	1.45
67	B1	1946	G	O4'-C1'	-6.74	1.32	1.41
21	A2	706	G	O4'-C1'	6.74	1.50	1.41
27	A0	34	G	C2'-C1'	-6.74	1.46	1.53
67	B1	933	G	O4'-C1'	6.74	1.50	1.41
67	B1	1817	C	C4'-O4'	6.74	1.54	1.45
67	B1	287	G	C2'-C1'	-6.74	1.46	1.53
67	B1	904	G	C5'-C4'	6.74	1.59	1.51
67	B1	991	U	C2'-C1'	-6.74	1.46	1.53
67	B1	1473	C	C4'-C3'	6.74	1.60	1.53
67	B1	2745	G	O4'-C1'	-6.74	1.32	1.41
67	B1	1072	U	C5'-C4'	6.73	1.59	1.51
21	A2	534	G	C3'-C2'	6.73	1.60	1.52
40	BE	88	TYR	CG-CD1	6.73	1.48	1.39
67	B1	2370	C	C3'-C2'	6.73	1.60	1.52
21	A2	308	G	O4'-C1'	6.73	1.50	1.41
67	B1	1249	G	O4'-C1'	6.73	1.50	1.41
67	B1	1323	U	C2'-C1'	6.73	1.60	1.53
67	B1	1619	C	C4'-O4'	6.73	1.54	1.45
67	B1	666	A	P-O5'	-6.73	1.53	1.59
67	B1	1270	G	C3'-C2'	-6.73	1.45	1.52
67	B1	2548	A	O4'-C1'	-6.73	1.32	1.41
67	B1	1180	G	C4'-C3'	6.73	1.60	1.53
21	A2	419	G	O4'-C1'	6.72	1.50	1.41
21	A2	1134	G	C5'-C4'	6.72	1.59	1.51
67	B1	368	U	C2'-C1'	-6.72	1.46	1.53
67	B1	973	C	O4'-C1'	6.72	1.50	1.41
67	B1	1442	G	C4'-C3'	6.72	1.60	1.53
67	B1	1560	G	C4'-C3'	6.72	1.60	1.53
21	A2	1315	G	P-O5'	-6.72	1.53	1.59
67	B1	1227	A	P-O5'	-6.72	1.53	1.59
21	A2	330	U	C4'-C3'	6.72	1.60	1.53
67	B1	2281	A	O4'-C1'	6.72	1.50	1.41
67	B1	30	G	C3'-C2'	-6.72	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	640	C	C4'-C3'	6.72	1.60	1.53
67	B1	1001	C	C5'-C4'	6.72	1.59	1.51
67	B1	2982	G	O3'-P	6.72	1.69	1.61
21	A2	1311	C	C3'-O3'	6.71	1.51	1.42
67	B1	342	C	C2'-C1'	-6.71	1.46	1.53
67	B1	2713	A	C5'-C4'	6.71	1.59	1.51
67	B1	2997	G	O4'-C1'	6.71	1.50	1.41
6	AC	47	PHE	CG-CD2	6.71	1.48	1.38
21	A2	1208	A	C2'-C1'	6.71	1.60	1.53
67	B1	1667	U	P-O5'	-6.71	1.53	1.59
67	B1	2453	C	O4'-C1'	6.71	1.50	1.41
21	A2	349	A	C3'-C2'	6.71	1.60	1.52
21	A2	1057	A	C4'-C3'	6.71	1.60	1.53
67	B1	914	U	C4'-C3'	6.71	1.60	1.53
67	B1	1458	C	C3'-C2'	6.71	1.60	1.52
67	B1	569	G	C4'-C3'	-6.71	1.45	1.53
67	B1	2656	A	C4'-O4'	-6.71	1.36	1.45
21	A2	1383	A	O4'-C1'	6.71	1.50	1.41
67	B1	108	G	C2'-C1'	-6.71	1.46	1.53
21	A2	776	C	C3'-O3'	6.71	1.51	1.42
21	A2	403	C	O4'-C1'	6.70	1.50	1.41
67	B1	518	A	P-O5'	-6.70	1.53	1.59
67	B1	792	A	P-O5'	-6.70	1.53	1.59
67	B1	1401	G	C2'-C1'	-6.70	1.46	1.53
67	B1	1555	G	C2'-C1'	-6.70	1.46	1.53
67	B1	1806	C	C3'-C2'	-6.70	1.45	1.52
67	B1	2718	G	C3'-O3'	6.70	1.51	1.42
67	B1	557	G	O4'-C1'	6.70	1.50	1.41
67	B1	876	C	C4'-C3'	6.70	1.60	1.53
67	B1	1941	A	P-O5'	-6.70	1.53	1.59
67	B1	2152	G	C5'-C4'	6.70	1.59	1.51
67	B1	2762	G	C4'-O4'	6.70	1.54	1.45
21	A2	104	A	O3'-P	6.70	1.69	1.61
21	A2	468	G	O4'-C1'	6.70	1.50	1.41
21	A2	1353	C	C4'-C3'	-6.70	1.45	1.53
21	A2	480	G	O4'-C1'	6.69	1.50	1.41
21	A2	1006	C	O4'-C1'	6.69	1.50	1.41
21	A2	201	G	O3'-P	-6.69	1.53	1.61
32	BO	84	TYR	CE1-CZ	6.69	1.47	1.38
67	B1	1340	G	C4'-C3'	-6.69	1.45	1.53
21	A2	656	U	C4'-C3'	6.69	1.60	1.53
21	A2	1288	C	O4'-C1'	6.69	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1466	G	O4'-C1'	6.69	1.50	1.41
32	BO	145	ARG	CZ-NH2	6.69	1.41	1.33
67	B1	1999	G	O4'-C1'	-6.69	1.32	1.41
67	B1	2097	G	C5'-C4'	6.69	1.59	1.51
67	B1	2963	G	O4'-C1'	-6.69	1.32	1.41
67	B1	76	C	C2'-C1'	6.69	1.60	1.53
67	B1	2870	A	C2'-C1'	-6.69	1.46	1.53
67	B1	1471	G	C3'-C2'	-6.69	1.45	1.52
67	B1	2602	G	C2'-C1'	6.69	1.60	1.53
67	B1	3047	C	C2'-C1'	-6.69	1.46	1.53
21	A2	700	G	C3'-O3'	6.68	1.51	1.42
21	A2	864	G	C2'-C1'	6.68	1.60	1.53
67	B1	200	G	C5'-C4'	6.68	1.59	1.51
67	B1	2434	A	C4'-C3'	-6.68	1.45	1.53
21	A2	907	C	C2'-C1'	-6.68	1.46	1.53
21	A2	1089	C	C4'-C3'	6.68	1.60	1.53
67	B1	2217	C	C4'-C3'	6.68	1.60	1.53
67	B1	91	G	C3'-O3'	6.68	1.51	1.42
67	B1	398	U	P-O5'	-6.68	1.53	1.59
67	B1	1452	G	O4'-C1'	-6.68	1.32	1.41
67	B1	1772	A	O3'-P	-6.68	1.53	1.61
67	B1	1835	A	P-O5'	-6.68	1.53	1.59
67	B1	2480	G	O3'-P	-6.68	1.53	1.61
16	AJ	76	ARG	NE-CZ	6.68	1.41	1.33
67	B1	451	C	C4'-C3'	-6.68	1.45	1.53
11	A1	21	G	O4'-C1'	6.68	1.50	1.41
21	A2	145	A	P-O5'	-6.68	1.53	1.59
21	A2	343	G	O4'-C1'	6.68	1.50	1.41
21	A2	785	U	O4'-C1'	6.68	1.50	1.41
21	A2	1276	G	C2'-C1'	6.68	1.60	1.53
27	A0	3	C	O4'-C1'	6.68	1.50	1.41
67	B1	123	A	C5'-C4'	6.68	1.59	1.51
67	B1	1077	G	C2'-C1'	-6.68	1.46	1.53
67	B1	1417	U	C2'-C1'	-6.68	1.46	1.53
67	B1	1590	C	O4'-C1'	6.68	1.50	1.41
67	B1	1746	C	C5'-C4'	6.68	1.59	1.51
67	B1	2299	G	C5'-C4'	6.68	1.59	1.51
67	B1	2956	G	O4'-C1'	6.68	1.50	1.41
21	A2	1075	A	C2'-C1'	6.67	1.60	1.53
67	B1	454	C	C2'-C1'	-6.67	1.46	1.53
21	A2	129	G	C2'-C1'	-6.67	1.46	1.53
21	A2	496	C	O4'-C1'	6.67	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	763	A	C3'-O3'	6.67	1.51	1.42
67	B1	854	G	C2'-C1'	-6.67	1.46	1.53
67	B1	868	U	C5'-C4'	6.67	1.59	1.51
67	B1	1039	C	C5'-C4'	6.67	1.59	1.51
67	B1	1089	C	C3'-C2'	6.67	1.60	1.52
21	A2	163	C	P-O5'	6.67	1.66	1.59
21	A2	619	A	P-O5'	6.67	1.66	1.59
67	B1	1827	A	O4'-C1'	6.67	1.50	1.41
67	B1	1837	A	O4'-C1'	6.67	1.50	1.41
21	A2	1161	A	O4'-C1'	6.67	1.50	1.41
67	B1	1327	C	C4'-O4'	6.67	1.54	1.45
67	B1	1944	C	C4'-C3'	-6.67	1.45	1.53
24	AA	181	ARG	NE-CZ	6.66	1.41	1.33
67	B1	2479	C	O4'-C1'	6.66	1.50	1.41
67	B1	1550	C	C2'-C1'	-6.66	1.46	1.53
67	B1	2199	U	C2'-C1'	-6.66	1.46	1.53
38	Bb	18	ARG	CZ-NH1	6.66	1.41	1.33
67	B1	1174	U	O4'-C1'	6.66	1.50	1.41
21	A2	464	G	P-O5'	-6.66	1.53	1.59
26	AP	6	TYR	CG-CD2	6.66	1.47	1.39
67	B1	360	G	O4'-C1'	6.66	1.50	1.41
67	B1	1641	G	C5'-C4'	6.66	1.59	1.51
17	AO	133	SER	CA-CB	6.66	1.62	1.52
21	A2	300	G	O3'-P	-6.66	1.53	1.61
67	B1	1932	G	C2'-C1'	6.66	1.60	1.53
68	B3	106	G	O3'-P	-6.66	1.53	1.61
21	A2	1284	C	C2'-C1'	-6.65	1.46	1.53
21	A2	172	G	O4'-C1'	6.65	1.50	1.41
21	A2	180	G	C5'-C4'	6.65	1.59	1.51
21	A2	990	G	C5'-C4'	6.65	1.59	1.51
27	A0	46	G	C2'-C1'	6.65	1.60	1.53
28	AV	10	GLU	CD-OE2	6.65	1.32	1.25
54	BF	61	ARG	CZ-NH2	6.65	1.41	1.33
67	B1	1966	C	O4'-C1'	6.65	1.50	1.41
67	B1	2457	C	C2'-C1'	-6.65	1.46	1.53
21	A2	642	G	C2'-C1'	-6.65	1.46	1.53
67	B1	1853	C	C3'-C2'	6.65	1.60	1.52
67	B1	208	A	C3'-C2'	6.65	1.60	1.52
67	B1	1677	A	C2'-C1'	-6.65	1.46	1.53
67	B1	2669	U	C2'-C1'	6.65	1.60	1.53
21	A2	84	C	C2'-C1'	-6.65	1.46	1.53
67	B1	1354	G	O3'-P	-6.65	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1373	A	C2'-C1'	-6.64	1.46	1.53
30	AU	83	ARG	CZ-NH2	6.64	1.41	1.33
67	B1	531	G	C3'-C2'	-6.64	1.45	1.52
67	B1	973	C	C4'-O4'	6.64	1.54	1.45
67	B1	1482	G	C5'-C4'	6.64	1.59	1.51
67	B1	1795	C	C5'-C4'	6.64	1.59	1.51
21	A2	1285	C	P-O5'	-6.64	1.53	1.59
21	A2	1412	A	C2'-C1'	-6.64	1.46	1.53
67	B1	943	G	C2'-O2'	6.64	1.50	1.41
67	B1	2749	G	C4'-O4'	6.64	1.54	1.45
21	A2	1495	U	C2'-C1'	6.64	1.60	1.53
67	B1	940	G	O4'-C1'	6.64	1.50	1.41
67	B1	1327	C	C5'-C4'	6.64	1.59	1.51
21	A2	7	G	O4'-C1'	6.64	1.50	1.41
21	A2	408	C	C3'-C2'	6.64	1.60	1.52
67	B1	909	A	C4'-C3'	6.64	1.60	1.53
67	B1	1994	G	O4'-C1'	6.64	1.50	1.41
67	B1	2977	G	O4'-C1'	6.64	1.50	1.41
67	B1	363	G	P-O5'	-6.63	1.53	1.59
67	B1	2308	C	C2'-C1'	-6.63	1.46	1.53
68	B3	52	U	C4'-C3'	6.63	1.60	1.53
25	AH	12	PRO	N-CD	-6.63	1.38	1.47
67	B1	645	U	C2'-C1'	6.63	1.60	1.53
11	A1	53	G	C4'-C3'	6.63	1.60	1.53
67	B1	1533	G	P-O5'	-6.63	1.53	1.59
67	B1	2950	G	O4'-C1'	-6.63	1.33	1.41
67	B1	1711	C	C4'-C3'	6.63	1.60	1.53
21	A2	865	A	P-O5'	6.63	1.66	1.59
67	B1	137	A	C4'-O4'	6.63	1.54	1.45
67	B1	348	G	C5'-C4'	6.63	1.59	1.51
67	B1	1580	G	P-O5'	6.63	1.66	1.59
67	B1	1585	U	C2'-C1'	-6.63	1.46	1.53
67	B1	2958	U	O4'-C1'	-6.63	1.33	1.41
68	B3	74	U	C3'-C2'	6.63	1.60	1.52
21	A2	97	C	C3'-O3'	6.62	1.51	1.42
21	A2	318	C	P-O5'	-6.62	1.53	1.59
21	A2	104	A	C4'-C3'	6.62	1.60	1.53
21	A2	794	A	P-O5'	-6.62	1.53	1.59
21	A2	823	A	C4'-C3'	6.62	1.60	1.53
67	B1	2593	A	P-O5'	-6.62	1.53	1.59
27	A0	19	G	P-O5'	-6.62	1.53	1.59
53	BD	128	ARG	CD-NE	6.62	1.57	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1652	A	C2'-C1'	6.62	1.60	1.53
21	A2	358	G	P-O5'	-6.62	1.53	1.59
67	B1	785	C	C2'-C1'	-6.62	1.46	1.53
21	A2	1149	C	C5'-C4'	6.62	1.59	1.51
21	A2	1311	C	C4'-C3'	6.62	1.60	1.53
27	A0	49	C	C2'-C1'	-6.62	1.46	1.53
67	B1	702	G	O4'-C1'	-6.62	1.33	1.41
67	B1	1248	C	O4'-C1'	-6.62	1.33	1.41
67	B1	2913	C	C3'-C2'	6.62	1.60	1.52
27	A0	18	G	P-O5'	-6.61	1.53	1.59
67	B1	60	G	P-O5'	-6.61	1.53	1.59
27	A0	28	C	C2'-C1'	-6.61	1.46	1.53
7	AB	41	TYR	CG-CD2	6.61	1.47	1.39
21	A2	805	C	O4'-C1'	6.61	1.50	1.41
67	B1	516	A	C3'-C2'	-6.61	1.45	1.52
67	B1	835	G	C4'-C3'	-6.61	1.45	1.53
67	B1	305	G	C3'-C2'	-6.61	1.45	1.52
57	BZ	25	ARG	CD-NE	6.61	1.57	1.46
67	B1	752	U	C4'-O4'	6.60	1.54	1.45
21	A2	1307	G	C2'-C1'	-6.60	1.46	1.53
34	B5	8	ARG	CZ-NH2	6.60	1.41	1.33
67	B1	919	G	O4'-C1'	6.60	1.50	1.41
67	B1	1286	G	P-O5'	-6.60	1.53	1.59
67	B1	2215	U	C5'-C4'	6.60	1.59	1.51
67	B1	2803	U	C3'-O3'	6.60	1.51	1.42
67	B1	216	A	O4'-C1'	-6.60	1.33	1.41
67	B1	645	U	O4'-C1'	-6.60	1.33	1.41
67	B1	1225	A	O4'-C1'	6.60	1.50	1.41
21	A2	1203	G	C5'-C4'	6.60	1.59	1.51
21	A2	1435	G	C5'-C4'	6.60	1.59	1.51
67	B1	2297	C	C3'-C2'	6.60	1.60	1.52
67	B1	2939	C	C5'-C4'	6.60	1.59	1.51
67	B1	1	G	C5'-C4'	6.59	1.59	1.51
67	B1	1444	A	C2'-C1'	-6.59	1.46	1.53
34	BK	8	ARG	CZ-NH2	6.59	1.41	1.33
67	B1	1157	U	C4'-O4'	6.59	1.54	1.45
67	B1	1257	G	C2'-C1'	-6.59	1.46	1.53
53	BD	242	TRP	NE1-CE2	6.59	1.46	1.37
25	AH	209	ARG	CZ-NH2	6.59	1.41	1.33
67	B1	314	A	C5'-C4'	6.59	1.59	1.51
67	B1	1482	G	C2'-C1'	-6.59	1.46	1.53
67	B1	2376	U	O3'-P	-6.59	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2634	U	O4'-C1'	6.59	1.50	1.41
67	B1	2863	A	O4'-C1'	6.59	1.50	1.41
11	A1	38	G	P-O5'	-6.58	1.53	1.59
18	AF	7	GLU	CD-OE1	6.58	1.32	1.25
60	BS	126	ARG	CD-NE	6.58	1.57	1.46
21	A2	161	C	C2'-C1'	-6.58	1.46	1.53
67	B1	736	U	O4'-C1'	6.58	1.50	1.41
67	B1	1440	C	C3'-C2'	-6.58	1.45	1.52
67	B1	1925	A	O4'-C1'	6.58	1.50	1.41
67	B1	1931	G	O4'-C1'	6.58	1.50	1.41
67	B1	2094	A	C5'-C4'	6.58	1.59	1.51
21	A2	852	G	C3'-O3'	6.58	1.51	1.42
21	A2	396	C	O4'-C1'	6.58	1.50	1.41
21	A2	664	G	O4'-C1'	-6.58	1.33	1.41
67	B1	2632	C	O3'-P	-6.58	1.53	1.61
67	B1	478	C	C2'-C1'	-6.58	1.46	1.53
67	B1	1531	C	C2'-C1'	-6.58	1.46	1.53
21	A2	487	U	C2'-C1'	6.58	1.60	1.53
27	A0	2	C	C5'-C4'	6.58	1.59	1.51
47	BI	76	ARG	CZ-NH2	6.58	1.41	1.33
68	B3	36	U	P-O5'	-6.58	1.53	1.59
21	A2	771	G	O4'-C1'	6.57	1.50	1.41
67	B1	793	C	O4'-C1'	6.57	1.50	1.41
67	B1	2095	U	C2'-C1'	6.57	1.60	1.53
21	A2	750	C	C2'-C1'	-6.57	1.46	1.53
21	A2	1413	G	O4'-C1'	-6.57	1.33	1.41
27	A0	23	A	P-O5'	-6.57	1.53	1.59
47	BI	63	ARG	CZ-NH1	6.57	1.41	1.33
67	B1	1966	C	C3'-O3'	6.57	1.51	1.42
21	A2	585	U	C2'-C1'	6.57	1.60	1.53
21	A2	646	U	O3'-P	-6.57	1.53	1.61
67	B1	2621	U	C4'-C3'	6.57	1.60	1.53
21	A2	330	U	O4'-C1'	6.57	1.50	1.41
21	A2	482	G	O4'-C1'	6.57	1.50	1.41
60	BS	155	ARG	CD-NE	6.57	1.57	1.46
17	AO	9	ARG	CZ-NH1	6.56	1.41	1.33
67	B1	2261	C	C5'-C4'	6.56	1.59	1.51
21	A2	385	A	C2'-C1'	-6.56	1.46	1.53
21	A2	1464	C	C2'-C1'	-6.56	1.46	1.53
67	B1	2416	G	O3'-P	-6.56	1.53	1.61
21	A2	1104	G	O4'-C1'	-6.56	1.33	1.41
35	BL	71	ARG	NE-CZ	6.56	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2429	G	C2'-C1'	-6.56	1.46	1.53
67	B1	209	G	C3'-C2'	6.56	1.60	1.52
67	B1	1245	C	C2'-C1'	6.56	1.60	1.53
67	B1	2469	G	C3'-O3'	6.56	1.51	1.42
21	A2	488	A	P-O5'	6.56	1.66	1.59
21	A2	606	U	C2'-C1'	-6.56	1.46	1.53
67	B1	223	U	C2'-C1'	-6.56	1.46	1.53
21	A2	365	C	P-O5'	-6.56	1.53	1.59
21	A2	686	C	C3'-C2'	-6.56	1.45	1.52
21	A2	1319	C	O4'-C1'	6.56	1.50	1.41
67	B1	407	A	P-O5'	6.56	1.66	1.59
21	A2	289	C	O4'-C1'	6.55	1.50	1.41
67	B1	1769	G	P-O5'	-6.55	1.53	1.59
67	B1	2704	A	C4'-C3'	-6.55	1.46	1.53
21	A2	1128	U	O4'-C1'	-6.55	1.33	1.41
67	B1	877	U	P-O5'	-6.55	1.53	1.59
67	B1	1253	U	C2'-C1'	6.55	1.60	1.53
67	B1	2556	C	C4'-C3'	6.55	1.60	1.53
11	A1	70	C	O4'-C1'	6.55	1.50	1.41
21	A2	782	A	C2'-C1'	-6.55	1.46	1.53
21	A2	1271	G	C2'-C1'	-6.55	1.46	1.53
67	B1	1814	A	O4'-C1'	6.55	1.50	1.41
67	B1	2285	G	O4'-C1'	-6.55	1.33	1.41
67	B1	94	A	C4'-O4'	-6.55	1.37	1.45
67	B1	624	U	C2'-C1'	-6.55	1.46	1.53
67	B1	2335	G	O4'-C1'	6.55	1.50	1.41
68	B3	72	G	O3'-P	-6.55	1.53	1.61
21	A2	281	G	P-O5'	-6.55	1.53	1.59
21	A2	954	G	C2'-C1'	-6.55	1.46	1.53
67	B1	2193	G	C3'-C2'	-6.54	1.45	1.52
21	A2	190	C	C4'-O4'	-6.54	1.37	1.45
21	A2	342	G	C5'-C4'	6.54	1.59	1.51
67	B1	1463	C	O4'-C1'	6.54	1.50	1.41
67	B1	1728	C	O3'-P	-6.54	1.53	1.61
67	B1	1806	C	C2'-C1'	-6.54	1.46	1.53
14	AM	133	ARG	CZ-NH2	6.54	1.41	1.33
21	A2	200	G	C3'-C2'	-6.54	1.45	1.52
21	A2	850	A	C5'-C4'	6.54	1.59	1.51
67	B1	64	A	C3'-C2'	-6.54	1.45	1.52
67	B1	2797	C	P-O5'	6.54	1.66	1.59
21	A2	812	U	C2'-C1'	-6.54	1.46	1.53
32	BO	14	ARG	CD-NE	6.54	1.57	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	929	G	O4'-C1'	6.54	1.50	1.41
67	B1	2685	G	O4'-C1'	6.54	1.50	1.41
67	B1	1256	G	C4'-C3'	6.54	1.60	1.53
67	B1	2208	C	C2'-C1'	-6.54	1.46	1.53
21	A2	254	G	O4'-C1'	-6.54	1.33	1.41
21	A2	594	A	C2'-C1'	-6.54	1.46	1.53
67	B1	1269	U	O4'-C1'	6.54	1.50	1.41
67	B1	1664	G	O4'-C1'	6.54	1.50	1.41
67	B1	1786	G	C4'-O4'	6.54	1.54	1.45
23	AT	110	ARG	CZ-NH2	6.53	1.41	1.33
67	B1	1277	G	P-O5'	-6.53	1.53	1.59
67	B1	2531	G	P-O5'	-6.53	1.53	1.59
62	BN	113	ARG	CD-NE	6.53	1.57	1.46
67	B1	1425	U	C3'-C2'	6.53	1.60	1.52
21	A2	57	G	O4'-C1'	-6.53	1.33	1.41
21	A2	1320	A	O4'-C1'	-6.53	1.33	1.41
67	B1	1580	G	O4'-C1'	-6.53	1.33	1.41
67	B1	276	G	C3'-C2'	-6.53	1.45	1.52
67	B1	1942	G	O4'-C1'	-6.53	1.33	1.41
21	A2	956	C	O4'-C1'	6.53	1.50	1.41
21	A2	1295	C	C2'-C1'	-6.53	1.46	1.53
21	A2	876	A	O4'-C1'	6.52	1.50	1.41
67	B1	706	U	C2'-C1'	6.52	1.60	1.53
67	B1	1568	A	C4'-C3'	-6.52	1.46	1.53
67	B1	2196	C	P-O5'	-6.52	1.53	1.59
67	B1	3040	G	C4'-C3'	6.52	1.60	1.53
21	A2	1373	A	C5'-C4'	6.52	1.59	1.51
67	B1	2763	U	C4'-C3'	6.52	1.60	1.53
6	AC	27	ARG	CZ-NH2	6.52	1.41	1.33
2	AK	42	ARG	NE-CZ	6.52	1.41	1.33
67	B1	21	C	C4'-C3'	-6.52	1.46	1.53
67	B1	870	G	P-O5'	6.52	1.66	1.59
67	B1	2564	U	C2'-C1'	-6.52	1.46	1.53
21	A2	1240	A	C4'-C3'	6.52	1.60	1.53
21	A2	1492	U	P-O5'	-6.51	1.53	1.59
67	B1	73	A	C2'-C1'	6.51	1.60	1.53
33	BC	334	ARG	CZ-NH1	6.51	1.41	1.33
67	B1	1403	C	C4'-C3'	6.51	1.60	1.53
67	B1	2854	A	C5'-C4'	6.51	1.59	1.51
67	B1	2919	C	P-O5'	-6.51	1.53	1.59
21	A2	25	C	O4'-C1'	6.51	1.50	1.41
21	A2	327	G	C2'-C1'	-6.51	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1407	A	P-O5'	-6.51	1.53	1.59
21	A2	168	G	C3'-C2'	6.51	1.60	1.52
21	A2	229	G	C4'-O4'	-6.51	1.37	1.45
21	A2	679	G	C2'-C1'	6.51	1.60	1.53
67	B1	309	C	O4'-C1'	6.51	1.50	1.41
67	B1	1683	C	O4'-C1'	6.51	1.50	1.41
67	B1	1936	C	O3'-P	-6.51	1.53	1.61
21	A2	500	A	C4'-O4'	-6.51	1.37	1.45
67	B1	571	G	O3'-P	-6.51	1.53	1.61
67	B1	1489	G	C3'-O3'	6.51	1.51	1.42
21	A2	597	C	C4'-C3'	6.50	1.60	1.53
67	B1	65	G	P-O5'	-6.50	1.53	1.59
67	B1	108	G	C4'-O4'	6.50	1.54	1.45
21	A2	856	G	C2'-C1'	-6.50	1.46	1.53
67	B1	881	G	P-O5'	6.50	1.66	1.59
67	B1	2995	A	C4'-C3'	6.50	1.60	1.53
67	B1	713	C	P-O5'	-6.50	1.53	1.59
67	B1	1877	C	O4'-C1'	6.50	1.50	1.41
67	B1	978	C	C2'-C1'	-6.50	1.46	1.53
31	BY	143	ARG	CZ-NH2	6.49	1.41	1.33
67	B1	2886	C	C2'-C1'	-6.49	1.46	1.53
68	B3	77	A	C2'-C1'	6.49	1.60	1.53
67	B1	1796	U	P-O5'	-6.49	1.53	1.59
21	A2	390	G	O4'-C1'	-6.49	1.33	1.41
68	B3	108	G	C3'-C2'	-6.49	1.45	1.52
21	A2	368	C	C4'-C3'	6.49	1.60	1.53
21	A2	1399	G	C2'-C1'	-6.49	1.46	1.53
67	B1	85	G	P-O5'	-6.49	1.53	1.59
67	B1	862	G	P-O5'	-6.49	1.53	1.59
67	B1	2538	G	O4'-C1'	6.49	1.50	1.41
67	B1	2891	A	C3'-C2'	-6.49	1.45	1.52
39	Be	25	ARG	CZ-NH1	6.49	1.41	1.33
64	Bc	11	ARG	CD-NE	6.49	1.57	1.46
21	A2	207	G	O3'-P	-6.49	1.53	1.61
21	A2	1326	G	C3'-C2'	6.49	1.60	1.52
21	A2	750	C	C4'-O4'	6.48	1.53	1.45
67	B1	234	G	P-O5'	-6.48	1.53	1.59
67	B1	2854	A	O4'-C1'	-6.48	1.33	1.41
21	A2	167	G	O3'-P	6.48	1.69	1.61
21	A2	1489	A	O4'-C1'	6.48	1.50	1.41
67	B1	1369	G	O4'-C1'	6.48	1.50	1.41
67	B1	1570	C	C2'-O2'	-6.48	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	A1	33	C	O4'-C1'	6.48	1.50	1.41
67	B1	1041	U	C3'-O3'	6.48	1.51	1.42
67	B1	1955	U	O4'-C1'	-6.48	1.33	1.41
21	A2	1427	C	O4'-C1'	6.48	1.50	1.41
21	A2	746	A	C5'-C4'	6.48	1.59	1.51
24	AA	184	GLU	CD-OE2	6.47	1.32	1.25
21	A2	1320	A	C2'-O2'	-6.47	1.33	1.41
59	BM	106	ARG	CD-NE	6.47	1.57	1.46
67	B1	1159	U	O4'-C1'	6.47	1.50	1.41
67	B1	1781	C	O4'-C1'	6.47	1.50	1.41
67	B1	1956	G	C2'-C1'	-6.47	1.46	1.53
67	B1	2276	G	O4'-C1'	-6.47	1.33	1.41
68	B3	16	G	O4'-C1'	6.47	1.50	1.41
21	A2	111	G	C2'-C1'	-6.47	1.46	1.53
21	A2	511	C	P-O5'	-6.47	1.53	1.59
67	B1	1722	G	C5'-C4'	6.47	1.59	1.51
21	A2	74	U	O3'-P	-6.47	1.53	1.61
33	BC	89	GLY	CA-C	-6.47	1.41	1.51
54	BF	24	TYR	CG-CD2	6.47	1.47	1.39
67	B1	515	G	O4'-C1'	-6.47	1.33	1.41
67	B1	2212	C	C2'-C1'	-6.47	1.46	1.53
67	B1	1277	G	O4'-C1'	-6.47	1.33	1.41
67	B1	2428	C	C3'-C2'	6.47	1.60	1.52
67	B1	2058	C	C4'-C3'	-6.46	1.46	1.53
67	B1	2686	A	O3'-P	-6.46	1.53	1.61
12	AN	52	GLY	CA-C	-6.46	1.41	1.51
67	B1	760	G	C2'-O2'	6.46	1.50	1.41
6	AC	9	ARG	CZ-NH1	6.46	1.41	1.33
21	A2	115	A	C4'-C3'	6.46	1.60	1.53
27	A0	43	G	C4'-C3'	6.46	1.60	1.53
67	B1	1503	C	O3'-P	-6.46	1.53	1.61
67	B1	2120	C	C5'-C4'	6.46	1.59	1.51
67	B1	2487	G	C4'-C3'	6.46	1.60	1.53
67	B1	2488	C	C2'-C1'	-6.46	1.46	1.53
68	B3	11	A	C5'-C4'	6.46	1.59	1.51
21	A2	1132	C	C2'-C1'	-6.46	1.46	1.53
21	A2	1409	G	P-O5'	-6.46	1.53	1.59
67	B1	2216	G	P-O5'	-6.46	1.53	1.59
67	B1	2704	A	C2'-C1'	6.46	1.60	1.53
21	A2	780	C	C5'-C4'	6.46	1.59	1.51
27	A0	11	C	P-O5'	-6.46	1.53	1.59
57	BZ	39	LYS	CD-CE	6.46	1.67	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	850	C	O4'-C1'	6.46	1.50	1.41
67	B1	2781	A	P-O5'	-6.46	1.53	1.59
67	B1	2887	C	C4'-C3'	6.46	1.60	1.53
67	B1	2902	G	P-O5'	-6.46	1.53	1.59
21	A2	608	G	C3'-C2'	6.46	1.60	1.52
67	B1	2841	G	P-O5'	-6.46	1.53	1.59
21	A2	481	C	C4'-C3'	6.45	1.60	1.53
21	A2	1026	A	C4'-C3'	-6.45	1.46	1.53
36	Bf	3	ARG	CB-CG	6.45	1.70	1.52
67	B1	3003	A	O4'-C1'	6.45	1.50	1.41
12	AN	33	ARG	CZ-NH2	6.45	1.41	1.33
21	A2	1060	G	O3'-P	-6.45	1.53	1.61
21	A2	1159	U	C4'-C3'	6.45	1.60	1.53
67	B1	1655	G	C5'-C4'	6.45	1.59	1.51
67	B1	743	A	C3'-O3'	6.45	1.51	1.42
67	B1	2101	A	C3'-C2'	-6.45	1.45	1.52
67	B1	2235	G	C3'-O3'	-6.45	1.33	1.42
67	B1	2293	G	O3'-P	-6.45	1.53	1.61
67	B1	1348	G	C4'-C3'	6.45	1.60	1.53
21	A2	541	G	C4'-C3'	-6.45	1.46	1.53
21	A2	1339	G	C4'-C3'	-6.45	1.46	1.53
21	A2	176	U	C3'-O3'	6.45	1.51	1.42
21	A2	1297	G	C4'-C3'	6.45	1.60	1.53
67	B1	623	G	C4'-C3'	6.45	1.60	1.53
67	B1	1058	A	C3'-O3'	6.45	1.51	1.42
67	B1	1391	C	C2'-C1'	-6.45	1.46	1.53
67	B1	1819	G	C4'-C3'	6.45	1.60	1.53
67	B1	1039	C	C2'-C1'	-6.44	1.46	1.53
67	B1	1125	A	C2'-C1'	-6.44	1.46	1.53
10	AD	53	ARG	CZ-NH2	6.44	1.41	1.33
27	A0	16	C	O3'-P	-6.44	1.53	1.61
67	B1	2135	C	O3'-P	-6.44	1.53	1.61
2	AK	2	ARG	NE-CZ	6.44	1.41	1.33
67	B1	155	U	C2'-C1'	6.44	1.60	1.53
67	B1	1208	A	C2'-C1'	6.44	1.60	1.53
21	A2	242	A	C4'-C3'	6.44	1.60	1.53
67	B1	398	U	C4'-O4'	6.44	1.53	1.45
67	B1	1370	G	O3'-P	-6.44	1.53	1.61
67	B1	1416	G	C4'-C3'	6.44	1.60	1.53
21	A2	412	U	C5'-C4'	6.44	1.59	1.51
21	A2	822	A	C5'-C4'	6.44	1.59	1.51
21	A2	1070	C	C3'-C2'	6.44	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1650	U	C4'-C3'	-6.44	1.46	1.53
67	B1	2687	A	C4'-O4'	-6.44	1.37	1.45
67	B1	1835	A	C2'-O2'	-6.44	1.33	1.41
67	B1	2097	G	C2'-C1'	-6.44	1.46	1.53
67	B1	1409	U	C3'-C2'	-6.43	1.45	1.52
6	AC	57	ARG	NE-CZ	6.43	1.41	1.33
65	BJ	96	ARG	NE-CZ	6.43	1.41	1.33
67	B1	159	C	C5'-C4'	6.43	1.59	1.51
21	A2	1144	G	P-O5'	-6.43	1.53	1.59
19	AS	43	SER	CA-CB	6.43	1.62	1.52
21	A2	160	C	O4'-C1'	6.43	1.50	1.41
27	A0	58	A	C3'-O3'	6.43	1.51	1.42
67	B1	2598	C	C5'-C4'	6.43	1.59	1.51
21	A2	394	C	C3'-O3'	6.42	1.51	1.42
21	A2	674	C	C4'-C3'	-6.42	1.46	1.53
21	A2	1119	U	O4'-C1'	6.42	1.50	1.41
67	B1	393	C	C3'-O3'	6.42	1.51	1.42
21	A2	1202	G	O3'-P	-6.42	1.53	1.61
67	B1	1802	G	C2'-C1'	6.42	1.60	1.53
67	B1	1456	U	C2'-C1'	-6.42	1.46	1.53
67	B1	2026	C	C2'-C1'	-6.42	1.46	1.53
67	B1	2073	G	O4'-C1'	6.42	1.50	1.41
67	B1	2343	G	P-O5'	-6.42	1.53	1.59
65	BJ	114	ARG	CZ-NH1	6.42	1.41	1.33
67	B1	2017	A	P-O5'	-6.42	1.53	1.59
21	A2	833	C	C5'-C4'	6.42	1.59	1.51
21	A2	876	A	C2'-O2'	6.42	1.50	1.41
21	A2	942	A	C2'-C1'	-6.42	1.46	1.53
59	BM	63	ARG	NE-CZ	6.42	1.41	1.33
67	B1	903	C	C2'-C1'	-6.42	1.46	1.53
67	B1	2054	G	C3'-C2'	-6.42	1.45	1.52
68	B3	87	G	C5'-C4'	6.42	1.59	1.51
67	B1	651	C	C3'-C2'	-6.42	1.45	1.52
67	B1	2910	G	C5'-C4'	6.42	1.59	1.51
67	B1	2927	A	P-O5'	6.42	1.66	1.59
21	A2	427	G	C2'-C1'	-6.42	1.46	1.53
67	B1	994	G	C2'-C1'	6.42	1.60	1.53
67	B1	1789	A	C4'-C3'	6.42	1.60	1.53
67	B1	1932	G	O4'-C1'	6.42	1.50	1.41
32	BO	13	ARG	CZ-NH2	6.41	1.41	1.33
67	B1	461	C	C4'-O4'	6.41	1.53	1.45
67	B1	904	G	C4'-C3'	-6.41	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2240	G	O3'-P	-6.41	1.53	1.61
21	A2	148	C	P-O5'	-6.41	1.53	1.59
67	B1	172	C	C4'-C3'	-6.41	1.46	1.53
62	BN	165	TYR	CG-CD1	6.41	1.47	1.39
67	B1	1371	U	C4'-C3'	-6.41	1.46	1.53
67	B1	2766	C	P-O5'	-6.41	1.53	1.59
60	BS	59	ARG	CD-NE	6.41	1.57	1.46
67	B1	2053	G	C2'-C1'	6.41	1.60	1.53
67	B1	489	G	P-O5'	-6.41	1.53	1.59
67	B1	24	G	O4'-C1'	6.41	1.50	1.41
67	B1	177	G	O4'-C1'	6.41	1.50	1.41
67	B1	555	G	O4'-C1'	-6.41	1.33	1.41
67	B1	1634	A	P-O5'	-6.41	1.53	1.59
67	B1	1802	G	O3'-P	-6.41	1.53	1.61
67	B1	1641	G	O4'-C1'	6.40	1.50	1.41
21	A2	1200	U	C5'-C4'	6.40	1.59	1.51
27	A0	30	G	O4'-C1'	6.40	1.50	1.41
67	B1	935	A	O3'-P	-6.40	1.53	1.61
67	B1	2775	G	O3'-P	-6.40	1.53	1.61
67	B1	965	A	C5'-C4'	6.40	1.59	1.51
67	B1	1898	A	O4'-C1'	6.40	1.50	1.41
67	B1	2519	C	C3'-C2'	6.40	1.59	1.52
12	AN	29	ARG	CZ-NH2	6.40	1.41	1.33
21	A2	1153	G	O4'-C1'	6.40	1.50	1.41
21	A2	1218	C	P-O5'	-6.40	1.53	1.59
21	A2	1222	C	C2'-C1'	-6.40	1.46	1.53
67	B1	275	C	C2'-C1'	-6.40	1.46	1.53
21	A2	678	G	C2'-C1'	-6.39	1.46	1.53
21	A2	1151	A	C3'-C2'	-6.39	1.45	1.52
21	A2	1261	U	O4'-C1'	6.39	1.50	1.41
67	B1	40	G	O3'-P	-6.39	1.53	1.61
67	B1	1378	G	P-O5'	-6.39	1.53	1.59
67	B1	2435	G	C3'-C2'	6.39	1.59	1.52
11	A1	49	C	O3'-P	-6.39	1.53	1.61
21	A2	173	G	C5'-C4'	6.39	1.59	1.51
21	A2	285	C	C5'-C4'	6.39	1.59	1.51
67	B1	620	G	C3'-O3'	6.39	1.51	1.42
67	B1	1739	U	C2'-C1'	-6.39	1.46	1.53
67	B1	2823	G	C3'-C2'	-6.39	1.45	1.52
67	B1	1591	C	O4'-C1'	6.39	1.50	1.41
21	A2	191	A	P-O5'	-6.39	1.53	1.59
21	A2	627	G	O3'-P	-6.39	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	720	A	C2'-C1'	6.39	1.60	1.53
21	A2	778	G	C4'-C3'	6.39	1.60	1.53
67	B1	1281	A	C5'-C4'	6.39	1.59	1.51
21	A2	377	A	C3'-O3'	6.39	1.51	1.42
21	A2	767	U	O3'-P	-6.39	1.53	1.61
43	Bk	42	ARG	CG-CD	6.39	1.68	1.51
53	BD	212	ARG	CZ-NH2	6.39	1.41	1.33
67	B1	1443	G	C3'-C2'	6.39	1.59	1.52
67	B1	2230	G	O4'-C1'	-6.39	1.33	1.41
11	A1	27	A	C2'-C1'	-6.38	1.46	1.53
21	A2	666	G	O3'-P	-6.38	1.53	1.61
67	B1	3015	A	C2'-C1'	-6.38	1.46	1.53
67	B1	2860	G	C2'-C1'	6.38	1.60	1.53
67	B1	2950	G	O3'-P	-6.38	1.53	1.61
67	B1	110	A	O4'-C1'	6.38	1.50	1.41
67	B1	1320	C	C2'-C1'	-6.38	1.46	1.53
67	B1	1577	C	C5'-C4'	6.38	1.59	1.51
67	B1	818	A	O3'-P	-6.38	1.53	1.61
67	B1	1996	C	P-O5'	-6.38	1.53	1.59
21	A2	734	G	C3'-C2'	6.38	1.59	1.52
21	A2	1407	U	C2'-C1'	-6.38	1.46	1.53
32	BO	69	ARG	CZ-NH1	6.38	1.41	1.33
67	B1	2951	G	C3'-O3'	-6.38	1.33	1.42
21	A2	322	G	C3'-O3'	6.38	1.51	1.42
67	B1	1154	A	C5'-C4'	6.38	1.58	1.51
67	B1	1843	C	O3'-P	-6.38	1.53	1.61
67	B1	290	G	O4'-C1'	6.37	1.50	1.41
67	B1	792	A	C2'-C1'	-6.37	1.46	1.53
67	B1	2253	G	P-O5'	-6.37	1.53	1.59
67	B1	2668	G	O4'-C1'	6.37	1.50	1.41
21	A2	708	C	C5'-C4'	6.37	1.58	1.51
21	A2	795	G	O4'-C1'	6.37	1.50	1.41
21	A2	1331	G	C2'-C1'	-6.37	1.46	1.53
67	B1	237	G	O3'-P	-6.37	1.53	1.61
67	B1	1253	U	P-O5'	6.37	1.66	1.59
67	B1	1315	U	C2'-C1'	6.37	1.60	1.53
67	B1	1685	C	C4'-O4'	6.37	1.53	1.45
67	B1	2127	G	C5'-C4'	6.37	1.58	1.51
67	B1	2872	G	C2'-O2'	-6.37	1.33	1.41
32	BO	15	ARG	CD-NE	6.37	1.57	1.46
61	Bd	49	GLY	CA-C	-6.37	1.41	1.51
67	B1	2168	C	O4'-C1'	6.37	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1035	G	C4'-C3'	6.37	1.60	1.53
67	B1	1292	C	O4'-C1'	6.37	1.50	1.41
15	AE	78	ARG	CZ-NH1	6.37	1.41	1.33
21	A2	590	G	O3'-P	-6.37	1.53	1.61
21	A2	744	A	C5'-C4'	-6.37	1.43	1.51
67	B1	1509	C	C4'-C3'	6.37	1.60	1.53
67	B1	1960	U	P-O5'	-6.37	1.53	1.59
11	A1	70	C	C4'-C3'	-6.36	1.46	1.53
24	AA	128	ARG	CZ-NH2	6.36	1.41	1.33
67	B1	1423	G	P-O5'	-6.36	1.53	1.59
67	B1	230	A	C2'-C1'	-6.36	1.46	1.53
21	A2	736	A	P-O5'	-6.36	1.53	1.59
67	B1	468	A	O4'-C1'	6.36	1.50	1.41
67	B1	2351	G	C2'-C1'	6.36	1.60	1.53
21	A2	1047	U	C3'-O3'	6.36	1.51	1.42
67	B1	2469	G	O4'-C1'	-6.36	1.33	1.41
67	B1	522	A	O4'-C1'	6.36	1.50	1.41
67	B1	815	U	C5'-C4'	6.36	1.58	1.51
67	B1	2369	G	O4'-C1'	6.36	1.50	1.41
21	A2	1000	G	C4'-C3'	6.36	1.60	1.53
67	B1	364	A	C2'-C1'	6.36	1.60	1.53
67	B1	648	C	O4'-C1'	6.36	1.50	1.41
68	B3	32	C	C2'-C1'	-6.35	1.46	1.53
21	A2	1409	G	O4'-C1'	-6.35	1.33	1.41
21	A2	1077	U	C4'-C3'	-6.35	1.46	1.53
67	B1	1236	C	O4'-C1'	6.35	1.50	1.41
67	B1	3006	G	C2'-C1'	-6.35	1.46	1.53
62	BN	79	ARG	CZ-NH2	6.35	1.41	1.33
67	B1	1624	U	P-O5'	-6.35	1.53	1.59
67	B1	2826	U	O4'-C1'	6.35	1.50	1.41
67	B1	1102	C	C4'-O4'	-6.35	1.37	1.45
67	B1	1769	G	O4'-C1'	6.35	1.49	1.41
67	B1	2725	U	O3'-P	-6.35	1.53	1.61
21	A2	233	C	C2'-C1'	6.34	1.60	1.53
21	A2	265	C	C5'-C4'	6.34	1.58	1.51
47	BI	13	ARG	CD-NE	6.34	1.57	1.46
67	B1	1755	C	P-O5'	-6.34	1.53	1.59
21	A2	654	U	P-O5'	-6.34	1.53	1.59
21	A2	672	G	O3'-P	-6.34	1.53	1.61
21	A2	1088	U	C5'-C4'	6.34	1.58	1.51
25	AH	86	MET	N-CA	6.34	1.59	1.46
67	B1	279	G	C2'-C1'	-6.34	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2067	U	C4'-C3'	6.34	1.60	1.53
21	A2	84	C	O4'-C1'	6.34	1.49	1.41
67	B1	704	G	C2'-C1'	6.34	1.60	1.53
67	B1	2988	A	O4'-C1'	-6.34	1.33	1.41
21	A2	452	G	O4'-C1'	6.34	1.49	1.41
21	A2	1328	G	O4'-C1'	-6.34	1.33	1.41
67	B1	134	C	C5'-C4'	6.34	1.58	1.51
67	B1	1474	A	C3'-C2'	-6.34	1.45	1.52
67	B1	2336	G	P-O5'	-6.34	1.53	1.59
67	B1	2797	C	C2'-C1'	6.34	1.60	1.53
67	B1	2437	G	C4'-C3'	-6.34	1.46	1.53
10	AD	25	ARG	CZ-NH2	6.33	1.41	1.33
67	B1	1109	G	C4'-O4'	-6.33	1.37	1.45
67	B1	2226	G	P-O5'	-6.33	1.53	1.59
67	B1	294	U	O4'-C1'	6.33	1.49	1.41
1	AQ	158	ARG	CZ-NH1	6.33	1.41	1.33
21	A2	206	C	O4'-C1'	6.33	1.49	1.41
67	B1	132	G	C2'-C1'	-6.33	1.46	1.53
67	B1	173	G	C5'-C4'	6.33	1.58	1.51
67	B1	874	U	P-O5'	-6.33	1.53	1.59
67	B1	1901	A	C5'-C4'	6.33	1.58	1.51
67	B1	2119	C	C3'-C2'	-6.33	1.45	1.52
67	B1	2698	G	C3'-O3'	6.33	1.51	1.42
21	A2	267	C	C5'-C4'	6.33	1.58	1.51
67	B1	1438	C	C2'-C1'	-6.33	1.46	1.53
67	B1	2779	G	O4'-C1'	-6.33	1.33	1.41
11	A1	59	A	O4'-C1'	-6.33	1.33	1.41
13	AX	43	ARG	CD-NE	6.33	1.57	1.46
21	A2	739	G	C4'-O4'	-6.33	1.37	1.45
21	A2	874	G	C5'-C4'	6.33	1.58	1.51
67	B1	2018	C	P-O5'	-6.33	1.53	1.59
21	A2	14	C	C2'-C1'	-6.32	1.46	1.53
21	A2	799	C	O3'-P	-6.32	1.53	1.61
21	A2	864	G	C4'-O4'	-6.32	1.37	1.45
28	B6	76	GLU	CB-CG	6.32	1.64	1.52
60	BS	49	ARG	NE-CZ	6.32	1.41	1.33
67	B1	650	C	C2'-C1'	-6.32	1.46	1.53
67	B1	2739	G	C4'-O4'	6.32	1.53	1.45
67	B1	2221	A	O4'-C1'	6.32	1.49	1.41
67	B1	111	U	O4'-C1'	-6.32	1.33	1.41
67	B1	983	G	C4'-C3'	6.32	1.60	1.53
67	B1	2432	G	P-O5'	6.32	1.66	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	32	C	C4'-O4'	-6.32	1.37	1.45
21	A2	273	C	C2'-C1'	-6.32	1.46	1.53
67	B1	1870	G	P-O5'	-6.32	1.53	1.59
21	A2	252	U	C2'-C1'	6.32	1.60	1.53
67	B1	766	G	C4'-O4'	6.32	1.53	1.45
67	B1	916	A	C5'-C4'	6.32	1.58	1.51
67	B1	959	U	C5'-C4'	6.32	1.58	1.51
67	B1	2734	C	C5'-C4'	6.32	1.58	1.51
67	B1	2810	G	O4'-C1'	-6.32	1.33	1.41
67	B1	1578	C	O4'-C1'	6.31	1.49	1.41
21	A2	1291	G	O4'-C1'	-6.31	1.33	1.41
11	A1	61	U	C3'-O3'	6.31	1.50	1.42
21	A2	1150	G	C2'-C1'	-6.31	1.46	1.53
67	B1	322	C	O4'-C1'	6.31	1.49	1.41
67	B1	758	C	P-O5'	-6.31	1.53	1.59
11	A1	16	C	O4'-C1'	6.31	1.49	1.41
21	A2	627	G	P-O5'	-6.31	1.53	1.59
21	A2	1032	A	C3'-O3'	6.31	1.50	1.42
21	A2	1168	C	P-O5'	-6.31	1.53	1.59
62	BN	163	ARG	CZ-NH2	6.31	1.41	1.33
67	B1	1704	C	O4'-C1'	6.31	1.49	1.41
67	B1	2303	A	C2'-C1'	-6.31	1.46	1.53
67	B1	2690	U	O4'-C1'	6.31	1.49	1.41
67	B1	25	U	O3'-P	-6.31	1.53	1.61
11	A1	57	C	C2'-C1'	-6.30	1.46	1.53
21	A2	171	U	C3'-C2'	-6.30	1.45	1.52
67	B1	2042	A	C5'-C4'	-6.30	1.43	1.51
21	A2	74	U	O4'-C1'	6.30	1.49	1.41
21	A2	981	U	C5'-C4'	6.30	1.58	1.51
67	B1	1973	U	C3'-O3'	-6.30	1.33	1.42
21	A2	31	U	P-O5'	-6.30	1.53	1.59
67	B1	20	C	O4'-C1'	6.30	1.49	1.41
67	B1	154	U	O4'-C1'	-6.30	1.33	1.41
67	B1	2417	G	C4'-C3'	6.30	1.60	1.53
21	A2	1243	C	C2'-C1'	-6.30	1.46	1.53
67	B1	2270	G	O4'-C1'	-6.30	1.33	1.41
21	A2	658	A	C2'-C1'	6.30	1.60	1.53
21	A2	1055	C	C5'-C4'	6.30	1.58	1.51
67	B1	19	G	C2'-C1'	6.30	1.60	1.53
21	A2	113	U	C2'-C1'	6.29	1.60	1.53
21	A2	1215	G	C5'-C4'	6.29	1.58	1.51
67	B1	83	G	O3'-P	-6.29	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2213	G	C5'-C4'	6.29	1.58	1.51
21	A2	361	A	C3'-C2'	6.29	1.59	1.52
67	B1	2452	C	C3'-O3'	6.29	1.50	1.42
12	AN	123	ARG	CZ-NH1	6.29	1.41	1.33
46	BA	194	ARG	CZ-NH2	6.29	1.41	1.33
67	B1	155	U	C3'-C2'	6.29	1.59	1.52
67	B1	244	A	O4'-C1'	6.29	1.49	1.41
67	B1	722	C	O4'-C1'	6.29	1.49	1.41
21	A2	1254	C	C2'-C1'	-6.29	1.46	1.53
67	B1	2217	C	O3'-P	-6.29	1.53	1.61
67	B1	2298	C	P-O5'	-6.29	1.53	1.59
67	B1	2634	U	C4'-C3'	6.29	1.60	1.53
67	B1	3000	U	C5'-C4'	6.29	1.58	1.51
21	A2	823	A	C2'-C1'	-6.29	1.46	1.53
21	A2	1141	G	O4'-C1'	-6.29	1.33	1.41
67	B1	1062	C	O4'-C1'	6.29	1.49	1.41
67	B1	2018	C	C3'-O3'	6.29	1.50	1.42
67	B1	2696	G	P-O5'	-6.29	1.53	1.59
67	B1	2842	C	C5'-C4'	6.28	1.58	1.51
21	A2	391	G	O3'-P	-6.28	1.53	1.61
67	B1	2659	G	P-O5'	6.28	1.66	1.59
21	A2	1119	U	C2'-C1'	-6.28	1.46	1.53
32	BO	14	ARG	CZ-NH2	6.28	1.41	1.33
67	B1	1027	A	P-O5'	-6.28	1.53	1.59
11	A1	46	U	P-O5'	-6.28	1.53	1.59
30	AU	51	TRP	CD2-CE3	-6.28	1.30	1.40
67	B1	859	G	O4'-C1'	-6.28	1.33	1.41
67	B1	1284	C	C5'-C4'	6.28	1.58	1.51
67	B1	980	G	C5'-C4'	6.27	1.58	1.51
67	B1	1025	A	C4'-C3'	6.27	1.60	1.53
58	BP	44	ARG	CZ-NH2	6.27	1.41	1.33
67	B1	910	G	C2'-C1'	-6.27	1.46	1.53
21	A2	678	G	P-O5'	-6.27	1.53	1.59
67	B1	2430	C	C4'-C3'	6.27	1.60	1.53
67	B1	2988	A	C2'-C1'	6.27	1.60	1.53
67	B1	197	C	C2'-C1'	-6.27	1.46	1.53
67	B1	725	G	O3'-P	-6.27	1.53	1.61
67	B1	1565	G	P-OP2	6.27	1.59	1.49
2	AK	16	ARG	NE-CZ	6.26	1.41	1.33
21	A2	409	C	C3'-O3'	6.26	1.50	1.42
21	A2	1309	A	C2'-O2'	-6.26	1.33	1.41
21	A2	1464	C	C5'-C4'	6.26	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	Bb	81	GLU	CD-OE2	6.26	1.32	1.25
67	B1	127	C	C5'-C4'	6.26	1.58	1.51
67	B1	224	G	O4'-C1'	6.26	1.49	1.41
67	B1	1737	A	C2'-C1'	-6.26	1.46	1.53
21	A2	406	U	O4'-C1'	6.26	1.49	1.41
21	A2	756	A	O4'-C1'	6.26	1.49	1.41
67	B1	1634	A	C2'-C1'	-6.26	1.46	1.53
21	A2	297	G	O4'-C1'	-6.26	1.33	1.41
21	A2	483	G	C2'-C1'	6.26	1.60	1.53
67	B1	1585	U	C4'-O4'	6.26	1.53	1.45
21	A2	201	G	C5'-C4'	6.26	1.58	1.51
21	A2	416	A	O3'-P	6.26	1.68	1.61
21	A2	484	U	O4'-C1'	6.26	1.49	1.41
67	B1	794	G	C4'-C3'	6.26	1.60	1.53
21	A2	821	G	P-O5'	-6.26	1.53	1.59
67	B1	1260	C	O4'-C1'	6.26	1.49	1.41
67	B1	2368	G	O5'-C5'	-6.26	1.32	1.42
67	B1	2710	G	C4'-O4'	-6.26	1.37	1.45
67	B1	2902	G	O4'-C1'	-6.26	1.33	1.41
21	A2	105	C	C2'-O2'	-6.25	1.33	1.41
26	AP	25	GLY	N-CA	-6.25	1.36	1.46
67	B1	1790	G	C4'-C3'	6.25	1.60	1.53
67	B1	2050	U	C2'-C1'	-6.25	1.46	1.53
21	A2	137	A	C5'-C4'	6.25	1.58	1.51
21	A2	779	G	O4'-C1'	6.25	1.49	1.41
67	B1	424	U	C4'-C3'	-6.25	1.46	1.53
67	B1	546	C	P-O5'	-6.25	1.53	1.59
28	AV	4	ARG	NE-CZ	6.25	1.41	1.33
67	B1	2060	A	C3'-O3'	6.25	1.50	1.42
67	B1	1980	U	C5'-C4'	6.25	1.58	1.51
67	B1	2383	A	P-O5'	-6.25	1.53	1.59
21	A2	281	G	O4'-C1'	6.25	1.49	1.41
21	A2	335	G	C3'-C2'	-6.25	1.45	1.52
21	A2	1149	C	C2'-C1'	-6.25	1.46	1.53
67	B1	1703	G	C4'-C3'	6.25	1.60	1.53
67	B1	1887	A	P-O5'	-6.25	1.53	1.59
21	A2	456	U	C5'-C4'	6.24	1.58	1.51
21	A2	687	G	O4'-C1'	6.24	1.49	1.41
67	B1	2657	A	C3'-C2'	-6.24	1.45	1.52
53	BD	78	ARG	NE-CZ	6.24	1.41	1.33
67	B1	2732	U	C5'-C4'	6.24	1.58	1.51
21	A2	840	C	O4'-C1'	6.24	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	982	U	P-O5'	-6.24	1.53	1.59
21	A2	1239	A	C4'-C3'	6.24	1.60	1.53
21	A2	1394	G	C5'-C4'	6.24	1.58	1.51
67	B1	1694	G	O4'-C1'	6.24	1.49	1.41
21	A2	307	G	C3'-C2'	-6.24	1.45	1.52
67	B1	28	A	C2'-C1'	6.24	1.60	1.53
67	B1	1509	C	C5'-C4'	6.24	1.58	1.51
67	B1	1539	U	O4'-C1'	-6.24	1.33	1.41
67	B1	2474	A	P-O5'	6.24	1.66	1.59
67	B1	2524	C	C2'-C1'	6.24	1.60	1.53
21	A2	7	G	O3'-P	-6.24	1.53	1.61
21	A2	106	A	O4'-C1'	6.24	1.49	1.41
21	A2	610	G	C3'-C2'	-6.24	1.45	1.52
52	BB	237	ARG	NE-CZ	6.24	1.41	1.33
67	B1	1232	G	C2'-C1'	-6.24	1.46	1.53
67	B1	1830	U	C4'-C3'	-6.24	1.46	1.53
67	B1	2310	G	C5'-C4'	6.24	1.58	1.51
21	A2	1103	G	O4'-C1'	6.23	1.49	1.41
40	BE	155	ARG	NE-CZ	6.23	1.41	1.33
67	B1	606	A	C3'-C2'	6.23	1.59	1.52
67	B1	2232	U	O4'-C1'	-6.23	1.33	1.41
67	B1	2538	G	C5'-C4'	6.23	1.58	1.51
68	B3	80	G	C2'-C1'	-6.23	1.46	1.53
21	A2	468	G	C5'-C4'	6.23	1.58	1.51
21	A2	1008	U	P-O5'	-6.23	1.53	1.59
21	A2	1194	C	C4'-C3'	6.23	1.60	1.53
67	B1	155	U	C5'-C4'	6.23	1.58	1.51
67	B1	2603	A	O4'-C1'	6.23	1.49	1.41
67	B1	1823	A	C2'-C1'	-6.23	1.46	1.53
67	B1	2862	A	C4'-C3'	-6.23	1.46	1.53
27	A0	34	G	O3'-P	-6.23	1.53	1.61
67	B1	2757	G	O3'-P	-6.23	1.53	1.61
21	A2	1058	G	C4'-O4'	6.23	1.53	1.45
67	B1	1498	C	O3'-P	-6.22	1.53	1.61
67	B1	1895	G	C3'-C2'	-6.22	1.46	1.52
21	A2	476	C	C2'-C1'	-6.22	1.46	1.53
21	A2	1237	G	P-O5'	-6.22	1.53	1.59
51	Bj	48	GLY	N-CA	-6.22	1.36	1.46
67	B1	1773	C	C4'-O4'	6.22	1.53	1.45
67	B1	2795	G	C4'-C3'	6.22	1.59	1.53
37	BU	12	ARG	NE-CZ	6.22	1.41	1.33
67	B1	513	C	C5'-C4'	6.22	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	135	U	O4'-C1'	6.22	1.49	1.41
21	A2	149	U	C2'-C1'	6.22	1.60	1.53
21	A2	851	C	C2'-C1'	-6.22	1.46	1.53
67	B1	2679	A	C5'-C4'	6.22	1.58	1.51
21	A2	153	G	O4'-C1'	6.22	1.49	1.41
44	BW	7	ARG	CZ-NH1	6.22	1.41	1.33
67	B1	2277	G	C2'-C1'	6.22	1.60	1.53
67	B1	2656	A	P-O5'	-6.22	1.53	1.59
21	A2	221	A	O4'-C1'	6.22	1.49	1.41
21	A2	1345	G	C2'-C1'	-6.22	1.46	1.53
67	B1	531	G	C5'-C4'	6.22	1.58	1.51
67	B1	981	A	C2'-C1'	6.22	1.60	1.53
67	B1	1049	U	O4'-C1'	-6.22	1.33	1.41
67	B1	1636	C	O4'-C1'	6.22	1.49	1.41
21	A2	519	G	C2'-C1'	6.21	1.60	1.53
67	B1	1077	G	C3'-C2'	6.21	1.59	1.52
67	B1	1121	C	O3'-P	-6.21	1.53	1.61
67	B1	2543	A	O4'-C1'	-6.21	1.33	1.41
67	B1	2988	A	C3'-C2'	6.21	1.59	1.52
68	B3	58	C	O3'-P	-6.21	1.53	1.61
67	B1	518	A	C2'-C1'	-6.21	1.46	1.53
67	B1	1095	A	C2'-O2'	-6.21	1.33	1.41
67	B1	1946	G	C2'-C1'	6.21	1.60	1.53
67	B1	2004	A	P-O5'	6.21	1.66	1.59
67	B1	1536	U	C5'-C4'	6.21	1.58	1.51
67	B1	2963	G	P-O5'	6.21	1.66	1.59
67	B1	2075	U	O3'-P	-6.21	1.53	1.61
21	A2	620	G	C3'-C2'	-6.21	1.46	1.52
25	AH	156	ARG	NE-CZ	6.21	1.41	1.33
36	Bf	3	ARG	CG-CD	6.21	1.67	1.51
54	BF	159	ARG	CZ-NH1	6.21	1.41	1.33
67	B1	1181	C	C2'-O2'	6.21	1.49	1.41
21	A2	1199	A	C4'-O4'	-6.21	1.37	1.45
67	B1	1228	G	P-O5'	6.21	1.66	1.59
67	B1	1355	A	O3'-P	-6.21	1.53	1.61
67	B1	1365	G	C4'-C3'	6.21	1.59	1.53
27	A0	45	G	C2'-C1'	-6.20	1.46	1.53
60	BS	37	ARG	CZ-NH1	6.20	1.41	1.33
67	B1	371	U	C2'-C1'	-6.20	1.46	1.53
21	A2	129	G	C3'-O3'	6.20	1.50	1.42
67	B1	2403	G	O4'-C1'	6.20	1.49	1.41
21	A2	682	A	C5'-C4'	6.20	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	698	A	C3'-C2'	-6.20	1.46	1.52
67	B1	475	U	C2'-C1'	6.20	1.60	1.53
67	B1	1756	C	C2'-C1'	-6.20	1.46	1.53
21	A2	1391	U	O3'-P	-6.20	1.53	1.61
67	B1	1359	C	C5'-C4'	6.20	1.58	1.51
67	B1	2552	C	C2'-C1'	-6.20	1.46	1.53
49	BQ	144	GLU	CD-OE2	6.20	1.32	1.25
67	B1	86	G	O4'-C1'	6.20	1.49	1.41
67	B1	135	U	O3'-P	-6.20	1.53	1.61
67	B1	165	G	C4'-O4'	-6.20	1.37	1.45
67	B1	1723	A	C2'-C1'	-6.20	1.46	1.53
67	B1	1894	A	C3'-O3'	6.20	1.50	1.42
67	B1	2234	C	P-O5'	-6.20	1.53	1.59
67	B1	2320	U	O3'-P	-6.19	1.53	1.61
67	B1	2482	G	C4'-C3'	6.19	1.59	1.53
21	A2	320	G	C2'-C1'	-6.19	1.46	1.53
24	AA	127	ARG	NE-CZ	6.19	1.41	1.33
67	B1	2243	G	C2'-C1'	6.19	1.60	1.53
21	A2	1010	G	C2'-C1'	-6.19	1.46	1.53
67	B1	548	U	C2'-C1'	-6.19	1.46	1.53
67	B1	2689	G	C3'-C2'	-6.19	1.46	1.52
21	A2	407	G	P-O5'	-6.19	1.53	1.59
21	A2	866	A	C2'-C1'	6.19	1.60	1.53
21	A2	1163	U	C2'-C1'	-6.19	1.46	1.53
67	B1	1497	C	P-O5'	-6.19	1.53	1.59
67	B1	1693	G	O4'-C1'	6.19	1.49	1.41
68	B3	19	G	O4'-C1'	6.19	1.49	1.41
19	AS	11	ARG	NE-CZ	6.18	1.41	1.33
21	A2	316	C	O4'-C1'	6.18	1.49	1.41
67	B1	362	A	C3'-O3'	6.18	1.50	1.42
67	B1	757	C	O4'-C1'	6.18	1.49	1.41
67	B1	1944	C	C5'-C4'	6.18	1.58	1.51
21	A2	1097	G	C3'-O3'	6.18	1.50	1.42
67	B1	74	A	O3'-P	-6.18	1.53	1.61
67	B1	1740	U	C5'-C4'	6.18	1.58	1.51
21	A2	1426	C	C5'-C4'	-6.18	1.44	1.51
67	B1	891	C	C3'-C2'	6.18	1.59	1.52
67	B1	1178	G	C4'-O4'	6.18	1.53	1.45
7	AB	161	ARG	NE-CZ	6.18	1.41	1.33
67	B1	1498	C	C3'-O3'	6.18	1.50	1.42
67	B1	2247	G	C2'-C1'	-6.18	1.46	1.53
21	A2	1189	G	O4'-C1'	6.18	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	A0	1	G	C2'-C1'	-6.18	1.46	1.53
67	B1	556	G	P-O5'	-6.18	1.53	1.59
67	B1	894	C	O3'-P	-6.18	1.53	1.61
67	B1	1201	G	C3'-C2'	-6.18	1.46	1.52
67	B1	1749	C	O4'-C1'	6.18	1.49	1.41
67	B1	2291	G	O4'-C1'	6.18	1.49	1.41
21	A2	323	A	C2'-C1'	6.17	1.60	1.53
67	B1	303	A	O3'-P	-6.17	1.53	1.61
67	B1	2366	G	C2'-C1'	-6.17	1.46	1.53
67	B1	2935	A	P-O5'	-6.17	1.53	1.59
21	A2	1068	C	C5'-C4'	6.17	1.58	1.51
67	B1	1306	A	O4'-C1'	6.17	1.49	1.41
21	A2	81	C	O3'-P	6.17	1.68	1.61
67	B1	62	C	O4'-C1'	6.17	1.49	1.41
67	B1	1023	C	C5'-C4'	6.17	1.58	1.51
67	B1	2558	U	C2'-O2'	-6.17	1.33	1.41
67	B1	2627	C	C4'-C3'	6.17	1.59	1.53
21	A2	830	A	C3'-C2'	6.17	1.59	1.52
21	A2	911	C	C2'-C1'	-6.17	1.46	1.53
67	B1	1367	A	C3'-C2'	-6.17	1.46	1.52
67	B1	2796	C	C5'-C4'	6.17	1.58	1.51
21	A2	479	C	P-O5'	-6.17	1.53	1.59
53	BD	231	ALA	CA-CB	6.17	1.65	1.52
67	B1	487	U	C3'-C2'	6.17	1.59	1.52
67	B1	2879	G	C5'-C4'	6.17	1.58	1.51
16	AJ	53	ARG	CZ-NH1	6.17	1.41	1.33
21	A2	146	A	C3'-C2'	-6.17	1.46	1.52
21	A2	487	U	C4'-C3'	-6.17	1.46	1.53
67	B1	2579	G	C3'-C2'	6.17	1.59	1.52
67	B1	2775	G	C2'-C1'	-6.17	1.46	1.53
21	A2	667	G	C4'-O4'	6.17	1.53	1.45
67	B1	1732	C	C5'-C4'	6.16	1.58	1.51
21	A2	522	C	C2'-C1'	-6.16	1.46	1.53
67	B1	1726	A	C4'-O4'	6.16	1.53	1.45
67	B1	2102	A	O4'-C1'	6.16	1.49	1.41
67	B1	2126	G	O4'-C1'	-6.16	1.33	1.41
21	A2	202	G	C3'-C2'	-6.16	1.46	1.52
67	B1	326	C	C2'-C1'	-6.16	1.46	1.53
67	B1	890	G	C4'-C3'	6.16	1.59	1.53
67	B1	2407	G	C5'-C4'	6.16	1.58	1.51
68	B3	8	C	C5'-C4'	6.16	1.58	1.51
10	AD	52	ARG	CD-NE	6.16	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	826	C	P-O5'	-6.16	1.53	1.59
67	B1	1326	U	C2'-C1'	6.16	1.60	1.53
67	B1	2163	G	C3'-C2'	-6.16	1.46	1.52
67	B1	559	G	C4'-C3'	-6.16	1.46	1.53
67	B1	1487	U	C5'-C4'	6.16	1.58	1.51
67	B1	2614	C	C2'-C1'	-6.16	1.46	1.53
67	B1	3011	G	O4'-C1'	6.16	1.49	1.41
21	A2	36	G	C4'-C3'	-6.15	1.46	1.53
21	A2	1257	U	C5'-C4'	6.15	1.58	1.51
21	A2	1460	G	P-O5'	-6.15	1.53	1.59
67	B1	786	G	O4'-C1'	6.15	1.49	1.41
37	BU	73	ARG	CZ-NH2	6.15	1.41	1.33
54	BF	116	GLU	CD-OE1	6.15	1.32	1.25
67	B1	1444	A	C5'-C4'	6.15	1.58	1.51
67	B1	1528	A	C2'-C1'	-6.15	1.46	1.53
67	B1	1591	C	C5'-C4'	6.15	1.58	1.51
67	B1	1709	C	C5'-C4'	6.15	1.58	1.51
67	B1	2970	U	O3'-P	-6.15	1.53	1.61
11	A1	18	U	C4'-O4'	6.15	1.53	1.45
11	A1	44	G	P-O5'	6.15	1.66	1.59
21	A2	249	U	O4'-C1'	6.15	1.49	1.41
21	A2	567	A	C2'-C1'	-6.15	1.46	1.53
67	B1	321	C	C5'-C4'	6.15	1.58	1.51
67	B1	1047	A	P-O5'	6.15	1.65	1.59
67	B1	1226	G	O3'-P	-6.15	1.53	1.61
67	B1	2381	A	P-O5'	-6.15	1.53	1.59
67	B1	2663	G	O3'-P	-6.15	1.53	1.61
27	A0	60	U	O4'-C1'	6.15	1.49	1.41
35	BL	49	TRP	CA-CB	6.15	1.67	1.53
67	B1	1857	A	O4'-C1'	-6.15	1.33	1.41
67	B1	2050	U	C5'-C4'	6.15	1.58	1.51
67	B1	162	G	C4'-C3'	-6.15	1.46	1.53
67	B1	607	C	C5'-C4'	6.15	1.58	1.51
67	B1	1393	C	C5'-C4'	6.15	1.58	1.51
67	B1	1944	C	P-O5'	-6.15	1.53	1.59
67	B1	2808	C	C3'-C2'	-6.15	1.46	1.52
67	B1	2973	A	O4'-C1'	-6.15	1.33	1.41
21	A2	1348	C	O3'-P	-6.15	1.53	1.61
67	B1	2563	A	C4'-C3'	6.15	1.59	1.53
67	B1	909	A	C2'-C1'	6.14	1.60	1.53
67	B1	1284	C	O4'-C1'	6.14	1.49	1.41
67	B1	1397	U	C5'-C4'	6.14	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1479	U	O4'-C1'	6.14	1.49	1.41
67	B1	996	U	C4'-O4'	-6.14	1.37	1.45
67	B1	2350	G	C4'-O4'	-6.14	1.37	1.45
11	A1	6	G	O4'-C1'	6.14	1.49	1.41
67	B1	29	U	C2'-C1'	-6.14	1.46	1.53
67	B1	2897	C	C3'-O3'	6.14	1.50	1.42
21	A2	223	G	C2'-C1'	-6.14	1.46	1.53
67	B1	203	G	C2'-C1'	-6.14	1.46	1.53
67	B1	217	A	C3'-C2'	-6.14	1.46	1.52
67	B1	2379	G	P-O5'	-6.14	1.53	1.59
21	A2	118	U	O4'-C1'	6.13	1.49	1.41
21	A2	198	A	O4'-C1'	-6.13	1.33	1.41
67	B1	1825	G	C2'-C1'	6.13	1.60	1.53
67	B1	2372	C	C5'-C4'	-6.13	1.44	1.51
11	A1	10	G	C2'-C1'	-6.13	1.46	1.53
21	A2	109	U	O4'-C1'	6.13	1.49	1.41
21	A2	860	G	O4'-C1'	-6.13	1.33	1.41
67	B1	2413	G	C2'-C1'	-6.13	1.46	1.53
67	B1	2846	A	O4'-C1'	-6.13	1.33	1.41
68	B3	44	C	C3'-C2'	-6.13	1.46	1.52
12	AN	106	GLU	CG-CD	6.13	1.61	1.51
21	A2	1035	C	C5'-C4'	6.13	1.58	1.51
7	AB	64	PRO	N-CD	-6.13	1.39	1.47
21	A2	29	G	C3'-C2'	-6.13	1.46	1.52
21	A2	1050	G	C2'-C1'	-6.13	1.46	1.53
22	AY	8	TYR	CZ-OH	6.13	1.48	1.37
67	B1	1888	G	O4'-C1'	6.13	1.49	1.41
33	BC	37	ARG	CD-NE	6.13	1.56	1.46
67	B1	561	C	P-O5'	6.13	1.65	1.59
67	B1	788	A	C4'-O4'	-6.13	1.37	1.45
67	B1	1869	U	O4'-C1'	6.13	1.49	1.41
67	B1	796	C	C5'-C4'	6.12	1.58	1.51
67	B1	1621	G	O4'-C1'	6.12	1.49	1.41
57	BZ	8	ARG	NE-CZ	6.12	1.41	1.33
67	B1	124	C	C3'-O3'	6.12	1.50	1.42
67	B1	180	A	C4'-O4'	6.12	1.53	1.45
67	B1	1078	G	C2'-C1'	6.12	1.60	1.53
67	B1	1136	G	C5'-C4'	6.12	1.58	1.51
67	B1	2142	U	O4'-C1'	6.12	1.49	1.41
67	B1	821	U	O3'-P	-6.12	1.53	1.61
67	B1	1626	A	C2'-C1'	-6.12	1.46	1.53
32	BO	6	ARG	CD-NE	6.12	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	660	U	O3'-P	-6.12	1.53	1.61
21	A2	218	C	P-O5'	-6.12	1.53	1.59
21	A2	1093	C	O3'-P	-6.12	1.53	1.61
67	B1	647	G	O4'-C1'	6.12	1.49	1.41
21	A2	1335	A	P-O5'	6.12	1.65	1.59
67	B1	324	C	O4'-C1'	6.12	1.49	1.41
67	B1	960	C	O3'-P	-6.12	1.53	1.61
21	A2	1052	U	C2'-C1'	6.11	1.60	1.53
67	B1	2374	C	C4'-C3'	6.11	1.59	1.53
67	B1	2730	U	C2'-C1'	6.11	1.60	1.53
21	A2	220	G	O3'-P	-6.11	1.53	1.61
67	B1	1492	C	C2'-C1'	-6.11	1.46	1.53
67	B1	2331	A	O3'-P	-6.11	1.53	1.61
67	B1	412	G	O3'-P	-6.11	1.53	1.61
67	B1	2254	U	C2'-C1'	-6.11	1.46	1.53
67	B1	2946	C	C2'-C1'	-6.11	1.46	1.53
21	A2	1126	G	C5'-C4'	6.11	1.58	1.51
28	B6	55	TYR	CZ-OH	6.11	1.48	1.37
21	A2	1367	C	C5'-C4'	6.11	1.58	1.51
35	BL	10	LYS	CA-C	6.11	1.68	1.52
67	B1	642	G	O4'-C1'	-6.11	1.33	1.41
67	B1	939	A	P-O5'	-6.11	1.53	1.59
67	B1	1036	C	C3'-C2'	6.11	1.59	1.52
67	B1	1831	C	O4'-C1'	6.11	1.49	1.41
68	B3	39	C	C5'-C4'	6.11	1.58	1.51
67	B1	2205	A	C2'-C1'	-6.10	1.46	1.53
67	B1	2497	G	C5'-C4'	6.10	1.58	1.51
21	A2	266	A	C2'-C1'	-6.10	1.46	1.53
21	A2	345	G	O3'-P	-6.10	1.53	1.61
21	A2	878	U	O4'-C1'	6.10	1.49	1.41
67	B1	813	G	P-O5'	-6.10	1.53	1.59
67	B1	2619	U	P-O5'	-6.10	1.53	1.59
21	A2	1308	U	C4'-C3'	6.10	1.59	1.53
67	B1	2948	A	O4'-C1'	6.10	1.49	1.41
21	A2	884	G	O3'-P	-6.10	1.53	1.61
27	A0	8	U	O4'-C1'	6.10	1.49	1.41
40	BE	153	ARG	NE-CZ	6.10	1.41	1.33
67	B1	567	G	O3'-P	-6.10	1.53	1.61
67	B1	1676	G	P-O5'	6.10	1.65	1.59
67	B1	2089	C	O4'-C1'	6.10	1.49	1.41
67	B1	2240	G	C2'-C1'	-6.10	1.46	1.53
13	AX	59	GLU	CB-CG	6.10	1.63	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1128	U	C3'-C2'	6.10	1.59	1.52
67	B1	527	G	P-O5'	-6.10	1.53	1.59
67	B1	1063	C	C2'-C1'	-6.10	1.46	1.53
68	B3	106	G	C2'-C1'	6.10	1.60	1.53
67	B1	591	G	O4'-C1'	6.09	1.49	1.41
67	B1	1779	C	P-O5'	-6.09	1.53	1.59
68	B3	12	G	O4'-C1'	6.09	1.49	1.41
21	A2	1160	C	C5'-C4'	6.09	1.58	1.51
52	BB	9	ARG	NE-CZ	6.09	1.41	1.33
67	B1	1157	U	O4'-C1'	6.09	1.49	1.41
67	B1	1225	A	O3'-P	-6.09	1.53	1.61
11	A1	6	G	C2'-C1'	6.09	1.60	1.53
67	B1	1808	G	C2'-C1'	-6.09	1.46	1.53
67	B1	1972	C	O4'-C1'	6.09	1.49	1.41
67	B1	2033	G	O3'-P	-6.09	1.53	1.61
67	B1	2499	U	O4'-C1'	6.09	1.49	1.41
67	B1	2724	A	O4'-C1'	6.09	1.49	1.41
21	A2	826	C	C4'-O4'	6.09	1.53	1.45
21	A2	1017	U	O3'-P	-6.09	1.53	1.61
67	B1	1541	U	C4'-C3'	-6.09	1.46	1.53
67	B1	338	A	O4'-C1'	6.09	1.49	1.41
32	BO	147	GLU	CD-OE2	6.09	1.32	1.25
65	BJ	129	ARG	CD-NE	6.09	1.56	1.46
67	B1	1774	A	O4'-C1'	-6.09	1.33	1.41
67	B1	2721	C	P-O5'	-6.09	1.53	1.59
67	B1	1334	G	O4'-C1'	6.08	1.49	1.41
2	AK	10	ARG	CZ-NH2	6.08	1.41	1.33
12	AN	147	ARG	CZ-NH2	6.08	1.41	1.33
21	A2	519	G	O4'-C1'	6.08	1.49	1.41
32	BO	118	PHE	CG-CD2	6.08	1.47	1.38
21	A2	243	G	C4'-C3'	-6.08	1.46	1.53
21	A2	315	A	C2'-O2'	-6.08	1.33	1.41
53	BD	251	ARG	CZ-NH1	6.08	1.41	1.33
67	B1	484	C	C4'-O4'	-6.08	1.37	1.45
21	A2	514	U	C2'-C1'	-6.08	1.46	1.53
67	B1	1021	G	C5'-C4'	6.08	1.58	1.51
67	B1	1928	A	O4'-C1'	6.08	1.49	1.41
21	A2	90	C	P-O5'	-6.08	1.53	1.59
67	B1	1959	C	P-O5'	-6.08	1.53	1.59
67	B1	2902	G	O3'-P	-6.08	1.53	1.61
67	B1	2921	U	C4'-O4'	-6.08	1.37	1.45
21	A2	864	G	C2'-O2'	-6.08	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	112	C	O4'-C1'	6.08	1.49	1.41
11	A1	2	G	C3'-O3'	6.08	1.50	1.42
21	A2	572	U	P-O5'	6.08	1.65	1.59
21	A2	1316	U	C2'-C1'	-6.08	1.46	1.53
67	B1	569	G	C2'-C1'	-6.08	1.46	1.53
67	B1	2163	G	C2'-C1'	6.08	1.60	1.53
67	B1	2985	U	C4'-C3'	6.08	1.59	1.53
21	A2	177	A	C3'-C2'	6.07	1.59	1.52
47	BI	70	ARG	CZ-NH2	6.07	1.41	1.33
21	A2	529	C	C5'-C4'	6.07	1.58	1.51
21	A2	944	C	C2'-C1'	-6.07	1.46	1.53
67	B1	702	G	C4'-O4'	-6.07	1.37	1.45
67	B1	252	A	P-O5'	-6.07	1.53	1.59
67	B1	1644	G	C3'-C2'	6.07	1.59	1.52
67	B1	2688	C	C2'-C1'	-6.07	1.46	1.53
67	B1	645	U	C4'-C3'	6.07	1.59	1.53
67	B1	1845	C	C4'-O4'	6.07	1.53	1.45
67	B1	2230	G	C5'-C4'	6.07	1.58	1.51
37	BU	39	TYR	CE1-CZ	6.07	1.46	1.38
67	B1	2535	C	O3'-P	-6.07	1.53	1.61
67	B1	2644	G	C2'-O2'	6.07	1.49	1.41
67	B1	2702	A	P-O5'	-6.07	1.53	1.59
21	A2	1415	U	C2'-C1'	-6.07	1.46	1.53
31	BY	45	GLY	N-CA	-6.07	1.36	1.46
32	BO	110	PRO	N-CD	-6.07	1.39	1.47
67	B1	723	A	C5'-C4'	6.07	1.58	1.51
67	B1	1146	U	C5'-C4'	6.07	1.58	1.51
67	B1	2685	G	P-O5'	6.06	1.65	1.59
67	B1	826	C	C4'-C3'	-6.06	1.46	1.53
67	B1	2190	A	C5'-C4'	6.06	1.58	1.51
67	B1	2295	C	P-O5'	-6.06	1.53	1.59
67	B1	2638	G	C4'-O4'	-6.06	1.37	1.45
68	B3	109	A	C2'-C1'	6.06	1.60	1.53
21	A2	348	C	C3'-C2'	-6.06	1.46	1.52
21	A2	762	G	C5'-C4'	6.06	1.58	1.51
20	A3	77	TYR	CG-CD2	6.06	1.47	1.39
21	A2	377	A	C2'-C1'	-6.06	1.46	1.53
21	A2	463	G	P-O5'	-6.06	1.53	1.59
67	B1	829	G	C5'-C4'	6.06	1.58	1.51
67	B1	1109	G	C5'-C4'	6.06	1.58	1.51
21	A2	140	C	O3'-P	-6.06	1.53	1.61
21	A2	781	U	C4'-O4'	6.06	1.53	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	885	G	C3'-C2'	-6.06	1.46	1.52
67	B1	523	C	C3'-C2'	6.06	1.59	1.52
67	B1	959	U	P-O5'	-6.06	1.53	1.59
67	B1	1354	G	O4'-C1'	6.06	1.49	1.41
21	A2	952	A	O3'-P	-6.06	1.53	1.61
67	B1	2327	C	C4'-C3'	6.06	1.59	1.53
21	A2	58	U	O4'-C1'	6.05	1.49	1.41
21	A2	208	U	C5'-C4'	6.05	1.58	1.51
21	A2	1027	C	C3'-C2'	6.05	1.59	1.52
67	B1	711	C	C4'-O4'	-6.05	1.37	1.45
68	B3	78	C	P-O5'	-6.05	1.53	1.59
6	AC	89	TYR	CG-CD1	6.05	1.47	1.39
67	B1	381	G	C4'-O4'	6.05	1.53	1.45
15	AE	81	TYR	CB-CG	6.05	1.60	1.51
67	B1	1276	G	O3'-P	-6.05	1.53	1.61
67	B1	2347	G	C5'-C4'	6.05	1.58	1.51
67	B1	3030	A	C2'-C1'	6.05	1.60	1.53
21	A2	735	A	P-O5'	-6.05	1.53	1.59
65	BJ	129	ARG	NE-CZ	6.05	1.41	1.33
67	B1	2187	C	P-O5'	-6.05	1.53	1.59
67	B1	1188	C	C4'-O4'	6.05	1.53	1.45
67	B1	1310	A	C5'-C4'	6.05	1.58	1.51
11	A1	40	U	O4'-C1'	6.05	1.49	1.41
21	A2	158	U	O4'-C1'	6.05	1.49	1.41
21	A2	1187	A	O4'-C1'	6.05	1.49	1.41
67	B1	625	A	O3'-P	-6.05	1.53	1.61
67	B1	1507	A	C3'-C2'	-6.05	1.46	1.52
67	B1	2873	G	C2'-C1'	6.05	1.60	1.53
38	Bb	11	ARG	CD-NE	6.04	1.56	1.46
67	B1	243	G	C5'-C4'	6.04	1.58	1.51
21	A2	1377	G	C5'-C4'	6.04	1.58	1.51
21	A2	792	C	C5'-C4'	6.04	1.58	1.51
32	BO	136	GLU	CD-OE1	6.04	1.32	1.25
67	B1	325	G	C5'-C4'	6.04	1.58	1.51
21	A2	386	C	P-O5'	-6.04	1.53	1.59
21	A2	539	C	O3'-P	-6.04	1.53	1.61
67	B1	704	G	P-O5'	-6.04	1.53	1.59
67	B1	2864	G	O4'-C1'	6.04	1.49	1.41
68	B3	10	U	C4'-C3'	-6.04	1.46	1.53
67	B1	1305	C	C4'-C3'	6.04	1.59	1.53
28	B6	18	GLU	CD-OE1	-6.04	1.19	1.25
67	B1	409	C	C4'-O4'	6.04	1.53	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2817	U	C4'-O4'	6.04	1.53	1.45
21	A2	785	U	C3'-C2'	-6.03	1.46	1.52
67	B1	2755	G	C2'-C1'	-6.03	1.46	1.53
67	B1	2930	G	C2'-C1'	6.03	1.59	1.53
68	B3	28	C	O4'-C1'	6.03	1.49	1.41
67	B1	829	G	C2'-C1'	-6.03	1.46	1.53
67	B1	1618	G	C5'-C4'	6.03	1.58	1.51
30	AU	42	GLU	CD-OE1	6.03	1.32	1.25
67	B1	209	G	O4'-C1'	6.03	1.49	1.41
67	B1	1565	G	O3'-P	6.03	1.68	1.61
21	A2	420	C	O3'-P	-6.03	1.53	1.61
67	B1	181	U	O4'-C1'	-6.03	1.33	1.41
27	A0	10	G	C4'-O4'	-6.03	1.37	1.45
62	BN	109	GLY	CA-C	-6.03	1.42	1.51
67	B1	862	G	C2'-C1'	6.03	1.59	1.53
67	B1	1215	C	C2'-C1'	-6.03	1.46	1.53
67	B1	2937	U	C4'-C3'	6.03	1.59	1.53
15	AE	84	PRO	N-CA	-6.03	1.37	1.47
67	B1	777	A	C2'-O2'	-6.03	1.33	1.41
67	B1	1182	C	C5'-C4'	6.03	1.58	1.51
67	B1	1563	G	O3'-P	-6.03	1.53	1.61
67	B1	2575	U	O4'-C1'	6.03	1.49	1.41
67	B1	2681	A	C3'-C2'	6.02	1.59	1.52
67	B1	3034	C	O3'-P	-6.02	1.53	1.61
21	A2	318	C	C3'-C2'	6.02	1.59	1.52
21	A2	641	A	C2'-C1'	-6.02	1.46	1.53
21	A2	1088	U	C4'-O4'	6.02	1.53	1.45
67	B1	561	C	O3'-P	-6.02	1.53	1.61
67	B1	708	A	O4'-C1'	6.02	1.49	1.41
67	B1	2417	G	C2'-C1'	6.02	1.59	1.53
67	B1	1373	C	O4'-C1'	6.02	1.49	1.41
10	AD	147	GLU	CB-CG	6.02	1.63	1.52
11	A1	21	G	C3'-C2'	-6.02	1.46	1.52
21	A2	1216	A	O3'-P	-6.02	1.53	1.61
30	AU	128	PHE	CG-CD1	6.02	1.47	1.38
67	B1	312	G	O4'-C1'	6.02	1.49	1.41
67	B1	1488	C	C4'-C3'	6.02	1.59	1.53
21	A2	332	C	C3'-C2'	6.02	1.59	1.52
21	A2	420	C	C5'-C4'	6.02	1.58	1.51
67	B1	2027	G	C5'-C4'	6.02	1.58	1.51
67	B1	2199	U	C4'-C3'	6.02	1.59	1.53
21	A2	1053	A	O3'-P	-6.02	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1687	C	O4'-C1'	6.02	1.49	1.41
67	B1	1916	U	C5'-C4'	6.02	1.58	1.51
67	B1	2922	G	P-O5'	-6.02	1.53	1.59
3	AI	24	GLU	CD-OE2	6.01	1.32	1.25
67	B1	180	A	O3'-P	-6.01	1.53	1.61
67	B1	1497	C	C5'-C4'	6.01	1.58	1.51
25	AH	85	PHE	CA-C	6.01	1.68	1.52
27	A0	23	A	O3'-P	-6.01	1.53	1.61
58	BP	30	TRP	CD1-NE1	6.01	1.48	1.38
67	B1	1098	C	P-O5'	-6.01	1.53	1.59
67	B1	1749	C	C5'-C4'	6.01	1.58	1.51
67	B1	2383	A	C3'-C2'	-6.01	1.46	1.52
35	BL	11	LEU	CA-CB	6.01	1.67	1.53
67	B1	526	C	P-O5'	6.01	1.65	1.59
67	B1	1685	C	O3'-P	-6.01	1.53	1.61
67	B1	1170	G	O4'-C1'	-6.01	1.33	1.41
67	B1	2044	C	O3'-P	-6.01	1.53	1.61
67	B1	302	U	C4'-C3'	6.01	1.59	1.53
21	A2	163	C	C4'-C3'	6.00	1.59	1.53
21	A2	693	C	P-O5'	-6.00	1.53	1.59
21	A2	1472	G	C4'-C3'	-6.00	1.46	1.53
11	A1	68	C	P-O5'	-6.00	1.53	1.59
67	B1	582	A	P-O5'	-6.00	1.53	1.59
67	B1	2936	U	C5'-C4'	6.00	1.58	1.51
24	AA	128	ARG	CZ-NH1	6.00	1.40	1.33
54	BF	11	VAL	CA-CB	-6.00	1.42	1.54
67	B1	35	G	C4'-C3'	6.00	1.59	1.53
48	BR	23	ARG	CZ-NH2	6.00	1.40	1.33
67	B1	250	G	C5'-C4'	-6.00	1.44	1.51
67	B1	1104	A	C5'-C4'	6.00	1.58	1.51
67	B1	301	G	C2'-C1'	6.00	1.59	1.53
68	B3	75	G	C2'-C1'	6.00	1.59	1.53
21	A2	374	G	P-O5'	-6.00	1.53	1.59
41	Ba	61	ARG	CZ-NH2	6.00	1.40	1.33
67	B1	1287	G	C2'-O2'	-6.00	1.33	1.41
68	B3	40	G	P-O5'	-6.00	1.53	1.59
21	A2	348	C	P-O5'	-5.99	1.53	1.59
21	A2	1450	U	O3'-P	-5.99	1.53	1.61
25	AH	50	ARG	NE-CZ	5.99	1.40	1.33
67	B1	306	G	C5'-C4'	5.99	1.58	1.51
67	B1	1920	A	O5'-C5'	5.99	1.54	1.44
67	B1	2518	G	O4'-C1'	-5.99	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1264	G	O3'-P	-5.99	1.53	1.61
58	BP	17	TYR	CG-CD1	5.99	1.47	1.39
67	B1	392	G	C3'-C2'	-5.99	1.46	1.52
67	B1	566	G	O3'-P	-5.99	1.53	1.61
67	B1	1525	G	P-O5'	-5.99	1.53	1.59
67	B1	2479	C	C3'-C2'	-5.99	1.46	1.52
67	B1	2693	G	O4'-C1'	5.99	1.49	1.41
21	A2	469	U	C2'-C1'	-5.99	1.46	1.53
21	A2	606	U	O4'-C1'	5.99	1.49	1.41
21	A2	1011	C	P-O5'	-5.99	1.53	1.59
21	A2	1474	A	P-O5'	-5.99	1.53	1.59
67	B1	34	C	C3'-C2'	5.99	1.59	1.52
67	B1	1672	G	C3'-O3'	5.99	1.50	1.42
67	B1	2273	U	O4'-C1'	5.99	1.49	1.41
67	B1	2374	C	C2'-C1'	-5.99	1.46	1.53
67	B1	2599	C	P-O5'	-5.99	1.53	1.59
67	B1	31	G	C2'-C1'	-5.98	1.46	1.53
67	B1	459	C	C4'-C3'	5.98	1.59	1.53
67	B1	527	G	C2'-C1'	-5.98	1.46	1.53
67	B1	1527	G	C5'-C4'	5.98	1.58	1.51
21	A2	959	G	O3'-P	-5.98	1.53	1.61
21	A2	1294	G	O4'-C1'	5.98	1.49	1.41
23	AT	38	ARG	NE-CZ	5.98	1.40	1.33
67	B1	791	C	C4'-C3'	-5.98	1.46	1.52
67	B1	1619	C	C5'-C4'	5.98	1.58	1.51
67	B1	1749	C	O3'-P	-5.98	1.53	1.61
67	B1	1942	G	P-O5'	-5.98	1.53	1.59
67	B1	2836	G	C4'-C3'	5.98	1.59	1.53
67	B1	180	A	C3'-C2'	-5.98	1.46	1.52
67	B1	259	A	P-O5'	-5.98	1.53	1.59
68	B3	108	G	C2'-C1'	-5.98	1.46	1.53
67	B1	723	A	C2'-C1'	-5.98	1.46	1.53
67	B1	737	G	C4'-C3'	-5.98	1.46	1.52
67	B1	1821	C	O4'-C1'	5.98	1.49	1.41
67	B1	2794	G	C5'-C4'	5.97	1.58	1.51
67	B1	869	A	C4'-O4'	-5.97	1.37	1.45
67	B1	1255	C	C2'-C1'	5.97	1.59	1.53
67	B1	1514	C	C5'-C4'	5.97	1.58	1.51
67	B1	1771	C	O3'-P	-5.97	1.53	1.61
16	AJ	92	ARG	CZ-NH1	5.97	1.40	1.33
21	A2	272	C	O3'-P	-5.97	1.53	1.61
21	A2	765	U	P-O5'	-5.97	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BO	92	TYR	CB-CG	-5.97	1.42	1.51
54	BF	132	VAL	CB-CG1	5.97	1.65	1.52
67	B1	604	A	O3'-P	-5.97	1.53	1.61
67	B1	2226	G	O4'-C1'	5.97	1.49	1.41
21	A2	1323	A	C5'-C4'	5.97	1.58	1.51
67	B1	482	A	C4'-O4'	5.97	1.53	1.45
21	A2	441	U	P-O5'	-5.97	1.53	1.59
21	A2	610	G	O3'-P	5.97	1.68	1.61
67	B1	2691	G	O4'-C1'	5.97	1.49	1.41
11	A1	32	A	P-O5'	5.96	1.65	1.59
11	A1	47	G	C4'-C3'	5.96	1.59	1.53
21	A2	363	C	C3'-C2'	5.96	1.59	1.52
21	A2	1272	G	C4'-O4'	5.96	1.53	1.45
67	B1	1233	U	O3'-P	-5.96	1.53	1.61
21	A2	39	U	C3'-C2'	-5.96	1.46	1.52
21	A2	245	U	C2'-C1'	5.96	1.59	1.53
67	B1	1581	A	C4'-O4'	5.96	1.53	1.45
11	A1	48	U	C4'-O4'	5.96	1.53	1.45
27	A0	44	C	O3'-P	-5.96	1.53	1.61
67	B1	191	U	O4'-C1'	5.96	1.49	1.41
67	B1	1356	A	C4'-C3'	5.96	1.59	1.53
67	B1	1830	U	C5'-C4'	5.96	1.58	1.51
67	B1	2770	A	C5'-C4'	5.96	1.58	1.51
67	B1	2012	G	C4'-O4'	5.96	1.53	1.45
67	B1	2506	G	C2'-C1'	5.96	1.59	1.53
21	A2	458	G	C2-N3	5.96	1.37	1.32
32	BO	179	GLU	CD-OE2	5.96	1.32	1.25
67	B1	1531	C	O4'-C1'	5.96	1.49	1.41
67	B1	1849	A	C4'-C3'	5.96	1.59	1.53
67	B1	2252	C	C4'-C3'	5.96	1.59	1.53
67	B1	2754	A	P-O5'	-5.96	1.53	1.59
68	B3	45	C	O4'-C1'	5.96	1.49	1.41
68	B3	116	C	C2'-C1'	-5.96	1.46	1.53
67	B1	1599	A	O4'-C1'	-5.96	1.33	1.41
67	B1	2239	C	P-O5'	-5.96	1.53	1.59
67	B1	939	A	C5'-C4'	5.96	1.58	1.51
67	B1	1771	C	C4'-O4'	-5.96	1.37	1.45
21	A2	54	C	C2'-C1'	-5.95	1.46	1.53
64	Bc	41	ARG	CZ-NH1	5.95	1.40	1.33
67	B1	1410	A	O3'-P	-5.95	1.54	1.61
21	A2	721	A	C2'-C1'	5.95	1.59	1.53
21	A2	1018	C	C2'-C1'	-5.95	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1157	G	P-O5'	-5.95	1.53	1.59
67	B1	1516	C	C3'-C2'	-5.95	1.46	1.52
67	B1	2857	C	O3'-P	-5.95	1.54	1.61
21	A2	535	U	C5'-C4'	5.95	1.58	1.51
21	A2	888	A	C2'-C1'	-5.95	1.46	1.53
67	B1	1185	A	C5'-C4'	5.95	1.58	1.51
67	B1	2995	A	C2'-C1'	5.95	1.59	1.53
21	A2	76	U	O4'-C1'	5.95	1.49	1.41
21	A2	35	G	C2'-C1'	-5.95	1.46	1.53
21	A2	1070	C	C4'-O4'	-5.95	1.37	1.45
27	A0	23	A	C2'-C1'	-5.95	1.46	1.53
46	BA	24	PHE	CB-CG	5.95	1.61	1.51
67	B1	1702	C	C4'-C3'	5.95	1.59	1.53
67	B1	2075	U	C2'-C1'	5.95	1.59	1.53
67	B1	2845	C	C2'-C1'	-5.95	1.46	1.53
21	A2	937	A	C2'-C1'	-5.94	1.46	1.53
21	A2	1423	A	O3'-P	-5.94	1.54	1.61
27	A0	31	A	P-O5'	-5.94	1.53	1.59
67	B1	1434	C	O4'-C1'	5.94	1.49	1.41
67	B1	1845	C	C3'-C2'	5.94	1.59	1.52
21	A2	1064	C	O4'-C1'	5.94	1.49	1.41
21	A2	1157	G	C3'-C2'	-5.94	1.46	1.52
21	A2	1328	G	C4'-O4'	-5.94	1.37	1.45
25	AH	12	PRO	CA-C	-5.94	1.41	1.52
67	B1	532	G	P-O5'	-5.94	1.53	1.59
67	B1	2949	G	C3'-C2'	-5.94	1.46	1.52
15	AE	8	ARG	CZ-NH1	5.94	1.40	1.33
19	AS	5	ARG	CD-NE	5.94	1.56	1.46
67	B1	192	U	O4'-C1'	5.94	1.49	1.41
67	B1	236	G	C2'-C1'	-5.94	1.46	1.53
67	B1	1524	A	O4'-C1'	-5.94	1.33	1.41
21	A2	1228	A	P-O5'	5.94	1.65	1.59
67	B1	468	A	C4'-C3'	-5.94	1.46	1.52
67	B1	468	A	P-O5'	-5.94	1.53	1.59
67	B1	1170	G	C5'-C4'	5.94	1.58	1.51
67	B1	2257	A	C5'-C4'	5.94	1.58	1.51
67	B1	2955	G	C2'-C1'	-5.94	1.46	1.53
21	A2	489	C	C2'-C1'	-5.93	1.46	1.53
67	B1	773	U	C3'-O3'	5.93	1.50	1.42
67	B1	1305	C	O3'-P	-5.93	1.54	1.61
67	B1	2013	A	O3'-P	-5.93	1.54	1.61
67	B1	2124	C	C4'-O4'	-5.93	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2483	U	C4'-C3'	5.93	1.59	1.53
21	A2	518	U	P-O5'	5.93	1.65	1.59
27	A0	20	U	P-O5'	-5.93	1.53	1.59
67	B1	1517	G	O4'-C1'	-5.93	1.33	1.41
67	B1	2971	U	C2'-C1'	-5.93	1.46	1.53
16	AJ	7	ARG	CZ-NH2	5.93	1.40	1.33
67	B1	218	A	C2'-C1'	5.93	1.59	1.53
27	A0	7	G	P-O5'	-5.93	1.53	1.59
58	BP	41	ARG	CZ-NH1	5.93	1.40	1.33
67	B1	939	A	C3'-C2'	5.93	1.59	1.52
67	B1	2783	C	C2'-C1'	-5.93	1.46	1.53
67	B1	2031	G	C2'-C1'	5.93	1.59	1.53
21	A2	198	A	P-O5'	-5.93	1.53	1.59
21	A2	707	A	P-O5'	5.93	1.65	1.59
44	BW	45	ARG	NE-CZ	5.93	1.40	1.33
58	BP	3	ARG	CZ-NH2	5.93	1.40	1.33
67	B1	1285	C	O4'-C1'	5.93	1.49	1.41
67	B1	1501	G	C5'-C4'	5.93	1.58	1.51
67	B1	227	G	P-O5'	5.92	1.65	1.59
67	B1	595	C	O4'-C1'	5.92	1.49	1.41
67	B1	2460	A	P-O5'	-5.92	1.53	1.59
40	BE	157	ARG	CD-NE	5.92	1.56	1.46
67	B1	583	A	O3'-P	-5.92	1.54	1.61
67	B1	2040	A	C2'-C1'	5.92	1.59	1.53
67	B1	2706	C	C2'-C1'	-5.92	1.46	1.53
67	B1	74	A	O4'-C1'	5.92	1.49	1.41
67	B1	1527	G	O4'-C1'	5.92	1.49	1.41
28	AV	60	PHE	CG-CD1	5.92	1.47	1.38
67	B1	2437	G	O4'-C1'	5.92	1.49	1.41
21	A2	1108	U	C2'-C1'	-5.92	1.46	1.53
67	B1	1296	A	O3'-P	5.92	1.68	1.61
38	Bb	117	ARG	NE-CZ	5.92	1.40	1.33
67	B1	806	C	C3'-C2'	5.92	1.59	1.52
67	B1	1921	U	O4'-C1'	5.92	1.49	1.41
67	B1	2528	U	C5'-C4'	5.92	1.58	1.51
21	A2	1029	G	C3'-O3'	5.92	1.50	1.42
21	A2	289	C	C2'-C1'	-5.91	1.46	1.53
67	B1	1165	C	O3'-P	-5.91	1.54	1.61
67	B1	2569	G	C2'-O2'	-5.91	1.33	1.41
67	B1	2730	U	C4'-O4'	-5.91	1.37	1.45
67	B1	2944	G	C3'-O3'	5.91	1.50	1.42
67	B1	53	A	O4'-C1'	-5.91	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	446	G	O3'-P	-5.91	1.54	1.61
67	B1	2244	G	C2'-C1'	-5.91	1.46	1.53
21	A2	662	C	P-O5'	-5.91	1.53	1.59
67	B1	675	G	C4'-C3'	5.91	1.59	1.53
68	B3	56	C	O3'-P	-5.91	1.54	1.61
14	AM	84	ARG	CZ-NH2	5.91	1.40	1.33
21	A2	508	C	O4'-C1'	5.91	1.49	1.41
67	B1	1296	A	P-O5'	-5.91	1.53	1.59
59	BM	32	ARG	CZ-NH2	5.91	1.40	1.33
62	BN	20	ARG	CZ-NH2	5.91	1.40	1.33
67	B1	2570	A	O3'-P	-5.91	1.54	1.61
21	A2	526	A	P-O5'	-5.90	1.53	1.59
43	Bk	43	ARG	CD-NE	5.90	1.56	1.46
21	A2	13	C	C3'-O3'	5.90	1.50	1.42
67	B1	1048	C	C3'-O3'	5.90	1.50	1.42
67	B1	1730	C	O4'-C1'	5.90	1.49	1.41
67	B1	2853	A	O3'-P	-5.90	1.54	1.61
67	B1	2920	C	P-O5'	-5.90	1.53	1.59
54	BF	34	GLU	CG-CD	5.90	1.60	1.51
67	B1	1999	G	P-O5'	-5.90	1.53	1.59
67	B1	2099	G	O4'-C1'	-5.90	1.33	1.41
67	B1	2315	G	C3'-C2'	-5.90	1.46	1.52
67	B1	2545	A	C4'-C3'	5.90	1.59	1.53
6	AC	105	ARG	NE-CZ	5.90	1.40	1.33
21	A2	230	C	O3'-P	-5.90	1.54	1.61
21	A2	301	G	O4'-C1'	5.90	1.49	1.41
21	A2	608	G	C2'-C1'	-5.90	1.46	1.53
21	A2	1466	G	P-O5'	-5.90	1.53	1.59
67	B1	718	G	C2'-C1'	-5.90	1.46	1.53
21	A2	303	G	C2'-C1'	-5.90	1.46	1.53
67	B1	80	G	C2'-C1'	-5.90	1.46	1.53
67	B1	280	A	O4'-C1'	5.90	1.49	1.41
67	B1	1714	G	C2'-C1'	-5.90	1.46	1.53
16	AJ	16	ARG	CZ-NH2	5.89	1.40	1.33
67	B1	976	C	C4'-O4'	5.89	1.53	1.45
67	B1	1038	U	C3'-C2'	5.89	1.59	1.52
67	B1	1697	G	O3'-P	-5.89	1.54	1.61
67	B1	2256	G	C5'-C4'	5.89	1.58	1.51
67	B1	2628	U	C5'-C4'	5.89	1.58	1.51
21	A2	725	C	C2'-C1'	-5.89	1.46	1.53
21	A2	877	A	P-O5'	5.89	1.65	1.59
21	A2	1117	A	C3'-C2'	5.89	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	189	U	O4'-C1'	5.89	1.49	1.41
67	B1	465	C	P-O5'	-5.89	1.53	1.59
67	B1	774	G	C2'-C1'	-5.89	1.46	1.53
67	B1	2296	A	O4'-C1'	5.89	1.49	1.41
67	B1	2480	G	C4'-C3'	5.89	1.59	1.53
67	B1	2507	C	O3'-P	-5.89	1.54	1.61
67	B1	2515	U	P-O5'	-5.89	1.53	1.59
21	A2	360	A	O3'-P	-5.89	1.54	1.61
21	A2	502	U	O3'-P	-5.89	1.54	1.61
21	A2	595	U	O4'-C1'	5.89	1.49	1.41
21	A2	849	U	C4'-C3'	5.89	1.59	1.53
67	B1	201	C	C2'-C1'	-5.89	1.46	1.53
67	B1	2493	A	P-O5'	-5.89	1.53	1.59
67	B1	2760	A	O4'-C1'	5.89	1.49	1.41
13	AX	62	ARG	CD-NE	5.89	1.56	1.46
21	A2	1433	C	C2'-C1'	-5.89	1.46	1.53
36	Bf	12	ARG	CD-NE	-5.89	1.36	1.46
67	B1	727	A	O4'-C1'	5.89	1.49	1.41
67	B1	832	A	O4'-C1'	5.89	1.49	1.41
67	B1	2161	A	O3'-P	-5.89	1.54	1.61
67	B1	895	C	P-O5'	-5.89	1.53	1.59
67	B1	1630	U	O4'-C1'	5.89	1.49	1.41
68	B3	105	G	C4'-O4'	5.89	1.53	1.45
21	A2	375	G	O3'-P	-5.88	1.54	1.61
67	B1	813	G	C2'-C1'	5.88	1.59	1.53
67	B1	1831	C	C3'-O3'	5.88	1.50	1.42
21	A2	666	G	C5'-C4'	-5.88	1.44	1.51
44	BW	22	ARG	CZ-NH2	5.88	1.40	1.33
68	B3	3	G	C4'-C3'	5.88	1.59	1.53
21	A2	665	G	O4'-C1'	-5.88	1.34	1.41
21	A2	887	G	C5'-C4'	5.88	1.58	1.51
21	A2	1374	C	O3'-P	5.88	1.68	1.61
30	AU	5	TYR	CG-CD1	5.88	1.46	1.39
49	BQ	43	ARG	CD-NE	5.88	1.56	1.46
67	B1	768	C	C3'-C2'	-5.88	1.46	1.52
67	B1	1038	U	P-O5'	-5.88	1.53	1.59
67	B1	1836	A	C3'-C2'	-5.88	1.46	1.52
67	B1	2047	U	C2'-C1'	5.88	1.59	1.53
57	BZ	8	ARG	CZ-NH1	5.88	1.40	1.33
27	A0	22	G	C4'-C3'	5.88	1.59	1.53
44	BW	8	GLU	CG-CD	5.88	1.60	1.51
67	B1	242	C	P-O5'	-5.88	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	497	G	C3'-O3'	5.88	1.50	1.42
21	A2	710	G	C3'-O3'	5.88	1.50	1.42
11	A1	13	C	O4'-C1'	5.87	1.49	1.41
21	A2	301	G	C2'-C1'	-5.87	1.46	1.53
21	A2	591	G	O4'-C1'	-5.87	1.34	1.41
21	A2	935	G	O4'-C1'	5.87	1.49	1.41
33	BC	130	ARG	NE-CZ	5.87	1.40	1.33
37	BU	47	ARG	CD-NE	5.87	1.56	1.46
60	BS	126	ARG	CZ-NH2	5.87	1.40	1.33
67	B1	1478	G	C3'-O3'	5.87	1.50	1.42
67	B1	2362	U	C3'-C2'	-5.87	1.46	1.52
67	B1	2274	C	C2'-C1'	5.87	1.59	1.53
21	A2	18	C	C5'-C4'	5.87	1.58	1.51
67	B1	251	C	C2'-C1'	-5.87	1.46	1.53
67	B1	818	A	C3'-C2'	5.87	1.59	1.52
67	B1	1393	C	C2'-O2'	-5.87	1.34	1.41
67	B1	2007	C	C4'-C3'	5.87	1.59	1.53
67	B1	2459	G	C2'-C1'	5.87	1.59	1.53
12	AN	30	TYR	CE2-CZ	5.86	1.46	1.38
21	A2	241	U	C2'-C1'	5.86	1.59	1.53
21	A2	428	G	C4'-O4'	5.86	1.53	1.45
67	B1	419	G	O4'-C1'	5.86	1.49	1.41
67	B1	2272	G	C3'-O3'	5.86	1.50	1.42
21	A2	730	G	C4'-C3'	5.86	1.59	1.53
67	B1	831	C	C3'-C2'	-5.86	1.46	1.52
67	B1	2809	G	C4'-C3'	5.86	1.59	1.53
21	A2	273	C	C5'-C4'	5.86	1.58	1.51
21	A2	1288	C	O3'-P	-5.86	1.54	1.61
21	A2	1291	G	O3'-P	-5.86	1.54	1.61
67	B1	1985	G	C2'-C1'	-5.86	1.47	1.53
67	B1	2834	C	C5'-C4'	5.86	1.58	1.51
21	A2	275	A	C2'-C1'	5.86	1.59	1.53
21	A2	598	U	P-O5'	-5.86	1.53	1.59
67	B1	1498	C	P-O5'	-5.86	1.53	1.59
21	A2	381	C	O3'-P	5.86	1.68	1.61
67	B1	2194	A	O4'-C1'	5.86	1.49	1.41
68	B3	4	C	O4'-C1'	5.86	1.49	1.41
6	AC	26	ARG	CZ-NH1	5.86	1.40	1.33
21	A2	26	A	P-O5'	-5.86	1.53	1.59
21	A2	300	G	C2'-C1'	5.86	1.59	1.53
67	B1	727	A	C3'-C2'	-5.86	1.46	1.52
67	B1	1318	G	C2'-C1'	-5.86	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2542	G	C2'-C1'	5.86	1.59	1.53
67	B1	17	C	P-O5'	-5.85	1.53	1.59
21	A2	1041	C	C2'-C1'	-5.85	1.47	1.53
53	BD	83	VAL	C-N	5.85	1.45	1.34
67	B1	1283	G	O4'-C1'	-5.85	1.34	1.41
67	B1	2082	C	C2'-C1'	5.85	1.59	1.53
67	B1	2434	A	O3'-P	-5.85	1.54	1.61
67	B1	2557	C	P-O5'	-5.85	1.53	1.59
21	A2	40	C	O3'-P	-5.85	1.54	1.61
21	A2	106	A	C4'-C3'	-5.85	1.46	1.52
21	A2	166	A	C4'-C3'	5.85	1.59	1.53
21	A2	255	G	C5'-C4'	5.85	1.58	1.51
21	A2	1192	C	C2'-C1'	5.85	1.59	1.53
21	A2	1407	U	C5'-C4'	5.85	1.58	1.51
67	B1	242	C	C2'-C1'	-5.85	1.47	1.53
67	B1	683	C	O4'-C1'	5.85	1.49	1.41
67	B1	2267	U	C4'-O4'	5.85	1.53	1.45
67	B1	2568	A	O3'-P	-5.85	1.54	1.61
67	B1	1281	A	O4'-C1'	-5.85	1.34	1.41
67	B1	2464	G	C5'-C4'	5.85	1.58	1.51
67	B1	391	C	C5'-C4'	5.85	1.58	1.51
67	B1	1301	G	C4'-C3'	-5.85	1.46	1.52
67	B1	1708	U	C5'-C4'	5.85	1.58	1.51
21	A2	310	G	C2'-C1'	-5.84	1.47	1.53
21	A2	1450	U	O4'-C1'	5.84	1.49	1.41
30	AU	15	ARG	CD-NE	5.84	1.56	1.46
67	B1	2261	C	O4'-C1'	5.84	1.49	1.41
67	B1	2472	A	P-O5'	5.84	1.65	1.59
59	BM	38	ARG	NE-CZ	5.84	1.40	1.33
67	B1	194	G	C3'-O3'	5.84	1.50	1.42
67	B1	2971	U	O3'-P	-5.84	1.54	1.61
28	AV	20	TYR	CZ-OH	5.84	1.47	1.37
65	BJ	10	ARG	CZ-NH1	5.84	1.40	1.33
67	B1	1221	U	C4'-O4'	-5.84	1.38	1.45
67	B1	1961	G	P-O5'	-5.84	1.53	1.59
21	A2	829	U	C3'-C2'	5.84	1.59	1.52
67	B1	925	U	C5'-C4'	5.84	1.58	1.51
67	B1	1645	U	O4'-C1'	5.84	1.49	1.41
67	B1	2530	G	O4'-C1'	-5.84	1.34	1.41
21	A2	1301	U	C2'-C1'	-5.84	1.47	1.53
67	B1	1985	G	C3'-C2'	-5.84	1.46	1.52
21	A2	556	G	C4'-C3'	-5.84	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	629	U	O4'-C1'	5.84	1.49	1.41
21	A2	992	G	O3'-P	-5.84	1.54	1.61
67	B1	562	G	C3'-O3'	5.84	1.50	1.42
67	B1	1682	C	P-O5'	-5.84	1.53	1.59
67	B1	2250	G	P-O5'	5.84	1.65	1.59
21	A2	803	C	C3'-C2'	5.83	1.59	1.52
67	B1	151	G	C2'-C1'	-5.83	1.47	1.53
67	B1	248	C	C3'-O3'	5.83	1.50	1.42
67	B1	888	U	C4'-O4'	-5.83	1.38	1.45
67	B1	1306	A	C5'-C4'	5.83	1.58	1.51
67	B1	2535	C	P-O5'	-5.83	1.53	1.59
67	B1	2607	U	P-O5'	-5.83	1.53	1.59
21	A2	640	U	O4'-C1'	5.83	1.49	1.41
21	A2	818	A	C5'-C4'	5.83	1.58	1.51
21	A2	1137	G	C5'-C4'	5.83	1.58	1.51
21	A2	1381	G	C2'-C1'	5.83	1.59	1.53
67	B1	2496	G	P-O5'	-5.83	1.53	1.59
67	B1	2064	U	C3'-C2'	5.83	1.59	1.52
68	B3	59	C	O4'-C1'	5.83	1.49	1.41
21	A2	1408	C	P-O5'	-5.83	1.53	1.59
27	A0	48	C	C2'-C1'	-5.83	1.47	1.53
67	B1	498	U	P-O5'	-5.83	1.53	1.59
67	B1	2621	U	O4'-C1'	5.83	1.49	1.41
67	B1	2965	C	C3'-O3'	5.83	1.50	1.42
68	B3	46	G	C3'-O3'	-5.83	1.33	1.42
10	AD	45	GLU	CD-OE2	5.83	1.32	1.25
67	B1	232	U	C4'-C3'	-5.83	1.46	1.52
11	A1	15	G	C2'-C1'	5.83	1.59	1.53
19	AS	37	GLU	CG-CD	5.83	1.60	1.51
21	A2	399	A	C2'-C1'	-5.83	1.47	1.53
67	B1	1497	C	C3'-C2'	5.83	1.59	1.52
67	B1	1548	A	C5'-C4'	5.83	1.58	1.51
67	B1	2086	C	C4'-O4'	-5.83	1.38	1.45
67	B1	2450	A	C5'-C4'	5.83	1.58	1.51
67	B1	2886	C	C3'-C2'	5.83	1.59	1.52
21	A2	444	G	O4'-C1'	5.82	1.49	1.41
21	A2	1006	C	C5'-C4'	5.82	1.58	1.51
50	BV	34	SER	CA-CB	5.82	1.61	1.52
67	B1	1922	A	P-O5'	-5.82	1.53	1.59
67	B1	2343	G	C2'-C1'	-5.82	1.47	1.53
67	B1	2810	G	P-O5'	-5.82	1.53	1.59
47	BI	63	ARG	CD-NE	5.82	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	B6	6	LYS	N-CA	-5.82	1.34	1.46
67	B1	28	A	O3'-P	-5.82	1.54	1.61
67	B1	756	C	C4'-C3'	-5.82	1.46	1.52
21	A2	145	A	O3'-P	-5.82	1.54	1.61
67	B1	765	G	C4'-C3'	5.82	1.59	1.53
68	B3	2	G	O3'-P	-5.82	1.54	1.61
20	A3	108	ARG	NE-CZ	5.82	1.40	1.33
67	B1	1912	A	O4'-C1'	5.82	1.49	1.41
67	B1	2653	G	O3'-P	-5.82	1.54	1.61
21	A2	55	G	C4'-C3'	5.82	1.59	1.53
67	B1	1227	A	C4'-O4'	5.82	1.53	1.45
68	B3	3	G	C3'-C2'	-5.82	1.46	1.52
16	AJ	53	ARG	CD-NE	5.81	1.56	1.46
67	B1	304	G	O4'-C1'	-5.81	1.34	1.41
67	B1	2182	A	C4'-O4'	-5.81	1.38	1.45
17	AO	64	GLU	CD-OE2	5.81	1.32	1.25
21	A2	122	C	C2'-C1'	-5.81	1.47	1.53
21	A2	1123	G	C2'-C1'	-5.81	1.47	1.53
67	B1	1686	C	O4'-C1'	5.81	1.49	1.41
67	B1	2648	C	C2'-O2'	5.81	1.49	1.41
21	A2	453	G	C5'-C4'	5.81	1.58	1.51
67	B1	1956	G	C3'-O3'	-5.81	1.34	1.42
67	B1	2976	G	P-O5'	-5.81	1.53	1.59
21	A2	162	C	P-O5'	-5.81	1.53	1.59
21	A2	246	A	C2'-C1'	5.81	1.59	1.53
21	A2	1141	G	P-O5'	-5.81	1.53	1.59
40	BE	66	ARG	NE-CZ	5.81	1.40	1.33
67	B1	327	G	O4'-C1'	-5.81	1.34	1.41
67	B1	1627	G	C5'-C4'	5.81	1.58	1.51
67	B1	2022	U	P-O5'	-5.81	1.53	1.59
67	B1	2620	G	C3'-C2'	5.81	1.59	1.52
67	B1	1163	U	C2'-O2'	-5.81	1.34	1.41
67	B1	1850	C	C2'-C1'	5.81	1.59	1.53
67	B1	2147	C	C3'-O3'	5.81	1.50	1.42
67	B1	2585	G	C2'-C1'	-5.81	1.47	1.53
68	B3	30	G	P-O5'	-5.81	1.53	1.59
67	B1	955	A	P-O5'	5.81	1.65	1.59
21	A2	19	G	O4'-C1'	-5.80	1.34	1.41
67	B1	1089	C	C5'-C4'	5.80	1.58	1.51
67	B1	615	A	O4'-C1'	-5.80	1.34	1.41
21	A2	490	C	C3'-C2'	5.80	1.59	1.52
21	A2	946	G	O4'-C1'	-5.80	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1477	U	P-O5'	-5.80	1.53	1.59
67	B1	191	U	O3'-P	-5.80	1.54	1.61
67	B1	1901	A	C4'-O4'	5.80	1.53	1.45
21	A2	49	C	O4'-C1'	5.80	1.49	1.41
67	B1	912	G	O4'-C1'	5.80	1.49	1.41
67	B1	1407	A	O5'-C5'	-5.80	1.33	1.42
67	B1	2838	U	C3'-C2'	5.80	1.59	1.52
21	A2	393	A	C3'-O3'	5.80	1.50	1.42
67	B1	109	G	P-O5'	-5.80	1.53	1.59
67	B1	2316	U	C5'-C4'	5.80	1.58	1.51
21	A2	311	A	O3'-P	5.80	1.68	1.61
21	A2	561	A	P-O5'	5.80	1.65	1.59
67	B1	630	G	C4'-O4'	5.80	1.53	1.45
67	B1	1868	C	C2'-O2'	5.80	1.49	1.41
67	B1	2418	G	O4'-C1'	5.80	1.49	1.41
67	B1	2431	C	O3'-P	-5.80	1.54	1.61
67	B1	2654	C	C5'-C4'	5.80	1.58	1.51
67	B1	753	A	O4'-C1'	-5.79	1.34	1.41
20	A3	122	MET	CA-C	-5.79	1.37	1.52
27	A0	67	G	O4'-C1'	-5.79	1.34	1.41
67	B1	163	G	P-O5'	5.79	1.65	1.59
67	B1	522	A	C5'-C4'	5.79	1.58	1.51
67	B1	709	A	O4'-C1'	5.79	1.49	1.41
67	B1	1410	A	C2'-C1'	-5.79	1.47	1.53
67	B1	1952	G	O4'-C1'	5.79	1.49	1.41
68	B3	1	C	C2'-C1'	-5.79	1.47	1.53
16	AJ	39	GLU	CB-CG	5.79	1.63	1.52
21	A2	1110	U	O3'-P	-5.79	1.54	1.61
62	BN	17	TYR	CE1-CZ	5.79	1.46	1.38
67	B1	2039	U	C2'-C1'	-5.79	1.47	1.53
67	B1	2704	A	O4'-C1'	5.79	1.49	1.41
67	B1	2387	A	C2'-C1'	-5.79	1.47	1.53
21	A2	90	C	O3'-P	-5.79	1.54	1.61
27	A0	33	U	C2'-C1'	5.79	1.59	1.53
67	B1	972	C	C5'-C4'	5.79	1.58	1.51
67	B1	1476	C	C4'-C3'	5.79	1.59	1.53
67	B1	2018	C	C5'-C4'	5.79	1.58	1.51
67	B1	2839	A	C5'-C4'	5.79	1.58	1.51
32	BO	78	GLY	N-CA	-5.79	1.37	1.46
21	A2	182	A	C2'-C1'	-5.79	1.47	1.53
67	B1	414	G	C2'-C1'	5.79	1.59	1.53
67	B1	438	G	P-O5'	-5.79	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	585	G	O4'-C1'	5.79	1.49	1.41
67	B1	620	G	O4'-C1'	-5.79	1.34	1.41
67	B1	894	C	C3'-C2'	-5.79	1.46	1.52
67	B1	958	A	C2'-C1'	-5.79	1.47	1.53
67	B1	1932	G	C4'-C3'	-5.79	1.46	1.52
21	A2	5	C	P-O5'	-5.78	1.53	1.59
21	A2	1324	U	C5'-C4'	5.78	1.58	1.51
21	A2	1332	C	P-O5'	-5.78	1.53	1.59
52	BB	234	ARG	CZ-NH2	5.78	1.40	1.33
67	B1	1264	G	O4'-C1'	5.78	1.49	1.41
67	B1	1496	A	O4'-C1'	-5.78	1.34	1.41
67	B1	1696	G	O4'-C1'	5.78	1.49	1.41
67	B1	1843	C	C4'-O4'	5.78	1.53	1.45
67	B1	2412	A	C4'-O4'	5.78	1.53	1.45
21	A2	593	G	O4'-C1'	5.78	1.49	1.41
67	B1	1078	G	O4'-C1'	5.78	1.49	1.41
67	B1	1868	C	P-O5'	-5.78	1.53	1.59
21	A2	349	A	C4'-O4'	5.78	1.53	1.45
21	A2	1252	C	P-O5'	-5.78	1.53	1.59
67	B1	21	C	C5'-C4'	5.78	1.58	1.51
67	B1	1496	A	C5'-C4'	5.78	1.58	1.51
67	B1	1860	A	C2'-O2'	-5.78	1.34	1.41
67	B1	1903	G	C2'-C1'	5.78	1.59	1.53
67	B1	1299	C	C4'-O4'	5.78	1.53	1.45
67	B1	35	G	O4'-C1'	5.78	1.49	1.41
67	B1	1540	A	P-O5'	5.78	1.65	1.59
67	B1	2305	U	C5'-C4'	5.78	1.58	1.51
12	AN	24	ARG	CZ-NH2	5.78	1.40	1.33
21	A2	251	G	O4'-C1'	-5.78	1.34	1.41
21	A2	1256	C	C4'-C3'	5.78	1.59	1.53
52	BB	208	GLU	CG-CD	5.78	1.60	1.51
67	B1	1507	A	O4'-C1'	5.78	1.49	1.41
21	A2	23	G	C2'-C1'	-5.77	1.47	1.53
21	A2	729	G	C4'-O4'	-5.77	1.38	1.45
64	Bc	59	ARG	CD-NE	5.77	1.56	1.46
67	B1	877	U	C2'-C1'	-5.77	1.47	1.53
67	B1	1342	G	C3'-C2'	5.77	1.59	1.52
67	B1	2209	U	C5'-C4'	5.77	1.58	1.51
21	A2	251	G	C4'-O4'	-5.77	1.38	1.45
21	A2	576	C	C3'-C2'	-5.77	1.46	1.52
67	B1	666	A	O3'-P	-5.77	1.54	1.61
67	B1	686	C	C4'-C3'	-5.77	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1370	G	C4'-C3'	5.77	1.59	1.53
67	B1	1451	A	C5'-C4'	5.77	1.58	1.51
67	B1	1911	G	O3'-P	-5.77	1.54	1.61
67	B1	2414	G	C3'-O3'	5.77	1.50	1.42
67	B1	105	C	C2'-C1'	-5.77	1.47	1.53
67	B1	196	A	C2'-C1'	-5.77	1.47	1.53
67	B1	2523	C	C5'-C4'	5.77	1.58	1.51
67	B1	2616	C	C2'-C1'	5.77	1.59	1.53
14	AM	130	GLY	C-N	5.77	1.43	1.33
21	A2	636	G	C3'-O3'	5.77	1.50	1.42
67	B1	307	C	C5'-C4'	5.77	1.58	1.51
67	B1	1224	A	O4'-C1'	-5.77	1.34	1.41
67	B1	2180	C	O4'-C1'	5.77	1.49	1.41
67	B1	2807	C	C4'-C3'	-5.77	1.46	1.52
21	A2	296	A	O4'-C1'	5.77	1.49	1.41
67	B1	403	G	C3'-O3'	5.77	1.50	1.42
67	B1	1703	G	C3'-C2'	-5.77	1.46	1.52
21	A2	238	G	C2'-C1'	5.76	1.59	1.53
21	A2	634	C	C5'-C4'	5.76	1.58	1.51
21	A2	827	G	C3'-C2'	-5.76	1.46	1.52
67	B1	1197	G	C5'-C4'	5.76	1.58	1.51
21	A2	1092	G	C4'-C3'	5.76	1.59	1.53
21	A2	1397	C	C3'-O3'	5.76	1.50	1.42
27	A0	73	G	C3'-C2'	5.76	1.59	1.52
67	B1	513	C	C4'-O4'	-5.76	1.38	1.45
67	B1	1466	U	O4'-C1'	5.76	1.49	1.41
68	B3	46	G	P-O5'	-5.76	1.53	1.59
11	A1	11	C	C5'-C4'	5.76	1.58	1.51
21	A2	150	G	C2'-C1'	5.76	1.59	1.53
21	A2	918	A	C2'-C1'	5.76	1.59	1.53
37	BU	53	ARG	CD-NE	5.76	1.56	1.46
54	BF	37	ARG	CZ-NH2	5.76	1.40	1.33
67	B1	2615	U	C4'-C3'	-5.76	1.46	1.52
67	B1	1437	C	C2'-C1'	-5.76	1.47	1.53
21	A2	1122	C	P-O5'	-5.76	1.53	1.59
21	A2	1191	G	C3'-C2'	5.76	1.59	1.52
67	B1	314	A	O4'-C1'	-5.76	1.34	1.41
67	B1	691	G	P-O5'	-5.76	1.53	1.59
67	B1	1532	G	C2'-C1'	-5.76	1.47	1.53
67	B1	1611	C	C2'-C1'	-5.76	1.47	1.53
67	B1	1827	A	O3'-P	-5.76	1.54	1.61
67	B1	2196	C	C4'-C3'	5.76	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2678	U	O4'-C1'	-5.76	1.34	1.41
13	AX	58	ARG	NE-CZ	5.75	1.40	1.33
21	A2	812	U	O4'-C1'	5.75	1.49	1.41
67	B1	200	G	C2'-C1'	-5.75	1.47	1.53
67	B1	1498	C	C2'-C1'	-5.75	1.47	1.53
67	B1	2979	C	C5'-C4'	5.75	1.58	1.51
21	A2	406	U	C4'-C3'	5.75	1.59	1.53
21	A2	1478	A	O3'-P	-5.75	1.54	1.61
67	B1	1364	C	C5'-C4'	5.75	1.58	1.51
21	A2	414	G	C4'-O4'	-5.75	1.38	1.45
67	B1	592	C	P-O5'	-5.75	1.54	1.59
67	B1	609	G	C5'-C4'	5.75	1.58	1.51
15	AE	137	ARG	CD-NE	5.75	1.56	1.46
30	AU	76	TYR	CG-CD2	5.75	1.46	1.39
67	B1	1066	C	C3'-C2'	-5.75	1.46	1.52
67	B1	1590	C	C2'-C1'	-5.75	1.47	1.53
67	B1	2223	G	C4'-C3'	-5.75	1.46	1.52
12	AN	77	LEU	CA-CB	-5.74	1.40	1.53
21	A2	1250	C	C4'-C3'	-5.74	1.46	1.52
67	B1	613	C	C3'-O3'	5.74	1.50	1.42
67	B1	905	G	P-O5'	-5.74	1.54	1.59
67	B1	1408	G	O4'-C1'	5.74	1.49	1.41
67	B1	1950	G	O4'-C1'	-5.74	1.34	1.41
67	B1	2679	A	C4'-C3'	5.74	1.59	1.53
21	A2	1158	G	O4'-C1'	-5.74	1.34	1.41
21	A2	1169	C	C3'-C2'	-5.74	1.46	1.52
67	B1	1446	G	O3'-P	-5.74	1.54	1.61
67	B1	1461	G	P-O5'	-5.74	1.54	1.59
67	B1	2928	C	C4'-C3'	-5.74	1.46	1.52
18	AF	8	TYR	CG-CD1	5.74	1.46	1.39
21	A2	601	G	O3'-P	-5.74	1.54	1.61
21	A2	621	G	O3'-P	-5.74	1.54	1.61
33	BC	26	ARG	NE-CZ	5.74	1.40	1.33
37	BU	74	TYR	CB-CG	-5.74	1.43	1.51
67	B1	795	G	C3'-O3'	5.74	1.50	1.42
67	B1	1717	C	C5'-C4'	5.74	1.58	1.51
67	B1	2655	C	P-O5'	-5.74	1.54	1.59
67	B1	2680	A	P-O5'	-5.74	1.54	1.59
21	A2	1206	G	O3'-P	-5.74	1.54	1.61
67	B1	840	G	C3'-O3'	5.74	1.50	1.42
67	B1	1295	G	C4'-C3'	5.74	1.59	1.53
37	BU	112	ARG	NE-CZ	5.74	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	BD	27	ARG	NE-CZ	5.74	1.40	1.33
67	B1	1964	G	O4'-C1'	-5.74	1.34	1.41
21	A2	1142	G	C3'-C2'	5.74	1.59	1.52
25	AH	198	SER	CA-CB	5.74	1.61	1.52
67	B1	1273	C	C5'-C4'	5.74	1.58	1.51
67	B1	2720	U	C2'-C1'	5.73	1.59	1.53
21	A2	741	A	C2'-C1'	-5.73	1.47	1.53
50	BV	40	TYR	CG-CD2	5.73	1.46	1.39
67	B1	215	A	C4'-O4'	5.73	1.53	1.45
67	B1	835	G	O3'-P	-5.73	1.54	1.61
21	A2	515	U	O3'-P	-5.73	1.54	1.61
21	A2	893	U	P-O5'	-5.73	1.54	1.59
21	A2	992	G	C4'-O4'	5.73	1.53	1.45
21	A2	1080	C	C2'-C1'	-5.73	1.47	1.53
67	B1	380	A	C5'-C4'	5.73	1.58	1.51
67	B1	2301	C	P-O5'	-5.73	1.54	1.59
11	A1	3	G	C3'-O3'	5.73	1.50	1.42
21	A2	591	G	C4'-C3'	5.73	1.59	1.53
21	A2	1135	G	C5'-C4'	5.73	1.58	1.51
46	BA	215	GLU	CD-OE2	5.73	1.31	1.25
65	BJ	119	ARG	CZ-NH2	5.73	1.40	1.33
67	B1	1815	C	C3'-C2'	5.73	1.59	1.52
8	AR	51	ARG	CZ-NH2	5.73	1.40	1.33
46	BA	118	GLY	N-CA	-5.73	1.37	1.46
66	Bl	49	ARG	CZ-NH1	5.73	1.40	1.33
67	B1	2382	A	C4'-O4'	5.73	1.52	1.45
67	B1	2410	U	C4'-C3'	5.73	1.59	1.53
11	A1	3	G	C5'-C4'	5.73	1.58	1.51
21	A2	568	C	C4'-C3'	5.73	1.59	1.53
21	A2	834	C	C3'-C2'	-5.73	1.46	1.52
21	A2	1123	G	C3'-C2'	-5.73	1.46	1.52
11	A1	66	C	C4'-C3'	-5.72	1.46	1.52
21	A2	1114	G	P-O5'	5.72	1.65	1.59
21	A2	1165	U	P-O5'	-5.72	1.54	1.59
21	A2	1293	A	C3'-C2'	5.72	1.59	1.52
43	Bk	148	ARG	CD-NE	5.72	1.56	1.46
67	B1	1626	A	O4'-C1'	5.72	1.49	1.41
21	A2	689	C	P-O5'	-5.72	1.54	1.59
21	A2	1357	C	O4'-C1'	-5.72	1.34	1.41
67	B1	544	A	C3'-C2'	-5.72	1.46	1.52
67	B1	2428	C	O4'-C1'	5.72	1.49	1.41
21	A2	774	U	C4'-C3'	-5.72	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	837	C	O3'-P	-5.72	1.54	1.61
21	A2	948	G	C5'-C4'	5.72	1.58	1.51
67	B1	1405	G	P-OP2	-5.72	1.39	1.49
5	AW	15	ARG	CD-NE	5.72	1.56	1.46
21	A2	170	C	C4'-O4'	5.72	1.52	1.45
67	B1	2882	G	C3'-C2'	-5.72	1.46	1.52
68	B3	105	G	P-O5'	-5.72	1.54	1.59
21	A2	366	C	C5'-C4'	5.72	1.58	1.51
21	A2	436	A	O4'-C1'	5.72	1.49	1.41
21	A2	1480	G	C3'-C2'	-5.72	1.46	1.52
67	B1	1744	A	C4'-C3'	5.72	1.59	1.53
67	B1	1792	A	C3'-C2'	-5.72	1.46	1.52
67	B1	2236	C	C2'-C1'	-5.72	1.47	1.53
7	AB	160	GLY	CA-C	-5.71	1.42	1.51
21	A2	101	G	C4'-C3'	5.71	1.59	1.53
67	B1	225	C	O3'-P	-5.71	1.54	1.61
67	B1	668	G	C4'-C3'	5.71	1.59	1.53
67	B1	1900	U	C2'-C1'	-5.71	1.47	1.53
21	A2	604	C	O4'-C1'	5.71	1.49	1.41
43	Bk	75	GLU	CG-CD	5.71	1.60	1.51
67	B1	2293	G	P-O5'	5.71	1.65	1.59
67	B1	3000	U	C2'-C1'	-5.71	1.47	1.53
21	A2	857	C	C4'-C3'	5.71	1.59	1.53
21	A2	1386	C	C2'-C1'	-5.71	1.47	1.53
67	B1	17	C	C4'-C3'	5.71	1.59	1.53
67	B1	608	C	C2'-C1'	-5.71	1.47	1.53
67	B1	1537	U	C4'-O4'	-5.71	1.38	1.45
67	B1	2077	A	C3'-C2'	5.71	1.59	1.52
21	A2	705	C	C5'-C4'	5.71	1.58	1.51
21	A2	1266	A	P-O5'	-5.71	1.54	1.59
67	B1	391	C	C4'-C3'	-5.71	1.46	1.52
68	B3	46	G	C2'-C1'	-5.71	1.47	1.53
7	AB	34	ARG	CZ-NH2	5.71	1.40	1.33
67	B1	785	C	O3'-P	-5.71	1.54	1.61
67	B1	1954	U	C2'-C1'	5.71	1.59	1.53
67	B1	2781	A	C5'-C4'	5.71	1.58	1.51
14	AM	66	ARG	NE-CZ	5.71	1.40	1.33
21	A2	1470	G	C5'-C4'	5.71	1.58	1.51
27	A0	35	U	C2'-C1'	-5.71	1.47	1.53
67	B1	1767	C	C4'-C3'	-5.71	1.46	1.52
67	B1	2756	G	O4'-C1'	5.71	1.49	1.41
46	BA	46	PHE	CG-CD2	5.71	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2034	G	O3'-P	-5.71	1.54	1.61
21	A2	776	C	C3'-C2'	-5.70	1.46	1.52
34	B5	72	ARG	CD-NE	5.70	1.56	1.46
67	B1	656	G	C2'-C1'	-5.70	1.47	1.53
67	B1	1493	C	O4'-C1'	5.70	1.49	1.41
67	B1	1594	G	C2'-C1'	-5.70	1.47	1.53
67	B1	2348	G	P-O5'	-5.70	1.54	1.59
67	B1	2626	U	O4'-C1'	5.70	1.49	1.41
21	A2	107	C	C5'-C4'	5.70	1.58	1.51
21	A2	959	G	C2'-C1'	5.70	1.59	1.53
21	A2	1299	A	P-O5'	-5.70	1.54	1.59
27	A0	37	A	C2'-C1'	5.70	1.59	1.53
34	BK	45	ARG	CZ-NH1	5.70	1.40	1.33
61	Bd	66	ARG	NE-CZ	5.70	1.40	1.33
67	B1	1650	U	C5'-C4'	5.70	1.58	1.51
68	B3	28	C	O3'-P	-5.70	1.54	1.61
21	A2	896	A	O4'-C1'	-5.70	1.34	1.41
67	B1	763	A	O3'-P	-5.70	1.54	1.61
67	B1	810	A	O4'-C1'	5.70	1.49	1.41
67	B1	912	G	C2'-C1'	-5.70	1.47	1.53
67	B1	1313	G	P-O5'	5.70	1.65	1.59
67	B1	2935	A	O3'-P	-5.70	1.54	1.61
67	B1	158	C	C3'-C2'	5.70	1.59	1.52
67	B1	2496	G	C5'-C4'	5.70	1.58	1.51
67	B1	981	A	C5'-C4'	5.70	1.58	1.51
67	B1	3045	G	O3'-P	5.70	1.68	1.61
67	B1	641	G	O3'-P	-5.69	1.54	1.61
21	A2	333	A	C2'-C1'	5.69	1.59	1.53
21	A2	724	C	C5'-C4'	5.69	1.58	1.51
67	B1	1391	C	O3'-P	-5.69	1.54	1.61
67	B1	1984	G	C5'-C4'	-5.69	1.44	1.51
10	AD	103	ARG	CD-NE	5.69	1.56	1.46
67	B1	486	A	C3'-O3'	5.69	1.50	1.42
67	B1	971	G	C2'-C1'	-5.69	1.47	1.53
21	A2	498	C	O4'-C1'	5.69	1.49	1.41
53	BD	90	ARG	NE-CZ	5.69	1.40	1.33
67	B1	1022	G	O4'-C1'	-5.69	1.34	1.41
67	B1	1131	G	P-O5'	-5.69	1.54	1.59
67	B1	1449	C	C4'-C3'	-5.69	1.46	1.52
67	B1	1603	G	C5'-C4'	5.69	1.58	1.51
67	B1	1648	C	C2'-C1'	-5.69	1.47	1.53
21	A2	851	C	O4'-C1'	5.69	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1153	U	C3'-O3'	5.69	1.50	1.42
46	BA	119	ARG	CZ-NH2	5.68	1.40	1.33
67	B1	698	U	O4'-C1'	5.68	1.49	1.41
67	B1	1856	G	C5'-C4'	5.68	1.58	1.51
67	B1	2202	U	C2'-C1'	-5.68	1.47	1.53
21	A2	1018	C	C4'-C3'	5.68	1.59	1.53
34	BK	72	ARG	CD-NE	5.68	1.56	1.46
67	B1	415	U	C4'-C3'	5.68	1.59	1.53
67	B1	635	G	C5'-C4'	5.68	1.58	1.51
67	B1	1347	U	O3'-P	-5.68	1.54	1.61
67	B1	1565	G	C2'-C1'	-5.68	1.47	1.53
67	B1	2288	C	P-O5'	-5.68	1.54	1.59
67	B1	2634	U	O3'-P	-5.68	1.54	1.61
21	A2	433	U	C4'-C3'	-5.68	1.46	1.52
21	A2	529	C	C3'-O3'	-5.68	1.34	1.42
67	B1	1586	G	C3'-C2'	5.68	1.59	1.52
67	B1	1706	G	O4'-C1'	-5.68	1.34	1.41
67	B1	2350	G	O4'-C1'	5.68	1.49	1.41
21	A2	1002	G	P-O5'	5.68	1.65	1.59
21	A2	1288	C	P-O5'	-5.68	1.54	1.59
58	BP	87	GLU	CB-CG	5.68	1.62	1.52
67	B1	15	A	C2'-C1'	5.68	1.59	1.53
67	B1	161	C	C3'-C2'	5.68	1.59	1.52
67	B1	594	U	P-O5'	-5.68	1.54	1.59
67	B1	1963	G	C5'-C4'	5.68	1.58	1.51
21	A2	356	G	O4'-C1'	5.68	1.49	1.41
21	A2	542	G	P-O5'	-5.68	1.54	1.59
21	A2	723	G	O5'-C5'	5.68	1.53	1.44
21	A2	889	G	C5'-C4'	5.68	1.58	1.51
21	A2	1227	A	O4'-C1'	5.68	1.49	1.41
68	B3	125	U	C2'-C1'	5.68	1.59	1.53
21	A2	956	C	C3'-C2'	-5.68	1.46	1.52
21	A2	1010	G	O3'-P	-5.68	1.54	1.61
67	B1	499	A	O4'-C1'	5.68	1.49	1.41
67	B1	1153	U	C3'-C2'	5.68	1.59	1.52
67	B1	1643	A	O4'-C1'	5.68	1.49	1.41
67	B1	2602	G	O3'-P	-5.68	1.54	1.61
21	A2	858	A	C2'-C1'	-5.67	1.47	1.53
21	A2	1408	C	O3'-P	-5.67	1.54	1.61
67	B1	1203	C	O4'-C1'	5.67	1.49	1.41
67	B1	1249	G	P-O5'	5.67	1.65	1.59
67	B1	2229	G	P-O5'	-5.67	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	727	G	O4'-C1'	-5.67	1.34	1.41
67	B1	1642	G	C5'-C4'	5.67	1.58	1.51
67	B1	2888	G	P-O5'	5.67	1.65	1.59
68	B3	86	C	C2'-C1'	5.67	1.59	1.53
21	A2	180	G	P-O5'	-5.67	1.54	1.59
21	A2	614	G	O4'-C1'	5.67	1.49	1.41
21	A2	1479	C	O4'-C1'	5.67	1.49	1.41
67	B1	1183	U	O4'-C1'	5.67	1.49	1.41
67	B1	1464	A	C3'-C2'	-5.67	1.46	1.52
67	B1	661	G	O3'-P	-5.67	1.54	1.61
67	B1	971	G	C3'-C2'	-5.67	1.46	1.52
43	Bk	38	LEU	N-CA	-5.67	1.35	1.46
67	B1	1159	U	C5'-C4'	5.67	1.58	1.51
67	B1	1891	C	P-O5'	-5.67	1.54	1.59
21	A2	98	U	C2'-C1'	-5.67	1.47	1.53
21	A2	723	G	C3'-C2'	5.67	1.59	1.52
21	A2	741	A	O4'-C1'	5.67	1.49	1.41
21	A2	1376	C	C4'-C3'	5.67	1.59	1.53
32	BO	113	ARG	NE-CZ	5.67	1.40	1.33
40	BE	71	ARG	CD-NE	5.67	1.56	1.46
67	B1	697	U	C3'-C2'	-5.67	1.46	1.52
67	B1	880	U	C5'-C4'	5.67	1.58	1.51
67	B1	1054	A	P-O5'	-5.67	1.54	1.59
67	B1	1635	G	O4'-C1'	5.67	1.49	1.41
67	B1	2802	G	C5'-C4'	5.67	1.58	1.51
15	AE	151	SER	CA-CB	5.67	1.61	1.52
67	B1	1244	C	C5'-C4'	5.67	1.58	1.51
67	B1	2890	A	C2'-C1'	5.67	1.59	1.53
21	A2	1093	C	C4'-O4'	5.66	1.52	1.45
67	B1	1373	C	P-O5'	5.66	1.65	1.59
67	B1	2090	A	C2'-C1'	-5.66	1.47	1.53
67	B1	2181	G	O4'-C1'	5.66	1.49	1.41
67	B1	2823	G	C2'-O2'	5.66	1.49	1.41
67	B1	2974	U	C2'-C1'	-5.66	1.47	1.53
14	AM	103	ARG	CD-NE	5.66	1.56	1.46
67	B1	2722	G	P-O5'	5.66	1.65	1.59
8	AR	63	TYR	CG-CD2	5.66	1.46	1.39
49	BQ	8	ARG	CZ-NH1	5.66	1.40	1.33
67	B1	1927	C	O4'-C1'	5.66	1.49	1.41
3	AI	128	TYR	CZ-OH	5.66	1.47	1.37
58	BP	42	ARG	CZ-NH1	5.66	1.40	1.33
67	B1	1207	G	C3'-O3'	5.66	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2258	A	P-O5'	-5.66	1.54	1.59
67	B1	1503	C	C4'-C3'	5.66	1.59	1.53
67	B1	2058	C	C5'-C4'	5.66	1.58	1.51
14	AM	65	ARG	NE-CZ	5.66	1.40	1.33
21	A2	1075	A	C3'-C2'	5.66	1.59	1.52
67	B1	413	A	O3'-P	-5.66	1.54	1.61
67	B1	615	A	C5'-C4'	5.66	1.58	1.51
21	A2	1300	A	C2'-O2'	-5.65	1.34	1.41
20	B4	103	GLU	CG-CD	5.65	1.60	1.51
67	B1	1683	C	C4'-C3'	5.65	1.59	1.53
67	B1	1914	U	C5'-C4'	-5.65	1.44	1.51
15	AE	8	ARG	CD-NE	5.65	1.56	1.46
21	A2	590	G	C4'-O4'	5.65	1.52	1.45
21	A2	1325	C	C2'-C1'	-5.65	1.47	1.53
67	B1	2182	A	C2'-O2'	-5.65	1.34	1.41
67	B1	2383	A	C2'-C1'	-5.65	1.47	1.53
21	A2	470	G	C4'-O4'	-5.65	1.38	1.45
21	A2	668	G	P-O5'	-5.65	1.54	1.59
29	AL	89	ARG	NE-CZ	5.65	1.40	1.33
67	B1	1323	U	P-O5'	-5.65	1.54	1.59
67	B1	1344	C	P-O5'	-5.65	1.54	1.59
67	B1	1629	G	O4'-C1'	-5.65	1.34	1.41
2	AK	42	ARG	CZ-NH2	5.65	1.40	1.33
21	A2	1252	C	C3'-C2'	-5.65	1.46	1.52
25	AH	215	ARG	CZ-NH2	5.65	1.40	1.33
21	A2	324	C	C4'-C3'	5.65	1.59	1.53
21	A2	1132	C	C5'-C4'	5.65	1.58	1.51
67	B1	2191	U	O4'-C1'	5.65	1.49	1.41
67	B1	2418	G	C5'-C4'	5.65	1.58	1.51
68	B3	64	C	P-O5'	-5.65	1.54	1.59
21	A2	26	A	O5'-C5'	-5.65	1.33	1.42
21	A2	377	A	P-O5'	5.65	1.65	1.59
67	B1	2339	C	C4'-C3'	-5.65	1.47	1.52
21	A2	549	A	C2'-C1'	5.64	1.59	1.53
21	A2	931	C	C2'-C1'	-5.64	1.47	1.53
65	BJ	51	ARG	NE-CZ	5.64	1.40	1.33
67	B1	650	C	P-O5'	-5.64	1.54	1.59
67	B1	1726	A	O4'-C1'	-5.64	1.34	1.41
67	B1	444	U	P-O5'	-5.64	1.54	1.59
67	B1	911	G	O3'-P	-5.64	1.54	1.61
6	AC	118	ARG	NE-CZ	5.64	1.40	1.33
21	A2	174	G	C4'-C3'	5.64	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	295	G	C2'-C1'	-5.64	1.47	1.53
67	B1	152	G	O3'-P	-5.64	1.54	1.61
67	B1	1544	C	C5'-C4'	5.64	1.58	1.51
67	B1	1996	C	C4'-C3'	5.64	1.59	1.53
67	B1	2993	G	C4'-C3'	5.64	1.59	1.53
21	A2	83	C	P-O5'	-5.64	1.54	1.59
28	AV	29	PRO	CA-C	-5.64	1.41	1.52
65	BJ	124	ARG	CZ-NH2	5.64	1.40	1.33
67	B1	335	C	O3'-P	-5.64	1.54	1.61
67	B1	1857	A	C4'-C3'	5.64	1.59	1.53
21	A2	546	G	O4'-C1'	5.64	1.49	1.41
21	A2	546	G	C2'-C1'	-5.64	1.47	1.53
21	A2	848	G	O3'-P	-5.64	1.54	1.61
67	B1	962	C	C5'-C4'	5.64	1.58	1.51
67	B1	1399	C	C5'-C4'	5.64	1.58	1.51
68	B3	68	C	C4'-C3'	5.64	1.59	1.53
21	A2	246	A	O4'-C1'	5.64	1.49	1.41
21	A2	356	G	O3'-P	-5.64	1.54	1.61
67	B1	992	G	C2'-C1'	-5.64	1.47	1.53
67	B1	2300	C	C2'-C1'	-5.64	1.47	1.53
21	A2	1392	G	C3'-O3'	-5.63	1.34	1.42
44	BW	65	ARG	CZ-NH2	5.63	1.40	1.33
66	Bl	61	ARG	CZ-NH2	5.63	1.40	1.33
67	B1	481	G	C2'-C1'	5.63	1.59	1.53
67	B1	1289	C	C4'-C3'	5.63	1.59	1.53
21	A2	1390	G	P-O5'	-5.63	1.54	1.59
67	B1	1500	C	P-O5'	-5.63	1.54	1.59
67	B1	2468	C	C5'-C4'	5.63	1.58	1.51
17	AO	132	ARG	CZ-NH2	5.63	1.40	1.33
67	B1	1055	C	C5'-C4'	5.63	1.58	1.51
67	B1	508	G	C5'-C4'	5.63	1.58	1.51
67	B1	676	G	C5'-C4'	5.63	1.58	1.51
21	A2	1399	G	C5'-C4'	5.63	1.58	1.51
21	A2	1483	U	C2'-C1'	5.63	1.59	1.53
32	BO	115	SER	CA-CB	5.63	1.61	1.52
59	BM	31	ARG	CZ-NH1	5.63	1.40	1.33
67	B1	53	A	P-O5'	5.63	1.65	1.59
67	B1	1650	U	C3'-O3'	5.63	1.50	1.42
67	B1	1756	C	P-O5'	-5.63	1.54	1.59
67	B1	2352	G	O3'-P	-5.63	1.54	1.61
24	AA	169	GLU	CB-CG	5.62	1.62	1.52
36	Bf	50	LYS	N-CA	-5.62	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	688	G	C5'-C4'	5.62	1.58	1.51
67	B1	2698	G	C2'-C1'	5.62	1.59	1.53
21	A2	708	C	O4'-C1'	-5.62	1.34	1.41
21	A2	1182	G	P-O5'	5.62	1.65	1.59
25	AH	174	TYR	CA-CB	5.62	1.66	1.53
67	B1	1354	G	C2'-C1'	5.62	1.59	1.53
67	B1	1360	G	C3'-C2'	-5.62	1.46	1.52
67	B1	1630	U	C2'-C1'	5.62	1.59	1.53
21	A2	772	G	C3'-C2'	-5.62	1.46	1.52
26	AP	55	TYR	CE1-CZ	5.62	1.45	1.38
67	B1	1375	G	C4'-C3'	5.62	1.59	1.53
67	B1	1697	G	O4'-C1'	-5.62	1.34	1.41
21	A2	869	U	C5'-C4'	5.62	1.58	1.51
67	B1	1081	U	C3'-C2'	-5.62	1.46	1.52
67	B1	1302	G	C5'-C4'	5.62	1.58	1.51
67	B1	1761	C	C4'-C3'	5.62	1.59	1.53
67	B1	2726	G	O4'-C1'	5.62	1.49	1.41
67	B1	922	C	C5'-C4'	5.62	1.58	1.51
67	B1	1621	G	O3'-P	-5.62	1.54	1.61
67	B1	2194	A	P-O5'	5.62	1.65	1.59
21	A2	307	G	O4'-C1'	-5.62	1.34	1.41
21	A2	687	G	C2'-O2'	5.62	1.49	1.41
21	A2	852	G	P-O5'	-5.62	1.54	1.59
67	B1	424	U	C4'-O4'	5.62	1.52	1.45
67	B1	2690	U	C3'-C2'	5.62	1.59	1.52
11	A1	15	G	C3'-C2'	-5.61	1.46	1.52
11	A1	59	A	C2'-C1'	5.61	1.59	1.53
23	AT	11	TYR	CE2-CZ	5.61	1.45	1.38
28	B6	4	ARG	CZ-NH1	5.61	1.40	1.33
67	B1	282	G	C2'-C1'	-5.61	1.47	1.53
67	B1	1413	A	P-O5'	-5.61	1.54	1.59
67	B1	2917	G	C4'-C3'	5.61	1.59	1.53
14	AM	135	ARG	CZ-NH2	5.61	1.40	1.33
21	A2	467	G	O4'-C1'	5.61	1.49	1.41
21	A2	620	G	C4'-C3'	5.61	1.59	1.53
21	A2	973	U	O4'-C1'	5.61	1.49	1.41
21	A2	1091	C	C5'-C4'	5.61	1.58	1.51
67	B1	1136	G	C2'-C1'	-5.61	1.47	1.53
67	B1	1897	G	O4'-C1'	-5.61	1.34	1.41
67	B1	2636	C	C4'-O4'	5.61	1.52	1.45
67	B1	626	C	C2'-C1'	5.61	1.59	1.53
67	B1	2587	G	O3'-P	-5.61	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2817	U	C2'-C1'	-5.61	1.47	1.53
20	A3	79	TYR	CD2-CE2	5.61	1.47	1.39
21	A2	249	U	C2'-C1'	-5.61	1.47	1.53
67	B1	630	G	C3'-C2'	-5.61	1.46	1.52
67	B1	1595	G	O4'-C1'	-5.61	1.34	1.41
67	B1	2825	A	C2'-C1'	5.61	1.59	1.53
21	A2	149	U	C4'-C3'	-5.61	1.47	1.52
21	A2	323	A	O4'-C1'	-5.61	1.34	1.41
21	A2	364	U	C2'-C1'	5.61	1.59	1.53
21	A2	568	C	C5'-C4'	5.61	1.58	1.51
21	A2	846	G	C5'-C4'	5.61	1.58	1.51
67	B1	225	C	P-O5'	-5.61	1.54	1.59
67	B1	555	G	C4'-O4'	5.61	1.52	1.45
67	B1	919	G	C4'-C3'	5.61	1.59	1.53
67	B1	1043	U	C3'-C2'	-5.61	1.46	1.52
67	B1	2804	C	C2'-C1'	5.61	1.59	1.53
68	B3	88	A	O4'-C1'	5.61	1.49	1.41
67	B1	1310	A	C2'-C1'	-5.60	1.47	1.53
67	B1	1514	C	P-O5'	-5.60	1.54	1.59
67	B1	2526	G	C2'-C1'	5.60	1.59	1.53
10	AD	110	TYR	CE1-CZ	5.60	1.45	1.38
21	A2	102	U	C3'-O3'	5.60	1.50	1.42
21	A2	1323	A	C4'-C3'	5.60	1.59	1.53
67	B1	1434	C	C2'-C1'	-5.60	1.47	1.53
67	B1	2005	A	C4'-O4'	-5.60	1.38	1.45
33	BC	6	ARG	CZ-NH1	5.60	1.40	1.33
67	B1	219	G	C5'-C4'	5.60	1.58	1.51
21	A2	364	U	O3'-P	-5.60	1.54	1.61
21	A2	1131	G	C5'-C4'	5.60	1.58	1.51
67	B1	1478	G	P-O5'	-5.60	1.54	1.59
21	A2	228	G	C2'-C1'	5.60	1.59	1.53
65	BJ	94	GLY	CA-C	5.60	1.60	1.51
67	B1	1382	C	C5'-C4'	5.60	1.58	1.51
67	B1	1951	G	O4'-C1'	5.60	1.49	1.41
17	AO	44	GLY	N-CA	-5.59	1.37	1.46
21	A2	535	U	C4'-O4'	-5.59	1.38	1.45
21	A2	1263	C	C4'-O4'	-5.59	1.38	1.45
21	A2	1310	C	C3'-C2'	5.59	1.59	1.52
33	BC	125	TYR	CD2-CE2	5.59	1.47	1.39
67	B1	249	G	C4'-O4'	-5.59	1.38	1.45
67	B1	1429	A	O4'-C1'	-5.59	1.34	1.41
67	B1	2802	G	C2'-C1'	5.59	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1385	C	O4'-C1'	5.59	1.49	1.41
19	AS	8	PHE	CG-CD1	5.59	1.47	1.38
67	B1	122	G	O4'-C1'	5.59	1.49	1.41
67	B1	155	U	O3'-P	-5.59	1.54	1.61
21	A2	361	A	C2'-C1'	-5.59	1.47	1.53
21	A2	814	C	O3'-P	-5.59	1.54	1.61
61	Bd	58	PRO	N-CD	5.59	1.55	1.47
67	B1	967	G	P-O5'	5.59	1.65	1.59
67	B1	1445	G	O4'-C1'	5.59	1.49	1.41
67	B1	2157	U	O3'-P	-5.59	1.54	1.61
35	BL	11	LEU	CA-C	-5.59	1.38	1.52
68	B3	122	C	O3'-P	-5.59	1.54	1.61
6	AC	140	ARG	CZ-NH2	5.58	1.40	1.33
52	BB	24	PHE	CE1-CZ	5.58	1.48	1.37
67	B1	242	C	C4'-C3'	5.58	1.59	1.53
67	B1	642	G	P-O5'	5.58	1.65	1.59
67	B1	1234	A	C4'-C3'	5.58	1.59	1.53
67	B1	1872	G	C2'-C1'	-5.58	1.47	1.53
21	A2	887	G	O4'-C1'	-5.58	1.34	1.41
40	BE	24	ARG	CD-NE	5.58	1.55	1.46
67	B1	51	G	P-O5'	-5.58	1.54	1.59
67	B1	1836	A	C2'-C1'	5.58	1.59	1.53
4	AG	85	ARG	CD-NE	5.58	1.55	1.46
21	A2	486	A	C2'-C1'	-5.58	1.47	1.53
21	A2	1072	C	C3'-O3'	5.58	1.50	1.42
21	A2	1094	U	C4'-O4'	5.58	1.52	1.45
21	A2	879	U	C2'-C1'	5.58	1.59	1.53
6	AC	147	TYR	CZ-OH	5.58	1.47	1.37
11	A1	77	A	P-O5'	-5.58	1.54	1.59
21	A2	805	C	C3'-O3'	5.58	1.50	1.42
67	B1	49	A	O4'-C1'	5.58	1.49	1.41
67	B1	1765	A	O4'-C1'	5.58	1.49	1.41
68	B3	47	G	O3'-P	-5.58	1.54	1.61
15	AE	171	ARG	CD-NE	5.58	1.55	1.46
67	B1	2032	G	C3'-C2'	5.58	1.59	1.52
67	B1	2289	A	P-O5'	5.58	1.65	1.59
21	A2	803	C	C4'-C3'	5.58	1.59	1.53
4	AG	75	ARG	CZ-NH2	5.57	1.40	1.33
21	A2	601	G	O4'-C1'	-5.57	1.34	1.41
21	A2	616	G	O3'-P	-5.57	1.54	1.61
21	A2	1156	A	O4'-C1'	-5.57	1.34	1.41
67	B1	466	C	P-O5'	-5.57	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1758	U	C4'-C3'	5.57	1.59	1.53
31	BY	53	TYR	CE1-CZ	5.57	1.45	1.38
67	B1	540	A	O4'-C1'	5.57	1.48	1.41
67	B1	577	C	C3'-C2'	-5.57	1.46	1.52
67	B1	803	A	O4'-C1'	5.57	1.48	1.41
21	A2	60	A	C5'-C4'	5.57	1.58	1.51
21	A2	682	A	C4'-O4'	-5.57	1.38	1.45
21	A2	1089	C	C4'-O4'	5.57	1.52	1.45
21	A2	1491	C	P-O5'	-5.57	1.54	1.59
67	B1	2196	C	C4'-O4'	5.57	1.52	1.45
1	AQ	100	ARG	CZ-NH1	5.57	1.40	1.33
67	B1	425	U	C4'-C3'	5.57	1.59	1.53
67	B1	491	G	P-O5'	-5.57	1.54	1.59
67	B1	1261	C	P-O5'	-5.57	1.54	1.59
21	A2	1163	U	P-O5'	-5.57	1.54	1.59
67	B1	636	G	C5'-C4'	5.57	1.58	1.51
67	B1	859	G	C4'-C3'	5.57	1.59	1.53
67	B1	1677	A	O4'-C1'	5.57	1.48	1.41
68	B3	74	U	C2'-O2'	-5.57	1.34	1.41
67	B1	2379	G	O4'-C1'	-5.56	1.34	1.41
67	B1	2404	G	C2'-C1'	-5.56	1.47	1.53
67	B1	1241	C	C3'-O3'	5.56	1.50	1.42
21	A2	886	G	C2'-C1'	-5.56	1.47	1.53
21	A2	1145	C	C2'-C1'	-5.56	1.47	1.53
52	BB	156	ARG	NE-CZ	5.56	1.40	1.33
67	B1	1707	A	C3'-C2'	-5.56	1.46	1.52
14	AM	54	GLU	CG-CD	5.56	1.60	1.51
21	A2	346	C	O4'-C1'	5.56	1.48	1.41
21	A2	917	A	C2'-C1'	-5.56	1.47	1.53
47	BI	3	ILE	N-CA	-5.56	1.35	1.46
54	BF	166	ARG	CD-NE	5.56	1.55	1.46
67	B1	1034	G	C5'-C4'	5.56	1.58	1.51
13	AX	50	ARG	CZ-NH2	5.56	1.40	1.33
67	B1	703	G	C4'-O4'	5.56	1.52	1.45
21	A2	1258	C	O4'-C1'	5.56	1.48	1.41
67	B1	3012	C	P-O5'	-5.56	1.54	1.59
21	A2	1033	G	O4'-C1'	5.55	1.48	1.41
63	Bg	40	ARG	CD-NE	5.55	1.55	1.46
67	B1	1958	A	C3'-C2'	5.55	1.59	1.52
67	B1	2239	C	O5'-C5'	5.55	1.53	1.44
68	B3	56	C	C3'-C2'	5.55	1.59	1.52
21	A2	594	A	P-O5'	-5.55	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1320	A	C5'-C4'	5.55	1.58	1.51
53	BD	55	ARG	CZ-NH1	5.55	1.40	1.33
67	B1	309	C	C5'-C4'	5.55	1.58	1.51
67	B1	713	C	C4'-C3'	5.55	1.59	1.53
67	B1	1204	U	P-O5'	-5.55	1.54	1.59
21	A2	644	G	O4'-C1'	5.55	1.48	1.41
51	Bj	39	ARG	NE-CZ	5.55	1.40	1.33
67	B1	48	G	C4'-C3'	-5.55	1.47	1.52
67	B1	525	C	C2'-C1'	-5.55	1.47	1.53
67	B1	1597	G	C4'-O4'	5.55	1.52	1.45
21	A2	306	C	C5'-C4'	5.55	1.58	1.51
21	A2	484	U	C5'-C4'	5.55	1.58	1.51
67	B1	60	G	C2'-C1'	-5.55	1.47	1.53
67	B1	565	A	O4'-C1'	-5.55	1.34	1.41
67	B1	1859	A	C2'-C1'	-5.55	1.47	1.53
67	B1	2723	G	C5'-C4'	5.55	1.58	1.51
67	B1	405	G	C4'-O4'	-5.55	1.38	1.45
67	B1	2194	A	O3'-P	-5.55	1.54	1.61
67	B1	2435	G	C2'-O2'	-5.55	1.34	1.41
67	B1	1688	C	P-O5'	-5.55	1.54	1.59
67	B1	2264	G	C2'-C1'	5.55	1.59	1.53
67	B1	2770	A	O3'-P	-5.55	1.54	1.61
67	B1	2891	A	P-O5'	-5.55	1.54	1.59
21	A2	103	A	C5'-C4'	5.54	1.58	1.51
52	BB	35	TYR	CE1-CZ	5.54	1.45	1.38
67	B1	2494	A	C5'-C4'	5.54	1.58	1.51
21	A2	341	C	C4'-O4'	5.54	1.52	1.45
67	B1	1984	G	C4'-C3'	-5.54	1.47	1.52
21	A2	766	G	C5'-C4'	5.54	1.58	1.51
21	A2	910	G	C2'-C1'	-5.54	1.47	1.53
21	A2	1440	G	C5'-C4'	5.54	1.57	1.51
67	B1	142	G	O4'-C1'	-5.54	1.34	1.41
67	B1	456	G	O4'-C1'	-5.54	1.34	1.41
67	B1	405	G	P-O5'	-5.54	1.54	1.59
67	B1	1407	A	C4'-O4'	5.54	1.52	1.45
67	B1	2001	U	O4'-C1'	5.54	1.48	1.41
8	AR	108	ARG	NE-CZ	5.54	1.40	1.33
21	A2	28	U	O3'-P	-5.54	1.54	1.61
21	A2	462	A	O3'-P	-5.54	1.54	1.61
53	BD	228	GLU	CB-CG	5.54	1.62	1.52
67	B1	2093	A	C5'-C4'	-5.54	1.44	1.51
67	B1	432	C	C4'-O4'	-5.54	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1725	A	O4'-C1'	5.54	1.48	1.41
67	B1	2366	G	O4'-C1'	5.54	1.48	1.41
67	B1	2552	C	C4'-C3'	-5.54	1.47	1.52
67	B1	2659	G	C4'-C3'	-5.54	1.47	1.52
67	B1	3002	A	C3'-O3'	5.54	1.49	1.42
11	A1	20	G	O4'-C1'	5.53	1.48	1.41
21	A2	1114	G	C4'-C3'	5.53	1.59	1.53
21	A2	1364	C	C3'-C2'	-5.53	1.46	1.52
21	A2	1375	C	C3'-O3'	5.53	1.49	1.42
21	A2	1479	C	C4'-C3'	-5.53	1.47	1.52
53	BD	72	ARG	NE-CZ	5.53	1.40	1.33
67	B1	2552	C	C5'-C4'	5.53	1.57	1.51
21	A2	316	C	C4'-O4'	5.53	1.52	1.45
21	A2	1268	C	C2'-C1'	-5.53	1.47	1.53
67	B1	2700	U	C3'-C2'	-5.53	1.46	1.52
21	A2	734	G	P-O5'	-5.53	1.54	1.59
21	A2	1249	A	O3'-P	-5.53	1.54	1.61
21	A2	1418	G	C3'-C2'	-5.53	1.46	1.52
23	AT	111	LYS	CA-C	-5.53	1.38	1.52
25	AH	19	GLY	CA-C	-5.53	1.43	1.51
67	B1	618	C	O4'-C1'	5.53	1.48	1.41
67	B1	907	C	O3'-P	-5.53	1.54	1.61
67	B1	2079	U	C2'-C1'	-5.53	1.47	1.53
67	B1	2626	U	C2'-C1'	-5.53	1.47	1.53
67	B1	357	G	P-O5'	5.53	1.65	1.59
21	A2	863	U	O4'-C1'	5.53	1.48	1.41
21	A2	888	A	C3'-O3'	5.53	1.49	1.42
21	A2	1436	U	O3'-P	-5.53	1.54	1.61
31	BY	118	ARG	CD-NE	5.53	1.55	1.46
39	Be	34	TYR	CE2-CZ	5.53	1.45	1.38
62	BN	139	ARG	CZ-NH2	5.53	1.40	1.33
67	B1	1986	U	C4'-C3'	5.53	1.59	1.53
67	B1	2640	C	C4'-O4'	5.53	1.52	1.45
17	AO	9	ARG	NE-CZ	5.53	1.40	1.33
21	A2	4	C	O4'-C1'	5.53	1.48	1.41
23	AT	9	ARG	NE-CZ	5.53	1.40	1.33
33	BC	353	ARG	CZ-NH1	5.53	1.40	1.33
46	BA	18	ARG	NE-CZ	5.53	1.40	1.33
67	B1	1555	G	O4'-C1'	5.53	1.48	1.41
38	Bb	40	TRP	NE1-CE2	5.52	1.44	1.37
67	B1	2236	C	C5'-C4'	5.52	1.57	1.51
49	BQ	72	LYS	C-N	5.52	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1027	A	O3'-P	-5.52	1.54	1.61
67	B1	1156	G	C3'-O3'	5.52	1.49	1.42
67	B1	1690	U	C2'-C1'	-5.52	1.47	1.53
67	B1	1847	U	C4'-O4'	-5.52	1.38	1.45
67	B1	2532	G	O5'-C5'	5.52	1.53	1.44
30	AU	43	ARG	CD-NE	5.52	1.55	1.46
67	B1	1054	A	C3'-O3'	5.52	1.49	1.42
21	A2	969	A	P-O5'	-5.52	1.54	1.59
21	A2	1234	A	C5'-C4'	5.52	1.57	1.51
53	BD	45	PRO	CA-C	-5.52	1.41	1.52
67	B1	320	C	C5'-C4'	5.52	1.57	1.51
67	B1	560	G	C5'-C4'	5.52	1.57	1.51
67	B1	2629	U	P-O5'	-5.52	1.54	1.59
21	A2	222	G	O4'-C1'	5.52	1.48	1.41
21	A2	382	G	C4'-C3'	5.52	1.59	1.53
21	A2	1039	C	C4'-C3'	-5.52	1.47	1.52
27	A0	33	U	C4'-O4'	5.52	1.52	1.45
47	BI	62	ARG	CZ-NH2	5.52	1.40	1.33
67	B1	93	C	C2'-C1'	-5.52	1.47	1.53
67	B1	166	G	C3'-C2'	5.52	1.59	1.52
67	B1	499	A	C3'-C2'	-5.52	1.46	1.52
67	B1	1641	G	P-O5'	5.52	1.65	1.59
67	B1	1645	U	C2'-C1'	5.52	1.59	1.53
21	A2	477	G	C2'-C1'	-5.52	1.47	1.53
67	B1	1378	G	O4'-C1'	-5.52	1.34	1.41
67	B1	2795	G	O4'-C1'	5.52	1.48	1.41
21	A2	190	C	C2'-C1'	-5.51	1.47	1.53
67	B1	2254	U	C4'-C3'	5.51	1.59	1.53
67	B1	2738	G	O4'-C1'	5.51	1.48	1.41
67	B1	2940	C	C5'-C4'	5.51	1.57	1.51
67	B1	1282	A	C2'-C1'	-5.51	1.47	1.53
67	B1	1331	U	P-O5'	-5.51	1.54	1.59
67	B1	1365	G	C5'-C4'	5.51	1.57	1.51
67	B1	455	G	O4'-C1'	5.51	1.48	1.41
67	B1	461	C	C5'-C4'	5.51	1.57	1.51
67	B1	1744	A	O3'-P	-5.51	1.54	1.61
34	B5	37	GLY	CA-C	-5.51	1.43	1.51
67	B1	2053	G	O3'-P	-5.51	1.54	1.61
67	B1	2314	U	C4'-O4'	5.51	1.52	1.45
21	A2	296	A	C4'-C3'	5.51	1.59	1.53
21	A2	1108	U	O4'-C1'	5.51	1.48	1.41
67	B1	613	C	C4'-C3'	-5.51	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	765	G	C2'-C1'	-5.51	1.47	1.53
67	B1	2199	U	C5'-C4'	5.51	1.57	1.51
15	AE	40	ARG	NE-CZ	5.50	1.40	1.33
67	B1	598	C	P-O5'	-5.50	1.54	1.59
21	A2	697	A	P-O5'	-5.50	1.54	1.59
21	A2	1265	G	O3'-P	-5.50	1.54	1.61
27	A0	39	U	C3'-C2'	5.50	1.59	1.52
44	BW	48	ARG	CZ-NH1	5.50	1.40	1.33
49	BQ	126	ARG	CZ-NH1	5.50	1.40	1.33
67	B1	388	G	O4'-C1'	5.50	1.48	1.41
21	A2	491	G	C3'-C2'	5.50	1.59	1.52
21	A2	651	U	C5'-C4'	5.50	1.57	1.51
67	B1	1790	G	O3'-P	5.50	1.67	1.61
67	B1	1859	A	P-O5'	-5.50	1.54	1.59
67	B1	1958	A	C4'-C3'	-5.50	1.47	1.52
67	B1	2461	C	C4'-C3'	5.50	1.59	1.53
67	B1	2987	U	C4'-O4'	-5.50	1.38	1.45
67	B1	3003	A	C5'-C4'	5.50	1.57	1.51
10	AD	25	ARG	CZ-NH1	5.50	1.40	1.33
21	A2	297	G	C5'-C4'	5.50	1.57	1.51
27	A0	27	C	P-O5'	-5.50	1.54	1.59
67	B1	69	C	O3'-P	-5.50	1.54	1.61
67	B1	896	G	O3'-P	5.50	1.67	1.61
67	B1	1366	U	O3'-P	-5.50	1.54	1.61
21	A2	895	C	C4'-C3'	-5.50	1.47	1.52
21	A2	1283	G	C4'-C3'	-5.50	1.47	1.52
34	BK	37	GLY	CA-C	-5.50	1.43	1.51
67	B1	1161	A	O3'-P	-5.50	1.54	1.61
67	B1	2935	A	C3'-C2'	5.50	1.58	1.52
68	B3	52	U	C3'-C2'	5.50	1.58	1.52
21	A2	584	C	O3'-P	5.50	1.67	1.61
52	BB	30	TYR	CD2-CE2	5.50	1.47	1.39
21	A2	119	A	O4'-C1'	5.49	1.48	1.41
21	A2	1301	U	C4'-O4'	-5.49	1.38	1.45
46	BA	119	ARG	CZ-NH1	5.49	1.40	1.33
67	B1	369	G	C4'-C3'	-5.49	1.47	1.52
67	B1	1826	G	C4'-O4'	5.49	1.52	1.45
67	B1	2084	A	C5'-C4'	5.49	1.57	1.51
67	B1	2104	G	O3'-P	-5.49	1.54	1.61
21	A2	858	A	C3'-O3'	5.49	1.49	1.42
67	B1	247	A	C3'-C2'	5.49	1.58	1.52
67	B1	259	A	O4'-C1'	5.49	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1024	G	O4'-C1'	-5.49	1.34	1.41
67	B1	1457	C	C2'-C1'	-5.49	1.47	1.53
67	B1	2125	C	O4'-C1'	5.49	1.48	1.41
67	B1	2880	C	C4'-O4'	-5.49	1.38	1.45
11	A1	30	G	C4'-C3'	5.49	1.59	1.53
21	A2	946	G	C2'-C1'	-5.49	1.47	1.53
57	BZ	33	LYS	CD-CE	5.49	1.65	1.51
67	B1	1481	G	C4'-C3'	5.49	1.59	1.53
67	B1	1782	C	C3'-O3'	5.49	1.49	1.42
67	B1	2040	A	O4'-C1'	5.49	1.48	1.41
67	B1	2426	U	C5'-C4'	5.49	1.57	1.51
67	B1	611	G	O4'-C1'	5.49	1.48	1.41
67	B1	820	C	C2'-C1'	-5.49	1.47	1.53
67	B1	1214	C	C4'-C3'	-5.49	1.47	1.52
67	B1	2912	G	O3'-P	-5.49	1.54	1.61
67	B1	686	C	P-O5'	-5.49	1.54	1.59
67	B1	2760	A	C3'-C2'	5.49	1.58	1.52
67	B1	489	G	O3'-P	-5.48	1.54	1.61
67	B1	1346	G	C4'-O4'	5.48	1.52	1.45
67	B1	1841	G	P-O5'	-5.48	1.54	1.59
67	B1	2087	U	C4'-C3'	-5.48	1.47	1.52
67	B1	2504	U	P-O5'	-5.48	1.54	1.59
21	A2	590	G	P-O5'	-5.48	1.54	1.59
67	B1	61	G	C5'-C4'	5.48	1.57	1.51
67	B1	490	C	O3'-P	-5.48	1.54	1.61
67	B1	739	C	C4'-C3'	5.48	1.59	1.53
67	B1	2458	U	O4'-C1'	5.48	1.48	1.41
67	B1	2758	G	P-O5'	-5.48	1.54	1.59
68	B3	39	C	O3'-P	-5.48	1.54	1.61
7	AB	131	VAL	CA-CB	-5.48	1.43	1.54
21	A2	517	U	O3'-P	-5.48	1.54	1.61
21	A2	869	U	O4'-C1'	5.48	1.48	1.41
33	BC	251	ARG	CZ-NH1	5.48	1.40	1.33
11	A1	11	C	C3'-C2'	-5.48	1.46	1.52
15	AE	106	ARG	CA-CB	5.48	1.66	1.53
21	A2	78	G	C5'-C4'	5.48	1.57	1.51
21	A2	578	G	C5'-C4'	5.48	1.57	1.51
27	A0	59	A	C4'-O4'	-5.48	1.38	1.45
67	B1	676	G	P-O5'	5.48	1.65	1.59
67	B1	1317	G	C4'-C3'	-5.48	1.47	1.52
67	B1	1938	G	C3'-O3'	5.48	1.49	1.42
67	B1	1976	C	O3'-P	-5.48	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1175	C	O3'-P	-5.48	1.54	1.61
21	A2	195	C	C4'-O4'	5.47	1.52	1.45
21	A2	473	A	P-O5'	-5.47	1.54	1.59
67	B1	16	G	C4'-C3'	5.47	1.59	1.53
67	B1	926	C	O3'-P	-5.47	1.54	1.61
67	B1	2630	C	C3'-O3'	5.47	1.49	1.42
21	A2	717	C	O4'-C1'	5.47	1.48	1.41
21	A2	1023	C	C4'-C3'	-5.47	1.47	1.52
67	B1	701	G	P-O5'	-5.47	1.54	1.59
67	B1	1147	G	C3'-O3'	5.47	1.49	1.42
67	B1	1225	A	C3'-C2'	-5.47	1.46	1.52
67	B1	2551	G	C2'-C1'	-5.47	1.47	1.53
67	B1	693	G	C5'-C4'	5.47	1.57	1.51
67	B1	1944	C	O4'-C1'	5.47	1.48	1.41
47	BI	51	GLN	CG-CD	5.47	1.63	1.51
67	B1	1851	U	O5'-C5'	5.47	1.53	1.44
67	B1	2340	A	P-O5'	5.47	1.65	1.59
67	B1	2889	A	C3'-C2'	-5.47	1.46	1.52
67	B1	2912	G	C2'-C1'	5.47	1.59	1.53
67	B1	135	U	C5'-C4'	5.47	1.57	1.51
8	AR	8	ARG	CD-NE	5.47	1.55	1.46
21	A2	218	C	C4'-C3'	5.47	1.59	1.53
21	A2	642	G	C4'-C3'	5.47	1.59	1.53
54	BF	41	TRP	CE2-CZ2	5.47	1.49	1.39
67	B1	427	G	C2'-C1'	-5.47	1.47	1.53
67	B1	692	C	O4'-C1'	5.47	1.48	1.41
67	B1	2959	A	P-O5'	5.47	1.65	1.59
67	B1	1145	G	P-O5'	-5.46	1.54	1.59
11	A1	10	G	C5'-C4'	5.46	1.57	1.51
21	A2	782	A	O4'-C1'	5.46	1.48	1.41
36	Bf	22	ARG	CD-NE	5.46	1.55	1.46
67	B1	155	U	O4'-C1'	-5.46	1.34	1.41
67	B1	532	G	C4'-C3'	-5.46	1.47	1.52
67	B1	954	A	C4'-C3'	-5.46	1.47	1.52
67	B1	1107	G	C5'-C4'	5.46	1.57	1.51
67	B1	1540	A	C5'-C4'	5.46	1.57	1.51
67	B1	1684	C	C4'-C3'	-5.46	1.47	1.52
67	B1	2282	G	C5'-C4'	5.46	1.57	1.51
11	A1	30	G	P-O5'	5.46	1.65	1.59
67	B1	2272	G	O3'-P	5.46	1.67	1.61
16	AJ	24	ARG	NE-CZ	5.46	1.40	1.33
21	A2	831	A	C4'-O4'	-5.46	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BQ	121	ARG	NE-CZ	5.46	1.40	1.33
67	B1	970	G	C2'-C1'	-5.46	1.47	1.53
67	B1	1350	C	O4'-C1'	5.46	1.48	1.41
67	B1	1536	U	C3'-O3'	5.46	1.49	1.42
67	B1	1596	G	C4'-O4'	5.46	1.52	1.45
67	B1	1725	A	C3'-C2'	-5.46	1.46	1.52
11	A1	64	C	O4'-C1'	5.46	1.48	1.41
21	A2	314	G	C5'-C4'	-5.46	1.44	1.51
21	A2	1427	C	P-O5'	-5.46	1.54	1.59
67	B1	196	A	O4'-C1'	5.46	1.48	1.41
67	B1	947	C	C4'-C3'	-5.46	1.47	1.52
60	BS	83	TYR	CB-CG	-5.46	1.43	1.51
67	B1	1543	C	O4'-C1'	5.46	1.48	1.41
21	A2	1048	G	O3'-P	5.45	1.67	1.61
67	B1	1245	C	C3'-O3'	5.45	1.49	1.42
67	B1	2490	C	C4'-O4'	5.45	1.52	1.45
67	B1	2989	A	C4'-C3'	5.45	1.59	1.53
68	B3	55	G	P-O5'	-5.45	1.54	1.59
21	A2	1281	U	C3'-C2'	-5.45	1.46	1.52
67	B1	1092	U	C2'-C1'	-5.45	1.47	1.53
67	B1	1699	U	C3'-O3'	5.45	1.49	1.42
21	A2	1470	G	C3'-C2'	-5.45	1.46	1.52
67	B1	14	A	O3'-P	-5.45	1.54	1.61
67	B1	734	C	O4'-C1'	5.45	1.48	1.41
67	B1	1056	C	C4'-C3'	5.45	1.59	1.53
67	B1	2969	G	C3'-C2'	5.45	1.58	1.52
67	B1	2997	G	C2'-C1'	-5.45	1.47	1.53
21	A2	1476	C	P-O5'	-5.45	1.54	1.59
67	B1	305	G	O3'-P	5.45	1.67	1.61
67	B1	321	C	C3'-O3'	5.45	1.49	1.42
67	B1	915	G	O4'-C1'	5.45	1.48	1.41
67	B1	1162	C	O3'-P	-5.45	1.54	1.61
67	B1	2656	A	C2'-C1'	-5.45	1.47	1.53
67	B1	2778	A	O4'-C1'	5.45	1.48	1.41
68	B3	123	U	C3'-C2'	5.45	1.58	1.52
15	AE	31	ARG	NE-CZ	5.45	1.40	1.33
21	A2	312	U	C4'-O4'	-5.45	1.38	1.45
21	A2	1394	G	O3'-P	-5.45	1.54	1.61
33	BC	201	GLU	CB-CG	5.45	1.62	1.52
67	B1	696	G	C2'-C1'	5.45	1.59	1.53
67	B1	2662	G	C4'-C3'	5.45	1.59	1.53
67	B1	2667	U	O4'-C1'	5.45	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1164	A	O3'-P	-5.44	1.54	1.61
67	B1	236	G	O4'-C1'	-5.44	1.34	1.41
68	B3	113	C	C2'-C1'	-5.44	1.47	1.53
67	B1	1487	U	C4'-O4'	-5.44	1.38	1.45
67	B1	1689	G	P-O5'	-5.44	1.54	1.59
67	B1	2536	A	O4'-C1'	5.44	1.48	1.41
68	B3	114	G	C4'-O4'	5.44	1.52	1.45
8	AR	68	SER	CA-CB	5.44	1.61	1.52
21	A2	204	G	O4'-C1'	5.44	1.48	1.41
21	A2	344	G	P-O5'	-5.44	1.54	1.59
67	B1	597	C	C5'-C4'	-5.44	1.44	1.51
67	B1	1670	A	C4'-C3'	5.44	1.59	1.53
67	B1	2730	U	P-O5'	-5.44	1.54	1.59
49	BQ	27	GLU	CG-CD	5.44	1.60	1.51
67	B1	2335	G	C5'-C4'	5.44	1.57	1.51
49	BQ	76	ARG	NE-CZ	5.44	1.40	1.33
67	B1	397	G	C5'-C4'	-5.44	1.44	1.51
67	B1	618	C	O3'-P	-5.44	1.54	1.61
67	B1	813	G	O3'-P	-5.44	1.54	1.61
67	B1	989	G	O4'-C1'	5.44	1.48	1.41
67	B1	1650	U	O4'-C1'	5.44	1.48	1.41
67	B1	2550	A	P-O5'	-5.44	1.54	1.59
21	A2	492	G	C5'-C4'	5.44	1.57	1.51
52	BB	119	GLY	CA-C	-5.44	1.43	1.51
66	Bl	53	PHE	CG-CD2	5.44	1.47	1.38
67	B1	1676	G	C2'-O2'	-5.44	1.34	1.41
67	B1	2011	U	O4'-C1'	5.44	1.48	1.41
15	AE	131	ARG	CZ-NH1	5.43	1.40	1.33
21	A2	611	A	O3'-P	-5.43	1.54	1.61
21	A2	1120	G	P-O5'	-5.43	1.54	1.59
36	Bf	42	ARG	NE-CZ	5.43	1.40	1.33
56	BH	23	PRO	N-CA	-5.43	1.38	1.47
21	A2	240	U	P-O5'	-5.43	1.54	1.59
21	A2	839	G	C4'-O4'	5.43	1.52	1.45
21	A2	1215	G	C2'-C1'	-5.43	1.47	1.53
27	A0	72	C	P-O5'	5.43	1.65	1.59
67	B1	174	C	C5'-C4'	5.43	1.57	1.51
67	B1	411	U	C5'-C4'	5.43	1.57	1.51
67	B1	679	U	C5'-C4'	-5.43	1.44	1.51
67	B1	814	G	C4'-C3'	5.43	1.59	1.53
67	B1	1304	G	C4'-C3'	-5.43	1.47	1.52
7	AB	90	ARG	NE-CZ	5.43	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	503	G	C4'-C3'	-5.43	1.47	1.52
67	B1	2665	G	C5'-C4'	5.43	1.57	1.51
16	AJ	91	ARG	CZ-NH1	5.43	1.40	1.33
21	A2	1360	C	C4'-C3'	5.43	1.59	1.53
59	BM	157	ARG	CZ-NH2	5.43	1.40	1.33
67	B1	1510	U	C5'-C4'	5.43	1.57	1.51
67	B1	1735	G	C3'-O3'	5.43	1.49	1.42
7	AB	168	TYR	CE1-CZ	5.43	1.45	1.38
67	B1	322	C	C4'-C3'	-5.43	1.47	1.52
67	B1	2823	G	C2'-C1'	-5.43	1.47	1.53
32	BO	145	ARG	N-CA	-5.43	1.35	1.46
67	B1	116	G	C5'-C4'	5.43	1.57	1.51
67	B1	836	U	P-O5'	-5.43	1.54	1.59
67	B1	2720	U	O4'-C1'	5.43	1.48	1.41
21	A2	635	C	C2'-C1'	-5.42	1.47	1.53
21	A2	682	A	C3'-O3'	5.42	1.49	1.42
21	A2	1157	G	C2'-O2'	5.42	1.48	1.41
67	B1	59	U	O4'-C1'	5.42	1.48	1.41
67	B1	790	U	O4'-C1'	5.42	1.48	1.41
67	B1	1590	C	C5'-C4'	5.42	1.57	1.51
67	B1	1759	A	P-O5'	-5.42	1.54	1.59
67	B1	1792	A	C4'-O4'	5.42	1.52	1.45
67	B1	1864	G	C3'-C2'	-5.42	1.46	1.52
67	B1	1892	G	O5'-C5'	5.42	1.53	1.44
67	B1	2262	C	P-O5'	-5.42	1.54	1.59
67	B1	2928	C	P-O5'	5.42	1.65	1.59
67	B1	2964	A	P-O5'	-5.42	1.54	1.59
21	A2	27	C	C2'-C1'	-5.42	1.47	1.53
21	A2	1466	G	C3'-C2'	5.42	1.58	1.52
36	Bf	3	ARG	CA-CB	5.42	1.65	1.53
67	B1	1260	C	O3'-P	-5.42	1.54	1.61
67	B1	1791	A	C5'-C4'	-5.42	1.44	1.51
67	B1	2550	A	O4'-C1'	5.42	1.48	1.41
21	A2	1272	G	C3'-C2'	5.42	1.58	1.52
24	AA	71	TYR	CG-CD2	5.42	1.46	1.39
67	B1	1737	A	C4'-O4'	5.42	1.52	1.45
67	B1	2316	U	C3'-C2'	5.42	1.58	1.52
67	B1	2370	C	C5'-C4'	5.42	1.57	1.51
7	AB	116	ILE	N-CA	-5.42	1.35	1.46
21	A2	530	G	C4'-C3'	5.42	1.59	1.53
31	BY	132	ARG	CZ-NH1	5.42	1.40	1.33
67	B1	1297	C	C4'-C3'	5.42	1.59	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2502	C	C3'-C2'	-5.42	1.46	1.52
22	AY	37	ARG	CZ-NH1	5.42	1.40	1.33
67	B1	1501	G	O4'-C1'	5.42	1.48	1.41
21	A2	475	C	P-O5'	-5.42	1.54	1.59
21	A2	1247	A	O3'-P	-5.42	1.54	1.61
32	BO	92	TYR	CD1-CE1	5.42	1.47	1.39
67	B1	2305	U	O3'-P	-5.42	1.54	1.61
67	B1	2512	C	C2'-C1'	-5.42	1.47	1.53
67	B1	2952	C	P-O5'	5.42	1.65	1.59
67	B1	27	G	C2'-C1'	5.41	1.59	1.53
67	B1	471	U	C5'-C4'	5.41	1.57	1.51
67	B1	825	C	C3'-O3'	5.41	1.49	1.42
67	B1	867	C	C3'-O3'	5.41	1.49	1.42
67	B1	930	G	O3'-P	-5.41	1.54	1.61
67	B1	1888	G	O3'-P	-5.41	1.54	1.61
67	B1	2348	G	O4'-C1'	-5.41	1.34	1.41
67	B1	2900	C	C2'-C1'	-5.41	1.47	1.53
59	BM	11	TRP	CE3-CZ3	5.41	1.47	1.38
67	B1	600	A	C4'-C3'	-5.41	1.47	1.52
67	B1	604	A	O4'-C1'	5.41	1.48	1.41
67	B1	1952	G	O3'-P	-5.41	1.54	1.61
67	B1	2307	C	P-O5'	5.41	1.65	1.59
32	BO	166	ARG	CZ-NH2	5.41	1.40	1.33
46	BA	24	PHE	CG-CD2	5.41	1.46	1.38
67	B1	945	U	O4'-C1'	5.41	1.48	1.41
67	B1	995	G	C4'-C3'	-5.41	1.47	1.52
67	B1	2827	C	C5'-C4'	5.41	1.57	1.51
21	A2	306	C	O4'-C1'	5.41	1.48	1.41
25	AH	179	SER	CA-CB	5.41	1.61	1.52
67	B1	52	A	P-O5'	-5.41	1.54	1.59
67	B1	1092	U	C5'-C4'	5.41	1.57	1.51
11	A1	59	A	C5'-C4'	-5.41	1.44	1.51
21	A2	1248	A	C3'-O3'	5.41	1.49	1.42
28	AV	67	GLY	CA-C	-5.41	1.43	1.51
67	B1	806	C	O3'-P	-5.41	1.54	1.61
67	B1	1688	C	C2'-C1'	-5.41	1.47	1.53
67	B1	2960	G	O4'-C1'	5.41	1.48	1.41
16	AJ	43	ARG	CD-NE	5.41	1.55	1.46
21	A2	458	G	N7-C5	-5.41	1.36	1.39
21	A2	758	U	O3'-P	-5.41	1.54	1.61
30	AU	99	ARG	NE-CZ	5.41	1.40	1.33
48	BR	48	SER	CA-CB	5.41	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	703	G	O4'-C1'	5.41	1.48	1.41
67	B1	2250	G	O3'-P	-5.41	1.54	1.61
67	B1	2382	A	C4'-C3'	5.41	1.59	1.53
67	B1	1154	A	C3'-O3'	5.40	1.49	1.42
21	A2	1152	C	C4'-O4'	-5.40	1.38	1.45
21	A2	1172	A	C5'-C4'	5.40	1.57	1.51
21	A2	1285	C	C4'-C3'	-5.40	1.47	1.52
21	A2	1338	C	C4'-O4'	-5.40	1.38	1.45
51	Bj	3	TYR	CG-CD1	-5.40	1.32	1.39
67	B1	2231	G	O3'-P	-5.40	1.54	1.61
21	A2	809	C	C2'-C1'	5.40	1.59	1.53
21	A2	1151	A	O3'-P	-5.40	1.54	1.61
67	B1	545	G	C4'-O4'	-5.40	1.38	1.45
67	B1	1823	A	C4'-O4'	5.40	1.52	1.45
67	B1	2443	G	O3'-P	-5.40	1.54	1.61
67	B1	2875	C	C4'-O4'	5.40	1.52	1.45
21	A2	66	G	C5'-C4'	5.40	1.57	1.51
67	B1	1782	C	O3'-P	-5.40	1.54	1.61
38	Bb	33	LYS	CA-C	-5.40	1.39	1.52
46	BA	68	GLY	CA-C	5.40	1.60	1.51
6	AC	30	TYR	CB-CG	-5.39	1.43	1.51
11	A1	10	G	C3'-O3'	5.39	1.49	1.42
11	A1	29	C	O3'-P	-5.39	1.54	1.61
21	A2	486	A	O4'-C1'	5.39	1.48	1.41
67	B1	559	G	C4'-O4'	5.39	1.52	1.45
67	B1	575	G	C5'-C4'	5.39	1.57	1.51
67	B1	1092	U	C3'-O3'	5.39	1.49	1.42
67	B1	1933	U	O3'-P	-5.39	1.54	1.61
67	B1	2266	C	C4'-C3'	5.39	1.59	1.53
67	B1	2406	C	C5'-C4'	5.39	1.57	1.51
67	B1	2844	G	O3'-P	-5.39	1.54	1.61
67	B1	3034	C	C4'-C3'	-5.39	1.47	1.52
21	A2	231	G	C2'-C1'	5.39	1.59	1.53
21	A2	488	A	O3'-P	-5.39	1.54	1.61
21	A2	520	G	P-O5'	5.39	1.65	1.59
21	A2	1247	A	C2'-C1'	-5.39	1.47	1.53
24	AA	154	PHE	CG-CD2	5.39	1.46	1.38
67	B1	2206	G	P-O5'	5.39	1.65	1.59
21	A2	476	C	P-O5'	-5.39	1.54	1.59
67	B1	2025	A	C3'-O3'	5.39	1.49	1.42
67	B1	2401	A	C2'-C1'	-5.39	1.47	1.53
7	AB	33	TYR	CE1-CZ	5.39	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	AF	3	GLN	CG-CD	5.39	1.63	1.51
21	A2	259	A	C2'-C1'	5.39	1.59	1.53
21	A2	326	C	P-O5'	-5.39	1.54	1.59
21	A2	1091	C	O4'-C1'	5.39	1.48	1.41
67	B1	1783	U	C5'-C4'	5.39	1.57	1.51
67	B1	2060	A	C4'-C3'	5.39	1.59	1.53
21	A2	23	G	P-O5'	-5.39	1.54	1.59
21	A2	422	U	C5'-C4'	5.39	1.57	1.51
33	BC	358	TYR	CE2-CZ	5.39	1.45	1.38
38	Bb	66	SER	CA-CB	5.39	1.61	1.52
67	B1	662	A	C2'-C1'	-5.39	1.47	1.53
67	B1	711	C	O4'-C1'	5.39	1.48	1.41
21	A2	818	A	C2'-C1'	-5.39	1.47	1.53
21	A2	1232	G	O4'-C1'	5.39	1.48	1.41
67	B1	1291	C	P-O5'	-5.39	1.54	1.59
21	A2	260	C	O3'-P	-5.38	1.54	1.61
21	A2	897	A	C4'-O4'	-5.38	1.38	1.45
67	B1	527	G	C3'-C2'	5.38	1.58	1.52
67	B1	1256	G	O4'-C1'	-5.38	1.34	1.41
67	B1	1409	U	C3'-O3'	5.38	1.49	1.42
67	B1	1784	G	C2'-C1'	-5.38	1.47	1.53
67	B1	3031	U	O3'-P	-5.38	1.54	1.61
21	A2	199	A	C4'-O4'	5.38	1.52	1.45
21	A2	200	G	C4'-O4'	-5.38	1.38	1.45
67	B1	2207	C	C5'-C4'	5.38	1.57	1.51
67	B1	2288	C	C4'-C3'	-5.38	1.47	1.52
15	AE	126	ARG	CZ-NH1	5.38	1.40	1.33
21	A2	472	C	C3'-C2'	5.38	1.58	1.52
67	B1	2309	C	P-O5'	-5.38	1.54	1.59
21	A2	718	G	C3'-O3'	5.38	1.49	1.42
42	BT	86	PHE	CE2-CZ	5.38	1.47	1.37
67	B1	882	U	O5'-C5'	5.38	1.53	1.44
67	B1	1464	A	C4'-C3'	-5.38	1.47	1.52
14	AM	70	GLU	CB-CG	5.38	1.62	1.52
15	AE	198	ARG	CZ-NH1	5.38	1.40	1.33
21	A2	1467	U	C2'-C1'	-5.38	1.47	1.53
47	BI	111	GLU	CA-CB	5.38	1.65	1.53
67	B1	571	G	O4'-C1'	5.38	1.48	1.41
67	B1	1285	C	P-O5'	-5.38	1.54	1.59
67	B1	2654	C	C2'-C1'	-5.38	1.47	1.53
67	B1	2701	U	O4'-C1'	5.38	1.48	1.41
67	B1	2922	G	O4'-C1'	5.38	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	398	C	O4'-C1'	5.38	1.48	1.41
21	A2	994	C	C4'-C3'	-5.38	1.47	1.52
21	A2	1056	G	O4'-C1'	-5.38	1.34	1.41
21	A2	1143	G	C4'-C3'	5.38	1.59	1.53
27	A0	21	G	C3'-C2'	5.38	1.58	1.52
53	BD	254	TYR	CE1-CZ	5.38	1.45	1.38
67	B1	428	A	C4'-C3'	5.38	1.59	1.53
67	B1	734	C	C2'-O2'	-5.38	1.34	1.41
67	B1	2658	G	C2'-C1'	-5.38	1.47	1.53
21	A2	1121	C	P-O5'	-5.38	1.54	1.59
25	AH	85	PHE	CA-CB	5.38	1.65	1.53
53	BD	155	ARG	CZ-NH1	5.37	1.40	1.33
67	B1	393	C	C2'-C1'	-5.37	1.47	1.53
67	B1	655	C	C4'-O4'	-5.37	1.38	1.45
67	B1	1700	U	O4'-C1'	-5.37	1.34	1.41
21	A2	871	A	C5'-C4'	5.37	1.57	1.51
21	A2	889	G	C4'-O4'	5.37	1.52	1.45
67	B1	754	U	C2'-C1'	5.37	1.59	1.53
67	B1	1128	G	C3'-O3'	5.37	1.49	1.42
67	B1	2191	U	O3'-P	-5.37	1.54	1.61
67	B1	2346	A	C2'-O2'	-5.37	1.34	1.41
67	B1	2680	A	C2'-C1'	5.37	1.59	1.53
21	A2	619	A	C4'-C3'	-5.37	1.47	1.52
67	B1	15	A	O3'-P	-5.37	1.54	1.61
67	B1	309	C	C4'-C3'	5.37	1.59	1.53
67	B1	913	G	C5'-C4'	5.37	1.57	1.51
67	B1	1314	A	C2'-C1'	5.37	1.59	1.53
21	A2	257	U	C2'-C1'	-5.37	1.47	1.53
21	A2	1184	U	P-O5'	-5.37	1.54	1.59
21	A2	1226	G	O4'-C1'	5.37	1.48	1.41
27	A0	56	C	O3'-P	-5.37	1.54	1.61
67	B1	343	C	O4'-C1'	5.37	1.48	1.41
67	B1	1332	A	O4'-C1'	5.37	1.48	1.41
67	B1	1726	A	C5'-C4'	5.37	1.57	1.51
67	B1	1889	G	C3'-C2'	5.37	1.58	1.52
67	B1	2636	C	O3'-P	-5.37	1.54	1.61
21	A2	1075	A	C4'-C3'	5.37	1.59	1.53
21	A2	1249	A	C5'-C4'	5.37	1.57	1.51
21	A2	256	G	P-O5'	-5.37	1.54	1.59
21	A2	781	U	C4'-C3'	5.36	1.59	1.53
27	A0	56	C	C4'-O4'	-5.36	1.38	1.45
67	B1	483	C	C5'-C4'	5.36	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	627	G	O3'-P	-5.36	1.54	1.61
67	B1	2967	C	O3'-P	-5.36	1.54	1.61
21	A2	881	G	C3'-C2'	-5.36	1.46	1.52
44	BW	37	SER	N-CA	-5.36	1.35	1.46
67	B1	1002	A	P-O5'	-5.36	1.54	1.59
67	B1	2094	A	O4'-C1'	5.36	1.48	1.41
67	B1	2944	G	O3'-P	5.36	1.67	1.61
38	Bb	48	SER	CA-CB	5.36	1.60	1.52
59	BM	75	ARG	CD-NE	5.36	1.55	1.46
67	B1	452	A	O3'-P	-5.36	1.54	1.61
21	A2	976	A	C5'-C4'	5.36	1.57	1.51
37	BU	74	TYR	CG-CD2	5.36	1.46	1.39
67	B1	310	C	O3'-P	-5.36	1.54	1.61
67	B1	1183	U	C2'-C1'	5.36	1.59	1.53
67	B1	1290	G	C4'-C3'	-5.36	1.47	1.52
21	A2	1447	A	O4'-C1'	5.36	1.48	1.41
62	BN	136	ARG	CA-CB	5.36	1.65	1.53
67	B1	1158	G	C3'-O3'	5.36	1.49	1.42
67	B1	1400	U	C4'-C3'	5.36	1.59	1.53
67	B1	1557	G	O3'-P	-5.36	1.54	1.61
67	B1	2177	A	P-O5'	-5.36	1.54	1.59
10	AD	142	TYR	CE1-CZ	5.35	1.45	1.38
67	B1	1437	C	O3'-P	-5.35	1.54	1.61
7	AB	128	ARG	CZ-NH2	5.35	1.40	1.33
67	B1	1296	A	C3'-C2'	5.35	1.58	1.52
21	A2	1056	G	O3'-P	-5.35	1.54	1.61
67	B1	606	A	O3'-P	-5.35	1.54	1.61
67	B1	1159	U	C2'-C1'	-5.35	1.47	1.53
67	B1	1398	C	C5'-C4'	5.35	1.57	1.51
67	B1	1700	U	C5'-C4'	5.35	1.57	1.51
67	B1	1816	C	O4'-C1'	5.35	1.48	1.41
67	B1	2821	G	C4'-C3'	-5.35	1.47	1.52
67	B1	2849	C	C3'-O3'	-5.35	1.34	1.42
67	B1	2886	C	C4'-O4'	5.35	1.52	1.45
21	A2	299	G	P-O5'	-5.35	1.54	1.59
21	A2	440	C	C5'-C4'	5.35	1.57	1.51
22	AY	8	TYR	CG-CD2	5.35	1.46	1.39
35	BL	49	TRP	CG-CD1	5.35	1.44	1.36
46	BA	182	GLU	CD-OE2	5.35	1.31	1.25
67	B1	1155	A	O4'-C1'	-5.35	1.34	1.41
67	B1	2287	C	C5'-C4'	5.35	1.57	1.51
67	B1	2626	U	O3'-P	-5.35	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	40	G	C5'-C4'	5.35	1.57	1.51
67	B1	410	C	O4'-C1'	5.35	1.48	1.41
67	B1	870	G	C2'-C1'	-5.35	1.47	1.53
67	B1	961	C	O3'-P	-5.35	1.54	1.61
67	B1	1360	G	C4'-O4'	-5.34	1.38	1.45
67	B1	1514	C	O5'-C5'	5.34	1.53	1.44
67	B1	1572	C	O3'-P	-5.34	1.54	1.61
67	B1	1825	G	C4'-C3'	5.34	1.59	1.53
67	B1	2363	G	O4'-C1'	-5.34	1.34	1.41
21	A2	810	G	C3'-C2'	-5.34	1.46	1.52
67	B1	1388	U	P-O5'	-5.34	1.54	1.59
67	B1	1520	G	O4'-C1'	5.34	1.48	1.41
67	B1	2300	C	P-O5'	-5.34	1.54	1.59
11	A1	31	G	C2'-C1'	-5.34	1.47	1.53
21	A2	112	G	C2'-C1'	5.34	1.59	1.53
67	B1	2214	U	C5'-C4'	5.34	1.57	1.51
13	AX	46	ARG	CZ-NH1	5.34	1.40	1.33
21	A2	59	C	C2'-C1'	-5.34	1.47	1.53
21	A2	612	C	C2'-O2'	-5.34	1.34	1.41
21	A2	738	C	C5'-C4'	5.34	1.57	1.51
67	B1	178	G	C4'-C3'	5.34	1.59	1.53
67	B1	2133	G	C5'-C4'	5.34	1.57	1.51
67	B1	2221	A	C5'-C4'	5.34	1.57	1.51
67	B1	2673	C	P-O5'	5.34	1.65	1.59
67	B1	2732	U	O3'-P	-5.34	1.54	1.61
67	B1	42	G	C4'-C3'	5.34	1.59	1.53
67	B1	91	G	O3'-P	-5.34	1.54	1.61
67	B1	1716	G	C4'-C3'	-5.34	1.47	1.52
21	A2	532	C	C5'-C4'	5.34	1.57	1.51
21	A2	991	C	C2'-C1'	5.34	1.59	1.53
24	AA	107	PHE	CG-CD2	5.34	1.46	1.38
59	BM	90	TYR	CG-CD2	5.34	1.46	1.39
67	B1	1807	G	C3'-C2'	-5.34	1.46	1.52
67	B1	1841	G	C2'-O2'	5.34	1.48	1.41
67	B1	2197	U	C4'-C3'	-5.34	1.47	1.52
67	B1	2326	C	C4'-C3'	5.34	1.59	1.53
68	B3	39	C	O4'-C1'	5.34	1.48	1.41
68	B3	53	A	C5'-C4'	5.34	1.57	1.51
21	A2	293	G	O3'-P	-5.33	1.54	1.61
67	B1	1199	U	O3'-P	-5.33	1.54	1.61
67	B1	1300	C	C4'-O4'	5.33	1.52	1.45
67	B1	2197	U	C5'-C4'	5.33	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2489	C	P-O5'	-5.33	1.54	1.59
53	BD	94	PRO	N-CD	-5.33	1.40	1.47
66	B1	38	TYR	CB-CG	5.33	1.59	1.51
67	B1	103	A	O4'-C1'	5.33	1.48	1.41
67	B1	305	G	C4'-O4'	-5.33	1.38	1.45
67	B1	465	C	C4'-C3'	5.33	1.59	1.53
67	B1	1197	G	C4'-O4'	5.33	1.52	1.45
68	B3	124	A	C5'-C4'	5.33	1.57	1.51
1	AQ	16	ARG	CZ-NH1	5.33	1.40	1.33
1	AQ	120	ARG	CZ-NH2	5.33	1.40	1.33
21	A2	354	G	C3'-O3'	5.33	1.49	1.42
67	B1	1164	C	C3'-O3'	5.33	1.49	1.42
67	B1	1939	C	C3'-O3'	5.33	1.49	1.42
67	B1	2023	A	C2'-C1'	5.33	1.59	1.53
67	B1	2666	G	O3'-P	-5.33	1.54	1.61
21	A2	277	G	C3'-C2'	5.33	1.58	1.52
67	B1	248	C	C4'-C3'	5.33	1.59	1.53
67	B1	2319	C	C3'-C2'	-5.33	1.46	1.52
67	B1	2874	C	O3'-P	-5.33	1.54	1.61
21	A2	284	A	C5'-C4'	5.33	1.57	1.51
21	A2	610	G	P-O5'	-5.33	1.54	1.59
36	Bf	33	ARG	NE-CZ	5.33	1.40	1.33
67	B1	701	G	O4'-C1'	5.33	1.48	1.41
54	BF	155	GLU	CD-OE1	5.33	1.31	1.25
17	AO	77	TRP	CB-CG	5.33	1.59	1.50
21	A2	325	A	O4'-C1'	5.33	1.48	1.41
21	A2	345	G	C2'-O2'	-5.33	1.34	1.41
21	A2	655	A	C4'-C3'	-5.33	1.47	1.52
21	A2	707	A	O4'-C1'	5.33	1.48	1.41
21	A2	1407	U	P-O5'	-5.33	1.54	1.59
27	A0	51	C	C2'-C1'	-5.33	1.47	1.53
67	B1	914	U	C5'-C4'	-5.33	1.45	1.51
67	B1	1349	G	C2'-C1'	5.33	1.59	1.53
21	A2	93	A	C5'-C4'	5.32	1.57	1.51
21	A2	1193	G	C4'-C3'	5.32	1.59	1.53
67	B1	230	A	C4'-O4'	-5.32	1.38	1.45
67	B1	365	G	C2'-C1'	5.32	1.59	1.53
67	B1	1413	A	O4'-C1'	5.32	1.48	1.41
67	B1	2328	G	C2'-C1'	5.32	1.59	1.53
67	B1	2814	U	O4'-C1'	-5.32	1.34	1.41
21	A2	138	C	C5'-C4'	5.32	1.57	1.51
27	A0	33	U	C3'-O3'	5.32	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BU	84	ARG	NE-CZ	5.32	1.40	1.33
40	BE	71	ARG	NE-CZ	5.32	1.40	1.33
67	B1	216	A	C5'-C4'	5.32	1.57	1.51
67	B1	710	G	C3'-C2'	5.32	1.58	1.52
67	B1	1135	A	C2'-C1'	-5.32	1.47	1.53
67	B1	3016	G	C5'-C4'	5.32	1.57	1.51
21	A2	307	G	C3'-O3'	5.32	1.49	1.42
12	AN	70	ARG	CZ-NH1	5.32	1.40	1.33
21	A2	75	C	O4'-C1'	5.32	1.48	1.41
21	A2	832	G	C3'-O3'	5.32	1.49	1.42
67	B1	202	A	O3'-P	-5.32	1.54	1.61
67	B1	277	A	C2'-O2'	5.32	1.48	1.41
67	B1	1512	G	O4'-C1'	5.32	1.48	1.41
67	B1	1616	A	C5'-C4'	5.32	1.57	1.51
67	B1	2665	G	O4'-C1'	-5.32	1.34	1.41
20	A3	27	ARG	CZ-NH2	5.32	1.40	1.33
67	B1	310	C	O4'-C1'	5.32	1.48	1.41
67	B1	2231	G	C5'-C4'	5.32	1.57	1.51
67	B1	2008	G	C3'-O3'	5.31	1.49	1.42
67	B1	2275	G	C4'-O4'	5.31	1.52	1.45
21	A2	183	A	O4'-C1'	5.31	1.48	1.41
21	A2	855	C	P-O5'	-5.31	1.54	1.59
23	AT	34	ARG	CD-NE	5.31	1.55	1.46
67	B1	120	G	O3'-P	-5.31	1.54	1.61
67	B1	191	U	C2'-C1'	-5.31	1.47	1.53
67	B1	1199	U	C4'-C3'	5.31	1.58	1.53
21	A2	233	C	C4'-O4'	5.31	1.52	1.45
59	BM	59	TYR	CG-CD1	5.31	1.46	1.39
67	B1	2294	A	C4'-C3'	5.31	1.58	1.53
1	AQ	55	ARG	NE-CZ	5.31	1.40	1.33
21	A2	785	U	C2'-C1'	5.31	1.59	1.53
33	BC	274	MET	N-CA	-5.31	1.35	1.46
67	B1	53	A	C5'-C4'	-5.31	1.45	1.51
67	B1	1058	A	C2'-C1'	5.31	1.59	1.53
21	A2	177	A	O4'-C1'	-5.31	1.34	1.41
31	BY	134	PHE	CA-CB	5.31	1.65	1.53
67	B1	1378	G	O3'-P	5.31	1.67	1.61
67	B1	1845	C	C2'-C1'	5.31	1.59	1.53
67	B1	2409	C	C2'-C1'	-5.31	1.47	1.53
51	Bj	80	ARG	CZ-NH2	5.31	1.40	1.33
11	A1	66	C	C5'-C4'	-5.30	1.45	1.51
15	AE	121	PHE	CG-CD1	5.30	1.46	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	AE	154	GLU	CB-CG	5.30	1.62	1.52
21	A2	615	G	C4'-C3'	-5.30	1.47	1.52
37	BU	18	ALA	N-CA	5.30	1.56	1.46
67	B1	490	C	C3'-C2'	5.30	1.58	1.52
67	B1	1761	C	P-O5'	-5.30	1.54	1.59
67	B1	950	G	O3'-P	-5.30	1.54	1.61
67	B1	2426	U	O4'-C1'	5.30	1.48	1.41
21	A2	606	U	C4'-C3'	5.30	1.58	1.53
21	A2	1078	U	P-O5'	-5.30	1.54	1.59
21	A2	1182	G	O3'-P	-5.30	1.54	1.61
27	A0	19	G	C2'-C1'	5.30	1.59	1.53
39	Be	42	ARG	NE-CZ	5.30	1.40	1.33
47	BI	77	ARG	NE-CZ	5.30	1.40	1.33
58	BP	97	GLY	N-CA	-5.30	1.38	1.46
67	B1	435	G	O4'-C1'	5.30	1.48	1.41
67	B1	1240	U	C2'-C1'	-5.30	1.47	1.53
67	B1	2721	C	C4'-O4'	-5.30	1.38	1.45
21	A2	1270	C	O4'-C1'	5.30	1.48	1.41
21	A2	1287	G	C4'-C3'	5.30	1.58	1.53
67	B1	1273	C	O3'-P	-5.30	1.54	1.61
67	B1	1665	G	C2'-C1'	5.30	1.59	1.53
67	B1	671	G	P-O5'	-5.30	1.54	1.59
67	B1	2128	G	C2'-C1'	-5.30	1.47	1.53
67	B1	2244	G	O4'-C1'	5.30	1.48	1.41
67	B1	2874	C	P-O5'	-5.30	1.54	1.59
67	B1	2905	C	C5'-C4'	5.30	1.57	1.51
10	AD	138	ARG	CZ-NH2	5.30	1.40	1.33
21	A2	368	C	O4'-C1'	5.30	1.48	1.41
21	A2	396	C	C4'-O4'	5.30	1.52	1.45
21	A2	544	C	O4'-C1'	5.30	1.48	1.41
21	A2	589	U	O4'-C1'	-5.30	1.34	1.41
67	B1	34	C	O4'-C1'	5.30	1.48	1.41
67	B1	196	A	C5'-C4'	5.30	1.57	1.51
67	B1	666	A	C3'-O3'	5.30	1.49	1.42
67	B1	1792	A	O4'-C1'	5.30	1.48	1.41
67	B1	1816	C	C3'-O3'	5.30	1.49	1.42
67	B1	2077	A	C5'-C4'	5.30	1.57	1.51
67	B1	2561	G	O3'-P	-5.30	1.54	1.61
3	AI	23	ARG	NE-CZ	5.29	1.40	1.33
16	AJ	23	LYS	CD-CE	5.29	1.64	1.51
21	A2	479	C	C3'-C2'	5.29	1.58	1.52
54	BF	166	ARG	CZ-NH1	5.29	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	217	A	C5'-C4'	5.29	1.57	1.51
67	B1	2729	A	C2'-O2'	-5.29	1.34	1.41
67	B1	3044	U	C4'-O4'	5.29	1.52	1.45
8	AR	32	ARG	CZ-NH1	5.29	1.40	1.33
15	AE	107	ILE	C-N	5.29	1.42	1.33
21	A2	1227	A	C4'-C3'	-5.29	1.47	1.52
47	BI	42	ARG	CD-NE	5.29	1.55	1.46
67	B1	1108	A	C5'-C4'	5.29	1.57	1.51
6	AC	145	ARG	NE-CZ	5.29	1.40	1.33
11	A1	72	C	O3'-P	-5.29	1.54	1.61
21	A2	310	G	O4'-C1'	5.29	1.48	1.41
44	BW	22	ARG	CD-NE	5.29	1.55	1.46
67	B1	209	G	C4'-O4'	-5.29	1.38	1.45
67	B1	1079	A	O4'-C1'	-5.29	1.34	1.41
67	B1	1128	G	C5'-C4'	5.29	1.57	1.51
67	B1	1505	G	C2'-C1'	-5.29	1.47	1.53
67	B1	1727	G	C3'-O3'	5.29	1.49	1.42
67	B1	1756	C	C5'-C4'	5.29	1.57	1.51
21	A2	322	G	P-O5'	5.29	1.65	1.59
28	AV	33	ARG	CD-NE	5.29	1.55	1.46
38	Bb	49	LYS	N-CA	-5.29	1.35	1.46
21	A2	517	U	C4'-C3'	5.29	1.58	1.53
21	A2	783	G	P-O5'	-5.29	1.54	1.59
21	A2	1223	C	O3'-P	-5.29	1.54	1.61
28	B6	60	PHE	CG-CD1	5.29	1.46	1.38
67	B1	2390	G	O3'-P	-5.29	1.54	1.61
67	B1	2533	G	C5'-C4'	5.29	1.57	1.51
21	A2	360	A	C4'-C3'	5.29	1.58	1.53
21	A2	1190	C	C5'-C4'	5.29	1.57	1.51
56	BH	19	PRO	CA-CB	-5.29	1.43	1.53
67	B1	1582	G	O4'-C1'	5.29	1.48	1.41
21	A2	551	U	C5'-C4'	-5.29	1.45	1.51
67	B1	2798	U	O3'-P	-5.29	1.54	1.61
11	A1	73	C	C4'-C3'	5.28	1.58	1.53
15	AE	209	TRP	NE1-CE2	-5.28	1.30	1.37
21	A2	239	A	C3'-C2'	5.28	1.58	1.52
21	A2	643	G	C2'-O2'	-5.28	1.34	1.41
67	B1	152	G	C4'-C3'	5.28	1.58	1.53
67	B1	1813	A	C5'-C4'	5.28	1.57	1.51
67	B1	2101	A	C5'-C4'	5.28	1.57	1.51
67	B1	2113	G	O4'-C1'	-5.28	1.34	1.41
67	B1	2397	C	C2'-C1'	-5.28	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2400	U	O3'-P	-5.28	1.54	1.61
67	B1	2432	G	O4'-C1'	-5.28	1.34	1.41
21	A2	717	C	C2'-C1'	-5.28	1.47	1.53
21	A2	793	G	O4'-C1'	5.28	1.48	1.41
67	B1	2155	C	O4'-C1'	-5.28	1.34	1.41
67	B1	2220	C	C5'-C4'	5.28	1.57	1.51
67	B1	2615	U	O4'-C1'	5.28	1.48	1.41
67	B1	2683	G	C5'-C4'	5.28	1.57	1.51
67	B1	2885	C	P-O5'	-5.28	1.54	1.59
67	B1	1561	G	C4'-C3'	5.28	1.58	1.53
67	B1	2012	G	C3'-C2'	5.28	1.58	1.52
6	AC	63	ARG	CZ-NH2	5.28	1.40	1.33
21	A2	716	G	C2'-C1'	-5.28	1.47	1.53
67	B1	361	G	O3'-P	-5.28	1.54	1.61
67	B1	1705	C	C2'-C1'	-5.28	1.47	1.53
67	B1	2686	A	C4'-C3'	-5.28	1.47	1.52
67	B1	3045	G	P-O5'	-5.28	1.54	1.59
21	A2	83	C	C5'-C4'	5.28	1.57	1.51
21	A2	227	C	C4'-C3'	5.28	1.58	1.53
21	A2	389	G	O4'-C1'	5.28	1.48	1.41
27	A0	76	A	P-O5'	-5.28	1.54	1.59
35	BL	74	ARG	CZ-NH1	5.28	1.40	1.33
52	BB	84	TYR	CD2-CE2	5.28	1.47	1.39
67	B1	584	G	C2'-C1'	-5.28	1.47	1.53
67	B1	1567	C	P-OP1	-5.28	1.40	1.49
67	B1	1585	U	C4'-C3'	5.28	1.58	1.53
67	B1	1819	G	C2'-C1'	-5.28	1.47	1.53
67	B1	2191	U	C5'-C4'	5.28	1.57	1.51
21	A2	229	G	C3'-O3'	-5.28	1.34	1.42
21	A2	1152	C	P-O5'	-5.28	1.54	1.59
27	A0	17	U	O3'-P	-5.28	1.54	1.61
27	A0	24	G	P-O5'	-5.28	1.54	1.59
67	B1	70	G	O3'-P	-5.28	1.54	1.61
67	B1	827	G	C5'-C4'	5.27	1.57	1.51
67	B1	2350	G	C2'-C1'	5.27	1.59	1.53
67	B1	504	G	C5'-C4'	5.27	1.57	1.51
67	B1	2301	C	C2'-C1'	-5.27	1.47	1.53
21	A2	197	A	C4'-C3'	5.27	1.58	1.53
67	B1	1975	C	C5'-C4'	5.27	1.57	1.51
21	A2	607	U	O3'-P	-5.27	1.54	1.61
67	B1	2888	G	C4'-C3'	-5.27	1.47	1.52
67	B1	2958	U	C4'-O4'	-5.27	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	499	G	C3'-C2'	5.27	1.58	1.52
33	BC	26	ARG	CD-NE	5.27	1.55	1.46
67	B1	43	G	O4'-C1'	-5.27	1.34	1.41
67	B1	514	U	C3'-C2'	5.27	1.58	1.52
67	B1	983	G	P-O5'	-5.27	1.54	1.59
67	B1	2319	C	C5'-C4'	5.27	1.57	1.51
21	A2	12	U	P-O5'	-5.27	1.54	1.59
67	B1	1812	A	P-O5'	-5.26	1.54	1.59
67	B1	2075	U	C5'-C4'	5.26	1.57	1.51
67	B1	2200	A	O4'-C1'	5.26	1.48	1.41
67	B1	1747	C	C4'-C3'	5.26	1.58	1.53
21	A2	178	C	O4'-C1'	5.26	1.48	1.41
67	B1	1318	G	C4'-C3'	5.26	1.58	1.53
67	B1	1671	A	C2'-O2'	5.26	1.48	1.41
67	B1	3014	U	O3'-P	-5.26	1.54	1.61
6	AC	6	TYR	CD2-CE2	5.26	1.47	1.39
21	A2	957	A	C3'-C2'	-5.26	1.47	1.52
21	A2	1186	C	C4'-O4'	5.26	1.52	1.45
34	B5	15	GLY	N-CA	-5.26	1.38	1.46
67	B1	751	U	O3'-P	-5.26	1.54	1.61
67	B1	1048	C	C5'-C4'	5.26	1.57	1.51
67	B1	2601	C	C5'-C4'	5.26	1.57	1.51
67	B1	2637	U	C3'-O3'	5.26	1.49	1.42
68	B3	101	A	O3'-P	5.26	1.67	1.61
15	AE	204	ARG	CD-NE	5.26	1.55	1.46
21	A2	888	A	C4'-C3'	-5.26	1.47	1.52
54	BF	171	GLY	N-CA	-5.26	1.38	1.46
67	B1	662	A	O3'-P	-5.26	1.54	1.61
1	AQ	93	GLU	CG-CD	5.26	1.59	1.51
11	A1	17	C	C5'-C4'	5.26	1.57	1.51
21	A2	691	G	C5'-C4'	5.26	1.57	1.51
21	A2	1255	C	P-O5'	-5.26	1.54	1.59
21	A2	1274	C	P-O5'	5.26	1.65	1.59
63	Bg	47	ARG	CZ-NH1	5.26	1.39	1.33
67	B1	490	C	C5'-C4'	-5.26	1.45	1.51
67	B1	544	A	C3'-O3'	5.26	1.49	1.42
67	B1	2057	G	O4'-C1'	5.26	1.48	1.41
67	B1	2930	G	C5'-C4'	5.26	1.57	1.51
21	A2	109	U	O3'-P	-5.25	1.54	1.61
21	A2	419	G	C3'-C2'	5.25	1.58	1.52
21	A2	1340	U	C2'-O2'	-5.25	1.34	1.41
25	AH	209	ARG	CZ-NH1	5.25	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BC	257	GLY	CA-C	-5.25	1.43	1.51
42	BT	74	TYR	CZ-OH	5.25	1.46	1.37
67	B1	71	A	C2'-C1'	5.25	1.59	1.53
11	A1	68	C	C3'-O3'	5.25	1.49	1.42
21	A2	544	C	C2'-C1'	-5.25	1.47	1.53
21	A2	733	C	P-O5'	-5.25	1.54	1.59
21	A2	806	G	O3'-P	5.25	1.67	1.61
34	BK	15	GLY	N-CA	-5.25	1.38	1.46
67	B1	1171	G	P-O5'	-5.25	1.54	1.59
12	AN	51	ARG	CZ-NH1	5.25	1.39	1.33
21	A2	15	U	O4'-C1'	5.25	1.48	1.41
21	A2	183	A	C4'-C3'	5.25	1.58	1.53
51	Bj	33	LEU	CA-CB	5.25	1.65	1.53
67	B1	1613	A	O3'-P	-5.25	1.54	1.61
67	B1	1916	U	C3'-C2'	5.25	1.58	1.52
21	A2	160	C	P-O5'	-5.25	1.54	1.59
67	B1	1365	G	O4'-C1'	-5.25	1.34	1.41
21	A2	15	U	C2'-C1'	-5.25	1.47	1.53
21	A2	519	G	C3'-O3'	5.25	1.49	1.42
21	A2	753	G	C5'-C4'	5.25	1.57	1.51
44	BW	20	GLU	CD-OE1	5.25	1.31	1.25
67	B1	988	C	C3'-C2'	5.25	1.58	1.52
67	B1	2193	G	C4'-C3'	5.25	1.58	1.53
11	A1	64	C	C3'-O3'	5.25	1.49	1.42
19	AS	11	ARG	CD-NE	5.25	1.55	1.46
21	A2	196	G	C2'-C1'	-5.25	1.47	1.53
67	B1	1523	A	O4'-C1'	-5.25	1.34	1.41
67	B1	1906	G	C3'-C2'	5.25	1.58	1.52
67	B1	2512	C	P-O5'	5.25	1.65	1.59
21	A2	1356	A	C5'-C4'	5.25	1.57	1.51
28	B6	4	ARG	CZ-NH2	5.25	1.39	1.33
15	AE	52	TYR	CE2-CZ	5.24	1.45	1.38
21	A2	199	A	C2'-C1'	-5.24	1.47	1.53
21	A2	1082	A	C2'-C1'	-5.24	1.47	1.53
49	BQ	74	ARG	NE-CZ	5.24	1.39	1.33
67	B1	466	C	C4'-O4'	5.24	1.52	1.45
67	B1	1175	C	P-O5'	-5.24	1.54	1.59
67	B1	1617	G	C4'-C3'	5.24	1.58	1.53
67	B1	2190	A	O5'-C5'	5.24	1.52	1.44
21	A2	1259	A	P-O5'	-5.24	1.54	1.59
21	A2	879	U	C4'-O4'	5.24	1.52	1.45
31	BY	53	TYR	CB-CG	-5.24	1.43	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1929	C	O4'-C1'	5.24	1.48	1.41
21	A2	947	G	O4'-C1'	5.24	1.48	1.41
21	A2	1402	C	C3'-C2'	5.24	1.58	1.52
62	BN	114	ARG	NE-CZ	5.24	1.39	1.33
67	B1	21	C	C2'-C1'	-5.24	1.47	1.53
67	B1	816	C	O4'-C1'	5.24	1.48	1.41
67	B1	1335	C	P-O5'	-5.24	1.54	1.59
67	B1	2002	A	P-O5'	5.24	1.65	1.59
67	B1	2725	U	O4'-C1'	5.24	1.48	1.41
67	B1	2737	G	C3'-C2'	-5.24	1.47	1.52
67	B1	2918	G	C4'-C3'	5.24	1.58	1.53
15	AE	26	TYR	CE1-CZ	5.24	1.45	1.38
67	B1	2620	G	O3'-P	-5.24	1.54	1.61
67	B1	2857	C	P-O5'	5.24	1.65	1.59
7	AB	169	TRP	CD1-NE1	5.24	1.46	1.38
67	B1	1101	U	C3'-O3'	5.24	1.49	1.42
67	B1	2713	A	C3'-O3'	5.24	1.49	1.42
68	B3	42	A	C5'-C4'	5.24	1.57	1.51
21	A2	772	G	C2'-C1'	-5.23	1.47	1.53
21	A2	877	A	C4'-C3'	5.23	1.58	1.53
46	BA	154	ARG	CD-NE	5.23	1.55	1.46
67	B1	1572	C	C5'-C4'	5.23	1.57	1.51
67	B1	2280	G	C3'-C2'	5.23	1.58	1.52
21	A2	227	C	C3'-C2'	5.23	1.58	1.52
21	A2	1243	C	C4'-O4'	-5.23	1.38	1.45
67	B1	117	A	P-O5'	-5.23	1.54	1.59
67	B1	1281	A	C2'-C1'	5.23	1.59	1.53
67	B1	1384	C	C2'-C1'	-5.23	1.47	1.53
67	B1	1848	A	C2'-C1'	-5.23	1.47	1.53
67	B1	2481	G	C3'-C2'	5.23	1.58	1.52
67	B1	2716	C	C5'-C4'	-5.23	1.45	1.51
68	B3	16	G	C4'-O4'	-5.23	1.38	1.45
21	A2	1230	G	O4'-C1'	5.23	1.48	1.41
67	B1	286	G	C2'-C1'	5.23	1.59	1.53
2	AK	24	GLY	CA-C	-5.23	1.43	1.51
21	A2	811	G	O4'-C1'	5.23	1.48	1.41
21	A2	1345	G	C3'-O3'	5.23	1.49	1.42
59	BM	160	ARG	CZ-NH1	5.23	1.39	1.33
67	B1	510	A	C2'-C1'	5.23	1.59	1.53
67	B1	788	A	C3'-O3'	5.23	1.49	1.42
67	B1	1205	U	C4'-C3'	5.23	1.58	1.53
13	AX	7	TYR	CG-CD1	5.23	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	194	G	O3'-P	-5.23	1.54	1.61
67	B1	1428	G	C4'-C3'	5.23	1.58	1.53
67	B1	3000	U	O4'-C1'	-5.23	1.34	1.41
33	BC	236	ARG	NE-CZ	5.22	1.39	1.33
43	Bk	53	ARG	CZ-NH1	5.22	1.39	1.33
52	BB	23	ARG	CZ-NH2	5.22	1.39	1.33
67	B1	653	U	C5'-C4'	5.22	1.57	1.51
67	B1	1557	G	C5'-C4'	5.22	1.57	1.51
67	B1	1981	G	C5'-C4'	5.22	1.57	1.51
67	B1	2180	C	C3'-C2'	-5.22	1.47	1.52
67	B1	2420	C	C2'-C1'	5.22	1.59	1.53
42	BT	63	GLU	CB-CG	5.22	1.62	1.52
48	BR	9	ARG	NE-CZ	5.22	1.39	1.33
67	B1	196	A	C3'-C2'	-5.22	1.47	1.52
67	B1	1325	A	C5'-C4'	5.22	1.57	1.51
67	B1	1554	G	C4'-C3'	5.22	1.58	1.53
67	B1	1751	G	O3'-P	-5.22	1.54	1.61
67	B1	2598	C	P-O5'	-5.22	1.54	1.59
67	B1	2820	C	O4'-C1'	5.22	1.48	1.41
67	B1	1207	G	C4'-O4'	-5.22	1.38	1.45
16	AJ	87	ARG	CZ-NH1	5.22	1.39	1.33
21	A2	1148	G	O4'-C1'	5.22	1.48	1.41
44	BW	66	GLU	CA-CB	5.22	1.65	1.53
47	BI	2	ARG	CD-NE	5.22	1.55	1.46
67	B1	1607	C	C2'-C1'	-5.22	1.47	1.53
67	B1	1615	G	C4'-C3'	-5.22	1.47	1.52
67	B1	2707	G	C4'-C3'	5.22	1.58	1.53
21	A2	855	C	C5'-C4'	5.22	1.57	1.51
46	BA	107	PHE	CG-CD1	5.22	1.46	1.38
49	BQ	47	GLU	CD-OE1	5.22	1.31	1.25
8	AR	108	ARG	CZ-NH1	5.22	1.39	1.33
21	A2	109	U	P-O5'	-5.22	1.54	1.59
21	A2	759	C	P-O5'	-5.22	1.54	1.59
21	A2	847	A	C5'-C4'	5.22	1.57	1.51
36	Bf	46	ARG	NE-CZ	5.22	1.39	1.33
39	Be	23	CYS	CB-SG	5.22	1.91	1.82
47	BI	134	VAL	N-CA	-5.22	1.35	1.46
65	BJ	30	ALA	CA-CB	5.22	1.63	1.52
67	B1	255	G	C2'-C1'	-5.22	1.47	1.53
67	B1	842	C	C5'-C4'	5.22	1.57	1.51
67	B1	870	G	O4'-C1'	5.22	1.48	1.41
67	B1	1824	G	P-O5'	-5.22	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2045	C	P-O5'	-5.22	1.54	1.59
21	A2	174	G	P-O5'	-5.21	1.54	1.59
21	A2	371	U	O4'-C1'	5.21	1.48	1.41
21	A2	1002	G	O4'-C1'	-5.21	1.34	1.41
21	A2	1447	A	C2'-C1'	-5.21	1.47	1.53
67	B1	406	G	C2'-C1'	5.21	1.59	1.53
67	B1	422	G	C2'-C1'	-5.21	1.47	1.53
67	B1	593	C	O3'-P	-5.21	1.54	1.61
67	B1	1408	G	P-O5'	-5.21	1.54	1.59
67	B1	2356	U	P-O5'	5.21	1.65	1.59
67	B1	2688	C	O3'-P	-5.21	1.54	1.61
21	A2	418	G	O4'-C1'	-5.21	1.34	1.41
21	A2	1415	U	C3'-C2'	-5.21	1.47	1.52
30	AU	52	TYR	CD2-CE2	5.21	1.47	1.39
67	B1	140	C	C4'-C3'	5.21	1.58	1.53
67	B1	858	G	C2'-O2'	5.21	1.48	1.41
67	B1	2235	G	C4'-O4'	5.21	1.52	1.45
11	A1	51	G	C5'-C4'	5.21	1.57	1.51
21	A2	1257	U	P-O5'	-5.21	1.54	1.59
27	A0	40	C	P-O5'	-5.21	1.54	1.59
21	A2	925	U	O4'-C1'	5.21	1.48	1.41
37	BU	93	TYR	CZ-OH	5.21	1.46	1.37
57	BZ	99	ARG	CA-CB	5.21	1.65	1.53
67	B1	1521	G	C4'-O4'	5.21	1.52	1.45
67	B1	2856	G	C3'-C2'	-5.21	1.47	1.52
7	AB	180	GLY	CA-C	-5.21	1.43	1.51
11	A1	53	G	C2'-O2'	5.21	1.48	1.41
21	A2	513	A	O4'-C1'	5.21	1.48	1.41
21	A2	674	C	P-O5'	-5.21	1.54	1.59
21	A2	770	A	O4'-C1'	5.21	1.48	1.41
67	B1	629	G	C5'-C4'	5.21	1.57	1.51
21	A2	658	A	C5'-C4'	5.21	1.57	1.51
67	B1	102	A	O4'-C1'	5.21	1.48	1.41
2	AK	47	GLU	CG-CD	5.20	1.59	1.51
21	A2	1270	C	P-O5'	5.20	1.65	1.59
27	A0	50	C	P-O5'	-5.20	1.54	1.59
46	BA	45	ARG	CZ-NH2	5.20	1.39	1.33
67	B1	143	C	C3'-O3'	5.20	1.49	1.42
67	B1	1386	G	C4'-C3'	5.20	1.58	1.53
67	B1	2112	C	C2'-C1'	-5.20	1.47	1.53
67	B1	2113	G	O3'-P	-5.20	1.54	1.61
67	B1	2286	U	P-O5'	5.20	1.65	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	70	C	C3'-C2'	-5.20	1.47	1.52
16	AJ	56	ARG	CD-NE	5.20	1.55	1.46
21	A2	1330	G	O3'-P	-5.20	1.54	1.61
67	B1	577	C	C5'-C4'	5.20	1.57	1.51
67	B1	1277	G	C4'-O4'	-5.20	1.38	1.45
21	A2	852	G	O4'-C1'	-5.20	1.34	1.41
21	A2	937	A	O4'-C1'	5.20	1.48	1.41
39	Be	55	TRP	CA-CB	5.20	1.65	1.53
49	BQ	61	TYR	CE1-CZ	5.20	1.45	1.38
67	B1	1266	A	C3'-O3'	5.20	1.49	1.42
67	B1	1533	G	C3'-C2'	-5.20	1.47	1.52
68	B3	99	G	P-O5'	-5.20	1.54	1.59
7	AB	151	ASP	N-CA	-5.20	1.35	1.46
16	AJ	92	ARG	CD-NE	5.20	1.55	1.46
21	A2	228	G	C3'-C2'	-5.20	1.47	1.52
21	A2	611	A	C4'-C3'	-5.20	1.47	1.52
67	B1	3004	C	C4'-C3'	5.20	1.58	1.53
68	B3	82	C	C4'-O4'	5.20	1.52	1.45
5	AW	21	CYS	CB-SG	5.20	1.91	1.82
8	AR	53	TYR	CD1-CE1	5.20	1.47	1.39
10	AD	79	ARG	CZ-NH1	5.20	1.39	1.33
31	BY	10	ARG	NE-CZ	5.20	1.39	1.33
21	A2	1057	A	C3'-O3'	5.20	1.49	1.42
21	A2	1185	A	C5'-C4'	5.20	1.57	1.51
21	A2	1195	U	O4'-C1'	5.20	1.48	1.41
37	BU	59	TYR	CZ-OH	5.20	1.46	1.37
37	BU	104	GLU	CB-CG	5.20	1.62	1.52
67	B1	710	G	C5'-C4'	5.20	1.57	1.51
67	B1	2407	G	P-O5'	5.20	1.65	1.59
67	B1	2848	C	P-O5'	5.20	1.65	1.59
21	A2	1181	G	C4'-O4'	-5.19	1.38	1.45
67	B1	2143	C	O3'-P	-5.19	1.54	1.61
21	A2	64	G	P-O5'	-5.19	1.54	1.59
62	BN	117	GLY	N-CA	-5.19	1.38	1.46
67	B1	148	C	C4'-C3'	-5.19	1.47	1.52
67	B1	1371	U	P-O5'	-5.19	1.54	1.59
67	B1	1814	A	P-O5'	-5.19	1.54	1.59
67	B1	2600	C	C4'-O4'	-5.19	1.38	1.45
67	B1	2651	G	C3'-O3'	5.19	1.49	1.42
2	AK	84	ARG	NE-CZ	5.19	1.39	1.33
21	A2	96	G	O3'-P	-5.19	1.54	1.61
62	BN	125	ARG	CZ-NH1	5.19	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	544	A	C4'-C3'	5.19	1.58	1.53
67	B1	994	G	O4'-C1'	-5.19	1.34	1.41
67	B1	2400	U	C5'-C4'	5.19	1.57	1.51
3	AI	62	ARG	NE-CZ	5.19	1.39	1.33
21	A2	179	U	C2'-C1'	5.19	1.59	1.53
21	A2	240	U	P-OP2	-5.19	1.40	1.49
21	A2	252	U	O4'-C1'	5.19	1.48	1.41
21	A2	749	C	C3'-C2'	5.19	1.58	1.52
49	BQ	43	ARG	NE-CZ	5.19	1.39	1.33
67	B1	111	U	P-O5'	-5.19	1.54	1.59
67	B1	191	U	C4'-O4'	-5.19	1.38	1.45
67	B1	660	U	P-O5'	-5.19	1.54	1.59
67	B1	968	A	O3'-P	-5.19	1.54	1.61
67	B1	1437	C	C4'-C3'	5.19	1.58	1.53
67	B1	2943	G	C2'-C1'	5.19	1.59	1.53
67	B1	40	G	C3'-O3'	5.19	1.49	1.42
67	B1	560	G	P-O5'	-5.19	1.54	1.59
67	B1	888	U	O4'-C1'	5.19	1.48	1.41
67	B1	1160	U	C5'-C4'	5.19	1.57	1.51
30	AU	119	ARG	CZ-NH2	5.18	1.39	1.33
33	BC	79	ARG	CD-NE	5.18	1.55	1.46
67	B1	118	A	C5'-C4'	5.18	1.57	1.51
67	B1	1832	G	O4'-C1'	5.18	1.48	1.41
67	B1	1836	A	O4'-C1'	5.18	1.48	1.41
21	A2	991	C	O4'-C1'	5.18	1.48	1.41
21	A2	1211	A	C5'-C4'	5.18	1.57	1.51
27	A0	54	U	C4'-C3'	-5.18	1.47	1.52
67	B1	21	C	C3'-O3'	-5.18	1.34	1.42
67	B1	2155	C	C4'-O4'	-5.18	1.38	1.45
52	BB	105	GLY	N-CA	-5.18	1.38	1.46
67	B1	765	G	P-O5'	5.18	1.65	1.59
67	B1	1534	G	C5'-C4'	-5.18	1.45	1.51
67	B1	2991	C	C3'-C2'	5.18	1.58	1.52
11	A1	48	U	C5'-C4'	5.18	1.57	1.51
21	A2	98	U	C3'-O3'	5.18	1.49	1.42
21	A2	936	A	O4'-C1'	5.18	1.48	1.41
67	B1	2663	G	P-O5'	5.18	1.65	1.59
21	A2	889	G	C3'-C2'	-5.18	1.47	1.52
21	A2	1278	A	C2'-C1'	5.18	1.59	1.53
67	B1	143	C	P-O5'	-5.18	1.54	1.59
67	B1	1185	A	C4'-O4'	-5.18	1.38	1.45
67	B1	2232	U	P-O5'	-5.18	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2246	G	O3'-P	5.18	1.67	1.61
67	B1	2809	G	C4'-O4'	5.18	1.52	1.45
67	B1	2994	G	C3'-O3'	5.18	1.49	1.42
21	A2	581	G	O4'-C1'	5.18	1.48	1.41
21	A2	650	A	P-O5'	5.18	1.65	1.59
21	A2	774	U	P-O5'	-5.18	1.54	1.59
61	Bd	20	GLY	CA-C	-5.18	1.43	1.51
67	B1	156	A	C2'-C1'	-5.18	1.47	1.53
67	B1	1780	C	O3'-P	-5.18	1.54	1.61
21	A2	255	G	C4'-O4'	5.17	1.52	1.45
21	A2	994	C	C2'-C1'	5.17	1.59	1.53
65	BJ	129	ARG	CZ-NH2	5.17	1.39	1.33
67	B1	429	U	C4'-O4'	5.17	1.52	1.45
67	B1	2708	U	C3'-O3'	5.17	1.49	1.42
21	A2	1131	G	O3'-P	-5.17	1.54	1.61
21	A2	1331	G	O4'-C1'	5.17	1.48	1.41
67	B1	1904	G	C4'-O4'	5.17	1.52	1.45
11	A1	3	G	P-O5'	-5.17	1.54	1.59
21	A2	1433	C	C5'-C4'	5.17	1.57	1.51
67	B1	241	C	C4'-C3'	-5.17	1.47	1.52
67	B1	716	U	P-O5'	-5.17	1.54	1.59
67	B1	778	A	P-O5'	-5.17	1.54	1.59
67	B1	2471	A	O4'-C1'	5.17	1.48	1.41
52	BB	234	ARG	CZ-NH1	5.17	1.39	1.33
53	BD	85	PHE	CG-CD2	5.17	1.46	1.38
28	B6	33	ARG	NE-CZ	5.17	1.39	1.33
67	B1	304	G	C3'-O3'	-5.17	1.34	1.42
67	B1	1688	C	C4'-C3'	-5.17	1.47	1.52
67	B1	1862	G	P-O5'	5.17	1.65	1.59
1	AQ	7	ARG	NE-CZ	5.17	1.39	1.33
21	A2	159	C	P-O5'	-5.17	1.54	1.59
21	A2	341	C	C5'-C4'	5.17	1.57	1.51
21	A2	1094	U	C5'-C4'	5.17	1.57	1.51
21	A2	1205	G	O3'-P	-5.17	1.54	1.61
21	A2	1211	A	O4'-C1'	5.17	1.48	1.41
36	Bf	43	TYR	CB-CG	-5.17	1.43	1.51
42	BT	32	ARG	NE-CZ	5.17	1.39	1.33
67	B1	142	G	C4'-O4'	-5.17	1.38	1.45
67	B1	2115	U	O4'-C1'	-5.17	1.34	1.41
67	B1	2256	G	O3'-P	-5.17	1.54	1.61
67	B1	2382	A	C3'-O3'	5.17	1.49	1.42
67	B1	2995	A	C3'-O3'	5.17	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AK	27	ARG	CZ-NH1	5.17	1.39	1.33
21	A2	404	C	P-O5'	5.17	1.65	1.59
21	A2	500	A	O3'-P	-5.17	1.54	1.61
21	A2	769	A	O4'-C1'	-5.17	1.34	1.41
21	A2	1018	C	O3'-P	-5.17	1.54	1.61
21	A2	1397	C	P-O5'	-5.17	1.54	1.59
27	A0	42	G	O3'-P	-5.17	1.54	1.61
67	B1	1306	A	C2'-C1'	-5.17	1.47	1.53
67	B1	1580	G	C5'-C4'	5.17	1.57	1.51
10	AD	26	GLU	CB-CG	5.17	1.61	1.52
21	A2	200	G	P-O5'	5.17	1.65	1.59
21	A2	806	G	C3'-O3'	5.17	1.49	1.42
21	A2	1203	G	C3'-C2'	-5.17	1.47	1.52
33	BC	90	TYR	CE1-CZ	5.17	1.45	1.38
67	B1	1807	G	O4'-C1'	5.17	1.48	1.41
67	B1	2543	A	C4'-C3'	5.17	1.58	1.53
21	A2	870	U	P-O5'	5.16	1.65	1.59
21	A2	1266	A	C5'-C4'	5.16	1.57	1.51
21	A2	1272	G	P-O5'	-5.16	1.54	1.59
35	BL	9	ARG	C-N	-5.16	1.22	1.34
37	BU	38	LYS	CA-CB	5.16	1.65	1.53
59	BM	122	ASP	CB-CG	5.16	1.62	1.51
67	B1	449	G	C3'-C2'	5.16	1.58	1.52
67	B1	1629	G	C2'-C1'	-5.16	1.47	1.53
67	B1	2409	C	C3'-C2'	-5.16	1.47	1.52
67	B1	2935	A	C4'-C3'	5.16	1.58	1.53
21	A2	882	C	C4'-O4'	5.16	1.52	1.45
67	B1	748	G	C4'-C3'	-5.16	1.47	1.52
67	B1	1840	G	P-O5'	-5.16	1.54	1.59
52	BB	54	ARG	CZ-NH2	5.16	1.39	1.33
67	B1	276	G	O3'-P	-5.16	1.54	1.61
67	B1	1443	G	C5'-C4'	-5.16	1.45	1.51
67	B1	2966	C	O3'-P	5.16	1.67	1.61
17	AO	119	ARG	NE-CZ	5.16	1.39	1.33
21	A2	48	G	C3'-O3'	5.16	1.49	1.42
21	A2	397	C	C3'-O3'	5.16	1.49	1.42
21	A2	630	A	O4'-C1'	5.16	1.48	1.41
21	A2	1207	G	C2'-C1'	5.16	1.59	1.53
21	A2	1474	A	C4'-C3'	5.16	1.58	1.53
33	BC	124	PHE	CG-CD2	5.16	1.46	1.38
67	B1	455	G	C5'-C4'	5.16	1.57	1.51
67	B1	522	A	C3'-O3'	5.16	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1262	C	C2'-C1'	-5.16	1.47	1.53
67	B1	1350	C	C4'-C3'	-5.16	1.47	1.52
67	B1	2739	G	C3'-O3'	5.16	1.49	1.42
27	A0	36	U	O3'-P	5.16	1.67	1.61
39	Be	50	ARG	NE-CZ	5.16	1.39	1.33
67	B1	707	U	O3'-P	-5.16	1.54	1.61
67	B1	1938	G	C3'-C2'	-5.16	1.47	1.52
21	A2	75	C	C3'-C2'	-5.16	1.47	1.52
21	A2	493	C	C3'-O3'	5.16	1.49	1.42
21	A2	1049	U	O4'-C1'	5.16	1.48	1.41
67	B1	312	G	C2'-O2'	-5.16	1.34	1.41
67	B1	372	A	C4'-O4'	-5.16	1.38	1.45
21	A2	1070	C	C5'-C4'	5.15	1.57	1.51
34	B5	71	VAL	CB-CG2	5.15	1.63	1.52
67	B1	1170	G	O3'-P	-5.15	1.54	1.61
67	B1	1750	C	O4'-C1'	5.15	1.48	1.41
67	B1	2304	C	O3'-P	-5.15	1.54	1.61
8	AR	3	ARG	CZ-NH1	5.15	1.39	1.33
21	A2	552	C	C3'-C2'	5.15	1.58	1.52
67	B1	542	A	C4'-C3'	-5.15	1.47	1.52
21	A2	515	U	P-OP1	-5.15	1.40	1.49
37	BU	75	ARG	CZ-NH1	5.15	1.39	1.33
67	B1	218	A	O4'-C1'	-5.15	1.34	1.41
67	B1	533	G	C5'-C4'	5.15	1.57	1.51
67	B1	538	G	C4'-C3'	-5.15	1.47	1.52
67	B1	2456	C	C5'-C4'	5.15	1.57	1.51
67	B1	2462	U	C2'-C1'	-5.15	1.47	1.53
67	B1	2709	C	C2'-C1'	5.15	1.59	1.53
21	A2	334	G	C3'-C2'	-5.15	1.47	1.52
67	B1	731	C	C3'-C2'	-5.15	1.47	1.52
67	B1	2371	A	C3'-O3'	5.15	1.49	1.42
67	B1	2619	U	C3'-O3'	5.15	1.49	1.42
21	A2	624	G	C5'-C4'	5.15	1.57	1.51
21	A2	756	A	C4'-O4'	5.15	1.52	1.45
21	A2	1343	C	O3'-P	-5.15	1.54	1.61
27	A0	62	C	C4'-O4'	-5.15	1.38	1.45
67	B1	191	U	P-O5'	-5.15	1.54	1.59
67	B1	747	G	C5'-C4'	5.15	1.57	1.51
67	B1	2412	A	O4'-C1'	5.15	1.48	1.41
16	AJ	53	ARG	CZ-NH2	5.15	1.39	1.33
21	A2	572	U	C3'-O3'	5.15	1.49	1.42
67	B1	2605	G	C4'-O4'	-5.15	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2829	C	C5'-C4'	5.15	1.57	1.51
8	AR	50	GLU	CB-CG	5.14	1.61	1.52
21	A2	17	C	C2'-O2'	-5.14	1.34	1.41
59	BM	106	ARG	NE-CZ	5.14	1.39	1.33
67	B1	40	G	P-O5'	-5.14	1.54	1.59
67	B1	804	C	O3'-P	-5.14	1.54	1.61
11	A1	36	A	P-O5'	5.14	1.64	1.59
21	A2	40	C	P-O5'	-5.14	1.54	1.59
21	A2	153	G	C5'-C4'	5.14	1.57	1.51
21	A2	239	A	C4'-C3'	5.14	1.58	1.53
21	A2	347	G	C4'-C3'	5.14	1.58	1.53
27	A0	66	C	C2'-O2'	-5.14	1.34	1.41
21	A2	303	G	P-O5'	-5.14	1.54	1.59
67	B1	554	C	P-O5'	-5.14	1.54	1.59
67	B1	855	G	O3'-P	-5.14	1.54	1.61
67	B1	1609	G	C5'-C4'	5.14	1.57	1.51
67	B1	1708	U	O4'-C1'	-5.14	1.34	1.41
67	B1	2768	C	O3'-P	-5.14	1.54	1.61
67	B1	1496	A	O3'-P	-5.14	1.54	1.61
11	A1	65	C	C3'-C2'	5.14	1.58	1.52
21	A2	1145	C	C4'-O4'	-5.14	1.38	1.45
34	BK	71	VAL	CB-CG2	5.14	1.63	1.52
67	B1	523	C	C4'-C3'	5.14	1.58	1.53
31	BY	27	ARG	NE-CZ	5.14	1.39	1.33
67	B1	2517	U	C3'-C2'	5.14	1.58	1.52
67	B1	2738	G	P-O5'	5.14	1.64	1.59
6	AC	73	PHE	CG-CD2	5.13	1.46	1.38
21	A2	435	A	C5'-C4'	5.13	1.57	1.51
21	A2	1326	G	C4'-C3'	5.13	1.58	1.53
21	A2	1414	G	C3'-C2'	5.13	1.58	1.52
27	A0	30	G	C2'-C1'	-5.13	1.47	1.53
67	B1	591	G	P-O5'	5.13	1.64	1.59
67	B1	1742	C	C3'-C2'	-5.13	1.47	1.52
2	AK	127	ARG	NE-CZ	5.13	1.39	1.33
67	B1	1649	G	O3'-P	-5.13	1.54	1.61
67	B1	1849	A	P-O5'	-5.13	1.54	1.59
21	A2	64	G	C5'-C4'	5.13	1.57	1.51
21	A2	1034	G	P-O5'	-5.13	1.54	1.59
21	A2	1493	C	C2'-C1'	5.13	1.58	1.53
67	B1	1910	C	C2'-C1'	-5.13	1.47	1.53
67	B1	2268	C	P-O5'	5.13	1.64	1.59
21	A2	516	A	C2'-O2'	-5.13	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	385	U	C2'-C1'	5.13	1.58	1.53
67	B1	828	G	C4'-C3'	5.13	1.58	1.53
17	AO	116	ARG	CZ-NH1	5.13	1.39	1.33
21	A2	548	A	C4'-C3'	5.13	1.58	1.53
21	A2	808	C	C4'-O4'	-5.13	1.38	1.45
67	B1	259	A	C3'-O3'	5.13	1.49	1.42
67	B1	1212	A	C5'-C4'	5.13	1.57	1.51
67	B1	1304	G	C3'-C2'	-5.13	1.47	1.52
67	B1	1325	A	C2'-C1'	-5.13	1.47	1.53
67	B1	2065	C	O3'-P	5.13	1.67	1.61
67	B1	2193	G	C5'-C4'	5.13	1.57	1.51
21	A2	324	C	O3'-P	-5.13	1.54	1.61
62	BN	4	ARG	CD-NE	5.13	1.55	1.46
67	B1	2618	C	C3'-C2'	-5.13	1.47	1.52
67	B1	504	G	P-O5'	-5.12	1.54	1.59
21	A2	569	G	C3'-C2'	-5.12	1.47	1.52
21	A2	1124	G	P-O5'	-5.12	1.54	1.59
67	B1	515	G	C5'-C4'	5.12	1.57	1.51
67	B1	864	C	C3'-C2'	5.12	1.58	1.52
67	B1	1978	A	O4'-C1'	5.12	1.48	1.41
67	B1	2490	C	C3'-C2'	5.12	1.58	1.52
56	BH	30	LEU	N-CA	-5.12	1.36	1.46
67	B1	387	A	C2'-C1'	-5.12	1.47	1.53
67	B1	2130	C	O4'-C1'	5.12	1.48	1.41
21	A2	413	G	C3'-C2'	-5.12	1.47	1.52
21	A2	617	A	C3'-O3'	5.12	1.49	1.42
21	A2	1491	C	C4'-C3'	-5.12	1.47	1.52
61	Bd	9	SER	CA-CB	5.12	1.60	1.52
67	B1	751	U	O4'-C1'	-5.12	1.34	1.41
67	B1	955	A	C3'-C2'	-5.12	1.47	1.52
67	B1	1430	A	C5'-C4'	5.12	1.57	1.51
40	BE	138	ASP	C-N	5.12	1.45	1.34
67	B1	1330	G	C5'-C4'	5.12	1.57	1.51
67	B1	1510	U	C3'-O3'	5.12	1.49	1.42
67	B1	1794	C	P-O5'	5.12	1.64	1.59
67	B1	2413	G	C4'-O4'	-5.12	1.38	1.45
21	A2	696	G	O4'-C1'	5.12	1.48	1.41
21	A2	1074	C	O3'-P	-5.12	1.55	1.61
67	B1	30	G	O4'-C1'	5.12	1.48	1.41
67	B1	278	C	C3'-O3'	-5.12	1.34	1.42
67	B1	866	G	O4'-C1'	5.12	1.48	1.41
67	B1	2274	C	C4'-C3'	5.12	1.58	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2593	A	C2'-C1'	-5.12	1.47	1.53
67	B1	300	U	C3'-O3'	5.11	1.49	1.42
67	B1	460	C	P-O5'	5.11	1.64	1.59
67	B1	2232	U	C2'-C1'	5.11	1.58	1.53
21	A2	98	U	O4'-C1'	5.11	1.48	1.41
21	A2	106	A	C2'-C1'	5.11	1.58	1.53
10	AD	156	ARG	CD-NE	5.11	1.55	1.46
21	A2	194	C	O3'-P	-5.11	1.55	1.61
67	B1	161	C	C5'-C4'	5.11	1.57	1.51
67	B1	2050	U	O3'-P	-5.11	1.55	1.61
67	B1	2348	G	C5'-C4'	5.11	1.57	1.51
67	B1	3046	C	C3'-C2'	-5.11	1.47	1.52
21	A2	574	A	C4'-O4'	-5.11	1.39	1.45
21	A2	1110	U	C5'-C4'	5.11	1.57	1.51
67	B1	2689	G	O3'-P	-5.11	1.55	1.61
21	A2	728	G	C2'-C1'	-5.11	1.47	1.53
21	A2	827	G	C5'-C4'	5.11	1.57	1.51
21	A2	906	G	C2'-C1'	-5.11	1.47	1.53
66	B1	53	PHE	CA-CB	5.11	1.65	1.53
67	B1	159	C	O4'-C1'	5.11	1.48	1.41
67	B1	175	G	C5'-C4'	5.11	1.57	1.51
67	B1	811	C	C4'-C3'	-5.11	1.47	1.52
67	B1	1838	C	O5'-C5'	-5.11	1.34	1.42
67	B1	2274	C	O3'-P	5.11	1.67	1.61
59	BM	46	ASP	CB-CG	5.11	1.62	1.51
67	B1	562	G	C4'-O4'	5.11	1.52	1.45
67	B1	1425	U	C2'-C1'	5.11	1.58	1.53
17	AO	75	PRO	N-CA	-5.10	1.38	1.47
53	BD	254	TYR	CD2-CE2	5.10	1.47	1.39
20	B4	45	ARG	CD-NE	5.10	1.55	1.46
21	A2	90	C	C4'-C3'	5.10	1.58	1.53
21	A2	783	G	C4'-C3'	5.10	1.58	1.53
39	Be	44	ARG	NE-CZ	5.10	1.39	1.33
67	B1	550	A	C2'-C1'	-5.10	1.47	1.53
67	B1	1781	C	C5'-C4'	5.10	1.57	1.51
67	B1	2304	C	C5'-C4'	5.10	1.57	1.51
67	B1	2408	G	C4'-C3'	-5.10	1.47	1.52
67	B1	2590	C	C4'-O4'	5.10	1.52	1.45
67	B1	2953	U	C5'-C4'	5.10	1.57	1.51
21	A2	1250	C	P-O5'	5.10	1.64	1.59
67	B1	1483	U	C2'-O2'	5.10	1.48	1.41
67	B1	2983	G	O4'-C1'	5.10	1.48	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	148	C	C5'-C4'	5.10	1.57	1.51
34	B5	59	LYS	N-CA	-5.10	1.36	1.46
67	B1	40	G	O4'-C1'	5.10	1.48	1.41
67	B1	706	U	C4'-O4'	5.10	1.52	1.45
67	B1	723	A	C4'-O4'	5.10	1.52	1.45
67	B1	2292	A	P-O5'	-5.10	1.54	1.59
67	B1	2691	G	C4'-C3'	5.10	1.58	1.53
67	B1	2843	C	O3'-P	-5.10	1.55	1.61
27	A0	71	G	C3'-O3'	5.10	1.49	1.42
38	Bb	65	TRP	NE1-CE2	5.10	1.44	1.37
39	Be	22	ARG	CZ-NH2	5.10	1.39	1.33
59	BM	49	ARG	NE-CZ	5.10	1.39	1.33
8	AR	110	GLU	CD-OE2	-5.09	1.20	1.25
21	A2	582	G	C4'-C3'	-5.09	1.47	1.52
25	AH	84	HIS	C-N	5.09	1.45	1.34
26	AP	12	ARG	NE-CZ	5.09	1.39	1.33
67	B1	190	C	O3'-P	5.09	1.67	1.61
67	B1	546	C	C2'-C1'	5.09	1.58	1.53
67	B1	785	C	C5'-C4'	5.09	1.57	1.51
31	BY	106	SER	CA-CB	5.09	1.60	1.52
47	BI	2	ARG	CZ-NH2	5.09	1.39	1.33
65	BJ	112	VAL	CB-CG1	5.09	1.63	1.52
7	AB	55	ALA	C-N	5.09	1.42	1.33
21	A2	743	U	P-O5'	-5.09	1.54	1.59
67	B1	1680	G	O3'-P	-5.09	1.55	1.61
67	B1	1789	A	P-O5'	-5.09	1.54	1.59
67	B1	2503	C	C2'-O2'	-5.09	1.35	1.41
67	B1	2615	U	C3'-C2'	-5.09	1.47	1.52
68	B3	66	A	C2'-O2'	5.09	1.48	1.41
12	AN	123	ARG	CZ-NH2	5.09	1.39	1.33
21	A2	568	C	O4'-C1'	5.09	1.48	1.41
67	B1	859	G	P-O5'	-5.09	1.54	1.59
67	B1	1526	G	C3'-O3'	5.09	1.49	1.42
52	BB	121	TYR	CE1-CZ	5.09	1.45	1.38
67	B1	2568	A	C2'-C1'	5.09	1.58	1.53
21	A2	546	G	O3'-P	5.09	1.67	1.61
21	A2	1292	A	C5'-C4'	5.09	1.57	1.51
21	A2	1300	A	O4'-C1'	-5.09	1.35	1.41
67	B1	111	U	C3'-C2'	5.09	1.58	1.52
67	B1	177	G	C5'-C4'	5.09	1.57	1.51
67	B1	189	U	C4'-C3'	5.09	1.58	1.53
67	B1	432	C	C2'-C1'	-5.09	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	718	G	C4'-C3'	5.09	1.58	1.53
67	B1	989	G	C2'-O2'	5.09	1.48	1.41
67	B1	1457	C	O3'-P	-5.09	1.55	1.61
67	B1	2554	A	C5'-C4'	5.09	1.57	1.51
27	A0	40	C	C2'-C1'	5.08	1.58	1.53
67	B1	645	U	P-O5'	5.08	1.64	1.59
67	B1	1092	U	P-O5'	-5.08	1.54	1.59
6	AC	26	ARG	NE-CZ	5.08	1.39	1.33
27	A0	7	G	O4'-C1'	5.08	1.48	1.41
32	BO	101	GLU	CD-OE1	5.08	1.31	1.25
67	B1	1784	G	P-O5'	-5.08	1.54	1.59
67	B1	2341	G	C3'-C2'	-5.08	1.47	1.52
67	B1	2396	G	C4'-C3'	-5.08	1.47	1.52
67	B1	2970	U	C5'-C4'	5.08	1.57	1.51
21	A2	121	C	C4'-C3'	5.08	1.58	1.53
21	A2	430	G	C2-N3	5.08	1.36	1.32
21	A2	723	G	C2'-O2'	-5.08	1.35	1.41
46	BA	3	PHE	CG-CD2	5.08	1.46	1.38
67	B1	1125	A	O4'-C1'	5.08	1.48	1.41
67	B1	1164	C	P-O5'	5.08	1.64	1.59
67	B1	1596	G	P-OP2	-5.08	1.40	1.49
67	B1	1899	C	P-O5'	5.08	1.64	1.59
67	B1	2053	G	C3'-O3'	5.08	1.49	1.42
67	B1	2725	U	C4'-C3'	5.08	1.58	1.53
21	A2	1111	G	C4'-C3'	5.08	1.58	1.53
67	B1	1601	G	O3'-P	-5.08	1.55	1.61
21	A2	56	A	C5'-C4'	5.08	1.57	1.51
21	A2	632	C	C4'-C3'	-5.08	1.47	1.52
21	A2	1028	C	C3'-O3'	5.08	1.49	1.42
31	BY	76	GLY	CA-C	-5.08	1.43	1.51
31	BY	132	ARG	NE-CZ	5.08	1.39	1.33
40	BE	101	ARG	NE-CZ	5.08	1.39	1.33
67	B1	814	G	O3'-P	-5.08	1.55	1.61
67	B1	1464	A	P-O5'	-5.08	1.54	1.59
67	B1	2606	C	P-O5'	-5.08	1.54	1.59
21	A2	629	U	C3'-C2'	-5.08	1.47	1.52
21	A2	1054	A	P-O5'	-5.08	1.54	1.59
29	AL	33	ARG	CZ-NH2	5.08	1.39	1.33
7	AB	5	TYR	CZ-OH	5.08	1.46	1.37
21	A2	864	G	C3'-C2'	-5.08	1.47	1.52
21	A2	1111	G	O3'-P	-5.08	1.55	1.61
67	B1	244	A	C4'-C3'	-5.08	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	552	A	C3'-C2'	-5.08	1.47	1.52
67	B1	2240	G	C4'-C3'	5.08	1.58	1.53
67	B1	2797	C	C5'-C4'	5.08	1.57	1.51
67	B1	2949	G	O4'-C1'	5.08	1.48	1.41
16	AJ	66	PHE	CE1-CZ	5.07	1.47	1.37
17	AO	127	ARG	CZ-NH1	5.07	1.39	1.33
21	A2	904	G	O4'-C1'	5.07	1.48	1.41
21	A2	1055	C	C2'-C1'	-5.07	1.47	1.53
21	A2	1313	G	C3'-C2'	5.07	1.58	1.52
32	BO	194	GLU	CD-OE1	5.07	1.31	1.25
49	BQ	9	ARG	CZ-NH2	5.07	1.39	1.33
52	BB	54	ARG	CZ-NH1	5.07	1.39	1.33
67	B1	289	G	O4'-C1'	5.07	1.48	1.41
67	B1	825	C	C4'-O4'	5.07	1.52	1.45
67	B1	1211	C	C2'-O2'	5.07	1.48	1.41
67	B1	2226	G	C4'-C3'	-5.07	1.47	1.52
67	B1	2565	A	C3'-C2'	-5.07	1.47	1.52
67	B1	2940	C	C2'-C1'	-5.07	1.47	1.53
67	B1	1576	C	C4'-C3'	5.07	1.58	1.53
67	B1	1975	C	C4'-O4'	-5.07	1.39	1.45
21	A2	596	A	C2'-C1'	-5.07	1.47	1.53
21	A2	1324	U	P-O5'	-5.07	1.54	1.59
50	BV	3	ARG	CZ-NH2	5.07	1.39	1.33
67	B1	752	U	P-O5'	5.07	1.64	1.59
67	B1	1093	G	C5'-C4'	5.07	1.57	1.51
67	B1	1646	G	O3'-P	-5.07	1.55	1.61
67	B1	1937	A	C5'-C4'	5.07	1.57	1.51
67	B1	3007	A	O4'-C1'	5.07	1.48	1.41
46	BA	5	ARG	NE-CZ	5.07	1.39	1.33
34	BK	59	LYS	N-CA	-5.07	1.36	1.46
67	B1	129	C	O3'-P	-5.07	1.55	1.61
67	B1	165	G	O3'-P	-5.07	1.55	1.61
67	B1	928	A	O3'-P	-5.07	1.55	1.61
67	B1	1190	G	O4'-C1'	5.07	1.48	1.41
67	B1	1999	G	O3'-P	-5.07	1.55	1.61
25	AH	85	PHE	C-N	5.07	1.45	1.34
32	BO	34	ARG	NE-CZ	5.07	1.39	1.33
32	BO	191	ARG	CZ-NH2	5.07	1.39	1.33
33	BC	204	GLY	CA-C	-5.07	1.43	1.51
39	Be	42	ARG	CZ-NH1	5.07	1.39	1.33
47	BI	77	ARG	CZ-NH1	5.07	1.39	1.33
67	B1	1651	A	C5'-C4'	5.07	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2360	G	C2'-C1'	-5.07	1.47	1.53
67	B1	2653	G	C2'-C1'	-5.07	1.47	1.53
21	A2	1001	A	C2'-C1'	-5.07	1.47	1.53
25	AH	91	ARG	CZ-NH1	5.07	1.39	1.33
39	Be	21	ARG	NE-CZ	5.07	1.39	1.33
67	B1	1897	G	C2'-C1'	5.07	1.58	1.53
67	B1	2834	C	O3'-P	-5.07	1.55	1.61
15	AE	40	ARG	CZ-NH2	5.06	1.39	1.33
21	A2	1106	A	P-O5'	-5.06	1.54	1.59
30	AU	83	ARG	CD-NE	5.06	1.55	1.46
67	B1	19	G	C5'-C4'	5.06	1.57	1.51
68	B3	37	U	C2'-O2'	-5.06	1.35	1.41
21	A2	568	C	P-O5'	-5.06	1.54	1.59
56	BH	48	GLY	N-CA	-5.06	1.38	1.46
67	B1	2205	A	C5'-C4'	5.06	1.57	1.51
21	A2	388	G	C3'-C2'	-5.06	1.47	1.52
21	A2	997	G	C2-N3	5.06	1.36	1.32
21	A2	308	G	C4'-C3'	5.06	1.58	1.53
21	A2	601	G	C2'-C1'	5.06	1.58	1.53
21	A2	782	A	C4'-C3'	5.06	1.58	1.53
52	BB	189	TRP	CD2-CE3	5.06	1.48	1.40
67	B1	1214	C	C2'-C1'	-5.06	1.47	1.53
67	B1	1439	G	C5'-C4'	5.06	1.57	1.51
67	B1	2843	C	C5'-C4'	5.06	1.57	1.51
4	AG	108	ARG	CZ-NH2	5.06	1.39	1.33
21	A2	993	C	C2'-C1'	-5.06	1.47	1.53
21	A2	1348	C	P-O5'	-5.06	1.54	1.59
21	A2	1412	A	C4'-C3'	-5.06	1.47	1.52
33	BC	111	ALA	CA-CB	5.06	1.63	1.52
46	BA	56	ARG	CZ-NH1	5.06	1.39	1.33
67	B1	2250	G	O4'-C1'	5.06	1.48	1.41
67	B1	2336	G	O4'-C1'	5.06	1.48	1.41
67	B1	2938	G	P-O5'	-5.06	1.54	1.59
1	AQ	115	ASP	CB-CG	5.06	1.62	1.51
67	B1	2259	G	C2'-C1'	-5.06	1.47	1.53
68	B3	104	C	C5'-C4'	5.06	1.57	1.51
21	A2	221	A	P-O5'	-5.05	1.54	1.59
40	BE	152	ARG	NE-CZ	5.05	1.39	1.33
21	A2	402	G	C4'-O4'	5.05	1.52	1.45
32	BO	174	LYS	C-N	5.05	1.42	1.33
67	B1	1369	G	C5'-C4'	5.05	1.57	1.51
67	B1	2973	A	C4'-O4'	5.05	1.52	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	77	G	O4'-C1'	5.05	1.48	1.41
28	B6	63	TYR	CD1-CE1	5.05	1.47	1.39
67	B1	1689	G	C4'-C3'	5.05	1.58	1.53
67	B1	1983	C	O3'-P	-5.05	1.55	1.61
11	A1	28	C	C2'-O2'	-5.05	1.35	1.41
13	AX	50	ARG	CZ-NH1	5.05	1.39	1.33
21	A2	801	A	C2'-C1'	5.05	1.58	1.53
21	A2	1276	G	O3'-P	-5.05	1.55	1.61
67	B1	263	U	C2'-C1'	-5.05	1.47	1.53
67	B1	2912	G	P-O5'	5.05	1.64	1.59
67	B1	2926	G	C5'-C4'	5.05	1.57	1.51
68	B3	20	G	C5'-C4'	5.05	1.57	1.51
11	A1	33	C	C2'-C1'	5.05	1.58	1.53
21	A2	1175	C	C5'-C4'	5.05	1.57	1.51
67	B1	868	U	C2'-C1'	-5.05	1.47	1.53
67	B1	1431	U	C3'-C2'	5.05	1.58	1.52
14	AM	107	ARG	NE-CZ	5.05	1.39	1.33
19	AS	49	ARG	NE-CZ	5.05	1.39	1.33
67	B1	213	G	O4'-C1'	5.05	1.48	1.41
67	B1	1921	U	C3'-C2'	5.05	1.58	1.52
67	B1	2788	U	O4'-C1'	5.05	1.48	1.41
67	B1	2833	G	C5'-C4'	5.05	1.57	1.51
68	B3	84	U	O4'-C1'	-5.04	1.35	1.41
11	A1	31	G	C5'-C4'	5.04	1.57	1.51
21	A2	405	G	O4'-C1'	5.04	1.48	1.41
27	A0	61	C	C5'-C4'	5.04	1.57	1.51
33	BC	299	GLU	CG-CD	5.04	1.59	1.51
59	BM	170	ARG	CZ-NH2	5.04	1.39	1.33
67	B1	781	C	C4'-C3'	5.04	1.58	1.53
67	B1	999	A	C4'-O4'	-5.04	1.39	1.45
67	B1	1391	C	C5'-C4'	5.04	1.57	1.51
67	B1	1414	G	C5'-C4'	5.04	1.57	1.51
67	B1	2148	U	C4'-O4'	-5.04	1.39	1.45
21	A2	1454	A	C3'-C2'	5.04	1.58	1.52
67	B1	428	A	P-O5'	-5.04	1.54	1.59
67	B1	1383	G	C5'-C4'	5.04	1.57	1.51
67	B1	2715	A	O4'-C1'	5.04	1.48	1.41
68	B3	13	C	O3'-P	-5.04	1.55	1.61
21	A2	1299	A	C5'-C4'	5.04	1.57	1.51
67	B1	302	U	C2'-C1'	5.04	1.58	1.53
67	B1	1616	A	C2'-C1'	5.04	1.58	1.53
42	BT	78	GLU	CG-CD	5.04	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	Bk	211	SER	N-CA	-5.04	1.36	1.46
58	BP	83	TRP	CB-CG	5.04	1.59	1.50
67	B1	886	G	C4'-C3'	-5.04	1.47	1.52
67	B1	1462	G	P-O5'	-5.04	1.54	1.59
67	B1	1703	G	O5'-C5'	5.04	1.52	1.44
67	B1	1820	C	C4'-O4'	5.04	1.52	1.45
38	Bb	51	ARG	NE-CZ	5.04	1.39	1.33
67	B1	2936	U	C4'-O4'	5.04	1.52	1.45
20	A3	85	GLU	CD-OE1	-5.04	1.20	1.25
21	A2	186	U	P-O5'	-5.04	1.54	1.59
21	A2	1005	G	O4'-C1'	-5.04	1.35	1.41
67	B1	675	G	O3'-P	-5.04	1.55	1.61
67	B1	1136	G	P-O5'	-5.04	1.54	1.59
67	B1	2392	A	C5'-C4'	5.04	1.57	1.51
21	A2	272	C	C3'-C2'	-5.03	1.47	1.52
21	A2	770	A	C4'-O4'	5.03	1.52	1.45
21	A2	1237	G	C3'-O3'	5.03	1.49	1.42
52	BB	42	ARG	CA-CB	5.03	1.65	1.53
67	B1	506	G	C2'-C1'	-5.03	1.47	1.53
67	B1	1846	G	C3'-C2'	-5.03	1.47	1.52
67	B1	2449	A	C3'-C2'	5.03	1.58	1.52
67	B1	2664	G	C4'-O4'	-5.03	1.39	1.45
67	B1	545	G	C4'-C3'	5.03	1.58	1.53
67	B1	1460	C	P-O5'	-5.03	1.54	1.59
67	B1	2284	C	O3'-P	-5.03	1.55	1.61
49	BQ	88	ARG	NE-CZ	5.03	1.39	1.33
67	B1	1890	U	P-O5'	-5.03	1.54	1.59
67	B1	2769	U	O4'-C1'	5.03	1.48	1.41
14	AM	58	TYR	CZ-OH	5.03	1.46	1.37
21	A2	1411	G	C4'-O4'	5.03	1.52	1.45
26	AP	55	TYR	CZ-OH	5.03	1.46	1.37
59	BM	53	TYR	CD1-CE1	5.03	1.46	1.39
67	B1	604	A	C5'-C4'	5.03	1.57	1.51
67	B1	1158	G	P-O5'	-5.03	1.54	1.59
67	B1	1536	U	O4'-C1'	5.03	1.48	1.41
67	B1	2638	G	O4'-C1'	5.03	1.48	1.41
21	A2	404	C	O4'-C1'	5.03	1.48	1.41
67	B1	420	U	C4'-C3'	5.03	1.58	1.53
67	B1	1485	A	C5'-C4'	5.03	1.57	1.51
67	B1	2007	C	P-O5'	-5.03	1.54	1.59
67	B1	2551	G	C3'-C2'	-5.03	1.47	1.52
67	B1	2614	C	P-O5'	-5.03	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	37	G	O3'-P	5.03	1.67	1.61
21	A2	365	C	C2'-C1'	-5.03	1.47	1.53
21	A2	691	G	P-O5'	-5.03	1.54	1.59
40	BE	163	ARG	CZ-NH1	5.03	1.39	1.33
62	BN	130	GLN	CA-C	-5.03	1.39	1.52
67	B1	756	C	O4'-C1'	5.03	1.48	1.41
11	A1	54	G	C5'-C4'	5.02	1.57	1.51
11	A1	58	A	C5'-C4'	5.02	1.57	1.51
17	AO	64	GLU	CA-CB	5.02	1.65	1.53
21	A2	394	C	O4'-C1'	5.02	1.48	1.41
21	A2	573	C	O3'-P	-5.02	1.55	1.61
30	AU	61	ARG	NE-CZ	5.02	1.39	1.33
35	BL	47	TRP	CB-CG	5.02	1.59	1.50
67	B1	1042	G	O3'-P	-5.02	1.55	1.61
67	B1	1144	A	C5'-C4'	5.02	1.57	1.51
67	B1	2619	U	C3'-C2'	5.02	1.58	1.52
10	AD	22	ARG	CZ-NH2	5.02	1.39	1.33
21	A2	134	A	C3'-O3'	5.02	1.49	1.42
66	B1	27	GLY	CA-C	-5.02	1.43	1.51
67	B1	843	C	C3'-C2'	-5.02	1.47	1.52
21	A2	125	G	O4'-C1'	5.02	1.48	1.41
67	B1	456	G	O3'-P	-5.02	1.55	1.61
67	B1	1372	C	C2'-C1'	-5.02	1.47	1.53
67	B1	1566	G	O5'-C5'	-5.02	1.34	1.42
67	B1	2184	G	C5'-C4'	5.02	1.57	1.51
67	B1	2278	U	C3'-C2'	5.02	1.58	1.52
67	B1	2592	U	O3'-P	-5.02	1.55	1.61
11	A1	15	G	P-O5'	-5.02	1.54	1.59
11	A1	60	A	C3'-C2'	5.02	1.58	1.52
24	AA	46	ARG	CZ-NH2	5.02	1.39	1.33
27	A0	75	C	C2'-O2'	-5.02	1.35	1.41
67	B1	277	A	O3'-P	5.02	1.67	1.61
67	B1	604	A	C3'-C2'	-5.02	1.47	1.52
67	B1	760	G	C3'-C2'	-5.02	1.47	1.52
67	B1	899	A	C5'-C4'	5.02	1.57	1.51
67	B1	993	G	C5'-C4'	5.02	1.57	1.51
67	B1	1636	C	P-O5'	5.02	1.64	1.59
67	B1	1886	C	O4'-C1'	5.02	1.48	1.41
67	B1	2006	C	O3'-P	-5.02	1.55	1.61
67	B1	2423	G	P-O5'	-5.02	1.54	1.59
68	B3	75	G	P-O5'	-5.02	1.54	1.59
68	B3	80	G	O3'-P	-5.02	1.55	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	331	C	O3'-P	-5.02	1.55	1.61
33	BC	156	LYS	CD-CE	5.02	1.63	1.51
67	B1	1419	G	C3'-C2'	5.02	1.58	1.52
67	B1	2782	A	C5'-C4'	5.02	1.57	1.51
6	AC	131	ARG	NE-CZ	5.01	1.39	1.33
21	A2	259	A	O3'-P	-5.01	1.55	1.61
21	A2	540	G	O3'-P	-5.01	1.55	1.61
21	A2	554	C	C3'-C2'	5.01	1.58	1.52
67	B1	1788	G	C4'-C3'	5.01	1.58	1.53
67	B1	2730	U	O3'-P	5.01	1.67	1.61
21	A2	1350	U	P-O5'	-5.01	1.54	1.59
67	B1	816	C	C2'-O2'	-5.01	1.35	1.41
67	B1	1597	G	C5'-C4'	5.01	1.57	1.51
67	B1	2180	C	C5'-C4'	5.01	1.57	1.51
15	AE	33	ARG	N-CA	-5.01	1.36	1.46
33	BC	345	PRO	CA-C	-5.01	1.42	1.52
67	B1	981	A	O4'-C1'	-5.01	1.35	1.41
67	B1	1958	A	P-O5'	-5.01	1.54	1.59
67	B1	2066	C	C5'-C4'	5.01	1.57	1.51
68	B3	27	C	P-O5'	-5.01	1.54	1.59
21	A2	1025	U	C2'-C1'	-5.01	1.47	1.53
65	BJ	132	ARG	CZ-NH2	5.01	1.39	1.33
21	A2	290	C	C3'-C2'	-5.01	1.47	1.52
21	A2	702	G	O3'-P	-5.01	1.55	1.61
67	B1	406	G	P-O5'	5.01	1.64	1.59
67	B1	2187	C	O3'-P	-5.01	1.55	1.61
11	A1	66	C	C2'-C1'	-5.01	1.47	1.53
21	A2	807	C	C3'-O3'	5.01	1.49	1.42
47	BI	80	ARG	CD-NE	5.01	1.54	1.46
65	BJ	16	ARG	NE-CZ	5.01	1.39	1.33
67	B1	171	A	C4'-C3'	5.01	1.58	1.53
67	B1	391	C	C4'-O4'	5.01	1.52	1.45
67	B1	502	G	O3'-P	-5.01	1.55	1.61
67	B1	1188	C	C4'-C3'	-5.01	1.47	1.52
67	B1	1335	C	C2'-C1'	-5.01	1.47	1.53
67	B1	1385	C	C4'-C3'	-5.01	1.47	1.52
67	B1	1830	U	O4'-C1'	-5.01	1.35	1.41
67	B1	2907	C	P-O5'	5.01	1.64	1.59
21	A2	677	U	C2'-C1'	5.00	1.58	1.53
21	A2	1392	G	C5'-C4'	5.00	1.57	1.51
32	BO	8	ARG	CZ-NH2	5.00	1.39	1.33
33	BC	86	TYR	CG-CD1	5.00	1.45	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	BM	53	TYR	CZ-OH	5.00	1.46	1.37
67	B1	206	A	C4'-O4'	5.00	1.52	1.45
67	B1	944	G	O4'-C1'	5.00	1.48	1.41
67	B1	954	A	C2'-C1'	5.00	1.58	1.53
67	B1	1768	C	C2'-C1'	-5.00	1.47	1.53
67	B1	1778	G	P-O5'	-5.00	1.54	1.59
67	B1	2703	G	O4'-C1'	5.00	1.48	1.41
21	A2	1491	C	C3'-O3'	5.00	1.49	1.42
24	AA	75	GLY	CA-C	5.00	1.59	1.51
67	B1	822	A	O3'-P	-5.00	1.55	1.61
67	B1	958	A	O3'-P	-5.00	1.55	1.61
67	B1	1535	U	O4'-C1'	5.00	1.48	1.41
67	B1	3045	G	C4'-C3'	-5.00	1.47	1.52
11	A1	3	G	O4'-C1'	5.00	1.48	1.41
59	BM	76	TRP	CD2-CE2	5.00	1.47	1.41
67	B1	1118	A	P-O5'	-5.00	1.54	1.59
67	B1	1289	C	O3'-P	-5.00	1.55	1.61
67	B1	1479	U	O3'-P	-5.00	1.55	1.61

All (13452) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2363	G	O4'-C1'-N9	44.16	143.53	108.20
67	B1	1754	A	O4'-C1'-N9	36.92	137.74	108.20
21	A2	1207	G	O4'-C1'-N9	31.50	133.40	108.20
11	A1	49	C	O4'-C1'-N1	30.68	132.75	108.20
67	B1	2174	G	O4'-C1'-N9	30.40	132.52	108.20
67	B1	2287	C	O4'-C1'-N1	29.82	132.05	108.20
67	B1	862	G	O4'-C1'-N9	29.48	131.78	108.20
11	A1	77	A	O4'-C1'-N9	28.96	131.37	108.20
67	B1	2507	C	O4'-C1'-C2'	-28.78	77.02	105.80
21	A2	393	A	O4'-C1'-N9	28.74	131.19	108.20
67	B1	1037	C	P-O3'-C3'	28.72	154.16	119.70
67	B1	154	U	O4'-C1'-N1	28.61	131.09	108.20
21	A2	798	U	O4'-C1'-N1	28.30	130.84	108.20
21	A2	1200	U	O4'-C1'-N1	27.99	130.59	108.20
67	B1	1678	A	O4'-C1'-N9	27.77	130.42	108.20
67	B1	1612	G	P-O3'-C3'	27.64	152.87	119.70
68	B3	122	C	O4'-C1'-N1	27.55	130.24	108.20
21	A2	1336	U	O4'-C1'-N1	27.53	130.23	108.20
11	A1	47	G	O4'-C1'-N9	27.26	130.01	108.20
67	B1	1279	U	O4'-C1'-N1	27.14	129.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	A0	47	U	O4'-C1'-N1	26.78	129.62	108.20
67	B1	1348	G	O4'-C1'-N9	26.74	129.59	108.20
67	B1	1393	C	O4'-C1'-N1	26.52	129.42	108.20
21	A2	192	G	O4'-C1'-N9	26.28	129.22	108.20
21	A2	1409	G	O4'-C1'-N9	26.23	129.18	108.20
67	B1	1981	G	O4'-C1'-N9	26.18	129.14	108.20
67	B1	1642	G	O4'-C1'-C2'	-25.94	79.86	105.80
21	A2	1484	C	O4'-C1'-N1	25.72	128.78	108.20
21	A2	60	A	O4'-C1'-N9	25.67	128.74	108.20
21	A2	45	U	O4'-C1'-N1	25.52	128.62	108.20
21	A2	1101	G	O4'-C1'-N9	25.31	128.45	108.20
67	B1	1553	G	O4'-C1'-N9	25.30	128.44	108.20
67	B1	2064	U	P-O3'-C3'	25.25	150.00	119.70
21	A2	746	A	O4'-C1'-N9	25.12	128.29	108.20
21	A2	1128	U	O4'-C1'-N1	25.04	128.23	108.20
67	B1	1319	U	P-O3'-C3'	25.00	149.70	119.70
67	B1	3026	C	O4'-C1'-N1	24.91	128.13	108.20
67	B1	1248	C	O4'-C1'-N1	24.90	128.12	108.20
21	A2	423	U	O4'-C1'-N1	24.82	128.06	108.20
67	B1	2963	G	O4'-C1'-N9	24.76	128.01	108.20
67	B1	1184	U	O4'-C1'-N1	24.69	127.95	108.20
67	B1	1163	U	O4'-C1'-N1	24.44	127.75	108.20
21	A2	656	U	O4'-C1'-N1	24.43	127.75	108.20
21	A2	92	G	O4'-C1'-N9	24.43	127.74	108.20
67	B1	2477	G	O4'-C1'-N9	24.36	127.69	108.20
21	A2	1095	C	O4'-C1'-N1	24.33	127.66	108.20
21	A2	962	G	O5'-P-OP1	-23.81	82.13	110.70
11	A1	59	A	O4'-C1'-N9	23.78	127.23	108.20
67	B1	1738	A	O4'-C1'-N9	23.65	127.12	108.20
67	B1	2800	U	O4'-C1'-N1	23.64	127.11	108.20
21	A2	8	U	O4'-C1'-N1	23.58	127.07	108.20
21	A2	1406	U	O4'-C1'-N1	23.47	126.97	108.20
67	B1	1706	G	O4'-C1'-N9	23.44	126.95	108.20
67	B1	1569	A	O4'-C1'-N9	23.40	126.92	108.20
67	B1	2936	U	O4'-C1'-N1	23.31	126.85	108.20
67	B1	166	G	O4'-C1'-N9	23.29	126.83	108.20
21	A2	1156	A	O4'-C1'-N9	23.24	126.79	108.20
67	B1	1179	G	O4'-C1'-N9	23.17	126.73	108.20
68	B3	52	U	P-O3'-C3'	23.07	147.38	119.70
67	B1	1615	G	O4'-C1'-N9	23.00	126.60	108.20
67	B1	111	U	O4'-C1'-N1	23.00	126.60	108.20
67	B1	1093	G	O4'-C1'-N9	22.96	126.57	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1541	U	O4'-C1'-N1	22.95	126.56	108.20
67	B1	155	U	O4'-C1'-N1	22.82	126.46	108.20
67	B1	1069	A	O4'-C1'-N9	22.78	126.42	108.20
67	B1	1711	C	O4'-C1'-N1	22.74	126.39	108.20
67	B1	1752	C	P-O3'-C3'	22.69	146.93	119.70
67	B1	694	A	O4'-C1'-N9	22.61	126.29	108.20
67	B1	1205	U	O4'-C1'-N1	22.61	126.29	108.20
67	B1	2182	A	O4'-C1'-N9	22.61	126.28	108.20
21	A2	175	G	O4'-C1'-N9	22.57	126.26	108.20
67	B1	278	C	O4'-C1'-N1	22.57	126.26	108.20
67	B1	486	A	O4'-C1'-N9	22.43	126.15	108.20
21	A2	962	G	O5'-P-OP2	-22.36	83.86	110.70
67	B1	411	U	O4'-C1'-N1	22.31	126.05	108.20
67	B1	702	G	O4'-C1'-N9	22.15	125.92	108.20
67	B1	1670	A	O4'-C1'-N9	21.97	125.78	108.20
67	B1	1624	U	O4'-C1'-N1	21.86	125.69	108.20
67	B1	2492	G	O4'-C1'-N9	21.77	125.62	108.20
67	B1	2238	G	O4'-C1'-N9	21.71	125.56	108.20
21	A2	243	G	O4'-C1'-N9	21.69	125.55	108.20
67	B1	333	A	O4'-C1'-N9	21.67	125.53	108.20
67	B1	1595	G	O4'-C1'-N9	21.64	125.52	108.20
67	B1	1084	G	P-O3'-C3'	21.62	145.64	119.70
67	B1	2134	G	C1'-O4'-C4'	-21.51	92.69	109.90
67	B1	565	A	C1'-O4'-C4'	21.41	127.03	109.90
21	A2	1200	U	C1'-O4'-C4'	21.35	126.98	109.90
67	B1	3000	U	O4'-C1'-N1	21.34	125.27	108.20
21	A2	192	G	C3'-C2'-C1'	-21.33	84.43	101.50
67	B1	2912	G	P-O3'-C3'	21.23	145.17	119.70
67	B1	2241	U	O4'-C1'-N1	21.15	125.12	108.20
67	B1	565	A	O4'-C1'-N9	21.10	125.08	108.20
67	B1	1854	G	O4'-C1'-N9	21.06	125.05	108.20
67	B1	1200	A	O4'-C1'-N9	20.91	124.93	108.20
21	A2	1419	G	O4'-C1'-N9	20.87	124.89	108.20
21	A2	406	U	P-O3'-C3'	20.75	144.60	119.70
67	B1	777	A	O4'-C1'-N9	20.71	124.77	108.20
67	B1	613	C	O4'-C1'-N1	20.70	124.76	108.20
21	A2	242	A	O4'-C1'-N9	20.70	124.76	108.20
67	B1	1740	U	O4'-C1'-N1	20.67	124.73	108.20
67	B1	2871	A	O4'-C1'-N9	20.56	124.64	108.20
67	B1	3035	C	P-O3'-C3'	20.43	144.22	119.70
67	B1	1226	G	P-O3'-C3'	20.42	144.20	119.70
67	B1	1825	G	O4'-C1'-N9	20.32	124.46	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2980	G	O4'-C1'-N9	20.31	124.45	108.20
21	A2	1416	C	O4'-C1'-N1	20.29	124.43	108.20
67	B1	923	A	O4'-C1'-N9	20.26	124.41	108.20
67	B1	2012	G	O4'-C1'-N9	20.21	124.37	108.20
67	B1	584	G	P-O3'-C3'	20.06	143.77	119.70
68	B3	19	G	P-O3'-C3'	20.00	143.70	119.70
67	B1	1473	C	N1-C1'-C2'	19.93	139.92	114.00
21	A2	1053	A	P-O3'-C3'	19.83	143.50	119.70
67	B1	83	G	P-O3'-C3'	19.80	143.46	119.70
67	B1	1429	A	O4'-C1'-N9	19.76	124.01	108.20
67	B1	645	U	O4'-C1'-N1	19.75	124.00	108.20
67	B1	129	C	O4'-C1'-N1	19.73	123.98	108.20
67	B1	809	A	O4'-C1'-N9	19.71	123.97	108.20
67	B1	2301	C	P-O3'-C3'	19.66	143.30	119.70
67	B1	1565	G	O4'-C1'-C2'	-19.62	86.18	105.80
21	A2	379	A	O4'-C1'-N9	19.57	123.85	108.20
68	B3	84	U	O4'-C1'-N1	19.55	123.84	108.20
27	A0	9	A	O4'-C1'-N9	19.51	123.81	108.20
21	A2	433	U	O4'-C1'-N1	19.50	123.80	108.20
67	B1	1494	U	O4'-C1'-N1	19.47	123.78	108.20
67	B1	1313	G	O4'-C1'-N9	19.43	123.74	108.20
67	B1	1617	G	O4'-C1'-N9	19.42	123.73	108.20
68	B3	74	U	P-O3'-C3'	19.42	143.00	119.70
67	B1	2917	G	O4'-C1'-N9	19.40	123.72	108.20
67	B1	1993	A	O4'-C1'-N9	19.39	123.71	108.20
67	B1	1250	A	O4'-C1'-N9	19.36	123.69	108.20
67	B1	1251	G	P-O3'-C3'	19.34	142.91	119.70
67	B1	2507	C	O4'-C1'-N1	-19.32	92.75	108.20
21	A2	804	U	P-O3'-C3'	19.30	142.86	119.70
67	B1	1865	U	O4'-C1'-N1	19.26	123.61	108.20
67	B1	1811	G	O4'-C1'-N9	19.25	123.60	108.20
21	A2	708	C	O4'-C1'-N1	19.21	123.57	108.20
21	A2	1241	U	O4'-C1'-N1	19.17	123.54	108.20
68	B3	37	U	O4'-C1'-N1	19.13	123.50	108.20
21	A2	152	G	C1'-O4'-C4'	-19.12	94.60	109.90
67	B1	2916	G	O4'-C1'-N9	19.11	123.49	108.20
67	B1	129	C	P-O3'-C3'	19.11	142.63	119.70
67	B1	2068	U	O4'-C1'-C2'	-19.09	86.71	105.80
21	A2	63	G	P-O3'-C3'	19.07	142.59	119.70
67	B1	2177	A	O4'-C1'-N9	19.06	123.45	108.20
67	B1	1783	U	N1-C1'-C2'	19.05	138.77	114.00
67	B1	2609	G	O4'-C1'-N9	19.02	123.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	6	A	O4'-C1'-N9	18.98	123.39	108.20
21	A2	654	U	O4'-C1'-N1	18.96	123.37	108.20
21	A2	194	C	P-O3'-C3'	18.92	142.41	119.70
67	B1	715	G	O4'-C1'-C2'	-18.87	86.93	105.80
21	A2	736	A	O4'-C1'-N9	18.86	123.29	108.20
67	B1	855	G	O4'-C1'-N9	18.85	123.28	108.20
67	B1	2363	G	P-O3'-C3'	18.84	142.30	119.70
67	B1	2869	U	O4'-C1'-N1	-18.84	93.13	108.20
67	B1	1034	G	O4'-C1'-N9	18.78	123.22	108.20
21	A2	85	A	O4'-C1'-C2'	-18.77	87.03	105.80
67	B1	770	G	O4'-C1'-N9	18.73	123.19	108.20
67	B1	2851	A	O4'-C1'-N9	18.73	123.19	108.20
67	B1	634	G	P-O3'-C3'	18.70	142.13	119.70
67	B1	2450	A	O4'-C1'-N9	18.69	123.16	108.20
67	B1	1178	G	O4'-C1'-C2'	18.69	124.49	105.80
21	A2	665	G	O4'-C1'-N9	18.66	123.13	108.20
67	B1	1045	A	O4'-C1'-C2'	-18.64	87.16	105.80
21	A2	871	A	P-O3'-C3'	18.64	142.06	119.70
67	B1	1911	G	O4'-C1'-N9	18.62	123.10	108.20
21	A2	369	A	N9-C1'-C2'	18.57	138.15	114.00
67	B1	216	A	O4'-C1'-N9	18.56	123.05	108.20
67	B1	733	A	O4'-C1'-N9	18.55	123.04	108.20
21	A2	1081	C	O4'-C1'-N1	18.54	123.03	108.20
21	A2	422	U	O4'-C1'-N1	18.52	123.02	108.20
67	B1	956	U	C1'-O4'-C4'	18.52	124.71	109.90
67	B1	887	U	O4'-C1'-N1	18.52	123.01	108.20
67	B1	704	G	O4'-C1'-N9	18.50	123.00	108.20
67	B1	159	C	O4'-C1'-N1	18.49	122.99	108.20
21	A2	681	G	O4'-C1'-N9	18.49	122.99	108.20
67	B1	1390	U	O4'-C1'-N1	18.47	122.97	108.20
67	B1	1955	U	O4'-C1'-N1	18.41	122.93	108.20
67	B1	1024	G	O4'-C1'-N9	18.40	122.92	108.20
67	B1	734	C	P-O3'-C3'	18.37	141.75	119.70
21	A2	334	G	O4'-C1'-N9	18.33	122.86	108.20
68	B3	106	G	O4'-C1'-N9	18.33	122.86	108.20
67	B1	677	A	O4'-C1'-N9	18.28	122.82	108.20
67	B1	1452	G	O4'-C1'-N9	18.27	122.82	108.20
67	B1	2095	U	O4'-C1'-N1	18.23	122.79	108.20
67	B1	214	C	O4'-C1'-N1	18.22	122.78	108.20
21	A2	1337	A	O4'-C1'-N9	18.20	122.76	108.20
67	B1	530	A	O4'-C1'-N9	18.20	122.76	108.20
67	B1	366	G	N9-C1'-C2'	18.18	137.63	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	715	G	C3'-C2'-C1'	18.16	116.03	101.50
67	B1	304	G	O4'-C1'-N9	18.16	122.73	108.20
21	A2	1262	U	O4'-C1'-N1	18.15	122.72	108.20
67	B1	1513	G	O4'-C1'-N9	18.15	122.72	108.20
67	B1	1598	U	O4'-C1'-N1	18.12	122.70	108.20
30	AU	15	ARG	NE-CZ-NH1	18.12	129.36	120.30
21	A2	641	A	P-O3'-C3'	18.11	141.44	119.70
67	B1	579	C	P-O3'-C3'	18.09	141.41	119.70
67	B1	1745	U	O4'-C1'-C2'	-18.07	87.73	105.80
67	B1	979	G	O4'-C1'-C2'	18.06	123.86	105.80
67	B1	404	G	C1'-O4'-C4'	18.04	124.33	109.90
67	B1	1960	U	N1-C1'-C2'	18.04	137.45	114.00
67	B1	1180	G	P-O3'-C3'	18.01	141.31	119.70
67	B1	2753	G	O4'-C1'-N9	18.00	122.60	108.20
67	B1	221	G	O4'-C1'-N9	18.00	122.60	108.20
67	B1	956	U	O4'-C1'-C2'	-18.00	87.80	105.80
38	Bb	11	ARG	NE-CZ-NH2	-18.00	111.30	120.30
21	A2	655	A	P-O3'-C3'	17.94	141.22	119.70
21	A2	470	G	O4'-C1'-N9	17.91	122.53	108.20
67	B1	980	G	P-O3'-C3'	17.90	141.18	119.70
67	B1	1080	G	P-O3'-C3'	17.88	141.16	119.70
21	A2	1082	A	C3'-C2'-C1'	17.87	115.80	101.50
67	B1	1045	A	C1'-O4'-C4'	17.87	124.19	109.90
21	A2	801	A	O4'-C1'-N9	17.85	122.48	108.20
67	B1	758	C	O4'-C1'-N1	17.83	122.46	108.20
21	A2	616	G	C3'-C2'-C1'	-17.80	87.26	101.50
21	A2	958	G	O4'-C1'-N9	17.78	122.43	108.20
21	A2	1322	C	P-O3'-C3'	17.77	141.03	119.70
62	BN	113	ARG	NE-CZ-NH1	-17.77	111.42	120.30
21	A2	1259	A	O4'-C1'-N9	-17.71	94.03	108.20
67	B1	1440	C	N1-C1'-C2'	17.68	136.99	114.00
67	B1	1437	C	O4'-C1'-N1	17.67	122.33	108.20
21	A2	179	U	O4'-C1'-N1	17.61	122.29	108.20
67	B1	545	G	O4'-C1'-N9	17.61	122.29	108.20
67	B1	215	A	O4'-C1'-N9	17.61	122.29	108.20
67	B1	246	A	O4'-C1'-N9	17.47	122.18	108.20
21	A2	1403	U	N1-C1'-C2'	17.47	136.71	114.00
67	B1	594	U	O4'-C1'-N1	17.42	122.14	108.20
21	A2	581	G	C1'-O4'-C4'	-17.41	95.97	109.90
21	A2	694	U	O4'-C1'-N1	17.40	122.12	108.20
67	B1	601	A	O4'-C1'-N9	17.39	122.11	108.20
67	B1	1744	A	O4'-C1'-N9	17.39	122.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	3043	C	O4'-C1'-N1	17.39	122.11	108.20
67	B1	898	G	C3'-C2'-C1'	17.35	115.38	101.50
21	A2	85	A	N9-C1'-C2'	-17.34	91.45	114.00
67	B1	1208	A	O4'-C1'-N9	17.34	122.07	108.20
67	B1	202	A	O4'-C1'-N9	17.33	122.07	108.20
15	AE	26	TYR	CB-CG-CD2	-17.33	110.60	121.00
21	A2	949	G	O4'-C1'-N9	17.32	122.06	108.20
67	B1	2650	G	C3'-C2'-C1'	-17.31	87.65	101.50
21	A2	1161	A	P-O3'-C3'	17.30	140.46	119.70
67	B1	3038	A	P-O3'-C3'	17.30	140.46	119.70
21	A2	677	U	O4'-C1'-N1	17.30	122.04	108.20
21	A2	486	A	P-O3'-C3'	17.29	140.45	119.70
67	B1	1568	A	C3'-C2'-C1'	-17.29	87.67	101.50
67	B1	994	G	P-O3'-C3'	17.29	140.45	119.70
67	B1	2687	A	O4'-C1'-N9	17.29	122.03	108.20
68	B3	35	A	C1'-O4'-C4'	17.28	123.72	109.90
67	B1	2606	C	P-O3'-C3'	17.24	140.39	119.70
67	B1	2891	A	P-O3'-C3'	17.20	140.34	119.70
67	B1	2270	G	O4'-C1'-N9	17.18	121.94	108.20
21	A2	1272	G	C1'-O4'-C4'	-17.17	96.16	109.90
21	A2	1336	U	C1'-O4'-C4'	17.16	123.63	109.90
67	B1	1178	G	C1'-O4'-C4'	-17.16	96.17	109.90
21	A2	1453	U	P-O3'-C3'	17.15	140.28	119.70
67	B1	1889	G	O4'-C1'-N9	17.14	121.91	108.20
67	B1	614	G	C3'-C2'-C1'	17.14	115.21	101.50
21	A2	487	U	O4'-C1'-N1	17.13	121.91	108.20
21	A2	1436	U	P-O3'-C3'	17.12	140.25	119.70
21	A2	1436	U	O4'-C1'-N1	17.11	121.89	108.20
21	A2	1262	U	P-O3'-C3'	17.09	140.21	119.70
21	A2	804	U	O4'-C1'-N1	17.09	121.87	108.20
67	B1	917	A	O4'-C1'-N9	17.08	121.86	108.20
67	B1	2803	U	O4'-C1'-N1	17.08	121.86	108.20
67	B1	2088	G	O4'-C1'-N9	-17.07	94.54	108.20
21	A2	85	A	C1'-O4'-C4'	17.06	123.55	109.90
21	A2	974	G	O4'-C1'-C2'	-17.05	88.75	105.80
67	B1	397	G	O4'-C1'-N9	17.03	121.82	108.20
67	B1	1256	G	O4'-C1'-N9	17.00	121.80	108.20
67	B1	2022	U	O4'-C1'-N1	16.99	121.79	108.20
21	A2	1195	U	C3'-C2'-C1'	-16.97	87.93	101.50
67	B1	2745	G	O4'-C1'-N9	16.97	121.77	108.20
21	A2	364	U	O4'-C1'-N1	16.95	121.76	108.20
67	B1	2814	U	O4'-C1'-N1	16.95	121.76	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2438	U	O4'-C1'-N1	16.94	121.75	108.20
60	BS	19	ARG	NE-CZ-NH2	-16.94	111.83	120.30
21	A2	324	C	P-O3'-C3'	16.93	140.02	119.70
21	A2	61	A	O4'-C1'-N9	16.93	121.74	108.20
67	B1	2998	G	O4'-C1'-N9	16.92	121.74	108.20
67	B1	2923	G	O4'-C1'-N9	16.92	121.73	108.20
67	B1	2590	C	N1-C1'-C2'	16.92	135.99	114.00
67	B1	1530	A	O4'-C1'-N9	16.90	121.72	108.20
21	A2	1182	G	O4'-C1'-N9	16.89	121.71	108.20
67	B1	1471	G	N9-C1'-C2'	16.86	135.92	114.00
67	B1	1585	U	O4'-C1'-N1	16.86	121.69	108.20
21	A2	1490	C	N1-C1'-C2'	16.82	135.87	114.00
67	B1	2717	A	O4'-C1'-N9	16.81	121.65	108.20
67	B1	3004	C	P-O3'-C3'	16.81	139.87	119.70
53	BD	56	ARG	NE-CZ-NH1	16.79	128.69	120.30
67	B1	409	C	N1-C1'-C2'	16.78	135.81	114.00
67	B1	859	G	P-O3'-C3'	16.77	139.82	119.70
67	B1	1592	U	N1-C1'-C2'	16.76	135.79	114.00
67	B1	2794	G	O4'-C1'-N9	16.74	121.59	108.20
67	B1	2735	C	N1-C1'-C2'	16.72	135.74	114.00
27	A0	6	C	N1-C1'-C2'	16.72	135.73	114.00
67	B1	2393	G	O4'-C1'-N9	16.71	121.57	108.20
67	B1	2507	C	P-O3'-C3'	16.71	139.75	119.70
67	B1	445	G	O4'-C1'-N9	16.69	121.56	108.20
67	B1	507	G	O4'-C1'-N9	16.68	121.55	108.20
67	B1	1600	G	O4'-C1'-C2'	-16.67	89.13	105.80
67	B1	82	C	N1-C1'-C2'	16.66	135.66	114.00
67	B1	1031	C	N1-C1'-C2'	16.66	135.66	114.00
21	A2	367	G	O4'-C1'-N9	-16.66	94.87	108.20
67	B1	402	G	O4'-C1'-N9	16.65	121.52	108.20
67	B1	2077	A	C1'-O4'-C4'	16.64	123.21	109.90
67	B1	1936	C	P-O3'-C3'	16.63	139.66	119.70
21	A2	434	A	C1'-O4'-C4'	16.63	123.20	109.90
67	B1	1117	C	P-O3'-C3'	16.62	139.65	119.70
67	B1	1563	G	P-O3'-C3'	16.62	139.65	119.70
67	B1	362	A	O4'-C1'-N9	16.59	121.47	108.20
67	B1	2908	U	O4'-C1'-N1	16.59	121.47	108.20
67	B1	924	A	O4'-C1'-N9	16.58	121.47	108.20
32	BO	12	ARG	NE-CZ-NH1	16.55	128.58	120.30
21	A2	362	C	C3'-C2'-C1'	16.53	114.73	101.50
67	B1	813	G	O4'-C1'-N9	16.53	121.43	108.20
21	A2	340	A	O4'-C1'-N9	16.53	121.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1395	G	O4'-C1'-N9	-16.50	95.00	108.20
67	B1	2583	G	O4'-C1'-N9	16.45	121.36	108.20
67	B1	379	U	P-O3'-C3'	16.44	139.43	119.70
21	A2	1389	G	O4'-C1'-N9	16.44	121.35	108.20
67	B1	404	G	O4'-C1'-C2'	-16.43	89.37	105.80
67	B1	2921	U	P-O3'-C3'	16.42	139.41	119.70
67	B1	429	U	O4'-C1'-N1	16.40	121.32	108.20
21	A2	1321	U	O4'-C1'-N1	16.38	121.31	108.20
7	AB	33	TYR	CB-CG-CD2	-16.38	111.17	121.00
31	BY	126	PHE	CB-CG-CD1	-16.38	109.34	120.80
21	A2	472	C	N1-C1'-C2'	16.35	135.26	114.00
67	B1	909	A	O4'-C1'-N9	16.35	121.28	108.20
67	B1	2586	A	O4'-C1'-N9	16.35	121.28	108.20
60	BS	129	TYR	CB-CG-CD1	-16.35	111.19	121.00
67	B1	385	U	O4'-C1'-N1	16.35	121.28	108.20
67	B1	2916	G	C1'-O4'-C4'	16.34	122.98	109.90
67	B1	1643	A	N9-C1'-C2'	16.32	135.21	114.00
67	B1	2677	U	O4'-C1'-N1	16.31	121.25	108.20
21	A2	299	G	O4'-C1'-N9	16.30	121.24	108.20
36	Bf	12	ARG	NE-CZ-NH2	-16.30	112.15	120.30
11	A1	51	G	C1'-O4'-C4'	-16.29	96.87	109.90
67	B1	1245	C	O4'-C1'-C2'	-16.28	89.52	105.80
21	A2	152	G	O4'-C1'-C2'	16.28	122.25	107.60
21	A2	1333	G	O4'-C1'-N9	16.28	121.23	108.20
67	B1	751	U	O4'-C1'-N1	16.25	121.20	108.20
21	A2	1261	U	P-O3'-C3'	16.23	139.17	119.70
67	B1	1388	U	N1-C1'-C2'	16.22	135.09	114.00
21	A2	1420	U	O4'-C1'-N1	16.22	121.18	108.20
12	AN	30	TYR	CB-CG-CD2	-16.19	111.28	121.00
21	A2	46	A	O4'-C1'-N9	16.18	121.14	108.20
67	B1	674	G	O4'-C1'-N9	16.17	121.13	108.20
21	A2	367	G	N9-C1'-C2'	16.16	135.01	114.00
67	B1	2033	G	O4'-C1'-C2'	-16.16	89.64	105.80
67	B1	1782	C	O4'-C1'-N1	16.16	121.12	108.20
67	B1	2053	G	O4'-C1'-N9	16.16	121.12	108.20
67	B1	1394	G	O4'-C1'-N9	-16.15	95.28	108.20
67	B1	1743	G	O4'-C1'-N9	16.15	121.12	108.20
67	B1	2115	U	C1'-O4'-C4'	16.15	122.82	109.90
67	B1	2745	G	C3'-C2'-C1'	-16.15	88.58	101.50
67	B1	158	C	C3'-C2'-C1'	16.13	114.41	101.50
67	B1	1029	C	C3'-C2'-C1'	16.13	114.41	101.50
67	B1	425	U	O4'-C1'-N1	16.13	121.10	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1896	U	O4'-C1'-N1	16.12	121.09	108.20
67	B1	2506	G	P-O3'-C3'	-16.11	100.36	119.70
21	A2	439	G	O4'-C1'-N9	-16.10	95.32	108.20
67	B1	543	G	O4'-C1'-N9	16.09	121.07	108.20
67	B1	1417	U	O4'-C1'-N1	16.06	121.05	108.20
67	B1	19	G	O4'-C1'-N9	16.05	121.04	108.20
68	B3	123	U	O4'-C1'-N1	16.04	121.03	108.20
35	BL	11	LEU	N-CA-CB	16.02	142.44	110.40
67	B1	1037	C	N1-C1'-C2'	-16.01	93.18	114.00
21	A2	1424	G	N9-C1'-C2'	16.01	134.81	114.00
67	B1	1605	A	O4'-C1'-N9	16.01	121.00	108.20
21	A2	455	C	N1-C1'-C2'	16.00	134.79	114.00
67	B1	424	U	N1-C1'-C2'	15.99	134.79	114.00
67	B1	966	G	O4'-C1'-N9	15.99	120.99	108.20
67	B1	2696	G	O4'-C1'-N9	15.99	120.99	108.20
67	B1	2232	U	O4'-C1'-N1	15.98	120.98	108.20
67	B1	1260	C	P-O3'-C3'	15.95	138.84	119.70
21	A2	1458	A	O4'-C1'-C2'	-15.95	89.85	105.80
67	B1	897	U	P-O3'-C3'	15.95	138.83	119.70
67	B1	715	G	P-O3'-C3'	15.94	138.83	119.70
67	B1	350	A	O4'-C1'-N9	15.93	120.94	108.20
67	B1	2548	A	O4'-C1'-N9	15.93	120.94	108.20
67	B1	1066	C	O4'-C1'-N1	15.92	120.94	108.20
21	A2	32	A	O4'-C1'-N9	15.91	120.93	108.20
67	B1	1574	A	O4'-C1'-N9	-15.89	95.48	108.20
27	A0	72	C	P-O3'-C3'	15.88	138.75	119.70
67	B1	1080	G	C1'-O4'-C4'	15.88	122.60	109.90
67	B1	1613	A	O4'-C1'-N9	15.86	120.89	108.20
67	B1	2710	G	O4'-C1'-N9	15.87	120.89	108.20
67	B1	219	G	O4'-C1'-N9	15.80	120.84	108.20
67	B1	1201	G	C1'-O4'-C4'	-15.79	97.26	109.90
67	B1	1780	C	P-O3'-C3'	15.79	138.65	119.70
67	B1	404	G	O4'-C1'-N9	15.77	120.81	108.20
68	B3	26	C	N1-C1'-C2'	15.75	134.48	114.00
47	BI	67	TYR	CB-CG-CD2	-15.74	111.55	121.00
11	A1	19	G	O4'-C1'-N9	15.74	120.79	108.20
21	A2	325	A	C3'-C2'-C1'	15.70	114.06	101.50
67	B1	2253	G	O4'-C1'-N9	15.69	120.75	108.20
67	B1	2702	A	C1'-O4'-C4'	15.69	122.45	109.90
67	B1	1961	G	O4'-C1'-N9	15.67	120.74	108.20
21	A2	382	G	O4'-C1'-N9	15.66	120.73	108.20
67	B1	1131	G	O4'-C1'-N9	15.65	120.72	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1830	U	O4'-C1'-N1	15.64	120.71	108.20
21	A2	177	A	O4'-C1'-N9	15.64	120.71	108.20
67	B1	204	G	O4'-C1'-N9	15.63	120.70	108.20
67	B1	2793	C	P-O3'-C3'	15.61	138.44	119.70
67	B1	2267	U	O4'-C1'-N1	15.61	120.69	108.20
21	A2	804	U	C1'-O4'-C4'	15.60	122.38	109.90
68	B3	107	G	O4'-C1'-N9	15.59	120.67	108.20
21	A2	1473	A	O4'-C1'-N9	15.57	120.66	108.20
11	A1	15	G	O4'-C1'-N9	15.56	120.65	108.20
68	B3	40	G	P-O3'-C3'	15.54	138.35	119.70
21	A2	1118	C	O4'-C1'-N1	15.53	120.62	108.20
67	B1	1197	G	O4'-C1'-N9	15.52	120.62	108.20
21	A2	342	G	O4'-C1'-N9	15.50	120.60	108.20
11	A1	51	G	N9-C1'-C2'	15.49	134.14	114.00
67	B1	2312	U	O4'-C1'-N1	15.48	120.58	108.20
68	B3	71	G	O4'-C1'-N9	15.48	120.58	108.20
67	B1	2260	C	N1-C1'-C2'	15.46	134.10	114.00
21	A2	1190	C	N1-C1'-C2'	15.46	134.10	114.00
67	B1	374	C	N1-C1'-C2'	15.45	134.09	114.00
67	B1	1222	U	N1-C1'-C2'	15.45	134.09	114.00
67	B1	2443	G	O4'-C1'-N9	15.43	120.55	108.20
67	B1	2725	U	O4'-C1'-N1	15.42	120.54	108.20
21	A2	1448	A	O4'-C1'-N9	15.42	120.53	108.20
67	B1	614	G	O4'-C1'-N9	-15.42	95.87	108.20
67	B1	714	C	P-O3'-C3'	15.41	138.19	119.70
67	B1	1618	G	C1'-O4'-C4'	-15.40	97.58	109.90
67	B1	998	G	O4'-C1'-N9	15.38	120.50	108.20
67	B1	1179	G	N9-C1'-C2'	-15.37	94.02	114.00
67	B1	363	G	O4'-C1'-N9	15.36	120.49	108.20
67	B1	2062	A	P-O3'-C3'	15.34	138.11	119.70
21	A2	78	G	O4'-C1'-N9	15.32	120.46	108.20
67	B1	2902	G	O4'-C1'-N9	15.32	120.46	108.20
21	A2	283	U	O4'-C1'-N1	15.31	120.45	108.20
21	A2	1017	U	P-O3'-C3'	15.31	138.08	119.70
67	B1	1707	A	O4'-C1'-C2'	-15.31	90.49	105.80
21	A2	79	G	O4'-C1'-N9	15.30	120.44	108.20
21	A2	962	G	OP1-P-OP2	15.30	142.54	119.60
21	A2	866	A	O4'-C1'-N9	15.30	120.44	108.20
21	A2	366	C	N1-C1'-C2'	15.29	133.88	114.00
21	A2	629	U	O4'-C1'-N1	15.26	120.41	108.20
21	A2	262	G	P-O3'-C3'	15.25	138.00	119.70
67	B1	1618	G	C3'-C2'-C1'	-15.25	89.30	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2199	U	O4'-C1'-N1	15.24	120.40	108.20
67	B1	2749	G	O4'-C1'-N9	15.24	120.40	108.20
67	B1	2172	G	C3'-C2'-C1'	-15.23	89.31	101.50
67	B1	1454	G	O4'-C1'-N9	15.23	120.38	108.20
67	B1	2320	U	O4'-C1'-N1	15.23	120.38	108.20
67	B1	2243	G	O4'-C1'-N9	15.21	120.37	108.20
37	BU	42	ARG	NE-CZ-NH1	15.21	127.91	120.30
67	B1	470	A	C1'-O4'-C4'	15.20	122.06	109.90
21	A2	1423	A	P-O3'-C3'	15.20	137.94	119.70
21	A2	798	U	C1'-O4'-C4'	15.19	122.05	109.90
67	B1	152	G	O4'-C1'-N9	15.18	120.35	108.20
67	B1	2304	C	N1-C1'-C2'	15.18	133.73	114.00
21	A2	985	C	P-O3'-C3'	15.18	137.91	119.70
67	B1	1038	U	O4'-C1'-N1	15.17	120.33	108.20
67	B1	1048	C	N1-C1'-C2'	15.17	133.72	114.00
67	B1	1485	A	P-O3'-C3'	15.15	137.88	119.70
21	A2	260	C	N1-C1'-C2'	15.15	133.69	114.00
67	B1	1707	A	N9-C1'-C2'	-15.13	94.33	114.00
67	B1	2545	A	P-O3'-C3'	15.13	137.86	119.70
38	Bb	11	ARG	NE-CZ-NH1	15.12	127.86	120.30
67	B1	1109	G	P-O3'-C3'	15.12	137.84	119.70
21	A2	1160	C	O4'-C1'-N1	15.11	120.28	108.20
21	A2	367	G	C1'-O4'-C4'	-15.10	97.82	109.90
67	B1	44	C	N1-C1'-C2'	15.09	133.62	114.00
67	B1	713	C	O4'-C1'-N1	15.08	120.26	108.20
67	B1	2844	G	C1'-O4'-C4'	-15.06	97.86	109.90
21	A2	616	G	C1'-O4'-C4'	-15.04	97.87	109.90
67	B1	1234	A	C3'-C2'-C1'	15.04	113.53	101.50
67	B1	2086	C	N1-C1'-C2'	15.03	133.54	114.00
67	B1	646	U	O4'-C1'-N1	15.02	120.22	108.20
67	B1	1918	U	P-O3'-C3'	15.01	137.72	119.70
67	B1	962	C	C3'-C2'-C1'	15.00	113.50	101.50
67	B1	2846	A	O4'-C1'-N9	15.00	120.20	108.20
21	A2	72	C	N1-C1'-C2'	15.00	133.50	114.00
21	A2	311	A	O4'-C1'-N9	14.97	120.18	108.20
67	B1	899	A	O4'-C1'-N9	14.97	120.17	108.20
21	A2	176	U	P-O3'-C3'	14.95	137.64	119.70
68	B3	35	A	O4'-C1'-C2'	-14.93	90.87	105.80
68	B3	119	C	C3'-C2'-C1'	14.89	113.41	101.50
21	A2	1491	C	C3'-C2'-C1'	14.86	113.39	101.50
67	B1	314	A	O4'-C1'-N9	14.85	120.08	108.20
67	B1	1042	G	O4'-C1'-C2'	-14.85	90.95	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	202	G	O4'-C1'-N9	14.84	120.08	108.20
21	A2	806	G	O4'-C1'-N9	-14.84	96.33	108.20
67	B1	1201	G	N9-C1'-C2'	14.84	133.29	114.00
67	B1	1616	A	O4'-C1'-N9	14.83	120.06	108.20
67	B1	1096	A	P-O3'-C3'	14.83	137.50	119.70
68	B3	41	A	C3'-C2'-C1'	14.83	113.36	101.50
67	B1	867	C	O4'-C1'-N1	14.82	120.06	108.20
67	B1	1030	C	C3'-C2'-C1'	14.79	113.33	101.50
67	B1	2424	A	C3'-C2'-C1'	14.78	113.33	101.50
21	A2	210	A	C3'-C2'-C1'	14.78	113.33	101.50
67	B1	756	C	P-O3'-C3'	14.78	137.43	119.70
67	B1	452	A	C1'-O4'-C4'	-14.77	98.08	109.90
67	B1	2306	C	O4'-C1'-N1	14.77	120.02	108.20
21	A2	513	A	P-O3'-C3'	14.76	137.41	119.70
67	B1	2144	U	O4'-C1'-N1	14.76	120.01	108.20
67	B1	2324	C	P-O3'-C3'	14.76	137.41	119.70
21	A2	113	U	O4'-C1'-N1	14.75	120.00	108.20
11	A1	55	U	O4'-C1'-N1	14.75	120.00	108.20
67	B1	480	A	P-O3'-C3'	14.74	137.39	119.70
21	A2	1043	U	O4'-C1'-N1	14.73	119.99	108.20
67	B1	754	U	O4'-C1'-N1	14.73	119.98	108.20
21	A2	746	A	P-O3'-C3'	14.70	137.34	119.70
67	B1	1643	A	P-O3'-C3'	14.70	137.34	119.70
21	A2	186	U	O4'-C1'-N1	14.70	119.96	108.20
21	A2	121	C	N1-C1'-C2'	14.69	133.10	114.00
27	A0	37	A	O4'-C1'-N9	14.69	119.95	108.20
67	B1	1082	A	P-O3'-C3'	14.68	137.31	119.70
21	A2	277	G	P-O3'-C3'	14.67	137.30	119.70
67	B1	362	A	P-O3'-C3'	-14.67	102.10	119.70
67	B1	788	A	O4'-C1'-N9	14.66	119.93	108.20
68	B3	110	C	C3'-C2'-C1'	14.66	113.23	101.50
68	B3	62	A	P-O3'-C3'	14.66	137.29	119.70
67	B1	1906	G	O4'-C1'-N9	14.65	119.92	108.20
21	A2	392	G	P-O3'-C3'	14.65	137.28	119.70
67	B1	3	G	O4'-C1'-N9	14.64	119.92	108.20
67	B1	547	C	O4'-C1'-N1	14.62	119.90	108.20
67	B1	2624	G	O4'-C1'-N9	14.62	119.90	108.20
21	A2	714	G	O4'-C1'-N9	14.60	119.88	108.20
67	B1	2280	G	P-O3'-C3'	14.60	137.22	119.70
67	B1	1496	A	O4'-C1'-N9	14.60	119.88	108.20
16	AJ	30	ARG	NE-CZ-NH1	14.59	127.59	120.30
68	B3	54	A	O4'-C1'-N9	14.57	119.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	828	U	O4'-C1'-N1	14.57	119.85	108.20
67	B1	932	C	C3'-C2'-C1'	14.57	113.16	101.50
21	A2	358	G	O4'-C1'-N9	14.56	119.85	108.20
68	B3	75	G	P-O3'-C3'	14.56	137.17	119.70
25	AH	88	ARG	NE-CZ-NH1	14.55	127.58	120.30
67	B1	1407	A	P-O3'-C3'	14.53	137.13	119.70
21	A2	483	G	O4'-C1'-N9	14.53	119.82	108.20
21	A2	976	A	O4'-C1'-N9	14.53	119.82	108.20
67	B1	1291	C	O4'-C1'-N1	14.52	119.82	108.20
67	B1	2319	C	N1-C1'-C2'	14.52	132.88	114.00
67	B1	934	G	N9-C1'-C2'	14.52	132.87	114.00
52	BB	237	ARG	NE-CZ-NH2	-14.51	113.04	120.30
21	A2	1167	C	N1-C1'-C2'	14.51	132.86	114.00
21	A2	699	C	N1-C1'-C2'	14.50	132.84	114.00
67	B1	2916	G	N9-C1'-C2'	-14.49	95.16	114.00
67	B1	435	G	C1'-O4'-C4'	-14.49	98.31	109.90
21	A2	323	A	O4'-C1'-N9	14.48	119.79	108.20
67	B1	2665	G	O4'-C1'-N9	14.48	119.78	108.20
67	B1	1754	A	N9-C1'-C2'	-14.48	95.18	114.00
67	B1	1886	C	O4'-C1'-N1	14.47	119.78	108.20
21	A2	112	G	P-O3'-C3'	14.46	137.06	119.70
21	A2	1260	G	P-O3'-C3'	14.46	137.05	119.70
67	B1	2860	G	O4'-C1'-N9	14.46	119.76	108.20
67	B1	237	G	O4'-C1'-C2'	-14.45	91.35	105.80
68	B3	97	G	O4'-C1'-N9	14.45	119.76	108.20
67	B1	258	C	N1-C1'-C2'	14.45	132.78	114.00
21	A2	434	A	O4'-C1'-N9	14.44	119.75	108.20
67	B1	2305	U	O4'-C1'-N1	14.43	119.75	108.20
67	B1	1519	G	O4'-C1'-N9	14.43	119.74	108.20
67	B1	1565	G	O4'-C1'-N9	14.43	119.74	108.20
67	B1	1063	C	O4'-C1'-N1	14.42	119.74	108.20
67	B1	919	G	P-O3'-C3'	14.42	137.00	119.70
67	B1	181	U	N1-C1'-C2'	-14.42	95.26	114.00
67	B1	2890	A	O4'-C1'-C2'	-14.41	91.39	105.80
21	A2	71	C	N1-C1'-C2'	14.41	132.73	114.00
21	A2	616	G	O4'-C1'-C2'	14.40	120.56	107.60
67	B1	1440	C	C1'-O4'-C4'	-14.38	98.40	109.90
67	B1	1999	G	O4'-C1'-N9	14.38	119.70	108.20
21	A2	919	U	N1-C1'-C2'	14.37	132.69	114.00
21	A2	703	U	C1'-O4'-C4'	14.37	121.40	109.90
21	A2	1115	G	O4'-C1'-C2'	14.37	120.53	107.60
67	B1	565	A	O4'-C1'-C2'	-14.37	91.44	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	B3	76	U	O4'-C1'-N1	14.35	119.68	108.20
21	A2	434	A	O4'-C1'-C2'	-14.34	91.46	105.80
21	A2	1423	A	C1'-O4'-C4'	14.33	121.36	109.90
68	B3	7	C	O4'-C1'-N1	14.33	119.67	108.20
21	A2	1154	G	N9-C1'-C2'	14.32	132.62	114.00
21	A2	615	G	O4'-C1'-C2'	14.32	120.49	107.60
67	B1	2407	G	C1'-O4'-C4'	-14.32	98.44	109.90
67	B1	2329	A	O4'-C1'-N9	14.32	119.66	108.20
21	A2	1195	U	C1'-O4'-C4'	-14.31	98.45	109.90
67	B1	1707	A	C1'-O4'-C4'	14.31	121.35	109.90
67	B1	415	U	C1'-O4'-C4'	14.31	121.35	109.90
67	B1	2928	C	O4'-C1'-C2'	-14.31	91.49	105.80
21	A2	56	A	P-O3'-C3'	14.30	136.86	119.70
67	B1	1732	C	P-O3'-C3'	14.27	136.82	119.70
67	B1	297	G	N9-C1'-C2'	14.26	132.54	114.00
67	B1	3013	U	N1-C1'-C2'	14.26	132.54	114.00
21	A2	965	G	O4'-C1'-C2'	-14.26	91.54	105.80
21	A2	1306	A	P-O3'-C3'	14.25	136.80	119.70
67	B1	1700	U	N1-C1'-C2'	-14.23	95.50	114.00
67	B1	2543	A	O4'-C1'-N9	14.23	119.58	108.20
67	B1	228	U	O4'-C1'-N1	14.23	119.58	108.20
2	AK	16	ARG	NE-CZ-NH1	14.21	127.40	120.30
67	B1	980	G	N9-C1'-C2'	14.21	132.47	114.00
67	B1	1042	G	C1'-O4'-C4'	14.19	121.25	109.90
67	B1	1851	U	O4'-C1'-N1	14.19	119.55	108.20
67	B1	1301	G	O4'-C1'-C2'	14.19	120.37	107.60
21	A2	111	G	P-O3'-C3'	14.18	136.71	119.70
21	A2	1491	C	P-O3'-C3'	-14.17	102.70	119.70
41	Ba	25	TRP	CB-CG-CD2	-14.16	108.19	126.60
21	A2	1075	A	O4'-C1'-N9	14.15	119.52	108.20
67	B1	2442	A	O4'-C1'-N9	14.14	119.51	108.20
21	A2	762	G	O4'-C1'-N9	14.14	119.51	108.20
67	B1	758	C	P-O3'-C3'	14.13	136.66	119.70
21	A2	416	A	O4'-C1'-N9	14.12	119.50	108.20
21	A2	21	A	O4'-C1'-N9	14.11	119.49	108.20
67	B1	2698	G	O4'-C1'-N9	14.10	119.48	108.20
67	B1	2036	A	O4'-C1'-N9	14.10	119.48	108.20
67	B1	2937	U	C1'-O4'-C4'	14.10	121.18	109.90
67	B1	2209	U	C1'-O4'-C4'	14.09	121.17	109.90
67	B1	2605	G	O4'-C1'-N9	14.09	119.47	108.20
4	AG	77	ASP	CB-CG-OD2	-14.09	105.62	118.30
67	B1	2810	G	O4'-C1'-N9	14.08	119.46	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1301	G	C1'-O4'-C4'	-14.07	98.64	109.90
21	A2	1430	G	O4'-C1'-N9	14.07	119.46	108.20
21	A2	790	G	O4'-C1'-N9	14.06	119.45	108.20
67	B1	1817	C	C1'-O4'-C4'	-14.06	98.65	109.90
21	A2	1222	C	O4'-C1'-N1	14.06	119.45	108.20
21	A2	1290	U	C1'-O4'-C4'	-14.05	98.66	109.90
21	A2	581	G	O4'-C1'-C2'	14.05	120.24	107.60
27	A0	64	G	O4'-C1'-N9	14.04	119.44	108.20
67	B1	2263	G	O4'-C1'-N9	14.04	119.44	108.20
21	A2	275	A	P-O3'-C3'	14.02	136.53	119.70
67	B1	1840	G	O4'-C1'-C2'	-14.02	91.78	105.80
67	B1	301	G	P-O3'-C3'	14.02	136.52	119.70
68	B3	14	G	O4'-C1'-N9	14.01	119.41	108.20
21	A2	415	C	O4'-C1'-C2'	-14.01	91.79	105.80
67	B1	1547	U	O4'-C1'-N1	14.00	119.40	108.20
67	B1	2356	U	O4'-C1'-N1	14.00	119.40	108.20
42	BT	82	ARG	NE-CZ-NH1	14.00	127.30	120.30
21	A2	1008	U	O4'-C1'-N1	13.99	119.39	108.20
28	B6	63	TYR	CB-CG-CD2	-13.96	112.62	121.00
49	BQ	101	ALA	N-CA-CB	13.96	129.64	110.10
21	A2	362	C	N1-C1'-C2'	13.94	132.12	114.00
67	B1	2234	C	C3'-C2'-C1'	13.93	112.64	101.50
67	B1	1411	G	C1'-O4'-C4'	-13.93	98.76	109.90
21	A2	1323	A	N9-C1'-C2'	13.93	132.10	114.00
67	B1	1796	U	O4'-C1'-N1	13.92	119.33	108.20
21	A2	965	G	C3'-C2'-C1'	13.91	112.63	101.50
67	B1	1991	G	O4'-C1'-N9	13.89	119.31	108.20
21	A2	860	G	O4'-C1'-N9	13.87	119.30	108.20
21	A2	1370	U	O4'-C1'-N1	13.87	119.30	108.20
21	A2	1101	G	N9-C1'-C2'	-13.87	95.97	114.00
67	B1	318	G	O4'-C1'-C2'	13.87	120.08	107.60
21	A2	1291	G	O4'-C1'-N9	13.87	119.29	108.20
21	A2	665	G	C3'-C2'-C1'	-13.86	90.41	101.50
27	A0	67	G	O4'-C1'-N9	13.86	119.29	108.20
67	B1	1601	G	P-O3'-C3'	13.86	136.33	119.70
49	BQ	81	ARG	NE-CZ-NH1	13.86	127.23	120.30
67	B1	170	A	O4'-C1'-N9	13.86	119.28	108.20
21	A2	615	G	C3'-C2'-C1'	-13.83	90.43	101.50
67	B1	1600	G	C1'-O4'-C4'	13.83	120.97	109.90
27	A0	11	C	N1-C1'-C2'	13.83	131.98	114.00
21	A2	70	C	O4'-C1'-N1	13.82	119.26	108.20
21	A2	975	A	O4'-C1'-N9	13.81	119.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1897	G	O4'-C1'-N9	13.80	119.24	108.20
68	B3	30	G	O4'-C1'-N9	13.80	119.24	108.20
67	B1	857	U	C1'-O4'-C4'	-13.80	98.86	109.90
24	AA	46	ARG	NE-CZ-NH2	-13.79	113.40	120.30
67	B1	99	U	P-O3'-C3'	13.78	136.23	119.70
67	B1	406	G	O4'-C1'-N9	13.77	119.22	108.20
67	B1	880	U	N1-C1'-C2'	13.77	131.90	114.00
21	A2	1491	C	C4'-C3'-C2'	-13.76	88.84	102.60
21	A2	176	U	O4'-C1'-N1	13.76	119.21	108.20
2	AK	16	ARG	NE-CZ-NH2	-13.76	113.42	120.30
1	AQ	58	TYR	CB-CG-CD2	13.75	129.25	121.00
11	A1	6	G	O4'-C1'-N9	13.75	119.20	108.20
67	B1	2543	A	P-O3'-C3'	13.75	136.21	119.70
67	B1	2113	G	O4'-C1'-N9	13.75	119.20	108.20
21	A2	250	G	C1'-O4'-C4'	-13.74	98.91	109.90
67	B1	536	G	P-O3'-C3'	13.74	136.19	119.70
21	A2	246	A	P-O3'-C3'	13.73	136.17	119.70
67	B1	1165	C	O4'-C1'-C2'	-13.73	92.07	105.80
67	B1	1876	G	O4'-C1'-N9	13.72	119.18	108.20
21	A2	391	G	O4'-C1'-N9	13.71	119.17	108.20
67	B1	886	G	O4'-C1'-N9	13.71	119.17	108.20
21	A2	1072	C	N1-C1'-C2'	13.71	131.82	114.00
67	B1	1494	U	C1'-O4'-C4'	13.70	120.86	109.90
67	B1	2554	A	O4'-C1'-C2'	-13.71	92.09	105.80
67	B1	2912	G	O4'-C1'-N9	13.71	119.17	108.20
67	B1	344	G	O4'-C1'-N9	13.70	119.16	108.20
67	B1	2411	C	O4'-C1'-N1	13.70	119.16	108.20
21	A2	831	A	O4'-C1'-C2'	-13.69	92.11	105.80
11	A1	46	U	O4'-C1'-N1	13.68	119.15	108.20
67	B1	274	C	N1-C1'-C2'	13.67	131.77	114.00
67	B1	2321	A	O4'-C1'-N9	13.67	119.14	108.20
11	A1	30	G	O4'-C1'-N9	13.66	119.13	108.20
21	A2	1036	G	O4'-C1'-N9	13.66	119.13	108.20
67	B1	883	G	C3'-C2'-C1'	13.66	112.43	101.50
67	B1	2226	G	O4'-C1'-N9	13.66	119.13	108.20
15	AE	3	ARG	NE-CZ-NH1	13.65	127.13	120.30
67	B1	1533	G	O4'-C1'-N9	13.65	119.12	108.20
67	B1	293	G	O4'-C1'-N9	13.64	119.11	108.20
67	B1	800	G	C1'-O4'-C4'	-13.64	98.99	109.90
62	BN	11	TYR	CB-CG-CD2	-13.63	112.82	121.00
67	B1	1864	G	O4'-C1'-N9	13.62	119.10	108.20
67	B1	2382	A	C1'-O4'-C4'	13.62	120.80	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	34	G	O4'-C1'-N9	13.62	119.09	108.20
67	B1	1272	A	O4'-C1'-N9	13.61	119.09	108.20
67	B1	2161	A	O4'-C1'-N9	13.60	119.08	108.20
67	B1	2326	C	N1-C1'-C2'	13.60	131.68	114.00
67	B1	2585	G	O4'-C1'-N9	13.59	119.07	108.20
67	B1	363	G	P-O5'-C5'	13.58	142.63	120.90
67	B1	2651	G	C1'-O4'-C4'	-13.58	99.04	109.90
21	A2	633	C	N1-C1'-C2'	13.58	131.65	114.00
67	B1	1405	G	C1'-O4'-C4'	-13.57	99.05	109.90
24	AA	93	ARG	NE-CZ-NH1	13.56	127.08	120.30
67	B1	473	C	N1-C1'-C2'	13.56	131.63	114.00
67	B1	1154	A	O4'-C1'-N9	13.55	119.04	108.20
67	B1	2607	U	O4'-C1'-N1	13.54	119.04	108.20
67	B1	2458	U	O4'-C1'-N1	13.54	119.03	108.20
21	A2	1483	U	P-O3'-C3'	13.54	135.95	119.70
67	B1	463	A	C1'-O4'-C4'	-13.54	99.07	109.90
28	AV	60	PHE	CB-CG-CD1	13.54	130.28	120.80
67	B1	1045	A	N9-C1'-C2'	-13.54	96.40	114.00
67	B1	1561	G	O4'-C1'-N9	13.54	119.03	108.20
67	B1	1037	C	O4'-C1'-C2'	-13.53	92.27	105.80
67	B1	2674	C	N1-C1'-C2'	13.53	131.59	114.00
21	A2	455	C	C1'-O4'-C4'	-13.53	99.08	109.90
68	B3	102	G	O4'-C1'-N9	13.53	119.02	108.20
21	A2	1154	G	C1'-O4'-C4'	-13.52	99.08	109.90
7	AB	185	ARG	NE-CZ-NH2	-13.52	113.54	120.30
67	B1	1323	U	O4'-C1'-N1	13.50	119.00	108.20
67	B1	936	G	P-O3'-C3'	13.49	135.89	119.70
67	B1	2218	C	N1-C1'-C2'	13.48	131.52	114.00
68	B3	108	G	O4'-C1'-N9	13.47	118.97	108.20
67	B1	2650	G	C1'-O4'-C4'	-13.46	99.13	109.90
21	A2	1050	G	O4'-C1'-N9	13.46	118.97	108.20
67	B1	3036	C	P-O3'-C3'	13.46	135.85	119.70
21	A2	9	U	O4'-C1'-N1	13.44	118.95	108.20
67	B1	2155	C	O4'-C1'-N1	13.44	118.95	108.20
67	B1	2507	C	C1'-O4'-C4'	13.44	120.65	109.90
21	A2	255	G	C1'-O4'-C4'	-13.44	99.15	109.90
21	A2	1245	C	P-O3'-C3'	13.44	135.82	119.70
67	B1	305	G	O4'-C1'-N9	13.43	118.95	108.20
21	A2	161	C	C3'-C2'-C1'	13.43	112.24	101.50
67	B1	2360	G	O4'-C1'-N9	13.43	118.94	108.20
21	A2	381	C	N1-C1'-C2'	13.42	131.44	114.00
67	B1	1835	A	C3'-C2'-C1'	13.42	112.23	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2737	G	O4'-C1'-N9	13.42	118.94	108.20
67	B1	1146	U	O4'-C1'-N1	13.42	118.93	108.20
67	B1	1574	A	O4'-C1'-C2'	-13.41	92.39	105.80
67	B1	2747	C	P-O3'-C3'	13.39	135.77	119.70
21	A2	1426	C	C1'-O4'-C4'	-13.39	99.19	109.90
30	AU	110	PHE	CB-CG-CD1	13.39	130.18	120.80
21	A2	33	U	O4'-C1'-N1	13.39	118.91	108.20
67	B1	617	G	O4'-C1'-N9	13.38	118.91	108.20
67	B1	1170	G	N9-C1'-C2'	-13.38	96.60	114.00
67	B1	43	G	O4'-C1'-N9	13.38	118.90	108.20
67	B1	1033	C	O4'-C1'-C2'	-13.37	92.43	105.80
21	A2	1444	G	O4'-C1'-C2'	13.36	119.62	107.60
21	A2	1493	C	P-O3'-C3'	13.35	135.72	119.70
67	B1	1783	U	C3'-C2'-C1'	13.35	112.18	101.50
67	B1	2702	A	O4'-C1'-C2'	-13.33	92.47	105.80
67	B1	139	G	O4'-C1'-N9	13.33	118.86	108.20
67	B1	1140	C	N1-C1'-C2'	13.33	131.33	114.00
21	A2	338	C	O4'-C1'-N1	13.32	118.86	108.20
40	BE	88	TYR	CB-CG-CD1	13.31	128.99	121.00
67	B1	1420	U	O4'-C1'-N1	13.31	118.85	108.20
67	B1	2997	G	P-O3'-C3'	13.30	135.66	119.70
67	B1	2878	A	O4'-C1'-N9	13.29	118.84	108.20
67	B1	1627	G	O4'-C1'-N9	13.29	118.83	108.20
21	A2	1184	U	P-O3'-C3'	13.29	135.65	119.70
21	A2	439	G	N9-C1'-C2'	13.28	131.27	114.00
67	B1	414	G	O4'-C1'-C2'	-13.28	92.52	105.80
67	B1	1989	G	C1'-O4'-C4'	-13.28	99.28	109.90
67	B1	1367	A	P-O3'-C3'	13.27	135.62	119.70
67	B1	2061	A	C1'-O4'-C4'	13.27	120.51	109.90
67	B1	2968	G	O4'-C1'-N9	13.26	118.81	108.20
21	A2	63	G	O4'-C1'-C2'	13.26	119.53	107.60
67	B1	364	A	P-O3'-C3'	13.26	135.61	119.70
67	B1	1523	A	O4'-C1'-N9	13.26	118.81	108.20
21	A2	65	G	O4'-C1'-N9	13.25	118.80	108.20
67	B1	518	A	P-O3'-C3'	13.25	135.60	119.70
21	A2	114	A	P-O3'-C3'	13.25	135.59	119.70
67	B1	1158	G	N9-C1'-C2'	13.25	131.22	114.00
67	B1	1655	G	C1'-O4'-C4'	-13.24	99.30	109.90
67	B1	2518	G	O4'-C1'-N9	13.23	118.78	108.20
6	AC	140	ARG	NE-CZ-NH2	-13.22	113.69	120.30
67	B1	2139	A	N1-C6-N6	13.22	126.53	118.60
67	B1	2873	G	O4'-C1'-N9	13.22	118.78	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2970	U	O4'-C1'-N1	13.21	118.77	108.20
67	B1	58	G	N9-C1'-C2'	13.20	131.16	114.00
67	B1	545	G	P-O3'-C3'	13.20	135.54	119.70
67	B1	726	G	O4'-C1'-N9	13.20	118.76	108.20
67	B1	2636	C	C3'-C2'-C1'	13.20	112.06	101.50
67	B1	2069	G	N9-C1'-C2'	13.20	131.16	114.00
67	B1	587	A	N1-C6-N6	13.20	126.52	118.60
21	A2	647	G	C1'-O4'-C4'	-13.18	99.35	109.90
67	B1	634	G	O4'-C1'-N9	13.18	118.75	108.20
67	B1	149	G	O4'-C1'-N9	13.18	118.74	108.20
67	B1	1567	C	C4'-C3'-C2'	13.16	115.76	102.60
21	A2	250	G	O4'-C1'-C2'	13.16	119.44	107.60
67	B1	1548	A	O4'-C1'-N9	13.15	118.72	108.20
67	B1	355	G	O4'-C1'-C2'	13.15	119.44	107.60
21	A2	602	G	O4'-C1'-N9	13.14	118.71	108.20
21	A2	813	G	O4'-C1'-N9	13.13	118.71	108.20
67	B1	92	G	N9-C1'-C2'	13.13	131.07	114.00
67	B1	1465	A	O4'-C1'-N9	13.13	118.71	108.20
68	B3	20	G	N9-C1'-C2'	13.13	131.07	114.00
67	B1	2448	A	O4'-C1'-N9	13.13	118.70	108.20
21	A2	1401	U	C1'-O4'-C4'	-13.12	99.40	109.90
21	A2	716	G	C3'-C2'-C1'	-13.11	91.01	101.50
40	BE	88	TYR	CB-CG-CD2	-13.12	113.13	121.00
67	B1	2515	U	P-O5'-C5'	13.11	141.88	120.90
67	B1	2189	C	C3'-C2'-C1'	13.11	111.99	101.50
67	B1	1847	U	O4'-C1'-N1	13.10	118.68	108.20
21	A2	1079	G	N9-C1'-C2'	-13.10	96.97	114.00
21	A2	798	U	O4'-C1'-C2'	-13.09	92.71	105.80
67	B1	2893	U	O4'-C1'-N1	13.09	118.67	108.20
67	B1	1224	A	O4'-C1'-N9	13.09	118.67	108.20
11	A1	43	G	O4'-C1'-N9	13.09	118.67	108.20
21	A2	72	C	C3'-C2'-C1'	13.07	111.96	101.50
67	B1	415	U	O4'-C1'-N1	13.07	118.66	108.20
67	B1	2118	C	O4'-C1'-N1	13.07	118.66	108.20
67	B1	162	G	C1'-O4'-C4'	-13.07	99.44	109.90
67	B1	2939	C	O4'-C1'-N1	13.07	118.66	108.20
67	B1	1642	G	N9-C1'-C2'	-13.07	97.01	114.00
21	A2	226	G	O4'-C1'-N9	13.07	118.65	108.20
67	B1	906	G	O4'-C1'-C2'	13.06	119.36	107.60
67	B1	2987	U	P-O3'-C3'	13.06	135.37	119.70
11	A1	16	C	C3'-C2'-C1'	13.05	111.94	101.50
21	A2	842	U	O4'-C1'-N1	13.05	118.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2368	G	O4'-C1'-N9	13.05	118.64	108.20
21	A2	1486	A	O4'-C1'-N9	13.05	118.64	108.20
21	A2	1116	G	C1'-O4'-C4'	-13.04	99.47	109.90
21	A2	618	G	O4'-C1'-N9	13.03	118.62	108.20
21	A2	1157	G	C1'-O4'-C4'	-13.03	99.47	109.90
67	B1	168	G	O4'-C1'-C2'	13.03	119.33	107.60
67	B1	2796	C	C3'-C2'-C1'	13.03	111.92	101.50
67	B1	1879	U	P-O3'-C3'	13.02	135.33	119.70
67	B1	2754	A	N9-C1'-C2'	13.02	130.93	114.00
21	A2	1024	G	C1'-O4'-C4'	-13.02	99.49	109.90
21	A2	408	C	O4'-C1'-N1	13.00	118.60	108.20
67	B1	562	G	O4'-C1'-N9	13.00	118.60	108.20
67	B1	407	A	C3'-C2'-C1'	12.99	111.90	101.50
67	B1	2371	A	O4'-C1'-N9	12.99	118.59	108.20
67	B1	350	A	O4'-C1'-C2'	-12.99	92.81	105.80
21	A2	150	G	O4'-C1'-N9	12.99	118.59	108.20
21	A2	192	G	C1'-O4'-C4'	-12.99	99.51	109.90
21	A2	574	A	O4'-C1'-N9	12.99	118.59	108.20
67	B1	72	U	O4'-C1'-N1	12.98	118.59	108.20
59	BM	47	ARG	NE-CZ-NH2	-12.98	113.81	120.30
67	B1	1599	A	O4'-C1'-N9	12.98	118.58	108.20
21	A2	99	C	P-O3'-C3'	12.97	135.27	119.70
24	AA	115	TYR	CB-CG-CD2	-12.97	113.22	121.00
67	B1	219	G	P-O5'-C5'	12.96	141.64	120.90
21	A2	1019	A	P-O3'-C3'	12.96	135.25	119.70
67	B1	1767	C	N1-C1'-C2'	12.95	130.83	114.00
21	A2	1127	A	N9-C1'-C2'	12.94	130.82	114.00
21	A2	768	A	O4'-C1'-N9	12.94	118.55	108.20
67	B1	2811	U	O4'-C1'-N1	12.94	118.55	108.20
67	B1	1645	U	O4'-C1'-N1	12.93	118.55	108.20
68	B3	53	A	N9-C1'-C2'	12.93	130.81	114.00
21	A2	183	A	N9-C1'-C2'	12.92	130.80	114.00
67	B1	948	C	O4'-C1'-N1	12.92	118.53	108.20
67	B1	2587	G	C3'-C2'-C1'	12.92	111.83	101.50
60	BS	129	TYR	CB-CG-CD2	12.91	128.75	121.00
67	B1	958	A	O4'-C1'-N9	12.91	118.53	108.20
21	A2	1429	G	O4'-C1'-N9	12.90	118.52	108.20
21	A2	440	C	N1-C1'-C2'	12.90	130.77	114.00
67	B1	234	G	O4'-C1'-N9	12.89	118.52	108.20
21	A2	625	G	O4'-C1'-N9	12.88	118.51	108.20
67	B1	492	A	O4'-C1'-N9	12.88	118.51	108.20
21	A2	1076	G	O4'-C1'-C2'	12.88	119.19	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1453	G	O4'-C1'-C2'	12.88	119.19	107.60
67	B1	1969	C	N1-C1'-C2'	12.88	130.74	114.00
16	AJ	16	ARG	NE-CZ-NH1	12.88	126.74	120.30
21	A2	1120	G	C1'-O4'-C4'	-12.87	99.60	109.90
21	A2	199	A	C3'-C2'-C1'	12.87	111.79	101.50
67	B1	143	C	C3'-C2'-C1'	12.87	111.79	101.50
67	B1	2180	C	C3'-C2'-C1'	12.86	111.79	101.50
67	B1	2948	A	C1'-O4'-C4'	12.86	120.19	109.90
27	A0	8	U	O4'-C1'-N1	12.86	118.49	108.20
67	B1	2628	U	O4'-C1'-N1	12.85	118.48	108.20
68	B3	22	C	O4'-C1'-C2'	-12.85	92.95	105.80
21	A2	475	C	C3'-C2'-C1'	12.84	111.78	101.50
67	B1	957	C	N1-C1'-C2'	12.84	130.70	114.00
31	BY	126	PHE	CB-CG-CD2	12.84	129.79	120.80
21	A2	394	C	P-O5'-C5'	12.84	141.44	120.90
21	A2	964	A	N1-C6-N6	12.84	126.30	118.60
67	B1	2505	A	C3'-C2'-C1'	12.83	111.77	101.50
24	AA	19	TYR	CB-CG-CD1	12.83	128.70	121.00
21	A2	601	G	O4'-C1'-N9	12.83	118.46	108.20
67	B1	1313	G	C3'-C2'-C1'	-12.82	91.24	101.50
67	B1	1290	G	C1'-O4'-C4'	-12.82	99.65	109.90
53	BD	87	ARG	NE-CZ-NH2	-12.81	113.89	120.30
67	B1	1453	G	C1'-O4'-C4'	-12.81	99.65	109.90
21	A2	1341	C	N1-C1'-C2'	12.80	130.64	114.00
20	BG	79	TYR	CB-CG-CD1	12.80	128.68	121.00
67	B1	131	C	O4'-C1'-C2'	-12.79	93.00	105.80
67	B1	955	A	O4'-C1'-N9	12.79	118.44	108.20
67	B1	1246	G	O4'-C1'-N9	12.80	118.44	108.20
67	B1	3040	G	P-O3'-C3'	12.79	135.05	119.70
21	A2	240	U	O4'-C1'-N1	12.79	118.43	108.20
67	B1	1118	A	N9-C1'-C2'	12.79	130.63	114.00
67	B1	1950	G	C1'-O4'-C4'	12.79	120.13	109.90
21	A2	528	G	O4'-C1'-N9	-12.78	97.97	108.20
41	Ba	86	THR	N-CA-CB	12.78	134.58	110.30
67	B1	876	C	C3'-C2'-C1'	12.78	111.72	101.50
21	A2	63	G	C1'-O4'-C4'	-12.77	99.68	109.90
21	A2	266	A	O4'-C1'-N9	12.77	118.42	108.20
27	A0	36	U	O4'-C1'-N1	12.77	118.42	108.20
67	B1	2962	A	O4'-C1'-N9	12.77	118.42	108.20
68	B3	25	A	P-O3'-C3'	12.77	135.02	119.70
67	B1	55	G	O4'-C1'-N9	12.77	118.41	108.20
21	A2	829	U	O4'-C1'-N1	12.77	118.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1251	C	O4'-C1'-N1	12.77	118.41	108.20
42	BT	32	ARG	NE-CZ-NH1	12.77	126.68	120.30
67	B1	2475	G	C1'-O4'-C4'	-12.77	99.69	109.90
21	A2	205	C	N1-C1'-C2'	12.76	130.59	114.00
67	B1	796	C	N1-C1'-C2'	12.76	130.59	114.00
21	A2	671	C	C3'-C2'-C1'	12.76	111.71	101.50
67	B1	2402	A	O4'-C1'-C2'	-12.76	93.04	105.80
67	B1	1995	C	O4'-C1'-N1	12.75	118.40	108.20
67	B1	2011	U	O4'-C1'-N1	12.75	118.40	108.20
67	B1	1600	G	O4'-C1'-N9	12.74	118.39	108.20
21	A2	736	A	C1'-O4'-C4'	12.74	120.09	109.90
67	B1	1229	U	N1-C1'-C2'	12.74	130.56	114.00
23	AT	8	TYR	CB-CG-CD2	-12.73	113.36	121.00
21	A2	516	A	N9-C1'-C2'	12.73	130.55	114.00
67	B1	700	A	N9-C1'-C2'	-12.72	97.46	114.00
67	B1	2573	C	O4'-C1'-N1	12.72	118.38	108.20
67	B1	1277	G	O4'-C1'-N9	12.72	118.38	108.20
67	B1	1975	C	O4'-C1'-N1	12.71	118.37	108.20
67	B1	2779	G	O4'-C1'-N9	12.71	118.37	108.20
67	B1	2957	G	P-O3'-C3'	12.71	134.96	119.70
67	B1	372	A	O4'-C1'-C2'	-12.70	93.10	105.80
67	B1	2432	G	O4'-C1'-N9	12.70	118.36	108.20
28	B6	77	ARG	NE-CZ-NH2	-12.70	113.95	120.30
21	A2	996	A	N1-C6-N6	12.70	126.22	118.60
21	A2	91	G	C1'-O4'-C4'	-12.69	99.75	109.90
21	A2	988	A	N1-C6-N6	12.69	126.22	118.60
67	B1	84	A	N9-C1'-C2'	12.69	130.50	114.00
21	A2	440	C	O4'-C1'-N1	-12.69	98.05	108.20
33	BC	87	ARG	NE-CZ-NH1	12.69	126.64	120.30
67	B1	1542	U	O4'-C1'-N1	12.68	118.35	108.20
67	B1	1574	A	P-O3'-C3'	12.68	134.92	119.70
67	B1	2650	G	O4'-C1'-C2'	12.68	119.01	107.60
21	A2	1338	C	O4'-C1'-N1	12.67	118.34	108.20
67	B1	2678	U	O4'-C1'-N1	12.67	118.33	108.20
68	B3	30	G	C1'-O4'-C4'	12.67	120.03	109.90
67	B1	969	U	O4'-C1'-N1	12.67	118.33	108.20
3	AI	86	PHE	CB-CG-CD2	-12.66	111.94	120.80
21	A2	263	C	C3'-C2'-C1'	12.66	111.63	101.50
67	B1	2586	A	N9-C1'-C2'	-12.66	97.54	114.00
67	B1	693	G	C1'-O4'-C4'	12.66	120.03	109.90
21	A2	259	A	O4'-C1'-N9	12.66	118.33	108.20
21	A2	607	U	O4'-C1'-N1	12.66	118.32	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	891	A	P-O3'-C3'	12.65	134.88	119.70
67	B1	1036	C	P-O3'-C3'	12.65	134.88	119.70
33	BC	263	ARG	NE-CZ-NH1	12.65	126.62	120.30
68	B3	67	U	O4'-C1'-N1	12.65	118.32	108.20
67	B1	408	C	C5'-C4'-C3'	12.65	136.24	116.00
67	B1	2005	A	O4'-C1'-N9	12.65	118.32	108.20
67	B1	706	U	O4'-C1'-N1	12.65	118.32	108.20
67	B1	584	G	O4'-C1'-N9	12.64	118.31	108.20
31	BY	71	ARG	NE-CZ-NH2	-12.64	113.98	120.30
67	B1	1912	A	O4'-C1'-N9	12.64	118.31	108.20
67	B1	1569	A	C3'-C2'-C1'	-12.63	91.40	101.50
51	Bj	1	MET	CG-SD-CE	-12.62	80.00	100.20
67	B1	2914	U	O4'-C1'-N1	12.62	118.29	108.20
21	A2	199	A	N9-C1'-C2'	12.61	130.40	114.00
67	B1	489	G	O4'-C1'-N9	12.61	118.29	108.20
67	B1	1299	C	C3'-C2'-C1'	12.61	111.59	101.50
67	B1	1490	G	O4'-C1'-N9	12.61	118.28	108.20
67	B1	1671	A	N9-C1'-C2'	-12.60	97.62	114.00
24	AA	146	TYR	CB-CG-CD2	12.60	128.56	121.00
21	A2	1345	G	O4'-C1'-N9	12.60	118.28	108.20
38	Bb	15	ARG	NE-CZ-NH2	-12.60	114.00	120.30
67	B1	435	G	O4'-C1'-C2'	12.60	118.94	107.60
21	A2	668	G	O4'-C1'-N9	12.59	118.27	108.20
21	A2	756	A	O4'-C1'-N9	12.59	118.27	108.20
67	B1	1919	A	N1-C6-N6	12.59	126.15	118.60
21	A2	241	U	O4'-C1'-N1	12.59	118.27	108.20
67	B1	1003	C	P-O3'-C3'	12.59	134.80	119.70
67	B1	511	A	O4'-C1'-N9	12.58	118.26	108.20
67	B1	821	U	O4'-C1'-N1	12.58	118.26	108.20
67	B1	1786	G	O4'-C1'-N9	12.58	118.26	108.20
21	A2	184	G	O4'-C1'-N9	12.57	118.26	108.20
67	B1	1817	C	N1-C1'-C2'	12.57	130.34	114.00
21	A2	1249	A	O4'-C1'-N9	12.57	118.26	108.20
67	B1	773	U	O4'-C1'-N1	12.57	118.25	108.20
21	A2	1029	G	O4'-C1'-N9	12.57	118.25	108.20
21	A2	589	U	O4'-C1'-N1	12.56	118.25	108.20
67	B1	1136	G	O4'-C1'-N9	12.56	118.25	108.20
21	A2	68	G	C1'-O4'-C4'	-12.56	99.85	109.90
67	B1	1961	G	N9-C1'-C2'	-12.56	97.67	114.00
67	B1	2185	A	O4'-C1'-N9	12.56	118.25	108.20
21	A2	136	A	N9-C1'-C2'	12.55	130.32	114.00
67	B1	693	G	O4'-C1'-N9	12.55	118.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2594	U	N1-C1'-C2'	12.55	130.31	114.00
67	B1	1491	U	O4'-C1'-N1	12.55	118.24	108.20
21	A2	42	G	P-O3'-C3'	12.54	134.75	119.70
21	A2	959	G	P-O3'-C3'	12.53	134.73	119.70
67	B1	1866	G	O4'-C1'-N9	12.53	118.22	108.20
31	BY	27	ARG	NE-CZ-NH1	12.53	126.56	120.30
67	B1	2507	C	C3'-C2'-C1'	12.53	111.52	101.50
21	A2	531	G	O4'-C1'-C2'	12.52	118.87	107.60
21	A2	765	U	C1'-O4'-C4'	12.52	119.92	109.90
67	B1	175	G	O4'-C1'-N9	12.52	118.22	108.20
67	B1	1708	U	O4'-C1'-N1	12.52	118.22	108.20
21	A2	1444	G	C1'-O4'-C4'	-12.52	99.89	109.90
67	B1	1724	A	O4'-C1'-N9	12.52	118.21	108.20
67	B1	2938	G	O4'-C1'-N9	12.50	118.20	108.20
21	A2	304	C	N1-C1'-C2'	12.50	130.25	114.00
21	A2	709	G	C1'-O4'-C4'	12.50	119.90	109.90
21	A2	1340	U	P-O3'-C3'	12.50	134.70	119.70
67	B1	1565	G	C3'-C2'-C1'	12.49	111.50	101.50
67	B1	2882	G	O4'-C1'-N9	12.49	118.19	108.20
21	A2	1317	G	C1'-O4'-C4'	-12.49	99.91	109.90
24	AA	46	ARG	NE-CZ-NH1	12.49	126.55	120.30
67	B1	2847	G	O4'-C1'-N9	12.48	118.19	108.20
67	B1	1283	G	O4'-C1'-N9	12.48	118.18	108.20
21	A2	1114	G	O4'-C1'-N9	12.48	118.18	108.20
67	B1	310	C	O4'-C1'-N1	12.47	118.18	108.20
57	BZ	51	TYR	CB-CG-CD1	-12.47	113.52	121.00
54	BF	88	TYR	CB-CG-CD1	12.47	128.48	121.00
21	A2	520	G	O4'-C1'-N9	12.46	118.17	108.20
21	A2	1162	G	C1'-O4'-C4'	-12.46	99.93	109.90
33	BC	104	PHE	CB-CG-CD2	-12.46	112.08	120.80
21	A2	765	U	O4'-C1'-C2'	-12.46	93.34	105.80
67	B1	1077	G	O4'-C1'-N9	12.45	118.16	108.20
15	AE	55	TYR	CB-CG-CD1	12.45	128.47	121.00
67	B1	2921	U	O4'-C1'-N1	12.45	118.16	108.20
67	B1	2554	A	O4'-C1'-N9	12.44	118.15	108.20
7	AB	33	TYR	CB-CG-CD1	12.43	128.46	121.00
21	A2	989	C	O4'-C1'-N1	12.43	118.14	108.20
21	A2	978	G	N9-C1'-C2'	12.43	130.16	114.00
21	A2	832	G	C1'-O4'-C4'	-12.42	99.96	109.90
67	B1	1575	G	O4'-C1'-N9	12.41	118.13	108.20
21	A2	348	C	N1-C1'-C2'	12.41	130.13	114.00
21	A2	1477	U	O4'-C1'-N1	12.41	118.13	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	119	U	C3'-C2'-C1'	12.40	111.42	101.50
67	B1	1017	A	N1-C6-N6	12.40	126.04	118.60
67	B1	1629	G	O4'-C1'-N9	12.40	118.12	108.20
67	B1	1898	A	C3'-C2'-C1'	12.40	111.42	101.50
21	A2	61	A	N9-C1'-C2'	-12.39	97.89	114.00
67	B1	1898	A	O4'-C1'-C2'	-12.39	93.41	105.80
67	B1	1087	G	O4'-C1'-N9	12.38	118.11	108.20
67	B1	3027	C	N1-C1'-C2'	12.38	130.10	114.00
21	A2	762	G	C1'-O4'-C4'	12.38	119.80	109.90
21	A2	777	G	O4'-C1'-N9	12.38	118.10	108.20
67	B1	1655	G	O4'-C1'-C2'	12.38	118.74	107.60
21	A2	821	G	O4'-C1'-N9	12.38	118.10	108.20
67	B1	1403	C	C3'-C2'-C1'	12.37	111.40	101.50
21	A2	966	G	C1'-O4'-C4'	12.37	119.80	109.90
21	A2	1053	A	O4'-C1'-N9	-12.37	98.30	108.20
67	B1	14	A	C3'-C2'-C1'	12.37	111.40	101.50
67	B1	1337	G	O4'-C1'-N9	12.37	118.10	108.20
67	B1	1956	G	P-O3'-C3'	12.37	134.54	119.70
45	Bi	23	ARG	NE-CZ-NH2	-12.37	114.12	120.30
67	B1	717	A	O4'-C1'-N9	12.37	118.09	108.20
21	A2	26	A	O4'-C1'-N9	-12.37	98.31	108.20
67	B1	564	U	O4'-C1'-N1	12.36	118.09	108.20
21	A2	1038	C	N1-C1'-C2'	12.36	130.07	114.00
67	B1	724	G	O4'-C1'-N9	12.36	118.09	108.20
67	B1	1773	C	C3'-C2'-C1'	12.36	111.39	101.50
21	A2	142	G	C3'-C2'-C1'	-12.36	91.61	101.50
21	A2	846	G	O4'-C1'-N9	12.36	118.09	108.20
67	B1	582	A	C3'-C2'-C1'	12.36	111.39	101.50
21	A2	141	C	O4'-C1'-N1	12.35	118.08	108.20
21	A2	562	A	O4'-C1'-N9	12.35	118.08	108.20
21	A2	1480	G	O4'-C1'-N9	12.35	118.08	108.20
21	A2	1183	C	C3'-C2'-C1'	12.34	111.38	101.50
67	B1	136	U	O4'-C1'-N1	12.34	118.08	108.20
21	A2	1205	G	O4'-C1'-N9	12.34	118.07	108.20
21	A2	1333	G	C1'-O4'-C4'	12.34	119.77	109.90
67	B1	827	G	O4'-C1'-C2'	12.34	118.70	107.60
67	B1	2299	G	O4'-C1'-N9	12.34	118.07	108.20
67	B1	2554	A	C1'-O4'-C4'	12.33	119.76	109.90
67	B1	1033	C	C1'-O4'-C4'	12.33	119.76	109.90
67	B1	1642	G	P-O3'-C3'	12.32	134.49	119.70
67	B1	1043	U	O4'-C1'-N1	12.32	118.06	108.20
67	B1	241	C	C1'-O4'-C4'	-12.32	100.04	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1267	A	O4'-C1'-N9	12.32	118.06	108.20
67	B1	2615	U	O4'-C1'-N1	12.31	118.05	108.20
27	A0	41	C	O4'-C1'-C2'	-12.31	93.49	105.80
68	B3	47	G	O4'-C1'-C2'	12.31	118.68	107.60
67	B1	2209	U	O4'-C1'-N1	12.30	118.04	108.20
67	B1	1072	U	O4'-C1'-C2'	-12.30	93.50	105.80
67	B1	1990	U	P-O3'-C3'	12.30	134.46	119.70
67	B1	2165	A	P-O3'-C3'	12.30	134.46	119.70
67	B1	1938	G	O4'-C1'-N9	12.29	118.03	108.20
21	A2	99	C	C3'-C2'-C1'	12.28	111.32	101.50
67	B1	2257	A	O4'-C1'-N9	12.28	118.02	108.20
13	AX	71	ARG	NE-CZ-NH2	-12.28	114.16	120.30
67	B1	1923	A	N9-C1'-C2'	-12.27	98.05	114.00
67	B1	319	A	O4'-C1'-N9	12.27	118.02	108.20
21	A2	1440	G	O4'-C1'-N9	12.27	118.01	108.20
67	B1	1324	G	C1'-O4'-C4'	12.26	119.71	109.90
68	B3	79	U	C1'-O4'-C4'	12.26	119.71	109.90
67	B1	1387	G	O4'-C1'-N9	12.26	118.01	108.20
67	B1	2273	U	P-O5'-C5'	12.26	140.51	120.90
67	B1	2949	G	C1'-O4'-C4'	12.26	119.70	109.90
21	A2	531	G	C1'-O4'-C4'	-12.25	100.10	109.90
25	AH	79	TYR	CA-CB-CG	12.25	136.68	113.40
67	B1	12	C	P-O3'-C3'	12.25	134.40	119.70
67	B1	427	G	P-O3'-C3'	12.25	134.40	119.70
21	A2	977	G	P-O3'-C3'	12.24	134.39	119.70
67	B1	586	A	N1-C6-N6	12.24	125.94	118.60
21	A2	1139	A	O4'-C1'-N9	12.24	117.99	108.20
67	B1	2250	G	P-O3'-C3'	12.24	134.39	119.70
33	BC	125	TYR	CB-CA-C	12.24	134.88	110.40
67	B1	2941	A	P-O3'-C3'	12.24	134.39	119.70
67	B1	1660	A	N1-C6-N6	12.24	125.94	118.60
67	B1	2720	U	O4'-C1'-N1	12.24	117.99	108.20
68	B3	86	C	O4'-C1'-N1	12.24	117.99	108.20
21	A2	1018	C	C3'-C2'-C1'	12.23	111.29	101.50
21	A2	1217	C	P-O3'-C3'	12.23	134.38	119.70
67	B1	50	C	O4'-C1'-C2'	-12.23	93.57	105.80
67	B1	2736	G	O4'-C1'-N9	12.22	117.98	108.20
67	B1	84	A	P-O5'-C5'	-12.21	101.36	120.90
67	B1	351	C	O4'-C1'-C2'	-12.21	93.58	105.80
67	B1	248	C	C3'-C2'-C1'	12.21	111.27	101.50
67	B1	999	A	O4'-C1'-N9	12.21	117.97	108.20
67	B1	502	G	O4'-C1'-N9	12.21	117.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	619	A	O4'-C1'-N9	12.20	117.96	108.20
21	A2	664	G	O4'-C1'-N9	12.20	117.96	108.20
62	BN	4	ARG	NE-CZ-NH2	-12.20	114.20	120.30
67	B1	2437	G	O4'-C1'-N9	12.20	117.96	108.20
67	B1	2279	G	O4'-C1'-C2'	12.20	118.58	107.60
67	B1	365	G	O4'-C1'-N9	12.20	117.96	108.20
67	B1	2892	A	P-O3'-C3'	12.19	134.33	119.70
67	B1	787	G	N9-C1'-C2'	12.19	129.85	114.00
67	B1	2826	U	O4'-C1'-C2'	-12.19	93.61	105.80
21	A2	805	C	C1'-O4'-C4'	-12.19	100.15	109.90
21	A2	1458	A	N9-C1'-C2'	-12.18	98.17	114.00
67	B1	1839	U	O4'-C1'-N1	12.18	117.94	108.20
67	B1	94	A	N9-C1'-C2'	-12.18	98.17	114.00
67	B1	919	G	C1'-O4'-C4'	12.18	119.64	109.90
67	B1	2003	C	C3'-C2'-C1'	12.18	111.24	101.50
67	B1	241	C	N1-C1'-C2'	12.17	129.82	114.00
21	A2	147	A	O4'-C1'-C2'	-12.16	93.64	105.80
21	A2	1448	A	N9-C1'-C2'	-12.16	98.19	114.00
67	B1	3014	U	C1'-O4'-C4'	12.16	119.63	109.90
27	A0	40	C	O4'-C1'-C2'	-12.16	93.64	105.80
27	A0	6	C	C1'-O4'-C4'	-12.16	100.17	109.90
67	B1	481	G	O4'-C1'-N9	12.16	117.93	108.20
67	B1	700	A	C1'-O4'-C4'	12.16	119.63	109.90
67	B1	1709	C	N1-C1'-C2'	12.16	129.81	114.00
67	B1	362	A	N9-C1'-C2'	-12.16	98.19	114.00
67	B1	1396	A	C1'-O4'-C4'	12.16	119.63	109.90
21	A2	1200	U	N1-C1'-C2'	-12.16	98.20	114.00
67	B1	2264	G	O4'-C1'-N9	12.15	117.92	108.20
67	B1	2011	U	N1-C1'-C2'	-12.15	98.21	114.00
21	A2	1256	C	O4'-C1'-N1	12.14	117.92	108.20
67	B1	165	G	N9-C1'-C2'	12.14	129.79	114.00
67	B1	1151	G	O4'-C1'-N9	12.14	117.91	108.20
67	B1	140	C	C3'-C2'-C1'	12.14	111.21	101.50
67	B1	1039	C	C3'-C2'-C1'	12.13	111.21	101.50
11	A1	71	C	O4'-C1'-N1	12.13	117.91	108.20
35	BL	9	ARG	CB-CA-C	12.13	134.66	110.40
21	A2	422	U	P-O3'-C3'	12.13	134.25	119.70
67	B1	511	A	N9-C1'-C2'	-12.13	98.24	114.00
21	A2	306	C	O4'-C1'-C2'	-12.12	93.68	105.80
67	B1	1572	C	P-O3'-C3'	12.12	134.24	119.70
67	B1	2043	A	O4'-C1'-C2'	-12.12	93.68	105.80
6	AC	57	ARG	NE-CZ-NH2	-12.12	114.24	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1088	U	P-O3'-C3'	-12.11	105.17	119.70
67	B1	359	C	C3'-C2'-C1'	12.11	111.19	101.50
23	AT	7	ARG	NE-CZ-NH2	-12.11	114.25	120.30
67	B1	1049	U	O4'-C1'-N1	12.11	117.89	108.20
67	B1	181	U	C1'-O4'-C4'	12.10	119.58	109.90
21	A2	698	A	C1'-O4'-C4'	-12.10	100.22	109.90
67	B1	350	A	C1'-O4'-C4'	12.10	119.58	109.90
68	B3	33	U	O4'-C1'-N1	12.10	117.88	108.20
21	A2	126	G	P-O3'-C3'	12.10	134.22	119.70
21	A2	657	A	C1'-O4'-C4'	12.09	119.58	109.90
67	B1	629	G	N9-C1'-C2'	-12.09	98.28	114.00
21	A2	353	G	O4'-C1'-N9	12.09	117.87	108.20
67	B1	156	A	O4'-C1'-N9	12.08	117.87	108.20
21	A2	157	A	O4'-C1'-C2'	-12.08	93.72	105.80
67	B1	135	U	C3'-C2'-C1'	12.08	111.16	101.50
24	AA	93	ARG	NE-CZ-NH2	-12.08	114.26	120.30
67	B1	2630	C	C1'-O4'-C4'	-12.08	100.24	109.90
21	A2	615	G	C1'-O4'-C4'	-12.07	100.24	109.90
67	B1	187	C	N1-C1'-C2'	12.07	129.69	114.00
67	B1	2382	A	N9-C1'-C2'	-12.07	98.31	114.00
67	B1	715	G	O4'-C1'-N9	-12.06	98.55	108.20
30	AU	110	PHE	CB-CG-CD2	-12.06	112.36	120.80
67	B1	2007	C	O4'-C1'-N1	12.06	117.84	108.20
67	B1	2308	C	O4'-C1'-C2'	-12.05	93.75	105.80
67	B1	817	G	C3'-C2'-C1'	12.05	111.14	101.50
67	B1	2713	A	C1'-O4'-C4'	12.05	119.54	109.90
67	B1	332	A	N1-C6-N6	12.05	125.83	118.60
21	A2	1253	G	C1'-O4'-C4'	-12.04	100.26	109.90
67	B1	1357	G	O4'-C1'-N9	12.04	117.83	108.20
67	B1	1920	A	C3'-C2'-C1'	12.04	111.13	101.50
67	B1	749	G	O4'-C1'-N9	12.03	117.82	108.20
67	B1	2504	U	O4'-C1'-N1	12.03	117.82	108.20
67	B1	2307	C	O4'-C1'-N1	12.02	117.82	108.20
21	A2	32	A	N9-C1'-C2'	-12.02	98.38	114.00
67	B1	1953	U	N1-C1'-C2'	12.02	129.63	114.00
67	B1	2434	A	N9-C1'-C2'	12.02	129.62	114.00
67	B1	514	U	O4'-C1'-N1	12.01	117.81	108.20
34	B5	47	ARG	O-C-N	-12.01	103.48	122.70
52	BB	35	TYR	CB-CG-CD2	-12.01	113.80	121.00
67	B1	243	G	C1'-O4'-C4'	12.01	119.51	109.90
67	B1	2397	C	O4'-C1'-N1	12.01	117.81	108.20
17	AO	115	TYR	CB-CG-CD1	12.01	128.20	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2487	G	O4'-C1'-N9	12.00	117.80	108.20
21	A2	553	C	C3'-C2'-C1'	12.00	111.10	101.50
21	A2	1269	G	O4'-C1'-C2'	-11.99	93.81	105.80
27	A0	62	C	O4'-C1'-C2'	-11.99	93.81	105.80
59	BM	65	ARG	NE-CZ-NH2	-11.99	114.30	120.30
21	A2	1402	C	O4'-C1'-N1	11.99	117.79	108.20
67	B1	1539	U	O4'-C1'-N1	11.99	117.79	108.20
67	B1	1726	A	O4'-C1'-N9	11.99	117.79	108.20
67	B1	1157	U	O4'-C1'-N1	11.99	117.79	108.20
21	A2	324	C	O4'-C1'-N1	11.98	117.79	108.20
21	A2	702	G	N9-C1'-C2'	11.98	129.58	114.00
67	B1	64	A	O4'-C1'-N9	11.98	117.79	108.20
67	B1	1290	G	O4'-C1'-C2'	11.98	118.38	107.60
67	B1	1218	C	C1'-O4'-C4'	-11.98	100.32	109.90
67	B1	2020	G	C1'-O4'-C4'	-11.98	100.32	109.90
21	A2	1086	C	N1-C1'-C2'	11.97	129.57	114.00
67	B1	1921	U	N1-C1'-C2'	11.97	129.56	114.00
67	B1	434	G	C1'-O4'-C4'	-11.97	100.33	109.90
67	B1	355	G	C1'-O4'-C4'	-11.96	100.33	109.90
67	B1	366	G	O4'-C1'-N9	-11.96	98.63	108.20
67	B1	1843	C	C1'-O4'-C4'	-11.97	100.33	109.90
21	A2	175	G	C3'-C2'-C1'	-11.96	91.94	101.50
67	B1	2172	G	O4'-C1'-N9	11.95	117.76	108.20
67	B1	636	G	N9-C1'-C2'	11.95	129.53	114.00
67	B1	761	U	O4'-C1'-N1	11.95	117.76	108.20
68	B3	79	U	O4'-C1'-N1	11.94	117.75	108.20
67	B1	1592	U	C1'-O4'-C4'	-11.94	100.35	109.90
21	A2	634	C	C1'-O4'-C4'	-11.93	100.36	109.90
24	AA	19	TYR	CB-CG-CD2	-11.93	113.84	121.00
67	B1	2470	U	O4'-C1'-N1	11.93	117.74	108.20
21	A2	1142	G	P-O3'-C3'	11.92	134.01	119.70
21	A2	1116	G	O4'-C1'-C2'	11.92	118.33	107.60
67	B1	976	C	C3'-C2'-C1'	11.92	111.04	101.50
67	B1	1570	C	C4'-C3'-C2'	11.92	114.52	102.60
67	B1	719	C	N1-C1'-C2'	11.92	129.49	114.00
67	B1	1359	C	O4'-C1'-N1	11.92	117.73	108.20
21	A2	292	U	N1-C1'-C2'	11.91	129.49	114.00
21	A2	371	U	O4'-C1'-N1	11.90	117.72	108.20
67	B1	48	G	N9-C1'-C2'	-11.90	98.53	114.00
67	B1	324	C	P-O3'-C3'	11.90	133.98	119.70
67	B1	1319	U	O4'-C1'-N1	11.90	117.72	108.20
67	B1	2088	G	C1'-O4'-C4'	-11.90	100.38	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	BP	12	ARG	NE-CZ-NH2	-11.90	114.35	120.30
67	B1	2585	G	C3'-C2'-C1'	-11.90	91.98	101.50
68	B3	43	C	C3'-C2'-C1'	11.90	111.02	101.50
21	A2	1495	U	O4'-C1'-N1	11.89	117.72	108.20
67	B1	1244	C	C1'-O4'-C4'	11.89	119.42	109.90
67	B1	1482	G	O4'-C1'-N9	11.89	117.71	108.20
67	B1	2654	C	N1-C1'-C2'	11.88	129.45	114.00
21	A2	1439	G	C1'-O4'-C4'	11.88	119.41	109.90
68	B3	31	U	C3'-C2'-C1'	11.88	111.00	101.50
67	B1	716	U	P-O3'-C3'	11.88	133.95	119.70
15	AE	229	TYR	CB-CG-CD2	-11.87	113.88	121.00
21	A2	407	G	P-O5'-C5'	11.87	139.89	120.90
67	B1	590	A	N1-C6-N6	11.87	125.72	118.60
11	A1	41	C	N1-C1'-C2'	11.85	129.41	114.00
60	BS	154	ARG	NE-CZ-NH2	-11.85	114.37	120.30
67	B1	266	A	N9-C1'-C2'	11.85	129.41	114.00
67	B1	2033	G	C3'-C2'-C1'	11.85	110.98	101.50
67	B1	2338	A	P-O3'-C3'	11.85	133.92	119.70
67	B1	2056	A	O4'-C1'-N9	11.85	117.68	108.20
67	B1	515	G	O4'-C1'-N9	11.84	117.67	108.20
38	Bb	117	ARG	NE-CZ-NH2	-11.84	114.38	120.30
67	B1	985	A	N1-C6-N6	11.83	125.70	118.60
21	A2	959	G	O4'-C1'-N9	11.83	117.66	108.20
21	A2	306	C	C3'-C2'-C1'	11.82	110.96	101.50
21	A2	454	G	O4'-C1'-N9	11.82	117.66	108.20
21	A2	178	C	O4'-C1'-N1	11.82	117.66	108.20
21	A2	961	U	OP1-P-O3'	-11.82	79.19	105.20
67	B1	366	G	C1'-O4'-C4'	-11.82	100.44	109.90
67	B1	768	C	N1-C1'-C2'	11.82	129.36	114.00
67	B1	847	A	C1'-O4'-C4'	11.81	119.35	109.90
21	A2	961	U	O3'-P-O5'	11.81	126.44	104.00
21	A2	1282	C	C3'-C2'-C1'	11.81	110.95	101.50
67	B1	115	C	N1-C1'-C2'	11.80	129.34	114.00
67	B1	549	G	O4'-C1'-N9	11.80	117.64	108.20
67	B1	1630	U	O4'-C1'-N1	11.80	117.64	108.20
68	B3	93	G	O4'-C1'-C2'	11.80	118.22	107.60
21	A2	138	C	C3'-C2'-C1'	11.80	110.94	101.50
67	B1	1880	A	N1-C6-N6	11.80	125.68	118.60
67	B1	1396	A	O4'-C1'-C2'	-11.79	94.01	105.80
67	B1	1200	A	N9-C1'-C2'	-11.79	98.68	114.00
21	A2	486	A	C3'-C2'-C1'	11.79	110.93	101.50
67	B1	899	A	P-O3'-C3'	11.79	133.84	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1860	A	O4'-C1'-N9	11.78	117.63	108.20
67	B1	946	U	O4'-C1'-N1	11.78	117.62	108.20
21	A2	1398	U	O4'-C1'-N1	11.78	117.62	108.20
21	A2	450	A	N1-C6-N6	11.78	125.67	118.60
21	A2	963	A	P-O3'-C3'	11.78	133.83	119.70
67	B1	318	G	C1'-O4'-C4'	-11.78	100.48	109.90
67	B1	358	C	N1-C1'-C2'	11.77	129.30	114.00
67	B1	1577	C	O4'-C1'-N1	11.77	117.61	108.20
67	B1	2235	G	N9-C1'-C2'	11.77	129.30	114.00
67	B1	9	A	N1-C6-N6	11.77	125.66	118.60
21	A2	1319	C	O4'-C1'-N1	11.76	117.61	108.20
67	B1	1348	G	C3'-C2'-C1'	-11.76	92.09	101.50
67	B1	1601	G	O4'-C1'-N9	11.76	117.61	108.20
21	A2	239	A	O4'-C1'-N9	-11.76	98.79	108.20
39	Be	8	PHE	CB-CG-CD2	-11.76	112.57	120.80
21	A2	1391	U	O4'-C1'-N1	11.75	117.60	108.20
11	A1	25	G	C3'-C2'-C1'	11.75	110.90	101.50
62	BN	113	ARG	NE-CZ-NH2	11.75	126.17	120.30
67	B1	2006	C	C3'-C2'-C1'	11.75	110.90	101.50
67	B1	2852	U	O4'-C1'-N1	11.74	117.60	108.20
67	B1	2879	G	N9-C1'-C2'	11.74	129.27	114.00
67	B1	317	A	N1-C6-N6	11.74	125.64	118.60
21	A2	529	C	O4'-C1'-C2'	-11.74	94.06	105.80
37	BU	50	ASP	CB-CG-OD2	-11.74	107.74	118.30
67	B1	1697	G	C1'-O4'-C4'	11.74	119.29	109.90
21	A2	748	A	O4'-C1'-N9	11.73	117.59	108.20
67	B1	1870	G	O4'-C1'-N9	11.73	117.59	108.20
67	B1	1779	C	N1-C1'-C2'	11.73	129.25	114.00
53	BD	158	ARG	NE-CZ-NH1	11.72	126.16	120.30
21	A2	223	G	O4'-C1'-N9	11.72	117.58	108.20
21	A2	765	U	C3'-C2'-C1'	11.72	110.87	101.50
67	B1	634	G	N9-C1'-C2'	-11.72	98.77	114.00
67	B1	2240	G	O4'-C1'-N9	11.72	117.57	108.20
67	B1	2963	G	N9-C1'-C2'	-11.72	98.77	114.00
21	A2	30	C	C3'-C2'-C1'	11.71	110.87	101.50
21	A2	1458	A	P-O3'-C3'	11.71	133.75	119.70
21	A2	300	G	O4'-C1'-N9	11.71	117.56	108.20
67	B1	408	C	C3'-C2'-C1'	11.71	110.87	101.50
67	B1	1042	G	P-O5'-C5'	11.71	139.63	120.90
21	A2	1424	G	C1'-O4'-C4'	-11.70	100.54	109.90
21	A2	14	C	O4'-C1'-N1	11.70	117.56	108.20
21	A2	78	G	C1'-O4'-C4'	-11.70	100.54	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	700	A	O4'-C1'-C2'	-11.70	94.10	105.80
67	B1	1376	U	O4'-C1'-N1	11.70	117.56	108.20
67	B1	1006	A	N1-C6-N6	11.70	125.62	118.60
21	A2	975	A	P-O3'-C3'	11.70	133.73	119.70
67	B1	471	U	P-O3'-C3'	11.70	133.74	119.70
67	B1	325	G	C3'-C2'-C1'	11.69	110.86	101.50
67	B1	428	A	C3'-C2'-C1'	11.69	110.86	101.50
67	B1	1042	G	P-O3'-C3'	11.69	133.73	119.70
17	AO	111	ARG	NE-CZ-NH1	11.69	126.14	120.30
21	A2	562	A	N9-C1'-C2'	-11.69	98.81	114.00
67	B1	1661	A	N1-C6-N6	11.68	125.61	118.60
21	A2	1335	A	C3'-C2'-C1'	11.68	110.84	101.50
67	B1	532	G	O4'-C1'-N9	11.68	117.54	108.20
52	BB	60	ARG	NE-CZ-NH1	11.66	126.13	120.30
21	A2	1082	A	O4'-C1'-C2'	-11.66	94.14	105.80
21	A2	1242	C	N1-C1'-C2'	11.66	129.16	114.00
67	B1	1336	G	C1'-O4'-C4'	11.66	119.23	109.90
21	A2	418	G	O4'-C1'-N9	11.66	117.53	108.20
21	A2	255	G	O4'-C1'-C2'	11.65	118.09	107.60
16	AJ	113	ARG	NE-CZ-NH1	-11.65	114.47	120.30
57	BZ	51	TYR	CB-CG-CD2	11.65	127.99	121.00
67	B1	2386	U	N1-C1'-C2'	11.65	129.15	114.00
21	A2	152	G	C3'-C2'-C1'	-11.65	92.18	101.50
67	B1	537	U	C1'-O4'-C4'	-11.65	100.58	109.90
67	B1	1567	C	O4'-C1'-N1	-11.65	98.88	108.20
27	A0	58	A	O4'-C1'-C2'	-11.65	94.15	105.80
67	B1	815	U	O4'-C1'-N1	11.65	117.52	108.20
67	B1	2294	A	O4'-C1'-C2'	-11.65	94.15	105.80
67	B1	2510	A	C1'-O4'-C4'	-11.65	100.58	109.90
67	B1	673	A	O4'-C1'-N9	11.64	117.52	108.20
67	B1	1140	C	C1'-O4'-C4'	-11.64	100.58	109.90
67	B1	1811	G	C3'-C2'-C1'	-11.64	92.19	101.50
67	B1	2671	C	C3'-C2'-C1'	11.64	110.81	101.50
14	AM	58	TYR	CB-CG-CD1	11.64	127.98	121.00
67	B1	1994	G	O4'-C1'-N9	11.63	117.50	108.20
21	A2	1340	U	O4'-C1'-N1	11.62	117.50	108.20
67	B1	953	G	C1'-O4'-C4'	11.61	119.19	109.90
21	A2	88	G	O4'-C1'-N9	-11.61	98.91	108.20
67	B1	1093	G	N9-C1'-C2'	-11.61	98.90	114.00
21	A2	757	G	O4'-C1'-C2'	11.61	118.05	107.60
37	BU	75	ARG	NE-CZ-NH2	-11.61	114.50	120.30
67	B1	144	A	N1-C6-N6	11.61	125.57	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1324	G	O4'-C1'-N9	11.61	117.48	108.20
67	B1	1715	G	O4'-C1'-N9	11.60	117.48	108.20
21	A2	709	G	N9-C1'-C2'	-11.60	98.92	114.00
67	B1	520	G	O4'-C1'-C2'	-11.60	94.20	105.80
67	B1	2302	C	O4'-C1'-N1	11.60	117.48	108.20
67	B1	367	G	O4'-C1'-N9	11.60	117.48	108.20
15	AE	126	ARG	NE-CZ-NH1	11.59	126.10	120.30
21	A2	891	A	N1-C6-N6	11.59	125.56	118.60
67	B1	2636	C	N1-C1'-C2'	11.59	129.07	114.00
27	A0	25	C	O4'-C1'-C2'	-11.59	94.21	105.80
67	B1	1614	U	O4'-C1'-N1	11.59	117.47	108.20
21	A2	1213	G	N9-C1'-C2'	11.59	129.07	114.00
67	B1	2251	G	O4'-C1'-C2'	11.59	118.03	107.60
21	A2	424	U	C1'-O4'-C4'	-11.59	100.63	109.90
21	A2	103	A	P-O3'-C3'	11.58	133.60	119.70
21	A2	722	G	O4'-C1'-N9	11.58	117.47	108.20
67	B1	1553	G	P-O3'-C3'	11.58	133.60	119.70
67	B1	2272	G	C1'-O4'-C4'	-11.58	100.63	109.90
67	B1	2734	C	O4'-C1'-N1	11.58	117.47	108.20
68	B3	66	A	O4'-C1'-N9	11.58	117.47	108.20
21	A2	356	G	C1'-O4'-C4'	-11.58	100.64	109.90
67	B1	1642	G	O4'-C1'-N9	11.58	117.46	108.20
67	B1	1764	G	P-O3'-C3'	11.57	133.59	119.70
21	A2	216	G	O4'-C1'-N9	11.57	117.46	108.20
33	BC	263	ARG	NE-CZ-NH2	-11.57	114.51	120.30
21	A2	288	G	O4'-C1'-N9	11.57	117.46	108.20
67	B1	1881	A	N1-C6-N6	11.57	125.54	118.60
67	B1	595	C	O4'-C1'-N1	11.56	117.45	108.20
21	A2	1048	G	O4'-C1'-N9	11.56	117.45	108.20
67	B1	1822	G	N9-C1'-C2'	-11.56	98.97	114.00
21	A2	201	G	P-O3'-C3'	11.56	133.57	119.70
59	BM	8	ARG	NE-CZ-NH2	-11.56	114.52	120.30
10	AD	25	ARG	NE-CZ-NH1	11.56	126.08	120.30
40	BE	145	ARG	NE-CZ-NH1	-11.56	114.52	120.30
67	B1	2764	G	C1'-O4'-C4'	-11.56	100.65	109.90
68	B3	21	C	O4'-C1'-N1	11.56	117.44	108.20
67	B1	616	C	O4'-C1'-N1	11.55	117.44	108.20
67	B1	1670	A	C3'-C2'-C1'	-11.55	92.26	101.50
67	B1	2732	U	O4'-C1'-N1	11.55	117.44	108.20
24	AA	138	ARG	NE-CZ-NH2	11.54	126.07	120.30
21	A2	1144	G	N9-C1'-C2'	11.54	129.00	114.00
67	B1	2618	C	O4'-C1'-C2'	-11.54	94.27	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	924	U	P-O3'-C3'	11.53	133.54	119.70
21	A2	494	G	C3'-C2'-C1'	-11.52	92.28	101.50
35	BL	10	LYS	N-CA-CB	-11.52	89.86	110.60
67	B1	2769	U	N1-C1'-C2'	11.52	128.98	114.00
21	A2	181	G	N9-C1'-C2'	11.52	128.97	114.00
21	A2	448	A	N1-C6-N6	11.52	125.51	118.60
21	A2	1155	U	N1-C1'-C2'	11.52	128.97	114.00
67	B1	2260	C	C1'-O4'-C4'	-11.52	100.69	109.90
21	A2	948	G	O4'-C1'-N9	11.52	117.41	108.20
67	B1	474	G	N9-C1'-C2'	11.52	128.97	114.00
67	B1	1064	G	O4'-C1'-N9	11.51	117.41	108.20
21	A2	45	U	N1-C1'-C2'	-11.51	99.04	114.00
21	A2	1318	U	O4'-C1'-N1	11.51	117.41	108.20
67	B1	297	G	C3'-C2'-C1'	11.51	110.70	101.50
68	B3	123	U	P-O3'-C3'	11.50	133.50	119.70
67	B1	1414	G	C3'-C2'-C1'	11.50	110.70	101.50
67	B1	3021	C	O4'-C1'-N1	11.50	117.40	108.20
67	B1	2875	C	C1'-O4'-C4'	-11.49	100.70	109.90
21	A2	1130	A	O4'-C1'-N9	11.49	117.39	108.20
67	B1	605	A	O4'-C1'-C2'	-11.49	94.31	105.80
67	B1	1859	A	O4'-C1'-N9	11.49	117.39	108.20
67	B1	528	G	C1'-O4'-C4'	-11.48	100.71	109.90
20	A3	27	ARG	NE-CZ-NH2	-11.48	114.56	120.30
67	B1	424	U	C1'-O4'-C4'	-11.48	100.72	109.90
67	B1	61	G	N9-C1'-C2'	11.48	128.92	114.00
67	B1	593	C	C3'-C2'-C1'	11.48	110.68	101.50
21	A2	166	A	P-O5'-C5'	11.48	139.26	120.90
21	A2	483	G	O4'-C1'-C2'	11.47	117.93	107.60
68	B3	67	U	C1'-O4'-C4'	11.47	119.08	109.90
21	A2	861	G	N9-C1'-C2'	11.47	128.91	114.00
67	B1	2911	C	O4'-C1'-N1	11.47	117.38	108.20
21	A2	660	C	N1-C1'-C2'	11.47	128.91	114.00
60	BS	65	ARG	NE-CZ-NH2	-11.47	114.57	120.30
67	B1	705	G	C3'-C2'-C1'	11.47	110.67	101.50
67	B1	2359	G	O4'-C1'-N9	11.46	117.37	108.20
67	B1	2544	C	C3'-C2'-C1'	11.47	110.67	101.50
21	A2	52	U	O4'-C1'-N1	11.46	117.37	108.20
21	A2	136	A	C1'-O4'-C4'	-11.46	100.73	109.90
67	B1	1322	G	C1'-O4'-C4'	-11.46	100.73	109.90
7	AB	177	TYR	CB-CG-CD1	11.46	127.87	121.00
12	AN	133	SER	N-CA-CB	11.46	127.68	110.50
47	BI	49	TYR	CB-CG-CD2	-11.45	114.13	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2037	A	O4'-C1'-N9	11.45	117.36	108.20
21	A2	573	C	C3'-C2'-C1'	11.44	110.66	101.50
21	A2	859	A	O4'-C1'-N9	11.44	117.36	108.20
67	B1	302	U	O4'-C1'-N1	11.44	117.36	108.20
33	BC	343	ARG	NE-CZ-NH1	11.44	126.02	120.30
67	B1	976	C	O4'-C1'-C2'	-11.44	94.36	105.80
67	B1	2115	U	O4'-C1'-C2'	-11.44	94.36	105.80
67	B1	814	G	C3'-C2'-C1'	11.44	110.65	101.50
46	BA	75	ARG	NE-CZ-NH1	11.44	126.02	120.30
67	B1	979	G	C1'-O4'-C4'	-11.44	100.75	109.90
67	B1	639	C	P-O3'-C3'	11.43	133.42	119.70
67	B1	1315	U	O4'-C1'-N1	11.43	117.35	108.20
21	A2	1443	G	O4'-C1'-N9	11.43	117.34	108.20
67	B1	1369	G	O4'-C1'-C2'	11.43	117.89	107.60
67	B1	2215	U	C3'-C2'-C1'	11.43	110.64	101.50
67	B1	596	C	O4'-C1'-N1	11.43	117.34	108.20
21	A2	101	G	O4'-C1'-N9	11.43	117.34	108.20
21	A2	160	C	O4'-C1'-N1	11.43	117.34	108.20
67	B1	817	G	N9-C1'-C2'	11.42	128.85	114.00
21	A2	257	U	O4'-C1'-N1	11.42	117.34	108.20
67	B1	2928	C	C1'-O4'-C4'	11.42	119.03	109.90
32	BO	8	ARG	NE-CZ-NH2	-11.41	114.59	120.30
21	A2	133	G	O4'-C1'-N9	11.41	117.33	108.20
67	B1	2523	C	C3'-C2'-C1'	11.41	110.63	101.50
27	A0	19	G	P-O3'-C3'	11.41	133.39	119.70
67	B1	1456	U	O4'-C1'-N1	11.41	117.33	108.20
21	A2	165	U	P-O3'-C3'	-11.40	106.02	119.70
21	A2	808	C	O4'-C1'-N1	11.40	117.32	108.20
21	A2	556	G	C1'-O4'-C4'	-11.40	100.78	109.90
67	B1	1946	G	O4'-C1'-N9	11.40	117.32	108.20
67	B1	177	G	C1'-O4'-C4'	-11.40	100.78	109.90
67	B1	1610	C	C3'-C2'-C1'	11.39	110.61	101.50
67	B1	369	G	O4'-C1'-C2'	-11.39	94.41	105.80
67	B1	1579	G	O4'-C1'-N9	11.39	117.31	108.20
67	B1	1658	A	N1-C6-N6	11.39	125.44	118.60
67	B1	1875	U	O4'-C1'-N1	11.39	117.31	108.20
67	B1	3042	C	C3'-C2'-C1'	11.39	110.61	101.50
67	B1	1272	A	O4'-C1'-C2'	-11.39	94.41	105.80
21	A2	1278	A	O4'-C1'-N9	11.38	117.31	108.20
21	A2	447	A	N1-C6-N6	11.38	125.43	118.60
67	B1	1182	C	C3'-C2'-C1'	11.38	110.61	101.50
67	B1	2362	U	P-O3'-C3'	11.38	133.36	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1121	C	C3'-C2'-C1'	11.37	110.60	101.50
65	BJ	26	TYR	CB-CG-CD2	-11.37	114.18	121.00
67	B1	683	C	O4'-C1'-N1	11.37	117.30	108.20
21	A2	451	A	N1-C6-N6	11.37	125.42	118.60
21	A2	592	G	O4'-C1'-N9	11.37	117.30	108.20
67	B1	1019	G	N1-C6-O6	11.37	126.72	119.90
67	B1	2401	A	P-O3'-C3'	11.37	133.34	119.70
11	A1	74	A	O4'-C1'-N9	11.37	117.29	108.20
21	A2	867	A	O4'-C1'-C2'	-11.37	94.44	105.80
21	A2	1200	U	O4'-C1'-C2'	-11.36	94.44	105.80
60	BS	131	ARG	NE-CZ-NH2	-11.36	114.62	120.30
21	A2	1111	G	O4'-C1'-C2'	-11.36	94.44	105.80
21	A2	234	G	O4'-C1'-N9	11.35	117.28	108.20
21	A2	1060	G	O4'-C1'-N9	11.35	117.28	108.20
67	B1	477	C	O4'-C1'-N1	11.35	117.28	108.20
67	B1	779	A	P-O3'-C3'	-11.35	106.08	119.70
67	B1	1898	A	C1'-O4'-C4'	11.35	118.98	109.90
67	B1	1272	A	C3'-C2'-C1'	11.35	110.58	101.50
68	B3	100	A	O4'-C1'-N9	11.35	117.28	108.20
21	A2	1248	A	O4'-C1'-N9	11.34	117.27	108.20
67	B1	2894	A	O4'-C1'-N9	11.34	117.27	108.20
67	B1	494	C	O4'-C1'-N1	11.34	117.27	108.20
67	B1	1276	G	O4'-C1'-N9	11.34	117.27	108.20
67	B1	2142	U	O4'-C1'-N1	11.33	117.27	108.20
21	A2	503	G	O4'-C1'-N9	11.33	117.26	108.20
67	B1	1711	C	C1'-O4'-C4'	11.33	118.96	109.90
21	A2	351	C	P-O3'-C3'	-11.33	106.11	119.70
67	B1	1808	G	O4'-C1'-N9	11.32	117.26	108.20
67	B1	2716	C	O4'-C1'-C2'	-11.32	94.48	105.80
67	B1	835	G	N9-C1'-C2'	11.32	128.72	114.00
67	B1	1457	C	N1-C1'-C2'	11.32	128.72	114.00
38	Bb	25	ARG	NE-CZ-NH2	-11.31	114.64	120.30
67	B1	2837	C	N1-C1'-C2'	11.31	128.70	114.00
67	B1	3044	U	O4'-C1'-N1	11.31	117.25	108.20
68	B3	44	C	O4'-C1'-C2'	-11.31	94.49	105.80
37	BU	50	ASP	CB-CG-OD1	11.31	128.48	118.30
67	B1	324	C	O4'-C1'-C2'	-11.31	94.49	105.80
21	A2	409	C	N1-C1'-C2'	11.30	128.70	114.00
67	B1	1022	G	O4'-C1'-N9	11.31	117.25	108.20
49	BQ	81	ARG	NE-CZ-NH2	-11.30	114.65	120.30
68	B3	54	A	N9-C1'-C2'	-11.30	99.31	114.00
67	B1	2548	A	C1'-O4'-C4'	11.29	118.93	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1098	G	O4'-C1'-N9	11.29	117.23	108.20
21	A2	1116	G	C3'-C2'-C1'	-11.29	92.47	101.50
67	B1	538	G	O4'-C1'-N9	11.28	117.23	108.20
67	B1	573	G	O4'-C1'-N9	11.28	117.23	108.20
27	A0	60	U	C3'-C2'-C1'	11.28	110.52	101.50
21	A2	409	C	C1'-O4'-C4'	-11.28	100.88	109.90
67	B1	456	G	O4'-C1'-C2'	11.28	117.75	107.60
67	B1	2669	U	O4'-C1'-N1	11.28	117.22	108.20
67	B1	1081	U	C3'-C2'-C1'	11.27	110.52	101.50
11	A1	52	G	C1'-O4'-C4'	-11.27	100.89	109.90
21	A2	172	G	C1'-O4'-C4'	-11.27	100.89	109.90
21	A2	250	G	C3'-C2'-C1'	-11.27	92.49	101.50
67	B1	1738	A	C1'-O4'-C4'	11.27	118.91	109.90
21	A2	1492	U	O4'-C1'-N1	11.26	117.21	108.20
67	B1	779	A	O4'-C1'-N9	11.26	117.21	108.20
67	B1	1968	A	O4'-C1'-N9	11.26	117.21	108.20
21	A2	992	G	C1'-O4'-C4'	-11.26	100.89	109.90
67	B1	3045	G	O4'-C1'-N9	11.26	117.21	108.20
21	A2	1272	G	N9-C1'-C2'	11.26	128.63	114.00
21	A2	1491	C	O4'-C1'-N1	11.26	117.20	108.20
67	B1	1072	U	C1'-O4'-C4'	11.25	118.90	109.90
67	B1	363	G	N9-C1'-C2'	-11.25	99.37	114.00
67	B1	2222	C	O4'-C1'-N1	11.25	117.20	108.20
21	A2	695	G	C3'-C2'-C1'	-11.24	92.51	101.50
67	B1	2439	G	N9-C1'-C2'	11.24	128.62	114.00
67	B1	2314	U	O4'-C1'-C2'	-11.24	94.56	105.80
67	B1	1793	G	O4'-C1'-N9	11.24	117.19	108.20
67	B1	537	U	N1-C1'-C2'	11.23	128.60	114.00
67	B1	1244	C	O4'-C1'-C2'	-11.23	94.57	105.80
21	A2	1306	A	N1-C6-N6	11.23	125.34	118.60
67	B1	513	C	O4'-C1'-N1	-11.23	99.22	108.20
67	B1	981	A	C1'-O4'-C4'	11.23	118.88	109.90
67	B1	1243	C	C3'-C2'-C1'	11.23	110.48	101.50
67	B1	2761	G	C1'-O4'-C4'	11.23	118.88	109.90
67	B1	2856	G	O4'-C1'-N9	11.23	117.18	108.20
67	B1	1794	C	N1-C1'-C2'	11.22	128.59	114.00
67	B1	245	A	O4'-C1'-N9	11.22	117.18	108.20
67	B1	1563	G	O4'-C1'-N9	11.22	117.18	108.20
67	B1	1604	G	P-O5'-C5'	11.22	138.85	120.90
44	BW	29	ARG	NE-CZ-NH2	-11.22	114.69	120.30
59	BM	65	ARG	NE-CZ-NH1	11.22	125.91	120.30
67	B1	1085	G	N9-C1'-C2'	11.22	128.58	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1868	C	C1'-O4'-C4'	11.22	118.87	109.90
21	A2	434	A	O3'-P-O5'	11.21	125.31	104.00
49	BQ	9	ARG	NE-CZ-NH2	-11.21	114.69	120.30
68	B3	21	C	P-O3'-C3'	11.21	133.15	119.70
21	A2	1371	C	N1-C1'-C2'	11.21	128.57	114.00
21	A2	1269	G	C3'-C2'-C1'	11.21	110.47	101.50
67	B1	354	G	O4'-C1'-N9	11.20	117.16	108.20
67	B1	1982	C	C3'-C2'-C1'	11.20	110.46	101.50
67	B1	2985	U	O4'-C1'-N1	11.20	117.16	108.20
21	A2	410	U	O4'-C1'-N1	11.20	117.16	108.20
67	B1	410	C	P-O3'-C3'	11.20	133.13	119.70
67	B1	884	C	N1-C1'-C2'	11.20	128.55	114.00
67	B1	2464	G	O4'-C1'-N9	11.19	117.16	108.20
67	B1	1272	A	C1'-O4'-C4'	11.19	118.85	109.90
36	Bf	41	ARG	NE-CZ-NH2	-11.18	114.71	120.30
21	A2	960	A	P-O3'-C3'	11.17	133.11	119.70
67	B1	1578	C	C3'-C2'-C1'	11.16	110.43	101.50
67	B1	1765	A	C3'-C2'-C1'	11.16	110.43	101.50
21	A2	1168	C	O4'-C1'-N1	11.15	117.12	108.20
67	B1	739	C	O4'-C1'-N1	11.15	117.12	108.20
21	A2	88	G	N9-C1'-C2'	11.15	128.50	114.00
67	B1	485	G	C3'-C2'-C1'	11.15	110.42	101.50
67	B1	810	A	C3'-C2'-C1'	11.14	110.41	101.50
67	B1	2833	G	C1'-O4'-C4'	-11.14	100.98	109.90
67	B1	277	A	C3'-C2'-C1'	11.13	110.41	101.50
15	AE	26	TYR	CB-CG-CD1	11.13	127.68	121.00
67	B1	753	A	O4'-C1'-N9	11.13	117.10	108.20
67	B1	906	G	C3'-C2'-C1'	-11.13	92.60	101.50
67	B1	1899	C	C3'-C2'-C1'	11.13	110.40	101.50
21	A2	956	C	P-O3'-C3'	11.12	133.05	119.70
67	B1	1443	G	P-O3'-C3'	11.12	133.05	119.70
67	B1	2579	G	O4'-C1'-N9	11.12	117.10	108.20
67	B1	1273	C	C3'-C2'-C1'	11.12	110.40	101.50
67	B1	1774	A	O4'-C1'-N9	11.12	117.10	108.20
67	B1	107	G	O4'-C1'-N9	11.12	117.09	108.20
21	A2	651	U	N1-C1'-C2'	11.11	128.44	114.00
67	B1	529	G	O4'-C1'-N9	11.11	117.08	108.20
68	B3	56	C	C3'-C2'-C1'	11.10	110.38	101.50
21	A2	149	U	O4'-C1'-N1	11.10	117.08	108.20
21	A2	232	G	N9-C1'-C2'	11.10	128.43	114.00
21	A2	1466	G	O4'-C1'-N9	11.10	117.08	108.20
67	B1	2453	C	O4'-C1'-N1	11.10	117.08	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AO	76	ARG	NE-CZ-NH1	11.10	125.85	120.30
21	A2	181	G	C1'-O4'-C4'	-11.09	101.03	109.90
67	B1	560	G	C3'-C2'-C1'	-11.09	92.62	101.50
67	B1	1644	G	O4'-C1'-C2'	-11.09	94.71	105.80
67	B1	2369	G	O4'-C1'-N9	11.09	117.07	108.20
67	B1	1828	A	N9-C1'-C2'	11.09	128.42	114.00
67	B1	2889	A	C3'-C2'-C1'	11.09	110.37	101.50
67	B1	533	G	O4'-C1'-N9	11.09	117.07	108.20
67	B1	2245	C	N1-C1'-C2'	11.09	128.41	114.00
67	B1	2283	C	C3'-C2'-C1'	11.09	110.37	101.50
67	B1	2839	A	O4'-C1'-N9	11.09	117.07	108.20
21	A2	583	G	C1'-O4'-C4'	-11.09	101.03	109.90
35	BL	9	ARG	NE-CZ-NH1	11.09	125.84	120.30
67	B1	2701	U	O4'-C1'-N1	11.09	117.07	108.20
67	B1	153	U	O4'-C1'-N1	11.08	117.07	108.20
21	A2	94	C	N1-C1'-C2'	11.08	128.41	114.00
21	A2	1290	U	N1-C1'-C2'	11.08	128.41	114.00
21	A2	1336	U	N1-C1'-C2'	-11.08	99.59	114.00
27	A0	76	A	C3'-C2'-C1'	11.08	110.36	101.50
15	AE	137	ARG	NE-CZ-NH2	-11.08	114.76	120.30
52	BB	237	ARG	NE-CZ-NH1	11.07	125.84	120.30
67	B1	1256	G	C3'-C2'-C1'	-11.07	92.64	101.50
21	A2	1106	A	C3'-C2'-C1'	11.07	110.35	101.50
67	B1	1553	G	N9-C1'-C2'	-11.07	99.61	114.00
21	A2	495	G	O4'-C1'-N9	11.06	117.05	108.20
21	A2	1124	G	C3'-C2'-C1'	-11.06	92.65	101.50
67	B1	703	G	P-O3'-C3'	-11.06	106.42	119.70
67	B1	935	A	O4'-C1'-N9	11.06	117.05	108.20
67	B1	1068	U	C3'-C2'-C1'	11.06	110.35	101.50
21	A2	935	G	O4'-C1'-C2'	-11.06	94.74	105.80
21	A2	998	A	N1-C6-N6	11.05	125.23	118.60
67	B1	1257	G	C3'-C2'-C1'	-11.06	92.66	101.50
67	B1	2920	C	C3'-C2'-C1'	11.05	110.34	101.50
21	A2	171	U	O4'-C1'-N1	11.05	117.04	108.20
67	B1	582	A	O4'-C1'-C2'	-11.05	94.75	105.80
67	B1	925	U	O4'-C1'-N1	11.05	117.04	108.20
67	B1	441	A	N9-C1'-C2'	11.05	128.36	114.00
67	B1	642	G	O4'-C1'-N9	11.05	117.04	108.20
68	B3	25	A	N9-C1'-C2'	11.04	128.36	114.00
21	A2	727	G	O4'-C1'-N9	11.04	117.03	108.20
67	B1	326	C	O4'-C1'-N1	11.04	117.03	108.20
67	B1	1227	A	O4'-C1'-N9	11.04	117.03	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1864	G	C3'-C2'-C1'	-11.04	92.67	101.50
68	B3	107	G	N9-C1'-C2'	-11.04	99.65	114.00
60	BS	133	PHE	CB-CG-CD2	-11.03	113.08	120.80
68	B3	34	C	O4'-C1'-N1	11.03	117.03	108.20
21	A2	802	G	O4'-C1'-C2'	11.03	117.53	107.60
21	A2	1363	C	N1-C1'-C2'	11.03	128.33	114.00
67	B1	745	C	N1-C1'-C2'	11.02	128.33	114.00
67	B1	379	U	O4'-C1'-N1	11.02	117.01	108.20
67	B1	1176	C	O4'-C1'-N1	11.02	117.01	108.20
21	A2	980	C	N1-C1'-C2'	11.01	128.31	114.00
67	B1	1580	G	O4'-C1'-C2'	11.01	117.51	107.60
49	BQ	66	ARG	NE-CZ-NH2	-11.01	114.80	120.30
21	A2	440	C	C3'-C2'-C1'	11.00	110.30	101.50
67	B1	2254	U	C1'-O4'-C4'	11.00	118.70	109.90
67	B1	937	A	N9-C1'-C2'	11.00	128.30	114.00
21	A2	392	G	C3'-C2'-C1'	-10.99	92.70	101.50
33	BC	242	ARG	NE-CZ-NH2	-10.99	114.80	120.30
68	B3	98	G	O4'-C1'-N9	10.99	117.00	108.20
21	A2	695	G	O4'-C1'-N9	10.99	116.99	108.20
21	A2	1056	G	O4'-C1'-N9	10.99	116.99	108.20
21	A2	316	C	C3'-C2'-C1'	10.99	110.29	101.50
67	B1	1369	G	C1'-O4'-C4'	-10.99	101.11	109.90
67	B1	2702	A	N9-C1'-C2'	-10.99	99.72	114.00
67	B1	996	U	O4'-C1'-N1	10.98	116.99	108.20
67	B1	1787	U	N1-C1'-C2'	10.98	128.28	114.00
44	BW	45	ARG	NE-CZ-NH1	10.97	125.79	120.30
21	A2	44	C	C3'-C2'-C1'	10.97	110.28	101.50
67	B1	2646	A	O4'-C1'-N9	10.97	116.98	108.20
21	A2	1335	A	O4'-C1'-C2'	-10.97	94.83	105.80
36	Bf	34	ARG	CB-CA-C	-10.97	88.46	110.40
21	A2	1259	A	N9-C1'-C2'	10.97	128.26	114.00
67	B1	443	C	N1-C1'-C2'	10.97	128.26	114.00
21	A2	1490	C	P-O3'-C3'	-10.97	106.54	119.70
21	A2	1067	G	P-O3'-C3'	10.96	132.86	119.70
67	B1	1132	U	O4'-C1'-N1	10.96	116.97	108.20
67	B1	1270	G	N9-C1'-C2'	10.96	128.25	114.00
67	B1	1602	C	P-O3'-C3'	10.96	132.85	119.70
67	B1	2363	G	C1'-O4'-C4'	10.96	118.67	109.90
67	B1	2284	C	C3'-C2'-C1'	10.96	110.26	101.50
21	A2	789	G	O4'-C1'-N9	10.95	116.96	108.20
67	B1	393	C	O4'-C1'-C2'	-10.95	94.85	105.80
67	B1	822	A	C3'-C2'-C1'	10.95	110.26	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BH	19	PRO	N-CD-CG	-10.95	86.78	103.20
67	B1	1580	G	O4'-C1'-N9	10.95	116.96	108.20
21	A2	88	G	C3'-C2'-C1'	10.95	110.26	101.50
21	A2	1088	U	O4'-C4'-C3'	-10.95	93.05	104.00
67	B1	53	A	O4'-C1'-N9	10.95	116.96	108.20
67	B1	1811	G	P-O3'-C3'	10.94	132.83	119.70
51	Bj	89	PHE	CB-CG-CD2	-10.94	113.14	120.80
67	B1	1773	C	O4'-C1'-C2'	-10.94	94.86	105.80
67	B1	1939	C	P-O3'-C3'	10.94	132.83	119.70
68	B3	8	C	O4'-C1'-N1	10.94	116.95	108.20
21	A2	988	A	P-O3'-C3'	10.94	132.82	119.70
11	A1	5	C	O4'-C1'-N1	10.93	116.94	108.20
67	B1	922	C	N1-C1'-C2'	10.93	128.21	114.00
21	A2	535	U	O4'-C1'-N1	10.93	116.94	108.20
23	AT	7	ARG	NE-CZ-NH1	10.93	125.76	120.30
43	Bk	36	TYR	CB-CG-CD2	-10.92	114.45	121.00
67	B1	1944	C	O4'-C1'-C2'	-10.92	94.88	105.80
28	B6	80	TYR	CB-CG-CD2	10.92	127.55	121.00
67	B1	1096	A	O4'-C1'-N9	10.92	116.94	108.20
21	A2	470	G	N9-C1'-C2'	-10.92	99.81	114.00
67	B1	1905	G	O4'-C1'-N9	10.91	116.93	108.20
67	B1	276	G	O4'-C1'-N9	10.91	116.93	108.20
67	B1	1222	U	C1'-O4'-C4'	-10.90	101.18	109.90
67	B1	2227	G	O4'-C1'-C2'	10.90	117.41	107.60
67	B1	2608	U	O4'-C1'-N1	10.90	116.92	108.20
67	B1	2285	G	O4'-C1'-N9	10.90	116.92	108.20
21	A2	826	C	O4'-C1'-N1	10.89	116.92	108.20
67	B1	1107	G	N9-C1'-C2'	10.89	128.16	114.00
67	B1	2571	G	C1'-O4'-C4'	10.89	118.61	109.90
67	B1	2797	C	O4'-C1'-N1	10.89	116.91	108.20
21	A2	505	U	O4'-C1'-N1	10.89	116.91	108.20
21	A2	1273	G	C1'-O4'-C4'	-10.89	101.19	109.90
67	B1	2419	U	O4'-C1'-N1	10.89	116.91	108.20
67	B1	206	A	C3'-C2'-C1'	10.88	110.20	101.50
67	B1	1163	U	C1'-O4'-C4'	10.88	118.60	109.90
67	B1	2914	U	N1-C1'-C2'	-10.88	99.86	114.00
67	B1	96	C	O3'-P-O5'	-10.88	83.33	104.00
11	A1	70	C	O4'-C1'-N1	10.88	116.90	108.20
67	B1	292	U	O4'-C1'-N1	10.87	116.90	108.20
67	B1	1891	C	C1'-O4'-C4'	-10.88	101.20	109.90
21	A2	389	G	O4'-C1'-N9	10.87	116.90	108.20
67	B1	2948	A	P-O3'-C3'	10.87	132.74	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	BW	65	ARG	NE-CZ-NH2	-10.86	114.87	120.30
67	B1	42	G	N9-C1'-C2'	10.86	128.11	114.00
67	B1	2120	C	C3'-C2'-C1'	10.86	110.19	101.50
67	B1	1523	A	C1'-O4'-C4'	10.86	118.58	109.90
67	B1	2055	U	O4'-C1'-C2'	-10.85	94.95	105.80
67	B1	2302	C	P-O3'-C3'	-10.85	106.67	119.70
67	B1	2507	C	N1-C1'-C2'	-10.85	99.89	114.00
21	A2	694	U	C1'-O4'-C4'	10.85	118.58	109.90
67	B1	1228	G	O4'-C1'-N9	10.85	116.88	108.20
67	B1	1196	A	N9-C1'-C2'	-10.85	99.90	114.00
67	B1	2272	G	P-O3'-C3'	-10.85	106.69	119.70
67	B1	2061	A	C3'-C2'-C1'	10.84	110.17	101.50
67	B1	210	A	C3'-C2'-C1'	10.84	110.17	101.50
67	B1	1755	C	O4'-C1'-N1	10.84	116.87	108.20
67	B1	2065	C	N1-C1'-C2'	10.84	128.09	114.00
67	B1	2462	U	O4'-C1'-N1	10.84	116.87	108.20
21	A2	499	G	O4'-C1'-C2'	10.84	117.35	107.60
67	B1	452	A	O4'-C1'-C2'	10.83	117.35	107.60
67	B1	1339	C	O4'-C1'-N1	10.83	116.87	108.20
67	B1	2151	C	C1'-O4'-C4'	-10.83	101.23	109.90
67	B1	2237	A	N9-C1'-C2'	10.83	128.09	114.00
67	B1	2	G	O4'-C1'-N9	10.83	116.86	108.20
67	B1	18	C	O4'-C1'-N1	10.83	116.86	108.20
67	B1	1085	G	O3'-P-O5'	-10.82	83.44	104.00
67	B1	1690	U	O4'-C1'-N1	10.82	116.86	108.20
28	B6	77	ARG	NE-CZ-NH1	10.82	125.71	120.30
67	B1	1103	C	P-O5'-C5'	10.82	138.21	120.90
67	B1	1646	G	N9-C1'-C2'	-10.82	99.93	114.00
67	B1	2091	U	N1-C1'-C2'	10.82	128.06	114.00
67	B1	3029	A	O4'-C1'-N9	10.82	116.86	108.20
67	B1	444	U	P-O3'-C3'	10.82	132.68	119.70
68	B3	8	C	O4'-C1'-C2'	-10.81	94.99	105.80
67	B1	1196	A	C1'-O4'-C4'	10.81	118.55	109.90
67	B1	1301	G	C3'-C2'-C1'	-10.81	92.85	101.50
67	B1	2824	C	N1-C1'-C2'	10.81	128.06	114.00
21	A2	678	G	O4'-C1'-N9	10.80	116.84	108.20
21	A2	869	U	O4'-C1'-N1	10.80	116.84	108.20
67	B1	168	G	C1'-O4'-C4'	-10.80	101.26	109.90
67	B1	883	G	O4'-C1'-C2'	-10.80	95.00	105.80
67	B1	1805	U	O4'-C1'-N1	10.80	116.84	108.20
67	B1	1515	G	C1'-O4'-C4'	-10.79	101.27	109.90
32	BO	155	MET	CG-SD-CE	-10.79	82.93	100.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1459	A	O4'-C1'-N9	10.79	116.83	108.20
21	A2	1406	U	N1-C1'-C2'	-10.79	99.97	114.00
21	A2	236	C	O4'-C1'-C2'	-10.79	95.01	105.80
67	B1	2163	G	O4'-C1'-N9	10.79	116.83	108.20
21	A2	130	G	C1'-O4'-C4'	10.79	118.53	109.90
67	B1	119	U	P-O3'-C3'	10.79	132.64	119.70
67	B1	1251	G	C3'-C2'-C1'	10.78	110.12	101.50
21	A2	340	A	N9-C1'-C2'	-10.78	99.99	114.00
67	B1	85	G	C5'-C4'-C3'	10.78	133.25	116.00
21	A2	1312	C	C3'-C2'-C1'	10.78	110.12	101.50
21	A2	1440	G	N9-C1'-C2'	-10.78	99.99	114.00
67	B1	935	A	C1'-O4'-C4'	10.78	118.52	109.90
67	B1	2914	U	O4'-C1'-C2'	-10.78	95.02	105.80
67	B1	282	G	O4'-C1'-N9	10.77	116.82	108.20
67	B1	1534	G	O4'-C1'-N9	10.77	116.82	108.20
67	B1	94	A	O4'-C1'-C2'	-10.75	95.05	105.80
67	B1	716	U	C3'-C2'-C1'	10.75	110.10	101.50
8	AR	67	ARG	NE-CZ-NH1	10.75	125.68	120.30
67	B1	2937	U	O4'-C1'-N1	10.75	116.80	108.20
67	B1	2951	G	N9-C1'-C2'	10.75	127.98	114.00
67	B1	626	C	O4'-C1'-N1	10.74	116.80	108.20
67	B1	2409	C	N1-C1'-C2'	10.74	127.97	114.00
67	B1	2938	G	C3'-C2'-C1'	-10.74	92.91	101.50
67	B1	830	G	C1'-O4'-C4'	-10.74	101.31	109.90
67	B1	2897	C	C3'-C2'-C1'	10.74	110.09	101.50
67	B1	1604	G	C1'-O4'-C4'	-10.73	101.31	109.90
67	B1	2492	G	C3'-C2'-C1'	-10.73	92.92	101.50
21	A2	733	C	C3'-C2'-C1'	10.73	110.08	101.50
21	A2	427	G	O4'-C1'-N9	10.72	116.78	108.20
67	B1	1373	C	O4'-C1'-N1	10.72	116.78	108.20
21	A2	184	G	P-O3'-C3'	10.72	132.56	119.70
21	A2	806	G	C3'-C2'-C1'	10.72	110.08	101.50
67	B1	2818	C	N1-C1'-C2'	10.72	127.94	114.00
67	B1	1863	G	O4'-C1'-N9	10.72	116.77	108.20
21	A2	1395	G	O4'-C1'-N9	10.71	116.77	108.20
21	A2	849	U	N1-C1'-C2'	10.71	127.93	114.00
67	B1	975	C	C3'-C2'-C1'	10.71	110.07	101.50
21	A2	41	C	O4'-C1'-N1	10.71	116.77	108.20
21	A2	33	U	C3'-C2'-C1'	-10.71	92.94	101.50
67	B1	426	G	C1'-O4'-C4'	-10.71	101.33	109.90
21	A2	112	G	O4'-C1'-C2'	-10.71	95.09	105.80
67	B1	306	G	C3'-C2'-C1'	10.71	110.06	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	AB	38	ASP	CB-CG-OD2	-10.70	108.67	118.30
11	A1	75	C	O4'-C1'-N1	10.70	116.76	108.20
67	B1	2224	G	O4'-C1'-N9	10.71	116.76	108.20
21	A2	961	U	OP2-P-O3'	-10.70	81.66	105.20
68	B3	26	C	C1'-O4'-C4'	-10.70	101.34	109.90
67	B1	859	G	O4'-C1'-N9	10.70	116.76	108.20
64	Bc	17	GLN	CB-CA-C	-10.69	89.01	110.40
21	A2	1413	G	O4'-C1'-N9	10.69	116.75	108.20
53	BD	78	ARG	NE-CZ-NH2	-10.69	114.96	120.30
41	Ba	25	TRP	N-CA-CB	10.69	129.84	110.60
21	A2	889	G	O4'-C1'-N9	10.68	116.75	108.20
67	B1	2892	A	N9-C1'-C2'	10.68	127.89	114.00
67	B1	2892	A	C3'-C2'-C1'	10.68	110.04	101.50
21	A2	783	G	O4'-C1'-N9	10.68	116.74	108.20
67	B1	2500	G	N9-C1'-C2'	-10.68	100.12	114.00
68	B3	35	A	N9-C1'-C2'	-10.68	100.12	114.00
21	A2	510	A	C1'-O4'-C4'	10.67	118.44	109.90
21	A2	730	G	O4'-C1'-N9	10.67	116.74	108.20
21	A2	1115	G	C1'-O4'-C4'	-10.67	101.36	109.90
33	BC	339	ARG	NE-CZ-NH2	-10.67	114.96	120.30
67	B1	1406	G	N9-C1'-C2'	10.67	127.87	114.00
35	BL	11	LEU	CB-CA-C	-10.67	89.93	110.20
67	B1	143	C	O4'-C1'-C2'	-10.67	95.13	105.80
68	B3	41	A	N9-C1'-C2'	10.67	127.86	114.00
21	A2	546	G	C1'-O4'-C4'	-10.66	101.37	109.90
21	A2	1097	G	O4'-C1'-N9	10.66	116.73	108.20
21	A2	1101	G	C3'-C2'-C1'	-10.66	92.97	101.50
67	B1	2484	C	N1-C1'-C2'	10.66	127.86	114.00
21	A2	1029	G	C1'-O4'-C4'	10.66	118.43	109.90
67	B1	362	A	C1'-O4'-C4'	10.66	118.43	109.90
67	B1	1346	G	C1'-O4'-C4'	-10.66	101.37	109.90
67	B1	1957	U	O4'-C1'-N1	10.66	116.73	108.20
67	B1	1899	C	O4'-C1'-N1	10.66	116.73	108.20
21	A2	689	C	C3'-C2'-C1'	10.65	110.02	101.50
21	A2	1282	C	N1-C1'-C2'	10.65	127.85	114.00
67	B1	2596	G	O4'-C1'-C2'	10.65	117.19	107.60
33	BC	251	ARG	NE-CZ-NH1	10.65	125.62	120.30
67	B1	2991	C	O4'-C1'-N1	10.65	116.72	108.20
21	A2	207	G	O4'-C1'-N9	10.65	116.72	108.20
67	B1	344	G	C1'-O4'-C4'	-10.65	101.38	109.90
67	B1	2178	A	N9-C1'-C2'	10.64	127.83	114.00
67	B1	1674	G	O4'-C1'-N9	10.64	116.71	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2969	G	N9-C1'-C2'	10.64	127.83	114.00
68	B3	24	C	C3'-C2'-C1'	10.64	110.01	101.50
33	BC	8	ARG	NE-CZ-NH2	-10.63	114.98	120.30
67	B1	1129	G	O4'-C1'-N9	10.63	116.71	108.20
21	A2	1087	C	C3'-C2'-C1'	10.63	110.00	101.50
67	B1	2401	A	O4'-C1'-N9	10.63	116.70	108.20
67	B1	990	G	C1'-O4'-C4'	-10.62	101.40	109.90
21	A2	963	A	N1-C6-N6	10.62	124.97	118.60
67	B1	2919	C	O4'-C1'-N1	10.62	116.70	108.20
21	A2	406	U	O4'-C1'-N1	10.62	116.69	108.20
67	B1	394	A	C5'-C4'-C3'	10.62	132.99	116.00
21	A2	1372	C	C1'-O4'-C4'	-10.62	101.41	109.90
67	B1	795	G	C1'-O4'-C4'	-10.62	101.41	109.90
68	B3	60	C	O4'-C1'-N1	10.62	116.69	108.20
21	A2	1326	G	O4'-C1'-N9	10.61	116.69	108.20
67	B1	245	A	C3'-C2'-C1'	-10.61	93.01	101.50
28	AV	60	PHE	O-C-N	-10.61	105.16	123.20
67	B1	1090	G	O4'-C1'-C2'	10.61	117.15	107.60
67	B1	3043	C	C1'-O4'-C4'	10.61	118.39	109.90
67	B1	486	A	N9-C1'-C2'	-10.61	100.21	114.00
7	AB	188	PHE	CB-CG-CD2	10.60	128.22	120.80
67	B1	1234	A	O4'-C1'-N9	-10.60	99.72	108.20
67	B1	2670	U	C1'-O4'-C4'	10.60	118.38	109.90
67	B1	1289	C	N1-C1'-C2'	10.60	127.78	114.00
67	B1	847	A	O4'-C1'-C2'	-10.60	95.20	105.80
21	A2	1080	C	C3'-C2'-C1'	10.60	109.98	101.50
27	A0	66	C	O4'-C1'-C2'	-10.60	95.20	105.80
67	B1	394	A	O4'-C1'-N9	10.60	116.68	108.20
21	A2	262	G	O4'-C1'-N9	-10.59	99.73	108.20
67	B1	1322	G	O4'-C1'-C2'	10.59	117.13	107.60
67	B1	1000	G	O4'-C1'-C2'	10.59	117.13	107.60
15	AE	33	ARG	NE-CZ-NH2	-10.58	115.01	120.30
67	B1	2268	C	O4'-C1'-N1	10.58	116.67	108.20
67	B1	1678	A	C1'-O4'-C4'	10.58	118.36	109.90
21	A2	800	G	O4'-C1'-N9	10.57	116.66	108.20
21	A2	34	G	N9-C1'-C2'	-10.57	100.25	114.00
45	Bi	16	ARG	NE-CZ-NH2	-10.57	115.01	120.30
67	B1	1814	A	N9-C1'-C2'	10.57	127.75	114.00
67	B1	888	U	O4'-C1'-N1	10.57	116.66	108.20
67	B1	1698	G	P-O3'-C3'	-10.57	107.01	119.70
20	A3	6	TYR	CB-CG-CD2	-10.57	114.66	121.00
67	B1	374	C	O4'-C1'-C2'	-10.57	95.23	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2068	U	C1'-O4'-C4'	10.56	118.35	109.90
4	AG	77	ASP	CB-CG-OD1	10.56	127.81	118.30
21	A2	866	A	C1'-O4'-C4'	10.56	118.35	109.90
67	B1	1041	U	O4'-C1'-N1	10.56	116.65	108.20
67	B1	2587	G	C1'-O4'-C4'	-10.56	101.45	109.90
67	B1	1147	G	N9-C1'-C2'	10.56	127.72	114.00
67	B1	1324	G	O4'-C1'-C2'	-10.55	95.25	105.80
67	B1	1445	G	P-O3'-C3'	10.55	132.37	119.70
21	A2	717	C	N1-C1'-C2'	10.55	127.72	114.00
67	B1	1235	A	P-O3'-C3'	10.55	132.36	119.70
21	A2	1086	C	P-O3'-C3'	-10.55	107.04	119.70
67	B1	1511	C	N1-C1'-C2'	10.55	127.71	114.00
67	B1	2528	U	O4'-C1'-N1	10.55	116.64	108.20
67	B1	686	C	N1-C1'-C2'	10.55	127.71	114.00
67	B1	259	A	O4'-C1'-N9	10.54	116.64	108.20
67	B1	2294	A	O4'-C1'-N9	10.54	116.64	108.20
67	B1	1214	C	N1-C1'-C2'	10.54	127.71	114.00
21	A2	1264	G	O4'-C1'-C2'	10.53	117.08	107.60
21	A2	1329	C	N1-C1'-C2'	10.53	127.69	114.00
67	B1	48	G	O4'-C1'-N9	10.53	116.63	108.20
67	B1	3020	G	O4'-C1'-N9	10.53	116.62	108.20
21	A2	804	U	O4'-C1'-C2'	-10.53	95.27	105.80
20	BG	27	ARG	NE-CZ-NH2	-10.53	115.04	120.30
67	B1	767	G	C1'-O4'-C4'	-10.53	101.48	109.90
67	B1	876	C	O4'-C1'-C2'	-10.53	95.27	105.80
67	B1	2370	C	C1'-O4'-C4'	10.53	118.32	109.90
21	A2	1078	U	O4'-C1'-N1	10.52	116.62	108.20
67	B1	1363	C	C3'-C2'-C1'	10.52	109.92	101.50
67	B1	25	U	O4'-C1'-N1	10.52	116.62	108.20
67	B1	2310	G	O4'-C1'-N9	10.52	116.62	108.20
2	AK	20	ARG	NE-CZ-NH2	10.52	125.56	120.30
21	A2	402	G	C1'-O4'-C4'	-10.52	101.49	109.90
67	B1	2284	C	P-O3'-C3'	10.52	132.32	119.70
30	AU	5	TYR	CB-CG-CD1	10.52	127.31	121.00
14	AM	58	TYR	CB-CG-CD2	-10.51	114.69	121.00
52	BB	35	TYR	CB-CG-CD1	10.51	127.31	121.00
21	A2	135	U	N1-C1'-C2'	10.51	127.66	114.00
67	B1	2488	C	C3'-C2'-C1'	10.51	109.91	101.50
67	B1	1181	C	O4'-C1'-N1	10.51	116.61	108.20
3	AI	86	PHE	CB-CG-CD1	10.50	128.15	120.80
67	B1	2251	G	C1'-O4'-C4'	-10.50	101.50	109.90
67	B1	2466	C	N1-C1'-C2'	10.50	127.65	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	660	C	O3'-P-O5'	-10.50	84.05	104.00
21	A2	680	C	O4'-C1'-N1	10.50	116.60	108.20
31	BY	20	ARG	NE-CZ-NH1	-10.50	115.05	120.30
47	BI	46	PHE	CB-CG-CD2	10.50	128.15	120.80
67	B1	38	U	O4'-C1'-N1	10.50	116.60	108.20
67	B1	357	G	O4'-C1'-N9	10.50	116.60	108.20
67	B1	1439	G	N9-C1'-C2'	10.49	127.64	114.00
21	A2	1290	U	O4'-C1'-C2'	10.49	117.04	107.60
11	A1	61	U	C3'-C2'-C1'	10.49	109.89	101.50
21	A2	408	C	O4'-C1'-C2'	-10.49	95.31	105.80
21	A2	919	U	P-O3'-C3'	10.49	132.28	119.70
67	B1	2367	C	C3'-C2'-C1'	10.49	109.89	101.50
21	A2	1175	C	O4'-C1'-N1	10.48	116.59	108.20
67	B1	70	G	O4'-C1'-C2'	10.48	117.04	107.60
67	B1	1292	C	C3'-C2'-C1'	10.48	109.88	101.50
67	B1	2182	A	C1'-O4'-C4'	10.48	118.28	109.90
21	A2	462	A	O4'-C1'-N9	10.47	116.58	108.20
27	A0	54	U	O4'-C1'-N1	10.47	116.58	108.20
67	B1	2718	G	O4'-C1'-N9	10.47	116.58	108.20
67	B1	1565	G	O4'-C4'-C3'	-10.47	93.53	104.00
67	B1	1712	U	P-O3'-C3'	-10.47	107.14	119.70
67	B1	1973	U	O4'-C1'-N1	10.47	116.57	108.20
67	B1	2173	U	N1-C1'-C2'	10.47	127.61	114.00
10	AD	119	ARG	NE-CZ-NH1	10.46	125.53	120.30
21	A2	126	G	O4'-C1'-N9	10.46	116.57	108.20
21	A2	1289	G	O4'-C1'-N9	10.46	116.57	108.20
67	B1	113	C	N1-C1'-C2'	10.46	127.60	114.00
21	A2	1322	C	C3'-C2'-C1'	10.46	109.86	101.50
21	A2	1382	G	O4'-C1'-N9	10.46	116.56	108.20
67	B1	2195	G	O4'-C1'-C2'	10.45	117.01	107.60
21	A2	1173	A	N9-C1'-C2'	10.45	127.59	114.00
67	B1	2227	G	C1'-O4'-C4'	-10.45	101.54	109.90
21	A2	1263	C	N1-C1'-C2'	10.45	127.58	114.00
21	A2	6	G	N9-C1'-C2'	10.44	127.57	114.00
36	Bf	2	ALA	N-CA-CB	-10.44	95.48	110.10
21	A2	77	G	O4'-C1'-N9	10.44	116.55	108.20
51	Bj	33	LEU	CA-CB-CG	10.44	139.31	115.30
21	A2	1169	C	C3'-C2'-C1'	10.44	109.85	101.50
21	A2	1175	C	N1-C1'-C2'	10.44	127.56	114.00
67	B1	1621	G	O4'-C1'-N9	10.44	116.55	108.20
21	A2	360	A	P-O3'-C3'	10.43	132.22	119.70
21	A2	394	C	O4'-C1'-N1	10.43	116.55	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1264	G	C1'-O4'-C4'	-10.43	101.56	109.90
67	B1	349	A	C3'-C2'-C1'	10.43	109.84	101.50
15	AE	158	TYR	CB-CG-CD2	-10.43	114.74	121.00
67	B1	1822	G	O4'-C1'-N9	10.43	116.54	108.20
21	A2	1179	C	C3'-C2'-C1'	10.43	109.84	101.50
67	B1	116	G	N9-C1'-C2'	10.43	127.56	114.00
67	B1	769	G	C1'-O4'-C4'	-10.43	101.56	109.90
67	B1	2115	U	O4'-C1'-N1	10.43	116.54	108.20
67	B1	2427	C	C3'-C2'-C1'	10.43	109.84	101.50
67	B1	409	C	C1'-O4'-C4'	-10.42	101.56	109.90
21	A2	108	G	O4'-C1'-C2'	10.42	116.98	107.60
67	B1	2937	U	O4'-C1'-C2'	-10.42	95.38	105.80
20	BG	79	TYR	CB-CG-CD2	-10.42	114.75	121.00
67	B1	1071	A	P-O3'-C3'	10.42	132.20	119.70
67	B1	1316	U	O4'-C1'-N1	10.42	116.53	108.20
21	A2	173	G	O4'-C1'-N9	10.41	116.53	108.20
67	B1	374	C	C3'-C2'-C1'	10.41	109.83	101.50
67	B1	1559	A	O4'-C1'-N9	-10.41	99.87	108.20
21	A2	1150	G	P-O3'-C3'	10.41	132.19	119.70
67	B1	275	C	O4'-C1'-N1	10.41	116.53	108.20
67	B1	1907	G	C3'-C2'-C1'	-10.41	93.17	101.50
21	A2	1328	G	O4'-C1'-C2'	10.41	116.97	107.60
67	B1	1035	G	O4'-C1'-N9	10.41	116.53	108.20
67	B1	1253	U	O4'-C1'-C2'	-10.40	95.40	105.80
67	B1	2742	G	N1-C6-O6	10.40	126.14	119.90
67	B1	1902	G	C1'-O4'-C4'	-10.40	101.58	109.90
16	AJ	73	ARG	NE-CZ-NH2	-10.39	115.10	120.30
21	A2	951	G	O4'-C1'-N9	10.39	116.52	108.20
67	B1	2370	C	P-O3'-C3'	10.39	132.17	119.70
50	BV	40	TYR	CB-CG-CD2	10.39	127.23	121.00
67	B1	2924	G	N9-C1'-C2'	-10.39	100.50	114.00
67	B1	648	C	O4'-C1'-N1	10.38	116.51	108.20
67	B1	1735	G	O4'-C1'-C2'	-10.38	95.42	105.80
67	B1	2926	G	C1'-O4'-C4'	-10.38	101.59	109.90
67	B1	1084	G	C3'-C2'-C1'	10.38	109.80	101.50
67	B1	825	C	O4'-C1'-C2'	-10.38	95.42	105.80
67	B1	1867	C	N1-C1'-C2'	10.38	127.49	114.00
67	B1	2047	U	C3'-C2'-C1'	10.38	109.80	101.50
68	B3	96	C	C3'-C2'-C1'	10.37	109.80	101.50
21	A2	424	U	C3'-C2'-C1'	-10.37	93.20	101.50
67	B1	1976	C	C3'-C2'-C1'	10.37	109.79	101.50
21	A2	1154	G	O4'-C1'-C2'	10.36	116.93	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1700	U	O4'-C1'-N1	10.36	116.49	108.20
67	B1	2514	C	P-O3'-C3'	-10.36	107.27	119.70
21	A2	926	C	N1-C1'-C2'	10.36	127.47	114.00
21	A2	1204	C	C3'-C2'-C1'	10.36	109.79	101.50
67	B1	2463	G	N9-C1'-C2'	10.36	127.46	114.00
67	B1	502	G	N9-C1'-C2'	-10.35	100.54	114.00
21	A2	721	A	O4'-C1'-N9	10.35	116.48	108.20
21	A2	1248	A	O4'-C1'-C2'	-10.35	95.45	105.80
67	B1	1644	G	C1'-O4'-C4'	10.35	118.18	109.90
67	B1	1722	G	C3'-C2'-C1'	10.35	109.78	101.50
67	B1	347	G	C1'-O4'-C4'	-10.35	101.62	109.90
6	AC	47	PHE	CB-CG-CD2	-10.34	113.56	120.80
67	B1	420	U	O4'-C1'-N1	10.34	116.47	108.20
21	A2	246	A	O4'-C1'-C2'	-10.34	95.46	105.80
38	Bb	34	PHE	CB-CG-CD2	-10.33	113.57	120.80
67	B1	887	U	C1'-O4'-C4'	10.33	118.16	109.90
21	A2	1317	G	N9-C1'-C2'	10.33	127.43	114.00
21	A2	369	A	C3'-C2'-C1'	10.32	109.76	101.50
21	A2	885	G	O4'-C1'-N9	10.32	116.46	108.20
21	A2	1242	C	C1'-O4'-C4'	-10.32	101.64	109.90
21	A2	745	G	O4'-C1'-N9	10.32	116.45	108.20
21	A2	1100	G	O4'-C1'-N9	-10.32	99.94	108.20
67	B1	1919	A	O4'-C1'-N9	10.31	116.45	108.20
21	A2	1273	G	N9-C1'-C2'	10.31	127.40	114.00
67	B1	1233	U	O4'-C1'-N1	10.31	116.45	108.20
67	B1	2587	G	O4'-C1'-N9	-10.31	99.95	108.20
67	B1	63	A	O4'-C1'-C2'	-10.30	95.50	105.80
67	B1	697	U	O4'-C1'-N1	10.30	116.44	108.20
21	A2	734	G	O4'-C1'-N9	10.30	116.44	108.20
21	A2	267	C	C3'-C2'-C1'	10.29	109.74	101.50
21	A2	368	C	C3'-C2'-C1'	10.29	109.73	101.50
21	A2	1151	A	N9-C1'-C2'	10.29	127.38	114.00
36	Bf	22	ARG	NE-CZ-NH1	10.30	125.45	120.30
67	B1	2418	G	P-O3'-C3'	10.30	132.06	119.70
67	B1	2632	C	C1'-O4'-C4'	10.29	118.14	109.90
21	A2	687	G	N9-C1'-C2'	10.29	127.38	114.00
21	A2	785	U	O4'-C1'-N1	10.29	116.43	108.20
67	B1	133	G	O4'-C1'-N9	10.29	116.43	108.20
67	B1	1547	U	C1'-O4'-C4'	10.29	118.13	109.90
67	B1	1465	A	C1'-O4'-C4'	10.29	118.13	109.90
15	AE	184	TYR	CB-CG-CD2	10.28	127.17	121.00
21	A2	132	G	O4'-C1'-N9	10.28	116.42	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	473	A	C1'-O4'-C4'	-10.28	101.67	109.90
67	B1	176	G	O4'-C1'-N9	10.28	116.42	108.20
68	B3	48	A	P-O3'-C3'	10.28	132.04	119.70
21	A2	261	G	O4'-C1'-N9	10.28	116.42	108.20
21	A2	18	C	N1-C1'-C2'	10.28	127.36	114.00
21	A2	747	U	O4'-C1'-N1	10.28	116.42	108.20
21	A2	949	G	C3'-C2'-C1'	-10.28	93.28	101.50
24	AA	146	TYR	CB-CG-CD1	-10.28	114.83	121.00
60	BS	26	ARG	NE-CZ-NH2	-10.28	115.16	120.30
60	BS	82	ARG	NE-CZ-NH1	-10.28	115.16	120.30
49	BQ	126	ARG	NE-CZ-NH2	10.27	125.44	120.30
27	A0	33	U	O4'-C1'-N1	10.27	116.42	108.20
67	B1	2349	U	O4'-C1'-N1	10.27	116.42	108.20
67	B1	495	U	O4'-C1'-N1	10.27	116.41	108.20
67	B1	2121	C	O4'-C1'-C2'	-10.27	95.53	105.80
67	B1	2516	G	N9-C1'-C2'	10.27	127.35	114.00
67	B1	2802	G	O4'-C1'-N9	10.27	116.41	108.20
67	B1	2544	C	N1-C1'-C2'	10.26	127.34	114.00
21	A2	943	C	N1-C1'-C2'	10.26	127.34	114.00
14	AM	103	ARG	NE-CZ-NH1	10.26	125.43	120.30
21	A2	1421	C	O4'-C1'-N1	10.26	116.41	108.20
67	B1	1040	C	C3'-C2'-C1'	10.25	109.70	101.50
67	B1	2542	G	O4'-C1'-N9	10.25	116.40	108.20
8	AR	54	TYR	CB-CG-CD2	10.25	127.15	121.00
21	A2	754	G	N9-C1'-C2'	10.25	127.32	114.00
21	A2	1391	U	P-O3'-C3'	10.25	132.00	119.70
67	B1	137	A	C3'-C2'-C1'	10.25	109.70	101.50
67	B1	748	G	O4'-C1'-N9	10.25	116.40	108.20
67	B1	2434	A	O4'-C1'-N9	-10.25	100.00	108.20
67	B1	2455	G	O4'-C1'-N9	10.25	116.40	108.20
67	B1	2503	C	C3'-C2'-C1'	10.24	109.69	101.50
21	A2	750	C	C3'-C2'-C1'	10.24	109.69	101.50
67	B1	2119	C	O4'-C1'-C2'	-10.24	95.56	105.80
67	B1	996	U	C1'-O4'-C4'	10.23	118.09	109.90
67	B1	2881	G	C1'-O4'-C4'	-10.23	101.71	109.90
21	A2	244	G	P-O3'-C3'	-10.23	107.42	119.70
67	B1	2875	C	N1-C1'-C2'	10.23	127.30	114.00
67	B1	1469	U	O4'-C1'-N1	10.23	116.38	108.20
67	B1	3048	C	N1-C1'-C2'	10.23	127.30	114.00
67	B1	393	C	N1-C1'-C2'	10.23	127.30	114.00
8	AR	44	ARG	NE-CZ-NH2	-10.23	115.19	120.30
67	B1	794	G	C3'-C2'-C1'	-10.23	93.32	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	764	G	N9-C1'-C2'	-10.22	100.71	114.00
67	B1	799	C	O4'-C1'-N1	10.22	116.38	108.20
21	A2	877	A	C3'-C2'-C1'	10.22	109.68	101.50
67	B1	2347	G	O4'-C1'-N9	10.22	116.38	108.20
33	BC	276	PHE	CB-CG-CD2	10.22	127.95	120.80
67	B1	2476	A	O4'-C1'-N9	-10.22	100.03	108.20
67	B1	152	G	P-O3'-C3'	10.22	131.96	119.70
67	B1	1368	A	C1'-O4'-C4'	10.22	118.07	109.90
67	B1	2269	C	O4'-C1'-C2'	-10.21	95.58	105.80
21	A2	1165	U	O4'-C1'-N1	10.21	116.37	108.20
8	AR	54	TYR	CB-CG-CD1	-10.21	114.87	121.00
18	AF	8	TYR	CB-CG-CD1	10.21	127.13	121.00
61	Bd	28	ARG	NE-CZ-NH2	-10.21	115.19	120.30
67	B1	2165	A	N1-C6-N6	10.21	124.73	118.60
21	A2	422	U	N1-C1'-C2'	-10.21	100.73	114.00
21	A2	505	U	C1'-O4'-C4'	10.21	118.06	109.90
40	BE	107	PHE	CB-CG-CD2	-10.21	113.66	120.80
67	B1	938	U	O4'-C1'-N1	10.20	116.36	108.20
21	A2	942	A	O4'-C1'-C2'	10.20	116.78	107.60
21	A2	1064	C	N1-C1'-C2'	10.20	127.26	114.00
49	BQ	121	ARG	NE-CZ-NH2	-10.20	115.20	120.30
67	B1	2239	C	N1-C1'-C2'	10.20	127.26	114.00
6	AC	20	PHE	CB-CG-CD2	-10.20	113.66	120.80
21	A2	626	G	N9-C1'-C2'	-10.20	100.74	114.00
21	A2	1043	U	C1'-O4'-C4'	10.20	118.06	109.90
21	A2	439	G	C4'-C3'-C2'	10.19	112.79	102.60
21	A2	1229	A	O4'-C1'-N9	10.19	116.35	108.20
67	B1	2970	U	P-O3'-C3'	10.19	131.93	119.70
67	B1	2686	A	P-O3'-C3'	10.19	131.92	119.70
67	B1	719	C	C1'-O4'-C4'	-10.18	101.75	109.90
67	B1	68	G	C3'-C2'-C1'	10.18	109.64	101.50
15	AE	204	ARG	NE-CZ-NH1	10.18	125.39	120.30
21	A2	199	A	P-O3'-C3'	10.18	131.91	119.70
67	B1	1944	C	C1'-O4'-C4'	10.18	118.04	109.90
67	B1	1157	U	O4'-C1'-C2'	-10.18	95.62	105.80
21	A2	1439	G	O4'-C1'-N9	10.17	116.34	108.20
21	A2	1142	G	O4'-C1'-N9	-10.17	100.06	108.20
67	B1	894	C	C3'-C2'-C1'	10.17	109.64	101.50
21	A2	746	A	N9-C1'-C2'	-10.17	100.78	114.00
67	B1	740	C	N1-C1'-C2'	10.17	127.22	114.00
21	A2	1172	A	O4'-C1'-N9	10.17	116.33	108.20
23	AT	28	PHE	CB-CG-CD1	-10.17	113.68	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1223	A	O4'-C1'-C2'	-10.17	95.63	105.80
21	A2	802	G	C1'-O4'-C4'	-10.16	101.77	109.90
67	B1	2543	A	N9-C1'-C2'	-10.16	100.79	114.00
68	B3	49	A	O4'-C1'-C2'	-10.16	95.64	105.80
21	A2	268	C	C3'-C2'-C1'	10.16	109.63	101.50
21	A2	1217	C	C3'-C2'-C1'	10.16	109.62	101.50
67	B1	1767	C	C1'-O4'-C4'	-10.15	101.78	109.90
67	B1	2069	G	C1'-O4'-C4'	-10.15	101.78	109.90
68	B3	98	G	C1'-O4'-C4'	10.15	118.02	109.90
47	BI	49	TYR	CB-CG-CD1	10.15	127.09	121.00
62	BN	82	TYR	CB-CG-CD2	-10.15	114.91	121.00
67	B1	1916	U	O4'-C1'-N1	10.15	116.32	108.20
67	B1	2593	A	O4'-C1'-N9	10.15	116.32	108.20
21	A2	674	C	O4'-C1'-C2'	-10.14	95.66	105.80
67	B1	1379	A	O4'-C1'-C2'	-10.14	95.66	105.80
21	A2	680	C	O4'-C1'-C2'	-10.14	95.66	105.80
67	B1	50	C	C1'-O4'-C4'	10.14	118.02	109.90
67	B1	1674	G	C3'-C2'-C1'	-10.14	93.39	101.50
21	A2	774	U	N1-C1'-C2'	10.14	127.18	114.00
21	A2	1156	A	P-O3'-C3'	10.14	131.87	119.70
67	B1	1726	A	C1'-O4'-C4'	10.14	118.01	109.90
21	A2	657	A	O4'-C1'-N9	10.14	116.31	108.20
67	B1	963	G	N9-C1'-C2'	10.14	127.18	114.00
67	B1	2195	G	C1'-O4'-C4'	-10.14	101.79	109.90
67	B1	2390	G	O4'-C1'-N9	10.14	116.31	108.20
21	A2	1155	U	C3'-C2'-C1'	10.13	109.61	101.50
17	AO	115	TYR	CB-CG-CD2	-10.13	114.92	121.00
15	AE	8	ARG	NE-CZ-NH1	-10.13	115.23	120.30
67	B1	220	C	P-O3'-C3'	10.13	131.85	119.70
67	B1	426	G	N9-C1'-C2'	10.13	127.17	114.00
67	B1	517	A	C1'-O4'-C4'	10.13	118.00	109.90
67	B1	2892	A	O4'-C1'-N9	-10.13	100.10	108.20
21	A2	20	G	O4'-C1'-N9	10.13	116.30	108.20
21	A2	1217	C	O4'-C1'-N1	-10.12	100.10	108.20
58	BP	117	ARG	NE-CZ-NH1	10.12	125.36	120.30
67	B1	1317	G	C3'-C2'-C1'	-10.12	93.40	101.50
67	B1	754	U	C3'-C2'-C1'	-10.12	93.40	101.50
67	B1	1037	C	O4'-C1'-N1	10.12	116.30	108.20
38	Bb	79	TYR	CB-CG-CD1	-10.12	114.93	121.00
67	B1	3036	C	O4'-C4'-C3'	-10.12	93.88	104.00
68	B3	15	G	O4'-C1'-N9	10.12	116.29	108.20
21	A2	848	G	O4'-C1'-N9	10.12	116.29	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1099	A	O4'-C1'-N9	10.11	116.29	108.20
67	B1	1887	A	C3'-C2'-C1'	10.11	109.59	101.50
67	B1	2257	A	N9-C1'-C2'	-10.11	100.85	114.00
16	AJ	79	ARG	NE-CZ-NH1	10.11	125.36	120.30
67	B1	1559	A	C3'-C2'-C1'	10.11	109.59	101.50
21	A2	110	C	C3'-C2'-C1'	10.11	109.59	101.50
21	A2	1171	G	C3'-C2'-C1'	10.11	109.58	101.50
67	B1	778	A	N9-C1'-C2'	10.11	127.14	114.00
67	B1	2040	A	C1'-O4'-C4'	10.11	117.98	109.90
21	A2	946	G	O4'-C1'-N9	10.10	116.28	108.20
21	A2	575	A	C1'-O4'-C4'	10.10	117.98	109.90
60	BS	131	ARG	NE-CZ-NH1	10.10	125.35	120.30
25	AH	48	HIS	C-N-CA	10.10	143.50	122.30
67	B1	2186	C	O4'-C1'-N1	10.09	116.27	108.20
68	B3	71	G	C3'-C2'-C1'	-10.09	93.43	101.50
67	B1	556	G	O4'-C1'-N9	10.09	116.27	108.20
21	A2	392	G	C1'-O4'-C4'	-10.09	101.83	109.90
67	B1	1804	G	N9-C1'-C2'	10.09	127.11	114.00
68	B3	45	C	O4'-C1'-C2'	-10.08	95.72	105.80
67	B1	1326	U	O4'-C1'-N1	10.08	116.27	108.20
21	A2	434	A	C5'-C4'-C3'	-10.08	99.87	116.00
67	B1	974	U	C3'-C2'-C1'	10.08	109.56	101.50
21	A2	116	C	C3'-C2'-C1'	10.08	109.56	101.50
67	B1	1228	G	O4'-C1'-C2'	-10.08	95.72	105.80
67	B1	2184	G	O4'-C1'-N9	10.08	116.26	108.20
67	B1	1501	G	C1'-O4'-C4'	-10.08	101.84	109.90
67	B1	2864	G	O4'-C1'-N9	10.08	116.26	108.20
28	B6	24	TYR	CB-CG-CD1	10.07	127.05	121.00
67	B1	569	G	C3'-C2'-C1'	10.07	109.56	101.50
67	B1	428	A	N9-C1'-C2'	-10.07	100.91	114.00
67	B1	2581	G	O4'-C1'-N9	10.07	116.26	108.20
67	B1	1090	G	C1'-O4'-C4'	-10.06	101.85	109.90
67	B1	1347	U	P-O3'-C3'	10.06	131.78	119.70
67	B1	1739	U	P-O3'-C3'	10.06	131.78	119.70
21	A2	1106	A	O4'-C1'-C2'	-10.06	95.74	105.80
4	AG	102	ARG	NE-CZ-NH1	-10.06	115.27	120.30
67	B1	1230	G	C1'-O4'-C4'	-10.06	101.85	109.90
67	B1	605	A	C1'-O4'-C4'	10.06	117.95	109.90
67	B1	1865	U	N1-C1'-C2'	-10.06	100.92	114.00
67	B1	2210	G	O4'-C1'-C2'	10.05	116.65	107.60
67	B1	2382	A	O4'-C1'-C2'	-10.05	95.75	105.80
67	B1	2725	U	C3'-C2'-C1'	10.05	109.54	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2562	G	P-O3'-C3'	10.05	131.76	119.70
21	A2	1100	G	C1'-O4'-C4'	-10.05	101.86	109.90
21	A2	437	A	N9-C1'-C2'	10.04	127.06	114.00
67	B1	1097	G	O5'-C5'-C4'	10.04	130.79	111.70
11	A1	76	C	C3'-C2'-C1'	10.04	109.53	101.50
21	A2	47	A	P-O3'-C3'	10.04	131.75	119.70
21	A2	467	G	C1'-O4'-C4'	-10.04	101.87	109.90
21	A2	1457	A	C3'-C2'-C1'	10.04	109.53	101.50
67	B1	923	A	C1'-O4'-C4'	10.04	117.93	109.90
21	A2	147	A	C3'-C2'-C1'	10.04	109.53	101.50
52	BB	25	ARG	NE-CZ-NH2	10.04	125.32	120.30
67	B1	962	C	N1-C1'-C2'	10.04	127.05	114.00
49	BQ	61	TYR	CB-CG-CD1	-10.03	114.98	121.00
67	B1	1487	U	O4'-C1'-N1	10.03	116.22	108.20
67	B1	2650	G	N9-C1'-C2'	10.03	127.04	114.00
67	B1	2694	C	N1-C1'-C2'	10.03	127.04	114.00
67	B1	732	G	N9-C1'-C2'	10.03	127.04	114.00
21	A2	689	C	O4'-C1'-C2'	-10.03	95.77	105.80
67	B1	1080	G	O4'-C1'-N9	10.03	116.22	108.20
67	B1	1602	C	O4'-C1'-N1	10.03	116.22	108.20
67	B1	1826	G	O4'-C1'-N9	10.03	116.22	108.20
67	B1	1571	G	C5'-C4'-C3'	10.03	132.04	116.00
67	B1	1612	G	P-O5'-C5'	10.03	136.94	120.90
67	B1	2592	U	N1-C1'-C2'	10.03	127.03	114.00
67	B1	1895	G	O4'-C1'-N9	10.02	116.22	108.20
67	B1	2912	G	C1'-O4'-C4'	10.02	117.92	109.90
67	B1	2967	C	C1'-O4'-C4'	-10.02	101.88	109.90
67	B1	1504	C	N1-C1'-C2'	10.02	127.03	114.00
67	B1	1622	G	C1'-O4'-C4'	10.02	117.92	109.90
67	B1	2517	U	C3'-C2'-C1'	10.02	109.52	101.50
11	A1	40	U	O4'-C1'-N1	10.02	116.21	108.20
21	A2	526	A	N9-C1'-C2'	10.02	127.02	114.00
21	A2	284	A	O4'-C1'-C2'	-10.02	95.78	105.80
67	B1	256	G	O4'-C1'-N9	10.02	116.21	108.20
67	B1	2012	G	C3'-C2'-C1'	-10.02	93.49	101.50
67	B1	2830	C	O4'-C1'-N1	10.01	116.21	108.20
21	A2	1115	G	C3'-C2'-C1'	-10.01	93.49	101.50
67	B1	2585	G	O4'-C1'-C2'	10.01	116.61	107.60
21	A2	1081	C	O4'-C1'-C2'	-10.01	95.80	105.80
67	B1	417	C	O4'-C1'-N1	10.00	116.20	108.20
21	A2	423	U	C1'-O4'-C4'	10.00	117.90	109.90
67	B1	2011	U	O4'-C1'-C2'	-10.00	95.80	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2178	A	C3'-C2'-C1'	10.00	109.50	101.50
67	B1	2764	G	O4'-C1'-C2'	10.00	116.60	107.60
21	A2	357	C	N1-C1'-C2'	10.00	127.00	114.00
67	B1	2819	C	N1-C1'-C2'	10.00	127.00	114.00
21	A2	513	A	C3'-C2'-C1'	9.99	109.50	101.50
28	AV	60	PHE	CB-CG-CD2	-9.99	113.80	120.80
67	B1	1480	G	O4'-C1'-C2'	-9.99	95.81	105.80
21	A2	117	C	C3'-C2'-C1'	9.99	109.49	101.50
21	A2	915	U	O4'-C1'-N1	9.99	116.19	108.20
67	B1	1335	C	N1-C1'-C2'	9.99	126.99	114.00
67	B1	1872	G	O4'-C1'-N9	9.99	116.19	108.20
67	B1	2266	C	C3'-C2'-C1'	9.99	109.50	101.50
2	AK	10	ARG	NE-CZ-NH1	9.99	125.30	120.30
67	B1	2680	A	C1'-O4'-C4'	9.99	117.89	109.90
67	B1	1747	C	N1-C1'-C2'	9.99	126.98	114.00
21	A2	1017	U	C3'-C2'-C1'	9.98	109.49	101.50
67	B1	1363	C	O4'-C1'-C2'	-9.98	95.81	105.80
21	A2	580	G	C3'-C2'-C1'	-9.98	93.52	101.50
21	A2	709	G	O4'-C1'-C2'	-9.98	95.82	105.80
67	B1	412	G	O4'-C1'-N9	-9.98	100.21	108.20
67	B1	487	U	O4'-C1'-N1	9.98	116.19	108.20
21	A2	1124	G	C1'-O4'-C4'	-9.98	101.92	109.90
67	B1	2865	C	C1'-O4'-C4'	-9.98	101.92	109.90
67	B1	1326	U	N1-C1'-C2'	-9.98	101.03	112.00
21	A2	1472	G	O4'-C1'-N9	9.97	116.18	108.20
67	B1	879	A	O4'-C1'-N9	9.97	116.18	108.20
68	B3	46	G	O4'-C1'-N9	9.97	116.18	108.20
21	A2	1013	G	N1-C6-O6	9.97	125.88	119.90
21	A2	1362	C	O4'-C1'-C2'	-9.97	95.83	105.80
67	B1	1557	G	O4'-C1'-N9	9.97	116.18	108.20
21	A2	721	A	C1'-O4'-C4'	9.97	117.88	109.90
27	A0	19	G	O4'-C1'-N9	9.97	116.17	108.20
67	B1	327	G	O4'-C1'-N9	9.97	116.17	108.20
21	A2	111	G	O4'-C1'-N9	9.96	116.17	108.20
21	A2	400	G	O4'-C1'-N9	9.96	116.17	108.20
21	A2	528	G	P-O3'-C3'	9.97	131.66	119.70
18	AF	5	TRP	CA-CB-CG	9.96	132.63	113.70
21	A2	26	A	P-O5'-C5'	9.96	136.84	120.90
67	B1	1400	U	O4'-C1'-N1	9.96	116.17	108.20
67	B1	3033	G	C1'-O4'-C4'	-9.96	101.93	109.90
67	B1	2662	G	O4'-C1'-C2'	9.96	116.56	107.60
67	B1	2988	A	C1'-O4'-C4'	9.96	117.87	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	942	A	O4'-C1'-N9	9.96	116.16	108.20
67	B1	905	G	C1'-O4'-C4'	-9.96	101.94	109.90
67	B1	1484	U	P-O5'-C5'	9.96	136.83	120.90
68	B3	67	U	O4'-C1'-C2'	-9.95	95.85	105.80
67	B1	1342	G	O4'-C1'-N9	9.95	116.16	108.20
67	B1	1513	G	C3'-C2'-C1'	-9.95	93.54	101.50
21	A2	794	A	C1'-O4'-C4'	-9.95	101.94	109.90
67	B1	426	G	O4'-C1'-C2'	9.95	116.56	107.60
27	A0	41	C	N1-C1'-C2'	9.95	126.93	114.00
67	B1	817	G	O4'-C1'-N9	-9.95	100.24	108.20
67	B1	1869	U	O4'-C1'-N1	9.95	116.16	108.20
67	B1	1263	C	N1-C1'-C2'	9.95	126.93	114.00
21	A2	192	G	O4'-C1'-C2'	9.94	116.55	107.60
21	A2	598	U	O4'-C1'-N1	9.95	116.16	108.20
53	BD	180	ARG	NE-CZ-NH1	9.95	125.27	120.30
67	B1	2206	G	C1'-O4'-C4'	-9.95	101.94	109.90
21	A2	904	G	O4'-C1'-C2'	-9.94	95.86	105.80
21	A2	1035	C	N1-C1'-C2'	9.94	126.93	114.00
67	B1	1632	U	O4'-C1'-N1	9.94	116.15	108.20
67	B1	1220	U	O4'-C1'-N1	9.94	116.15	108.20
67	B1	2152	G	C1'-O4'-C4'	9.94	117.85	109.90
21	A2	705	C	C3'-C2'-C1'	9.94	109.45	101.50
21	A2	847	A	O4'-C1'-C2'	9.94	116.54	107.60
52	BB	54	ARG	NE-CZ-NH2	-9.93	115.34	120.30
67	B1	638	A	N1-C6-N6	9.93	124.56	118.60
67	B1	1547	U	O4'-C1'-C2'	-9.93	95.87	105.80
21	A2	328	G	C4'-C3'-C2'	-9.93	92.67	102.60
67	B1	406	G	P-O3'-C3'	9.93	131.61	119.70
67	B1	696	G	O4'-C1'-N9	9.92	116.14	108.20
11	A1	25	G	O4'-C1'-C2'	-9.92	95.88	105.80
11	A1	53	G	O4'-C1'-N9	9.92	116.14	108.20
21	A2	309	A	O4'-C1'-C2'	-9.92	95.88	105.80
67	B1	1346	G	O4'-C1'-N9	9.92	116.14	108.20
67	B1	2099	G	O4'-C1'-C2'	9.92	116.53	107.60
67	B1	1200	A	O4'-C1'-C2'	-9.92	95.88	105.80
67	B1	1385	C	O4'-C1'-N1	9.92	116.14	108.20
10	AD	27	ARG	NE-CZ-NH2	9.92	125.26	120.30
11	A1	21	G	O4'-C1'-N9	9.92	116.13	108.20
59	BM	71	ARG	NE-CZ-NH2	9.92	125.26	120.30
67	B1	1682	C	N1-C1'-C2'	9.92	126.89	114.00
67	B1	3022	C	C1'-O4'-C4'	-9.92	101.97	109.90
21	A2	1042	U	O4'-C1'-N1	9.91	116.13	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	478	C	C3'-C2'-C1'	9.91	109.43	101.50
67	B1	1080	G	N9-C1'-C2'	-9.91	101.09	112.00
67	B1	2024	A	O4'-C1'-C2'	-9.91	95.89	105.80
67	B1	1806	C	O4'-C1'-N1	9.91	116.13	108.20
21	A2	424	U	O4'-C1'-C2'	9.90	116.52	107.60
54	BF	37	ARG	NE-CZ-NH1	9.90	125.25	120.30
67	B1	436	C	C3'-C2'-C1'	9.90	109.42	101.50
67	B1	1601	G	O3'-P-O5'	-9.90	85.18	104.00
67	B1	2529	G	N9-C1'-C2'	9.90	126.88	114.00
21	A2	540	G	N9-C1'-C2'	-9.90	101.11	112.00
67	B1	2428	C	O4'-C1'-N1	9.90	116.12	108.20
67	B1	544	A	C3'-C2'-C1'	9.90	109.42	101.50
67	B1	1048	C	C1'-O4'-C4'	-9.90	101.98	109.90
67	B1	2417	G	O4'-C1'-N9	9.90	116.12	108.20
67	B1	1958	A	C1'-O4'-C4'	9.90	117.82	109.90
21	A2	728	G	O4'-C1'-N9	9.90	116.12	108.20
67	B1	2612	A	O4'-C1'-C2'	-9.90	95.90	105.80
67	B1	2190	A	O4'-C1'-N9	9.90	116.12	108.20
67	B1	2575	U	C1'-O4'-C4'	-9.90	101.98	109.90
1	AQ	58	TYR	CB-CG-CD1	-9.89	115.06	121.00
21	A2	583	G	N9-C1'-C2'	9.89	126.86	114.00
67	B1	2879	G	O4'-C1'-C2'	-9.89	95.91	105.80
67	B1	2752	U	O4'-C1'-N1	9.89	116.11	108.20
21	A2	1095	C	C1'-O4'-C4'	-9.88	101.99	109.90
67	B1	236	G	O4'-C1'-C2'	9.88	116.50	107.60
67	B1	239	G	O4'-C1'-C2'	9.88	116.50	107.60
67	B1	2935	A	P-O3'-C3'	9.88	131.56	119.70
21	A2	1485	G	O4'-C1'-N9	9.88	116.11	108.20
53	BD	90	ARG	NE-CZ-NH2	-9.88	115.36	120.30
67	B1	867	C	O4'-C1'-C2'	-9.88	95.92	105.80
67	B1	947	C	O4'-C1'-C2'	-9.88	95.92	105.80
67	B1	1449	C	C3'-C2'-C1'	9.88	109.40	101.50
67	B1	2245	C	C3'-C2'-C1'	9.88	109.41	101.50
67	B1	76	C	C1'-O4'-C4'	9.88	117.80	109.90
29	AL	59	ALA	CB-CA-C	9.88	124.91	110.10
67	B1	2440	C	O4'-C1'-N1	9.87	116.10	108.20
67	B1	2801	G	C1'-O4'-C4'	-9.88	102.00	109.90
21	A2	919	U	C3'-C2'-C1'	9.87	109.40	101.50
21	A2	1005	G	C3'-C2'-C1'	-9.87	93.60	101.50
67	B1	2396	G	C3'-C2'-C1'	9.87	109.40	101.50
67	B1	2672	A	C3'-C2'-C1'	9.87	109.40	101.50
67	B1	324	C	C3'-C2'-C1'	9.87	109.39	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AH	73	ARG	NE-CZ-NH2	-9.86	115.37	120.30
68	B3	44	C	O4'-C1'-N1	9.86	116.09	108.20
27	A0	18	G	P-O3'-C3'	-9.86	107.87	119.70
67	B1	2374	C	O4'-C1'-N1	9.86	116.09	108.20
67	B1	16	G	O4'-C1'-N9	9.86	116.09	108.20
21	A2	1206	G	O4'-C1'-N9	9.86	116.09	108.20
67	B1	2907	C	P-O3'-C3'	-9.86	107.87	119.70
21	A2	1195	U	N1-C1'-C2'	9.86	126.81	114.00
67	B1	1654	G	O4'-C1'-N9	9.86	116.08	108.20
67	B1	2337	G	N9-C1'-C2'	9.86	126.81	114.00
67	B1	3041	U	P-O3'-C3'	9.86	131.53	119.70
27	A0	73	G	O4'-C1'-N9	9.85	116.08	108.20
67	B1	2549	A	O4'-C1'-C2'	-9.85	95.95	105.80
6	AC	147	TYR	CB-CG-CD2	-9.85	115.09	121.00
37	BU	36	ARG	NE-CZ-NH2	-9.85	115.37	120.30
67	B1	990	G	O4'-C1'-C2'	9.85	116.46	107.60
67	B1	2271	G	O4'-C1'-N9	9.85	116.08	108.20
67	B1	2546	G	C3'-C2'-C1'	9.85	109.38	101.50
21	A2	1064	C	C1'-O4'-C4'	-9.85	102.02	109.90
67	B1	2730	U	C1'-O4'-C4'	9.85	117.78	109.90
21	A2	378	A	O4'-C1'-N9	9.84	116.08	108.20
67	B1	1485	A	C3'-C2'-C1'	9.84	109.37	101.50
67	B1	2554	A	N9-C1'-C2'	-9.84	101.17	112.00
21	A2	611	A	O4'-C1'-N9	9.84	116.07	108.20
67	B1	1483	U	C3'-C2'-C1'	9.84	109.37	101.50
67	B1	1554	G	N9-C1'-C2'	9.84	126.79	114.00
21	A2	440	C	C5'-C4'-C3'	-9.84	100.26	116.00
67	B1	286	G	O4'-C1'-N9	9.84	116.07	108.20
11	A1	22	A	N9-C1'-C2'	9.83	126.78	114.00
21	A2	551	U	N1-C1'-C2'	9.83	126.78	114.00
21	A2	1292	A	C1'-O4'-C4'	9.83	117.76	109.90
21	A2	1079	G	O4'-C1'-C2'	-9.83	95.97	105.80
11	A1	68	C	O4'-C1'-N1	9.82	116.06	108.20
67	B1	937	A	C1'-O4'-C4'	-9.82	102.04	109.90
67	B1	2209	U	N1-C1'-C2'	-9.82	101.19	112.00
21	A2	369	A	P-O5'-C5'	9.82	136.61	120.90
21	A2	1336	U	O4'-C1'-C2'	-9.82	95.98	105.80
67	B1	576	G	C1'-O4'-C4'	-9.82	102.04	109.90
67	B1	2617	G	C3'-C2'-C1'	9.82	109.36	101.50
67	B1	67	U	O4'-C1'-N1	9.82	116.06	108.20
21	A2	867	A	C1'-O4'-C4'	9.82	117.75	109.90
67	B1	1438	C	C3'-C2'-C1'	9.81	109.35	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	617	A	O4'-C1'-C2'	-9.81	95.99	105.80
67	B1	226	C	C3'-C2'-C1'	9.81	109.35	101.50
67	B1	2280	G	O4'-C1'-N9	9.81	116.05	108.20
67	B1	2754	A	P-O5'-C5'	9.81	136.60	120.90
67	B1	1096	A	C4'-C3'-C2'	-9.81	92.79	102.60
67	B1	1979	G	O4'-C1'-N9	9.81	116.05	108.20
67	B1	2761	G	O4'-C1'-C2'	-9.81	95.99	105.80
67	B1	2961	A	C1'-O4'-C4'	9.80	117.74	109.90
67	B1	486	A	C1'-O4'-C4'	9.80	117.74	109.90
67	B1	1076	G	N9-C1'-C2'	-9.80	101.22	112.00
21	A2	659	U	O4'-C1'-N1	9.80	116.04	108.20
21	A2	1019	A	C3'-C2'-C1'	9.80	109.34	101.50
67	B1	371	U	C3'-C2'-C1'	9.80	109.34	101.50
21	A2	181	G	O4'-C1'-C2'	9.79	116.42	107.60
67	B1	277	A	O4'-C1'-N9	-9.79	100.36	108.20
21	A2	1485	G	P-O3'-C3'	-9.79	107.95	119.70
51	Bj	33	LEU	CB-CG-CD1	9.79	127.65	111.00
44	BW	22	ARG	NE-CZ-NH1	9.79	125.19	120.30
67	B1	781	C	O4'-C1'-N1	9.79	116.03	108.20
21	A2	31	U	O4'-C1'-C2'	-9.79	96.01	105.80
67	B1	2108	U	O4'-C1'-N1	9.79	116.03	108.20
66	B1	61	ARG	NE-CZ-NH1	9.79	125.19	120.30
67	B1	1577	C	O4'-C1'-C2'	-9.79	96.01	105.80
67	B1	3031	U	N1-C1'-C2'	9.79	126.72	114.00
21	A2	814	C	N1-C1'-C2'	9.78	126.72	114.00
67	B1	130	G	C3'-C2'-C1'	9.78	109.33	101.50
67	B1	526	C	O4'-C1'-N1	9.78	116.03	108.20
68	B3	119	C	O4'-C1'-C2'	-9.78	96.02	105.80
21	A2	1345	G	C3'-C2'-C1'	-9.78	93.68	101.50
27	A0	35	U	C3'-C2'-C1'	9.78	109.32	101.50
67	B1	2318	G	C1'-O4'-C4'	-9.78	102.08	109.90
67	B1	251	C	C1'-O4'-C4'	-9.77	102.08	109.90
67	B1	2655	C	O4'-C1'-N1	9.77	116.02	108.20
67	B1	2765	C	N1-C1'-C2'	9.77	126.70	114.00
21	A2	557	G	O4'-C1'-N9	9.77	116.02	108.20
12	AN	96	PHE	CB-CG-CD2	-9.77	113.96	120.80
21	A2	403	C	O4'-C1'-N1	9.77	116.02	108.20
67	B1	1956	G	C3'-C2'-C1'	-9.77	93.68	101.50
67	B1	2969	G	C1'-O4'-C4'	-9.77	102.08	109.90
67	B1	278	C	O4'-C1'-C2'	9.77	116.39	107.60
67	B1	1951	G	N9-C1'-C2'	-9.76	101.26	112.00
21	A2	200	G	C1'-O4'-C4'	9.76	117.71	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1016	G	O4'-C1'-N9	9.76	116.01	108.20
43	Bk	42	ARG	NE-CZ-NH2	9.76	125.18	120.30
67	B1	2078	A	N9-C1'-C2'	-9.76	101.27	112.00
21	A2	201	G	C1'-O4'-C4'	9.75	117.70	109.90
21	A2	1490	C	C3'-C2'-C1'	9.75	109.30	101.50
38	Bb	41	ARG	NE-CZ-NH2	-9.75	115.42	120.30
67	B1	2473	C	C3'-C2'-C1'	9.75	109.30	101.50
67	B1	2308	C	N1-C1'-C2'	9.75	126.67	114.00
67	B1	2345	U	C1'-O4'-C4'	-9.75	102.10	109.90
21	A2	820	G	O4'-C1'-C2'	9.75	116.37	107.60
67	B1	2042	A	O4'-C1'-N9	9.75	116.00	108.20
21	A2	842	U	C1'-O4'-C4'	9.75	117.70	109.90
67	B1	2270	G	C4'-C3'-C2'	-9.75	92.85	102.60
67	B1	1650	U	O4'-C1'-N1	9.74	116.00	108.20
21	A2	466	C	C1'-O4'-C4'	-9.74	102.11	109.90
15	AE	184	TYR	CB-CG-CD1	-9.74	115.16	121.00
21	A2	157	A	C3'-C2'-C1'	9.74	109.29	101.50
67	B1	2630	C	O4'-C1'-C2'	9.74	116.36	107.60
21	A2	1457	A	N9-C1'-C2'	9.73	126.66	114.00
21	A2	413	G	O4'-C1'-N9	9.73	115.99	108.20
21	A2	387	G	N9-C1'-C2'	9.73	126.65	114.00
21	A2	1281	U	O4'-C1'-N1	9.73	115.98	108.20
67	B1	188	A	C1'-O4'-C4'	9.73	117.69	109.90
67	B1	816	C	O4'-C1'-N1	9.73	115.99	108.20
67	B1	1868	C	O4'-C1'-C2'	-9.73	96.07	105.80
68	B3	43	C	O4'-C1'-C2'	-9.73	96.07	105.80
67	B1	58	G	C1'-O4'-C4'	-9.73	102.12	109.90
67	B1	250	G	O4'-C1'-N9	9.73	115.98	108.20
67	B1	2076	A	C1'-O4'-C4'	-9.73	102.12	109.90
21	A2	228	G	C1'-O4'-C4'	9.73	117.68	109.90
21	A2	539	C	C3'-C2'-C1'	9.73	109.28	101.50
21	A2	25	C	O4'-C1'-N1	9.72	115.98	108.20
21	A2	1144	G	P-O3'-C3'	-9.72	108.03	119.70
7	AB	161	ARG	NE-CZ-NH1	-9.72	115.44	120.30
67	B1	934	G	C1'-O4'-C4'	-9.72	102.12	109.90
67	B1	1422	G	O4'-C1'-N9	9.72	115.98	108.20
52	BB	84	TYR	CB-CG-CD2	-9.72	115.17	121.00
21	A2	657	A	O4'-C1'-C2'	-9.72	96.08	105.80
21	A2	945	G	C1'-O4'-C4'	-9.71	102.13	109.90
67	B1	1932	G	O4'-C1'-C2'	-9.71	96.08	105.80
67	B1	2486	A	O4'-C1'-C2'	-9.72	96.08	105.80
67	B1	1470	C	C1'-O4'-C4'	-9.71	102.13	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2407	G	O4'-C1'-C2'	9.71	116.34	107.60
67	B1	10	C	O4'-C1'-N1	9.71	115.97	108.20
67	B1	1308	G	C1'-O4'-C4'	-9.71	102.13	109.90
67	B1	1580	G	C3'-C2'-C1'	-9.71	93.73	101.50
21	A2	1045	A	O4'-C1'-N9	9.71	115.97	108.20
21	A2	1416	C	N1-C1'-C2'	-9.71	101.32	112.00
67	B1	301	G	O4'-C1'-C2'	-9.71	96.09	105.80
67	B1	1236	C	O4'-C1'-N1	9.71	115.97	108.20
67	B1	1396	A	C3'-C2'-C1'	9.71	109.27	101.50
67	B1	889	C	O4'-C1'-C2'	-9.71	96.09	105.80
67	B1	1719	C	P-O3'-C3'	9.71	131.35	119.70
21	A2	1317	G	O4'-C1'-N9	9.71	115.97	108.20
67	B1	1803	U	O4'-C1'-N1	9.71	115.96	108.20
52	BB	233	ARG	NE-CZ-NH2	-9.70	115.45	120.30
67	B1	2422	G	N9-C1'-C2'	9.70	126.61	114.00
67	B1	1712	U	O4'-C1'-N1	9.70	115.96	108.20
21	A2	142	G	O4'-C1'-N9	9.70	115.96	108.20
21	A2	197	A	P-O5'-C5'	9.70	136.42	120.90
67	B1	825	C	C3'-C2'-C1'	9.70	109.26	101.50
67	B1	2575	U	O4'-C1'-C2'	9.70	116.33	107.60
67	B1	2652	G	O4'-C1'-N9	9.70	115.96	108.20
21	A2	718	G	O4'-C1'-C2'	9.70	116.33	107.60
21	A2	1011	C	O4'-C1'-N1	9.70	115.96	108.20
21	A2	1150	G	O4'-C1'-N9	9.69	115.95	108.20
67	B1	147	C	N1-C1'-C2'	9.69	126.60	114.00
67	B1	225	C	N1-C1'-C2'	9.69	126.60	114.00
21	A2	671	C	O4'-C1'-C2'	-9.69	96.11	105.80
67	B1	215	A	P-O3'-C3'	9.69	131.32	119.70
60	BS	133	PHE	CB-CG-CD1	9.69	127.58	120.80
67	B1	1604	G	C3'-C2'-C1'	-9.69	93.75	101.50
67	B1	2152	G	O4'-C1'-N9	9.69	115.95	108.20
67	B1	2414	G	O4'-C1'-N9	9.69	115.95	108.20
67	B1	439	G	C3'-C2'-C1'	9.68	109.25	101.50
67	B1	695	G	O4'-C1'-N9	9.68	115.95	108.20
67	B1	2584	A	O4'-C1'-N9	9.68	115.95	108.20
67	B1	1574	A	C3'-C2'-C1'	9.68	109.25	101.50
67	B1	2335	G	C1'-O4'-C4'	-9.68	102.16	109.90
21	A2	894	A	O4'-C1'-N9	9.68	115.94	108.20
67	B1	2594	U	C1'-O4'-C4'	-9.68	102.16	109.90
43	Bk	107	ARG	CB-CA-C	-9.68	91.05	110.40
67	B1	83	G	O3'-P-O5'	-9.68	85.61	104.00
67	B1	1657	G	N1-C6-O6	9.68	125.70	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2328	G	O4'-C1'-N9	9.68	115.94	108.20
67	B1	2573	C	O4'-C1'-C2'	-9.68	96.12	105.80
67	B1	2816	C	O4'-C1'-N1	9.68	115.94	108.20
21	A2	1469	G	O4'-C1'-C2'	9.67	116.31	107.60
67	B1	65	G	O4'-C1'-N9	9.67	115.94	108.20
67	B1	942	U	O4'-C1'-N1	9.67	115.94	108.20
67	B1	2379	G	O4'-C1'-N9	9.67	115.94	108.20
21	A2	438	A	P-O3'-C3'	-9.67	108.10	119.70
21	A2	825	C	N1-C1'-C2'	9.67	126.57	114.00
67	B1	437	G	C1'-O4'-C4'	9.67	117.64	109.90
67	B1	1251	G	O4'-C1'-C2'	-9.67	96.13	105.80
21	A2	643	G	N9-C1'-C2'	9.67	126.57	114.00
21	A2	1307	G	P-O3'-C3'	9.67	131.30	119.70
53	BD	91	ARG	C-N-CA	9.67	145.87	121.70
67	B1	98	G	O4'-C1'-N9	9.67	115.93	108.20
67	B1	2266	C	O4'-C1'-C2'	-9.67	96.13	105.80
67	B1	459	C	O4'-C1'-C2'	-9.66	96.14	105.80
21	A2	1224	U	O4'-C1'-N1	9.66	115.93	108.20
27	A0	14	A	O4'-C1'-C2'	-9.66	96.14	105.80
67	B1	124	C	N1-C1'-C2'	9.66	126.55	114.00
67	B1	2017	A	O4'-C1'-N9	9.66	115.93	108.20
7	AB	5	TYR	CB-CG-CD2	-9.65	115.21	121.00
21	A2	318	C	O4'-C1'-N1	9.65	115.92	108.20
53	BD	83	VAL	O-C-N	9.65	139.44	121.10
67	B1	3049	C	O4'-C1'-C2'	-9.65	96.14	105.80
67	B1	1186	G	O4'-C1'-N9	-9.65	100.48	108.20
21	A2	1379	G	O4'-C1'-N9	9.65	115.92	108.20
67	B1	753	A	P-O3'-C3'	9.65	131.28	119.70
67	B1	2496	G	O4'-C1'-N9	9.65	115.92	108.20
11	A1	28	C	C3'-C2'-C1'	9.64	109.22	101.50
67	B1	2093	A	O4'-C1'-N9	9.64	115.92	108.20
21	A2	1405	C	O4'-C1'-C2'	-9.64	96.16	105.80
67	B1	2354	A	O4'-C1'-N9	9.64	115.91	108.20
21	A2	152	G	P-O3'-C3'	9.64	131.27	119.70
67	B1	428	A	O4'-C1'-C2'	-9.64	96.16	105.80
67	B1	730	C	C3'-C2'-C1'	9.64	109.21	101.50
67	B1	1077	G	C3'-C2'-C1'	-9.64	93.79	101.50
21	A2	673	C	N1-C1'-C2'	9.64	126.53	114.00
21	A2	1323	A	C3'-C2'-C1'	9.64	109.21	101.50
67	B1	2262	C	C3'-C2'-C1'	9.64	109.21	101.50
67	B1	1542	U	P-O3'-C3'	9.63	131.26	119.70
67	B1	2083	G	O4'-C1'-N9	9.63	115.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	B3	115	C	C3'-C2'-C1'	9.64	109.21	101.50
17	AO	9	ARG	NE-CZ-NH1	-9.63	115.48	120.30
21	A2	177	A	C1'-O4'-C4'	9.63	117.61	109.90
21	A2	1027	C	O4'-C1'-N1	9.63	115.91	108.20
67	B1	819	U	O4'-C1'-C2'	-9.63	96.17	105.80
64	Bc	15	GLU	CA-CB-CG	9.63	134.58	113.40
67	B1	3041	U	C3'-C2'-C1'	9.63	109.20	101.50
21	A2	1285	C	O4'-C1'-N1	9.62	115.90	108.20
67	B1	1473	C	C1'-O4'-C4'	-9.62	102.20	109.90
68	B3	122	C	P-O3'-C3'	9.62	131.25	119.70
67	B1	2632	C	O4'-C1'-C2'	-9.62	96.18	105.80
21	A2	1162	G	C3'-C2'-C1'	9.62	109.20	101.50
21	A2	108	G	C1'-O4'-C4'	-9.62	102.20	109.90
21	A2	440	C	O4'-C1'-C2'	-9.62	96.18	105.80
21	A2	822	A	C3'-C2'-C1'	9.62	109.19	101.50
67	B1	1452	G	C3'-C2'-C1'	-9.62	93.81	101.50
67	B1	2657	A	O4'-C1'-N9	9.62	115.89	108.20
67	B1	165	G	C1'-O4'-C4'	-9.61	102.21	109.90
67	B1	1039	C	P-O3'-C3'	9.61	131.23	119.70
67	B1	1573	A	O4'-C1'-N9	9.61	115.89	108.20
67	B1	2489	C	C3'-C2'-C1'	9.61	109.19	101.50
67	B1	697	U	O4'-C1'-C2'	-9.61	96.19	105.80
67	B1	1630	U	O4'-C1'-C2'	-9.60	96.20	105.80
67	B1	2598	C	N1-C1'-C2'	9.60	126.48	114.00
21	A2	832	G	O4'-C1'-C2'	9.60	116.24	107.60
21	A2	1459	G	P-O3'-C3'	9.60	131.22	119.70
67	B1	1078	G	O4'-C1'-N9	9.60	115.88	108.20
67	B1	2192	G	O4'-C1'-N9	9.60	115.88	108.20
21	A2	648	A	N9-C1'-C2'	9.59	126.47	114.00
21	A2	1357	C	O4'-C1'-N1	9.59	115.87	108.20
25	AH	43	LEU	N-CA-CB	-9.59	91.22	110.40
30	AU	76	TYR	CB-CG-CD1	9.59	126.75	121.00
67	B1	1221	U	O4'-C1'-N1	9.59	115.87	108.20
67	B1	2078	A	C1'-O4'-C4'	9.59	117.58	109.90
21	A2	93	A	N9-C1'-C2'	9.59	126.47	114.00
21	A2	239	A	P-O3'-C3'	9.59	131.21	119.70
21	A2	1025	U	O4'-C1'-N1	9.59	115.87	108.20
67	B1	1679	U	O4'-C1'-N1	9.59	115.87	108.20
67	B1	1261	C	O4'-C1'-N1	9.59	115.87	108.20
68	B3	74	U	N1-C1'-C2'	9.59	126.47	114.00
67	B1	2877	A	N9-C1'-C2'	9.59	126.46	114.00
21	A2	577	C	C3'-C2'-C1'	9.58	109.17	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	A0	73	G	P-O5'-C5'	9.58	136.23	120.90
67	B1	506	G	O4'-C1'-N9	9.58	115.87	108.20
12	AN	124	TYR	CB-CG-CD2	-9.58	115.25	121.00
67	B1	2831	G	O4'-C1'-N9	9.58	115.86	108.20
67	B1	1374	G	C3'-C2'-C1'	-9.58	93.84	101.50
67	B1	1990	U	O4'-C1'-N1	9.58	115.86	108.20
21	A2	1261	U	N1-C1'-C2'	9.57	126.45	114.00
21	A2	1186	C	P-O3'-C3'	9.57	131.19	119.70
67	B1	134	C	O4'-C1'-N1	9.57	115.86	108.20
67	B1	2033	G	C1'-O4'-C4'	9.57	117.56	109.90
67	B1	518	A	C3'-C2'-C1'	9.57	109.16	101.50
67	B1	2545	A	O4'-C4'-C3'	-9.57	94.43	104.00
21	A2	217	C	C3'-C2'-C1'	9.57	109.16	101.50
21	A2	1083	G	N1-C6-O6	9.57	125.64	119.90
30	AU	83	ARG	NE-CZ-NH1	9.57	125.08	120.30
28	B6	68	TYR	CB-CG-CD2	-9.57	115.26	121.00
67	B1	605	A	C3'-C2'-C1'	9.57	109.15	101.50
67	B1	300	U	P-O3'-C3'	9.56	131.18	119.70
67	B1	538	G	P-O5'-C5'	-9.56	105.60	120.90
67	B1	1509	C	P-O3'-C3'	9.56	131.18	119.70
21	A2	747	U	P-O3'-C3'	9.56	131.18	119.70
21	A2	270	A	O4'-C1'-N9	9.56	115.85	108.20
21	A2	608	G	O4'-C1'-N9	9.56	115.85	108.20
67	B1	565	A	N9-C1'-C2'	-9.56	101.48	112.00
21	A2	238	G	C1'-O4'-C4'	9.56	117.55	109.90
21	A2	547	U	C1'-O4'-C4'	-9.56	102.25	109.90
21	A2	1022	U	C1'-O4'-C4'	9.56	117.55	109.90
67	B1	919	G	C3'-C2'-C1'	9.56	109.15	101.50
17	AO	89	ARG	NE-CZ-NH2	-9.56	115.52	120.30
67	B1	835	G	C1'-O4'-C4'	-9.56	102.25	109.90
21	A2	407	G	C5'-C4'-C3'	9.55	131.28	116.00
11	A1	59	A	P-O3'-C3'	9.55	131.16	119.70
21	A2	1149	C	C3'-C2'-C1'	9.55	109.14	101.50
54	BF	39	PHE	CB-CG-CD2	-9.55	114.11	120.80
67	B1	1989	G	O4'-C1'-C2'	9.55	116.19	107.60
10	AD	33	TYR	CB-CG-CD1	9.55	126.73	121.00
21	A2	1308	U	N1-C1'-C2'	9.55	126.41	114.00
67	B1	2281	A	P-O3'-C3'	9.55	131.16	119.70
21	A2	459	G	P-O3'-C3'	9.55	131.16	119.70
43	Bk	33	MET	O-C-N	9.55	139.24	121.10
43	Bk	42	ARG	CB-CA-C	9.55	129.50	110.40
21	A2	393	A	N9-C1'-C2'	-9.54	101.50	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	B6	80	TYR	CB-CG-CD1	-9.54	115.28	121.00
67	B1	59	U	O4'-C1'-N1	9.54	115.83	108.20
67	B1	752	U	O4'-C1'-N1	9.54	115.83	108.20
67	B1	1408	G	P-O5'-C5'	9.54	136.17	120.90
21	A2	1081	C	C1'-O4'-C4'	9.54	117.53	109.90
21	A2	1065	C	O4'-C1'-N1	9.54	115.83	108.20
67	B1	2428	C	P-O3'-C3'	-9.54	108.25	119.70
21	A2	1068	C	O4'-C1'-N1	9.54	115.83	108.20
67	B1	2503	C	O4'-C1'-C2'	-9.54	96.26	105.80
67	B1	857	U	N1-C1'-C2'	9.53	126.39	114.00
67	B1	1567	C	O4'-C4'-C3'	-9.54	94.47	104.00
67	B1	3037	G	C3'-C2'-C1'	9.54	109.13	101.50
67	B1	392	G	C1'-O4'-C4'	-9.53	102.28	109.90
67	B1	741	G	C3'-C2'-C1'	9.53	109.12	101.50
67	B1	751	U	N1-C1'-C2'	-9.53	101.52	112.00
67	B1	1578	C	O4'-C1'-C2'	-9.53	96.27	105.80
21	A2	579	U	O4'-C1'-N1	9.53	115.82	108.20
21	A2	1199	A	O4'-C1'-N9	9.53	115.82	108.20
67	B1	162	G	N9-C1'-C2'	9.53	126.38	114.00
67	B1	431	U	C3'-C2'-C1'	9.53	109.12	101.50
67	B1	1937	A	O4'-C1'-N9	9.53	115.82	108.20
67	B1	1181	C	N1-C1'-C2'	9.53	126.38	114.00
67	B1	1939	C	C3'-C2'-C1'	9.53	109.12	101.50
21	A2	127	G	C3'-C2'-C1'	9.52	109.12	101.50
21	A2	974	G	C3'-C2'-C1'	9.52	109.12	101.50
67	B1	7	G	N1-C6-O6	9.52	125.61	119.90
67	B1	3049	C	C3'-C2'-C1'	9.52	109.11	101.50
67	B1	1569	A	O4'-C1'-C2'	-9.52	96.28	105.80
15	AE	40	ARG	NE-CZ-NH1	9.51	125.06	120.30
67	B1	2173	U	O4'-C1'-C2'	-9.51	96.29	105.80
68	B3	93	G	C1'-O4'-C4'	-9.51	102.29	109.90
19	AS	20	TYR	CB-CG-CD2	9.51	126.70	121.00
21	A2	1378	A	C1'-O4'-C4'	9.51	117.51	109.90
67	B1	179	A	N9-C1'-C2'	9.51	126.36	114.00
21	A2	516	A	P-O3'-C3'	9.50	131.10	119.70
66	B1	21	PHE	CB-CG-CD2	-9.50	114.15	120.80
17	AO	110	ARG	NE-CZ-NH1	-9.50	115.55	120.30
21	A2	1004	U	N1-C1'-C2'	9.50	126.35	114.00
67	B1	1112	G	O4'-C1'-N9	9.50	115.80	108.20
21	A2	62	G	N9-C1'-C2'	9.50	126.34	114.00
67	B1	322	C	O4'-C1'-N1	9.50	115.80	108.20
21	A2	616	G	O4'-C1'-N9	9.49	115.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1381	G	O4'-C1'-N9	9.49	115.80	108.20
46	BA	98	ARG	NE-CZ-NH2	9.49	125.05	120.30
67	B1	745	C	C1'-O4'-C4'	-9.49	102.31	109.90
67	B1	2826	U	P-O3'-C3'	9.49	131.09	119.70
67	B1	926	C	O4'-C1'-C2'	-9.49	96.31	105.80
67	B1	2574	G	C1'-O4'-C4'	9.49	117.49	109.90
67	B1	797	C	O4'-C1'-C2'	-9.49	96.31	105.80
21	A2	393	A	C1'-O4'-C4'	9.48	117.49	109.90
21	A2	17	C	C3'-C2'-C1'	9.48	109.09	101.50
67	B1	120	G	O4'-C1'-C2'	9.48	116.14	107.60
67	B1	76	C	O4'-C1'-N1	9.48	115.78	108.20
67	B1	2293	G	O4'-C1'-C2'	-9.48	96.32	105.80
54	BF	97	PHE	CB-CG-CD1	-9.48	114.16	120.80
67	B1	447	G	O4'-C1'-C2'	9.48	116.13	107.60
67	B1	768	C	C1'-O4'-C4'	-9.48	102.32	109.90
67	B1	1380	G	O4'-C1'-C2'	-9.48	96.32	105.80
21	A2	1339	G	C1'-O4'-C4'	-9.48	102.32	109.90
67	B1	1519	G	C1'-O4'-C4'	9.48	117.48	109.90
67	B1	3027	C	C1'-O4'-C4'	-9.48	102.32	109.90
67	B1	2003	C	N1-C1'-C2'	9.47	126.32	114.00
21	A2	966	G	O4'-C1'-C2'	-9.47	96.33	105.80
40	BE	163	ARG	NE-CZ-NH2	9.47	125.04	120.30
67	B1	8	G	N1-C6-O6	9.47	125.58	119.90
67	B1	18	C	O4'-C1'-C2'	-9.47	96.33	105.80
21	A2	703	U	N1-C1'-C2'	-9.47	101.59	112.00
67	B1	1650	U	N1-C1'-C2'	9.47	126.31	114.00
67	B1	2944	G	O4'-C1'-N9	9.46	115.77	108.20
2	AK	130	ARG	NE-CZ-NH1	9.46	125.03	120.30
67	B1	258	C	O4'-C1'-N1	9.46	115.77	108.20
67	B1	329	G	N1-C6-O6	9.46	125.58	119.90
67	B1	744	G	N9-C1'-C2'	9.46	126.30	114.00
67	B1	2872	G	O4'-C1'-N9	9.46	115.77	108.20
21	A2	718	G	C1'-O4'-C4'	-9.46	102.33	109.90
21	A2	985	C	O4'-C1'-N1	9.46	115.77	108.20
67	B1	447	G	C1'-O4'-C4'	-9.46	102.33	109.90
21	A2	196	G	C3'-C2'-C1'	9.46	109.06	101.50
21	A2	37	G	O4'-C1'-N9	9.45	115.76	108.20
67	B1	809	A	C1'-O4'-C4'	9.46	117.46	109.90
67	B1	2313	G	O4'-C1'-C2'	-9.46	96.34	105.80
67	B1	2798	U	O4'-C1'-N1	9.45	115.76	108.20
21	A2	296	A	O4'-C1'-N9	9.45	115.76	108.20
21	A2	1324	U	P-O3'-C3'	9.45	131.04	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1133	U	O4'-C1'-N1	9.45	115.76	108.20
67	B1	293	G	C1'-O4'-C4'	9.45	117.46	109.90
21	A2	348	C	C1'-O4'-C4'	-9.45	102.34	109.90
21	A2	485	A	P-O3'-C3'	9.45	131.03	119.70
67	B1	2975	A	O4'-C1'-N9	9.45	115.76	108.20
21	A2	610	G	C1'-O4'-C4'	-9.45	102.34	109.90
67	B1	1571	G	P-O3'-C3'	9.45	131.03	119.70
67	B1	3014	U	O4'-C1'-N1	9.45	115.76	108.20
67	B1	132	G	O4'-C1'-N9	9.44	115.75	108.20
67	B1	2450	A	P-O3'-C3'	9.44	131.03	119.70
68	B3	96	C	O4'-C1'-C2'	-9.44	96.36	105.80
21	A2	439	G	P-O3'-C3'	9.44	131.03	119.70
21	A2	803	C	N1-C1'-C2'	9.44	126.27	114.00
32	BO	191	ARG	NE-CZ-NH1	9.44	125.02	120.30
29	AL	33	ARG	NE-CZ-NH2	-9.44	115.58	120.30
21	A2	1144	G	C3'-C2'-C1'	9.44	109.05	101.50
21	A2	1164	A	C1'-O4'-C4'	-9.44	102.35	109.90
67	B1	1494	U	O4'-C1'-C2'	-9.44	96.36	105.80
21	A2	42	G	C1'-O4'-C4'	-9.43	102.36	109.90
67	B1	2841	G	O4'-C1'-N9	9.43	115.75	108.20
21	A2	680	C	C1'-O4'-C4'	9.43	117.44	109.90
33	BC	37	ARG	NE-CZ-NH2	-9.43	115.59	120.30
67	B1	956	U	C3'-C2'-C1'	9.43	109.04	101.50
67	B1	1572	C	O4'-C1'-N1	9.43	115.74	108.20
21	A2	724	C	C1'-O4'-C4'	-9.43	102.36	109.90
68	B3	39	C	P-O3'-C3'	9.43	131.01	119.70
20	A3	6	TYR	CB-CG-CD1	9.42	126.65	121.00
21	A2	807	C	N1-C1'-C2'	9.42	126.25	114.00
21	A2	539	C	O4'-C1'-C2'	-9.42	96.38	105.80
67	B1	2689	G	O4'-C1'-N9	9.42	115.74	108.20
67	B1	1802	G	O4'-C1'-C2'	-9.42	96.38	105.80
21	A2	1207	G	C3'-C2'-C1'	-9.42	93.97	101.50
67	B1	158	C	O4'-C1'-C2'	-9.42	96.38	105.80
61	Bd	74	ARG	NE-CZ-NH2	-9.42	115.59	120.30
37	BU	42	ARG	NE-CZ-NH2	-9.41	115.60	120.30
67	B1	2604	G	N9-C1'-C2'	9.41	126.23	114.00
67	B1	1356	A	C3'-C2'-C1'	9.40	109.02	101.50
67	B1	1015	G	N1-C6-O6	9.40	125.54	119.90
67	B1	1719	C	O4'-C1'-N1	9.40	115.72	108.20
21	A2	401	U	O4'-C1'-C2'	-9.40	96.40	105.80
67	B1	2704	A	O4'-C1'-C2'	-9.40	96.40	105.80
67	B1	1751	G	N9-C1'-C2'	9.40	126.22	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1905	G	N9-C1'-C2'	-9.40	101.66	112.00
67	B1	2932	C	C3'-C2'-C1'	9.40	109.02	101.50
21	A2	857	C	C3'-C2'-C1'	9.39	109.01	101.50
21	A2	879	U	O4'-C1'-N1	9.39	115.72	108.20
67	B1	428	A	C1'-O4'-C4'	9.39	117.42	109.90
67	B1	1913	C	N1-C1'-C2'	9.39	126.21	114.00
67	B1	181	U	O4'-C1'-N1	9.39	115.71	108.20
17	AO	108	ARG	NE-CZ-NH2	-9.39	115.61	120.30
67	B1	55	G	C1'-O4'-C4'	9.39	117.41	109.90
67	B1	1134	A	O4'-C1'-N9	-9.39	100.69	108.20
27	A0	36	U	C5'-C4'-O4'	9.38	120.36	109.10
67	B1	1604	G	O4'-C1'-C2'	9.38	116.05	107.60
67	B1	2136	G	C1'-O4'-C4'	-9.38	102.39	109.90
21	A2	28	U	O4'-C1'-N1	9.38	115.71	108.20
67	B1	1019	G	C5-C6-O6	-9.38	122.97	128.60
21	A2	156	A	C3'-C2'-C1'	9.38	109.00	101.50
67	B1	2028	G	C1'-O4'-C4'	-9.38	102.40	109.90
68	B3	111	G	O4'-C1'-C2'	9.38	116.04	107.60
15	AE	217	ASP	CB-CG-OD2	-9.38	109.86	118.30
21	A2	699	C	C1'-O4'-C4'	-9.37	102.40	109.90
21	A2	1093	C	O4'-C1'-C2'	-9.37	96.43	105.80
67	B1	460	C	N1-C1'-C2'	9.37	126.19	114.00
67	B1	519	A	O4'-C1'-C2'	-9.37	96.43	105.80
67	B1	1649	G	O4'-C1'-N9	9.37	115.70	108.20
67	B1	2731	C	C1'-O4'-C4'	9.37	117.40	109.90
67	B1	1234	A	O4'-C1'-C2'	-9.37	96.43	105.80
67	B1	2356	U	O4'-C1'-C2'	-9.37	96.43	105.80
21	A2	1393	A	O4'-C1'-C2'	-9.37	96.43	105.80
67	B1	1906	G	O4'-C1'-C2'	9.37	116.03	107.60
21	A2	1079	G	C1'-O4'-C4'	9.36	117.39	109.90
67	B1	655	C	C3'-C2'-C1'	9.37	108.99	101.50
67	B1	2952	C	O4'-C1'-N1	9.37	115.69	108.20
15	AE	40	ARG	NE-CZ-NH2	-9.36	115.62	120.30
21	A2	530	G	O4'-C1'-N9	9.36	115.69	108.20
21	A2	882	C	O4'-C1'-C2'	-9.36	96.44	105.80
67	B1	993	G	C1'-O4'-C4'	-9.36	102.41	109.90
67	B1	895	C	O4'-C1'-N1	9.36	115.69	108.20
67	B1	1653	U	N1-C1'-C2'	9.36	126.17	114.00
67	B1	1072	U	O4'-C1'-N1	9.36	115.69	108.20
67	B1	673	A	C1'-O4'-C4'	-9.36	102.41	109.90
40	BE	58	ARG	NE-CZ-NH2	-9.35	115.62	120.30
21	A2	166	A	C1'-O4'-C4'	-9.35	102.42	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	A0	59	A	C1'-O4'-C4'	9.35	117.38	109.90
21	A2	739	G	C3'-C2'-C1'	-9.35	94.02	101.50
21	A2	949	G	C1'-O4'-C4'	-9.35	102.42	109.90
21	A2	1400	A	P-O3'-C3'	9.35	130.92	119.70
67	B1	1306	A	C3'-C2'-C1'	9.35	108.98	101.50
21	A2	1047	U	C1'-O4'-C4'	-9.35	102.42	109.90
67	B1	2948	A	O4'-C1'-C2'	-9.35	96.45	105.80
67	B1	1444	A	O4'-C1'-N9	9.34	115.67	108.20
67	B1	2061	A	P-O3'-C3'	9.34	130.91	119.70
67	B1	2933	C	O4'-C1'-N1	9.34	115.67	108.20
67	B1	2952	C	C3'-C2'-C1'	-9.34	94.03	101.50
67	B1	569	G	N9-C1'-C2'	9.34	126.14	114.00
21	A2	949	G	O4'-C1'-C2'	9.34	116.00	107.60
67	B1	475	U	N1-C1'-C2'	-9.34	101.73	112.00
67	B1	1412	C	C3'-C2'-C1'	9.34	108.97	101.50
67	B1	1814	A	C1'-O4'-C4'	-9.34	102.43	109.90
67	B1	2234	C	O4'-C1'-C2'	-9.34	96.46	105.80
21	A2	538	C	C3'-C2'-C1'	9.34	108.97	101.50
21	A2	751	C	N1-C1'-C2'	9.34	126.14	114.00
67	B1	2304	C	C3'-C2'-C1'	9.34	108.97	101.50
67	B1	2866	A	C1'-O4'-C4'	-9.34	102.43	109.90
21	A2	580	G	O4'-C1'-C2'	9.33	116.00	107.60
67	B1	972	C	O4'-C1'-N1	9.33	115.67	108.20
67	B1	2654	C	O4'-C1'-C2'	-9.33	96.47	105.80
67	B1	2906	C	O4'-C1'-C2'	-9.33	96.47	105.80
21	A2	1406	U	C1'-O4'-C4'	9.33	117.36	109.90
67	B1	254	A	C1'-O4'-C4'	-9.33	102.44	109.90
67	B1	2170	C	N1-C1'-C2'	9.33	126.13	114.00
67	B1	713	C	C3'-C2'-C1'	9.33	108.96	101.50
67	B1	1700	U	C1'-O4'-C4'	9.33	117.36	109.90
21	A2	597	C	O4'-C1'-N1	9.32	115.66	108.20
11	A1	54	G	C1'-O4'-C4'	-9.32	102.44	109.90
21	A2	999	G	N9-C1'-C2'	9.32	126.12	114.00
67	B1	1485	A	O4'-C1'-C2'	-9.32	96.47	105.80
67	B1	2047	U	O4'-C1'-C2'	-9.32	96.47	105.80
21	A2	1317	G	C3'-C2'-C1'	-9.32	94.04	101.50
21	A2	63	G	N9-C1'-C2'	9.32	126.11	114.00
67	B1	2590	C	C3'-C2'-C1'	9.32	108.96	101.50
21	A2	58	U	P-O5'-C5'	9.32	135.81	120.90
67	B1	1941	A	N9-C1'-C2'	9.32	126.11	114.00
67	B1	795	G	O4'-C1'-C2'	9.32	115.98	107.60
67	B1	2269	C	O4'-C1'-N1	9.32	115.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	251	G	O4'-C1'-N9	9.31	115.65	108.20
21	A2	793	G	O4'-C1'-N9	9.31	115.65	108.20
67	B1	1646	G	O4'-C1'-N9	9.31	115.65	108.20
67	B1	1925	A	C1'-O4'-C4'	-9.31	102.45	109.90
67	B1	2103	C	C1'-O4'-C4'	-9.31	102.45	109.90
68	B3	4	C	O4'-C1'-N1	9.31	115.65	108.20
67	B1	744	G	C1'-O4'-C4'	-9.31	102.45	109.90
11	A1	4	G	O4'-C1'-N9	9.30	115.64	108.20
21	A2	1390	G	O4'-C1'-N9	9.30	115.64	108.20
51	Bj	60	LYS	N-CA-CB	9.30	127.35	110.60
67	B1	232	U	C1'-O4'-C4'	9.31	117.34	109.90
67	B1	323	U	O4'-C1'-N1	9.30	115.64	108.20
67	B1	1861	G	O4'-C1'-N9	9.30	115.64	108.20
67	B1	636	G	C1'-O4'-C4'	-9.30	102.46	109.90
21	A2	1277	C	O4'-C1'-N1	9.30	115.64	108.20
67	B1	1405	G	N9-C1'-C2'	9.30	126.09	114.00
67	B1	1946	G	C1'-O4'-C4'	9.30	117.34	109.90
67	B1	1393	C	O4'-C1'-C2'	9.30	115.97	107.60
21	A2	643	G	C1'-O4'-C4'	-9.30	102.46	109.90
67	B1	1562	U	C3'-C2'-C1'	9.30	108.94	101.50
21	A2	396	C	O4'-C1'-N1	9.29	115.64	108.20
21	A2	1130	A	P-O3'-C3'	9.29	130.85	119.70
67	B1	14	A	O4'-C1'-C2'	-9.29	96.51	105.80
27	A0	11	C	C1'-O4'-C4'	-9.29	102.47	109.90
67	B1	1171	G	C1'-O4'-C4'	9.29	117.33	109.90
67	B1	2119	C	C1'-O4'-C4'	9.29	117.33	109.90
21	A2	116	C	C1'-O4'-C4'	-9.29	102.47	109.90
21	A2	1043	U	N1-C1'-C2'	-9.29	101.79	112.00
67	B1	1745	U	C3'-C2'-C1'	9.29	108.93	101.50
67	B1	612	G	O4'-C1'-N9	9.28	115.62	108.20
21	A2	570	G	O4'-C1'-C2'	9.28	115.95	107.60
27	A0	58	A	N9-C1'-C2'	-9.28	101.79	112.00
67	B1	1371	U	O4'-C1'-N1	9.28	115.62	108.20
67	B1	1950	G	O4'-C1'-C2'	-9.28	96.52	105.80
46	BA	119	ARG	NE-CZ-NH2	-9.28	115.66	120.30
67	B1	560	G	O4'-C1'-N9	9.28	115.62	108.20
67	B1	859	G	N9-C1'-C2'	-9.28	101.80	112.00
67	B1	2889	A	O4'-C1'-N9	-9.28	100.78	108.20
67	B1	689	U	O4'-C1'-N1	9.28	115.62	108.20
67	B1	1961	G	O4'-C1'-C2'	-9.28	96.53	105.80
67	B1	2232	U	P-O3'-C3'	9.28	130.83	119.70
21	A2	303	G	O4'-C1'-N9	9.27	115.62	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	658	C	O4'-C1'-C2'	-9.27	96.53	105.80
67	B1	1222	U	P-O3'-C3'	9.27	130.83	119.70
67	B1	1669	A	C1'-O4'-C4'	-9.27	102.48	109.90
67	B1	163	G	O4'-C1'-N9	9.27	115.62	108.20
67	B1	1245	C	C1'-O4'-C4'	9.27	117.32	109.90
49	BQ	100	ARG	NE-CZ-NH2	-9.27	115.67	120.30
67	B1	1675	C	N1-C1'-C2'	9.27	126.05	114.00
67	B1	2021	G	C1'-O4'-C4'	-9.27	102.49	109.90
21	A2	183	A	P-O5'-C5'	9.27	135.73	120.90
21	A2	868	C	O4'-C1'-C2'	-9.27	96.53	105.80
67	B1	297	G	O4'-C1'-N9	-9.26	100.79	108.20
67	B1	1439	G	C3'-C2'-C1'	9.26	108.91	101.50
67	B1	1618	G	N9-C1'-C2'	9.26	126.04	114.00
67	B1	1012	G	N1-C6-O6	9.26	125.46	119.90
67	B1	2179	G	O4'-C1'-C2'	-9.26	96.54	105.80
21	A2	1439	G	N9-C1'-C2'	-9.26	101.82	112.00
21	A2	423	U	N1-C1'-C2'	-9.26	101.82	112.00
36	Bf	46	ARG	NE-CZ-NH2	-9.26	115.67	120.30
67	B1	406	G	C5'-C4'-C3'	-9.26	101.19	116.00
67	B1	891	C	N1-C1'-C2'	9.26	126.03	114.00
67	B1	1586	G	P-O3'-C3'	9.26	130.81	119.70
67	B1	2230	G	O4'-C1'-N9	9.26	115.60	108.20
67	B1	2223	G	O4'-C1'-N9	9.25	115.60	108.20
61	Bd	50	ARG	NE-CZ-NH1	9.25	124.93	120.30
67	B1	2278	U	O4'-C1'-N1	9.25	115.60	108.20
67	B1	2639	G	O4'-C1'-N9	9.25	115.60	108.20
67	B1	1041	U	P-O5'-C5'	9.25	135.69	120.90
67	B1	2637	U	O4'-C1'-N1	9.25	115.60	108.20
37	BU	73	ARG	NE-CZ-NH2	-9.24	115.68	120.30
21	A2	1093	C	C3'-C2'-C1'	9.24	108.89	101.50
21	A2	1415	U	O4'-C1'-N1	9.24	115.59	108.20
21	A2	1460	G	P-O3'-C3'	9.24	130.79	119.70
67	B1	194	G	O4'-C1'-C2'	-9.24	96.56	105.80
67	B1	1670	A	P-O3'-C3'	9.24	130.79	119.70
27	A0	24	G	O4'-C1'-N9	9.23	115.59	108.20
67	B1	2077	A	O4'-C1'-N9	9.23	115.59	108.20
67	B1	2482	G	N9-C1'-C2'	9.23	126.00	114.00
67	B1	2562	G	O4'-C1'-C2'	-9.23	96.57	105.80
67	B1	3047	C	N1-C1'-C2'	9.23	126.00	114.00
21	A2	1021	C	C1'-O4'-C4'	-9.23	102.52	109.90
21	A2	765	U	O4'-C1'-N1	9.23	115.58	108.20
67	B1	1141	C	C3'-C2'-C1'	9.23	108.88	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AO	9	ARG	NE-CZ-NH2	9.22	124.91	120.30
21	A2	865	A	C1'-O4'-C4'	9.22	117.28	109.90
67	B1	1643	A	C5'-C4'-C3'	9.22	130.76	116.00
27	A0	25	C	O4'-C1'-N1	9.22	115.58	108.20
67	B1	386	A	O4'-C1'-N9	9.22	115.58	108.20
67	B1	791	C	O4'-C1'-C2'	-9.22	96.58	105.80
67	B1	1038	U	O4'-C1'-C2'	-9.22	96.58	105.80
21	A2	1216	A	O4'-C1'-N9	9.22	115.58	108.20
67	B1	1726	A	N9-C1'-C2'	-9.22	101.86	112.00
21	A2	1101	G	C1'-O4'-C4'	9.22	117.28	109.90
57	BZ	90	GLU	N-CA-CB	9.22	127.19	110.60
67	B1	1969	C	C1'-O4'-C4'	-9.22	102.53	109.90
21	A2	755	U	O4'-C1'-N1	9.21	115.57	108.20
62	BN	11	TYR	CB-CG-CD1	9.21	126.53	121.00
67	B1	2840	C	C3'-C2'-C1'	9.21	108.87	101.50
67	B1	219	G	C1'-O4'-C4'	9.21	117.27	109.90
67	B1	1711	C	P-O5'-C5'	9.21	135.64	120.90
67	B1	2877	A	C1'-O4'-C4'	-9.21	102.53	109.90
21	A2	218	C	O4'-C1'-N1	-9.21	100.83	108.20
21	A2	415	C	C3'-C2'-C1'	9.21	108.87	101.50
56	BH	2	PRO	N-CA-CB	9.21	114.35	103.30
21	A2	832	G	N9-C1'-C2'	9.21	125.97	114.00
67	B1	2289	A	C3'-C2'-C1'	9.21	108.87	101.50
67	B1	194	G	O4'-C1'-N9	9.21	115.56	108.20
21	A2	1471	G	O4'-C1'-N9	9.20	115.56	108.20
67	B1	1738	A	N9-C1'-C2'	-9.20	101.88	112.00
67	B1	185	A	C3'-C2'-C1'	9.20	108.86	101.50
21	A2	1003	G	O4'-C1'-C2'	9.20	115.88	107.60
61	Bd	48	ARG	NE-CZ-NH2	-9.20	115.70	120.30
21	A2	1187	A	C3'-C2'-C1'	9.20	108.86	101.50
67	B1	2055	U	O4'-C1'-N1	9.19	115.55	108.20
67	B1	2617	G	P-O3'-C3'	9.19	130.73	119.70
67	B1	2461	C	C3'-C2'-C1'	9.19	108.85	101.50
68	B3	109	A	O4'-C1'-N9	9.19	115.55	108.20
21	A2	692	G	C1'-O4'-C4'	-9.18	102.55	109.90
27	A0	40	C	C1'-O4'-C4'	9.18	117.25	109.90
46	BA	104	TYR	CB-CG-CD1	9.18	126.51	121.00
67	B1	311	C	O4'-C1'-N1	9.18	115.55	108.20
67	B1	2895	G	C1'-O4'-C4'	-9.18	102.55	109.90
67	B1	531	G	O4'-C1'-N9	9.18	115.55	108.20
67	B1	2125	C	N1-C1'-C2'	9.18	125.94	114.00
67	B1	2670	U	O4'-C1'-N1	9.18	115.55	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1208	A	C2'-C3'-O3'	9.18	129.70	109.50
67	B1	391	C	C3'-C2'-C1'	9.18	108.84	101.50
67	B1	1336	G	N9-C1'-C2'	-9.18	101.90	112.00
67	B1	970	G	O4'-C1'-C2'	9.18	115.86	107.60
67	B1	444	U	O4'-C1'-C2'	-9.18	96.62	105.80
67	B1	2955	G	C3'-C2'-C1'	9.18	108.84	101.50
27	A0	13	U	C5'-C4'-C3'	-9.17	101.32	116.00
32	BO	143	ARG	NE-CZ-NH1	9.17	124.89	120.30
67	B1	737	G	C1'-O4'-C4'	-9.17	102.56	109.90
11	A1	23	G	O4'-C1'-N9	9.17	115.53	108.20
67	B1	242	C	O4'-C1'-N1	9.17	115.53	108.20
67	B1	2790	C	N1-C1'-C2'	9.17	125.92	114.00
11	A1	22	A	O4'-C1'-C2'	9.16	115.85	107.60
11	A1	34	U	O4'-C1'-N1	9.16	115.53	108.20
21	A2	671	C	O4'-C1'-N1	9.16	115.53	108.20
31	BY	69	ARG	NE-CZ-NH1	-9.16	115.72	120.30
67	B1	274	C	O4'-C1'-C2'	-9.16	96.64	105.80
67	B1	393	C	C5'-C4'-C3'	9.16	130.65	116.00
67	B1	1336	G	O4'-C1'-C2'	-9.16	96.64	105.80
21	A2	470	G	C1'-O4'-C4'	9.15	117.22	109.90
21	A2	904	G	C1'-O4'-C4'	9.15	117.22	109.90
21	A2	1294	G	C3'-C2'-C1'	9.15	108.82	101.50
67	B1	220	C	O4'-C1'-C2'	-9.15	96.65	105.80
21	A2	193	G	O4'-C1'-N9	9.15	115.52	108.20
67	B1	2923	G	N9-C1'-C2'	-9.15	101.94	112.00
21	A2	207	G	C1'-O4'-C4'	9.15	117.22	109.90
68	B3	87	G	P-O3'-C3'	-9.15	108.72	119.70
21	A2	227	C	P-O3'-C3'	-9.15	108.72	119.70
67	B1	355	G	C3'-C2'-C1'	-9.15	94.18	101.50
67	B1	2403	G	N9-C1'-C2'	9.15	125.89	114.00
21	A2	1250	C	N1-C1'-C2'	9.14	125.89	114.00
67	B1	1653	U	C1'-O4'-C4'	-9.14	102.59	109.90
21	A2	306	C	C1'-O4'-C4'	9.14	117.21	109.90
21	A2	384	G	O4'-C1'-N9	-9.14	100.89	108.20
65	BJ	114	ARG	NE-CZ-NH1	9.14	124.87	120.30
67	B1	1152	C	N1-C1'-C2'	9.14	125.89	114.00
67	B1	1681	G	C1'-O4'-C4'	-9.14	102.59	109.90
21	A2	100	A	C3'-C2'-C1'	9.14	108.81	101.50
21	A2	166	A	N9-C1'-C2'	9.14	125.88	114.00
21	A2	218	C	C3'-C2'-C1'	9.14	108.81	101.50
21	A2	581	G	O4'-C1'-N9	9.14	115.51	108.20
21	A2	1157	G	O4'-C1'-C2'	9.14	115.83	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	422	U	C1'-O4'-C4'	9.13	117.21	109.90
67	B1	1566	G	C4'-C3'-C2'	9.14	111.74	102.60
67	B1	2954	C	O4'-C1'-N1	9.14	115.51	108.20
21	A2	976	A	N9-C1'-C2'	-9.13	101.95	112.00
8	AR	92	ARG	NE-CZ-NH2	-9.13	115.73	120.30
67	B1	868	U	O4'-C1'-N1	9.13	115.50	108.20
21	A2	1131	G	P-O3'-C3'	9.13	130.66	119.70
67	B1	2865	C	N1-C1'-C2'	9.13	125.87	114.00
67	B1	493	A	O4'-C1'-N9	-9.13	100.90	108.20
11	A1	9	A	O4'-C1'-N9	9.13	115.50	108.20
68	B3	45	C	C1'-O4'-C4'	9.13	117.20	109.90
67	B1	2745	G	O4'-C1'-C2'	9.12	115.81	107.60
21	A2	95	G	O4'-C1'-N9	9.12	115.50	108.20
53	BD	254	TYR	CB-CG-CD1	-9.12	115.53	121.00
67	B1	2846	A	O4'-C1'-C2'	9.12	115.81	107.60
21	A2	957	A	C1'-O4'-C4'	9.12	117.19	109.90
67	B1	308	C	P-O3'-C3'	9.12	130.64	119.70
67	B1	1785	G	O4'-C1'-N9	9.12	115.49	108.20
68	B3	18	G	O4'-C1'-C2'	9.12	115.81	107.60
50	BV	52	TRP	CA-CB-CG	9.11	131.02	113.70
27	A0	15	G	O4'-C1'-N9	9.11	115.49	108.20
67	B1	3030	A	O4'-C1'-N9	9.11	115.49	108.20
67	B1	1255	C	O4'-C1'-C2'	-9.11	96.69	105.80
67	B1	2392	A	C1'-O4'-C4'	-9.11	102.61	109.90
67	B1	2666	G	C1'-O4'-C4'	-9.11	102.61	109.90
67	B1	882	U	N1-C1'-C2'	9.11	125.84	114.00
21	A2	1358	A	O4'-C1'-C2'	-9.11	96.69	105.80
67	B1	2301	C	P-O5'-C5'	9.11	135.47	120.90
11	A1	50	G	C1'-O4'-C4'	9.11	117.19	109.90
67	B1	924	A	C3'-C2'-C1'	-9.11	94.21	101.50
67	B1	2560	G	C3'-C2'-C1'	-9.11	94.21	101.50
67	B1	3047	C	P-O5'-C5'	9.11	135.47	120.90
11	A1	24	A	O4'-C1'-N9	9.10	115.48	108.20
21	A2	636	G	O4'-C1'-N9	9.10	115.48	108.20
67	B1	241	C	C3'-C2'-C1'	-9.10	94.22	101.50
21	A2	119	A	C3'-C2'-C1'	9.10	108.78	101.50
21	A2	167	G	C3'-C2'-C1'	9.10	108.78	101.50
67	B1	18	C	C1'-O4'-C4'	9.10	117.18	109.90
67	B1	2396	G	P-O3'-C3'	9.10	130.61	119.70
21	A2	131	G	O4'-C1'-N9	9.09	115.47	108.20
67	B1	1243	C	C1'-O4'-C4'	-9.09	102.63	109.90
11	A1	66	C	N1-C1'-C2'	9.09	125.82	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	817	U	O4'-C1'-N1	9.09	115.47	108.20
21	A2	1444	G	O4'-C1'-N9	9.09	115.47	108.20
54	BF	40	PHE	CB-CG-CD2	-9.09	114.44	120.80
21	A2	331	C	O4'-C1'-N1	9.08	115.47	108.20
67	B1	41	G	O4'-C1'-N9	9.08	115.47	108.20
67	B1	66	C	C3'-C2'-C1'	9.08	108.77	101.50
67	B1	2972	G	C1'-O4'-C4'	-9.08	102.63	109.90
67	B1	157	U	C4'-C3'-C2'	-9.08	93.52	102.60
67	B1	821	U	C1'-O4'-C4'	9.08	117.16	109.90
67	B1	260	A	O4'-C1'-N9	9.08	115.46	108.20
67	B1	1533	G	C3'-C2'-C1'	-9.08	94.24	101.50
19	AS	20	TYR	CB-CG-CD1	-9.07	115.56	121.00
21	A2	3	U	O4'-C1'-C2'	-9.07	96.72	105.80
67	B1	602	G	O4'-C1'-N9	9.07	115.46	108.20
21	A2	805	C	P-O3'-C3'	-9.07	108.81	119.70
68	B3	9	A	N9-C1'-C2'	-9.07	102.02	112.00
21	A2	936	A	N9-C1'-C2'	9.07	125.79	114.00
21	A2	1144	G	O4'-C1'-C2'	-9.07	96.73	105.80
67	B1	2070	U	O4'-C1'-N1	9.07	115.46	108.20
36	Bf	12	ARG	NE-CZ-NH1	9.07	124.83	120.30
67	B1	1622	G	O4'-C1'-C2'	-9.07	96.73	105.80
67	B1	2846	A	C3'-C2'-C1'	-9.07	94.25	101.50
21	A2	920	U	O4'-C1'-N1	9.06	115.45	108.20
21	A2	990	G	O4'-C1'-N9	9.06	115.45	108.20
52	BB	24	PHE	CB-CG-CD2	-9.06	114.45	120.80
67	B1	451	C	O4'-C1'-C2'	-9.06	96.74	105.80
67	B1	1903	G	O4'-C1'-N9	9.06	115.45	108.20
52	BB	158	THR	CA-CB-CG2	9.06	125.09	112.40
21	A2	262	G	C3'-C2'-C1'	9.06	108.75	101.50
67	B1	2949	G	O4'-C1'-C2'	-9.06	96.74	105.80
21	A2	702	G	C5'-C4'-C3'	9.06	130.49	116.00
67	B1	2458	U	C1'-O4'-C4'	9.06	117.15	109.90
67	B1	2574	G	C3'-C2'-C1'	9.06	108.75	101.50
67	B1	2206	G	O4'-C1'-N9	-9.05	100.96	108.20
21	A2	568	C	O4'-C1'-N1	9.05	115.44	108.20
67	B1	2651	G	N9-C1'-C2'	9.05	125.77	114.00
37	BU	75	ARG	NE-CZ-NH1	9.05	124.83	120.30
67	B1	1223	A	C3'-C2'-C1'	9.05	108.74	101.50
21	A2	373	C	N1-C1'-C2'	9.04	125.76	114.00
21	A2	489	C	N1-C1'-C2'	9.04	125.76	114.00
67	B1	1749	C	N1-C1'-C2'	-9.04	102.05	112.00
21	A2	309	A	C1'-O4'-C4'	9.04	117.13	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2366	G	O4'-C1'-N9	9.04	115.43	108.20
67	B1	2395	C	C3'-C2'-C1'	9.04	108.73	101.50
67	B1	3037	G	O4'-C1'-N9	9.04	115.43	108.20
67	B1	1754	A	C3'-C2'-C1'	-9.04	94.27	101.50
67	B1	2895	G	N9-C1'-C2'	9.04	125.75	114.00
67	B1	1558	U	O4'-C1'-N1	9.04	115.43	108.20
67	B1	2103	C	N1-C1'-C2'	9.04	125.75	114.00
67	B1	2920	C	N1-C1'-C2'	9.04	125.75	114.00
67	B1	1068	U	O4'-C1'-C2'	-9.04	96.77	105.80
67	B1	2746	G	N1-C6-O6	9.04	125.32	119.90
21	A2	93	A	C5'-C4'-C3'	-9.03	101.55	116.00
67	B1	633	A	O4'-C1'-N9	9.03	115.43	108.20
20	BG	27	ARG	NE-CZ-NH1	9.03	124.82	120.30
68	B3	50	G	O4'-C1'-C2'	-9.03	96.77	105.80
21	A2	130	G	O4'-C1'-C2'	-9.03	96.77	105.80
21	A2	155	U	O4'-C1'-N1	9.03	115.42	108.20
27	A0	22	G	O4'-C1'-C2'	9.03	115.73	107.60
67	B1	2414	G	P-O3'-C3'	-9.03	108.86	119.70
67	B1	822	A	C1'-O4'-C4'	-9.03	102.68	109.90
67	B1	1642	G	C1'-O4'-C4'	9.03	117.12	109.90
67	B1	2710	G	C1'-O4'-C4'	9.03	117.12	109.90
67	B1	2152	G	O4'-C1'-C2'	-9.03	96.77	105.80
21	A2	215	C	N1-C1'-C2'	9.03	125.73	114.00
21	A2	424	U	N1-C1'-C2'	9.03	125.73	114.00
67	B1	2377	C	C1'-O4'-C4'	-9.03	102.68	109.90
21	A2	284	A	C3'-C2'-C1'	9.02	108.72	101.50
21	A2	674	C	C3'-C2'-C1'	9.02	108.72	101.50
37	BU	93	TYR	CB-CG-CD2	-9.02	115.58	121.00
2	AK	100	MET	CG-SD-CE	-9.02	85.77	100.20
67	B1	2238	G	C1'-O4'-C4'	9.02	117.12	109.90
67	B1	2618	C	C3'-C2'-C1'	9.02	108.72	101.50
67	B1	69	C	N1-C1'-C2'	9.02	125.73	114.00
67	B1	2873	G	C3'-C2'-C1'	-9.02	94.28	101.50
67	B1	660	U	C1'-O4'-C4'	-9.02	102.69	109.90
67	B1	1677	A	P-O3'-C3'	9.02	130.52	119.70
67	B1	2614	C	N1-C1'-C2'	9.02	125.72	114.00
67	B1	1782	C	P-O3'-C3'	9.01	130.52	119.70
67	B1	2489	C	P-O5'-C5'	9.01	135.32	120.90
21	A2	156	A	O4'-C1'-N9	-9.01	100.99	108.20
67	B1	2476	A	O4'-C1'-C2'	-9.01	96.79	105.80
21	A2	1437	G	C3'-C2'-C1'	9.01	108.70	101.50
67	B1	227	G	O4'-C1'-N9	9.01	115.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1570	C	C5'-C4'-C3'	9.01	130.41	116.00
67	B1	2417	G	N9-C1'-C2'	-9.01	102.09	112.00
67	B1	1225	A	N9-C1'-C2'	9.00	125.70	114.00
67	B1	657	U	O4'-C1'-N1	9.00	115.40	108.20
67	B1	1483	U	O4'-C1'-N1	9.00	115.40	108.20
21	A2	65	G	C3'-C2'-C1'	-9.00	94.30	101.50
21	A2	328	G	O4'-C1'-N9	9.00	115.40	108.20
21	A2	640	U	P-O3'-C3'	9.00	130.50	119.70
67	B1	1136	G	C3'-C2'-C1'	-9.00	94.30	101.50
67	B1	186	A	O4'-C1'-C2'	-9.00	96.80	105.80
67	B1	1479	U	O4'-C1'-N1	9.00	115.40	108.20
11	A1	22	A	C1'-O4'-C4'	-9.00	102.70	109.90
68	B3	40	G	N9-C1'-C2'	9.00	125.70	114.00
67	B1	1240	U	O4'-C1'-N1	9.00	115.40	108.20
42	BT	67	TYR	CB-CG-CD1	-8.99	115.60	121.00
67	B1	1125	A	P-O3'-C3'	8.99	130.49	119.70
67	B1	2562	G	C3'-C2'-C1'	8.99	108.69	101.50
67	B1	1731	U	O4'-C1'-N1	8.99	115.39	108.20
67	B1	2553	U	O4'-C1'-N1	8.99	115.39	108.20
13	AX	69	SER	N-CA-CB	8.99	123.98	110.50
67	B1	443	C	O4'-C1'-C2'	-8.99	96.81	105.80
67	B1	1775	G	N1-C6-O6	8.99	125.29	119.90
67	B1	2958	U	O4'-C1'-N1	8.99	115.39	108.20
68	B3	65	G	N9-C1'-C2'	8.99	125.69	114.00
68	B3	123	U	O4'-C1'-C2'	-8.99	96.81	105.80
11	A1	41	C	C1'-O4'-C4'	-8.99	102.71	109.90
62	BN	66	ARG	NE-CZ-NH1	8.99	124.79	120.30
67	B1	2448	A	C3'-C2'-C1'	-8.99	94.31	101.50
21	A2	71	C	C3'-C2'-C1'	8.98	108.69	101.50
21	A2	767	U	O4'-C1'-N1	8.98	115.39	108.20
12	AN	96	PHE	CB-CG-CD1	8.98	127.09	120.80
67	B1	751	U	C1'-O4'-C4'	8.98	117.08	109.90
67	B1	1206	A	C3'-C2'-C1'	8.98	108.68	101.50
67	B1	2192	G	C3'-C2'-C1'	-8.98	94.32	101.50
67	B1	20	C	C3'-C2'-C1'	8.97	108.68	101.50
67	B1	909	A	C1'-O4'-C4'	8.97	117.08	109.90
67	B1	956	U	P-O3'-C3'	8.97	130.47	119.70
67	B1	2506	G	O4'-C1'-N9	8.97	115.38	108.20
21	A2	941	C	N1-C1'-C2'	8.97	125.66	114.00
67	B1	711	C	O4'-C1'-C2'	-8.97	96.83	105.80
11	A1	73	C	C3'-C2'-C1'	8.97	108.67	101.50
21	A2	628	G	O4'-C1'-N9	8.97	115.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	99	U	O4'-C1'-N1	8.97	115.37	108.20
67	B1	3017	U	O4'-C1'-N1	8.97	115.37	108.20
21	A2	511	C	P-O5'-C5'	8.96	135.24	120.90
21	A2	843	G	O4'-C1'-N9	8.96	115.37	108.20
67	B1	86	G	P-O5'-C5'	8.96	135.24	120.90
67	B1	640	C	C1'-O4'-C4'	-8.96	102.73	109.90
67	B1	1995	C	C3'-C2'-C1'	-8.96	94.33	101.50
67	B1	2559	G	C1'-O4'-C4'	-8.96	102.73	109.90
67	B1	3035	C	O4'-C1'-C2'	-8.96	96.84	105.80
67	B1	284	U	O4'-C1'-N1	8.96	115.37	108.20
67	B1	398	U	O4'-C1'-N1	8.96	115.37	108.20
21	A2	532	C	N1-C1'-C2'	8.96	125.64	114.00
21	A2	1119	U	C3'-C2'-C1'	8.96	108.66	101.50
59	BM	187	ARG	NE-CZ-NH2	-8.96	115.82	120.30
67	B1	900	C	C3'-C2'-C1'	8.95	108.66	101.50
67	B1	2599	C	N1-C1'-C2'	8.96	125.64	114.00
21	A2	458	G	N1-C6-O6	8.95	125.27	119.90
27	A0	66	C	P-O3'-C3'	8.95	130.44	119.70
67	B1	210	A	O4'-C1'-N9	-8.95	101.04	108.20
67	B1	602	G	O4'-C1'-C2'	8.95	115.66	107.60
67	B1	2796	C	P-O3'-C3'	8.95	130.44	119.70
67	B1	2363	G	O4'-C1'-C2'	-8.95	96.85	105.80
67	B1	2771	G	O4'-C1'-N9	8.95	115.36	108.20
21	A2	540	G	C1'-O4'-C4'	8.95	117.06	109.90
21	A2	1020	G	N9-C1'-C2'	8.95	125.63	114.00
68	B3	31	U	O4'-C1'-C2'	-8.95	96.85	105.80
21	A2	1339	G	N9-C1'-C2'	8.94	125.62	114.00
58	BP	8	ASP	CB-CG-OD2	-8.94	110.25	118.30
67	B1	935	A	O4'-C1'-C2'	-8.94	96.86	105.80
67	B1	1567	C	O5'-P-OP2	8.94	121.43	110.70
67	B1	1734	G	C1'-O4'-C4'	8.94	117.05	109.90
67	B1	2303	A	O4'-C1'-N9	-8.94	101.05	108.20
67	B1	127	C	C3'-C2'-C1'	8.94	108.65	101.50
37	BU	56	ARG	NE-CZ-NH1	8.94	124.77	120.30
67	B1	2216	G	O4'-C1'-N9	8.94	115.35	108.20
67	B1	2441	A	C3'-C2'-C1'	8.94	108.65	101.50
67	B1	1851	U	C1'-O4'-C4'	8.94	117.05	109.90
21	A2	8	U	C1'-O4'-C4'	8.93	117.05	109.90
21	A2	948	G	N9-C1'-C2'	-8.93	102.17	112.00
21	A2	492	G	C3'-C2'-C1'	8.93	108.65	101.50
65	BJ	84	ARG	NE-CZ-NH1	8.93	124.77	120.30
67	B1	872	G	C1'-O4'-C4'	-8.93	102.75	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1576	C	C3'-C2'-C1'	8.93	108.64	101.50
67	B1	1924	A	C3'-C2'-C1'	-8.93	94.35	101.50
15	AE	83	PHE	CB-CG-CD1	-8.93	114.55	120.80
21	A2	248	U	O4'-C1'-C2'	-8.93	96.87	105.80
21	A2	721	A	O4'-C1'-C2'	-8.93	96.87	105.80
21	A2	1318	U	O4'-C1'-C2'	-8.93	96.87	105.80
21	A2	844	G	O4'-C1'-N9	8.93	115.34	108.20
21	A2	64	G	C3'-C2'-C1'	8.93	108.64	101.50
21	A2	348	C	P-O3'-C3'	8.93	130.41	119.70
67	B1	1681	G	O4'-C1'-N9	8.93	115.34	108.20
67	B1	268	C	C3'-C2'-C1'	8.93	108.64	101.50
67	B1	1196	A	P-O3'-C3'	8.93	130.41	119.70
67	B1	1233	U	N1-C1'-C2'	-8.93	102.18	112.00
67	B1	1568	A	P-O3'-C3'	-8.93	108.99	119.70
21	A2	525	A	O4'-C1'-N9	8.92	115.34	108.20
21	A2	177	A	N9-C1'-C2'	-8.92	102.19	112.00
21	A2	1117	A	N9-C1'-C2'	8.92	125.60	114.00
27	A0	17	U	O4'-C1'-C2'	-8.92	96.88	105.80
33	BC	323	MET	CG-SD-CE	-8.92	85.93	100.20
67	B1	2146	C	C3'-C2'-C1'	8.92	108.64	101.50
67	B1	2520	C	N1-C1'-C2'	8.92	125.60	114.00
21	A2	868	C	C3'-C2'-C1'	8.92	108.63	101.50
67	B1	2099	G	C1'-O4'-C4'	-8.92	102.77	109.90
67	B1	2516	G	C1'-O4'-C4'	-8.91	102.77	109.90
35	BL	10	LYS	CB-CA-C	8.91	128.22	110.40
67	B1	116	G	C3'-C2'-C1'	8.91	108.63	101.50
67	B1	697	U	C3'-C2'-C1'	8.91	108.63	101.50
67	B1	2476	A	C3'-C2'-C1'	8.91	108.63	101.50
68	B3	105	G	O4'-C1'-N9	8.91	115.33	108.20
67	B1	539	A	P-O3'-C3'	8.91	130.39	119.70
21	A2	459	G	N1-C6-O6	8.91	125.25	119.90
67	B1	461	C	C3'-C2'-C1'	8.91	108.63	101.50
67	B1	632	G	O4'-C1'-N9	8.91	115.33	108.20
62	BN	91	PHE	CB-CG-CD2	-8.91	114.56	120.80
67	B1	621	G	N9-C1'-C2'	8.91	125.58	114.00
67	B1	1827	A	O4'-C1'-C2'	-8.91	96.89	105.80
21	A2	712	G	O4'-C1'-N9	8.90	115.32	108.20
51	Bj	82	ARG	CA-CB-CG	8.90	132.99	113.40
21	A2	92	G	C3'-C2'-C1'	-8.90	94.38	101.50
49	BQ	66	ARG	NE-CZ-NH1	8.90	124.75	120.30
67	B1	2596	G	C1'-O4'-C4'	-8.90	102.78	109.90
21	A2	244	G	O4'-C1'-N9	8.90	115.32	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1266	A	O4'-C1'-N9	8.90	115.32	108.20
67	B1	1110	A	O4'-C1'-N9	8.90	115.32	108.20
67	B1	2176	G	O4'-C1'-C2'	8.89	115.61	107.60
67	B1	1572	C	O4'-C1'-C2'	-8.89	96.91	105.80
21	A2	91	G	O4'-C1'-C2'	8.89	115.60	107.60
21	A2	1492	U	C4'-C3'-C2'	-8.89	93.71	102.60
67	B1	370	A	C3'-C2'-C1'	8.89	108.61	101.50
67	B1	1401	G	O4'-C1'-N9	8.89	115.31	108.20
67	B1	1547	U	N1-C1'-C2'	-8.89	102.22	112.00
67	B1	1934	C	C3'-C2'-C1'	8.89	108.61	101.50
67	B1	2858	C	N1-C1'-C2'	8.89	125.56	114.00
5	AW	10	ARG	NE-CZ-NH2	-8.89	115.86	120.30
21	A2	893	U	O4'-C1'-N1	8.89	115.31	108.20
57	BZ	70	LEU	CB-CG-CD1	8.89	126.11	111.00
21	A2	962	G	N1-C6-O6	8.88	125.23	119.90
25	AH	84	HIS	C-N-CA	8.88	143.91	121.70
60	BS	22	ALA	N-CA-CB	8.88	122.54	110.10
67	B1	206	A	N9-C1'-C2'	8.88	125.55	114.00
21	A2	681	G	C1'-O4'-C4'	8.88	117.00	109.90
67	B1	2157	U	N1-C1'-C2'	8.88	125.55	114.00
67	B1	2164	G	N1-C6-O6	8.88	125.23	119.90
67	B1	1096	A	O3'-P-O5'	8.88	120.87	104.00
21	A2	1459	G	P-O5'-C5'	8.88	135.11	120.90
21	A2	370	A	O4'-C1'-N9	8.88	115.30	108.20
26	AP	14	PHE	CB-CG-CD2	-8.88	114.59	120.80
67	B1	876	C	P-O3'-C3'	8.88	130.35	119.70
67	B1	1869	U	C1'-O4'-C4'	8.88	117.00	109.90
21	A2	1404	C	O4'-C1'-N1	8.87	115.30	108.20
14	AM	66	ARG	NE-CZ-NH1	8.87	124.74	120.30
21	A2	1074	C	C1'-O4'-C4'	-8.87	102.80	109.90
67	B1	1106	C	C1'-O4'-C4'	-8.87	102.80	109.90
67	B1	1973	U	P-O3'-C3'	8.87	130.35	119.70
21	A2	96	G	N9-C1'-C2'	8.87	125.53	114.00
21	A2	1052	U	O4'-C1'-N1	8.87	115.30	108.20
54	BF	39	PHE	CB-CG-CD1	8.87	127.01	120.80
21	A2	989	C	P-O3'-C3'	8.87	130.34	119.70
67	B1	112	U	O4'-C1'-N1	8.87	115.30	108.20
67	B1	555	G	O4'-C1'-C2'	8.87	115.58	107.60
21	A2	207	G	N9-C1'-C2'	-8.87	102.25	112.00
29	AL	92	GLU	C-N-CA	8.87	143.87	121.70
33	BC	353	ARG	NE-CZ-NH2	-8.87	115.87	120.30
67	B1	1034	G	O4'-C1'-C2'	8.86	115.58	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	665	G	C1'-O4'-C4'	-8.86	102.81	109.90
12	AN	29	ARG	NE-CZ-NH1	8.86	124.73	120.30
67	B1	755	G	O4'-C1'-N9	8.86	115.29	108.20
11	A1	39	A	O4'-C1'-N9	8.86	115.29	108.20
67	B1	1283	G	C1'-O4'-C4'	8.86	116.99	109.90
67	B1	273	G	P-O3'-C3'	8.86	130.33	119.70
67	B1	1045	A	C3'-C2'-C1'	8.86	108.58	101.50
8	AR	113	ARG	NE-CZ-NH2	-8.86	115.87	120.30
21	A2	356	G	N9-C1'-C2'	8.86	125.51	114.00
67	B1	1204	U	P-O5'-C5'	8.86	135.07	120.90
21	A2	339	U	O4'-C1'-N1	8.85	115.28	108.20
21	A2	456	U	N1-C1'-C2'	8.85	125.51	114.00
67	B1	1799	G	C1'-O4'-C4'	-8.85	102.82	109.90
67	B1	2293	G	O4'-C1'-N9	8.85	115.28	108.20
21	A2	1376	C	O4'-C1'-N1	8.85	115.28	108.20
25	AH	103	VAL	CA-CB-CG2	-8.85	97.62	110.90
67	B1	2667	U	O4'-C1'-N1	8.85	115.28	108.20
67	B1	78	C	N1-C1'-C2'	8.85	125.50	114.00
67	B1	2074	U	O4'-C1'-N1	8.85	115.28	108.20
21	A2	432	G	N1-C6-O6	8.85	125.21	119.90
40	BE	128	TYR	CB-CG-CD1	-8.85	115.69	121.00
67	B1	904	G	O4'-C1'-N9	8.85	115.28	108.20
67	B1	1561	G	P-O3'-C3'	8.85	130.31	119.70
67	B1	1776	G	N1-C6-O6	8.85	125.21	119.90
67	B1	2295	C	O4'-C1'-N1	8.84	115.28	108.20
21	A2	231	G	O4'-C1'-N9	8.84	115.27	108.20
21	A2	1423	A	N9-C1'-C2'	-8.84	102.27	112.00
38	Bb	31	TYR	CG-CD1-CE1	-8.84	114.23	121.30
21	A2	626	G	C1'-O4'-C4'	8.84	116.97	109.90
35	BL	45	SER	N-CA-CB	8.84	123.76	110.50
67	B1	381	G	O4'-C1'-N9	8.84	115.27	108.20
67	B1	1849	A	O4'-C1'-N9	8.84	115.27	108.20
67	B1	2514	C	C1'-O4'-C4'	-8.84	102.83	109.90
7	AB	122	ALA	CB-CA-C	-8.84	96.84	110.10
67	B1	1010	G	N1-C6-O6	8.84	125.20	119.90
21	A2	773	A	O4'-C1'-C2'	-8.84	96.96	105.80
21	A2	1474	A	N9-C1'-C2'	-8.84	102.28	112.00
67	B1	850	C	C3'-C2'-C1'	8.84	108.57	101.50
31	BY	8	ARG	NE-CZ-NH2	-8.83	115.88	120.30
67	B1	990	G	O4'-C1'-N9	8.83	115.27	108.20
67	B1	1350	C	O4'-C1'-C2'	-8.83	96.97	105.80
21	A2	1185	A	N9-C1'-C2'	8.83	125.48	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	725	G	O4'-C1'-N9	8.83	115.26	108.20
67	B1	2850	G	C1'-O4'-C4'	-8.83	102.84	109.90
21	A2	1418	G	C1'-O4'-C4'	-8.83	102.84	109.90
67	B1	384	G	N1-C6-O6	8.83	125.20	119.90
67	B1	1699	U	N1-C1'-C2'	8.83	125.47	114.00
51	Bj	84	PHE	CB-CG-CD2	-8.82	114.62	120.80
67	B1	841	U	O4'-C1'-N1	8.82	115.26	108.20
21	A2	1170	C	C3'-C2'-C1'	8.82	108.56	101.50
21	A2	1385	U	O4'-C1'-N1	8.82	115.25	108.20
33	BC	198	TYR	CB-CG-CD1	-8.82	115.71	121.00
67	B1	1499	C	C1'-O4'-C4'	-8.82	102.84	109.90
67	B1	1674	G	O4'-C1'-C2'	8.82	115.54	107.60
67	B1	2236	C	O4'-C1'-N1	8.82	115.26	108.20
67	B1	161	C	C4'-C3'-C2'	-8.82	93.78	102.60
21	A2	421	U	C1'-O4'-C4'	-8.82	102.85	109.90
21	A2	1063	A	O4'-C1'-C2'	-8.82	96.98	105.80
21	A2	527	A	C1'-O4'-C4'	8.81	116.95	109.90
59	BM	173	ARG	NE-CZ-NH1	8.81	124.71	120.30
21	A2	386	C	N1-C1'-C2'	8.81	125.46	114.00
21	A2	605	C	N1-C1'-C2'	8.81	125.45	114.00
67	B1	1569	A	N9-C1'-C2'	8.81	125.45	114.00
21	A2	840	C	O4'-C1'-N1	8.81	115.25	108.20
18	AF	43	GLN	CB-CA-C	-8.81	92.79	110.40
21	A2	1179	C	O4'-C1'-N1	-8.81	101.15	108.20
21	A2	597	C	C3'-C2'-C1'	8.81	108.55	101.50
67	B1	2513	C	N1-C1'-C2'	8.81	125.45	114.00
67	B1	132	G	C3'-C2'-C1'	-8.80	94.46	101.50
67	B1	2249	A	O4'-C1'-C2'	-8.80	97.00	105.80
67	B1	2640	C	N1-C1'-C2'	8.80	125.44	114.00
21	A2	1204	C	O4'-C1'-C2'	-8.80	97.00	105.80
67	B1	2118	C	O4'-C1'-C2'	-8.80	97.00	105.80
21	A2	31	U	C3'-C2'-C1'	8.80	108.54	101.50
67	B1	485	G	P-O3'-C3'	8.80	130.26	119.70
67	B1	2348	G	O4'-C1'-N9	8.80	115.24	108.20
67	B1	34	C	C1'-O4'-C4'	8.80	116.94	109.90
21	A2	1199	A	C1'-O4'-C4'	8.80	116.94	109.90
67	B1	2376	U	O4'-C1'-C2'	-8.80	97.00	105.80
67	B1	2402	A	C3'-C2'-C1'	8.80	108.54	101.50
21	A2	1413	G	C3'-C2'-C1'	-8.79	94.47	101.50
27	A0	58	A	C1'-O4'-C4'	8.79	116.94	109.90
67	B1	474	G	C1'-O4'-C4'	-8.79	102.86	109.90
67	B1	580	G	O4'-C1'-N9	8.79	115.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2904	U	C4'-C3'-C2'	-8.79	93.81	102.60
67	B1	1770	A	O4'-C1'-C2'	-8.79	97.01	105.80
11	A1	37	A	C1'-O4'-C4'	-8.79	102.87	109.90
21	A2	1145	C	P-O3'-C3'	-8.79	109.15	119.70
22	AY	17	ARG	NE-CZ-NH2	-8.79	115.90	120.30
67	B1	430	A	O4'-C1'-N9	8.79	115.23	108.20
67	B1	1852	U	C3'-C2'-C1'	8.79	108.53	101.50
67	B1	2435	G	O4'-C1'-C2'	8.79	115.51	107.60
68	B3	27	C	N1-C1'-C2'	8.79	125.43	114.00
67	B1	89	C	O4'-C1'-N1	8.79	115.23	108.20
67	B1	2032	G	N9-C1'-C2'	8.79	125.42	114.00
21	A2	1175	C	O4'-C1'-C2'	-8.79	97.01	105.80
21	A2	1339	G	O4'-C1'-N9	8.79	115.23	108.20
67	B1	1198	G	O4'-C1'-N9	8.79	115.23	108.20
67	B1	2694	C	P-O3'-C3'	-8.79	109.16	119.70
67	B1	2213	G	C1'-O4'-C4'	-8.78	102.87	109.90
67	B1	2747	C	O4'-C1'-N1	8.79	115.23	108.20
65	BJ	26	TYR	CB-CG-CD1	8.78	126.27	121.00
67	B1	1763	A	O4'-C1'-N9	8.78	115.22	108.20
67	B1	3042	C	O4'-C1'-C2'	-8.78	97.02	105.80
21	A2	101	G	C3'-C2'-C1'	-8.78	94.48	101.50
21	A2	246	A	C1'-O4'-C4'	8.78	116.92	109.90
21	A2	483	G	C3'-C2'-C1'	-8.78	94.48	101.50
21	A2	1362	C	C3'-C2'-C1'	8.78	108.52	101.50
67	B1	378	G	N1-C6-O6	8.78	125.17	119.90
67	B1	1574	A	C1'-O4'-C4'	8.78	116.92	109.90
67	B1	2427	C	P-O3'-C3'	8.78	130.24	119.70
21	A2	957	A	O4'-C1'-N9	8.78	115.22	108.20
67	B1	24	G	C3'-C2'-C1'	8.78	108.52	101.50
67	B1	251	C	N1-C1'-C2'	8.78	125.41	114.00
67	B1	979	G	N9-C1'-C2'	8.78	125.41	114.00
67	B1	1913	C	C1'-O4'-C4'	-8.78	102.88	109.90
67	B1	1430	A	O4'-C1'-N9	8.78	115.22	108.20
67	B1	2484	C	C1'-O4'-C4'	-8.78	102.88	109.90
67	B1	953	G	O4'-C1'-C2'	-8.77	97.03	105.80
15	AE	198	ARG	NE-CZ-NH1	8.77	124.69	120.30
44	BW	48	ARG	NE-CZ-NH1	8.77	124.69	120.30
67	B1	561	C	P-O5'-C5'	-8.77	106.86	120.90
67	B1	2586	A	C3'-C2'-C1'	-8.77	94.48	101.50
67	B1	1139	C	N1-C1'-C2'	8.77	125.40	114.00
21	A2	760	C	C1'-O4'-C4'	-8.77	102.89	109.90
42	BT	33	ARG	NE-CZ-NH1	8.77	124.68	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	872	G	N9-C1'-C2'	8.77	125.40	114.00
67	B1	1566	G	O4'-C1'-N9	-8.77	101.19	108.20
68	B3	42	A	O4'-C1'-N9	-8.77	101.19	108.20
67	B1	1206	A	P-O3'-C3'	8.77	130.22	119.70
67	B1	1620	C	O4'-C1'-N1	8.77	115.21	108.20
67	B1	2735	C	C3'-C2'-C1'	8.77	108.51	101.50
67	B1	382	G	N1-C6-O6	8.76	125.16	119.90
67	B1	1982	C	N1-C1'-C2'	8.76	125.39	114.00
11	A1	16	C	O4'-C1'-C2'	-8.76	97.04	105.80
21	A2	374	G	C1'-O4'-C4'	-8.76	102.89	109.90
67	B1	249	G	N9-C1'-C2'	8.76	125.39	114.00
51	Bj	47	TYR	CG-CD2-CE2	-8.76	114.29	121.30
67	B1	137	A	O4'-C1'-C2'	-8.76	97.04	105.80
21	A2	591	G	O4'-C1'-N9	8.76	115.20	108.20
21	A2	1151	A	C1'-O4'-C4'	-8.76	102.89	109.90
31	BY	118	ARG	NE-CZ-NH1	-8.76	115.92	120.30
67	B1	2891	A	C1'-O4'-C4'	-8.76	102.89	109.90
67	B1	1733	C	O4'-C1'-N1	8.75	115.20	108.20
67	B1	496	A	P-O3'-C3'	8.75	130.20	119.70
67	B1	1082	A	C1'-O4'-C4'	-8.75	102.90	109.90
68	B3	117	G	O4'-C1'-N9	8.75	115.20	108.20
67	B1	1834	C	C1'-O4'-C4'	-8.75	102.90	109.90
67	B1	386	A	C1'-O4'-C4'	-8.75	102.90	109.90
67	B1	1029	C	N1-C1'-C2'	8.75	125.37	114.00
67	B1	1545	C	N1-C1'-C2'	8.75	125.37	114.00
68	B3	49	A	O4'-C1'-N9	8.75	115.20	108.20
21	A2	200	G	O4'-C1'-N9	8.75	115.20	108.20
21	A2	1102	A	O4'-C1'-N9	8.74	115.20	108.20
21	A2	774	U	O4'-C1'-N1	-8.74	101.21	108.20
21	A2	1153	G	N9-C1'-C2'	8.74	125.37	114.00
26	AP	14	PHE	CB-CG-CD1	8.74	126.92	120.80
67	B1	1967	G	O4'-C1'-N9	8.74	115.20	108.20
21	A2	267	C	O4'-C1'-C2'	-8.74	97.06	105.80
67	B1	13	U	O4'-C1'-N1	8.74	115.19	108.20
67	B1	216	A	C1'-O4'-C4'	8.74	116.89	109.90
21	A2	1002	G	P-O5'-C5'	-8.74	106.92	120.90
67	B1	1476	C	C1'-O4'-C4'	8.74	116.89	109.90
67	B1	1963	G	O4'-C1'-C2'	8.74	115.46	107.60
67	B1	1971	C	O4'-C1'-N1	8.74	115.19	108.20
67	B1	2327	C	O4'-C1'-N1	8.74	115.19	108.20
56	BH	121	ALA	CB-CA-C	-8.73	97.00	110.10
21	A2	1060	G	P-O3'-C3'	8.73	130.18	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1338	C	C3'-C2'-C1'	8.73	108.49	101.50
46	BA	41	ARG	NE-CZ-NH1	8.73	124.67	120.30
67	B1	519	A	C3'-C2'-C1'	8.73	108.49	101.50
67	B1	2809	G	C1'-O4'-C4'	-8.73	102.91	109.90
67	B1	2836	G	N9-C1'-C2'	8.73	125.35	114.00
20	A3	27	ARG	NE-CZ-NH1	8.73	124.67	120.30
67	B1	1288	C	N1-C1'-C2'	8.73	125.35	114.00
49	BQ	139	TYR	CB-CG-CD2	-8.73	115.76	121.00
67	B1	1390	U	P-O3'-C3'	8.73	130.18	119.70
52	BB	134	ARG	NE-CZ-NH1	8.73	124.66	120.30
21	A2	73	U	O4'-C1'-N1	8.73	115.18	108.20
67	B1	1165	C	P-O3'-C3'	8.73	130.17	119.70
7	AB	36	ARG	NE-CZ-NH2	-8.72	115.94	120.30
67	B1	2774	C	N1-C1'-C2'	8.72	125.34	114.00
21	A2	1211	A	O4'-C1'-N9	8.72	115.18	108.20
67	B1	571	G	C1'-O4'-C4'	-8.72	102.92	109.90
67	B1	2788	U	C1'-O4'-C4'	-8.72	102.92	109.90
50	BV	39	ARG	NE-CZ-NH1	8.72	124.66	120.30
51	Bj	54	LYS	N-CA-CB	8.72	126.29	110.60
67	B1	847	A	N9-C1'-C2'	-8.72	102.41	112.00
67	B1	239	G	C1'-O4'-C4'	-8.72	102.93	109.90
67	B1	1042	G	C3'-C2'-C1'	8.72	108.47	101.50
21	A2	1054	A	C3'-C2'-C1'	8.71	108.47	101.50
27	A0	21	G	O4'-C1'-N9	8.71	115.17	108.20
67	B1	2668	G	O4'-C1'-N9	8.71	115.17	108.20
67	B1	2104	G	O4'-C1'-N9	-8.71	101.23	108.20
21	A2	335	G	C3'-C2'-C1'	-8.71	94.53	101.50
21	A2	1195	U	O4'-C1'-C2'	8.71	115.44	107.60
67	B1	936	G	O4'-C1'-N9	-8.71	101.23	108.20
67	B1	1064	G	O4'-C1'-C2'	8.71	115.44	107.60
67	B1	1753	G	O4'-C1'-C2'	-8.71	97.09	105.80
67	B1	2962	A	C1'-O4'-C4'	-8.71	102.93	109.90
67	B1	658	C	C3'-C2'-C1'	8.70	108.46	101.50
21	A2	768	A	N9-C1'-C2'	-8.70	102.43	112.00
21	A2	89	G	C1'-O4'-C4'	-8.70	102.94	109.90
21	A2	101	G	P-O3'-C3'	8.70	130.14	119.70
21	A2	502	U	O4'-C1'-N1	8.70	115.16	108.20
21	A2	1045	A	C1'-O4'-C4'	-8.70	102.94	109.90
67	B1	1720	G	N1-C6-O6	8.70	125.12	119.90
21	A2	773	A	C1'-O4'-C4'	8.70	116.86	109.90
57	BZ	8	ARG	NE-CZ-NH1	-8.70	115.95	120.30
67	B1	1281	A	O4'-C1'-N9	8.70	115.16	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2179	G	C1'-O4'-C4'	8.70	116.86	109.90
21	A2	1182	G	C5'-C4'-O4'	8.69	119.53	109.10
28	AV	60	PHE	C-N-CA	8.69	140.55	122.30
21	A2	10	G	O4'-C1'-N9	8.69	115.15	108.20
21	A2	474	G	N9-C1'-C2'	8.69	125.30	114.00
21	A2	980	C	C1'-O4'-C4'	-8.69	102.95	109.90
52	BB	17	PHE	CB-CG-CD2	-8.69	114.72	120.80
67	B1	1161	A	O4'-C1'-C2'	-8.69	97.11	105.80
67	B1	2420	C	O4'-C1'-C2'	-8.69	97.11	105.80
68	B3	15	G	C3'-C2'-C1'	-8.69	94.55	101.50
21	A2	1374	C	O4'-C1'-N1	8.69	115.15	108.20
67	B1	769	G	N9-C1'-C2'	8.68	125.29	114.00
67	B1	1575	G	O4'-C1'-C2'	-8.68	97.12	105.80
50	BV	39	ARG	NE-CZ-NH2	-8.68	115.96	120.30
67	B1	1804	G	O4'-C1'-N9	8.68	115.15	108.20
67	B1	3030	A	N9-C1'-C2'	-8.68	102.45	112.00
43	Bk	42	ARG	NH1-CZ-NH2	-8.68	109.85	119.40
67	B1	316	G	N1-C6-O6	8.68	125.11	119.90
21	A2	1095	C	C3'-C2'-C1'	-8.68	94.56	101.50
21	A2	1100	G	N9-C1'-C2'	8.68	125.28	114.00
67	B1	3016	G	O4'-C1'-N9	8.68	115.14	108.20
13	AX	17	ARG	NE-CZ-NH1	8.67	124.64	120.30
25	AH	84	HIS	CA-C-N	8.67	136.27	117.20
67	B1	878	G	C1'-O4'-C4'	-8.67	102.97	109.90
21	A2	435	A	O4'-C1'-C2'	-8.67	97.13	105.80
21	A2	1184	U	O4'-C1'-N1	8.67	115.13	108.20
67	B1	2936	U	O4'-C4'-C3'	-8.67	95.33	104.00
21	A2	892	C	P-O3'-C3'	8.67	130.10	119.70
37	BU	93	TYR	CB-CG-CD1	8.67	126.20	121.00
67	B1	1170	G	O4'-C1'-N9	8.67	115.13	108.20
67	B1	370	A	O4'-C1'-C2'	-8.66	97.14	105.80
67	B1	986	G	N1-C6-O6	8.66	125.10	119.90
67	B1	1186	G	C1'-O4'-C4'	-8.66	102.97	109.90
67	B1	2218	C	C1'-O4'-C4'	-8.66	102.97	109.90
21	A2	1212	U	O4'-C1'-N1	8.66	115.13	108.20
51	Bj	40	PHE	CB-CG-CD2	-8.66	114.74	120.80
67	B1	699	A	O4'-C1'-N9	8.66	115.13	108.20
21	A2	570	G	C1'-O4'-C4'	-8.66	102.97	109.90
21	A2	680	C	C3'-C2'-C1'	8.66	108.43	101.50
67	B1	1812	A	O4'-C1'-N9	8.66	115.13	108.20
67	B1	1071	A	C3'-C2'-C1'	8.66	108.42	101.50
67	B1	1771	C	P-O3'-C3'	8.65	130.09	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1845	C	O4'-C1'-N1	8.65	115.12	108.20
2	AK	92	ASP	CB-CG-OD2	-8.65	110.51	118.30
67	B1	2187	C	O4'-C1'-C2'	-8.65	97.15	105.80
67	B1	2643	U	O4'-C1'-N1	8.65	115.12	108.20
67	B1	1013	G	N1-C6-O6	8.65	125.09	119.90
21	A2	541	G	C1'-O4'-C4'	-8.65	102.98	109.90
21	A2	1067	G	O4'-C1'-N9	8.65	115.12	108.20
67	B1	729	A	N9-C1'-C2'	8.65	125.25	114.00
67	B1	1039	C	O4'-C1'-C2'	-8.65	97.15	105.80
21	A2	495	G	C1'-O4'-C4'	-8.65	102.98	109.90
21	A2	587	G	N1-C6-O6	8.65	125.09	119.90
21	A2	605	C	C3'-C2'-C1'	8.65	108.42	101.50
21	A2	762	G	N9-C1'-C2'	-8.65	102.49	112.00
67	B1	1963	G	C1'-O4'-C4'	-8.65	102.98	109.90
67	B1	2220	C	O4'-C1'-C2'	-8.65	97.15	105.80
67	B1	701	G	C1'-O4'-C4'	-8.65	102.98	109.90
67	B1	2238	G	C3'-C2'-C1'	-8.65	94.58	101.50
21	A2	1278	A	C1'-O4'-C4'	8.64	116.81	109.90
67	B1	2985	U	C3'-C2'-C1'	8.64	108.42	101.50
67	B1	775	C	C3'-C2'-C1'	8.64	108.41	101.50
67	B1	1403	C	O4'-C1'-C2'	-8.64	97.16	105.80
53	BD	32	ARG	NE-CZ-NH2	-8.64	115.98	120.30
67	B1	1127	C	O4'-C1'-N1	8.64	115.11	108.20
67	B1	2373	G	O5'-P-OP1	8.64	121.07	110.70
21	A2	706	G	O4'-C1'-C2'	-8.64	97.16	105.80
21	A2	1132	C	C3'-C2'-C1'	8.64	108.41	101.50
21	A2	239	A	C2'-C3'-O3'	8.63	128.50	109.50
21	A2	1196	A	N9-C1'-C2'	8.63	125.22	114.00
21	A2	1411	G	C3'-C2'-C1'	8.63	108.41	101.50
67	B1	603	G	C1'-O4'-C4'	-8.64	102.99	109.90
67	B1	2344	G	O4'-C1'-N9	8.63	115.11	108.20
67	B1	2354	A	C1'-O4'-C4'	-8.63	102.99	109.90
7	AB	201	ARG	NE-CZ-NH1	8.63	124.62	120.30
18	AF	11	ARG	NE-CZ-NH1	-8.63	115.98	120.30
67	B1	1709	C	O5'-P-OP1	-8.63	97.93	105.70
33	BC	139	TYR	CB-CG-CD1	-8.63	115.82	121.00
37	BU	23	ARG	NE-CZ-NH2	8.63	124.62	120.30
67	B1	274	C	C3'-C2'-C1'	8.63	108.41	101.50
67	B1	756	C	O4'-C1'-N1	8.63	115.10	108.20
54	BF	168	PHE	CB-CG-CD2	8.63	126.84	120.80
67	B1	117	A	C3'-C2'-C1'	8.63	108.40	101.50
67	B1	1589	G	C3'-C2'-C1'	8.63	108.40	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1431	U	O4'-C1'-N1	8.63	115.10	108.20
67	B1	1669	A	O4'-C1'-C2'	8.63	115.36	107.60
67	B1	2169	C	C3'-C2'-C1'	8.63	108.40	101.50
67	B1	2926	G	O4'-C1'-C2'	8.63	115.36	107.60
17	AO	145	ARG	NE-CZ-NH2	-8.62	115.99	120.30
21	A2	1406	U	O4'-C1'-C2'	-8.62	97.18	105.80
67	B1	1883	C	O4'-C1'-N1	8.62	115.10	108.20
21	A2	643	G	C3'-C2'-C1'	-8.62	94.60	101.50
67	B1	34	C	O4'-C1'-C2'	-8.62	97.18	105.80
21	A2	446	G	N1-C6-O6	8.62	125.07	119.90
67	B1	2519	C	O4'-C1'-N1	8.62	115.09	108.20
23	AT	28	PHE	CB-CG-CD2	8.62	126.83	120.80
67	B1	1228	G	C1'-O4'-C4'	8.62	116.79	109.90
67	B1	2334	G	C1'-O4'-C4'	-8.62	103.01	109.90
67	B1	2225	C	C3'-C2'-C1'	8.62	108.39	101.50
21	A2	1396	C	O4'-C1'-N1	8.61	115.09	108.20
67	B1	1612	G	O4'-C1'-N9	8.61	115.09	108.20
67	B1	2162	G	O4'-C1'-N9	8.61	115.09	108.20
21	A2	1399	G	P-O3'-C3'	-8.61	109.37	119.70
67	B1	2275	G	O4'-C1'-N9	8.61	115.09	108.20
5	AW	12	ARG	NE-CZ-NH1	8.61	124.60	120.30
6	AC	27	ARG	NE-CZ-NH1	8.61	124.60	120.30
21	A2	106	A	O4'-C1'-C2'	-8.61	97.19	105.80
30	AU	53	TYR	CB-CG-CD1	-8.61	115.83	121.00
51	Bj	52	ARG	NE-CZ-NH2	-8.61	116.00	120.30
67	B1	750	C	C3'-C2'-C1'	8.61	108.39	101.50
43	Bk	148	ARG	NE-CZ-NH1	8.61	124.60	120.30
67	B1	331	G	N1-C6-O6	8.61	125.06	119.90
30	AU	119	ARG	NE-CZ-NH2	8.61	124.60	120.30
6	AC	20	PHE	CB-CG-CD1	8.60	126.82	120.80
21	A2	512	U	O4'-C1'-C2'	8.60	115.34	107.60
67	B1	457	C	N1-C1'-C2'	8.60	125.18	114.00
67	B1	987	G	N1-C6-O6	8.60	125.06	119.90
21	A2	547	U	N1-C1'-C2'	8.60	125.18	114.00
21	A2	1241	U	O4'-C1'-C2'	-8.60	97.20	105.80
21	A2	1239	A	O4'-C1'-C2'	8.60	115.34	107.60
21	A2	831	A	C1'-O4'-C4'	8.60	116.78	109.90
21	A2	1445	A	P-O3'-C3'	-8.60	109.39	119.70
59	BM	75	ARG	NE-CZ-NH1	8.60	124.60	120.30
67	B1	2261	C	P-O3'-C3'	-8.60	109.38	119.70
67	B1	2432	G	C1'-O4'-C4'	8.60	116.78	109.90
21	A2	140	C	O4'-C1'-N1	8.59	115.08	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	279	U	N1-C1'-C2'	8.59	125.17	114.00
67	B1	547	C	N1-C1'-C2'	8.59	125.17	114.00
67	B1	711	C	C1'-O4'-C4'	8.59	116.78	109.90
21	A2	991	C	O4'-C1'-N1	8.59	115.07	108.20
21	A2	1208	A	O4'-C1'-C2'	-8.59	97.21	105.80
21	A2	1239	A	O4'-C1'-N9	8.59	115.07	108.20
28	B6	63	TYR	CB-CG-CD1	8.59	126.15	121.00
36	Bf	33	ARG	O-C-N	-8.59	108.96	122.70
67	B1	540	A	C3'-C2'-C1'	8.59	108.37	101.50
67	B1	770	G	C4'-C3'-C2'	-8.59	94.01	102.60
67	B1	943	G	C4'-C3'-C2'	-8.58	94.02	102.60
67	B1	1697	G	O4'-C1'-N9	8.58	115.07	108.20
67	B1	2458	U	O4'-C1'-C2'	-8.58	97.22	105.80
67	B1	1585	U	C5'-C4'-O4'	-8.58	98.80	109.10
67	B1	2993	G	O4'-C1'-N9	8.58	115.06	108.20
15	AE	171	ARG	NE-CZ-NH2	-8.58	116.01	120.30
67	B1	2890	A	C3'-C2'-C1'	8.58	108.36	101.50
21	A2	1294	G	O4'-C1'-C2'	-8.58	97.22	105.80
47	BI	67	TYR	CB-CG-CD1	8.58	126.15	121.00
21	A2	22	G	P-O3'-C3'	-8.57	109.41	119.70
21	A2	352	A	O4'-C1'-C2'	-8.57	97.22	105.80
21	A2	1458	A	C1'-O4'-C4'	8.57	116.76	109.90
29	AL	92	GLU	N-CA-C	8.57	134.15	111.00
21	A2	106	A	C1'-O4'-C4'	8.57	116.76	109.90
67	B1	917	A	C5'-C4'-O4'	8.57	119.39	109.10
21	A2	556	G	O4'-C1'-C2'	8.57	115.31	107.60
67	B1	311	C	O4'-C1'-C2'	-8.57	97.23	105.80
67	B1	2622	C	C1'-O4'-C4'	-8.57	103.04	109.90
67	B1	2826	U	O4'-C1'-N1	8.57	115.06	108.20
67	B1	645	U	C1'-O4'-C4'	8.57	116.75	109.90
67	B1	711	C	O4'-C1'-N1	8.57	115.05	108.20
67	B1	1411	G	N9-C1'-C2'	8.57	125.14	114.00
67	B1	2354	A	N9-C1'-C2'	8.57	125.14	114.00
21	A2	335	G	C1'-O4'-C4'	-8.56	103.05	109.90
67	B1	349	A	O4'-C1'-C2'	-8.56	97.23	105.80
67	B1	684	G	O4'-C1'-C2'	8.56	115.31	107.60
67	B1	1389	A	O4'-C1'-C2'	-8.56	97.23	105.80
67	B1	528	G	O4'-C1'-C2'	8.56	115.31	107.60
67	B1	1600	G	N9-C1'-C2'	-8.56	102.58	112.00
21	A2	1097	G	P-O3'-C3'	-8.56	109.43	119.70
67	B1	998	G	N9-C1'-C2'	-8.56	102.58	112.00
67	B1	1237	A	O4'-C1'-N9	8.56	115.05	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	142	G	O4'-C1'-N9	8.56	115.05	108.20
67	B1	1346	G	O4'-C1'-C2'	8.56	115.30	107.60
67	B1	1407	A	C3'-C2'-C1'	8.56	108.35	101.50
21	A2	145	A	O4'-C1'-C2'	-8.56	97.24	105.80
21	A2	735	A	O4'-C1'-N9	8.56	115.05	108.20
67	B1	1365	G	C3'-C2'-C1'	-8.56	94.65	101.50
67	B1	2435	G	C3'-C2'-C1'	-8.56	94.65	101.50
67	B1	23	G	O4'-C1'-N9	8.56	115.05	108.20
67	B1	2040	A	O4'-C1'-C2'	-8.56	97.24	105.80
12	AN	131	ARG	NE-CZ-NH1	8.55	124.58	120.30
21	A2	1229	A	C1'-O4'-C4'	8.55	116.74	109.90
67	B1	2258	A	C3'-C2'-C1'	8.55	108.34	101.50
67	B1	1878	G	N1-C6-O6	8.55	125.03	119.90
67	B1	2303	A	P-O5'-C5'	8.55	134.58	120.90
21	A2	472	C	C3'-C2'-C1'	8.55	108.34	101.50
67	B1	2052	A	C3'-C2'-C1'	-8.55	94.66	101.50
21	A2	694	U	N1-C1'-C2'	-8.55	102.60	112.00
67	B1	1431	U	C3'-C2'-C1'	-8.55	94.66	101.50
25	AH	201	TYR	CB-CG-CD1	-8.55	115.87	121.00
67	B1	728	A	O4'-C1'-N9	8.55	115.04	108.20
67	B1	1057	C	P-O3'-C3'	-8.54	109.45	119.70
67	B1	2985	U	C1'-O4'-C4'	8.54	116.74	109.90
67	B1	2189	C	C1'-O4'-C4'	-8.54	103.07	109.90
21	A2	35	G	N9-C1'-C2'	8.54	125.10	114.00
21	A2	200	G	N9-C1'-C2'	-8.54	102.61	112.00
21	A2	1174	A	C3'-C2'-C1'	8.54	108.33	101.50
67	B1	1040	C	O4'-C1'-C2'	-8.54	97.26	105.80
67	B1	1163	U	N1-C1'-C2'	-8.54	102.61	112.00
67	B1	2015	G	O4'-C1'-C2'	-8.54	97.26	105.80
67	B1	2753	G	C3'-C2'-C1'	-8.54	94.67	101.50
67	B1	2979	C	O4'-C1'-N1	8.54	115.03	108.20
27	A0	28	C	C3'-C2'-C1'	8.54	108.33	101.50
67	B1	1486	G	O4'-C1'-N9	8.53	115.03	108.20
67	B1	1632	U	C1'-O4'-C4'	8.54	116.73	109.90
67	B1	1915	G	O4'-C1'-N9	8.53	115.03	108.20
16	AJ	43	ARG	NE-CZ-NH1	8.53	124.56	120.30
52	BB	220	ARG	NE-CZ-NH1	8.53	124.56	120.30
67	B1	2251	G	P-O5'-C5'	8.53	134.55	120.90
67	B1	798	G	C1'-O4'-C4'	-8.53	103.08	109.90
67	B1	2750	C	N1-C1'-C2'	8.53	125.09	114.00
21	A2	109	U	O4'-C1'-N1	8.52	115.02	108.20
21	A2	1491	C	N1-C1'-C2'	8.52	125.08	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	542	G	C3'-C2'-C1'	-8.52	94.68	101.50
18	AF	13	LEU	CB-CA-C	8.52	126.39	110.20
67	B1	365	G	N9-C1'-C2'	-8.52	102.63	112.00
67	B1	1565	G	C1'-O4'-C4'	8.52	116.71	109.90
68	B3	79	U	C3'-C2'-C1'	8.52	108.31	101.50
67	B1	699	A	P-O3'-C3'	-8.52	109.48	119.70
67	B1	1152	C	C1'-O4'-C4'	-8.52	103.09	109.90
21	A2	494	G	O4'-C1'-C2'	8.52	115.26	107.60
68	B3	79	U	O4'-C1'-C2'	-8.52	97.28	105.80
21	A2	18	C	P-O3'-C3'	-8.51	109.48	119.70
21	A2	385	A	O4'-C1'-N9	8.51	115.01	108.20
21	A2	1403	U	C5'-C4'-O4'	-8.51	98.89	109.10
67	B1	512	G	O4'-C1'-N9	8.51	115.01	108.20
67	B1	2672	A	O4'-C1'-N9	8.51	115.01	108.20
67	B1	2927	A	C3'-C2'-C1'	8.51	108.31	101.50
21	A2	1059	C	N1-C1'-C2'	8.51	125.06	114.00
67	B1	45	G	N1-C6-O6	8.51	125.00	119.90
28	B6	68	TYR	CG-CD1-CE1	-8.51	114.50	121.30
67	B1	1097	G	O4'-C1'-N9	8.51	115.01	108.20
67	B1	2070	U	C1'-O4'-C4'	-8.51	103.09	109.90
21	A2	1182	G	C3'-C2'-C1'	-8.50	94.70	101.50
25	AH	95	SER	N-CA-C	8.50	133.96	111.00
67	B1	665	C	C3'-C2'-C1'	8.50	108.30	101.50
67	B1	1494	U	N1-C1'-C2'	-8.50	102.65	112.00
21	A2	986	G	N1-C6-O6	8.50	125.00	119.90
11	A1	58	A	C1'-O4'-C4'	8.50	116.70	109.90
29	AL	92	GLU	CA-C-N	8.50	135.89	117.20
67	B1	2158	G	P-O3'-C3'	8.50	129.90	119.70
67	B1	2298	C	C3'-C2'-C1'	8.50	108.30	101.50
67	B1	1955	U	C1'-O4'-C4'	8.49	116.69	109.90
67	B1	2188	C	N1-C1'-C2'	8.49	125.04	114.00
67	B1	2365	G	O4'-C1'-N9	8.49	115.00	108.20
21	A2	302	A	O4'-C1'-C2'	-8.49	97.31	105.80
67	B1	1530	A	N9-C1'-C2'	-8.49	102.66	112.00
21	A2	421	U	O4'-C1'-N1	8.49	114.99	108.20
21	A2	1353	C	C3'-C2'-C1'	8.49	108.29	101.50
67	B1	443	C	C3'-C2'-C1'	8.49	108.29	101.50
67	B1	2515	U	N1-C1'-C2'	8.49	125.03	114.00
67	B1	2699	U	O4'-C1'-N1	8.49	114.99	108.20
7	AB	109	PHE	CB-CG-CD2	-8.48	114.86	120.80
8	AR	53	TYR	CB-CG-CD2	-8.48	115.91	121.00
21	A2	565	C	P-O3'-C3'	-8.48	109.52	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	835	C	O4'-C1'-N1	8.48	114.98	108.20
67	B1	1416	G	O4'-C1'-N9	8.48	114.99	108.20
67	B1	2843	C	C1'-O4'-C4'	-8.48	103.11	109.90
11	A1	66	C	C3'-C2'-C1'	8.48	108.28	101.50
21	A2	88	G	O5'-P-OP1	-8.48	98.07	105.70
67	B1	840	G	O4'-C1'-N9	8.48	114.98	108.20
67	B1	1245	C	C3'-C2'-C1'	8.48	108.28	101.50
21	A2	57	G	O4'-C1'-N9	8.47	114.98	108.20
21	A2	1453	U	C1'-O4'-C4'	8.47	116.68	109.90
34	B5	47	ARG	CA-C-N	8.47	135.84	117.20
21	A2	1143	G	O4'-C1'-N9	8.47	114.98	108.20
67	B1	585	G	C1'-O4'-C4'	-8.47	103.12	109.90
67	B1	2351	G	N9-C1'-C2'	-8.47	102.68	112.00
67	B1	1476	C	C3'-C2'-C1'	8.47	108.28	101.50
67	B1	2604	G	C1'-O4'-C4'	-8.47	103.12	109.90
21	A2	445	G	N1-C6-O6	8.47	124.98	119.90
21	A2	601	G	N9-C1'-C2'	-8.47	102.68	112.00
67	B1	243	G	O4'-C1'-C2'	-8.47	97.33	105.80
67	B1	664	A	O4'-C1'-N9	8.47	114.97	108.20
67	B1	1005	G	N1-C6-O6	8.47	124.98	119.90
67	B1	2136	G	N9-C1'-C2'	8.47	125.01	114.00
21	A2	169	C	O4'-C1'-N1	8.47	114.97	108.20
21	A2	1167	C	O4'-C1'-C2'	-8.46	97.34	105.80
21	A2	1365	G	C1'-O4'-C4'	-8.46	103.13	109.90
67	B1	393	C	C4'-C3'-C2'	-8.47	94.13	102.60
67	B1	656	G	O4'-C1'-N9	8.46	114.97	108.20
21	A2	1146	G	O4'-C1'-N9	8.46	114.97	108.20
67	B1	1734	G	O4'-C1'-N9	8.46	114.97	108.20
21	A2	376	G	O4'-C1'-N9	8.46	114.97	108.20
54	BF	56	TYR	CB-CG-CD1	8.46	126.08	121.00
21	A2	142	G	O4'-C1'-C2'	8.46	115.21	107.60
67	B1	331	G	P-O3'-C3'	8.46	129.85	119.70
21	A2	1403	U	C3'-C2'-C1'	8.46	108.27	101.50
21	A2	1272	G	O4'-C1'-C2'	8.45	115.21	107.60
21	A2	1337	A	N9-C1'-C2'	-8.45	102.70	112.00
33	BC	44	TYR	CB-CG-CD1	-8.46	115.93	121.00
67	B1	2947	G	P-O5'-C5'	-8.46	107.37	120.90
21	A2	1220	G	P-O5'-C5'	8.45	134.42	120.90
27	A0	32	C	O4'-C1'-C2'	-8.45	97.35	105.80
67	B1	1060	C	C1'-O4'-C4'	8.45	116.66	109.90
67	B1	1223	A	C5'-C4'-C3'	-8.45	102.48	116.00
21	A2	479	C	O4'-C1'-N1	8.45	114.96	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	761	U	P-O3'-C3'	8.45	129.84	119.70
67	B1	2851	A	O4'-C1'-C2'	8.45	115.20	107.60
1	AQ	16	ARG	NE-CZ-NH2	8.45	124.52	120.30
25	AH	163	ARG	NE-CZ-NH1	8.45	124.52	120.30
67	B1	43	G	P-O3'-C3'	8.45	129.84	119.70
67	B1	620	G	O4'-C1'-C2'	8.45	115.20	107.60
67	B1	3046	C	O4'-C1'-N1	8.45	114.96	108.20
21	A2	50	C	C3'-C2'-C1'	8.44	108.25	101.50
21	A2	214	C	N1-C1'-C2'	8.44	124.98	114.00
21	A2	503	G	C3'-C2'-C1'	-8.45	94.74	101.50
21	A2	510	A	O4'-C1'-C2'	-8.45	97.36	105.80
67	B1	1018	G	N1-C6-O6	8.45	124.97	119.90
21	A2	559	G	C3'-C2'-C1'	8.44	108.25	101.50
21	A2	1255	C	C1'-O4'-C4'	-8.44	103.15	109.90
67	B1	2489	C	N1-C1'-C2'	8.44	124.98	114.00
21	A2	1312	C	O4'-C1'-C2'	-8.44	97.36	105.80
67	B1	182	U	O4'-C1'-N1	8.44	114.95	108.20
36	Bf	3	ARG	CB-CG-CD	8.44	133.54	111.60
40	BE	83	ARG	NE-CZ-NH1	8.44	124.52	120.30
67	B1	670	G	C3'-C2'-C1'	8.44	108.25	101.50
67	B1	1082	A	C3'-C2'-C1'	8.44	108.25	101.50
67	B1	2295	C	O4'-C1'-C2'	-8.44	97.36	105.80
21	A2	1256	C	P-O3'-C3'	8.44	129.82	119.70
67	B1	2708	U	N1-C1'-C2'	8.44	124.97	114.00
21	A2	1278	A	O4'-C1'-C2'	-8.43	97.37	105.80
21	A2	1405	C	C1'-O4'-C4'	8.43	116.65	109.90
67	B1	2174	G	N9-C1'-C2'	-8.43	102.72	112.00
61	Bd	80	MET	N-CA-CB	8.43	125.78	110.60
67	B1	770	G	P-O3'-C3'	-8.43	109.58	119.70
67	B1	2942	G	O4'-C1'-N9	8.43	114.95	108.20
21	A2	30	C	C1'-O4'-C4'	-8.43	103.16	109.90
32	BO	196	PHE	CB-CG-CD2	8.43	126.70	120.80
67	B1	1331	U	O4'-C1'-N1	8.43	114.94	108.20
36	Bf	4	ASN	N-CA-C	-8.43	88.24	111.00
67	B1	1328	G	C3'-C2'-C1'	8.43	108.24	101.50
67	B1	1962	G	O4'-C1'-N9	8.43	114.94	108.20
67	B1	2563	A	C1'-O4'-C4'	8.43	116.64	109.90
21	A2	67	C	O4'-C1'-N1	8.43	114.94	108.20
21	A2	330	U	P-O3'-C3'	-8.43	109.59	119.70
27	A0	47	U	C3'-C2'-C1'	-8.43	94.76	101.50
67	B1	1219	C	O4'-C1'-N1	8.43	114.94	108.20
21	A2	1185	A	C3'-C2'-C1'	8.42	108.24	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2220	C	C3'-C2'-C1'	8.42	108.24	101.50
67	B1	2438	U	C4'-C3'-C2'	-8.42	94.18	102.60
67	B1	2319	C	O4'-C1'-C2'	-8.42	97.38	105.80
21	A2	784	G	O4'-C1'-N9	8.42	114.94	108.20
21	A2	463	G	O4'-C1'-C2'	8.42	115.18	107.60
67	B1	1201	G	C3'-C2'-C1'	-8.42	94.77	101.50
24	AA	26	PHE	CB-CG-CD1	8.42	126.69	120.80
67	B1	571	G	O4'-C1'-N9	8.42	114.93	108.20
67	B1	863	C	N1-C1'-C2'	8.41	124.94	114.00
67	B1	1368	A	O4'-C1'-C2'	-8.41	97.39	105.80
67	B1	3028	U	O4'-C1'-N1	8.41	114.93	108.20
67	B1	2077	A	O4'-C1'-C2'	-8.41	97.39	105.80
67	B1	3003	A	O4'-C1'-N9	8.41	114.93	108.20
67	B1	1230	G	N9-C1'-C2'	8.41	124.93	114.00
21	A2	717	C	O4'-C1'-N1	8.40	114.92	108.20
21	A2	151	G	O4'-C1'-N9	8.40	114.92	108.20
67	B1	2016	C	O4'-C1'-N1	8.40	114.92	108.20
67	B1	2318	G	C3'-C2'-C1'	-8.40	94.78	101.50
43	Bk	42	ARG	CB-CG-CD	8.40	133.44	111.60
67	B1	128	C	C1'-O4'-C4'	-8.40	103.18	109.90
67	B1	354	G	O4'-C1'-C2'	8.40	115.16	107.60
67	B1	2058	C	O4'-C1'-N1	8.40	114.92	108.20
67	B1	2193	G	O4'-C1'-N9	8.40	114.92	108.20
67	B1	2582	C	O4'-C1'-C2'	-8.40	97.40	105.80
21	A2	56	A	O4'-C1'-N9	8.40	114.92	108.20
21	A2	1208	A	C5'-C4'-O4'	8.40	119.18	109.10
67	B1	171	A	C3'-C2'-C1'	8.40	108.22	101.50
67	B1	707	U	O4'-C1'-N1	8.40	114.92	108.20
67	B1	420	U	C1'-O4'-C4'	8.40	116.62	109.90
67	B1	1860	A	C1'-O4'-C4'	8.40	116.62	109.90
67	B1	2574	G	O4'-C1'-C2'	-8.40	97.40	105.80
21	A2	1448	A	C1'-O4'-C4'	8.39	116.61	109.90
67	B1	2732	U	P-O3'-C3'	8.39	129.77	119.70
21	A2	499	G	C1'-O4'-C4'	-8.39	103.19	109.90
21	A2	1301	U	O4'-C1'-N1	8.39	114.91	108.20
62	BN	108	TYR	CB-CG-CD1	-8.39	115.97	121.00
67	B1	2740	G	N1-C6-O6	8.39	124.93	119.90
21	A2	1352	G	C1'-O4'-C4'	-8.39	103.19	109.90
67	B1	116	G	P-O3'-C3'	-8.39	109.63	119.70
67	B1	1011	A	N9-C1'-C2'	8.39	124.90	114.00
12	AN	30	TYR	CB-CG-CD1	8.38	126.03	121.00
21	A2	575	A	O4'-C1'-C2'	-8.38	97.42	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	397	G	C3'-C2'-C1'	-8.38	94.79	101.50
67	B1	437	G	N9-C1'-C2'	-8.38	102.78	112.00
67	B1	1098	C	N1-C1'-C2'	8.39	124.90	114.00
67	B1	1706	G	N9-C1'-C2'	-8.38	102.78	112.00
68	B3	99	G	C1'-O4'-C4'	-8.38	103.19	109.90
20	A3	6	TYR	N-CA-CB	8.38	125.69	110.60
61	Bd	18	PRO	C-N-CA	8.38	139.90	122.30
67	B1	237	G	P-O3'-C3'	8.38	129.76	119.70
67	B1	1246	G	O5'-P-OP2	-8.38	98.16	105.70
67	B1	1402	C	C1'-O4'-C4'	-8.38	103.19	109.90
67	B1	1470	C	N1-C1'-C2'	8.38	124.89	114.00
67	B1	3038	A	P-O5'-C5'	8.38	134.31	120.90
68	B3	74	U	C3'-C2'-C1'	8.38	108.20	101.50
21	A2	365	C	C3'-C2'-C1'	8.38	108.20	101.50
67	B1	1567	C	O5'-P-OP1	-8.38	98.16	105.70
67	B1	1677	A	C1'-O4'-C4'	-8.38	103.20	109.90
67	B1	1927	C	O4'-C1'-N1	8.38	114.90	108.20
67	B1	2559	G	N9-C1'-C2'	8.38	124.89	114.00
67	B1	878	G	P-O3'-C3'	-8.38	109.65	119.70
67	B1	1659	G	N1-C6-O6	8.38	124.93	119.90
67	B1	2938	G	C1'-O4'-C4'	-8.38	103.20	109.90
4	AG	53	LYS	C-N-CA	8.37	142.63	121.70
61	Bd	9	SER	N-CA-CB	8.37	123.06	110.50
67	B1	1519	G	O4'-C1'-C2'	-8.37	97.43	105.80
67	B1	701	G	P-O3'-C3'	8.37	129.75	119.70
67	B1	2766	C	C1'-O4'-C4'	-8.37	103.20	109.90
21	A2	1265	G	O4'-C1'-N9	8.37	114.90	108.20
67	B1	2049	U	O4'-C1'-N1	8.37	114.89	108.20
67	B1	2511	C	C3'-C2'-C1'	8.37	108.20	101.50
58	BP	85	PHE	CB-CG-CD2	-8.37	114.94	120.80
67	B1	302	U	P-O3'-C3'	8.37	129.74	119.70
67	B1	306	G	N9-C1'-C2'	8.37	124.88	114.00
67	B1	1539	U	C1'-O4'-C4'	8.36	116.59	109.90
27	A0	22	G	N9-C1'-C2'	8.36	124.87	114.00
67	B1	59	U	C3'-C2'-C1'	8.36	108.19	101.50
67	B1	433	C	O4'-C1'-N1	8.36	114.89	108.20
67	B1	1535	U	O4'-C1'-N1	8.36	114.89	108.20
67	B1	76	C	O4'-C1'-C2'	-8.36	97.44	105.80
21	A2	370	A	N9-C1'-C2'	-8.35	102.81	112.00
21	A2	486	A	C5'-C4'-O4'	8.35	119.12	109.10
67	B1	328	G	O4'-C1'-N9	8.35	114.88	108.20
67	B1	777	A	O4'-C1'-C2'	-8.35	97.45	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	780	G	O4'-C1'-N9	8.35	114.88	108.20
68	B3	100	A	C3'-C2'-C1'	-8.35	94.82	101.50
13	AX	46	ARG	NE-CZ-NH1	8.35	124.47	120.30
49	BQ	100	ARG	NE-CZ-NH1	8.35	124.47	120.30
67	B1	1195	G	C1'-O4'-C4'	8.35	116.58	109.90
67	B1	1659	G	C5-C6-O6	-8.35	123.59	128.60
21	A2	703	U	O4'-C1'-C2'	-8.34	97.46	105.80
67	B1	692	C	C3'-C2'-C1'	8.34	108.17	101.50
67	B1	845	U	C3'-C2'-C1'	8.34	108.17	101.50
67	B1	1368	A	O4'-C1'-N9	8.34	114.87	108.20
67	B1	3025	C	O4'-C1'-N1	8.34	114.88	108.20
67	B1	233	A	C1'-O4'-C4'	-8.34	103.23	109.90
67	B1	747	G	O4'-C1'-N9	8.34	114.87	108.20
67	B1	2075	U	O4'-C1'-N1	8.34	114.87	108.20
67	B1	1705	C	C1'-O4'-C4'	-8.34	103.23	109.90
67	B1	2144	U	C1'-O4'-C4'	8.34	116.57	109.90
67	B1	2378	C	N1-C1'-C2'	8.34	124.84	114.00
11	A1	38	G	C5'-C4'-O4'	8.34	119.11	109.10
21	A2	494	G	O4'-C1'-N9	8.34	114.87	108.20
21	A2	941	C	C3'-C2'-C1'	8.34	108.17	101.50
21	A2	1142	G	N9-C1'-C2'	8.34	124.84	114.00
67	B1	2371	A	N9-C1'-C2'	8.34	124.84	114.00
21	A2	723	G	C4'-C3'-C2'	-8.33	94.27	102.60
21	A2	1394	G	N9-C1'-C2'	8.33	124.83	114.00
63	Bg	19	ARG	NE-CZ-NH2	-8.33	116.13	120.30
21	A2	666	G	O4'-C1'-N9	8.33	114.86	108.20
25	AH	98	VAL	CA-CB-CG1	-8.33	98.40	110.90
67	B1	637	G	N1-C6-O6	8.33	124.90	119.90
67	B1	826	C	N1-C1'-C2'	8.33	124.83	114.00
67	B1	1038	U	C5'-C4'-C3'	-8.33	102.67	116.00
67	B1	2739	G	C1'-O4'-C4'	-8.33	103.24	109.90
21	A2	276	A	O4'-C1'-N9	8.33	114.86	108.20
27	A0	27	C	N1-C1'-C2'	8.33	124.83	114.00
67	B1	56	G	O4'-C1'-N9	8.33	114.86	108.20
21	A2	912	G	O4'-C1'-N9	8.33	114.86	108.20
11	A1	29	C	O4'-C1'-N1	8.32	114.86	108.20
21	A2	255	G	N9-C1'-C2'	8.32	124.82	114.00
67	B1	2009	G	O4'-C1'-C2'	8.32	115.09	107.60
49	BQ	120	TYR	CB-CG-CD2	-8.32	116.01	121.00
67	B1	1070	G	O4'-C1'-C2'	-8.32	97.48	105.80
67	B1	2514	C	N1-C1'-C2'	8.32	124.82	114.00
67	B1	3041	U	N1-C1'-C2'	8.32	124.82	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	Ba	88	ARG	NE-CZ-NH2	-8.32	116.14	120.30
67	B1	2522	C	C1'-O4'-C4'	8.32	116.56	109.90
67	B1	2662	G	O4'-C1'-N9	8.32	114.86	108.20
21	A2	498	C	O4'-C1'-N1	8.32	114.85	108.20
21	A2	1410	G	C3'-C2'-C1'	8.32	108.16	101.50
67	B1	239	G	O4'-C1'-N9	8.32	114.85	108.20
67	B1	2263	G	C1'-O4'-C4'	8.32	116.55	109.90
21	A2	1468	A	N9-C1'-C2'	-8.32	102.85	112.00
67	B1	2999	G	C1'-O4'-C4'	-8.32	103.25	109.90
21	A2	913	G	O4'-C1'-N9	8.31	114.85	108.20
67	B1	2215	U	N1-C1'-C2'	8.31	124.81	114.00
67	B1	1271	G	C1'-O4'-C4'	-8.31	103.25	109.90
21	A2	39	U	O4'-C1'-N1	8.31	114.85	108.20
21	A2	253	G	O4'-C1'-N9	8.31	114.85	108.20
21	A2	1258	C	O4'-C1'-C2'	-8.31	97.49	105.80
67	B1	2279	G	N9-C1'-C2'	8.31	124.80	114.00
67	B1	2758	G	O4'-C1'-N9	8.31	114.85	108.20
67	B1	3004	C	N1-C1'-C2'	8.31	124.81	114.00
67	B1	507	G	C4'-C3'-C2'	-8.31	94.29	102.60
38	Bb	15	ARG	NE-CZ-NH1	8.31	124.45	120.30
67	B1	1394	G	O4'-C1'-C2'	-8.31	97.49	105.80
67	B1	2298	C	O4'-C1'-C2'	-8.31	97.49	105.80
21	A2	41	C	N1-C1'-C2'	8.31	124.80	114.00
2	AK	10	ARG	NE-CZ-NH2	-8.30	116.15	120.30
21	A2	658	A	C3'-C2'-C1'	8.30	108.14	101.50
67	B1	791	C	C1'-O4'-C4'	8.31	116.55	109.90
67	B1	2431	C	C3'-C2'-C1'	8.31	108.14	101.50
62	BN	79	ARG	NE-CZ-NH2	-8.30	116.15	120.30
67	B1	996	U	N1-C1'-C2'	-8.30	102.87	112.00
67	B1	1165	C	C3'-C2'-C1'	8.30	108.14	101.50
67	B1	1241	C	O4'-C1'-C2'	-8.30	97.50	105.80
67	B1	2447	A	C1'-O4'-C4'	-8.30	103.26	109.90
54	BF	168	PHE	CB-CG-CD1	-8.30	114.99	120.80
67	B1	399	C	O4'-C1'-N1	8.30	114.84	108.20
67	B1	2057	G	C1'-O4'-C4'	8.30	116.54	109.90
67	B1	2597	A	C3'-C2'-C1'	8.30	108.14	101.50
67	B1	2809	G	O4'-C1'-C2'	8.30	115.07	107.60
21	A2	1022	U	O4'-C1'-C2'	-8.30	97.50	105.80
67	B1	1241	C	C3'-C2'-C1'	8.30	108.14	101.50
10	AD	168	ARG	NE-CZ-NH1	8.29	124.45	120.30
21	A2	1358	A	C4'-C3'-C2'	-8.29	94.31	102.60
67	B1	1409	U	N1-C1'-C2'	8.29	124.78	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1517	G	C3'-C2'-C1'	-8.30	94.86	101.50
67	B1	2065	C	O4'-C1'-N1	8.29	114.83	108.20
67	B1	2172	G	O4'-C1'-C2'	8.29	115.06	107.60
67	B1	219	G	C5'-C4'-C3'	8.29	129.27	116.00
49	BQ	139	TYR	CG-CD1-CE1	-8.29	114.67	121.30
53	BD	254	TYR	CB-CG-CD2	8.29	125.97	121.00
67	B1	1562	U	O4'-C1'-C2'	-8.29	97.51	105.80
67	B1	36	G	O4'-C1'-N9	8.29	114.83	108.20
67	B1	293	G	N9-C1'-C2'	-8.29	102.88	112.00
67	B1	2920	C	O4'-C1'-C2'	-8.29	97.51	105.80
7	AB	15	ALA	N-CA-CB	8.29	121.70	110.10
20	A3	79	TYR	CB-CG-CD1	-8.29	116.03	121.00
33	BC	343	ARG	NE-CZ-NH2	-8.29	116.16	120.30
67	B1	1509	C	N1-C1'-C2'	8.28	124.77	114.00
21	A2	228	G	O4'-C1'-C2'	-8.28	97.52	105.80
67	B1	1119	A	O4'-C1'-N9	8.28	114.82	108.20
67	B1	1431	U	P-O3'-C3'	-8.28	109.76	119.70
67	B1	1597	G	N9-C1'-C2'	-8.28	102.89	112.00
67	B1	1628	C	C3'-C2'-C1'	8.28	108.12	101.50
21	A2	1171	G	O4'-C1'-C2'	-8.28	97.52	105.80
31	BY	29	HIS	CA-CB-CG	-8.28	99.53	113.60
63	Bg	15	TYR	CB-CG-CD2	-8.28	116.03	121.00
67	B1	2057	G	O4'-C1'-C2'	-8.28	97.52	105.80
21	A2	798	U	C3'-C2'-C1'	8.28	108.12	101.50
67	B1	98	G	P-O5'-C5'	8.28	134.14	120.90
67	B1	898	G	N9-C1'-C2'	8.28	124.76	114.00
67	B1	2178	A	O4'-C1'-N9	-8.28	101.58	108.20
67	B1	1298	C	N1-C1'-C2'	8.27	124.76	114.00
67	B1	3033	G	C4'-C3'-C2'	-8.27	94.33	102.60
15	AE	55	TYR	CB-CG-CD2	-8.27	116.04	121.00
21	A2	1043	U	O4'-C1'-C2'	-8.27	97.53	105.80
21	A2	1311	C	C3'-C2'-C1'	8.27	108.11	101.50
53	BD	78	ARG	NE-CZ-NH1	8.27	124.44	120.30
64	Bc	73	LYS	N-CA-CB	-8.27	95.72	110.60
21	A2	1231	G	C3'-C2'-C1'	8.27	108.11	101.50
7	AB	121	ARG	NE-CZ-NH1	8.27	124.43	120.30
67	B1	1484	U	C3'-C2'-C1'	8.27	108.11	101.50
67	B1	2615	U	C1'-O4'-C4'	-8.27	103.29	109.90
67	B1	2742	G	C5-C6-O6	-8.27	123.64	128.60
67	B1	2907	C	N1-C1'-C2'	8.27	124.75	114.00
21	A2	159	C	C3'-C2'-C1'	8.26	108.11	101.50
67	B1	2904	U	O4'-C1'-N1	8.26	114.81	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	553	C	C3'-C2'-C1'	8.26	108.11	101.50
67	B1	1347	U	O4'-C1'-N1	8.26	114.81	108.20
67	B1	2019	C	O4'-C1'-C2'	-8.26	97.54	105.80
67	B1	798	G	O4'-C1'-N9	-8.26	101.59	108.20
67	B1	857	U	O4'-C1'-C2'	8.26	115.03	107.60
67	B1	1882	C	C3'-C2'-C1'	8.26	108.11	101.50
67	B1	575	G	N9-C1'-C2'	8.26	124.74	114.00
67	B1	2319	C	C3'-C2'-C1'	8.26	108.11	101.50
67	B1	2416	G	C1'-O4'-C4'	8.26	116.51	109.90
67	B1	2990	G	C1'-O4'-C4'	-8.26	103.29	109.90
21	A2	412	U	O4'-C1'-N1	8.26	114.81	108.20
4	AG	77	ASP	N-CA-C	8.26	133.29	111.00
21	A2	654	U	C1'-O4'-C4'	8.26	116.50	109.90
21	A2	697	A	O4'-C1'-C2'	8.26	115.03	107.60
27	A0	76	A	O4'-C1'-N9	8.26	114.81	108.20
46	BA	104	TYR	CB-CG-CD2	-8.26	116.05	121.00
28	B6	72	TYR	CB-CG-CD2	-8.26	116.05	121.00
67	B1	69	C	O4'-C1'-C2'	-8.26	97.55	105.80
67	B1	517	A	O4'-C1'-N9	8.26	114.80	108.20
67	B1	652	G	C3'-C2'-C1'	8.26	108.11	101.50
67	B1	2345	U	O4'-C1'-N1	8.26	114.81	108.20
67	B1	2423	G	O4'-C1'-N9	8.26	114.80	108.20
21	A2	1487	U	O4'-C1'-N1	8.25	114.80	108.20
52	BB	220	ARG	NE-CZ-NH2	-8.25	116.17	120.30
67	B1	361	G	O4'-C1'-N9	8.25	114.80	108.20
67	B1	1305	C	O5'-P-OP1	-8.25	98.27	105.70
21	A2	673	C	O4'-C1'-N1	8.25	114.80	108.20
67	B1	42	G	C1'-O4'-C4'	-8.25	103.30	109.90
21	A2	523	C	O4'-C1'-C2'	-8.25	97.55	105.80
27	A0	12	U	O4'-C1'-N1	8.25	114.80	108.20
33	BC	279	ARG	NE-CZ-NH2	-8.25	116.17	120.30
67	B1	2055	U	C4'-C3'-C2'	-8.25	94.35	102.60
11	A1	44	G	C1'-O4'-C4'	-8.25	103.30	109.90
21	A2	195	C	C3'-C2'-C1'	8.25	108.10	101.50
21	A2	806	G	P-O3'-C3'	-8.24	109.81	119.70
67	B1	1070	G	C3'-C2'-C1'	8.24	108.09	101.50
67	B1	2922	G	N9-C1'-C2'	-8.24	102.93	112.00
21	A2	110	C	O4'-C1'-C2'	-8.24	97.56	105.80
32	BO	61	SER	N-CA-CB	8.24	122.86	110.50
34	B5	45	ARG	NE-CZ-NH2	-8.24	116.18	120.30
67	B1	2013	A	C3'-C2'-C1'	8.24	108.09	101.50
67	B1	2385	G	C3'-C2'-C1'	8.24	108.09	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2901	C	O4'-C1'-N1	8.24	114.79	108.20
67	B1	285	C	P-O3'-C3'	8.24	129.59	119.70
67	B1	1787	U	C1'-O4'-C4'	-8.24	103.31	109.90
21	A2	383	C	N1-C1'-C2'	8.24	124.71	114.00
56	BH	60	VAL	CG1-CB-CG2	-8.23	97.72	110.90
67	B1	1988	U	O4'-C1'-C2'	-8.23	97.57	105.80
21	A2	797	U	N1-C1'-C2'	8.23	124.70	114.00
67	B1	372	A	C1'-O4'-C4'	8.23	116.48	109.90
67	B1	1937	A	N9-C1'-C2'	-8.23	102.94	112.00
21	A2	1412	A	P-O3'-C3'	8.23	129.58	119.70
68	B3	49	A	C1'-O4'-C4'	8.23	116.48	109.90
27	A0	56	C	O4'-C1'-N1	8.23	114.78	108.20
21	A2	547	U	C3'-C2'-C1'	-8.23	94.92	101.50
21	A2	562	A	C1'-O4'-C4'	8.23	116.48	109.90
53	BD	23	PHE	CB-CG-CD1	8.23	126.56	120.80
67	B1	1040	C	N1-C1'-C2'	8.23	124.69	114.00
21	A2	112	G	C3'-C2'-C1'	8.22	108.08	101.50
23	AT	9	ARG	NE-CZ-NH1	8.22	124.41	120.30
21	A2	593	G	P-O3'-C3'	-8.22	109.83	119.70
67	B1	138	U	O4'-C1'-N1	8.22	114.78	108.20
67	B1	434	G	O4'-C1'-C2'	8.22	115.00	107.60
67	B1	831	C	O4'-C1'-N1	8.22	114.78	108.20
67	B1	2459	G	O4'-C1'-N9	8.22	114.78	108.20
58	BP	42	ARG	NE-CZ-NH1	8.22	124.41	120.30
67	B1	797	C	C3'-C2'-C1'	8.22	108.08	101.50
67	B1	2531	G	O4'-C1'-N9	-8.22	101.62	108.20
67	B1	623	G	O4'-C1'-N9	8.22	114.78	108.20
67	B1	2819	C	O4'-C1'-C2'	-8.22	97.58	105.80
57	BZ	51	TYR	CA-CB-CG	8.22	129.01	113.40
67	B1	118	A	C1'-O4'-C4'	-8.22	103.33	109.90
67	B1	860	A	N9-C1'-C2'	-8.22	102.96	112.00
67	B1	906	G	C1'-O4'-C4'	-8.22	103.33	109.90
67	B1	1964	G	O4'-C1'-C2'	8.22	115.00	107.60
67	B1	2408	G	C1'-O4'-C4'	-8.22	103.33	109.90
21	A2	1264	G	C3'-C2'-C1'	-8.22	94.93	101.50
25	AH	103	VAL	CB-CA-C	-8.21	95.79	111.40
67	B1	1009	G	N1-C6-O6	8.21	124.83	119.90
67	B1	2153	C	C3'-C2'-C1'	8.21	108.07	101.50
67	B1	2274	C	O4'-C1'-N1	8.21	114.77	108.20
38	Bb	75	HIS	CA-CB-CG	8.21	127.56	113.60
21	A2	36	G	O4'-C1'-N9	8.21	114.77	108.20
67	B1	1375	G	O4'-C1'-N9	8.21	114.77	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1772	A	O4'-C1'-N9	-8.21	101.63	108.20
67	B1	1813	A	O4'-C1'-C2'	-8.21	97.59	105.80
67	B1	1835	A	O4'-C1'-C2'	-8.21	97.59	105.80
67	B1	2400	U	C1'-O4'-C4'	-8.21	103.33	109.90
68	B3	58	C	C1'-O4'-C4'	-8.21	103.33	109.90
67	B1	182	U	N1-C1'-C2'	8.21	124.67	114.00
67	B1	252	A	C1'-O4'-C4'	8.21	116.47	109.90
67	B1	506	G	C3'-C2'-C1'	-8.21	94.94	101.50
67	B1	1960	U	C3'-C2'-C1'	8.21	108.06	101.50
67	B1	3038	A	N9-C1'-C2'	-8.21	102.97	112.00
67	B1	1168	A	C3'-C2'-C1'	8.21	108.06	101.50
67	B1	1556	G	O4'-C1'-N9	8.21	114.76	108.20
67	B1	701	G	O4'-C1'-C2'	8.20	114.98	107.60
1	AQ	101	ARG	NE-CZ-NH2	-8.20	116.20	120.30
23	AT	31	ARG	NE-CZ-NH2	-8.20	116.20	120.30
27	A0	69	C	N1-C1'-C2'	8.20	124.66	114.00
67	B1	360	G	C5'-C4'-O4'	8.20	118.94	109.10
67	B1	807	G	O4'-C1'-N9	8.20	114.76	108.20
68	B3	21	C	C3'-C2'-C1'	8.20	108.06	101.50
21	A2	439	G	C3'-C2'-C1'	8.20	108.06	101.50
21	A2	1141	G	O4'-C1'-C2'	8.20	114.98	107.60
67	B1	1536	U	O4'-C1'-N1	8.20	114.76	108.20
67	B1	1788	G	O4'-C1'-N9	8.20	114.76	108.20
67	B1	135	U	O4'-C1'-C2'	-8.20	97.60	105.80
67	B1	919	G	O4'-C1'-C2'	-8.20	97.60	105.80
67	B1	1058	A	N9-C1'-C2'	-8.20	102.98	112.00
21	A2	533	C	N1-C1'-C2'	8.19	124.65	114.00
8	AR	32	ARG	NE-CZ-NH2	-8.19	116.20	120.30
67	B1	719	C	O4'-C1'-N1	-8.19	101.65	108.20
67	B1	1191	C	C3'-C2'-C1'	8.19	108.05	101.50
21	A2	1024	G	N9-C1'-C2'	8.19	124.65	114.00
67	B1	2209	U	O4'-C1'-C2'	-8.19	97.61	105.80
67	B1	2289	A	C1'-O4'-C4'	8.19	116.45	109.90
67	B1	569	G	O4'-C1'-C2'	-8.19	97.61	105.80
67	B1	1818	G	O4'-C1'-N9	8.19	114.75	108.20
21	A2	1046	G	C3'-C2'-C1'	-8.19	94.95	101.50
67	B1	403	G	C4'-C3'-C2'	-8.19	94.41	102.60
67	B1	894	C	C1'-O4'-C4'	8.19	116.45	109.90
4	AG	102	ARG	CD-NE-CZ	-8.18	112.14	123.60
13	AX	50	ARG	NE-CZ-NH1	8.18	124.39	120.30
21	A2	60	A	N9-C1'-C2'	-8.18	103.00	112.00
21	A2	1174	A	O4'-C1'-N9	-8.18	101.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	943	C	C3'-C2'-C1'	8.18	108.04	101.50
46	BA	22	ARG	NE-CZ-NH1	8.18	124.39	120.30
67	B1	857	U	C3'-C2'-C1'	-8.18	94.96	101.50
67	B1	1327	C	P-O3'-C3'	8.18	129.51	119.70
21	A2	199	A	O4'-C1'-N9	-8.18	101.66	108.20
21	A2	1308	U	C3'-C2'-C1'	8.18	108.04	101.50
27	A0	51	C	O4'-C1'-N1	8.18	114.74	108.20
67	B1	1378	G	O4'-C1'-N9	8.18	114.74	108.20
67	B1	1991	G	C1'-O4'-C4'	8.18	116.44	109.90
67	B1	2763	U	O4'-C1'-N1	8.18	114.74	108.20
67	B1	866	G	N9-C1'-C2'	8.17	124.63	114.00
35	BL	15	HIS	CA-CB-CG	8.17	127.49	113.60
67	B1	894	C	O4'-C1'-C2'	-8.17	97.63	105.80
67	B1	383	C	O4'-C1'-N1	8.17	114.74	108.20
67	B1	1510	U	P-O3'-C3'	8.17	129.50	119.70
67	B1	1619	C	N1-C1'-C2'	8.17	124.62	114.00
27	A0	66	C	C3'-C2'-C1'	8.17	108.03	101.50
67	B1	219	G	O4'-C1'-C2'	-8.17	97.63	105.80
67	B1	585	G	O4'-C1'-C2'	8.17	114.95	107.60
67	B1	1618	G	O4'-C1'-N9	8.17	114.73	108.20
67	B1	1038	U	P-O5'-C5'	8.16	133.96	120.90
21	A2	1213	G	C1'-O4'-C4'	-8.16	103.37	109.90
63	Bg	36	TYR	CB-CG-CD2	-8.16	116.10	121.00
67	B1	248	C	O4'-C1'-C2'	-8.16	97.64	105.80
21	A2	1319	C	P-O3'-C3'	-8.16	109.91	119.70
67	B1	1047	A	O4'-C1'-C2'	-8.16	97.64	105.80
27	A0	9	A	C1'-O4'-C4'	8.16	116.43	109.90
33	BC	236	ARG	NE-CZ-NH2	-8.16	116.22	120.30
67	B1	12	C	C3'-C2'-C1'	8.16	108.03	101.50
67	B1	1278	C	C3'-C2'-C1'	8.16	108.03	101.50
21	A2	208	U	O4'-C1'-N1	8.16	114.72	108.20
25	AH	78	HIS	C-N-CA	8.16	142.09	121.70
67	B1	298	G	P-O3'-C3'	8.16	129.49	119.70
67	B1	2666	G	O4'-C1'-C2'	8.16	114.94	107.60
21	A2	218	C	P-O5'-C5'	8.15	133.95	120.90
21	A2	836	G	C1'-O4'-C4'	-8.15	103.38	109.90
21	A2	1364	C	O4'-C1'-C2'	-8.15	97.65	105.80
67	B1	818	A	O4'-C1'-N9	8.15	114.72	108.20
67	B1	1618	G	O4'-C1'-C2'	8.15	114.94	107.60
67	B1	1944	C	C3'-C2'-C1'	8.15	108.02	101.50
67	B1	2155	C	C3'-C2'-C1'	-8.15	94.98	101.50
67	B1	2842	C	C3'-C2'-C1'	8.15	108.02	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	987	G	N1-C6-O6	8.15	124.79	119.90
59	BM	157	ARG	NE-CZ-NH2	-8.15	116.22	120.30
60	BS	126	ARG	NE-CZ-NH1	8.15	124.38	120.30
21	A2	1037	U	O4'-C1'-N1	-8.15	101.68	108.20
67	B1	2235	G	O4'-C1'-N9	8.15	114.72	108.20
21	A2	1318	U	C3'-C2'-C1'	8.15	108.02	101.50
51	Bj	32	GLU	N-CA-CB	8.15	125.26	110.60
56	BH	121	ALA	N-CA-CB	-8.15	98.69	110.10
67	B1	303	A	O4'-C1'-C2'	-8.15	97.65	105.80
67	B1	2572	U	N1-C1'-C2'	8.15	124.59	114.00
67	B1	2844	G	O4'-C1'-C2'	8.15	114.93	107.60
67	B1	2975	A	N9-C1'-C2'	-8.15	103.04	112.00
21	A2	586	C	O4'-C1'-N1	8.14	114.72	108.20
21	A2	1257	U	C3'-C2'-C1'	8.14	108.02	101.50
27	A0	43	G	N9-C1'-C2'	8.14	124.59	114.00
67	B1	2467	C	N1-C1'-C2'	8.14	124.59	114.00
67	B1	2578	C	O4'-C1'-N1	8.14	114.72	108.20
25	AH	84	HIS	N-CA-CB	8.14	125.26	110.60
67	B1	975	C	O4'-C1'-C2'	-8.14	97.66	105.80
67	B1	1647	C	O4'-C1'-N1	8.14	114.72	108.20
67	B1	1925	A	C3'-C2'-C1'	-8.14	94.99	101.50
67	B1	1954	U	O4'-C1'-N1	8.14	114.72	108.20
67	B1	2849	C	N1-C1'-C2'	8.14	124.59	114.00
31	BY	30	ARG	NE-CZ-NH2	-8.14	116.23	120.30
67	B1	1048	C	C5'-C4'-O4'	-8.14	99.33	109.10
21	A2	746	A	C1'-O4'-C4'	8.14	116.41	109.90
37	BU	77	TYR	CB-CG-CD2	-8.14	116.12	121.00
62	BN	34	PHE	CB-CG-CD1	-8.14	115.10	120.80
67	B1	480	A	O4'-C1'-N9	8.14	114.71	108.20
67	B1	1130	G	C3'-C2'-C1'	8.14	108.01	101.50
67	B1	2463	G	C1'-O4'-C4'	-8.14	103.39	109.90
68	B3	30	G	O4'-C1'-C2'	-8.14	97.66	105.80
21	A2	1013	G	C5-C6-O6	-8.14	123.72	128.60
21	A2	1066	C	N1-C1'-C2'	8.13	124.58	114.00
21	A2	1237	G	C1'-O4'-C4'	-8.14	103.39	109.90
21	A2	1315	G	O4'-C1'-N9	8.13	114.71	108.20
67	B1	915	G	O4'-C1'-N9	8.14	114.71	108.20
67	B1	2647	G	N9-C1'-C2'	8.13	124.58	114.00
67	B1	858	G	N9-C1'-C2'	8.13	124.57	114.00
67	B1	1223	A	P-O3'-C3'	8.13	129.46	119.70
67	B1	2475	G	N9-C1'-C2'	8.13	124.57	114.00
21	A2	159	C	O3'-P-O5'	-8.13	88.55	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2356	U	C1'-O4'-C4'	8.13	116.41	109.90
21	A2	539	C	C1'-O4'-C4'	8.13	116.40	109.90
67	B1	3024	C	C1'-O4'-C4'	-8.13	103.40	109.90
67	B1	2626	U	N1-C1'-C2'	8.13	124.57	114.00
21	A2	159	C	N1-C1'-C2'	8.13	124.56	114.00
47	BI	70	ARG	NE-CZ-NH1	8.13	124.36	120.30
51	Bj	50	PHE	N-CA-CB	8.13	125.23	110.60
61	Bd	6	ARG	NE-CZ-NH1	8.13	124.36	120.30
8	AR	51	ARG	NE-CZ-NH1	8.12	124.36	120.30
35	BL	71	ARG	NE-CZ-NH2	-8.12	116.24	120.30
67	B1	3022	C	O4'-C1'-N1	8.12	114.70	108.20
67	B1	1595	G	C1'-O4'-C4'	8.12	116.40	109.90
62	BN	165	TYR	CG-CD2-CE2	-8.12	114.81	121.30
67	B1	263	U	O4'-C1'-N1	8.12	114.70	108.20
67	B1	1200	A	C3'-C2'-C1'	-8.12	95.00	101.50
67	B1	1640	G	C1'-O4'-C4'	-8.12	103.40	109.90
21	A2	878	U	C1'-O4'-C4'	-8.12	103.41	109.90
21	A2	688	C	C3'-C2'-C1'	8.11	107.99	101.50
21	A2	1438	A	C3'-C2'-C1'	8.12	107.99	101.50
67	B1	1763	A	N9-C1'-C2'	8.12	124.55	114.00
21	A2	1052	U	C1'-O4'-C4'	8.11	116.39	109.90
21	A2	1470	G	C1'-O4'-C4'	-8.11	103.41	109.90
39	Be	49	TYR	CB-CG-CD1	8.11	125.87	121.00
62	BN	10	ARG	NE-CZ-NH1	8.11	124.36	120.30
68	B3	78	C	O4'-C1'-N1	8.11	114.69	108.20
67	B1	1099	C	O4'-C1'-C2'	-8.11	97.69	105.80
67	B1	1501	G	N9-C1'-C2'	8.11	124.55	114.00
21	A2	324	C	O4'-C1'-C2'	8.11	114.90	107.60
21	A2	951	G	C1'-O4'-C4'	-8.11	103.41	109.90
21	A2	1428	G	O4'-C1'-N9	8.11	114.69	108.20
1	AQ	138	ARG	NE-CZ-NH1	8.11	124.35	120.30
21	A2	651	U	C1'-O4'-C4'	-8.11	103.42	109.90
67	B1	112	U	N1-C1'-C2'	8.11	124.54	114.00
21	A2	262	G	N9-C1'-C2'	8.10	124.53	114.00
21	A2	696	G	C1'-O4'-C4'	-8.10	103.42	109.90
67	B1	627	G	O4'-C1'-N9	8.10	114.68	108.20
64	Bc	15	GLU	CA-C-N	8.10	135.02	117.20
67	B1	511	A	C1'-O4'-C4'	8.10	116.38	109.90
67	B1	1098	C	O4'-C1'-C2'	-8.10	97.70	105.80
67	B1	2676	A	O4'-C1'-N9	8.10	114.68	108.20
21	A2	1279	A	C3'-C2'-C1'	8.10	107.98	101.50
67	B1	993	G	N9-C1'-C2'	8.10	124.53	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1128	G	C3'-C2'-C1'	-8.10	95.02	101.50
67	B1	1810	G	O4'-C1'-N9	8.10	114.68	108.20
21	A2	1072	C	C1'-O4'-C4'	-8.10	103.42	109.90
21	A2	1223	C	C3'-C2'-C1'	8.10	107.98	101.50
67	B1	214	C	O4'-C1'-C2'	-8.10	97.70	105.80
67	B1	493	A	C3'-C2'-C1'	8.10	107.98	101.50
67	B1	1188	C	C3'-C2'-C1'	8.10	107.98	101.50
67	B1	947	C	C3'-C2'-C1'	8.10	107.98	101.50
67	B1	2174	G	C4'-C3'-C2'	-8.10	94.50	102.60
67	B1	2972	G	N9-C1'-C2'	8.10	124.52	114.00
67	B1	196	A	C3'-C2'-C1'	8.09	107.97	101.50
27	A0	76	A	O4'-C1'-C2'	-8.09	97.71	105.80
67	B1	671	G	O4'-C1'-C2'	8.09	114.88	107.60
67	B1	2420	C	C3'-C2'-C1'	8.09	107.97	101.50
21	A2	845	G	O4'-C1'-N9	8.09	114.67	108.20
67	B1	1481	G	C1'-O4'-C4'	-8.09	103.43	109.90
21	A2	1473	A	C3'-C2'-C1'	8.09	107.97	101.50
21	A2	1488	C	C3'-C2'-C1'	8.09	107.97	101.50
67	B1	252	A	O4'-C1'-C2'	-8.09	97.71	105.80
67	B1	1696	G	O4'-C1'-N9	8.09	114.67	108.20
11	A1	10	G	O4'-C1'-N9	8.09	114.67	108.20
21	A2	867	A	C3'-C2'-C1'	8.09	107.97	101.50
21	A2	966	G	O4'-C1'-N9	8.09	114.67	108.20
67	B1	914	U	O4'-C1'-N1	8.09	114.67	108.20
21	A2	401	U	C1'-O4'-C4'	8.09	116.37	109.90
21	A2	1109	C	N1-C1'-C2'	8.09	124.51	114.00
21	A2	1141	G	O4'-C1'-N9	8.09	114.67	108.20
67	B1	2207	C	C3'-C2'-C1'	8.09	107.97	101.50
21	A2	1378	A	N9-C1'-C2'	-8.09	103.11	112.00
67	B1	837	G	C1'-O4'-C4'	-8.09	103.43	109.90
67	B1	1841	G	N9-C1'-C2'	8.09	124.51	114.00
67	B1	1948	A	C3'-C2'-C1'	8.09	107.97	101.50
67	B1	2700	U	C3'-C2'-C1'	8.09	107.97	101.50
61	Bd	14	TYR	CB-CG-CD2	-8.08	116.15	121.00
67	B1	1153	U	O4'-C1'-N1	8.08	114.67	108.20
21	A2	1334	A	O4'-C1'-C2'	-8.08	97.72	105.80
67	B1	646	U	C1'-O4'-C4'	8.08	116.37	109.90
67	B1	1548	A	N9-C1'-C2'	-8.08	103.11	112.00
67	B1	1984	G	C1'-O4'-C4'	-8.08	103.43	109.90
67	B1	2926	G	N9-C1'-C2'	8.08	124.51	114.00
67	B1	437	G	C3'-C2'-C1'	8.08	107.97	101.50
67	B1	1722	G	P-O5'-C5'	8.08	133.83	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2400	U	O4'-C1'-N1	8.08	114.66	108.20
21	A2	737	C	C3'-C2'-C1'	8.08	107.96	101.50
21	A2	1089	C	P-O3'-C3'	-8.08	110.01	119.70
25	AH	89	GLU	N-CA-CB	8.08	125.14	110.60
67	B1	839	A	P-O3'-C3'	-8.08	110.01	119.70
67	B1	2304	C	C1'-O4'-C4'	-8.08	103.44	109.90
21	A2	282	G	O4'-C1'-N9	8.07	114.66	108.20
21	A2	842	U	O4'-C1'-C2'	-8.07	97.72	105.80
39	Be	49	TYR	CB-CG-CD2	-8.07	116.16	121.00
67	B1	2731	C	O4'-C1'-C2'	-8.07	97.72	105.80
21	A2	505	U	N1-C1'-C2'	-8.07	103.12	112.00
21	A2	711	U	O4'-C1'-N1	8.07	114.66	108.20
21	A2	1029	G	N9-C1'-C2'	-8.07	103.12	112.00
67	B1	1014	U	P-O3'-C3'	8.07	129.39	119.70
21	A2	1113	G	O4'-C1'-N9	8.07	114.66	108.20
67	B1	2621	U	O4'-C1'-C2'	-8.07	97.73	105.80
21	A2	215	C	C1'-O4'-C4'	-8.07	103.44	109.90
67	B1	1465	A	C5'-C4'-C3'	8.07	128.91	116.00
67	B1	1982	C	O4'-C1'-C2'	-8.07	97.73	105.80
21	A2	27	C	C3'-C2'-C1'	8.06	107.95	101.50
67	B1	401	C	O4'-C1'-N1	8.06	114.65	108.20
21	A2	14	C	O4'-C1'-C2'	-8.06	97.74	105.80
21	A2	1265	G	P-O3'-C3'	8.06	129.38	119.70
67	B1	2493	A	C1'-O4'-C4'	-8.06	103.45	109.90
21	A2	764	C	C4'-C3'-C2'	-8.06	94.54	102.60
67	B1	1869	U	O4'-C1'-C2'	-8.06	97.74	105.80
21	A2	985	C	N3-C4-N4	8.06	123.64	118.00
67	B1	1117	C	N1-C1'-C2'	8.06	124.48	114.00
67	B1	1251	G	C1'-O4'-C4'	8.06	116.35	109.90
1	AQ	55	ARG	NE-CZ-NH2	-8.06	116.27	120.30
21	A2	672	G	P-O3'-C3'	8.06	129.37	119.70
67	B1	335	C	O4'-C1'-N1	8.06	114.65	108.20
67	B1	1257	G	C5'-C4'-C3'	-8.06	103.11	116.00
67	B1	119	U	N1-C1'-C2'	8.05	124.47	114.00
67	B1	2853	A	C1'-O4'-C4'	-8.06	103.45	109.90
67	B1	1651	A	C3'-C2'-C1'	8.05	107.94	101.50
17	AO	22	ARG	NE-CZ-NH1	8.05	124.33	120.30
21	A2	31	U	P-O3'-C3'	-8.05	110.04	119.70
67	B1	1217	U	P-O3'-C3'	8.05	129.36	119.70
67	B1	1369	G	C3'-C2'-C1'	-8.05	95.06	101.50
67	B1	1937	A	C1'-O4'-C4'	8.05	116.34	109.90
67	B1	1964	G	O4'-C1'-N9	8.05	114.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1432	U	C3'-C2'-C1'	8.05	107.94	101.50
67	B1	47	C	O4'-C1'-N1	8.05	114.64	108.20
67	B1	519	A	C1'-O4'-C4'	8.05	116.34	109.90
67	B1	1500	C	O4'-C1'-N1	8.05	114.64	108.20
67	B1	2517	U	O4'-C1'-N1	-8.05	101.76	108.20
67	B1	2891	A	C3'-C2'-C1'	8.05	107.94	101.50
67	B1	2582	C	C3'-C2'-C1'	8.04	107.94	101.50
67	B1	1243	C	N1-C1'-C2'	8.04	124.45	114.00
67	B1	1954	U	O4'-C1'-C2'	-8.04	97.76	105.80
67	B1	2220	C	N1-C1'-C2'	8.04	124.45	114.00
67	B1	2288	C	C1'-O4'-C4'	-8.04	103.47	109.90
67	B1	2543	A	C1'-O4'-C4'	8.04	116.33	109.90
21	A2	99	C	C2'-C3'-O3'	8.04	127.19	109.50
21	A2	200	G	O4'-C1'-C2'	-8.04	97.76	105.80
21	A2	707	A	O4'-C1'-C2'	-8.04	97.76	105.80
21	A2	1350	U	O4'-C1'-N1	8.04	114.63	108.20
67	B1	308	C	C1'-O4'-C4'	8.04	116.33	109.90
47	BI	94	PHE	CB-CG-CD2	8.04	126.43	120.80
67	B1	593	C	O4'-C1'-C2'	-8.04	97.76	105.80
67	B1	1390	U	C3'-C2'-C1'	-8.04	95.07	101.50
67	B1	2833	G	N9-C1'-C2'	8.04	124.45	114.00
21	A2	1293	A	C1'-O4'-C4'	8.03	116.33	109.90
42	BT	82	ARG	NE-CZ-NH2	-8.04	116.28	120.30
67	B1	1735	G	C1'-O4'-C4'	8.04	116.33	109.90
67	B1	2834	C	N1-C1'-C2'	8.04	124.45	114.00
21	A2	708	C	P-O3'-C3'	8.03	129.34	119.70
67	B1	2080	G	C3'-C2'-C1'	8.03	107.93	101.50
67	B1	2405	U	O4'-C1'-N1	8.03	114.63	108.20
67	B1	3003	A	O4'-C1'-C2'	-8.03	97.77	105.80
67	B1	2291	G	O4'-C1'-N9	8.03	114.62	108.20
67	B1	2722	G	C1'-O4'-C4'	-8.03	103.47	109.90
68	B3	16	G	C1'-O4'-C4'	-8.03	103.47	109.90
21	A2	1049	U	O4'-C1'-N1	8.03	114.62	108.20
21	A2	431	U	O4'-C1'-N1	8.03	114.62	108.20
21	A2	635	C	O4'-C1'-N1	8.03	114.62	108.20
67	B1	594	U	C1'-O4'-C4'	8.03	116.32	109.90
67	B1	1732	C	C3'-C2'-C1'	8.03	107.92	101.50
21	A2	1111	G	C1'-O4'-C4'	8.03	116.32	109.90
67	B1	496	A	O4'-C1'-C2'	-8.03	97.77	105.80
21	A2	1	A	O4'-C1'-N9	8.03	114.62	108.20
30	AU	60	ARG	NE-CZ-NH2	-8.03	116.29	120.30
67	B1	836	U	O4'-C1'-N1	8.03	114.62	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2098	C	N1-C1'-C2'	8.03	124.43	114.00
67	B1	1667	U	O4'-C1'-N1	8.02	114.62	108.20
67	B1	111	U	C1'-O4'-C4'	8.02	116.32	109.90
67	B1	1738	A	O4'-C1'-C2'	-8.02	97.78	105.80
67	B1	548	U	O4'-C1'-N1	8.02	114.61	108.20
67	B1	2697	G	O4'-C1'-C2'	-8.02	97.78	105.80
21	A2	1031	G	O4'-C1'-N9	8.02	114.61	108.20
67	B1	576	G	P-O5'-C5'	-8.02	108.07	120.90
67	B1	2936	U	N1-C1'-C2'	-8.01	103.18	112.00
21	A2	1391	U	O4'-C1'-C2'	-8.01	97.79	105.80
21	A2	1396	C	O4'-C1'-C2'	-8.01	97.79	105.80
26	AP	40	ARG	NE-CZ-NH1	-8.01	116.29	120.30
67	B1	2673	C	C3'-C2'-C1'	8.01	107.91	101.50
21	A2	1368	A	O4'-C1'-N9	8.01	114.61	108.20
67	B1	407	A	C5'-C4'-C3'	-8.01	103.18	116.00
67	B1	1907	G	O4'-C1'-C2'	8.01	114.81	107.60
21	A2	705	C	N1-C1'-C2'	8.01	124.41	114.00
67	B1	1126	C	C3'-C2'-C1'	8.01	107.91	101.50
67	B1	2353	C	N1-C1'-C2'	8.01	124.41	114.00
67	B1	2512	C	C3'-C2'-C1'	8.01	107.91	101.50
6	AC	147	TYR	CG-CD1-CE1	-8.01	114.89	121.30
21	A2	217	C	N1-C1'-C2'	8.01	124.41	114.00
67	B1	1158	G	C1'-O4'-C4'	-8.01	103.49	109.90
21	A2	890	C	O4'-C1'-N1	8.01	114.60	108.20
29	AL	44	ARG	NE-CZ-NH2	-8.01	116.30	120.30
21	A2	613	C	N1-C1'-C2'	8.00	124.41	114.00
67	B1	39	C	C3'-C2'-C1'	8.00	107.90	101.50
67	B1	1823	A	C3'-C2'-C1'	8.00	107.90	101.50
67	B1	2087	U	O4'-C1'-N1	8.00	114.60	108.20
67	B1	2583	G	N9-C1'-C2'	-8.00	103.20	112.00
67	B1	1352	U	O4'-C1'-N1	8.00	114.60	108.20
67	B1	1747	C	C3'-C2'-C1'	8.00	107.90	101.50
68	B3	75	G	O4'-C1'-N9	8.00	114.60	108.20
21	A2	144	G	O4'-C1'-N9	8.00	114.60	108.20
67	B1	1919	A	C5-C6-N6	-8.00	117.30	123.70
21	A2	1159	U	O4'-C1'-C2'	-8.00	97.80	105.80
67	B1	2562	G	O4'-C1'-N9	-8.00	101.80	108.20
21	A2	1464	C	O4'-C1'-N1	8.00	114.60	108.20
67	B1	729	A	C1'-O4'-C4'	-8.00	103.50	109.90
67	B1	919	G	O4'-C1'-N9	8.00	114.60	108.20
68	B3	85	C	O4'-C1'-N1	8.00	114.60	108.20
67	B1	758	C	C1'-O4'-C4'	7.99	116.29	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	B5	18	ALA	CB-CA-C	7.99	122.08	110.10
67	B1	75	G	O4'-C1'-N9	7.99	114.59	108.20
67	B1	1726	A	O4'-C1'-C2'	-7.99	97.81	105.80
67	B1	1901	A	C1'-O4'-C4'	7.99	116.29	109.90
21	A2	1227	A	O4'-C1'-N9	7.99	114.59	108.20
38	Bb	47	ASP	CB-CG-OD2	7.99	125.49	118.30
67	B1	634	G	C3'-C2'-C1'	-7.99	95.11	101.50
67	B1	852	A	O4'-C1'-C2'	7.99	114.79	107.60
67	B1	2545	A	N9-C1'-C2'	7.99	124.38	114.00
21	A2	1214	G	C1'-O4'-C4'	-7.98	103.51	109.90
67	B1	934	G	O4'-C1'-C2'	7.98	114.78	107.60
67	B1	1521	G	C1'-O4'-C4'	-7.98	103.51	109.90
67	B1	154	U	N1-C1'-C2'	-7.98	103.22	112.00
67	B1	1030	C	O4'-C1'-C2'	-7.98	97.82	105.80
67	B1	27	G	C1'-O4'-C4'	7.98	116.28	109.90
67	B1	1943	C	O4'-C1'-C2'	-7.98	97.82	105.80
68	B3	93	G	O4'-C1'-N9	7.98	114.58	108.20
67	B1	784	C	O4'-C1'-N1	7.98	114.58	108.20
67	B1	2698	G	C1'-O4'-C4'	7.98	116.28	109.90
67	B1	2754	A	C3'-C2'-C1'	-7.98	95.12	101.50
21	A2	562	A	O4'-C1'-C2'	-7.98	97.82	105.80
21	A2	788	C	C3'-C2'-C1'	7.98	107.88	101.50
21	A2	1377	G	C3'-C2'-C1'	-7.98	95.12	101.50
67	B1	300	U	P-O5'-C5'	7.98	133.66	120.90
67	B1	2500	G	O4'-C1'-N9	7.98	114.58	108.20
21	A2	763	G	O4'-C1'-N9	7.98	114.58	108.20
67	B1	303	A	P-O5'-C5'	7.97	133.66	120.90
67	B1	2613	C	O4'-C1'-C2'	-7.97	97.83	105.80
67	B1	2159	C	N1-C1'-C2'	7.97	124.36	114.00
21	A2	297	G	O4'-C1'-N9	7.97	114.58	108.20
67	B1	464	C	C1'-O4'-C4'	7.97	116.28	109.90
8	AR	34	PHE	CB-CG-CD2	-7.97	115.22	120.80
33	BC	329	PRO	N-CA-CB	7.97	112.86	103.30
48	BR	49	TYR	CB-CG-CD1	7.97	125.78	121.00
67	B1	1790	G	C3'-C2'-C1'	7.97	107.88	101.50
67	B1	1864	G	O4'-C1'-C2'	7.97	114.77	107.60
67	B1	2064	U	O4'-C1'-N1	7.97	114.58	108.20
21	A2	290	C	O4'-C1'-C2'	-7.97	97.83	105.80
67	B1	1423	G	O4'-C1'-N9	7.97	114.57	108.20
67	B1	3048	C	C3'-C2'-C1'	7.97	107.87	101.50
21	A2	484	U	C1'-O4'-C4'	7.97	116.27	109.90
21	A2	1222	C	N1-C1'-C2'	7.97	124.36	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BI	82	MET	CG-SD-CE	-7.97	87.45	100.20
67	B1	1586	G	O4'-C1'-C2'	-7.97	97.83	105.80
21	A2	212	G	C1'-O4'-C4'	-7.96	103.53	109.90
21	A2	1464	C	C3'-C2'-C1'	7.96	107.87	101.50
27	A0	41	C	C3'-C2'-C1'	7.96	107.87	101.50
67	B1	476	C	N1-C1'-C2'	7.96	124.35	114.00
67	B1	1117	C	C1'-O4'-C4'	-7.96	103.53	109.90
67	B1	1406	G	C1'-O4'-C4'	-7.96	103.53	109.90
67	B1	1843	C	O4'-C1'-N1	7.96	114.57	108.20
56	BH	115	LEU	CB-CA-C	7.96	125.33	110.20
21	A2	185	G	C3'-C2'-C1'	7.96	107.87	101.50
25	AH	86	MET	N-CA-C	7.96	132.50	111.00
62	BN	114	ARG	NE-CZ-NH2	7.96	124.28	120.30
67	B1	1675	C	OP1-P-OP2	-7.96	107.66	119.60
67	B1	2735	C	C1'-O4'-C4'	-7.96	103.53	109.90
67	B1	2762	G	C1'-O4'-C4'	-7.96	103.53	109.90
67	B1	2777	G	P-O3'-C3'	7.96	129.25	119.70
67	B1	2877	A	O4'-C1'-N9	-7.96	101.83	108.20
7	AB	201	ARG	NE-CZ-NH2	-7.96	116.32	120.30
21	A2	294	A	C1'-O4'-C4'	-7.96	103.53	109.90
67	B1	1404	G	O4'-C1'-C2'	7.96	114.76	107.60
34	BK	18	ALA	CB-CA-C	7.96	122.04	110.10
53	BD	85	PHE	CB-CG-CD1	-7.96	115.23	120.80
67	B1	2386	U	O4'-C1'-N1	7.96	114.57	108.20
68	B3	120	C	N1-C1'-C2'	7.96	124.35	114.00
67	B1	450	G	O4'-C1'-N9	7.96	114.56	108.20
67	B1	3035	C	O3'-P-O5'	7.96	119.11	104.00
21	A2	953	C	O4'-C1'-C2'	-7.96	97.84	105.80
21	A2	1186	C	O4'-C1'-C2'	7.96	114.76	107.60
67	B1	2680	A	C3'-C2'-C1'	7.96	107.86	101.50
67	B1	1945	C	O4'-C1'-C2'	-7.95	97.85	105.80
67	B1	1221	U	N1-C1'-C2'	-7.95	103.25	112.00
67	B1	2908	U	C1'-O4'-C4'	7.95	116.26	109.90
67	B1	1719	C	C2-N1-C1'	7.95	127.55	118.80
21	A2	971	G	O3'-P-O5'	-7.95	88.90	104.00
52	BB	134	ARG	NE-CZ-NH2	-7.95	116.33	120.30
67	B1	2001	U	C3'-C2'-C1'	7.95	107.86	101.50
64	Bc	12	ARG	NE-CZ-NH1	7.95	124.27	120.30
67	B1	435	G	N9-C1'-C2'	7.95	124.33	114.00
67	B1	1597	G	C3'-C2'-C1'	7.95	107.86	101.50
67	B1	2983	G	O4'-C1'-N9	7.95	114.56	108.20
21	A2	534	G	C4'-C3'-C2'	-7.94	94.66	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	879	U	N1-C1'-C2'	-7.94	103.26	112.00
67	B1	2507	C	OP1-P-OP2	-7.94	107.68	119.60
67	B1	97	C	C3'-C2'-C1'	7.94	107.85	101.50
67	B1	324	C	C4'-C3'-C2'	-7.94	94.66	102.60
67	B1	1673	C	C1'-O4'-C4'	-7.94	103.55	109.90
21	A2	201	G	O4'-C1'-C2'	-7.94	97.86	105.80
67	B1	210	A	P-O3'-C3'	7.94	129.23	119.70
67	B1	348	G	N9-C1'-C2'	7.94	124.32	114.00
67	B1	1407	A	O4'-C1'-C2'	-7.94	97.86	105.80
67	B1	2571	G	O4'-C1'-N9	7.94	114.55	108.20
67	B1	1814	A	C3'-C2'-C1'	-7.94	95.15	101.50
67	B1	1159	U	P-O3'-C3'	-7.94	110.18	119.70
67	B1	1713	G	P-O3'-C3'	7.94	129.22	119.70
67	B1	1924	A	N9-C1'-C2'	7.94	124.32	114.00
67	B1	2828	G	C3'-C2'-C1'	-7.94	95.15	101.50
21	A2	227	C	C3'-C2'-C1'	7.94	107.85	101.50
67	B1	2958	U	C1'-O4'-C4'	7.94	116.25	109.90
21	A2	242	A	N9-C1'-C2'	-7.93	103.27	112.00
67	B1	855	G	C1'-O4'-C4'	7.93	116.25	109.90
21	A2	456	U	O4'-C1'-N1	7.93	114.55	108.20
21	A2	349	A	N9-C1'-C2'	-7.93	103.28	112.00
27	A0	73	G	O4'-C1'-C2'	7.93	114.74	107.60
67	B1	2152	G	P-O3'-C3'	-7.93	110.19	119.70
67	B1	1522	A	C1'-O4'-C4'	7.93	116.24	109.90
21	A2	113	U	N1-C1'-C2'	-7.93	103.28	112.00
21	A2	837	C	O4'-C1'-N1	7.93	114.54	108.20
67	B1	1464	A	C3'-C2'-C1'	7.93	107.84	101.50
29	AL	47	ILE	N-CA-C	-7.92	89.61	111.00
67	B1	606	A	N9-C1'-C2'	7.92	124.30	114.00
67	B1	921	C	C1'-O4'-C4'	-7.92	103.56	109.90
67	B1	1274	G	O4'-C1'-N9	7.92	114.54	108.20
67	B1	2491	C	C3'-C2'-C1'	7.92	107.84	101.50
21	A2	663	G	O4'-C1'-N9	7.92	114.54	108.20
67	B1	183	G	O4'-C1'-N9	7.92	114.54	108.20
67	B1	1366	U	P-O3'-C3'	7.92	129.21	119.70
68	B3	45	C	P-O3'-C3'	-7.92	110.19	119.70
21	A2	523	C	O4'-C1'-N1	7.92	114.54	108.20
54	BF	58	ASP	CB-CG-OD2	-7.92	111.17	118.30
67	B1	1037	C	C1'-O4'-C4'	7.92	116.24	109.90
21	A2	836	G	O4'-C1'-C2'	7.92	114.73	107.60
25	AH	73	ARG	NE-CZ-NH1	7.92	124.26	120.30
67	B1	1885	G	P-O3'-C3'	-7.92	110.20	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AQ	70	ASP	CB-CG-OD1	-7.92	111.17	118.30
6	AC	67	ARG	NE-CZ-NH2	-7.92	116.34	120.30
21	A2	305	C	O4'-C1'-N1	7.92	114.53	108.20
27	A0	38	A	C1'-O4'-C4'	-7.92	103.57	109.90
67	B1	617	G	O4'-C1'-C2'	-7.92	97.88	105.80
67	B1	1136	G	O4'-C1'-C2'	7.92	114.72	107.60
67	B1	1325	A	C3'-C2'-C1'	7.92	107.83	101.50
21	A2	34	G	C1'-O4'-C4'	7.92	116.23	109.90
21	A2	1198	A	C3'-C2'-C1'	7.91	107.83	101.50
67	B1	732	G	C1'-O4'-C4'	-7.91	103.57	109.90
67	B1	2023	A	C1'-O4'-C4'	7.91	116.23	109.90
21	A2	222	G	N9-C1'-C2'	-7.91	103.30	112.00
27	A0	14	A	C3'-C2'-C1'	7.91	107.83	101.50
21	A2	159	C	O4'-C1'-N1	7.91	114.53	108.20
21	A2	473	A	C3'-C2'-C1'	-7.91	95.17	101.50
67	B1	184	A	C1'-O4'-C4'	7.91	116.23	109.90
67	B1	1145	G	P-O3'-C3'	7.91	129.19	119.70
21	A2	1419	G	N9-C1'-C2'	-7.91	103.30	112.00
39	Be	45	ARG	NE-CZ-NH2	-7.91	116.35	120.30
67	B1	2010	G	O4'-C4'-C3'	-7.91	96.09	104.00
18	AF	1	MET	CB-CA-C	7.91	126.21	110.40
67	B1	1693	G	O4'-C1'-N9	7.91	114.53	108.20
11	A1	56	U	O4'-C1'-N1	7.90	114.52	108.20
21	A2	1197	C	P-O3'-C3'	7.90	129.19	119.70
21	A2	517	U	O4'-C1'-N1	7.90	114.52	108.20
24	AA	79	TYR	CB-CG-CD2	-7.90	116.26	121.00
67	B1	236	G	C1'-O4'-C4'	-7.90	103.58	109.90
67	B1	391	C	O4'-C1'-C2'	-7.90	97.90	105.80
67	B1	2303	A	C3'-C2'-C1'	7.90	107.82	101.50
68	B3	82	C	O4'-C1'-N1	7.90	114.52	108.20
67	B1	2156	A	P-O3'-C3'	7.90	129.18	119.70
21	A2	759	C	C3'-C2'-C1'	7.90	107.82	101.50
67	B1	2264	G	C3'-C2'-C1'	-7.90	95.18	101.50
67	B1	2868	C	C3'-C2'-C1'	7.90	107.82	101.50
21	A2	115	A	O4'-C1'-N9	7.89	114.52	108.20
67	B1	887	U	O4'-C1'-C2'	-7.89	97.91	105.80
67	B1	1241	C	N1-C1'-C2'	7.89	124.26	114.00
67	B1	2082	C	C3'-C2'-C1'	7.89	107.81	101.50
21	A2	124	C	N1-C1'-C2'	7.89	124.26	114.00
21	A2	177	A	O4'-C1'-C2'	-7.89	97.91	105.80
21	A2	1407	U	O4'-C1'-N1	7.89	114.52	108.20
42	BT	66	ALA	N-CA-CB	7.89	121.15	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	757	C	O4'-C1'-C2'	-7.89	97.91	105.80
67	B1	1092	U	O4'-C1'-N1	7.89	114.51	108.20
67	B1	2536	A	C3'-C2'-C1'	7.89	107.81	101.50
67	B1	2988	A	O4'-C1'-N9	7.89	114.52	108.20
21	A2	1370	U	N1-C1'-C2'	-7.89	103.32	112.00
67	B1	132	G	P-O3'-C3'	-7.89	110.23	119.70
67	B1	1741	C	P-O3'-C3'	7.89	129.17	119.70
67	B1	2531	G	O4'-C1'-C2'	-7.89	97.91	105.80
67	B1	220	C	C3'-C2'-C1'	7.89	107.81	101.50
67	B1	897	U	O4'-C1'-N1	7.89	114.51	108.20
21	A2	908	G	O4'-C1'-N9	7.89	114.51	108.20
23	AT	82	TYR	CB-CG-CD2	7.89	125.73	121.00
67	B1	2776	A	C3'-C2'-C1'	7.89	107.81	101.50
11	A1	55	U	N1-C1'-C2'	7.88	124.25	114.00
21	A2	38	G	C5'-C4'-C3'	7.88	128.61	116.00
67	B1	334	G	C4'-C3'-C2'	-7.88	94.72	102.60
67	B1	1678	A	O4'-C1'-C2'	-7.88	97.92	105.80
67	B1	1802	G	C1'-O4'-C4'	7.88	116.20	109.90
67	B1	1920	A	N9-C1'-C2'	7.88	124.25	114.00
33	BC	292	ASN	N-CA-CB	7.88	124.78	110.60
67	B1	715	G	C1'-O4'-C4'	7.88	116.20	109.90
21	A2	85	A	C3'-C2'-C1'	7.88	107.80	101.50
21	A2	255	G	C3'-C2'-C1'	-7.88	95.20	101.50
67	B1	674	G	C3'-C2'-C1'	-7.88	95.20	101.50
67	B1	2052	A	O4'-C1'-N9	7.88	114.50	108.20
21	A2	201	G	O4'-C1'-N9	7.88	114.50	108.20
67	B1	868	U	N1-C1'-C2'	7.88	124.24	114.00
67	B1	1341	U	N1-C1'-C2'	7.88	124.24	114.00
67	B1	1615	G	N9-C1'-C2'	-7.88	103.34	112.00
67	B1	1766	A	O4'-C1'-C2'	-7.88	97.92	105.80
21	A2	69	U	C1'-O4'-C4'	-7.88	103.60	109.90
25	AH	86	MET	CG-SD-CE	-7.88	87.60	100.20
21	A2	33	U	P-O3'-C3'	7.87	129.15	119.70
21	A2	872	A	C1'-O4'-C4'	-7.87	103.60	109.90
21	A2	1367	C	C3'-C2'-C1'	7.87	107.80	101.50
48	BR	13	ARG	NE-CZ-NH1	7.87	124.24	120.30
67	B1	388	G	O4'-C1'-N9	7.87	114.50	108.20
67	B1	834	G	O4'-C1'-N9	7.87	114.50	108.20
67	B1	1244	C	P-O3'-C3'	7.87	129.15	119.70
21	A2	141	C	P-O3'-C3'	-7.87	110.26	119.70
42	BT	43	VAL	CA-CB-CG2	-7.87	99.10	110.90
56	BH	115	LEU	CB-CG-CD1	7.87	124.38	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1552	C	O4'-C1'-C2'	-7.87	97.93	105.80
67	B1	2288	C	N1-C1'-C2'	7.87	124.23	114.00
21	A2	91	G	N9-C1'-C2'	7.87	124.22	114.00
67	B1	901	C	C3'-C2'-C1'	7.87	107.79	101.50
67	B1	1553	G	C3'-C2'-C1'	-7.87	95.21	101.50
67	B1	2372	C	C1'-O4'-C4'	7.87	116.19	109.90
21	A2	302	A	N9-C1'-C2'	-7.86	103.35	112.00
21	A2	1403	U	O4'-C1'-N1	7.86	114.49	108.20
31	BY	27	ARG	NE-CZ-NH2	-7.86	116.37	120.30
67	B1	398	U	P-O3'-C3'	7.86	129.14	119.70
67	B1	2324	C	O4'-C1'-N1	7.86	114.49	108.20
27	A0	61	C	C3'-C2'-C1'	7.86	107.79	101.50
52	BB	24	PHE	CB-CG-CD1	7.86	126.30	120.80
62	BN	4	ARG	NE-CZ-NH1	7.86	124.23	120.30
67	B1	378	G	P-O3'-C3'	7.86	129.13	119.70
67	B1	1314	A	O4'-C1'-N9	7.86	114.49	108.20
67	B1	2676	A	C1'-O4'-C4'	7.86	116.19	109.90
21	A2	1074	C	N1-C1'-C2'	7.86	124.22	114.00
21	A2	1139	A	C1'-O4'-C4'	-7.86	103.61	109.90
67	B1	775	C	N1-C1'-C2'	7.85	124.21	114.00
67	B1	1134	A	C3'-C2'-C1'	7.85	107.78	101.50
21	A2	751	C	C3'-C2'-C1'	7.85	107.78	101.50
67	B1	2300	C	C3'-C2'-C1'	7.85	107.78	101.50
67	B1	2489	C	O4'-C1'-N1	-7.85	101.92	108.20
21	A2	1174	A	P-O3'-C3'	7.85	129.12	119.70
67	B1	567	G	P-O3'-C3'	7.85	129.12	119.70
67	B1	1204	U	O4'-C1'-C2'	-7.85	97.95	105.80
67	B1	746	C	P-O3'-C3'	-7.85	110.28	119.70
67	B1	1993	A	C3'-C2'-C1'	-7.85	95.22	101.50
67	B1	2406	C	C3'-C2'-C1'	7.85	107.78	101.50
21	A2	63	G	C3'-C2'-C1'	-7.84	95.22	101.50
21	A2	201	G	N9-C1'-C2'	-7.84	103.37	112.00
29	AL	44	ARG	N-CA-C	-7.84	89.82	111.00
67	B1	1173	G	N9-C1'-C2'	7.84	124.20	114.00
67	B1	2140	C	O4'-C1'-N1	7.84	114.48	108.20
67	B1	2187	C	N1-C1'-C2'	7.84	124.20	114.00
67	B1	2513	C	C1'-O4'-C4'	-7.84	103.62	109.90
67	B1	2753	G	C1'-O4'-C4'	7.84	116.17	109.90
21	A2	610	G	O4'-C1'-N9	7.84	114.47	108.20
67	B1	349	A	C1'-O4'-C4'	7.84	116.17	109.90
68	B3	117	G	C3'-C2'-C1'	7.84	107.77	101.50
21	A2	104	A	C3'-C2'-C1'	7.83	107.77	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	BB	109	TYR	CB-CG-CD1	-7.83	116.30	121.00
67	B1	2088	G	C3'-C2'-C1'	7.83	107.77	101.50
1	AQ	135	TYR	CZ-CE2-CD2	7.83	126.85	119.80
21	A2	295	G	C3'-C2'-C1'	7.83	107.77	101.50
67	B1	408	C	O5'-C5'-C4'	7.83	126.58	111.70
67	B1	1754	A	C1'-O4'-C4'	7.83	116.17	109.90
67	B1	2251	G	C3'-C2'-C1'	-7.83	95.23	101.50
21	A2	762	G	O4'-C1'-C2'	-7.83	97.97	105.80
21	A2	997	G	N1-C6-O6	7.83	124.60	119.90
67	B1	212	A	P-O5'-C5'	7.83	133.43	120.90
67	B1	1282	A	O4'-C1'-N9	7.83	114.47	108.20
67	B1	2834	C	C1'-O4'-C4'	-7.83	103.63	109.90
67	B1	1016	C	O4'-C1'-N1	7.83	114.46	108.20
67	B1	3004	C	C1'-O4'-C4'	-7.83	103.64	109.90
68	B3	118	G	O4'-C1'-N9	7.83	114.46	108.20
21	A2	461	A	O4'-C1'-C2'	-7.83	97.97	105.80
25	AH	14	GLU	CA-C-N	7.83	134.42	117.20
67	B1	815	U	O4'-C1'-C2'	-7.83	97.97	105.80
21	A2	901	G	O4'-C1'-N9	7.83	114.46	108.20
25	AH	80	LYS	CB-CA-C	-7.83	94.75	110.40
67	B1	2683	G	N9-C1'-C2'	7.83	124.17	114.00
21	A2	645	G	C1'-O4'-C4'	7.82	116.16	109.90
21	A2	1003	G	C1'-O4'-C4'	-7.82	103.64	109.90
67	B1	787	G	C1'-O4'-C4'	-7.82	103.64	109.90
67	B1	820	C	N1-C1'-C2'	7.82	124.17	114.00
67	B1	1869	U	P-O3'-C3'	-7.82	110.31	119.70
67	B1	2395	C	N1-C1'-C2'	7.82	124.17	114.00
21	A2	263	C	N1-C1'-C2'	7.82	124.17	114.00
46	BA	123	ARG	NE-CZ-NH2	-7.82	116.39	120.30
32	BO	8	ARG	NE-CZ-NH1	7.82	124.21	120.30
67	B1	147	C	O4'-C1'-C2'	-7.82	97.98	105.80
21	A2	723	G	N9-C1'-C2'	7.82	124.17	114.00
67	B1	889	C	C3'-C2'-C1'	7.82	107.75	101.50
67	B1	2926	G	P-O3'-C3'	-7.82	110.32	119.70
56	BH	19	PRO	N-CA-C	7.82	132.42	112.10
67	B1	240	A	C1'-O4'-C4'	7.82	116.15	109.90
67	B1	299	U	O4'-C1'-N1	7.82	114.45	108.20
67	B1	577	C	O4'-C1'-C2'	-7.82	97.98	105.80
67	B1	1622	G	N9-C1'-C2'	-7.82	103.40	112.00
67	B1	2434	A	C3'-C2'-C1'	7.82	107.75	101.50
21	A2	42	G	N9-C1'-C2'	7.81	124.16	114.00
21	A2	875	G	P-O3'-C3'	7.81	129.08	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	AB	75	TYR	CB-CG-CD2	7.81	125.69	121.00
21	A2	245	U	O4'-C1'-N1	7.81	114.45	108.20
21	A2	1235	A	C1'-O4'-C4'	-7.81	103.65	109.90
21	A2	1367	C	N1-C1'-C2'	7.81	124.16	114.00
67	B1	973	C	C1'-O4'-C4'	-7.81	103.65	109.90
67	B1	1544	C	N1-C1'-C2'	7.81	124.16	114.00
67	B1	2231	G	P-O3'-C3'	7.81	129.08	119.70
21	A2	691	G	C1'-O4'-C4'	-7.81	103.65	109.90
21	A2	1402	C	O4'-C1'-C2'	-7.81	97.99	105.80
67	B1	2796	C	O4'-C1'-N1	7.81	114.45	108.20
67	B1	2937	U	OP1-P-OP2	-7.81	107.89	119.60
21	A2	485	A	O4'-C1'-N9	7.81	114.44	108.20
21	A2	773	A	O4'-C1'-N9	-7.81	101.95	108.20
67	B1	2883	C	C3'-C2'-C1'	7.81	107.75	101.50
67	B1	509	A	C3'-C2'-C1'	7.80	107.74	101.50
67	B1	1555	G	C3'-C2'-C1'	7.80	107.74	101.50
21	A2	1491	C	O4'-C1'-C2'	-7.80	98.00	105.80
57	BZ	16	VAL	CA-CB-CG1	7.80	122.60	110.90
67	B1	224	G	C3'-C2'-C1'	7.80	107.74	101.50
67	B1	308	C	O4'-C1'-C2'	-7.80	98.00	105.80
67	B1	2851	A	C3'-C2'-C1'	-7.80	95.26	101.50
25	AH	87	ARG	N-CA-CB	7.80	124.64	110.60
67	B1	1432	C	N1-C1'-C2'	7.80	124.14	114.00
21	A2	626	G	O4'-C1'-N9	7.80	114.44	108.20
67	B1	366	G	P-O3'-C3'	-7.80	110.34	119.70
67	B1	693	G	N9-C1'-C2'	-7.80	103.42	112.00
67	B1	1651	A	N9-C1'-C2'	7.80	124.14	114.00
67	B1	2711	U	N1-C1'-C2'	7.80	124.14	114.00
67	B1	2731	C	O4'-C1'-N1	7.80	114.44	108.20
67	B1	2903	U	P-O5'-C5'	7.80	133.37	120.90
68	B3	18	G	C1'-O4'-C4'	-7.80	103.66	109.90
21	A2	361	A	N9-C1'-C2'	7.79	124.13	114.00
21	A2	1021	C	N1-C1'-C2'	7.79	124.13	114.00
67	B1	1728	C	O4'-C1'-C2'	-7.79	98.00	105.80
21	A2	366	C	C1'-O4'-C4'	-7.79	103.67	109.90
67	B1	1051	C	C3'-C2'-C1'	7.79	107.73	101.50
67	B1	1056	C	C3'-C2'-C1'	7.79	107.73	101.50
67	B1	1314	A	C1'-O4'-C4'	7.79	116.14	109.90
67	B1	2038	C	O4'-C1'-N1	7.79	114.44	108.20
67	B1	2211	C	N1-C1'-C2'	7.79	124.13	114.00
21	A2	1203	G	N9-C1'-C2'	7.79	124.13	114.00
30	AU	54	ARG	NE-CZ-NH2	7.79	124.20	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	102	A	O4'-C1'-N9	7.79	114.43	108.20
47	BI	62	ARG	NE-CZ-NH1	7.79	124.19	120.30
68	B3	40	G	C1'-O4'-C4'	-7.79	103.67	109.90
21	A2	808	C	O4'-C1'-C2'	-7.79	98.01	105.80
67	B1	1278	C	C1'-O4'-C4'	-7.79	103.67	109.90
67	B1	2169	C	O4'-C1'-C2'	-7.79	98.01	105.80
67	B1	2255	C	P-O3'-C3'	7.79	129.05	119.70
11	A1	6	G	O4'-C1'-C2'	-7.79	98.01	105.80
21	A2	965	G	C5'-C4'-C3'	7.79	128.46	116.00
67	B1	1248	C	C3'-C2'-C1'	-7.79	95.27	101.50
21	A2	641	A	C4'-C3'-C2'	7.79	110.39	102.60
21	A2	914	U	O4'-C1'-N1	7.78	114.43	108.20
67	B1	2688	C	N1-C1'-C2'	7.78	124.12	114.00
50	BV	56	TYR	CB-CA-C	7.78	125.97	110.40
67	B1	1268	A	O4'-C1'-N9	7.78	114.43	108.20
67	B1	2050	U	N1-C1'-C2'	7.78	124.12	114.00
67	B1	434	G	N9-C1'-C2'	7.78	124.11	114.00
67	B1	1765	A	O4'-C1'-N9	7.78	114.42	108.20
21	A2	872	A	O4'-C1'-N9	7.78	114.42	108.20
67	B1	1311	C	O4'-C1'-N1	7.78	114.42	108.20
67	B1	1616	A	N9-C1'-C2'	-7.78	103.44	112.00
21	A2	885	G	C1'-O4'-C4'	-7.78	103.68	109.90
21	A2	886	G	O4'-C1'-N9	7.78	114.42	108.20
67	B1	464	C	O4'-C1'-N1	7.78	114.42	108.20
67	B1	2125	C	C1'-O4'-C4'	-7.78	103.68	109.90
68	B3	1	C	O5'-P-OP2	7.78	120.03	110.70
21	A2	1077	U	O4'-C1'-C2'	-7.78	98.02	105.80
67	B1	357	G	C1'-O4'-C4'	7.77	116.12	109.90
67	B1	2968	G	C1'-O4'-C4'	-7.77	103.68	109.90
67	B1	1180	G	C3'-C2'-C1'	7.77	107.72	101.50
67	B1	1263	C	O4'-C1'-N1	7.77	114.42	108.20
67	B1	2053	G	C3'-C2'-C1'	-7.77	95.28	101.50
67	B1	2592	U	C1'-O4'-C4'	-7.77	103.68	109.90
68	B3	1	C	O5'-P-OP1	7.77	120.03	110.70
67	B1	461	C	O4'-C1'-C2'	-7.77	98.03	105.80
67	B1	1164	C	C3'-C2'-C1'	7.77	107.72	101.50
21	A2	1391	U	C1'-O4'-C4'	7.77	116.12	109.90
21	A2	430	G	C5-C6-O6	-7.77	123.94	128.60
21	A2	1051	G	O4'-C1'-N9	7.77	114.41	108.20
67	B1	812	C	O4'-C1'-N1	7.77	114.41	108.20
67	B1	1113	G	O4'-C1'-N9	7.77	114.41	108.20
21	A2	872	A	C4'-C3'-C2'	-7.77	94.83	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AE	101	ARG	NE-CZ-NH2	-7.76	116.42	120.30
21	A2	1	A	O5'-P-OP2	7.76	120.02	110.70
21	A2	1192	C	C3'-C2'-C1'	7.76	107.71	101.50
67	B1	2416	G	N9-C1'-C2'	-7.76	103.46	112.00
21	A2	876	A	C3'-C2'-C1'	7.76	107.71	101.50
17	AO	137	ARG	N-CA-CB	7.76	124.57	110.60
67	B1	849	C	N1-C1'-C2'	7.76	124.09	114.00
21	A2	874	G	O4'-C1'-N9	7.76	114.41	108.20
67	B1	1623	C	N1-C1'-C2'	7.76	124.09	114.00
67	B1	1670	A	C5'-C4'-O4'	7.76	118.41	109.10
21	A2	426	C	C3'-C2'-C1'	7.76	107.70	101.50
21	A2	1469	G	C1'-O4'-C4'	-7.76	103.69	109.90
67	B1	334	G	O4'-C1'-N9	7.76	114.41	108.20
67	B1	583	A	C1'-O4'-C4'	7.76	116.11	109.90
67	B1	2060	A	O4'-C1'-C2'	-7.76	98.04	105.80
67	B1	2653	G	O4'-C1'-N9	7.76	114.41	108.20
67	B1	1966	C	O4'-C1'-N1	7.75	114.40	108.20
67	B1	2799	C	N1-C1'-C2'	7.75	124.08	114.00
21	A2	460	C	O4'-C1'-N1	7.75	114.40	108.20
21	A2	788	C	C1'-O4'-C4'	-7.75	103.70	109.90
21	A2	1416	C	P-O3'-C3'	-7.75	110.40	119.70
21	A2	57	G	C3'-C2'-C1'	-7.75	95.30	101.50
67	B1	1	G	O5'-P-OP2	7.75	120.00	110.70
21	A2	974	G	C1'-O4'-C4'	7.75	116.10	109.90
67	B1	127	C	O4'-C1'-C2'	-7.75	98.05	105.80
21	A2	121	C	C1'-O4'-C4'	-7.75	103.70	109.90
21	A2	265	C	P-O3'-C3'	-7.75	110.40	119.70
21	A2	296	A	C4'-C3'-C2'	-7.75	94.85	102.60
67	B1	929	G	C3'-C2'-C1'	7.75	107.70	101.50
67	B1	1565	G	O5'-P-OP2	-7.75	98.73	105.70
67	B1	1734	G	O4'-C1'-C2'	-7.75	98.05	105.80
21	A2	218	C	N1-C1'-C2'	7.75	124.07	114.00
21	A2	383	C	C1'-O4'-C4'	-7.75	103.70	109.90
64	Bc	15	GLU	O-C-N	-7.75	110.31	122.70
67	B1	185	A	N9-C1'-C2'	7.75	124.07	114.00
67	B1	963	G	C1'-O4'-C4'	-7.75	103.70	109.90
21	A2	156	A	O4'-C1'-C2'	-7.75	98.06	105.80
54	BF	174	ILE	CA-CB-CG1	7.75	125.72	111.00
67	B1	459	C	O4'-C1'-N1	7.75	114.40	108.20
11	A1	1	G	O5'-P-OP2	7.74	119.99	110.70
67	B1	1603	G	P-O3'-C3'	7.74	128.99	119.70
67	B1	2459	G	P-O3'-C3'	7.74	128.99	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	A1	52	G	O4'-C1'-C2'	7.74	114.57	107.60
21	A2	144	G	P-O3'-C3'	7.74	128.99	119.70
21	A2	504	G	C1'-O4'-C4'	-7.74	103.71	109.90
44	BW	63	ARG	NE-CZ-NH2	-7.74	116.43	120.30
67	B1	735	A	C5'-C4'-O4'	7.74	118.39	109.10
21	A2	111	G	C1'-O4'-C4'	-7.74	103.71	109.90
21	A2	168	G	O4'-C1'-N9	7.74	114.39	108.20
21	A2	697	A	O4'-C1'-N9	7.74	114.39	108.20
42	BT	32	ARG	NE-CZ-NH2	-7.74	116.43	120.30
48	BR	22	ARG	NE-CZ-NH2	-7.74	116.43	120.30
67	B1	9	A	O4'-C1'-N9	7.74	114.39	108.20
67	B1	616	C	C1'-O4'-C4'	7.74	116.09	109.90
67	B1	337	G	C1'-O4'-C4'	-7.74	103.71	109.90
67	B1	767	G	O4'-C1'-C2'	7.74	114.56	107.60
67	B1	826	C	C3'-C2'-C1'	7.74	107.69	101.50
67	B1	318	G	N9-C1'-C2'	7.73	124.05	114.00
67	B1	834	G	N9-C1'-C2'	-7.73	103.49	112.00
67	B1	2290	U	O4'-C1'-N1	7.73	114.39	108.20
21	A2	1302	C	O4'-C1'-N1	7.73	114.39	108.20
67	B1	1296	A	N9-C1'-C2'	7.73	124.05	114.00
67	B1	1603	G	C3'-C2'-C1'	7.73	107.69	101.50
21	A2	1	A	O5'-P-OP1	7.73	119.98	110.70
67	B1	1160	U	O4'-C1'-N1	7.73	114.38	108.20
67	B1	1480	G	OP1-P-OP2	-7.73	108.00	119.60
67	B1	2032	G	C3'-C2'-C1'	-7.73	95.32	101.50
68	B3	110	C	O4'-C1'-C2'	-7.73	98.07	105.80
46	BA	119	ARG	NE-CZ-NH1	7.73	124.17	120.30
67	B1	208	A	C3'-C2'-C1'	7.73	107.68	101.50
67	B1	2332	G	O4'-C1'-N9	7.73	114.38	108.20
68	B3	50	G	C3'-C2'-C1'	7.73	107.68	101.50
67	B1	1564	C	O4'-C1'-N1	7.73	114.38	108.20
21	A2	127	G	O4'-C1'-C2'	-7.73	98.07	105.80
27	A0	1	G	O5'-P-OP2	7.73	119.97	110.70
11	A1	15	G	P-O3'-C3'	7.72	128.97	119.70
21	A2	760	C	N1-C1'-C2'	7.72	124.04	114.00
21	A2	771	G	C1'-O4'-C4'	-7.72	103.72	109.90
67	B1	821	U	O4'-C1'-C2'	-7.72	98.08	105.80
27	A0	1	G	O5'-P-OP1	7.72	119.97	110.70
21	A2	703	U	C3'-C2'-C1'	7.72	107.68	101.50
67	B1	2167	C	O4'-C1'-N1	7.72	114.38	108.20
67	B1	2662	G	C3'-C2'-C1'	-7.72	95.32	101.50
11	A1	1	G	O5'-P-OP1	7.72	119.96	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	A1	12	U	O4'-C1'-N1	7.72	114.38	108.20
67	B1	85	G	C5'-C4'-O4'	-7.72	99.84	109.10
67	B1	1377	G	C3'-C2'-C1'	7.72	107.68	101.50
67	B1	2944	G	P-O5'-C5'	7.72	133.25	120.90
8	AR	44	ARG	NE-CZ-NH1	7.72	124.16	120.30
29	AL	44	ARG	NE-CZ-NH1	7.72	124.16	120.30
67	B1	2007	C	O4'-C1'-C2'	7.72	114.55	107.60
67	B1	2308	C	C3'-C2'-C1'	7.72	107.67	101.50
67	B1	125	C	N1-C1'-C2'	7.72	124.03	114.00
67	B1	324	C	N1-C1'-C2'	-7.72	103.51	112.00
67	B1	1703	G	O4'-C1'-N9	7.72	114.37	108.20
21	A2	670	C	N1-C1'-C2'	7.71	124.03	114.00
51	Bj	50	PHE	CB-CA-C	-7.71	94.97	110.40
67	B1	2833	G	O4'-C1'-N9	7.71	114.37	108.20
21	A2	757	G	C1'-O4'-C4'	-7.71	103.73	109.90
4	AG	54	GLU	N-CA-CB	7.71	124.48	110.60
6	AC	141	ALA	N-CA-CB	7.71	120.90	110.10
25	AH	94	ASN	C-N-CA	7.71	140.98	121.70
67	B1	1523	A	O4'-C1'-C2'	-7.71	98.09	105.80
67	B1	2421	A	C1'-O4'-C4'	-7.71	103.73	109.90
21	A2	213	C	O4'-C1'-N1	7.71	114.37	108.20
21	A2	1233	G	O4'-C1'-N9	7.71	114.37	108.20
67	B1	893	C	O4'-C1'-N1	7.71	114.37	108.20
67	B1	1265	A	O4'-C1'-C2'	-7.71	98.09	105.80
67	B1	1611	C	N1-C1'-C2'	7.71	124.02	114.00
67	B1	1650	U	C3'-C2'-C1'	-7.71	95.33	101.50
67	B1	1924	A	C1'-O4'-C4'	-7.71	103.73	109.90
21	A2	20	G	C1'-O4'-C4'	-7.71	103.73	109.90
21	A2	973	U	O4'-C1'-N1	7.71	114.36	108.20
27	A0	68	G	C1'-O4'-C4'	-7.71	103.73	109.90
67	B1	1104	A	C1'-O4'-C4'	-7.71	103.73	109.90
35	BL	48	THR	N-CA-CB	7.71	124.94	110.30
21	A2	113	U	C1'-O4'-C4'	7.70	116.06	109.90
21	A2	408	C	P-O3'-C3'	7.70	128.94	119.70
67	B1	1	G	O5'-P-OP1	7.70	119.94	110.70
67	B1	310	C	C3'-C2'-C1'	7.70	107.66	101.50
67	B1	2293	G	N9-C1'-C2'	-7.70	103.53	112.00
21	A2	440	C	C5'-C4'-O4'	7.70	118.34	109.10
40	BE	22	ARG	NE-CZ-NH1	7.70	124.15	120.30
67	B1	2134	G	N9-C1'-C2'	7.70	124.01	114.00
68	B3	78	C	C3'-C2'-C1'	7.70	107.66	101.50
21	A2	477	G	C3'-C2'-C1'	7.70	107.66	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	32	C	N1-C1'-C2'	7.70	124.01	114.00
67	B1	1065	C	O4'-C1'-N1	7.70	114.36	108.20
67	B1	2648	C	O4'-C1'-N1	7.70	114.36	108.20
67	B1	2823	G	O4'-C1'-N9	7.70	114.36	108.20
21	A2	178	C	O4'-C1'-C2'	-7.70	98.10	105.80
67	B1	1149	C	N1-C1'-C2'	7.70	124.01	114.00
21	A2	471	G	P-O3'-C3'	7.70	128.94	119.70
67	B1	1761	C	O4'-C1'-N1	7.70	114.36	108.20
67	B1	2825	A	C3'-C2'-C1'	7.70	107.66	101.50
67	B1	2141	C	O4'-C1'-N1	7.69	114.36	108.20
67	B1	2520	C	C5'-C4'-C3'	7.69	128.31	116.00
21	A2	1446	G	O4'-C1'-N9	7.69	114.35	108.20
67	B1	844	C	N1-C1'-C2'	7.69	124.00	114.00
67	B1	1462	G	O4'-C1'-N9	7.69	114.35	108.20
67	B1	1712	U	C4'-C3'-C2'	-7.69	94.91	102.60
67	B1	2299	G	C1'-O4'-C4'	-7.69	103.75	109.90
68	B3	71	G	C1'-O4'-C4'	-7.69	103.75	109.90
67	B1	7	G	C5-C6-O6	-7.69	123.99	128.60
67	B1	13	U	C5'-C4'-C3'	7.69	128.30	116.00
67	B1	974	U	O4'-C1'-C2'	-7.69	98.11	105.80
21	A2	27	C	O4'-C1'-C2'	-7.69	98.11	105.80
67	B1	43	G	C1'-O4'-C4'	7.69	116.05	109.90
21	A2	1085	C	O4'-C1'-N1	7.68	114.35	108.20
21	A2	1120	G	O4'-C1'-C2'	7.68	114.52	107.60
43	Bk	35	ALA	N-CA-CB	7.68	120.86	110.10
67	B1	876	C	C1'-O4'-C4'	7.68	116.05	109.90
67	B1	893	C	P-O3'-C3'	-7.68	110.48	119.70
67	B1	2016	C	O4'-C1'-C2'	-7.68	98.11	105.80
67	B1	2485	C	C1'-O4'-C4'	7.68	116.05	109.90
67	B1	2617	G	O4'-C1'-N9	-7.68	102.05	108.20
2	AK	52	ALA	N-CA-CB	7.68	120.86	110.10
21	A2	1320	A	O4'-C1'-N9	7.68	114.35	108.20
67	B1	959	U	P-O3'-C3'	-7.68	110.48	119.70
67	B1	1211	C	C1'-O4'-C4'	7.68	116.05	109.90
67	B1	2279	G	C1'-O4'-C4'	-7.68	103.75	109.90
33	BC	270	MET	CG-SD-CE	-7.68	87.91	100.20
40	BE	163	ARG	NE-CZ-NH1	-7.68	116.46	120.30
67	B1	151	G	P-O3'-C3'	7.68	128.91	119.70
67	B1	3015	A	C3'-C2'-C1'	7.68	107.64	101.50
68	B3	117	G	P-O3'-C3'	-7.68	110.49	119.70
21	A2	332	C	P-O3'-C3'	-7.67	110.49	119.70
21	A2	390	G	O4'-C1'-C2'	7.67	114.51	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2225	C	O4'-C1'-C2'	-7.67	98.12	105.80
67	B1	2481	G	O4'-C1'-N9	7.67	114.34	108.20
67	B1	1971	C	N1-C1'-C2'	7.67	123.97	114.00
67	B1	1001	C	P-O3'-C3'	7.67	128.91	119.70
67	B1	1923	A	O4'-C1'-C2'	-7.67	98.13	105.80
67	B1	2745	G	C1'-O4'-C4'	-7.67	103.76	109.90
21	A2	1367	C	O4'-C1'-C2'	-7.67	98.13	105.80
21	A2	294	A	O4'-C1'-C2'	7.67	114.50	107.60
21	A2	790	G	N9-C1'-C2'	-7.67	103.56	112.00
27	A0	56	C	C3'-C2'-C1'	-7.67	95.37	101.50
41	Ba	31	ALA	CB-CA-C	-7.67	98.60	110.10
64	Bc	73	LYS	CB-CA-C	7.67	125.74	110.40
67	B1	633	A	O4'-C1'-C2'	-7.67	98.13	105.80
67	B1	794	G	O4'-C1'-N9	7.67	114.33	108.20
67	B1	2685	G	C3'-C2'-C1'	7.67	107.64	101.50
67	B1	2706	C	N1-C1'-C2'	7.67	123.97	114.00
68	B3	44	C	C3'-C2'-C1'	7.67	107.64	101.50
21	A2	743	U	C5'-C4'-O4'	7.67	118.30	109.10
67	B1	147	C	C3'-C2'-C1'	7.67	107.63	101.50
67	B1	169	G	O4'-C1'-N9	7.67	114.33	108.20
67	B1	2216	G	C1'-O4'-C4'	7.67	116.03	109.90
67	B1	1214	C	C3'-C2'-C1'	7.66	107.63	101.50
21	A2	473	A	N9-C1'-C2'	7.66	123.96	114.00
21	A2	751	C	O4'-C1'-C2'	-7.66	98.14	105.80
21	A2	430	G	N1-C6-O6	7.66	124.50	119.90
21	A2	1159	U	O4'-C1'-N1	7.66	114.33	108.20
21	A2	1288	C	C3'-C2'-C1'	7.66	107.63	101.50
67	B1	1694	G	O4'-C4'-C3'	-7.66	96.34	104.00
67	B1	2622	C	C3'-C2'-C1'	7.66	107.63	101.50
21	A2	248	U	O3'-P-O5'	-7.66	89.45	104.00
67	B1	1140	C	C4'-C3'-C2'	-7.66	94.94	102.60
67	B1	1489	G	O4'-C1'-N9	7.66	114.33	108.20
67	B1	2079	U	C1'-O4'-C4'	-7.66	103.77	109.90
67	B1	2020	G	N9-C1'-C2'	7.66	123.95	114.00
21	A2	688	C	O4'-C1'-N1	7.66	114.32	108.20
46	BA	24	PHE	CB-CG-CD2	7.66	126.16	120.80
67	B1	1407	A	C4'-C3'-C2'	7.66	110.25	102.60
21	A2	1104	G	O4'-C1'-N9	7.65	114.32	108.20
67	B1	131	C	C3'-C2'-C1'	7.65	107.62	101.50
67	B1	1414	G	O4'-C1'-C2'	-7.65	98.15	105.80
21	A2	145	A	C1'-O4'-C4'	7.65	116.02	109.90
21	A2	1352	G	N9-C1'-C2'	7.65	123.95	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1194	G	N9-C1'-C2'	7.65	123.95	114.00
31	BY	96	PHE	CB-CG-CD1	-7.65	115.44	120.80
67	B1	1926	A	C1'-O4'-C4'	-7.65	103.78	109.90
67	B1	2254	U	O4'-C4'-C3'	-7.65	96.35	104.00
67	B1	2427	C	C1'-O4'-C4'	-7.65	103.78	109.90
67	B1	2468	C	O4'-C1'-C2'	-7.65	98.15	105.80
67	B1	2942	G	P-O5'-C5'	-7.65	108.66	120.90
67	B1	1922	A	O4'-C1'-N9	7.65	114.32	108.20
67	B1	2112	C	C3'-C2'-C1'	7.65	107.62	101.50
67	B1	2505	A	O4'-C1'-N9	-7.65	102.08	108.20
67	B1	1165	C	C1'-O4'-C4'	7.65	116.02	109.90
67	B1	2260	C	P-O3'-C3'	7.65	128.88	119.70
67	B1	2944	G	P-O3'-C3'	-7.65	110.53	119.70
67	B1	1028	G	P-O3'-C3'	7.64	128.87	119.70
11	A1	22	A	O4'-C1'-N9	7.64	114.31	108.20
21	A2	196	G	P-O3'-C3'	7.64	128.87	119.70
67	B1	2433	U	C1'-O4'-C4'	-7.64	103.79	109.90
21	A2	1037	U	C1'-O4'-C4'	-7.64	103.79	109.90
21	A2	1393	A	P-O5'-C5'	-7.64	108.67	120.90
67	B1	1080	G	O3'-P-O5'	7.64	118.52	104.00
67	B1	2905	C	N1-C1'-C2'	7.64	123.93	114.00
52	BB	25	ARG	NE-CZ-NH1	-7.64	116.48	120.30
67	B1	916	A	O4'-C1'-N9	7.64	114.31	108.20
67	B1	2688	C	O4'-C1'-N1	7.64	114.31	108.20
67	B1	2796	C	O4'-C1'-C2'	-7.64	98.16	105.80
21	A2	350	G	C1'-O4'-C4'	-7.63	103.79	109.90
67	B1	106	G	O4'-C1'-N9	7.63	114.31	108.20
67	B1	299	U	P-O3'-C3'	7.63	128.86	119.70
67	B1	2251	G	O4'-C1'-N9	7.63	114.31	108.20
67	B1	2754	A	C1'-O4'-C4'	-7.63	103.79	109.90
68	B3	29	G	P-O3'-C3'	7.63	128.86	119.70
68	B3	42	A	P-O3'-C3'	7.63	128.86	119.70
67	B1	2061	A	O4'-C1'-C2'	-7.63	98.17	105.80
67	B1	2524	C	O4'-C1'-C2'	-7.63	98.17	105.80
25	AH	149	ALA	CB-CA-C	-7.63	98.65	110.10
67	B1	467	U	P-O3'-C3'	7.63	128.86	119.70
67	B1	2810	G	C3'-C2'-C1'	-7.63	95.39	101.50
67	B1	32	C	C3'-C2'-C1'	7.63	107.60	101.50
21	A2	318	C	N1-C1'-C2'	7.63	123.92	114.00
40	BE	93	ARG	NE-CZ-NH1	7.63	124.11	120.30
54	BF	8	ARG	NE-CZ-NH1	-7.63	116.49	120.30
62	BN	19	ARG	NE-CZ-NH2	7.63	124.11	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	231	G	O4'-C1'-C2'	-7.63	98.17	105.80
67	B1	2623	G	O4'-C1'-N9	7.63	114.30	108.20
18	AF	8	TYR	CB-CG-CD2	-7.63	116.42	121.00
21	A2	833	C	N1-C1'-C2'	7.63	123.92	114.00
21	A2	1072	C	O4'-C1'-N1	-7.63	102.10	108.20
68	B3	31	U	O4'-C1'-N1	7.63	114.30	108.20
21	A2	55	G	O4'-C1'-N9	7.62	114.30	108.20
41	Ba	33	LYS	N-CA-CB	7.62	124.33	110.60
67	B1	978	C	O4'-C1'-N1	7.62	114.30	108.20
67	B1	1665	G	O4'-C1'-C2'	-7.62	98.17	105.80
67	B1	2621	U	C1'-O4'-C4'	7.62	116.00	109.90
21	A2	804	U	N1-C1'-C2'	-7.62	103.61	112.00
21	A2	958	G	N9-C1'-C2'	-7.62	103.61	112.00
67	B1	628	A	P-O3'-C3'	-7.62	110.55	119.70
67	B1	1038	U	C1'-O4'-C4'	7.62	116.00	109.90
67	B1	1339	C	C1'-O4'-C4'	-7.62	103.80	109.90
67	B1	2308	C	C4'-C3'-C2'	-7.62	94.98	102.60
21	A2	1490	C	C1'-O4'-C4'	-7.62	103.80	109.90
30	AU	15	ARG	NE-CZ-NH2	-7.62	116.49	120.30
67	B1	336	C	O4'-C1'-C2'	-7.62	98.18	105.80
67	B1	997	A	C4'-C3'-C2'	-7.62	94.98	102.60
67	B1	1478	G	O4'-C1'-C2'	7.62	114.46	107.60
67	B1	2212	C	C3'-C2'-C1'	7.62	107.60	101.50
28	B6	16	ARG	NE-CZ-NH2	-7.62	116.49	120.30
12	AN	11	PHE	CB-CG-CD2	-7.62	115.47	120.80
67	B1	971	G	C3'-C2'-C1'	-7.62	95.41	101.50
67	B1	3006	G	C3'-C2'-C1'	7.62	107.59	101.50
68	B3	113	C	O4'-C1'-N1	7.62	114.29	108.20
67	B1	812	C	N1-C1'-C2'	7.62	123.90	114.00
67	B1	2622	C	N1-C1'-C2'	7.62	123.90	114.00
21	A2	79	G	P-O3'-C3'	-7.61	110.56	119.70
67	B1	1825	G	N9-C1'-C2'	-7.61	103.62	112.00
67	B1	2889	A	O4'-C1'-C2'	-7.61	98.19	105.80
21	A2	393	A	C3'-C2'-C1'	-7.61	95.41	101.50
21	A2	792	C	O4'-C1'-N1	7.61	114.29	108.20
67	B1	197	C	P-O3'-C3'	-7.61	110.57	119.70
67	B1	753	A	C1'-O4'-C4'	7.61	115.99	109.90
67	B1	1657	G	C5-C6-O6	-7.61	124.03	128.60
67	B1	2135	C	P-O5'-C5'	7.61	133.08	120.90
21	A2	1083	G	C5-C6-O6	-7.61	124.03	128.60
67	B1	2254	U	O4'-C1'-C2'	-7.61	98.19	105.80
10	AD	52	ARG	NE-CZ-NH2	-7.61	116.50	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	439	G	C2'-C3'-O3'	7.61	126.24	109.50
67	B1	2201	C	N1-C1'-C2'	7.61	123.89	114.00
67	B1	2854	A	C3'-C2'-C1'	-7.61	95.41	101.50
67	B1	2144	U	O4'-C1'-C2'	-7.61	98.19	105.80
23	AT	49	ARG	NE-CZ-NH2	-7.60	116.50	120.30
67	B1	2210	G	C3'-C2'-C1'	-7.60	95.42	101.50
29	AL	41	PRO	CA-N-CD	-7.60	100.86	111.50
67	B1	49	A	O4'-C1'-N9	-7.60	102.12	108.20
67	B1	404	G	N9-C1'-C2'	-7.60	103.64	112.00
67	B1	465	C	O4'-C1'-N1	7.60	114.28	108.20
67	B1	823	G	C1'-O4'-C4'	-7.60	103.82	109.90
67	B1	1844	C	O4'-C1'-N1	7.60	114.28	108.20
21	A2	335	G	O4'-C1'-C2'	7.60	114.44	107.60
21	A2	834	C	O4'-C1'-C2'	-7.60	98.20	105.80
21	A2	884	G	N9-C1'-C2'	7.60	123.88	114.00
35	BL	74	ARG	N-CA-C	-7.60	90.49	111.00
67	B1	797	C	C1'-O4'-C4'	7.60	115.98	109.90
67	B1	1179	G	O4'-C4'-C3'	7.60	112.18	106.10
21	A2	645	G	N9-C1'-C2'	-7.60	103.64	112.00
67	B1	1893	C	N1-C1'-C2'	7.60	123.88	114.00
21	A2	491	G	N9-C1'-C2'	7.59	123.87	114.00
67	B1	2713	A	O4'-C1'-N9	7.59	114.28	108.20
21	A2	367	G	C3'-C2'-C1'	7.59	107.57	101.50
67	B1	941	C	O4'-C1'-N1	7.59	114.27	108.20
67	B1	1250	A	C1'-O4'-C4'	7.59	115.97	109.90
67	B1	1362	G	O4'-C1'-N9	7.59	114.27	108.20
67	B1	2485	C	O4'-C1'-C2'	-7.59	98.21	105.80
21	A2	504	G	C4'-C3'-C2'	-7.59	95.01	102.60
21	A2	1176	C	O4'-C1'-N1	7.59	114.27	108.20
67	B1	500	C	C3'-C2'-C1'	7.59	107.57	101.50
67	B1	2276	G	P-O5'-C5'	7.59	133.05	120.90
67	B1	2876	G	O4'-C1'-N9	7.59	114.27	108.20
21	A2	519	G	O4'-C1'-C2'	-7.59	98.21	105.80
21	A2	736	A	O4'-C1'-C2'	-7.59	98.21	105.80
21	A2	1000	G	C1'-O4'-C4'	-7.59	103.83	109.90
67	B1	1760	C	N1-C1'-C2'	7.59	123.87	114.00
67	B1	2042	A	C1'-O4'-C4'	7.59	115.97	109.90
68	B3	112	C	O4'-C1'-N1	7.59	114.27	108.20
21	A2	772	G	O4'-C1'-N9	7.59	114.27	108.20
21	A2	291	G	O4'-C1'-N9	7.59	114.27	108.20
27	A0	12	U	C3'-C2'-C1'	7.59	107.57	101.50
67	B1	2526	G	N9-C1'-C2'	-7.59	103.65	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	AF	5	TRP	N-CA-CB	-7.58	96.95	110.60
21	A2	600	C	O4'-C1'-C2'	-7.58	98.22	105.80
21	A2	1140	A	O4'-C1'-N9	7.58	114.27	108.20
67	B1	116	G	O4'-C1'-N9	-7.58	102.13	108.20
67	B1	1218	C	P-O3'-C3'	7.58	128.80	119.70
67	B1	2565	A	C3'-C2'-C1'	7.58	107.57	101.50
67	B1	2413	G	C4'-C3'-C2'	-7.58	95.02	102.60
10	AD	110	TYR	CB-CG-CD1	7.58	125.55	121.00
11	A1	7	G	C5'-C4'-C3'	7.58	128.13	116.00
17	AO	105	ASP	CB-CG-OD2	-7.58	111.48	118.30
21	A2	949	G	P-O3'-C3'	7.58	128.80	119.70
67	B1	2201	C	O4'-C1'-C2'	-7.58	98.22	105.80
21	A2	770	A	C3'-C2'-C1'	7.58	107.56	101.50
67	B1	546	C	C3'-C2'-C1'	7.58	107.56	101.50
67	B1	1593	C	O4'-C1'-N1	7.58	114.26	108.20
67	B1	2619	U	O4'-C1'-C2'	-7.58	98.22	105.80
4	AG	77	ASP	CA-CB-CG	-7.58	96.72	113.40
44	BW	65	ARG	NE-CZ-NH1	7.58	124.09	120.30
67	B1	210	A	C2'-C3'-O3'	7.58	126.17	109.50
67	B1	1883	C	C5'-C4'-C3'	7.58	128.13	116.00
67	B1	2287	C	N1-C1'-C2'	-7.58	103.66	112.00
67	B1	2376	U	C1'-O4'-C4'	7.58	115.96	109.90
21	A2	811	G	N9-C1'-C2'	-7.58	103.67	112.00
21	A2	211	G	O4'-C1'-N9	7.58	114.26	108.20
21	A2	542	G	C1'-O4'-C4'	-7.58	103.84	109.90
21	A2	592	G	N9-C1'-C2'	-7.58	103.67	112.00
40	BE	83	ARG	NE-CZ-NH2	-7.58	116.51	120.30
67	B1	329	G	C5-C6-O6	-7.58	124.05	128.60
67	B1	942	U	P-O5'-C5'	-7.58	108.78	120.90
67	B1	1114	G	O4'-C1'-N9	7.57	114.26	108.20
67	B1	339	A	O4'-C1'-N9	7.57	114.26	108.20
67	B1	746	C	O4'-C1'-C2'	-7.57	98.23	105.80
67	B1	1274	G	O4'-C1'-C2'	7.57	114.42	107.60
21	A2	816	G	O4'-C1'-N9	7.57	114.26	108.20
21	A2	1435	G	C3'-C2'-C1'	7.57	107.56	101.50
67	B1	2997	G	N9-C1'-C2'	7.57	123.84	114.00
67	B1	2727	C	N1-C1'-C2'	7.57	123.84	114.00
21	A2	4	C	C1'-O4'-C4'	7.57	115.95	109.90
21	A2	321	A	N9-C1'-C2'	7.57	123.84	114.00
21	A2	1269	G	C4'-C3'-C2'	-7.57	95.03	102.60
67	B1	375	C	O4'-C1'-N1	7.57	114.25	108.20
21	A2	1104	G	C1'-O4'-C4'	7.57	115.95	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1161	A	C1'-O4'-C4'	-7.56	103.85	109.90
27	A0	32	C	N1-C1'-C2'	7.56	123.83	114.00
67	B1	1365	G	O4'-C1'-C2'	7.56	114.41	107.60
21	A2	701	G	O4'-C1'-N9	7.56	114.25	108.20
21	A2	1131	G	N9-C1'-C2'	7.56	123.83	114.00
67	B1	2045	C	O4'-C1'-N1	7.56	114.25	108.20
1	AQ	28	TYR	CB-CG-CD2	-7.56	116.47	121.00
21	A2	556	G	P-O3'-C3'	-7.56	110.63	119.70
67	B1	2286	U	O4'-C1'-N1	7.56	114.25	108.20
67	B1	2464	G	C1'-O4'-C4'	7.56	115.95	109.90
21	A2	88	G	C1'-O4'-C4'	-7.55	103.86	109.90
67	B1	2470	U	O4'-C1'-C2'	-7.55	98.25	105.80
67	B1	2794	G	O4'-C1'-C2'	7.55	114.40	107.60
21	A2	1153	G	C1'-O4'-C4'	-7.55	103.86	109.90
67	B1	323	U	O4'-C1'-C2'	-7.55	98.25	105.80
67	B1	685	G	C3'-C2'-C1'	7.55	107.54	101.50
21	A2	276	A	N9-C1'-C2'	7.55	123.81	114.00
67	B1	651	C	P-O3'-C3'	-7.55	110.64	119.70
67	B1	2610	C	C1'-O4'-C4'	7.55	115.94	109.90
67	B1	2851	A	P-O3'-C3'	7.55	128.76	119.70
16	AJ	16	ARG	NE-CZ-NH2	-7.55	116.53	120.30
21	A2	635	C	O4'-C1'-C2'	-7.55	98.25	105.80
67	B1	2026	C	N1-C1'-C2'	7.55	123.81	114.00
21	A2	354	G	N9-C1'-C2'	7.55	123.81	114.00
67	B1	1087	G	P-O3'-C3'	7.55	128.75	119.70
67	B1	1285	C	C1'-O4'-C4'	-7.55	103.86	109.90
67	B1	1851	U	C3'-C2'-C1'	7.55	107.54	101.50
67	B1	2612	A	P-O3'-C3'	7.55	128.76	119.70
67	B1	570	G	O4'-C1'-N9	7.54	114.24	108.20
67	B1	2155	C	C1'-O4'-C4'	7.54	115.94	109.90
67	B1	1592	U	O4'-C1'-N1	-7.54	102.17	108.20
67	B1	1717	C	N1-C1'-C2'	7.54	123.81	114.00
21	A2	560	A	C1'-O4'-C4'	7.54	115.93	109.90
67	B1	935	A	C3'-C2'-C1'	-7.54	95.47	101.50
67	B1	1885	G	O4'-C1'-N9	7.54	114.23	108.20
67	B1	2357	U	C1'-O4'-C4'	7.54	115.93	109.90
21	A2	571	C	N1-C1'-C2'	7.54	123.80	114.00
21	A2	1480	G	N9-C1'-C2'	-7.54	103.71	112.00
64	Bc	14	LYS	C-N-CA	7.54	140.54	121.70
67	B1	219	G	O4'-C4'-C3'	-7.54	96.46	104.00
67	B1	1180	G	N9-C1'-C2'	7.54	123.80	114.00
21	A2	1492	U	C3'-C2'-C1'	7.54	107.53	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1214	C	O4'-C1'-C2'	-7.54	98.26	105.80
67	B1	1313	G	P-O5'-C5'	-7.54	108.84	120.90
67	B1	2929	C	P-O3'-C3'	7.54	128.74	119.70
11	A1	46	U	C3'-C2'-C1'	-7.54	95.47	101.50
21	A2	205	C	C1'-O4'-C4'	-7.54	103.87	109.90
21	A2	566	C	P-O3'-C3'	7.54	128.74	119.70
67	B1	1568	A	O5'-P-OP2	7.54	119.74	110.70
67	B1	1627	G	C3'-C2'-C1'	-7.54	95.47	101.50
21	A2	53	G	C3'-C2'-C1'	7.53	107.53	101.50
21	A2	343	G	O4'-C1'-N9	7.53	114.23	108.20
21	A2	588	C	O4'-C1'-N1	7.53	114.23	108.20
52	BB	109	TYR	CD1-CE1-CZ	-7.53	113.02	119.80
21	A2	950	C	O4'-C1'-C2'	-7.53	98.27	105.80
26	AP	19	ARG	NE-CZ-NH1	-7.53	116.53	120.30
67	B1	1504	C	C3'-C2'-C1'	7.53	107.53	101.50
21	A2	47	A	O4'-C1'-N9	-7.53	102.17	108.20
21	A2	834	C	C3'-C2'-C1'	7.53	107.53	101.50
21	A2	984	C	O4'-C1'-N1	7.53	114.22	108.20
64	Bc	15	GLU	CB-CA-C	7.53	125.46	110.40
67	B1	2109	C	O4'-C1'-C2'	-7.53	98.27	105.80
67	B1	2325	C	O4'-C1'-N1	7.53	114.22	108.20
67	B1	1036	C	N1-C1'-C2'	7.53	123.79	114.00
67	B1	1614	U	C5'-C4'-O4'	7.53	118.14	109.10
67	B1	3048	C	O4'-C1'-C2'	-7.53	98.27	105.80
21	A2	448	A	P-O3'-C3'	7.53	128.73	119.70
21	A2	766	G	O4'-C1'-N9	7.53	114.22	108.20
67	B1	315	U	O4'-C1'-N1	7.53	114.22	108.20
67	B1	1122	C	O4'-C1'-N1	7.53	114.22	108.20
67	B1	2175	G	N9-C1'-C2'	-7.53	103.72	112.00
27	A0	74	C	O4'-C1'-N1	7.53	114.22	108.20
36	Bf	42	ARG	NE-CZ-NH2	-7.53	116.54	120.30
67	B1	1438	C	O4'-C1'-C2'	-7.53	98.28	105.80
67	B1	1570	C	O4'-C1'-N1	-7.53	102.18	108.20
67	B1	2512	C	P-O5'-C5'	-7.53	108.86	120.90
67	B1	2620	G	N9-C1'-C2'	7.53	123.78	114.00
27	A0	43	G	C3'-C2'-C1'	7.52	107.52	101.50
32	BO	65	ARG	NE-CZ-NH2	-7.52	116.54	120.30
11	A1	27	A	C4'-C3'-C2'	-7.52	95.08	102.60
21	A2	647	G	O4'-C1'-C2'	7.52	114.37	107.60
21	A2	845	G	C3'-C2'-C1'	-7.52	95.48	101.50
20	B4	35	GLY	C-N-CA	7.52	140.51	121.70
67	B1	1533	G	C1'-O4'-C4'	-7.52	103.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1254	C	C3'-C2'-C1'	7.52	107.52	101.50
67	B1	742	C	C1'-O4'-C4'	-7.52	103.88	109.90
8	AR	55	PHE	CB-CG-CD2	7.52	126.06	120.80
67	B1	1115	A	C3'-C2'-C1'	7.52	107.52	101.50
67	B1	2548	A	P-O3'-C3'	7.52	128.72	119.70
67	B1	2949	G	C3'-C2'-C1'	7.52	107.52	101.50
67	B1	955	A	N9-C1'-C2'	-7.52	103.73	112.00
67	B1	1139	C	C1'-O4'-C4'	-7.52	103.89	109.90
67	B1	2786	G	O4'-C1'-N9	7.52	114.22	108.20
21	A2	332	C	N1-C1'-C2'	7.52	123.77	114.00
67	B1	578	C	O4'-C1'-N1	7.52	114.21	108.20
21	A2	675	A	C1'-O4'-C4'	7.51	115.91	109.90
21	A2	1493	C	O4'-C1'-C2'	-7.51	98.29	105.80
49	BQ	28	ARG	NE-CZ-NH2	-7.51	116.54	120.30
14	AM	135	ARG	NE-CZ-NH1	7.51	124.06	120.30
21	A2	1401	U	O4'-C1'-C2'	7.51	114.36	107.60
67	B1	2151	C	N1-C1'-C2'	7.51	123.77	114.00
11	A1	64	C	O4'-C1'-N1	7.51	114.21	108.20
55	Bh	3	TRP	CB-CG-CD1	7.51	136.76	127.00
67	B1	653	U	P-O3'-C3'	7.51	128.71	119.70
67	B1	750	C	C1'-O4'-C4'	-7.51	103.89	109.90
67	B1	1235	A	O4'-C1'-C2'	-7.51	98.29	105.80
67	B1	1997	C	C1'-O4'-C4'	-7.51	103.89	109.90
21	A2	806	G	N9-C1'-C2'	7.51	123.76	114.00
67	B1	979	G	O3'-P-O5'	7.51	118.27	104.00
67	B1	996	U	O4'-C1'-C2'	-7.51	98.29	105.80
67	B1	1646	G	P-O3'-C3'	7.51	128.71	119.70
67	B1	2671	C	N1-C1'-C2'	7.51	123.76	114.00
21	A2	1244	C	O4'-C1'-N1	7.51	114.21	108.20
67	B1	2808	C	C3'-C2'-C1'	7.51	107.51	101.50
21	A2	268	C	O4'-C1'-C2'	-7.51	98.29	105.80
21	A2	343	G	O4'-C1'-C2'	-7.51	98.29	105.80
53	BD	23	PHE	CB-CG-CD2	-7.51	115.55	120.80
67	B1	475	U	C3'-C2'-C1'	7.51	107.50	101.50
67	B1	2909	G	O4'-C1'-N9	7.51	114.20	108.20
21	A2	686	C	N1-C1'-C2'	7.50	123.75	114.00
21	A2	1219	C	N1-C1'-C2'	7.50	123.75	114.00
67	B1	1604	G	O4'-C1'-N9	7.50	114.20	108.20
67	B1	1912	A	C3'-C2'-C1'	-7.50	95.50	101.50
67	B1	283	U	O4'-C1'-N1	7.50	114.20	108.20
67	B1	685	G	C1'-O4'-C4'	-7.50	103.90	109.90
67	B1	1399	C	O4'-C1'-N1	7.50	114.20	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	457	G	C3'-C2'-C1'	7.50	107.50	101.50
67	B1	1976	C	O4'-C1'-C2'	-7.50	98.30	105.80
67	B1	2765	C	C1'-O4'-C4'	-7.50	103.90	109.90
21	A2	319	U	C1'-O4'-C4'	7.50	115.90	109.90
52	BB	184	ALA	N-CA-CB	7.50	120.60	110.10
67	B1	437	G	O4'-C1'-C2'	-7.50	98.30	105.80
67	B1	1419	G	O4'-C1'-N9	7.50	114.20	108.20
67	B1	1844	C	O4'-C1'-C2'	-7.50	98.30	105.80
67	B1	3036	C	N1-C1'-C2'	7.50	123.75	114.00
67	B1	529	G	P-O3'-C3'	7.50	128.69	119.70
67	B1	1607	C	C3'-C2'-C1'	7.50	107.50	101.50
10	AD	76	ARG	NE-CZ-NH2	7.49	124.05	120.30
21	A2	1060	G	C5'-C4'-O4'	7.49	118.09	109.10
67	B1	2007	C	C1'-O4'-C4'	-7.49	103.91	109.90
67	B1	2800	U	O4'-C1'-C2'	-7.49	98.31	105.80
21	A2	1372	C	N1-C1'-C2'	7.49	123.74	114.00
67	B1	420	U	N1-C1'-C2'	-7.49	103.76	112.00
67	B1	1733	C	N1-C1'-C2'	7.49	123.74	114.00
67	B1	2337	G	C3'-C2'-C1'	7.49	107.49	101.50
67	B1	2730	U	O4'-C1'-C2'	-7.49	98.31	105.80
67	B1	669	G	O4'-C1'-N9	7.49	114.19	108.20
67	B1	1212	A	O4'-C1'-N9	7.49	114.19	108.20
67	B1	1586	G	C3'-C2'-C1'	7.49	107.49	101.50
21	A2	752	G	O4'-C1'-N9	7.49	114.19	108.20
21	A2	1378	A	O4'-C1'-C2'	-7.49	98.31	105.80
67	B1	655	C	O4'-C1'-C2'	-7.49	98.31	105.80
67	B1	1383	G	C1'-O4'-C4'	-7.49	103.91	109.90
67	B1	1728	C	N1-C1'-C2'	7.49	123.73	114.00
11	A1	54	G	C3'-C2'-C1'	7.49	107.49	101.50
67	B1	1826	G	C1'-O4'-C4'	-7.49	103.91	109.90
67	B1	2961	A	O4'-C1'-C2'	-7.49	98.31	105.80
67	B1	2432	G	N9-C1'-C2'	-7.48	103.77	112.00
61	Bd	4	MET	CG-SD-CE	-7.48	88.23	100.20
67	B1	1408	G	O4'-C1'-N9	-7.48	102.21	108.20
67	B1	2509	A	O4'-C1'-N9	7.48	114.19	108.20
11	A1	13	C	N1-C1'-C2'	7.48	123.72	114.00
67	B1	538	G	N9-C1'-C2'	7.48	123.72	114.00
36	Bf	41	ARG	NE-CZ-NH1	7.48	124.04	120.30
67	B1	2170	C	C1'-O4'-C4'	-7.48	103.92	109.90
40	BE	179	PHE	CB-CG-CD2	-7.48	115.57	120.80
67	B1	906	G	O4'-C1'-N9	7.48	114.18	108.20
67	B1	1023	C	N1-C1'-C2'	7.48	123.72	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1565	G	P-O5'-C5'	-7.48	108.94	120.90
67	B1	2693	G	C4'-C3'-C2'	-7.48	95.12	102.60
21	A2	1343	C	O4'-C1'-N1	7.48	114.18	108.20
67	B1	2826	U	C1'-O4'-C4'	7.48	115.88	109.90
67	B1	2855	G	O4'-C1'-C2'	7.48	114.33	107.60
67	B1	412	G	C3'-C2'-C1'	7.47	107.48	101.50
67	B1	953	G	O4'-C1'-N9	7.47	114.18	108.20
67	B1	2507	C	C2'-C3'-O3'	7.47	125.94	109.50
36	Bf	33	ARG	CB-CA-C	7.47	125.35	110.40
67	B1	1517	G	O4'-C1'-N9	7.47	114.18	108.20
67	B1	536	G	O3'-P-O5'	7.47	118.19	104.00
65	BJ	47	HIS	CB-CA-C	7.47	125.33	110.40
21	A2	47	A	C3'-C2'-C1'	7.47	107.47	101.50
21	A2	820	G	C1'-O4'-C4'	-7.47	103.93	109.90
67	B1	1035	G	P-O3'-C3'	7.47	128.66	119.70
67	B1	2556	C	N1-C1'-C2'	7.47	123.70	114.00
68	B3	112	C	C4'-C3'-C2'	-7.47	95.13	102.60
21	A2	1118	C	O4'-C1'-C2'	7.46	114.32	107.60
33	BC	124	PHE	C-N-CA	7.46	140.36	121.70
67	B1	204	G	C5'-C4'-O4'	7.46	118.06	109.10
67	B1	1819	G	O4'-C1'-N9	7.46	114.17	108.20
67	B1	1403	C	C4'-C3'-C2'	-7.46	95.14	102.60
67	B1	1777	U	O4'-C1'-N1	7.46	114.17	108.20
21	A2	945	G	O4'-C1'-C2'	7.46	114.31	107.60
42	BT	33	ARG	NE-CZ-NH2	-7.46	116.57	120.30
67	B1	346	U	O4'-C1'-N1	7.46	114.17	108.20
67	B1	1646	G	C1'-O4'-C4'	7.46	115.87	109.90
66	Bl	61	ARG	NE-CZ-NH2	-7.46	116.57	120.30
67	B1	44	C	O4'-C1'-C2'	-7.46	98.34	105.80
67	B1	2071	C	C3'-C2'-C1'	7.46	107.47	101.50
67	B1	2357	U	O4'-C1'-N1	7.46	114.17	108.20
21	A2	311	A	C3'-C2'-C1'	-7.46	95.53	101.50
56	BH	133	MET	C-N-CA	-7.46	106.64	122.30
67	B1	984	U	O4'-C1'-N1	7.46	114.17	108.20
67	B1	2748	C	O4'-C1'-N1	7.46	114.17	108.20
68	B3	38	U	P-O3'-C3'	7.46	128.65	119.70
67	B1	376	C	O4'-C1'-N1	7.45	114.16	108.20
67	B1	2259	G	C5'-C4'-O4'	7.45	118.05	109.10
67	B1	2800	U	C4'-C3'-C2'	-7.45	95.15	102.60
68	B3	118	G	N9-C1'-C2'	-7.45	103.80	112.00
13	AX	4	ASP	N-CA-C	-7.45	90.88	111.00
67	B1	588	U	P-O3'-C3'	7.45	128.64	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2564	U	O4'-C1'-N1	7.45	114.16	108.20
68	B3	97	G	C3'-C2'-C1'	-7.45	95.54	101.50
21	A2	859	A	C1'-O4'-C4'	7.45	115.86	109.90
46	BA	5	ARG	NE-CZ-NH2	7.45	124.02	120.30
67	B1	1997	C	O4'-C1'-C2'	7.45	114.30	107.60
21	A2	865	A	O4'-C1'-C2'	-7.45	98.36	105.80
21	A2	909	U	O4'-C1'-N1	7.45	114.16	108.20
21	A2	1434	C	C3'-C2'-C1'	7.45	107.46	101.50
65	BJ	74	ARG	NE-CZ-NH1	-7.44	116.58	120.30
67	B1	897	U	C1'-O4'-C4'	7.44	115.86	109.90
67	B1	1571	G	N9-C1'-C2'	7.44	123.68	114.00
67	B1	2869	U	C3'-C2'-C1'	7.44	107.45	101.50
12	AN	20	ARG	NE-CZ-NH1	7.44	124.02	120.30
57	BZ	25	ARG	NE-CZ-NH1	-7.44	116.58	120.30
67	B1	2610	C	O4'-C1'-C2'	-7.44	98.36	105.80
16	AJ	92	ARG	NE-CZ-NH1	-7.44	116.58	120.30
21	A2	792	C	C1'-O4'-C4'	-7.44	103.95	109.90
21	A2	1076	G	C1'-O4'-C4'	-7.44	103.95	109.90
67	B1	1052	G	N9-C1'-C2'	7.44	123.67	114.00
27	A0	2	C	N1-C1'-C2'	7.44	123.67	114.00
67	B1	2372	C	O4'-C1'-C2'	-7.44	98.36	105.80
67	B1	2656	A	O4'-C1'-N9	7.44	114.15	108.20
67	B1	2721	C	O4'-C1'-N1	-7.44	102.25	108.20
61	Bd	74	ARG	NE-CZ-NH1	7.44	124.02	120.30
67	B1	1204	U	C3'-C2'-C1'	7.44	107.45	101.50
21	A2	92	G	O4'-C1'-C2'	7.43	114.29	107.60
40	BE	93	ARG	CD-NE-CZ	7.43	134.01	123.60
67	B1	582	A	C1'-O4'-C4'	7.43	115.85	109.90
67	B1	1077	G	O4'-C1'-C2'	7.43	114.29	107.60
67	B1	1713	G	P-O5'-C5'	-7.43	109.00	120.90
21	A2	484	U	O4'-C1'-C2'	-7.43	98.37	105.80
21	A2	1208	A	C1'-O4'-C4'	7.43	115.85	109.90
53	BD	241	VAL	CB-CA-C	7.43	125.52	111.40
67	B1	688	G	C3'-C2'-C1'	7.43	107.45	101.50
67	B1	2791	C	O4'-C1'-C2'	-7.43	98.37	105.80
21	A2	242	A	C1'-O4'-C4'	7.43	115.84	109.90
21	A2	1399	G	C4'-C3'-C2'	-7.43	95.17	102.60
67	B1	223	U	O4'-C1'-N1	7.43	114.14	108.20
21	A2	1185	A	C1'-O4'-C4'	-7.43	103.96	109.90
21	A2	311	A	N9-C1'-C2'	-7.43	103.83	112.00
21	A2	1392	G	O3'-P-O5'	-7.43	89.89	104.00
67	B1	2297	C	C3'-C2'-C1'	7.43	107.44	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2990	G	N9-C1'-C2'	7.43	123.66	114.00
21	A2	11	A	C3'-C2'-C1'	7.42	107.44	101.50
21	A2	766	G	P-O3'-C3'	7.42	128.61	119.70
62	BN	108	TYR	CB-CG-CD2	7.42	125.45	121.00
67	B1	1662	C	O4'-C1'-N1	7.42	114.14	108.20
21	A2	889	G	C1'-O4'-C4'	-7.42	103.96	109.90
21	A2	1053	A	C3'-C2'-C1'	7.42	107.44	101.50
67	B1	524	C	O4'-C1'-N1	7.42	114.14	108.20
67	B1	330	U	O4'-C1'-N1	7.42	114.14	108.20
21	A2	236	C	O4'-C1'-N1	7.42	114.14	108.20
62	BN	84	PHE	CB-CG-CD2	-7.42	115.61	120.80
67	B1	1518	G	O4'-C1'-N9	7.42	114.14	108.20
21	A2	675	A	O4'-C1'-N9	7.42	114.13	108.20
21	A2	1298	G	O4'-C1'-N9	-7.42	102.27	108.20
41	Ba	88	ARG	NE-CZ-NH1	7.42	124.01	120.30
67	B1	237	G	C1'-O4'-C4'	7.42	115.83	109.90
67	B1	1852	U	O4'-C1'-N1	-7.42	102.27	108.20
21	A2	1127	A	C1'-O4'-C4'	-7.42	103.97	109.90
29	AL	49	THR	N-CA-CB	7.42	124.39	110.30
67	B1	285	C	O4'-C1'-N1	7.42	114.13	108.20
67	B1	2046	C	O4'-C1'-N1	7.42	114.13	108.20
21	A2	1453	U	O4'-C1'-N1	7.41	114.13	108.20
67	B1	1249	G	N9-C1'-C2'	7.41	123.64	114.00
67	B1	2229	G	P-O3'-C3'	7.41	128.60	119.70
67	B1	321	C	O4'-C1'-N1	7.41	114.13	108.20
67	B1	515	G	N9-C1'-C2'	-7.41	103.85	112.00
68	B3	86	C	O4'-C1'-C2'	-7.41	98.39	105.80
68	B3	99	G	N9-C1'-C2'	7.41	123.64	114.00
67	B1	2145	G	C5'-C4'-C3'	7.41	127.86	116.00
16	AJ	60	ALA	N-CA-CB	7.41	120.47	110.10
21	A2	1218	C	P-O3'-C3'	-7.41	110.81	119.70
67	B1	345	C	O4'-C1'-N1	7.41	114.13	108.20
67	B1	475	U	O4'-C1'-C2'	-7.41	98.39	105.80
68	B3	122	C	N1-C1'-C2'	-7.41	103.85	112.00
21	A2	713	A	O4'-C1'-N9	7.41	114.12	108.20
53	BD	158	ARG	NE-CZ-NH2	-7.41	116.60	120.30
68	B3	9	A	O4'-C1'-C2'	-7.41	98.39	105.80
67	B1	2367	C	O4'-C1'-C2'	-7.40	98.40	105.80
21	A2	1354	A	C3'-C2'-C1'	7.40	107.42	101.50
67	B1	568	A	N9-C1'-C2'	7.40	123.62	114.00
67	B1	1705	C	O4'-C1'-N1	7.40	114.12	108.20
67	B1	1994	G	O4'-C1'-C2'	-7.40	98.40	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2134	G	O4'-C1'-C2'	7.40	114.26	107.60
67	B1	2924	G	C1'-O4'-C4'	7.40	115.82	109.90
67	B1	28	A	O4'-C1'-N9	7.40	114.12	108.20
67	B1	46	C	O4'-C1'-N1	7.40	114.12	108.20
67	B1	1837	A	O5'-P-OP1	-7.40	99.04	105.70
67	B1	2632	C	O4'-C1'-N1	7.40	114.12	108.20
67	B1	354	G	C3'-C2'-C1'	-7.40	95.58	101.50
67	B1	2312	U	N1-C1'-C2'	-7.40	103.86	112.00
67	B1	2474	A	O4'-C1'-N9	-7.40	102.28	108.20
67	B1	2879	G	O4'-C1'-N9	7.40	114.12	108.20
21	A2	1130	A	N9-C1'-C2'	-7.40	103.86	112.00
21	A2	580	G	O4'-C1'-N9	7.39	114.11	108.20
29	AL	92	GLU	O-C-N	-7.39	110.87	122.70
41	Ba	71	ARG	NE-CZ-NH2	-7.39	116.60	120.30
55	Bh	3	TRP	CB-CG-CD2	-7.39	116.99	126.60
67	B1	1770	A	N9-C1'-C2'	7.39	123.61	114.00
67	B1	2353	C	C4'-C3'-C2'	-7.39	95.20	102.60
27	A0	68	G	O4'-C1'-N9	7.39	114.11	108.20
67	B1	1420	U	O4'-C4'-C3'	-7.39	96.61	104.00
67	B1	927	G	C3'-C2'-C1'	7.39	107.41	101.50
67	B1	977	C	C3'-C2'-C1'	7.39	107.41	101.50
67	B1	1313	G	O4'-C1'-C2'	7.39	114.25	107.60
12	AN	51	ARG	NE-CZ-NH1	7.39	124.00	120.30
21	A2	577	C	O4'-C1'-C2'	-7.39	98.41	105.80
36	Bf	30	LYS	N-CA-CB	7.39	123.90	110.60
67	B1	195	U	O4'-C1'-N1	7.39	114.11	108.20
67	B1	971	G	O4'-C1'-N9	7.39	114.11	108.20
21	A2	175	G	N9-C1'-C2'	-7.39	103.88	112.00
21	A2	748	A	C3'-C2'-C1'	-7.39	95.59	101.50
21	A2	252	U	O4'-C1'-N1	7.38	114.11	108.20
67	B1	1570	C	O5'-P-OP1	7.38	119.56	110.70
67	B1	1903	G	O4'-C1'-C2'	-7.38	98.42	105.80
67	B1	2180	C	O4'-C1'-C2'	-7.38	98.42	105.80
67	B1	2277	G	O4'-C1'-C2'	-7.38	98.42	105.80
67	B1	2696	G	N9-C1'-C2'	-7.38	103.88	112.00
67	B1	2816	C	N1-C1'-C2'	-7.38	103.88	112.00
21	A2	658	A	O4'-C1'-C2'	-7.38	98.42	105.80
54	BF	71	PHE	CB-CG-CD2	-7.38	115.63	120.80
67	B1	1461	G	O4'-C1'-N9	7.38	114.11	108.20
11	A1	9	A	P-O3'-C3'	7.38	128.56	119.70
67	B1	2614	C	C1'-O4'-C4'	-7.38	103.99	109.90
67	B1	2965	C	N1-C1'-C2'	7.38	123.60	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2298	C	C1'-O4'-C4'	7.38	115.80	109.90
21	A2	399	A	O4'-C4'-C3'	-7.38	96.62	104.00
21	A2	701	G	O4'-C1'-C2'	-7.38	98.42	105.80
21	A2	1367	C	O4'-C1'-N1	7.38	114.10	108.20
67	B1	1147	G	C1'-O4'-C4'	-7.38	104.00	109.90
67	B1	1413	A	P-O3'-C3'	-7.38	110.85	119.70
67	B1	2662	G	C1'-O4'-C4'	-7.38	104.00	109.90
21	A2	97	C	O4'-C1'-N1	7.38	114.10	108.20
67	B1	565	A	O4'-C4'-C3'	-7.38	96.62	104.00
67	B1	1575	G	N9-C1'-C2'	-7.38	103.89	112.00
67	B1	1899	C	O4'-C1'-C2'	-7.38	98.42	105.80
21	A2	435	A	C3'-C2'-C1'	7.38	107.40	101.50
68	B3	28	C	O4'-C1'-N1	7.38	114.10	108.20
21	A2	384	G	C3'-C2'-C1'	7.37	107.40	101.50
49	BQ	100	ARG	CB-CA-C	-7.37	95.65	110.40
21	A2	946	G	O4'-C1'-C2'	7.37	114.23	107.60
25	AH	85	PHE	CB-CG-CD1	-7.37	115.64	120.80
1	AQ	3	ARG	NE-CZ-NH2	-7.37	116.61	120.30
67	B1	303	A	C3'-C2'-C1'	7.37	107.40	101.50
67	B1	732	G	O5'-P-OP1	-7.37	99.07	105.70
21	A2	372	G	C1'-O4'-C4'	-7.37	104.00	109.90
21	A2	906	G	O4'-C1'-N9	7.37	114.09	108.20
33	BC	107	ASP	CB-CG-OD1	-7.37	111.67	118.30
67	B1	964	C	P-O3'-C3'	7.37	128.54	119.70
67	B1	2062	A	C2'-C3'-O3'	7.37	125.71	109.50
67	B1	830	G	O4'-C1'-C2'	7.37	114.23	107.60
67	B1	1475	G	C5'-C4'-O4'	7.37	117.94	109.10
67	B1	2741	U	O4'-C1'-N1	7.37	114.09	108.20
6	AC	75	LEU	CB-CG-CD2	7.37	123.52	111.00
67	B1	956	U	N1-C1'-C2'	-7.37	103.90	112.00
67	B1	1244	C	C3'-C2'-C1'	7.37	107.39	101.50
67	B1	2101	A	C3'-C2'-C1'	7.37	107.39	101.50
21	A2	1141	G	C1'-O4'-C4'	-7.36	104.01	109.90
67	B1	735	A	O4'-C1'-N9	7.36	114.09	108.20
67	B1	2036	A	N9-C1'-C2'	-7.36	103.90	112.00
67	B1	2733	A	O3'-P-O5'	-7.36	90.01	104.00
67	B1	2100	U	O4'-C1'-C2'	-7.36	98.44	105.80
67	B1	1450	C	N1-C1'-C2'	7.36	123.57	114.00
67	B1	1522	A	O4'-C1'-C2'	-7.36	98.44	105.80
67	B1	2621	U	O4'-C1'-N1	7.36	114.09	108.20
17	AO	5	ARG	NE-CZ-NH2	-7.36	116.62	120.30
67	B1	161	C	C1'-O4'-C4'	-7.36	104.01	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	528	G	N9-C1'-C2'	7.36	123.57	114.00
21	A2	49	C	O4'-C1'-N1	7.36	114.08	108.20
67	B1	1643	A	O4'-C4'-C3'	-7.36	96.64	104.00
68	B3	111	G	C1'-O4'-C4'	-7.36	104.02	109.90
24	AA	22	TYR	CB-CG-CD2	-7.35	116.59	121.00
67	B1	855	G	N9-C1'-C2'	-7.35	103.91	112.00
67	B1	121	G	C1'-O4'-C4'	-7.35	104.02	109.90
67	B1	577	C	O4'-C1'-N1	7.35	114.08	108.20
67	B1	1801	C	O4'-C1'-N1	7.35	114.08	108.20
68	B3	17	G	O4'-C1'-N9	7.35	114.08	108.20
21	A2	804	U	P-O5'-C5'	-7.35	109.14	120.90
21	A2	1402	C	C1'-O4'-C4'	7.35	115.78	109.90
67	B1	863	C	O4'-C4'-C3'	-7.35	96.65	104.00
67	B1	2332	G	P-O3'-C3'	7.35	128.52	119.70
68	B3	16	G	O4'-C1'-N9	7.35	114.08	108.20
13	AX	23	ASP	CB-CG-OD1	-7.35	111.69	118.30
67	B1	2050	U	O4'-C1'-C2'	-7.35	98.45	105.80
21	A2	78	G	C3'-C2'-C1'	-7.35	95.62	101.50
21	A2	1336	U	C4'-C3'-C2'	-7.35	95.25	102.60
67	B1	627	G	C4'-C3'-C2'	-7.35	95.25	102.60
15	AE	76	ARG	NE-CZ-NH2	-7.34	116.63	120.30
21	A2	392	G	O4'-C1'-N9	7.34	114.08	108.20
21	A2	423	U	O4'-C1'-C2'	-7.34	98.46	105.80
21	A2	1342	C	C3'-C2'-C1'	7.34	107.38	101.50
27	A0	25	C	C3'-C2'-C1'	7.34	107.38	101.50
36	Bf	27	VAL	CA-CB-CG2	-7.34	99.88	110.90
67	B1	1596	G	O4'-C1'-C2'	-7.34	98.46	105.80
67	B1	1865	U	C1'-O4'-C4'	7.34	115.78	109.90
21	A2	755	U	C1'-O4'-C4'	-7.34	104.03	109.90
21	A2	1421	C	O4'-C1'-C2'	-7.34	98.46	105.80
53	BD	161	PHE	CB-CG-CD1	7.34	125.94	120.80
60	BS	154	ARG	NE-CZ-NH1	7.34	123.97	120.30
67	B1	483	C	O4'-C1'-N1	7.34	114.07	108.20
67	B1	1091	G	N9-C1'-C2'	-7.34	103.93	112.00
67	B1	1746	C	P-O3'-C3'	7.34	128.51	119.70
67	B1	2196	C	N1-C1'-C2'	7.34	123.54	114.00
67	B1	2323	C	O4'-C1'-N1	7.34	114.07	108.20
25	AH	88	ARG	CA-CB-CG	7.34	129.54	113.40
67	B1	1303	C	C1'-O4'-C4'	-7.34	104.03	109.90
67	B1	1446	G	O4'-C1'-C2'	-7.34	98.46	105.80
21	A2	75	C	P-O3'-C3'	7.34	128.50	119.70
67	B1	45	G	O4'-C1'-N9	7.34	114.07	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	336	C	O4'-C1'-N1	7.33	114.07	108.20
67	B1	791	C	C3'-C2'-C1'	7.33	107.37	101.50
67	B1	1656	C	O4'-C1'-C2'	-7.33	98.47	105.80
21	A2	557	G	N9-C1'-C2'	-7.33	103.93	112.00
21	A2	575	A	N9-C1'-C2'	-7.33	103.93	112.00
67	B1	1406	G	C3'-C2'-C1'	7.33	107.37	101.50
67	B1	2822	G	O4'-C1'-N9	7.33	114.07	108.20
21	A2	1177	C	C1'-O4'-C4'	-7.33	104.04	109.90
67	B1	654	C	N1-C1'-C2'	7.33	123.53	114.00
67	B1	1398	C	N1-C1'-C2'	7.33	123.53	114.00
67	B1	1795	C	N1-C1'-C2'	7.33	123.53	114.00
67	B1	2359	G	O4'-C1'-C2'	-7.33	98.47	105.80
67	B1	2857	C	N1-C1'-C2'	7.33	123.53	114.00
67	B1	306	G	C5'-C4'-C3'	-7.33	104.27	116.00
21	A2	764	C	C3'-C2'-C1'	7.33	107.36	101.50
21	A2	806	G	P-O5'-C5'	7.33	132.62	120.90
21	A2	1001	A	P-O3'-C3'	7.33	128.49	119.70
21	A2	1218	C	O4'-C1'-N1	7.33	114.06	108.20
21	A2	1257	U	O4'-C1'-N1	7.33	114.06	108.20
67	B1	94	A	C3'-C2'-C1'	7.33	107.36	101.50
67	B1	812	C	C4'-C3'-C2'	-7.33	95.27	102.60
67	B1	2376	U	C3'-C2'-C1'	7.33	107.36	101.50
68	B3	73	U	N1-C1'-C2'	7.33	123.53	114.00
67	B1	407	A	O3'-P-O5'	7.33	117.92	104.00
67	B1	927	G	N9-C1'-C2'	7.33	123.53	114.00
67	B1	1260	C	O4'-C1'-N1	7.33	114.06	108.20
21	A2	112	G	P-O5'-C5'	7.33	132.62	120.90
67	B1	2353	C	C3'-C2'-C1'	7.33	107.36	101.50
67	B1	2727	C	P-O3'-C3'	7.33	128.49	119.70
67	B1	2848	C	C1'-O4'-C4'	-7.33	104.04	109.90
68	B3	10	U	N1-C1'-C2'	7.33	123.52	114.00
21	A2	146	A	C3'-C2'-C1'	7.32	107.36	101.50
68	B3	18	G	O4'-C1'-N9	7.32	114.06	108.20
29	AL	44	ARG	N-CA-CB	7.32	123.78	110.60
67	B1	937	A	P-O5'-C5'	7.32	132.62	120.90
67	B1	2015	G	C3'-C2'-C1'	7.32	107.36	101.50
7	AB	161	ARG	NE-CZ-NH2	7.32	123.96	120.30
21	A2	1237	G	O4'-C1'-C2'	7.32	114.19	107.60
67	B1	71	A	O4'-C1'-N9	7.32	114.06	108.20
67	B1	1877	C	O4'-C1'-N1	7.32	114.06	108.20
67	B1	2173	U	C3'-C2'-C1'	7.32	107.36	101.50
67	B1	1415	C	O4'-C1'-N1	7.32	114.05	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2642	C	C3'-C2'-C1'	7.32	107.35	101.50
10	AD	25	ARG	NE-CZ-NH2	-7.32	116.64	120.30
21	A2	1142	G	C3'-C2'-C1'	7.32	107.35	101.50
21	A2	1479	C	C3'-C2'-C1'	7.32	107.35	101.50
67	B1	2129	G	N9-C1'-C2'	7.32	123.51	114.00
67	B1	2730	U	C3'-C2'-C1'	7.32	107.35	101.50
67	B1	2869	U	O4'-C1'-C2'	-7.32	98.48	105.80
21	A2	232	G	C1'-O4'-C4'	-7.31	104.05	109.90
21	A2	1303	C	N1-C1'-C2'	7.31	123.51	114.00
21	A2	437	A	C5'-C4'-C3'	7.31	127.70	116.00
21	A2	1156	A	O4'-C1'-C2'	-7.31	98.49	105.80
67	B1	146	U	O4'-C1'-N1	7.31	114.05	108.20
67	B1	159	C	C3'-C2'-C1'	7.31	107.35	101.50
21	A2	457	G	O4'-C1'-C2'	-7.31	98.49	105.80
67	B1	272	G	O4'-C1'-N9	7.31	114.05	108.20
67	B1	408	C	P-O5'-C5'	7.31	132.60	120.90
21	A2	1161	A	O4'-C1'-C2'	7.31	114.18	107.60
67	B1	277	A	O4'-C1'-C2'	-7.31	98.49	105.80
67	B1	1619	C	C3'-C2'-C1'	7.31	107.35	101.50
21	A2	989	C	C3'-C2'-C1'	7.31	107.35	101.50
21	A2	1112	G	C4'-C3'-C2'	-7.31	95.29	102.60
34	B5	45	ARG	NE-CZ-NH1	7.31	123.95	120.30
68	B3	30	G	C3'-C2'-C1'	7.31	107.35	101.50
21	A2	98	U	O4'-C1'-N1	7.31	114.05	108.20
21	A2	961	U	P-O3'-C3'	7.31	128.47	119.70
67	B1	1688	C	C1'-O4'-C4'	-7.31	104.06	109.90
67	B1	1795	C	O4'-C1'-C2'	-7.30	98.50	105.80
67	B1	632	G	C1'-O4'-C4'	-7.30	104.06	109.90
67	B1	1673	C	N1-C1'-C2'	7.30	123.49	114.00
8	AR	100	PHE	CB-CG-CD2	-7.30	115.69	120.80
58	BP	55	TYR	CB-CG-CD1	-7.30	116.62	121.00
67	B1	2860	G	C4'-C3'-C2'	-7.30	95.30	102.60
67	B1	218	A	C4'-C3'-C2'	-7.30	95.30	102.60
67	B1	458	U	N1-C1'-C2'	7.30	123.49	114.00
67	B1	1607	C	O4'-C1'-C2'	-7.30	98.50	105.80
67	B1	2750	C	C1'-O4'-C4'	-7.30	104.06	109.90
68	B3	39	C	C1'-O4'-C4'	-7.30	104.06	109.90
21	A2	900	G	O4'-C1'-N9	7.30	114.04	108.20
67	B1	1058	A	C1'-O4'-C4'	7.30	115.74	109.90
67	B1	2273	U	C1'-O4'-C4'	-7.30	104.06	109.90
67	B1	2313	G	C3'-C2'-C1'	7.30	107.34	101.50
21	A2	508	C	O4'-C1'-N1	7.29	114.03	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1514	C	C3'-C2'-C1'	7.29	107.33	101.50
67	B1	2916	G	O4'-C1'-C2'	-7.29	98.51	105.80
21	A2	1264	G	P-O3'-C3'	7.29	128.45	119.70
67	B1	56	G	N9-C1'-C2'	-7.29	103.98	112.00
67	B1	2671	C	O4'-C1'-N1	-7.29	102.37	108.20
21	A2	851	C	P-O3'-C3'	-7.29	110.95	119.70
27	A0	21	G	N9-C1'-C2'	7.29	123.48	114.00
67	B1	2333	G	OP1-P-OP2	-7.29	108.67	119.60
67	B1	2427	C	N1-C1'-C2'	7.29	123.48	114.00
4	AG	79	HIS	N-CA-CB	7.29	123.72	110.60
21	A2	460	C	C2-N1-C1'	7.29	126.82	118.80
67	B1	727	A	N9-C1'-C2'	7.29	123.47	114.00
67	B1	823	G	O4'-C1'-N9	7.29	114.03	108.20
67	B1	961	C	O4'-C1'-N1	7.29	114.03	108.20
67	B1	2329	A	C4'-C3'-C2'	-7.29	95.31	102.60
67	B1	2682	G	O4'-C1'-N9	7.29	114.03	108.20
67	B1	2508	G	C3'-C2'-C1'	7.29	107.33	101.50
21	A2	86	C	P-O3'-C3'	-7.29	110.96	119.70
21	A2	1079	G	O4'-C1'-N9	7.29	114.03	108.20
67	B1	1001	C	O4'-C1'-C2'	-7.29	98.52	105.80
67	B1	1557	G	O4'-C4'-C3'	7.29	111.93	106.10
21	A2	1403	U	P-O3'-C3'	-7.28	110.96	119.70
65	BJ	109	PRO	CA-N-CD	-7.28	101.30	111.50
67	B1	142	G	C1'-O4'-C4'	7.28	115.73	109.90
67	B1	159	C	C1'-O4'-C4'	7.28	115.73	109.90
67	B1	412	G	O4'-C1'-C2'	-7.28	98.52	105.80
21	A2	111	G	OP1-P-O3'	7.28	121.22	105.20
21	A2	816	G	C5'-C4'-O4'	7.28	117.84	109.10
67	B1	582	A	P-O3'-C3'	7.28	128.44	119.70
67	B1	2952	C	C1'-O4'-C4'	-7.28	104.08	109.90
21	A2	536	A	C3'-C2'-C1'	7.28	107.32	101.50
21	A2	1004	U	O4'-C1'-C2'	-7.28	98.52	105.80
67	B1	226	C	C1'-O4'-C4'	-7.28	104.08	109.90
67	B1	793	C	P-O3'-C3'	-7.28	110.97	119.70
67	B1	2616	C	O4'-C1'-N1	7.28	114.02	108.20
67	B1	2714	G	C3'-C2'-C1'	7.28	107.32	101.50
68	B3	46	G	C3'-C2'-C1'	-7.28	95.68	101.50
21	A2	417	C	O4'-C1'-N1	7.28	114.02	108.20
21	A2	1460	G	O4'-C1'-N9	-7.28	102.38	108.20
67	B1	651	C	O4'-C1'-C2'	-7.28	98.52	105.80
67	B1	2475	G	O4'-C4'-C3'	7.28	111.92	106.10
68	B3	12	G	C1'-O4'-C4'	7.28	115.72	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1423	A	C5'-C4'-C3'	7.27	127.64	116.00
21	A2	566	C	C1'-O4'-C4'	-7.27	104.08	109.90
49	BQ	61	TYR	CA-CB-CG	-7.27	99.58	113.40
49	BQ	95	TRP	CB-CA-C	7.27	124.94	110.40
67	B1	620	G	O4'-C1'-N9	7.27	114.02	108.20
15	AE	20	TYR	CB-CG-CD1	-7.27	116.64	121.00
46	BA	69	ALA	N-CA-CB	-7.27	99.92	110.10
49	BQ	60	ARG	NE-CZ-NH1	-7.27	116.67	120.30
67	B1	1977	C	O4'-C1'-N1	-7.27	102.38	108.20
67	B1	2867	U	N1-C1'-C2'	7.27	123.45	114.00
11	A1	76	C	O4'-C1'-C2'	-7.27	98.53	105.80
52	BB	54	ARG	NE-CZ-NH1	7.27	123.93	120.30
67	B1	794	G	O4'-C1'-C2'	7.27	114.14	107.60
67	B1	1309	G	P-O3'-C3'	-7.27	110.98	119.70
67	B1	1908	C	C1'-O4'-C4'	-7.27	104.09	109.90
67	B1	1972	C	N1-C1'-C2'	7.27	123.45	114.00
67	B1	2761	G	N9-C1'-C2'	-7.27	104.01	112.00
67	B1	1130	G	O4'-C1'-C2'	-7.27	98.53	105.80
67	B1	2339	C	O4'-C1'-N1	7.27	114.01	108.20
21	A2	168	G	N9-C1'-C2'	7.26	123.44	114.00
67	B1	1673	C	C3'-C2'-C1'	7.26	107.31	101.50
67	B1	2665	G	C1'-O4'-C4'	7.26	115.71	109.90
21	A2	1037	U	C4'-C3'-C2'	7.26	109.86	102.60
67	B1	1405	G	C4'-C3'-C2'	-7.26	95.34	102.60
11	A1	18	U	O4'-C1'-C2'	-7.26	98.54	105.80
67	B1	212	A	P-O3'-C3'	7.26	128.41	119.70
67	B1	22	C	O4'-C1'-C2'	-7.26	98.54	105.80
67	B1	865	C	C1'-O4'-C4'	-7.26	104.09	109.90
67	B1	945	U	O4'-C1'-N1	7.26	114.01	108.20
21	A2	1331	G	O4'-C1'-N9	7.26	114.01	108.20
21	A2	1396	C	C3'-C2'-C1'	7.26	107.31	101.50
67	B1	90	A	C3'-C2'-C1'	7.26	107.31	101.50
21	A2	892	C	O4'-C1'-N1	7.26	114.00	108.20
29	AL	91	PRO	C-N-CA	7.26	139.84	121.70
67	B1	1044	C	O4'-C1'-N1	7.26	114.00	108.20
67	B1	1202	G	C5'-C4'-C3'	7.26	127.61	116.00
67	B1	1814	A	O4'-C1'-N9	7.26	114.00	108.20
21	A2	189	C	C3'-C2'-C1'	7.25	107.30	101.50
59	BM	67	ARG	NE-CZ-NH2	-7.25	116.67	120.30
21	A2	25	C	C3'-C2'-C1'	7.25	107.30	101.50
21	A2	116	C	O4'-C1'-N1	7.25	114.00	108.20
21	A2	951	G	P-O3'-C3'	7.25	128.40	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1291	G	C4'-C3'-C2'	-7.25	95.35	102.60
21	A2	1452	G	O4'-C1'-N9	7.25	114.00	108.20
67	B1	168	G	C3'-C2'-C1'	-7.25	95.70	101.50
67	B1	830	G	C3'-C2'-C1'	-7.25	95.70	101.50
67	B1	2535	C	N1-C1'-C2'	7.25	123.43	114.00
4	AG	75	ARG	N-CA-C	-7.25	91.42	111.00
21	A2	45	U	C1'-O4'-C4'	7.25	115.70	109.90
21	A2	567	A	C3'-C2'-C1'	7.25	107.30	101.50
67	B1	596	C	N1-C1'-C2'	7.25	123.43	114.00
67	B1	2696	G	C2'-C3'-O3'	7.25	125.45	109.50
67	B1	2808	C	N1-C1'-C2'	7.25	123.43	114.00
50	BV	56	TYR	CB-CG-CD2	7.25	125.35	121.00
67	B1	1610	C	O4'-C1'-C2'	-7.25	98.55	105.80
67	B1	2540	A	P-O3'-C3'	7.25	128.40	119.70
48	BR	5	ALA	N-CA-CB	-7.25	99.95	110.10
67	B1	422	G	O4'-C1'-N9	7.25	114.00	108.20
67	B1	1742	C	N1-C1'-C2'	7.25	123.42	114.00
67	B1	2053	G	N9-C1'-C2'	-7.25	104.03	112.00
67	B1	2109	C	C3'-C2'-C1'	7.25	107.30	101.50
68	B3	93	G	C3'-C2'-C1'	-7.25	95.70	101.50
21	A2	13	C	C1'-O4'-C4'	-7.25	104.10	109.90
21	A2	395	C	N1-C1'-C2'	7.25	123.42	114.00
21	A2	433	U	O3'-P-O5'	-7.25	90.23	104.00
21	A2	441	U	P-O5'-C5'	7.25	132.50	120.90
67	B1	85	G	P-O5'-C5'	7.25	132.50	120.90
67	B1	1259	G	C1'-O4'-C4'	-7.25	104.10	109.90
67	B1	1640	G	P-O3'-C3'	7.25	128.40	119.70
67	B1	1008	U	O4'-C1'-N1	7.25	114.00	108.20
67	B1	1462	G	O4'-C4'-C3'	-7.25	96.75	104.00
21	A2	542	G	O4'-C1'-N9	7.24	114.00	108.20
21	A2	575	A	O4'-C1'-N9	7.24	113.99	108.20
21	A2	866	A	O4'-C1'-C2'	-7.24	98.56	105.80
68	B3	55	G	N9-C1'-C2'	7.24	123.42	114.00
21	A2	613	C	C1'-O4'-C4'	-7.24	104.11	109.90
67	B1	840	G	C5'-C4'-C3'	-7.24	104.42	116.00
67	B1	1701	C	O5'-P-OP1	-7.24	99.18	105.70
67	B1	2987	U	C2'-C3'-O3'	7.24	125.43	109.50
21	A2	1440	G	C1'-O4'-C4'	7.24	115.69	109.90
27	A0	40	C	C3'-C2'-C1'	7.24	107.29	101.50
27	A0	46	G	O4'-C1'-N9	7.24	113.99	108.20
67	B1	974	U	O4'-C1'-N1	7.24	113.99	108.20
67	B1	1691	U	O4'-C1'-N1	7.24	113.99	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2791	C	P-O3'-C3'	-7.24	111.01	119.70
53	BD	90	ARG	NE-CZ-NH1	7.24	123.92	120.30
67	B1	1015	G	C5-C6-O6	-7.24	124.26	128.60
67	B1	2410	U	C3'-C2'-C1'	7.24	107.29	101.50
67	B1	2531	G	C3'-C2'-C1'	7.24	107.29	101.50
21	A2	344	G	O4'-C1'-C2'	-7.24	98.56	105.80
36	Bf	34	ARG	N-CA-C	7.24	130.53	111.00
67	B1	58	G	C3'-C2'-C1'	-7.24	95.71	101.50
67	B1	2783	C	P-O3'-C3'	7.24	128.38	119.70
21	A2	1449	G	C1'-O4'-C4'	-7.23	104.11	109.90
67	B1	515	G	P-O5'-C5'	-7.23	109.33	120.90
21	A2	64	G	O4'-C1'-N9	-7.23	102.41	108.20
21	A2	295	G	N9-C1'-C2'	7.23	123.40	114.00
21	A2	852	G	P-O5'-C5'	7.23	132.47	120.90
67	B1	541	A	O4'-C1'-N9	7.23	113.99	108.20
67	B1	794	G	C1'-O4'-C4'	-7.23	104.11	109.90
67	B1	1458	C	C3'-C2'-C1'	7.23	107.29	101.50
67	B1	2619	U	P-O3'-C3'	-7.23	111.02	119.70
21	A2	106	A	O4'-C1'-N9	7.23	113.98	108.20
21	A2	300	G	N9-C1'-C2'	-7.23	104.05	112.00
6	AC	140	ARG	N-CA-CB	7.23	123.61	110.60
21	A2	949	G	P-O5'-C5'	7.23	132.46	120.90
24	AA	102	ARG	NE-CZ-NH1	7.23	123.91	120.30
67	B1	180	A	C3'-C2'-C1'	7.23	107.28	101.50
67	B1	878	G	C4'-C3'-C2'	-7.23	95.37	102.60
67	B1	1415	C	O4'-C1'-C2'	-7.23	98.57	105.80
67	B1	1782	C	C3'-C2'-C1'	7.23	107.28	101.50
67	B1	2691	G	N9-C1'-C2'	7.23	123.39	114.00
67	B1	152	G	C1'-O4'-C4'	7.23	115.68	109.90
67	B1	1174	U	O4'-C1'-N1	7.23	113.98	108.20
21	A2	1343	C	C5'-C4'-O4'	7.22	117.77	109.10
67	B1	1566	G	C3'-C2'-C1'	-7.22	95.72	101.50
67	B1	1622	G	O4'-C1'-N9	7.22	113.98	108.20
67	B1	2967	C	N1-C1'-C2'	7.22	123.39	114.00
8	AR	17	ASP	CB-CG-OD2	7.22	124.80	118.30
15	AE	137	ARG	N-CA-CB	7.22	123.60	110.60
21	A2	864	G	C1'-O4'-C4'	7.22	115.68	109.90
41	Ba	8	GLU	CB-CA-C	-7.22	95.96	110.40
67	B1	415	U	O4'-C1'-C2'	-7.22	98.58	105.80
67	B1	805	C	C4'-C3'-C2'	-7.22	95.38	102.60
67	B1	1469	U	OP1-P-OP2	-7.22	108.77	119.60
67	B1	2746	G	C5-C6-O6	-7.22	124.27	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	AU	74	ARG	CD-NE-CZ	-7.22	113.49	123.60
67	B1	624	U	O4'-C1'-N1	7.22	113.98	108.20
67	B1	1035	G	O4'-C1'-C2'	7.22	114.10	107.60
67	B1	1128	G	P-O3'-C3'	-7.22	111.04	119.70
67	B1	1152	C	C3'-C2'-C1'	7.22	107.27	101.50
21	A2	271	G	N9-C1'-C2'	7.22	123.38	114.00
67	B1	1080	G	C5'-C4'-C3'	7.22	127.55	116.00
67	B1	2635	C	P-O5'-C5'	7.22	132.45	120.90
11	A1	51	G	O4'-C1'-N9	-7.21	102.43	108.20
67	B1	189	U	C1'-O4'-C4'	-7.21	104.13	109.90
67	B1	1839	U	C1'-O4'-C4'	7.21	115.67	109.90
67	B1	2076	A	O4'-C1'-N9	-7.21	102.43	108.20
28	B6	33	ARG	NE-CZ-NH1	7.21	123.91	120.30
67	B1	2197	U	O4'-C1'-C2'	-7.21	98.59	105.80
67	B1	1928	A	C1'-O4'-C4'	-7.21	104.13	109.90
67	B1	2921	U	OP1-P-OP2	-7.21	108.79	119.60
21	A2	434	A	C3'-C2'-C1'	7.21	107.27	101.50
67	B1	448	A	C1'-O4'-C4'	7.21	115.67	109.90
67	B1	1846	G	O4'-C1'-N9	7.21	113.97	108.20
21	A2	641	A	O4'-C4'-C3'	-7.21	96.80	104.00
33	BC	107	ASP	N-CA-CB	7.21	123.57	110.60
21	A2	883	G	P-O3'-C3'	-7.20	111.06	119.70
21	A2	1093	C	O4'-C1'-N1	7.20	113.96	108.20
32	BO	12	ARG	NE-CZ-NH2	-7.20	116.70	120.30
67	B1	1003	C	C3'-C2'-C1'	7.20	107.26	101.50
67	B1	1029	C	O4'-C1'-C2'	-7.20	98.60	105.80
67	B1	2273	U	N1-C1'-C2'	7.20	123.36	114.00
67	B1	2490	C	N1-C1'-C2'	7.20	123.36	114.00
27	A0	16	C	O4'-C1'-N1	7.20	113.96	108.20
21	A2	392	G	N9-C1'-C2'	7.20	123.36	114.00
21	A2	1215	G	O4'-C1'-N9	7.20	113.96	108.20
21	A2	1326	G	C3'-C2'-C1'	-7.20	95.74	101.50
67	B1	485	G	O4'-C1'-C2'	-7.20	98.60	105.80
67	B1	2784	A	C4'-C3'-C2'	-7.20	95.40	102.60
21	A2	657	A	C3'-C2'-C1'	7.20	107.26	101.50
27	A0	50	C	N1-C1'-C2'	7.20	123.36	114.00
67	B1	1926	A	C3'-C2'-C1'	-7.20	95.74	101.50
67	B1	2560	G	O4'-C1'-N9	7.20	113.96	108.20
21	A2	520	G	N9-C1'-C2'	-7.20	104.08	112.00
56	BH	87	SER	N-CA-CB	7.20	121.29	110.50
67	B1	1517	G	O4'-C4'-C3'	-7.20	96.80	104.00
67	B1	2358	U	O4'-C1'-C2'	-7.20	98.60	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2538	G	O4'-C1'-N9	7.20	113.96	108.20
21	A2	805	C	O4'-C1'-C2'	7.19	114.08	107.60
67	B1	1480	G	C3'-C2'-C1'	7.19	107.25	101.50
21	A2	1320	A	C3'-C2'-C1'	-7.19	95.75	101.50
44	BW	1	MET	CG-SD-CE	-7.19	88.69	100.20
67	B1	319	A	C3'-C2'-C1'	-7.19	95.75	101.50
67	B1	895	C	O4'-C1'-C2'	-7.19	98.61	105.80
67	B1	2029	C	C3'-C2'-C1'	7.19	107.25	101.50
67	B1	2130	C	O4'-C1'-N1	7.19	113.95	108.20
67	B1	2435	G	P-O3'-C3'	7.19	128.33	119.70
67	B1	2771	G	C3'-C2'-C1'	-7.19	95.75	101.50
21	A2	497	C	C3'-C2'-C1'	7.19	107.25	101.50
67	B1	454	C	OP1-P-OP2	-7.19	108.81	119.60
67	B1	1509	C	C3'-C2'-C1'	7.19	107.25	101.50
21	A2	116	C	C5'-C4'-O4'	7.19	117.72	109.10
21	A2	252	U	O4'-C1'-C2'	-7.19	98.61	105.80
54	BF	35	LEU	CB-CG-CD2	7.19	123.22	111.00
67	B1	651	C	C3'-C2'-C1'	7.19	107.25	101.50
67	B1	1311	C	P-O3'-C3'	7.19	128.32	119.70
67	B1	1520	G	C1'-O4'-C4'	-7.19	104.15	109.90
21	A2	1124	G	O4'-C1'-C2'	7.18	114.07	107.60
67	B1	2299	G	C5'-C4'-O4'	7.18	117.72	109.10
10	AD	154	TYR	CG-CD2-CE2	-7.18	115.55	121.30
67	B1	899	A	C1'-O4'-C4'	7.18	115.65	109.90
67	B1	1000	G	C1'-O4'-C4'	-7.18	104.15	109.90
67	B1	2189	C	N1-C1'-C2'	7.18	123.34	114.00
21	A2	1198	A	C5'-C4'-O4'	7.18	117.72	109.10
21	A2	766	G	O4'-C1'-C2'	7.18	114.06	107.60
67	B1	2085	C	C1'-O4'-C4'	-7.18	104.16	109.90
21	A2	62	G	C3'-C2'-C1'	7.18	107.24	101.50
21	A2	122	C	O4'-C1'-N1	7.18	113.94	108.20
67	B1	459	C	N1-C1'-C2'	7.18	123.33	114.00
21	A2	7	G	C3'-C2'-C1'	7.18	107.24	101.50
21	A2	27	C	P-O5'-C5'	7.18	132.38	120.90
21	A2	103	A	O4'-C1'-N9	7.18	113.94	108.20
21	A2	235	G	P-O3'-C3'	-7.18	111.09	119.70
21	A2	508	C	P-O5'-C5'	7.18	132.38	120.90
67	B1	1097	G	C5'-C4'-C3'	7.18	127.48	116.00
68	B3	55	G	C1'-O4'-C4'	-7.18	104.16	109.90
21	A2	547	U	O4'-C1'-C2'	7.17	114.06	107.60
21	A2	590	G	O4'-C1'-N9	7.17	113.94	108.20
21	A2	819	G	C1'-O4'-C4'	-7.17	104.16	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	Bj	39	ARG	NE-CZ-NH1	7.17	123.89	120.30
67	B1	818	A	P-O5'-C5'	-7.17	109.42	120.90
21	A2	453	G	O4'-C1'-N9	7.17	113.94	108.20
21	A2	620	G	C3'-C2'-C1'	7.17	107.24	101.50
49	BQ	87	ALA	CB-CA-C	-7.17	99.34	110.10
67	B1	340	G	O4'-C1'-N9	7.17	113.94	108.20
67	B1	1388	U	C1'-O4'-C4'	-7.17	104.16	109.90
67	B1	2064	U	C2'-C3'-O3'	7.17	125.28	109.50
67	B1	2760	A	O4'-C1'-N9	-7.17	102.46	108.20
67	B1	2926	G	O4'-C1'-N9	-7.17	102.46	108.20
1	AQ	7	ARG	NE-CZ-NH1	-7.17	116.72	120.30
21	A2	167	G	C4'-C3'-C2'	-7.17	95.43	102.60
21	A2	400	G	C1'-O4'-C4'	7.17	115.64	109.90
21	A2	428	G	C1'-O4'-C4'	-7.17	104.17	109.90
51	Bj	84	PHE	CB-CG-CD1	-7.17	115.78	120.80
67	B1	1280	C	O4'-C1'-C2'	-7.17	98.63	105.80
67	B1	2760	A	C5'-C4'-O4'	7.17	117.70	109.10
67	B1	2930	G	O4'-C1'-N9	7.17	113.93	108.20
11	A1	27	A	N9-C1'-C2'	7.17	123.32	114.00
21	A2	1091	C	O4'-C1'-N1	7.17	113.93	108.20
21	A2	1095	C	O4'-C1'-C2'	7.17	114.05	107.60
67	B1	408	C	O4'-C1'-N1	7.17	113.93	108.20
67	B1	1253	U	C1'-O4'-C4'	7.17	115.63	109.90
67	B1	1597	G	O4'-C1'-C2'	-7.17	98.63	105.80
67	B1	2954	C	C3'-C2'-C1'	7.17	107.23	101.50
68	B3	110	C	O4'-C1'-N1	-7.17	102.47	108.20
21	A2	988	A	C5-C6-N6	-7.17	117.97	123.70
27	A0	56	C	N1-C1'-C2'	7.17	123.31	114.00
46	BA	160	ASN	N-CA-CB	7.17	123.50	110.60
67	B1	1284	C	O4'-C1'-N1	7.16	113.93	108.20
67	B1	2283	C	C5'-C4'-O4'	7.16	117.70	109.10
67	B1	2362	U	C1'-O4'-C4'	7.16	115.63	109.90
68	B3	22	C	C3'-C2'-C1'	7.16	107.23	101.50
49	BQ	131	GLN	N-CA-CB	7.16	123.49	110.60
67	B1	394	A	C5'-C4'-O4'	-7.16	100.51	109.10
67	B1	2578	C	O4'-C1'-C2'	-7.16	98.64	105.80
67	B1	505	A	O4'-C1'-N9	7.16	113.93	108.20
67	B1	2448	A	C1'-O4'-C4'	7.16	115.63	109.90
7	AB	185	ARG	NH1-CZ-NH2	7.16	127.28	119.40
21	A2	964	A	C5-C6-N6	-7.16	117.97	123.70
46	BA	120	TYR	CB-CG-CD1	7.16	125.30	121.00
52	BB	17	PHE	CB-CG-CD1	7.16	125.81	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2894	A	P-O3'-C3'	-7.16	111.11	119.70
51	Bj	25	VAL	CA-CB-CG1	7.16	121.64	110.90
21	A2	373	C	C1'-O4'-C4'	-7.16	104.18	109.90
67	B1	589	G	N1-C6-O6	7.16	124.19	119.90
67	B1	1457	C	O4'-C1'-C2'	-7.16	98.64	105.80
67	B1	2246	G	O4'-C1'-N9	7.16	113.92	108.20
21	A2	530	G	P-O3'-C3'	7.15	128.28	119.70
21	A2	807	C	C3'-C2'-C1'	7.15	107.22	101.50
67	B1	2013	A	O4'-C1'-N9	7.15	113.92	108.20
67	B1	68	G	O4'-C1'-C2'	-7.15	98.65	105.80
67	B1	110	A	O4'-C1'-C2'	-7.15	98.65	105.80
67	B1	1012	G	C5-C6-O6	-7.15	124.31	128.60
21	A2	23	G	O4'-C1'-C2'	-7.15	98.65	105.80
21	A2	400	G	O4'-C1'-C2'	-7.15	98.65	105.80
21	A2	491	G	C1'-O4'-C4'	-7.15	104.18	109.90
21	A2	1221	A	N9-C1'-C2'	7.15	123.30	114.00
46	BA	46	PHE	CB-CG-CD2	-7.15	115.80	120.80
67	B1	2522	C	O4'-C1'-C2'	-7.15	98.65	105.80
67	B1	2774	C	O4'-C1'-C2'	-7.15	98.65	105.80
67	B1	1425	U	C1'-O4'-C4'	7.15	115.62	109.90
11	A1	39	A	P-O5'-C5'	7.15	132.34	120.90
21	A2	1245	C	O4'-C1'-N1	7.15	113.92	108.20
67	B1	2436	A	O4'-C1'-N9	7.15	113.92	108.20
67	B1	1071	A	O4'-C1'-C2'	-7.15	98.65	105.80
21	A2	202	G	N9-C1'-C2'	-7.14	104.14	112.00
21	A2	746	A	C2'-C3'-O3'	7.14	125.22	109.50
21	A2	1286	C	C3'-C2'-C1'	7.14	107.22	101.50
27	A0	34	G	O4'-C1'-C2'	7.14	114.03	107.60
51	Bj	10	TYR	CB-CG-CD2	-7.14	116.71	121.00
67	B1	116	G	C1'-O4'-C4'	-7.14	104.18	109.90
67	B1	2370	C	O4'-C1'-N1	7.14	113.92	108.20
68	B3	57	C	C1'-O4'-C4'	-7.14	104.19	109.90
21	A2	836	G	O4'-C1'-N9	7.14	113.91	108.20
67	B1	149	G	N9-C1'-C2'	-7.14	104.14	112.00
67	B1	295	G	O4'-C1'-N9	7.14	113.91	108.20
67	B1	843	C	C3'-C2'-C1'	7.14	107.21	101.50
67	B1	1473	C	P-O3'-C3'	-7.14	111.13	119.70
67	B1	1492	C	C3'-C2'-C1'	7.14	107.21	101.50
27	A0	58	A	O4'-C1'-N9	7.14	113.91	108.20
62	BN	71	ARG	NE-CZ-NH1	7.14	123.87	120.30
67	B1	1992	A	O4'-C1'-N9	7.14	113.91	108.20
67	B1	1004	U	O4'-C1'-N1	7.14	113.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2272	G	O4'-C1'-C2'	7.14	114.02	107.60
21	A2	256	G	O4'-C1'-N9	7.14	113.91	108.20
21	A2	687	G	C3'-C2'-C1'	7.14	107.21	101.50
25	AH	88	ARG	NH1-CZ-NH2	-7.14	111.55	119.40
67	B1	667	C	P-O3'-C3'	-7.14	111.14	119.70
67	B1	2145	G	C1'-O4'-C4'	7.14	115.61	109.90
21	A2	130	G	O4'-C1'-N9	7.13	113.91	108.20
21	A2	825	C	C4'-C3'-C2'	-7.13	95.47	102.60
21	A2	1132	C	O4'-C1'-C2'	-7.13	98.67	105.80
67	B1	1336	G	O4'-C1'-N9	7.13	113.91	108.20
67	B1	1630	U	C1'-O4'-C4'	7.13	115.61	109.90
67	B1	2812	U	C1'-O4'-C4'	-7.13	104.19	109.90
21	A2	339	U	P-O3'-C3'	7.13	128.26	119.70
51	Bj	10	TYR	CB-CG-CD1	7.13	125.28	121.00
67	B1	2331	A	C3'-C2'-C1'	7.13	107.21	101.50
11	A1	8	U	C3'-C2'-C1'	7.13	107.20	101.50
21	A2	608	G	P-O3'-C3'	-7.13	111.14	119.70
67	B1	1841	G	C1'-O4'-C4'	-7.13	104.19	109.90
67	B1	2076	A	O4'-C1'-C2'	7.13	114.02	107.60
67	B1	2142	U	C5'-C4'-O4'	7.13	117.66	109.10
67	B1	2266	C	C1'-O4'-C4'	7.13	115.61	109.90
67	B1	3013	U	C3'-C2'-C1'	7.13	107.20	101.50
24	AA	128	ARG	CD-NE-CZ	7.13	133.58	123.60
27	A0	27	C	C4'-C3'-C2'	-7.13	95.47	102.60
27	A0	44	C	C3'-C2'-C1'	7.13	107.20	101.50
67	B1	8	G	C5-C6-O6	-7.13	124.32	128.60
67	B1	1470	C	C4'-C3'-C2'	-7.13	95.47	102.60
11	A1	33	C	O4'-C1'-C2'	-7.12	98.67	105.80
21	A2	4	C	O4'-C1'-C2'	-7.12	98.67	105.80
21	A2	1117	A	C3'-C2'-C1'	7.12	107.20	101.50
64	Bc	28	ASP	CB-CG-OD2	-7.12	111.89	118.30
67	B1	1247	U	O4'-C1'-N1	7.12	113.90	108.20
67	B1	1468	G	O4'-C1'-C2'	-7.12	98.67	105.80
21	A2	1479	C	O4'-C1'-N1	7.12	113.90	108.20
67	B1	1032	C	O4'-C1'-C2'	-7.12	98.68	105.80
67	B1	2191	U	C1'-O4'-C4'	-7.12	104.20	109.90
21	A2	1006	C	C3'-C2'-C1'	7.12	107.20	101.50
46	BA	123	ARG	NE-CZ-NH1	7.12	123.86	120.30
49	BQ	88	ARG	N-CA-CB	7.12	123.42	110.60
67	B1	414	G	C4'-C3'-C2'	-7.12	95.48	102.60
67	B1	464	C	N1-C1'-C2'	-7.12	104.17	112.00
67	B1	1211	C	P-O3'-C3'	-7.12	111.15	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2239	C	P-O5'-C5'	-7.12	109.51	120.90
67	B1	697	U	N1-C1'-C2'	-7.12	104.17	112.00
21	A2	605	C	C1'-O4'-C4'	-7.12	104.21	109.90
67	B1	729	A	P-O3'-C3'	7.12	128.24	119.70
67	B1	2684	G	C3'-C2'-C1'	7.12	107.19	101.50
21	A2	1057	A	C1'-O4'-C4'	7.12	115.59	109.90
21	A2	142	G	C5'-C4'-O4'	-7.11	100.56	109.10
67	B1	813	G	C3'-C2'-C1'	-7.11	95.81	101.50
67	B1	2989	A	C4'-C3'-C2'	-7.11	95.49	102.60
21	A2	489	C	C3'-C2'-C1'	7.11	107.19	101.50
27	A0	59	A	O4'-C1'-N9	7.11	113.89	108.20
67	B1	1832	G	O4'-C1'-N9	7.11	113.89	108.20
21	A2	1144	G	P-O5'-C5'	7.11	132.27	120.90
67	B1	493	A	O4'-C1'-C2'	-7.11	98.69	105.80
21	A2	316	C	O4'-C1'-C2'	-7.11	98.69	105.80
67	B1	895	C	N1-C1'-C2'	7.11	123.24	114.00
35	BL	17	HIS	CB-CA-C	7.11	124.61	110.40
60	BS	108	ASP	CB-CG-OD2	-7.11	111.91	118.30
67	B1	642	G	P-O3'-C3'	-7.11	111.17	119.70
67	B1	682	G	O4'-C1'-C2'	7.11	113.99	107.60
67	B1	2201	C	C3'-C2'-C1'	7.11	107.19	101.50
67	B1	2666	G	C3'-C2'-C1'	-7.11	95.81	101.50
67	B1	2924	G	O4'-C1'-N9	7.11	113.88	108.20
67	B1	2320	U	P-O3'-C3'	7.10	128.22	119.70
21	A2	1227	A	N9-C1'-C2'	7.10	123.23	114.00
31	BY	73	ARG	NE-CZ-NH1	7.10	123.85	120.30
67	B1	426	G	C4'-C3'-C2'	-7.10	95.50	102.60
21	A2	936	A	C1'-O4'-C4'	-7.10	104.22	109.90
21	A2	440	C	C1'-O4'-C4'	-7.10	104.22	109.90
21	A2	1471	G	C5'-C4'-O4'	7.10	117.62	109.10
29	AL	59	ALA	N-CA-CB	7.10	120.04	110.10
67	B1	2660	G	C1'-O4'-C4'	-7.10	104.22	109.90
67	B1	1436	A	P-O3'-C3'	7.10	128.22	119.70
21	A2	1174	A	N9-C1'-C2'	7.10	123.22	114.00
67	B1	1221	U	C5'-C4'-C3'	-7.10	104.65	116.00
67	B1	1996	C	O4'-C1'-N1	7.10	113.88	108.20
67	B1	1570	C	O4'-C4'-C3'	-7.09	96.91	104.00
67	B1	1746	C	O4'-C1'-C2'	-7.09	98.71	105.80
67	B1	2566	A	N9-C1'-C2'	-7.09	104.20	112.00
21	A2	1393	A	C3'-C2'-C1'	7.09	107.17	101.50
67	B1	1134	A	C1'-O4'-C4'	-7.09	104.23	109.90
21	A2	894	A	O4'-C4'-C3'	-7.09	96.91	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1317	G	O4'-C1'-C2'	7.09	113.98	107.60
67	B1	51	G	O4'-C1'-C2'	-7.09	98.71	105.80
67	B1	2719	G	C3'-C2'-C1'	7.09	107.17	101.50
20	A3	120	GLU	OE1-CD-OE2	-7.09	114.79	123.30
67	B1	1170	G	C1'-O4'-C4'	7.09	115.57	109.90
67	B1	1254	C	O4'-C1'-C2'	-7.09	98.71	105.80
67	B1	2917	G	C5'-C4'-C3'	7.09	127.34	116.00
67	B1	2962	A	C3'-C2'-C1'	-7.09	95.83	101.50
5	AW	10	ARG	NE-CZ-NH1	7.09	123.84	120.30
21	A2	35	G	O4'-C1'-C2'	7.09	113.98	107.60
21	A2	386	C	O4'-C1'-N1	-7.09	102.53	108.20
67	B1	1035	G	C1'-O4'-C4'	-7.09	104.23	109.90
64	Bc	16	ASN	N-CA-CB	7.09	123.35	110.60
67	B1	2380	A	C1'-O4'-C4'	-7.09	104.23	109.90
67	B1	760	G	N9-C1'-C2'	7.08	123.21	114.00
67	B1	1038	U	C3'-C2'-C1'	7.08	107.17	101.50
67	B1	1802	G	C3'-C2'-C1'	7.08	107.17	101.50
68	B3	34	C	C3'-C2'-C1'	7.08	107.17	101.50
15	AE	230	ALA	N-CA-CB	7.08	120.02	110.10
21	A2	796	C	P-O3'-C3'	7.08	128.20	119.70
67	B1	205	A	C3'-C2'-C1'	7.08	107.17	101.50
67	B1	1851	U	O4'-C1'-C2'	-7.08	98.72	105.80
11	A1	3	G	O4'-C1'-N9	7.08	113.86	108.20
21	A2	415	C	P-O3'-C3'	-7.08	111.20	119.70
21	A2	826	C	O4'-C1'-C2'	-7.08	98.72	105.80
21	A2	1266	A	C4'-C3'-C2'	-7.08	95.52	102.60
27	A0	75	C	N1-C1'-C2'	7.08	123.21	114.00
67	B1	1615	G	C1'-O4'-C4'	7.08	115.56	109.90
67	B1	1649	G	N9-C1'-C2'	7.08	123.21	114.00
67	B1	2777	G	C1'-O4'-C4'	-7.08	104.23	109.90
14	AM	86	PRO	N-CA-CB	7.08	111.80	103.30
67	B1	1917	U	O4'-C1'-N1	7.08	113.86	108.20
2	AK	20	ARG	NE-CZ-NH1	-7.08	116.76	120.30
19	AS	42	THR	CA-CB-CG2	7.08	122.31	112.40
67	B1	80	G	O4'-C1'-N9	7.08	113.86	108.20
67	B1	222	A	P-O3'-C3'	-7.08	111.20	119.70
67	B1	1295	G	N9-C1'-C2'	7.08	123.20	114.00
67	B1	171	A	N9-C1'-C2'	7.08	123.20	114.00
67	B1	2884	C	C3'-C2'-C1'	7.08	107.16	101.50
11	A1	27	A	C1'-O4'-C4'	-7.08	104.24	109.90
21	A2	482	G	N9-C1'-C2'	-7.08	104.22	112.00
67	B1	45	G	C5-C6-O6	-7.08	124.36	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	474	G	C3'-C2'-C1'	7.08	107.16	101.50
67	B1	2319	C	C1'-O4'-C4'	-7.08	104.24	109.90
21	A2	75	C	O4'-C1'-N1	7.07	113.86	108.20
67	B1	11	G	O4'-C1'-N9	7.07	113.86	108.20
67	B1	292	U	C1'-O4'-C4'	7.07	115.56	109.90
67	B1	559	G	C1'-O4'-C4'	-7.07	104.24	109.90
67	B1	629	G	C1'-O4'-C4'	7.07	115.56	109.90
27	A0	67	G	C3'-C2'-C1'	-7.07	95.84	101.50
47	BI	76	ARG	NE-CZ-NH2	-7.07	116.76	120.30
58	BP	58	ASP	CB-CA-C	-7.07	96.26	110.40
67	B1	2378	C	P-O3'-C3'	7.07	128.19	119.70
8	AR	8	ARG	NE-CZ-NH2	-7.07	116.77	120.30
27	A0	65	G	O4'-C1'-N9	7.07	113.86	108.20
67	B1	1085	G	P-O3'-C3'	7.07	128.19	119.70
67	B1	2572	U	O4'-C1'-N1	7.07	113.86	108.20
67	B1	2700	U	N1-C1'-C2'	7.07	123.19	114.00
67	B1	2495	A	C3'-C2'-C1'	-7.07	95.84	101.50
21	A2	351	C	O4'-C1'-N1	7.07	113.85	108.20
25	AH	81	VAL	CA-CB-CG2	-7.07	100.30	110.90
42	BT	9	ARG	NE-CZ-NH1	7.07	123.83	120.30
67	B1	1946	G	N9-C1'-C2'	-7.07	104.23	112.00
21	A2	1280	C	N1-C1'-C2'	7.06	123.18	114.00
67	B1	95	G	O4'-C1'-N9	7.06	113.85	108.20
67	B1	615	A	C1'-O4'-C4'	7.06	115.55	109.90
67	B1	666	A	C1'-O4'-C4'	-7.06	104.25	109.90
21	A2	635	C	C3'-C2'-C1'	7.06	107.15	101.50
21	A2	1252	C	O4'-C1'-C2'	-7.06	98.74	105.80
27	A0	22	G	C1'-O4'-C4'	-7.06	104.25	109.90
39	Be	44	ARG	NE-CZ-NH2	7.06	123.83	120.30
67	B1	209	G	C1'-O4'-C4'	7.06	115.55	109.90
67	B1	408	C	O4'-C4'-C3'	-7.06	96.94	104.00
67	B1	1595	G	N9-C1'-C2'	-7.06	104.23	112.00
67	B1	2932	C	N1-C1'-C2'	-7.06	104.23	112.00
21	A2	374	G	O4'-C1'-C2'	7.06	113.95	107.60
67	B1	1	G	O4'-C1'-N9	7.06	113.85	108.20
67	B1	671	G	C3'-C2'-C1'	-7.06	95.85	101.50
67	B1	1094	U	C5'-C4'-O4'	7.06	117.57	109.10
67	B1	271	G	O4'-C1'-N9	7.06	113.85	108.20
67	B1	1858	G	P-O5'-C5'	7.06	132.20	120.90
21	A2	194	C	O4'-C1'-C2'	-7.06	98.74	105.80
33	BC	8	ARG	NE-CZ-NH1	7.06	123.83	120.30
67	B1	1289	C	C1'-O4'-C4'	-7.06	104.25	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	B3	43	C	N1-C1'-C2'	7.06	123.17	114.00
21	A2	402	G	P-O5'-C5'	7.05	132.19	120.90
21	A2	573	C	O4'-C1'-C2'	-7.05	98.75	105.80
21	A2	1298	G	N9-C1'-C2'	7.05	123.17	114.00
67	B1	2683	G	C3'-C2'-C1'	-7.05	95.86	101.50
67	B1	2915	U	O4'-C4'-C3'	-7.05	96.95	104.00
25	AH	91	ARG	N-CA-CB	7.05	123.30	110.60
27	A0	31	A	O4'-C1'-N9	7.05	113.84	108.20
67	B1	368	U	N1-C1'-C2'	7.05	123.17	114.00
67	B1	1025	A	P-O3'-C3'	-7.05	111.24	119.70
42	BT	61	ARG	NE-CZ-NH2	-7.05	116.77	120.30
67	B1	676	G	N9-C1'-C2'	7.05	123.17	114.00
67	B1	2176	G	C1'-O4'-C4'	-7.05	104.26	109.90
68	B3	36	U	C1'-O4'-C4'	-7.05	104.26	109.90
21	A2	777	G	P-O3'-C3'	-7.05	111.24	119.70
21	A2	1470	G	N9-C1'-C2'	7.05	123.17	114.00
27	A0	30	G	O4'-C1'-N9	7.05	113.84	108.20
67	B1	313	U	N1-C1'-C2'	7.05	123.16	114.00
67	B1	379	U	C3'-C2'-C1'	7.05	107.14	101.50
67	B1	1330	G	O4'-C1'-C2'	7.05	113.94	107.60
11	A1	49	C	C4'-C3'-C2'	-7.05	95.55	102.60
68	B3	74	U	C2'-C3'-O3'	7.05	125.01	109.50
10	AD	104	ARG	NE-CZ-NH2	-7.05	116.78	120.30
21	A2	1399	G	C1'-O4'-C4'	-7.05	104.26	109.90
67	B1	85	G	O5'-C5'-C4'	-7.05	98.31	111.70
67	B1	123	A	C1'-O4'-C4'	-7.05	104.26	109.90
67	B1	956	U	O4'-C1'-N1	-7.05	102.56	108.20
67	B1	1588	C	O4'-C1'-N1	-7.05	102.56	108.20
67	B1	2230	G	P-O3'-C3'	7.05	128.16	119.70
21	A2	1007	A	P-O3'-C3'	-7.04	111.25	119.70
67	B1	709	A	C1'-O4'-C4'	-7.04	104.26	109.90
67	B1	2778	A	N9-C1'-C2'	7.04	123.16	114.00
21	A2	666	G	C1'-O4'-C4'	-7.04	104.27	109.90
62	BN	125	ARG	NE-CZ-NH1	7.04	123.82	120.30
67	B1	161	C	O4'-C1'-N1	7.04	113.83	108.20
21	A2	258	A	C1'-O4'-C4'	-7.04	104.27	109.90
67	B1	1257	G	O4'-C1'-N9	7.04	113.83	108.20
67	B1	1301	G	O4'-C1'-N9	7.04	113.83	108.20
67	B1	2258	A	O4'-C4'-C3'	-7.04	96.96	104.00
67	B1	2904	U	C2'-C3'-O3'	7.04	124.99	109.50
21	A2	78	G	O4'-C1'-C2'	7.04	113.94	107.60
17	AO	105	ASP	CB-CG-OD1	7.04	124.64	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1719	C	C6-N1-C1'	-7.04	112.35	120.80
67	B1	1876	G	C1'-O4'-C4'	7.04	115.53	109.90
67	B1	1907	G	O4'-C1'-N9	7.04	113.83	108.20
67	B1	2301	C	N1-C1'-C2'	7.04	123.15	114.00
21	A2	1380	C	C3'-C2'-C1'	7.04	107.13	101.50
38	Bb	41	ARG	NH1-CZ-NH2	7.04	127.14	119.40
40	BE	173	VAL	CG1-CB-CG2	7.04	122.16	110.90
67	B1	1118	A	O4'-C1'-N9	-7.04	102.57	108.20
67	B1	2645	C	C3'-C2'-C1'	7.04	107.13	101.50
21	A2	1194	C	N1-C1'-C2'	7.03	123.14	114.00
67	B1	462	A	N9-C1'-C2'	7.03	123.14	114.00
67	B1	1666	G	C1'-O4'-C4'	-7.03	104.27	109.90
67	B1	2407	G	N9-C1'-C2'	7.03	123.14	114.00
30	AU	39	ARG	NE-CZ-NH2	-7.03	116.78	120.30
35	BL	4	ARG	CD-NE-CZ	7.03	133.44	123.60
67	B1	1310	A	O4'-C1'-C2'	7.03	113.93	107.60
67	B1	1692	A	O4'-C1'-C2'	7.03	113.93	107.60
67	B1	2537	G	OP1-P-OP2	-7.03	109.05	119.60
67	B1	2651	G	P-O3'-C3'	-7.03	111.26	119.70
21	A2	594	A	C3'-C2'-C1'	7.03	107.12	101.50
67	B1	882	U	C3'-C2'-C1'	7.03	107.12	101.50
67	B1	2206	G	O4'-C1'-C2'	7.03	113.93	107.60
67	B1	2728	U	N1-C1'-C2'	7.03	123.14	114.00
27	A0	18	G	O4'-C1'-C2'	-7.03	98.77	105.80
33	BC	28	ARG	NE-CZ-NH2	-7.03	116.79	120.30
38	Bb	47	ASP	CB-CG-OD1	-7.03	111.97	118.30
40	BE	115	PHE	CB-CG-CD1	7.03	125.72	120.80
67	B1	697	U	P-O3'-C3'	7.03	128.13	119.70
67	B1	2724	A	C5'-C4'-O4'	7.03	117.53	109.10
68	B3	83	C	P-O3'-C3'	7.03	128.13	119.70
6	AC	47	PHE	CB-CG-CD1	7.03	125.72	120.80
67	B1	2070	U	O4'-C1'-C2'	7.03	113.92	107.60
67	B1	2928	C	O4'-C1'-N1	7.03	113.82	108.20
67	B1	2492	G	N9-C1'-C2'	-7.02	104.27	112.00
25	AH	84	HIS	O-C-N	-7.02	111.47	122.70
67	B1	991	U	C1'-O4'-C4'	-7.02	104.28	109.90
67	B1	1521	G	O4'-C1'-C2'	7.02	113.92	107.60
68	B3	103	C	O4'-C1'-N1	7.02	113.82	108.20
24	AA	191	LEU	CB-CG-CD2	7.02	122.94	111.00
17	AO	76	ARG	NE-CZ-NH2	-7.02	116.79	120.30
67	B1	2307	C	C1'-O4'-C4'	7.02	115.52	109.90
67	B1	3045	G	P-O3'-C3'	-7.02	111.28	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AE	61	GLU	N-CA-CB	7.02	123.23	110.60
21	A2	1422	G	N9-C1'-C2'	-7.02	104.28	112.00
22	AY	24	ARG	NE-CZ-NH2	-7.02	116.79	120.30
33	BC	251	ARG	NE-CZ-NH2	-7.02	116.79	120.30
56	BH	116	ALA	N-CA-CB	7.02	119.92	110.10
67	B1	436	C	O4'-C1'-C2'	-7.02	98.78	105.80
68	B3	77	A	C3'-C2'-C1'	7.02	107.11	101.50
33	BC	111	ALA	N-CA-CB	7.01	119.92	110.10
67	B1	444	U	O4'-C1'-N1	7.01	113.81	108.20
67	B1	1216	A	P-O3'-C3'	7.01	128.12	119.70
67	B1	1271	G	C5'-C4'-O4'	7.01	117.52	109.10
67	B1	1832	G	P-O3'-C3'	7.01	128.12	119.70
67	B1	2739	G	N9-C1'-C2'	7.01	123.12	114.00
67	B1	2832	G	O4'-C1'-N9	7.01	113.81	108.20
7	AB	146	LEU	CB-CA-C	-7.01	96.88	110.20
21	A2	981	U	C3'-C2'-C1'	7.01	107.11	101.50
25	AH	66	ARG	NE-CZ-NH2	-7.01	116.79	120.30
67	B1	163	G	C5'-C4'-C3'	7.01	127.22	116.00
67	B1	470	A	O4'-C1'-N9	7.01	113.81	108.20
67	B1	1630	U	C3'-C2'-C1'	7.01	107.11	101.50
67	B1	2426	U	O4'-C4'-C3'	-7.01	96.99	104.00
21	A2	161	C	O4'-C1'-C2'	-7.01	98.79	105.80
21	A2	553	C	O4'-C1'-C2'	-7.01	98.79	105.80
67	B1	1299	C	O4'-C1'-C2'	-7.01	98.79	105.80
67	B1	1475	G	N9-C1'-C2'	7.01	123.11	114.00
67	B1	2318	G	O4'-C1'-C2'	7.01	113.91	107.60
67	B1	2501	G	C2'-C3'-O3'	7.01	124.92	109.50
15	AE	229	TYR	CB-CG-CD1	7.01	125.20	121.00
67	B1	2317	G	C4'-C3'-C2'	-7.01	95.59	102.60
21	A2	172	G	O4'-C1'-C2'	7.01	113.91	107.60
67	B1	3002	A	P-O3'-C3'	-7.01	111.29	119.70
67	B1	1310	A	C1'-O4'-C4'	-7.00	104.30	109.90
67	B1	1100	G	C3'-C2'-C1'	-7.00	95.90	101.50
67	B1	1202	G	N9-C1'-C2'	7.00	123.11	114.00
67	B1	1310	A	O4'-C1'-N9	7.00	113.80	108.20
67	B1	1340	G	C1'-O4'-C4'	-7.00	104.30	109.90
67	B1	1462	G	C3'-C2'-C1'	-7.00	95.90	101.50
67	B1	3000	U	O4'-C1'-C2'	7.00	113.90	107.60
68	B3	97	G	N9-C1'-C2'	-7.00	104.30	112.00
21	A2	1404	C	C5'-C4'-C3'	7.00	127.20	116.00
33	BC	185	TYR	CB-CG-CD1	-7.00	116.80	121.00
67	B1	2073	G	C1'-O4'-C4'	-7.00	104.30	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2586	A	O4'-C1'-C2'	-7.00	98.80	105.80
67	B1	63	A	O4'-C1'-N9	-7.00	102.60	108.20
21	A2	229	G	P-O5'-C5'	-7.00	109.70	120.90
67	B1	576	G	N9-C1'-C2'	7.00	123.10	114.00
67	B1	1273	C	N1-C1'-C2'	7.00	123.09	114.00
67	B1	1356	A	P-O3'-C3'	-7.00	111.30	119.70
67	B1	1491	U	P-O5'-C5'	7.00	132.10	120.90
67	B1	2145	G	O4'-C1'-N9	7.00	113.80	108.20
21	A2	300	G	C3'-C2'-C1'	-6.99	95.91	101.50
21	A2	429	A	C3'-C2'-C1'	6.99	107.09	101.50
62	BN	139	ARG	NE-CZ-NH2	-6.99	116.80	120.30
67	B1	1389	A	O4'-C1'-N9	6.99	113.80	108.20
67	B1	2828	G	N9-C1'-C2'	6.99	123.09	114.00
21	A2	143	G	O4'-C1'-N9	6.99	113.79	108.20
67	B1	1078	G	O4'-C1'-C2'	-6.99	98.81	105.80
67	B1	1164	C	O4'-C1'-C2'	-6.99	98.81	105.80
67	B1	581	A	O4'-C1'-N9	6.99	113.79	108.20
67	B1	1009	G	O4'-C1'-N9	6.99	113.79	108.20
67	B1	1175	C	O4'-C1'-N1	6.99	113.79	108.20
67	B1	2409	C	C3'-C2'-C1'	6.99	107.09	101.50
67	B1	1903	G	C3'-C2'-C1'	6.99	107.09	101.50
21	A2	187	C	P-O3'-C3'	-6.99	111.32	119.70
21	A2	1261	U	C2'-C3'-O3'	6.99	124.88	113.70
21	A2	1450	U	OP1-P-OP2	-6.99	109.12	119.60
67	B1	772	G	O4'-C1'-N9	6.99	113.79	108.20
67	B1	2658	G	C1'-O4'-C4'	-6.98	104.31	109.90
67	B1	942	U	C4'-C3'-C2'	-6.98	95.62	102.60
67	B1	967	G	O4'-C1'-C2'	6.98	113.88	107.60
67	B1	2714	G	O4'-C1'-C2'	-6.98	98.82	105.80
67	B1	2968	G	C3'-C2'-C1'	-6.98	95.91	101.50
21	A2	32	A	P-O3'-C3'	-6.98	111.33	119.70
21	A2	796	C	P-O5'-C5'	6.98	132.07	120.90
21	A2	895	C	C3'-C2'-C1'	6.98	107.08	101.50
27	A0	19	G	C1'-O4'-C4'	6.98	115.48	109.90
47	BI	76	ARG	NE-CZ-NH1	6.98	123.79	120.30
67	B1	66	C	C1'-O4'-C4'	-6.98	104.32	109.90
67	B1	2644	G	C3'-C2'-C1'	6.98	107.08	101.50
67	B1	3001	C	N1-C1'-C2'	6.98	123.08	114.00
20	BG	92	ILE	CG1-CB-CG2	6.98	126.75	111.40
67	B1	1569	A	P-O3'-C3'	-6.98	111.33	119.70
61	Bd	77	ARG	N-CA-CB	6.98	123.16	110.60
67	B1	671	G	C1'-O4'-C4'	-6.98	104.32	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1537	U	N1-C1'-C2'	6.98	123.07	114.00
67	B1	2607	U	C3'-C2'-C1'	-6.98	95.92	101.50
67	B1	2705	C	O4'-C1'-N1	6.98	113.78	108.20
67	B1	2669	U	C5'-C4'-O4'	6.98	117.47	109.10
67	B1	1546	G	O4'-C1'-N9	6.97	113.78	108.20
12	AN	43	PRO	C-N-CA	6.97	139.13	121.70
21	A2	437	A	P-O3'-C3'	6.97	128.07	119.70
21	A2	621	G	C4'-C3'-C2'	-6.97	95.63	102.60
67	B1	439	G	O4'-C1'-C2'	-6.97	98.83	105.80
67	B1	1346	G	C3'-C2'-C1'	-6.97	95.92	101.50
67	B1	2039	U	N1-C1'-C2'	6.97	123.06	114.00
16	AJ	24	ARG	NE-CZ-NH2	-6.97	116.81	120.30
24	AA	100	THR	CA-CB-CG2	6.97	122.16	112.40
67	B1	1773	C	O4'-C1'-N1	-6.97	102.62	108.20
21	A2	136	A	O4'-C1'-C2'	6.97	113.87	107.60
21	A2	1154	G	O4'-C1'-N9	-6.97	102.62	108.20
47	BI	2	ARG	NE-CZ-NH2	-6.97	116.81	120.30
67	B1	1615	G	C3'-C2'-C1'	-6.97	95.92	101.50
67	B1	1986	U	O4'-C1'-N1	6.97	113.78	108.20
67	B1	2720	U	C1'-O4'-C4'	6.97	115.48	109.90
27	A0	32	C	O4'-C1'-N1	6.97	113.78	108.20
46	BA	66	ALA	N-CA-CB	6.97	119.86	110.10
67	B1	418	C	C1'-O4'-C4'	-6.97	104.33	109.90
67	B1	2310	G	C3'-C2'-C1'	-6.97	95.93	101.50
67	B1	974	U	C4'-C3'-C2'	-6.97	95.63	102.60
67	B1	1381	C	N1-C1'-C2'	6.97	123.06	114.00
67	B1	1531	C	O4'-C1'-N1	6.97	113.77	108.20
15	AE	3	ARG	NE-CZ-NH2	-6.96	116.82	120.30
21	A2	1110	U	N1-C1'-C2'	6.96	123.05	114.00
23	AT	113	VAL	CA-CB-CG2	6.96	121.35	110.90
67	B1	1676	G	C3'-C2'-C1'	6.96	107.07	101.50
67	B1	2450	A	O4'-C1'-C2'	6.96	113.87	107.60
67	B1	1156	G	C3'-C2'-C1'	6.96	107.07	101.50
21	A2	1067	G	C4'-C3'-C2'	-6.96	95.64	102.60
67	B1	310	C	C4'-C3'-C2'	-6.96	95.64	102.60
67	B1	407	A	P-O5'-C5'	-6.96	109.76	120.90
67	B1	2391	G	O4'-C4'-C3'	-6.96	97.04	104.00
21	A2	1425	C	P-O5'-C5'	6.96	132.03	120.90
67	B1	43	G	O4'-C1'-C2'	-6.96	98.84	105.80
67	B1	862	G	P-O3'-C3'	6.96	128.05	119.70
67	B1	993	G	O4'-C1'-C2'	6.96	113.86	107.60
12	AN	51	ARG	NE-CZ-NH2	-6.96	116.82	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AH	86	MET	C-N-CA	6.96	139.09	121.70
67	B1	710	G	C3'-C2'-C1'	6.96	107.06	101.50
67	B1	1135	A	C5'-C4'-C3'	-6.96	104.87	116.00
67	B1	1231	C	N1-C1'-C2'	6.96	123.04	114.00
21	A2	432	G	O4'-C1'-N9	6.96	113.76	108.20
64	Bc	16	ASN	CB-CA-C	-6.96	96.49	110.40
68	B3	45	C	C3'-C2'-C1'	6.96	107.06	101.50
4	AG	51	PHE	CB-CG-CD2	-6.95	115.93	120.80
21	A2	170	C	O4'-C1'-N1	6.95	113.76	108.20
21	A2	1423	A	O4'-C1'-C2'	-6.95	98.85	105.80
67	B1	308	C	C3'-C2'-C1'	6.95	107.06	101.50
67	B1	1254	C	C3'-C2'-C1'	6.95	107.06	101.50
67	B1	2905	C	O4'-C1'-C2'	-6.95	98.85	105.80
68	B3	68	C	P-O5'-C5'	6.95	132.02	120.90
21	A2	1360	C	O4'-C1'-C2'	-6.95	98.85	105.80
21	A2	1439	G	O4'-C1'-C2'	-6.95	98.85	105.80
67	B1	211	A	O4'-C1'-C2'	-6.95	98.85	105.80
67	B1	771	G	P-O5'-C5'	6.95	132.02	120.90
67	B1	2469	G	O4'-C1'-N9	6.95	113.76	108.20
67	B1	2705	C	C3'-C2'-C1'	6.95	107.06	101.50
67	B1	118	A	N9-C1'-C2'	6.95	123.03	114.00
67	B1	712	C	N1-C1'-C2'	6.95	123.03	114.00
67	B1	115	C	C1'-O4'-C4'	-6.95	104.34	109.90
21	A2	154	C	N1-C1'-C2'	-6.95	104.36	112.00
21	A2	1429	G	O5'-P-OP1	-6.95	99.45	105.70
21	A2	1469	G	C3'-C2'-C1'	-6.95	95.94	101.50
67	B1	2952	C	N1-C1'-C2'	6.95	123.03	114.00
67	B1	698	U	O4'-C1'-N1	6.94	113.75	108.20
67	B1	2068	U	C3'-C2'-C1'	6.94	107.06	101.50
21	A2	1056	G	N9-C1'-C2'	-6.94	104.36	112.00
36	Bf	2	ALA	CB-CA-C	6.94	120.51	110.10
67	B1	2996	A	O4'-C1'-N9	-6.94	102.65	108.20
21	A2	828	U	C4'-C3'-C2'	-6.94	95.66	102.60
67	B1	1699	U	O4'-C4'-C3'	-6.94	97.06	104.00
67	B1	2836	G	C3'-C2'-C1'	6.94	107.05	101.50
20	A3	33	ARG	NE-CZ-NH2	-6.94	116.83	120.30
21	A2	1423	A	C3'-C2'-C1'	6.94	107.05	101.50
11	A1	3	G	O4'-C1'-C2'	-6.94	98.86	105.80
21	A2	546	G	O4'-C1'-N9	6.94	113.75	108.20
21	A2	1292	A	O4'-C1'-C2'	-6.94	98.86	105.80
41	Ba	22	VAL	CB-CA-C	6.94	124.58	111.40
67	B1	869	A	O4'-C1'-N9	6.94	113.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1384	C	O4'-C1'-N1	6.94	113.75	108.20
67	B1	2904	U	O3'-P-O5'	6.94	117.18	104.00
67	B1	2346	A	N9-C1'-C2'	-6.94	104.37	112.00
67	B1	1066	C	N1-C1'-C2'	-6.93	104.37	112.00
21	A2	973	U	P-O3'-C3'	6.93	128.02	119.70
21	A2	1158	G	O4'-C1'-N9	6.93	113.75	108.20
67	B1	466	C	N1-C1'-C2'	6.93	123.01	114.00
67	B1	530	A	O4'-C1'-C2'	-6.93	98.87	105.80
21	A2	897	A	P-O5'-C5'	-6.93	109.81	120.90
21	A2	1469	G	N9-C1'-C2'	6.93	123.01	114.00
67	B1	839	A	N9-C1'-C2'	6.93	123.01	114.00
21	A2	962	G	C5-C6-O6	-6.93	124.44	128.60
21	A2	1139	A	P-O5'-C5'	-6.93	109.81	120.90
21	A2	1357	C	C1'-O4'-C4'	6.93	115.44	109.90
53	BD	56	ARG	N-CA-C	-6.93	92.29	111.00
67	B1	1229	U	C3'-C2'-C1'	6.93	107.04	101.50
11	A1	65	C	O4'-C1'-N1	6.93	113.74	108.20
67	B1	215	A	N9-C1'-C2'	-6.93	104.38	112.00
67	B1	1596	G	N9-C1'-C2'	-6.93	104.38	112.00
67	B1	1718	C	O4'-C1'-N1	6.93	113.74	108.20
21	A2	825	C	P-O3'-C3'	-6.92	111.39	119.70
67	B1	2138	A	C3'-C2'-C1'	6.92	107.04	101.50
32	BO	196	PHE	CG-CD2-CE2	6.92	128.41	120.80
67	B1	465	C	C4'-C3'-C2'	-6.92	95.68	102.60
67	B1	1397	U	O4'-C1'-N1	6.92	113.74	108.20
67	B1	2194	A	O4'-C1'-C2'	-6.92	98.88	105.80
68	B3	14	G	C3'-C2'-C1'	-6.92	95.96	101.50
21	A2	597	C	O4'-C1'-C2'	-6.92	98.88	105.80
67	B1	1979	G	O4'-C1'-C2'	6.92	113.83	107.60
68	B3	48	A	C3'-C2'-C1'	6.92	107.04	101.50
68	B3	57	C	O4'-C1'-N1	-6.92	102.66	108.20
67	B1	2510	A	O4'-C1'-C2'	6.92	113.83	107.60
68	B3	47	G	C1'-O4'-C4'	-6.92	104.36	109.90
21	A2	565	C	C3'-C2'-C1'	6.92	107.03	101.50
21	A2	628	G	C1'-O4'-C4'	-6.92	104.36	109.90
21	A2	994	C	O4'-C1'-C2'	-6.92	98.88	105.80
50	BV	18	THR	CA-CB-CG2	6.92	122.09	112.40
64	Bc	51	LYS	N-CA-CB	6.92	123.06	110.60
67	B1	203	G	P-O5'-C5'	-6.92	109.83	120.90
68	B3	54	A	OP1-P-OP2	-6.92	109.22	119.60
68	B3	124	A	P-O3'-C3'	6.92	128.00	119.70
21	A2	51	A	O4'-C1'-N9	6.92	113.73	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1210	A	O4'-C1'-C2'	-6.92	98.88	105.80
25	AH	86	MET	CA-CB-CG	6.92	125.06	113.30
67	B1	3029	A	N9-C1'-C2'	-6.92	104.39	112.00
68	B3	117	G	C4'-C3'-C2'	-6.92	95.68	102.60
67	B1	1567	C	C3'-C2'-C1'	-6.92	95.97	101.50
11	A1	12	U	C3'-C2'-C1'	6.91	107.03	101.50
16	AJ	7	ARG	NE-CZ-NH1	6.91	123.76	120.30
21	A2	352	A	C3'-C2'-C1'	6.91	107.03	101.50
21	A2	957	A	O4'-C1'-C2'	-6.91	98.89	105.80
21	A2	1088	U	N1-C1'-C2'	6.91	122.99	114.00
67	B1	619	G	O4'-C1'-N9	6.91	113.73	108.20
67	B1	1033	C	C3'-C2'-C1'	6.91	107.03	101.50
67	B1	2334	G	O4'-C1'-C2'	6.91	113.82	107.60
67	B1	2396	G	C4'-C3'-C2'	-6.91	95.69	102.60
67	B1	2552	C	O4'-C1'-N1	6.91	113.73	108.20
21	A2	283	U	C1'-O4'-C4'	-6.91	104.37	109.90
67	B1	378	G	C5-C6-O6	-6.91	124.45	128.60
21	A2	994	C	O4'-C1'-N1	6.91	113.73	108.20
21	A2	1029	G	O4'-C1'-C2'	-6.91	98.89	105.80
21	A2	1086	C	C1'-O4'-C4'	-6.91	104.37	109.90
67	B1	152	G	O4'-C1'-C2'	-6.91	98.89	105.80
67	B1	481	G	C1'-O4'-C4'	6.91	115.43	109.90
67	B1	2277	G	P-O5'-C5'	6.91	131.96	120.90
11	A1	13	C	P-O5'-C5'	6.91	131.95	120.90
21	A2	495	G	N9-C1'-C2'	6.91	122.98	114.00
21	A2	1171	G	P-O3'-C3'	6.91	127.99	119.70
67	B1	885	A	P-O3'-C3'	6.91	127.99	119.70
11	A1	73	C	O4'-C1'-C2'	-6.91	98.89	105.80
21	A2	100	A	C1'-O4'-C4'	-6.91	104.38	109.90
21	A2	1205	G	C3'-C2'-C1'	-6.91	95.97	101.50
67	B1	380	A	C3'-C2'-C1'	-6.91	95.97	101.50
67	B1	1839	U	O4'-C1'-C2'	-6.91	98.89	105.80
67	B1	2258	A	C1'-O4'-C4'	6.91	115.43	109.90
49	BQ	141	PHE	CG-CD2-CE2	-6.91	113.20	120.80
67	B1	1218	C	O4'-C1'-N1	6.91	113.72	108.20
67	B1	1960	U	O4'-C1'-N1	-6.91	102.68	108.20
11	A1	30	G	C1'-O4'-C4'	-6.90	104.38	109.90
21	A2	56	A	C3'-C2'-C1'	6.90	107.02	101.50
21	A2	666	G	C3'-C2'-C1'	-6.90	95.98	101.50
21	A2	669	A	N9-C1'-C2'	-6.90	104.41	112.00
44	BW	54	LEU	CB-CG-CD1	6.90	122.73	111.00
64	Bc	80	LEU	N-CA-C	-6.90	92.36	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1202	G	O4'-C1'-N9	6.90	113.72	108.20
21	A2	1465	C	C1'-O4'-C4'	-6.90	104.38	109.90
67	B1	2884	C	N1-C1'-C2'	6.90	122.97	114.00
13	AX	43	ARG	NE-CZ-NH2	6.90	123.75	120.30
61	Bd	84	ILE	CA-CB-CG1	6.90	124.11	111.00
67	B1	731	C	C1'-O4'-C4'	-6.90	104.38	109.90
67	B1	2370	C	O4'-C1'-C2'	-6.90	98.90	105.80
14	AM	23	PHE	CB-CG-CD2	-6.90	115.97	120.80
21	A2	251	G	C3'-C2'-C1'	-6.90	95.98	101.50
21	A2	1026	A	C1'-O4'-C4'	-6.90	104.38	109.90
21	A2	334	G	N9-C1'-C2'	-6.89	104.42	112.00
21	A2	499	G	O4'-C1'-N9	6.89	113.72	108.20
67	B1	1691	U	C5'-C4'-O4'	6.89	117.37	109.10
4	AG	97	LYS	CB-CA-C	-6.89	96.61	110.40
21	A2	662	C	O4'-C1'-N1	6.89	113.71	108.20
67	B1	1223	A	C1'-O4'-C4'	6.89	115.41	109.90
67	B1	1499	C	N1-C1'-C2'	6.89	122.96	114.00
67	B1	466	C	C3'-C2'-C1'	6.89	107.01	101.50
21	A2	254	G	N9-C1'-C2'	-6.89	104.42	112.00
67	B1	2008	G	O4'-C1'-N9	6.89	113.71	108.20
67	B1	2473	C	O4'-C1'-C2'	-6.89	98.91	105.80
67	B1	2838	U	N1-C1'-C2'	6.89	122.95	114.00
21	A2	978	G	C3'-C2'-C1'	6.89	107.01	101.50
32	BO	113	ARG	NE-CZ-NH2	-6.89	116.86	120.30
67	B1	90	A	O4'-C1'-C2'	-6.89	98.91	105.80
67	B1	247	A	O4'-C1'-N9	6.89	113.71	108.20
67	B1	1976	C	N1-C1'-C2'	6.89	122.95	114.00
67	B1	405	G	C1'-O4'-C4'	-6.89	104.39	109.90
67	B1	712	C	O3'-P-O5'	-6.89	90.92	104.00
67	B1	1400	U	P-O3'-C3'	-6.89	111.44	119.70
67	B1	1789	A	C3'-C2'-C1'	6.89	107.01	101.50
67	B1	2469	G	P-O3'-C3'	-6.89	111.44	119.70
11	A1	71	C	C1'-O4'-C4'	-6.88	104.39	109.90
15	AE	8	ARG	NH1-CZ-NH2	6.88	126.97	119.40
21	A2	63	G	O3'-P-O5'	-6.88	90.92	104.00
67	B1	89	C	C3'-C2'-C1'	6.88	107.01	101.50
67	B1	2038	C	P-O3'-C3'	-6.88	111.44	119.70
67	B1	2235	G	C1'-O4'-C4'	-6.88	104.39	109.90
68	B3	92	G	O4'-C1'-N9	6.88	113.71	108.20
67	B1	1775	G	C5-C6-O6	-6.88	124.47	128.60
68	B3	13	C	O4'-C1'-N1	6.88	113.71	108.20
4	AG	47	LEU	C-N-CA	6.88	138.90	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1124	G	N9-C1'-C2'	6.88	122.95	114.00
67	B1	855	G	C3'-C2'-C1'	-6.88	96.00	101.50
67	B1	1850	C	O4'-C1'-N1	6.88	113.70	108.20
67	B1	2707	G	N9-C1'-C2'	6.88	122.94	114.00
67	B1	2773	A	C3'-C2'-C1'	6.88	107.00	101.50
67	B1	49	A	N9-C1'-C2'	-6.88	104.43	112.00
67	B1	2813	G	O4'-C1'-N9	6.88	113.70	108.20
21	A2	227	C	O4'-C1'-N1	6.88	113.70	108.20
67	B1	1911	G	N9-C1'-C2'	-6.88	104.44	112.00
67	B1	1223	A	N9-C1'-C2'	6.88	122.94	114.00
67	B1	2157	U	O4'-C1'-N1	6.88	113.70	108.20
21	A2	493	C	O4'-C1'-N1	6.87	113.70	108.20
67	B1	592	C	N1-C1'-C2'	6.87	122.94	114.00
67	B1	1234	A	O5'-P-OP1	6.87	118.95	110.70
67	B1	1376	U	N1-C1'-C2'	6.87	122.94	114.00
67	B1	1425	U	O4'-C1'-N1	6.87	113.70	108.20
67	B1	2472	A	O4'-C1'-N9	6.87	113.70	108.20
21	A2	74	U	C3'-C2'-C1'	-6.87	96.00	101.50
21	A2	1189	G	O4'-C1'-N9	6.87	113.70	108.20
28	AV	33	ARG	CB-CA-C	6.87	124.14	110.40
67	B1	344	G	P-O3'-C3'	-6.87	111.45	119.70
67	B1	467	U	N1-C1'-C2'	6.87	122.93	114.00
67	B1	2208	C	N1-C1'-C2'	6.87	122.93	114.00
67	B1	3005	C	P-O5'-C5'	-6.87	109.91	120.90
21	A2	206	C	O4'-C1'-N1	6.87	113.70	108.20
38	Bb	22	ARG	NE-CZ-NH1	-6.87	116.86	120.30
21	A2	877	A	O4'-C1'-C2'	-6.87	98.93	105.80
21	A2	1397	C	O4'-C1'-N1	6.87	113.69	108.20
21	A2	353	G	N9-C1'-C2'	-6.87	104.45	112.00
67	B1	1382	C	C5'-C4'-C3'	-6.87	105.01	116.00
21	A2	138	C	N1-C1'-C2'	6.87	122.92	114.00
67	B1	1686	C	O4'-C1'-N1	6.86	113.69	108.20
67	B1	33	U	P-O3'-C3'	-6.86	111.47	119.70
21	A2	1211	A	O4'-C1'-C2'	-6.86	98.94	105.80
67	B1	373	G	N9-C1'-C2'	6.86	122.92	114.00
67	B1	755	G	P-O3'-C3'	6.86	127.93	119.70
67	B1	2571	G	P-O3'-C3'	-6.86	111.47	119.70
67	B1	55	G	C3'-C2'-C1'	-6.86	96.01	101.50
67	B1	1484	U	N1-C1'-C2'	6.86	122.92	114.00
21	A2	1041	C	C3'-C2'-C1'	-6.86	96.02	101.50
67	B1	199	C	N1-C1'-C2'	6.86	122.92	114.00
67	B1	2538	G	O4'-C4'-C3'	-6.86	97.14	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BL	42	ARG	N-CA-CB	-6.86	98.26	110.60
67	B1	922	C	C1'-O4'-C4'	-6.86	104.42	109.90
67	B1	1826	G	O4'-C1'-C2'	6.86	113.77	107.60
67	B1	2338	A	C3'-C2'-C1'	6.86	106.98	101.50
21	A2	238	G	O4'-C1'-C2'	-6.85	98.95	105.80
21	A2	1371	C	O4'-C1'-C2'	-6.85	98.95	105.80
31	BY	123	ARG	NE-CZ-NH2	6.85	123.73	120.30
37	BU	12	ARG	NE-CZ-NH1	-6.85	116.87	120.30
67	B1	128	C	O4'-C1'-N1	6.85	113.68	108.20
68	B3	1	C	C5'-C4'-C3'	6.85	126.97	116.00
67	B1	1971	C	O4'-C1'-C2'	-6.85	98.95	105.80
21	A2	35	G	C1'-O4'-C4'	-6.85	104.42	109.90
21	A2	523	C	C3'-C2'-C1'	6.85	106.98	101.50
21	A2	1313	G	O4'-C1'-C2'	6.85	113.76	107.60
21	A2	1344	U	O4'-C1'-N1	6.85	113.68	108.20
33	BC	319	SER	N-CA-CB	6.85	120.77	110.50
67	B1	2174	G	C1'-O4'-C4'	6.85	115.38	109.90
67	B1	2317	G	O4'-C1'-N9	6.85	113.68	108.20
67	B1	2410	U	N1-C1'-C2'	6.85	122.91	114.00
21	A2	958	G	C1'-O4'-C4'	6.85	115.38	109.90
21	A2	1306	A	O4'-C1'-N9	6.85	113.68	108.20
67	B1	531	G	OP1-P-OP2	-6.85	109.33	119.60
67	B1	1174	U	N1-C1'-C2'	6.85	122.90	114.00
67	B1	1207	G	O4'-C1'-C2'	-6.85	98.95	105.80
67	B1	1858	G	C1'-O4'-C4'	-6.85	104.42	109.90
67	B1	2246	G	P-O5'-C5'	6.85	131.86	120.90
68	B3	90	A	C1'-O4'-C4'	-6.85	104.42	109.90
21	A2	463	G	C1'-O4'-C4'	-6.84	104.42	109.90
43	Bk	38	LEU	CA-C-N	6.84	132.26	117.20
46	BA	131	MET	CB-CA-C	6.84	124.09	110.40
67	B1	78	C	C1'-O4'-C4'	-6.84	104.42	109.90
67	B1	768	C	C5'-C4'-C3'	-6.84	105.05	116.00
67	B1	2460	A	C3'-C2'-C1'	6.84	106.98	101.50
67	B1	2546	G	O4'-C1'-C2'	-6.84	98.96	105.80
67	B1	333	A	C1'-O4'-C4'	6.84	115.38	109.90
67	B1	955	A	P-O5'-C5'	-6.84	109.95	120.90
67	B1	1720	G	C5-C6-O6	-6.84	124.49	128.60
67	B1	1776	G	C5-C6-O6	-6.84	124.49	128.60
5	AW	36	ARG	NE-CZ-NH2	6.84	123.72	120.30
21	A2	301	G	O4'-C1'-N9	6.84	113.67	108.20
21	A2	1051	G	C1'-O4'-C4'	6.84	115.37	109.90
21	A2	1104	G	N9-C1'-C2'	-6.84	104.47	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	196	A	P-O5'-C5'	-6.84	109.95	120.90
67	B1	2192	G	C5'-C4'-O4'	6.84	117.31	109.10
67	B1	2396	G	O4'-C1'-N9	6.84	113.67	108.20
24	AA	115	TYR	CG-CD2-CE2	-6.84	115.83	121.30
47	BI	122	ARG	NE-CZ-NH2	6.84	123.72	120.30
67	B1	156	A	O4'-C1'-C2'	6.84	113.76	107.60
67	B1	639	C	O4'-C1'-N1	6.84	113.67	108.20
67	B1	897	U	N1-C1'-C2'	-6.84	104.48	112.00
67	B1	1501	G	O4'-C1'-C2'	6.84	113.75	107.60
35	BL	11	LEU	CA-CB-CG	6.84	131.03	115.30
67	B1	1565	G	N9-C1'-C2'	6.84	122.89	114.00
21	A2	136	A	C3'-C2'-C1'	-6.84	96.03	101.50
21	A2	483	G	P-O3'-C3'	-6.84	111.50	119.70
21	A2	626	G	O4'-C1'-C2'	-6.84	98.96	105.80
21	A2	978	G	C1'-O4'-C4'	-6.84	104.43	109.90
27	A0	62	C	N1-C1'-C2'	6.84	122.89	114.00
67	B1	749	G	OP1-P-OP2	-6.84	109.34	119.60
67	B1	889	C	O4'-C1'-N1	6.84	113.67	108.20
67	B1	961	C	P-O3'-C3'	6.84	127.90	119.70
67	B1	1158	G	P-O3'-C3'	-6.84	111.50	119.70
67	B1	2658	G	O4'-C4'-C3'	6.84	111.57	106.10
21	A2	17	C	O4'-C1'-C2'	-6.83	98.97	105.80
21	A2	468	G	C1'-O4'-C4'	-6.83	104.43	109.90
21	A2	503	G	O4'-C1'-C2'	6.83	113.75	107.60
67	B1	513	C	N1-C1'-C2'	6.83	122.88	114.00
67	B1	1061	G	O4'-C1'-N9	6.83	113.67	108.20
21	A2	1230	G	P-O3'-C3'	-6.83	111.50	119.70
46	BA	194	ARG	NE-CZ-NH1	-6.83	116.88	120.30
67	B1	1213	G	O4'-C1'-N9	6.83	113.67	108.20
21	A2	165	U	OP2-P-O3'	6.83	120.23	105.20
67	B1	532	G	N9-C1'-C2'	-6.83	104.49	112.00
25	AH	87	ARG	NE-CZ-NH1	-6.83	116.89	120.30
61	Bd	87	GLN	CB-CA-C	6.83	124.06	110.40
67	B1	384	G	C5-C6-O6	-6.83	124.50	128.60
67	B1	1743	G	C1'-O4'-C4'	6.83	115.36	109.90
67	B1	2149	G	O4'-C1'-N9	6.83	113.66	108.20
51	Bj	31	SER	N-CA-CB	6.83	120.74	110.50
21	A2	688	C	O4'-C1'-C2'	-6.83	98.97	105.80
21	A2	840	C	N1-C1'-C2'	6.83	122.87	114.00
21	A2	1339	G	O4'-C1'-C2'	6.83	113.74	107.60
52	BB	59	ALA	N-CA-CB	6.83	119.66	110.10
54	BF	113	PHE	CB-CG-CD1	-6.83	116.02	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1462	G	N9-C1'-C2'	6.83	122.87	114.00
67	B1	2031	G	C1'-O4'-C4'	6.83	115.36	109.90
21	A2	468	G	N9-C1'-C2'	6.82	122.87	114.00
67	B1	571	G	O4'-C1'-C2'	6.82	113.74	107.60
67	B1	827	G	C3'-C2'-C1'	-6.82	96.04	101.50
67	B1	2013	A	C4'-C3'-C2'	-6.82	95.78	102.60
67	B1	2276	G	C1'-O4'-C4'	6.82	115.36	109.90
21	A2	723	G	C1'-O4'-C4'	-6.82	104.44	109.90
67	B1	1512	G	C3'-C2'-C1'	-6.82	96.04	101.50
67	B1	2416	G	P-O3'-C3'	-6.82	111.51	119.70
21	A2	1140	A	P-O3'-C3'	6.82	127.88	119.70
34	B5	32	PHE	CB-CG-CD1	6.82	125.57	120.80
46	BA	56	ARG	NE-CZ-NH1	-6.82	116.89	120.30
67	B1	94	A	C1'-O4'-C4'	6.82	115.36	109.90
67	B1	2011	U	C1'-O4'-C4'	6.82	115.36	109.90
67	B1	989	G	O4'-C1'-N9	6.82	113.66	108.20
67	B1	1752	C	C1'-O4'-C4'	-6.82	104.44	109.90
67	B1	2142	U	C3'-C2'-C1'	-6.82	96.05	101.50
21	A2	515	U	C5'-C4'-O4'	6.82	117.28	109.10
21	A2	1156	A	C1'-O4'-C4'	6.82	115.35	109.90
21	A2	1362	C	C1'-O4'-C4'	6.82	115.35	109.90
21	A2	1399	G	O4'-C1'-N9	6.82	113.65	108.20
52	BB	107	TYR	CB-CG-CD2	6.82	125.09	121.00
67	B1	1926	A	N9-C1'-C2'	6.82	122.86	114.00
67	B1	2109	C	O4'-C1'-N1	6.82	113.65	108.20
67	B1	2198	U	C3'-C2'-C1'	6.82	106.95	101.50
21	A2	1038	C	O4'-C1'-C2'	-6.82	98.98	105.80
21	A2	1082	A	O4'-C1'-N9	-6.82	102.75	108.20
21	A2	1449	G	C3'-C2'-C1'	6.82	106.95	101.50
67	B1	858	G	C3'-C2'-C1'	6.82	106.95	101.50
67	B1	1939	C	C2'-C3'-O3'	6.82	124.61	113.70
21	A2	953	C	O4'-C1'-N1	6.81	113.65	108.20
43	Bk	42	ARG	NE-CZ-NH1	6.81	123.71	120.30
67	B1	567	G	O4'-C1'-N9	6.81	113.65	108.20
67	B1	2016	C	C1'-O4'-C4'	6.81	115.35	109.90
67	B1	2144	U	P-O3'-C3'	6.81	127.88	119.70
67	B1	2834	C	C3'-C2'-C1'	-6.81	96.05	101.50
67	B1	1258	G	O4'-C1'-N9	6.81	113.65	108.20
67	B1	1800	G	C1'-O4'-C4'	-6.81	104.45	109.90
21	A2	606	U	N1-C1'-C2'	6.81	122.85	114.00
21	A2	702	G	C1'-O4'-C4'	-6.81	104.45	109.90
56	BH	19	PRO	N-CA-CB	-6.81	95.11	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	811	C	C1'-O4'-C4'	-6.81	104.45	109.90
67	B1	2154	G	P-O3'-C3'	6.81	127.87	119.70
67	B1	2316	U	O4'-C1'-N1	6.81	113.65	108.20
68	B3	98	G	O4'-C1'-C2'	-6.81	98.99	105.80
21	A2	57	G	P-O3'-C3'	6.81	127.87	119.70
21	A2	430	G	O4'-C1'-N9	6.81	113.64	108.20
67	B1	666	A	N9-C1'-C2'	6.81	122.85	114.00
67	B1	750	C	N1-C1'-C2'	6.81	122.85	114.00
67	B1	856	A	C3'-C2'-C1'	6.81	106.94	101.50
21	A2	1456	C	O4'-C1'-N1	6.80	113.64	108.20
28	B6	57	ARG	NE-CZ-NH1	-6.80	116.90	120.30
67	B1	535	G	O4'-C1'-N9	6.80	113.64	108.20
67	B1	2088	G	O4'-C1'-C2'	-6.80	99.00	105.80
68	B3	32	C	C3'-C2'-C1'	-6.80	96.06	101.50
21	A2	1087	C	C5'-C4'-C3'	6.80	126.89	116.00
21	A2	716	G	O4'-C1'-N9	6.80	113.64	108.20
67	B1	466	C	C1'-O4'-C4'	-6.80	104.46	109.90
67	B1	1296	A	C1'-O4'-C4'	-6.80	104.46	109.90
67	B1	2621	U	OP1-P-OP2	-6.80	109.40	119.60
4	AG	1	MET	CA-CB-CG	6.80	124.86	113.30
21	A2	484	U	C4'-C3'-C2'	6.80	109.40	102.60
21	A2	781	U	O4'-C1'-N1	6.80	113.64	108.20
21	A2	1360	C	C3'-C2'-C1'	6.80	106.94	101.50
67	B1	1120	C	C1'-O4'-C4'	-6.80	104.46	109.90
67	B1	1548	A	C1'-O4'-C4'	6.80	115.34	109.90
67	B1	1859	A	P-O3'-C3'	6.80	127.86	119.70
67	B1	2887	C	C3'-C2'-C1'	6.80	106.94	101.50
67	B1	2720	U	N1-C1'-C2'	-6.80	104.52	112.00
21	A2	762	G	P-O5'-C5'	-6.80	110.02	120.90
68	B3	120	C	OP1-P-OP2	-6.80	109.41	119.60
21	A2	922	G	O4'-C1'-N9	6.79	113.64	108.20
67	B1	702	G	C3'-C2'-C1'	-6.79	96.06	101.50
67	B1	800	G	N9-C1'-C2'	6.79	122.83	114.00
21	A2	1283	G	O4'-C1'-N9	6.79	113.64	108.20
67	B1	892	U	O4'-C1'-N1	6.79	113.64	108.20
19	AS	11	ARG	NE-CZ-NH2	-6.79	116.90	120.30
21	A2	733	C	C1'-O4'-C4'	-6.79	104.47	109.90
20	B4	100	ALA	N-CA-CB	6.79	119.61	110.10
67	B1	51	G	O4'-C1'-N9	-6.79	102.77	108.20
67	B1	101	G	C5'-C4'-C3'	-6.79	105.13	116.00
67	B1	1920	A	O4'-C1'-C2'	-6.79	99.01	105.80
67	B1	2398	C	C1'-O4'-C4'	-6.79	104.47	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2411	C	C1'-O4'-C4'	6.79	115.33	109.90
67	B1	2658	G	C5'-C4'-C3'	-6.79	105.13	116.00
67	B1	1654	G	C1'-O4'-C4'	6.79	115.33	109.90
21	A2	815	C	P-O3'-C3'	6.79	127.84	119.70
21	A2	1017	U	C1'-O4'-C4'	-6.79	104.47	109.90
57	BZ	51	TYR	N-CA-CB	-6.79	98.38	110.60
67	B1	423	G	C3'-C2'-C1'	-6.79	96.07	101.50
67	B1	983	G	C3'-C2'-C1'	6.79	106.93	101.50
67	B1	2025	A	O4'-C1'-N9	6.79	113.63	108.20
67	B1	2058	C	O4'-C1'-C2'	-6.79	99.01	105.80
67	B1	2933	C	C4'-C3'-C2'	-6.79	95.81	102.60
28	B6	90	ASP	CB-CG-OD2	-6.79	112.19	118.30
67	B1	1013	G	C5-C6-O6	-6.79	124.53	128.60
21	A2	151	G	C1'-O4'-C4'	6.79	115.33	109.90
21	A2	308	G	C3'-C2'-C1'	6.79	106.93	101.50
21	A2	652	C	N1-C1'-C2'	6.79	122.82	114.00
27	A0	11	C	C3'-C2'-C1'	6.79	106.93	101.50
53	BD	56	ARG	NH1-CZ-NH2	-6.79	111.94	119.40
19	AS	27	ASP	CB-CG-OD2	-6.78	112.19	118.30
67	B1	1730	C	O4'-C1'-N1	6.78	113.63	108.20
21	A2	1455	A	C1'-O4'-C4'	-6.78	104.47	109.90
21	A2	1393	A	C1'-O4'-C4'	6.78	115.33	109.90
61	Bd	21	ARG	NE-CZ-NH1	6.78	123.69	120.30
67	B1	801	A	O4'-C1'-N9	6.78	113.62	108.20
67	B1	2870	A	C5'-C4'-C3'	-6.78	105.15	116.00
68	B3	27	C	O4'-C4'-C3'	-6.78	97.22	104.00
21	A2	679	G	C1'-O4'-C4'	6.78	115.32	109.90
21	A2	6	G	O4'-C1'-N9	6.78	113.62	108.20
21	A2	476	C	O4'-C1'-N1	6.78	113.62	108.20
21	A2	1105	C	P-O3'-C3'	6.78	127.83	119.70
21	A2	1113	G	C4'-C3'-C2'	-6.78	95.82	102.60
56	BH	2	PRO	C-N-CA	-6.78	104.75	121.70
67	B1	2364	G	P-O3'-C3'	-6.78	111.57	119.70
67	B1	461	C	C1'-O4'-C4'	6.78	115.32	109.90
67	B1	1137	G	N9-C1'-C2'	6.78	122.81	114.00
67	B1	2258	A	O4'-C1'-C2'	-6.78	99.03	105.80
67	B1	2304	C	O4'-C1'-C2'	-6.77	99.03	105.80
21	A2	1297	G	C1'-O4'-C4'	6.77	115.32	109.90
67	B1	1000	G	P-O3'-C3'	6.77	127.83	119.70
67	B1	1691	U	C3'-C2'-C1'	6.77	106.92	101.50
67	B1	2233	G	P-O3'-C3'	6.77	127.83	119.70
67	B1	2307	C	O4'-C4'-C3'	-6.77	97.23	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2446	C	N1-C1'-C2'	6.77	122.80	114.00
67	B1	2999	G	O4'-C1'-N9	6.77	113.62	108.20
67	B1	2951	G	C1'-O4'-C4'	-6.77	104.48	109.90
21	A2	1145	C	C4'-C3'-C2'	-6.77	95.83	102.60
21	A2	1463	A	C3'-C2'-C1'	6.77	106.92	101.50
24	AA	101	THR	N-CA-CB	6.77	123.16	110.30
51	Bj	87	LYS	CB-CA-C	-6.77	96.86	110.40
67	B1	64	A	N9-C1'-C2'	-6.77	104.55	112.00
67	B1	191	U	P-O3'-C3'	6.77	127.82	119.70
67	B1	456	G	C1'-O4'-C4'	-6.77	104.48	109.90
67	B1	505	A	N9-C1'-C2'	-6.77	104.55	112.00
67	B1	2037	A	C4'-C3'-C2'	6.77	109.37	102.60
67	B1	2585	G	C1'-O4'-C4'	-6.77	104.48	109.90
67	B1	2890	A	C5'-C4'-O4'	6.77	117.22	109.10
21	A2	765	U	P-O5'-C5'	6.77	131.73	120.90
21	A2	1321	U	C1'-O4'-C4'	6.77	115.31	109.90
35	BL	48	THR	O-C-N	-6.77	111.87	122.70
67	B1	2023	A	O4'-C1'-C2'	-6.77	99.03	105.80
67	B1	2967	C	C4'-C3'-C2'	-6.77	95.83	102.60
67	B1	3028	U	P-O3'-C3'	-6.77	111.58	119.70
21	A2	548	A	O4'-C1'-N9	-6.77	102.79	108.20
27	A0	63	G	C1'-O4'-C4'	-6.77	104.49	109.90
34	B5	32	PHE	CB-CG-CD2	-6.77	116.06	120.80
52	BB	179	TYR	CB-CG-CD2	-6.77	116.94	121.00
67	B1	946	U	P-O3'-C3'	6.77	127.82	119.70
7	AB	5	TYR	CB-CG-CD1	6.76	125.06	121.00
21	A2	553	C	N1-C1'-C2'	6.76	122.79	114.00
21	A2	1237	G	C3'-C2'-C1'	-6.76	96.09	101.50
67	B1	75	G	P-O5'-C5'	6.76	131.72	120.90
67	B1	187	C	C1'-O4'-C4'	-6.76	104.49	109.90
21	A2	727	G	N9-C1'-C2'	-6.76	104.56	112.00
32	BO	97	ALA	CB-CA-C	-6.76	99.96	110.10
61	Bd	5	TYR	CB-CG-CD2	-6.76	116.94	121.00
67	B1	1935	C	O4'-C1'-N1	6.76	113.61	108.20
67	B1	2446	C	C3'-C2'-C1'	6.76	106.91	101.50
21	A2	1228	A	C3'-C2'-C1'	6.76	106.91	101.50
48	BR	23	ARG	NE-CZ-NH2	-6.76	116.92	120.30
67	B1	120	G	C1'-O4'-C4'	-6.76	104.49	109.90
21	A2	1478	A	N9-C1'-C2'	6.76	122.79	114.00
27	A0	42	G	P-O3'-C3'	6.76	127.81	119.70
21	A2	1369	C	C3'-C2'-C1'	6.76	106.91	101.50
43	Bk	36	TYR	CB-CG-CD1	-6.76	116.95	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	222	A	N9-C1'-C2'	6.76	122.78	114.00
67	B1	562	G	C3'-C2'-C1'	-6.76	96.10	101.50
21	A2	1426	C	O4'-C1'-C2'	6.75	113.68	107.60
25	AH	94	ASN	O-C-N	6.75	133.51	122.70
67	B1	316	G	C5-C6-O6	-6.75	124.55	128.60
67	B1	441	A	C1'-O4'-C4'	-6.75	104.50	109.90
67	B1	738	C	C1'-O4'-C4'	-6.75	104.50	109.90
67	B1	2389	C	C3'-C2'-C1'	6.75	106.90	101.50
67	B1	641	G	P-O3'-C3'	6.75	127.80	119.70
67	B1	701	G	C3'-C2'-C1'	-6.75	96.10	101.50
67	B1	2126	G	N9-C1'-C2'	-6.75	104.57	112.00
21	A2	1241	U	P-O3'-C3'	6.75	127.80	119.70
67	B1	2104	G	O4'-C1'-C2'	-6.75	99.05	105.80
21	A2	108	G	C3'-C2'-C1'	-6.75	96.10	101.50
56	BH	71	PRO	CA-N-CD	-6.75	102.05	111.50
67	B1	479	G	O4'-C1'-N9	6.75	113.60	108.20
67	B1	936	G	C3'-C2'-C1'	6.75	106.90	101.50
15	AE	162	TYR	CB-CG-CD1	6.75	125.05	121.00
21	A2	1400	A	O4'-C1'-C2'	-6.75	99.05	105.80
33	BC	292	ASN	CB-CA-C	6.75	123.89	110.40
57	BZ	55	LEU	CB-CG-CD2	6.75	122.47	111.00
67	B1	246	A	N9-C1'-C2'	-6.75	104.58	112.00
67	B1	957	C	O4'-C1'-C2'	-6.75	99.05	105.80
67	B1	2370	C	N1-C1'-C2'	-6.75	104.58	112.00
67	B1	2589	C	C4'-C3'-C2'	6.75	109.35	102.60
22	AY	33	ASP	CB-CG-OD1	-6.75	112.23	118.30
67	B1	1515	G	O4'-C1'-N9	6.75	113.60	108.20
21	A2	28	U	P-O3'-C3'	-6.74	111.61	119.70
21	A2	665	G	O4'-C1'-C2'	6.74	113.67	107.60
21	A2	1183	C	O4'-C1'-C2'	-6.74	99.06	105.80
21	A2	1401	U	O4'-C1'-N1	6.74	113.59	108.20
26	AP	12	ARG	NE-CZ-NH2	-6.74	116.93	120.30
67	B1	411	U	C1'-O4'-C4'	6.74	115.29	109.90
67	B1	642	G	C3'-C2'-C1'	-6.74	96.11	101.50
67	B1	1386	G	O4'-C1'-C2'	6.74	113.67	107.60
67	B1	286	G	C1'-O4'-C4'	6.74	115.29	109.90
67	B1	2082	C	O4'-C1'-C2'	-6.74	99.06	105.80
21	A2	432	G	C5-C6-O6	-6.74	124.56	128.60
21	A2	459	G	C5-C6-O6	-6.74	124.56	128.60
53	BD	87	ARG	NH1-CZ-NH2	6.74	126.81	119.40
67	B1	1665	G	P-O3'-C3'	6.74	127.79	119.70
21	A2	547	U	P-O3'-C3'	-6.74	111.61	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1556	G	C4'-C3'-C2'	-6.74	95.86	102.60
21	A2	1256	C	O4'-C1'-C2'	-6.74	99.06	105.80
21	A2	1463	A	O4'-C1'-C2'	-6.74	99.06	105.80
67	B1	1887	A	O4'-C1'-C2'	-6.74	99.06	105.80
21	A2	587	G	C5-C6-O6	-6.74	124.56	128.60
21	A2	944	C	N1-C1'-C2'	6.74	122.75	114.00
67	B1	1236	C	N1-C1'-C2'	-6.74	104.59	112.00
67	B1	1360	G	O4'-C1'-N9	6.74	113.59	108.20
21	A2	223	G	C3'-C2'-C1'	-6.73	96.11	101.50
67	B1	1959	C	C4'-C3'-C2'	-6.73	95.87	102.60
67	B1	2435	G	O4'-C1'-N9	6.73	113.59	108.20
67	B1	204	G	C1'-O4'-C4'	6.73	115.29	109.90
67	B1	413	A	O4'-C1'-C2'	-6.73	99.07	105.80
68	B3	30	G	O4'-C4'-C3'	-6.73	97.27	104.00
21	A2	814	C	C1'-O4'-C4'	-6.73	104.52	109.90
21	A2	1205	G	N9-C1'-C2'	-6.73	104.60	112.00
24	AA	97	ARG	NE-CZ-NH1	-6.73	116.94	120.30
58	BP	19	ARG	NE-CZ-NH2	-6.73	116.94	120.30
67	B1	803	A	C3'-C2'-C1'	6.73	106.88	101.50
67	B1	1080	G	O4'-C1'-C2'	-6.73	99.07	105.80
67	B1	2458	U	C5'-C4'-O4'	6.73	117.18	109.10
21	A2	681	G	O4'-C1'-C2'	-6.73	99.07	105.80
21	A2	1111	G	N9-C1'-C2'	-6.73	104.60	112.00
67	B1	232	U	O4'-C1'-C2'	-6.73	99.07	105.80
21	A2	330	U	C3'-C2'-C1'	6.73	106.88	101.50
21	A2	1275	U	N1-C1'-C2'	6.73	122.75	114.00
25	AH	78	HIS	N-CA-C	6.73	129.17	111.00
59	BM	75	ARG	NE-CZ-NH2	-6.73	116.94	120.30
67	B1	456	G	P-O3'-C3'	-6.73	111.63	119.70
67	B1	1034	G	C1'-O4'-C4'	-6.73	104.52	109.90
67	B1	2090	A	P-O3'-C3'	-6.73	111.63	119.70
21	A2	930	G	C1'-O4'-C4'	-6.73	104.52	109.90
21	A2	992	G	N9-C1'-C2'	6.73	122.74	114.00
21	A2	1046	G	N9-C1'-C2'	-6.73	104.60	112.00
21	A2	1384	G	O4'-C1'-N9	6.73	113.58	108.20
67	B1	2089	C	N1-C1'-C2'	6.73	122.74	114.00
18	AF	12	VAL	C-N-CA	6.72	138.51	121.70
21	A2	284	A	P-O3'-C3'	-6.72	111.63	119.70
67	B1	1692	A	C5'-C4'-O4'	6.72	117.17	109.10
67	B1	1815	C	O4'-C1'-N1	6.72	113.58	108.20
68	B3	26	C	P-O3'-C3'	6.72	127.77	119.70
21	A2	1258	C	O4'-C1'-N1	6.72	113.58	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1227	A	C1'-O4'-C4'	6.72	115.28	109.90
67	B1	1317	G	O3'-P-O5'	-6.72	91.23	104.00
21	A2	462	A	OP2-P-O3'	6.72	119.99	105.20
21	A2	1051	G	O4'-C4'-C3'	-6.72	97.28	104.00
25	AH	81	VAL	CB-CA-C	-6.72	98.63	111.40
67	B1	1340	G	N9-C1'-C2'	6.72	122.73	114.00
67	B1	2881	G	O4'-C1'-C2'	6.72	113.65	107.60
21	A2	585	U	O4'-C1'-N1	6.72	113.58	108.20
46	BA	107	PHE	CG-CD1-CE1	6.72	128.19	120.80
67	B1	39	C	O4'-C1'-C2'	-6.72	99.08	105.80
67	B1	2192	G	C1'-O4'-C4'	-6.72	104.53	109.90
67	B1	2317	G	O4'-C1'-C2'	6.72	113.65	107.60
36	Bf	34	ARG	NE-CZ-NH2	-6.72	116.94	120.30
67	B1	1245	C	C2'-C3'-O3'	6.72	124.45	113.70
67	B1	1402	C	N1-C1'-C2'	6.72	122.73	114.00
67	B1	2174	G	P-O3'-C3'	6.72	127.76	119.70
67	B1	2695	U	C1'-O4'-C4'	-6.72	104.53	109.90
21	A2	1138	G	O4'-C1'-N9	6.71	113.57	108.20
33	BC	6	ARG	NE-CZ-NH2	-6.71	116.94	120.30
62	BN	161	TYR	CZ-CE2-CD2	6.71	125.84	119.80
67	B1	2882	G	C3'-C2'-C1'	-6.71	96.13	101.50
67	B1	2978	G	C3'-C2'-C1'	6.71	106.87	101.50
67	B1	1049	U	N1-C1'-C2'	-6.71	104.62	112.00
21	A2	488	A	O4'-C1'-N9	-6.71	102.83	108.20
29	AL	5	ARG	NE-CZ-NH2	-6.71	116.94	120.30
67	B1	239	G	C3'-C2'-C1'	-6.71	96.13	101.50
21	A2	952	A	P-O5'-C5'	6.71	131.64	120.90
67	B1	108	G	C1'-O4'-C4'	-6.71	104.53	109.90
21	A2	509	C	N1-C1'-C2'	6.71	122.72	114.00
67	B1	1294	A	P-O3'-C3'	6.71	127.75	119.70
67	B1	1353	A	O4'-C1'-N9	6.71	113.57	108.20
67	B1	1390	U	N1-C1'-C2'	-6.71	104.62	112.00
67	B1	2363	G	C3'-C2'-C1'	6.71	106.87	101.50
11	A1	4	G	N9-C1'-C2'	-6.71	104.62	112.00
64	Bc	17	GLN	CA-CB-CG	6.71	128.16	113.40
67	B1	104	C	C3'-C2'-C1'	6.71	106.86	101.50
67	B1	621	G	P-O3'-C3'	6.71	127.75	119.70
67	B1	1435	G	C1'-O4'-C4'	-6.71	104.53	109.90
67	B1	2329	A	P-O3'-C3'	6.71	127.75	119.70
67	B1	2465	A	C3'-C2'-C1'	6.71	106.86	101.50
67	B1	2962	A	O4'-C1'-C2'	6.71	113.64	107.60
21	A2	700	G	C1'-O4'-C4'	-6.71	104.54	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1493	C	O4'-C1'-N1	6.71	113.56	108.20
45	Bi	16	ARG	C-N-CA	6.71	138.46	121.70
67	B1	2278	U	C1'-O4'-C4'	6.71	115.26	109.90
11	A1	69	G	OP1-P-OP2	-6.70	109.54	119.60
12	AN	20	ARG	NE-CZ-NH2	-6.70	116.95	120.30
30	AU	128	PHE	CB-CG-CD1	6.70	125.49	120.80
67	B1	1710	C	P-O5'-C5'	6.70	131.62	120.90
67	B1	1855	G	C3'-C2'-C1'	6.70	106.86	101.50
67	B1	2026	C	C1'-O4'-C4'	-6.70	104.54	109.90
67	B1	2869	U	N1-C1'-C2'	6.70	122.71	114.00
8	AR	66	ARG	NE-CZ-NH2	-6.70	116.95	120.30
21	A2	1345	G	P-O3'-C3'	-6.70	111.66	119.70
10	AD	175	LYS	N-CA-CB	6.70	122.66	110.60
25	AH	215	ARG	NE-CZ-NH1	6.70	123.65	120.30
10	AD	57	ARG	NE-CZ-NH1	-6.70	116.95	120.30
21	A2	253	G	C1'-O4'-C4'	6.70	115.26	109.90
59	BM	47	ARG	NH1-CZ-NH2	6.70	126.77	119.40
67	B1	2571	G	O4'-C1'-C2'	-6.70	99.10	105.80
21	A2	152	G	O4'-C1'-N9	6.70	113.56	108.20
67	B1	2293	G	C4'-C3'-C2'	-6.70	95.90	102.60
7	AB	188	PHE	CB-CG-CD1	-6.70	116.11	120.80
21	A2	13	C	P-O3'-C3'	-6.70	111.67	119.70
21	A2	390	G	C3'-C2'-C1'	-6.70	96.14	101.50
21	A2	577	C	P-O3'-C3'	-6.70	111.67	119.70
21	A2	885	G	O4'-C1'-C2'	6.70	113.63	107.60
21	A2	1187	A	O4'-C1'-C2'	-6.70	99.11	105.80
21	A2	1303	C	C3'-C2'-C1'	6.70	106.86	101.50
67	B1	1133	U	C3'-C2'-C1'	6.70	106.86	101.50
21	A2	1468	A	C3'-C2'-C1'	6.69	106.86	101.50
67	B1	1801	C	C3'-C2'-C1'	6.69	106.86	101.50
67	B1	406	G	O5'-C5'-C4'	6.69	124.42	111.70
67	B1	746	C	O4'-C1'-N1	6.69	113.56	108.20
21	A2	19	G	O4'-C1'-N9	6.69	113.55	108.20
27	A0	73	G	C1'-O4'-C4'	-6.69	104.55	109.90
67	B1	145	C	O4'-C1'-N1	6.69	113.55	108.20
67	B1	1739	U	C1'-O4'-C4'	-6.69	104.55	109.90
67	B1	2336	G	C1'-O4'-C4'	-6.69	104.55	109.90
67	B1	2526	G	C1'-O4'-C4'	6.69	115.25	109.90
6	AC	119	ALA	N-CA-CB	6.69	119.47	110.10
21	A2	728	G	O4'-C1'-C2'	6.69	113.62	107.60
49	BQ	76	ARG	NE-CZ-NH2	-6.69	116.95	120.30
67	B1	809	A	O4'-C4'-C3'	-6.69	97.31	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1534	G	C3'-C2'-C1'	-6.69	96.15	101.50
67	B1	2276	G	O4'-C1'-N9	6.69	113.55	108.20
21	A2	234	G	P-O3'-C3'	-6.69	111.68	119.70
21	A2	573	C	N1-C1'-C2'	6.69	122.69	114.00
21	A2	916	U	O4'-C1'-N1	6.69	113.55	108.20
67	B1	2119	C	C3'-C2'-C1'	6.69	106.85	101.50
21	A2	264	C	C3'-C2'-C1'	6.68	106.85	101.50
21	A2	373	C	P-O5'-C5'	6.68	131.59	120.90
67	B1	458	U	C1'-O4'-C4'	-6.68	104.55	109.90
67	B1	1878	G	C5-C6-O6	-6.68	124.59	128.60
67	B1	2817	U	O4'-C1'-N1	6.68	113.55	108.20
21	A2	1005	G	O4'-C1'-N9	6.68	113.55	108.20
67	B1	117	A	O4'-C1'-N9	-6.68	102.86	108.20
67	B1	546	C	O4'-C1'-C2'	-6.68	99.12	105.80
67	B1	1032	C	C3'-C2'-C1'	6.68	106.85	101.50
67	B1	1645	U	C1'-O4'-C4'	6.68	115.25	109.90
21	A2	852	G	O4'-C1'-C2'	6.68	113.61	107.60
51	Bj	17	HIS	CA-CB-CG	-6.68	102.25	113.60
67	B1	1398	C	C3'-C2'-C1'	6.68	106.84	101.50
67	B1	2246	G	C1'-O4'-C4'	-6.68	104.56	109.90
21	A2	176	U	C5'-C4'-O4'	-6.68	101.09	109.10
67	B1	1182	C	P-O3'-C3'	6.68	127.71	119.70
67	B1	1634	A	C4'-C3'-C2'	-6.68	95.92	102.60
67	B1	1903	G	C1'-O4'-C4'	6.68	115.24	109.90
66	B1	17	ARG	NE-CZ-NH2	-6.68	116.96	120.30
67	B1	1307	C	O4'-C1'-N1	6.68	113.54	108.20
21	A2	446	G	C5-C6-O6	-6.67	124.59	128.60
21	A2	880	G	C1'-O4'-C4'	-6.67	104.56	109.90
67	B1	534	G	O4'-C1'-N9	6.67	113.54	108.20
21	A2	691	G	N9-C1'-C2'	6.67	122.67	114.00
67	B1	382	G	C5-C6-O6	-6.67	124.60	128.60
14	AM	65	ARG	O-C-N	-6.67	112.03	122.70
21	A2	290	C	C1'-O4'-C4'	6.67	115.24	109.90
21	A2	602	G	C3'-C2'-C1'	-6.67	96.16	101.50
21	A2	662	C	C1'-O4'-C4'	6.67	115.24	109.90
21	A2	1033	G	O4'-C1'-C2'	-6.67	99.13	105.80
67	B1	488	A	O4'-C1'-N9	6.67	113.54	108.20
67	B1	325	G	P-O3'-C3'	-6.67	111.70	119.70
21	A2	622	C	O4'-C1'-N1	6.67	113.53	108.20
46	BA	154	ARG	NE-CZ-NH2	6.67	123.64	120.30
67	B1	980	G	OP1-P-O3'	6.67	119.87	105.20
67	B1	1036	C	C3'-C2'-C1'	6.67	106.83	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1409	U	O4'-C1'-N1	6.67	113.53	108.20
67	B1	2154	G	C3'-C2'-C1'	6.67	106.83	101.50
67	B1	2312	U	OP2-P-O3'	6.67	119.87	105.20
21	A2	513	A	O4'-C1'-C2'	-6.67	99.13	105.80
21	A2	744	A	C1'-O4'-C4'	6.67	115.23	109.90
21	A2	696	G	N9-C1'-C2'	6.67	122.66	114.00
67	B1	2932	C	O4'-C1'-C2'	-6.67	99.14	105.80
67	B1	580	G	O4'-C4'-C3'	-6.66	97.34	104.00
67	B1	1086	U	C5'-C4'-C3'	6.66	126.66	116.00
67	B1	1173	G	C1'-O4'-C4'	-6.66	104.57	109.90
4	AG	46	ASN	N-CA-CB	6.66	122.59	110.60
21	A2	704	C	O4'-C1'-N1	6.66	113.53	108.20
67	B1	524	C	P-O3'-C3'	-6.66	111.71	119.70
67	B1	1127	C	OP1-P-OP2	-6.66	109.61	119.60
67	B1	1960	U	P-O5'-C5'	6.66	131.56	120.90
67	B1	2712	G	C3'-C2'-C1'	6.66	106.83	101.50
67	B1	482	A	O4'-C1'-N9	6.66	113.53	108.20
67	B1	2043	A	C1'-O4'-C4'	6.66	115.23	109.90
67	B1	2277	G	O4'-C1'-N9	6.66	113.53	108.20
21	A2	1442	G	O4'-C1'-C2'	6.66	113.59	107.60
20	B4	94	VAL	CA-CB-CG1	6.66	120.88	110.90
67	B1	1666	G	N9-C1'-C2'	6.66	122.65	114.00
67	B1	2625	C	C3'-C2'-C1'	6.66	106.83	101.50
21	A2	1132	C	O4'-C1'-N1	6.65	113.52	108.20
21	A2	1155	U	O4'-C1'-N1	-6.65	102.88	108.20
67	B1	285	C	C5'-C4'-C3'	6.65	126.64	116.00
67	B1	1962	G	C1'-O4'-C4'	-6.65	104.58	109.90
67	B1	2109	C	C1'-O4'-C4'	6.65	115.22	109.90
67	B1	2254	U	N1-C1'-C2'	6.65	122.65	114.00
27	A0	56	C	C4'-C3'-C2'	6.65	109.25	102.60
43	Bk	55	SER	N-CA-CB	6.65	120.47	110.50
51	Bj	55	PRO	CA-N-CD	-6.65	102.19	111.50
20	B4	1	MET	CG-SD-CE	-6.65	89.56	100.20
67	B1	1088	G	O4'-C1'-N9	6.65	113.52	108.20
67	B1	2064	U	C4'-C3'-C2'	6.65	109.25	102.60
67	B1	2645	C	O4'-C1'-C2'	-6.65	99.15	105.80
60	BS	17	MET	N-CA-CB	6.65	122.57	110.60
67	B1	672	C	O4'-C1'-N1	6.65	113.52	108.20
67	B1	2898	G	P-O3'-C3'	-6.65	111.72	119.70
34	BK	46	ARG	NE-CZ-NH1	6.65	123.62	120.30
67	B1	77	C	N1-C1'-C2'	6.65	122.64	114.00
67	B1	1010	G	C5-C6-O6	-6.65	124.61	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1550	C	P-O5'-C5'	6.65	131.54	120.90
21	A2	114	A	C1'-O4'-C4'	-6.65	104.58	109.90
21	A2	347	G	P-O3'-C3'	6.65	127.67	119.70
54	BF	133	ARG	NE-CZ-NH1	6.65	123.62	120.30
21	A2	425	C	O4'-C4'-C3'	-6.64	97.36	104.00
21	A2	972	C	P-O5'-C5'	6.64	131.53	120.90
21	A2	1092	G	O4'-C1'-N9	6.64	113.52	108.20
67	B1	2156	A	O4'-C1'-N9	6.64	113.52	108.20
67	B1	2243	G	P-O3'-C3'	6.64	127.67	119.70
21	A2	228	G	N9-C1'-C2'	-6.64	104.69	112.00
67	B1	273	G	O3'-P-O5'	6.64	116.62	104.00
67	B1	2306	C	C1'-O4'-C4'	-6.64	104.59	109.90
21	A2	1262	U	C3'-C2'-C1'	-6.64	96.19	101.50
67	B1	708	A	N9-C1'-C2'	6.64	122.63	114.00
67	B1	1374	G	O4'-C1'-C2'	6.64	113.58	107.60
21	A2	335	G	N9-C1'-C2'	6.64	122.63	114.00
21	A2	382	G	C1'-O4'-C4'	6.64	115.21	109.90
21	A2	1141	G	C3'-C2'-C1'	-6.64	96.19	101.50
67	B1	1134	A	N9-C1'-C2'	6.64	122.63	114.00
67	B1	1305	C	C3'-C2'-C1'	6.64	106.81	101.50
67	B1	1896	U	O4'-C1'-C2'	-6.64	99.16	105.80
21	A2	248	U	C3'-C2'-C1'	6.64	106.81	101.50
38	Bb	39	LYS	N-CA-CB	6.64	122.55	110.60
67	B1	614	G	C1'-O4'-C4'	-6.64	104.59	109.90
67	B1	2839	A	O4'-C1'-C2'	-6.64	99.16	105.80
67	B1	3035	C	C1'-O4'-C4'	6.64	115.21	109.90
21	A2	442	C	C3'-C2'-C1'	6.64	106.81	101.50
67	B1	2283	C	P-O3'-C3'	6.64	127.66	119.70
67	B1	2950	G	O4'-C1'-N9	6.64	113.51	108.20
11	A1	7	G	C1'-O4'-C4'	6.63	115.21	109.90
21	A2	5	C	P-O3'-C3'	-6.63	111.74	119.70
21	A2	1125	C	C3'-C2'-C1'	6.63	106.81	101.50
67	B1	35	G	O4'-C1'-N9	6.63	113.51	108.20
67	B1	1077	G	C5'-C4'-C3'	-6.63	105.39	116.00
6	AC	16	LEU	CB-CA-C	-6.63	97.60	110.20
21	A2	377	A	C1'-O4'-C4'	6.63	115.21	109.90
67	B1	1995	C	N1-C1'-C2'	6.63	122.62	114.00
67	B1	2482	G	C3'-C2'-C1'	6.63	106.81	101.50
21	A2	875	G	O4'-C1'-N9	6.63	113.50	108.20
20	BG	97	ALA	N-CA-CB	6.63	119.38	110.10
67	B1	347	G	N9-C1'-C2'	6.63	122.61	114.00
67	B1	2243	G	C3'-C2'-C1'	-6.63	96.20	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2558	U	P-O3'-C3'	-6.63	111.75	119.70
67	B1	2733	A	P-O5'-C5'	6.63	131.50	120.90
7	AB	96	PHE	CB-CG-CD1	-6.62	116.16	120.80
21	A2	343	G	N9-C1'-C2'	-6.62	104.71	112.00
21	A2	715	C	N1-C1'-C2'	6.62	122.61	114.00
21	A2	1295	C	P-O3'-C3'	6.62	127.65	119.70
29	AL	43	LYS	N-CA-C	-6.62	93.11	111.00
62	BN	22	TYR	CB-CG-CD1	-6.62	117.03	121.00
67	B1	496	A	N9-C1'-C2'	-6.62	104.72	112.00
67	B1	1007	U	O4'-C1'-N1	6.62	113.50	108.20
21	A2	1180	G	C3'-C2'-C1'	6.62	106.80	101.50
67	B1	2272	G	N9-C1'-C2'	6.62	122.61	114.00
35	BL	42	ARG	O-C-N	6.62	133.29	122.70
67	B1	1005	G	C5-C6-O6	-6.62	124.63	128.60
67	B1	1185	A	C4'-C3'-C2'	-6.62	95.98	102.60
67	B1	1949	A	O4'-C1'-N9	6.62	113.50	108.20
67	B1	2382	A	O4'-C1'-N9	6.62	113.50	108.20
21	A2	798	U	N1-C1'-C2'	-6.62	104.72	112.00
21	A2	1468	A	C1'-O4'-C4'	6.62	115.19	109.90
68	B3	101	A	N9-C1'-C2'	6.62	122.61	114.00
68	B3	106	G	C3'-C2'-C1'	-6.62	96.20	101.50
11	A1	7	G	P-O3'-C3'	6.62	127.64	119.70
33	BC	303	ILE	O-C-N	6.62	133.29	122.70
67	B1	1574	A	C5'-C4'-O4'	6.62	117.04	109.10
67	B1	1979	G	C1'-O4'-C4'	-6.62	104.61	109.90
21	A2	2	U	O4'-C1'-N1	6.62	113.49	108.20
25	AH	85	PHE	CA-C-N	6.62	131.75	117.20
27	A0	69	C	P-O3'-C3'	6.62	127.64	119.70
21	A2	1293	A	O4'-C1'-N9	6.61	113.49	108.20
67	B1	550	A	C1'-O4'-C4'	6.61	115.19	109.90
67	B1	1950	G	O4'-C1'-N9	6.61	113.49	108.20
11	A1	49	C	C3'-C2'-C1'	-6.61	96.21	101.50
21	A2	441	U	C3'-C2'-C1'	6.61	106.79	101.50
21	A2	803	C	C3'-C2'-C1'	6.61	106.79	101.50
67	B1	1340	G	O4'-C1'-N9	6.61	113.49	108.20
67	B1	2421	A	N9-C1'-C2'	6.61	122.59	114.00
68	B3	18	G	C4'-C3'-C2'	-6.61	95.99	102.60
21	A2	442	C	O4'-C1'-C2'	-6.61	99.19	105.80
21	A2	800	G	N9-C1'-C2'	6.61	122.59	114.00
21	A2	1093	C	N1-C1'-C2'	-6.61	104.73	112.00
38	Bb	8	ARG	NE-CZ-NH2	-6.61	117.00	120.30
68	B3	22	C	C1'-O4'-C4'	6.61	115.19	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	43	A	C4'-C3'-C2'	-6.61	95.99	102.60
21	A2	1418	G	N9-C1'-C2'	6.61	122.59	114.00
21	A2	408	C	C1'-O4'-C4'	6.61	115.19	109.90
21	A2	946	G	C3'-C2'-C1'	-6.61	96.22	101.50
21	A2	987	G	C5-C6-O6	-6.61	124.64	128.60
37	BU	39	TYR	CB-CG-CD1	-6.61	117.04	121.00
39	Be	50	ARG	NE-CZ-NH1	6.61	123.60	120.30
67	B1	22	C	O4'-C1'-N1	6.61	113.49	108.20
67	B1	377	C	O4'-C1'-N1	6.61	113.49	108.20
67	B1	549	G	C3'-C2'-C1'	6.61	106.78	101.50
67	B1	2670	U	O4'-C1'-C2'	-6.61	99.19	105.80
67	B1	2974	U	O5'-P-OP1	-6.61	99.75	105.70
68	B3	69	C	N1-C1'-C2'	6.61	122.59	114.00
67	B1	1064	G	C3'-C2'-C1'	-6.61	96.22	101.50
67	B1	1857	A	O4'-C1'-C2'	6.61	113.54	107.60
67	B1	2918	G	O4'-C1'-N9	6.61	113.48	108.20
21	A2	200	G	C3'-C2'-C1'	6.60	106.78	101.50
21	A2	681	G	N9-C1'-C2'	-6.60	104.73	112.00
21	A2	702	G	O3'-P-O5'	-6.60	91.45	104.00
67	B1	1218	C	O3'-P-O5'	-6.60	91.45	104.00
23	AT	8	TYR	CD1-CG-CD2	6.60	125.16	117.90
27	A0	43	G	C1'-O4'-C4'	-6.60	104.62	109.90
67	B1	781	C	N1-C1'-C2'	6.60	122.58	114.00
67	B1	1302	G	O4'-C1'-N9	6.60	113.48	108.20
67	B1	1923	A	C4'-C3'-C2'	-6.60	96.00	102.60
67	B1	2807	C	N1-C1'-C2'	6.60	122.58	114.00
11	A1	58	A	C3'-C2'-C1'	6.60	106.78	101.50
21	A2	679	G	O4'-C1'-C2'	-6.60	99.20	105.80
67	B1	2164	G	C5-C6-O6	-6.60	124.64	128.60
3	AI	32	LYS	CB-CA-C	-6.60	97.20	110.40
24	AA	107	PHE	CB-CG-CD2	-6.60	116.18	120.80
49	BQ	121	ARG	NH1-CZ-NH2	6.60	126.66	119.40
67	B1	332	A	P-O3'-C3'	6.60	127.62	119.70
67	B1	475	U	C1'-O4'-C4'	6.60	115.18	109.90
67	B1	2139	A	C4-C5-C6	6.60	120.30	117.00
67	B1	2314	U	C3'-C2'-C1'	6.60	106.78	101.50
21	A2	828	U	C3'-C2'-C1'	6.60	106.78	101.50
67	B1	186	A	C3'-C2'-C1'	6.60	106.78	101.50
67	B1	2986	G	O4'-C1'-C2'	-6.60	99.20	105.80
25	AH	42	ARG	NE-CZ-NH1	6.60	123.60	120.30
60	BS	19	ARG	NE-CZ-NH1	6.60	123.60	120.30
67	B1	1386	G	OP1-P-OP2	-6.60	109.71	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	834	C	O4'-C1'-N1	6.59	113.47	108.20
67	B1	2066	C	C3'-C2'-C1'	6.59	106.78	101.50
67	B1	3021	C	C3'-C2'-C1'	6.59	106.77	101.50
21	A2	742	U	N1-C1'-C2'	6.59	122.57	114.00
21	A2	830	A	N9-C1'-C2'	6.59	122.57	114.00
67	B1	2641	C	C3'-C2'-C1'	6.59	106.77	101.50
67	B1	358	C	O4'-C1'-N1	6.59	113.47	108.20
21	A2	1199	A	OP1-P-OP2	-6.59	109.72	119.60
33	BC	208	ARG	NE-CZ-NH1	6.59	123.59	120.30
67	B1	2896	G	O4'-C1'-N9	6.59	113.47	108.20
67	B1	2991	C	C1'-O4'-C4'	-6.59	104.63	109.90
67	B1	150	G	C3'-C2'-C1'	-6.58	96.23	101.50
67	B1	1281	A	C4'-C3'-C2'	-6.58	96.02	102.60
67	B1	1312	C	O4'-C1'-N1	6.58	113.47	108.20
21	A2	165	U	N1-C1'-C2'	6.58	122.56	114.00
21	A2	881	G	O4'-C1'-N9	6.58	113.47	108.20
21	A2	968	C	O4'-C1'-N1	6.58	113.47	108.20
62	BN	165	TYR	CZ-CE2-CD2	6.58	125.72	119.80
67	B1	535	G	N9-C1'-C2'	-6.58	104.76	112.00
4	AG	33	ARG	NE-CZ-NH2	-6.58	117.01	120.30
15	AE	223	PHE	CB-CG-CD2	-6.58	116.19	120.80
21	A2	260	C	C3'-C2'-C1'	6.58	106.77	101.50
61	Bd	16	ARG	CA-CB-CG	-6.58	98.92	113.40
67	B1	1210	G	O4'-C1'-N9	6.58	113.47	108.20
67	B1	1433	C	O4'-C1'-C2'	-6.58	99.22	105.80
67	B1	1547	U	C4'-C3'-C2'	-6.58	96.02	102.60
67	B1	2097	G	N9-C1'-C2'	6.58	122.56	114.00
67	B1	2415	C	P-O5'-C5'	6.58	131.43	120.90
21	A2	1060	G	C4'-C3'-C2'	-6.58	96.02	102.60
2	AK	135	ARG	NE-CZ-NH2	-6.58	117.01	120.30
12	AN	11	PHE	CB-CG-CD1	6.58	125.41	120.80
21	A2	777	G	C1'-O4'-C4'	6.58	115.16	109.90
21	A2	1309	A	C1'-O4'-C4'	6.58	115.16	109.90
27	A0	74	C	C4'-C3'-C2'	-6.58	96.02	102.60
30	AU	91	TYR	CB-CG-CD2	-6.58	117.05	121.00
61	Bd	1	MET	CG-SD-CE	-6.58	89.67	100.20
67	B1	1626	A	C5'-C4'-C3'	6.58	126.53	116.00
8	AR	24	HIS	O-C-N	-6.58	112.02	123.20
25	AH	85	PHE	CA-C-O	-6.58	106.29	120.10
47	BI	125	ARG	NE-CZ-NH1	6.58	123.59	120.30
67	B1	408	C	C5'-C4'-O4'	-6.58	101.21	109.10
21	A2	742	U	O4'-C1'-N1	6.58	113.46	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1241	U	C1'-O4'-C4'	6.58	115.16	109.90
39	Be	8	PHE	CB-CG-CD1	6.58	125.40	120.80
67	B1	684	G	C1'-O4'-C4'	-6.58	104.64	109.90
67	B1	948	C	O4'-C1'-C2'	-6.58	99.22	105.80
21	A2	525	A	O4'-C1'-C2'	-6.57	99.23	105.80
21	A2	798	U	C5'-C4'-O4'	6.57	116.99	109.10
21	A2	967	C	C1'-O4'-C4'	-6.57	104.64	109.90
67	B1	145	C	N3-C4-N4	6.57	122.60	118.00
67	B1	1184	U	C4'-C3'-C2'	-6.57	96.03	102.60
67	B1	1566	G	C5'-C4'-C3'	6.57	126.52	116.00
67	B1	2049	U	O4'-C1'-C2'	-6.57	99.23	105.80
67	B1	3010	C	C3'-C2'-C1'	6.57	106.76	101.50
21	A2	260	C	O4'-C1'-C2'	-6.57	99.23	105.80
21	A2	1226	G	O4'-C1'-N9	6.57	113.46	108.20
67	B1	851	G	C1'-O4'-C4'	-6.57	104.64	109.90
67	B1	1276	G	P-O3'-C3'	6.57	127.59	119.70
67	B1	1907	G	C1'-O4'-C4'	-6.57	104.64	109.90
2	AK	102	TYR	CB-CG-CD1	6.57	124.94	121.00
67	B1	1203	C	C3'-C2'-C1'	6.57	106.76	101.50
67	B1	2310	G	P-O5'-C5'	-6.57	110.39	120.90
67	B1	3000	U	C3'-C2'-C1'	-6.57	96.25	101.50
21	A2	400	G	N9-C1'-C2'	-6.57	104.78	112.00
21	A2	510	A	P-O5'-C5'	-6.57	110.39	120.90
21	A2	631	C	O4'-C1'-C2'	-6.57	99.23	105.80
21	A2	669	A	O4'-C1'-N9	6.57	113.45	108.20
67	B1	1029	C	P-O5'-C5'	6.57	131.41	120.90
67	B1	1983	C	O4'-C1'-N1	6.57	113.45	108.20
67	B1	2300	C	C5'-C4'-C3'	-6.57	105.49	116.00
53	BD	79	TYR	CB-CG-CD2	-6.57	117.06	121.00
67	B1	1795	C	C4'-C3'-C2'	-6.57	96.03	102.60
67	B1	1816	C	P-O5'-C5'	6.57	131.41	120.90
67	B1	1965	C	O4'-C1'-N1	6.57	113.45	108.20
6	AC	1	MET	CG-SD-CE	6.56	110.70	100.20
67	B1	1102	C	P-O3'-C3'	-6.56	111.82	119.70
21	A2	377	A	C3'-C2'-C1'	6.56	106.75	101.50
67	B1	612	G	C3'-C2'-C1'	-6.56	96.25	101.50
67	B1	2139	A	C5-C6-N6	-6.56	118.45	123.70
67	B1	2914	U	C1'-O4'-C4'	6.56	115.15	109.90
67	B1	459	C	C3'-C2'-C1'	6.56	106.75	101.50
19	AS	28	PHE	CZ-CE2-CD2	-6.56	112.23	120.10
21	A2	465	C	O4'-C1'-N1	6.56	113.45	108.20
21	A2	548	A	C3'-C2'-C1'	6.56	106.75	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	555	U	O4'-C1'-N1	6.56	113.45	108.20
67	B1	65	G	C3'-C2'-C1'	-6.56	96.25	101.50
67	B1	117	A	OP1-P-OP2	-6.56	109.76	119.60
67	B1	218	A	C1'-O4'-C4'	6.56	115.15	109.90
21	A2	1416	C	C1'-O4'-C4'	6.56	115.14	109.90
27	A0	36	U	P-O5'-C5'	-6.56	110.41	120.90
53	BD	83	VAL	C-N-CD	-6.56	106.17	120.60
67	B1	299	U	P-O5'-C5'	6.56	131.39	120.90
67	B1	2182	A	C3'-C2'-C1'	-6.56	96.25	101.50
67	B1	989	G	C3'-C2'-C1'	6.56	106.75	101.50
21	A2	674	C	N1-C1'-C2'	6.55	122.52	114.00
26	AP	50	LEU	CB-CA-C	-6.55	97.75	110.20
67	B1	587	A	C5-C6-N6	-6.55	118.46	123.70
21	A2	808	C	C1'-O4'-C4'	6.55	115.14	109.90
21	A2	1393	A	O4'-C1'-N9	6.55	113.44	108.20
21	A2	398	C	O4'-C1'-N1	6.55	113.44	108.20
67	B1	513	C	P-O3'-C3'	6.55	127.56	119.70
67	B1	949	C	O4'-C1'-C2'	-6.55	99.25	105.80
60	BS	155	ARG	NE-CZ-NH1	6.55	123.57	120.30
67	B1	712	C	C4'-C3'-C2'	6.55	109.15	102.60
67	B1	1636	C	C1'-O4'-C4'	-6.55	104.66	109.90
21	A2	78	G	P-O3'-C3'	-6.55	111.84	119.70
21	A2	194	C	O4'-C1'-N1	6.55	113.44	108.20
21	A2	1120	G	N9-C1'-C2'	6.55	122.51	114.00
21	A2	1364	C	C3'-C2'-C1'	6.55	106.74	101.50
27	A0	2	C	O4'-C1'-C2'	-6.55	99.25	105.80
27	A0	9	A	P-O3'-C3'	6.55	127.56	119.70
67	B1	25	U	P-O3'-C3'	6.55	127.56	119.70
67	B1	762	G	C1'-O4'-C4'	6.55	115.14	109.90
67	B1	775	C	C1'-O4'-C4'	-6.55	104.66	109.90
67	B1	921	C	N1-C1'-C2'	6.55	122.51	114.00
67	B1	2556	C	C3'-C2'-C1'	6.55	106.74	101.50
21	A2	613	C	P-O3'-C3'	-6.54	111.85	119.70
46	BA	24	PHE	CB-CG-CD1	-6.54	116.22	120.80
34	BK	17	ARG	N-CA-CB	6.54	122.38	110.60
67	B1	1255	C	C5'-C4'-C3'	-6.54	105.53	116.00
67	B1	1802	G	P-O3'-C3'	6.54	127.55	119.70
21	A2	62	G	P-O3'-C3'	6.54	127.55	119.70
21	A2	511	C	C3'-C2'-C1'	6.54	106.73	101.50
21	A2	1103	G	O4'-C1'-N9	6.54	113.43	108.20
33	BC	86	TYR	CG-CD2-CE2	-6.54	116.07	121.30
67	B1	1721	U	C1'-O4'-C4'	-6.54	104.67	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2586	A	C1'-O4'-C4'	6.54	115.13	109.90
52	BB	107	TYR	CZ-CE2-CD2	6.54	125.69	119.80
67	B1	666	A	P-O5'-C5'	6.54	131.36	120.90
43	Bk	204	ASP	CB-CG-OD1	-6.54	112.42	118.30
67	B1	413	A	C1'-O4'-C4'	6.54	115.13	109.90
67	B1	502	G	C3'-C2'-C1'	-6.54	96.27	101.50
67	B1	1382	C	O4'-C1'-C2'	-6.54	99.26	105.80
67	B1	2205	A	N9-C1'-C2'	6.54	122.50	114.00
67	B1	2233	G	O5'-P-OP1	-6.54	99.81	105.70
67	B1	2304	C	O4'-C4'-C3'	-6.54	97.46	104.00
67	B1	2527	G	O4'-C1'-N9	6.54	113.43	108.20
21	A2	1282	C	O4'-C1'-C2'	-6.54	99.26	105.80
21	A2	617	A	C1'-O4'-C4'	6.54	115.13	109.90
24	AA	171	ALA	CB-CA-C	-6.54	100.30	110.10
67	B1	2889	A	P-O3'-C3'	6.54	127.54	119.70
10	AD	168	ARG	NE-CZ-NH2	-6.53	117.03	120.30
21	A2	347	G	N9-C1'-C2'	6.53	122.49	114.00
34	B5	8	ARG	NE-CZ-NH1	6.53	123.57	120.30
67	B1	981	A	C4'-C3'-C2'	6.53	109.13	102.60
67	B1	2207	C	O4'-C1'-C2'	-6.53	99.27	105.80
67	B1	2589	C	C5'-C4'-O4'	6.53	116.94	109.10
21	A2	749	C	C3'-C2'-C1'	6.53	106.73	101.50
67	B1	249	G	P-O3'-C3'	-6.53	111.86	119.70
11	A1	67	C	C3'-C2'-C1'	6.53	106.72	101.50
27	A0	68	G	O4'-C1'-C2'	6.53	113.48	107.60
44	BW	70	VAL	CA-CB-CG2	-6.53	101.11	110.90
32	BO	171	TYR	CB-CG-CD1	-6.53	117.08	121.00
21	A2	165	U	O3'-P-O5'	-6.53	91.60	104.00
21	A2	198	A	C3'-C2'-C1'	-6.53	96.28	101.50
21	A2	321	A	C1'-O4'-C4'	-6.53	104.68	109.90
21	A2	570	G	N9-C1'-C2'	6.53	122.48	114.00
67	B1	2326	C	C1'-O4'-C4'	-6.53	104.68	109.90
67	B1	2616	C	C1'-O4'-C4'	6.53	115.12	109.90
21	A2	500	A	C3'-C2'-C1'	-6.53	96.28	101.50
21	A2	827	G	P-O3'-C3'	-6.53	111.87	119.70
21	A2	1133	C	C3'-C2'-C1'	6.53	106.72	101.50
67	B1	385	U	C1'-O4'-C4'	6.53	115.12	109.90
21	A2	934	G	P-O3'-C3'	6.52	127.53	119.70
58	BP	109	ARG	NE-CZ-NH2	-6.52	117.04	120.30
67	B1	979	G	C3'-C2'-C1'	-6.52	96.28	101.50
21	A2	120	C	N1-C1'-C2'	6.52	122.48	114.00
21	A2	321	A	P-O5'-C5'	-6.52	110.46	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	730	G	P-O3'-C3'	6.52	127.53	119.70
67	B1	70	G	C3'-C2'-C1'	-6.52	96.28	101.50
67	B1	320	C	O4'-C1'-N1	6.52	113.42	108.20
21	A2	554	C	C1'-O4'-C4'	-6.52	104.68	109.90
67	B1	700	A	C4'-C3'-C2'	-6.52	96.08	102.60
27	A0	43	G	P-O3'-C3'	6.52	127.52	119.70
27	A0	76	A	N9-C1'-C2'	-6.52	104.83	112.00
67	B1	631	G	O4'-C1'-N9	6.52	113.42	108.20
67	B1	2048	C	O4'-C4'-C3'	-6.52	97.48	104.00
67	B1	2181	G	C1'-O4'-C4'	-6.52	104.69	109.90
21	A2	1040	A	C1'-O4'-C4'	-6.52	104.69	109.90
67	B1	82	C	C1'-O4'-C4'	-6.52	104.69	109.90
67	B1	331	G	C5-C6-O6	-6.52	124.69	128.60
67	B1	2284	C	C1'-O4'-C4'	-6.52	104.69	109.90
21	A2	739	G	O4'-C1'-C2'	6.52	113.47	107.60
67	B1	986	G	C5-C6-O6	-6.52	124.69	128.60
67	B1	1123	A	P-O3'-C3'	6.52	127.52	119.70
67	B1	1141	C	N1-C1'-C2'	6.52	122.47	114.00
67	B1	1949	A	P-O3'-C3'	-6.52	111.88	119.70
1	AQ	47	THR	CA-CB-CG2	-6.51	103.28	112.40
67	B1	364	A	O4'-C1'-N9	6.51	113.41	108.20
67	B1	1091	G	O4'-C1'-N9	6.51	113.41	108.20
67	B1	1809	G	O4'-C1'-N9	6.51	113.41	108.20
67	B1	1905	G	C1'-O4'-C4'	6.51	115.11	109.90
11	A1	26	C	O4'-C1'-C2'	-6.51	99.29	105.80
21	A2	19	G	N9-C1'-C2'	-6.51	104.84	112.00
21	A2	662	C	O4'-C1'-C2'	-6.51	99.29	105.80
21	A2	1071	C	C3'-C2'-C1'	6.51	106.71	101.50
27	A0	35	U	P-O3'-C3'	-6.51	111.89	119.70
67	B1	2635	C	C3'-C2'-C1'	6.51	106.71	101.50
67	B1	2772	U	N1-C1'-C2'	6.51	122.47	114.00
67	B1	2791	C	C1'-O4'-C4'	6.51	115.11	109.90
67	B1	959	U	O4'-C1'-N1	6.51	113.41	108.20
67	B1	1503	C	C5'-C4'-O4'	6.51	116.91	109.10
67	B1	1613	A	C5'-C4'-C3'	-6.51	105.58	116.00
21	A2	1366	U	O4'-C1'-N1	6.51	113.41	108.20
40	BE	120	HIS	N-CA-C	-6.51	93.43	111.00
67	B1	16	G	OP1-P-OP2	-6.51	109.84	119.60
67	B1	1444	A	C3'-C2'-C1'	6.51	106.71	101.50
21	A2	91	G	P-O3'-C3'	-6.51	111.89	119.70
21	A2	933	G	C3'-C2'-C1'	6.51	106.70	101.50
21	A2	1297	G	C3'-C2'-C1'	6.51	106.70	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	BD	218	ASP	CB-CG-OD2	-6.51	112.44	118.30
67	B1	48	G	C1'-O4'-C4'	6.51	115.11	109.90
67	B1	1231	C	C3'-C2'-C1'	6.51	106.70	101.50
67	B1	2785	G	C1'-O4'-C4'	-6.51	104.69	109.90
21	A2	128	A	C1'-O4'-C4'	-6.50	104.70	109.90
21	A2	361	A	C3'-C2'-C1'	6.50	106.70	101.50
52	BB	180	TYR	CB-CG-CD1	-6.50	117.10	121.00
67	B1	1707	A	O4'-C1'-N9	6.50	113.40	108.20
1	AQ	45	TYR	CB-CG-CD2	6.50	124.90	121.00
21	A2	1009	G	N9-C1'-C2'	6.50	122.45	114.00
61	Bd	88	LEU	CB-CG-CD2	6.50	122.05	111.00
67	B1	202	A	O4'-C1'-C2'	-6.50	99.30	105.80
67	B1	2238	G	N9-C1'-C2'	-6.50	104.85	112.00
31	BY	30	ARG	NE-CZ-NH1	6.50	123.55	120.30
53	BD	91	ARG	O-C-N	6.50	133.10	122.70
67	B1	987	G	C5-C6-O6	-6.50	124.70	128.60
21	A2	525	A	C1'-O4'-C4'	6.50	115.10	109.90
34	B5	17	ARG	N-CA-CB	6.50	122.30	110.60
67	B1	273	G	C1'-O4'-C4'	-6.50	104.70	109.90
67	B1	1554	G	O4'-C1'-N9	-6.50	103.00	108.20
67	B1	2113	G	C3'-C2'-C1'	-6.50	96.30	101.50
21	A2	380	C	C3'-C2'-C1'	6.50	106.70	101.50
21	A2	618	G	P-O3'-C3'	-6.50	111.90	119.70
21	A2	924	U	C3'-C2'-C1'	6.50	106.70	101.50
67	B1	313	U	O4'-C1'-N1	6.50	113.40	108.20
67	B1	862	G	C3'-C2'-C1'	-6.50	96.30	101.50
67	B1	1637	C	N1-C1'-C2'	6.50	122.44	114.00
67	B1	1896	U	C1'-O4'-C4'	6.50	115.10	109.90
67	B1	2700	U	O4'-C1'-C2'	-6.50	99.30	105.80
67	B1	1648	C	C5'-C4'-C3'	6.50	126.39	116.00
68	B3	41	A	O4'-C1'-C2'	-6.50	99.31	105.80
68	B3	32	C	P-O3'-C3'	-6.49	111.91	119.70
21	A2	256	G	C4'-C3'-C2'	-6.49	96.11	102.60
21	A2	975	A	O4'-C1'-C2'	-6.49	99.31	105.80
67	B1	192	U	N1-C1'-C2'	6.49	122.44	114.00
67	B1	2168	C	N1-C1'-C2'	6.49	122.44	114.00
67	B1	2907	C	O4'-C1'-N1	6.49	113.39	108.20
21	A2	645	G	O4'-C1'-N9	6.49	113.39	108.20
41	Ba	61	ARG	NE-CZ-NH1	6.49	123.55	120.30
45	Bi	80	ARG	NE-CZ-NH2	-6.49	117.05	120.30
67	B1	28	A	P-O3'-C3'	-6.49	111.91	119.70
67	B1	96	C	C5'-C4'-C3'	6.49	126.39	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1584	G	C1'-O4'-C4'	-6.49	104.71	109.90
21	A2	1413	G	C4'-C3'-C2'	-6.49	96.11	102.60
21	A2	1133	C	O4'-C1'-C2'	-6.49	99.31	105.80
67	B1	451	C	C3'-C2'-C1'	6.49	106.69	101.50
67	B1	509	A	O4'-C1'-C2'	-6.49	99.31	105.80
35	BL	42	ARG	NE-CZ-NH1	6.49	123.54	120.30
67	B1	885	A	C3'-C2'-C1'	6.49	106.69	101.50
67	B1	907	C	N1-C1'-C2'	6.49	122.43	114.00
67	B1	2685	G	O4'-C1'-C2'	-6.49	99.31	105.80
21	A2	278	A	C3'-C2'-C1'	6.48	106.69	101.50
38	Bb	27	GLU	CB-CA-C	6.48	123.36	110.40
51	Bj	68	ARG	NE-CZ-NH2	-6.48	117.06	120.30
66	Bl	25	TYR	CG-CD1-CE1	6.48	126.49	121.30
67	B1	391	C	O4'-C1'-N1	6.48	113.39	108.20
67	B1	1144	A	O4'-C1'-N9	6.48	113.39	108.20
67	B1	1280	C	C1'-O4'-C4'	6.48	115.09	109.90
67	B1	1391	C	C3'-C2'-C1'	6.48	106.69	101.50
21	A2	358	G	C3'-C2'-C1'	-6.48	96.32	101.50
21	A2	820	G	C3'-C2'-C1'	-6.48	96.32	101.50
21	A2	1004	U	C3'-C2'-C1'	6.48	106.69	101.50
21	A2	1436	U	N1-C1'-C2'	-6.48	104.87	112.00
37	BU	12	ARG	NE-CZ-NH2	6.48	123.54	120.30
67	B1	360	G	O4'-C1'-N9	-6.48	103.02	108.20
67	B1	2649	A	O4'-C1'-N9	6.48	113.39	108.20
21	A2	859	A	OP1-P-OP2	-6.48	109.88	119.60
37	BU	46	VAL	CA-CB-CG2	-6.48	101.18	110.90
21	A2	445	G	C5-C6-O6	-6.48	124.71	128.60
21	A2	1098	G	C4'-C3'-C2'	-6.48	96.12	102.60
21	A2	1296	U	O4'-C1'-N1	6.48	113.38	108.20
62	BN	163	ARG	CB-CA-C	6.48	123.36	110.40
64	Bc	32	ARG	CB-CA-C	-6.48	97.44	110.40
67	B1	1225	A	C1'-O4'-C4'	-6.48	104.72	109.90
67	B1	2680	A	O4'-C1'-C2'	-6.48	99.32	105.80
21	A2	1469	G	O4'-C4'-C3'	-6.47	97.53	104.00
67	B1	217	A	N9-C1'-C2'	-6.47	104.88	112.00
21	A2	280	C	N1-C1'-C2'	6.47	122.41	114.00
21	A2	1137	G	C1'-O4'-C4'	6.47	115.08	109.90
51	Bj	3	TYR	CB-CG-CD1	-6.47	117.12	121.00
62	BN	26	ALA	CB-CA-C	-6.47	100.39	110.10
67	B1	637	G	C5-C6-O6	-6.47	124.72	128.60
67	B1	2495	A	O4'-C4'-C3'	-6.47	97.53	104.00
68	B3	39	C	O4'-C1'-N1	6.47	113.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2096	G	O4'-C1'-N9	6.47	113.38	108.20
67	B1	2194	A	C1'-O4'-C4'	6.47	115.08	109.90
21	A2	240	U	P-O5'-C5'	6.47	131.25	120.90
21	A2	249	U	O4'-C1'-N1	6.47	113.38	108.20
21	A2	458	G	C8-N9-C4	-6.47	103.81	106.40
37	BU	39	TYR	CG-CD1-CE1	-6.47	116.12	121.30
39	Be	34	TYR	CB-CG-CD2	-6.47	117.12	121.00
67	B1	230	A	O4'-C1'-N9	6.47	113.38	108.20
67	B1	407	A	N9-C1'-C2'	6.47	122.41	114.00
67	B1	709	A	O4'-C1'-N9	6.47	113.38	108.20
67	B1	1362	G	P-O3'-C3'	-6.47	111.94	119.70
67	B1	2243	G	O3'-P-O5'	6.47	116.29	104.00
67	B1	2939	C	C1'-O4'-C4'	6.47	115.08	109.90
21	A2	672	G	C1'-O4'-C4'	-6.47	104.72	109.90
21	A2	715	C	P-O5'-C5'	6.47	131.25	120.90
21	A2	1352	G	O4'-C1'-C2'	6.47	113.42	107.60
45	Bi	17	TYR	CB-CG-CD1	-6.47	117.12	121.00
34	BK	8	ARG	NE-CZ-NH1	6.47	123.53	120.30
67	B1	455	G	O4'-C1'-C2'	-6.47	99.33	105.80
67	B1	1594	G	O4'-C1'-N9	6.47	113.37	108.20
67	B1	2566	A	C1'-O4'-C4'	6.47	115.08	109.90
67	B1	2972	G	C4'-C3'-C2'	-6.47	96.13	102.60
14	AM	132	ARG	N-CA-CB	6.47	122.24	110.60
21	A2	963	A	O4'-C1'-N9	6.47	113.37	108.20
67	B1	266	A	C1'-O4'-C4'	-6.47	104.73	109.90
67	B1	694	A	C5'-C4'-O4'	6.47	116.86	109.10
67	B1	1836	A	O4'-C1'-N9	6.47	113.37	108.20
67	B1	2494	A	O4'-C1'-N9	6.47	113.37	108.20
21	A2	1183	C	N1-C1'-C2'	6.46	122.40	114.00
21	A2	1493	C	P-O5'-C5'	-6.46	110.56	120.90
34	BK	8	ARG	NE-CZ-NH2	-6.46	117.07	120.30
67	B1	2081	C	N1-C1'-C2'	6.46	122.41	114.00
67	B1	1949	A	O4'-C1'-C2'	-6.46	99.34	105.80
67	B1	2054	G	N9-C1'-C2'	6.46	122.40	114.00
21	A2	1160	C	O4'-C1'-C2'	-6.46	99.34	105.80
67	B1	522	A	N9-C1'-C2'	6.46	122.40	114.00
67	B1	848	A	O4'-C1'-C2'	-6.46	99.34	105.80
67	B1	1680	G	O4'-C1'-N9	6.46	113.37	108.20
67	B1	2561	G	O4'-C1'-N9	6.46	113.37	108.20
7	AB	60	ALA	N-CA-CB	6.46	119.14	110.10
21	A2	1329	C	OP1-P-OP2	-6.46	109.91	119.60
67	B1	939	A	O4'-C1'-C2'	-6.46	99.34	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1638	C	C3'-C2'-C1'	6.46	106.67	101.50
21	A2	359	A	C1'-O4'-C4'	-6.46	104.73	109.90
21	A2	1129	A	P-O5'-C5'	6.46	131.23	120.90
21	A2	1216	A	C5'-C4'-O4'	6.46	116.85	109.10
67	B1	2388	U	C1'-O4'-C4'	6.46	115.07	109.90
68	B3	62	A	C3'-C2'-C1'	6.46	106.67	101.50
21	A2	65	G	N9-C1'-C2'	6.46	122.39	114.00
21	A2	1080	C	N1-C1'-C2'	6.46	122.39	114.00
21	A2	1116	G	O4'-C1'-N9	6.46	113.36	108.20
27	A0	50	C	C3'-C2'-C1'	6.46	106.67	101.50
67	B1	967	G	P-O5'-C5'	-6.46	110.57	120.90
67	B1	971	G	O4'-C1'-C2'	6.46	113.41	107.60
21	A2	522	C	O4'-C1'-N1	6.46	113.36	108.20
67	B1	2262	C	O4'-C1'-C2'	-6.46	99.34	105.80
27	A0	68	G	O3'-P-O5'	6.45	116.26	104.00
67	B1	2430	C	O4'-C1'-N1	6.45	113.36	108.20
67	B1	231	G	C1'-O4'-C4'	6.45	115.06	109.90
67	B1	667	C	N1-C1'-C2'	6.45	122.39	114.00
67	B1	1808	G	O4'-C1'-C2'	6.45	113.41	107.60
21	A2	212	G	O4'-C1'-C2'	6.45	113.41	107.60
21	A2	563	U	O4'-C1'-C2'	-6.45	99.35	105.80
67	B1	2838	U	C5'-C4'-O4'	6.45	116.84	109.10
68	B3	12	G	O4'-C1'-C2'	-6.45	99.35	105.80
35	BL	65	ARG	CB-CA-C	-6.45	97.50	110.40
67	B1	596	C	C3'-C2'-C1'	-6.45	96.34	101.50
67	B1	823	G	P-O3'-C3'	-6.45	111.96	119.70
67	B1	1211	C	O4'-C1'-N1	6.45	113.36	108.20
67	B1	1958	A	O4'-C1'-C2'	-6.45	99.35	105.80
67	B1	3043	C	O4'-C1'-C2'	-6.45	99.35	105.80
21	A2	278	A	O4'-C1'-C2'	-6.45	99.35	105.80
21	A2	541	G	O4'-C1'-C2'	6.45	113.40	107.60
21	A2	1295	C	O4'-C1'-N1	6.45	113.36	108.20
31	BY	56	TRP	N-CA-CB	6.45	122.20	110.60
67	B1	2755	G	C1'-O4'-C4'	-6.45	104.74	109.90
7	AB	38	ASP	CB-CG-OD1	6.45	124.10	118.30
11	A1	48	U	O4'-C1'-N1	6.45	113.36	108.20
67	B1	603	G	N9-C1'-C2'	6.45	122.38	114.00
67	B1	2481	G	O4'-C1'-C2'	-6.45	99.35	105.80
67	B1	2924	G	O4'-C1'-C2'	-6.45	99.35	105.80
67	B1	2981	G	O4'-C1'-N9	6.45	113.36	108.20
17	AO	113	ARG	N-CA-CB	6.44	122.20	110.60
67	B1	1344	C	C3'-C2'-C1'	6.44	106.66	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1379	A	O5'-P-OP1	-6.44	99.90	105.70
67	B1	1831	C	N1-C1'-C2'	6.44	122.38	114.00
67	B1	2829	C	C3'-C2'-C1'	6.44	106.66	101.50
7	AB	105	ALA	N-CA-CB	6.44	119.12	110.10
21	A2	1330	G	C1'-O4'-C4'	6.44	115.05	109.90
63	Bg	13	LYS	CB-CA-C	6.44	123.29	110.40
67	B1	654	C	C3'-C2'-C1'	6.44	106.65	101.50
67	B1	1124	G	O4'-C1'-N9	-6.44	103.05	108.20
67	B1	2309	C	C1'-O4'-C4'	-6.44	104.75	109.90
67	B1	2311	C	C1'-O4'-C4'	-6.44	104.75	109.90
34	B5	8	ARG	NE-CZ-NH2	-6.44	117.08	120.30
67	B1	1466	U	C4'-C3'-C2'	-6.44	96.16	102.60
67	B1	2008	G	P-O3'-C3'	-6.44	111.97	119.70
67	B1	2633	A	O4'-C1'-N9	6.44	113.35	108.20
43	Bk	109	PRO	N-CA-CB	-6.44	95.52	102.60
67	B1	438	G	C4'-C3'-C2'	-6.44	96.16	102.60
25	AH	90	HIS	CA-CB-CG	6.44	124.54	113.60
57	BZ	57	ASP	CB-CG-OD2	-6.44	112.51	118.30
67	B1	1882	C	P-O5'-C5'	6.44	131.20	120.90
12	AN	44	LEU	CB-CG-CD2	6.44	121.94	111.00
67	B1	671	G	O4'-C1'-N9	6.44	113.35	108.20
21	A2	280	C	C1'-O4'-C4'	-6.43	104.75	109.90
21	A2	367	G	P-O5'-C5'	-6.43	110.60	120.90
21	A2	986	G	C5-C6-O6	-6.43	124.74	128.60
67	B1	706	U	C5'-C4'-O4'	6.43	116.82	109.10
67	B1	1182	C	O4'-C1'-N1	6.43	113.35	108.20
21	A2	1034	G	O4'-C1'-N9	6.43	113.35	108.20
67	B1	2812	U	O4'-C1'-N1	6.43	113.35	108.20
21	A2	600	C	C3'-C2'-C1'	6.43	106.64	101.50
67	B1	1446	G	O4'-C1'-N9	6.43	113.34	108.20
67	B1	1507	A	O4'-C1'-N9	6.43	113.34	108.20
67	B1	3007	A	C1'-O4'-C4'	6.43	115.04	109.90
21	A2	367	G	C5'-C4'-C3'	6.43	126.28	116.00
21	A2	1203	G	C1'-O4'-C4'	-6.43	104.76	109.90
17	AO	23	TRP	CE3-CZ3-CH2	-6.43	114.13	121.20
35	BL	58	LEU	O-C-N	6.43	134.12	123.20
59	BM	96	LEU	CB-CG-CD1	6.43	121.92	111.00
67	B1	400	U	O4'-C1'-N1	6.43	113.34	108.20
67	B1	1614	U	C5'-C4'-C3'	-6.43	105.72	116.00
67	B1	2314	U	C1'-O4'-C4'	6.43	115.04	109.90
67	B1	2655	C	N1-C1'-C2'	6.43	122.35	114.00
21	A2	1015	C	O4'-C1'-N1	6.42	113.34	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1314	C	C3'-C2'-C1'	6.42	106.64	101.50
67	B1	819	U	C5'-C4'-O4'	6.42	116.81	109.10
67	B1	1884	C	C3'-C2'-C1'	6.42	106.64	101.50
21	A2	1409	G	P-O3'-C3'	6.42	127.41	119.70
21	A2	926	C	C3'-C2'-C1'	6.42	106.64	101.50
67	B1	150	G	O4'-C1'-N9	6.42	113.34	108.20
67	B1	188	A	O4'-C1'-N9	6.42	113.34	108.20
21	A2	481	C	N1-C1'-C2'	6.42	122.35	114.00
21	A2	761	U	O4'-C1'-N1	6.42	113.34	108.20
67	B1	1450	C	O4'-C1'-N1	6.42	113.34	108.20
68	B3	15	G	O4'-C1'-C2'	6.42	113.38	107.60
21	A2	511	C	P-O3'-C3'	6.42	127.40	119.70
21	A2	1250	C	O4'-C1'-C2'	-6.42	99.38	105.80
53	BD	83	VAL	CA-C-N	-6.42	99.13	117.10
67	B1	586	A	C4-C5-C6	6.42	120.21	117.00
67	B1	598	C	O4'-C1'-C2'	-6.42	99.38	105.80
67	B1	1043	U	N1-C1'-C2'	-6.42	104.94	112.00
67	B1	1710	C	O4'-C1'-N1	6.42	113.34	108.20
67	B1	2396	G	O4'-C1'-C2'	-6.42	99.38	105.80
67	B1	2662	G	C4'-C3'-C2'	-6.42	96.18	102.60
67	B1	2813	G	O4'-C4'-C3'	-6.42	97.58	104.00
67	B1	3012	C	C3'-C2'-C1'	6.42	106.63	101.50
6	AC	114	TYR	CB-CG-CD2	6.42	124.85	121.00
25	AH	47	THR	N-CA-C	6.42	128.33	111.00
67	B1	1734	G	C5'-C4'-C3'	-6.42	105.73	116.00
67	B1	2925	C	C1'-O4'-C4'	-6.42	104.77	109.90
62	BN	6	ALA	N-CA-CB	6.42	119.08	110.10
21	A2	1050	G	O4'-C1'-C2'	6.41	113.37	107.60
21	A2	1468	A	O4'-C1'-C2'	-6.41	99.39	105.80
35	BL	47	TRP	CB-CG-CD2	-6.41	118.26	126.60
51	Bj	40	PHE	CB-CG-CD1	6.41	125.29	120.80
60	BS	78	PHE	CG-CD2-CE2	6.41	127.86	120.80
67	B1	1054	A	O4'-C1'-C2'	6.41	113.37	107.60
2	AK	26	VAL	CA-CB-CG1	-6.41	101.28	110.90
21	A2	864	G	O4'-C1'-N9	6.41	113.33	108.20
67	B1	2090	A	C3'-C2'-C1'	6.41	106.63	101.50
68	B3	84	U	C5'-C4'-O4'	6.41	116.80	109.10
37	BU	72	LYS	CA-CB-CG	6.41	127.50	113.40
42	BT	85	LEU	N-CA-C	-6.41	93.69	111.00
67	B1	335	C	N1-C1'-C2'	6.41	122.33	114.00
67	B1	589	G	C5-C6-O6	-6.41	124.75	128.60
67	B1	1956	G	C1'-O4'-C4'	-6.41	104.77	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1976	C	P-O5'-C5'	6.41	131.16	120.90
67	B1	2988	A	N9-C1'-C2'	-6.41	104.95	112.00
16	AJ	91	ARG	NE-CZ-NH2	6.41	123.50	120.30
46	BA	127	PRO	N-CA-CB	-6.41	95.55	102.60
67	B1	1787	U	C3'-C2'-C1'	6.41	106.63	101.50
21	A2	450	A	C4-C5-C6	6.41	120.20	117.00
21	A2	1033	G	O4'-C1'-N9	6.41	113.32	108.20
24	AA	115	TYR	CB-CG-CD1	6.41	124.84	121.00
67	B1	443	C	O4'-C4'-C3'	-6.41	97.59	104.00
67	B1	1867	C	O4'-C1'-C2'	-6.41	99.39	105.80
67	B1	2358	U	C5'-C4'-O4'	6.41	116.79	109.10
68	B3	73	U	C1'-O4'-C4'	-6.41	104.78	109.90
67	B1	225	C	O4'-C1'-C2'	-6.40	99.40	105.80
67	B1	948	C	C4'-C3'-C2'	-6.40	96.20	102.60
21	A2	750	C	O4'-C1'-C2'	-6.40	99.40	105.80
21	A2	1252	C	P-O5'-C5'	6.40	131.14	120.90
67	B1	913	G	N9-C1'-C2'	6.40	122.32	114.00
67	B1	1748	C	C1'-O4'-C4'	6.40	115.02	109.90
67	B1	1972	C	O4'-C1'-N1	6.40	113.32	108.20
1	AQ	118	SER	O-C-N	6.40	132.94	122.70
21	A2	589	U	C1'-O4'-C4'	6.40	115.02	109.90
67	B1	1018	G	C5-C6-O6	-6.40	124.76	128.60
67	B1	1540	A	P-O3'-C3'	6.40	127.38	119.70
6	AC	5	ARG	NE-CZ-NH2	-6.40	117.10	120.30
68	B3	71	G	O4'-C1'-C2'	6.40	113.36	107.60
21	A2	295	G	O4'-C1'-C2'	-6.40	99.40	105.80
25	AH	95	SER	C-N-CA	6.40	137.69	121.70
67	B1	214	C	C3'-C2'-C1'	6.40	106.62	101.50
67	B1	904	G	N9-C1'-C2'	-6.40	104.96	112.00
67	B1	1943	C	C1'-O4'-C4'	6.40	115.02	109.90
21	A2	561	A	C4'-C3'-C2'	-6.40	96.20	102.60
21	A2	1197	C	C3'-C2'-C1'	6.40	106.62	101.50
21	A2	811	G	O4'-C1'-C2'	-6.39	99.41	105.80
21	A2	847	A	N9-C1'-C2'	6.39	122.31	114.00
21	A2	1281	U	N1-C1'-C2'	6.39	122.31	114.00
25	AH	87	ARG	CD-NE-CZ	-6.39	114.65	123.60
57	BZ	99	ARG	NE-CZ-NH1	-6.39	117.10	120.30
67	B1	209	G	P-O3'-C3'	6.39	127.37	119.70
67	B1	2166	C	O4'-C1'-N1	6.39	113.31	108.20
45	Bi	16	ARG	NE-CZ-NH1	6.39	123.50	120.30
67	B1	1219	C	C3'-C2'-C1'	6.39	106.61	101.50
67	B1	1280	C	C3'-C2'-C1'	6.39	106.61	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2353	C	O4'-C1'-C2'	-6.39	99.41	105.80
67	B1	2926	G	O4'-C4'-C3'	-6.39	97.61	104.00
67	B1	2958	U	N1-C1'-C2'	-6.39	104.97	112.00
67	B1	3032	C	O4'-C1'-C2'	-6.39	99.41	105.80
67	B1	17	C	O4'-C1'-C2'	-6.39	99.41	105.80
21	A2	629	U	C5'-C4'-O4'	6.39	116.77	109.10
21	A2	1483	U	C1'-O4'-C4'	6.39	115.01	109.90
34	BK	61	ASP	CB-CG-OD2	-6.39	112.55	118.30
67	B1	1633	A	O4'-C1'-N9	6.39	113.31	108.20
67	B1	2341	G	N9-C1'-C2'	-6.39	104.97	112.00
17	AO	132	ARG	NE-CZ-NH1	-6.39	117.11	120.30
21	A2	158	U	C5'-C4'-C3'	-6.39	105.78	116.00
67	B1	1937	A	C5'-C4'-O4'	6.39	116.77	109.10
67	B1	2502	C	N1-C1'-C2'	6.39	122.30	114.00
21	A2	167	G	C5'-C4'-C3'	-6.39	105.78	116.00
21	A2	1338	C	O4'-C1'-C2'	-6.39	99.41	105.80
48	BR	23	ARG	NE-CZ-NH1	6.39	123.49	120.30
51	Bj	13	PHE	CB-CG-CD1	-6.39	116.33	120.80
67	B1	1367	A	C2'-C3'-O3'	6.39	123.92	113.70
67	B1	1410	A	C1'-O4'-C4'	-6.39	104.79	109.90
67	B1	2153	C	OP1-P-OP2	-6.39	110.02	119.60
67	B1	2959	A	C1'-O4'-C4'	-6.39	104.79	109.90
68	B3	92	G	C1'-O4'-C4'	-6.39	104.79	109.90
27	A0	2	C	C3'-C2'-C1'	6.38	106.61	101.50
67	B1	590	A	C4-C5-C6	6.38	120.19	117.00
67	B1	802	G	C3'-C2'-C1'	6.38	106.61	101.50
67	B1	884	C	C1'-O4'-C4'	-6.38	104.79	109.90
67	B1	998	G	C1'-O4'-C4'	6.38	115.01	109.90
67	B1	1735	G	O4'-C1'-N9	6.38	113.31	108.20
67	B1	2687	A	N9-C1'-C2'	-6.38	104.98	112.00
67	B1	415	U	O4'-C4'-C3'	-6.38	97.62	104.00
67	B1	1013	G	O4'-C1'-N9	6.38	113.31	108.20
21	A2	1006	C	O4'-C1'-C2'	-6.38	99.42	105.80
67	B1	324	C	O3'-P-O5'	6.38	116.12	104.00
67	B1	1576	C	N1-C1'-C2'	6.38	122.30	114.00
67	B1	1590	C	OP1-P-OP2	-6.38	110.03	119.60
67	B1	2537	G	N9-C1'-C2'	6.38	122.30	114.00
21	A2	853	G	O4'-C1'-N9	6.38	113.30	108.20
21	A2	1239	A	P-O3'-C3'	-6.38	112.04	119.70
41	Ba	8	GLU	N-CA-CB	6.38	122.08	110.60
67	B1	1846	G	C1'-O4'-C4'	-6.38	104.80	109.90
21	A2	1265	G	C1'-O4'-C4'	-6.38	104.80	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2177	A	C1'-O4'-C4'	-6.38	104.80	109.90
67	B1	2655	C	C1'-O4'-C4'	-6.38	104.80	109.90
67	B1	2727	C	C3'-C2'-C1'	6.38	106.60	101.50
19	AS	41	VAL	N-CA-C	-6.38	93.78	111.00
21	A2	200	G	C5'-C4'-C3'	6.38	126.20	116.00
21	A2	1204	C	P-O5'-C5'	6.38	131.10	120.90
21	A2	1348	C	N1-C1'-C2'	6.38	122.29	114.00
61	Bd	30	LYS	CB-CA-C	6.38	123.15	110.40
67	B1	490	C	O4'-C4'-C3'	-6.38	97.62	104.00
67	B1	1095	A	N9-C1'-C2'	6.38	122.29	114.00
67	B1	2253	G	O4'-C1'-C2'	-6.38	99.42	105.80
67	B1	2287	C	C3'-C2'-C1'	-6.38	96.40	101.50
68	B3	68	C	O4'-C1'-N1	6.38	113.30	108.20
67	B1	587	A	C4-C5-C6	6.38	120.19	117.00
67	B1	1338	G	C1'-O4'-C4'	-6.38	104.80	109.90
11	A1	59	A	C3'-C2'-C1'	-6.37	96.40	101.50
21	A2	1133	C	P-O3'-C3'	-6.37	112.05	119.70
27	A0	73	G	C3'-C2'-C1'	-6.37	96.40	101.50
67	B1	1436	A	O4'-C4'-C3'	-6.37	97.63	104.00
21	A2	468	G	C4'-C3'-C2'	-6.37	96.23	102.60
21	A2	471	G	O4'-C1'-N9	6.37	113.30	108.20
21	A2	601	G	OP1-P-OP2	-6.37	110.04	119.60
21	A2	1105	C	N1-C1'-C2'	6.37	122.28	114.00
34	B5	61	ASP	CB-CG-OD2	-6.37	112.56	118.30
67	B1	776	G	C1'-O4'-C4'	6.37	115.00	109.90
67	B1	1155	A	C1'-O4'-C4'	6.37	115.00	109.90
67	B1	1708	U	P-O3'-C3'	6.37	127.34	119.70
11	A1	33	C	C1'-O4'-C4'	6.37	115.00	109.90
23	AT	82	TYR	CB-CG-CD1	-6.37	117.18	121.00
67	B1	2838	U	C1'-O4'-C4'	-6.37	104.80	109.90
67	B1	2334	G	P-O5'-C5'	-6.37	110.71	120.90
67	B1	3024	C	N1-C1'-C2'	6.37	122.28	114.00
7	AB	46	ARG	NE-CZ-NH2	6.37	123.48	120.30
21	A2	287	G	N9-C1'-C2'	-6.37	105.00	112.00
46	BA	23	ASN	O-C-N	-6.37	112.51	122.70
67	B1	742	C	N1-C1'-C2'	6.37	122.28	114.00
21	A2	184	G	N9-C1'-C2'	-6.37	105.00	112.00
21	A2	1312	C	OP1-P-OP2	-6.37	110.05	119.60
40	BE	153	ARG	NE-CZ-NH2	-6.37	117.12	120.30
67	B1	2483	U	C4'-C3'-C2'	-6.37	96.23	102.60
21	A2	1418	G	O4'-C1'-N9	6.36	113.29	108.20
27	A0	20	U	O4'-C1'-C2'	-6.36	99.44	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BC	334	ARG	N-CA-CB	6.36	122.06	110.60
67	B1	1683	C	O4'-C1'-N1	6.36	113.29	108.20
67	B1	2751	C	P-O3'-C3'	6.36	127.33	119.70
67	B1	610	C	C3'-C2'-C1'	6.36	106.59	101.50
67	B1	1644	G	O4'-C1'-N9	6.36	113.29	108.20
67	B1	2617	G	N9-C1'-C2'	6.36	122.27	114.00
67	B1	791	C	O4'-C1'-N1	6.36	113.29	108.20
67	B1	1271	G	N9-C1'-C2'	6.36	122.27	114.00
67	B1	1552	C	P-O3'-C3'	6.36	127.33	119.70
67	B1	2731	C	C5'-C4'-O4'	6.36	116.73	109.10
21	A2	526	A	C3'-C2'-C1'	6.36	106.59	101.50
21	A2	572	U	O4'-C1'-N1	6.36	113.29	108.20
48	BR	7	SER	N-CA-CB	6.36	120.04	110.50
67	B1	1998	G	N9-C1'-C2'	-6.36	105.00	112.00
67	B1	2740	G	C5-C6-O6	-6.36	124.78	128.60
53	BD	26	PHE	CB-CG-CD1	-6.36	116.35	120.80
28	B6	60	PHE	CB-CG-CD1	6.36	125.25	120.80
67	B1	716	U	O4'-C1'-C2'	-6.36	99.44	105.80
67	B1	1793	G	N9-C1'-C2'	6.36	122.26	114.00
67	B1	1933	U	N1-C1'-C2'	6.36	122.26	114.00
67	B1	2144	U	N1-C1'-C2'	-6.36	105.01	112.00
8	AR	46	THR	CA-CB-CG2	-6.36	103.50	112.40
21	A2	1050	G	C3'-C2'-C1'	-6.36	96.42	101.50
67	B1	392	G	N9-C1'-C2'	6.35	122.26	114.00
67	B1	1471	G	C1'-O4'-C4'	-6.35	104.82	109.90
67	B1	1645	U	O4'-C1'-C2'	-6.35	99.45	105.80
67	B1	2868	C	N1-C1'-C2'	6.35	122.26	114.00
6	AC	126	ARG	CD-NE-CZ	6.35	132.49	123.60
21	A2	1045	A	P-O5'-C5'	-6.35	110.74	120.90
39	Be	42	ARG	NE-CZ-NH1	6.35	123.48	120.30
47	BI	107	PHE	CB-CG-CD1	-6.35	116.35	120.80
67	B1	1614	U	C1'-O4'-C4'	-6.35	104.82	109.90
67	B1	2457	C	O4'-C1'-N1	6.35	113.28	108.20
67	B1	1250	A	C5'-C4'-O4'	6.35	116.72	109.10
67	B1	2783	C	N1-C1'-C2'	6.35	122.26	114.00
21	A2	646	U	O5'-P-OP1	-6.35	99.98	105.70
21	A2	1426	C	O4'-C1'-N1	6.35	113.28	108.20
63	Bg	34	CYS	CA-C-N	6.35	128.90	116.20
67	B1	1274	G	C1'-O4'-C4'	-6.35	104.82	109.90
67	B1	2263	G	O4'-C1'-C2'	-6.35	99.45	105.80
68	B3	2	G	C1'-O4'-C4'	6.35	114.98	109.90
4	AG	99	LYS	CA-CB-CG	6.35	127.36	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	AS	14	ARG	NE-CZ-NH1	6.35	123.47	120.30
21	A2	272	C	N1-C1'-C2'	6.35	122.25	114.00
21	A2	749	C	N1-C1'-C2'	6.35	122.25	114.00
33	BC	69	PRO	N-CA-CB	6.35	110.92	103.30
67	B1	170	A	O4'-C1'-C2'	-6.35	99.45	105.80
67	B1	927	G	O4'-C1'-C2'	-6.35	99.45	105.80
67	B1	2206	G	P-O3'-C3'	-6.35	112.08	119.70
67	B1	2961	A	N9-C1'-C2'	-6.35	105.02	112.00
11	A1	36	A	C5'-C4'-O4'	6.34	116.71	109.10
35	BL	37	ALA	N-CA-CB	6.34	118.98	110.10
67	B1	1035	G	P-O5'-C5'	6.34	131.05	120.90
67	B1	1553	G	O3'-P-O5'	-6.34	91.95	104.00
67	B1	1907	G	N9-C1'-C2'	6.34	122.25	114.00
21	A2	211	G	N9-C1'-C2'	6.34	122.25	114.00
21	A2	692	G	O4'-C1'-C2'	6.34	113.31	107.60
21	A2	1392	G	P-O3'-C3'	6.34	127.31	119.70
67	B1	547	C	O4'-C1'-C2'	-6.34	99.46	105.80
67	B1	1165	C	N1-C1'-C2'	-6.34	105.02	112.00
10	AD	99	ASP	CB-CG-OD2	-6.34	112.59	118.30
21	A2	1271	G	N9-C1'-C2'	6.34	122.25	114.00
49	BQ	125	ILE	CB-CA-C	6.34	124.28	111.60
67	B1	297	G	O4'-C1'-C2'	-6.34	99.46	105.80
67	B1	492	A	N9-C1'-C2'	-6.34	105.03	112.00
67	B1	498	U	N1-C1'-C2'	6.34	122.24	114.00
67	B1	1628	C	C5'-C4'-O4'	6.34	116.71	109.10
67	B1	2351	G	C3'-C2'-C1'	-6.34	96.43	101.50
67	B1	2672	A	O4'-C1'-C2'	-6.34	99.46	105.80
21	A2	1066	C	C1'-O4'-C4'	-6.34	104.83	109.90
21	A2	1088	U	OP2-P-O3'	6.34	119.15	105.20
21	A2	1411	G	O4'-C1'-C2'	-6.34	99.46	105.80
67	B1	159	C	P-O5'-C5'	6.34	131.04	120.90
67	B1	568	A	C1'-O4'-C4'	-6.34	104.83	109.90
67	B1	721	G	O4'-C1'-C2'	-6.34	99.46	105.80
67	B1	2143	C	N1-C1'-C2'	6.34	122.24	114.00
67	B1	2698	G	N9-C1'-C2'	-6.34	105.03	112.00
68	B3	56	C	N1-C1'-C2'	6.34	122.24	114.00
68	B3	37	U	C4'-C3'-C2'	-6.34	96.26	102.60
13	AX	7	TYR	N-CA-CB	-6.34	99.19	110.60
21	A2	248	U	P-O5'-C5'	-6.34	110.76	120.90
21	A2	542	G	O4'-C1'-C2'	6.34	113.30	107.60
67	B1	314	A	C5'-C4'-O4'	6.34	116.70	109.10
67	B1	561	C	O4'-C1'-N1	6.34	113.27	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	970	G	O4'-C1'-N9	6.34	113.27	108.20
21	A2	882	C	C3'-C2'-C1'	6.33	106.57	101.50
47	BI	46	PHE	CB-CG-CD1	-6.33	116.37	120.80
67	B1	2424	A	O4'-C1'-C2'	-6.33	99.47	105.80
21	A2	94	C	C1'-O4'-C4'	-6.33	104.83	109.90
21	A2	1304	C	O4'-C1'-N1	6.33	113.27	108.20
49	BQ	107	ARG	NE-CZ-NH2	-6.33	117.13	120.30
67	B1	112	U	C1'-O4'-C4'	-6.33	104.83	109.90
67	B1	160	C	C3'-C2'-C1'	6.33	106.57	101.50
67	B1	806	C	N1-C1'-C2'	6.33	122.23	114.00
67	B1	827	G	O4'-C1'-N9	6.33	113.27	108.20
67	B1	1254	C	C1'-O4'-C4'	6.33	114.97	109.90
67	B1	2804	C	O4'-C1'-N1	6.33	113.27	108.20
68	B3	55	G	O4'-C1'-C2'	6.33	113.30	107.60
27	A0	65	G	C3'-C2'-C1'	6.33	106.56	101.50
67	B1	1666	G	C4'-C3'-C2'	-6.33	96.27	102.60
67	B1	2021	G	O4'-C1'-C2'	6.33	113.30	107.60
67	B1	2502	C	O4'-C1'-N1	6.33	113.27	108.20
67	B1	2931	G	O4'-C1'-N9	6.33	113.27	108.20
21	A2	88	G	P-O5'-C5'	6.33	131.03	120.90
21	A2	732	G	P-O5'-C5'	6.33	131.03	120.90
67	B1	18	C	P-O3'-C3'	-6.33	112.11	119.70
67	B1	1094	U	O4'-C1'-N1	6.33	113.26	108.20
67	B1	2199	U	P-O3'-C3'	-6.33	112.11	119.70
67	B1	2328	G	P-O3'-C3'	-6.33	112.11	119.70
67	B1	2877	A	O4'-C1'-C2'	6.33	113.30	107.60
36	Bf	44	TRP	CA-CB-CG	6.33	125.72	113.70
67	B1	2558	U	O4'-C1'-N1	6.33	113.26	108.20
67	B1	2766	C	O4'-C1'-N1	6.33	113.26	108.20
21	A2	141	C	C3'-C2'-C1'	6.33	106.56	101.50
21	A2	840	C	P-O3'-C3'	-6.33	112.11	119.70
67	B1	518	A	O4'-C1'-C2'	-6.33	99.47	105.80
67	B1	1262	C	C3'-C2'-C1'	6.33	106.56	101.50
67	B1	2662	G	OP1-P-OP2	-6.33	110.11	119.60
21	A2	1073	C	N1-C1'-C2'	6.32	122.22	114.00
21	A2	1203	G	C4'-C3'-C2'	-6.32	96.28	102.60
21	A2	1419	G	O4'-C4'-C3'	-6.32	97.68	104.00
43	Bk	165	ALA	CB-CA-C	-6.32	100.61	110.10
67	B1	1584	G	P-O5'-C5'	6.32	131.02	120.90
67	B1	1049	U	C1'-O4'-C4'	6.32	114.96	109.90
67	B1	1964	G	C5'-C4'-C3'	-6.32	105.89	116.00
67	B1	2450	A	C2'-C3'-O3'	6.32	123.81	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AQ	130	ARG	NE-CZ-NH1	6.32	123.46	120.30
67	B1	915	G	C1'-O4'-C4'	-6.32	104.84	109.90
67	B1	987	G	O4'-C1'-N9	6.32	113.26	108.20
68	B3	45	C	N1-C1'-C2'	-6.32	105.05	112.00
68	B3	69	C	O4'-C4'-C3'	-6.32	97.68	104.00
21	A2	1254	C	O4'-C1'-C2'	-6.32	99.48	105.80
67	B1	1580	G	C1'-O4'-C4'	-6.32	104.84	109.90
4	AG	55	PHE	CA-C-N	6.32	134.79	117.10
7	AB	28	MET	CG-SD-CE	-6.32	90.09	100.20
21	A2	354	G	C1'-O4'-C4'	-6.32	104.85	109.90
21	A2	1415	U	O4'-C4'-C3'	-6.32	97.68	104.00
67	B1	2697	G	C1'-O4'-C4'	6.32	114.95	109.90
67	B1	172	C	C1'-O4'-C4'	-6.32	104.85	109.90
67	B1	997	A	C3'-C2'-C1'	6.32	106.55	101.50
67	B1	2210	G	O4'-C1'-N9	6.32	113.25	108.20
67	B1	2683	G	C1'-O4'-C4'	-6.32	104.85	109.90
67	B1	2725	U	O4'-C1'-C2'	-6.32	99.48	105.80
68	B3	91	G	P-O5'-C5'	6.32	131.00	120.90
21	A2	152	G	P-O5'-C5'	-6.31	110.80	120.90
67	B1	296	G	O4'-C1'-N9	6.31	113.25	108.20
67	B1	406	G	C5'-C4'-O4'	6.31	116.68	109.10
67	B1	815	U	C1'-O4'-C4'	6.31	114.95	109.90
67	B1	2493	A	O4'-C1'-C2'	6.31	113.28	107.60
20	A3	108	ARG	NE-CZ-NH2	6.31	123.46	120.30
67	B1	793	C	O4'-C1'-N1	6.31	113.25	108.20
67	B1	1143	A	C4'-C3'-C2'	6.31	108.91	102.60
21	A2	1435	G	N9-C1'-C2'	6.31	122.20	114.00
67	B1	3004	C	P-O5'-C5'	6.31	131.00	120.90
17	AO	132	ARG	NE-CZ-NH2	6.31	123.45	120.30
21	A2	289	C	C5'-C4'-O4'	6.31	116.67	109.10
29	AL	56	GLU	N-CA-CB	-6.31	99.24	110.60
49	BQ	6	MET	CB-CA-C	6.31	123.02	110.40
67	B1	441	A	P-O3'-C3'	-6.31	112.13	119.70
67	B1	459	C	C1'-O4'-C4'	6.31	114.95	109.90
67	B1	2042	A	N9-C1'-C2'	-6.31	105.06	112.00
68	B3	19	G	P-O5'-C5'	6.31	131.00	120.90
11	A1	3	G	C1'-O4'-C4'	6.31	114.95	109.90
21	A2	877	A	C4'-C3'-C2'	-6.31	96.29	102.60
21	A2	1458	A	O4'-C1'-N9	6.31	113.25	108.20
67	B1	190	C	C1'-O4'-C4'	-6.31	104.85	109.90
67	B1	1849	A	C4'-C3'-C2'	-6.31	96.29	102.60
67	B1	2287	C	C4'-C3'-C2'	-6.31	96.29	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2405	U	C5'-C4'-C3'	-6.31	105.91	116.00
21	A2	527	A	C5'-C4'-C3'	6.30	126.09	116.00
21	A2	660	C	P-O3'-C3'	6.30	127.27	119.70
57	BZ	84	ALA	N-CA-CB	6.30	118.93	110.10
67	B1	12	C	O4'-C1'-C2'	-6.30	99.50	105.80
67	B1	856	A	O4'-C1'-C2'	-6.30	99.50	105.80
67	B1	2486	A	C1'-O4'-C4'	6.30	114.94	109.90
67	B1	2610	C	O4'-C4'-C3'	-6.30	97.69	104.00
67	B1	2649	A	C1'-O4'-C4'	-6.30	104.86	109.90
67	B1	2683	G	O4'-C1'-N9	6.30	113.24	108.20
21	A2	827	G	N9-C1'-C2'	6.30	122.19	114.00
43	Bk	54	VAL	CB-CA-C	-6.30	99.42	111.40
67	B1	1456	U	P-O5'-C5'	-6.30	110.82	120.90
67	B1	2272	G	C4'-C3'-C2'	-6.30	96.30	102.60
21	A2	95	G	C1'-O4'-C4'	6.30	114.94	109.90
21	A2	1276	G	O4'-C1'-C2'	-6.30	99.50	105.80
21	A2	1388	G	C3'-C2'-C1'	6.30	106.54	101.50
67	B1	205	A	O4'-C1'-N9	6.30	113.24	108.20
67	B1	980	G	P-O5'-C5'	6.30	130.98	120.90
67	B1	2969	G	O4'-C1'-N9	-6.30	103.16	108.20
21	A2	375	G	O4'-C1'-N9	6.30	113.24	108.20
21	A2	908	G	N9-C1'-C2'	6.30	122.19	114.00
21	A2	1231	G	O4'-C1'-N9	6.30	113.24	108.20
40	BE	155	ARG	NE-CZ-NH1	-6.30	117.15	120.30
67	B1	1271	G	O4'-C1'-N9	-6.30	103.16	108.20
67	B1	1668	G	O4'-C1'-N9	6.30	113.24	108.20
68	B3	100	A	C4'-C3'-C2'	6.30	108.90	102.60
67	B1	726	G	C3'-C2'-C1'	-6.30	96.46	101.50
67	B1	2936	U	C3'-C2'-C1'	-6.30	96.46	101.50
21	A2	153	G	P-O3'-C3'	-6.30	112.14	119.70
21	A2	402	G	C4'-C3'-C2'	-6.30	96.30	102.60
21	A2	523	C	N1-C1'-C2'	6.30	122.19	114.00
21	A2	1158	G	N9-C1'-C2'	-6.30	105.07	112.00
67	B1	839	A	C3'-C2'-C1'	6.30	106.54	101.50
67	B1	1420	U	C1'-O4'-C4'	6.30	114.94	109.90
67	B1	1873	G	O4'-C1'-N9	6.30	113.24	108.20
21	A2	1151	A	C3'-C2'-C1'	6.29	106.54	101.50
67	B1	216	A	C4'-C3'-C2'	-6.29	96.31	102.60
67	B1	548	U	OP1-P-OP2	-6.29	110.16	119.60
67	B1	1642	G	C4'-C3'-C2'	-6.29	96.31	102.60
67	B1	2371	A	C3'-C2'-C1'	-6.29	96.46	101.50
21	A2	756	A	O4'-C1'-C2'	-6.29	99.51	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	865	A	O4'-C1'-N9	6.29	113.23	108.20
67	B1	34	C	P-O3'-C3'	6.29	127.25	119.70
67	B1	487	U	C1'-O4'-C4'	6.29	114.94	109.90
67	B1	606	A	C4'-C3'-C2'	-6.29	96.31	102.60
67	B1	1802	G	O4'-C1'-N9	6.29	113.23	108.20
67	B1	1929	C	C5'-C4'-O4'	6.29	116.65	109.10
67	B1	2647	G	C1'-O4'-C4'	-6.29	104.87	109.90
21	A2	1	A	C1'-O4'-C4'	6.29	114.93	109.90
21	A2	199	A	C4'-C3'-C2'	6.29	108.89	102.60
21	A2	913	G	C1'-O4'-C4'	-6.29	104.87	109.90
35	BL	47	TRP	O-C-N	-6.29	112.63	122.70
67	B1	1455	U	P-O5'-C5'	-6.29	110.83	120.90
67	B1	2094	A	P-O3'-C3'	6.29	127.25	119.70
67	B1	2998	G	C3'-C2'-C1'	-6.29	96.47	101.50
67	B1	396	G	O4'-C1'-N9	6.29	113.23	108.20
67	B1	1256	G	O4'-C1'-C2'	6.29	113.26	107.60
21	A2	488	A	O4'-C1'-C2'	-6.29	99.51	105.80
21	A2	868	C	C1'-O4'-C4'	6.29	114.93	109.90
21	A2	975	A	C1'-O4'-C4'	6.29	114.93	109.90
21	A2	1239	A	C3'-C2'-C1'	6.29	106.53	101.50
53	BD	22	PHE	CB-CG-CD1	-6.29	116.40	120.80
67	B1	2229	G	C1'-O4'-C4'	6.29	114.93	109.90
67	B1	2501	G	P-O3'-C3'	6.29	127.25	119.70
21	A2	740	G	N9-C1'-C2'	-6.29	105.08	112.00
21	A2	1053	A	C4'-C3'-C2'	6.29	108.89	102.60
67	B1	1722	G	O4'-C1'-N9	-6.29	103.17	108.20
21	A2	3	U	O4'-C1'-N1	6.29	113.23	108.20
21	A2	1056	G	O4'-C1'-C2'	6.29	113.26	107.60
48	BR	12	THR	CA-CB-CG2	-6.29	103.60	112.40
67	B1	1621	G	O5'-P-OP2	-6.29	100.04	105.70
67	B1	2454	G	O4'-C1'-N9	6.29	113.23	108.20
48	BR	97	LYS	N-CA-CB	6.28	121.91	110.60
67	B1	1087	G	N9-C1'-C2'	-6.28	105.09	112.00
67	B1	1648	C	O4'-C1'-N1	6.28	113.23	108.20
67	B1	2079	U	P-O3'-C3'	-6.28	112.16	119.70
67	B1	2748	C	N3-C4-N4	6.28	122.40	118.00
21	A2	713	A	O4'-C4'-C3'	-6.28	97.72	104.00
21	A2	1166	G	C1'-O4'-C4'	-6.28	104.88	109.90
21	A2	1460	G	C2'-C3'-O3'	6.28	123.75	113.70
67	B1	898	G	O4'-C1'-N9	-6.28	103.17	108.20
67	B1	1104	A	O4'-C1'-N9	6.28	113.22	108.20
67	B1	2606	C	O4'-C1'-N1	6.28	113.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	81	G	C1'-O4'-C4'	-6.28	104.88	109.90
67	B1	1229	U	O4'-C1'-N1	-6.28	103.18	108.20
21	A2	549	A	C5'-C4'-O4'	6.28	116.63	109.10
27	A0	76	A	C4'-C3'-C2'	-6.28	96.32	102.60
67	B1	323	U	P-O5'-C5'	-6.28	110.86	120.90
67	B1	350	A	N9-C1'-C2'	-6.28	105.09	112.00
67	B1	1550	C	O3'-P-O5'	-6.28	92.07	104.00
67	B1	1880	A	C4-C5-C6	6.28	120.14	117.00
67	B1	2422	G	C3'-C2'-C1'	-6.28	96.48	101.50
67	B1	2794	G	N9-C1'-C2'	-6.28	105.09	112.00
67	B1	2959	A	N9-C1'-C2'	6.28	122.16	114.00
21	A2	601	G	C1'-O4'-C4'	6.28	114.92	109.90
67	B1	1753	G	P-O3'-C3'	6.28	127.23	119.70
67	B1	2175	G	O4'-C1'-N9	6.28	113.22	108.20
67	B1	2578	C	C4'-C3'-C2'	-6.28	96.32	102.60
67	B1	2921	U	N1-C1'-C2'	-6.28	105.10	112.00
68	B3	59	C	C1'-O4'-C4'	-6.28	104.88	109.90
67	B1	1947	A	P-O3'-C3'	6.27	127.23	119.70
68	B3	8	C	O4'-C4'-C3'	6.27	111.12	106.10
12	AN	9	GLY	N-CA-C	-6.27	97.42	113.10
13	AX	39	ARG	NE-CZ-NH1	6.27	123.44	120.30
21	A2	71	C	O4'-C1'-C2'	-6.27	99.53	105.80
67	B1	44	C	P-O3'-C3'	6.27	127.23	119.70
67	B1	688	G	O4'-C1'-N9	-6.27	103.18	108.20
67	B1	1407	A	C2'-C3'-O3'	6.27	123.74	113.70
67	B1	1888	G	C3'-C2'-C1'	6.27	106.52	101.50
67	B1	1992	A	P-O3'-C3'	6.27	127.23	119.70
53	BD	22	PHE	CB-CG-CD2	6.27	125.19	120.80
67	B1	463	A	C3'-C2'-C1'	-6.27	96.48	101.50
35	BL	9	ARG	CA-C-N	-6.27	103.41	117.20
67	B1	1302	G	N9-C1'-C2'	6.27	122.15	114.00
67	B1	1769	G	C1'-O4'-C4'	-6.27	104.88	109.90
67	B1	2481	G	C1'-O4'-C4'	6.27	114.92	109.90
19	AS	47	ARG	NE-CZ-NH2	-6.27	117.17	120.30
21	A2	676	G	P-O3'-C3'	6.27	127.22	119.70
21	A2	681	G	P-O5'-C5'	-6.27	110.87	120.90
21	A2	1318	U	N1-C1'-C2'	6.27	122.15	114.00
67	B1	732	G	C3'-C2'-C1'	-6.27	96.49	101.50
67	B1	1923	A	O4'-C4'-C3'	6.27	111.11	106.10
21	A2	874	G	P-O3'-C3'	-6.27	112.18	119.70
67	B1	1615	G	P-O3'-C3'	6.27	127.22	119.70
68	B3	49	A	N9-C1'-C2'	-6.27	105.11	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1457	C	OP1-P-OP2	-6.26	110.20	119.60
67	B1	229	G	N9-C1'-C2'	6.26	122.14	114.00
67	B1	2718	G	C5'-C4'-C3'	-6.26	105.98	116.00
1	AQ	158	ARG	NE-CZ-NH2	-6.26	117.17	120.30
21	A2	72	C	O4'-C1'-C2'	-6.26	99.54	105.80
21	A2	560	A	C3'-C2'-C1'	6.26	106.51	101.50
43	Bk	42	ARG	CA-CB-CG	6.26	127.17	113.40
67	B1	333	A	P-O3'-C3'	6.26	127.22	119.70
67	B1	1017	A	C5-C6-N6	-6.26	118.69	123.70
67	B1	1139	C	O4'-C1'-N1	6.26	113.21	108.20
67	B1	1288	C	C3'-C2'-C1'	6.26	106.51	101.50
67	B1	3017	U	C1'-O4'-C4'	-6.26	104.89	109.90
67	B1	774	G	C3'-C2'-C1'	-6.26	96.49	101.50
67	B1	1695	G	P-O3'-C3'	6.26	127.21	119.70
67	B1	1816	C	N1-C1'-C2'	6.26	122.14	114.00
67	B1	2477	G	P-O3'-C3'	-6.26	112.19	119.70
67	B1	2950	G	N9-C1'-C2'	-6.26	105.11	112.00
21	A2	904	G	C3'-C2'-C1'	6.26	106.51	101.50
67	B1	723	A	O4'-C1'-C2'	-6.26	99.54	105.80
67	B1	2077	A	N9-C1'-C2'	-6.26	105.12	112.00
67	B1	2977	G	N9-C1'-C2'	6.26	122.14	114.00
21	A2	34	G	P-O3'-C3'	-6.26	112.19	119.70
21	A2	1307	G	C3'-C2'-C1'	6.26	106.51	101.50
67	B1	553	C	N1-C1'-C2'	6.26	122.13	114.00
67	B1	1248	C	P-O3'-C3'	-6.26	112.19	119.70
67	B1	1298	C	O4'-C1'-C2'	-6.26	99.54	105.80
67	B1	2348	G	C3'-C2'-C1'	-6.26	96.50	101.50
67	B1	2869	U	C4'-C3'-C2'	-6.26	96.34	102.60
67	B1	1481	G	N9-C1'-C2'	6.25	122.13	114.00
67	B1	2406	C	O4'-C1'-C2'	-6.25	99.55	105.80
7	AB	110	PHE	CB-CG-CD1	-6.25	116.42	120.80
11	A1	27	A	O4'-C4'-C3'	6.25	111.10	106.10
67	B1	784	C	O4'-C1'-C2'	-6.25	99.55	105.80
11	A1	57	C	C5'-C4'-O4'	6.25	116.60	109.10
21	A2	111	G	O3'-P-O5'	-6.25	92.12	104.00
40	BE	138	ASP	CB-CG-OD2	-6.25	112.67	118.30
67	B1	1183	U	O4'-C1'-N1	6.25	113.20	108.20
67	B1	1318	G	O4'-C1'-N9	6.25	113.20	108.20
67	B1	1823	A	C5'-C4'-C3'	-6.25	106.00	116.00
68	B3	96	C	C4'-C3'-C2'	-6.25	96.35	102.60
7	AB	200	VAL	CG1-CB-CG2	-6.25	100.90	110.90
11	A1	10	G	P-O3'-C3'	-6.25	112.20	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AO	122	LEU	CB-CG-CD2	6.25	121.62	111.00
21	A2	739	G	P-O3'-C3'	-6.25	112.20	119.70
67	B1	2055	U	C3'-C2'-C1'	6.25	106.50	101.50
67	B1	2688	C	C5'-C4'-O4'	6.25	116.60	109.10
21	A2	726	A	C1'-O4'-C4'	-6.25	104.90	109.90
21	A2	1374	C	N1-C1'-C2'	6.25	122.12	114.00
59	BM	59	TYR	CB-CG-CD2	6.25	124.75	121.00
21	A2	66	G	N9-C1'-C2'	6.25	122.12	114.00
67	B1	1404	G	C5'-C4'-O4'	6.25	116.60	109.10
67	B1	2278	U	P-O3'-C3'	-6.25	112.20	119.70
21	A2	848	G	C4'-C3'-C2'	-6.25	96.36	102.60
52	BB	219	ARG	NE-CZ-NH1	6.25	123.42	120.30
67	B1	1820	C	C1'-O4'-C4'	-6.25	104.90	109.90
67	B1	2657	A	C1'-O4'-C4'	6.25	114.90	109.90
67	B1	2664	G	P-O3'-C3'	-6.25	112.20	119.70
20	A3	106	LYS	N-CA-CB	6.24	121.84	110.60
21	A2	1099	A	P-O3'-C3'	6.24	127.19	119.70
21	A2	1289	G	C4'-C3'-C2'	-6.24	96.36	102.60
67	B1	371	U	N1-C1'-C2'	6.24	122.12	114.00
67	B1	463	A	N9-C1'-C2'	6.24	122.12	114.00
67	B1	1408	G	C4'-C3'-C2'	-6.24	96.36	102.60
67	B1	1542	U	OP1-P-OP2	-6.24	110.24	119.60
67	B1	1969	C	P-O3'-C3'	6.24	127.19	119.70
21	A2	831	A	C3'-C2'-C1'	6.24	106.49	101.50
67	B1	1348	G	N9-C1'-C2'	-6.24	105.13	112.00
21	A2	581	G	P-O3'-C3'	6.24	127.19	119.70
41	Ba	24	ARG	NE-CZ-NH1	6.24	123.42	120.30
67	B1	2696	G	C1'-O4'-C4'	6.24	114.89	109.90
11	A1	10	G	C3'-C2'-C1'	-6.24	96.51	101.50
21	A2	1053	A	O4'-C1'-C2'	-6.24	99.56	105.80
59	BM	118	TRP	CG-CD2-CE3	-6.24	128.29	133.90
67	B1	1363	C	O4'-C1'-N1	6.24	113.19	108.20
67	B1	2958	U	O4'-C1'-C2'	-6.24	99.56	105.80
68	B3	58	C	N1-C1'-C2'	6.24	122.11	114.00
21	A2	671	C	P-O3'-C3'	-6.24	112.22	119.70
67	B1	1559	A	N9-C1'-C2'	6.24	122.11	114.00
67	B1	686	C	C3'-C2'-C1'	6.24	106.49	101.50
67	B1	719	C	C3'-C2'-C1'	6.24	106.49	101.50
67	B1	980	G	O4'-C1'-N9	-6.24	103.21	108.20
67	B1	1547	U	C3'-C2'-C1'	6.24	106.49	101.50
67	B1	2951	G	P-O3'-C3'	6.24	127.18	119.70
11	A1	38	G	O4'-C1'-C2'	-6.23	99.57	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1412	A	C3'-C2'-C1'	6.23	106.49	101.50
67	B1	204	G	C5'-C4'-C3'	-6.23	106.03	116.00
67	B1	393	C	C5'-C4'-O4'	-6.23	101.62	109.10
67	B1	2566	A	O4'-C1'-N9	6.23	113.19	108.20
67	B1	2586	A	OP1-P-OP2	-6.23	110.25	119.60
21	A2	604	C	C4'-C3'-C2'	-6.23	96.37	102.60
52	BB	162	VAL	CA-CB-CG2	-6.23	101.55	110.90
67	B1	450	G	C3'-C2'-C1'	6.23	106.48	101.50
67	B1	873	G	O4'-C1'-N9	6.23	113.18	108.20
25	AH	97	LYS	N-CA-CB	6.23	121.81	110.60
67	B1	332	A	C4-C5-C6	6.23	120.11	117.00
67	B1	866	G	P-O3'-C3'	6.23	127.17	119.70
67	B1	932	C	O4'-C1'-C2'	-6.23	99.57	105.80
67	B1	3003	A	C1'-O4'-C4'	6.23	114.88	109.90
15	AE	198	ARG	NH1-CZ-NH2	-6.23	112.55	119.40
21	A2	925	U	N1-C1'-C2'	6.23	122.09	114.00
21	A2	1012	C	C3'-C2'-C1'	6.23	106.48	101.50
52	BB	185	ARG	NE-CZ-NH1	-6.23	117.19	120.30
61	Bd	88	LEU	N-CA-CB	6.23	122.86	110.40
67	B1	1745	U	C1'-O4'-C4'	6.23	114.88	109.90
1	AQ	138	ARG	NE-CZ-NH2	-6.23	117.19	120.30
59	BM	64	VAL	N-CA-C	-6.23	94.19	111.00
67	B1	1056	C	O4'-C1'-C2'	-6.23	99.57	105.80
21	A2	810	G	O4'-C1'-N9	6.22	113.18	108.20
21	A2	993	C	O4'-C1'-N1	6.22	113.18	108.20
67	B1	2699	U	C3'-C2'-C1'	6.22	106.48	101.50
21	A2	791	G	O4'-C1'-N9	6.22	113.18	108.20
21	A2	1090	C	C3'-C2'-C1'	6.22	106.48	101.50
21	A2	1363	C	P-O5'-C5'	6.22	130.86	120.90
67	B1	325	G	O4'-C1'-C2'	-6.22	99.58	105.80
67	B1	774	G	O4'-C1'-N9	6.22	113.18	108.20
67	B1	839	A	O4'-C1'-C2'	-6.22	99.58	105.80
67	B1	1215	C	O4'-C1'-C2'	-6.22	99.58	105.80
21	A2	360	A	C3'-C2'-C1'	6.22	106.48	101.50
67	B1	1392	G	N9-C1'-C2'	6.22	122.09	114.00
67	B1	1480	G	C1'-O4'-C4'	6.22	114.88	109.90
67	B1	2764	G	O5'-P-OP2	-6.22	100.10	105.70
21	A2	576	C	O4'-C1'-N1	6.22	113.18	108.20
24	AA	16	LYS	O-C-N	6.22	132.65	122.70
65	BJ	129	ARG	NE-CZ-NH1	6.22	123.41	120.30
67	B1	234	G	O4'-C1'-C2'	6.22	113.20	107.60
67	B1	395	G	O4'-C1'-N9	6.22	113.18	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AQ	80	ARG	NE-CZ-NH1	6.22	123.41	120.30
24	AA	76	GLN	N-CA-CB	6.22	121.79	110.60
67	B1	692	C	O4'-C1'-C2'	-6.22	99.58	105.80
67	B1	1856	G	N9-C1'-C2'	6.22	122.08	114.00
21	A2	664	G	N9-C1'-C2'	-6.22	105.16	112.00
67	B1	2766	C	O4'-C1'-C2'	6.22	113.19	107.60
7	AB	31	PHE	CB-CG-CD2	-6.21	116.45	120.80
21	A2	521	G	P-O3'-C3'	-6.21	112.24	119.70
67	B1	320	C	O4'-C1'-C2'	-6.21	99.58	105.80
67	B1	1837	A	C5'-C4'-O4'	6.21	116.56	109.10
67	B1	2490	C	C1'-O4'-C4'	-6.21	104.93	109.90
21	A2	913	G	O4'-C1'-C2'	6.21	113.19	107.60
27	A0	74	C	P-O3'-C3'	6.21	127.15	119.70
53	BD	162	LYS	N-CA-CB	6.21	121.78	110.60
67	B1	1009	G	C5-C6-O6	-6.21	124.87	128.60
67	B1	1014	U	O4'-C1'-N1	6.21	113.17	108.20
67	B1	1867	C	C3'-C2'-C1'	6.21	106.47	101.50
67	B1	2425	A	O4'-C1'-N9	-6.21	103.23	108.20
68	B3	36	U	P-O3'-C3'	6.21	127.15	119.70
21	A2	410	U	O4'-C4'-C3'	-6.21	97.79	104.00
21	A2	1260	G	O4'-C1'-C2'	6.21	113.19	107.60
51	Bj	50	PHE	CA-CB-CG	6.21	128.80	113.90
67	B1	1001	C	P-O5'-C5'	-6.21	110.96	120.90
67	B1	1795	C	C3'-C2'-C1'	6.21	106.47	101.50
67	B1	2296	A	P-O3'-C3'	6.21	127.15	119.70
67	B1	2494	A	P-O5'-C5'	-6.21	110.96	120.90
67	B1	2774	C	C3'-C2'-C1'	6.21	106.47	101.50
67	B1	728	A	N9-C1'-C2'	6.21	122.07	114.00
67	B1	939	A	C1'-O4'-C4'	6.21	114.87	109.90
67	B1	1658	A	C4-C5-C6	6.21	120.11	117.00
67	B1	2006	C	O4'-C1'-C2'	-6.21	99.59	105.80
67	B1	2277	G	C1'-O4'-C4'	6.21	114.87	109.90
67	B1	2425	A	C3'-C2'-C1'	6.21	106.47	101.50
67	B1	2738	G	P-O5'-C5'	-6.21	110.97	120.90
68	B3	1	C	P-O3'-C3'	-6.21	112.25	119.70
12	AN	24	ARG	NE-CZ-NH1	6.21	123.40	120.30
21	A2	1398	U	O4'-C1'-C2'	-6.21	99.59	105.80
32	BO	57	ARG	NE-CZ-NH2	6.21	123.40	120.30
67	B1	530	A	N9-C1'-C2'	-6.21	105.17	112.00
67	B1	1508	A	O4'-C1'-N9	6.21	113.16	108.20
67	B1	1813	A	O4'-C1'-N9	6.21	113.17	108.20
67	B1	2966	C	C1'-O4'-C4'	-6.21	104.94	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	82	G	O4'-C1'-C2'	6.21	113.19	107.60
67	B1	1298	C	C3'-C2'-C1'	6.21	106.46	101.50
13	AX	39	ARG	NE-CZ-NH2	-6.20	117.20	120.30
14	AM	84	ARG	NE-CZ-NH2	6.20	123.40	120.30
21	A2	664	G	C4'-C3'-C2'	-6.20	96.40	102.60
22	AY	32	ALA	N-CA-CB	6.20	118.79	110.10
36	Bf	1	MET	C-N-CA	6.20	137.21	121.70
67	B1	317	A	C4-C5-C6	6.20	120.10	117.00
67	B1	500	C	N1-C1'-C2'	6.20	122.07	114.00
67	B1	1118	A	C1'-O4'-C4'	-6.20	104.94	109.90
67	B1	1349	G	O4'-C1'-N9	6.20	113.16	108.20
67	B1	2094	A	O4'-C1'-N9	-6.20	103.24	108.20
67	B1	2819	C	C3'-C2'-C1'	6.20	106.46	101.50
67	B1	1145	G	C4'-C3'-C2'	6.20	108.80	102.60
18	AF	13	LEU	O-C-N	-6.20	112.78	122.70
67	B1	1074	G	P-O5'-C5'	6.20	130.82	120.90
67	B1	1873	G	C1'-O4'-C4'	-6.20	104.94	109.90
67	B1	2945	A	C4'-C3'-C2'	-6.20	96.40	102.60
67	B1	2957	G	C3'-C2'-C1'	6.20	106.46	101.50
43	Bk	107	ARG	NE-CZ-NH1	-6.20	117.20	120.30
67	B1	2099	G	O4'-C1'-N9	6.20	113.16	108.20
21	A2	758	U	O4'-C1'-N1	6.20	113.16	108.20
21	A2	1014	C	N3-C4-C5	-6.20	119.42	121.90
21	A2	1176	C	N1-C1'-C2'	6.20	122.06	114.00
67	B1	1269	U	O4'-C1'-N1	6.20	113.16	108.20
67	B1	2266	C	N1-C1'-C2'	6.20	122.06	114.00
21	A2	1098	G	P-O3'-C3'	-6.20	112.26	119.70
44	BW	53	ARG	NE-CZ-NH2	-6.20	117.20	120.30
67	B1	835	G	P-O3'-C3'	6.20	127.13	119.70
67	B1	1652	A	O4'-C1'-N9	6.20	113.16	108.20
68	B3	117	G	O4'-C1'-C2'	-6.20	99.61	105.80
21	A2	1209	C	N1-C1'-C2'	6.19	122.05	114.00
21	A2	1328	G	C1'-O4'-C4'	-6.19	104.94	109.90
67	B1	2778	A	C4'-C3'-C2'	-6.19	96.41	102.60
68	B3	38	U	P-O5'-C5'	6.19	130.81	120.90
21	A2	101	G	O4'-C1'-C2'	6.19	113.17	107.60
21	A2	545	C	O4'-C1'-N1	6.19	113.15	108.20
21	A2	607	U	C5'-C4'-C3'	-6.19	106.09	116.00
21	A2	732	G	O4'-C1'-N9	6.19	113.15	108.20
21	A2	1403	U	P-O5'-C5'	-6.19	110.99	120.90
33	BC	358	TYR	CB-CG-CD1	6.19	124.72	121.00
67	B1	129	C	C1'-O4'-C4'	6.19	114.86	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1199	U	C5'-C4'-C3'	6.19	125.91	116.00
67	B1	1344	C	O4'-C1'-C2'	-6.19	99.61	105.80
67	B1	1755	C	P-O3'-C3'	6.19	127.13	119.70
67	B1	1863	G	C1'-O4'-C4'	-6.19	104.95	109.90
21	A2	226	G	N9-C1'-C2'	-6.19	105.19	112.00
21	A2	1219	C	P-O3'-C3'	-6.19	112.27	119.70
21	A2	1381	G	C4'-C3'-C2'	-6.19	96.41	102.60
67	B1	2441	A	O4'-C1'-C2'	-6.19	99.61	105.80
67	B1	2541	U	O4'-C1'-C2'	-6.19	99.61	105.80
67	B1	2740	G	O4'-C1'-N9	6.19	113.15	108.20
21	A2	1091	C	O4'-C1'-C2'	-6.19	99.61	105.80
21	A2	1294	G	C1'-O4'-C4'	6.19	114.85	109.90
59	BM	11	TRP	CD1-CG-CD2	6.19	111.25	106.30
67	B1	602	G	C1'-O4'-C4'	-6.19	104.95	109.90
67	B1	2664	G	O4'-C1'-N9	6.19	113.15	108.20
15	AE	27	LYS	N-CA-CB	-6.19	99.46	110.60
21	A2	561	A	P-O5'-C5'	-6.19	111.00	120.90
21	A2	620	G	O4'-C1'-N9	-6.19	103.25	108.20
21	A2	642	G	C4'-C3'-C2'	-6.19	96.41	102.60
21	A2	1190	C	C1'-O4'-C4'	-6.19	104.95	109.90
28	AV	21	PHE	CB-CG-CD1	6.19	125.13	120.80
49	BQ	85	LYS	CB-CA-C	-6.19	98.03	110.40
53	BD	172	ARG	NE-CZ-NH1	6.19	123.39	120.30
62	BN	103	ARG	CD-NE-CZ	-6.19	114.94	123.60
67	B1	581	A	P-O3'-C3'	6.19	127.13	119.70
67	B1	2753	G	OP1-P-OP2	-6.19	110.32	119.60
67	B1	2912	G	C5'-C4'-O4'	-6.19	101.67	109.10
67	B1	3003	A	C3'-C2'-C1'	6.19	106.45	101.50
21	A2	96	G	C1'-O4'-C4'	-6.19	104.95	109.90
65	BJ	23	VAL	CA-CB-CG2	-6.19	101.62	110.90
67	B1	235	G	O4'-C1'-C2'	6.19	113.17	107.60
67	B1	1490	G	C1'-O4'-C4'	6.19	114.85	109.90
21	A2	276	A	P-O3'-C3'	6.18	127.12	119.70
21	A2	1045	A	P-O3'-C3'	6.18	127.12	119.70
35	BL	4	ARG	CG-CD-NE	-6.18	98.81	111.80
38	Bb	127	ASN	C-N-CD	-6.18	107.00	120.60
67	B1	836	U	N1-C1'-C2'	6.18	122.04	114.00
67	B1	1162	C	C1'-O4'-C4'	-6.18	104.95	109.90
67	B1	1962	G	C4'-C3'-C2'	-6.18	96.42	102.60
67	B1	2724	A	C5'-C4'-C3'	-6.18	106.11	116.00
7	AB	6	LEU	C-N-CA	6.18	137.16	121.70
14	AM	14	TRP	CB-CG-CD2	-6.18	118.56	126.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	24	C	C3'-C2'-C1'	6.18	106.45	101.50
67	B1	71	A	P-O3'-C3'	-6.18	112.28	119.70
67	B1	365	G	C4'-C3'-C2'	-6.18	96.42	102.60
67	B1	421	C	O4'-C1'-C2'	-6.18	99.62	105.80
67	B1	490	C	P-O3'-C3'	6.18	127.12	119.70
67	B1	490	C	C5'-C4'-O4'	6.18	116.52	109.10
67	B1	1195	G	O4'-C1'-C2'	-6.18	99.62	105.80
67	B1	1216	A	C3'-C2'-C1'	-6.18	96.55	101.50
67	B1	1466	U	O4'-C1'-C2'	-6.18	99.62	105.80
67	B1	2136	G	C5'-C4'-O4'	6.18	116.52	109.10
21	A2	908	G	C1'-O4'-C4'	-6.18	104.95	109.90
46	BA	67	ASP	CB-CG-OD1	-6.18	112.74	118.30
67	B1	1058	A	O4'-C1'-N9	6.18	113.14	108.20
67	B1	1681	G	OP1-P-OP2	-6.18	110.33	119.60
7	AB	96	PHE	CB-CG-CD2	6.18	125.13	120.80
21	A2	1022	U	O4'-C1'-N1	6.18	113.14	108.20
67	B1	1296	A	C3'-C2'-C1'	6.18	106.44	101.50
27	A0	58	A	P-O3'-C3'	-6.18	112.29	119.70
27	A0	70	G	OP1-P-OP2	-6.18	110.33	119.60
21	A2	462	A	C2'-C3'-O3'	6.18	123.58	113.70
54	BF	71	PHE	CB-CG-CD1	6.18	125.12	120.80
67	B1	50	C	O4'-C1'-N1	6.18	113.14	108.20
67	B1	534	G	O4'-C1'-C2'	6.18	113.16	107.60
21	A2	421	U	N1-C1'-C2'	6.17	122.03	114.00
67	B1	566	G	O4'-C1'-N9	6.17	113.14	108.20
67	B1	566	G	P-O5'-C5'	-6.17	111.02	120.90
67	B1	1260	C	C4'-C3'-C2'	-6.17	96.43	102.60
67	B1	1923	A	C3'-C2'-C1'	6.17	106.44	101.50
68	B3	57	C	N1-C1'-C2'	6.17	122.03	114.00
21	A2	32	A	C4'-C3'-C2'	-6.17	96.43	102.60
21	A2	426	C	N1-C1'-C2'	6.17	122.03	114.00
67	B1	734	C	C3'-C2'-C1'	6.17	106.44	101.50
67	B1	2002	A	O4'-C1'-N9	6.17	113.14	108.20
67	B1	3047	C	C1'-O4'-C4'	-6.17	104.96	109.90
21	A2	511	C	O4'-C1'-C2'	-6.17	99.63	105.80
21	A2	698	A	N9-C1'-C2'	6.17	122.02	114.00
21	A2	1450	U	O4'-C1'-N1	6.17	113.14	108.20
33	BC	125	TYR	CB-CG-CD1	-6.17	117.30	121.00
43	Bk	41	MET	N-CA-CB	6.17	121.71	110.60
67	B1	1360	G	O4'-C1'-C2'	6.17	113.15	107.60
67	B1	91	G	C3'-C2'-C1'	6.17	106.44	101.50
67	B1	515	G	C3'-C2'-C1'	-6.17	96.57	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1011	A	C5'-C4'-C3'	6.17	125.87	116.00
67	B1	1162	C	O4'-C1'-C2'	-6.17	99.63	105.80
67	B1	1225	A	C4'-C3'-C2'	6.17	108.77	102.60
67	B1	2072	G	C4'-C3'-C2'	-6.17	96.43	102.60
67	B1	2563	A	C5'-C4'-C3'	-6.17	106.13	116.00
21	A2	456	U	C3'-C2'-C1'	-6.17	96.57	101.50
67	B1	1942	G	O4'-C1'-C2'	6.17	113.15	107.60
67	B1	2923	G	C1'-O4'-C4'	6.17	114.83	109.90
67	B1	2484	C	P-O3'-C3'	-6.17	112.30	119.70
68	B3	90	A	C3'-C2'-C1'	6.17	106.43	101.50
11	A1	57	C	C3'-C2'-C1'	6.16	106.43	101.50
21	A2	1084	U	O4'-C1'-N1	6.16	113.13	108.20
67	B1	625	A	C4'-C3'-C2'	-6.16	96.44	102.60
67	B1	1200	A	C5'-C4'-O4'	6.16	116.50	109.10
67	B1	2299	G	P-O5'-C5'	-6.16	111.04	120.90
67	B1	2370	C	C3'-C2'-C1'	6.16	106.43	101.50
67	B1	2656	A	C3'-C2'-C1'	-6.16	96.57	101.50
21	A2	312	U	O4'-C1'-C2'	-6.16	99.64	105.80
21	A2	1124	G	O4'-C1'-N9	6.16	113.13	108.20
21	A2	1431	C	O4'-C1'-N1	6.16	113.13	108.20
21	A2	1438	A	O4'-C1'-C2'	-6.16	99.64	105.80
67	B1	328	G	C1'-O4'-C4'	6.16	114.83	109.90
67	B1	1955	U	O4'-C1'-C2'	-6.16	99.64	105.80
21	A2	1014	C	O4'-C1'-N1	6.16	113.13	108.20
21	A2	787	U	C1'-O4'-C4'	-6.16	104.97	109.90
21	A2	1037	U	C3'-C2'-C1'	6.16	106.43	101.50
67	B1	120	G	N9-C1'-C2'	6.16	122.00	114.00
67	B1	2032	G	C1'-O4'-C4'	-6.16	104.97	109.90
67	B1	2672	A	C1'-O4'-C4'	6.16	114.83	109.90
67	B1	2782	A	C3'-C2'-C1'	6.16	106.43	101.50
68	B3	37	U	C1'-O4'-C4'	6.16	114.83	109.90
68	B3	75	G	C1'-O4'-C4'	6.16	114.83	109.90
21	A2	754	G	O4'-C1'-N9	-6.16	103.27	108.20
21	A2	1001	A	C4'-C3'-C2'	6.16	108.76	102.60
67	B1	377	C	N3-C4-N4	6.16	122.31	118.00
67	B1	1325	A	P-O5'-C5'	6.16	130.75	120.90
21	A2	816	G	O4'-C1'-C2'	6.16	113.14	107.60
42	BT	74	TYR	CB-CG-CD2	-6.16	117.31	121.00
67	B1	427	G	C2'-C3'-O3'	6.16	123.55	113.70
68	B3	57	C	C3'-C2'-C1'	6.15	106.42	101.50
11	A1	64	C	O4'-C1'-C2'	-6.15	99.65	105.80
21	A2	130	G	N9-C1'-C2'	-6.15	105.23	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	254	G	O4'-C1'-N9	6.15	113.12	108.20
27	A0	75	C	C3'-C2'-C1'	6.15	106.42	101.50
33	BC	198	TYR	CG-CD1-CE1	-6.15	116.38	121.30
67	B1	65	G	N9-C1'-C2'	6.15	122.00	114.00
67	B1	128	C	N1-C1'-C2'	6.15	122.00	114.00
67	B1	201	C	O4'-C1'-N1	6.15	113.12	108.20
67	B1	555	G	C3'-C2'-C1'	-6.15	96.58	101.50
21	A2	31	U	O4'-C1'-N1	6.15	113.12	108.20
67	B1	453	U	O4'-C1'-N1	6.15	113.12	108.20
67	B1	1168	A	O4'-C1'-C2'	-6.15	99.65	105.80
67	B1	1832	G	P-O5'-C5'	-6.15	111.06	120.90
54	BF	140	GLU	OE1-CD-OE2	6.15	130.68	123.30
64	Bc	22	MET	CG-SD-CE	6.15	110.04	100.20
21	A2	579	U	C1'-O4'-C4'	6.15	114.82	109.90
21	A2	1029	G	C4'-C3'-C2'	-6.15	96.45	102.60
21	A2	1197	C	N1-C1'-C2'	6.15	121.99	114.00
21	A2	1394	G	O4'-C1'-N9	6.15	113.12	108.20
30	AU	83	ARG	NE-CZ-NH2	-6.15	117.23	120.30
59	BM	147	ALA	CB-CA-C	-6.15	100.88	110.10
67	B1	1566	G	O4'-C1'-C2'	6.15	113.13	107.60
14	AM	133	ARG	NE-CZ-NH1	6.15	123.37	120.30
21	A2	989	C	P-O5'-C5'	6.15	130.73	120.90
21	A2	1233	G	C4'-C3'-C2'	-6.15	96.45	102.60
34	BK	26	ASP	CB-CG-OD2	6.15	123.83	118.30
68	B3	25	A	C4'-C3'-C2'	-6.15	96.45	102.60
18	AF	14	ASP	CA-C-N	6.14	130.72	117.20
21	A2	458	G	C5-C6-O6	-6.14	124.91	128.60
21	A2	760	C	O4'-C1'-N1	6.14	113.11	108.20
34	B5	26	ASP	CB-CG-OD2	6.14	123.83	118.30
67	B1	1391	C	OP1-P-OP2	-6.14	110.38	119.60
67	B1	2395	C	P-O3'-C3'	6.14	127.07	119.70
10	AD	54	ARG	NE-CZ-NH1	6.14	123.37	120.30
21	A2	59	C	C3'-C2'-C1'	6.14	106.41	101.50
21	A2	185	G	O4'-C1'-C2'	-6.14	99.66	105.80
21	A2	1077	U	C3'-C2'-C1'	6.14	106.42	101.50
67	B1	165	G	P-O5'-C5'	6.14	130.73	120.90
67	B1	1104	A	OP1-P-OP2	-6.14	110.39	119.60
67	B1	1515	G	N9-C1'-C2'	6.14	121.98	114.00
25	AH	79	TYR	N-CA-CB	-6.14	99.55	110.60
32	BO	69	ARG	NE-CZ-NH2	6.14	123.37	120.30
39	Be	34	TYR	CB-CG-CD1	6.14	124.69	121.00
67	B1	700	A	C3'-C2'-C1'	6.14	106.41	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AK	71	PHE	CB-CG-CD2	-6.14	116.50	120.80
21	A2	140	C	P-O3'-C3'	6.14	127.07	119.70
27	A0	19	G	C3'-C2'-C1'	6.14	106.41	101.50
67	B1	368	U	P-O3'-C3'	6.14	127.07	119.70
67	B1	396	G	C1'-O4'-C4'	-6.14	104.99	109.90
67	B1	1591	C	O4'-C1'-C2'	-6.14	99.66	105.80
67	B1	2601	C	N1-C1'-C2'	6.14	121.98	114.00
67	B1	2691	G	C1'-O4'-C4'	-6.14	104.99	109.90
67	B1	170	A	C3'-C2'-C1'	6.14	106.41	101.50
21	A2	334	G	C3'-C2'-C1'	-6.14	96.59	101.50
21	A2	384	G	O4'-C1'-C2'	-6.14	99.66	105.80
26	AP	29	PRO	N-CA-CB	6.14	110.66	103.30
67	B1	2483	U	O4'-C1'-C2'	-6.14	99.66	105.80
11	A1	49	C	P-O3'-C3'	6.13	127.06	119.70
21	A2	434	A	P-O5'-C5'	6.13	130.71	120.90
31	BY	31	VAL	CA-CB-CG1	6.13	120.10	110.90
67	B1	665	C	O4'-C1'-C2'	-6.13	99.67	105.80
67	B1	1478	G	C1'-O4'-C4'	-6.13	104.99	109.90
67	B1	2344	G	C4'-C3'-C2'	-6.13	96.47	102.60
67	B1	2627	C	O4'-C1'-C2'	-6.13	99.67	105.80
67	B1	2704	A	P-O3'-C3'	-6.13	112.34	119.70
67	B1	2439	G	O4'-C1'-N9	-6.13	103.29	108.20
67	B1	242	C	N1-C1'-C2'	6.13	121.97	114.00
67	B1	1326	U	C5'-C4'-O4'	-6.13	101.74	109.10
17	AO	108	ARG	NE-CZ-NH1	6.13	123.36	120.30
28	AV	96	LYS	N-CA-CB	6.13	121.63	110.60
67	B1	280	A	O4'-C1'-N9	-6.13	103.30	108.20
67	B1	933	G	O4'-C1'-N9	6.13	113.10	108.20
21	A2	142	G	C5'-C4'-C3'	6.13	125.81	116.00
49	BQ	132	PHE	C-N-CA	6.13	137.02	121.70
67	B1	914	U	C3'-C2'-C1'	6.13	106.40	101.50
67	B1	1288	C	O4'-C1'-C2'	-6.13	99.67	105.80
67	B1	1783	U	O4'-C1'-N1	6.13	113.10	108.20
67	B1	2289	A	P-O3'-C3'	6.13	127.05	119.70
67	B1	2374	C	N1-C1'-C2'	6.13	121.97	114.00
68	B3	33	U	N1-C1'-C2'	-6.13	105.26	112.00
21	A2	1377	G	O4'-C1'-N9	6.13	113.10	108.20
25	AH	87	ARG	CB-CA-C	-6.13	98.15	110.40
67	B1	74	A	C3'-C2'-C1'	6.13	106.40	101.50
67	B1	1300	C	P-O3'-C3'	-6.13	112.35	119.70
67	B1	1483	U	P-O3'-C3'	-6.13	112.35	119.70
67	B1	1671	A	C4'-C3'-C2'	-6.13	96.47	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2012	G	O4'-C4'-C3'	-6.13	97.87	104.00
67	B1	2658	G	C3'-C2'-C1'	6.13	106.40	101.50
21	A2	349	A	C1'-O4'-C4'	6.12	114.80	109.90
68	B3	8	C	C1'-O4'-C4'	6.12	114.80	109.90
21	A2	619	A	P-O5'-C5'	-6.12	111.10	120.90
21	A2	1332	C	P-O5'-C5'	6.12	130.70	120.90
67	B1	1255	C	C5'-C4'-O4'	6.12	116.45	109.10
67	B1	2182	A	P-O3'-C3'	-6.12	112.35	119.70
67	B1	2891	A	N9-C1'-C2'	6.12	121.96	114.00
21	A2	518	U	C3'-C2'-C1'	6.12	106.40	101.50
21	A2	1203	G	C5'-C4'-C3'	-6.12	106.21	116.00
44	BW	29	ARG	NE-CZ-NH1	6.12	123.36	120.30
47	BI	52	ARG	NE-CZ-NH2	6.12	123.36	120.30
67	B1	1583	G	N9-C1'-C2'	-6.12	105.27	112.00
67	B1	1641	G	P-O3'-C3'	6.12	127.05	119.70
21	A2	1164	A	C4'-C3'-C2'	-6.12	96.48	102.60
67	B1	780	G	P-O5'-C5'	6.12	130.69	120.90
21	A2	35	G	P-O3'-C3'	-6.12	112.36	119.70
21	A2	365	C	N1-C1'-C2'	6.12	121.95	114.00
67	B1	234	G	P-O5'-C5'	6.12	130.69	120.90
67	B1	1029	C	C5'-C4'-C3'	-6.12	106.21	116.00
67	B1	1749	C	O4'-C1'-N1	6.12	113.09	108.20
67	B1	1833	G	O4'-C1'-C2'	-6.12	99.68	105.80
67	B1	1875	U	P-O5'-C5'	6.12	130.69	120.90
67	B1	2149	G	C5'-C4'-C3'	-6.12	106.21	116.00
67	B1	2801	G	P-O5'-C5'	-6.12	111.11	120.90
67	B1	1022	G	O4'-C1'-C2'	6.12	113.11	107.60
67	B1	1502	C	C3'-C2'-C1'	6.12	106.39	101.50
21	A2	792	C	N1-C1'-C2'	6.12	121.95	114.00
67	B1	1422	G	C1'-O4'-C4'	-6.12	105.01	109.90
67	B1	1669	A	P-O3'-C3'	-6.12	112.36	119.70
67	B1	2165	A	O4'-C1'-N9	6.12	113.09	108.20
2	AK	93	MET	CG-SD-CE	6.11	109.98	100.20
4	AG	95	ARG	NE-CZ-NH2	-6.11	117.24	120.30
21	A2	304	C	O4'-C4'-C3'	-6.11	97.89	104.00
21	A2	1014	C	N3-C4-N4	6.11	122.28	118.00
25	AH	8	ARG	N-CA-CB	6.11	121.60	110.60
50	BV	57	GLN	CB-CA-C	-6.11	98.17	110.40
67	B1	63	A	C3'-C2'-C1'	6.11	106.39	101.50
67	B1	204	G	P-O3'-C3'	6.11	127.04	119.70
67	B1	603	G	P-O3'-C3'	-6.11	112.36	119.70
67	B1	899	A	N9-C1'-C2'	-6.11	105.28	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1331	U	N1-C1'-C2'	6.11	121.95	114.00
67	B1	1881	A	O4'-C1'-N9	6.11	113.09	108.20
67	B1	1906	G	C4'-C3'-C2'	-6.11	96.49	102.60
67	B1	2037	A	N9-C1'-C2'	-6.11	105.28	112.00
67	B1	2224	G	C3'-C2'-C1'	-6.11	96.61	101.50
67	B1	2879	G	C3'-C2'-C1'	6.11	106.39	101.50
21	A2	703	U	O4'-C1'-N1	6.11	113.09	108.20
33	BC	9	ARG	NE-CZ-NH1	6.11	123.36	120.30
33	BC	87	ARG	NE-CZ-NH2	-6.11	117.24	120.30
67	B1	2124	C	C1'-O4'-C4'	6.11	114.79	109.90
1	AQ	62	SER	N-CA-CB	6.11	119.67	110.50
21	A2	1025	U	C3'-C2'-C1'	6.11	106.39	101.50
21	A2	1460	G	O4'-C1'-C2'	-6.11	99.69	105.80
24	AA	118	ARG	NE-CZ-NH1	6.11	123.36	120.30
67	B1	393	C	OP1-P-O3'	6.11	118.64	105.20
67	B1	1904	G	P-O3'-C3'	-6.11	112.37	119.70
67	B1	2114	C	O4'-C1'-N1	6.11	113.09	108.20
67	B1	2883	C	C5'-C4'-O4'	6.11	116.43	109.10
3	AI	82	LYS	CB-CA-C	-6.11	98.18	110.40
21	A2	197	A	C1'-O4'-C4'	6.11	114.79	109.90
21	A2	758	U	C3'-C2'-C1'	6.11	106.39	101.50
21	A2	289	C	C5'-C4'-C3'	-6.11	106.23	116.00
67	B1	2471	A	O4'-C1'-C2'	-6.11	99.69	105.80
68	B3	30	G	C4'-C3'-C2'	6.11	108.71	102.60
21	A2	549	A	C1'-O4'-C4'	6.11	114.78	109.90
63	Bg	12	PHE	CB-CG-CD2	-6.11	116.53	120.80
67	B1	438	G	O4'-C1'-C2'	6.11	113.09	107.60
67	B1	770	G	O3'-P-O5'	6.11	115.60	104.00
67	B1	1371	U	N1-C1'-C2'	6.11	121.94	114.00
67	B1	2479	C	C1'-O4'-C4'	6.11	114.78	109.90
21	A2	852	G	O4'-C4'-C3'	-6.10	97.90	104.00
21	A2	913	G	C3'-C2'-C1'	-6.10	96.62	101.50
67	B1	2350	G	O5'-P-OP2	-6.10	100.21	105.70
21	A2	449	U	O4'-C1'-N1	6.10	113.08	108.20
21	A2	1044	A	O4'-C1'-N9	-6.10	103.32	108.20
67	B1	622	A	O4'-C1'-C2'	6.10	113.09	107.60
67	B1	945	U	O4'-C4'-C3'	-6.10	97.90	104.00
67	B1	997	A	O4'-C1'-C2'	-6.10	99.70	105.80
67	B1	1646	G	O4'-C1'-C2'	-6.10	99.70	105.80
67	B1	2231	G	O4'-C1'-C2'	-6.10	99.70	105.80
68	B3	43	C	P-O5'-C5'	6.10	130.66	120.90
67	B1	1196	A	O4'-C1'-N9	6.10	113.08	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2974	U	C3'-C2'-C1'	6.10	106.38	101.50
21	A2	290	C	O4'-C1'-N1	6.10	113.08	108.20
21	A2	298	C	O4'-C1'-N1	6.10	113.08	108.20
21	A2	396	C	C1'-O4'-C4'	-6.10	105.02	109.90
46	BA	98	ARG	NH1-CZ-NH2	-6.10	112.69	119.40
67	B1	410	C	O4'-C1'-C2'	-6.10	99.70	105.80
67	B1	2213	G	N9-C1'-C2'	6.10	121.93	114.00
67	B1	2479	C	O4'-C1'-C2'	-6.10	99.70	105.80
67	B1	2535	C	C3'-C2'-C1'	6.10	106.38	101.50
68	B3	52	U	C1'-O4'-C4'	-6.10	105.02	109.90
21	A2	104	A	N9-C1'-C2'	6.10	121.93	114.00
34	B5	68	ASP	CB-CG-OD2	-6.10	112.81	118.30
54	BF	48	THR	CA-CB-CG2	-6.10	103.86	112.40
67	B1	721	G	C3'-C2'-C1'	6.10	106.38	101.50
67	B1	934	G	O4'-C1'-N9	-6.10	103.32	108.20
67	B1	1195	G	C5'-C4'-O4'	6.10	116.42	109.10
67	B1	2182	A	C5'-C4'-O4'	6.10	116.42	109.10
21	A2	1234	A	C1'-O4'-C4'	-6.10	105.02	109.90
38	Bb	82	VAL	CA-CB-CG1	-6.10	101.76	110.90
67	B1	82	C	C4'-C3'-C2'	-6.10	96.50	102.60
67	B1	1099	C	C1'-O4'-C4'	6.10	114.78	109.90
67	B1	1372	C	O4'-C1'-N1	6.10	113.08	108.20
14	AM	136	ARG	NE-CZ-NH1	6.09	123.35	120.30
21	A2	312	U	C1'-O4'-C4'	6.09	114.78	109.90
21	A2	777	G	N9-C1'-C2'	-6.09	105.30	112.00
21	A2	1087	C	O4'-C1'-N1	6.09	113.08	108.20
40	BE	108	ASP	CB-CG-OD1	-6.09	112.81	118.30
11	A1	40	U	O4'-C1'-C2'	-6.09	99.71	105.80
21	A2	1241	U	C4'-C3'-C2'	-6.09	96.51	102.60
67	B1	286	G	O4'-C1'-C2'	-6.09	99.71	105.80
67	B1	481	G	O4'-C1'-C2'	-6.09	99.71	105.80
67	B1	1034	G	C3'-C2'-C1'	-6.09	96.63	101.50
67	B1	2787	G	O4'-C1'-N9	6.09	113.08	108.20
21	A2	484	U	O4'-C4'-C3'	-6.09	97.91	104.00
34	BK	68	ASP	CB-CG-OD2	-6.09	112.82	118.30
67	B1	422	G	C3'-C2'-C1'	6.09	106.37	101.50
67	B1	2040	A	C3'-C2'-C1'	6.09	106.37	101.50
15	AE	193	VAL	CG1-CB-CG2	6.09	120.64	110.90
21	A2	44	C	O4'-C1'-C2'	-6.09	99.71	105.80
21	A2	565	C	P-O5'-C5'	6.09	130.64	120.90
21	A2	684	G	O4'-C1'-N9	6.09	113.07	108.20
35	BL	47	TRP	N-CA-CB	6.09	121.56	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1568	A	N9-C1'-C2'	6.09	121.92	114.00
67	B1	1671	A	O4'-C1'-N9	6.09	113.07	108.20
67	B1	2244	G	P-O5'-C5'	6.09	130.64	120.90
67	B1	2487	G	O4'-C1'-C2'	6.09	113.08	107.60
33	BC	358	TYR	CB-CG-CD2	-6.09	117.35	121.00
67	B1	544	A	N9-C1'-C2'	6.09	121.91	114.00
67	B1	664	A	C3'-C2'-C1'	6.09	106.37	101.50
67	B1	1225	A	C3'-C2'-C1'	-6.09	96.63	101.50
67	B1	1452	G	C5'-C4'-O4'	6.09	116.41	109.10
3	AI	102	LEU	N-CA-C	-6.09	94.56	111.00
21	A2	128	A	O4'-C1'-N9	6.09	113.07	108.20
42	BT	56	THR	O-C-N	6.09	132.44	122.70
67	B1	2037	A	C1'-O4'-C4'	6.09	114.77	109.90
67	B1	2078	A	O4'-C1'-N9	6.09	113.07	108.20
67	B1	2410	U	O5'-P-OP2	-6.09	100.22	105.70
67	B1	2795	G	C3'-C2'-C1'	6.09	106.37	101.50
67	B1	421	C	N1-C1'-C2'	6.08	121.91	114.00
67	B1	764	G	O4'-C1'-C2'	-6.08	99.72	105.80
67	B1	917	A	P-O5'-C5'	-6.08	111.16	120.90
33	BC	112	LYS	N-CA-CB	6.08	121.55	110.60
59	BM	157	ARG	NE-CZ-NH1	6.08	123.34	120.30
67	B1	1842	C	C3'-C2'-C1'	6.08	106.37	101.50
67	B1	2675	C	N1-C1'-C2'	6.08	121.91	114.00
21	A2	1149	C	O4'-C1'-C2'	-6.08	99.72	105.80
21	A2	1274	C	N1-C1'-C2'	6.08	121.91	114.00
67	B1	1776	G	O4'-C1'-N9	6.08	113.07	108.20
21	A2	1082	A	N9-C1'-C2'	6.08	121.90	114.00
67	B1	160	C	N1-C1'-C2'	6.08	121.90	114.00
67	B1	1226	G	O3'-P-O5'	-6.08	92.45	104.00
67	B1	2430	C	P-O5'-C5'	6.08	130.63	120.90
21	A2	90	C	C1'-O4'-C4'	-6.08	105.04	109.90
21	A2	482	G	O4'-C1'-N9	6.08	113.06	108.20
21	A2	724	C	N1-C1'-C2'	6.08	121.90	114.00
67	B1	2422	G	C1'-O4'-C4'	-6.08	105.04	109.90
21	A2	260	C	P-O3'-C3'	6.08	126.99	119.70
67	B1	2555	C	C3'-C2'-C1'	6.08	106.36	101.50
21	A2	1177	C	O4'-C4'-C3'	-6.08	97.92	104.00
67	B1	645	U	N1-C1'-C2'	-6.08	105.32	112.00
67	B1	748	G	C3'-C2'-C1'	-6.08	96.64	101.50
67	B1	1670	A	O4'-C4'-C3'	-6.08	97.92	104.00
67	B1	2137	A	N9-C1'-C2'	-6.08	105.32	112.00
67	B1	3007	A	O4'-C1'-C2'	-6.08	99.72	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AO	113	ARG	NE-CZ-NH1	-6.07	117.26	120.30
67	B1	2193	G	C1'-O4'-C4'	-6.07	105.04	109.90
67	B1	2453	C	C3'-C2'-C1'	6.07	106.36	101.50
67	B1	2772	U	O4'-C1'-N1	6.07	113.06	108.20
21	A2	1209	C	C1'-O4'-C4'	-6.07	105.04	109.90
21	A2	1244	C	N3-C4-N4	6.07	122.25	118.00
67	B1	1030	C	O4'-C1'-N1	-6.07	103.34	108.20
11	A1	76	C	P-O3'-C3'	-6.07	112.42	119.70
21	A2	740	G	C3'-C2'-C1'	6.07	106.36	101.50
21	A2	996	A	C5-C6-N6	-6.07	118.84	123.70
27	A0	69	C	C5'-C4'-O4'	-6.07	101.81	109.10
50	BV	60	ARG	NE-CZ-NH2	-6.07	117.27	120.30
67	B1	159	C	O4'-C1'-C2'	-6.07	99.73	105.80
67	B1	2547	A	C1'-O4'-C4'	-6.07	105.04	109.90
67	B1	2613	C	P-O5'-C5'	6.07	130.61	120.90
21	A2	967	C	N1-C1'-C2'	6.07	121.89	114.00
28	B6	52	VAL	CA-CB-CG2	-6.07	101.80	110.90
21	A2	964	A	C4-C5-C6	6.07	120.03	117.00
21	A2	1121	C	O4'-C1'-C2'	-6.07	99.73	105.80
20	BG	55	GLU	N-CA-CB	6.07	121.52	110.60
20	BG	77	TYR	CB-CG-CD2	-6.07	117.36	121.00
67	B1	712	C	C5'-C4'-O4'	6.07	116.38	109.10
67	B1	1070	G	O4'-C1'-N9	-6.07	103.35	108.20
68	B3	114	G	P-O5'-C5'	6.07	130.61	120.90
21	A2	545	C	O4'-C1'-C2'	-6.07	99.73	105.80
21	A2	894	A	C1'-O4'-C4'	6.07	114.75	109.90
67	B1	2543	A	C3'-C2'-C1'	-6.07	96.65	101.50
67	B1	221	G	O5'-P-OP1	6.06	117.98	110.70
21	A2	678	G	P-O3'-C3'	-6.06	112.42	119.70
67	B1	770	G	P-O5'-C5'	6.06	130.60	120.90
67	B1	935	A	N9-C1'-C2'	-6.06	105.33	112.00
67	B1	1868	C	O4'-C4'-C3'	-6.06	97.94	104.00
11	A1	17	C	C3'-C2'-C1'	6.06	106.35	101.50
67	B1	75	G	C3'-C2'-C1'	-6.06	96.65	101.50
67	B1	376	C	N3-C4-N4	6.06	122.24	118.00
67	B1	2088	G	P-O5'-C5'	6.06	130.60	120.90
33	BC	250	ARG	NE-CZ-NH2	-6.06	117.27	120.30
67	B1	380	A	N9-C1'-C2'	6.06	121.88	114.00
67	B1	591	G	P-O5'-C5'	-6.06	111.20	120.90
67	B1	920	G	C1'-O4'-C4'	-6.06	105.05	109.90
67	B1	1628	C	N1-C1'-C2'	6.06	121.88	114.00
67	B1	1747	C	P-O3'-C3'	6.06	126.97	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1893	C	P-O5'-C5'	-6.06	111.20	120.90
67	B1	2062	A	C1'-O4'-C4'	-6.06	105.05	109.90
67	B1	2099	G	O5'-P-OP2	-6.06	100.25	105.70
67	B1	2134	G	C4'-C3'-C2'	-6.06	96.54	102.60
67	B1	2224	G	OP2-P-O3'	6.06	118.53	105.20
67	B1	555	G	O4'-C1'-N9	6.06	113.05	108.20
67	B1	2377	C	C3'-C2'-C1'	6.06	106.34	101.50
67	B1	1544	C	C1'-O4'-C4'	-6.06	105.06	109.90
67	B1	2915	U	P-O3'-C3'	-6.06	112.43	119.70
60	BS	136	ALA	N-CA-CB	6.05	118.58	110.10
62	BN	136	ARG	NE-CZ-NH1	-6.05	117.27	120.30
67	B1	238	C	P-O3'-C3'	6.05	126.97	119.70
67	B1	923	A	N9-C1'-C2'	-6.05	105.34	112.00
67	B1	1293	G	O4'-C1'-N9	6.05	113.04	108.20
67	B1	2389	C	P-O3'-C3'	-6.05	112.44	119.70
27	A0	9	A	N9-C1'-C2'	-6.05	105.34	112.00
21	A2	20	G	N9-C1'-C2'	6.05	121.87	114.00
21	A2	690	C	O4'-C1'-N1	6.05	113.04	108.20
67	B1	324	C	C1'-O4'-C4'	6.05	114.74	109.90
67	B1	368	U	O4'-C1'-N1	6.05	113.04	108.20
67	B1	822	A	O5'-P-OP2	-6.05	100.25	105.70
67	B1	1660	A	C4-C5-C6	6.05	120.03	117.00
21	A2	68	G	P-O3'-C3'	-6.05	112.44	119.70
21	A2	489	C	P-O5'-C5'	6.05	130.58	120.90
58	BP	12	ARG	NE-CZ-NH1	6.05	123.32	120.30
67	B1	177	G	O4'-C1'-C2'	6.05	113.04	107.60
21	A2	1177	C	O4'-C1'-C2'	6.05	113.04	107.60
33	BC	137	LYS	N-CA-CB	6.05	121.49	110.60
67	B1	3035	C	C3'-C2'-C1'	6.05	106.34	101.50
68	B3	21	C	O4'-C1'-C2'	-6.05	99.75	105.80
21	A2	420	C	OP1-P-OP2	-6.05	110.53	119.60
67	B1	1205	U	O5'-P-OP1	6.05	117.95	110.70
67	B1	2912	G	O4'-C1'-C2'	-6.05	99.75	105.80
21	A2	409	C	P-O5'-C5'	6.04	130.57	120.90
21	A2	1354	A	O4'-C1'-C2'	-6.04	99.75	105.80
33	BC	41	PHE	CG-CD2-CE2	-6.04	114.15	120.80
67	B1	720	C	O4'-C1'-N1	6.04	113.04	108.20
67	B1	3039	G	O4'-C1'-N9	6.04	113.04	108.20
21	A2	167	G	N9-C1'-C2'	6.04	121.86	114.00
21	A2	248	U	C5'-C4'-C3'	6.04	125.67	116.00
21	A2	1028	C	C1'-O4'-C4'	-6.04	105.06	109.90
27	A0	14	A	N9-C1'-C2'	-6.04	105.35	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	246	A	C1'-O4'-C4'	6.04	114.73	109.90
67	B1	254	A	O4'-C1'-N9	-6.04	103.37	108.20
67	B1	1989	G	C3'-C2'-C1'	-6.04	96.67	101.50
67	B1	2124	C	C3'-C2'-C1'	6.04	106.33	101.50
67	B1	2388	U	O4'-C1'-N1	6.04	113.03	108.20
21	A2	1079	G	C3'-C2'-C1'	6.04	106.33	101.50
21	A2	1221	A	C5'-C4'-O4'	6.04	116.35	109.10
48	BR	94	ARG	NE-CZ-NH1	6.04	123.32	120.30
67	B1	586	A	C5-C6-N6	-6.04	118.87	123.70
67	B1	954	A	O4'-C1'-C2'	-6.04	99.76	105.80
67	B1	1667	U	N1-C1'-C2'	-6.04	105.35	112.00
67	B1	2312	U	P-O3'-C3'	-6.04	112.45	119.70
67	B1	2543	A	C4'-C3'-C2'	6.04	108.64	102.60
21	A2	380	C	O4'-C1'-N1	6.04	113.03	108.20
21	A2	687	G	C5'-C4'-C3'	6.04	125.66	116.00
21	A2	918	A	N9-C1'-C2'	-6.04	105.36	112.00
27	A0	26	G	O4'-C1'-C2'	-6.04	99.76	105.80
67	B1	887	U	N1-C1'-C2'	-6.04	105.36	112.00
67	B1	1811	G	O4'-C1'-C2'	6.04	113.04	107.60
21	A2	1020	G	C1'-O4'-C4'	-6.04	105.07	109.90
67	B1	484	C	C3'-C2'-C1'	6.04	106.33	101.50
67	B1	2547	A	C4'-C3'-C2'	6.04	108.64	102.60
68	B3	111	G	O4'-C1'-N9	6.04	113.03	108.20
25	AH	131	ALA	CB-CA-C	-6.04	101.04	110.10
67	B1	1597	G	O4'-C1'-N9	6.04	113.03	108.20
67	B1	1661	A	C4-C5-C6	6.04	120.02	117.00
67	B1	2707	G	C1'-O4'-C4'	-6.04	105.07	109.90
17	AO	48	PHE	CB-CG-CD1	-6.04	116.58	120.80
21	A2	228	G	C3'-C2'-C1'	6.04	106.33	101.50
21	A2	338	C	O4'-C1'-C2'	-6.04	99.77	105.80
21	A2	996	A	C4-C5-C6	6.04	120.02	117.00
67	B1	261	A	C3'-C2'-C1'	6.04	106.33	101.50
67	B1	698	U	O4'-C4'-C3'	-6.04	97.96	104.00
67	B1	1178	G	C3'-C2'-C1'	-6.04	96.67	101.50
67	B1	2046	C	O4'-C1'-C2'	-6.04	99.77	105.80
68	B3	39	C	C3'-C2'-C1'	6.04	106.33	101.50
27	A0	40	C	O4'-C1'-N1	6.03	113.03	108.20
67	B1	1939	C	O4'-C1'-N1	-6.03	103.37	108.20
67	B1	443	C	C4'-C3'-C2'	6.03	108.63	102.60
67	B1	1006	A	C4-C5-C6	6.03	120.02	117.00
67	B1	2887	C	O4'-C1'-N1	6.03	113.03	108.20
2	AK	104	ARG	NE-CZ-NH2	-6.03	117.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	352	A	O4'-C1'-N9	6.03	113.03	108.20
21	A2	1022	U	C3'-C2'-C1'	6.03	106.32	101.50
28	B6	21	PHE	CB-CG-CD2	6.03	125.02	120.80
67	B1	2719	G	O4'-C1'-C2'	-6.03	99.77	105.80
14	AM	82	ARG	NE-CZ-NH1	6.03	123.31	120.30
21	A2	1158	G	C3'-C2'-C1'	-6.03	96.68	101.50
67	B1	190	C	N1-C1'-C2'	6.03	121.84	114.00
67	B1	2703	G	N9-C1'-C2'	-6.03	105.37	112.00
21	A2	428	G	C3'-C2'-C1'	-6.03	96.68	101.50
21	A2	1128	U	C1'-O4'-C4'	6.03	114.72	109.90
21	A2	1285	C	C1'-O4'-C4'	-6.03	105.08	109.90
67	B1	537	U	P-O5'-C5'	-6.03	111.26	120.90
67	B1	831	C	P-O3'-C3'	-6.03	112.47	119.70
67	B1	861	G	C1'-O4'-C4'	6.03	114.72	109.90
67	B1	1306	A	O4'-C1'-N9	6.03	113.02	108.20
67	B1	1566	G	N9-C1'-C2'	-6.03	105.37	112.00
21	A2	550	G	O4'-C1'-N9	6.03	113.02	108.20
21	A2	627	G	C1'-O4'-C4'	-6.03	105.08	109.90
21	A2	1137	G	C3'-C2'-C1'	6.03	106.32	101.50
21	A2	1442	G	C3'-C2'-C1'	-6.03	96.68	101.50
24	AA	47	VAL	CA-CB-CG2	-6.03	101.86	110.90
46	BA	107	PHE	CB-CG-CD2	6.03	125.02	120.80
67	B1	389	C	O4'-C1'-N1	6.03	113.02	108.20
67	B1	443	C	C5'-C4'-O4'	6.03	116.33	109.10
67	B1	664	A	O4'-C1'-C2'	-6.03	99.77	105.80
67	B1	1043	U	C5'-C4'-C3'	6.03	125.64	116.00
67	B1	1178	G	OP1-P-OP2	-6.03	110.56	119.60
21	A2	294	A	N9-C1'-C2'	6.02	121.83	114.00
21	A2	1002	G	O4'-C1'-N9	6.02	113.02	108.20
67	B1	310	C	OP2-P-O3'	6.02	118.45	105.20
67	B1	2989	A	O5'-C5'-C4'	-6.02	100.25	111.70
21	A2	812	U	O4'-C1'-N1	6.02	113.02	108.20
32	BO	13	ARG	NE-CZ-NH1	6.02	123.31	120.30
33	BC	314	TYR	CG-CD1-CE1	6.02	126.12	121.30
35	BL	25	HIS	CB-CA-C	-6.02	98.35	110.40
67	B1	54	G	C1'-O4'-C4'	-6.02	105.08	109.90
67	B1	829	G	P-O3'-C3'	-6.02	112.47	119.70
67	B1	1395	G	O4'-C1'-C2'	-6.02	99.78	105.80
67	B1	1407	A	C1'-O4'-C4'	6.02	114.72	109.90
67	B1	2893	U	C1'-O4'-C4'	-6.02	105.08	109.90
67	B1	2910	G	O4'-C1'-N9	6.02	113.02	108.20
21	A2	233	C	O4'-C1'-N1	6.02	113.02	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	Bg	44	LYS	C-N-CA	6.02	136.75	121.70
67	B1	32	C	C1'-O4'-C4'	-6.02	105.08	109.90
11	A1	51	G	O4'-C1'-C2'	6.02	113.02	107.60
21	A2	1054	A	C5'-C4'-C3'	-6.02	106.37	116.00
67	B1	410	C	C5'-C4'-C3'	-6.02	106.37	116.00
67	B1	950	G	C1'-O4'-C4'	-6.02	105.08	109.90
67	B1	2717	A	C3'-C2'-C1'	-6.02	96.68	101.50
21	A2	307	G	N9-C1'-C2'	-6.02	105.38	112.00
21	A2	774	U	P-O3'-C3'	6.02	126.92	119.70
21	A2	907	C	O4'-C1'-N1	6.02	113.01	108.20
21	A2	1180	G	O4'-C1'-C2'	-6.02	99.78	105.80
21	A2	1494	C	C3'-C2'-C1'	6.02	106.31	101.50
33	BC	195	LYS	CB-CA-C	-6.02	98.36	110.40
41	Ba	25	TRP	CG-CD2-CE3	-6.02	128.48	133.90
67	B1	856	A	C1'-O4'-C4'	6.02	114.71	109.90
67	B1	1338	G	C4'-C3'-C2'	-6.02	96.58	102.60
67	B1	1576	C	C1'-O4'-C4'	-6.02	105.09	109.90
67	B1	1721	U	O4'-C1'-C2'	6.02	113.02	107.60
67	B1	2743	U	O4'-C1'-N1	6.02	113.01	108.20
68	B3	17	G	C1'-O4'-C4'	6.02	114.71	109.90
21	A2	971	G	P-O3'-C3'	-6.02	112.48	119.70
27	A0	18	G	N9-C1'-C2'	-6.02	105.38	112.00
27	A0	34	G	C3'-C2'-C1'	-6.02	96.69	101.50
56	BH	91	LYS	C-N-CA	6.02	136.74	121.70
67	B1	1551	G	O5'-P-OP1	6.02	117.92	110.70
10	AD	110	TYR	CG-CD1-CE1	6.01	126.11	121.30
15	AE	100	TYR	N-CA-CB	6.01	121.43	110.60
21	A2	149	U	C3'-C2'-C1'	-6.01	96.69	101.50
27	A0	16	C	C1'-O4'-C4'	6.01	114.71	109.90
20	BG	7	VAL	CG1-CB-CG2	-6.01	101.28	110.90
67	B1	458	U	C3'-C2'-C1'	-6.01	96.69	101.50
67	B1	1365	G	N9-C1'-C2'	-6.01	105.38	112.00
67	B1	1748	C	C3'-C2'-C1'	6.01	106.31	101.50
67	B1	1922	A	P-O3'-C3'	6.01	126.92	119.70
18	AF	5	TRP	CD1-CG-CD2	-6.01	101.49	106.30
21	A2	873	A	O4'-C1'-C2'	-6.01	99.79	105.80
21	A2	885	G	C4'-C3'-C2'	-6.01	96.59	102.60
67	B1	445	G	C3'-C2'-C1'	-6.01	96.69	101.50
67	B1	2095	U	N1-C1'-C2'	6.01	121.82	114.00
46	BA	154	ARG	NE-CZ-NH1	-6.01	117.30	120.30
65	BJ	17	PRO	N-CD-CG	6.01	112.22	103.20
21	A2	117	C	P-O5'-C5'	6.01	130.52	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	B6	85	TYR	CB-CG-CD2	-6.01	117.39	121.00
67	B1	1082	A	N9-C1'-C2'	6.01	121.81	114.00
67	B1	1188	C	C1'-O4'-C4'	-6.01	105.09	109.90
67	B1	1286	G	C1'-O4'-C4'	-6.01	105.09	109.90
21	A2	720	A	C5'-C4'-C3'	6.01	125.61	116.00
25	AH	80	LYS	CD-CE-NZ	6.01	125.52	111.70
54	BF	8	ARG	CD-NE-CZ	6.01	132.01	123.60
60	BS	24	ASP	CB-CG-OD1	-6.01	112.89	118.30
67	B1	1868	C	C3'-C2'-C1'	6.01	106.31	101.50
7	AB	62	PHE	CB-CG-CD1	-6.01	116.59	120.80
56	BH	116	ALA	CB-CA-C	-6.01	101.09	110.10
67	B1	798	G	C3'-C2'-C1'	6.01	106.30	101.50
67	B1	1975	C	C1'-O4'-C4'	6.01	114.70	109.90
67	B1	2941	A	O4'-C1'-N9	6.01	113.01	108.20
21	A2	223	G	O4'-C1'-C2'	6.00	113.00	107.60
21	A2	1292	A	OP1-P-OP2	-6.00	110.59	119.60
21	A2	597	C	C4'-C3'-C2'	-6.00	96.60	102.60
30	AU	91	TYR	CZ-CE2-CD2	-6.00	114.40	119.80
67	B1	143	C	N1-C1'-C2'	6.00	121.81	114.00
67	B1	1064	G	C1'-O4'-C4'	-6.00	105.10	109.90
67	B1	1962	G	O4'-C1'-C2'	6.00	113.00	107.60
67	B1	1997	C	O4'-C1'-N1	6.00	113.00	108.20
67	B1	885	A	O4'-C1'-C2'	-6.00	99.80	105.80
67	B1	1164	C	C1'-O4'-C4'	-6.00	105.10	109.90
67	B1	2839	A	C1'-O4'-C4'	6.00	114.70	109.90
21	A2	340	A	P-O5'-C5'	-6.00	111.30	120.90
21	A2	460	C	C6-N1-C1'	-6.00	113.60	120.80
67	B1	764	G	C4'-C3'-C2'	-6.00	96.60	102.60
67	B1	2067	U	C1'-O4'-C4'	6.00	114.70	109.90
67	B1	2262	C	C4'-C3'-C2'	-6.00	96.60	102.60
21	A2	609	G	O4'-C1'-N9	6.00	113.00	108.20
21	A2	695	G	C1'-O4'-C4'	-6.00	105.10	109.90
49	BQ	86	THR	N-CA-CB	6.00	121.70	110.30
59	BM	183	ARG	NE-CZ-NH2	-6.00	117.30	120.30
60	BS	59	ARG	NE-CZ-NH1	6.00	123.30	120.30
67	B1	374	C	C4'-C3'-C2'	-6.00	96.60	102.60
67	B1	607	C	C3'-C2'-C1'	6.00	106.30	101.50
67	B1	687	C	C5'-C4'-O4'	6.00	116.30	109.10
68	B3	99	G	OP2-P-O3'	6.00	118.40	105.20
21	A2	921	G	O4'-C1'-N9	6.00	113.00	108.20
67	B1	1567	C	C5'-C4'-C3'	6.00	125.59	116.00
67	B1	1577	C	C1'-O4'-C4'	-6.00	105.10	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1672	G	C5'-C4'-C3'	6.00	125.59	116.00
67	B1	1860	A	N9-C1'-C2'	-6.00	105.40	112.00
67	B1	1914	U	O4'-C1'-N1	6.00	113.00	108.20
67	B1	2101	A	O4'-C1'-C2'	-6.00	99.80	105.80
67	B1	2376	U	C5'-C4'-O4'	6.00	116.30	109.10
21	A2	114	A	O4'-C1'-C2'	6.00	113.00	107.60
67	B1	665	C	C5'-C4'-C3'	-6.00	106.41	116.00
58	BP	13	ARG	NE-CZ-NH2	-5.99	117.30	120.30
67	B1	427	G	O4'-C1'-N9	5.99	113.00	108.20
67	B1	1124	G	N9-C1'-C2'	5.99	121.79	114.00
67	B1	1105	C	N1-C1'-C2'	5.99	121.79	114.00
68	B3	74	U	O4'-C1'-C2'	-5.99	99.81	105.80
11	A1	72	C	C1'-O4'-C4'	5.99	114.69	109.90
21	A2	1286	C	C5'-C4'-O4'	5.99	116.29	109.10
24	AA	193	GLU	OE1-CD-OE2	5.99	130.49	123.30
67	B1	412	G	N9-C1'-C2'	5.99	121.79	114.00
67	B1	1340	G	P-O5'-C5'	-5.99	111.32	120.90
67	B1	2173	U	P-O5'-C5'	-5.99	111.32	120.90
17	AO	110	ARG	NH1-CZ-NH2	5.99	125.99	119.40
21	A2	1031	G	P-O3'-C3'	5.99	126.89	119.70
28	B6	21	PHE	CB-CG-CD1	-5.99	116.61	120.80
64	Bc	53	LEU	CB-CA-C	-5.99	98.82	110.20
67	B1	231	G	O4'-C1'-N9	5.99	112.99	108.20
67	B1	659	U	O4'-C1'-N1	5.99	112.99	108.20
67	B1	1950	G	N9-C1'-C2'	-5.99	105.41	112.00
11	A1	7	G	O4'-C1'-N9	5.99	112.99	108.20
21	A2	1162	G	C4'-C3'-C2'	-5.99	96.61	102.60
35	BL	9	ARG	CB-CG-CD	5.99	127.16	111.60
41	Ba	30	ARG	NE-CZ-NH1	5.99	123.29	120.30
20	BG	63	VAL	CG1-CB-CG2	5.99	120.48	110.90
67	B1	126	U	O4'-C1'-N1	5.99	112.99	108.20
67	B1	412	G	P-O5'-C5'	-5.99	111.32	120.90
67	B1	642	G	O4'-C1'-C2'	5.99	112.99	107.60
67	B1	675	G	C1'-O4'-C4'	-5.99	105.11	109.90
67	B1	801	A	C1'-O4'-C4'	5.99	114.69	109.90
67	B1	1741	C	C1'-O4'-C4'	-5.99	105.11	109.90
67	B1	2954	C	O4'-C1'-C2'	-5.99	99.81	105.80
12	AN	89	PRO	C-N-CA	5.98	134.87	122.30
62	BN	72	TYR	CB-CG-CD1	-5.98	117.41	121.00
67	B1	2925	C	N1-C1'-C2'	5.98	121.78	114.00
21	A2	411	C	C1'-O4'-C4'	5.98	114.69	109.90
21	A2	880	G	N9-C1'-C2'	5.98	121.78	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	B6	72	TYR	CG-CD2-CE2	-5.98	116.52	121.30
67	B1	599	G	C1'-O4'-C4'	-5.98	105.11	109.90
67	B1	1157	U	C3'-C2'-C1'	5.98	106.29	101.50
67	B1	1184	U	C3'-C2'-C1'	-5.98	96.71	101.50
67	B1	1267	A	C3'-C2'-C1'	-5.98	96.71	101.50
67	B1	1570	C	O3'-P-O5'	5.98	115.37	104.00
67	B1	1968	A	N9-C1'-C2'	-5.98	105.42	112.00
21	A2	14	C	N1-C1'-C2'	5.98	121.77	114.00
32	BO	34	ARG	NE-CZ-NH2	-5.98	117.31	120.30
33	BC	139	TYR	CB-CG-CD2	5.98	124.59	121.00
43	Bk	43	ARG	CB-CA-C	-5.98	98.44	110.40
52	BB	30	TYR	CD1-CE1-CZ	-5.98	114.42	119.80
67	B1	876	C	N1-C1'-C2'	5.98	121.78	114.00
67	B1	1510	U	O4'-C1'-N1	5.98	112.98	108.20
67	B1	1983	C	C5'-C4'-O4'	5.98	116.28	109.10
67	B1	2335	G	C3'-C2'-C1'	5.98	106.28	101.50
67	B1	66	C	N1-C1'-C2'	5.98	121.77	114.00
67	B1	382	G	O4'-C1'-N9	5.98	112.98	108.20
67	B1	438	G	C1'-O4'-C4'	-5.98	105.12	109.90
67	B1	865	C	N1-C1'-C2'	5.98	121.77	114.00
67	B1	1221	U	C4'-C3'-C2'	-5.98	96.62	102.60
67	B1	1622	G	C3'-C2'-C1'	5.98	106.28	101.50
67	B1	2179	G	N9-C1'-C2'	-5.98	105.42	112.00
21	A2	1325	C	N1-C1'-C2'	5.98	121.77	114.00
67	B1	59	U	O4'-C1'-C2'	-5.98	99.82	105.80
67	B1	874	U	O4'-C1'-C2'	-5.98	99.82	105.80
67	B1	2922	G	O4'-C1'-C2'	-5.98	99.82	105.80
10	AD	110	TYR	CD1-CE1-CZ	-5.98	114.42	119.80
21	A2	409	C	P-O3'-C3'	-5.97	112.53	119.70
21	A2	802	G	C3'-C2'-C1'	-5.97	96.72	101.50
67	B1	488	A	C5'-C4'-O4'	5.97	116.27	109.10
67	B1	683	C	C4'-C3'-C2'	-5.97	96.62	102.60
67	B1	2054	G	C5'-C4'-O4'	5.97	116.27	109.10
67	B1	2150	G	C4'-C3'-C2'	-5.97	96.62	102.60
67	B1	2279	G	P-O3'-C3'	5.97	126.87	119.70
21	A2	102	U	C3'-C2'-C1'	5.97	106.28	101.50
21	A2	150	G	N9-C1'-C2'	-5.97	105.43	112.00
21	A2	540	G	O4'-C1'-N9	5.97	112.98	108.20
21	A2	1078	U	P-O3'-C3'	5.97	126.87	119.70
67	B1	1149	C	O4'-C1'-C2'	-5.97	99.83	105.80
67	B1	2312	U	C1'-O4'-C4'	5.97	114.68	109.90
67	B1	2423	G	P-O3'-C3'	-5.97	112.53	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	169	C	P-O3'-C3'	-5.97	112.54	119.70
21	A2	1333	G	O4'-C1'-C2'	-5.97	99.83	105.80
21	A2	1368	A	N9-C1'-C2'	-5.97	105.43	112.00
40	BE	64	THR	N-CA-C	-5.97	94.88	111.00
43	Bk	33	MET	CA-C-N	-5.97	100.38	117.10
43	Bk	195	TYR	CB-CG-CD2	-5.97	117.42	121.00
64	Bc	63	THR	N-CA-CB	5.97	121.64	110.30
67	B1	449	G	C3'-C2'-C1'	5.97	106.28	101.50
67	B1	1518	G	C5'-C4'-C3'	5.97	125.55	116.00
21	A2	240	U	C3'-C2'-C1'	5.97	106.27	101.50
21	A2	643	G	O4'-C1'-N9	5.97	112.97	108.20
51	Bj	28	ARG	N-CA-CB	5.97	121.34	110.60
60	BS	141	GLU	OE1-CD-OE2	-5.97	116.14	123.30
67	B1	110	A	C1'-O4'-C4'	5.97	114.67	109.90
67	B1	2929	C	C3'-C2'-C1'	5.97	106.27	101.50
68	B3	94	G	N9-C1'-C2'	5.97	121.76	114.00
4	AG	99	LYS	N-CA-CB	-5.97	99.86	110.60
7	AB	36	ARG	NE-CZ-NH1	5.97	123.28	120.30
21	A2	1091	C	P-O3'-C3'	-5.97	112.54	119.70
21	A2	1304	C	N3-C4-C5	-5.97	119.51	121.90
67	B1	658	C	C1'-O4'-C4'	5.97	114.67	109.90
67	B1	939	A	C3'-C2'-C1'	5.97	106.27	101.50
67	B1	1127	C	O4'-C1'-C2'	-5.97	99.83	105.80
67	B1	2857	C	O4'-C1'-C2'	-5.97	99.83	105.80
7	AB	151	ASP	CB-CG-OD2	5.96	123.67	118.30
64	Bc	11	ARG	NE-CZ-NH1	5.96	123.28	120.30
67	B1	2055	U	C1'-O4'-C4'	5.96	114.67	109.90
67	B1	2666	G	N9-C1'-C2'	5.96	121.75	114.00
27	A0	19	G	C5'-C4'-C3'	-5.96	106.46	116.00
68	B3	75	G	O4'-C4'-C3'	-5.96	98.04	104.00
21	A2	270	A	N9-C1'-C2'	-5.96	105.44	112.00
21	A2	809	C	O4'-C1'-N1	5.96	112.97	108.20
62	BN	72	TYR	CG-CD1-CE1	5.96	126.07	121.30
67	B1	380	A	O4'-C4'-C3'	-5.96	98.04	104.00
67	B1	465	C	N1-C1'-C2'	5.96	121.75	114.00
67	B1	762	G	C4'-C3'-C2'	5.96	108.56	102.60
67	B1	990	G	P-O3'-C3'	-5.96	112.55	119.70
67	B1	1818	G	C5'-C4'-O4'	5.96	116.25	109.10
67	B1	2532	G	P-O5'-C5'	-5.96	111.36	120.90
21	A2	1339	G	C3'-C2'-C1'	-5.96	96.73	101.50
67	B1	17	C	O4'-C1'-N1	5.96	112.97	108.20
67	B1	1610	C	OP1-P-OP2	-5.96	110.66	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2245	C	C4'-C3'-C2'	-5.96	96.64	102.60
67	B1	2491	C	O4'-C1'-C2'	-5.96	99.84	105.80
21	A2	622	C	C1'-O4'-C4'	5.96	114.67	109.90
21	A2	1416	C	O4'-C1'-C2'	-5.96	99.84	105.80
67	B1	1250	A	O4'-C4'-C3'	-5.96	98.04	104.00
67	B1	1366	U	O4'-C4'-C3'	-5.96	98.04	104.00
67	B1	1910	C	C3'-C2'-C1'	5.96	106.27	101.50
67	B1	2067	U	O4'-C1'-C2'	-5.96	99.84	105.80
67	B1	2265	C	C3'-C2'-C1'	5.96	106.27	101.50
67	B1	2314	U	O4'-C1'-N1	5.96	112.97	108.20
21	A2	368	C	C2'-C3'-O3'	5.96	123.23	113.70
25	AH	86	MET	CB-CA-C	-5.96	98.49	110.40
67	B1	111	U	O4'-C1'-C2'	-5.96	99.84	105.80
67	B1	232	U	O4'-C1'-N1	5.96	112.97	108.20
67	B1	1450	C	OP1-P-OP2	-5.96	110.67	119.60
67	B1	2028	G	N9-C1'-C2'	5.96	121.74	114.00
21	A2	550	G	C1'-O4'-C4'	-5.96	105.14	109.90
21	A2	1346	C	N1-C1'-C2'	5.96	121.74	114.00
33	BC	9	ARG	NE-CZ-NH2	-5.96	117.32	120.30
67	B1	2155	C	P-O3'-C3'	-5.96	112.55	119.70
67	B1	2905	C	OP1-P-OP2	-5.96	110.67	119.60
21	A2	1094	U	C3'-C2'-C1'	5.95	106.26	101.50
23	AT	8	TYR	CG-CD2-CE2	-5.95	116.54	121.30
47	BI	121	SER	N-CA-C	-5.95	94.92	111.00
67	B1	2692	A	O4'-C1'-N9	5.95	112.96	108.20
21	A2	1017	U	O4'-C1'-C2'	-5.95	99.85	105.80
21	A2	1030	U	P-O5'-C5'	-5.95	111.38	120.90
67	B1	1423	G	N9-C1'-C2'	-5.95	105.45	112.00
21	A2	363	C	C1'-O4'-C4'	5.95	114.66	109.90
21	A2	1171	G	C1'-O4'-C4'	5.95	114.66	109.90
54	BF	88	TYR	CB-CG-CD2	-5.95	117.43	121.00
56	BH	114	MET	CB-CA-C	-5.95	98.50	110.40
67	B1	1927	C	O4'-C1'-C2'	-5.95	99.85	105.80
67	B1	2327	C	C4'-C3'-C2'	-5.95	96.65	102.60
21	A2	451	A	O4'-C1'-N9	5.95	112.96	108.20
21	A2	1365	G	O4'-C1'-C2'	5.95	112.95	107.60
30	AU	92	LYS	CB-CA-C	-5.95	98.50	110.40
38	Bb	82	VAL	N-CA-C	-5.95	94.94	111.00
43	Bk	20	LYS	CB-CA-C	-5.95	98.50	110.40
43	Bk	107	ARG	NE-CZ-NH2	-5.95	117.33	120.30
67	B1	15	A	O4'-C1'-N9	5.95	112.96	108.20
67	B1	19	G	N9-C1'-C2'	-5.95	105.46	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	109	G	C4'-C3'-C2'	-5.95	96.65	102.60
67	B1	1626	A	C3'-C2'-C1'	5.95	106.26	101.50
21	A2	197	A	OP1-P-OP2	-5.95	110.68	119.60
21	A2	1354	A	O4'-C1'-N9	-5.95	103.44	108.20
67	B1	2317	G	C3'-C2'-C1'	-5.95	96.74	101.50
27	A0	74	C	O3'-P-O5'	-5.95	92.70	104.00
61	Bd	50	ARG	NE-CZ-NH2	-5.95	117.33	120.30
67	B1	1660	A	C5-C6-N6	-5.95	118.94	123.70
67	B1	2054	G	O4'-C1'-N9	5.95	112.96	108.20
67	B1	2300	C	N1-C1'-C2'	5.95	121.73	114.00
67	B1	2595	C	O4'-C1'-N1	5.95	112.96	108.20
10	AD	121	ALA	CB-CA-C	-5.94	101.18	110.10
67	B1	879	A	C3'-C2'-C1'	-5.94	96.74	101.50
67	B1	1797	A	P-O5'-C5'	5.94	130.41	120.90
67	B1	2820	C	C3'-C2'-C1'	5.94	106.26	101.50
67	B1	111	U	C3'-C2'-C1'	-5.94	96.75	101.50
67	B1	380	A	C1'-O4'-C4'	-5.94	105.15	109.90
67	B1	1451	A	O4'-C1'-C2'	-5.94	99.86	105.80
8	AR	63	TYR	CG-CD2-CE2	-5.94	116.55	121.30
21	A2	1139	A	C4'-C3'-C2'	-5.94	96.66	102.60
49	BQ	147	LEU	CB-CG-CD2	5.94	121.10	111.00
67	B1	334	G	C3'-C2'-C1'	5.94	106.25	101.50
67	B1	1892	G	O4'-C1'-N9	5.94	112.95	108.20
67	B1	2185	A	C3'-C2'-C1'	-5.94	96.75	101.50
21	A2	563	U	C1'-O4'-C4'	5.94	114.65	109.90
21	A2	1108	U	C3'-C2'-C1'	5.94	106.25	101.50
67	B1	130	G	C4'-C3'-C2'	-5.94	96.66	102.60
67	B1	508	G	O4'-C1'-N9	5.94	112.95	108.20
67	B1	648	C	N1-C1'-C2'	-5.94	105.47	112.00
67	B1	1643	A	C1'-O4'-C4'	5.94	114.65	109.90
21	A2	683	A	O4'-C4'-C3'	-5.94	98.06	104.00
21	A2	1008	U	N1-C1'-C2'	5.94	121.72	114.00
21	A2	1267	U	O4'-C1'-N1	5.94	112.95	108.20
67	B1	130	G	O4'-C1'-C2'	-5.94	99.86	105.80
67	B1	833	G	C3'-C2'-C1'	5.94	106.25	101.50
67	B1	902	C	C1'-O4'-C4'	5.94	114.65	109.90
67	B1	1115	A	O4'-C1'-N9	-5.94	103.45	108.20
67	B1	2384	G	C5'-C4'-O4'	5.94	116.22	109.10
67	B1	2876	G	C1'-O4'-C4'	5.94	114.65	109.90
67	B1	2941	A	C1'-O4'-C4'	5.94	114.65	109.90
21	A2	600	C	P-O3'-C3'	-5.94	112.58	119.70
21	A2	106	A	O5'-P-OP1	-5.93	100.36	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	994	C	C3'-C2'-C1'	5.93	106.25	101.50
67	B1	740	C	C3'-C2'-C1'	5.93	106.25	101.50
67	B1	1309	G	O4'-C4'-C3'	-5.93	98.07	104.00
67	B1	1407	A	P-O5'-C5'	5.93	130.40	120.90
67	B1	1563	G	O3'-P-O5'	-5.93	92.72	104.00
67	B1	2297	C	P-O3'-C3'	-5.93	112.58	119.70
2	AK	92	ASP	CB-CG-OD1	5.93	123.64	118.30
21	A2	62	G	O4'-C1'-N9	-5.93	103.45	108.20
21	A2	726	A	N9-C1'-C2'	5.93	121.71	114.00
42	BT	67	TYR	CD1-CE1-CZ	-5.93	114.46	119.80
52	BB	187	LYS	N-CA-CB	5.93	121.28	110.60
67	B1	191	U	O4'-C1'-N1	5.93	112.95	108.20
67	B1	1209	A	O4'-C1'-C2'	-5.93	99.87	105.80
67	B1	1898	A	N9-C1'-C2'	-5.93	105.47	112.00
67	B1	2191	U	O4'-C1'-C2'	5.93	112.94	107.60
67	B1	2250	G	O4'-C1'-N9	5.93	112.95	108.20
21	A2	977	G	O4'-C1'-C2'	5.93	112.94	107.60
67	B1	2694	C	C1'-O4'-C4'	-5.93	105.16	109.90
7	AB	200	VAL	CA-CB-CG2	-5.93	102.00	110.90
21	A2	338	C	C1'-O4'-C4'	5.93	114.64	109.90
21	A2	1089	C	C5'-C4'-C3'	5.93	125.49	116.00
67	B1	69	C	O4'-C1'-N1	5.93	112.94	108.20
67	B1	423	G	O4'-C1'-C2'	5.93	112.94	107.60
67	B1	587	A	O4'-C1'-N9	5.93	112.94	108.20
67	B1	1318	G	C5'-C4'-C3'	5.93	125.49	116.00
67	B1	1349	G	OP1-P-OP2	-5.93	110.71	119.60
67	B1	1534	G	O4'-C1'-C2'	5.93	112.94	107.60
68	B3	87	G	C5'-C4'-O4'	5.93	116.22	109.10
21	A2	1421	C	N1-C1'-C2'	5.93	121.71	114.00
28	AV	60	PHE	CA-C-N	5.93	128.06	116.20
67	B1	992	G	O4'-C1'-N9	5.93	112.94	108.20
21	A2	1322	C	OP1-P-OP2	-5.93	110.71	119.60
28	AV	97	GLU	C-N-CA	5.93	134.75	122.30
67	B1	1555	G	O4'-C1'-C2'	-5.93	99.87	105.80
21	A2	134	A	O4'-C1'-N9	5.92	112.94	108.20
67	B1	2502	C	P-O5'-C5'	5.92	130.38	120.90
51	Bj	42	ARG	NE-CZ-NH1	-5.92	117.34	120.30
51	Bj	82	ARG	CB-CA-C	5.92	122.25	110.40
67	B1	229	G	O4'-C1'-N9	5.92	112.94	108.20
67	B1	857	U	O4'-C1'-N1	5.92	112.94	108.20
67	B1	1336	G	C4'-C3'-C2'	-5.92	96.68	102.60
67	B1	1507	A	C1'-O4'-C4'	-5.92	105.16	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1689	G	P-O3'-C3'	5.92	126.81	119.70
11	A1	2	G	O4'-C4'-C3'	-5.92	98.08	104.00
21	A2	1256	C	C1'-O4'-C4'	5.92	114.64	109.90
33	BC	172	TRP	CB-CG-CD1	5.92	134.70	127.00
34	BK	46	ARG	CA-CB-CG	5.92	126.43	113.40
67	B1	490	C	P-O5'-C5'	5.92	130.37	120.90
67	B1	1495	A	C1'-O4'-C4'	-5.92	105.16	109.90
67	B1	1964	G	C1'-O4'-C4'	-5.92	105.16	109.90
67	B1	2682	G	P-O3'-C3'	-5.92	112.60	119.70
21	A2	557	G	C4'-C3'-C2'	-5.92	96.68	102.60
21	A2	1073	C	C1'-O4'-C4'	-5.92	105.17	109.90
30	AU	34	PHE	CB-CG-CD2	5.92	124.94	120.80
41	Ba	7	GLU	C-N-CA	5.92	136.50	121.70
67	B1	615	A	N9-C1'-C2'	-5.92	105.49	112.00
67	B1	918	A	O4'-C1'-N9	-5.92	103.47	108.20
15	AE	163	THR	N-CA-C	-5.92	95.03	111.00
21	A2	326	C	C1'-O4'-C4'	-5.92	105.17	109.90
21	A2	1213	G	O5'-P-OP1	5.92	117.80	110.70
46	BA	5	ARG	NE-CZ-NH1	-5.92	117.34	120.30
67	B1	131	C	N1-C1'-C2'	5.92	121.69	114.00
67	B1	1769	G	C5'-C4'-O4'	5.92	116.20	109.10
67	B1	2263	G	N9-C1'-C2'	-5.92	105.49	112.00
67	B1	2607	U	C1'-O4'-C4'	5.92	114.63	109.90
21	A2	574	A	N9-C1'-C2'	-5.92	105.49	112.00
67	B1	942	U	OP1-P-OP2	-5.92	110.73	119.60
5	AW	56	ALA	N-CA-CB	5.91	118.38	110.10
21	A2	1455	A	O4'-C1'-N9	5.91	112.93	108.20
34	B5	5	ASP	O-C-N	-5.91	113.24	122.70
52	BB	123	ARG	NE-CZ-NH1	5.91	123.26	120.30
67	B1	363	G	C3'-C2'-C1'	-5.91	96.77	101.50
67	B1	2197	U	C3'-C2'-C1'	5.91	106.23	101.50
68	B3	73	U	P-O3'-C3'	5.91	126.80	119.70
21	A2	485	A	N9-C1'-C2'	-5.91	105.50	112.00
67	B1	969	U	O4'-C1'-C2'	-5.91	99.89	105.80
67	B1	2611	U	O4'-C1'-N1	5.91	112.93	108.20
21	A2	157	A	C4'-C3'-C2'	-5.91	96.69	102.60
21	A2	1492	U	N1-C1'-C2'	-5.91	105.50	112.00
46	BA	143	THR	CA-CB-CG2	-5.91	104.12	112.40
67	B1	1524	A	P-O3'-C3'	-5.91	112.61	119.70
67	B1	2146	C	N1-C1'-C2'	5.91	121.69	114.00
21	A2	90	C	C3'-C2'-C1'	-5.91	96.77	101.50
21	A2	963	A	C4-C5-C6	5.91	119.95	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bd	11	ARG	N-CA-C	-5.91	95.05	111.00
67	B1	1229	U	C1'-O4'-C4'	-5.91	105.17	109.90
67	B1	1668	G	C1'-O4'-C4'	-5.91	105.17	109.90
67	B1	2213	G	O4'-C1'-C2'	5.91	112.92	107.60
67	B1	2479	C	C3'-C2'-C1'	5.91	106.23	101.50
11	A1	58	A	N9-C1'-C2'	-5.91	105.50	112.00
67	B1	900	C	O4'-C1'-C2'	-5.91	99.89	105.80
67	B1	1248	C	O4'-C1'-C2'	5.91	112.92	107.60
11	A1	56	U	C1'-O4'-C4'	-5.91	105.17	109.90
11	A1	66	C	O4'-C1'-C2'	-5.91	99.89	105.80
21	A2	841	C	C3'-C2'-C1'	5.91	106.22	101.50
33	BC	86	TYR	CB-CG-CD2	-5.91	117.46	121.00
61	Bd	11	ARG	NE-CZ-NH2	-5.91	117.35	120.30
67	B1	408	C	O3'-P-O5'	-5.91	92.78	104.00
67	B1	1358	C	O4'-C1'-N1	5.91	112.92	108.20
67	B1	2864	G	C3'-C2'-C1'	5.91	106.22	101.50
15	AE	158	TYR	CG-CD1-CE1	-5.90	116.58	121.30
21	A2	531	G	P-O5'-C5'	5.90	130.35	120.90
21	A2	631	C	O4'-C1'-N1	5.90	112.92	108.20
27	A0	17	U	C1'-O4'-C4'	5.90	114.62	109.90
59	BM	183	ARG	NE-CZ-NH1	5.90	123.25	120.30
67	B1	617	G	C1'-O4'-C4'	5.90	114.62	109.90
67	B1	2642	C	C1'-O4'-C4'	-5.90	105.18	109.90
21	A2	872	A	N9-C1'-C2'	5.90	121.67	114.00
21	A2	1256	C	C3'-C2'-C1'	5.90	106.22	101.50
21	A2	1456	C	N1-C1'-C2'	5.90	121.67	114.00
21	A2	1461	U	O4'-C4'-C3'	5.90	110.82	106.10
58	BP	44	ARG	NE-CZ-NH1	-5.90	117.35	120.30
67	B1	991	U	N1-C1'-C2'	5.90	121.67	114.00
67	B1	1236	C	OP1-P-OP2	-5.90	110.75	119.60
67	B1	2569	G	C3'-C2'-C1'	5.90	106.22	101.50
8	AR	73	HIS	CA-CB-CG	5.90	123.63	113.60
21	A2	789	G	C3'-C2'-C1'	-5.90	96.78	101.50
21	A2	1020	G	P-O3'-C3'	-5.90	112.62	119.70
50	BV	34	SER	N-CA-CB	5.90	119.35	110.50
54	BF	40	PHE	CB-CG-CD1	5.90	124.93	120.80
64	Bc	11	ARG	CB-CA-C	-5.90	98.60	110.40
67	B1	238	C	C5'-C4'-C3'	-5.90	106.56	116.00
67	B1	518	A	C1'-O4'-C4'	5.90	114.62	109.90
67	B1	2998	G	O4'-C1'-C2'	5.90	112.91	107.60
21	A2	414	G	P-O3'-C3'	-5.90	112.62	119.70
67	B1	1540	A	O4'-C1'-N9	5.90	112.92	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2437	G	P-O3'-C3'	5.90	126.78	119.70
68	B3	35	A	C3'-C2'-C1'	5.90	106.22	101.50
21	A2	1261	U	C1'-O4'-C4'	-5.90	105.18	109.90
21	A2	1298	G	C1'-O4'-C4'	-5.90	105.18	109.90
21	A2	1318	U	C1'-O4'-C4'	5.90	114.62	109.90
51	Bj	41	ARG	NE-CZ-NH2	-5.90	117.35	120.30
68	B3	83	C	C3'-C2'-C1'	5.90	106.22	101.50
21	A2	63	G	P-O5'-C5'	-5.90	111.47	120.90
51	Bj	54	LYS	C-N-CD	-5.90	107.63	120.60
67	B1	825	C	O4'-C1'-N1	5.90	112.92	108.20
67	B1	940	G	C5'-C4'-C3'	5.90	125.43	116.00
67	B1	1028	G	O4'-C1'-N9	5.90	112.92	108.20
67	B1	1894	A	C3'-C2'-C1'	5.90	106.22	101.50
67	B1	2540	A	C3'-C2'-C1'	5.90	106.22	101.50
67	B1	2826	U	C3'-C2'-C1'	5.90	106.22	101.50
67	B1	2937	U	N1-C1'-C2'	-5.90	105.52	112.00
67	B1	1317	G	C1'-O4'-C4'	-5.89	105.19	109.90
67	B1	1421	C	C4'-C3'-C2'	5.89	108.49	102.60
67	B1	2121	C	C4'-C3'-C2'	-5.89	96.71	102.60
67	B1	2147	C	O4'-C1'-N1	5.89	112.92	108.20
11	A1	50	G	O4'-C1'-C2'	-5.89	99.91	105.80
67	B1	807	G	C4'-C3'-C2'	-5.89	96.71	102.60
67	B1	1495	A	C5'-C4'-O4'	5.89	116.17	109.10
67	B1	2937	U	O4'-C4'-C3'	-5.89	98.11	104.00
44	BW	42	MET	CB-CA-C	-5.89	98.62	110.40
10	AD	11	TYR	CZ-CE2-CD2	5.89	125.10	119.80
21	A2	86	C	O4'-C1'-N1	5.89	112.91	108.20
21	A2	368	C	P-O3'-C3'	5.89	126.77	119.70
27	A0	14	A	P-O3'-C3'	-5.89	112.63	119.70
59	BM	111	LEU	N-CA-CB	5.89	122.18	110.40
67	B1	1757	G	O4'-C1'-C2'	5.89	112.90	107.60
67	B1	2108	U	C1'-O4'-C4'	5.89	114.61	109.90
67	B1	2166	C	N3-C4-C5	-5.89	119.54	121.90
51	Bj	77	ALA	N-CA-CB	5.89	118.34	110.10
67	B1	1252	G	C5'-C4'-C3'	5.89	125.42	116.00
21	A2	204	G	C3'-C2'-C1'	5.89	106.21	101.50
21	A2	408	C	C4'-C3'-C2'	-5.89	96.71	102.60
21	A2	558	C	C3'-C2'-C1'	5.89	106.21	101.50
21	A2	1149	C	C5'-C4'-C3'	-5.89	106.58	116.00
65	BJ	84	ARG	NE-CZ-NH2	-5.89	117.36	120.30
67	B1	1307	C	C3'-C2'-C1'	5.89	106.21	101.50
21	A2	1189	G	C3'-C2'-C1'	5.88	106.21	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	160	C	C1'-O4'-C4'	-5.88	105.19	109.90
67	B1	1257	G	O4'-C1'-C2'	5.88	112.90	107.60
67	B1	2300	C	P-O5'-C5'	5.88	130.32	120.90
67	B1	2314	U	C5'-C4'-C3'	-5.88	106.58	116.00
67	B1	198	C	O4'-C1'-N1	5.88	112.91	108.20
67	B1	540	A	C1'-O4'-C4'	5.88	114.61	109.90
10	AD	111	LYS	CA-CB-CG	5.88	126.34	113.40
21	A2	178	C	C1'-O4'-C4'	5.88	114.61	109.90
27	A0	48	C	C3'-C2'-C1'	5.88	106.21	101.50
34	BK	5	ASP	O-C-N	-5.88	113.29	122.70
59	BM	127	TRP	CG-CD2-CE3	-5.88	128.61	133.90
63	Bg	42	LYS	CB-CA-C	-5.88	98.64	110.40
67	B1	816	C	N1-C1'-C2'	5.88	121.64	114.00
67	B1	1830	U	P-O3'-C3'	-5.88	112.64	119.70
67	B1	2381	A	C5'-C4'-C3'	5.88	125.41	116.00
67	B1	2429	G	O4'-C1'-N9	5.88	112.91	108.20
21	A2	1146	G	C3'-C2'-C1'	5.88	106.20	101.50
59	BM	130	VAL	CA-CB-CG1	5.88	119.72	110.90
67	B1	1736	G	N9-C1'-C2'	5.88	121.64	114.00
67	B1	1772	A	O4'-C1'-C2'	-5.88	99.92	105.80
67	B1	423	G	C1'-O4'-C4'	-5.88	105.20	109.90
67	B1	448	A	O4'-C1'-C2'	-5.88	99.92	105.80
67	B1	1264	G	N9-C1'-C2'	5.88	121.64	114.00
4	AG	40	ALA	N-CA-CB	5.88	118.33	110.10
21	A2	1157	G	O4'-C1'-N9	5.88	112.90	108.20
67	B1	6	A	C3'-C2'-C1'	-5.88	96.80	101.50
67	B1	166	G	C1'-O4'-C4'	5.88	114.60	109.90
67	B1	487	U	C5'-C4'-O4'	5.88	116.15	109.10
67	B1	1354	G	O4'-C1'-C2'	-5.88	99.92	105.80
67	B1	1856	G	OP1-P-O3'	5.88	118.13	105.20
67	B1	2133	G	O5'-C5'-C4'	-5.88	100.53	111.70
67	B1	2776	A	N9-C1'-C2'	5.88	121.64	114.00
27	A0	39	U	O4'-C1'-N1	5.88	112.90	108.20
67	B1	1956	G	O3'-P-O5'	5.88	115.16	104.00
67	B1	2079	U	O4'-C1'-C2'	-5.88	99.92	105.80
67	B1	2702	A	P-O3'-C3'	5.88	126.75	119.70
67	B1	2720	U	O4'-C1'-C2'	-5.88	99.92	105.80
21	A2	1067	G	O3'-P-O5'	5.87	115.16	104.00
67	B1	31	G	O4'-C1'-N9	5.87	112.90	108.20
67	B1	676	G	C1'-O4'-C4'	-5.87	105.20	109.90
67	B1	1100	G	O4'-C1'-C2'	5.87	112.89	107.60
67	B1	1812	A	O3'-P-O5'	-5.87	92.84	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2960	G	P-O3'-C3'	5.87	126.75	119.70
21	A2	718	G	O4'-C1'-N9	-5.87	103.50	108.20
21	A2	998	A	C4-C5-C6	5.87	119.94	117.00
27	A0	44	C	O4'-C1'-C2'	-5.87	99.93	105.80
54	BF	179	GLY	N-CA-C	-5.87	98.42	113.10
67	B1	903	C	N1-C1'-C2'	5.87	121.63	114.00
67	B1	1743	G	N9-C1'-C2'	-5.87	105.54	112.00
67	B1	1844	C	O4'-C4'-C3'	-5.87	98.13	104.00
67	B1	336	C	C3'-C2'-C1'	5.87	106.20	101.50
1	AQ	37	VAL	CA-CB-CG2	-5.87	102.10	110.90
21	A2	1136	A	C1'-O4'-C4'	-5.87	105.21	109.90
49	BQ	97	LYS	CB-CA-C	5.87	122.14	110.40
67	B1	693	G	O4'-C4'-C3'	-5.87	98.13	104.00
67	B1	1166	A	C1'-O4'-C4'	-5.87	105.20	109.90
38	Bb	67	SER	N-CA-CB	5.87	119.30	110.50
41	Ba	30	ARG	N-CA-CB	5.87	121.16	110.60
67	B1	101	G	P-O5'-C5'	-5.87	111.52	120.90
67	B1	121	G	N9-C1'-C2'	5.87	121.63	114.00
67	B1	579	C	C2'-C3'-O3'	5.87	123.09	113.70
67	B1	2830	C	O4'-C1'-C2'	-5.87	99.93	105.80
21	A2	421	U	O4'-C1'-C2'	5.86	112.88	107.60
21	A2	1248	A	C1'-O4'-C4'	5.86	114.59	109.90
67	B1	192	U	C1'-O4'-C4'	-5.86	105.21	109.90
67	B1	654	C	C4'-C3'-C2'	-5.86	96.74	102.60
67	B1	704	G	C1'-O4'-C4'	5.86	114.59	109.90
67	B1	1316	U	C5'-C4'-O4'	-5.86	102.06	109.10
67	B1	1751	G	O4'-C4'-C3'	-5.86	98.14	104.00
67	B1	2038	C	C5'-C4'-O4'	5.86	116.14	109.10
67	B1	2801	G	P-O3'-C3'	-5.86	112.66	119.70
67	B1	2920	C	C1'-O4'-C4'	-5.86	105.21	109.90
51	Bj	52	ARG	NE-CZ-NH1	5.86	123.23	120.30
67	B1	215	A	C3'-C2'-C1'	-5.86	96.81	101.50
14	AM	109	GLY	CA-C-O	-5.86	110.05	120.60
21	A2	567	A	C5'-C4'-O4'	5.86	116.13	109.10
21	A2	685	G	O4'-C1'-N9	5.86	112.89	108.20
21	A2	1193	G	O4'-C1'-N9	-5.86	103.51	108.20
27	A0	16	C	O4'-C1'-C2'	-5.86	99.94	105.80
33	BC	322	MET	CG-SD-CE	-5.86	90.82	100.20
54	BF	78	MET	CG-SD-CE	-5.86	90.82	100.20
67	B1	961	C	C3'-C2'-C1'	5.86	106.19	101.50
67	B1	985	A	C4-C5-C6	5.86	119.93	117.00
67	B1	1258	G	OP1-P-OP2	-5.86	110.81	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1478	G	P-O3'-C3'	-5.86	112.67	119.70
67	B1	1728	C	C3'-C2'-C1'	5.86	106.19	101.50
67	B1	2991	C	N1-C1'-C2'	5.86	121.62	114.00
67	B1	520	G	P-O3'-C3'	5.86	126.73	119.70
21	A2	1067	G	O4'-C1'-C2'	-5.86	99.94	105.80
21	A2	1181	G	C1'-O4'-C4'	5.86	114.59	109.90
51	Bj	56	GLU	C-N-CA	5.86	134.60	122.30
61	Bd	11	ARG	N-CA-CB	5.86	121.14	110.60
67	B1	1075	G	O4'-C1'-N9	5.86	112.89	108.20
67	B1	2161	A	P-O3'-C3'	5.86	126.73	119.70
67	B1	2595	C	O4'-C1'-C2'	-5.86	99.94	105.80
5	AW	2	ALA	N-CA-CB	5.86	118.30	110.10
21	A2	114	A	C4'-C3'-C2'	5.86	108.45	102.60
21	A2	1156	A	N9-C1'-C2'	-5.86	105.56	112.00
39	Be	45	ARG	CB-CA-C	-5.86	98.69	110.40
49	BQ	142	LEU	CB-CA-C	5.86	121.32	110.20
67	B1	361	G	C4'-C3'-C2'	-5.86	96.74	102.60
67	B1	957	C	O4'-C1'-N1	5.86	112.88	108.20
67	B1	1097	G	C5'-C4'-O4'	-5.86	102.07	109.10
67	B1	1225	A	O4'-C1'-C2'	5.86	112.87	107.60
68	B3	79	U	N1-C1'-C2'	-5.86	105.56	112.00
21	A2	315	A	C1'-O4'-C4'	5.85	114.58	109.90
21	A2	584	C	C3'-C2'-C1'	5.85	106.18	101.50
21	A2	622	C	C3'-C2'-C1'	-5.85	96.82	101.50
36	Bf	3	ARG	NE-CZ-NH2	-5.85	117.37	120.30
15	AE	194	ALA	N-CA-CB	5.85	118.30	110.10
25	AH	9	PHE	CB-CG-CD1	-5.85	116.70	120.80
25	AH	85	PHE	CB-CG-CD2	5.85	124.90	120.80
45	Bi	10	ALA	CB-CA-C	-5.85	101.32	110.10
21	A2	82	G	C1'-O4'-C4'	-5.85	105.22	109.90
67	B1	2222	C	O4'-C1'-C2'	-5.85	99.95	105.80
4	AG	125	TYR	CB-CG-CD2	-5.85	117.49	121.00
17	AO	2	ALA	N-CA-CB	5.85	118.29	110.10
21	A2	1402	C	P-O3'-C3'	5.85	126.72	119.70
30	AU	86	ALA	CB-CA-C	-5.85	101.33	110.10
58	BP	71	ALA	CB-CA-C	5.85	118.87	110.10
61	Bd	52	VAL	CG1-CB-CG2	5.85	120.26	110.90
65	BJ	105	VAL	CA-CB-CG1	5.85	119.67	110.90
67	B1	653	U	O4'-C1'-N1	5.85	112.88	108.20
67	B1	820	C	O4'-C1'-C2'	-5.85	99.95	105.80
67	B1	1011	A	P-O5'-C5'	5.85	130.26	120.90
67	B1	1617	G	OP1-P-OP2	-5.85	110.83	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2419	U	C5'-C4'-C3'	-5.85	106.64	116.00
67	B1	2858	C	C1'-O4'-C4'	-5.85	105.22	109.90
21	A2	1061	A	C4'-C3'-C2'	-5.85	96.75	102.60
67	B1	1297	C	C3'-C2'-C1'	5.85	106.18	101.50
67	B1	2179	G	O4'-C1'-N9	5.85	112.88	108.20
67	B1	2393	G	C3'-C2'-C1'	-5.85	96.82	101.50
67	B1	2418	G	C3'-C2'-C1'	5.85	106.18	101.50
67	B1	2746	G	O4'-C1'-N9	5.85	112.88	108.20
20	A3	29	THR	CA-CB-CG2	-5.85	104.22	112.40
21	A2	821	G	C1'-O4'-C4'	5.85	114.58	109.90
21	A2	1159	U	N1-C1'-C2'	5.85	121.60	114.00
67	B1	952	C	C3'-C2'-C1'	5.85	106.18	101.50
67	B1	1489	G	P-O5'-C5'	-5.85	111.55	120.90
67	B1	1759	A	O4'-C1'-N9	5.85	112.88	108.20
67	B1	2441	A	O5'-P-OP2	-5.85	100.44	105.70
2	AK	108	VAL	CA-CB-CG2	5.84	119.67	110.90
15	AE	15	ALA	N-CA-CB	5.84	118.28	110.10
21	A2	209	A	C3'-C2'-C1'	5.84	106.17	101.50
21	A2	837	C	OP1-P-OP2	-5.84	110.83	119.60
26	AP	24	CYS	CA-CB-SG	5.84	124.52	114.00
67	B1	516	A	O4'-C4'-C3'	-5.84	98.16	104.00
67	B1	982	G	O4'-C1'-C2'	-5.84	99.95	105.80
67	B1	1499	C	O4'-C1'-N1	5.84	112.88	108.20
67	B1	1704	C	O4'-C1'-N1	5.84	112.88	108.20
67	B1	1927	C	N1-C1'-C2'	5.84	121.60	114.00
10	AD	56	ARG	NE-CZ-NH2	5.84	123.22	120.30
21	A2	89	G	C5'-C4'-C3'	-5.84	106.65	116.00
21	A2	676	G	C4'-C3'-C2'	5.84	108.44	102.60
27	A0	5	C	C3'-C2'-C1'	5.84	106.17	101.50
33	BC	189	GLY	N-CA-C	-5.84	98.49	113.10
67	B1	3009	C	C3'-C2'-C1'	5.84	106.17	101.50
21	A2	47	A	N9-C1'-C2'	5.84	121.59	114.00
21	A2	414	G	O4'-C1'-N9	5.84	112.87	108.20
67	B1	776	G	O4'-C1'-C2'	-5.84	99.96	105.80
67	B1	2846	A	C1'-O4'-C4'	-5.84	105.23	109.90
67	B1	1321	C	P-O3'-C3'	-5.84	112.69	119.70
8	AR	108	ARG	NE-CZ-NH1	5.84	123.22	120.30
67	B1	594	U	O4'-C1'-C2'	-5.84	99.96	105.80
67	B1	1750	C	O4'-C1'-N1	5.84	112.87	108.20
10	AD	109	VAL	CA-CB-CG1	5.84	119.66	110.90
21	A2	229	G	C1'-O4'-C4'	-5.84	105.23	109.90
26	AP	29	PRO	C-N-CA	5.84	136.29	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	Bf	4	ASN	CA-CB-CG	5.84	126.24	113.40
38	Bb	48	SER	N-CA-CB	5.84	119.25	110.50
56	BH	60	VAL	CA-CB-CG2	5.84	119.65	110.90
67	B1	875	G	C1'-O4'-C4'	-5.84	105.23	109.90
67	B1	931	C	N1-C1'-C2'	5.84	121.59	114.00
67	B1	2867	U	C3'-C2'-C1'	5.84	106.17	101.50
21	A2	451	A	C4-C5-C6	5.83	119.92	117.00
30	AU	77	TYR	CB-CG-CD1	5.83	124.50	121.00
38	Bb	41	ARG	NE-CZ-NH1	-5.83	117.38	120.30
67	B1	369	G	O4'-C1'-N9	-5.83	103.53	108.20
67	B1	1940	U	O4'-C1'-N1	5.83	112.87	108.20
68	B3	29	G	O4'-C1'-C2'	5.83	112.85	107.60
15	AE	153	ALA	N-CA-CB	5.83	118.27	110.10
21	A2	543	C	C3'-C2'-C1'	5.83	106.17	101.50
21	A2	686	C	C3'-C2'-C1'	5.83	106.17	101.50
21	A2	751	C	C1'-O4'-C4'	-5.83	105.23	109.90
62	BN	124	ALA	N-CA-CB	5.83	118.27	110.10
67	B1	1655	G	N9-C1'-C2'	5.83	121.58	114.00
68	B3	119	C	C4'-C3'-C2'	-5.83	96.77	102.60
21	A2	236	C	C3'-C2'-C1'	5.83	106.17	101.50
21	A2	1494	C	P-O5'-C5'	5.83	130.23	120.90
40	BE	135	PHE	CB-CG-CD1	5.83	124.88	120.80
48	BR	8	PHE	C-N-CA	5.83	136.28	121.70
67	B1	1516	C	C3'-C2'-C1'	5.83	106.17	101.50
6	AC	14	GLU	CA-CB-CG	5.83	126.23	113.40
21	A2	497	C	C5'-C4'-O4'	5.83	116.09	109.10
67	B1	1084	G	N9-C1'-C2'	5.83	121.58	114.00
67	B1	1993	A	P-O3'-C3'	-5.83	112.71	119.70
67	B1	2229	G	O4'-C1'-C2'	-5.83	99.97	105.80
67	B1	341	U	O4'-C1'-N1	5.83	112.86	108.20
21	A2	245	U	OP2-P-O3'	5.83	118.02	105.20
21	A2	434	A	C2'-C3'-O3'	5.83	123.02	113.70
21	A2	705	C	C1'-O4'-C4'	-5.83	105.24	109.90
21	A2	891	A	C4-C5-C6	5.83	119.91	117.00
67	B1	247	A	C1'-O4'-C4'	5.83	114.56	109.90
67	B1	344	G	C4'-C3'-C2'	-5.83	96.78	102.60
67	B1	603	G	C3'-C2'-C1'	5.83	106.16	101.50
67	B1	858	G	O4'-C1'-N9	-5.83	103.54	108.20
67	B1	1278	C	O4'-C1'-N1	-5.83	103.54	108.20
67	B1	1860	A	O4'-C1'-C2'	-5.83	99.97	105.80
67	B1	2092	G	O4'-C4'-C3'	-5.83	98.17	104.00
67	B1	2119	C	C5'-C4'-O4'	5.83	116.09	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AI	60	VAL	N-CA-C	-5.82	95.28	111.00
21	A2	985	C	N3-C4-C5	-5.82	119.57	121.90
60	BS	65	ARG	CA-CB-CG	5.82	126.21	113.40
67	B1	84	A	O4'-C1'-N9	-5.82	103.54	108.20
67	B1	492	A	C1'-O4'-C4'	5.82	114.56	109.90
67	B1	553	C	O4'-C1'-N1	5.82	112.86	108.20
67	B1	556	G	P-O3'-C3'	-5.82	112.71	119.70
67	B1	1025	A	O4'-C1'-N9	5.82	112.86	108.20
67	B1	1245	C	C4'-C3'-C2'	5.82	108.42	102.60
67	B1	2580	G	O4'-C1'-N9	5.82	112.86	108.20
67	B1	2815	C	O4'-C1'-C2'	-5.82	99.98	105.80
68	B3	40	G	C5'-C4'-C3'	-5.82	106.68	116.00
5	AW	16	VAL	CA-CB-CG2	-5.82	102.17	110.90
67	B1	1178	G	N9-C1'-C2'	5.82	121.57	114.00
67	B1	2652	G	C3'-C2'-C1'	-5.82	96.84	101.50
21	A2	15	U	O4'-C1'-N1	5.82	112.86	108.20
21	A2	443	C	O4'-C1'-N1	5.82	112.86	108.20
21	A2	1461	U	P-O5'-C5'	-5.82	111.59	120.90
51	Bj	61	PRO	N-CA-C	5.82	127.23	112.10
67	B1	644	G	C3'-C2'-C1'	5.82	106.16	101.50
67	B1	714	C	C3'-C2'-C1'	5.82	106.16	101.50
67	B1	2335	G	O4'-C1'-C2'	5.82	112.84	107.60
67	B1	939	A	O4'-C1'-N9	5.82	112.86	108.20
21	A2	427	G	C3'-C2'-C1'	-5.82	96.84	101.50
21	A2	1485	G	O3'-P-O5'	-5.82	92.95	104.00
31	BY	127	ARG	NE-CZ-NH1	5.82	123.21	120.30
67	B1	139	G	C5'-C4'-O4'	5.82	116.08	109.10
67	B1	406	G	C3'-C2'-C1'	5.82	106.15	101.50
67	B1	1589	G	O4'-C1'-C2'	-5.82	99.98	105.80
67	B1	1590	C	C3'-C2'-C1'	5.82	106.15	101.50
27	A0	33	U	O4'-C1'-C2'	-5.82	99.98	105.80
34	B5	46	ARG	NE-CZ-NH1	5.82	123.21	120.30
39	Be	53	LYS	CB-CG-CD	5.82	126.72	111.60
67	B1	1274	G	C3'-C2'-C1'	-5.82	96.85	101.50
67	B1	2380	A	N9-C1'-C2'	5.82	121.56	114.00
21	A2	236	C	C1'-O4'-C4'	5.81	114.55	109.90
21	A2	715	C	C1'-O4'-C4'	-5.81	105.25	109.90
67	B1	267	C	C3'-C2'-C1'	5.81	106.15	101.50
21	A2	375	G	N9-C1'-C2'	5.81	121.56	114.00
21	A2	1227	A	C1'-O4'-C4'	-5.81	105.25	109.90
67	B1	9	A	C4-C5-C6	5.81	119.91	117.00
67	B1	937	A	O5'-C5'-C4'	-5.81	100.66	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1097	G	C1'-O4'-C4'	-5.81	105.25	109.90
67	B1	1613	A	C5'-C4'-O4'	5.81	116.08	109.10
67	B1	2340	A	C1'-O4'-C4'	-5.81	105.25	109.90
67	B1	2417	G	C4'-C3'-C2'	-5.81	96.79	102.60
11	A1	50	G	N9-C1'-C2'	-5.81	105.61	112.00
17	AO	48	PHE	CG-CD1-CE1	-5.81	114.41	120.80
52	BB	238	ARG	NE-CZ-NH1	-5.81	117.39	120.30
67	B1	48	G	P-O3'-C3'	5.81	126.67	119.70
67	B1	259	A	C5'-C4'-C3'	5.81	125.30	116.00
67	B1	1092	U	O5'-C5'-C4'	-5.81	100.66	111.70
67	B1	1326	U	C1'-O4'-C4'	5.81	114.55	109.90
21	A2	305	C	C3'-C2'-C1'	5.81	106.15	101.50
21	A2	336	C	C1'-O4'-C4'	-5.81	105.25	109.90
21	A2	586	C	N3-C4-N4	5.81	122.07	118.00
21	A2	688	C	C1'-O4'-C4'	5.81	114.55	109.90
67	B1	530	A	C1'-O4'-C4'	5.81	114.55	109.90
67	B1	925	U	C1'-O4'-C4'	-5.81	105.25	109.90
67	B1	1303	C	N1-C1'-C2'	5.81	121.55	114.00
67	B1	1834	C	O4'-C1'-N1	5.81	112.85	108.20
67	B1	2505	A	C1'-O4'-C4'	-5.81	105.25	109.90
21	A2	532	C	OP1-P-OP2	-5.81	110.89	119.60
21	A2	543	C	O4'-C1'-C2'	-5.81	99.99	105.80
67	B1	138	U	O4'-C1'-C2'	-5.81	99.99	105.80
67	B1	140	C	P-O5'-C5'	-5.81	111.61	120.90
67	B1	1180	G	C2'-C3'-O3'	5.81	122.99	113.70
67	B1	1305	C	N1-C1'-C2'	5.81	121.55	114.00
57	BZ	99	ARG	NE-CZ-NH2	5.81	123.20	120.30
63	Bg	15	TYR	CB-CA-C	5.81	122.01	110.40
67	B1	778	A	C5'-C4'-O4'	5.81	116.07	109.10
67	B1	2454	G	C4'-C3'-C2'	-5.81	96.79	102.60
67	B1	2323	C	N3-C4-N4	5.80	122.06	118.00
21	A2	12	U	C3'-C2'-C1'	5.80	106.14	101.50
21	A2	16	G	N9-C1'-C2'	-5.80	105.62	112.00
21	A2	90	C	N1-C1'-C2'	5.80	121.54	114.00
21	A2	990	G	C1'-O4'-C4'	5.80	114.54	109.90
67	B1	649	A	N9-C1'-C2'	-5.80	105.62	112.00
21	A2	455	C	P-O3'-C3'	-5.80	112.74	119.70
67	B1	359	C	N1-C1'-C2'	5.80	121.54	114.00
67	B1	2780	G	O4'-C1'-N9	5.80	112.84	108.20
21	A2	123	U	C3'-C2'-C1'	5.80	106.14	101.50
21	A2	978	G	O4'-C1'-N9	-5.80	103.56	108.20
57	BZ	84	ALA	CB-CA-C	-5.80	101.40	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2350	G	O4'-C1'-N9	5.80	112.84	108.20
11	A1	8	U	OP1-P-OP2	-5.80	110.90	119.60
21	A2	1080	C	C5'-C4'-O4'	5.80	116.06	109.10
67	B1	539	A	N9-C1'-C2'	-5.80	105.62	112.00
68	B3	95	G	C4'-C3'-C2'	-5.80	96.80	102.60
21	A2	114	A	C5'-C4'-O4'	5.80	116.06	109.10
44	BW	19	ARG	NE-CZ-NH1	-5.80	117.40	120.30
67	B1	588	U	O4'-C1'-N1	5.80	112.84	108.20
67	B1	2151	C	P-O5'-C5'	5.80	130.18	120.90
21	A2	694	U	O4'-C1'-C2'	-5.79	100.00	105.80
23	AT	6	PHE	CB-CG-CD1	-5.79	116.74	120.80
37	BU	74	TYR	CB-CG-CD2	5.79	124.48	121.00
11	A1	17	C	O4'-C1'-C2'	-5.79	100.01	105.80
11	A1	22	A	C3'-C2'-C1'	-5.79	96.87	101.50
21	A2	997	G	C5-C6-O6	-5.79	125.12	128.60
21	A2	1347	U	P-O3'-C3'	5.79	126.65	119.70
45	Bi	46	VAL	CG1-CB-CG2	-5.79	101.63	110.90
48	BR	87	PHE	CB-CG-CD1	-5.79	116.74	120.80
67	B1	412	G	C1'-O4'-C4'	-5.79	105.27	109.90
67	B1	1418	A	C3'-C2'-C1'	5.79	106.14	101.50
67	B1	2350	G	C1'-O4'-C4'	5.79	114.53	109.90
67	B1	2706	C	O4'-C1'-C2'	-5.79	100.01	105.80
21	A2	457	G	N9-C1'-C2'	5.79	121.53	114.00
49	BQ	23	TRP	CH2-CZ2-CE2	5.79	123.19	117.40
20	BG	92	ILE	CB-CA-C	5.79	123.18	111.60
67	B1	145	C	C6-N1-C2	-5.79	117.98	120.30
67	B1	1599	A	C3'-C2'-C1'	-5.79	96.87	101.50
67	B1	1725	A	O4'-C1'-C2'	-5.79	100.01	105.80
67	B1	1920	A	C5'-C4'-O4'	5.79	116.05	109.10
11	A1	52	G	N9-C1'-C2'	5.79	121.53	114.00
21	A2	154	C	O4'-C1'-N1	5.79	112.83	108.20
21	A2	1198	A	C5'-C4'-C3'	-5.79	106.74	116.00
67	B1	1684	C	N1-C1'-C2'	5.79	121.53	114.00
67	B1	3037	G	C2'-C3'-O3'	5.79	122.96	113.70
21	A2	445	G	O4'-C1'-N9	5.79	112.83	108.20
21	A2	988	A	C4-C5-C6	5.79	119.89	117.00
28	B6	85	TYR	CB-CG-CD1	5.79	124.47	121.00
67	B1	691	G	O4'-C1'-N9	5.79	112.83	108.20
67	B1	1290	G	O4'-C1'-N9	5.79	112.83	108.20
67	B1	1389	A	C3'-C2'-C1'	5.79	106.13	101.50
67	B1	2019	C	O4'-C1'-N1	5.79	112.83	108.20
67	B1	3022	C	OP1-P-OP2	-5.79	110.92	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	667	G	O4'-C1'-N9	5.79	112.83	108.20
67	B1	458	U	O4'-C1'-N1	5.79	112.83	108.20
67	B1	1400	U	O4'-C4'-C3'	-5.79	98.21	104.00
14	AM	127	ARG	NE-CZ-NH1	5.79	123.19	120.30
21	A2	711	U	P-O5'-C5'	5.79	130.16	120.90
56	BH	47	ALA	N-CA-CB	5.79	118.20	110.10
67	B1	1	G	OP2-P-O3'	5.79	117.93	105.20
67	B1	52	A	C3'-C2'-C1'	5.79	106.13	101.50
67	B1	557	G	C1'-O4'-C4'	-5.79	105.27	109.90
21	A2	166	A	O4'-C1'-C2'	5.78	112.81	107.60
21	A2	982	U	C3'-C2'-C1'	5.78	106.13	101.50
47	BI	88	ASP	N-CA-CB	5.78	121.01	110.60
67	B1	635	G	O4'-C1'-N9	5.78	112.83	108.20
67	B1	641	G	O4'-C1'-N9	5.78	112.83	108.20
67	B1	1017	A	C4-C5-C6	5.78	119.89	117.00
21	A2	171	U	C3'-C2'-C1'	-5.78	96.87	101.50
67	B1	1098	C	O4'-C1'-N1	5.78	112.83	108.20
67	B1	1970	G	C1'-O4'-C4'	-5.78	105.27	109.90
32	BO	11	PHE	CG-CD2-CE2	5.78	127.16	120.80
35	BL	110	ASP	CB-CG-OD1	5.78	123.50	118.30
64	Bc	71	PHE	CB-CG-CD2	-5.78	116.75	120.80
67	B1	216	A	N9-C1'-C2'	-5.78	105.64	112.00
67	B1	817	G	C1'-O4'-C4'	-5.78	105.28	109.90
67	B1	911	G	C3'-C2'-C1'	5.78	106.12	101.50
67	B1	2178	A	C1'-O4'-C4'	-5.78	105.28	109.90
67	B1	2679	A	C1'-O4'-C4'	-5.78	105.28	109.90
67	B1	2858	C	C5'-C4'-O4'	5.78	116.04	109.10
67	B1	2961	A	O4'-C1'-N9	5.78	112.82	108.20
21	A2	452	G	C3'-C2'-C1'	5.78	106.12	101.50
21	A2	550	G	N9-C1'-C2'	5.78	121.51	114.00
21	A2	1136	A	P-O3'-C3'	-5.78	112.77	119.70
67	B1	2695	U	O4'-C1'-C2'	5.78	112.80	107.60
21	A2	571	C	P-O3'-C3'	5.78	126.63	119.70
27	A0	7	G	O4'-C1'-N9	-5.78	103.58	108.20
35	BL	53	TYR	CB-CG-CD2	-5.78	117.53	121.00
34	BK	64	ARG	NE-CZ-NH1	-5.78	117.41	120.30
51	Bj	33	LEU	CB-CA-C	-5.78	99.22	110.20
67	B1	286	G	C5'-C4'-C3'	5.78	125.24	116.00
67	B1	793	C	O5'-P-OP1	5.78	117.63	110.70
67	B1	811	C	C3'-C2'-C1'	5.78	106.12	101.50
67	B1	2519	C	P-O5'-C5'	5.78	130.15	120.90
67	B1	3009	C	P-O5'-C5'	5.78	130.15	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	B3	122	C	C5'-C4'-O4'	5.78	116.03	109.10
21	A2	527	A	O4'-C1'-N9	5.78	112.82	108.20
21	A2	795	G	C5'-C4'-C3'	5.78	125.24	116.00
21	A2	826	C	P-O3'-C3'	-5.78	112.77	119.70
21	A2	943	C	O4'-C1'-C2'	-5.78	100.02	105.80
21	A2	1177	C	N1-C1'-C2'	5.78	121.51	114.00
67	B1	307	C	C3'-C2'-C1'	5.78	106.12	101.50
67	B1	602	G	OP1-P-OP2	-5.78	110.94	119.60
67	B1	1679	U	C1'-O4'-C4'	5.78	114.52	109.90
21	A2	1166	G	C3'-C2'-C1'	-5.77	96.88	101.50
67	B1	1073	G	N9-C1'-C2'	-5.77	105.65	112.00
67	B1	1221	U	P-O3'-C3'	-5.77	112.77	119.70
21	A2	347	G	O4'-C1'-C2'	5.77	112.80	107.60
21	A2	1361	G	C3'-C2'-C1'	5.77	106.12	101.50
29	AL	32	VAL	CA-CB-CG1	5.77	119.56	110.90
50	BV	56	TYR	CB-CG-CD1	-5.77	117.54	121.00
67	B1	24	G	C4'-C3'-C2'	-5.77	96.83	102.60
67	B1	394	A	OP1-P-OP2	-5.77	110.94	119.60
67	B1	1685	C	O4'-C1'-N1	5.77	112.82	108.20
67	B1	2971	U	C5'-C4'-C3'	5.77	125.24	116.00
67	B1	208	A	O4'-C1'-C2'	-5.77	100.03	105.80
67	B1	837	G	C3'-C2'-C1'	5.77	106.12	101.50
67	B1	1582	G	C4'-C3'-C2'	-5.77	96.83	102.60
67	B1	1970	G	C3'-C2'-C1'	-5.77	96.88	101.50
11	A1	64	C	C3'-C2'-C1'	5.77	106.11	101.50
21	A2	376	G	C1'-O4'-C4'	5.77	114.52	109.90
52	BB	204	PHE	CB-CG-CD1	5.77	124.84	120.80
67	B1	1147	G	O4'-C4'-C3'	-5.77	98.23	104.00
67	B1	2248	G	P-O3'-C3'	5.77	126.62	119.70
67	B1	2323	C	N3-C4-C5	-5.77	119.59	121.90
67	B1	2373	G	C3'-C2'-C1'	5.77	106.12	101.50
67	B1	2524	C	N1-C1'-C2'	5.77	121.50	114.00
20	A3	45	ARG	NE-CZ-NH2	-5.77	117.42	120.30
21	A2	683	A	P-O5'-C5'	5.77	130.13	120.90
67	B1	1796	U	N1-C1'-C2'	-5.77	105.66	112.00
67	B1	2196	C	C3'-C2'-C1'	5.77	106.11	101.50
47	BI	2	ARG	NE-CZ-NH1	5.77	123.18	120.30
21	A2	1351	U	O4'-C1'-N1	5.76	112.81	108.20
67	B1	1810	G	P-O3'-C3'	-5.76	112.78	119.70
67	B1	2145	G	N9-C1'-C2'	-5.76	105.66	112.00
67	B1	2599	C	O4'-C1'-N1	5.76	112.81	108.20
67	B1	2996	A	C3'-C2'-C1'	5.76	106.11	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	241	U	O4'-C1'-C2'	-5.76	100.04	105.80
21	A2	860	G	C1'-O4'-C4'	-5.76	105.29	109.90
34	B5	64	ARG	NE-CZ-NH1	-5.76	117.42	120.30
58	BP	20	LYS	N-CA-CB	5.76	120.97	110.60
67	B1	166	G	P-O3'-C3'	-5.76	112.78	119.70
17	AO	84	ASP	CB-CG-OD1	-5.76	113.11	118.30
21	A2	1255	C	N1-C1'-C2'	5.76	121.49	114.00
67	B1	1221	U	C1'-O4'-C4'	5.76	114.51	109.90
67	B1	2500	G	C4'-C3'-C2'	-5.76	96.84	102.60
67	B1	203	G	C3'-C2'-C1'	5.76	106.11	101.50
67	B1	1390	U	C1'-O4'-C4'	5.76	114.51	109.90
21	A2	525	A	C3'-C2'-C1'	5.76	106.11	101.50
21	A2	1067	G	OP1-P-OP2	-5.76	110.96	119.60
30	AU	128	PHE	CB-CG-CD2	-5.76	116.77	120.80
67	B1	1575	G	C3'-C2'-C1'	5.76	106.11	101.50
21	A2	465	C	C4'-C3'-C2'	-5.76	96.84	102.60
21	A2	647	G	N9-C1'-C2'	5.76	121.48	114.00
21	A2	731	A	O4'-C1'-N9	5.76	112.81	108.20
21	A2	1300	A	C3'-C2'-C1'	5.76	106.11	101.50
21	A2	1394	G	C4'-C3'-C2'	5.76	108.36	102.60
57	BZ	5	PHE	CB-CG-CD2	-5.76	116.77	120.80
67	B1	869	A	C5'-C4'-O4'	5.76	116.01	109.10
67	B1	1434	C	P-O5'-C5'	5.76	130.11	120.90
67	B1	2676	A	O4'-C1'-C2'	-5.76	100.04	105.80
17	AO	4	PHE	CB-CG-CD1	5.75	124.83	120.80
7	AB	2	ALA	N-CA-CB	5.75	118.16	110.10
21	A2	40	C	P-O3'-C3'	5.75	126.60	119.70
21	A2	1203	G	P-O3'-C3'	-5.75	112.80	119.70
34	B5	48	MET	CG-SD-CE	-5.75	90.99	100.20
67	B1	432	C	O4'-C1'-N1	5.75	112.80	108.20
67	B1	1728	C	O4'-C1'-N1	5.75	112.80	108.20
67	B1	2374	C	P-O5'-C5'	-5.75	111.69	120.90
50	BV	40	TYR	CB-CG-CD1	-5.75	117.55	121.00
67	B1	433	C	C4'-C3'-C2'	-5.75	96.85	102.60
67	B1	1531	C	P-O3'-C3'	5.75	126.60	119.70
67	B1	2104	G	C1'-O4'-C4'	-5.75	105.30	109.90
11	A1	51	G	C4'-C3'-C2'	-5.75	96.85	102.60
21	A2	85	A	O3'-P-O5'	5.75	114.93	104.00
21	A2	796	C	O4'-C1'-N1	5.75	112.80	108.20
24	AA	125	ALA	N-CA-CB	5.75	118.15	110.10
40	BE	145	ARG	NH1-CZ-NH2	5.75	125.72	119.40
48	BR	22	ARG	NE-CZ-NH1	5.75	123.17	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	BF	56	TYR	CG-CD2-CE2	5.75	125.90	121.30
12	AN	50	ALA	C-N-CA	5.75	136.07	121.70
15	AE	186	PHE	CB-CG-CD1	-5.75	116.78	120.80
21	A2	43	A	P-O5'-C5'	-5.75	111.70	120.90
21	A2	581	G	C3'-C2'-C1'	-5.75	96.90	101.50
63	Bg	13	LYS	N-CA-CB	5.75	120.95	110.60
67	B1	2189	C	O5'-P-OP2	-5.75	100.53	105.70
41	Ba	27	ARG	NE-CZ-NH1	-5.75	117.43	120.30
51	Bj	52	ARG	CA-C-N	5.75	133.19	117.10
60	BS	50	TYR	CB-CG-CD1	-5.75	117.55	121.00
67	B1	241	C	O4'-C1'-C2'	5.75	112.77	107.60
67	B1	1184	U	P-O3'-C3'	5.75	126.60	119.70
67	B1	1503	C	O4'-C1'-N1	5.75	112.80	108.20
67	B1	2016	C	C5'-C4'-O4'	5.75	116.00	109.10
68	B3	59	C	C3'-C2'-C1'	5.75	106.10	101.50
68	B3	83	C	O4'-C1'-C2'	-5.75	100.05	105.80
21	A2	385	A	O4'-C4'-C3'	-5.75	98.25	104.00
67	B1	225	C	O4'-C1'-N1	5.75	112.80	108.20
21	A2	329	G	N9-C1'-C2'	5.74	121.47	114.00
21	A2	609	G	C3'-C2'-C1'	-5.74	96.91	101.50
21	A2	952	A	O4'-C1'-C2'	-5.74	100.06	105.80
21	A2	1169	C	O4'-C1'-C2'	-5.74	100.06	105.80
67	B1	144	A	C5-C6-N6	-5.74	119.11	123.70
67	B1	367	G	C3'-C2'-C1'	-5.74	96.91	101.50
67	B1	1013	G	P-O3'-C3'	5.74	126.59	119.70
67	B1	1193	G	C3'-C2'-C1'	5.74	106.09	101.50
67	B1	2044	C	O4'-C1'-N1	5.74	112.80	108.20
67	B1	2696	G	P-O3'-C3'	5.74	126.59	119.70
21	A2	668	G	C1'-O4'-C4'	-5.74	105.31	109.90
21	A2	1015	C	N3-C4-N4	5.74	122.02	118.00
46	BA	3	PHE	CG-CD2-CE2	-5.74	114.48	120.80
67	B1	384	G	O4'-C1'-N9	5.74	112.79	108.20
67	B1	764	G	O4'-C1'-N9	5.74	112.79	108.20
67	B1	2402	A	OP1-P-OP2	-5.74	110.99	119.60
6	AC	146	PHE	N-CA-CB	5.74	120.93	110.60
17	AO	38	MET	CG-SD-CE	-5.74	91.02	100.20
19	AS	59	ARG	CB-CA-C	-5.74	98.92	110.40
21	A2	317	A	C1'-O4'-C4'	-5.74	105.31	109.90
67	B1	399	C	N3-C4-C5	-5.74	119.60	121.90
67	B1	416	A	O4'-C1'-N9	5.74	112.79	108.20
67	B1	776	G	O4'-C4'-C3'	-5.74	98.26	104.00
67	B1	2143	C	P-O5'-C5'	-5.74	111.71	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AK	25	ARG	NE-CZ-NH2	-5.74	117.43	120.30
21	A2	582	G	C1'-O4'-C4'	-5.74	105.31	109.90
21	A2	676	G	C1'-O4'-C4'	5.74	114.49	109.90
21	A2	1450	U	OP2-P-O3'	5.74	117.83	105.20
31	BY	35	VAL	CB-CA-C	-5.74	100.50	111.40
31	BY	46	MET	CG-SD-CE	-5.74	91.02	100.20
67	B1	168	G	O4'-C1'-N9	5.74	112.79	108.20
67	B1	611	G	N9-C1'-C2'	5.74	121.46	114.00
67	B1	2883	C	O4'-C1'-N1	5.74	112.79	108.20
13	AX	9	ALA	CB-CA-C	5.74	118.71	110.10
67	B1	1755	C	O4'-C1'-C2'	-5.74	100.06	105.80
21	A2	1408	C	O4'-C1'-C2'	-5.74	100.06	105.80
33	BC	26	ARG	NE-CZ-NH1	-5.74	117.43	120.30
38	Bb	23	PHE	N-CA-CB	5.74	120.92	110.60
56	BH	17	PRO	N-CA-CB	5.74	110.18	103.30
61	Bd	12	ARG	NE-CZ-NH2	-5.74	117.43	120.30
67	B1	631	G	C1'-O4'-C4'	-5.74	105.31	109.90
67	B1	1110	A	C5'-C4'-O4'	5.74	115.98	109.10
21	A2	157	A	O4'-C1'-N9	-5.73	103.61	108.20
67	B1	778	A	OP1-P-OP2	-5.73	111.00	119.60
8	AR	109	ALA	C-N-CA	5.73	136.03	121.70
19	AS	35	VAL	CA-CB-CG1	5.73	119.50	110.90
21	A2	92	G	C5'-C4'-O4'	5.73	115.98	109.10
21	A2	617	A	C4'-C3'-C2'	-5.73	96.87	102.60
21	A2	768	A	C1'-O4'-C4'	5.73	114.48	109.90
21	A2	784	G	O5'-P-OP2	-5.73	100.54	105.70
35	BL	17	HIS	CA-CB-CG	5.73	123.35	113.60
67	B1	85	G	C1'-O4'-C4'	-5.73	105.31	109.90
67	B1	128	C	C5'-C4'-C3'	5.73	125.17	116.00
67	B1	157	U	O4'-C1'-C2'	-5.73	100.07	105.80
67	B1	578	C	O4'-C1'-C2'	-5.73	100.07	105.80
67	B1	879	A	C5'-C4'-O4'	5.73	115.98	109.10
67	B1	1505	G	O4'-C1'-N9	5.73	112.78	108.20
67	B1	2257	A	C3'-C2'-C1'	-5.73	96.91	101.50
67	B1	2606	C	C5'-C4'-O4'	5.73	115.98	109.10
67	B1	2761	G	C4'-C3'-C2'	-5.73	96.87	102.60
67	B1	2954	C	N1-C1'-C2'	5.73	121.45	114.00
21	A2	252	U	C4'-C3'-C2'	-5.73	96.87	102.60
21	A2	1166	G	O4'-C1'-C2'	5.73	112.76	107.60
67	B1	528	G	C4'-C3'-C2'	-5.73	96.87	102.60
11	A1	37	A	C5'-C4'-O4'	5.73	115.97	109.10
21	A2	266	A	P-O3'-C3'	-5.73	112.83	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	938	C	N1-C1'-C2'	5.73	121.45	114.00
67	B1	661	G	OP1-P-OP2	-5.73	111.01	119.60
67	B1	2052	A	C1'-O4'-C4'	5.73	114.48	109.90
21	A2	539	C	O4'-C1'-N1	5.73	112.78	108.20
21	A2	1400	A	C3'-C2'-C1'	5.73	106.08	101.50
49	BQ	88	ARG	CB-CA-C	5.73	121.85	110.40
67	B1	1079	A	O4'-C1'-N9	5.73	112.78	108.20
67	B1	2590	C	C1'-O4'-C4'	-5.73	105.32	109.90
67	B1	2748	C	N3-C4-C5	-5.73	119.61	121.90
5	AW	33	THR	N-CA-C	-5.73	95.54	111.00
20	A3	118	VAL	CA-CB-CG2	-5.73	102.31	110.90
21	A2	397	C	C3'-C2'-C1'	5.73	106.08	101.50
21	A2	670	C	C1'-O4'-C4'	-5.73	105.32	109.90
21	A2	1299	A	C4'-C3'-C2'	-5.73	96.87	102.60
32	BO	171	TYR	CG-CD2-CE2	-5.73	116.72	121.30
67	B1	180	A	N9-C1'-C2'	5.73	121.44	114.00
67	B1	406	G	O3'-P-O5'	5.73	114.88	104.00
67	B1	2004	A	C3'-C2'-C1'	5.73	106.08	101.50
67	B1	2271	G	C4'-C3'-C2'	-5.73	96.87	102.60
67	B1	2892	A	C1'-O4'-C4'	-5.73	105.32	109.90
25	AH	180	PHE	N-CA-CB	5.72	120.90	110.60
67	B1	215	A	C1'-O4'-C4'	5.72	114.48	109.90
67	B1	842	C	C3'-C2'-C1'	5.72	106.08	101.50
20	BG	6	TYR	CB-CG-CD1	-5.72	117.57	121.00
67	B1	332	A	C5-C6-N6	-5.72	119.12	123.70
67	B1	888	U	C1'-O4'-C4'	-5.72	105.32	109.90
67	B1	1626	A	P-O5'-C5'	5.72	130.06	120.90
67	B1	2813	G	P-O3'-C3'	-5.72	112.83	119.70
21	A2	460	C	N3-C4-N4	5.72	122.00	118.00
21	A2	1403	U	O4'-C1'-C2'	-5.72	100.08	105.80
24	AA	71	TYR	CD1-CE1-CZ	5.72	124.95	119.80
24	AA	186	ARG	NE-CZ-NH2	5.72	123.16	120.30
27	A0	66	C	C4'-C3'-C2'	-5.72	96.88	102.60
54	BF	62	ARG	NE-CZ-NH2	-5.72	117.44	120.30
58	BP	36	ARG	NE-CZ-NH1	5.72	123.16	120.30
11	A1	42	C	N1-C1'-C2'	5.72	121.44	114.00
21	A2	181	G	C5'-C4'-C3'	5.72	125.15	116.00
21	A2	1272	G	O4'-C1'-N9	-5.72	103.62	108.20
33	BC	333	LYS	N-CA-CB	5.72	120.89	110.60
34	B5	50	ILE	N-CA-CB	5.72	123.95	110.80
67	B1	803	A	O4'-C1'-C2'	-5.72	100.08	105.80
67	B1	985	A	C5-C6-N6	-5.72	119.12	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	220	C	O4'-C1'-N1	5.72	112.77	108.20
67	B1	1121	C	P-O3'-C3'	5.72	126.56	119.70
21	A2	1001	A	O4'-C4'-C3'	-5.72	98.28	104.00
67	B1	1608	G	C3'-C2'-C1'	-5.72	96.93	101.50
67	B1	2100	U	C3'-C2'-C1'	5.72	106.07	101.50
67	B1	2263	G	C3'-C2'-C1'	-5.72	96.93	101.50
67	B1	2472	A	C1'-O4'-C4'	5.72	114.47	109.90
11	A1	10	G	C1'-O4'-C4'	-5.71	105.33	109.90
21	A2	217	C	O4'-C1'-C2'	-5.71	100.08	105.80
21	A2	472	C	C4'-C3'-C2'	-5.71	96.89	102.60
21	A2	524	U	P-O3'-C3'	5.71	126.56	119.70
27	A0	36	U	P-O3'-C3'	-5.71	112.84	119.70
67	B1	237	G	O4'-C1'-N9	5.71	112.77	108.20
21	A2	351	C	C4'-C3'-C2'	-5.71	96.89	102.60
23	AT	62	PRO	O-C-N	-5.71	113.56	122.70
67	B1	2140	C	N3-C4-N4	5.71	122.00	118.00
21	A2	316	C	N1-C1'-C2'	5.71	121.42	114.00
67	B1	1	G	C5'-C4'-O4'	5.71	115.95	109.10
67	B1	1806	C	C5'-C4'-C3'	-5.71	106.86	116.00
67	B1	852	A	C1'-O4'-C4'	-5.71	105.33	109.90
67	B1	1881	A	C4-C5-C6	5.71	119.86	117.00
21	A2	250	G	N9-C1'-C2'	5.71	121.42	114.00
21	A2	1476	C	C1'-O4'-C4'	-5.71	105.33	109.90
27	A0	40	C	OP1-P-OP2	-5.71	111.04	119.60
33	BC	125	TYR	N-CA-C	-5.71	95.59	111.00
38	Bb	52	LEU	N-CA-CB	5.71	121.82	110.40
67	B1	583	A	P-O5'-C5'	5.71	130.03	120.90
67	B1	845	U	O4'-C1'-C2'	-5.71	100.09	105.80
67	B1	2156	A	C4'-C3'-C2'	5.71	108.31	102.60
68	B3	29	G	O4'-C1'-N9	-5.71	103.63	108.20
21	A2	38	G	C1'-O4'-C4'	-5.71	105.33	109.90
21	A2	111	G	C4'-C3'-C2'	-5.71	96.89	102.60
21	A2	841	C	O4'-C1'-N1	-5.71	103.64	108.20
33	BC	203	LEU	CB-CA-C	-5.71	99.36	110.20
33	BC	211	GLU	OE1-CD-OE2	-5.71	116.45	123.30
66	B1	72	ARG	NE-CZ-NH2	-5.71	117.45	120.30
67	B1	1108	A	P-O3'-C3'	-5.71	112.85	119.70
68	B3	22	C	O4'-C1'-N1	5.71	112.77	108.20
37	BU	39	TYR	CD1-CG-CD2	5.71	124.17	117.90
59	BM	51	LEU	CB-CG-CD2	5.71	120.70	111.00
67	B1	31	G	C3'-C2'-C1'	-5.71	96.94	101.50
67	B1	650	C	O4'-C1'-N1	5.71	112.76	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2897	C	O4'-C1'-C2'	-5.71	100.09	105.80
68	B3	105	G	P-O5'-C5'	5.71	130.03	120.90
7	AB	72	VAL	CA-CB-CG2	-5.70	102.35	110.90
17	AO	10	VAL	CA-CB-CG2	5.70	119.46	110.90
21	A2	102	U	O4'-C1'-N1	5.70	112.76	108.20
27	A0	41	C	OP1-P-OP2	-5.70	111.05	119.60
41	Ba	80	LYS	C-N-CA	5.70	135.96	121.70
58	BP	74	LEU	N-CA-C	-5.70	95.60	111.00
67	B1	208	A	N9-C1'-C2'	5.70	121.42	114.00
67	B1	554	C	O4'-C1'-N1	5.70	112.76	108.20
67	B1	677	A	P-O5'-C5'	-5.70	111.78	120.90
67	B1	703	G	O4'-C4'-C3'	-5.70	98.30	104.00
67	B1	747	G	C3'-C2'-C1'	-5.70	96.94	101.50
67	B1	750	C	O4'-C1'-N1	-5.70	103.64	108.20
67	B1	1879	U	O4'-C1'-N1	5.70	112.76	108.20
67	B1	2450	A	C4'-C3'-C2'	5.70	108.30	102.60
67	B1	2523	C	N1-C1'-C2'	5.70	121.41	114.00
67	B1	701	G	O4'-C4'-C3'	-5.70	98.30	104.00
21	A2	578	G	O4'-C1'-N9	5.70	112.76	108.20
35	BL	5	ARG	NE-CZ-NH1	-5.70	117.45	120.30
67	B1	954	A	O4'-C1'-N9	5.70	112.76	108.20
67	B1	1142	A	O4'-C1'-N9	5.70	112.76	108.20
67	B1	1571	G	O4'-C1'-N9	5.70	112.76	108.20
67	B1	1678	A	N9-C1'-C2'	-5.70	105.73	112.00
67	B1	1768	C	C1'-O4'-C4'	-5.70	105.34	109.90
67	B1	1920	A	P-O5'-C5'	-5.70	111.78	120.90
67	B1	2431	C	C1'-O4'-C4'	-5.70	105.34	109.90
21	A2	703	U	P-O5'-C5'	5.70	130.02	120.90
21	A2	1365	G	O4'-C1'-N9	5.70	112.76	108.20
48	BR	61	ARG	NE-CZ-NH2	-5.70	117.45	120.30
67	B1	1040	C	C4'-C3'-C2'	-5.70	96.90	102.60
67	B1	1060	C	C3'-C2'-C1'	5.70	106.06	101.50
67	B1	2819	C	O4'-C1'-N1	5.70	112.76	108.20
15	AE	137	ARG	NH1-CZ-NH2	5.70	125.67	119.40
23	AT	8	TYR	N-CA-CB	5.70	120.85	110.60
67	B1	1188	C	P-O5'-C5'	5.70	130.01	120.90
67	B1	2085	C	N1-C1'-C2'	5.70	121.41	114.00
13	AX	69	SER	C-N-CA	5.70	135.94	121.70
21	A2	393	A	P-O3'-C3'	-5.70	112.86	119.70
21	A2	874	G	N9-C1'-C2'	-5.70	105.73	112.00
21	A2	1054	A	O4'-C1'-C2'	-5.70	100.10	105.80
21	A2	1454	A	C3'-C2'-C1'	5.70	106.06	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	Bi	24	ARG	NE-CZ-NH1	5.70	123.15	120.30
34	BK	50	ILE	N-CA-CB	5.70	123.90	110.80
67	B1	377	C	N3-C4-C5	-5.70	119.62	121.90
67	B1	1457	C	P-O3'-C3'	5.70	126.53	119.70
67	B1	1595	G	C3'-C2'-C1'	-5.70	96.94	101.50
67	B1	1697	G	C5'-C4'-O4'	5.70	115.93	109.10
67	B1	1850	C	O4'-C1'-C2'	-5.70	100.11	105.80
67	B1	2035	U	C1'-O4'-C4'	-5.70	105.34	109.90
67	B1	2325	C	N3-C4-N4	5.70	121.99	118.00
67	B1	2450	A	OP1-P-O3'	5.70	117.73	105.20
67	B1	3037	G	O4'-C1'-C2'	-5.70	100.11	105.80
68	B3	117	G	C5'-C4'-O4'	5.70	115.94	109.10
21	A2	286	G	O4'-C1'-N9	5.69	112.75	108.20
21	A2	412	U	C1'-O4'-C4'	5.69	114.45	109.90
30	AU	91	TYR	CG-CD1-CE1	-5.69	116.75	121.30
46	BA	59	ASP	CA-CB-CG	-5.69	100.87	113.40
67	B1	30	G	C1'-O4'-C4'	-5.69	105.34	109.90
67	B1	473	C	C3'-C2'-C1'	5.69	106.06	101.50
21	A2	188	C	C1'-O4'-C4'	-5.69	105.34	109.90
21	A2	458	G	O4'-C1'-N9	5.69	112.75	108.20
30	AU	86	ALA	N-CA-CB	5.69	118.07	110.10
67	B1	1499	C	P-O3'-C3'	-5.69	112.87	119.70
67	B1	1671	A	O4'-C1'-C2'	-5.69	100.11	105.80
67	B1	2327	C	O4'-C1'-C2'	-5.69	100.11	105.80
67	B1	2855	G	N9-C1'-C2'	5.69	121.40	114.00
21	A2	439	G	C1'-O4'-C4'	-5.69	105.35	109.90
21	A2	555	U	P-O3'-C3'	5.69	126.53	119.70
21	A2	1112	G	C1'-O4'-C4'	-5.69	105.35	109.90
21	A2	1192	C	O4'-C1'-C2'	-5.69	100.11	105.80
21	A2	1376	C	C5'-C4'-C3'	5.69	125.10	116.00
24	AA	160	GLU	CB-CA-C	-5.69	99.02	110.40
67	B1	21	C	C1'-O4'-C4'	-5.69	105.35	109.90
21	A2	1437	G	O4'-C1'-N9	-5.69	103.65	108.20
21	A2	528	G	C5'-C4'-C3'	-5.69	106.90	116.00
21	A2	1236	G	O4'-C1'-N9	5.69	112.75	108.20
67	B1	585	G	C3'-C2'-C1'	-5.69	96.95	101.50
67	B1	655	C	C1'-O4'-C4'	5.69	114.45	109.90
67	B1	924	A	P-O3'-C3'	5.69	126.53	119.70
36	Bf	33	ARG	CA-C-N	5.69	129.71	117.20
67	B1	279	G	P-O5'-C5'	-5.69	111.80	120.90
67	B1	2800	U	N1-C1'-C2'	-5.69	105.75	112.00
7	AB	49	ASP	CB-CG-OD1	-5.68	113.18	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	615	G	N9-C1'-C2'	5.68	121.39	114.00
21	A2	1032	A	C5'-C4'-O4'	-5.68	102.28	109.10
21	A2	1136	A	N9-C1'-C2'	5.68	121.39	114.00
21	A2	1422	G	O4'-C1'-C2'	-5.68	100.11	105.80
67	B1	633	A	C3'-C2'-C1'	5.68	106.05	101.50
21	A2	395	C	P-O5'-C5'	-5.68	111.81	120.90
21	A2	450	A	C5-C6-N1	-5.68	114.86	117.70
21	A2	588	C	N3-C4-C5	-5.68	119.63	121.90
21	A2	933	G	N9-C1'-C2'	5.68	121.39	114.00
21	A2	1096	G	OP1-P-OP2	-5.68	111.08	119.60
32	BO	18	LYS	N-CA-CB	5.68	120.83	110.60
43	Bk	56	ARG	NE-CZ-NH2	5.68	123.14	120.30
45	Bi	68	TYR	CB-CG-CD2	-5.68	117.59	121.00
67	B1	222	A	C5'-C4'-C3'	5.68	125.09	116.00
67	B1	2944	G	C1'-O4'-C4'	5.68	114.45	109.90
21	A2	33	U	O4'-C1'-C2'	5.68	112.71	107.60
67	B1	2235	G	OP2-P-O3'	5.68	117.70	105.20
21	A2	148	C	C1'-O4'-C4'	5.68	114.44	109.90
21	A2	362	C	C2'-C3'-O3'	5.68	122.79	113.70
21	A2	420	C	C1'-O4'-C4'	-5.68	105.36	109.90
24	AA	67	TYR	CB-CG-CD2	-5.68	117.59	121.00
67	B1	165	G	P-O3'-C3'	5.68	126.52	119.70
67	B1	342	C	P-O5'-C5'	-5.68	111.81	120.90
67	B1	563	A	P-O3'-C3'	5.68	126.52	119.70
67	B1	622	A	C1'-O4'-C4'	-5.68	105.36	109.90
67	B1	1852	U	C5'-C4'-C3'	5.68	125.09	116.00
67	B1	2153	C	P-O5'-C5'	-5.68	111.81	120.90
67	B1	2789	G	OP1-P-OP2	-5.68	111.08	119.60
36	Bf	3	ARG	CA-CB-CG	5.68	125.89	113.40
67	B1	396	G	P-O5'-C5'	5.68	129.99	120.90
67	B1	769	G	O4'-C1'-C2'	5.68	112.71	107.60
67	B1	837	G	C4'-C3'-C2'	-5.68	96.92	102.60
67	B1	2907	C	O4'-C4'-C3'	-5.68	98.32	104.00
67	B1	3007	A	O4'-C1'-N9	5.68	112.74	108.20
11	A1	26	C	C3'-C2'-C1'	5.68	106.04	101.50
21	A2	98	U	P-O3'-C3'	-5.68	112.89	119.70
21	A2	226	G	C3'-C2'-C1'	-5.68	96.96	101.50
21	A2	946	G	N9-C1'-C2'	-5.68	105.76	112.00
21	A2	1244	C	N3-C4-C5	-5.68	119.63	121.90
37	BU	119	ARG	CD-NE-CZ	-5.68	115.65	123.60
67	B1	223	U	N1-C1'-C2'	5.68	121.38	114.00
67	B1	294	U	N1-C1'-C2'	5.68	121.38	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	753	G	O4'-C1'-C2'	-5.67	100.12	105.80
67	B1	304	G	C5'-C4'-C3'	5.67	125.08	116.00
67	B1	1409	U	C3'-C2'-C1'	-5.67	96.96	101.50
21	A2	692	G	O4'-C1'-N9	5.67	112.74	108.20
21	A2	1160	C	N1-C1'-C2'	5.67	121.38	114.00
34	BK	75	LEU	CB-CA-C	5.67	120.98	110.20
67	B1	586	A	O4'-C1'-N9	5.67	112.74	108.20
68	B3	102	G	C1'-O4'-C4'	-5.67	105.36	109.90
6	AC	61	ARG	NE-CZ-NH2	-5.67	117.47	120.30
15	AE	19	TRP	CG-CD2-CE3	-5.67	128.80	133.90
21	A2	1433	C	P-O5'-C5'	5.67	129.97	120.90
67	B1	243	G	O4'-C1'-N9	5.67	112.74	108.20
67	B1	1005	G	O4'-C1'-N9	5.67	112.74	108.20
67	B1	1643	A	O4'-C1'-N9	-5.67	103.66	108.20
67	B1	2230	G	C4'-C3'-C2'	-5.67	96.93	102.60
67	B1	2725	U	P-O3'-C3'	5.67	126.50	119.70
21	A2	399	A	O4'-C1'-N9	5.67	112.74	108.20
21	A2	772	G	O4'-C1'-C2'	5.67	112.70	107.60
33	BC	304	GLU	N-CA-CB	5.67	120.81	110.60
67	B1	2041	U	C1'-O4'-C4'	5.67	114.44	109.90
10	AD	51	PHE	CB-CG-CD1	-5.67	116.83	120.80
67	B1	172	C	C3'-C2'-C1'	5.67	106.03	101.50
67	B1	2267	U	C1'-O4'-C4'	-5.67	105.37	109.90
67	B1	2922	G	C3'-C2'-C1'	5.67	106.03	101.50
21	A2	158	U	O4'-C1'-C2'	-5.67	100.13	105.80
21	A2	1215	G	C3'-C2'-C1'	5.67	106.03	101.50
21	A2	1361	G	O4'-C1'-N9	5.67	112.73	108.20
32	BO	69	ARG	NE-CZ-NH1	5.67	123.13	120.30
46	BA	95	ARG	NE-CZ-NH1	5.67	123.13	120.30
67	B1	647	G	C3'-C2'-C1'	5.67	106.03	101.50
67	B1	1016	C	N3-C4-N4	5.67	121.97	118.00
67	B1	1719	C	N3-C4-N4	5.67	121.97	118.00
67	B1	2134	G	P-O5'-C5'	-5.67	111.83	120.90
67	B1	2464	G	N9-C1'-C2'	-5.67	105.77	112.00
21	A2	325	A	O4'-C1'-N9	-5.67	103.67	108.20
35	BL	73	VAL	N-CA-C	-5.67	95.70	111.00
67	B1	144	A	C4-C5-C6	5.67	119.83	117.00
67	B1	2948	A	C3'-C2'-C1'	5.67	106.03	101.50
11	A1	43	G	P-O3'-C3'	-5.66	112.90	119.70
21	A2	702	G	C2'-C3'-O3'	5.66	122.76	113.70
21	A2	997	G	O4'-C1'-N9	5.66	112.73	108.20
21	A2	1454	A	P-O3'-C3'	-5.66	112.90	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	AU	77	TYR	CB-CG-CD2	-5.66	117.60	121.00
51	Bj	84	PHE	CA-CB-CG	-5.66	100.31	113.90
67	B1	1545	C	P-O3'-C3'	-5.66	112.90	119.70
67	B1	1740	U	C3'-C2'-C1'	-5.66	96.97	101.50
67	B1	2444	G	C4'-C3'-C2'	-5.66	96.94	102.60
67	B1	2895	G	C3'-C2'-C1'	-5.66	96.97	101.50
67	B1	2913	C	P-O5'-C5'	5.66	129.96	120.90
16	AJ	62	TYR	CA-CB-CG	-5.66	102.64	113.40
67	B1	347	G	O4'-C1'-C2'	5.66	112.69	107.60
67	B1	824	C	C4'-C3'-C2'	-5.66	96.94	102.60
67	B1	3003	A	P-O3'-C3'	5.66	126.50	119.70
21	A2	413	G	C5'-C4'-O4'	-5.66	102.31	109.10
21	A2	552	C	C3'-C2'-C1'	5.66	106.03	101.50
33	BC	334	ARG	NE-CZ-NH1	-5.66	117.47	120.30
67	B1	138	U	C3'-C2'-C1'	5.66	106.03	101.50
67	B1	407	A	C4'-C3'-C2'	-5.66	96.94	102.60
67	B1	882	U	O4'-C1'-N1	5.66	112.73	108.20
67	B1	1469	U	C3'-C2'-C1'	-5.66	96.97	101.50
67	B1	1566	G	O5'-P-OP1	5.66	117.49	110.70
67	B1	1880	A	C5-C6-N1	-5.66	114.87	117.70
67	B1	2854	A	O4'-C1'-C2'	5.66	112.69	107.60
67	B1	2992	G	C1'-O4'-C4'	-5.66	105.37	109.90
21	A2	402	G	P-O3'-C3'	5.66	126.49	119.70
34	B5	75	LEU	CB-CA-C	5.66	120.95	110.20
67	B1	1041	U	O4'-C4'-C3'	-5.66	98.34	104.00
67	B1	2472	A	C5'-C4'-O4'	5.66	115.89	109.10
67	B1	2825	A	N9-C1'-C2'	-5.66	105.78	112.00
67	B1	2900	C	P-O3'-C3'	-5.66	112.91	119.70
26	AP	20	ARG	NE-CZ-NH1	5.66	123.13	120.30
67	B1	565	A	P-O5'-C5'	-5.66	111.85	120.90
67	B1	814	G	C4'-C3'-C2'	-5.66	96.94	102.60
67	B1	878	G	N9-C1'-C2'	5.66	121.35	114.00
21	A2	245	U	P-O3'-C3'	-5.66	112.91	119.70
27	A0	36	U	O3'-P-O5'	-5.66	93.26	104.00
35	BL	9	ARG	CA-C-O	5.66	131.98	120.10
54	BF	139	VAL	CA-CB-CG2	-5.66	102.42	110.90
67	B1	614	G	N9-C1'-C2'	5.66	121.35	114.00
67	B1	731	C	P-O3'-C3'	5.66	126.49	119.70
67	B1	1241	C	O4'-C1'-N1	5.66	112.72	108.20
67	B1	1655	G	C3'-C2'-C1'	-5.66	96.98	101.50
67	B1	1744	A	P-O3'-C3'	5.66	126.49	119.70
67	B1	1997	C	P-O3'-C3'	-5.66	112.91	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AE	101	ARG	NE-CZ-NH1	5.65	123.13	120.30
21	A2	635	C	C4'-C3'-C2'	-5.65	96.95	102.60
21	A2	1346	C	C1'-O4'-C4'	-5.65	105.38	109.90
67	B1	1930	A	C3'-C2'-C1'	5.65	106.02	101.50
67	B1	1985	G	O4'-C1'-N9	5.65	112.72	108.20
67	B1	3004	C	O4'-C1'-C2'	5.65	112.69	107.60
11	A1	11	C	O4'-C1'-N1	5.65	112.72	108.20
21	A2	265	C	N1-C1'-C2'	5.65	121.35	114.00
21	A2	753	G	C1'-O4'-C4'	5.65	114.42	109.90
43	Bk	36	TYR	CA-CB-CG	-5.65	102.66	113.40
67	B1	1028	G	C3'-C2'-C1'	5.65	106.02	101.50
67	B1	1030	C	C4'-C3'-C2'	-5.65	96.95	102.60
67	B1	1270	G	O5'-C5'-C4'	-5.65	100.96	111.70
67	B1	1418	A	C1'-O4'-C4'	5.65	114.42	109.90
67	B1	2165	A	C4-C5-C6	5.65	119.83	117.00
67	B1	2536	A	O3'-P-O5'	5.65	114.74	104.00
67	B1	2733	A	C3'-C2'-C1'	5.65	106.02	101.50
16	AJ	82	GLU	N-CA-CB	5.65	120.77	110.60
21	A2	312	U	O4'-C1'-N1	5.65	112.72	108.20
21	A2	580	G	C1'-O4'-C4'	-5.65	105.38	109.90
21	A2	648	A	C5'-C4'-O4'	5.65	115.88	109.10
21	A2	748	A	P-O3'-C3'	5.65	126.48	119.70
21	A2	1250	C	P-O3'-C3'	5.65	126.48	119.70
67	B1	847	A	O4'-C4'-C3'	-5.65	98.35	104.00
67	B1	891	C	C4'-C3'-C2'	-5.65	96.95	102.60
67	B1	1227	A	O5'-C5'-C4'	-5.65	100.96	111.70
67	B1	1599	A	P-O3'-C3'	5.65	126.48	119.70
67	B1	2233	G	C5'-C4'-O4'	5.65	115.88	109.10
21	A2	238	G	C3'-C2'-C1'	5.65	106.02	101.50
21	A2	1292	A	O4'-C1'-N9	5.65	112.72	108.20
35	BL	47	TRP	CD1-NE1-CE2	-5.65	103.92	109.00
67	B1	60	G	C4'-C3'-C2'	5.65	108.25	102.60
67	B1	2274	C	C1'-O4'-C4'	5.65	114.42	109.90
21	A2	310	G	O4'-C1'-N9	5.65	112.72	108.20
21	A2	1000	G	O4'-C4'-C3'	-5.65	98.35	104.00
21	A2	1417	A	P-O5'-C5'	5.65	129.94	120.90
54	BF	166	ARG	NE-CZ-NH1	5.65	123.12	120.30
67	B1	1330	G	C3'-C2'-C1'	-5.65	96.98	101.50
67	B1	1465	A	C3'-C2'-C1'	-5.65	96.98	101.50
67	B1	2863	A	O4'-C1'-N9	5.65	112.72	108.20
68	B3	75	G	OP1-P-OP2	5.65	128.07	119.60
17	AO	10	VAL	N-CA-CB	5.65	123.92	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	413	G	C3'-C2'-C1'	-5.65	96.98	101.50
43	Bk	38	LEU	CA-C-O	-5.65	108.24	120.10
67	B1	2562	G	C2'-C3'-O3'	5.65	122.73	113.70
21	A2	327	G	C1'-O4'-C4'	-5.64	105.39	109.90
21	A2	480	G	P-O3'-C3'	-5.64	112.93	119.70
21	A2	512	U	C1'-O4'-C4'	-5.64	105.39	109.90
21	A2	532	C	C3'-C2'-C1'	5.64	106.02	101.50
21	A2	658	A	C1'-O4'-C4'	5.64	114.42	109.90
21	A2	835	C	O4'-C4'-C3'	5.64	110.62	106.10
21	A2	1064	C	O4'-C1'-C2'	5.64	112.68	107.60
21	A2	1088	U	O4'-C1'-N1	5.64	112.72	108.20
67	B1	57	C	C5'-C4'-O4'	5.64	115.87	109.10
67	B1	1264	G	C2'-C3'-O3'	5.64	122.73	113.70
67	B1	1673	C	O4'-C1'-N1	-5.64	103.69	108.20
67	B1	1697	G	N9-C1'-C2'	-5.64	105.79	112.00
21	A2	335	G	O4'-C1'-N9	5.64	112.71	108.20
21	A2	358	G	O4'-C1'-C2'	5.64	112.68	107.60
21	A2	604	C	O4'-C1'-N1	5.64	112.71	108.20
21	A2	1380	C	O4'-C1'-N1	5.64	112.72	108.20
67	B1	878	G	O4'-C1'-N9	5.64	112.71	108.20
67	B1	2159	C	P-O5'-C5'	5.64	129.93	120.90
67	B1	2786	G	C5'-C4'-C3'	5.64	125.03	116.00
67	B1	3012	C	O5'-P-OP2	5.64	117.47	110.70
21	A2	76	U	O5'-C5'-C4'	-5.64	100.98	111.70
22	AY	30	PHE	CB-CG-CD2	5.64	124.75	120.80
67	B1	1424	G	O4'-C1'-N9	5.64	112.71	108.20
67	B1	2071	C	C4'-C3'-C2'	-5.64	96.96	102.60
67	B1	2114	C	P-O3'-C3'	-5.64	112.93	119.70
14	AM	32	ASP	CB-CG-OD1	5.64	123.38	118.30
21	A2	654	U	O4'-C1'-C2'	-5.64	100.16	105.80
33	BC	304	GLU	CB-CA-C	5.64	121.68	110.40
40	BE	110	HIS	O-C-N	-5.64	113.61	123.20
52	BB	9	ARG	NE-CZ-NH1	5.64	123.12	120.30
67	B1	2399	C	O4'-C1'-N1	5.64	112.71	108.20
67	B1	2681	A	O4'-C1'-N9	5.64	112.71	108.20
21	A2	314	G	O4'-C1'-N9	5.64	112.71	108.20
21	A2	315	A	O4'-C1'-C2'	-5.64	100.16	105.80
21	A2	433	U	O5'-C5'-C4'	5.64	122.41	111.70
21	A2	483	G	O3'-P-O5'	-5.64	93.29	104.00
21	A2	649	A	P-O5'-C5'	-5.64	111.88	120.90
21	A2	738	C	C3'-C2'-C1'	5.64	106.01	101.50
54	BF	133	ARG	NH1-CZ-NH2	-5.64	113.20	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	433	C	O4'-C1'-C2'	-5.64	100.16	105.80
67	B1	435	G	C3'-C2'-C1'	-5.64	96.99	101.50
67	B1	652	G	C5'-C4'-O4'	5.64	115.86	109.10
67	B1	1047	A	C3'-C2'-C1'	5.64	106.01	101.50
67	B1	1952	G	O4'-C1'-N9	5.64	112.71	108.20
67	B1	2456	C	C3'-C2'-C1'	5.64	106.01	101.50
21	A2	94	C	O4'-C1'-N1	5.63	112.71	108.20
21	A2	97	C	C3'-C2'-C1'	5.63	106.01	101.50
52	BB	84	TYR	CG-CD2-CE2	-5.63	116.79	121.30
67	B1	129	C	O4'-C1'-C2'	-5.63	100.17	105.80
67	B1	691	G	C1'-O4'-C4'	-5.63	105.39	109.90
67	B1	1391	C	C1'-O4'-C4'	-5.63	105.39	109.90
68	B3	69	C	O4'-C1'-N1	5.63	112.71	108.20
28	AV	33	ARG	NE-CZ-NH2	5.63	123.12	120.30
50	BV	40	TYR	CD1-CE1-CZ	5.63	124.87	119.80
67	B1	1186	G	C3'-C2'-C1'	5.63	106.01	101.50
67	B1	3043	C	O4'-C4'-C3'	-5.63	98.37	104.00
21	A2	550	G	C3'-C2'-C1'	-5.63	97.00	101.50
24	AA	11	ASP	CB-CG-OD2	5.63	123.37	118.30
51	Bj	78	HIS	N-CA-CB	5.63	120.74	110.60
67	B1	553	C	O4'-C1'-C2'	-5.63	100.17	105.80
67	B1	3017	U	OP1-P-OP2	-5.63	111.15	119.60
21	A2	57	G	C5'-C4'-O4'	-5.63	102.34	109.10
21	A2	359	A	P-O5'-C5'	-5.63	111.89	120.90
21	A2	917	A	N9-C1'-C2'	5.63	121.32	114.00
29	AL	40	LEU	CB-CA-C	5.63	120.90	110.20
67	B1	1239	C	C3'-C2'-C1'	5.63	106.00	101.50
21	A2	448	A	C4-C5-C6	5.63	119.81	117.00
21	A2	1008	U	O4'-C1'-C2'	-5.63	100.17	105.80
60	BS	109	PRO	N-CA-CB	5.63	110.06	103.30
67	B1	157	U	N1-C1'-C2'	5.63	121.32	114.00
67	B1	1573	A	C3'-C2'-C1'	-5.63	97.00	101.50
67	B1	1910	C	O4'-C1'-C2'	-5.63	100.17	105.80
67	B1	2257	A	O4'-C1'-C2'	5.63	112.67	107.60
67	B1	2382	A	P-O3'-C3'	-5.63	112.95	119.70
15	AE	83	PHE	CB-CG-CD2	5.63	124.74	120.80
15	AE	126	ARG	NE-CZ-NH2	-5.63	117.49	120.30
21	A2	1080	C	C5'-C4'-C3'	-5.63	107.00	116.00
21	A2	1448	A	O4'-C1'-C2'	-5.63	100.17	105.80
50	BV	45	ARG	NE-CZ-NH2	5.63	123.11	120.30
67	B1	717	A	C5'-C4'-C3'	5.63	125.00	116.00
67	B1	1552	C	O4'-C1'-N1	5.63	112.70	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2229	G	N9-C1'-C2'	5.63	121.31	114.00
21	A2	1039	C	P-O3'-C3'	5.62	126.45	119.70
67	B1	1960	U	C1'-O4'-C4'	-5.62	105.40	109.90
67	B1	2258	A	C4'-C3'-C2'	5.62	108.22	102.60
67	B1	2301	C	O4'-C1'-C2'	-5.62	100.17	105.80
67	B1	2325	C	N3-C4-C5	-5.62	119.65	121.90
21	A2	632	C	C1'-O4'-C4'	-5.62	105.40	109.90
21	A2	672	G	N9-C1'-C2'	5.62	121.31	114.00
41	Ba	37	GLU	CB-CA-C	-5.62	99.15	110.40
63	Bg	36	TYR	CB-CA-C	-5.62	99.15	110.40
67	B1	512	G	N9-C1'-C2'	5.62	121.31	114.00
67	B1	554	C	O4'-C1'-C2'	-5.62	100.18	105.80
67	B1	1650	U	P-O3'-C3'	-5.62	112.95	119.70
67	B1	2095	U	C3'-C2'-C1'	-5.62	97.00	101.50
67	B1	2303	A	O4'-C1'-C2'	-5.62	100.18	105.80
40	BE	93	ARG	NE-CZ-NH2	-5.62	117.49	120.30
67	B1	399	C	N3-C4-N4	5.62	121.94	118.00
67	B1	1537	U	C1'-O4'-C4'	-5.62	105.40	109.90
67	B1	1648	C	C5'-C4'-O4'	-5.62	102.35	109.10
67	B1	2752	U	C4'-C3'-C2'	5.62	108.22	102.60
67	B1	2899	G	N9-C1'-C2'	5.62	121.31	114.00
11	A1	6	G	C1'-O4'-C4'	5.62	114.40	109.90
67	B1	137	A	C1'-O4'-C4'	5.62	114.40	109.90
21	A2	85	A	P-O3'-C3'	5.62	126.44	119.70
58	BP	88	THR	CA-CB-OG1	5.62	120.80	109.00
67	B1	407	A	C1'-O4'-C4'	-5.62	105.41	109.90
67	B1	430	A	P-O3'-C3'	5.62	126.44	119.70
67	B1	528	G	P-O3'-C3'	5.62	126.44	119.70
67	B1	687	C	C3'-C2'-C1'	5.62	106.00	101.50
67	B1	807	G	P-O3'-C3'	5.62	126.44	119.70
67	B1	1261	C	P-O3'-C3'	-5.62	112.96	119.70
67	B1	1407	A	C5'-C4'-C3'	-5.62	107.01	116.00
67	B1	2412	A	C3'-C2'-C1'	5.62	105.99	101.50
67	B1	3036	C	OP1-P-OP2	-5.62	111.17	119.60
21	A2	535	U	P-O3'-C3'	-5.62	112.96	119.70
27	A0	48	C	O4'-C1'-C2'	-5.62	100.18	105.80
21	A2	359	A	O4'-C1'-N9	5.62	112.69	108.20
21	A2	940	U	O4'-C1'-N1	5.62	112.69	108.20
21	A2	1108	U	C4'-C3'-C2'	-5.62	96.98	102.60
24	AA	156	ASP	CB-CG-OD2	-5.62	113.25	118.30
67	B1	1074	G	O4'-C1'-C2'	5.62	112.65	107.60
67	B1	1589	G	O4'-C1'-N9	5.62	112.69	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1750	C	C5'-C4'-C3'	5.62	124.99	116.00
67	B1	1851	U	C2'-C3'-O3'	5.62	122.69	113.70
67	B1	1932	G	C3'-C2'-C1'	5.62	105.99	101.50
21	A2	418	G	C1'-O4'-C4'	5.61	114.39	109.90
22	AY	17	ARG	NH1-CZ-NH2	5.61	125.58	119.40
67	B1	500	C	O4'-C1'-C2'	-5.61	100.19	105.80
67	B1	630	G	O4'-C1'-N9	5.61	112.69	108.20
67	B1	688	G	C1'-O4'-C4'	-5.61	105.41	109.90
67	B1	2760	A	C5'-C4'-C3'	-5.61	107.02	116.00
21	A2	260	C	C5'-C4'-O4'	5.61	115.83	109.10
52	BB	24	PHE	CD1-CE1-CZ	-5.61	113.37	120.10
67	B1	624	U	C3'-C2'-C1'	5.61	105.99	101.50
67	B1	1742	C	O4'-C1'-N1	5.61	112.69	108.20
67	B1	2332	G	N9-C1'-C2'	-5.61	105.83	112.00
21	A2	189	C	P-O3'-C3'	-5.61	112.97	119.70
21	A2	694	U	C3'-C2'-C1'	-5.61	97.01	101.50
21	A2	1063	A	C1'-O4'-C4'	5.61	114.39	109.90
27	A0	23	A	C3'-C2'-C1'	5.61	105.99	101.50
31	BY	132	ARG	NE-CZ-NH2	5.61	123.11	120.30
52	BB	48	ILE	CB-CA-C	-5.61	100.38	111.60
53	BD	155	ARG	NE-CZ-NH1	5.61	123.11	120.30
66	Bl	17	ARG	NE-CZ-NH1	5.61	123.11	120.30
67	B1	375	C	N3-C4-C5	-5.61	119.66	121.90
67	B1	548	U	C3'-C2'-C1'	5.61	105.99	101.50
67	B1	1413	A	C5'-C4'-O4'	5.61	115.83	109.10
15	AE	217	ASP	CB-CG-OD1	5.61	123.35	118.30
21	A2	820	G	P-O5'-C5'	5.61	129.88	120.90
37	BU	48	VAL	O-C-N	-5.61	113.67	123.20
60	BS	57	LEU	CB-CG-CD1	5.61	120.54	111.00
67	B1	215	A	C4'-C3'-C2'	5.61	108.21	102.60
67	B1	1530	A	C4'-C3'-C2'	-5.61	96.99	102.60
21	A2	155	U	P-O3'-C3'	5.61	126.43	119.70
21	A2	160	C	P-O5'-C5'	5.61	129.87	120.90
21	A2	1491	C	C5'-C4'-C3'	-5.61	107.03	116.00
24	AA	43	VAL	O-C-N	-5.61	113.73	122.70
36	Bf	30	LYS	CB-CA-C	-5.61	99.19	110.40
67	B1	796	C	C1'-O4'-C4'	-5.61	105.41	109.90
11	A1	11	C	N1-C1'-C2'	5.61	121.29	114.00
21	A2	297	G	C1'-O4'-C4'	5.61	114.39	109.90
21	A2	1213	G	O4'-C1'-C2'	5.61	112.64	107.60
35	BL	12	ARG	CB-CA-C	5.61	121.61	110.40
40	BE	59	ARG	NE-CZ-NH1	5.61	123.10	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bd	17	THR	N-CA-C	-5.61	95.87	111.00
67	B1	1391	C	C4'-C3'-C2'	-5.61	96.99	102.60
67	B1	1699	U	O4'-C1'-N1	5.61	112.68	108.20
67	B1	2530	G	O4'-C1'-N9	5.61	112.68	108.20
21	A2	1123	G	P-O3'-C3'	5.60	126.42	119.70
67	B1	2566	A	O4'-C1'-C2'	-5.60	100.20	105.80
33	BC	353	ARG	NH1-CZ-NH2	5.60	125.56	119.40
52	BB	95	ASN	CA-CB-CG	-5.60	101.08	113.40
60	BS	129	TYR	N-CA-CB	5.60	120.68	110.60
67	B1	453	U	C1'-O4'-C4'	5.60	114.38	109.90
67	B1	517	A	O4'-C1'-C2'	-5.60	100.20	105.80
67	B1	625	A	C1'-O4'-C4'	5.60	114.38	109.90
67	B1	1146	U	C1'-O4'-C4'	5.60	114.38	109.90
67	B1	2859	U	C3'-C2'-C1'	5.60	105.98	101.50
21	A2	341	C	O4'-C1'-C2'	-5.60	100.20	105.80
21	A2	438	A	OP1-P-O3'	5.60	117.52	105.20
36	Bf	48	LYS	CB-CG-CD	5.60	126.16	111.60
67	B1	270	C	P-O3'-C3'	-5.60	112.98	119.70
67	B1	2269	C	C1'-O4'-C4'	5.60	114.38	109.90
14	AM	41	ARG	NE-CZ-NH2	5.60	123.10	120.30
21	A2	495	G	C3'-C2'-C1'	-5.60	97.02	101.50
36	Bf	20	ASN	CA-CB-CG	-5.60	101.08	113.40
46	BA	31	ALA	N-CA-CB	5.60	117.94	110.10
48	BR	43	ILE	CA-CB-CG1	5.60	121.64	111.00
51	Bj	42	ARG	CB-CA-C	-5.60	99.20	110.40
20	BG	16	ALA	N-CA-CB	5.60	117.94	110.10
67	B1	2166	C	N3-C4-N4	5.60	121.92	118.00
67	B1	2318	G	N9-C1'-C2'	5.60	121.28	114.00
67	B1	2359	G	C1'-O4'-C4'	5.60	114.38	109.90
68	B3	51	U	O4'-C1'-N1	5.60	112.68	108.20
68	B3	112	C	C3'-C2'-C1'	5.60	105.98	101.50
21	A2	416	A	C3'-C2'-C1'	-5.60	97.02	101.50
21	A2	435	A	O5'-C5'-C4'	5.60	122.34	111.70
21	A2	606	U	O4'-C1'-N1	5.60	112.68	108.20
40	BE	53	GLY	CA-C-O	-5.60	110.52	120.60
47	BI	34	GLU	CA-CB-CG	5.60	125.72	113.40
67	B1	454	C	P-O5'-C5'	-5.60	111.94	120.90
67	B1	1835	A	N9-C1'-C2'	-5.60	105.84	112.00
68	B3	29	G	C1'-O4'-C4'	-5.60	105.42	109.90
21	A2	498	C	C3'-C2'-C1'	5.60	105.98	101.50
61	Bd	76	MET	N-CA-CB	5.60	120.67	110.60
8	AR	67	ARG	NH1-CZ-NH2	-5.59	113.25	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	725	C	C1'-O4'-C4'	-5.59	105.42	109.90
21	A2	781	U	P-O5'-C5'	5.59	129.85	120.90
21	A2	950	C	C3'-C2'-C1'	5.59	105.97	101.50
54	BF	147	VAL	CG1-CB-CG2	-5.59	101.95	110.90
63	Bg	35	GLY	C-N-CA	5.59	135.69	121.70
67	B1	311	C	C1'-O4'-C4'	5.59	114.38	109.90
67	B1	517	A	C3'-C2'-C1'	5.59	105.98	101.50
67	B1	1527	G	C3'-C2'-C1'	5.59	105.97	101.50
67	B1	2041	U	C3'-C2'-C1'	5.59	105.97	101.50
67	B1	2170	C	OP1-P-OP2	-5.59	111.21	119.60
1	AQ	136	TYR	CA-CB-CG	-5.59	102.77	113.40
21	A2	1271	G	O4'-C1'-C2'	-5.59	100.21	105.80
67	B1	764	G	C1'-O4'-C4'	5.59	114.37	109.90
67	B1	1753	G	O4'-C1'-N9	5.59	112.67	108.20
67	B1	2664	G	O4'-C4'-C3'	5.59	110.57	106.10
68	B3	81	C	O4'-C1'-C2'	-5.59	100.21	105.80
21	A2	911	C	O4'-C1'-N1	5.59	112.67	108.20
21	A2	1018	C	O4'-C1'-N1	5.59	112.67	108.20
21	A2	1037	U	P-O3'-C3'	5.59	126.41	119.70
29	AL	64	TRP	CB-CG-CD1	5.59	134.27	127.00
32	BO	84	TYR	CD1-CE1-CZ	5.59	124.83	119.80
28	B6	4	ARG	CD-NE-CZ	-5.59	115.77	123.60
67	B1	216	A	O4'-C1'-C2'	-5.59	100.21	105.80
67	B1	234	G	C3'-C2'-C1'	-5.59	97.03	101.50
67	B1	1736	G	C1'-O4'-C4'	-5.59	105.43	109.90
21	A2	306	C	OP1-P-OP2	-5.59	111.22	119.60
21	A2	352	A	P-O5'-C5'	5.59	129.84	120.90
21	A2	1408	C	C3'-C2'-C1'	5.59	105.97	101.50
67	B1	494	C	C3'-C2'-C1'	5.59	105.97	101.50
67	B1	1006	A	C5-C6-N1	-5.59	114.91	117.70
67	B1	2209	U	C5'-C4'-C3'	5.59	124.94	116.00
67	B1	2284	C	N1-C1'-C2'	5.59	121.27	114.00
21	A2	1168	C	N1-C1'-C2'	5.59	121.27	114.00
67	B1	164	A	O4'-C1'-N9	5.59	112.67	108.20
33	BC	4	VAL	CA-CB-CG2	-5.59	102.52	110.90
67	B1	1405	G	O4'-C1'-C2'	5.59	112.63	107.60
67	B1	1906	G	C3'-C2'-C1'	-5.59	97.03	101.50
21	A2	1313	G	O4'-C1'-N9	5.58	112.67	108.20
53	BD	127	VAL	CA-CB-CG1	5.58	119.28	110.90
67	B1	17	C	C3'-C2'-C1'	5.58	105.97	101.50
67	B1	131	C	C1'-O4'-C4'	5.58	114.37	109.90
67	B1	663	A	P-O5'-C5'	5.58	129.84	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1100	G	C5'-C4'-O4'	5.58	115.80	109.10
67	B1	2179	G	C3'-C2'-C1'	5.58	105.97	101.50
67	B1	2390	G	N9-C1'-C2'	-5.58	105.86	112.00
67	B1	2733	A	P-O3'-C3'	5.58	126.40	119.70
21	A2	666	G	O4'-C1'-C2'	5.58	112.62	107.60
21	A2	1304	C	N3-C4-N4	5.58	121.91	118.00
27	A0	63	G	N9-C1'-C2'	5.58	121.26	114.00
44	BW	63	ARG	NE-CZ-NH1	5.58	123.09	120.30
65	BJ	60	ASP	CB-CG-OD2	-5.58	113.28	118.30
67	B1	1476	C	O4'-C1'-N1	5.58	112.67	108.20
67	B1	1968	A	OP1-P-OP2	-5.58	111.22	119.60
67	B1	2908	U	N1-C1'-C2'	-5.58	105.86	112.00
67	B1	2938	G	O4'-C1'-C2'	5.58	112.63	107.60
68	B3	102	G	P-O5'-C5'	5.58	129.83	120.90
10	AD	149	GLU	CB-CA-C	-5.58	99.24	110.40
21	A2	570	G	C3'-C2'-C1'	-5.58	97.03	101.50
21	A2	1024	G	O4'-C1'-C2'	5.58	112.62	107.60
21	A2	1194	C	C1'-O4'-C4'	-5.58	105.44	109.90
57	BZ	50	TYR	CB-CG-CD1	-5.58	117.65	121.00
67	B1	1310	A	P-O3'-C3'	-5.58	113.00	119.70
11	A1	58	A	O4'-C1'-C2'	-5.58	100.22	105.80
18	AF	16	TRP	CA-C-N	5.58	129.48	117.20
21	A2	248	U	O4'-C4'-C3'	-5.58	98.42	104.00
21	A2	356	G	P-O3'-C3'	5.58	126.39	119.70
21	A2	483	G	N9-C1'-C2'	-5.58	105.86	112.00
21	A2	1450	U	O5'-P-OP2	5.58	117.39	110.70
48	BR	8	PHE	CB-CA-C	-5.58	99.24	110.40
67	B1	975	C	C4'-C3'-C2'	-5.58	97.02	102.60
67	B1	1564	C	C3'-C2'-C1'	5.58	105.96	101.50
67	B1	1763	A	C1'-O4'-C4'	-5.58	105.44	109.90
67	B1	2639	G	C1'-O4'-C4'	-5.58	105.44	109.90
21	A2	414	G	OP1-P-OP2	-5.58	111.23	119.60
21	A2	709	G	P-O3'-C3'	-5.58	113.01	119.70
21	A2	733	C	C4'-C3'-C2'	-5.58	97.02	102.60
21	A2	819	G	O4'-C1'-N9	5.58	112.66	108.20
25	AH	75	GLY	N-CA-C	5.58	127.04	113.10
20	BG	6	TYR	CB-CG-CD2	5.58	124.35	121.00
67	B1	134	C	C1'-O4'-C4'	5.58	114.36	109.90
67	B1	1588	C	O4'-C1'-C2'	-5.58	100.22	105.80
68	B3	75	G	O4'-C1'-C2'	-5.58	100.22	105.80
15	AE	83	PHE	CB-CA-C	-5.58	99.25	110.40
21	A2	551	U	P-O3'-C3'	-5.58	113.01	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1154	G	C3'-C2'-C1'	-5.58	97.04	101.50
21	A2	1323	A	O4'-C1'-N9	5.58	112.66	108.20
27	A0	65	G	C4'-C3'-C2'	-5.58	97.02	102.60
33	BC	225	THR	CA-CB-CG2	-5.58	104.59	112.40
64	Bc	8	LEU	CB-CA-C	-5.58	99.61	110.20
67	B1	679	U	C4'-C3'-C2'	-5.58	97.03	102.60
67	B1	1130	G	C4'-C3'-C2'	-5.58	97.03	102.60
67	B1	1270	G	C1'-O4'-C4'	-5.58	105.44	109.90
67	B1	1525	G	N9-C1'-C2'	5.58	121.25	114.00
67	B1	1880	A	O4'-C1'-N9	5.58	112.66	108.20
21	A2	76	U	O4'-C1'-N1	5.57	112.66	108.20
21	A2	810	G	C1'-O4'-C4'	-5.57	105.44	109.90
21	A2	969	A	O4'-C1'-C2'	-5.57	100.23	105.80
67	B1	572	U	P-O3'-C3'	-5.57	113.01	119.70
67	B1	716	U	N1-C1'-C2'	5.57	121.24	114.00
67	B1	1343	C	C4'-C3'-C2'	-5.57	97.03	102.60
67	B1	2001	U	O4'-C1'-C2'	-5.57	100.23	105.80
67	B1	2201	C	P-O3'-C3'	-5.57	113.01	119.70
67	B1	2889	A	N9-C1'-C2'	5.57	121.25	114.00
21	A2	356	G	O4'-C1'-N9	5.57	112.66	108.20
32	BO	94	ALA	CB-CA-C	-5.57	101.74	110.10
67	B1	1226	G	O4'-C1'-N9	5.57	112.66	108.20
67	B1	2431	C	N1-C1'-C2'	5.57	121.24	114.00
67	B1	2523	C	O4'-C1'-C2'	-5.57	100.23	105.80
21	A2	308	G	C1'-O4'-C4'	5.57	114.36	109.90
28	B6	41	VAL	CA-CB-CG2	-5.57	102.55	110.90
67	B1	2613	C	O4'-C1'-N1	5.57	112.66	108.20
67	B1	2679	A	O4'-C1'-N9	5.57	112.66	108.20
6	AC	150	TYR	CB-CG-CD1	-5.57	117.66	121.00
21	A2	641	A	C2'-C3'-O3'	5.57	122.61	113.70
26	AP	55	TYR	N-CA-CB	5.57	120.62	110.60
41	Ba	50	ILE	O-C-N	-5.57	113.79	122.70
67	B1	407	A	OP1-P-OP2	-5.57	111.25	119.60
67	B1	410	C	N1-C1'-C2'	5.57	121.24	114.00
67	B1	1202	G	C5'-C4'-O4'	-5.57	102.42	109.10
67	B1	2640	C	C1'-O4'-C4'	-5.57	105.44	109.90
8	AR	8	ARG	N-CA-CB	5.57	120.62	110.60
21	A2	766	G	C2'-C3'-O3'	5.57	122.61	113.70
21	A2	1118	C	C1'-O4'-C4'	-5.57	105.45	109.90
21	A2	1139	A	P-O3'-C3'	-5.57	113.02	119.70
67	B1	644	G	O4'-C1'-N9	-5.57	103.75	108.20
67	B1	962	C	C5'-C4'-O4'	5.57	115.78	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2795	G	N9-C1'-C2'	5.57	121.24	114.00
15	AE	58	THR	CA-CB-OG1	5.57	120.69	109.00
21	A2	215	C	C4'-C3'-C2'	-5.57	97.03	102.60
35	BL	14	SER	N-CA-CB	5.57	118.85	110.50
28	B6	35	ASP	CB-CG-OD1	-5.57	113.29	118.30
67	B1	795	G	P-O3'-C3'	-5.57	113.02	119.70
67	B1	822	A	C4'-C3'-C2'	-5.57	97.03	102.60
67	B1	1575	G	C1'-O4'-C4'	5.57	114.35	109.90
67	B1	1980	U	P-O5'-C5'	-5.57	111.99	120.90
67	B1	2835	A	C3'-C2'-C1'	5.57	105.95	101.50
67	B1	2856	G	O4'-C1'-C2'	5.57	112.61	107.60
67	B1	312	G	C5'-C4'-C3'	5.56	124.90	116.00
67	B1	1097	G	C3'-C2'-C1'	-5.56	97.05	101.50
21	A2	95	G	O4'-C1'-C2'	-5.56	100.24	105.80
67	B1	1213	G	OP2-P-O3'	5.56	117.44	105.20
68	B3	72	G	O4'-C1'-N9	5.56	112.65	108.20
15	AE	64	LYS	CB-CA-C	-5.56	99.28	110.40
21	A2	1427	C	O4'-C1'-N1	5.56	112.65	108.20
67	B1	7	G	O4'-C1'-N9	5.56	112.65	108.20
67	B1	2140	C	N3-C4-C5	-5.56	119.68	121.90
16	AJ	63	ALA	C-N-CA	5.56	135.60	121.70
21	A2	167	G	O3'-P-O5'	5.56	114.56	104.00
21	A2	460	C	N3-C4-C5	-5.56	119.68	121.90
21	A2	807	C	C1'-O4'-C4'	-5.56	105.45	109.90
36	Bf	51	GLU	CB-CA-C	-5.56	99.28	110.40
28	B6	55	TYR	CB-CG-CD2	-5.56	117.66	121.00
67	B1	88	G	O4'-C1'-N9	5.56	112.65	108.20
67	B1	496	A	O4'-C1'-N9	5.56	112.65	108.20
67	B1	2623	G	N9-C1'-C2'	-5.56	105.88	112.00
67	B1	2988	A	C3'-C2'-C1'	5.56	105.95	101.50
21	A2	286	G	C4'-C3'-C2'	-5.56	97.04	102.60
21	A2	532	C	O4'-C1'-C2'	-5.56	100.24	105.80
21	A2	1117	A	C5'-C4'-C3'	5.56	124.89	116.00
67	B1	312	G	P-O5'-C5'	-5.56	112.01	120.90
67	B1	537	U	C5'-C4'-O4'	5.56	115.77	109.10
67	B1	652	G	O4'-C1'-C2'	-5.56	100.24	105.80
67	B1	1612	G	O3'-P-O5'	-5.56	93.44	104.00
67	B1	1719	C	N3-C4-C5	-5.56	119.68	121.90
67	B1	2488	C	P-O3'-C3'	5.56	126.37	119.70
21	A2	133	G	C5'-C4'-C3'	-5.56	107.11	116.00
67	B1	2324	C	N3-C4-N4	5.56	121.89	118.00
21	A2	80	A	P-O5'-C5'	5.55	129.79	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	407	G	P-O3'-C3'	-5.55	113.03	119.70
21	A2	1085	C	N3-C4-N4	5.55	121.89	118.00
67	B1	269	C	N1-C1'-C2'	5.55	121.22	114.00
67	B1	1510	U	C1'-O4'-C4'	-5.55	105.46	109.90
21	A2	1431	C	P-O3'-C3'	-5.55	113.04	119.70
23	AT	90	VAL	CA-CB-CG2	5.55	119.23	110.90
50	BV	1	MET	CG-SD-CE	-5.55	91.31	100.20
67	B1	1323	U	O4'-C1'-C2'	-5.55	100.25	105.80
67	B1	2874	C	N1-C1'-C2'	5.55	121.22	114.00
21	A2	229	G	OP2-P-O3'	5.55	117.41	105.20
21	A2	1287	G	N9-C1'-C2'	-5.55	105.89	112.00
31	BY	73	ARG	NE-CZ-NH2	-5.55	117.52	120.30
67	B1	468	A	N9-C1'-C2'	5.55	121.22	114.00
67	B1	470	A	O4'-C1'-C2'	-5.55	100.25	105.80
67	B1	625	A	O4'-C1'-C2'	-5.55	100.25	105.80
67	B1	1204	U	N1-C1'-C2'	5.55	121.22	114.00
67	B1	2283	C	N1-C1'-C2'	5.55	121.22	114.00
67	B1	3019	C	OP2-P-O3'	5.55	117.41	105.20
21	A2	378	A	P-O3'-C3'	5.55	126.36	119.70
21	A2	842	U	N1-C1'-C2'	-5.55	105.90	112.00
21	A2	1057	A	N9-C1'-C2'	-5.55	105.89	112.00
21	A2	1245	C	N3-C4-N4	5.55	121.88	118.00
21	A2	1383	A	O4'-C4'-C3'	-5.55	98.45	104.00
21	A2	1460	G	C1'-O4'-C4'	5.55	114.34	109.90
33	BC	101	VAL	CA-CB-CG2	-5.55	102.58	110.90
36	Bf	34	ARG	NH1-CZ-NH2	5.55	125.51	119.40
61	Bd	6	ARG	NE-CZ-NH2	-5.55	117.53	120.30
67	B1	962	C	P-O3'-C3'	5.55	126.36	119.70
67	B1	1662	C	N3-C4-N4	5.55	121.88	118.00
67	B1	2475	G	P-O3'-C3'	5.55	126.36	119.70
67	B1	2850	G	O4'-C1'-C2'	5.55	112.59	107.60
21	A2	246	A	P-O5'-C5'	-5.55	112.03	120.90
21	A2	1295	C	C5'-C4'-O4'	5.55	115.76	109.10
33	BC	104	PHE	CB-CG-CD1	5.55	124.68	120.80
67	B1	506	G	O4'-C1'-C2'	5.55	112.59	107.60
67	B1	1234	A	C5'-C4'-C3'	-5.55	107.12	116.00
58	BP	8	ASP	CB-CG-OD1	5.54	123.29	118.30
21	A2	786	G	O4'-C1'-N9	5.54	112.64	108.20
21	A2	829	U	C1'-O4'-C4'	5.54	114.33	109.90
21	A2	1418	G	P-O3'-C3'	-5.54	113.05	119.70
60	BS	129	TYR	CG-CD2-CE2	-5.54	116.86	121.30
64	Bc	41	ARG	NE-CZ-NH1	-5.54	117.53	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1505	G	P-O5'-C5'	-5.54	112.03	120.90
67	B1	2924	G	C5'-C4'-O4'	5.54	115.75	109.10
67	B1	2984	A	O4'-C1'-C2'	-5.54	100.26	105.80
7	AB	123	ASP	N-CA-CB	5.54	120.57	110.60
10	AD	160	PHE	CB-CG-CD1	5.54	124.68	120.80
21	A2	257	U	OP1-P-OP2	-5.54	111.29	119.60
21	A2	413	G	C1'-O4'-C4'	-5.54	105.47	109.90
21	A2	463	G	P-O3'-C3'	5.54	126.35	119.70
21	A2	663	G	P-O3'-C3'	-5.54	113.05	119.70
27	A0	71	G	C5'-C4'-C3'	5.54	124.86	116.00
41	Ba	24	ARG	N-CA-C	5.54	125.96	111.00
66	Bl	38	TYR	CG-CD2-CE2	-5.54	116.87	121.30
67	B1	309	C	N1-C1'-C2'	-5.54	105.90	112.00
67	B1	401	C	N3-C4-N4	5.54	121.88	118.00
67	B1	567	G	C5'-C4'-C3'	5.54	124.87	116.00
43	Bk	123	VAL	CG1-CB-CG2	-5.54	102.04	110.90
67	B1	1083	G	P-O3'-C3'	-5.54	113.05	119.70
67	B1	1564	C	O4'-C1'-C2'	-5.54	100.26	105.80
67	B1	1956	G	O4'-C1'-N9	5.54	112.63	108.20
67	B1	2426	U	O4'-C1'-N1	5.54	112.63	108.20
5	AW	42	ALA	N-CA-CB	5.54	117.86	110.10
21	A2	890	C	N3-C4-N4	5.54	121.88	118.00
21	A2	1096	G	C4'-C3'-C2'	-5.54	97.06	102.60
32	BO	152	TYR	CB-CG-CD1	-5.54	117.68	121.00
20	B4	116	MET	CG-SD-CE	-5.54	91.34	100.20
67	B1	23	G	C1'-O4'-C4'	5.54	114.33	109.90
67	B1	85	G	C4'-C3'-C2'	-5.54	97.06	102.60
67	B1	579	C	O4'-C1'-C2'	-5.54	100.26	105.80
67	B1	1801	C	OP1-P-OP2	-5.54	111.29	119.60
15	AE	102	VAL	O-C-N	-5.54	113.84	122.70
67	B1	228	U	C4'-C3'-C2'	-5.54	97.06	102.60
67	B1	2727	C	C1'-O4'-C4'	-5.54	105.47	109.90
67	B1	2835	A	O4'-C1'-C2'	-5.54	100.26	105.80
4	AG	84	VAL	CA-CB-CG1	5.54	119.20	110.90
21	A2	1003	G	P-O3'-C3'	-5.54	113.06	119.70
34	BK	8	ARG	CD-NE-CZ	-5.54	115.85	123.60
67	B1	70	G	O4'-C1'-N9	5.54	112.63	108.20
67	B1	2362	U	O4'-C1'-C2'	-5.54	100.26	105.80
21	A2	240	U	N1-C1'-C2'	-5.53	105.91	112.00
21	A2	447	A	C5-C6-N1	-5.53	114.93	117.70
21	A2	996	A	C5-C6-N1	-5.53	114.93	117.70
21	A2	1309	A	C3'-C2'-C1'	5.53	105.93	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2135	C	C4'-C3'-C2'	5.53	108.13	102.60
67	B1	2141	C	N3-C4-C5	-5.53	119.69	121.90
67	B1	2181	G	C5'-C4'-O4'	5.53	115.74	109.10
67	B1	2313	G	P-O3'-C3'	-5.53	113.06	119.70
11	A1	40	U	C1'-O4'-C4'	5.53	114.33	109.90
21	A2	435	A	O4'-C1'-N9	-5.53	103.77	108.20
21	A2	1426	C	N1-C1'-C2'	5.53	121.19	114.00
67	B1	622	A	N9-C1'-C2'	5.53	121.19	114.00
67	B1	1655	G	O4'-C1'-N9	-5.53	103.77	108.20
11	A1	42	C	O4'-C1'-C2'	-5.53	100.27	105.80
21	A2	133	G	O4'-C1'-C2'	-5.53	100.27	105.80
21	A2	549	A	O4'-C1'-N9	5.53	112.62	108.20
21	A2	641	A	P-O5'-C5'	-5.53	112.05	120.90
21	A2	1279	A	P-O5'-C5'	-5.53	112.05	120.90
67	B1	1478	G	O4'-C1'-N9	5.53	112.62	108.20
67	B1	2671	C	O4'-C1'-C2'	-5.53	100.27	105.80
34	B5	8	ARG	CD-NE-CZ	-5.53	115.86	123.60
67	B1	479	G	C1'-O4'-C4'	-5.53	105.48	109.90
67	B1	2779	G	C4'-C3'-C2'	-5.53	97.07	102.60
68	B3	78	C	C4'-C3'-C2'	-5.53	97.07	102.60
21	A2	411	C	O4'-C1'-C2'	-5.53	100.27	105.80
21	A2	661	C	O4'-C1'-N1	5.53	112.62	108.20
21	A2	1210	A	C1'-O4'-C4'	5.53	114.32	109.90
67	B1	1174	U	C1'-O4'-C4'	-5.53	105.48	109.90
67	B1	1195	G	OP2-P-O3'	5.53	117.36	105.20
6	AC	126	ARG	NE-CZ-NH1	-5.53	117.54	120.30
21	A2	1047	U	O5'-P-OP1	-5.53	100.73	105.70
65	BJ	52	ARG	NE-CZ-NH2	-5.53	117.54	120.30
67	B1	62	C	C3'-C2'-C1'	5.53	105.92	101.50
67	B1	92	G	C1'-O4'-C4'	-5.53	105.48	109.90
67	B1	879	A	P-O5'-C5'	-5.53	112.06	120.90
67	B1	1929	C	P-O3'-C3'	5.53	126.33	119.70
4	AG	72	PHE	N-CA-CB	5.52	120.54	110.60
21	A2	116	C	P-O5'-C5'	-5.52	112.06	120.90
21	A2	342	G	P-O5'-C5'	-5.52	112.06	120.90
21	A2	1099	A	O3'-P-O5'	5.52	114.50	104.00
27	A0	9	A	C5'-C4'-O4'	5.52	115.73	109.10
48	BR	23	ARG	N-CA-CB	5.52	120.54	110.60
64	Bc	17	GLN	N-CA-C	5.52	125.91	111.00
67	B1	109	G	O4'-C1'-N9	5.52	112.62	108.20
67	B1	747	G	O4'-C1'-C2'	5.52	112.57	107.60
67	B1	2767	C	N1-C1'-C2'	5.52	121.18	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	748	A	O4'-C1'-C2'	5.52	112.57	107.60
21	A2	993	C	N1-C1'-C2'	5.52	121.18	114.00
24	AA	26	PHE	CB-CG-CD2	-5.52	116.93	120.80
28	AV	59	TYR	CB-CG-CD1	-5.52	117.69	121.00
29	AL	82	MET	CG-SD-CE	-5.52	91.36	100.20
28	B6	4	ARG	NE-CZ-NH2	5.52	123.06	120.30
59	BM	11	TRP	CG-CD1-NE1	-5.52	104.58	110.10
67	B1	638	A	C4-C5-C6	5.52	119.76	117.00
67	B1	1321	C	O4'-C1'-N1	5.52	112.62	108.20
67	B1	1391	C	P-O3'-C3'	5.52	126.33	119.70
67	B1	1392	G	C1'-O4'-C4'	-5.52	105.48	109.90
67	B1	2060	A	P-O3'-C3'	-5.52	113.07	119.70
21	A2	244	G	C4'-C3'-C2'	-5.52	97.08	102.60
21	A2	542	G	O5'-P-OP1	5.52	117.33	110.70
67	B1	59	U	C1'-O4'-C4'	5.52	114.32	109.90
67	B1	312	G	O4'-C4'-C3'	-5.52	98.48	104.00
67	B1	2553	U	C3'-C2'-C1'	5.52	105.92	101.50
21	A2	776	C	C3'-C2'-C1'	5.52	105.92	101.50
21	A2	1186	C	C2'-C3'-O3'	5.52	122.53	113.70
67	B1	364	A	N9-C1'-C2'	-5.52	105.93	112.00
67	B1	1350	C	C1'-O4'-C4'	5.52	114.31	109.90
67	B1	1459	A	P-O5'-C5'	-5.52	112.07	120.90
68	B3	53	A	O4'-C1'-N9	5.52	112.61	108.20
21	A2	770	A	C1'-O4'-C4'	5.52	114.31	109.90
21	A2	858	A	O4'-C1'-N9	5.52	112.61	108.20
23	AT	103	LEU	CB-CG-CD1	5.52	120.38	111.00
43	Bk	16	ALA	N-CA-CB	5.52	117.83	110.10
67	B1	358	C	C1'-O4'-C4'	-5.52	105.49	109.90
67	B1	1685	C	C3'-C2'-C1'	5.52	105.91	101.50
67	B1	1716	G	O4'-C1'-N9	5.52	112.61	108.20
20	A3	122	MET	CG-SD-CE	-5.52	91.37	100.20
21	A2	774	U	C3'-C2'-C1'	5.52	105.91	101.50
67	B1	513	C	C2'-C3'-O3'	5.52	122.53	113.70
67	B1	1616	A	C3'-C2'-C1'	-5.52	97.09	101.50
67	B1	2747	C	N3-C4-N4	5.52	121.86	118.00
13	AX	36	ASP	N-CA-CB	5.51	120.53	110.60
15	AE	156	ASP	CB-CG-OD2	-5.51	113.34	118.30
21	A2	772	G	C1'-O4'-C4'	-5.51	105.49	109.90
21	A2	972	C	C3'-C2'-C1'	5.51	105.91	101.50
24	AA	98	ARG	NE-CZ-NH1	5.51	123.06	120.30
50	BV	53	THR	N-CA-CB	-5.51	99.82	110.30
67	B1	1568	A	P-O5'-C5'	5.51	129.72	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1951	G	C3'-C2'-C1'	5.51	105.91	101.50
67	B1	2880	C	O4'-C1'-C2'	-5.51	100.29	105.80
21	A2	230	C	C4'-C3'-C2'	-5.51	97.09	102.60
21	A2	1007	A	N9-C1'-C2'	-5.51	105.94	112.00
65	BJ	90	ARG	NE-CZ-NH2	-5.51	117.54	120.30
67	B1	905	G	N9-C1'-C2'	5.51	121.17	114.00
67	B1	1128	G	O4'-C1'-C2'	5.51	112.56	107.60
21	A2	133	G	O3'-P-O5'	5.51	114.47	104.00
21	A2	560	A	O4'-C1'-C2'	-5.51	100.29	105.80
21	A2	634	C	N1-C1'-C2'	5.51	121.17	114.00
21	A2	1275	U	O4'-C1'-N1	5.51	112.61	108.20
24	AA	55	VAL	N-CA-C	-5.51	96.12	111.00
25	AH	113	GLN	N-CA-CB	5.51	120.52	110.60
47	BI	28	VAL	CG1-CB-CG2	5.51	119.72	110.90
28	B6	55	TYR	O-C-N	-5.51	113.88	122.70
67	B1	824	C	C3'-C2'-C1'	5.51	105.91	101.50
67	B1	825	C	C1'-O4'-C4'	5.51	114.31	109.90
67	B1	1467	G	C1'-O4'-C4'	-5.51	105.49	109.90
21	A2	109	U	C3'-C2'-C1'	5.51	105.91	101.50
21	A2	776	C	O4'-C1'-C2'	-5.51	100.29	105.80
21	A2	1410	G	C4'-C3'-C2'	-5.51	97.09	102.60
67	B1	306	G	O4'-C1'-C2'	-5.51	100.29	105.80
67	B1	401	C	N3-C4-C5	-5.51	119.70	121.90
67	B1	592	C	P-O5'-C5'	-5.51	112.08	120.90
67	B1	774	G	N9-C1'-C2'	5.51	121.16	114.00
27	A0	55	U	OP1-P-OP2	-5.51	111.34	119.60
43	Bk	107	ARG	NH1-CZ-NH2	5.51	125.46	119.40
67	B1	802	G	C1'-O4'-C4'	5.51	114.31	109.90
67	B1	2432	G	P-O5'-C5'	5.51	129.71	120.90
21	A2	456	U	C4'-C3'-C2'	-5.51	97.09	102.60
21	A2	960	A	O4'-C1'-N9	5.51	112.61	108.20
40	BE	68	PHE	CB-CG-CD1	5.51	124.65	120.80
67	B1	237	G	N9-C1'-C2'	-5.51	105.94	112.00
67	B1	826	C	P-O3'-C3'	-5.51	113.09	119.70
67	B1	1565	G	O5'-P-OP1	5.51	117.31	110.70
67	B1	1925	A	P-O3'-C3'	-5.51	113.09	119.70
67	B1	2131	C	C1'-O4'-C4'	-5.51	105.49	109.90
67	B1	2150	G	C3'-C2'-C1'	5.51	105.91	101.50
67	B1	2847	G	C1'-O4'-C4'	5.51	114.31	109.90
21	A2	16	G	O4'-C1'-N9	5.50	112.60	108.20
21	A2	1151	A	O4'-C1'-N9	-5.50	103.80	108.20
67	B1	214	C	P-O3'-C3'	5.50	126.31	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	A1	68	C	C5'-C4'-O4'	-5.50	102.50	109.10
21	A2	451	A	C5-C6-N1	-5.50	114.95	117.70
21	A2	620	G	P-O3'-C3'	-5.50	113.10	119.70
25	AH	42	ARG	NE-CZ-NH2	-5.50	117.55	120.30
41	Ba	7	GLU	N-CA-CB	-5.50	100.69	110.60
64	Bc	83	TYR	CB-CG-CD1	5.50	124.30	121.00
67	B1	590	A	C5-C6-N6	-5.50	119.30	123.70
67	B1	1281	A	P-O3'-C3'	5.50	126.30	119.70
67	B1	2168	C	O4'-C1'-N1	5.50	112.60	108.20
67	B1	2480	G	C4'-C3'-C2'	-5.50	97.10	102.60
21	A2	642	G	C1'-O4'-C4'	-5.50	105.50	109.90
21	A2	891	A	O4'-C1'-N9	5.50	112.60	108.20
27	A0	40	C	OP2-P-O3'	5.50	117.30	105.20
43	Bk	21	SER	N-CA-CB	5.50	118.75	110.50
54	BF	108	VAL	CA-CB-CG2	5.50	119.15	110.90
67	B1	474	G	O4'-C1'-C2'	5.50	112.55	107.60
67	B1	575	G	O4'-C1'-N9	-5.50	103.80	108.20
67	B1	936	G	C4'-C3'-C2'	5.50	108.10	102.60
67	B1	1439	G	C1'-O4'-C4'	-5.50	105.50	109.90
67	B1	2333	G	C3'-C2'-C1'	5.50	105.90	101.50
67	B1	2530	G	N9-C1'-C2'	-5.50	105.95	112.00
67	B1	2743	U	C4'-C3'-C2'	-5.50	97.10	102.60
67	B1	2989	A	C1'-O4'-C4'	-5.50	105.50	109.90
10	AD	155	ALA	N-CA-CB	5.50	117.80	110.10
21	A2	1130	A	P-O5'-C5'	-5.50	112.10	120.90
23	AT	63	ILE	C-N-CA	5.50	135.45	121.70
36	Bf	34	ARG	NE-CZ-NH1	-5.50	117.55	120.30
21	A2	471	G	C4'-C3'-C2'	5.50	108.10	102.60
21	A2	623	C	O4'-C1'-N1	5.50	112.60	108.20
21	A2	726	A	O4'-C1'-C2'	5.50	112.55	107.60
21	A2	1316	U	C3'-C2'-C1'	5.50	105.90	101.50
56	BH	93	ASN	CA-CB-CG	-5.50	101.30	113.40
67	B1	9	A	C5-C6-N6	-5.50	119.30	123.70
67	B1	889	C	C1'-O4'-C4'	5.50	114.30	109.90
67	B1	1000	G	N9-C1'-C2'	5.50	121.15	114.00
67	B1	1813	A	C1'-O4'-C4'	5.50	114.30	109.90
67	B1	2141	C	N3-C4-N4	5.50	121.85	118.00
20	A3	9	PHE	N-CA-CB	5.50	120.50	110.60
21	A2	1133	C	C5'-C4'-C3'	5.50	124.80	116.00
25	AH	73	ARG	CA-CB-CG	5.50	125.49	113.40
27	A0	30	G	N9-C1'-C2'	5.50	121.15	114.00
67	B1	2856	G	C1'-O4'-C4'	-5.50	105.50	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	507	G	N9-C1'-C2'	-5.50	105.95	112.00
21	A2	347	G	C3'-C2'-C1'	5.49	105.89	101.50
21	A2	368	C	P-O5'-C5'	5.49	129.69	120.90
21	A2	1324	U	C2'-C3'-O3'	5.49	122.49	113.70
67	B1	1476	C	O4'-C1'-C2'	-5.49	100.31	105.80
67	B1	1656	C	C3'-C2'-C1'	5.49	105.89	101.50
67	B1	2053	G	P-O3'-C3'	5.49	126.29	119.70
67	B1	2490	C	C3'-C2'-C1'	5.49	105.89	101.50
67	B1	3001	C	C3'-C2'-C1'	5.49	105.89	101.50
7	AB	100	THR	CA-CB-CG2	-5.49	104.71	112.40
11	A1	68	C	C4'-C3'-C2'	-5.49	97.11	102.60
21	A2	988	A	O4'-C1'-N9	5.49	112.59	108.20
8	AR	33	VAL	CA-CB-CG1	5.49	119.14	110.90
21	A2	426	C	C4'-C3'-C2'	-5.49	97.11	102.60
21	A2	462	A	O4'-C4'-C3'	-5.49	98.51	104.00
67	B1	1213	G	C1'-O4'-C4'	5.49	114.29	109.90
67	B1	2959	A	O4'-C1'-N9	-5.49	103.81	108.20
68	B3	115	C	C1'-O4'-C4'	-5.49	105.51	109.90
21	A2	1048	G	C4'-C3'-C2'	-5.49	97.11	102.60
21	A2	1311	C	O4'-C1'-C2'	-5.49	100.31	105.80
67	B1	1566	G	O4'-C4'-C3'	-5.49	98.51	104.00
19	AS	5	ARG	NE-CZ-NH2	-5.49	117.56	120.30
21	A2	942	A	C1'-O4'-C4'	-5.49	105.51	109.90
67	B1	928	A	C3'-C2'-C1'	5.49	105.89	101.50
67	B1	1067	G	O4'-C1'-C2'	5.49	112.54	107.60
21	A2	50	C	O4'-C1'-C2'	-5.49	100.31	105.80
21	A2	509	C	O4'-C4'-C3'	-5.49	98.51	104.00
62	BN	72	TYR	CB-CG-CD2	5.49	124.29	121.00
67	B1	438	G	OP1-P-OP2	-5.49	111.37	119.60
67	B1	1001	C	OP1-P-O3'	5.49	117.27	105.20
67	B1	1493	C	N1-C1'-C2'	5.49	121.13	114.00
67	B1	1735	G	P-O3'-C3'	5.49	126.28	119.70
67	B1	1807	G	O4'-C1'-C2'	-5.49	100.31	105.80
67	B1	2791	C	P-O5'-C5'	5.49	129.68	120.90
21	A2	20	G	C3'-C2'-C1'	-5.48	97.11	101.50
25	AH	99	LYS	CB-CA-C	5.48	121.37	110.40
68	B3	81	C	C3'-C2'-C1'	5.48	105.89	101.50
11	A1	38	G	C3'-C2'-C1'	5.48	105.89	101.50
12	AN	136	GLU	CA-CB-CG	5.48	125.46	113.40
46	BA	23	ASN	CA-C-O	5.48	131.61	120.10
54	BF	56	TYR	O-C-N	-5.48	113.93	122.70
67	B1	32	C	C4'-C3'-C2'	-5.48	97.12	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1587	A	C1'-O4'-C4'	-5.48	105.51	109.90
67	B1	1810	G	P-O5'-C5'	5.48	129.67	120.90
67	B1	2042	A	O3'-P-O5'	-5.48	93.58	104.00
67	B1	2494	A	O4'-C1'-C2'	-5.48	100.32	105.80
67	B1	2613	C	C3'-C2'-C1'	5.48	105.89	101.50
67	B1	3034	C	O4'-C1'-N1	5.48	112.59	108.20
21	A2	1036	G	O4'-C1'-C2'	5.48	112.53	107.60
67	B1	535	G	C1'-O4'-C4'	5.48	114.28	109.90
67	B1	867	C	C1'-O4'-C4'	5.48	114.28	109.90
67	B1	2404	G	C3'-C2'-C1'	-5.48	97.12	101.50
21	A2	392	G	O4'-C1'-C2'	5.48	112.53	107.60
21	A2	845	G	C1'-O4'-C4'	-5.48	105.52	109.90
38	Bb	128	PRO	C-N-CA	5.48	135.40	121.70
67	B1	26	G	C3'-C2'-C1'	5.48	105.88	101.50
21	A2	26	A	N9-C1'-C2'	5.48	121.12	114.00
21	A2	701	G	P-O3'-C3'	-5.48	113.13	119.70
21	A2	871	A	C4'-C3'-C2'	5.48	108.08	102.60
21	A2	1085	C	N3-C4-C5	-5.48	119.71	121.90
21	A2	1152	C	C4'-C3'-C2'	-5.48	97.12	102.60
21	A2	1454	A	O4'-C1'-N9	5.48	112.58	108.20
21	A2	1465	C	N1-C1'-C2'	5.48	121.12	114.00
67	B1	445	G	P-O3'-C3'	-5.48	113.13	119.70
67	B1	1093	G	P-O5'-C5'	-5.48	112.14	120.90
67	B1	1341	U	OP1-P-OP2	-5.48	111.38	119.60
67	B1	1761	C	N1-C1'-C2'	5.48	121.12	114.00
7	AB	162	LYS	CA-CB-CG	5.48	125.45	113.40
21	A2	147	A	C1'-O4'-C4'	5.48	114.28	109.90
45	Bi	24	ARG	NE-CZ-NH2	-5.48	117.56	120.30
67	B1	422	G	O4'-C1'-C2'	-5.48	100.32	105.80
67	B1	1153	U	C2'-C3'-O3'	5.48	122.46	113.70
67	B1	1956	G	N9-C1'-C2'	-5.48	105.98	112.00
6	AC	73	PHE	CB-CG-CD1	-5.47	116.97	120.80
21	A2	274	G	C3'-C2'-C1'	5.47	105.88	101.50
21	A2	659	U	P-O3'-C3'	-5.47	113.13	119.70
21	A2	1394	G	O4'-C4'-C3'	-5.47	98.53	104.00
48	BR	10	ARG	CA-C-O	5.47	131.59	120.10
50	BV	45	ARG	NE-CZ-NH1	-5.47	117.56	120.30
20	BG	106	LYS	N-CA-CB	5.47	120.45	110.60
62	BN	95	ARG	NE-CZ-NH2	5.47	123.04	120.30
62	BN	153	ALA	CB-CA-C	-5.47	101.89	110.10
67	B1	861	G	P-O5'-C5'	-5.47	112.14	120.90
67	B1	1093	G	C5'-C4'-O4'	5.47	115.67	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1177	C	O4'-C1'-N1	5.47	112.58	108.20
67	B1	1317	G	C5'-C4'-C3'	5.47	124.76	116.00
67	B1	1785	G	C1'-O4'-C4'	-5.47	105.52	109.90
67	B1	1831	C	O4'-C1'-N1	5.47	112.58	108.20
67	B1	2034	G	C1'-O4'-C4'	-5.47	105.52	109.90
11	A1	24	A	P-O5'-C5'	5.47	129.66	120.90
21	A2	563	U	C3'-C2'-C1'	5.47	105.88	101.50
46	BA	97	ALA	N-CA-CB	5.47	117.76	110.10
51	Bj	54	LYS	CG-CD-CE	5.47	128.32	111.90
67	B1	258	C	C3'-C2'-C1'	5.47	105.88	101.50
67	B1	259	A	C3'-C2'-C1'	5.47	105.88	101.50
67	B1	653	U	OP1-P-OP2	-5.47	111.39	119.60
67	B1	1207	G	C1'-O4'-C4'	5.47	114.28	109.90
67	B1	1365	G	O4'-C1'-N9	5.47	112.58	108.20
67	B1	1380	G	C1'-O4'-C4'	5.47	114.28	109.90
67	B1	1514	C	N1-C1'-C2'	5.47	121.11	114.00
68	B3	17	G	C4'-C3'-C2'	-5.47	97.13	102.60
21	A2	337	C	N1-C1'-C2'	5.47	121.11	114.00
25	AH	176	ASN	N-CA-CB	5.47	120.45	110.60
68	B3	43	C	C4'-C3'-C2'	-5.47	97.13	102.60
2	AK	17	ALA	N-CA-CB	-5.47	102.44	110.10
3	AI	44	TYR	CB-CG-CD1	-5.47	117.72	121.00
14	AM	13	LYS	N-CA-CB	5.47	120.45	110.60
15	AE	81	TYR	CB-CG-CD2	5.47	124.28	121.00
21	A2	194	C	C3'-C2'-C1'	5.47	105.88	101.50
40	BE	71	ARG	NE-CZ-NH2	-5.47	117.57	120.30
67	B1	710	G	P-O3'-C3'	-5.47	113.14	119.70
67	B1	812	C	P-O3'-C3'	-5.47	113.14	119.70
67	B1	1082	A	P-O5'-C5'	-5.47	112.15	120.90
67	B1	2322	A	O4'-C1'-C2'	-5.47	100.33	105.80
48	BR	6	HIS	N-CA-CB	5.47	120.44	110.60
21	A2	294	A	C3'-C2'-C1'	-5.47	97.13	101.50
21	A2	1175	C	C4'-C3'-C2'	-5.47	97.13	102.60
46	BA	30	VAL	CA-CB-CG2	-5.47	102.70	110.90
28	B6	40	LEU	O-C-N	-5.47	113.95	122.70
67	B1	47	C	N3-C4-C5	-5.47	119.71	121.90
67	B1	61	G	P-O5'-C5'	-5.47	112.15	120.90
67	B1	634	G	C1'-O4'-C4'	5.47	114.27	109.90
67	B1	995	G	O4'-C1'-C2'	-5.47	100.33	105.80
67	B1	1681	G	C2'-C3'-O3'	5.47	122.44	113.70
67	B1	2111	C	C1'-O4'-C4'	-5.47	105.53	109.90
67	B1	2160	C	O4'-C4'-C3'	-5.47	98.53	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2486	A	C3'-C2'-C1'	5.47	105.87	101.50
67	B1	2577	U	C3'-C2'-C1'	5.47	105.87	101.50
21	A2	164	A	OP1-P-OP2	-5.46	111.40	119.60
21	A2	1164	A	N9-C1'-C2'	5.46	121.10	114.00
32	BO	46	ALA	N-CA-CB	5.46	117.75	110.10
53	BD	234	THR	N-CA-CB	5.46	120.68	110.30
67	B1	1061	G	C4'-C3'-C2'	-5.46	97.14	102.60
67	B1	1418	A	O4'-C1'-C2'	-5.46	100.34	105.80
67	B1	1685	C	N1-C1'-C2'	5.46	121.10	114.00
21	A2	1245	C	N3-C4-C5	-5.46	119.72	121.90
52	BB	182	TYR	CG-CD2-CE2	5.46	125.67	121.30
67	B1	725	G	C1'-O4'-C4'	-5.46	105.53	109.90
67	B1	2000	G	O4'-C1'-N9	5.46	112.57	108.20
21	A2	1121	C	N1-C1'-C2'	5.46	121.10	114.00
67	B1	616	C	O4'-C4'-C3'	-5.46	98.54	104.00
67	B1	917	A	N9-C1'-C2'	-5.46	105.99	112.00
67	B1	1613	A	C3'-C2'-C1'	-5.46	97.13	101.50
67	B1	2892	A	P-O5'-C5'	5.46	129.64	120.90
67	B1	3008	C	C5'-C4'-O4'	5.46	115.65	109.10
68	B3	16	G	C4'-C3'-C2'	-5.46	97.14	102.60
11	A1	35	G	C1'-O4'-C4'	-5.46	105.53	109.90
20	B4	23	VAL	CB-CA-C	5.46	121.77	111.40
67	B1	1821	C	C1'-O4'-C4'	-5.46	105.53	109.90
67	B1	1978	A	P-O5'-C5'	-5.46	112.16	120.90
21	A2	401	U	P-O5'-C5'	5.46	129.63	120.90
21	A2	1297	G	O4'-C1'-C2'	-5.46	100.34	105.80
40	BE	104	ALA	N-CA-CB	5.46	117.74	110.10
67	B1	156	A	P-O3'-C3'	-5.46	113.15	119.70
67	B1	462	A	OP2-P-O3'	5.46	117.21	105.20
67	B1	505	A	C3'-C2'-C1'	5.46	105.87	101.50
67	B1	1878	G	O4'-C1'-N9	5.46	112.57	108.20
67	B1	1926	A	OP1-P-OP2	-5.46	111.41	119.60
67	B1	2120	C	O4'-C1'-C2'	-5.46	100.34	105.80
67	B1	2623	G	P-O5'-C5'	-5.46	112.17	120.90
67	B1	2633	A	O4'-C1'-C2'	5.46	112.51	107.60
11	A1	9	A	P-O5'-C5'	-5.46	112.17	120.90
21	A2	237	C	C1'-O4'-C4'	5.46	114.26	109.90
21	A2	859	A	P-O3'-C3'	5.46	126.25	119.70
21	A2	1039	C	C5'-C4'-O4'	5.46	115.65	109.10
31	BY	73	ARG	N-CA-CB	5.46	120.42	110.60
20	BG	113	GLU	N-CA-CB	5.46	120.42	110.60
53	BD	133	ILE	N-CA-C	-5.46	96.27	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	243	G	OP1-P-OP2	-5.46	111.42	119.60
67	B1	743	A	N9-C1'-C2'	5.46	121.09	114.00
67	B1	1364	C	N1-C1'-C2'	5.46	121.09	114.00
68	B3	87	G	N9-C1'-C2'	-5.46	106.00	112.00
19	AS	8	PHE	CB-CG-CD2	-5.46	116.98	120.80
68	B3	86	C	OP1-P-OP2	-5.46	111.42	119.60
8	AR	66	ARG	NE-CZ-NH1	-5.45	117.57	120.30
21	A2	167	G	O4'-C1'-C2'	-5.45	100.35	105.80
21	A2	671	C	C1'-O4'-C4'	5.45	114.26	109.90
24	AA	59	PHE	CB-CG-CD1	5.45	124.62	120.80
27	A0	57	G	O4'-C1'-C2'	5.45	112.51	107.60
47	BI	80	ARG	CG-CD-NE	-5.45	100.35	111.80
65	BJ	56	ALA	N-CA-CB	5.45	117.73	110.10
67	B1	58	G	O4'-C1'-N9	5.45	112.56	108.20
67	B1	372	A	C4'-C3'-C2'	-5.45	97.15	102.60
67	B1	639	C	N3-C4-N4	5.45	121.82	118.00
67	B1	890	G	P-O3'-C3'	-5.45	113.16	119.70
67	B1	1503	C	P-O3'-C3'	5.45	126.24	119.70
67	B1	1603	G	C4'-C3'-C2'	-5.45	97.15	102.60
67	B1	2641	C	N1-C1'-C2'	5.45	121.09	114.00
67	B1	2965	C	O4'-C1'-C2'	-5.45	100.35	105.80
21	A2	355	C	O4'-C1'-N1	5.45	112.56	108.20
21	A2	405	G	O4'-C1'-N9	5.45	112.56	108.20
67	B1	1309	G	N9-C1'-C2'	5.45	121.09	114.00
67	B1	3020	G	N9-C1'-C2'	5.45	121.09	114.00
8	AR	34	PHE	CG-CD2-CE2	-5.45	114.80	120.80
43	Bk	56	ARG	CA-CB-CG	5.45	125.39	113.40
64	Bc	15	GLU	CB-CG-CD	-5.45	99.48	114.20
67	B1	1019	G	O4'-C1'-N9	5.45	112.56	108.20
67	B1	1055	C	C3'-C2'-C1'	5.45	105.86	101.50
67	B1	2120	C	P-O3'-C3'	-5.45	113.16	119.70
67	B1	2913	C	C3'-C2'-C1'	5.45	105.86	101.50
67	B1	2943	G	O3'-P-O5'	5.45	114.36	104.00
7	AB	109	PHE	CB-CG-CD1	5.45	124.61	120.80
21	A2	450	A	O4'-C1'-N9	5.45	112.56	108.20
56	BH	91	LYS	N-CA-CB	5.45	120.41	110.60
20	B4	97	ALA	N-CA-CB	5.45	117.73	110.10
67	B1	2448	A	N9-C1'-C2'	-5.45	106.01	112.00
21	A2	971	G	C1'-O4'-C4'	-5.45	105.54	109.90
67	B1	314	A	N9-C1'-C2'	-5.45	106.01	112.00
67	B1	2324	C	N3-C4-C5	-5.45	119.72	121.90
16	AJ	12	PRO	N-CA-CB	-5.45	96.61	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AA	12	LYS	C-N-CA	5.45	135.31	121.70
53	BD	223	ASP	CB-CG-OD1	5.45	123.20	118.30
54	BF	62	ARG	NE-CZ-NH1	-5.45	117.58	120.30
57	BZ	51	TYR	CB-CA-C	5.45	121.29	110.40
59	BM	6	TYR	CZ-CE2-CD2	-5.45	114.90	119.80
67	B1	683	C	O4'-C1'-C2'	-5.45	100.36	105.80
67	B1	870	G	P-O3'-C3'	-5.45	113.17	119.70
67	B1	1046	A	O4'-C1'-N9	5.45	112.56	108.20
67	B1	2333	G	N9-C1'-C2'	5.45	121.08	114.00
51	Bj	80	ARG	NE-CZ-NH2	-5.44	117.58	120.30
53	BD	37	ALA	N-CA-CB	5.44	117.72	110.10
62	BN	66	ARG	NE-CZ-NH2	-5.44	117.58	120.30
64	Bc	64	LYS	CB-CA-C	-5.44	99.51	110.40
67	B1	510	A	O4'-C1'-N9	5.44	112.56	108.20
67	B1	1388	U	O4'-C1'-N1	5.44	112.56	108.20
67	B1	1404	G	O4'-C1'-N9	5.44	112.56	108.20
67	B1	1729	C	C3'-C2'-C1'	5.44	105.86	101.50
67	B1	2900	C	O4'-C1'-C2'	-5.44	100.36	105.80
21	A2	929	C	C3'-C2'-C1'	5.44	105.85	101.50
67	B1	62	C	O4'-C1'-C2'	-5.44	100.36	105.80
67	B1	101	G	O4'-C1'-C2'	-5.44	100.36	105.80
67	B1	1909	C	N1-C1'-C2'	5.44	121.08	114.00
67	B1	2048	C	C4'-C3'-C2'	5.44	108.04	102.60
67	B1	2447	A	O4'-C4'-C3'	5.44	110.45	106.10
67	B1	2871	A	N9-C1'-C2'	-5.44	106.01	112.00
3	AI	62	ARG	N-CA-C	-5.44	96.31	111.00
21	A2	419	G	C3'-C2'-C1'	-5.44	97.15	101.50
21	A2	971	G	N9-C1'-C2'	5.44	121.07	114.00
67	B1	142	G	P-O5'-C5'	-5.44	112.19	120.90
67	B1	318	G	C3'-C2'-C1'	-5.44	97.15	101.50
67	B1	541	A	P-O3'-C3'	5.44	126.23	119.70
67	B1	590	A	C5-C6-N1	-5.44	114.98	117.70
67	B1	904	G	OP1-P-OP2	-5.44	111.44	119.60
67	B1	1971	C	OP1-P-OP2	-5.44	111.44	119.60
68	B3	13	C	C3'-C2'-C1'	5.44	105.85	101.50
68	B3	73	U	O4'-C1'-N1	-5.44	103.85	108.20
21	A2	199	A	C2'-C3'-O3'	5.44	122.40	113.70
67	B1	145	C	P-O3'-C3'	5.44	126.23	119.70
67	B1	155	U	N1-C1'-C2'	-5.44	106.02	112.00
67	B1	210	A	C4'-C3'-C2'	5.44	108.04	102.60
67	B1	786	G	C3'-C2'-C1'	5.44	105.85	101.50
67	B1	2786	G	C1'-O4'-C4'	5.44	114.25	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	3002	A	O4'-C1'-N9	5.44	112.55	108.20
68	B3	49	A	O4'-C4'-C3'	-5.44	98.56	104.00
21	A2	319	U	O4'-C1'-N1	5.44	112.55	108.20
21	A2	340	A	C1'-O4'-C4'	5.44	114.25	109.90
32	BO	156	LEU	CB-CG-CD2	5.44	120.24	111.00
41	Ba	25	TRP	CB-CG-CD1	5.44	134.07	127.00
53	BD	124	TYR	CG-CD2-CE2	-5.44	116.95	121.30
59	BM	62	VAL	CG1-CB-CG2	-5.44	102.20	110.90
61	Bd	71	LEU	CB-CG-CD2	5.44	120.24	111.00
67	B1	75	G	O4'-C1'-C2'	5.44	112.49	107.60
67	B1	679	U	N1-C1'-C2'	-5.44	106.02	112.00
67	B1	2284	C	O4'-C1'-C2'	-5.44	100.36	105.80
67	B1	2564	U	OP1-P-OP2	-5.44	111.44	119.60
67	B1	2574	G	C5'-C4'-O4'	5.44	115.63	109.10
67	B1	2728	U	O4'-C1'-N1	5.44	112.55	108.20
21	A2	622	C	N1-C1'-C2'	5.44	121.07	114.00
21	A2	1361	G	C4'-C3'-C2'	-5.44	97.16	102.60
67	B1	160	C	OP1-P-OP2	-5.44	111.45	119.60
67	B1	219	G	C5'-C4'-O4'	-5.44	102.58	109.10
67	B1	1442	G	O4'-C1'-N9	5.44	112.55	108.20
67	B1	2600	C	C3'-C2'-C1'	5.44	105.85	101.50
68	B3	61	C	O4'-C1'-N1	5.44	112.55	108.20
21	A2	195	C	O4'-C1'-N1	5.43	112.55	108.20
21	A2	518	U	C5'-C4'-O4'	5.43	115.62	109.10
21	A2	1476	C	C3'-C2'-C1'	5.43	105.85	101.50
25	AH	14	GLU	O-C-N	-5.43	114.00	122.70
62	BN	82	TYR	CG-CD1-CE1	-5.43	116.95	121.30
67	B1	455	G	C3'-C2'-C1'	5.43	105.85	101.50
67	B1	582	A	C5'-C4'-C3'	5.43	124.70	116.00
67	B1	1234	A	O5'-P-OP2	-5.43	100.81	105.70
67	B1	1371	U	C1'-O4'-C4'	-5.43	105.55	109.90
67	B1	1477	C	O4'-C1'-N1	5.43	112.55	108.20
67	B1	2195	G	C3'-C2'-C1'	-5.43	97.15	101.50
67	B1	2870	A	O4'-C1'-N9	5.43	112.55	108.20
11	A1	63	C	C1'-O4'-C4'	5.43	114.25	109.90
21	A2	272	C	C1'-O4'-C4'	-5.43	105.55	109.90
21	A2	1296	U	P-O3'-C3'	5.43	126.22	119.70
33	BC	267	THR	CA-CB-CG2	-5.43	104.79	112.40
67	B1	913	G	O4'-C1'-N9	5.43	112.55	108.20
67	B1	1220	U	P-O3'-C3'	-5.43	113.18	119.70
67	B1	2130	C	P-O3'-C3'	-5.43	113.18	119.70
67	B1	2317	G	C1'-O4'-C4'	-5.43	105.55	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2518	G	C3'-C2'-C1'	-5.43	97.15	101.50
67	B1	2533	G	O4'-C1'-N9	5.43	112.55	108.20
67	B1	2910	G	C1'-O4'-C4'	5.43	114.25	109.90
67	B1	323	U	C1'-O4'-C4'	5.43	114.24	109.90
67	B1	371	U	C1'-O4'-C4'	-5.43	105.56	109.90
16	AJ	49	TYR	CB-CG-CD2	5.43	124.26	121.00
17	AO	119	ARG	NE-CZ-NH1	5.43	123.02	120.30
21	A2	87	C	C4'-C3'-C2'	-5.43	97.17	102.60
21	A2	402	G	O4'-C1'-C2'	5.43	112.49	107.60
21	A2	827	G	O4'-C1'-N9	5.43	112.54	108.20
21	A2	953	C	N1-C1'-C2'	5.43	121.06	114.00
33	BC	164	ARG	NE-CZ-NH1	5.43	123.02	120.30
48	BR	30	ARG	NE-CZ-NH1	5.43	123.02	120.30
49	BQ	6	MET	N-CA-CB	5.43	120.37	110.60
67	B1	873	G	C5'-C4'-C3'	-5.43	107.31	116.00
67	B1	1235	A	O3'-P-O5'	5.43	114.31	104.00
67	B1	1804	G	C4'-C3'-C2'	5.43	108.03	102.60
67	B1	1956	G	C5'-C4'-O4'	5.43	115.61	109.10
67	B1	2043	A	C3'-C2'-C1'	5.43	105.84	101.50
67	B1	2964	A	O4'-C1'-N9	5.43	112.54	108.20
67	B1	624	U	OP1-P-OP2	-5.43	111.46	119.60
67	B1	1596	G	P-O3'-C3'	-5.43	113.19	119.70
67	B1	1943	C	C3'-C2'-C1'	5.43	105.84	101.50
21	A2	85	A	C4'-C3'-C2'	-5.43	97.17	102.60
23	AT	40	LEU	C-N-CA	5.43	135.27	121.70
27	A0	71	G	O4'-C1'-C2'	-5.43	100.37	105.80
67	B1	1088	G	C3'-C2'-C1'	5.43	105.84	101.50
67	B1	1093	G	C3'-C2'-C1'	-5.43	97.16	101.50
67	B1	1638	C	O4'-C1'-C2'	-5.43	100.37	105.80
67	B1	2377	C	N1-C1'-C2'	5.43	121.06	114.00
67	B1	2866	A	O4'-C1'-C2'	5.43	112.48	107.60
68	B3	124	A	O4'-C1'-N9	5.43	112.54	108.20
21	A2	107	C	N1-C1'-C2'	5.42	121.05	114.00
21	A2	368	C	C1'-O4'-C4'	5.42	114.24	109.90
21	A2	380	C	P-O3'-C3'	5.42	126.21	119.70
21	A2	453	G	C4'-C3'-C2'	-5.42	97.18	102.60
21	A2	825	C	O4'-C1'-N1	5.42	112.54	108.20
21	A2	902	U	N1-C1'-C2'	5.42	121.05	114.00
21	A2	1134	G	O4'-C1'-C2'	5.42	112.48	107.60
21	A2	1381	G	P-O3'-C3'	5.42	126.21	119.70
25	AH	42	ARG	N-CA-C	5.42	125.64	111.00
65	BJ	132	ARG	NE-CZ-NH1	5.42	123.01	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	8	G	O4'-C1'-N9	5.42	112.54	108.20
67	B1	10	C	O4'-C1'-C2'	-5.42	100.38	105.80
67	B1	73	A	C5'-C4'-C3'	-5.42	107.32	116.00
67	B1	317	A	C5-C6-N6	-5.42	119.36	123.70
67	B1	810	A	C4'-C3'-C2'	-5.42	97.17	102.60
67	B1	845	U	P-O5'-C5'	5.42	129.58	120.90
67	B1	1445	G	N9-C1'-C2'	5.42	121.05	114.00
67	B1	1855	G	C4'-C3'-C2'	-5.42	97.18	102.60
67	B1	1962	G	P-O3'-C3'	-5.42	113.19	119.70
67	B1	2311	C	N1-C1'-C2'	5.42	121.05	114.00
67	B1	2566	A	P-O5'-C5'	5.42	129.58	120.90
67	B1	2612	A	C1'-O4'-C4'	5.42	114.24	109.90
4	AG	55	PHE	O-C-N	-5.42	110.80	121.10
21	A2	1306	A	C4-C5-C6	5.42	119.71	117.00
67	B1	2690	U	N1-C1'-C2'	5.42	121.05	114.00
68	B3	1	C	C1'-O4'-C4'	-5.42	105.56	109.90
21	A2	447	A	C4-C5-C6	5.42	119.71	117.00
41	Ba	81	ARG	CA-CB-CG	5.42	125.33	113.40
43	Bk	110	ALA	N-CA-CB	5.42	117.69	110.10
67	B1	640	C	P-O3'-C3'	5.42	126.21	119.70
67	B1	1308	G	N9-C1'-C2'	5.42	121.05	114.00
67	B1	1332	A	N9-C1'-C2'	5.42	121.05	114.00
67	B1	1924	A	O5'-C5'-C4'	-5.42	101.40	111.70
67	B1	2035	U	O4'-C1'-C2'	5.42	112.48	107.60
67	B1	2181	G	N9-C1'-C2'	5.42	121.05	114.00
67	B1	2230	G	O5'-C5'-C4'	-5.42	101.40	111.70
67	B1	2447	A	O4'-C1'-C2'	-5.42	100.38	105.80
21	A2	1165	U	P-O3'-C3'	-5.42	113.20	119.70
21	A2	1306	A	C5-C6-N6	-5.42	119.36	123.70
38	Bb	87	VAL	CA-CB-CG1	5.42	119.03	110.90
67	B1	1370	G	N9-C1'-C2'	5.42	121.05	114.00
67	B1	2304	C	O4'-C1'-N1	-5.42	103.86	108.20
21	A2	152	G	C4'-C3'-C2'	-5.42	97.18	102.60
21	A2	188	C	N1-C1'-C2'	5.42	121.04	114.00
35	BL	110	ASP	CB-CA-C	-5.42	99.56	110.40
38	Bb	31	TYR	CB-CG-CD2	-5.42	117.75	121.00
67	B1	1149	C	C3'-C2'-C1'	5.42	105.83	101.50
67	B1	1995	C	C1'-O4'-C4'	-5.42	105.57	109.90
67	B1	2522	C	O4'-C1'-N1	5.42	112.53	108.20
67	B1	2930	G	P-O3'-C3'	-5.42	113.20	119.70
11	A1	42	C	O4'-C1'-N1	5.42	112.53	108.20
21	A2	969	A	C4'-C3'-C2'	-5.42	97.18	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1037	U	OP1-P-OP2	-5.42	111.47	119.60
21	A2	1387	C	O4'-C1'-N1	5.42	112.53	108.20
67	B1	324	C	O4'-C1'-N1	5.42	112.53	108.20
67	B1	1820	C	O4'-C4'-C3'	-5.42	98.58	104.00
67	B1	2566	A	C3'-C2'-C1'	5.42	105.83	101.50
67	B1	2643	U	P-O3'-C3'	-5.42	113.20	119.70
21	A2	946	G	C1'-O4'-C4'	-5.42	105.57	109.90
21	A2	1120	G	C4'-C3'-C2'	-5.42	97.19	102.60
67	B1	1565	G	C5'-C4'-O4'	5.42	115.60	109.10
8	AR	51	ARG	NH1-CZ-NH2	-5.41	113.44	119.40
14	AM	132	ARG	NE-CZ-NH2	5.41	123.01	120.30
17	AO	71	ALA	CB-CA-C	-5.41	101.98	110.10
21	A2	68	G	O4'-C1'-C2'	5.41	112.47	107.60
21	A2	1386	C	C3'-C2'-C1'	5.41	105.83	101.50
26	AP	28	GLY	CA-C-O	-5.41	110.86	120.60
26	AP	40	ARG	NE-CZ-NH2	5.41	123.01	120.30
67	B1	317	A	C5-C6-N1	-5.41	114.99	117.70
67	B1	458	U	P-O3'-C3'	-5.41	113.20	119.70
67	B1	686	C	O4'-C1'-C2'	-5.41	100.39	105.80
67	B1	1062	C	O4'-C1'-N1	5.41	112.53	108.20
67	B1	1697	G	O5'-P-OP1	5.41	117.20	110.70
67	B1	1834	C	N1-C1'-C2'	5.41	121.04	114.00
67	B1	2965	C	O4'-C1'-N1	5.41	112.53	108.20
68	B3	25	A	C1'-O4'-C4'	-5.41	105.57	109.90
21	A2	386	C	C3'-C2'-C1'	5.41	105.83	101.50
50	BV	55	ALA	CB-CA-C	-5.41	101.98	110.10
65	BJ	16	ARG	NE-CZ-NH1	-5.41	117.59	120.30
67	B1	521	C	P-O3'-C3'	5.41	126.19	119.70
67	B1	822	A	C5'-C4'-O4'	-5.41	102.61	109.10
67	B1	1140	C	C3'-C2'-C1'	5.41	105.83	101.50
67	B1	1141	C	C4'-C3'-C2'	-5.41	97.19	102.60
67	B1	1881	A	C5-C6-N6	-5.41	119.37	123.70
67	B1	2050	U	C3'-C2'-C1'	5.41	105.83	101.50
67	B1	2453	C	P-O3'-C3'	-5.41	113.21	119.70
21	A2	565	C	N1-C1'-C2'	5.41	121.03	114.00
21	A2	750	C	OP2-P-O3'	5.41	117.10	105.20
21	A2	986	G	O4'-C1'-N9	5.41	112.53	108.20
43	Bk	97	PHE	CB-CG-CD1	-5.41	117.01	120.80
67	B1	262	C	O4'-C1'-N1	5.41	112.53	108.20
67	B1	358	C	OP1-P-OP2	-5.41	111.49	119.60
67	B1	949	C	C3'-C2'-C1'	5.41	105.83	101.50
67	B1	1554	G	C5'-C4'-C3'	-5.41	107.34	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2238	G	O4'-C4'-C3'	-5.41	98.59	104.00
67	B1	2493	A	C4'-C3'-C2'	-5.41	97.19	102.60
67	B1	2660	G	O4'-C1'-C2'	5.41	112.47	107.60
68	B3	3	G	O4'-C4'-C3'	-5.41	98.59	104.00
67	B1	601	A	N9-C1'-C2'	-5.41	106.05	112.00
68	B3	40	G	C4'-C3'-C2'	5.41	108.01	102.60
21	A2	209	A	OP1-P-OP2	-5.41	111.49	119.60
21	A2	303	G	OP1-P-OP2	-5.41	111.49	119.60
21	A2	1044	A	C3'-C2'-C1'	5.41	105.83	101.50
21	A2	1278	A	C4'-C3'-C2'	5.41	108.01	102.60
67	B1	1591	C	O4'-C1'-N1	5.41	112.53	108.20
67	B1	1661	A	C5-C6-N6	-5.41	119.38	123.70
67	B1	2128	G	P-O5'-C5'	-5.41	112.25	120.90
68	B3	124	A	C5'-C4'-O4'	5.41	115.59	109.10
12	AN	36	ARG	NE-CZ-NH1	5.40	123.00	120.30
21	A2	448	A	C5-C6-N6	-5.40	119.38	123.70
29	AL	64	TRP	CG-CD2-CE3	-5.40	129.04	133.90
32	BO	15	ARG	N-CA-CB	5.40	120.33	110.60
67	B1	592	C	O4'-C1'-C2'	-5.40	100.40	105.80
67	B1	599	G	P-O3'-C3'	5.40	126.18	119.70
67	B1	660	U	O4'-C1'-C2'	5.40	112.46	107.60
67	B1	1416	G	O5'-C5'-C4'	-5.40	101.43	111.70
67	B1	2366	G	O4'-C4'-C3'	-5.40	98.60	104.00
67	B1	3037	G	C5'-C4'-C3'	-5.40	107.35	116.00
21	A2	248	U	P-O3'-C3'	5.40	126.18	119.70
21	A2	324	C	C3'-C2'-C1'	-5.40	97.18	101.50
21	A2	586	C	N3-C4-C5	-5.40	119.74	121.90
21	A2	1107	C	C3'-C2'-C1'	5.40	105.82	101.50
21	A2	1240	A	C3'-C2'-C1'	5.40	105.82	101.50
27	A0	33	U	P-O3'-C3'	-5.40	113.22	119.70
27	A0	46	G	O4'-C1'-C2'	-5.40	100.40	105.80
40	BE	67	ASP	CB-CG-OD1	-5.40	113.44	118.30
61	Bd	58	PRO	C-N-CA	5.40	135.21	121.70
67	B1	389	C	O4'-C1'-C2'	-5.40	100.40	105.80
67	B1	551	A	P-O3'-C3'	-5.40	113.22	119.70
67	B1	979	G	O4'-C1'-N9	-5.40	103.88	108.20
67	B1	1436	A	O4'-C1'-N9	5.40	112.52	108.20
67	B1	1468	G	P-O3'-C3'	-5.40	113.22	119.70
67	B1	1511	C	C1'-O4'-C4'	-5.40	105.58	109.90
67	B1	1774	A	C5'-C4'-C3'	-5.40	107.36	116.00
67	B1	2003	C	O4'-C1'-C2'	-5.40	100.40	105.80
67	B1	2059	G	O4'-C1'-N9	5.40	112.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	297	G	N9-C1'-C2'	-5.40	106.06	112.00
21	A2	625	G	N9-C1'-C2'	5.40	121.02	114.00
21	A2	754	G	C1'-O4'-C4'	-5.40	105.58	109.90
21	A2	1265	G	O4'-C1'-C2'	5.40	112.46	107.60
67	B1	794	G	P-O3'-C3'	-5.40	113.22	119.70
67	B1	2598	C	C1'-O4'-C4'	-5.40	105.58	109.90
67	B1	2902	G	O4'-C1'-C2'	5.40	112.46	107.60
67	B1	2973	A	C1'-O4'-C4'	-5.40	105.58	109.90
67	B1	1430	A	O4'-C1'-C2'	-5.40	100.40	105.80
67	B1	1996	C	O4'-C4'-C3'	-5.40	98.60	104.00
67	B1	2045	C	P-O3'-C3'	-5.40	113.22	119.70
68	B3	50	G	C1'-O4'-C4'	5.40	114.22	109.90
14	AM	53	ASP	CB-CG-OD2	-5.40	113.44	118.30
15	AE	33	ARG	NE-CZ-NH1	5.40	123.00	120.30
21	A2	432	G	P-O3'-C3'	5.40	126.18	119.70
21	A2	434	A	C5'-C4'-O4'	5.40	115.58	109.10
21	A2	835	C	C1'-O4'-C4'	-5.40	105.58	109.90
21	A2	902	U	O4'-C1'-N1	5.40	112.52	108.20
21	A2	1288	C	C4'-C3'-C2'	-5.40	97.20	102.60
33	BC	109	TYR	CG-CD2-CE2	5.40	125.62	121.30
67	B1	383	C	N3-C4-N4	5.40	121.78	118.00
67	B1	2726	G	O4'-C1'-N9	5.40	112.52	108.20
67	B1	2854	A	C1'-O4'-C4'	-5.40	105.58	109.90
67	B1	3009	C	C1'-O4'-C4'	-5.40	105.58	109.90
21	A2	412	U	O4'-C1'-C2'	-5.40	100.40	105.80
21	A2	891	A	C5-C6-N6	-5.40	119.38	123.70
31	BY	27	ARG	CD-NE-CZ	5.40	131.15	123.60
67	B1	325	G	C1'-O4'-C4'	-5.40	105.58	109.90
67	B1	602	G	C3'-C2'-C1'	-5.40	97.18	101.50
67	B1	1970	G	O4'-C1'-N9	5.40	112.52	108.20
21	A2	1395	G	OP1-P-O3'	5.39	117.07	105.20
27	A0	64	G	N9-C1'-C2'	-5.39	106.06	112.00
48	BR	31	PHE	CB-CA-C	-5.39	99.61	110.40
56	BH	64	PHE	CB-CG-CD2	-5.39	117.02	120.80
62	BN	91	PHE	CB-CG-CD1	5.39	124.58	120.80
67	B1	74	A	O4'-C1'-C2'	-5.39	100.41	105.80
67	B1	1832	G	N9-C1'-C2'	5.39	121.01	114.00
67	B1	2654	C	O4'-C1'-N1	5.39	112.52	108.20
67	B1	2757	G	P-O3'-C3'	5.39	126.17	119.70
67	B1	2852	U	C4'-C3'-C2'	-5.39	97.20	102.60
68	B3	3	G	O4'-C1'-N9	5.39	112.52	108.20
21	A2	447	A	O4'-C1'-N9	5.39	112.51	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	955	G	O4'-C1'-C2'	5.39	112.45	107.60
21	A2	1337	A	O4'-C1'-C2'	-5.39	100.41	105.80
67	B1	344	G	O4'-C1'-C2'	5.39	112.45	107.60
67	B1	927	G	C5'-C4'-O4'	-5.39	102.63	109.10
67	B1	1075	G	C1'-O4'-C4'	5.39	114.21	109.90
67	B1	1437	C	N1-C1'-C2'	5.39	121.01	114.00
67	B1	2197	U	O5'-P-OP2	-5.39	100.85	105.70
21	A2	257	U	C3'-C2'-C1'	-5.39	97.19	101.50
23	AT	59	TYR	CB-CG-CD1	5.39	124.23	121.00
67	B1	679	U	O4'-C1'-N1	5.39	112.51	108.20
67	B1	2883	C	O4'-C1'-C2'	-5.39	100.41	105.80
67	B1	3000	U	O4'-C4'-C3'	-5.39	98.61	104.00
14	AM	115	VAL	N-CA-C	-5.39	96.45	111.00
21	A2	73	U	O4'-C4'-C3'	-5.39	98.61	104.00
21	A2	1040	A	O4'-C1'-N9	5.39	112.51	108.20
27	A0	28	C	O4'-C1'-C2'	-5.39	100.41	105.80
38	Bb	21	PRO	N-CA-CB	5.39	109.77	103.30
60	BS	7	TYR	CB-CA-C	-5.39	99.62	110.40
67	B1	3018	C	O4'-C1'-N1	5.39	112.51	108.20
21	A2	1322	C	C1'-O4'-C4'	-5.39	105.59	109.90
21	A2	170	C	P-O5'-C5'	-5.39	112.28	120.90
21	A2	231	G	N9-C1'-C2'	-5.39	106.08	112.00
21	A2	379	A	O4'-C1'-C2'	-5.39	100.41	105.80
21	A2	1438	A	OP1-P-OP2	-5.39	111.52	119.60
25	AH	45	PRO	N-CA-C	5.39	126.10	112.10
67	B1	897	U	C4'-C3'-C2'	5.39	107.99	102.60
67	B1	2050	U	P-O3'-C3'	5.39	126.16	119.70
67	B1	2139	A	C5-C6-N1	-5.39	115.01	117.70
67	B1	2575	U	N1-C1'-C2'	5.39	121.00	114.00
21	A2	89	G	C4'-C3'-C2'	-5.38	97.22	102.60
21	A2	714	G	P-O3'-C3'	-5.38	113.24	119.70
27	A0	6	C	C3'-C2'-C1'	-5.38	97.19	101.50
67	B1	731	C	N1-C1'-C2'	5.38	121.00	114.00
67	B1	2205	A	C1'-O4'-C4'	-5.38	105.59	109.90
67	B1	2522	C	P-O5'-C5'	5.38	129.51	120.90
67	B1	2676	A	C3'-C2'-C1'	5.38	105.81	101.50
14	AM	14	TRP	CB-CG-CD1	5.38	134.00	127.00
21	A2	1356	A	C3'-C2'-C1'	-5.38	97.19	101.50
67	B1	1491	U	C4'-C3'-C2'	-5.38	97.22	102.60
68	B3	118	G	P-O5'-C5'	5.38	129.51	120.90
21	A2	1173	A	OP1-P-OP2	-5.38	111.53	119.60
24	AA	178	TYR	CA-CB-CG	5.38	123.62	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BY	112	ASN	N-CA-CB	5.38	120.29	110.60
38	Bb	126	LEU	CB-CA-C	-5.38	99.97	110.20
59	BM	128	PHE	CB-CG-CD1	-5.38	117.03	120.80
67	B1	337	G	C5'-C4'-C3'	-5.38	107.39	116.00
67	B1	720	C	P-O3'-C3'	-5.38	113.24	119.70
67	B1	1006	A	O4'-C1'-N9	5.38	112.51	108.20
67	B1	1411	G	O4'-C1'-C2'	5.38	112.44	107.60
67	B1	2416	G	O5'-P-OP2	-5.38	100.86	105.70
67	B1	2885	C	P-O3'-C3'	-5.38	113.24	119.70
67	B1	46	C	N3-C4-N4	5.38	121.77	118.00
67	B1	279	G	N9-C1'-C2'	5.38	120.99	114.00
67	B1	1475	G	C3'-C2'-C1'	5.38	105.80	101.50
67	B1	1528	A	OP1-P-OP2	-5.38	111.53	119.60
67	B1	2253	G	C4'-C3'-C2'	-5.38	97.22	102.60
67	B1	2948	A	O4'-C1'-N9	5.38	112.50	108.20
21	A2	716	G	O4'-C4'-C3'	-5.38	98.62	104.00
21	A2	1401	U	P-O5'-C5'	5.38	129.50	120.90
21	A2	1457	A	C1'-O4'-C4'	-5.38	105.60	109.90
56	BH	114	MET	CA-CB-CG	5.38	122.44	113.30
61	Bd	18	PRO	N-CD-CG	5.38	111.27	103.20
67	B1	751	U	P-O3'-C3'	-5.38	113.25	119.70
67	B1	1098	C	P-O5'-C5'	5.38	129.50	120.90
67	B1	1453	G	C4'-C3'-C2'	-5.38	97.22	102.60
67	B1	1807	G	C3'-C2'-C1'	5.38	105.80	101.50
67	B1	2045	C	O4'-C1'-C2'	-5.38	100.42	105.80
67	B1	2920	C	O4'-C1'-N1	-5.38	103.90	108.20
68	B3	19	G	N9-C1'-C2'	5.38	120.99	114.00
21	A2	148	C	O4'-C1'-C2'	-5.38	100.42	105.80
21	A2	186	U	O4'-C1'-C2'	-5.38	100.42	105.80
24	AA	157	PHE	CZ-CE2-CD2	-5.38	113.65	120.10
32	BO	69	ARG	NH1-CZ-NH2	-5.38	113.49	119.40
67	B1	732	G	O4'-C1'-N9	5.38	112.50	108.20
67	B1	1193	G	O4'-C1'-C2'	-5.38	100.42	105.80
67	B1	1434	C	O4'-C1'-N1	5.38	112.50	108.20
67	B1	2858	C	C4'-C3'-C2'	5.38	107.98	102.60
67	B1	3036	C	O4'-C1'-N1	5.38	112.50	108.20
21	A2	569	G	OP1-P-OP2	-5.38	111.54	119.60
67	B1	587	A	C5-C6-N1	-5.38	115.01	117.70
21	A2	187	C	N1-C1'-C2'	5.37	120.99	114.00
21	A2	527	A	N9-C1'-C2'	-5.37	106.09	112.00
24	AA	43	VAL	CA-CB-CG2	5.37	118.96	110.90
33	BC	138	ASN	N-CA-CB	5.37	120.27	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	630	G	N9-C1'-C2'	-5.37	106.09	112.00
67	B1	863	C	C3'-C2'-C1'	-5.37	97.20	101.50
67	B1	1543	C	C3'-C2'-C1'	5.37	105.80	101.50
67	B1	2065	C	C3'-C2'-C1'	5.37	105.80	101.50
67	B1	2506	G	OP1-P-O3'	5.37	117.02	105.20
67	B1	2604	G	C3'-C2'-C1'	-5.37	97.20	101.50
67	B1	3039	G	C1'-O4'-C4'	5.37	114.20	109.90
21	A2	652	C	C5'-C4'-C3'	-5.37	107.40	116.00
21	A2	669	A	C4'-C3'-C2'	-5.37	97.23	102.60
27	A0	75	C	P-O3'-C3'	-5.37	113.25	119.70
62	BN	43	PHE	CB-CG-CD2	-5.37	117.04	120.80
67	B1	1195	G	P-O3'-C3'	-5.37	113.25	119.70
67	B1	1661	A	C5-C6-N1	-5.37	115.02	117.70
11	A1	62	C	O4'-C1'-N1	5.37	112.50	108.20
21	A2	1164	A	O4'-C1'-C2'	5.37	112.43	107.60
67	B1	1972	C	C4'-C3'-C2'	-5.37	97.23	102.60
67	B1	2124	C	O4'-C1'-C2'	-5.37	100.43	105.80
19	AS	28	PHE	CG-CD2-CE2	5.37	126.71	120.80
21	A2	892	C	N3-C4-N4	5.37	121.76	118.00
21	A2	1225	C	O4'-C1'-N1	5.37	112.50	108.20
30	AU	45	PRO	N-CA-CB	5.37	109.74	103.30
67	B1	2302	C	O4'-C1'-C2'	-5.37	100.43	105.80
67	B1	2411	C	O4'-C1'-C2'	-5.37	100.43	105.80
67	B1	3045	G	C1'-O4'-C4'	5.37	114.19	109.90
11	A1	9	A	O4'-C1'-C2'	-5.37	100.43	105.80
21	A2	75	C	O4'-C1'-C2'	-5.37	100.44	105.80
21	A2	190	C	N1-C1'-C2'	5.37	120.98	114.00
21	A2	1093	C	C1'-O4'-C4'	5.37	114.19	109.90
37	BU	5	SER	N-CA-CB	5.37	118.55	110.50
53	BD	22	PHE	O-C-N	-5.37	114.12	122.70
67	B1	459	C	C5'-C4'-C3'	5.37	124.58	116.00
67	B1	2732	U	C3'-C2'-C1'	-5.37	97.21	101.50
67	B1	2852	U	C1'-O4'-C4'	5.37	114.19	109.90
67	B1	2980	G	C3'-C2'-C1'	-5.37	97.21	101.50
2	AK	75	ALA	O-C-N	5.36	131.28	122.70
21	A2	141	C	O4'-C1'-C2'	-5.36	100.44	105.80
67	B1	319	A	O4'-C4'-C3'	-5.36	98.64	104.00
67	B1	735	A	C5'-C4'-C3'	-5.36	107.42	116.00
67	B1	765	G	C4'-C3'-C2'	-5.36	97.24	102.60
67	B1	2381	A	N9-C1'-C2'	5.36	120.97	114.00
30	AU	39	ARG	NH1-CZ-NH2	5.36	125.30	119.40
67	B1	259	A	O4'-C1'-C2'	-5.36	100.44	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	738	C	C3'-C2'-C1'	5.36	105.79	101.50
21	A2	265	C	OP1-P-OP2	-5.36	111.56	119.60
27	A0	39	U	O4'-C1'-C2'	-5.36	100.44	105.80
61	Bd	52	VAL	N-CA-CB	-5.36	99.70	111.50
62	BN	103	ARG	CA-CB-CG	5.36	125.19	113.40
67	B1	285	C	C5'-C4'-O4'	-5.36	102.67	109.10
67	B1	1603	G	O4'-C1'-N9	-5.36	103.91	108.20
67	B1	1704	C	O3'-P-O5'	5.36	114.18	104.00
67	B1	1746	C	N1-C1'-C2'	5.36	120.97	114.00
67	B1	2300	C	O4'-C1'-C2'	-5.36	100.44	105.80
67	B1	2985	U	O4'-C1'-C2'	-5.36	100.44	105.80
59	BM	98	TRP	CB-CG-CD1	5.36	133.97	127.00
67	B1	161	C	N1-C1'-C2'	5.36	120.97	114.00
21	A2	140	C	O4'-C1'-C2'	5.36	112.42	107.60
21	A2	869	U	P-O3'-C3'	-5.36	113.27	119.70
21	A2	952	A	C5'-C4'-C3'	5.36	124.57	116.00
27	A0	22	G	O4'-C1'-N9	-5.36	103.91	108.20
67	B1	1395	G	C1'-O4'-C4'	-5.36	105.61	109.90
67	B1	2820	C	N1-C1'-C2'	5.36	120.96	114.00
20	A3	79	TYR	CG-CD1-CE1	-5.36	117.02	121.30
21	A2	1260	G	C1'-O4'-C4'	-5.36	105.62	109.90
25	AH	174	TYR	CB-CG-CD1	-5.36	117.79	121.00
67	B1	8	G	P-O3'-C3'	5.36	126.13	119.70
67	B1	513	C	C4'-C3'-C2'	5.36	107.95	102.60
67	B1	1180	G	C1'-O4'-C4'	-5.36	105.61	109.90
67	B1	1384	C	N1-C1'-C2'	5.36	120.96	114.00
67	B1	2024	A	C3'-C2'-C1'	5.36	105.78	101.50
68	B3	114	G	O4'-C1'-N9	5.36	112.48	108.20
21	A2	716	G	N9-C1'-C2'	5.35	120.96	114.00
51	Bj	89	PHE	CB-CG-CD1	5.35	124.55	120.80
62	BN	103	ARG	NE-CZ-NH1	-5.35	117.62	120.30
67	B1	84	A	O3'-P-O5'	5.35	114.17	104.00
67	B1	329	G	O4'-C1'-N9	5.35	112.48	108.20
21	A2	437	A	C1'-O4'-C4'	-5.35	105.62	109.90
24	AA	88	ALA	CB-CA-C	5.35	118.13	110.10
67	B1	5	U	O5'-P-OP1	-5.35	100.88	105.70
67	B1	870	G	O4'-C1'-N9	5.35	112.48	108.20
67	B1	2041	U	O4'-C1'-C2'	-5.35	100.45	105.80
67	B1	2784	A	C3'-C2'-C1'	5.35	105.78	101.50
42	BT	28	PHE	CD1-CE1-CZ	-5.35	113.68	120.10
53	BD	35	VAL	CA-CB-CG1	5.35	118.93	110.90
21	A2	838	C	N1-C1'-C2'	5.35	120.95	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	890	C	N3-C4-C5	-5.35	119.76	121.90
21	A2	1310	C	C1'-O4'-C4'	-5.35	105.62	109.90
32	BO	129	LEU	CB-CA-C	-5.35	100.04	110.20
62	BN	165	TYR	CG-CD1-CE1	-5.35	117.02	121.30
67	B1	802	G	P-O3'-C3'	-5.35	113.28	119.70
67	B1	2164	G	O4'-C1'-N9	5.35	112.48	108.20
67	B1	2269	C	C3'-C2'-C1'	5.35	105.78	101.50
11	A1	19	G	O4'-C1'-C2'	5.35	112.41	107.60
21	A2	529	C	C3'-C2'-C1'	5.35	105.78	101.50
24	AA	156	ASP	CB-CG-OD1	5.35	123.11	118.30
62	BN	115	PRO	N-CA-CB	5.35	109.72	103.30
63	Bg	44	LYS	CB-CG-CD	5.35	125.50	111.60
67	B1	794	G	N9-C1'-C2'	5.35	120.95	114.00
67	B1	1408	G	C1'-O4'-C4'	-5.35	105.62	109.90
67	B1	2769	U	O4'-C1'-N1	5.35	112.48	108.20
67	B1	2817	U	C3'-C2'-C1'	5.35	105.78	101.50
68	B3	23	A	C3'-C2'-C1'	5.35	105.78	101.50
12	AN	88	CYS	CA-CB-SG	-5.35	104.38	114.00
43	Bk	54	VAL	CG1-CB-CG2	5.35	119.45	110.90
67	B1	1350	C	O4'-C1'-N1	5.35	112.48	108.20
67	B1	1654	G	N9-C1'-C2'	-5.35	106.12	112.00
67	B1	1996	C	P-O3'-C3'	-5.35	113.28	119.70
67	B1	2231	G	C5'-C4'-C3'	-5.35	107.45	116.00
20	A3	36	THR	CA-CB-CG2	-5.34	104.92	112.40
21	A2	134	A	C1'-O4'-C4'	5.34	114.18	109.90
21	A2	145	A	C3'-C2'-C1'	5.34	105.78	101.50
21	A2	446	G	O4'-C1'-N9	5.34	112.47	108.20
21	A2	520	G	O4'-C1'-C2'	-5.34	100.45	105.80
21	A2	556	G	C3'-C2'-C1'	-5.34	97.22	101.50
21	A2	596	A	N9-C1'-C2'	5.34	120.95	114.00
32	BO	66	GLU	N-CA-CB	5.34	120.22	110.60
67	B1	230	A	C1'-O4'-C4'	5.34	114.17	109.90
67	B1	841	U	C1'-O4'-C4'	-5.34	105.62	109.90
67	B1	1218	C	N1-C1'-C2'	5.34	120.95	114.00
67	B1	1225	A	O3'-P-O5'	-5.34	93.85	104.00
67	B1	1389	A	C1'-O4'-C4'	5.34	114.18	109.90
67	B1	1640	G	N9-C1'-C2'	5.34	120.95	114.00
67	B1	2550	A	C1'-O4'-C4'	5.34	114.18	109.90
67	B1	2719	G	C4'-C3'-C2'	-5.34	97.25	102.60
67	B1	2750	C	C4'-C3'-C2'	5.34	107.94	102.60
21	A2	253	G	N9-C1'-C2'	-5.34	106.12	112.00
21	A2	458	G	N3-C2-N2	5.34	123.64	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BC	34	THR	CA-CB-OG1	5.34	120.22	109.00
67	B1	1236	C	C5'-C4'-C3'	5.34	124.55	116.00
67	B1	2592	U	O4'-C1'-C2'	5.34	112.41	107.60
68	B3	120	C	C3'-C2'-C1'	5.34	105.77	101.50
11	A1	1	G	C1'-O4'-C4'	-5.34	105.63	109.90
21	A2	50	C	OP1-P-OP2	-5.34	111.59	119.60
21	A2	1049	U	O4'-C1'-C2'	-5.34	100.46	105.80
28	AV	58	SER	N-CA-CB	5.34	118.51	110.50
61	Bd	10	TRP	N-CA-C	-5.34	96.58	111.00
62	BN	125	ARG	NH1-CZ-NH2	-5.34	113.52	119.40
67	B1	100	C	O4'-C1'-C2'	-5.34	100.46	105.80
67	B1	1154	A	C3'-C2'-C1'	-5.34	97.23	101.50
67	B1	1294	A	O4'-C1'-C2'	-5.34	100.46	105.80
67	B1	1584	G	N9-C1'-C2'	5.34	120.94	114.00
67	B1	1695	G	O4'-C1'-N9	5.34	112.47	108.20
67	B1	1713	G	O5'-C5'-C4'	-5.34	101.55	111.70
67	B1	1762	G	P-O3'-C3'	5.34	126.11	119.70
12	AN	123	ARG	NE-CZ-NH1	5.34	122.97	120.30
21	A2	339	U	O4'-C1'-C2'	-5.34	100.46	105.80
21	A2	579	U	O4'-C4'-C3'	-5.34	98.66	104.00
21	A2	822	A	N9-C1'-C2'	5.34	120.94	114.00
21	A2	1122	C	O4'-C1'-N1	5.34	112.47	108.20
67	B1	1516	C	O4'-C1'-C2'	-5.34	100.46	105.80
67	B1	2062	A	O4'-C1'-C2'	5.34	112.41	107.60
67	B1	2679	A	N9-C1'-C2'	5.34	120.94	114.00
67	B1	3013	U	O4'-C1'-C2'	-5.34	100.46	105.80
68	B3	52	U	O4'-C1'-C2'	5.34	112.41	107.60
14	AM	46	MET	CG-SD-CE	-5.34	91.66	100.20
21	A2	103	A	C1'-O4'-C4'	5.34	114.17	109.90
1	AQ	120	ARG	CA-CB-CG	5.34	125.14	113.40
15	AE	128	ARG	N-CA-CB	5.34	120.20	110.60
21	A2	142	G	O4'-C4'-C3'	-5.34	98.66	104.00
28	AV	35	ASP	CB-CG-OD2	-5.34	113.50	118.30
29	AL	95	THR	N-CA-CB	5.34	120.44	110.30
67	B1	379	U	O4'-C1'-C2'	-5.34	100.46	105.80
67	B1	513	C	C3'-C2'-C1'	5.34	105.77	101.50
67	B1	590	A	O4'-C1'-N9	5.34	112.47	108.20
67	B1	764	G	OP1-P-OP2	-5.34	111.60	119.60
67	B1	923	A	OP1-P-OP2	-5.34	111.60	119.60
67	B1	2375	C	C3'-C2'-C1'	5.34	105.77	101.50
67	B1	2710	G	C3'-C2'-C1'	-5.34	97.23	101.50
10	AD	22	ARG	NE-CZ-NH1	-5.33	117.63	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	A3	99	VAL	CA-CB-CG1	5.33	118.90	110.90
32	BO	14	ARG	NE-CZ-NH2	-5.33	117.63	120.30
67	B1	723	A	N9-C1'-C2'	5.33	120.94	114.00
67	B1	1605	A	N9-C1'-C2'	-5.33	106.13	112.00
67	B1	2604	G	O4'-C1'-C2'	5.33	112.40	107.60
67	B1	2840	C	O4'-C1'-C2'	-5.33	100.47	105.80
17	AO	7	ILE	O-C-N	-5.33	114.17	122.70
21	A2	857	C	O4'-C1'-N1	-5.33	103.93	108.20
21	A2	1202	G	N9-C1'-C2'	5.33	120.93	114.00
21	A2	1369	C	O4'-C1'-C2'	-5.33	100.47	105.80
67	B1	46	C	N3-C4-C5	-5.33	119.77	121.90
67	B1	483	C	C4'-C3'-C2'	-5.33	97.27	102.60
67	B1	1138	C	C1'-O4'-C4'	-5.33	105.63	109.90
67	B1	1934	C	O4'-C1'-N1	-5.33	103.93	108.20
67	B1	2564	U	P-O3'-C3'	-5.33	113.30	119.70
67	B1	2886	C	O4'-C1'-C2'	-5.33	100.47	105.80
68	B3	122	C	C3'-C2'-C1'	-5.33	97.23	101.50
5	AW	43	THR	N-CA-C	-5.33	96.61	111.00
15	AE	123	LYS	N-CA-C	-5.33	96.61	111.00
21	A2	307	G	O4'-C1'-C2'	5.33	112.40	107.60
21	A2	465	C	C1'-O4'-C4'	-5.33	105.64	109.90
21	A2	604	C	C5'-C4'-O4'	5.33	115.50	109.10
21	A2	1442	G	O4'-C1'-N9	5.33	112.47	108.20
41	Ba	59	TRP	CB-CG-CD2	-5.33	119.67	126.60
34	BK	17	ARG	C-N-CA	5.33	135.03	121.70
49	BQ	54	PRO	N-CA-CB	5.33	109.70	103.30
53	BD	91	ARG	CA-C-N	-5.33	105.47	117.20
67	B1	521	C	C4'-C3'-C2'	5.33	107.93	102.60
67	B1	1503	C	P-O5'-C5'	-5.33	112.37	120.90
67	B1	1563	G	OP1-P-OP2	-5.33	111.60	119.60
67	B1	1989	G	N9-C1'-C2'	5.33	120.93	114.00
67	B1	2514	C	C4'-C3'-C2'	-5.33	97.27	102.60
21	A2	1188	C	N1-C1'-C2'	5.33	120.93	114.00
27	A0	8	U	N1-C1'-C2'	5.33	120.93	114.00
62	BN	153	ALA	N-CA-CB	5.33	117.56	110.10
67	B1	1210	G	O4'-C1'-C2'	5.33	112.40	107.60
67	B1	1894	A	O4'-C1'-C2'	-5.33	100.47	105.80
13	AX	2	ALA	N-CA-CB	5.33	117.56	110.10
21	A2	984	C	N3-C4-N4	5.33	121.73	118.00
53	BD	49	ASP	CB-CG-OD1	5.33	123.10	118.30
67	B1	1570	C	C3'-C2'-C1'	-5.33	97.24	101.50
67	B1	1611	C	C4'-C3'-C2'	-5.33	97.27	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2838	U	O4'-C4'-C3'	5.33	110.36	106.10
67	B1	2966	C	P-O3'-C3'	-5.33	113.31	119.70
10	AD	70	ARG	NE-CZ-NH2	-5.33	117.64	120.30
41	Ba	37	GLU	N-CA-CB	5.33	120.19	110.60
59	BM	174	ASN	N-CA-CB	5.33	120.19	110.60
7	AB	33	TYR	CD1-CE1-CZ	-5.33	115.01	119.80
21	A2	1089	C	C3'-C2'-C1'	5.33	105.76	101.50
33	BC	299	GLU	CA-CB-CG	5.33	125.12	113.40
53	BD	91	ARG	CB-CA-C	5.33	121.05	110.40
57	BZ	90	GLU	N-CA-C	-5.33	96.62	111.00
67	B1	276	G	P-O3'-C3'	5.33	126.09	119.70
67	B1	1735	G	N9-C1'-C2'	-5.33	106.14	112.00
67	B1	1772	A	O3'-P-O5'	-5.33	93.88	104.00
67	B1	2519	C	P-O3'-C3'	-5.33	113.31	119.70
68	B3	92	G	O4'-C1'-C2'	5.33	112.39	107.60
20	A3	94	VAL	C-N-CA	5.32	135.01	121.70
52	BB	71	ILE	N-CA-C	-5.32	96.63	111.00
66	Bl	62	PRO	N-CA-CB	5.32	109.69	103.30
67	B1	681	C	C1'-O4'-C4'	-5.32	105.64	109.90
67	B1	1041	U	C1'-O4'-C4'	5.32	114.16	109.90
67	B1	1270	G	O4'-C1'-N9	-5.32	103.94	108.20
67	B1	1397	U	O4'-C4'-C3'	-5.32	98.68	104.00
67	B1	1600	G	OP1-P-OP2	-5.32	111.61	119.60
67	B1	1864	G	C4'-C3'-C2'	5.32	107.92	102.60
67	B1	2135	C	O4'-C1'-N1	5.32	112.46	108.20
67	B1	2764	G	OP2-P-O3'	5.32	116.91	105.20
67	B1	2808	C	O4'-C1'-C2'	-5.32	100.48	105.80
1	AQ	25	TRP	NE1-CE2-CZ2	5.32	136.25	130.40
21	A2	897	A	O4'-C1'-C2'	-5.32	100.48	105.80
67	B1	9	A	C5-C6-N1	-5.32	115.04	117.70
67	B1	1331	U	C1'-O4'-C4'	-5.32	105.64	109.90
67	B1	2241	U	C1'-O4'-C4'	5.32	114.16	109.90
21	A2	908	G	C3'-C2'-C1'	-5.32	97.24	101.50
21	A2	956	C	O4'-C4'-C3'	-5.32	98.68	104.00
21	A2	1055	C	O4'-C1'-N1	5.32	112.46	108.20
67	B1	320	C	C3'-C2'-C1'	5.32	105.76	101.50
67	B1	1145	G	C2'-C3'-O3'	5.32	122.21	113.70
67	B1	1266	A	P-O5'-C5'	5.32	129.41	120.90
67	B1	2752	U	N1-C1'-C2'	5.32	120.92	114.00
54	BF	18	GLU	OE1-CD-OE2	5.32	129.68	123.30
67	B1	2399	C	P-O3'-C3'	-5.32	113.32	119.70
1	AQ	112	HIS	N-CA-C	5.32	125.36	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	710	G	O4'-C4'-C3'	-5.32	98.68	104.00
21	A2	1488	C	O4'-C1'-C2'	-5.32	100.48	105.80
22	AY	12	ASP	CB-CG-OD2	-5.32	113.52	118.30
24	AA	138	ARG	NH1-CZ-NH2	-5.32	113.55	119.40
67	B1	141	C	C3'-C2'-C1'	5.32	105.75	101.50
67	B1	282	G	P-O3'-C3'	-5.32	113.32	119.70
67	B1	989	G	C5'-C4'-C3'	5.32	124.51	116.00
67	B1	1067	G	C1'-O4'-C4'	-5.32	105.65	109.90
67	B1	1542	U	O4'-C1'-C2'	-5.32	100.48	105.80
67	B1	1587	A	C5'-C4'-C3'	-5.32	107.49	116.00
67	B1	1881	A	C5-C6-N1	-5.32	115.04	117.70
67	B1	2431	C	P-O3'-C3'	5.32	126.08	119.70
21	A2	1328	G	C4'-C3'-C2'	-5.32	97.28	102.60
21	A2	1334	A	O4'-C1'-N9	5.32	112.45	108.20
67	B1	1017	A	O4'-C1'-N9	5.32	112.45	108.20
67	B1	1661	A	O4'-C1'-N9	5.32	112.45	108.20
67	B1	2333	G	C4'-C3'-C2'	-5.32	97.28	102.60
21	A2	148	C	C3'-C2'-C1'	5.31	105.75	101.50
21	A2	1280	C	O4'-C1'-N1	5.31	112.45	108.20
67	B1	1635	G	P-O3'-C3'	5.31	126.08	119.70
67	B1	1880	A	C5-C6-N6	-5.31	119.45	123.70
67	B1	2102	A	C1'-O4'-C4'	-5.31	105.65	109.90
21	A2	415	C	O4'-C4'-C3'	-5.31	98.69	104.00
21	A2	1201	G	O4'-C1'-N9	5.31	112.45	108.20
21	A2	1217	C	C1'-O4'-C4'	-5.31	105.65	109.90
29	AL	9	ALA	CB-CA-C	5.31	118.07	110.10
67	B1	110	A	O4'-C1'-N9	5.31	112.45	108.20
67	B1	705	G	O4'-C1'-N9	-5.31	103.95	108.20
67	B1	717	A	C4'-C3'-C2'	-5.31	97.29	102.60
67	B1	1268	A	O4'-C1'-C2'	-5.31	100.49	105.80
67	B1	1947	A	C1'-O4'-C4'	-5.31	105.65	109.90
67	B1	2648	C	O4'-C1'-C2'	-5.31	100.49	105.80
67	B1	2747	C	N3-C4-C5	-5.31	119.78	121.90
3	AI	121	ILE	N-CA-C	-5.31	96.66	111.00
21	A2	1192	C	C1'-O4'-C4'	5.31	114.15	109.90
63	Bg	10	ARG	NE-CZ-NH2	-5.31	117.64	120.30
67	B1	589	G	O4'-C1'-N9	5.31	112.45	108.20
67	B1	1391	C	O4'-C1'-N1	5.31	112.45	108.20
67	B1	1606	C	N1-C1'-C2'	5.31	120.90	114.00
67	B1	1718	C	N3-C4-N4	5.31	121.72	118.00
67	B1	2289	A	C5'-C4'-O4'	5.31	115.47	109.10
67	B1	2510	A	O4'-C1'-N9	-5.31	103.95	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	299	G	C3'-C2'-C1'	-5.31	97.25	101.50
36	Bf	38	HIS	CA-CB-CG	-5.31	104.58	113.60
67	B1	304	G	C3'-C2'-C1'	5.31	105.75	101.50
67	B1	1520	G	O4'-C1'-N9	5.31	112.45	108.20
67	B1	1745	U	O4'-C1'-N1	-5.31	103.95	108.20
67	B1	1899	C	P-O3'-C3'	5.31	126.07	119.70
67	B1	2439	G	C1'-O4'-C4'	-5.31	105.65	109.90
31	BY	27	ARG	C-N-CA	5.31	134.97	121.70
53	BD	8	LEU	CB-CG-CD2	5.31	120.02	111.00
67	B1	936	G	C1'-O4'-C4'	-5.31	105.66	109.90
67	B1	1191	C	N1-C1'-C2'	5.31	120.90	114.00
67	B1	1449	C	N1-C1'-C2'	5.31	120.90	114.00
67	B1	1760	C	C1'-O4'-C4'	-5.31	105.66	109.90
67	B1	1884	C	P-O3'-C3'	-5.31	113.33	119.70
67	B1	2304	C	C5'-C4'-C3'	5.31	124.49	116.00
67	B1	2344	G	C3'-C2'-C1'	5.31	105.75	101.50
21	A2	805	C	N1-C1'-C2'	5.30	120.90	114.00
21	A2	998	A	O4'-C1'-N9	5.30	112.44	108.20
21	A2	1395	G	P-O5'-C5'	5.30	129.39	120.90
33	BC	321	PHE	CB-CG-CD1	-5.30	117.09	120.80
67	B1	998	G	C5'-C4'-O4'	5.30	115.47	109.10
67	B1	1131	G	N9-C1'-C2'	5.30	120.89	114.00
67	B1	1450	C	P-O3'-C3'	-5.30	113.34	119.70
67	B1	1458	C	O4'-C1'-N1	5.30	112.44	108.20
67	B1	1978	A	O4'-C1'-N9	5.30	112.44	108.20
67	B1	2665	G	O4'-C4'-C3'	-5.30	98.69	104.00
21	A2	1330	G	N9-C1'-C2'	-5.30	106.17	112.00
36	Bf	15	LYS	CG-CD-CE	5.30	127.81	111.90
58	BP	55	TYR	CG-CD1-CE1	-5.30	117.06	121.30
67	B1	703	G	C5'-C4'-C3'	5.30	124.48	116.00
1	AQ	73	ASN	CA-CB-CG	-5.30	101.74	113.40
17	AO	53	TYR	N-CA-C	-5.30	96.69	111.00
66	Bl	69	VAL	CA-CB-CG1	5.30	118.85	110.90
67	B1	221	G	C5'-C4'-O4'	5.30	115.46	109.10
67	B1	422	G	C1'-O4'-C4'	5.30	114.14	109.90
67	B1	661	G	C3'-C2'-C1'	5.30	105.74	101.50
67	B1	2481	G	C4'-C3'-C2'	-5.30	97.30	102.60
67	B1	2872	G	C1'-O4'-C4'	5.30	114.14	109.90
2	AK	43	PHE	CB-CG-CD1	5.30	124.51	120.80
21	A2	830	A	O4'-C1'-N9	-5.30	103.96	108.20
21	A2	834	C	OP1-P-OP2	-5.30	111.65	119.60
54	BF	133	ARG	NE-CZ-NH2	5.30	122.95	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	332	A	C5-C6-N1	-5.30	115.05	117.70
67	B1	576	G	O4'-C1'-N9	5.30	112.44	108.20
67	B1	713	C	P-O3'-C3'	-5.30	113.34	119.70
67	B1	818	A	OP1-P-OP2	-5.30	111.65	119.60
67	B1	1043	U	P-O5'-C5'	-5.30	112.42	120.90
67	B1	1251	G	C5'-C4'-O4'	5.30	115.46	109.10
67	B1	1479	U	O4'-C1'-C2'	-5.30	100.50	105.80
67	B1	1489	G	C5'-C4'-O4'	5.30	115.46	109.10
67	B1	1634	A	C1'-O4'-C4'	-5.30	105.66	109.90
67	B1	2579	G	C4'-C3'-C2'	-5.30	97.30	102.60
68	B3	36	U	N1-C1'-C2'	5.30	120.89	114.00
6	AC	1	MET	CA-CB-CG	5.30	122.31	113.30
20	A3	45	ARG	NE-CZ-NH1	5.30	122.95	120.30
28	AV	68	TYR	CB-CG-CD2	-5.30	117.82	121.00
67	B1	2588	C	O4'-C1'-C2'	-5.30	100.50	105.80
16	AJ	53	ARG	NH1-CZ-NH2	-5.30	113.58	119.40
21	A2	73	U	C4'-C3'-C2'	5.30	107.90	102.60
21	A2	546	G	O5'-P-OP2	5.30	117.06	110.70
21	A2	634	C	OP1-P-OP2	-5.30	111.66	119.60
21	A2	1492	U	O4'-C1'-C2'	-5.30	100.50	105.80
49	BQ	38	ARG	CB-CA-C	-5.30	99.81	110.40
50	BV	3	ARG	NE-CZ-NH2	5.30	122.95	120.30
57	BZ	5	PHE	CG-CD2-CE2	-5.30	114.97	120.80
67	B1	354	G	C1'-O4'-C4'	-5.30	105.66	109.90
67	B1	383	C	N3-C4-C5	-5.30	119.78	121.90
67	B1	1315	U	P-O3'-C3'	-5.30	113.34	119.70
67	B1	1704	C	C1'-O4'-C4'	-5.30	105.66	109.90
67	B1	2812	U	C5'-C4'-C3'	-5.30	107.53	116.00
21	A2	892	C	N3-C4-C5	-5.29	119.78	121.90
21	A2	1412	A	O4'-C1'-C2'	-5.29	100.50	105.80
67	B1	91	G	O4'-C1'-N9	5.29	112.44	108.20
67	B1	317	A	O4'-C1'-N9	5.29	112.44	108.20
67	B1	545	G	P-O5'-C5'	-5.29	112.43	120.90
67	B1	667	C	O4'-C1'-N1	5.29	112.44	108.20
67	B1	1443	G	O4'-C1'-N9	5.29	112.44	108.20
21	A2	414	G	C1'-O4'-C4'	5.29	114.14	109.90
21	A2	941	C	O4'-C1'-N1	-5.29	103.96	108.20
41	Ba	24	ARG	CB-CA-C	5.29	120.99	110.40
52	BB	114	ILE	N-CA-C	-5.29	96.71	111.00
54	BF	155	GLU	OE1-CD-OE2	5.29	129.65	123.30
67	B1	140	C	P-O3'-C3'	5.29	126.05	119.70
67	B1	823	G	O4'-C1'-C2'	5.29	112.36	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1658	A	C5-C6-N6	-5.29	119.47	123.70
67	B1	2157	U	P-O3'-C3'	5.29	126.05	119.70
11	A1	15	G	N9-C1'-C2'	-5.29	106.18	112.00
18	AF	129	GLY	N-CA-C	-5.29	99.87	113.10
21	A2	11	A	O4'-C1'-N9	-5.29	103.97	108.20
21	A2	966	G	C5'-C4'-O4'	5.29	115.45	109.10
21	A2	1053	A	N9-C1'-C2'	5.29	120.88	114.00
25	AH	211	ALA	N-CA-CB	5.29	117.51	110.10
27	A0	75	C	O4'-C1'-C2'	-5.29	100.51	105.80
62	BN	125	ARG	O-C-N	5.29	131.16	122.70
67	B1	886	G	C3'-C2'-C1'	-5.29	97.27	101.50
67	B1	1454	G	P-O5'-C5'	-5.29	112.44	120.90
67	B1	1703	G	C1'-O4'-C4'	-5.29	105.67	109.90
67	B1	1718	C	N3-C4-C5	-5.29	119.78	121.90
67	B1	1911	G	C5'-C4'-C3'	5.29	124.47	116.00
67	B1	2696	G	C4'-C3'-C2'	5.29	107.89	102.60
21	A2	891	A	C5-C6-N1	-5.29	115.06	117.70
22	AY	11	LYS	N-CA-CB	5.29	120.12	110.60
46	BA	14	GLU	OE1-CD-OE2	-5.29	116.95	123.30
67	B1	615	A	OP1-P-OP2	-5.29	111.66	119.60
67	B1	1024	G	C5'-C4'-O4'	5.29	115.45	109.10
67	B1	2548	A	O4'-C4'-C3'	-5.29	98.71	104.00
68	B3	83	C	N1-C1'-C2'	-5.29	106.18	112.00
18	AF	217	MET	CA-C-O	-5.29	108.99	120.10
21	A2	1211	A	N9-C1'-C2'	-5.29	106.18	112.00
49	BQ	8	ARG	NE-CZ-NH2	-5.29	117.66	120.30
62	BN	9	ASP	CB-CG-OD1	-5.29	113.54	118.30
67	B1	70	G	O4'-C4'-C3'	-5.29	98.71	104.00
67	B1	2946	C	P-O3'-C3'	5.29	126.05	119.70
68	B3	38	U	C3'-C2'-C1'	5.29	105.73	101.50
21	A2	534	G	O4'-C4'-C3'	5.29	110.33	106.10
67	B1	558	C	OP1-P-OP2	-5.29	111.67	119.60
67	B1	675	G	C4'-C3'-C2'	-5.29	97.31	102.60
67	B1	1950	G	P-O3'-C3'	-5.29	113.36	119.70
67	B1	2037	A	O4'-C4'-C3'	-5.29	98.71	104.00
67	B1	2266	C	OP1-P-OP2	-5.29	111.67	119.60
67	B1	2856	G	C3'-C2'-C1'	-5.29	97.27	101.50
17	AO	73	GLY	O-C-N	5.29	131.16	122.70
21	A2	746	A	O3'-P-O5'	5.29	114.04	104.00
56	BH	129	THR	CB-CA-C	-5.29	97.33	111.60
67	B1	1754	A	P-O3'-C3'	-5.29	113.36	119.70
67	B1	2024	A	O4'-C1'-N9	5.29	112.43	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2598	C	OP1-P-OP2	-5.29	111.67	119.60
67	B1	2876	G	P-O5'-C5'	5.29	129.35	120.90
67	B1	2955	G	O5'-P-OP2	-5.29	100.94	105.70
21	A2	105	C	C5'-C4'-C3'	5.28	124.45	116.00
21	A2	450	A	C5-C6-N6	-5.28	119.47	123.70
36	Bf	27	VAL	CG1-CB-CG2	5.28	119.35	110.90
40	BE	101	ARG	CB-CA-C	5.28	120.97	110.40
53	BD	243	THR	N-CA-C	-5.28	96.74	111.00
67	B1	2314	U	C5'-C4'-O4'	5.28	115.44	109.10
64	Bc	12	ARG	NE-CZ-NH2	-5.28	117.66	120.30
67	B1	525	C	O4'-C1'-N1	5.28	112.42	108.20
67	B1	1551	G	O4'-C1'-C2'	-5.28	100.52	105.80
67	B1	1568	A	C5'-C4'-O4'	-5.28	102.76	109.10
21	A2	212	G	N9-C1'-C2'	5.28	120.87	114.00
21	A2	633	C	O4'-C1'-C2'	-5.28	100.52	105.80
21	A2	654	U	O5'-C5'-C4'	-5.28	101.67	111.70
21	A2	1344	U	P-O5'-C5'	-5.28	112.45	120.90
31	BY	13	VAL	CB-CA-C	-5.28	101.37	111.40
33	BC	294	LYS	O-C-N	5.28	131.15	122.70
65	BJ	100	GLU	CB-CA-C	-5.28	99.84	110.40
67	B1	47	C	N3-C4-N4	5.28	121.70	118.00
67	B1	376	C	N3-C4-C5	-5.28	119.79	121.90
67	B1	1006	A	C5-C6-N6	-5.28	119.48	123.70
67	B1	1658	A	O4'-C1'-N9	5.28	112.42	108.20
67	B1	1786	G	C4'-C3'-C2'	-5.28	97.32	102.60
67	B1	1751	G	C5'-C4'-C3'	5.28	124.45	116.00
67	B1	1790	G	N9-C1'-C2'	5.28	120.86	114.00
67	B1	2760	A	C1'-O4'-C4'	5.28	114.12	109.90
40	BE	173	VAL	CA-CB-CG1	-5.28	102.98	110.90
43	Bk	110	ALA	CB-CA-C	-5.28	102.18	110.10
67	B1	494	C	O4'-C1'-C2'	-5.28	100.52	105.80
67	B1	1460	C	N1-C1'-C2'	5.28	120.86	114.00
67	B1	1698	G	C3'-C2'-C1'	-5.28	97.28	101.50
67	B1	2213	G	C3'-C2'-C1'	-5.28	97.28	101.50
67	B1	2783	C	O4'-C1'-C2'	-5.28	100.52	105.80
67	B1	2874	C	P-O3'-C3'	5.28	126.03	119.70
21	A2	1020	G	O5'-P-OP2	5.28	117.03	110.70
25	AH	83	GLY	N-CA-C	5.28	126.29	113.10
50	BV	63	ARG	NE-CZ-NH2	5.28	122.94	120.30
60	BS	40	ARG	NE-CZ-NH2	5.28	122.94	120.30
67	B1	620	G	C3'-C2'-C1'	-5.28	97.28	101.50
67	B1	1276	G	C1'-O4'-C4'	-5.28	105.68	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2268	C	P-O3'-C3'	-5.28	113.37	119.70
21	A2	530	G	C1'-O4'-C4'	-5.27	105.68	109.90
21	A2	660	C	C5'-C4'-C3'	5.27	124.44	116.00
53	BD	129	ALA	CB-CA-C	-5.27	102.19	110.10
67	B1	526	C	C3'-C2'-C1'	5.27	105.72	101.50
67	B1	1306	A	C4'-C3'-C2'	-5.27	97.33	102.60
67	B1	1323	U	P-O3'-C3'	-5.27	113.37	119.70
67	B1	2600	C	O4'-C1'-N1	5.27	112.42	108.20
67	B1	2829	C	O4'-C1'-C2'	-5.27	100.53	105.80
21	A2	497	C	C1'-O4'-C4'	-5.27	105.68	109.90
21	A2	1196	A	C1'-O4'-C4'	-5.27	105.68	109.90
67	B1	493	A	P-O3'-C3'	5.27	126.03	119.70
67	B1	846	C	O4'-C1'-N1	5.27	112.42	108.20
67	B1	986	G	O4'-C1'-N9	5.27	112.42	108.20
67	B1	2735	C	O4'-C1'-N1	-5.27	103.98	108.20
67	B1	2888	G	OP1-P-OP2	-5.27	111.69	119.60
21	A2	565	C	O4'-C1'-C2'	-5.27	100.53	105.80
21	A2	1363	C	OP1-P-OP2	-5.27	111.69	119.60
21	A2	1471	G	C2'-C3'-O3'	5.27	122.13	113.70
67	B1	2834	C	O4'-C1'-N1	5.27	112.42	108.20
21	A2	404	C	P-O5'-C5'	-5.27	112.47	120.90
21	A2	596	A	C3'-C2'-C1'	5.27	105.72	101.50
21	A2	1159	U	OP1-P-OP2	-5.27	111.69	119.60
21	A2	1362	C	C4'-C3'-C2'	-5.27	97.33	102.60
21	A2	1490	C	O4'-C4'-C3'	-5.27	98.73	104.00
67	B1	1171	G	O4'-C1'-C2'	-5.27	100.53	105.80
67	B1	1279	U	C1'-O4'-C4'	5.27	114.12	109.90
67	B1	2106	G	OP1-P-OP2	-5.27	111.69	119.60
67	B1	2486	A	O4'-C1'-N9	5.27	112.42	108.20
67	B1	2522	C	C3'-C2'-C1'	5.27	105.72	101.50
67	B1	2573	C	C1'-O4'-C4'	5.27	114.12	109.90
67	B1	2783	C	C3'-C2'-C1'	5.27	105.72	101.50
11	A1	24	A	O4'-C1'-C2'	-5.27	100.53	105.80
21	A2	419	G	P-O3'-C3'	-5.27	113.38	119.70
21	A2	559	G	O5'-C5'-C4'	-5.27	101.69	111.70
21	A2	1374	C	O4'-C1'-C2'	-5.27	100.53	105.80
52	BB	60	ARG	NH1-CZ-NH2	-5.27	113.61	119.40
54	BF	110	ILE	CA-CB-CG1	5.27	121.01	111.00
67	B1	182	U	C1'-O4'-C4'	-5.27	105.69	109.90
67	B1	948	C	N1-C1'-C2'	5.27	120.85	114.00
67	B1	1782	C	C5'-C4'-O4'	5.27	115.42	109.10
67	B1	2250	G	O4'-C4'-C3'	-5.27	98.73	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2545	A	O4'-C1'-C2'	-5.27	100.53	105.80
67	B1	2771	G	C5'-C4'-C3'	-5.27	107.57	116.00
67	B1	2913	C	C5'-C4'-O4'	5.27	115.42	109.10
68	B3	30	G	C5'-C4'-O4'	5.27	115.42	109.10
21	A2	475	C	O4'-C1'-N1	-5.27	103.99	108.20
21	A2	1205	G	P-O3'-C3'	5.27	126.02	119.70
67	B1	409	C	O4'-C1'-N1	-5.27	103.99	108.20
67	B1	2766	C	P-O3'-C3'	-5.27	113.38	119.70
11	A1	32	A	O4'-C1'-C2'	-5.26	100.53	105.80
17	AO	45	LEU	N-CA-CB	5.26	120.93	110.40
21	A2	138	C	C4'-C3'-C2'	-5.26	97.34	102.60
21	A2	349	A	P-O5'-C5'	5.26	129.32	120.90
21	A2	865	A	P-O5'-C5'	5.26	129.32	120.90
25	AH	42	ARG	CA-C-N	-5.26	105.62	117.20
27	A0	20	U	O4'-C1'-N1	5.26	112.41	108.20
67	B1	307	C	P-O5'-C5'	5.26	129.32	120.90
67	B1	536	G	C1'-O4'-C4'	5.26	114.11	109.90
67	B1	597	C	P-O3'-C3'	5.26	126.02	119.70
67	B1	1370	G	O4'-C4'-C3'	-5.26	98.73	104.00
67	B1	1451	A	P-O5'-C5'	-5.26	112.48	120.90
67	B1	1746	C	P-O5'-C5'	5.26	129.32	120.90
67	B1	1790	G	O4'-C1'-N9	-5.26	103.99	108.20
67	B1	1854	G	C1'-O4'-C4'	5.26	114.11	109.90
67	B1	2126	G	P-O3'-C3'	-5.26	113.38	119.70
23	AT	26	ARG	NE-CZ-NH1	-5.26	117.67	120.30
21	A2	154	C	P-O3'-C3'	5.26	126.02	119.70
21	A2	234	G	C1'-O4'-C4'	-5.26	105.69	109.90
21	A2	1071	C	P-O5'-C5'	-5.26	112.48	120.90
27	A0	33	U	C5'-C4'-O4'	5.26	115.42	109.10
39	Be	24	GLY	O-C-N	-5.26	114.28	122.70
47	BI	80	ARG	NE-CZ-NH2	-5.26	117.67	120.30
55	Bh	24	ILE	CA-C-O	-5.26	109.05	120.10
67	B1	114	C	O4'-C4'-C3'	-5.26	98.74	104.00
67	B1	559	G	C3'-C2'-C1'	5.26	105.71	101.50
67	B1	898	G	O4'-C1'-C2'	-5.26	100.54	105.80
67	B1	1592	U	P-O5'-C5'	5.26	129.32	120.90
67	B1	1713	G	N9-C1'-C2'	5.26	120.84	114.00
67	B1	2597	A	C4'-C3'-C2'	-5.26	97.34	102.60
4	AG	64	ARG	NE-CZ-NH2	5.26	122.93	120.30
21	A2	140	C	C1'-O4'-C4'	-5.26	105.69	109.90
21	A2	185	G	C4'-C3'-C2'	-5.26	97.34	102.60
21	A2	917	A	C3'-C2'-C1'	5.26	105.71	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BL	4	ARG	NE-CZ-NH1	5.26	122.93	120.30
37	BU	4	SER	N-CA-CB	5.26	118.39	110.50
34	BK	16	ARG	C-N-CA	5.26	134.85	121.70
67	B1	40	G	N9-C1'-C2'	5.26	120.84	114.00
67	B1	53	A	C3'-C2'-C1'	-5.26	97.29	101.50
67	B1	864	C	O4'-C1'-N1	-5.26	103.99	108.20
67	B1	988	C	C1'-O4'-C4'	-5.26	105.69	109.90
67	B1	1908	C	N1-C1'-C2'	5.26	120.84	114.00
67	B1	2919	C	C4'-C3'-C2'	-5.26	97.34	102.60
67	B1	3011	G	C4'-C3'-C2'	-5.26	97.34	102.60
35	BL	63	PHE	C-N-CA	5.26	134.84	121.70
67	B1	105	C	O4'-C1'-N1	5.26	112.41	108.20
1	AQ	20	THR	CA-CB-CG2	-5.26	105.04	112.40
21	A2	715	C	OP1-P-OP2	-5.26	111.72	119.60
21	A2	1087	C	O4'-C1'-C2'	-5.26	100.54	105.80
21	A2	1345	G	O4'-C1'-C2'	5.26	112.33	107.60
60	BS	47	ALA	N-CA-CB	5.26	117.46	110.10
67	B1	300	U	N1-C1'-C2'	5.26	120.83	114.00
67	B1	1250	A	N9-C1'-C2'	-5.26	106.22	112.00
67	B1	1775	G	O4'-C1'-N9	5.26	112.41	108.20
67	B1	1961	G	C4'-C3'-C2'	-5.26	97.34	102.60
67	B1	2019	C	N1-C1'-C2'	5.26	120.83	114.00
67	B1	2132	C	N1-C1'-C2'	5.26	120.83	114.00
68	B3	80	G	C3'-C2'-C1'	-5.26	97.30	101.50
15	AE	166	MET	CG-SD-CE	-5.25	91.79	100.20
21	A2	1178	C	O4'-C1'-C2'	-5.25	100.55	105.80
36	Bf	49	LEU	N-CA-CB	5.25	120.91	110.40
67	B1	2212	C	C4'-C3'-C2'	-5.25	97.34	102.60
13	AX	35	ARG	NE-CZ-NH1	-5.25	117.67	120.30
21	A2	162	C	C1'-O4'-C4'	-5.25	105.70	109.90
21	A2	392	G	O4'-C4'-C3'	-5.25	98.75	104.00
21	A2	1083	G	O4'-C1'-N9	5.25	112.40	108.20
67	B1	29	U	N1-C1'-C2'	5.25	120.83	114.00
67	B1	2044	C	O5'-P-OP1	-5.25	100.97	105.70
67	B1	2713	A	O4'-C1'-C2'	-5.25	100.55	105.80
68	B3	74	U	O4'-C1'-N1	5.25	112.40	108.20
21	A2	229	G	P-O3'-C3'	5.25	126.00	119.70
21	A2	1291	G	O5'-C5'-C4'	-5.25	101.72	111.70
67	B1	678	G	C5'-C4'-O4'	5.25	115.40	109.10
67	B1	1261	C	C3'-C2'-C1'	5.25	105.70	101.50
67	B1	1295	G	O4'-C1'-N9	-5.25	104.00	108.20
67	B1	1511	C	C3'-C2'-C1'	5.25	105.70	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2114	C	C1'-O4'-C4'	-5.25	105.70	109.90
21	A2	1134	G	O4'-C1'-N9	5.25	112.40	108.20
52	BB	121	TYR	CD1-CE1-CZ	-5.25	115.08	119.80
67	B1	715	G	C5'-C4'-O4'	5.25	115.40	109.10
67	B1	1142	A	P-O3'-C3'	5.25	126.00	119.70
67	B1	2022	U	O5'-P-OP2	-5.25	100.97	105.70
67	B1	2875	C	O5'-C5'-C4'	-5.25	101.73	111.70
21	A2	1108	U	OP1-P-OP2	-5.25	111.73	119.60
33	BC	276	PHE	CB-CG-CD1	-5.25	117.13	120.80
61	Bd	48	ARG	NE-CZ-NH1	5.25	122.92	120.30
67	B1	506	G	P-O5'-C5'	5.25	129.30	120.90
67	B1	1175	C	P-O3'-C3'	-5.25	113.40	119.70
67	B1	1222	U	C3'-C2'-C1'	5.25	105.70	101.50
67	B1	1262	C	O4'-C1'-C2'	-5.25	100.55	105.80
67	B1	1617	G	C3'-C2'-C1'	-5.25	97.30	101.50
21	A2	879	U	C1'-O4'-C4'	5.25	114.10	109.90
21	A2	998	A	C5-C6-N1	-5.25	115.08	117.70
21	A2	1057	A	O4'-C1'-C2'	-5.25	100.55	105.80
21	A2	1161	A	C4'-C3'-C2'	5.25	107.85	102.60
21	A2	1423	A	C5'-C4'-O4'	-5.25	102.81	109.10
20	BG	38	GLU	OE1-CD-OE2	5.25	129.60	123.30
59	BM	8	ARG	NE-CZ-NH1	5.25	122.92	120.30
67	B1	87	C	C3'-C2'-C1'	5.25	105.70	101.50
67	B1	1124	G	C1'-O4'-C4'	-5.25	105.70	109.90
67	B1	2201	C	OP2-P-O3'	5.25	116.74	105.20
67	B1	2358	U	O4'-C1'-N1	5.25	112.40	108.20
67	B1	2723	G	C5'-C4'-C3'	5.25	124.39	116.00
15	AE	31	ARG	NE-CZ-NH2	5.25	122.92	120.30
21	A2	1432	U	P-O5'-C5'	5.25	129.29	120.90
37	BU	35	LEU	CB-CG-CD2	5.25	119.92	111.00
67	B1	286	G	N9-C1'-C2'	-5.25	106.23	112.00
67	B1	715	G	C5'-C4'-C3'	-5.25	107.61	116.00
67	B1	866	G	C5'-C4'-C3'	-5.25	107.61	116.00
21	A2	621	G	O4'-C1'-C2'	-5.24	100.56	105.80
21	A2	1420	U	OP2-P-O3'	5.24	116.74	105.20
24	AA	107	PHE	CG-CD1-CE1	-5.24	115.03	120.80
67	B1	154	U	P-O3'-C3'	5.24	125.99	119.70
67	B1	1126	C	O4'-C1'-C2'	-5.24	100.56	105.80
67	B1	1546	G	C1'-O4'-C4'	5.24	114.09	109.90
67	B1	2313	G	C5'-C4'-O4'	5.24	115.39	109.10
67	B1	2807	C	C1'-O4'-C4'	-5.24	105.70	109.90
30	AU	37	THR	N-CA-CB	5.24	120.26	110.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	260	A	C5'-C4'-C3'	5.24	124.39	116.00
67	B1	2484	C	C4'-C3'-C2'	-5.24	97.36	102.60
67	B1	2573	C	P-O3'-C3'	5.24	125.99	119.70
67	B1	3042	C	C5'-C4'-O4'	5.24	115.39	109.10
68	B3	62	A	C4'-C3'-C2'	-5.24	97.36	102.60
7	AB	89	ALA	N-CA-CB	5.24	117.44	110.10
21	A2	363	C	O4'-C1'-C2'	-5.24	100.56	105.80
25	AH	42	ARG	C-N-CA	5.24	134.80	121.70
58	BP	35	TRP	CB-CG-CD1	5.24	133.81	127.00
67	B1	38	U	C4'-C3'-C2'	-5.24	97.36	102.60
67	B1	756	C	C1'-O4'-C4'	5.24	114.09	109.90
67	B1	1759	A	O5'-P-OP2	-5.24	100.98	105.70
67	B1	2123	G	C1'-O4'-C4'	-5.24	105.71	109.90
67	B1	2202	U	OP1-P-OP2	-5.24	111.74	119.60
2	AK	130	ARG	N-CA-CB	5.24	120.03	110.60
24	AA	94	SER	N-CA-CB	5.24	118.36	110.50
34	B5	17	ARG	C-N-CA	5.24	134.80	121.70
40	BE	115	PHE	CG-CD1-CE1	5.24	126.56	120.80
46	BA	128	ARG	NE-CZ-NH1	5.24	122.92	120.30
53	BD	189	ARG	N-CA-CB	5.24	120.03	110.60
54	BF	94	TYR	CB-CG-CD2	-5.24	117.86	121.00
59	BM	5	LYS	N-CA-CB	-5.24	101.17	110.60
67	B1	497	G	C4'-C3'-C2'	-5.24	97.36	102.60
67	B1	2933	C	O4'-C1'-C2'	-5.24	100.56	105.80
21	A2	620	G	OP2-P-O3'	5.24	116.72	105.20
42	BT	11	VAL	CA-CB-CG2	5.24	118.76	110.90
20	B4	6	TYR	CB-CG-CD1	-5.24	117.86	121.00
21	A2	183	A	C5'-C4'-O4'	-5.24	102.82	109.10
21	A2	1037	U	O4'-C1'-C2'	5.24	112.31	107.60
21	A2	1228	A	P-O3'-C3'	-5.24	113.42	119.70
21	A2	1377	G	O4'-C1'-C2'	5.24	112.31	107.60
28	B6	24	TYR	CB-CG-CD2	-5.24	117.86	121.00
67	B1	696	G	N9-C1'-C2'	-5.24	106.24	112.00
67	B1	1560	G	O4'-C1'-N9	5.24	112.39	108.20
67	B1	1660	A	O4'-C1'-N9	5.24	112.39	108.20
67	B1	1803	U	C4'-C3'-C2'	5.24	107.83	102.60
67	B1	2143	C	O4'-C1'-N1	5.24	112.39	108.20
67	B1	2815	C	C3'-C2'-C1'	5.24	105.69	101.50
21	A2	950	C	C5'-C4'-C3'	5.23	124.38	116.00
64	Bc	73	LYS	CA-C-N	5.23	126.67	116.20
67	B1	707	U	C1'-O4'-C4'	-5.23	105.71	109.90
67	B1	2057	G	O5'-C5'-C4'	-5.23	101.75	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2648	C	C3'-C2'-C1'	5.23	105.69	101.50
67	B1	2932	C	C4'-C3'-C2'	-5.23	97.37	102.60
67	B1	3039	G	OP1-P-O3'	5.23	116.71	105.20
8	AR	66	ARG	NH1-CZ-NH2	5.23	125.16	119.40
21	A2	1262	U	P-O5'-C5'	5.23	129.27	120.90
39	Be	21	ARG	NE-CZ-NH2	5.23	122.92	120.30
54	BF	109	ILE	CA-CB-CG1	-5.23	101.06	111.00
56	BH	133	MET	CG-SD-CE	-5.23	91.83	100.20
65	BJ	47	HIS	N-CA-C	-5.23	96.87	111.00
67	B1	500	C	P-O3'-C3'	-5.23	113.42	119.70
67	B1	2010	G	O4'-C1'-N9	5.23	112.39	108.20
67	B1	2228	G	P-O3'-C3'	5.23	125.98	119.70
21	A2	1270	C	P-O5'-C5'	-5.23	112.53	120.90
60	BS	66	TYR	CB-CG-CD1	-5.23	117.86	121.00
67	B1	542	A	C3'-C2'-C1'	5.23	105.68	101.50
67	B1	634	G	OP2-P-O3'	5.23	116.71	105.20
67	B1	771	G	O4'-C1'-N9	5.23	112.39	108.20
67	B1	1476	C	C4'-C3'-C2'	5.23	107.83	102.60
67	B1	1532	G	C1'-O4'-C4'	-5.23	105.72	109.90
67	B1	1649	G	C1'-O4'-C4'	-5.23	105.72	109.90
67	B1	2309	C	N1-C1'-C2'	5.23	120.80	114.00
67	B1	2857	C	C3'-C2'-C1'	5.23	105.69	101.50
67	B1	2958	U	C3'-C2'-C1'	-5.23	97.31	101.50
21	A2	527	A	C4'-C3'-C2'	5.23	107.83	102.60
21	A2	873	A	P-O3'-C3'	-5.23	113.42	119.70
21	A2	1000	G	O4'-C1'-C2'	5.23	112.31	107.60
33	BC	191	SER	N-CA-CB	5.23	118.34	110.50
58	BP	60	GLU	OE1-CD-OE2	5.23	129.57	123.30
67	B1	429	U	P-O3'-C3'	5.23	125.97	119.70
67	B1	2716	C	OP1-P-OP2	-5.23	111.76	119.60
21	A2	260	C	C1'-O4'-C4'	-5.23	105.72	109.90
21	A2	300	G	C1'-O4'-C4'	5.23	114.08	109.90
21	A2	1251	C	OP2-P-O3'	5.23	116.70	105.20
35	BL	55	PRO	N-CA-CB	5.23	109.57	103.30
67	B1	1168	A	OP1-P-OP2	-5.23	111.76	119.60
67	B1	1204	U	P-O3'-C3'	-5.23	113.43	119.70
67	B1	1336	G	P-O3'-C3'	-5.23	113.43	119.70
67	B1	2455	G	C1'-O4'-C4'	5.23	114.08	109.90
21	A2	950	C	N1-C1'-C2'	-5.23	106.25	112.00
21	A2	1340	U	C3'-C2'-C1'	5.23	105.68	101.50
32	BO	157	LYS	N-CA-CB	5.23	120.01	110.60
45	Bi	43	ARG	NE-CZ-NH1	-5.23	117.69	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	Bg	3	ARG	C-N-CA	5.23	134.77	121.70
67	B1	230	A	P-O3'-C3'	5.23	125.97	119.70
67	B1	927	G	C1'-O4'-C4'	-5.23	105.72	109.90
67	B1	2034	G	C3'-C2'-C1'	-5.23	97.32	101.50
67	B1	2853	A	OP1-P-OP2	-5.23	111.76	119.60
21	A2	762	G	C5'-C4'-O4'	5.22	115.37	109.10
21	A2	987	G	O4'-C1'-N9	5.22	112.38	108.20
67	B1	122	G	P-O5'-C5'	-5.22	112.54	120.90
67	B1	888	U	N1-C1'-C2'	5.22	120.79	114.00
67	B1	2922	G	C4'-C3'-C2'	-5.22	97.38	102.60
11	A1	4	G	C1'-O4'-C4'	5.22	114.08	109.90
11	A1	40	U	O4'-C4'-C3'	-5.22	98.78	104.00
21	A2	307	G	O4'-C1'-N9	5.22	112.38	108.20
21	A2	619	A	C5'-C4'-C3'	5.22	124.36	116.00
21	A2	1263	C	C1'-O4'-C4'	-5.22	105.72	109.90
67	B1	154	U	C4'-C3'-C2'	5.22	107.82	102.60
67	B1	410	C	C3'-C2'-C1'	5.22	105.68	101.50
67	B1	526	C	C4'-C3'-C2'	-5.22	97.38	102.60
67	B1	732	G	P-O3'-C3'	5.22	125.97	119.70
67	B1	2832	G	O4'-C4'-C3'	-5.22	98.78	104.00
21	A2	932	C	N1-C1'-C2'	5.22	120.79	114.00
21	A2	1250	C	O3'-P-O5'	-5.22	94.08	104.00
67	B1	454	C	C1'-O4'-C4'	-5.22	105.72	109.90
67	B1	2806	A	OP1-P-OP2	-5.22	111.77	119.60
21	A2	868	C	O5'-P-OP1	-5.22	101.00	105.70
21	A2	992	G	C3'-C2'-C1'	-5.22	97.32	101.50
21	A2	1187	A	C4'-C3'-C2'	-5.22	97.38	102.60
27	A0	7	G	P-O5'-C5'	5.22	129.25	120.90
37	BU	93	TYR	CZ-CE2-CD2	-5.22	115.10	119.80
53	BD	80	ALA	N-CA-CB	-5.22	102.79	110.10
53	BD	90	ARG	CB-CA-C	-5.22	99.96	110.40
67	B1	194	G	C1'-O4'-C4'	5.22	114.08	109.90
67	B1	348	G	O4'-C1'-N9	5.22	112.38	108.20
67	B1	630	G	P-O3'-C3'	-5.22	113.44	119.70
67	B1	1269	U	C3'-C2'-C1'	5.22	105.67	101.50
67	B1	1483	U	N1-C1'-C2'	5.22	120.78	114.00
67	B1	1722	G	O5'-C5'-C4'	5.22	121.62	111.70
67	B1	2279	G	C3'-C2'-C1'	-5.22	97.32	101.50
67	B1	2534	C	P-O3'-C3'	-5.22	113.44	119.70
21	A2	963	A	C5-C6-N6	-5.22	119.53	123.70
21	A2	1055	C	O4'-C1'-C2'	-5.22	100.58	105.80
25	AH	88	ARG	CB-CA-C	5.22	120.84	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1818	G	C1'-O4'-C4'	-5.22	105.72	109.90
67	B1	2610	C	O4'-C1'-N1	5.22	112.37	108.20
21	A2	537	G	C4'-C3'-C2'	-5.22	97.38	102.60
67	B1	461	C	C5'-C4'-C3'	-5.22	107.65	116.00
67	B1	1207	G	C4'-C3'-C2'	-5.22	97.38	102.60
67	B1	1740	U	O4'-C4'-C3'	-5.22	98.78	104.00
2	AK	12	THR	CA-CB-OG1	5.21	119.95	109.00
35	BL	8	VAL	CA-CB-CG1	5.21	118.72	110.90
67	B1	100	C	C3'-C2'-C1'	5.21	105.67	101.50
67	B1	472	A	N9-C1'-C2'	5.21	120.78	114.00
67	B1	737	G	C4'-C3'-C2'	-5.21	97.39	102.60
67	B1	754	U	OP1-P-OP2	-5.21	111.78	119.60
67	B1	1459	A	C5'-C4'-C3'	5.21	124.34	116.00
67	B1	1572	C	C4'-C3'-C2'	-5.21	97.39	102.60
21	A2	753	G	C5'-C4'-O4'	5.21	115.36	109.10
21	A2	1047	U	N1-C1'-C2'	5.21	120.78	114.00
67	B1	1222	U	C5'-C4'-C3'	-5.21	107.66	116.00
67	B1	1442	G	O4'-C1'-C2'	5.21	112.29	107.60
67	B1	1679	U	O4'-C1'-C2'	-5.21	100.59	105.80
67	B1	2855	G	C3'-C2'-C1'	-5.21	97.33	101.50
7	AB	117	VAL	CG1-CB-CG2	5.21	119.24	110.90
8	AR	60	TYR	CB-CG-CD1	-5.21	117.87	121.00
10	AD	151	THR	CA-CB-CG2	5.21	119.70	112.40
21	A2	778	G	O4'-C1'-N9	5.21	112.37	108.20
33	BC	296	LYS	N-CA-C	-5.21	96.93	111.00
40	BE	123	ILE	CA-CB-CG1	5.21	120.90	111.00
67	B1	697	U	C1'-O4'-C4'	5.21	114.07	109.90
67	B1	1561	G	O5'-C5'-C4'	-5.21	101.80	111.70
67	B1	1742	C	P-O3'-C3'	5.21	125.95	119.70
67	B1	2167	C	N1-C1'-C2'	5.21	120.78	114.00
67	B1	2386	U	C3'-C2'-C1'	5.21	105.67	101.50
21	A2	712	G	C4'-C3'-C2'	5.21	107.81	102.60
67	B1	50	C	N1-C1'-C2'	-5.21	106.27	112.00
67	B1	179	A	O4'-C1'-N9	5.21	112.37	108.20
67	B1	337	G	O4'-C1'-C2'	5.21	112.29	107.60
67	B1	1649	G	C3'-C2'-C1'	-5.21	97.33	101.50
2	AK	45	ILE	O-C-N	5.21	131.03	122.70
51	Bj	51	PRO	CA-N-CD	-5.21	104.21	111.50
52	BB	238	ARG	CD-NE-CZ	5.21	130.89	123.60
61	Bd	18	PRO	N-CA-CB	5.21	109.55	103.30
67	B1	75	G	C1'-O4'-C4'	-5.21	105.73	109.90
67	B1	375	C	N3-C4-N4	5.21	121.65	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	423	G	O4'-C1'-N9	5.21	112.37	108.20
67	B1	584	G	C1'-O4'-C4'	-5.21	105.73	109.90
67	B1	1279	U	O4'-C1'-C2'	-5.21	100.59	105.80
67	B1	1658	A	C5-C6-N1	-5.21	115.10	117.70
67	B1	1950	G	C5'-C4'-C3'	-5.21	107.67	116.00
67	B1	2854	A	OP1-P-OP2	-5.21	111.79	119.60
67	B1	2922	G	O3'-P-O5'	5.21	113.90	104.00
67	B1	3020	G	C4'-C3'-C2'	5.21	107.81	102.60
68	B3	91	G	O4'-C1'-N9	5.21	112.37	108.20
20	A3	121	LEU	C-N-CA	5.21	134.72	121.70
21	A2	918	A	O4'-C1'-N9	5.21	112.37	108.20
25	AH	49	GLY	CA-C-N	5.21	128.65	117.20
43	Bk	107	ARG	CD-NE-CZ	-5.21	116.31	123.60
61	Bd	48	ARG	N-CA-C	-5.21	96.94	111.00
67	B1	281	G	N9-C1'-C2'	5.21	120.77	114.00
67	B1	1377	G	C1'-O4'-C4'	-5.21	105.73	109.90
67	B1	1565	G	C4'-C3'-C2'	5.21	107.81	102.60
67	B1	1709	C	C5'-C4'-C3'	5.21	124.33	116.00
67	B1	2822	G	O4'-C1'-C2'	5.21	112.29	107.60
68	B3	85	C	O4'-C1'-C2'	-5.21	100.59	105.80
21	A2	331	C	N1-C1'-C2'	-5.21	106.28	112.00
67	B1	712	C	OP2-P-O3'	5.21	116.65	105.20
67	B1	1717	C	C1'-O4'-C4'	-5.21	105.74	109.90
68	B3	124	A	P-O5'-C5'	-5.21	112.57	120.90
21	A2	176	U	C5'-C4'-C3'	5.20	124.32	116.00
21	A2	580	G	N9-C1'-C2'	-5.20	106.28	112.00
21	A2	1145	C	O4'-C1'-N1	5.20	112.36	108.20
21	A2	1173	A	C4'-C3'-C2'	5.20	107.80	102.60
21	A2	1422	G	C5'-C4'-O4'	-5.20	102.86	109.10
52	BB	167	ARG	CD-NE-CZ	-5.20	116.32	123.60
67	B1	2100	U	O4'-C1'-N1	5.20	112.36	108.20
67	B1	2640	C	C3'-C2'-C1'	-5.20	97.34	101.50
21	A2	163	C	C3'-C2'-C1'	5.20	105.66	101.50
21	A2	481	C	C1'-O4'-C4'	-5.20	105.74	109.90
67	B1	1132	U	P-O5'-C5'	5.20	129.22	120.90
67	B1	2488	C	C4'-C3'-C2'	5.20	107.80	102.60
67	B1	2537	G	P-O5'-C5'	5.20	129.22	120.90
15	AE	91	VAL	CG1-CB-CG2	5.20	119.22	110.90
21	A2	1249	A	C5'-C4'-O4'	5.20	115.34	109.10
21	A2	1296	U	C3'-C2'-C1'	-5.20	97.34	101.50
46	BA	172	MET	CA-CB-CG	5.20	122.14	113.30
51	Bj	64	LYS	CB-CA-C	5.20	120.80	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	B4	2	ALA	CB-CA-C	5.20	117.90	110.10
67	B1	264	G	O4'-C1'-C2'	-5.20	100.60	105.80
67	B1	361	G	O4'-C1'-C2'	-5.20	100.60	105.80
67	B1	917	A	OP1-P-OP2	-5.20	111.80	119.60
67	B1	2955	G	C4'-C3'-C2'	-5.20	97.40	102.60
67	B1	2980	G	C1'-O4'-C4'	-5.20	105.74	109.90
8	AR	102	VAL	CG1-CB-CG2	-5.20	102.58	110.90
21	A2	183	A	O4'-C4'-C3'	-5.20	98.80	104.00
34	B5	54	GLU	N-CA-C	-5.20	96.97	111.00
47	BI	42	ARG	NE-CZ-NH2	5.20	122.90	120.30
53	BD	180	ARG	CG-CD-NE	-5.20	100.89	111.80
67	B1	309	C	P-O3'-C3'	-5.20	113.46	119.70
67	B1	1422	G	C3'-C2'-C1'	-5.20	97.34	101.50
67	B1	2122	G	C1'-O4'-C4'	-5.20	105.74	109.90
67	B1	2775	G	O4'-C4'-C3'	-5.20	98.80	104.00
68	B3	82	C	C4'-C3'-C2'	-5.20	97.40	102.60
21	A2	720	A	P-O3'-C3'	-5.20	113.46	119.70
21	A2	1436	U	C3'-C2'-C1'	-5.20	97.34	101.50
60	BS	18	ALA	N-CA-CB	5.20	117.38	110.10
67	B1	759	G	O4'-C4'-C3'	-5.20	98.80	104.00
67	B1	2137	A	P-O5'-C5'	5.20	129.22	120.90
11	A1	9	A	C4'-C3'-C2'	5.20	107.80	102.60
65	BJ	26	TYR	N-CA-C	-5.20	96.97	111.00
67	B1	575	G	C5'-C4'-C3'	-5.20	107.69	116.00
67	B1	1146	U	O4'-C1'-C2'	-5.20	100.60	105.80
67	B1	2946	C	N1-C1'-C2'	5.20	120.75	114.00
33	BC	163	VAL	CA-CB-CG1	-5.19	103.11	110.90
67	B1	2163	G	N9-C1'-C2'	-5.19	106.29	112.00
67	B1	2947	G	O4'-C1'-N9	5.19	112.36	108.20
21	A2	238	G	O4'-C1'-N9	5.19	112.35	108.20
21	A2	430	G	N3-C2-N2	5.19	123.53	119.90
21	A2	972	C	N1-C1'-C2'	5.19	120.75	114.00
67	B1	1647	C	P-O3'-C3'	-5.19	113.47	119.70
67	B1	2341	G	O4'-C1'-N9	5.19	112.35	108.20
67	B1	2397	C	N1-C1'-C2'	5.19	120.75	114.00
67	B1	2586	A	P-O5'-C5'	5.19	129.21	120.90
18	AF	123	GLU	N-CA-CB	5.19	119.94	110.60
21	A2	394	C	O5'-P-OP1	-5.19	101.03	105.70
21	A2	867	A	N9-C1'-C2'	-5.19	106.29	112.00
21	A2	1091	C	C4'-C3'-C2'	-5.19	97.41	102.60
33	BC	197	ASN	N-CA-CB	5.19	119.94	110.60
67	B1	1236	C	P-O3'-C3'	5.19	125.93	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2071	C	P-O3'-C3'	-5.19	113.47	119.70
67	B1	2635	C	O4'-C1'-N1	5.19	112.35	108.20
67	B1	3046	C	C1'-O4'-C4'	-5.19	105.75	109.90
8	AR	60	TYR	CZ-CE2-CD2	5.19	124.47	119.80
11	A1	77	A	P-O5'-C5'	5.19	129.20	120.90
12	AN	147	ARG	NE-CZ-NH1	5.19	122.89	120.30
21	A2	699	C	P-O3'-C3'	-5.19	113.47	119.70
67	B1	1918	U	O4'-C1'-N1	5.19	112.35	108.20
67	B1	2801	G	C4'-C3'-C2'	-5.19	97.41	102.60
67	B1	2934	C	C1'-O4'-C4'	-5.19	105.75	109.90
21	A2	146	A	C1'-O4'-C4'	-5.19	105.75	109.90
21	A2	947	G	O4'-C1'-C2'	-5.19	100.61	105.80
52	BB	220	ARG	CG-CD-NE	-5.19	100.91	111.80
67	B1	804	C	C3'-C2'-C1'	5.19	105.65	101.50
67	B1	1996	C	N1-C1'-C2'	5.19	120.75	114.00
67	B1	2028	G	O4'-C1'-N9	-5.19	104.05	108.20
67	B1	2329	A	P-O5'-C5'	-5.19	112.60	120.90
67	B1	2430	C	C1'-O4'-C4'	-5.19	105.75	109.90
67	B1	2454	G	OP1-P-OP2	-5.19	111.82	119.60
67	B1	2674	C	C4'-C3'-C2'	-5.19	97.41	102.60
67	B1	2690	U	OP2-P-O3'	5.19	116.61	105.20
18	AF	5	TRP	N-CA-C	5.19	125.00	111.00
21	A2	1320	A	C5'-C4'-C3'	5.19	124.30	116.00
21	A2	1378	A	C5'-C4'-O4'	5.19	115.32	109.10
67	B1	19	G	C5'-C4'-O4'	5.19	115.32	109.10
67	B1	701	G	P-O5'-C5'	5.19	129.20	120.90
67	B1	829	G	C5'-C4'-C3'	5.19	124.30	116.00
67	B1	3030	A	C1'-O4'-C4'	5.19	114.05	109.90
11	A1	47	G	C4'-C3'-C2'	-5.18	97.42	102.60
21	A2	782	A	C4'-C3'-C2'	-5.18	97.42	102.60
21	A2	984	C	N3-C4-C5	-5.18	119.83	121.90
21	A2	1440	G	C3'-C2'-C1'	-5.18	97.35	101.50
40	BE	135	PHE	CB-CG-CD2	-5.18	117.17	120.80
34	BK	54	GLU	N-CA-C	-5.18	97.00	111.00
54	BF	67	ILE	C-N-CA	5.18	134.66	121.70
67	B1	971	G	N9-C1'-C2'	5.18	120.74	114.00
67	B1	1087	G	C1'-O4'-C4'	5.18	114.05	109.90
67	B1	1095	A	O4'-C4'-C3'	-5.18	98.81	104.00
67	B1	1309	G	C3'-C2'-C1'	-5.18	97.35	101.50
67	B1	2162	G	P-O5'-C5'	-5.18	112.60	120.90
67	B1	2433	U	N1-C1'-C2'	5.18	120.74	114.00
67	B1	2674	C	C5'-C4'-C3'	5.18	124.29	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AW	15	ARG	NE-CZ-NH1	5.18	122.89	120.30
21	A2	773	A	OP1-P-OP2	-5.18	111.83	119.60
21	A2	1178	C	C3'-C2'-C1'	5.18	105.65	101.50
35	BL	46	LYS	CA-C-O	-5.18	109.22	120.10
46	BA	173	SER	CB-CA-C	-5.18	100.25	110.10
54	BF	22	GLU	N-CA-CB	5.18	119.93	110.60
67	B1	562	G	OP1-P-OP2	-5.18	111.83	119.60
67	B1	2300	C	P-O3'-C3'	5.18	125.92	119.70
67	B1	2628	U	OP1-P-OP2	-5.18	111.83	119.60
67	B1	2771	G	P-O3'-C3'	5.18	125.92	119.70
21	A2	1388	G	C1'-O4'-C4'	-5.18	105.75	109.90
21	A2	1475	C	N1-C1'-C2'	5.18	120.73	114.00
67	B1	1034	G	P-O3'-C3'	5.18	125.92	119.70
67	B1	1523	A	N9-C1'-C2'	-5.18	106.30	112.00
21	A2	462	A	P-O3'-C3'	5.18	125.92	119.70
21	A2	559	G	O4'-C1'-C2'	-5.18	100.62	105.80
21	A2	874	G	C4'-C3'-C2'	-5.18	97.42	102.60
21	A2	1393	A	O5'-P-OP1	5.18	116.92	110.70
39	Be	38	CYS	N-CA-CB	5.18	119.92	110.60
58	BP	94	ILE	CA-CB-CG1	5.18	120.84	111.00
67	B1	981	A	N9-C1'-C2'	-5.18	106.30	112.00
67	B1	1196	A	O4'-C1'-C2'	-5.18	100.62	105.80
67	B1	1280	C	O4'-C1'-N1	-5.18	104.06	108.20
67	B1	1446	G	C1'-O4'-C4'	5.18	114.04	109.90
67	B1	1483	U	O4'-C1'-C2'	-5.18	100.62	105.80
21	A2	628	G	O4'-C1'-C2'	5.18	112.26	107.60
67	B1	2483	U	O4'-C1'-N1	5.18	112.34	108.20
1	AQ	158	ARG	N-CA-CB	5.18	119.92	110.60
10	AD	116	ARG	NE-CZ-NH2	-5.18	117.71	120.30
16	AJ	16	ARG	CG-CD-NE	-5.18	100.93	111.80
21	A2	194	C	C4'-C3'-C2'	-5.18	97.42	102.60
21	A2	226	G	P-O3'-C3'	-5.18	113.49	119.70
21	A2	448	A	C5-C6-N1	-5.18	115.11	117.70
21	A2	812	U	OP2-P-O3'	5.18	116.59	105.20
21	A2	977	G	C1'-O4'-C4'	-5.18	105.76	109.90
21	A2	1040	A	P-O3'-C3'	-5.18	113.49	119.70
21	A2	1103	G	C4'-C3'-C2'	-5.18	97.42	102.60
41	Ba	63	ILE	CB-CA-C	5.18	121.95	111.60
67	B1	639	C	N3-C4-C5	-5.18	119.83	121.90
68	B3	44	C	P-O5'-C5'	5.18	129.18	120.90
21	A2	781	U	C3'-C2'-C1'	5.17	105.64	101.50
21	A2	1495	U	C1'-O4'-C4'	5.17	114.04	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AT	92	VAL	CA-CB-CG1	-5.17	103.14	110.90
44	BW	26	ALA	CB-CA-C	-5.17	102.34	110.10
67	B1	240	A	C3'-C2'-C1'	5.17	105.64	101.50
67	B1	586	A	C5-C6-N1	-5.17	115.11	117.70
67	B1	1149	C	C5'-C4'-C3'	5.17	124.28	116.00
4	AG	80	GLY	N-CA-C	-5.17	100.17	113.10
56	BH	43	THR	CA-CB-CG2	-5.17	105.16	112.40
67	B1	540	A	OP1-P-O3'	5.17	116.58	105.20
67	B1	1660	A	C5-C6-N1	-5.17	115.11	117.70
4	AG	49	GLU	C-N-CA	5.17	134.63	121.70
11	A1	74	A	C1'-O4'-C4'	-5.17	105.76	109.90
12	AN	33	ARG	NE-CZ-NH2	-5.17	117.72	120.30
15	AE	128	ARG	CG-CD-NE	5.17	122.66	111.80
21	A2	207	G	O4'-C1'-C2'	-5.17	100.63	105.80
21	A2	1122	C	P-O3'-C3'	-5.17	113.49	119.70
23	AT	72	ILE	CA-CB-CG2	5.17	121.24	110.90
52	BB	136	PRO	N-CD-CG	5.17	110.96	103.20
67	B1	228	U	N1-C1'-C2'	5.17	120.72	114.00
67	B1	244	A	C1'-O4'-C4'	-5.17	105.76	109.90
67	B1	1170	G	C5'-C4'-O4'	5.17	115.31	109.10
67	B1	1500	C	C1'-O4'-C4'	-5.17	105.76	109.90
67	B1	1104	A	P-O3'-C3'	5.17	125.90	119.70
67	B1	1626	A	C4'-C3'-C2'	-5.17	97.43	102.60
15	AE	26	TYR	CG-CD1-CE1	-5.17	117.17	121.30
21	A2	903	G	N9-C1'-C2'	5.17	120.72	114.00
21	A2	1105	C	C1'-O4'-C4'	5.17	114.03	109.90
21	A2	1106	A	N9-C1'-C2'	5.17	120.72	114.00
44	BW	43	VAL	N-CA-CB	5.17	122.87	111.50
52	BB	180	TYR	CB-CG-CD2	5.17	124.10	121.00
67	B1	145	C	N3-C4-C5	-5.17	119.83	121.90
67	B1	708	A	O4'-C1'-N9	5.17	112.33	108.20
67	B1	890	G	N9-C1'-C2'	5.17	120.72	114.00
67	B1	2172	G	P-O3'-C3'	5.17	125.90	119.70
68	B3	3	G	O5'-C5'-C4'	-5.17	101.88	111.70
7	AB	78	LYS	CA-C-N	5.17	131.56	117.10
21	A2	87	C	C5'-C4'-O4'	5.17	115.30	109.10
21	A2	794	A	O4'-C1'-N9	-5.17	104.07	108.20
21	A2	880	G	C5'-C4'-O4'	5.17	115.30	109.10
33	BC	251	ARG	N-CA-C	-5.17	97.05	111.00
49	BQ	121	ARG	NE-CZ-NH1	-5.17	117.72	120.30
58	BP	55	TYR	CG-CD2-CE2	-5.17	117.17	121.30
67	B1	265	A	O4'-C1'-N9	5.17	112.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	734	C	O4'-C1'-C2'	-5.17	100.63	105.80
67	B1	1123	A	C4'-C3'-C2'	-5.17	97.43	102.60
67	B1	1217	U	C3'-C2'-C1'	5.17	105.63	101.50
67	B1	1401	G	C5'-C4'-C3'	-5.17	107.73	116.00
67	B1	2008	G	OP2-P-O3'	5.17	116.56	105.20
67	B1	2235	G	C3'-C2'-C1'	-5.17	97.37	101.50
67	B1	2801	G	O4'-C1'-N9	-5.17	104.07	108.20
21	A2	342	G	O4'-C1'-C2'	5.17	112.25	107.60
21	A2	1370	U	C1'-O4'-C4'	5.17	114.03	109.90
51	Bj	69	PHE	CB-CG-CD2	5.17	124.42	120.80
20	BG	6	TYR	CA-CB-CG	-5.17	103.59	113.40
67	B1	363	G	P-O3'-C3'	5.17	125.90	119.70
67	B1	2218	C	C4'-C3'-C2'	-5.17	97.44	102.60
11	A1	36	A	C4'-C3'-C2'	-5.16	97.44	102.60
21	A2	340	A	O4'-C4'-C3'	-5.16	98.84	104.00
21	A2	693	C	C5'-C4'-O4'	5.16	115.30	109.10
67	B1	1504	C	O4'-C1'-C2'	-5.16	100.64	105.80
67	B1	2122	G	N9-C1'-C2'	5.16	120.71	114.00
67	B1	2219	A	P-O3'-C3'	-5.16	113.50	119.70
67	B1	3011	G	C3'-C2'-C1'	5.16	105.63	101.50
21	A2	397	C	P-O3'-C3'	-5.16	113.51	119.70
39	Be	55	TRP	CB-CG-CD1	-5.16	120.29	127.00
66	Bl	2	LYS	N-CA-C	-5.16	97.06	111.00
67	B1	1621	G	P-O5'-C5'	5.16	129.16	120.90
6	AC	48	ALA	N-CA-CB	5.16	117.32	110.10
21	A2	141	C	N1-C1'-C2'	-5.16	106.32	112.00
27	A0	60	U	C5'-C4'-C3'	-5.16	107.74	116.00
30	AU	43	ARG	CD-NE-CZ	5.16	130.82	123.60
28	B6	68	TYR	CD1-CG-CD2	5.16	123.58	117.90
67	B1	1163	U	O4'-C1'-C2'	-5.16	100.64	105.80
67	B1	2132	C	P-O3'-C3'	-5.16	113.51	119.70
67	B1	2404	G	O4'-C4'-C3'	-5.16	98.84	104.00
67	B1	2552	C	C3'-C2'-C1'	5.16	105.63	101.50
67	B1	2627	C	O4'-C4'-C3'	-5.16	98.84	104.00
2	AK	2	ARG	NE-CZ-NH2	-5.16	117.72	120.30
21	A2	512	U	O4'-C1'-N1	5.16	112.33	108.20
20	B4	88	ALA	O-C-N	-5.16	114.45	122.70
67	B1	778	A	O5'-P-OP2	5.16	116.89	110.70
67	B1	783	C	O5'-P-OP1	5.16	116.89	110.70
67	B1	2516	G	O4'-C1'-N9	-5.16	104.07	108.20
67	B1	2797	C	P-O3'-C3'	5.16	125.89	119.70
68	B3	22	C	P-O3'-C3'	5.16	125.89	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	Bk	204	ASP	CB-CG-OD2	5.16	122.94	118.30
46	BA	63	ALA	N-CA-CB	5.16	117.32	110.10
67	B1	558	C	C3'-C2'-C1'	5.16	105.62	101.50
7	AB	141	VAL	CB-CA-C	-5.16	101.61	111.40
11	A1	67	C	O4'-C1'-C2'	-5.16	100.64	105.80
12	AN	147	ARG	NE-CZ-NH2	5.16	122.88	120.30
21	A2	225	U	O4'-C1'-N1	5.16	112.32	108.20
21	A2	1094	U	N1-C1'-C2'	5.16	120.70	114.00
21	A2	1272	G	C3'-C2'-C1'	-5.16	97.38	101.50
28	AV	72	TYR	CB-CG-CD1	5.16	124.09	121.00
67	B1	124	C	C4'-C3'-C2'	-5.16	97.44	102.60
67	B1	823	G	N9-C1'-C2'	5.16	120.70	114.00
67	B1	1010	G	O4'-C1'-N9	5.16	112.32	108.20
67	B1	1105	C	O4'-C1'-C2'	-5.16	100.64	105.80
21	A2	1138	G	N9-C1'-C2'	-5.15	106.33	112.00
47	BI	78	THR	CA-CB-OG1	5.15	119.82	109.00
67	B1	137	A	N9-C1'-C2'	-5.15	106.33	112.00
67	B1	144	A	O4'-C1'-N9	5.15	112.32	108.20
67	B1	1041	U	P-O3'-C3'	-5.15	113.52	119.70
67	B1	1825	G	C1'-O4'-C4'	5.15	114.02	109.90
1	AQ	135	TYR	CB-CG-CD1	-5.15	117.91	121.00
7	AB	177	TYR	CD1-CG-CD2	-5.15	112.23	117.90
21	A2	550	G	O4'-C1'-C2'	5.15	112.24	107.60
21	A2	1270	C	O4'-C1'-C2'	-5.15	100.65	105.80
21	A2	1297	G	C5'-C4'-O4'	-5.15	102.92	109.10
35	BL	45	SER	N-CA-C	-5.15	97.09	111.00
39	Be	40	PHE	CB-CG-CD1	-5.15	117.19	120.80
67	B1	170	A	C1'-O4'-C4'	5.15	114.02	109.90
67	B1	579	C	C3'-C2'-C1'	5.15	105.62	101.50
67	B1	797	C	N1-C1'-C2'	-5.15	106.33	112.00
67	B1	1226	G	C5'-C4'-C3'	5.15	124.24	116.00
67	B1	1794	C	C3'-C2'-C1'	5.15	105.62	101.50
67	B1	1903	G	OP1-P-OP2	-5.15	111.87	119.60
67	B1	2420	C	C1'-O4'-C4'	5.15	114.02	109.90
68	B3	108	G	O4'-C1'-C2'	5.15	112.24	107.60
11	A1	69	G	C4'-C3'-C2'	-5.15	97.45	102.60
21	A2	104	A	O4'-C1'-C2'	-5.15	100.65	105.80
21	A2	240	U	O5'-P-OP1	-5.15	101.06	105.70
21	A2	748	A	O4'-C4'-C3'	-5.15	98.85	104.00
21	A2	976	A	C5'-C4'-C3'	-5.15	107.76	116.00
27	A0	20	U	C5'-C4'-O4'	5.15	115.28	109.10
67	B1	177	G	N9-C1'-C2'	5.15	120.70	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1822	G	O4'-C1'-C2'	5.15	112.23	107.60
67	B1	2043	A	O4'-C1'-N9	-5.15	104.08	108.20
68	B3	115	C	O4'-C1'-C2'	-5.15	100.65	105.80
21	A2	507	G	C1'-O4'-C4'	-5.15	105.78	109.90
67	B1	1581	A	O4'-C1'-N9	5.15	112.32	108.20
67	B1	2123	G	O4'-C1'-N9	5.15	112.32	108.20
21	A2	1412	A	P-O5'-C5'	-5.15	112.66	120.90
45	Bi	33	ARG	NE-CZ-NH2	-5.15	117.73	120.30
62	BN	81	ASN	N-CA-CB	5.15	119.87	110.60
67	B1	641	G	C5'-C4'-O4'	5.15	115.28	109.10
67	B1	1060	C	O4'-C1'-C2'	-5.15	100.65	105.80
67	B1	1284	C	C3'-C2'-C1'	5.15	105.62	101.50
67	B1	1709	C	P-O5'-C5'	5.15	129.14	120.90
67	B1	1831	C	P-O5'-C5'	-5.15	112.66	120.90
67	B1	2364	G	C5'-C4'-C3'	5.15	124.23	116.00
67	B1	2891	A	C2'-C3'-O3'	5.15	121.94	113.70
11	A1	2	G	N9-C1'-C2'	5.15	120.69	114.00
16	AJ	30	ARG	NE-CZ-NH2	-5.15	117.73	120.30
21	A2	729	G	O4'-C1'-N9	5.15	112.32	108.20
52	BB	25	ARG	N-CA-CB	5.15	119.86	110.60
67	B1	813	G	C4'-C3'-C2'	5.15	107.75	102.60
21	A2	217	C	O3'-P-O5'	5.14	113.77	104.00
21	A2	303	G	O5'-P-OP1	5.14	116.87	110.70
21	A2	612	C	C5'-C4'-O4'	-5.14	102.93	109.10
21	A2	1324	U	C3'-C2'-C1'	5.14	105.61	101.50
21	A2	1343	C	P-O3'-C3'	-5.14	113.53	119.70
50	BV	43	MET	CG-SD-CE	-5.14	91.97	100.20
53	BD	28	PRO	CA-N-CD	-5.14	104.30	111.50
67	B1	1187	A	C5'-C4'-O4'	5.14	115.27	109.10
67	B1	2754	A	C5'-C4'-O4'	5.14	115.27	109.10
67	B1	2917	G	P-O5'-C5'	-5.14	112.67	120.90
21	A2	387	G	C1'-O4'-C4'	-5.14	105.79	109.90
21	A2	757	G	C3'-C2'-C1'	-5.14	97.39	101.50
27	A0	68	G	C3'-C2'-C1'	-5.14	97.39	101.50
43	Bk	39	SER	CB-CA-C	5.14	119.87	110.10
67	B1	167	G	O4'-C1'-N9	5.14	112.31	108.20
67	B1	308	C	C5'-C4'-O4'	5.14	115.27	109.10
67	B1	1925	A	O4'-C1'-N9	-5.14	104.09	108.20
67	B1	2790	C	C1'-O4'-C4'	-5.14	105.79	109.90
67	B1	2968	G	P-O5'-C5'	-5.14	112.67	120.90
67	B1	1472	U	C3'-C2'-C1'	5.14	105.61	101.50
67	B1	2372	C	O4'-C1'-N1	5.14	112.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2395	C	C1'-O4'-C4'	-5.14	105.79	109.90
67	B1	2786	G	N9-C1'-C2'	-5.14	106.34	112.00
21	A2	296	A	O5'-P-OP2	5.14	116.87	110.70
21	A2	804	U	O3'-P-O5'	5.14	113.76	104.00
21	A2	1458	A	C2'-C3'-O3'	5.14	121.92	113.70
47	BI	93	ALA	N-CA-CB	5.14	117.29	110.10
67	B1	3023	G	C4'-C3'-C2'	-5.14	97.46	102.60
68	B3	1	C	O4'-C1'-C2'	-5.14	100.66	105.80
67	B1	874	U	C3'-C2'-C1'	5.14	105.61	101.50
67	B1	1728	C	C5'-C4'-O4'	5.14	115.27	109.10
67	B1	1894	A	C1'-O4'-C4'	5.14	114.01	109.90
67	B1	1934	C	P-O3'-C3'	-5.14	113.53	119.70
14	AM	20	TYR	CB-CG-CD2	5.14	124.08	121.00
21	A2	628	G	C3'-C2'-C1'	-5.14	97.39	101.50
21	A2	1009	G	P-O3'-C3'	5.14	125.86	119.70
34	BK	48	MET	CG-SD-CE	-5.14	91.98	100.20
67	B1	386	A	P-O3'-C3'	-5.14	113.54	119.70
67	B1	810	A	N9-C1'-C2'	5.14	120.68	114.00
67	B1	1411	G	O4'-C1'-N9	-5.14	104.09	108.20
67	B1	1762	G	O4'-C1'-N9	5.14	112.31	108.20
67	B1	2218	C	P-O3'-C3'	5.14	125.86	119.70
2	AK	81	ALA	CB-CA-C	-5.13	102.40	110.10
21	A2	640	U	O4'-C1'-N1	5.13	112.31	108.20
21	A2	1058	G	O4'-C4'-C3'	-5.13	98.87	104.00
21	A2	1403	U	C1'-O4'-C4'	5.13	114.01	109.90
31	BY	75	ILE	CA-CB-CG1	5.13	120.76	111.00
45	Bi	68	TYR	CA-CB-CG	-5.13	103.64	113.40
56	BH	5	VAL	N-CA-C	-5.13	97.14	111.00
67	B1	477	C	OP1-P-O3'	5.13	116.50	105.20
67	B1	1171	G	O4'-C4'-C3'	-5.13	98.87	104.00
67	B1	1649	G	O4'-C1'-C2'	5.13	112.22	107.60
67	B1	1959	C	O4'-C1'-C2'	-5.13	100.67	105.80
67	B1	2914	U	P-O3'-C3'	-5.13	113.54	119.70
41	Ba	73	LYS	N-CA-CB	5.13	119.84	110.60
67	B1	598	C	O4'-C1'-N1	5.13	112.31	108.20
67	B1	1781	C	O4'-C1'-N1	5.13	112.31	108.20
21	A2	412	U	O4'-C4'-C3'	-5.13	98.87	104.00
21	A2	514	U	C4'-C3'-C2'	5.13	107.73	102.60
21	A2	1039	C	P-O5'-C5'	-5.13	112.69	120.90
21	A2	1486	A	C1'-O4'-C4'	5.13	114.00	109.90
26	AP	53	ARG	CD-NE-CZ	5.13	130.78	123.60
27	A0	13	U	O4'-C1'-N1	5.13	112.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	410	C	C1'-O4'-C4'	5.13	114.00	109.90
67	B1	796	C	C5'-C4'-O4'	-5.13	102.94	109.10
67	B1	2208	C	O4'-C1'-C2'	-5.13	100.67	105.80
67	B1	2485	C	C3'-C2'-C1'	5.13	105.61	101.50
67	B1	2653	G	O4'-C1'-C2'	5.13	112.22	107.60
68	B3	114	G	OP1-P-O3'	5.13	116.49	105.20
21	A2	117	C	O4'-C4'-C3'	-5.13	98.87	104.00
33	BC	318	ARG	NE-CZ-NH1	-5.13	117.73	120.30
50	BV	50	LEU	C-N-CA	5.13	134.53	121.70
52	BB	238	ARG	N-CA-CB	5.13	119.83	110.60
67	B1	1791	A	O4'-C1'-C2'	-5.13	100.67	105.80
67	B1	2197	U	N1-C1'-C2'	5.13	120.67	114.00
21	A2	1303	C	O4'-C4'-C3'	-5.13	98.87	104.00
67	B1	209	G	O4'-C1'-C2'	-5.13	100.67	105.80
67	B1	650	C	C3'-C2'-C1'	5.13	105.60	101.50
67	B1	757	C	C3'-C2'-C1'	5.13	105.60	101.50
67	B1	1016	C	N3-C4-C5	-5.13	119.85	121.90
67	B1	1621	G	C3'-C2'-C1'	5.13	105.60	101.50
67	B1	2767	C	C1'-O4'-C4'	-5.13	105.80	109.90
7	AB	21	THR	CA-CB-CG2	-5.13	105.22	112.40
10	AD	93	LEU	CB-CG-CD2	5.13	119.72	111.00
21	A2	573	C	P-O5'-C5'	-5.13	112.70	120.90
21	A2	618	G	C4'-C3'-C2'	-5.13	97.47	102.60
67	B1	130	G	O4'-C1'-N9	-5.13	104.10	108.20
67	B1	668	G	O4'-C1'-C2'	5.13	112.21	107.60
67	B1	722	C	N1-C1'-C2'	5.13	120.66	114.00
67	B1	1021	G	O4'-C1'-N9	5.13	112.30	108.20
67	B1	2620	G	C1'-O4'-C4'	-5.13	105.80	109.90
67	B1	2631	C	O4'-C1'-N1	5.13	112.30	108.20
2	AK	79	ARG	NE-CZ-NH2	-5.12	117.74	120.30
12	AN	4	LYS	N-CA-C	-5.12	97.16	111.00
21	A2	357	C	P-O3'-C3'	5.12	125.85	119.70
21	A2	882	C	O4'-C1'-N1	5.12	112.30	108.20
21	A2	1190	C	C3'-C2'-C1'	5.12	105.60	101.50
67	B1	2549	A	O4'-C1'-N9	5.12	112.30	108.20
10	AD	52	ARG	CB-CA-C	-5.12	100.15	110.40
10	AD	141	SER	N-CA-CB	5.12	118.19	110.50
11	A1	21	G	C5'-C4'-O4'	5.12	115.25	109.10
21	A2	364	U	C1'-O4'-C4'	5.12	114.00	109.90
21	A2	701	G	C4'-C3'-C2'	-5.12	97.48	102.60
21	A2	1260	G	O4'-C1'-N9	5.12	112.30	108.20
51	Bj	69	PHE	CB-CG-CD1	-5.12	117.21	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1604	G	O5'-P-OP1	-5.12	101.09	105.70
67	B1	1713	G	C5'-C4'-O4'	5.12	115.25	109.10
67	B1	2001	U	OP1-P-OP2	-5.12	111.91	119.60
67	B1	2530	G	C3'-C2'-C1'	-5.12	97.40	101.50
67	B1	2764	G	O4'-C4'-C3'	5.12	110.20	106.10
21	A2	1288	C	O4'-C1'-C2'	-5.12	100.68	105.80
38	Bb	62	SER	N-CA-C	-5.12	97.17	111.00
29	AL	45	ILE	N-CA-C	-5.12	97.18	111.00
38	Bb	62	SER	C-N-CA	5.12	134.50	121.70
46	BA	50	VAL	N-CA-C	-5.12	97.17	111.00
67	B1	2231	G	N9-C1'-C2'	5.12	120.66	114.00
67	B1	2927	A	C5'-C4'-O4'	-5.12	102.96	109.10
6	AC	118	ARG	NE-CZ-NH2	-5.12	117.74	120.30
11	A1	14	A	C4'-C3'-C2'	-5.12	97.48	102.60
21	A2	105	C	P-O5'-C5'	5.12	129.09	120.90
21	A2	832	G	C3'-C2'-C1'	-5.12	97.41	101.50
28	AV	78	MET	CA-CB-CG	5.12	122.00	113.30
52	BB	233	ARG	NH1-CZ-NH2	5.12	125.03	119.40
20	BG	33	ARG	CB-CA-C	-5.12	100.16	110.40
67	B1	89	C	O4'-C1'-C2'	-5.12	100.68	105.80
67	B1	734	C	O4'-C1'-N1	5.12	112.30	108.20
67	B1	931	C	C3'-C2'-C1'	5.12	105.59	101.50
67	B1	1167	A	O4'-C1'-N9	5.12	112.29	108.20
67	B1	1341	U	O5'-P-OP1	5.12	116.84	110.70
67	B1	1412	C	C4'-C3'-C2'	-5.12	97.48	102.60
67	B1	2234	C	O5'-C5'-C4'	-5.12	101.97	111.70
67	B1	2941	A	C5'-C4'-O4'	-5.12	102.96	109.10
1	AQ	105	LEU	CB-CA-C	-5.12	100.48	110.20
25	AH	148	VAL	CG1-CB-CG2	-5.12	102.71	110.90
27	A0	73	G	C4'-C3'-C2'	-5.12	97.48	102.60
67	B1	206	A	O4'-C1'-C2'	-5.12	100.68	105.80
67	B1	921	C	C4'-C3'-C2'	-5.12	97.48	102.60
4	AG	4	PHE	N-CA-CB	5.12	119.81	110.60
67	B1	1037	C	P-O5'-C5'	-5.12	112.71	120.90
67	B1	1191	C	O4'-C1'-C2'	-5.12	100.68	105.80
67	B1	2850	G	C3'-C2'-C1'	-5.12	97.41	101.50
21	A2	254	G	P-O5'-C5'	-5.11	112.72	120.90
21	A2	1251	C	C4'-C3'-C2'	-5.11	97.49	102.60
21	A2	1311	C	C5'-C4'-C3'	-5.11	107.82	116.00
27	A0	71	G	O5'-C5'-C4'	-5.11	101.99	111.70
29	AL	39	PRO	C-N-CA	5.11	134.49	121.70
20	BG	108	ARG	NE-CZ-NH2	-5.11	117.74	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1138	C	O5'-C5'-C4'	-5.11	101.99	111.70
67	B1	1565	G	P-O3'-C3'	-5.11	113.56	119.70
67	B1	1670	A	O4'-C1'-C2'	5.11	112.20	107.60
67	B1	2041	U	O4'-C1'-N1	5.11	112.29	108.20
67	B1	2467	C	O4'-C1'-C2'	-5.11	100.69	105.80
67	B1	2636	C	C1'-O4'-C4'	-5.11	105.81	109.90
68	B3	10	U	O4'-C1'-N1	5.11	112.29	108.20
21	A2	308	G	C5'-C4'-C3'	5.11	124.18	116.00
47	BI	67	TYR	CG-CD2-CE2	-5.11	117.21	121.30
67	B1	371	U	O4'-C1'-N1	5.11	112.29	108.20
67	B1	632	G	C3'-C2'-C1'	-5.11	97.41	101.50
67	B1	1899	C	C4'-C3'-C2'	-5.11	97.49	102.60
67	B1	1994	G	C3'-C2'-C1'	5.11	105.59	101.50
67	B1	2060	A	O4'-C1'-N9	-5.11	104.11	108.20
67	B1	2100	U	OP1-P-OP2	-5.11	111.93	119.60
67	B1	2337	G	O4'-C1'-C2'	-5.11	100.69	105.80
67	B1	2636	C	O4'-C1'-C2'	-5.11	100.69	105.80
15	AE	81	TYR	CB-CG-CD1	-5.11	117.93	121.00
21	A2	232	G	P-O3'-C3'	-5.11	113.57	119.70
21	A2	240	U	O4'-C1'-C2'	-5.11	100.69	105.80
21	A2	615	G	O4'-C1'-N9	5.11	112.29	108.20
49	BQ	24	ILE	N-CA-C	-5.11	97.20	111.00
50	BV	1	MET	CA-CB-CG	5.11	121.99	113.30
28	B6	33	ARG	NE-CZ-NH2	-5.11	117.75	120.30
65	BJ	136	ILE	N-CA-CB	5.11	122.56	110.80
67	B1	514	U	C1'-O4'-C4'	5.11	113.99	109.90
67	B1	702	G	O5'-P-OP2	5.11	116.83	110.70
67	B1	1593	C	P-O3'-C3'	5.11	125.83	119.70
67	B1	1866	G	P-O3'-C3'	5.11	125.83	119.70
67	B1	2264	G	O3'-P-O5'	5.11	113.71	104.00
21	A2	132	G	C3'-C2'-C1'	-5.11	97.41	101.50
21	A2	797	U	O4'-C4'-C3'	-5.11	98.89	104.00
21	A2	957	A	N9-C1'-C2'	-5.11	106.38	112.00
33	BC	221	VAL	N-CA-CB	5.11	122.74	111.50
34	B5	16	ARG	C-N-CA	5.11	134.47	121.70
39	Be	2	GLY	N-CA-C	-5.11	100.33	113.10
67	B1	347	G	P-O5'-C5'	-5.11	112.73	120.90
67	B1	2146	C	C5'-C4'-O4'	5.11	115.23	109.10
11	A1	30	G	O4'-C1'-C2'	5.11	112.20	107.60
18	AF	13	LEU	CB-CG-CD2	-5.11	102.32	111.00
21	A2	319	U	C3'-C2'-C1'	5.11	105.59	101.50
21	A2	451	A	C5-C6-N6	-5.11	119.61	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	996	A	O4'-C1'-N9	5.11	112.29	108.20
27	A0	52	G	O4'-C4'-C3'	-5.11	98.89	104.00
31	BY	22	THR	N-CA-CB	5.11	120.00	110.30
61	Bd	70	HIS	CA-CB-CG	-5.11	104.92	113.60
67	B1	356	C	C5'-C4'-C3'	5.11	124.17	116.00
67	B1	1141	C	C1'-O4'-C4'	-5.11	105.81	109.90
67	B1	1508	A	C1'-O4'-C4'	-5.11	105.81	109.90
67	B1	1511	C	O4'-C1'-N1	5.11	112.29	108.20
67	B1	1674	G	OP1-P-O3'	5.11	116.44	105.20
67	B1	2112	C	O4'-C1'-C2'	-5.11	100.69	105.80
67	B1	2912	G	C2'-C3'-O3'	5.11	121.87	113.70
21	A2	1177	C	P-O3'-C3'	-5.11	113.57	119.70
21	A2	1231	G	O4'-C1'-C2'	-5.11	100.69	105.80
21	A2	1299	A	O5'-P-OP2	5.11	116.83	110.70
21	A2	1327	C	O4'-C1'-C2'	-5.11	100.69	105.80
21	A2	1477	U	P-O3'-C3'	-5.11	113.57	119.70
24	AA	26	PHE	CA-C-O	5.11	130.82	120.10
33	BC	242	ARG	NH1-CZ-NH2	5.11	125.02	119.40
43	Bk	33	MET	N-CA-C	-5.11	97.21	111.00
47	BI	137	PHE	CB-CG-CD2	-5.11	117.23	120.80
67	B1	497	G	N9-C1'-C2'	5.11	120.64	114.00
67	B1	629	G	C3'-C2'-C1'	5.11	105.58	101.50
2	AK	47	GLU	O-C-N	-5.10	111.40	121.10
67	B1	946	U	O3'-P-O5'	5.10	113.70	104.00
67	B1	1164	C	C5'-C4'-O4'	5.10	115.22	109.10
67	B1	2629	U	C3'-C2'-C1'	5.10	105.58	101.50
21	A2	33	U	C5'-C4'-C3'	5.10	124.17	116.00
21	A2	1046	G	C1'-O4'-C4'	-5.10	105.82	109.90
21	A2	1172	A	OP1-P-O3'	5.10	116.42	105.20
21	A2	1425	C	O4'-C1'-N1	5.10	112.28	108.20
59	BM	171	GLY	O-C-N	-5.10	114.54	122.70
67	B1	43	G	C4'-C3'-C2'	-5.10	97.50	102.60
67	B1	930	G	N9-C1'-C2'	5.10	120.63	114.00
67	B1	1263	C	C3'-C2'-C1'	-5.10	97.42	101.50
67	B1	1763	A	C5'-C4'-C3'	-5.10	107.84	116.00
67	B1	2625	C	N1-C1'-C2'	5.10	120.63	114.00
6	AC	171	LEU	N-CA-C	-5.10	97.23	111.00
21	A2	156	A	OP1-P-O3'	5.10	116.42	105.20
21	A2	878	U	O4'-C1'-C2'	5.10	112.19	107.60
21	A2	1149	C	P-O3'-C3'	5.10	125.82	119.70
67	B1	825	C	P-O5'-C5'	-5.10	112.74	120.90
67	B1	2136	G	O4'-C1'-N9	5.10	112.28	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	A3	52	ILE	CB-CA-C	5.10	121.80	111.60
21	A2	92	G	N9-C1'-C2'	-5.10	106.39	112.00
21	A2	563	U	O4'-C1'-N1	5.10	112.28	108.20
33	BC	339	ARG	NH1-CZ-NH2	5.10	125.01	119.40
20	BG	63	VAL	N-CA-CB	-5.10	100.28	111.50
67	B1	409	C	P-O5'-C5'	5.10	129.06	120.90
67	B1	731	C	C3'-C2'-C1'	5.10	105.58	101.50
67	B1	789	G	C4'-C3'-C2'	5.10	107.70	102.60
67	B1	1213	G	P-O3'-C3'	5.10	125.82	119.70
67	B1	1386	G	C1'-O4'-C4'	-5.10	105.82	109.90
67	B1	1577	C	P-O3'-C3'	5.10	125.82	119.70
67	B1	2154	G	O4'-C1'-C2'	-5.10	100.70	105.80
6	AC	6	TYR	CB-CG-CD2	-5.10	117.94	121.00
21	A2	1046	G	O4'-C1'-N9	5.10	112.28	108.20
21	A2	1472	G	C5'-C4'-C3'	5.10	124.16	116.00
34	B5	68	ASP	CB-CG-OD1	5.10	122.89	118.30
62	BN	150	ARG	NE-CZ-NH2	5.10	122.85	120.30
67	B1	1118	A	C4'-C3'-C2'	-5.10	97.50	102.60
67	B1	1988	U	OP2-P-O3'	5.10	116.41	105.20
67	B1	2307	C	C4'-C3'-C2'	5.10	107.70	102.60
67	B1	2470	U	C1'-O4'-C4'	5.10	113.98	109.90
21	A2	290	C	C3'-C2'-C1'	5.10	105.58	101.50
47	BI	94	PHE	CB-CG-CD1	-5.10	117.23	120.80
67	B1	1851	U	N1-C1'-C2'	5.10	120.62	114.00
4	AG	83	ARG	NE-CZ-NH2	-5.09	117.75	120.30
21	A2	332	C	C5'-C4'-C3'	5.09	124.15	116.00
21	A2	358	G	N9-C1'-C2'	-5.09	106.40	112.00
21	A2	965	G	O4'-C4'-C3'	-5.09	98.91	104.00
36	Bf	49	LEU	CD1-CG-CD2	5.09	125.78	110.50
38	Bb	30	ARG	NE-CZ-NH1	5.09	122.85	120.30
67	B1	1218	C	C5'-C4'-C3'	-5.09	107.85	116.00
67	B1	1835	A	O4'-C1'-N9	-5.09	104.12	108.20
67	B1	2415	C	C3'-C2'-C1'	5.09	105.58	101.50
20	A3	86	LEU	N-CA-CB	5.09	120.59	110.40
21	A2	198	A	O4'-C1'-N9	5.09	112.27	108.20
21	A2	887	G	O4'-C1'-N9	5.09	112.27	108.20
28	AV	45	ASP	N-CA-CB	5.09	119.77	110.60
53	BD	58	THR	N-CA-CB	5.09	119.98	110.30
67	B1	783	C	O4'-C1'-N1	5.09	112.27	108.20
21	A2	974	G	O4'-C1'-N9	-5.09	104.13	108.20
21	A2	1001	A	OP2-P-O3'	5.09	116.40	105.20
25	AH	89	GLU	CA-CB-CG	5.09	124.60	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	AP	46	VAL	CA-CB-CG1	5.09	118.54	110.90
44	BW	48	ARG	NH1-CZ-NH2	-5.09	113.80	119.40
52	BB	204	PHE	CB-CG-CD2	-5.09	117.24	120.80
63	Bg	3	ARG	CA-CB-CG	5.09	124.60	113.40
63	Bg	18	LEU	N-CA-CB	-5.09	100.22	110.40
67	B1	106	G	C1'-O4'-C4'	-5.09	105.83	109.90
67	B1	244	A	C4'-C3'-C2'	5.09	107.69	102.60
67	B1	2032	G	P-O3'-C3'	5.09	125.81	119.70
67	B1	2161	A	C1'-O4'-C4'	5.09	113.97	109.90
67	B1	2562	G	C5'-C4'-O4'	5.09	115.21	109.10
21	A2	227	C	O4'-C1'-C2'	-5.09	100.71	105.80
21	A2	670	C	P-O5'-C5'	5.09	129.04	120.90
21	A2	1478	A	O4'-C4'-C3'	-5.09	98.91	104.00
27	A0	61	C	O4'-C1'-C2'	-5.09	100.71	105.80
32	BO	83	ALA	N-CA-CB	5.09	117.22	110.10
35	BL	51	ILE	N-CA-C	-5.09	97.26	111.00
52	BB	128	TYR	CB-CG-CD2	-5.09	117.95	121.00
60	BS	40	ARG	CB-CA-C	5.09	120.58	110.40
67	B1	243	G	O5'-P-OP2	5.09	116.81	110.70
67	B1	404	G	C4'-C3'-C2'	-5.09	97.51	102.60
67	B1	721	G	O4'-C1'-N9	5.09	112.27	108.20
67	B1	943	G	C3'-C2'-C1'	5.09	105.57	101.50
67	B1	1216	A	C5'-C4'-O4'	5.09	115.21	109.10
67	B1	1468	G	O5'-C5'-C4'	-5.09	102.03	111.70
67	B1	1518	G	C1'-O4'-C4'	5.09	113.97	109.90
67	B1	1601	G	C5'-C4'-C3'	5.09	124.14	116.00
67	B1	1666	G	OP1-P-O3'	5.09	116.40	105.20
67	B1	2298	C	O4'-C1'-N1	5.09	112.27	108.20
21	A2	164	A	P-O3'-C3'	5.09	125.81	119.70
21	A2	1250	C	C5'-C4'-C3'	-5.09	107.86	116.00
27	A0	30	G	O4'-C1'-C2'	-5.09	100.71	105.80
67	B1	336	C	C4'-C3'-C2'	-5.09	97.51	102.60
67	B1	419	G	C5'-C4'-C3'	-5.09	107.86	116.00
67	B1	982	G	OP1-P-OP2	-5.09	111.97	119.60
21	A2	74	U	C4'-C3'-C2'	5.09	107.69	102.60
40	BE	24	ARG	NE-CZ-NH2	-5.09	117.76	120.30
54	BF	151	ALA	N-CA-CB	5.09	117.22	110.10
60	BS	26	ARG	NE-CZ-NH1	5.09	122.84	120.30
67	B1	1408	G	O4'-C1'-C2'	-5.09	100.71	105.80
67	B1	1569	A	O4'-C4'-C3'	-5.09	98.91	104.00
67	B1	1632	U	N1-C1'-C2'	-5.09	106.40	112.00
67	B1	1947	A	O4'-C1'-N9	-5.09	104.13	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2098	C	C3'-C2'-C1'	5.09	105.57	101.50
67	B1	2275	G	C1'-O4'-C4'	5.09	113.97	109.90
68	B3	66	A	P-O5'-C5'	5.09	129.04	120.90
6	AC	140	ARG	NH1-CZ-NH2	5.08	124.99	119.40
21	A2	133	G	P-O3'-C3'	5.08	125.80	119.70
21	A2	219	C	C5'-C4'-C3'	5.08	124.14	116.00
49	BQ	115	ILE	CB-CA-C	5.08	121.77	111.60
67	B1	2862	A	P-O5'-C5'	-5.08	112.76	120.90
1	AQ	103	VAL	CA-CB-CG2	-5.08	103.27	110.90
21	A2	710	G	C1'-O4'-C4'	-5.08	105.83	109.90
21	A2	1156	A	C3'-C2'-C1'	5.08	105.57	101.50
67	B1	113	C	O4'-C1'-C2'	-5.08	100.72	105.80
67	B1	671	G	C5'-C4'-C3'	-5.08	107.86	116.00
67	B1	802	G	P-O5'-C5'	5.08	129.03	120.90
67	B1	888	U	P-O5'-C5'	5.08	129.03	120.90
67	B1	1055	C	C5'-C4'-O4'	5.08	115.20	109.10
67	B1	1491	U	C1'-O4'-C4'	5.08	113.97	109.90
67	B1	2627	C	P-O5'-C5'	-5.08	112.77	120.90
10	AD	30	MET	CG-SD-CE	-5.08	92.07	100.20
21	A2	975	A	O3'-P-O5'	5.08	113.65	104.00
29	AL	49	THR	CA-CB-CG2	-5.08	105.29	112.40
67	B1	40	G	OP1-P-OP2	-5.08	111.98	119.60
67	B1	98	G	N9-C1'-C2'	-5.08	106.41	112.00
67	B1	455	G	OP1-P-OP2	-5.08	111.98	119.60
67	B1	694	A	C1'-O4'-C4'	5.08	113.97	109.90
67	B1	1211	C	C4'-C3'-C2'	5.08	107.68	102.60
67	B1	1224	A	C5'-C4'-C3'	5.08	124.13	116.00
67	B1	1765	A	C5'-C4'-O4'	-5.08	103.00	109.10
67	B1	2365	G	C5'-C4'-O4'	5.08	115.20	109.10
67	B1	2668	G	O4'-C4'-C3'	-5.08	98.92	104.00
13	AX	70	ARG	NE-CZ-NH2	-5.08	117.76	120.30
21	A2	619	A	C1'-O4'-C4'	5.08	113.96	109.90
34	BK	68	ASP	CB-CG-OD1	5.08	122.87	118.30
67	B1	705	G	C4'-C3'-C2'	-5.08	97.52	102.60
67	B1	855	G	P-O5'-C5'	-5.08	112.77	120.90
67	B1	1892	G	C3'-C2'-C1'	-5.08	97.44	101.50
2	AK	112	ARG	NE-CZ-NH2	5.08	122.84	120.30
6	AC	34	ASP	CB-CG-OD1	5.08	122.87	118.30
14	AM	26	THR	CA-CB-CG2	-5.08	105.29	112.40
21	A2	210	A	O4'-C1'-N9	5.08	112.26	108.20
21	A2	554	C	P-O3'-C3'	-5.08	113.61	119.70
21	A2	559	G	C4'-C3'-C2'	-5.08	97.52	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	682	A	C5'-C4'-C3'	5.08	124.12	116.00
21	A2	1329	C	C4'-C3'-C2'	5.08	107.68	102.60
21	A2	1455	A	N9-C1'-C2'	5.08	120.60	114.00
21	A2	1476	C	N1-C1'-C2'	5.08	120.60	114.00
24	AA	175	LYS	N-CA-CB	5.08	119.74	110.60
44	BW	42	MET	CA-CB-CG	5.08	121.93	113.30
67	B1	92	G	C3'-C2'-C1'	5.08	105.56	101.50
67	B1	805	C	O4'-C1'-N1	5.08	112.26	108.20
67	B1	837	G	N9-C1'-C2'	5.08	120.60	114.00
67	B1	1244	C	C5'-C4'-C3'	5.08	124.13	116.00
67	B1	2976	G	O4'-C1'-N9	5.08	112.26	108.20
68	B3	65	G	C1'-O4'-C4'	-5.08	105.84	109.90
8	AR	61	GLU	N-CA-CB	5.08	119.74	110.60
21	A2	482	G	C1'-O4'-C4'	-5.08	105.84	109.90
21	A2	678	G	OP1-P-OP2	-5.08	111.98	119.60
67	B1	1550	C	O4'-C1'-N1	5.08	112.26	108.20
21	A2	447	A	C5-C6-N6	-5.08	119.64	123.70
21	A2	593	G	C1'-O4'-C4'	-5.08	105.84	109.90
21	A2	729	G	C5'-C4'-C3'	5.08	124.12	116.00
21	A2	765	U	P-O3'-C3'	5.08	125.79	119.70
21	A2	1249	A	O4'-C1'-C2'	-5.08	100.72	105.80
45	Bi	22	ARG	NE-CZ-NH1	5.08	122.84	120.30
61	Bd	59	LYS	CB-CA-C	5.08	120.55	110.40
66	Bl	12	PHE	CB-CG-CD1	-5.08	117.25	120.80
67	B1	598	C	C5'-C4'-C3'	5.08	124.12	116.00
67	B1	780	G	C3'-C2'-C1'	-5.08	97.44	101.50
67	B1	1540	A	C5'-C4'-C3'	5.08	124.12	116.00
67	B1	2054	G	P-O5'-C5'	-5.08	112.78	120.90
67	B1	2494	A	C3'-C2'-C1'	5.08	105.56	101.50
6	AC	147	TYR	CD1-CG-CD2	5.07	123.48	117.90
21	A2	112	G	OP1-P-OP2	-5.07	111.99	119.60
21	A2	317	A	N9-C1'-C2'	5.07	120.59	114.00
21	A2	1419	G	C3'-C2'-C1'	-5.07	97.44	101.50
27	A0	21	G	C5'-C4'-O4'	5.07	115.19	109.10
31	BY	16	LYS	N-CA-CB	5.07	119.73	110.60
42	BT	65	LYS	N-CA-C	-5.07	97.30	111.00
67	B1	1781	C	P-O3'-C3'	-5.07	113.61	119.70
67	B1	2198	U	C1'-O4'-C4'	-5.07	105.84	109.90
67	B1	2202	U	N1-C1'-C2'	5.07	120.60	114.00
67	B1	3045	G	O4'-C1'-C2'	-5.07	100.73	105.80
68	B3	78	C	C1'-O4'-C4'	5.07	113.96	109.90
21	A2	73	U	P-O5'-C5'	5.07	129.01	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BH	2	PRO	CA-N-CD	-5.07	104.40	111.50
28	B6	10	GLU	N-CA-CB	5.07	119.73	110.60
67	B1	2283	C	O4'-C1'-C2'	-5.07	100.73	105.80
67	B1	2291	G	OP1-P-OP2	-5.07	111.99	119.60
67	B1	2350	G	O4'-C1'-C2'	-5.07	100.73	105.80
21	A2	553	C	C1'-O4'-C4'	-5.07	105.84	109.90
58	BP	86	SER	N-CA-CB	5.07	118.11	110.50
66	Bl	65	ALA	N-CA-CB	5.07	117.20	110.10
67	B1	626	C	C3'-C2'-C1'	5.07	105.56	101.50
67	B1	2256	G	O4'-C4'-C3'	-5.07	98.93	104.00
67	B1	2311	C	O4'-C1'-N1	5.07	112.26	108.20
67	B1	2710	G	O4'-C1'-C2'	-5.07	100.73	105.80
15	AE	224	ASP	N-CA-C	-5.07	97.31	111.00
25	AH	179	SER	N-CA-CB	-5.07	102.90	110.50
27	A0	76	A	C1'-O4'-C4'	5.07	113.96	109.90
33	BC	125	TYR	CG-CD2-CE2	-5.07	117.25	121.30
53	BD	225	LEU	CB-CG-CD2	5.07	119.62	111.00
67	B1	1018	G	O4'-C1'-N9	5.07	112.25	108.20
67	B1	2265	C	O4'-C1'-C2'	-5.07	100.73	105.80
21	A2	303	G	C3'-C2'-C1'	-5.07	97.44	101.50
21	A2	375	G	C1'-O4'-C4'	-5.07	105.84	109.90
32	BO	96	GLN	N-CA-CB	5.07	119.72	110.60
33	BC	236	ARG	NE-CZ-NH1	5.07	122.83	120.30
67	B1	584	G	P-O5'-C5'	-5.07	112.79	120.90
67	B1	1054	A	O4'-C4'-C3'	-5.07	98.93	104.00
67	B1	1257	G	C1'-O4'-C4'	-5.07	105.85	109.90
67	B1	1288	C	C1'-O4'-C4'	5.07	113.95	109.90
67	B1	1406	G	C5'-C4'-C3'	-5.07	107.89	116.00
67	B1	1607	C	C5'-C4'-O4'	5.07	115.18	109.10
67	B1	1739	U	C2'-C3'-O3'	5.07	121.81	113.70
67	B1	1819	G	C4'-C3'-C2'	-5.07	97.53	102.60
67	B1	2216	G	C5'-C4'-C3'	-5.07	107.89	116.00
67	B1	2468	C	C1'-O4'-C4'	5.07	113.95	109.90
6	AC	51	PRO	CA-C-N	5.07	126.33	116.20
21	A2	77	G	OP2-P-O3'	5.07	116.34	105.20
21	A2	322	G	O4'-C1'-N9	5.07	112.25	108.20
21	A2	419	G	O4'-C1'-N9	5.07	112.25	108.20
33	BC	42	ALA	CB-CA-C	-5.07	102.50	110.10
38	Bb	92	ALA	N-CA-CB	5.07	117.19	110.10
46	BA	203	TYR	CB-CG-CD1	-5.07	117.96	121.00
67	B1	20	C	P-O3'-C3'	-5.07	113.62	119.70
67	B1	782	G	C5'-C4'-C3'	-5.07	107.89	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1057	C	C3'-C2'-C1'	5.07	105.55	101.50
21	A2	1114	G	C1'-O4'-C4'	5.06	113.95	109.90
67	B1	2978	G	C1'-O4'-C4'	-5.06	105.85	109.90
68	B3	38	U	C1'-O4'-C4'	-5.06	105.85	109.90
21	A2	70	C	C2'-C3'-O3'	5.06	121.80	113.70
21	A2	774	U	O4'-C1'-C2'	-5.06	100.74	105.80
21	A2	997	G	N3-C2-N2	5.06	123.44	119.90
21	A2	1386	C	N1-C1'-C2'	5.06	120.58	114.00
51	Bj	31	SER	N-CA-C	5.06	124.67	111.00
67	B1	1173	G	P-O3'-C3'	5.06	125.78	119.70
67	B1	1698	G	O4'-C1'-C2'	5.06	112.16	107.60
67	B1	1339	C	N1-C1'-C2'	5.06	120.58	114.00
67	B1	2002	A	N9-C1'-C2'	5.06	120.58	114.00
67	B1	2888	G	N9-C1'-C2'	-5.06	106.43	112.00
21	A2	426	C	O4'-C1'-C2'	-5.06	100.74	105.80
21	A2	637	G	C1'-O4'-C4'	-5.06	105.85	109.90
21	A2	913	G	N9-C1'-C2'	5.06	120.58	114.00
21	A2	1031	G	C1'-O4'-C4'	5.06	113.95	109.90
21	A2	1473	A	P-O3'-C3'	-5.06	113.63	119.70
67	B1	577	C	C1'-O4'-C4'	5.06	113.95	109.90
67	B1	2160	C	OP1-P-OP2	-5.06	112.01	119.60
68	B3	26	C	C2'-C3'-O3'	5.06	121.79	113.70
21	A2	969	A	C3'-C2'-C1'	5.06	105.55	101.50
33	BC	124	PHE	CB-CG-CD1	5.06	124.34	120.80
67	B1	1068	U	N1-C1'-C2'	5.06	120.58	114.00
67	B1	1725	A	O4'-C1'-N9	5.06	112.25	108.20
67	B1	1937	A	O4'-C1'-C2'	-5.06	100.74	105.80
68	B3	53	A	C5'-C4'-O4'	-5.06	103.03	109.10
21	A2	198	A	O4'-C1'-C2'	5.06	112.15	107.60
21	A2	538	C	O4'-C1'-C2'	-5.06	100.74	105.80
31	BY	129	SER	N-CA-CB	5.06	118.08	110.50
67	B1	1641	G	C1'-O4'-C4'	-5.06	105.86	109.90
12	AN	44	LEU	CB-CA-C	-5.05	100.59	110.20
21	A2	72	C	O4'-C1'-N1	5.05	112.24	108.20
21	A2	179	U	O4'-C1'-C2'	-5.05	100.75	105.80
21	A2	529	C	C1'-O4'-C4'	-5.05	105.86	109.90
21	A2	950	C	C1'-O4'-C4'	5.05	113.94	109.90
21	A2	1320	A	O4'-C1'-C2'	5.05	112.15	107.60
43	Bk	97	PHE	CB-CG-CD2	5.05	124.34	120.80
48	BR	39	GLN	N-CA-CB	5.05	119.70	110.60
56	BH	70	VAL	C-N-CD	-5.05	109.48	120.60
20	B4	63	VAL	N-CA-CB	-5.05	100.38	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1607	C	O3'-P-O5'	-5.05	94.40	104.00
67	B1	2110	C	O4'-C4'-C3'	-5.05	98.94	104.00
67	B1	2953	U	C5'-C4'-C3'	-5.05	107.91	116.00
21	A2	135	U	P-O3'-C3'	5.05	125.76	119.70
21	A2	295	G	O4'-C1'-N9	5.05	112.24	108.20
21	A2	316	C	P-O3'-C3'	5.05	125.76	119.70
67	B1	207	A	N9-C1'-C2'	5.05	120.57	114.00
67	B1	938	U	C5'-C4'-C3'	5.05	124.08	116.00
67	B1	2409	C	O4'-C1'-C2'	-5.05	100.75	105.80
67	B1	2606	C	C3'-C2'-C1'	5.05	105.54	101.50
67	B1	3001	C	P-O3'-C3'	-5.05	113.64	119.70
68	B3	84	U	C1'-O4'-C4'	5.05	113.94	109.90
13	AX	31	ILE	CA-CB-CG2	5.05	121.00	110.90
21	A2	805	C	P-O5'-C5'	5.05	128.98	120.90
21	A2	1032	A	N9-C1'-C2'	-5.05	106.44	112.00
21	A2	1227	A	P-O3'-C3'	-5.05	113.64	119.70
21	A2	1400	A	OP1-P-OP2	-5.05	112.02	119.60
32	BO	194	GLU	OE1-CD-OE2	-5.05	117.24	123.30
35	BL	10	LYS	C-N-CA	5.05	134.33	121.70
67	B1	308	C	O4'-C4'-C3'	-5.05	98.95	104.00
67	B1	597	C	C3'-C2'-C1'	5.05	105.54	101.50
67	B1	1386	G	C3'-C2'-C1'	-5.05	97.46	101.50
67	B1	1665	G	O4'-C1'-N9	5.05	112.24	108.20
67	B1	1678	A	O4'-C4'-C3'	-5.05	98.95	104.00
67	B1	2108	U	P-O5'-C5'	-5.05	112.82	120.90
67	B1	2573	C	C3'-C2'-C1'	5.05	105.54	101.50
14	AM	49	LYS	O-C-N	-5.05	114.62	122.70
20	A3	73	LYS	CB-CA-C	-5.05	100.30	110.40
21	A2	806	G	C1'-O4'-C4'	-5.05	105.86	109.90
21	A2	821	G	O4'-C1'-C2'	-5.05	100.75	105.80
21	A2	1078	U	C3'-C2'-C1'	5.05	105.54	101.50
21	A2	1232	G	C3'-C2'-C1'	5.05	105.54	101.50
24	AA	97	ARG	NE-CZ-NH2	5.05	122.83	120.30
51	Bj	62	VAL	CB-CA-C	5.05	121.00	111.40
67	B1	980	G	C3'-C2'-C1'	5.05	105.54	101.50
67	B1	1468	G	OP2-P-O3'	5.05	116.31	105.20
67	B1	1813	A	P-O5'-C5'	5.05	128.98	120.90
67	B1	2086	C	C1'-O4'-C4'	-5.05	105.86	109.90
67	B1	2471	A	C1'-O4'-C4'	5.05	113.94	109.90
67	B1	2883	C	O5'-C5'-C4'	-5.05	102.11	111.70
15	AE	106	ARG	C-N-CA	5.05	134.32	121.70
21	A2	1198	A	P-O5'-C5'	5.05	128.98	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1279	A	O4'-C1'-C2'	-5.05	100.75	105.80
67	B1	117	A	O4'-C1'-C2'	-5.05	100.75	105.80
67	B1	275	C	C3'-C2'-C1'	5.05	105.54	101.50
67	B1	1470	C	C3'-C2'-C1'	5.05	105.54	101.50
21	A2	425	C	P-O3'-C3'	-5.05	113.64	119.70
21	A2	1103	G	C3'-C2'-C1'	5.05	105.54	101.50
37	BU	33	ARG	NE-CZ-NH1	5.05	122.82	120.30
40	BE	18	HIS	N-CA-CB	5.05	119.68	110.60
67	B1	985	A	C5-C6-N1	-5.05	115.18	117.70
67	B1	2442	A	O5'-P-OP1	5.05	116.76	110.70
67	B1	2780	G	C4'-C3'-C2'	-5.05	97.55	102.60
67	B1	2890	A	C1'-O4'-C4'	5.05	113.94	109.90
68	B3	3	G	C3'-C2'-C1'	5.05	105.54	101.50
4	AG	104	LYS	N-CA-CB	5.04	119.68	110.60
11	A1	16	C	O4'-C1'-N1	5.04	112.24	108.20
21	A2	341	C	P-O5'-C5'	-5.04	112.83	120.90
46	BA	107	PHE	CD1-CE1-CZ	-5.04	114.05	120.10
53	BD	211	ALA	N-CA-CB	5.04	117.16	110.10
56	BH	78	LYS	CB-CA-C	-5.04	100.31	110.40
60	BS	13	ASP	CA-C-O	-5.04	109.51	120.10
67	B1	183	G	C1'-O4'-C4'	-5.04	105.86	109.90
67	B1	184	A	N9-C1'-C2'	-5.04	106.45	112.00
67	B1	1708	U	C5'-C4'-O4'	5.04	115.15	109.10
67	B1	2364	G	O4'-C1'-C2'	5.04	112.14	107.60
67	B1	2366	G	C3'-C2'-C1'	-5.04	97.47	101.50
67	B1	2400	U	C5'-C4'-O4'	5.04	115.15	109.10
67	B1	2812	U	C4'-C3'-C2'	-5.04	97.56	102.60
2	AK	74	GLN	N-CA-CB	5.04	119.67	110.60
21	A2	81	C	O4'-C1'-C2'	-5.04	100.76	105.80
43	Bk	27	LEU	CB-CG-CD1	5.04	119.57	111.00
67	B1	152	G	C4'-C3'-C2'	-5.04	97.56	102.60
67	B1	732	G	O4'-C1'-C2'	5.04	112.14	107.60
67	B1	1054	A	C1'-O4'-C4'	-5.04	105.87	109.90
67	B1	1110	A	O4'-C1'-C2'	5.04	112.14	107.60
68	B3	12	G	N9-C1'-C2'	-5.04	106.45	112.00
21	A2	998	A	C5-C6-N6	-5.04	119.67	123.70
33	BC	111	ALA	CB-CA-C	5.04	117.66	110.10
54	BF	163	TRP	CE2-CD2-CE3	5.04	124.75	118.70
67	B1	189	U	P-O3'-C3'	-5.04	113.65	119.70
67	B1	1528	A	O4'-C1'-C2'	5.04	112.14	107.60
67	B1	2251	G	OP1-P-OP2	-5.04	112.04	119.60
67	B1	2416	G	O4'-C1'-N9	5.04	112.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2560	G	O4'-C1'-C2'	5.04	112.14	107.60
21	A2	22	G	C5'-C4'-O4'	-5.04	103.05	109.10
36	Bf	32	ASN	C-N-CA	5.04	134.30	121.70
53	BD	13	VAL	N-CA-C	-5.04	97.39	111.00
67	B1	516	A	N9-C1'-C2'	5.04	120.55	114.00
67	B1	811	C	N1-C1'-C2'	5.04	120.55	114.00
67	B1	1553	G	C1'-O4'-C4'	5.04	113.93	109.90
67	B1	2867	U	C5'-C4'-O4'	-5.04	103.06	109.10
67	B1	2907	C	C4'-C3'-C2'	-5.04	97.56	102.60
21	A2	623	C	O4'-C4'-C3'	-5.04	98.96	104.00
21	A2	1258	C	O5'-P-OP2	5.04	116.75	110.70
2	AK	117	HIS	CA-CB-CG	5.04	122.16	113.60
21	A2	157	A	C1'-O4'-C4'	5.04	113.93	109.90
21	A2	304	C	C1'-O4'-C4'	-5.04	105.87	109.90
21	A2	716	G	P-O3'-C3'	5.04	125.74	119.70
21	A2	1000	G	O3'-P-O5'	-5.04	94.43	104.00
21	A2	1051	G	C5'-C4'-C3'	5.04	124.06	116.00
21	A2	1322	C	O4'-C1'-C2'	-5.04	100.77	105.80
45	Bi	50	SER	N-CA-C	-5.04	97.40	111.00
67	B1	643	G	O4'-C1'-N9	5.04	112.23	108.20
67	B1	1779	C	O4'-C4'-C3'	-5.04	98.96	104.00
67	B1	1938	G	C5'-C4'-O4'	5.04	115.14	109.10
67	B1	2043	A	O4'-C4'-C3'	-5.04	98.97	104.00
67	B1	2316	U	C4'-C3'-C2'	-5.04	97.56	102.60
27	A0	71	G	O3'-P-O5'	5.03	113.56	104.00
67	B1	381	G	C4'-C3'-C2'	-5.03	97.57	102.60
67	B1	431	U	P-O3'-C3'	5.03	125.74	119.70
67	B1	751	U	P-O5'-C5'	-5.03	112.85	120.90
67	B1	979	G	O5'-C5'-C4'	-5.03	102.14	111.70
67	B1	1854	G	C5'-C4'-C3'	-5.03	107.95	116.00
67	B1	1863	G	O4'-C1'-C2'	5.03	112.13	107.60
67	B1	2332	G	O4'-C4'-C3'	-5.03	98.97	104.00
68	B3	111	G	C3'-C2'-C1'	-5.03	97.47	101.50
21	A2	166	A	C4'-C3'-C2'	-5.03	97.57	102.60
21	A2	1345	G	C4'-C3'-C2'	-5.03	97.57	102.60
21	A2	1451	C	O4'-C1'-C2'	-5.03	100.77	105.80
67	B1	690	G	O4'-C1'-N9	5.03	112.23	108.20
67	B1	2978	G	O5'-P-OP1	5.03	116.74	110.70
21	A2	237	C	N1-C1'-C2'	5.03	120.54	114.00
21	A2	362	C	P-O3'-C3'	5.03	125.74	119.70
21	A2	1055	C	C3'-C2'-C1'	5.03	105.53	101.50
21	A2	1117	A	C5'-C4'-O4'	-5.03	103.06	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1489	A	O4'-C1'-N9	5.03	112.22	108.20
53	BD	191	TYR	CB-CG-CD1	-5.03	117.98	121.00
67	B1	246	A	O4'-C1'-C2'	-5.03	100.77	105.80
67	B1	411	U	P-O3'-C3'	5.03	125.74	119.70
67	B1	415	U	P-O5'-C5'	5.03	128.95	120.90
67	B1	1026	A	O4'-C1'-N9	5.03	112.22	108.20
67	B1	1431	U	O5'-P-OP2	-5.03	101.17	105.70
67	B1	2508	G	N9-C1'-C2'	5.03	120.54	114.00
21	A2	74	U	O4'-C1'-C2'	5.03	112.13	107.60
21	A2	1474	A	O4'-C1'-N9	5.03	112.22	108.20
67	B1	2423	G	P-O5'-C5'	5.03	128.95	120.90
8	AR	8	ARG	NE-CZ-NH1	5.03	122.81	120.30
21	A2	1006	C	C5'-C4'-O4'	5.03	115.13	109.10
21	A2	1111	G	O4'-C1'-N9	5.03	112.22	108.20
43	Bk	41	MET	CA-CB-CG	5.03	121.85	113.30
62	BN	116	PHE	CB-CG-CD1	-5.03	117.28	120.80
67	B1	257	G	OP1-P-OP2	-5.03	112.06	119.60
67	B1	589	G	N3-C2-N2	5.03	123.42	119.90
67	B1	962	C	O4'-C1'-C2'	-5.03	100.77	105.80
67	B1	1762	G	O4'-C1'-C2'	-5.03	100.77	105.80
67	B1	2199	U	O4'-C4'-C3'	-5.03	98.97	104.00
67	B1	2589	C	O4'-C1'-N1	5.03	112.22	108.20
67	B1	2850	G	N9-C1'-C2'	5.03	120.54	114.00
8	AR	37	ILE	CG1-CB-CG2	5.03	122.45	111.40
21	A2	212	G	C4'-C3'-C2'	-5.03	97.57	102.60
21	A2	474	G	C4'-C3'-C2'	-5.03	97.58	102.60
21	A2	625	G	C5'-C4'-C3'	-5.03	107.96	116.00
42	BT	74	TYR	CG-CD2-CE2	-5.03	117.28	121.30
66	B1	43	SER	CB-CA-C	5.03	119.65	110.10
67	B1	1287	G	O4'-C1'-C2'	-5.03	100.77	105.80
67	B1	1519	G	C3'-C2'-C1'	5.03	105.52	101.50
67	B1	2029	C	O4'-C1'-N1	5.03	112.22	108.20
68	B3	20	G	C1'-O4'-C4'	-5.03	105.88	109.90
21	A2	1438	A	C4'-C3'-C2'	-5.02	97.58	102.60
67	B1	3	G	O4'-C4'-C3'	-5.02	98.98	104.00
67	B1	1342	G	C3'-C2'-C1'	5.02	105.52	101.50
67	B1	1982	C	O4'-C1'-N1	5.02	112.22	108.20
67	B1	2020	G	C4'-C3'-C2'	-5.02	97.58	102.60
67	B1	2836	G	P-O3'-C3'	5.02	125.73	119.70
11	A1	55	U	P-O3'-C3'	-5.02	113.67	119.70
15	AE	8	ARG	NE-CZ-NH2	-5.02	117.79	120.30
36	Bf	41	ARG	CB-CA-C	-5.02	100.36	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	BS	20	ALA	N-CA-CB	5.02	117.13	110.10
67	B1	699	A	C5'-C4'-C3'	5.02	124.04	116.00
67	B1	969	U	C3'-C2'-C1'	5.02	105.52	101.50
67	B1	1379	A	N9-C1'-C2'	-5.02	106.48	112.00
67	B1	1557	G	O3'-P-O5'	-5.02	94.46	104.00
67	B1	2196	C	O4'-C1'-C2'	-5.02	100.78	105.80
67	B1	2502	C	C1'-O4'-C4'	-5.02	105.88	109.90
67	B1	3008	C	P-O5'-C5'	5.02	128.94	120.90
13	AX	17	ARG	N-CA-CB	5.02	119.64	110.60
21	A2	2	U	OP1-P-OP2	-5.02	112.07	119.60
21	A2	401	U	C3'-C2'-C1'	5.02	105.52	101.50
67	B1	1738	A	C4'-C3'-C2'	-5.02	97.58	102.60
11	A1	16	C	P-O3'-C3'	5.02	125.72	119.70
67	B1	435	G	OP2-P-O3'	5.02	116.24	105.20
67	B1	567	G	C3'-C2'-C1'	-5.02	97.48	101.50
67	B1	989	G	P-O3'-C3'	-5.02	113.68	119.70
67	B1	1467	G	N9-C1'-C2'	-5.02	106.48	112.00
67	B1	1724	A	O4'-C1'-C2'	-5.02	100.78	105.80
67	B1	2198	U	C4'-C3'-C2'	-5.02	97.58	102.60
67	B1	2488	C	O4'-C1'-C2'	-5.02	100.78	105.80
25	AH	48	HIS	CA-CB-CG	5.02	122.13	113.60
36	Bf	27	VAL	CB-CA-C	-5.02	101.87	111.40
39	Be	24	GLY	CA-C-N	5.02	128.24	117.20
67	B1	1177	C	O3'-P-O5'	5.02	113.53	104.00
67	B1	2074	U	O4'-C4'-C3'	-5.02	98.98	104.00
67	B1	2766	C	N1-C1'-C2'	5.02	120.52	114.00
67	B1	2864	G	O4'-C1'-C2'	-5.02	100.78	105.80
21	A2	587	G	O4'-C1'-N9	5.02	112.21	108.20
33	BC	37	ARG	NE-CZ-NH1	5.02	122.81	120.30
65	BJ	91	ARG	N-CA-CB	5.02	119.63	110.60
67	B1	1162	C	O4'-C1'-N1	-5.02	104.19	108.20
67	B1	1213	G	O4'-C4'-C3'	-5.02	98.98	104.00
67	B1	1701	C	O4'-C1'-N1	5.02	112.21	108.20
67	B1	2691	G	O4'-C1'-C2'	5.02	112.11	107.60
12	AN	38	LYS	CB-CA-C	-5.01	100.37	110.40
21	A2	247	G	P-O3'-C3'	5.01	125.72	119.70
21	A2	595	U	O4'-C1'-C2'	-5.01	100.78	105.80
21	A2	819	G	C5'-C4'-O4'	5.01	115.12	109.10
21	A2	1243	C	N1-C1'-C2'	5.01	120.52	114.00
24	AA	19	TYR	N-CA-C	-5.01	97.46	111.00
32	BO	22	ARG	N-CA-CB	5.01	119.63	110.60
38	Bb	36	ASN	N-CA-CB	5.01	119.63	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	BF	180	LYS	N-CA-CB	5.01	119.63	110.60
66	Bl	71	ARG	NE-CZ-NH1	5.01	122.81	120.30
67	B1	442	G	C5'-C4'-C3'	-5.01	107.97	116.00
67	B1	890	G	O4'-C1'-C2'	5.01	112.11	107.60
67	B1	2000	G	P-O3'-C3'	-5.01	113.68	119.70
67	B1	2837	C	O4'-C4'-C3'	-5.01	98.98	104.00
67	B1	2944	G	C5'-C4'-C3'	5.01	124.02	116.00
21	A2	1013	G	O4'-C1'-N9	5.01	112.21	108.20
21	A2	488	A	C3'-C2'-C1'	5.01	105.51	101.50
33	BC	122	MET	CG-SD-CE	-5.01	92.18	100.20
67	B1	190	C	P-O3'-C3'	-5.01	113.69	119.70
67	B1	275	C	O3'-P-O5'	5.01	113.52	104.00
67	B1	606	A	C1'-O4'-C4'	-5.01	105.89	109.90
67	B1	1225	A	O4'-C1'-N9	5.01	112.21	108.20
67	B1	1285	C	O4'-C1'-N1	5.01	112.21	108.20
67	B1	1748	C	O4'-C1'-C2'	-5.01	100.79	105.80
67	B1	1966	C	C4'-C3'-C2'	-5.01	97.59	102.60
67	B1	2723	G	C5'-C4'-O4'	-5.01	103.09	109.10
67	B1	2866	A	N9-C1'-C2'	5.01	120.52	114.00
10	AD	27	ARG	NH1-CZ-NH2	-5.01	113.89	119.40
27	A0	68	G	P-O3'-C3'	5.01	125.71	119.70
67	B1	290	G	C3'-C2'-C1'	5.01	105.51	101.50
67	B1	306	G	O5'-C5'-C4'	-5.01	102.18	111.70
67	B1	899	A	C2'-C3'-O3'	5.01	121.72	113.70
67	B1	1723	A	O4'-C1'-C2'	-5.01	100.79	105.80
67	B1	2427	C	C2'-C3'-O3'	5.01	121.72	113.70
62	BN	143	LYS	CB-CA-C	-5.01	100.39	110.40
65	BJ	14	ALA	N-CA-CB	5.01	117.11	110.10
67	B1	1104	A	C3'-C2'-C1'	-5.01	97.49	101.50
67	B1	2426	U	C3'-C2'-C1'	-5.01	97.49	101.50
67	B1	2818	C	C1'-O4'-C4'	-5.01	105.89	109.90
7	AB	95	ARG	NE-CZ-NH2	5.01	122.80	120.30
12	AN	12	ALA	CB-CA-C	-5.01	102.59	110.10
21	A2	36	G	C3'-C2'-C1'	5.01	105.50	101.50
21	A2	680	C	N1-C1'-C2'	-5.01	106.49	112.00
21	A2	870	U	C3'-C2'-C1'	5.01	105.50	101.50
21	A2	961	U	O4'-C1'-N1	5.01	112.20	108.20
21	A2	1063	A	C3'-C2'-C1'	5.01	105.50	101.50
21	A2	1186	C	P-O5'-C5'	-5.01	112.89	120.90
21	A2	1296	U	OP1-P-OP2	-5.01	112.09	119.60
37	BU	77	TYR	CB-CG-CD1	5.01	124.00	121.00
61	Bd	26	PHE	N-CA-CB	5.01	119.61	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	363	G	C5'-C4'-O4'	5.01	115.11	109.10
67	B1	471	U	C2'-C3'-O3'	5.01	121.71	113.70
67	B1	1848	A	C3'-C2'-C1'	5.01	105.50	101.50
67	B1	2180	C	O4'-C1'-N1	5.01	112.20	108.20
67	B1	2513	C	P-O5'-C5'	5.01	128.91	120.90
67	B1	2811	U	C3'-C2'-C1'	-5.01	97.49	101.50
17	AO	5	ARG	N-CA-C	-5.00	97.49	111.00
67	B1	657	U	OP1-P-OP2	-5.00	112.09	119.60
67	B1	1427	A	O4'-C1'-N9	5.00	112.20	108.20
67	B1	1565	G	O5'-C5'-C4'	-5.00	102.19	111.70
67	B1	2102	A	C3'-C2'-C1'	-5.00	97.50	101.50
21	A2	555	U	O4'-C1'-C2'	5.00	112.10	107.60
21	A2	674	C	C1'-O4'-C4'	5.00	113.90	109.90
67	B1	574	C	P-O3'-C3'	5.00	125.70	119.70
67	B1	1135	A	C5'-C4'-O4'	5.00	115.11	109.10
67	B1	1464	A	O4'-C1'-C2'	-5.00	100.80	105.80
67	B1	2262	C	P-O5'-C5'	5.00	128.91	120.90
67	B1	2309	C	C3'-C2'-C1'	5.00	105.50	101.50
67	B1	2614	C	P-O3'-C3'	-5.00	113.69	119.70
67	B1	2776	A	C5'-C4'-C3'	-5.00	107.99	116.00
15	AE	133	ILE	CA-CB-CG1	5.00	120.50	111.00
21	A2	114	A	O4'-C1'-N9	-5.00	104.20	108.20
33	BC	182	VAL	CA-CB-CG2	-5.00	103.40	110.90
59	BM	106	ARG	NE-CZ-NH2	-5.00	117.80	120.30
67	B1	122	G	C5'-C4'-C3'	5.00	124.00	116.00
67	B1	200	G	C1'-O4'-C4'	-5.00	105.90	109.90
67	B1	370	A	C4'-C3'-C2'	5.00	107.60	102.60
67	B1	652	G	C2'-C3'-O3'	5.00	121.70	113.70
67	B1	953	G	O5'-P-OP1	-5.00	101.20	105.70
67	B1	2284	C	P-O5'-C5'	-5.00	112.90	120.90
67	B1	2497	G	C1'-O4'-C4'	-5.00	105.90	109.90
67	B1	2670	U	P-O5'-C5'	-5.00	112.90	120.90
67	B1	3018	C	C2'-C3'-O3'	5.00	121.70	113.70
67	B1	3024	C	O4'-C1'-C2'	-5.00	100.80	105.80

All (22) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
4	AG	53	LYS	CA
21	A2	1317	G	C1'
25	AH	85	PHE	CA
25	AH	86	MET	CA

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Mol	Chain	Res	Type	Atom
25	AH	87	ARG	CA
25	AH	96	LYS	CA
29	AL	59	ALA	CA
34	B5	17	ARG	CA
35	BL	11	LEU	CA
35	BL	17	HIS	CA
35	BL	44	LYS	CA
39	Be	14	THR	CB
34	BK	17	ARG	CA
49	BQ	6	MET	CA
49	BQ	88	ARG	CA
49	BQ	101	ALA	CA
50	BV	56	TYR	CA
51	Bj	31	SER	CA
56	BH	91	LYS	CA
61	Bd	80	MET	CA
63	Bg	13	LYS	CA
64	Bc	63	THR	CA

All (442) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
21	A2	430	G	Sidechain
21	A2	431	U	Sidechain
21	A2	458	G	Sidechain
21	A2	459	G	Sidechain
21	A2	587	G	Sidechain
21	A2	962	G	Sidechain
21	A2	986	G	Sidechain
9	A9	26	UNK	Peptide
24	AA	27	PHE	Sidechain
24	AA	91	TYR	Sidechain
7	AB	121	ARG	Sidechain
7	AB	168	TYR	Sidechain
7	AB	202	ARG	Sidechain
7	AB	34	ARG	Sidechain
7	AB	41	TYR	Sidechain
7	AB	75	TYR	Sidechain
6	AC	109	PHE	Sidechain
6	AC	110	ARG	Sidechain
6	AC	145	ARG	Sidechain
6	AC	27	ARG	Sidechain

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Mol	Chain	Res	Type	Group
6	AC	47	PHE	Sidechain
6	AC	57	ARG	Sidechain
6	AC	6	TYR	Sidechain
6	AC	60	ARG	Sidechain
6	AC	63	ARG	Sidechain
6	AC	67	ARG	Sidechain
6	AC	98	ARG	Sidechain
10	AD	142	TYR	Sidechain
10	AD	154	TYR	Sidechain
10	AD	22	ARG	Sidechain
10	AD	33	TYR	Sidechain
10	AD	52	ARG	Sidechain
10	AD	53	ARG	Sidechain
15	AE	121	PHE	Sidechain
15	AE	125	LEU	Peptide
15	AE	126	ARG	Sidechain
15	AE	137	ARG	Sidechain
15	AE	198	ARG	Sidechain
15	AE	20	TYR	Sidechain
15	AE	205	PHE	Peptide
15	AE	26	TYR	Sidechain
15	AE	31	ARG	Sidechain
15	AE	52	TYR	Sidechain
15	AE	55	TYR	Sidechain
18	AF	8	TYR	Sidechain
4	AG	101	GLU	Peptide
4	AG	43	LEU	Peptide
4	AG	49	GLU	Peptide
4	AG	52	GLY	Peptide
4	AG	56	PRO	Peptide
4	AG	64	ARG	Sidechain
4	AG	76	PRO	Peptide
4	AG	85	ARG	Sidechain
4	AG	99	LYS	Peptide
25	AH	101	TYR	Sidechain
25	AH	13	HIS	Mainchain
25	AH	137	THR	Peptide
25	AH	14	GLU	Peptide
25	AH	146	TYR	Sidechain
25	AH	174	TYR	Sidechain
25	AH	175	ARG	Sidechain
25	AH	178	MET	Peptide

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Mol	Chain	Res	Type	Group
25	AH	199	TYR	Sidechain
25	AH	42	ARG	Sidechain
25	AH	47	THR	Peptide
25	AH	49	GLY	Peptide
25	AH	66	ARG	Sidechain
25	AH	72	MET	Peptide
25	AH	83	GLY	Peptide
25	AH	84	HIS	Peptide
25	AH	86	MET	Peptide
25	AH	87	ARG	Sidechain,Peptide
25	AH	90	HIS	Sidechain,Peptide
3	AI	130	TYR	Sidechain
3	AI	3	LEU	Peptide
3	AI	46	TYR	Sidechain
3	AI	61	TYR	Sidechain
3	AI	79	PHE	Sidechain
16	AJ	36	ARG	Sidechain
16	AJ	62	TYR	Sidechain
16	AJ	64	ASN	Peptide
16	AJ	91	ARG	Sidechain
2	AK	12	THR	Peptide
2	AK	130	ARG	Sidechain
2	AK	16	ARG	Sidechain
2	AK	27	ARG	Sidechain
29	AL	41	PRO	Peptide
29	AL	61	PHE	Sidechain
29	AL	63	ARG	Sidechain
29	AL	83	ARG	Sidechain
29	AL	90	VAL	Peptide
14	AM	103	ARG	Sidechain
14	AM	58	TYR	Sidechain
12	AN	124	TYR	Sidechain
12	AN	144	LYS	Peptide
12	AN	20	ARG	Sidechain
12	AN	29	ARG	Sidechain
12	AN	30	TYR	Sidechain
12	AN	32	ARG	Mainchain
12	AN	36	ARG	Sidechain
12	AN	5	LYS	Peptide
12	AN	65	PRO	Peptide
12	AN	70	ARG	Sidechain
17	AO	115	TYR	Sidechain

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Mol	Chain	Res	Type	Group
17	AO	119	ARG	Sidechain
17	AO	124	LEU	Peptide
17	AO	127	ARG	Sidechain
17	AO	137	ARG	Sidechain
17	AO	4	PHE	Sidechain
17	AO	5	ARG	Sidechain
17	AO	6	HIS	Sidechain
17	AO	76	ARG	Sidechain
17	AO	85	TYR	Sidechain
17	AO	9	ARG	Sidechain
26	AP	23	ARG	Sidechain
26	AP	27	TYR	Sidechain
26	AP	32	ARG	Sidechain
26	AP	44	ARG	Sidechain
26	AP	53	ARG	Sidechain
26	AP	55	TYR	Sidechain
1	AQ	117	HIS	Sidechain
1	AQ	131	ARG	Sidechain
1	AQ	28	TYR	Sidechain
1	AQ	3	ARG	Sidechain
1	AQ	58	TYR	Sidechain
1	AQ	68	ASP	Peptide
1	AQ	74	ARG	Sidechain
8	AR	112	ARG	Sidechain
8	AR	113	ARG	Sidechain
8	AR	55	PHE	Sidechain
19	AS	20	TYR	Sidechain
23	AT	11	TYR	Sidechain
23	AT	19	MET	Peptide
23	AT	38	ARG	Sidechain
23	AT	52	ARG	Sidechain
23	AT	7	ARG	Sidechain
30	AU	126	ARG	Sidechain
30	AU	15	ARG	Sidechain
30	AU	53	TYR	Sidechain
30	AU	76	TYR	Sidechain
30	AU	80	ARG	Sidechain
30	AU	91	TYR	Sidechain
28	AV	21	PHE	Peptide
28	AV	55	TYR	Sidechain,Peptide
28	AV	59	TYR	Sidechain
28	AV	60	PHE	Sidechain

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Mol	Chain	Res	Type	Group
28	AV	77	ARG	Sidechain
28	AV	85	TYR	Sidechain
28	AV	89	ARG	Sidechain
28	AV	94	GLU	Peptide
28	AV	96	LYS	Peptide
5	AW	12	ARG	Sidechain
5	AW	28	PHE	Sidechain
13	AX	22	GLY	Peptide
13	AX	4	ASP	Peptide
13	AX	46	ARG	Sidechain
13	AX	62	ARG	Sidechain
13	AX	66	GLU	Peptide
13	AX	7	TYR	Sidechain
13	AX	70	ARG	Sidechain
22	AY	21	PHE	Sidechain
22	AY	24	ARG	Sidechain
22	AY	37	ARG	Sidechain
22	AY	45	TYR	Sidechain
67	B1	1008	U	Sidechain
67	B1	1009	G	Sidechain
67	B1	1659	G	Sidechain
67	B1	1775	G	Sidechain
67	B1	1777	U	Sidechain
67	B1	1881	A	Sidechain
67	B1	1917	U	Sidechain
67	B1	1919	A	Sidechain
67	B1	2165	A	Sidechain
67	B1	331	G	Sidechain
67	B1	45	G	Sidechain
67	B1	8	G	Sidechain
20	B4	6	TYR	Sidechain
34	B5	46	ARG	Sidechain,Peptide
34	B5	47	ARG	Mainchain
28	B6	72	TYR	Sidechain
28	B6	85	TYR	Sidechain
46	BA	123	ARG	Sidechain
46	BA	203	TYR	Sidechain
46	BA	40	LYS	Peptide
46	BA	98	ARG	Sidechain
52	BB	117	ASP	Peptide
52	BB	121	TYR	Sidechain
52	BB	123	ARG	Sidechain

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Mol	Chain	Res	Type	Group
52	BB	128	TYR	Sidechain
52	BB	14	SER	Peptide
52	BB	167	ARG	Sidechain
52	BB	180	TYR	Sidechain
52	BB	185	ARG	Sidechain
52	BB	204	PHE	Sidechain
52	BB	210	HIS	Sidechain
52	BB	237	ARG	Sidechain
52	BB	25	ARG	Sidechain
52	BB	30	TYR	Sidechain
52	BB	40	THR	Peptide
52	BB	54	ARG	Sidechain
52	BB	84	TYR	Sidechain
33	BC	104	PHE	Sidechain
33	BC	111	ALA	Peptide
33	BC	119	LYS	Peptide
33	BC	122	MET	Peptide
33	BC	125	TYR	Sidechain,Peptide
33	BC	17	ARG	Sidechain
33	BC	236	ARG	Sidechain
33	BC	242	ARG	Sidechain
33	BC	28	ARG	Sidechain
33	BC	285	ARG	Sidechain
33	BC	292	ASN	Peptide
33	BC	304	GLU	Peptide
33	BC	318	ARG	Sidechain
33	BC	343	ARG	Sidechain
33	BC	353	ARG	Sidechain
33	BC	6	ARG	Sidechain
33	BC	90	TYR	Sidechain
53	BD	140	LEU	Peptide
53	BD	187	ARG	Sidechain
53	BD	254	TYR	Sidechain
53	BD	42	ARG	Sidechain
53	BD	56	ARG	Sidechain
53	BD	79	TYR	Sidechain
53	BD	85	PHE	Sidechain
53	BD	90	ARG	Sidechain
40	BE	128	TYR	Peptide
40	BE	157	ARG	Sidechain
40	BE	22	ARG	Sidechain
40	BE	59	ARG	Sidechain

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Mol	Chain	Res	Type	Group
40	BE	71	ARG	Sidechain
40	BE	88	TYR	Sidechain
54	BF	159	ARG	Sidechain
54	BF	181	PRO	Peptide
54	BF	24	TYR	Sidechain
54	BF	40	PHE	Sidechain
54	BF	6	TRP	Peptide
54	BF	61	ARG	Sidechain
54	BF	76	ARG	Sidechain
54	BF	97	PHE	Sidechain
20	BG	33	ARG	Sidechain
20	BG	45	ARG	Sidechain
20	BG	6	TYR	Sidechain
56	BH	1	MET	Peptide
56	BH	114	MET	Peptide
56	BH	116	ALA	Mainchain,Peptide
56	BH	16	THR	Peptide
56	BH	2	PRO	Peptide
56	BH	59	PRO	Mainchain,Peptide
56	BH	70	VAL	Peptide
47	BI	125	ARG	Sidechain
47	BI	13	ARG	Sidechain
47	BI	52	ARG	Sidechain
65	BJ	114	ARG	Sidechain
65	BJ	124	ARG	Sidechain
65	BJ	86	ARG	Sidechain
34	BK	45	ARG	Sidechain
35	BL	10	LYS	Peptide
35	BL	17	HIS	Sidechain
35	BL	25	HIS	Sidechain
35	BL	34	ARG	Sidechain
35	BL	53	TYR	Peptide
35	BL	54	ALA	Mainchain,Peptide
35	BL	63	PHE	Peptide
35	BL	65	ARG	Sidechain
35	BL	8	VAL	Peptide
35	BL	9	ARG	Mainchain,Peptide
59	BM	106	ARG	Sidechain
59	BM	128	PHE	Sidechain
59	BM	173	ARG	Sidechain
59	BM	53	TYR	Sidechain
59	BM	59	TYR	Sidechain

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Mol	Chain	Res	Type	Group
59	BM	80	ARG	Sidechain
59	BM	90	TYR	Sidechain
62	BN	117	GLY	Peptide
62	BN	162	TYR	Sidechain
62	BN	22	TYR	Sidechain
62	BN	4	ARG	Sidechain
62	BN	58	ARG	Sidechain
62	BN	72	TYR	Sidechain
62	BN	79	ARG	Sidechain
62	BN	87	ARG	Sidechain
32	BO	113	ARG	Sidechain
32	BO	14	ARG	Sidechain
32	BO	142	TYR	Sidechain
32	BO	152	TYR	Sidechain
32	BO	171	TYR	Sidechain
32	BO	191	ARG	Sidechain
32	BO	34	ARG	Sidechain
32	BO	51	TYR	Sidechain
32	BO	7	TYR	Sidechain
32	BO	8	ARG	Sidechain
32	BO	84	TYR	Sidechain
58	BP	25	TYR	Sidechain
58	BP	3	ARG	Sidechain
49	BQ	100	ARG	Sidechain
49	BQ	115	ILE	Mainchain
49	BQ	117	ARG	Sidechain
49	BQ	133	LYS	Peptide
49	BQ	2	ASN	Peptide
49	BQ	3	THR	Peptide
49	BQ	61	TYR	Sidechain
49	BQ	66	ARG	Sidechain
49	BQ	76	ARG	Sidechain
49	BQ	8	ARG	Sidechain
48	BR	22	ARG	Sidechain
48	BR	3	GLN	Peptide
48	BR	40	ARG	Sidechain
48	BR	57	ARG	Sidechain
48	BR	8	PHE	Sidechain
48	BR	87	PHE	Sidechain
60	BS	131	ARG	Sidechain
60	BS	133	PHE	Sidechain
60	BS	16	ARG	Sidechain

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Mol	Chain	Res	Type	Group
60	BS	50	TYR	Sidechain
60	BS	72	HIS	Sidechain
60	BS	82	ARG	Sidechain
60	BS	9	PHE	Sidechain
42	BT	4	TYR	Sidechain
42	BT	74	TYR	Sidechain
42	BT	86	PHE	Sidechain
37	BU	14	PHE	Sidechain
37	BU	3	ILE	Peptide
37	BU	73	ARG	Sidechain
50	BV	14	PHE	Sidechain
50	BV	48	ARG	Sidechain
50	BV	56	TYR	Sidechain
50	BV	9	TYR	Sidechain
44	BW	48	ARG	Sidechain
44	BW	53	ARG	Sidechain
31	BY	110	LEU	Peptide
31	BY	120	HIS	Sidechain
31	BY	29	HIS	Sidechain,Peptide
31	BY	53	TYR	Sidechain
31	BY	71	ARG	Sidechain
31	BY	73	ARG	Sidechain
57	BZ	51	TYR	Sidechain
41	Ba	24	ARG	Sidechain,Peptide
41	Ba	34	PHE	Sidechain
41	Ba	7	GLU	Peptide
41	Ba	79	GLU	Peptide
41	Ba	84	GLU	Peptide
41	Ba	85	GLU	Peptide
38	Bb	111	ARG	Sidechain
38	Bb	117	ARG	Sidechain
38	Bb	126	LEU	Peptide
38	Bb	128	PRO	Peptide
38	Bb	31	TYR	Sidechain
38	Bb	34	PHE	Sidechain,Peptide
38	Bb	35	LYS	Peptide
38	Bb	38	PRO	Peptide
38	Bb	74	LEU	Peptide
64	Bc	10	TYR	Sidechain
64	Bc	15	GLU	Mainchain
64	Bc	18	HIS	Sidechain
64	Bc	32	ARG	Sidechain

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Mol	Chain	Res	Type	Group
64	Bc	50	GLY	Peptide
64	Bc	51	LYS	Peptide
64	Bc	68	ARG	Sidechain
61	Bd	30	LYS	Peptide
61	Bd	38	MET	Peptide
61	Bd	5	TYR	Sidechain
61	Bd	55	ARG	Sidechain
61	Bd	6	ARG	Sidechain
61	Bd	66	ARG	Sidechain
61	Bd	8	ARG	Sidechain
39	Be	1	MET	Peptide
39	Be	11	ARG	Sidechain
39	Be	25	ARG	Sidechain
39	Be	34	TYR	Sidechain
39	Be	42	ARG	Sidechain
39	Be	44	ARG	Sidechain
39	Be	47	ARG	Sidechain
39	Be	49	TYR	Sidechain
39	Be	50	ARG	Sidechain
39	Be	51	TRP	Peptide
39	Be	52	SER	Peptide
39	Be	8	PHE	Peptide
36	Bf	12	ARG	Sidechain
36	Bf	2	ALA	Peptide
36	Bf	22	ARG	Sidechain
36	Bf	3	ARG	Sidechain,Peptide
36	Bf	33	ARG	Sidechain,Peptide
36	Bf	34	ARG	Sidechain
36	Bf	37	THR	Peptide
36	Bf	38	HIS	Sidechain,Peptide
36	Bf	48	LYS	Peptide
36	Bf	49	LEU	Peptide
63	Bg	10	ARG	Sidechain
63	Bg	12	PHE	Sidechain
63	Bg	4	PHE	Peptide
63	Bg	41	PRO	Peptide
45	Bi	16	ARG	Sidechain
45	Bi	17	TYR	Sidechain
45	Bi	68	TYR	Sidechain
45	Bi	80	ARG	Sidechain
51	Bj	13	PHE	Sidechain
51	Bj	28	ARG	Sidechain

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Mol	Chain	Res	Type	Group
51	Bj	30	ARG	Sidechain,Peptide
51	Bj	38	ARG	Sidechain
51	Bj	39	ARG	Sidechain
51	Bj	42	ARG	Sidechain
51	Bj	47	TYR	Sidechain
51	Bj	50	PHE	Sidechain
51	Bj	52	ARG	Peptide
51	Bj	54	LYS	Peptide
51	Bj	55	PRO	Peptide
51	Bj	57	GLY	Peptide
51	Bj	58	ARG	Peptide
51	Bj	62	VAL	Peptide
51	Bj	63	LYS	Peptide
51	Bj	82	ARG	Sidechain
51	Bj	84	PHE	Sidechain
43	Bk	107	ARG	Sidechain,Peptide
43	Bk	109	PRO	Peptide
43	Bk	187	VAL	Peptide
43	Bk	213	TYR	Sidechain
43	Bk	33	MET	Peptide
43	Bk	36	TYR	Sidechain
43	Bk	42	ARG	Sidechain
43	Bk	54	VAL	Peptide
43	Bk	70	GLU	Peptide
66	Bl	25	TYR	Sidechain
66	Bl	38	TYR	Sidechain
66	Bl	71	ARG	Sidechain

## 5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AQ	1310	0	1392	8	0
2	AK	1072	0	1128	99	0
3	AI	1028	0	1065	121	0
4	AG	984	0	1043	182	0
5	AW	478	0	524	18	0
6	AC	1459	0	1549	17	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	AB	1623	0	1685	17	0
8	AR	934	0	959	25	0
9	A9	286	0	62	4	0
10	AD	1434	0	1498	43	0
11	A1	1649	0	838	18	0
12	AN	1140	0	1235	116	0
13	AX	568	0	600	39	0
14	AM	1004	0	1041	15	0
15	AE	1976	0	2046	29	0
16	AJ	1004	0	1088	5	0
17	AO	1189	0	1248	2	0
18	AF	1716	0	1768	360	0
19	AS	556	0	604	0	0
20	A3	939	0	994	3	0
20	B4	939	0	994	12	0
20	BG	939	0	994	72	0
21	A2	32135	0	16230	1011	0
22	AY	409	0	410	1	0
23	AT	923	0	986	0	0
24	AA	1559	0	1648	3	0
25	AH	1736	0	1787	359	0
26	AP	462	0	492	43	0
27	A0	1625	0	824	12	0
28	AV	823	0	847	77	0
28	B6	782	0	806	1	0
29	AL	822	0	870	73	0
30	AU	1175	0	1216	36	0
31	BY	1243	0	1326	109	0
32	BO	1597	0	1639	10	0
33	BC	2912	0	3073	40	0
34	B5	614	0	670	67	0
34	BK	614	0	670	3	0
35	BL	1154	0	1217	268	0
36	Bf	445	0	510	0	0
37	BU	1008	0	1077	8	0
38	Bb	1074	0	1167	0	0
39	Be	506	0	528	0	0
40	BE	1489	0	1550	22	0
41	Ba	746	0	808	0	0
42	BT	680	0	739	0	0
43	Bk	1632	0	1725	0	0
44	BW	594	0	665	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
45	Bi	590	0	631	0	0
46	BA	1677	0	1796	30	0
47	BI	1150	0	1240	10	0
48	BR	787	0	827	88	0
49	BQ	1256	0	1389	84	0
50	BV	555	0	548	67	0
51	Bj	787	0	837	0	0
52	BB	1838	0	1914	20	0
53	BD	2026	0	2134	42	0
54	BF	1476	0	1518	24	0
55	Bh	230	0	269	0	0
56	BH	988	0	1077	84	0
57	BZ	754	0	804	49	0
58	BP	966	0	1019	10	0
59	BM	1595	0	1695	46	0
60	BS	1200	0	1255	4	0
61	Bd	740	0	806	0	0
62	BN	1378	0	1405	4	0
63	Bg	371	0	395	0	0
64	Bc	685	0	743	0	0
65	BJ	1014	0	1073	72	0
66	Bl	659	0	699	0	0
67	B1	65577	0	33094	1346	0
68	B3	2694	0	1371	60	0
All	All	173979	0	126374	3655	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 17.

All (3655) 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)
21:A2:340:A:C1'	21:A2:340:A:C2'	1.74	1.63
67:B1:404:G:C2'	67:B1:404:G:C1'	1.76	1.62
68:B3:35:A:C1'	68:B3:35:A:C2'	1.78	1.61
67:B1:2554:A:C2'	67:B1:2554:A:C1'	1.79	1.61
21:A2:1458:A:C1'	21:A2:1458:A:C2'	1.74	1.61
67:B1:1575:G:C1'	67:B1:1575:G:C2'	1.76	1.60
33:BC:108:ASN:CB	33:BC:172:TRP:CH2	1.77	1.59
67:B1:2144:U:C2'	67:B1:2144:U:C1'	1.75	1.58
2:AK:50:ILE:HD11	25:AH:13:HIS:CE1	1.37	1.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AK:46:LEU:HD21	25:AH:13:HIS:CG	1.32	1.57
67:B1:1037:C:C2'	67:B1:1037:C:C1'	1.80	1.57
25:AH:3:LYS:HD2	30:AU:143:ILE:CG1	1.09	1.56
67:B1:2702:A:C2'	67:B1:2702:A:C1'	1.76	1.56
7:AB:104:PRO:CG	18:AF:19:LYS:HE2	1.18	1.56
25:AH:3:LYS:CD	30:AU:143:ILE:HG12	1.29	1.56
67:B1:2115:U:C1'	67:B1:2115:U:C2'	1.80	1.56
67:B1:1567:C:C4'	67:B1:1567:C:C5'	1.79	1.55
67:B1:1600:G:C2'	67:B1:1600:G:C1'	1.79	1.55
67:B1:350:A:C1'	67:B1:350:A:C2'	1.77	1.55
67:B1:237:G:C2'	67:B1:237:G:C1'	1.78	1.54
21:A2:804:U:C1'	21:A2:804:U:C2'	1.75	1.54
67:B1:2507:C:C1'	67:B1:2507:C:C2'	1.82	1.54
2:AK:46:LEU:HD11	25:AH:13:HIS:CE1	1.37	1.54
67:B1:956:U:C1'	67:B1:956:U:C2'	1.81	1.54
67:B1:1707:A:C2'	67:B1:1707:A:C1'	1.84	1.54
21:A2:798:U:C1'	21:A2:798:U:C2'	1.78	1.53
7:AB:104:PRO:HG2	18:AF:19:LYS:CE	1.37	1.53
2:AK:102:TYR:CE1	25:AH:42:ARG:HG3	1.43	1.53
67:B1:2382:A:C1'	67:B1:2382:A:C2'	1.77	1.51
21:A2:1200:U:H5	25:AH:91:ARG:C	1.13	1.50
4:AG:103:ARG:NH1	21:A2:329:G:C4'	1.70	1.50
21:A2:8:U:C2'	21:A2:8:U:C1'	1.79	1.50
21:A2:423:U:C2'	21:A2:423:U:C1'	1.75	1.50
67:B1:1678:A:C2'	67:B1:1678:A:C1'	1.76	1.49
2:AK:46:LEU:CD2	25:AH:13:HIS:ND1	1.73	1.47
67:B1:1045:A:C1'	67:B1:1045:A:C2'	1.89	1.47
21:A2:562:A:C2'	21:A2:562:A:C1'	1.81	1.46
3:AI:28:LYS:CD	5:AW:4:PRO:HB3	1.40	1.46
21:A2:1200:U:C5	25:AH:91:ARG:C	1.88	1.46
21:A2:1200:U:C2'	21:A2:1200:U:C1'	1.82	1.45
15:AE:55:TYR:CD1	28:AV:9:LYS:NZ	1.82	1.45
2:AK:46:LEU:CG	25:AH:13:HIS:ND1	1.77	1.45
26:AP:56:GLU:HG2	29:AL:63:ARG:CB	1.45	1.45
26:AP:56:GLU:HB3	29:AL:63:ARG:CD	1.43	1.45
67:B1:565:A:C1'	67:B1:565:A:C2'	1.81	1.45
67:B1:1179:G:C2'	67:B1:1179:G:C1'	1.79	1.44
21:A2:85:A:C2'	21:A2:85:A:C1'	1.91	1.44
21:A2:382:G:C1'	21:A2:382:G:C2'	1.78	1.44
31:BY:155:LEU:CD1	67:B1:602:G:OP1	1.64	1.44
67:B1:1569:A:C5'	67:B1:1569:A:O5'	1.66	1.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:77:ASP:CG	21:A2:1403:U:C2	1.90	1.43
21:A2:966:G:C2'	21:A2:966:G:C1'	1.75	1.43
3:AI:97:PHE:HE1	18:AF:131:TRP:NE1	0.96	1.42
2:AK:50:ILE:HD11	25:AH:13:HIS:NE2	1.12	1.42
67:B1:1569:A:O2'	67:B1:1569:A:C2'	1.66	1.42
67:B1:1568:A:O5'	67:B1:1568:A:C5'	1.67	1.42
65:BJ:87:LYS:HG3	67:B1:2398:C:P	107.03	1.42
21:A2:1360:C:O4'	21:A2:1360:C:C1'	1.64	1.42
67:B1:1642:G:C2'	67:B1:1642:G:C1'	1.91	1.42
21:A2:434:A:C2'	21:A2:434:A:C1'	1.90	1.42
56:BH:128:GLY:HA3	67:B1:1198:G:N2	1.24	1.41
12:AN:135:LYS:NZ	21:A2:29:G:H1'	1.11	1.41
67:B1:1754:A:C1'	67:B1:1754:A:C2'	1.76	1.41
21:A2:523:C:O4'	21:A2:523:C:C1'	1.63	1.40
11:A1:1:G:OP2	11:A1:1:G:P	1.00	1.40
20:BG:36:THR:HG22	59:BM:3:MET:SD	1.60	1.40
67:B1:1:G:P	67:B1:1:G:OP2	1.00	1.40
68:B3:1:C:P	68:B3:1:C:OP2	1.00	1.39
67:B1:1:G:OP1	67:B1:1:G:P	1.00	1.39
27:A0:1:G:P	27:A0:1:G:OP2	1.00	1.39
67:B1:3024:C:C1'	67:B1:3024:C:O4'	1.65	1.39
27:A0:1:G:OP1	27:A0:1:G:P	1.00	1.39
8:AR:60:TYR:CE2	12:AN:16:LEU:HD12	1.53	1.39
11:A1:1:G:P	11:A1:1:G:OP1	1.00	1.39
21:A2:199:A:C1'	21:A2:199:A:O4'	1.65	1.39
2:AK:102:TYR:HE1	25:AH:42:ARG:CG	1.34	1.39
21:A2:1:A:OP2	21:A2:1:A:P	1.00	1.39
68:B3:1:C:P	68:B3:1:C:OP1	1.00	1.39
21:A2:1122:C:O4'	21:A2:1122:C:C1'	1.64	1.38
10:AD:136:ILE:HB	28:AV:60:PHE:CE2	1.57	1.38
21:A2:1200:U:C5	25:AH:91:ARG:O	1.75	1.38
4:AG:92:PRO:CG	21:A2:1412:A:O2'	1.72	1.38
67:B1:186:A:O4'	67:B1:186:A:C1'	1.67	1.38
67:B1:1245:C:O4'	67:B1:1245:C:C1'	1.68	1.38
67:B1:1568:A:C2'	67:B1:1568:A:O2'	1.69	1.38
46:BA:20:LYS:O	67:B1:1811:G:C1'	171.97	1.37
68:B3:110:C:O4'	68:B3:110:C:C1'	1.68	1.37
67:B1:665:C:O4'	67:B1:665:C:C1'	1.64	1.37
67:B1:874:U:C1'	67:B1:874:U:O4'	1.67	1.37
4:AG:120:ASN:ND2	21:A2:151:G:H1'	1.38	1.36
67:B1:1273:C:O4'	67:B1:1273:C:C1'	1.63	1.36

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:44:LYS:N	67:B1:961:C:O2'	1.58	1.36
25:AH:3:LYS:CE	30:AU:144:ILE:N	1.89	1.36
34:B5:50:ILE:CG1	57:BZ:28:LYS:NZ	1.88	1.36
67:B1:1161:A:C1'	67:B1:1161:A:O4'	1.63	1.36
67:B1:1363:C:C1'	67:B1:1363:C:O4'	1.63	1.36
67:B1:1688:C:C1'	67:B1:1688:C:O4'	1.65	1.35
67:B1:1234:A:C1'	67:B1:1234:A:O4'	1.67	1.35
67:B1:785:C:O4'	67:B1:785:C:C1'	1.63	1.35
11:A1:25:G:C1'	11:A1:25:G:O4'	1.67	1.35
2:AK:39:GLU:OE2	25:AH:5:LEU:HG	1.18	1.35
67:B1:1988:U:C1'	67:B1:1988:U:O4'	1.64	1.34
33:BC:108:ASN:HB3	33:BC:172:TRP:CH2	0.83	1.34
68:B3:115:C:O4'	68:B3:115:C:C1'	1.65	1.34
21:A2:1106:A:C1'	21:A2:1106:A:O4'	1.67	1.34
21:A2:1200:U:C4	25:AH:91:ARG:O	1.81	1.34
25:AH:3:LYS:HE2	30:AU:144:ILE:C	1.48	1.34
67:B1:2265:C:O4'	67:B1:2265:C:C1'	1.64	1.34
67:B1:135:U:O4'	67:B1:135:U:C1'	1.66	1.33
67:B1:2402:A:O4'	67:B1:2402:A:C1'	1.65	1.33
26:AP:56:GLU:CG	29:AL:63:ARG:HB3	1.56	1.33
21:A2:1149:C:O4'	21:A2:1149:C:C1'	1.65	1.33
21:A2:146:A:C1'	21:A2:146:A:O4'	1.66	1.33
2:AK:46:LEU:HD21	25:AH:13:HIS:ND1	1.28	1.33
25:AH:3:LYS:HE3	30:AU:144:ILE:N	1.03	1.33
31:BY:30:ARG:NE	67:B1:1297:C:OP1	1.62	1.33
21:A2:1354:A:C1'	21:A2:1354:A:O4'	1.67	1.32
67:B1:2476:A:O4'	67:B1:2476:A:C1'	1.70	1.32
67:B1:14:A:C1'	67:B1:14:A:O4'	1.67	1.32
67:B1:2047:U:C1'	67:B1:2047:U:O4'	1.66	1.32
50:BV:20:LYS:NZ	65:BJ:88:GLU:CB	1.91	1.32
67:B1:1568:A:C6	67:B1:1569:A:N6	1.97	1.32
13:AX:71:ARG:NH2	21:A2:1041:C:H5''	1.42	1.32
67:B1:1745:U:C1'	67:B1:1745:U:O4'	1.67	1.32
67:B1:1450:C:O4'	67:B1:1450:C:C1'	1.66	1.32
67:B1:2511:C:O4'	67:B1:2511:C:C1'	1.66	1.32
3:AI:4:LEU:CB	21:A2:540:G:H4'	1.58	1.31
67:B1:1574:A:C1'	67:B1:1574:A:O4'	1.67	1.31
67:B1:883:G:O4'	67:B1:883:G:C1'	1.64	1.31
21:A2:1018:C:C1'	21:A2:1018:C:O4'	1.63	1.31
67:B1:2642:C:O4'	67:B1:2642:C:C1'	1.65	1.31
3:AI:4:LEU:HB2	21:A2:540:G:C4'	1.61	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:73:ARG:NH1	21:A2:879:U:H5''	1.45	1.31
15:AE:55:TYR:HD1	28:AV:9:LYS:NZ	1.15	1.31
67:B1:715:G:O4'	67:B1:715:G:C1'	1.77	1.31
53:BD:85:PHE:CZ	67:B1:1398:C:O2'	1.82	1.31
12:AN:135:LYS:NZ	21:A2:29:G:C1'	1.94	1.30
21:A2:686:C:C1'	21:A2:686:C:O4'	1.66	1.30
67:B1:1214:C:C1'	67:B1:1214:C:O4'	1.64	1.30
67:B1:2706:C:O4'	67:B1:2706:C:C1'	1.64	1.30
67:B1:1036:C:C1'	67:B1:1036:C:O4'	1.71	1.30
21:A2:415:C:C1'	21:A2:415:C:O4'	1.64	1.30
67:B1:143:C:C1'	67:B1:143:C:O4'	1.65	1.30
21:A2:1254:C:C1'	21:A2:1254:C:O4'	1.65	1.30
21:A2:369:A:H4'	21:A2:434:A:N7	1.46	1.30
46:BA:20:LYS:HB3	67:B1:1811:G:C8	171.14	1.30
34:B5:50:ILE:HG12	57:BZ:28:LYS:NZ	1.43	1.30
67:B1:2122:G:O4'	67:B1:2122:G:C1'	1.65	1.30
26:AP:56:GLU:CB	29:AL:63:ARG:HD2	1.60	1.30
21:A2:1307:G:N2	25:AH:48:HIS:CE1	1.99	1.30
21:A2:573:C:C1'	21:A2:573:C:O4'	1.69	1.30
15:AE:55:TYR:HD1	28:AV:9:LYS:CE	1.44	1.30
4:AG:97:LYS:CD	21:A2:87:C:OP1	1.80	1.29
67:B1:158:C:C1'	67:B1:158:C:O4'	1.68	1.29
67:B1:2313:G:C1'	67:B1:2313:G:O4'	1.64	1.29
67:B1:1982:C:O4'	67:B1:1982:C:C1'	1.70	1.29
21:A2:1125:C:O4'	21:A2:1125:C:C1'	1.64	1.29
67:B1:1934:C:O4'	67:B1:1934:C:C1'	1.64	1.29
48:BR:14:LYS:HB2	67:B1:995:G:OP2	1.16	1.29
21:A2:1332:C:O2'	25:AH:98:VAL:HG23	1.25	1.29
21:A2:1371:C:O4'	21:A2:1371:C:C1'	1.67	1.29
67:B1:3042:C:O4'	67:B1:3042:C:C1'	1.64	1.29
21:A2:1353:C:O4'	21:A2:1353:C:C1'	1.67	1.29
21:A2:1144:G:C1'	21:A2:1144:G:O4'	1.71	1.29
67:B1:2019:C:C1'	67:B1:2019:C:O4'	1.65	1.29
21:A2:1322:C:C1'	21:A2:1322:C:O4'	1.73	1.29
67:B1:927:G:O4'	67:B1:927:G:C1'	1.64	1.29
21:A2:1334:A:O2'	25:AH:69:ASN:CG	1.68	1.29
21:A2:974:G:O4'	21:A2:974:G:C1'	1.66	1.29
33:BC:108:ASN:CG	33:BC:172:TRP:CZ3	2.06	1.29
21:A2:1185:A:C1'	21:A2:1185:A:O4'	1.64	1.28
67:B1:876:C:C1'	67:B1:876:C:O4'	1.68	1.28
67:B1:884:C:O4'	67:B1:884:C:C1'	1.69	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1167:C:C1'	21:A2:1167:C:O4'	1.64	1.28
68:B3:41:A:O4'	68:B3:41:A:C1'	1.65	1.28
67:B1:140:C:C1'	67:B1:140:C:O4'	1.63	1.28
50:BV:20:LYS:HZ1	65:BJ:88:GLU:CB	1.43	1.28
67:B1:1298:C:C1'	67:B1:1298:C:O4'	1.68	1.28
50:BV:25:ASN:N	65:BJ:100:GLU:OE2	1.65	1.28
68:B3:119:C:C1'	68:B3:119:C:O4'	1.66	1.28
67:B1:2225:C:C1'	67:B1:2225:C:O4'	1.64	1.27
21:A2:30:C:O4'	21:A2:30:C:C1'	1.66	1.27
67:B1:2858:C:C1'	67:B1:2858:C:O4'	1.71	1.27
21:A2:1259:A:O4'	21:A2:1259:A:C1'	1.67	1.27
4:AG:86:VAL:CG1	21:A2:1414:G:OP1	1.79	1.27
67:B1:1976:C:C1'	67:B1:1976:C:O4'	1.67	1.27
48:BR:14:LYS:CB	67:B1:995:G:OP2	1.81	1.27
27:A0:62:C:O4'	27:A0:62:C:C1'	1.64	1.27
21:A2:326:C:O4'	21:A2:326:C:C1'	1.67	1.27
2:AK:50:ILE:CD1	25:AH:13:HIS:CE1	2.18	1.27
67:B1:2544:C:C1'	67:B1:2544:C:O4'	1.73	1.27
21:A2:295:G:C1'	21:A2:295:G:O4'	1.63	1.27
12:AN:135:LYS:HZ1	21:A2:29:G:C1'	1.48	1.26
49:BQ:76:ARG:NH1	67:B1:1884:C:H5	1.32	1.26
21:A2:1038:C:O4'	21:A2:1038:C:C1'	1.63	1.26
21:A2:161:C:O4'	21:A2:161:C:C1'	1.66	1.26
31:BY:75:ILE:HD13	67:B1:1324:G:OP2	1.32	1.26
67:B1:2807:C:O4'	67:B1:2807:C:C1'	1.65	1.26
67:B1:2897:C:O4'	67:B1:2897:C:C1'	1.74	1.26
67:B1:1920:A:C1'	67:B1:1920:A:O4'	1.68	1.26
67:B1:370:A:C1'	67:B1:370:A:O4'	1.70	1.26
67:B1:2201:C:O4'	67:B1:2201:C:C1'	1.64	1.26
67:B1:2284:C:O4'	67:B1:2284:C:C1'	1.68	1.26
21:A2:553:C:O4'	21:A2:553:C:C1'	1.73	1.26
67:B1:2890:A:O4'	67:B1:2890:A:C1'	1.69	1.26
67:B1:2169:C:O4'	67:B1:2169:C:C1'	1.68	1.25
67:B1:610:C:C1'	67:B1:610:C:O4'	1.68	1.25
21:A2:633:C:O4'	21:A2:633:C:C1'	1.66	1.25
67:B1:1278:C:C1'	67:B1:1278:C:O4'	1.67	1.25
33:BC:108:ASN:OD1	33:BC:172:TRP:CZ3	1.88	1.25
67:B1:2545:A:C1'	67:B1:2545:A:O4'	1.65	1.25
13:AX:23:ASP:HA	21:A2:1338:C:O2	1.14	1.25
67:B1:392:G:O4'	67:B1:392:G:C1'	1.64	1.25
67:B1:849:C:C1'	67:B1:849:C:O4'	1.64	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:976:C:O4'	67:B1:976:C:C1'	1.66	1.25
25:AH:3:LYS:CD	30:AU:143:ILE:CG1	1.94	1.25
67:B1:1029:C:C1'	67:B1:1029:C:O4'	1.72	1.25
67:B1:2319:C:O4'	67:B1:2319:C:C1'	1.72	1.25
67:B1:248:C:O4'	67:B1:248:C:C1'	1.68	1.25
67:B1:44:C:C1'	67:B1:44:C:O4'	1.70	1.25
21:A2:1329:C:O4'	21:A2:1329:C:C1'	1.73	1.25
67:B1:2647:G:O4'	67:B1:2647:G:C1'	1.64	1.25
67:B1:1794:C:C1'	67:B1:1794:C:O4'	1.66	1.25
21:A2:1155:U:C1'	21:A2:1155:U:O4'	1.67	1.25
4:AG:77:ASP:CG	21:A2:1403:U:O2	1.70	1.24
21:A2:1200:U:OP1	25:AH:179:SER:CA	1.83	1.24
67:B1:2433:U:C1'	67:B1:2433:U:O4'	1.64	1.24
18:AF:73:ARG:NH1	21:A2:1034:G:OP1	1.70	1.24
21:A2:1179:C:O4'	21:A2:1179:C:C1'	1.68	1.24
21:A2:434:A:C4	28:AV:85:TYR:HD1	1.53	1.24
67:B1:374:C:O4'	67:B1:374:C:C1'	1.66	1.24
65:BJ:87:LYS:HG3	67:B1:2398:C:OP1	106.94	1.24
21:A2:1080:C:C1'	21:A2:1080:C:O4'	1.65	1.24
21:A2:1217:C:C1'	21:A2:1217:C:O4'	1.67	1.24
4:AG:120:ASN:OD1	21:A2:151:G:O4'	1.52	1.24
13:AX:71:ARG:CZ	21:A2:1041:C:H5''	1.67	1.24
65:BJ:87:LYS:CG	67:B1:2398:C:OP1	106.31	1.24
67:B1:898:G:C1'	67:B1:898:G:O4'	1.67	1.24
21:A2:1253:G:OP1	25:AH:1:MET:HB3	1.38	1.24
18:AF:73:ARG:NH1	21:A2:879:U:C5'	2.00	1.24
7:AB:104:PRO:CG	18:AF:19:LYS:CE	2.01	1.23
33:BC:108:ASN:OD1	33:BC:172:TRP:CE3	1.90	1.23
21:A2:362:C:C1'	21:A2:362:C:O4'	1.64	1.23
27:A0:41:C:O4'	27:A0:41:C:C1'	1.66	1.23
2:AK:46:LEU:CD1	25:AH:13:HIS:CE1	2.21	1.23
2:AK:102:TYR:CE1	25:AH:42:ARG:CG	2.14	1.23
67:B1:2819:C:O4'	67:B1:2819:C:C1'	1.66	1.23
4:AG:103:ARG:NH1	21:A2:329:G:H4'	0.91	1.23
2:AK:46:LEU:CD2	25:AH:13:HIS:CG	2.14	1.23
34:B5:3:ALA:N	57:BZ:27:ALA:O	1.72	1.23
21:A2:218:C:O4'	21:A2:218:C:C1'	1.66	1.23
35:BL:131:PRO:HD2	67:B1:732:G:OP1	1.39	1.23
21:A2:1082:A:C1'	21:A2:1082:A:O4'	1.67	1.23
67:B1:688:G:O4'	67:B1:688:G:C1'	1.64	1.23
67:B1:1559:A:O4'	67:B1:1559:A:C1'	1.63	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AN:111:PRO:CG	21:A2:507:G:OP1	1.86	1.22
67:B1:2671:C:O4'	67:B1:2671:C:C1'	1.71	1.22
11:A1:57:C:O4'	11:A1:57:C:C1'	1.63	1.22
21:A2:357:C:C1'	21:A2:357:C:O4'	1.70	1.22
67:B1:1039:C:O4'	67:B1:1039:C:C1'	1.68	1.22
68:B3:57:C:C1'	68:B3:57:C:O4'	1.66	1.22
67:B1:817:G:O4'	67:B1:817:G:C1'	1.68	1.22
67:B1:92:G:C1'	67:B1:92:G:O4'	1.64	1.22
15:AE:64:LYS:NZ	28:AV:81:ILE:HB	1.51	1.22
67:B1:2146:C:C1'	67:B1:2146:C:O4'	1.66	1.22
21:A2:1072:C:O4'	21:A2:1072:C:C1'	1.65	1.22
21:A2:475:C:O4'	21:A2:475:C:C1'	1.65	1.22
67:B1:1619:C:C1'	67:B1:1619:C:O4'	1.65	1.22
4:AG:86:VAL:HG11	21:A2:1414:G:P	1.80	1.22
18:AF:82:ARG:NH2	21:A2:1023:C:OP1	1.73	1.22
67:B1:2231:G:O4'	67:B1:2231:G:C1'	1.66	1.22
21:A2:788:C:O4'	21:A2:788:C:C1'	1.64	1.21
67:B1:1566:G:C1'	67:B1:1566:G:O4'	1.84	1.21
21:A2:205:C:O4'	21:A2:205:C:C1'	1.66	1.21
21:A2:64:G:C1'	21:A2:64:G:O4'	1.69	1.21
21:A2:803:C:C1'	21:A2:803:C:O4'	1.66	1.21
67:B1:318:G:O4'	67:B1:318:G:C1'	1.63	1.21
67:B1:1243:C:O4'	67:B1:1243:C:C1'	1.69	1.21
67:B1:1568:A:C2	67:B1:1569:A:N1	2.08	1.21
67:B1:1162:C:C1'	67:B1:1162:C:O4'	1.65	1.21
67:B1:1406:G:C1'	67:B1:1406:G:O4'	1.63	1.21
48:BR:82:LYS:CE	67:B1:2473:C:OP1	1.87	1.21
67:B1:1504:C:O4'	67:B1:1504:C:C1'	1.69	1.21
12:AN:111:PRO:HG3	21:A2:507:G:P	1.80	1.21
67:B1:1186:G:O4'	67:B1:1186:G:C1'	1.63	1.21
48:BR:50:HIS:CD2	67:B1:2450:A:N1	2.07	1.21
67:B1:274:C:O4'	67:B1:274:C:C1'	1.66	1.21
21:A2:138:C:C1'	21:A2:138:C:O4'	1.64	1.21
21:A2:409:C:C1'	21:A2:409:C:O4'	1.63	1.21
67:B1:412:G:C1'	67:B1:412:G:O4'	1.74	1.21
67:B1:2427:C:C1'	67:B1:2427:C:O4'	1.66	1.21
21:A2:797:U:C1'	21:A2:797:U:O4'	1.65	1.20
35:BL:26:ARG:HD3	67:B1:941:C:C5	1.76	1.20
35:BL:15:HIS:HB3	67:B1:946:U:OP1	1.37	1.20
67:B1:2489:C:C1'	67:B1:2489:C:O4'	1.70	1.20
67:B1:2617:G:O4'	67:B1:2617:G:C1'	1.63	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AK:50:ILE:CD1	25:AH:13:HIS:NE2	2.03	1.20
67:B1:719:C:C1'	67:B1:719:C:O4'	1.71	1.20
67:B1:2088:G:C1'	67:B1:2088:G:O4'	1.78	1.20
67:B1:2598:C:O4'	67:B1:2598:C:C1'	1.66	1.20
20:BG:3:LYS:CG	20:BG:55:GLU:O	1.90	1.20
31:BY:130:LYS:CE	67:B1:1122:C:H5''	1.72	1.20
46:BA:41:ARG:NH2	67:B1:3029:A:H1'	157.12	1.20
67:B1:1909:C:C1'	67:B1:1909:C:O4'	1.64	1.20
67:B1:2098:C:C1'	67:B1:2098:C:O4'	1.65	1.20
68:B3:27:C:C1'	68:B3:27:C:O4'	1.65	1.20
67:B1:2507:C:C1'	67:B1:2507:C:O4'	1.91	1.19
21:A2:1200:U:OP1	25:AH:179:SER:HA	1.04	1.19
67:B1:685:G:C1'	67:B1:685:G:O4'	1.68	1.19
13:AX:20:THR:O	21:A2:1341:C:C6	1.96	1.19
10:AD:93:LEU:HB3	18:AF:161:ARG:O	1.43	1.19
67:B1:2920:C:C1'	67:B1:2920:C:O4'	1.73	1.19
26:AP:56:GLU:CB	29:AL:63:ARG:CD	2.18	1.19
67:B1:1787:U:C1'	67:B1:1787:U:O4'	1.65	1.19
54:BF:1:MET:N	67:B1:1450:C:H5''	130.84	1.19
2:AK:50:ILE:HD11	25:AH:13:HIS:CD2	1.75	1.19
35:BL:58:LEU:O	67:B1:2510:A:O2'	1.59	1.19
11:A1:26:C:O4'	11:A1:26:C:C1'	1.64	1.19
3:AI:96:ALA:HB3	18:AF:143:PHE:CZ	1.77	1.19
67:B1:1610:C:C1'	67:B1:1610:C:O4'	1.67	1.19
21:A2:369:A:H4'	21:A2:434:A:C5	1.78	1.19
21:A2:689:C:C1'	21:A2:689:C:O4'	1.74	1.19
12:AN:3:GLY:N	21:A2:836:G:N7	1.90	1.19
67:B1:2636:C:C1'	67:B1:2636:C:O4'	1.72	1.19
68:B3:120:C:O4'	68:B3:120:C:C1'	1.65	1.19
12:AN:51:ARG:N	21:A2:359:A:OP1	1.76	1.18
67:B1:2869:U:O4'	67:B1:2869:U:C1'	1.66	1.18
67:B1:297:G:O4'	67:B1:297:G:C1'	1.70	1.18
67:B1:1567:C:C1'	67:B1:1567:C:O4'	1.84	1.18
20:BG:5:SER:OG	59:BM:22:LEU:HD21	1.43	1.18
56:BH:124:LYS:HB3	67:B1:1219:C:O2'	1.44	1.18
21:A2:260:C:O4'	21:A2:260:C:C1'	1.70	1.18
21:A2:1200:U:C5	25:AH:91:ARG:CA	2.26	1.18
21:A2:751:C:C1'	21:A2:751:C:O4'	1.65	1.18
21:A2:857:C:C1'	21:A2:857:C:O4'	1.72	1.18
21:A2:72:C:C1'	21:A2:72:C:O4'	1.69	1.18
67:B1:1673:C:C1'	67:B1:1673:C:O4'	1.76	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:50:HIS:NE2	67:B1:2450:A:C2	2.12	1.18
35:BL:113:LEU:HD11	67:B1:732:G:C4	1.79	1.18
67:B1:1152:C:O4'	67:B1:1152:C:C1'	1.68	1.18
21:A2:17:C:C1'	21:A2:17:C:O4'	1.66	1.17
21:A2:1307:G:N1	25:AH:48:HIS:CD2	2.10	1.17
67:B1:2337:G:O4'	67:B1:2337:G:C1'	1.67	1.17
67:B1:957:C:O4'	67:B1:957:C:C1'	1.63	1.17
34:B5:50:ILE:CD1	57:BZ:28:LYS:HZ1	1.57	1.17
3:AI:96:ALA:CB	18:AF:143:PHE:CE2	2.27	1.17
48:BR:59:HIS:HE1	67:B1:993:G:O3'	1.21	1.17
50:BV:22:TYR:OH	65:BJ:100:GLU:CG	1.90	1.17
35:BL:34:ARG:NH2	67:B1:939:A:OP1	1.78	1.17
67:B1:2189:C:O4'	67:B1:2189:C:C1'	1.68	1.17
4:AG:77:ASP:OD2	21:A2:1403:U:C2	1.98	1.17
21:A2:807:C:O4'	21:A2:807:C:C1'	1.68	1.17
67:B1:325:G:O4'	67:B1:325:G:C1'	1.73	1.17
68:B3:43:C:C1'	68:B3:43:C:O4'	1.70	1.17
67:B1:2884:C:O4'	67:B1:2884:C:C1'	1.70	1.17
21:A2:1307:G:H1	25:AH:48:HIS:CD2	1.62	1.17
26:AP:56:GLU:CA	29:AL:63:ARG:HD3	1.75	1.17
67:B1:1586:G:C1'	67:B1:1586:G:O4'	1.65	1.17
67:B1:775:C:O4'	67:B1:775:C:C1'	1.69	1.17
20:BG:36:THR:CG2	59:BM:3:MET:SD	2.32	1.17
67:B1:614:G:O4'	67:B1:614:G:C1'	1.71	1.16
48:BR:48:SER:OG	67:B1:2446:C:OP1	1.58	1.16
3:AI:57:ARG:HE	21:A2:607:U:H4'	1.08	1.16
21:A2:1200:U:N3	25:AH:180:PHE:HB2	1.58	1.16
67:B1:2260:C:C1'	67:B1:2260:C:O4'	1.66	1.16
67:B1:2590:C:C1'	67:B1:2590:C:O4'	1.64	1.16
4:AG:77:ASP:OD2	21:A2:1403:U:N3	1.75	1.16
12:AN:5:LYS:CE	21:A2:838:C:C5	2.27	1.16
18:AF:86:LEU:HG	18:AF:100:ILE:HG22	1.28	1.16
4:AG:102:ARG:CZ	21:A2:317:A:O2'	1.94	1.16
18:AF:84:ARG:CZ	21:A2:1032:A:OP1	1.87	1.16
3:AI:96:ALA:HB2	18:AF:143:PHE:CE2	1.80	1.16
21:A2:1053:A:O4'	21:A2:1053:A:C1'	1.71	1.16
67:B1:2134:G:O4'	67:B1:2134:G:C1'	1.63	1.16
33:BC:108:ASN:HB3	33:BC:172:TRP:CZ2	1.79	1.16
31:BY:130:LYS:NZ	67:B1:1122:C:OP1	1.79	1.16
21:A2:1307:G:C2	25:AH:48:HIS:CE1	2.34	1.15
21:A2:1313:G:H5'	25:AH:81:VAL:HG21	1.25	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1395:G:O4'	67:B1:1395:G:C1'	1.66	1.15
67:B1:1570:C:C1'	67:B1:1570:C:O4'	1.90	1.15
21:A2:806:G:C1'	21:A2:806:G:O4'	1.74	1.15
21:A2:455:C:C1'	21:A2:455:C:O4'	1.64	1.15
2:AK:46:LEU:HG	25:AH:13:HIS:ND1	1.58	1.15
20:BG:3:LYS:HG3	20:BG:55:GLU:O	1.01	1.15
34:B5:50:ILE:CG1	57:BZ:28:LYS:HZ2	1.51	1.15
67:B1:745:C:O4'	67:B1:745:C:C1'	1.66	1.15
18:AF:84:ARG:NH1	21:A2:1031:G:O3'	1.79	1.15
3:AI:96:ALA:CB	18:AF:143:PHE:CZ	2.29	1.15
67:B1:1098:C:C1'	67:B1:1098:C:O4'	1.65	1.15
49:BQ:85:LYS:HE2	67:B1:1844:C:OP1	1.46	1.15
2:AK:102:TYR:OH	25:AH:42:ARG:HB2	1.42	1.15
3:AI:28:LYS:CE	5:AW:4:PRO:HB3	1.76	1.15
34:B5:8:ARG:NH2	57:BZ:55:LEU:CD2	2.10	1.15
11:A1:61:U:C1'	11:A1:61:U:O4'	1.65	1.15
21:A2:434:A:C2	28:AV:84:GLU:HB2	1.81	1.15
12:AN:111:PRO:HD3	21:A2:507:G:OP2	1.46	1.15
49:BQ:79:GLY:HA3	67:B1:1865:U:O3'	1.47	1.15
48:BR:14:LYS:HE2	67:B1:995:G:OP1	1.45	1.15
4:AG:92:PRO:HG3	21:A2:1412:A:O2'	0.97	1.15
2:AK:39:GLU:OE2	25:AH:5:LEU:CG	1.95	1.15
56:BH:124:LYS:HE3	67:B1:1220:U:C5'	1.75	1.15
67:B1:1592:U:C1'	67:B1:1592:U:O4'	1.63	1.15
21:A2:1333:G:N7	25:AH:48:HIS:CE1	2.15	1.14
21:A2:1372:C:C1'	21:A2:1372:C:O4'	1.63	1.14
21:A2:1190:C:O4'	21:A2:1190:C:C1'	1.64	1.14
67:B1:2520:C:C1'	67:B1:2520:C:O4'	1.63	1.14
50:BV:22:TYR:OH	65:BJ:100:GLU:HG2	0.98	1.14
21:A2:605:C:C1'	21:A2:605:C:O4'	1.67	1.14
21:A2:941:C:O4'	21:A2:941:C:C1'	1.67	1.14
18:AF:73:ARG:CZ	21:A2:879:U:H4'	1.77	1.14
35:BL:132:LYS:NZ	67:B1:733:A:O3'	1.78	1.14
4:AG:94:PHE:CE1	21:A2:149:U:H5'	1.83	1.14
34:B5:51:LYS:NZ	67:B1:1568:A:O2'	1.78	1.14
12:AN:111:PRO:HG3	21:A2:507:G:OP1	0.97	1.14
50:BV:20:LYS:NZ	65:BJ:88:GLU:HB3	1.55	1.14
27:A0:11:C:O4'	27:A0:11:C:C1'	1.73	1.14
21:A2:1200:U:H5	25:AH:91:ARG:CA	1.58	1.14
4:AG:77:ASP:OD1	21:A2:1403:U:C2	1.98	1.13
18:AF:50:ILE:HD12	18:AF:118:LYS:HB3	1.29	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AR:60:TYR:CE2	12:AN:16:LEU:CD1	2.29	1.13
67:B1:1411:G:O4'	67:B1:1411:G:C1'	1.65	1.13
21:A2:1255:C:C1'	21:A2:1255:C:O4'	1.65	1.13
21:A2:965:G:O4'	21:A2:965:G:C1'	1.71	1.13
65:BJ:87:LYS:CD	67:B1:2398:C:OP1	106.82	1.13
11:A1:51:G:C1'	11:A1:51:G:O4'	1.63	1.13
35:BL:132:LYS:HD3	67:B1:733:A:H5''	1.28	1.13
35:BL:6:LYS:NZ	67:B1:1339:C:C5	2.17	1.13
25:AH:3:LYS:CE	30:AU:144:ILE:C	2.17	1.12
33:BC:108:ASN:HB3	33:BC:172:TRP:CZ3	1.83	1.12
21:A2:1200:U:H3	25:AH:180:PHE:HB2	0.96	1.12
21:A2:1490:C:O4'	21:A2:1490:C:C1'	1.70	1.12
67:B1:1229:U:O4'	67:B1:1229:U:C1'	1.63	1.12
67:B1:366:G:C1'	67:B1:366:G:O4'	1.71	1.12
35:BL:132:LYS:CD	67:B1:733:A:H5''	1.79	1.12
31:BY:135:LYS:CE	68:B3:95:G:H5''	1.78	1.12
21:A2:1282:C:O4'	21:A2:1282:C:C1'	1.70	1.12
4:AG:5:LYS:HG2	21:A2:142:G:H4'	1.17	1.12
21:A2:440:C:O4'	21:A2:440:C:C1'	1.84	1.12
35:BL:6:LYS:HA	67:B1:947:C:H41	1.06	1.12
31:BY:130:LYS:HE2	67:B1:1122:C:C5'	1.79	1.12
48:BR:81:SER:HB3	67:B1:2474:A:OP2	1.48	1.11
21:A2:705:C:C1'	21:A2:705:C:O4'	1.64	1.11
67:B1:1394:G:C1'	67:B1:1394:G:O4'	1.69	1.11
67:B1:147:C:C1'	67:B1:147:C:O4'	1.73	1.11
35:BL:44:LYS:HG2	67:B1:961:C:O4'	1.47	1.11
67:B1:1440:C:O4'	67:B1:1440:C:C1'	1.65	1.11
67:B1:2587:G:C1'	67:B1:2587:G:O4'	1.73	1.11
67:B1:1473:C:C1'	67:B1:1473:C:O4'	1.72	1.11
21:A2:434:A:N3	28:AV:84:GLU:HB2	1.64	1.11
48:BR:4:LYS:HG2	67:B1:2390:G:O6	1.50	1.11
4:AG:65:GLY:HA3	21:A2:151:G:C5'	1.81	1.10
13:AX:70:ARG:NH2	21:A2:1042:U:OP1	1.83	1.10
21:A2:1251:C:OP2	25:AH:99:LYS:HD3	1.48	1.10
2:AK:40:ILE:HG22	25:AH:44:LEU:HD11	1.32	1.10
34:B5:50:ILE:CD1	57:BZ:28:LYS:NZ	2.12	1.10
21:A2:1332:C:O2'	25:AH:98:VAL:CG2	2.00	1.10
48:BR:71:GLU:N	67:B1:2484:C:OP1	1.84	1.10
35:BL:113:LEU:HD11	67:B1:732:G:C5	1.87	1.10
2:AK:46:LEU:CD2	25:AH:13:HIS:HB2	1.80	1.10
35:BL:15:HIS:CB	67:B1:946:U:OP1	1.98	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
65:BJ:52:ARG:HG2	67:B1:2548:A:C2	83.81	1.10
48:BR:59:HIS:CE1	67:B1:993:G:O3'	2.04	1.10
21:A2:439:G:C1'	21:A2:439:G:O4'	1.68	1.10
18:AF:213:ILE:HG12	18:AF:215:PRO:HD2	1.22	1.10
67:B1:2735:C:O4'	67:B1:2735:C:C1'	1.70	1.09
21:A2:367:G:C1'	21:A2:367:G:O4'	1.75	1.09
2:AK:46:LEU:CD2	25:AH:13:HIS:CB	2.30	1.09
18:AF:73:ARG:CZ	21:A2:879:U:C4'	2.29	1.09
67:B1:409:C:C1'	67:B1:409:C:O4'	1.69	1.09
35:BL:26:ARG:NH1	67:B1:941:C:H3'	1.66	1.09
13:AX:20:THR:HG23	21:A2:1341:C:H1'	1.15	1.09
3:AI:28:LYS:HD3	5:AW:4:PRO:HB3	1.30	1.09
13:AX:20:THR:HG23	21:A2:1341:C:C1'	1.81	1.09
67:B1:1569:A:O2'	67:B1:1638:C:H1'	1.51	1.09
68:B3:1:C:P	68:B3:2:G:C8	2.46	1.09
31:BY:155:LEU:HD12	67:B1:602:G:OP1	0.93	1.08
50:BV:20:LYS:NZ	65:BJ:88:GLU:HB2	1.53	1.08
35:BL:44:LYS:HA	67:B1:961:C:H1'	1.31	1.08
48:BR:82:LYS:HE3	67:B1:2473:C:OP1	1.45	1.08
34:B5:50:ILE:HD13	57:BZ:28:LYS:HZ1	1.12	1.08
46:BA:20:LYS:O	67:B1:1811:G:H1'	171.44	1.08
56:BH:128:GLY:CA	67:B1:1198:G:H21	1.65	1.08
4:AG:86:VAL:HG13	21:A2:1414:G:OP1	1.39	1.08
49:BQ:82:LYS:HD2	67:B1:1788:G:H4'	1.36	1.08
67:B1:3027:C:O4'	67:B1:3027:C:C1'	1.65	1.08
67:B1:2304:C:O4'	67:B1:2304:C:C1'	1.79	1.07
4:AG:102:ARG:NH1	21:A2:317:A:O2'	1.87	1.07
3:AI:28:LYS:CE	21:A2:780:C:OP1	2.01	1.07
67:B1:1568:A:N1	67:B1:1569:A:N1	2.02	1.07
10:AD:136:ILE:CB	28:AV:60:PHE:CE2	2.37	1.07
4:AG:120:ASN:CG	21:A2:151:G:C1'	2.23	1.07
15:AE:64:LYS:HZ2	28:AV:81:ILE:HB	0.92	1.07
4:AG:97:LYS:HD2	21:A2:87:C:OP1	0.90	1.07
12:AN:79:LYS:HB2	21:A2:358:G:C5'	1.85	1.07
65:BJ:87:LYS:CE	67:B1:2398:C:OP1	106.83	1.07
21:A2:1333:G:C8	25:AH:48:HIS:CE1	2.43	1.07
26:AP:56:GLU:CG	29:AL:63:ARG:CB	2.22	1.07
34:B5:8:ARG:NH2	57:BZ:55:LEU:HD23	1.69	1.07
4:AG:65:GLY:HA3	21:A2:151:G:H5''	1.23	1.06
56:BH:128:GLY:CA	67:B1:1198:G:N2	2.17	1.06
34:B5:51:LYS:HE3	67:B1:1568:A:H4'	1.37	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AN:51:ARG:H	21:A2:359:A:P	1.78	1.06
27:A0:1:G:OP1	27:A0:1:G:OP2	1.73	1.06
34:B5:4:ILE:HG12	57:BZ:28:LYS:HG2	1.37	1.06
11:A1:1:G:OP2	11:A1:1:G:OP1	1.73	1.06
35:BL:113:LEU:CD1	67:B1:732:G:C4	2.39	1.06
21:A2:434:A:C4	28:AV:85:TYR:CD1	2.42	1.06
31:BY:123:ARG:HD2	67:B1:1132:U:H4'	1.36	1.05
56:BH:124:LYS:HE3	67:B1:1220:U:H5'	1.36	1.05
50:BV:25:ASN:CA	65:BJ:100:GLU:OE2	2.04	1.05
31:BY:130:LYS:HE2	67:B1:1122:C:H5''	1.13	1.05
18:AF:128:CYS:HB2	18:AF:138:PRO:HG3	1.34	1.05
49:BQ:23:TRP:CZ2	67:B1:1436:A:OP1	2.10	1.05
3:AI:57:ARG:NE	21:A2:607:U:H4'	1.71	1.05
20:BG:44:GLU:OE2	59:BM:6:TYR:CE1	2.09	1.05
68:B3:1:C:OP2	68:B3:1:C:OP1	1.73	1.05
25:AH:3:LYS:HD2	30:AU:143:ILE:CD1	1.86	1.05
3:AI:28:LYS:HG2	5:AW:4:PRO:HA	1.39	1.04
3:AI:28:LYS:CD	5:AW:4:PRO:CB	2.35	1.04
2:AK:46:LEU:CD1	25:AH:13:HIS:ND1	2.19	1.04
35:BL:26:ARG:HH12	67:B1:941:C:H3'	1.14	1.04
54:BF:1:MET:H1	67:B1:1450:C:C5'	129.41	1.04
49:BQ:84:LYS:HA	67:B1:1843:C:OP1	1.56	1.04
67:B1:1:G:OP1	67:B1:1:G:OP2	1.73	1.04
35:BL:63:PHE:CE1	67:B1:2533:G:H1'	1.93	1.04
4:AG:5:LYS:HG2	21:A2:142:G:C4'	1.86	1.04
18:AF:54:LEU:HD13	18:AF:61:GLU:HB3	1.40	1.04
4:AG:64:ARG:HD2	21:A2:152:G:C4'	1.86	1.04
2:AK:46:LEU:HD21	25:AH:13:HIS:CB	1.86	1.04
4:AG:103:ARG:NH1	21:A2:329:G:C3'	2.20	1.04
18:AF:129:GLY:HA2	18:AF:134:ARG:HB3	1.34	1.04
15:AE:55:TYR:CD1	28:AV:9:LYS:CE	2.36	1.04
25:AH:3:LYS:HE3	30:AU:144:ILE:CA	1.86	1.03
2:AK:102:TYR:CZ	25:AH:42:ARG:NE	2.25	1.03
3:AI:79:PHE:CE2	8:AR:61:GLU:O	2.11	1.03
67:B1:1568:A:C2	67:B1:1569:A:C2	2.47	1.03
35:BL:47:TRP:CH2	67:B1:968:A:N3	2.27	1.03
50:BV:25:ASN:HB2	65:BJ:100:GLU:OE2	1.59	1.03
4:AG:94:PHE:CE1	21:A2:149:U:C5'	2.41	1.03
35:BL:44:LYS:CA	67:B1:961:C:O2'	2.07	1.03
21:A2:1196:A:OP1	25:AH:88:ARG:CZ	2.07	1.02
4:AG:120:ASN:CG	21:A2:151:G:O4'	1.95	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AK:102:TYR:OH	25:AH:42:ARG:CB	2.07	1.02
21:A2:88:G:O4'	21:A2:88:G:C1'	1.79	1.02
10:AD:136:ILE:O	28:AV:60:PHE:CZ	2.12	1.02
35:BL:24:LYS:NZ	67:B1:1080:G:H5''	1.73	1.02
21:A2:434:A:H2	28:AV:84:GLU:N	1.56	1.02
21:A2:370:A:P	21:A2:434:A:H62	1.83	1.02
10:AD:136:ILE:O	28:AV:60:PHE:CE2	2.13	1.02
18:AF:71:THR:HG21	21:A2:1032:A:H5''	1.42	1.02
3:AI:28:LYS:NZ	21:A2:780:C:OP1	1.92	1.02
18:AF:34:ILE:HG12	18:AF:38:PHE:HE2	1.22	1.02
18:AF:84:ARG:NE	21:A2:1032:A:OP1	1.92	1.02
7:AB:104:PRO:HG3	18:AF:19:LYS:HE2	1.04	1.01
12:AN:24:ARG:HH22	21:A2:298:C:H4'	1.23	1.01
21:A2:434:A:H2	28:AV:84:GLU:H	1.02	1.01
65:BJ:87:LYS:NZ	67:B1:2398:C:OP1	107.48	1.01
21:A2:1307:G:N2	25:AH:48:HIS:ND1	2.06	1.01
3:AI:28:LYS:CG	5:AW:4:PRO:HB3	1.91	1.01
35:BL:6:LYS:CE	67:B1:1338:G:O6	2.08	1.01
13:AX:71:ARG:NH1	21:A2:1041:C:OP1	1.93	1.01
15:AE:55:TYR:HA	28:AV:9:LYS:HE2	1.01	1.01
3:AI:4:LEU:HD13	21:A2:540:G:H5'	1.01	1.01
4:AG:120:ASN:ND2	21:A2:151:G:C1'	2.22	1.00
4:AG:100:GLY:HA2	21:A2:318:C:O2	1.60	1.00
3:AI:57:ARG:HE	21:A2:607:U:C4'	1.72	1.00
49:BQ:76:ARG:NH1	67:B1:1884:C:C5	2.24	1.00
13:AX:23:ASP:CA	21:A2:1338:C:O2	2.08	1.00
21:A2:1:A:OP1	21:A2:1:A:OP2	1.73	1.00
4:AG:99:LYS:CG	21:A2:319:U:O2'	2.09	1.00
25:AH:3:LYS:HE3	30:AU:143:ILE:C	1.80	1.00
67:B1:1568:A:N1	67:B1:1569:A:C6	2.29	1.00
68:B3:1:C:P	68:B3:117:G:H1	1.84	1.00
2:AK:42:ARG:NE	25:AH:9:PHE:CD1	2.29	1.00
4:AG:64:ARG:HD2	21:A2:152:G:C5'	1.91	1.00
35:BL:64:SER:HB3	67:B1:234:G:OP1	1.61	1.00
13:AX:20:THR:CG2	21:A2:1341:C:H1'	1.91	1.00
4:AG:77:ASP:OD1	21:A2:1403:U:H1'	1.62	1.00
21:A2:442:C:OP1	28:AV:60:PHE:HA	1.62	0.99
35:BL:6:LYS:CD	67:B1:1338:G:O6	2.09	0.99
48:BR:81:SER:HB3	67:B1:2474:A:P	2.02	0.99
50:BV:20:LYS:HZ3	65:BJ:88:GLU:HB2	1.01	0.99
18:AF:74:MET:O	21:A2:879:U:O2'	1.77	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AI:4:LEU:CB	21:A2:540:G:C4'	2.29	0.99
3:AI:4:LEU:CD1	21:A2:540:G:H5'	1.91	0.99
4:AG:100:GLY:H	21:A2:319:U:C1'	1.76	0.99
4:AG:120:ASN:CG	21:A2:151:G:H1'	1.82	0.99
12:AN:111:PRO:CG	21:A2:507:G:P	2.50	0.99
21:A2:1334:A:HO2'	25:AH:69:ASN:CG	1.53	0.99
3:AI:9:ASN:ND2	21:A2:778:G:H21	1.60	0.99
4:AG:77:ASP:CB	21:A2:1403:U:O2	2.09	0.99
2:AK:102:TYR:CE1	25:AH:42:ARG:CD	2.45	0.99
49:BQ:23:TRP:CH2	67:B1:1436:A:OP1	2.14	0.99
12:AN:135:LYS:HE2	21:A2:29:G:O2'	1.62	0.99
35:BL:132:LYS:HD3	67:B1:733:A:OP1	1.62	0.99
3:AI:28:LYS:HE2	21:A2:780:C:OP1	1.61	0.98
3:AI:4:LEU:HD13	21:A2:540:G:C5'	1.93	0.98
35:BL:47:TRP:HH2	67:B1:968:A:N3	1.58	0.98
21:A2:1296:U:C5	25:AH:175:ARG:CZ	2.46	0.98
2:AK:43:PHE:HB3	25:AH:43:LEU:HD11	1.42	0.98
2:AK:39:GLU:CD	25:AH:5:LEU:CD1	2.32	0.98
3:AI:80:PRO:HG3	8:AR:63:TYR:OH	1.63	0.98
20:BG:44:GLU:OE2	59:BM:6:TYR:HE1	1.47	0.98
21:A2:369:A:C4'	21:A2:434:A:N7	2.26	0.98
4:AG:92:PRO:CG	21:A2:1412:A:HO2'	1.61	0.97
12:AN:79:LYS:HB2	21:A2:358:G:H5''	1.43	0.97
21:A2:1334:A:OP1	25:AH:65:GLU:OE2	1.81	0.97
13:AX:61:GLU:HG3	14:AM:107:ARG:HD3	1.45	0.97
53:BD:85:PHE:CE2	67:B1:1398:C:O2'	2.16	0.97
50:BV:25:ASN:CB	65:BJ:100:GLU:OE2	2.11	0.97
33:BC:108:ASN:CB	33:BC:172:TRP:CZ3	2.31	0.97
12:AN:135:LYS:CE	21:A2:29:G:O2'	2.11	0.97
40:BE:21:ARG:NH1	67:B1:123:A:C2	154.96	0.97
49:BQ:82:LYS:HB2	67:B1:1788:G:O3'	1.64	0.97
4:AG:103:ARG:CZ	21:A2:329:G:H4'	1.95	0.97
67:B1:1568:A:C6	67:B1:1569:A:C6	2.52	0.97
2:AK:40:ILE:O	25:AH:44:LEU:CD1	2.12	0.97
65:BJ:87:LYS:CG	67:B1:2398:C:P	106.40	0.97
25:AH:3:LYS:NZ	30:AU:143:ILE:HG13	1.79	0.97
15:AE:55:TYR:CA	28:AV:9:LYS:HE2	1.95	0.97
26:AP:56:GLU:C	29:AL:63:ARG:HD3	1.85	0.96
18:AF:73:ARG:NE	21:A2:879:U:H4'	1.80	0.96
67:B1:1109:G:H1'	67:B1:1125:A:H61	1.31	0.96
67:B1:1568:A:C2	67:B1:1569:A:C6	2.53	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AD:136:ILE:HB	28:AV:60:PHE:HE2	1.30	0.96
65:BJ:52:ARG:HG2	67:B1:2548:A:H2	84.14	0.96
31:BY:123:ARG:CD	67:B1:1132:U:H4'	1.94	0.96
21:A2:1248:A:O3'	25:AH:81:VAL:HG13	1.65	0.96
15:AE:64:LYS:HZ2	28:AV:81:ILE:CB	1.77	0.96
18:AF:165:LEU:HD23	18:AF:183:VAL:HG12	1.48	0.96
25:AH:3:LYS:CE	30:AU:144:ILE:CA	2.44	0.96
8:AR:60:TYR:CZ	12:AN:16:LEU:HD12	2.01	0.96
10:AD:93:LEU:HD13	18:AF:160:PRO:CB	1.95	0.96
67:B1:1823:A:H61	67:B1:2120:C:H42	1.13	0.96
35:BL:6:LYS:NZ	67:B1:1338:G:C6	2.33	0.96
18:AF:73:ARG:HH12	21:A2:879:U:H5''	1.20	0.95
52:BB:69:LYS:HD2	67:B1:1304:G:OP1	120.33	0.95
10:AD:136:ILE:HB	28:AV:60:PHE:CD2	2.00	0.95
67:B1:1179:G:O6	67:B1:1254:C:N4	1.99	0.95
67:B1:1565:G:O4'	67:B1:1565:G:C1'	2.08	0.95
35:BL:63:PHE:HD1	67:B1:2533:G:C4'	1.79	0.95
48:BR:50:HIS:HD2	67:B1:2450:A:N1	1.64	0.95
4:AG:100:GLY:H	21:A2:319:U:H1'	1.27	0.95
50:BV:45:ARG:CZ	67:B1:1893:C:OP1	2.14	0.95
49:BQ:74:ARG:NH1	67:B1:1869:U:OP2	1.99	0.95
4:AG:64:ARG:HD2	21:A2:152:G:H4'	1.48	0.95
4:AG:78:ILE:HB	4:AG:109:GLY:HA2	1.49	0.95
25:AH:3:LYS:CE	30:AU:144:ILE:H	1.62	0.95
25:AH:3:LYS:CD	30:AU:143:ILE:HG13	1.96	0.95
2:AK:39:GLU:CD	25:AH:5:LEU:HD11	1.87	0.95
46:BA:20:LYS:O	67:B1:1811:G:N9	173.29	0.95
35:BL:9:ARG:HB2	35:BL:11:LEU:HA	1.48	0.95
49:BQ:60:ARG:CZ	67:B1:1602:C:H4'	1.96	0.95
31:BY:126:PHE:CG	67:B1:1134:A:H5''	2.01	0.94
10:AD:93:LEU:CD1	18:AF:160:PRO:HB3	1.97	0.94
4:AG:5:LYS:CG	21:A2:142:G:H4'	1.97	0.94
48:BR:70:GLY:HA3	67:B1:2484:C:C5'	1.98	0.94
2:AK:46:LEU:HD23	25:AH:13:HIS:HB2	1.48	0.94
4:AG:94:PHE:CD1	21:A2:149:U:C5'	2.51	0.94
12:AN:111:PRO:CD	21:A2:507:G:OP2	2.15	0.94
3:AI:28:LYS:HE3	5:AW:4:PRO:CB	1.97	0.94
67:B1:309:C:N4	67:B1:403:G:O6	2.01	0.94
35:BL:113:LEU:CD1	67:B1:732:G:C2	2.51	0.94
50:BV:45:ARG:NH2	67:B1:1893:C:OP1	2.01	0.94
35:BL:6:LYS:CA	67:B1:947:C:H41	1.80	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:119:THR:HG21	58:BP:73:LYS:CE	1.98	0.94
7:AB:104:PRO:HG2	18:AF:19:LYS:NZ	1.82	0.93
15:AE:55:TYR:HA	28:AV:9:LYS:CE	1.95	0.93
52:BB:69:LYS:HE3	67:B1:1304:G:OP2	122.83	0.93
31:BY:30:ARG:CZ	67:B1:1297:C:OP1	2.15	0.93
18:AF:73:ARG:CZ	21:A2:879:U:H5'	1.98	0.93
49:BQ:84:LYS:HG2	67:B1:1843:C:OP2	1.67	0.93
50:BV:22:TYR:CZ	65:BJ:100:GLU:HG2	2.03	0.93
21:A2:1334:A:O2'	25:AH:69:ASN:CB	2.17	0.93
18:AF:124:ILE:HD12	18:AF:205:LEU:HD23	1.50	0.93
4:AG:94:PHE:CD1	21:A2:149:U:H4'	2.04	0.93
34:B5:50:ILE:HD13	57:BZ:28:LYS:NZ	1.78	0.93
18:AF:70:LEU:O	18:AF:70:LEU:HG	1.67	0.93
25:AH:3:LYS:HD2	30:AU:143:ILE:HG13	1.51	0.93
34:B5:8:ARG:NH2	57:BZ:55:LEU:HD21	1.81	0.93
34:B5:50:ILE:HG12	57:BZ:28:LYS:HZ2	0.77	0.93
18:AF:166:VAL:CG1	21:A2:1:A:OP2	2.16	0.93
4:AG:65:GLY:HA3	21:A2:151:G:H4'	1.49	0.93
35:BL:26:ARG:CD	67:B1:941:C:C5	2.51	0.93
35:BL:6:LYS:HA	67:B1:947:C:N4	1.84	0.93
3:AI:4:LEU:CD1	21:A2:539:C:O2'	2.17	0.93
35:BL:132:LYS:HD3	67:B1:733:A:C5'	1.97	0.93
2:AK:43:PHE:HE2	25:AH:9:PHE:HA	1.33	0.92
50:BV:20:LYS:HZ1	65:BJ:88:GLU:HB3	0.76	0.92
35:BL:132:LYS:HB3	67:B1:733:A:OP1	1.69	0.92
65:BJ:52:ARG:NH2	67:B1:188:A:N3	82.09	0.92
18:AF:54:LEU:CD1	18:AF:61:GLU:HB3	1.99	0.92
35:BL:44:LYS:HA	67:B1:961:C:C1'	1.98	0.92
21:A2:59:C:N4	21:A2:88:G:O6	2.01	0.92
48:BR:69:ARG:NH1	67:B1:2483:U:O2	2.02	0.92
21:A2:1307:G:H1	25:AH:48:HIS:CG	1.88	0.92
2:AK:50:ILE:CD1	25:AH:13:HIS:CD2	2.50	0.92
13:AX:23:ASP:HA	21:A2:1338:C:C2	2.04	0.92
3:AI:97:PHE:CE1	18:AF:131:TRP:NE1	1.84	0.92
3:AI:79:PHE:CD2	8:AR:61:GLU:O	2.23	0.92
21:A2:369:A:H4'	21:A2:434:A:C8	2.04	0.92
18:AF:188:PHE:CE1	21:A2:513:A:H2'	2.04	0.92
34:B5:16:ARG:HD2	67:B1:1566:G:N7	1.83	0.92
20:BG:60:GLU:CG	59:BM:26:ARG:NH2	2.33	0.92
4:AG:102:ARG:HD3	21:A2:318:C:C4'	2.00	0.92
48:BR:59:HIS:HE1	67:B1:994:G:P	1.93	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AD:136:ILE:N	28:AV:60:PHE:CZ	2.38	0.91
25:AH:3:LYS:HZ2	30:AU:143:ILE:HG13	1.29	0.91
3:AI:9:ASN:HD21	21:A2:778:G:N2	1.68	0.91
35:BL:63:PHE:CD1	67:B1:2533:G:O4'	2.21	0.91
46:BA:20:LYS:CB	67:B1:1811:G:C8	171.88	0.91
21:A2:60:A:N1	21:A2:64:G:O6	2.03	0.91
10:AD:93:LEU:CB	18:AF:161:ARG:O	2.17	0.91
67:B1:1568:A:N6	67:B1:1569:A:H61	1.69	0.91
35:BL:64:SER:CB	67:B1:234:G:OP1	2.18	0.91
48:BR:14:LYS:HB2	67:B1:995:G:P	2.09	0.91
12:AN:63:LYS:NZ	21:A2:870:U:OP1	2.02	0.91
35:BL:113:LEU:CD1	67:B1:732:G:N3	2.33	0.91
2:AK:46:LEU:HD23	25:AH:13:HIS:CB	1.98	0.91
26:AP:52:PHE:HB3	29:AL:64:TRP:CZ3	2.04	0.91
18:AF:191:THR:HG23	18:AF:197:PHE:CD1	2.06	0.91
2:AK:42:ARG:HE	25:AH:9:PHE:HD1	1.13	0.91
67:B1:1566:G:N2	67:B1:1570:C:C2	2.39	0.91
35:BL:36:MET:CE	67:B1:241:C:OP2	2.18	0.91
13:AX:71:ARG:CZ	21:A2:1041:C:OP1	2.18	0.91
21:A2:434:A:C2	28:AV:84:GLU:N	2.39	0.91
35:BL:132:LYS:HZ3	67:B1:733:A:C3'	1.83	0.91
48:BR:50:HIS:NE2	67:B1:2450:A:H2	1.54	0.91
46:BA:41:ARG:CZ	67:B1:3029:A:H1'	156.06	0.91
21:A2:1307:G:N1	25:AH:48:HIS:NE2	2.20	0.90
21:A2:1200:U:C5	25:AH:91:ARG:HA	2.06	0.90
21:A2:1200:U:O4	25:AH:91:ARG:O	1.88	0.90
34:B5:50:ILE:HG23	57:BZ:28:LYS:HZ3	1.36	0.90
13:AX:61:GLU:HG3	14:AM:107:ARG:CD	1.99	0.90
34:B5:50:ILE:CG1	57:BZ:28:LYS:HZ1	1.66	0.90
4:AG:65:GLY:HA3	21:A2:151:G:C4'	2.01	0.90
3:AI:28:LYS:HE3	5:AW:4:PRO:HB3	1.52	0.90
48:BR:69:ARG:NH2	67:B1:2482:G:N2	2.18	0.90
21:A2:239:A:H4'	21:A2:240:U:H5'	1.54	0.90
26:AP:52:PHE:CB	29:AL:64:TRP:CZ3	2.55	0.90
25:AH:3:LYS:CE	30:AU:143:ILE:CG1	2.49	0.90
35:BL:34:ARG:NH2	67:B1:939:A:P	2.44	0.90
49:BQ:84:LYS:HG2	67:B1:1843:C:P	2.12	0.90
48:BR:69:ARG:NH2	67:B1:2482:G:H21	1.70	0.90
13:AX:71:ARG:NH2	21:A2:1041:C:C5'	2.33	0.89
54:BF:1:MET:HE3	67:B1:1450:C:C5'	129.47	0.89
56:BH:124:LYS:HE3	67:B1:1220:U:H5''	1.51	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:82:LYS:HG3	67:B1:2473:C:H5''	1.52	0.89
26:AP:52:PHE:HB3	29:AL:64:TRP:CE3	2.07	0.89
56:BH:125:GLU:OE2	67:B1:1197:G:O2'	1.91	0.89
25:AH:3:LYS:HE3	30:AU:144:ILE:H	1.16	0.89
13:AX:71:ARG:HD3	21:A2:1041:C:OP1	1.73	0.89
48:BR:50:HIS:CD2	67:B1:2450:A:C2	2.58	0.89
21:A2:166:A:H61	21:A2:196:G:H1'	1.34	0.89
2:AK:102:TYR:OH	25:AH:42:ARG:NE	2.03	0.89
48:BR:14:LYS:CE	67:B1:995:G:OP1	2.21	0.89
4:AG:65:GLY:CA	21:A2:151:G:H5''	2.02	0.89
4:AG:120:ASN:OD1	21:A2:151:G:C4'	2.20	0.89
21:A2:1313:G:H5'	25:AH:81:VAL:CG2	2.01	0.89
49:BQ:81:ARG:NH2	67:B1:1885:G:OP2	2.05	0.89
4:AG:100:GLY:N	21:A2:319:U:H1'	1.87	0.89
3:AI:28:LYS:CG	5:AW:4:PRO:CB	2.51	0.89
67:B1:1600:G:H1'	67:B1:1707:A:N6	1.87	0.89
35:BL:25:HIS:HB3	67:B1:804:C:H41	1.36	0.89
50:BV:20:LYS:HZ3	65:BJ:88:GLU:CB	1.72	0.89
67:B1:1568:A:N6	67:B1:1569:A:N6	2.20	0.88
21:A2:1196:A:OP1	25:AH:88:ARG:NH2	2.06	0.88
2:AK:46:LEU:HD11	25:AH:13:HIS:ND1	1.84	0.88
21:A2:434:A:C2	28:AV:84:GLU:CB	2.57	0.88
67:B1:815:U:H3	67:B1:930:G:H1	1.21	0.88
25:AH:86:MET:HA	25:AH:88:ARG:NE	1.88	0.88
34:B5:50:ILE:CG2	57:BZ:28:LYS:NZ	2.36	0.88
54:BF:1:MET:O	67:B1:1450:C:OP2	132.41	0.88
3:AI:57:ARG:HG2	21:A2:607:U:P	2.12	0.88
35:BL:6:LYS:NZ	67:B1:1339:C:C4	2.41	0.88
35:BL:23:LYS:NZ	67:B1:2563:A:H61	1.70	0.88
18:AF:188:PHE:HE1	21:A2:513:A:H2'	1.39	0.88
53:BD:85:PHE:HB2	67:B1:675:G:N2	1.89	0.88
50:BV:22:TYR:HH	65:BJ:100:GLU:HG2	1.11	0.88
31:BY:131:LYS:NZ	67:B1:1136:G:P	2.47	0.88
4:AG:64:ARG:HB3	21:A2:151:G:HO2'	1.39	0.88
15:AE:64:LYS:NZ	28:AV:81:ILE:CB	2.34	0.88
21:A2:1253:G:OP1	25:AH:1:MET:CB	2.22	0.88
21:A2:434:A:C5	28:AV:85:TYR:CD1	2.62	0.88
67:B1:1132:U:H3	67:B1:1296:A:H61	1.20	0.88
67:B1:1567:C:H4'	67:B1:1567:C:C5'	2.04	0.88
4:AG:103:ARG:NH1	21:A2:329:G:O2'	2.06	0.88
3:AI:97:PHE:HE1	18:AF:131:TRP:CD1	1.92	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:131:PRO:CD	67:B1:732:G:OP1	2.22	0.88
53:BD:85:PHE:HZ	67:B1:1398:C:O2'	1.54	0.88
20:BG:60:GLU:HG2	59:BM:26:ARG:NH2	1.89	0.88
18:AF:59:ALA:HB1	18:AF:91:ASN:HB2	1.55	0.87
48:BR:4:LYS:CG	67:B1:2390:G:O6	2.22	0.87
49:BQ:84:LYS:CA	67:B1:1843:C:OP1	2.21	0.87
18:AF:71:THR:HG21	21:A2:1032:A:C5'	2.04	0.87
26:AP:56:GLU:CA	29:AL:63:ARG:CD	2.51	0.87
53:BD:91:ARG:HH22	67:B1:488:A:C5'	1.87	0.87
18:AF:129:GLY:HA2	18:AF:134:ARG:CB	2.04	0.87
12:AN:108:ILE:HD12	21:A2:505:U:C5'	2.04	0.87
34:B5:16:ARG:NE	67:B1:1566:G:O6	2.07	0.87
21:A2:409:C:N4	21:A2:413:G:O6	2.07	0.87
2:AK:46:LEU:HD11	25:AH:13:HIS:HE1	1.16	0.87
4:AG:100:GLY:CA	21:A2:318:C:O2	2.22	0.87
47:BI:8:GLY:O	67:B1:839:A:H5'	125.75	0.87
12:AN:135:LYS:HZ3	21:A2:29:G:C1'	1.73	0.87
49:BQ:84:LYS:CG	67:B1:1843:C:P	2.63	0.87
46:BA:41:ARG:NH2	67:B1:3029:A:C1'	157.78	0.87
25:AH:90:HIS:HB3	25:AH:92:SER:H	1.39	0.86
18:AF:125:LYS:HB3	18:AF:208:THR:HG22	1.55	0.86
18:AF:128:CYS:CB	18:AF:138:PRO:HG3	2.05	0.86
18:AF:73:ARG:NE	21:A2:879:U:O3'	1.97	0.86
20:BG:59:PRO:HG3	59:BM:43:THR:HA	1.57	0.86
53:BD:48:ARG:HB2	67:B1:1668:G:O3'	92.24	0.86
35:BL:113:LEU:HD11	67:B1:732:G:C6	2.10	0.86
3:AI:9:ASN:HD21	21:A2:778:G:H21	0.88	0.86
2:AK:39:GLU:OE2	25:AH:5:LEU:CD1	2.23	0.86
4:AG:88:LEU:C	21:A2:1413:G:OP1	2.14	0.86
67:B1:1179:G:C2'	67:B1:1179:G:N9	2.39	0.86
35:BL:9:ARG:CB	35:BL:11:LEU:HA	2.05	0.86
21:A2:1316:U:H3	21:A2:1326:G:H1	1.17	0.85
21:A2:555:U:H3	21:A2:590:G:H1	1.24	0.85
4:AG:102:ARG:HD3	21:A2:318:C:H4'	1.56	0.85
48:BR:7:SER:HB3	67:B1:2376:U:OP1	1.75	0.85
54:BF:1:MET:N	67:B1:1450:C:C5'	130.30	0.85
35:BL:113:LEU:HD11	67:B1:732:G:C2	2.11	0.85
31:BY:135:LYS:HD3	68:B3:95:G:H4'	1.58	0.85
13:AX:71:ARG:CZ	21:A2:1041:C:C5'	2.53	0.85
4:AG:64:ARG:HD2	21:A2:152:G:H5'	1.56	0.85
12:AN:135:LYS:HZ3	21:A2:29:G:H1'	1.28	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:125:LYS:HE2	18:AF:142:PRO:HG3	1.58	0.85
67:B1:1037:C:C2'	67:B1:1037:C:N1	2.38	0.85
67:B1:1754:A:N9	67:B1:1754:A:C2'	2.38	0.85
21:A2:1296:U:C5	25:AH:175:ARG:NE	2.44	0.85
25:AH:81:VAL:HG11	30:AU:80:ARG:HE	1.41	0.85
46:BA:20:LYS:HB3	67:B1:1811:G:H8	170.64	0.85
35:BL:4:ARG:NE	67:B1:678:G:O2'	2.09	0.85
35:BL:36:MET:HE3	67:B1:241:C:OP2	1.75	0.85
18:AF:91:ASN:ND2	18:AF:93:ASP:HB2	1.92	0.85
21:A2:442:C:OP1	28:AV:60:PHE:CA	2.23	0.85
12:AN:50:ALA:CA	21:A2:359:A:OP1	2.23	0.85
7:AB:104:PRO:HG2	18:AF:19:LYS:HE3	1.59	0.85
35:BL:6:LYS:NZ	67:B1:1338:G:C5	2.44	0.85
67:B1:85:G:O6	67:B1:97:C:N4	2.09	0.85
35:BL:6:LYS:HD2	67:B1:1338:G:O6	1.75	0.85
4:AG:92:PRO:HG2	21:A2:1413:G:H5'	1.59	0.85
4:AG:77:ASP:OD1	21:A2:1403:U:N1	2.10	0.84
56:BH:124:LYS:CE	67:B1:1220:U:H5'	2.06	0.84
50:BV:35:ARG:HH21	67:B1:2801:G:H5''	1.40	0.84
4:AG:64:ARG:NE	21:A2:151:G:O2'	2.10	0.84
18:AF:34:ILE:HG12	18:AF:38:PHE:CE2	2.10	0.84
21:A2:1334:A:O4'	25:AH:69:ASN:ND2	2.11	0.84
4:AG:92:PRO:CD	21:A2:1412:A:O2'	2.25	0.84
18:AF:46:GLU:HB2	18:AF:49:ILE:HG13	1.57	0.84
35:BL:24:LYS:HZ2	67:B1:1080:G:H5''	1.36	0.84
35:BL:34:ARG:HH22	67:B1:939:A:P	2.01	0.84
68:B3:1:C:P	68:B3:117:G:N1	2.51	0.84
3:AI:79:PHE:HE2	8:AR:61:GLU:O	1.61	0.84
10:AD:136:ILE:C	28:AV:60:PHE:HE2	1.81	0.84
54:BF:1:MET:HE3	67:B1:1450:C:H5''	129.98	0.84
48:BR:50:HIS:HE2	67:B1:2450:A:H2	0.87	0.84
31:BY:135:LYS:CD	68:B3:95:G:H5''	2.07	0.84
18:AF:213:ILE:CG1	18:AF:215:PRO:HD2	2.06	0.84
31:BY:114:LYS:HE2	67:B1:1325:A:N6	1.92	0.84
4:AG:99:LYS:HG3	21:A2:319:U:O2'	1.77	0.84
4:AG:88:LEU:O	21:A2:1413:G:OP1	1.95	0.84
25:AH:75:GLY:HA3	25:AH:94:ASN:HA	1.60	0.84
21:A2:1296:U:C6	25:AH:175:ARG:CZ	2.60	0.83
31:BY:51:LYS:NZ	68:B3:96:C:H4'	1.94	0.83
49:BQ:82:LYS:O	67:B1:1842:C:H5'	1.77	0.83
35:BL:132:LYS:CE	67:B1:733:A:H5''	2.08	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:64:ARG:CD	21:A2:152:G:H5'	2.07	0.83
12:AN:108:ILE:HD12	21:A2:505:U:H5''	1.60	0.83
6:AC:140:ARG:CZ	21:A2:1156:A:C8	2.61	0.83
18:AF:86:LEU:HG	18:AF:100:ILE:CG2	2.07	0.83
10:AD:93:LEU:HD13	18:AF:160:PRO:HB3	1.58	0.83
67:B1:1465:A:C2	67:B1:1476:C:O2'	2.30	0.83
25:AH:3:LYS:CE	30:AU:143:ILE:HG13	2.07	0.83
21:A2:434:A:C5	28:AV:85:TYR:CE1	2.66	0.83
10:AD:59:LEU:HD11	18:AF:132:GLU:CD	1.99	0.83
18:AF:130:SER:HB3	18:AF:139:HIS:CE1	2.13	0.83
35:BL:6:LYS:HZ3	67:B1:1339:C:H5	1.25	0.83
67:B1:2568:A:H61	67:B1:2614:C:H42	1.24	0.83
4:AG:85:ARG:NH2	21:A2:331:C:OP1	2.11	0.83
25:AH:87:ARG:HG3	25:AH:90:HIS:HA	1.61	0.83
26:AP:52:PHE:CB	29:AL:64:TRP:HZ3	1.92	0.83
4:AG:88:LEU:CA	21:A2:1413:G:OP1	2.27	0.83
18:AF:73:ARG:CZ	21:A2:879:U:C5'	2.49	0.83
2:AK:39:GLU:CD	25:AH:5:LEU:HG	1.98	0.83
52:BB:69:LYS:HE3	67:B1:1304:G:P	121.50	0.83
34:B5:4:ILE:CG1	57:BZ:28:LYS:HG2	2.07	0.83
53:BD:91:ARG:HH22	67:B1:488:A:H5'	1.43	0.83
21:A2:434:A:C2	28:AV:84:GLU:OE2	2.32	0.82
49:BQ:61:TYR:CE2	67:B1:1618:G:H5''	2.13	0.82
35:BL:25:HIS:NE2	67:B1:678:G:O6	2.12	0.82
34:B5:4:ILE:HG12	57:BZ:28:LYS:CG	2.07	0.82
21:A2:1458:A:C2'	21:A2:1458:A:N9	2.42	0.82
18:AF:73:ARG:CD	21:A2:879:U:H4'	2.09	0.82
10:AD:136:ILE:C	28:AV:60:PHE:CE2	2.53	0.82
54:BF:1:MET:H1	67:B1:1450:C:H5''	129.95	0.82
33:BC:108:ASN:O	33:BC:172:TRP:CE2	2.32	0.82
18:AF:166:VAL:CG2	18:AF:184:TRP:HA	2.08	0.82
25:AH:3:LYS:CE	30:AU:143:ILE:HG12	2.09	0.82
35:BL:63:PHE:HD1	67:B1:2533:G:H4'	1.42	0.82
20:BG:37:ASN:HB2	59:BM:3:MET:CE	2.10	0.82
12:AN:5:LYS:CE	21:A2:838:C:H5	1.92	0.82
3:AI:6:PRO:CG	21:A2:541:G:H5''	2.09	0.82
18:AF:152:VAL:O	18:AF:153:ARG:HD2	1.80	0.82
67:B1:1707:A:N9	67:B1:1707:A:C2'	2.43	0.82
35:BL:132:LYS:CD	67:B1:733:A:C5'	2.56	0.82
48:BR:4:LYS:HD3	67:B1:2390:G:O6	1.80	0.82
31:BY:135:LYS:HD3	68:B3:95:G:C4'	2.08	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:179:U:H3	21:A2:184:G:H1	1.27	0.82
4:AG:94:PHE:CE1	21:A2:149:U:H4'	2.14	0.82
21:A2:1311:C:H4'	25:AH:94:ASN:C	2.01	0.82
4:AG:87:LEU:O	21:A2:1413:G:OP1	1.97	0.82
21:A2:1307:G:C2	25:AH:48:HIS:NE2	2.47	0.81
18:AF:73:ARG:NH1	21:A2:879:U:H4'	1.95	0.81
21:A2:1333:G:N7	25:AH:48:HIS:HE1	1.77	0.81
4:AG:86:VAL:HG11	21:A2:1414:G:OP1	1.60	0.81
25:AH:174:TYR:HD2	25:AH:175:ARG:HD2	1.46	0.81
48:BR:69:ARG:NH2	67:B1:2483:U:H1'	1.95	0.81
12:AN:33:ARG:HD3	21:A2:508:C:OP1	1.81	0.81
48:BR:70:GLY:N	67:B1:2484:C:H4'	1.95	0.81
31:BY:30:ARG:HH21	67:B1:1297:C:P	2.03	0.81
21:A2:456:U:H3	21:A2:494:G:H1	1.27	0.81
10:AD:136:ILE:O	28:AV:60:PHE:HZ	1.63	0.81
21:A2:1253:G:H5''	25:AH:1:MET:HB2	1.63	0.81
31:BY:123:ARG:NE	67:B1:1132:U:H4'	1.96	0.81
4:AG:86:VAL:HG21	21:A2:1413:G:O3'	1.81	0.81
21:A2:85:A:C2'	21:A2:85:A:N9	2.43	0.81
2:AK:40:ILE:O	25:AH:44:LEU:HD12	1.80	0.81
3:AI:4:LEU:HB2	21:A2:540:G:H4'	0.81	0.81
35:BL:132:LYS:CD	67:B1:733:A:OP1	2.29	0.81
21:A2:1370:U:H3	21:A2:1445:A:H61	1.27	0.81
50:BV:39:ARG:CZ	67:B1:2833:G:OP2	2.29	0.81
48:BR:82:LYS:NZ	67:B1:2473:C:OP1	2.14	0.81
4:AG:94:PHE:CE1	21:A2:149:U:C4'	2.64	0.80
18:AF:105:GLU:O	18:AF:108:ILE:HG22	1.81	0.80
31:BY:135:LYS:HE2	68:B3:95:G:H5''	1.62	0.80
31:BY:131:LYS:HZ1	67:B1:1136:G:P	2.03	0.80
3:AI:57:ARG:HG2	21:A2:607:U:OP1	1.81	0.80
15:AE:95:GLU:OE1	28:AV:12:LYS:CE	2.29	0.80
67:B1:1569:A:HO2'	67:B1:1638:C:H1'	1.45	0.80
18:AF:33:ASP:HB3	18:AF:36:GLU:HG3	1.62	0.80
12:AN:24:ARG:HH12	21:A2:298:C:H5''	1.44	0.80
50:BV:27:GLY:HA2	65:BJ:121:PRO:HG3	1.63	0.80
18:AF:125:LYS:O	18:AF:208:THR:HG21	1.81	0.80
21:A2:1333:G:C8	25:AH:48:HIS:HE1	1.98	0.80
4:AG:103:ARG:HH11	21:A2:329:G:H4'	1.41	0.80
18:AF:99:GLY:HA2	18:AF:116:TYR:HD2	1.46	0.80
25:AH:86:MET:C	25:AH:88:ARG:HB2	2.02	0.80
53:BD:87:ARG:NH2	67:B1:487:U:C2	2.49	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:47:TRP:CZ3	67:B1:967:G:N2	2.50	0.80
4:AG:9:SER:HB2	4:AG:64:ARG:NH1	1.97	0.80
35:BL:23:LYS:HZ1	67:B1:2563:A:H61	1.26	0.80
68:B3:52:U:H4'	68:B3:53:A:H5'	1.64	0.80
53:BD:91:ARG:O	53:BD:94:PRO:HD3	1.82	0.80
18:AF:166:VAL:HB	21:A2:1:A:OP2	1.81	0.80
4:AG:99:LYS:CD	21:A2:319:U:O2'	2.30	0.80
12:AN:49:GLN:HB2	21:A2:359:A:O4'	1.81	0.80
26:AP:56:GLU:CG	29:AL:63:ARG:HB2	2.11	0.80
21:A2:434:A:C6	28:AV:85:TYR:HE1	1.99	0.80
35:BL:132:LYS:NZ	67:B1:733:A:H5''	1.96	0.80
35:BL:47:TRP:HH2	67:B1:968:A:C2	1.99	0.80
35:BL:6:LYS:CD	67:B1:1339:C:N4	2.44	0.80
31:BY:135:LYS:NZ	68:B3:95:G:H5''	1.95	0.80
3:AI:28:LYS:HD3	5:AW:4:PRO:CB	2.06	0.80
25:AH:3:LYS:NZ	30:AU:144:ILE:H	1.80	0.80
67:B1:2382:A:N9	67:B1:2382:A:C2'	2.45	0.80
21:A2:428:G:H1	21:A2:442:C:N4	1.80	0.80
15:AE:95:GLU:OE1	28:AV:12:LYS:HE2	1.81	0.80
21:A2:619:A:N6	21:A2:678:G:O6	2.15	0.79
3:AI:13:HIS:CD2	21:A2:780:C:H4'	2.17	0.79
3:AI:4:LEU:HD13	21:A2:539:C:O2'	1.82	0.79
12:AN:3:GLY:N	21:A2:836:G:C8	2.51	0.79
20:BG:37:ASN:N	59:BM:3:MET:SD	2.55	0.79
31:BY:123:ARG:HD3	67:B1:1132:U:O2'	1.82	0.79
4:AG:5:LYS:HG2	21:A2:142:G:C5'	2.11	0.79
35:BL:26:ARG:HD3	67:B1:941:C:C4	2.16	0.79
56:BH:128:GLY:HA3	67:B1:1198:G:H22	1.44	0.79
18:AF:163:LEU:HD11	18:AF:184:TRP:CZ2	2.18	0.79
35:BL:24:LYS:NZ	67:B1:1080:G:C5'	2.44	0.79
21:A2:1311:C:H4'	25:AH:95:SER:N	1.97	0.79
53:BD:87:ARG:NE	67:B1:487:U:O2	2.13	0.79
50:BV:35:ARG:HG3	50:BV:39:ARG:HE	1.47	0.79
4:AG:99:LYS:HG3	21:A2:319:U:C2'	2.13	0.79
10:AD:136:ILE:CA	28:AV:60:PHE:CE2	2.65	0.79
3:AI:99:PHE:CE1	18:AF:143:PHE:CZ	2.71	0.79
35:BL:132:LYS:CB	67:B1:733:A:OP1	2.31	0.79
21:A2:340:A:C2'	21:A2:340:A:N9	2.46	0.79
21:A2:1334:A:C4'	25:AH:69:ASN:ND2	2.45	0.79
31:BY:51:LYS:HZ3	68:B3:96:C:H4'	1.47	0.79
34:B5:31:ASN:ND2	57:BZ:25:ARG:NH1	2.31	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:120:ASN:HB3	21:A2:151:G:O2'	1.81	0.79
12:AN:135:LYS:NZ	21:A2:29:G:O2'	2.16	0.79
4:AG:94:PHE:CD1	21:A2:149:U:H5''	2.17	0.78
4:AG:87:LEU:HD13	21:A2:1396:C:P	2.22	0.78
67:B1:2976:G:O6	67:B1:3027:C:N4	2.15	0.78
3:AI:97:PHE:CE1	18:AF:131:TRP:CD1	2.69	0.78
12:AN:79:LYS:HB2	21:A2:358:G:H5'	1.64	0.78
18:AF:125:LYS:HB3	18:AF:208:THR:CG2	2.12	0.78
4:AG:64:ARG:CG	21:A2:152:G:H5'	2.13	0.78
26:AP:56:GLU:O	29:AL:63:ARG:HD3	1.82	0.78
35:BL:24:LYS:HZ3	67:B1:1080:G:H5''	1.49	0.78
49:BQ:64:LYS:HE2	67:B1:1603:G:H5''	1.63	0.78
21:A2:296:A:C2	21:A2:519:G:O6	2.36	0.78
4:AG:79:HIS:O	21:A2:1414:G:O2'	2.00	0.78
15:AE:65:ILE:HG12	28:AV:13:LEU:HD12	1.64	0.78
67:B1:1465:A:N6	67:B1:1476:C:O2	2.17	0.78
56:BH:29:GLY:HA2	56:BH:62:LYS:HB2	1.66	0.78
3:AI:96:ALA:HB3	18:AF:143:PHE:CE2	2.05	0.78
21:A2:434:A:C6	28:AV:85:TYR:CE1	2.72	0.78
67:B1:2702:A:C2'	67:B1:2702:A:N9	2.47	0.78
35:BL:43:ASN:HA	67:B1:961:C:O3'	1.83	0.78
25:AH:93:LEU:C	25:AH:95:SER:H	1.88	0.78
67:B1:83:G:N2	67:B1:102:A:C8	2.52	0.78
67:B1:2217:C:N4	67:B1:2318:G:O6	2.16	0.78
48:BR:10:ARG:NH1	67:B1:2378:C:H5	1.80	0.78
34:B5:50:ILE:CG2	57:BZ:28:LYS:HZ3	1.95	0.78
21:A2:1200:U:N3	25:AH:180:PHE:CB	2.45	0.78
65:BJ:52:ARG:CG	67:B1:2548:A:C2	83.66	0.78
13:AX:71:ARG:CD	21:A2:1041:C:OP1	2.30	0.78
53:BD:87:ARG:NE	67:B1:487:U:H1'	1.99	0.78
48:BR:69:ARG:CZ	67:B1:2483:U:H1'	2.14	0.78
31:BY:135:LYS:HD3	68:B3:95:G:H5''	1.65	0.78
15:AE:55:TYR:HD1	28:AV:9:LYS:HE3	1.48	0.77
4:AG:9:SER:HB2	4:AG:64:ARG:HH11	1.49	0.77
10:AD:93:LEU:HD11	18:AF:160:PRO:HB3	1.66	0.77
2:AK:50:ILE:CG1	25:AH:13:HIS:CE1	2.67	0.77
3:AI:96:ALA:HB2	18:AF:143:PHE:CZ	2.06	0.77
31:BY:155:LEU:HD11	67:B1:602:G:OP1	1.79	0.77
65:BJ:87:LYS:HG3	67:B1:2398:C:OP2	107.76	0.77
35:BL:63:PHE:CD1	67:B1:2533:G:C1'	2.67	0.77
35:BL:25:HIS:HE2	67:B1:678:G:H1	1.32	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BV:25:ASN:H	65:BJ:100:GLU:CD	1.87	0.77
18:AF:73:ARG:NH1	21:A2:1034:G:P	2.57	0.77
3:AI:28:LYS:HG2	5:AW:4:PRO:CA	2.14	0.77
67:B1:2507:C:C6	67:B1:2507:C:H3'	2.19	0.77
65:BJ:52:ARG:CG	67:B1:2548:A:H2	84.00	0.77
35:BL:27:GLY:N	67:B1:940:G:OP2	2.18	0.77
18:AF:44:ILE:O	18:AF:119:LEU:HD12	1.84	0.77
8:AR:60:TYR:CD2	12:AN:16:LEU:HD12	2.19	0.77
12:AN:30:TYR:OH	21:A2:299:G:OP1	2.02	0.77
35:BL:47:TRP:CH2	67:B1:968:A:C2	2.73	0.77
21:A2:1296:U:C6	25:AH:175:ARG:NH1	2.53	0.77
35:BL:58:LEU:HB3	67:B1:239:G:OP2	1.85	0.77
35:BL:25:HIS:CB	67:B1:804:C:H41	1.98	0.77
49:BQ:84:LYS:HA	67:B1:1843:C:P	2.25	0.77
4:AG:77:ASP:HB2	21:A2:1403:U:O2	1.86	0.76
35:BL:4:ARG:CD	67:B1:678:G:O2'	2.33	0.76
56:BH:60:VAL:H	56:BH:62:LYS:HG3	1.50	0.76
31:BY:123:ARG:HD2	67:B1:1132:U:C4'	2.15	0.76
3:AI:9:ASN:ND2	21:A2:778:G:N2	2.28	0.76
13:AX:20:THR:O	21:A2:1341:C:C5	2.38	0.76
67:B1:1669:A:C8	67:B1:1712:U:H5'	2.21	0.76
68:B3:35:A:N9	68:B3:35:A:C2'	2.49	0.76
4:AG:17:LYS:NZ	21:A2:141:C:OP1	2.17	0.76
15:AE:65:ILE:CG1	28:AV:13:LEU:HD12	2.15	0.76
35:BL:63:PHE:HE1	67:B1:2533:G:H1'	1.50	0.76
18:AF:84:ARG:NH1	21:A2:1032:A:P	2.43	0.76
67:B1:2507:C:C6	67:B1:2507:C:C2'	2.68	0.76
20:BG:40:THR:HG21	59:BM:3:MET:HA	1.66	0.76
35:BL:5:ARG:HB2	35:BL:10:LYS:HD3	1.68	0.76
21:A2:60:A:C2	21:A2:64:G:O6	2.38	0.76
21:A2:375:G:N2	21:A2:381:C:O2	2.18	0.76
21:A2:63:G:H2'	21:A2:64:G:N7	2.00	0.76
2:AK:40:ILE:CG2	25:AH:44:LEU:HD11	2.12	0.76
31:BY:30:ARG:NH2	67:B1:1297:C:P	2.59	0.76
26:AP:52:PHE:CD2	29:AL:64:TRP:CE3	2.74	0.75
35:BL:10:LYS:HB2	67:B1:947:C:H6	1.49	0.75
34:B5:3:ALA:N	57:BZ:28:LYS:C	2.39	0.75
18:AF:157:ILE:O	18:AF:183:VAL:HG23	1.85	0.75
12:AN:51:ARG:HA	12:AN:103:VAL:O	1.87	0.75
48:BR:70:GLY:HA3	67:B1:2484:C:H5'	1.68	0.75
34:B5:8:ARG:HH22	57:BZ:55:LEU:HD23	1.50	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BG:44:GLU:CD	59:BM:6:TYR:OH	2.25	0.75
21:A2:133:G:O6	21:A2:159:C:N4	2.18	0.75
21:A2:369:A:O3'	21:A2:434:A:N7	2.19	0.75
21:A2:898:G:H2'	21:A2:899:G:C8	2.21	0.75
21:A2:1200:U:H3	25:AH:180:PHE:CB	1.90	0.75
4:AG:85:ARG:NH1	21:A2:331:C:OP1	2.18	0.75
12:AN:51:ARG:HB2	21:A2:359:A:OP2	1.87	0.75
21:A2:1251:C:P	25:AH:99:LYS:HD3	2.26	0.75
21:A2:152:G:H2'	21:A2:153:G:C8	2.22	0.75
3:AI:57:ARG:HA	21:A2:607:U:P	2.27	0.75
49:BQ:81:ARG:CZ	67:B1:1885:G:OP2	2.33	0.75
35:BL:6:LYS:HE3	67:B1:1338:G:O6	1.84	0.75
49:BQ:84:LYS:CG	67:B1:1843:C:OP2	2.34	0.75
18:AF:84:ARG:NH1	21:A2:1031:G:C3'	2.49	0.74
4:AG:92:PRO:CG	21:A2:1413:G:H5'	2.16	0.74
21:A2:562:A:C2'	21:A2:562:A:N9	2.49	0.74
18:AF:73:ARG:NH1	21:A2:879:U:C4'	2.47	0.74
65:BJ:52:ARG:HE	67:B1:2202:U:H4'	82.66	0.74
21:A2:1462:A:N6	21:A2:1483:U:O4	2.16	0.74
10:AD:56:ARG:HG3	18:AF:160:PRO:HG3	1.68	0.74
20:BG:3:LYS:NZ	20:BG:55:GLU:O	2.19	0.74
18:AF:175:LEU:CD2	18:AF:205:LEU:HD11	2.16	0.74
35:BL:113:LEU:HD13	67:B1:732:G:C4	2.21	0.74
18:AF:166:VAL:CB	21:A2:1:A:OP2	2.36	0.74
21:A2:1249:A:H5'	25:AH:81:VAL:HA	1.67	0.74
21:A2:186:U:H2'	21:A2:187:C:H5'	1.69	0.74
21:A2:423:U:C2'	21:A2:423:U:N1	2.50	0.74
3:AI:76:LYS:HG3	21:A2:836:G:OP2	1.86	0.74
46:BA:39:LEU:HD23	46:BA:39:LEU:H	1.50	0.74
35:BL:36:MET:HE2	67:B1:241:C:OP2	1.87	0.74
35:BL:63:PHE:CZ	67:B1:2532:G:N2	2.54	0.74
20:BG:60:GLU:HG2	59:BM:26:ARG:HH21	1.49	0.74
21:A2:1200:U:C2'	21:A2:1200:U:N1	2.50	0.74
4:AG:103:ARG:NH1	21:A2:329:G:O3'	2.19	0.74
14:AM:31:THR:HG22	14:AM:38:THR:HA	1.69	0.74
67:B1:2227:G:O6	67:B1:2308:C:N4	2.19	0.74
48:BR:61:ARG:NH1	67:B1:1058:A:H4'	2.03	0.74
18:AF:122:ILE:HG12	18:AF:206:TYR:CD2	2.23	0.74
18:AF:92:ARG:HH12	18:AF:176:ARG:HH11	1.33	0.74
13:AX:20:THR:CG2	21:A2:1341:C:C1'	2.59	0.74
49:BQ:79:GLY:CA	67:B1:1865:U:O3'	2.33	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:131:TRP:HZ3	18:AF:160:PRO:HD3	1.51	0.74
35:BL:6:LYS:CE	67:B1:1338:G:C6	2.70	0.74
4:AG:64:ARG:HG2	21:A2:152:G:C5'	2.18	0.74
35:BL:113:LEU:HD13	67:B1:732:G:N3	2.02	0.74
48:BR:70:GLY:HA3	67:B1:2484:C:O5'	1.88	0.74
26:AP:56:GLU:HA	29:AL:63:ARG:HD3	1.66	0.73
20:BG:44:GLU:OE2	59:BM:6:TYR:CZ	2.40	0.73
35:BL:7:LYS:NZ	67:B1:1335:C:OP2	2.21	0.73
35:BL:63:PHE:CE1	67:B1:2533:G:C1'	2.70	0.73
18:AF:99:GLY:HA2	18:AF:116:TYR:CD2	2.22	0.73
53:BD:85:PHE:CE2	67:B1:1398:C:C2'	2.71	0.73
48:BR:69:ARG:HH22	67:B1:2482:G:N2	1.85	0.73
48:BR:14:LYS:HB3	67:B1:995:G:OP2	1.85	0.73
35:BL:63:PHE:CD1	67:B1:2533:G:C4'	2.66	0.73
2:AK:42:ARG:NE	25:AH:9:PHE:CE1	2.54	0.73
35:BL:119:THR:HG21	58:BP:73:LYS:HE3	1.69	0.73
49:BQ:85:LYS:CE	67:B1:1844:C:OP1	2.31	0.73
2:AK:43:PHE:CE2	25:AH:9:PHE:HA	2.22	0.73
8:AR:62:ARG:NH1	12:AN:8:ASN:ND2	2.36	0.73
3:AI:6:PRO:HG3	21:A2:541:G:H5''	1.71	0.73
25:AH:87:ARG:HB2	25:AH:90:HIS:HA	1.69	0.73
35:BL:44:LYS:N	67:B1:961:C:C2'	2.51	0.73
3:AI:57:ARG:NH2	21:A2:608:G:OP2	2.22	0.73
49:BQ:64:LYS:CE	67:B1:1603:G:H5''	2.18	0.73
20:BG:11:VAL:HG13	20:BG:15:LEU:HD23	1.71	0.73
56:BH:114:MET:HG2	56:BH:116:ALA:HB2	1.69	0.73
10:AD:59:LEU:HD11	18:AF:132:GLU:OE2	1.88	0.72
18:AF:124:ILE:HD13	18:AF:178:ALA:HB1	1.71	0.72
8:AR:60:TYR:CD2	12:AN:16:LEU:CD1	2.72	0.72
31:BY:131:LYS:NZ	67:B1:1136:G:OP1	2.22	0.72
35:BL:10:LYS:CA	67:B1:947:C:H5'	2.18	0.72
35:BL:66:PRO:HG3	67:B1:2523:C:C5	2.24	0.72
67:B1:1827:A:H61	67:B1:1835:A:H61	1.34	0.72
48:BR:71:GLU:OE2	67:B1:2497:G:OP1	2.06	0.72
31:BY:75:ILE:HD13	67:B1:1324:G:P	2.29	0.72
21:A2:1334:A:C1'	25:AH:69:ASN:ND2	2.52	0.72
21:A2:1370:U:H3	21:A2:1445:A:N6	1.86	0.72
3:AI:13:HIS:CG	21:A2:780:C:H4'	2.24	0.72
4:AG:65:GLY:CA	21:A2:151:G:H4'	2.20	0.72
2:AK:102:TYR:CZ	25:AH:42:ARG:CG	2.71	0.72
21:A2:442:C:H5''	28:AV:61:GLY:H	1.55	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BQ:84:LYS:CB	67:B1:1843:C:OP1	2.37	0.72
56:BH:19:PRO:HB2	56:BH:20:PRO:CD	2.19	0.72
21:A2:1312:C:H5'	25:AH:80:LYS:HE3	1.71	0.72
3:AI:57:ARG:CZ	21:A2:607:U:H4'	2.19	0.72
67:B1:1045:A:C2'	67:B1:1045:A:N9	2.51	0.72
67:B1:2554:A:N9	67:B1:2554:A:C2'	2.52	0.72
67:B1:2890:A:C2	67:B1:2892:A:N6	2.58	0.72
35:BL:9:ARG:HG3	35:BL:11:LEU:HA	1.71	0.72
21:A2:428:G:H1	21:A2:442:C:H42	1.37	0.72
18:AF:124:ILE:HD12	18:AF:205:LEU:CD2	2.19	0.72
67:B1:2507:C:C2'	67:B1:2507:C:N1	2.52	0.72
12:AN:50:ALA:C	21:A2:359:A:OP1	2.27	0.72
18:AF:166:VAL:HG22	18:AF:184:TRP:HA	1.71	0.72
48:BR:4:LYS:CD	67:B1:2390:G:O6	2.37	0.72
18:AF:84:ARG:HH12	21:A2:1031:G:C3'	2.02	0.72
21:A2:1333:G:N7	25:AH:48:HIS:NE2	2.37	0.72
67:B1:1506:U:HO2'	67:B1:1947:A:H2	1.38	0.72
56:BH:32:VAL:HG23	56:BH:35:VAL:HB	1.70	0.72
21:A2:804:U:N1	21:A2:804:U:C2'	2.53	0.71
18:AF:130:SER:HB3	18:AF:139:HIS:HE1	1.54	0.71
31:BY:131:LYS:NZ	67:B1:1136:G:OP2	2.20	0.71
67:B1:404:G:C2'	67:B1:404:G:N9	2.53	0.71
31:BY:123:ARG:HE	67:B1:1132:U:H4'	1.54	0.71
4:AG:64:ARG:CZ	21:A2:151:G:O2'	2.38	0.71
21:A2:1248:A:O2'	25:AH:81:VAL:HG22	1.91	0.71
21:A2:1332:C:H4'	25:AH:98:VAL:CG2	2.20	0.71
4:AG:92:PRO:HG3	21:A2:1412:A:C2'	2.19	0.71
34:B5:31:ASN:HD21	57:BZ:25:ARG:NH1	1.88	0.71
65:BJ:52:ARG:HB3	67:B1:2548:A:C2	82.10	0.71
49:BQ:76:ARG:HD2	67:B1:1884:C:OP2	1.90	0.71
34:B5:8:ARG:HH21	57:BZ:55:LEU:CD2	2.02	0.71
2:AK:43:PHE:CE2	25:AH:12:PRO:HG3	2.24	0.71
35:BL:58:LEU:C	67:B1:2510:A:HO2'	1.86	0.71
4:AG:64:ARG:CD	21:A2:152:G:C5'	2.68	0.71
18:AF:13:LEU:HA	18:AF:27:LYS:NZ	2.05	0.71
18:AF:149:GLU:HG2	18:AF:196:ASN:HA	1.72	0.71
67:B1:1566:G:C2	67:B1:1570:C:N3	2.57	0.71
35:BL:6:LYS:NZ	67:B1:1339:C:N4	2.39	0.71
4:AG:102:ARG:NH2	21:A2:317:A:O2'	2.22	0.71
3:AI:57:ARG:HE	21:A2:607:U:C5'	2.03	0.71
18:AF:163:LEU:HD21	18:AF:166:VAL:CG1	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:73:PRO:HB3	21:A2:150:G:H5'	1.71	0.71
12:AN:5:LYS:CE	21:A2:838:C:C6	2.73	0.71
15:AE:55:TYR:CD1	28:AV:9:LYS:HE3	2.23	0.71
67:B1:1566:G:C2	67:B1:1570:C:C2	2.78	0.71
31:BY:135:LYS:HD3	68:B3:95:G:C5'	2.19	0.71
21:A2:1334:A:O2'	25:AH:69:ASN:HB3	1.90	0.71
40:BE:21:ARG:HD2	67:B1:124:C:H5''	152.82	0.71
35:BL:132:LYS:NZ	67:B1:733:A:C5'	2.54	0.71
35:BL:44:LYS:HE3	35:BL:47:TRP:CG	2.26	0.71
12:AN:51:ARG:CB	21:A2:359:A:OP2	2.39	0.71
53:BD:91:ARG:NH2	67:B1:488:A:H5''	2.05	0.71
4:AG:110:ASN:ND2	21:A2:1403:U:O2'	2.23	0.71
26:AP:52:PHE:HB2	29:AL:64:TRP:HZ3	1.56	0.71
31:BY:130:LYS:CE	67:B1:1122:C:OP1	2.38	0.71
34:B5:8:ARG:CZ	57:BZ:55:LEU:HD21	2.20	0.71
35:BL:9:ARG:HG3	35:BL:11:LEU:CA	2.20	0.71
12:AN:20:ARG:NH1	21:A2:516:A:C2	2.59	0.70
3:AI:57:ARG:HA	21:A2:607:U:OP1	1.90	0.70
48:BR:82:LYS:HE3	67:B1:2473:C:P	2.31	0.70
21:A2:1332:C:H4'	25:AH:98:VAL:HG21	1.73	0.70
18:AF:163:LEU:HD21	18:AF:166:VAL:HG13	1.72	0.70
67:B1:1600:G:C2'	67:B1:1600:G:N9	2.54	0.70
4:AG:94:PHE:HE1	21:A2:149:U:C4'	2.05	0.70
3:AI:4:LEU:HD11	21:A2:539:C:O2'	1.90	0.70
26:AP:47:ALA:HB2	29:AL:64:TRP:HH2	1.54	0.70
67:B1:1575:G:N9	67:B1:1575:G:C2'	2.54	0.70
35:BL:10:LYS:HB3	67:B1:946:U:O2'	1.91	0.70
35:BL:47:TRP:HZ3	67:B1:967:G:N2	1.88	0.70
33:BC:108:ASN:HB3	33:BC:172:TRP:HH2	0.88	0.70
35:BL:78:LEU:HB3	35:BL:118:LEU:HD21	1.73	0.70
4:AG:87:LEU:HD12	21:A2:1395:G:H5''	1.73	0.70
48:BR:82:LYS:CD	67:B1:2473:C:OP1	2.38	0.70
48:BR:10:ARG:NH1	67:B1:2378:C:C5	2.59	0.70
18:AF:67:ASP:O	18:AF:85:VAL:HG13	1.92	0.70
67:B1:1096:A:H2'	67:B1:1097:G:C5'	2.21	0.70
67:B1:5:U:H3	67:B1:3045:G:H1	1.37	0.70
35:BL:17:HIS:NE2	67:B1:945:U:H2'	2.06	0.70
31:BY:130:LYS:NZ	67:B1:1122:C:H5''	2.06	0.70
21:A2:370:A:OP1	21:A2:434:A:N6	2.25	0.70
6:AC:4:GLU:OE1	29:AL:45:ILE:CG2	2.40	0.70
54:BF:1:MET:H3	67:B1:1450:C:H5''	131.15	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:565:A:C2'	67:B1:565:A:N9	2.54	0.70
50:BV:39:ARG:NH2	67:B1:2833:G:OP2	2.25	0.70
21:A2:1307:G:C6	25:AH:48:HIS:CD2	2.80	0.70
21:A2:166:A:N6	21:A2:196:G:H1'	2.06	0.70
25:AH:93:LEU:HD12	25:AH:95:SER:HB2	1.73	0.70
49:BQ:60:ARG:CZ	67:B1:1602:C:C4'	2.69	0.70
33:BC:358:TYR:CE2	50:BV:16:PRO:HG2	2.26	0.70
3:AI:4:LEU:HB2	21:A2:540:G:C5'	2.20	0.70
49:BQ:73:GLY:HA2	67:B1:1884:C:H41	1.57	0.70
31:BY:75:ILE:HG12	67:B1:1323:U:H5''	1.72	0.70
35:BL:6:LYS:O	35:BL:9:ARG:HD3	1.91	0.70
21:A2:460:C:C5'	21:A2:461:A:H5''	2.21	0.69
21:A2:702:G:H22	21:A2:706:G:H1	1.39	0.69
31:BY:75:ILE:CD1	67:B1:1324:G:OP2	2.26	0.69
20:BG:44:GLU:OE2	59:BM:6:TYR:OH	2.10	0.69
25:AH:49:GLY:HA3	25:AH:51:HIS:CE1	2.26	0.69
12:AN:108:ILE:HD12	21:A2:505:U:H5'	1.73	0.69
3:AI:4:LEU:HB3	21:A2:540:G:C4'	2.19	0.69
48:BR:47:PRO:O	67:B1:2445:G:H4'	1.92	0.69
34:B5:50:ILE:CB	57:BZ:28:LYS:NZ	2.55	0.69
18:AF:47:PRO:HG3	18:AF:115:ASN:HD21	1.57	0.69
18:AF:40:ARG:HB3	18:AF:42:TYR:CD1	2.27	0.69
31:BY:130:LYS:NZ	67:B1:1122:C:P	2.65	0.69
67:B1:2144:U:C2'	67:B1:2144:U:N1	2.55	0.69
12:AN:50:ALA:HA	21:A2:359:A:OP1	1.92	0.69
26:AP:47:ALA:CB	29:AL:64:TRP:HH2	2.05	0.69
40:BE:21:ARG:NH1	67:B1:123:A:N3	154.70	0.69
67:B1:2260:C:H42	67:B1:2277:G:H1	1.41	0.69
50:BV:51:LYS:H	50:BV:51:LYS:HE2	1.57	0.69
25:AH:174:TYR:CD2	25:AH:175:ARG:HD2	2.27	0.69
67:B1:272:G:H1	67:B1:284:U:H3	1.39	0.69
20:BG:61:GLU:CG	59:BM:11:TRP:HE1	2.05	0.69
4:AG:103:ARG:NH1	21:A2:329:G:C2'	2.56	0.69
2:AK:10:ARG:HH22	25:AH:48:HIS:HB3	1.58	0.69
54:BF:1:MET:HE3	67:B1:1450:C:H5'	130.11	0.69
67:B1:1642:G:C2'	67:B1:1642:G:N9	2.54	0.69
21:A2:133:G:N1	21:A2:159:C:N3	2.41	0.69
12:AN:26:SER:HB2	21:A2:515:U:O4	1.92	0.69
20:B4:57:VAL:HG11	20:B4:63:VAL:CG2	2.22	0.69
33:BC:108:ASN:O	33:BC:172:TRP:CD2	2.45	0.69
35:BL:26:ARG:HH12	67:B1:941:C:C3'	2.01	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1195:U:OP1	25:AH:79:TYR:HB2	1.93	0.69
21:A2:400:G:O2'	21:A2:423:U:O2	2.08	0.69
21:A2:428:G:N2	21:A2:442:C:N3	2.38	0.69
67:B1:1570:C:C5'	67:B1:1666:G:O2'	2.41	0.69
67:B1:30:G:H2'	67:B1:31:G:C8	2.28	0.69
52:BB:28:VAL:HG11	52:BB:110:ASN:HD21	1.58	0.69
48:BR:69:ARG:HH22	67:B1:2483:U:H1'	1.58	0.69
11:A1:52:G:H1	11:A1:64:C:H42	1.38	0.69
4:AG:77:ASP:OD1	21:A2:1403:U:C1'	2.41	0.69
21:A2:1423:A:H2'	21:A2:1424:G:C8	2.26	0.69
3:AI:57:ARG:HH21	21:A2:607:U:C4'	2.06	0.69
40:BE:22:ARG:HA	67:B1:54:G:H21	151.74	0.69
50:BV:14:PHE:HZ	65:BJ:95:MET:HE1	1.57	0.69
18:AF:132:GLU:HG2	18:AF:133:CYS:H	1.56	0.69
18:AF:214:SER:O	18:AF:217:MET:HB2	1.92	0.69
4:AG:94:PHE:HD1	21:A2:149:U:H4'	1.54	0.69
67:B1:1096:A:H2'	67:B1:1097:G:H5''	1.74	0.69
31:BY:130:LYS:CE	67:B1:1122:C:C5'	2.55	0.69
35:BL:131:PRO:HD2	67:B1:732:G:P	2.33	0.69
21:A2:369:A:H2'	21:A2:370:A:C8	2.29	0.68
4:AG:94:PHE:CD1	21:A2:149:U:C4'	2.76	0.68
3:AI:99:PHE:HE1	18:AF:143:PHE:CZ	2.11	0.68
56:BH:70:VAL:HG13	56:BH:71:PRO:CD	2.24	0.68
18:AF:45:LYS:HB2	18:AF:45:LYS:NZ	2.08	0.68
31:BY:11:GLY:HA3	67:B1:1124:G:OP2	1.91	0.68
67:B1:43:G:C6	67:B1:474:G:N2	2.61	0.68
35:BL:9:ARG:CG	35:BL:11:LEU:HA	2.22	0.68
18:AF:99:GLY:CA	18:AF:116:TYR:HD2	2.06	0.68
26:AP:56:GLU:CB	29:AL:63:ARG:HB3	2.22	0.68
35:BL:9:ARG:CD	67:B1:948:C:H41	2.07	0.68
35:BL:9:ARG:HD2	67:B1:948:C:H41	1.59	0.68
50:BV:25:ASN:N	65:BJ:100:GLU:CD	2.46	0.68
21:A2:1336:U:OP1	25:AH:159:ASP:CG	2.32	0.68
21:A2:442:C:P	28:AV:60:PHE:HA	2.34	0.68
56:BH:51:VAL:HG13	56:BH:70:VAL:HG12	1.75	0.68
34:B5:50:ILE:CG2	57:BZ:28:LYS:HZ1	2.03	0.68
18:AF:82:ARG:NH2	21:A2:1023:C:P	2.66	0.68
20:BG:61:GLU:OE1	59:BM:11:TRP:NE1	2.26	0.68
4:AG:87:LEU:CD1	21:A2:1395:G:H5''	2.24	0.68
18:AF:166:VAL:HG11	21:A2:1:A:OP2	1.91	0.68
18:AF:70:LEU:CG	18:AF:70:LEU:O	2.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:85:ARG:HH22	21:A2:331:C:P	2.17	0.68
2:AK:40:ILE:O	25:AH:44:LEU:HD11	1.93	0.68
67:B1:831:C:H5''	67:B1:1791:A:H61	1.59	0.68
67:B1:2869:U:O4'	67:B1:2869:U:N1	2.27	0.68
18:AF:73:ARG:HH11	21:A2:1034:G:P	2.15	0.68
67:B1:1177:C:H42	67:B1:1256:G:H1	1.42	0.68
67:B1:2190:A:H61	67:B1:2558:U:H3	1.42	0.68
18:AF:165:LEU:HD23	18:AF:183:VAL:CG1	2.23	0.68
2:AK:39:GLU:CD	25:AH:5:LEU:CG	2.56	0.68
34:B5:50:ILE:HD13	57:BZ:28:LYS:CE	2.24	0.68
33:BC:362:GLU:HB2	50:BV:15:GLU:OE2	1.94	0.68
6:AC:4:GLU:OE1	29:AL:45:ILE:HG22	1.93	0.68
25:AH:46:HIS:CE1	25:AH:98:VAL:HA	2.29	0.68
2:AK:119:PRO:HB3	29:AL:61:PHE:HB2	1.75	0.68
21:A2:1296:U:H2'	25:AH:175:ARG:HH12	1.59	0.67
13:AX:20:THR:OG1	21:A2:1341:C:O4'	2.11	0.67
21:A2:369:A:H2'	21:A2:370:A:H8	1.57	0.67
34:B5:16:ARG:HD2	67:B1:1566:G:C5	2.29	0.67
21:A2:631:C:H42	21:A2:667:G:H1	1.42	0.67
2:AK:42:ARG:CD	25:AH:9:PHE:CE1	2.76	0.67
8:AR:63:TYR:CD1	12:AN:10:GLU:HB3	2.29	0.67
67:B1:3035:C:H2'	67:B1:3036:C:C6	2.28	0.67
20:BG:61:GLU:HG3	59:BM:11:TRP:HE1	1.59	0.67
21:A2:1311:C:H4'	25:AH:95:SER:CA	2.24	0.67
26:AP:56:GLU:CD	29:AL:63:ARG:HB2	2.15	0.67
67:B1:1431:U:H3	67:B1:1469:U:H3	1.42	0.67
67:B1:1569:A:H5''	67:B1:1570:C:OP2	1.94	0.67
35:BL:17:HIS:HE2	67:B1:945:U:C2'	2.08	0.67
21:A2:369:A:C3'	21:A2:434:A:N7	2.56	0.67
67:B1:1760:C:O2'	67:B1:1766:A:N6	2.28	0.67
67:B1:2902:G:H1	67:B1:3041:U:H3	1.40	0.67
56:BH:114:MET:HG2	56:BH:116:ALA:CB	2.23	0.67
56:BH:18:GLY:O	56:BH:23:PRO:HD2	1.95	0.67
35:BL:119:THR:CB	58:BP:73:LYS:HE3	2.23	0.67
21:A2:1198:A:OP1	25:AH:175:ARG:HG2	1.94	0.67
10:AD:137:ILE:HD13	10:AD:137:ILE:H	1.59	0.67
25:AH:75:GLY:CA	25:AH:94:ASN:HA	2.25	0.67
4:AG:99:LYS:CB	21:A2:319:U:O2'	2.43	0.67
18:AF:165:LEU:HD22	18:AF:175:LEU:CD1	2.24	0.67
8:AR:63:TYR:N	12:AN:10:GLU:O	2.27	0.67
56:BH:90:PRO:HD3	56:BH:134:GLY:O	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:BI:8:GLY:O	67:B1:839:A:C5'	126.64	0.67
67:B1:1566:G:N1	67:B1:1570:C:C4	2.62	0.67
67:B1:2568:A:N6	67:B1:2614:C:H42	1.91	0.67
20:BG:37:ASN:HA	59:BM:3:MET:HB2	1.77	0.67
20:BG:36:THR:CB	59:BM:3:MET:SD	2.82	0.67
34:B5:16:ARG:CD	67:B1:1566:G:O6	2.42	0.67
53:BD:85:PHE:CE2	67:B1:1398:C:H2'	2.29	0.67
56:BH:124:LYS:CG	67:B1:1220:U:H5'	2.25	0.67
4:AG:88:LEU:HA	21:A2:1413:G:OP1	1.94	0.67
21:A2:975:A:H2'	21:A2:976:A:H5''	1.76	0.67
18:AF:82:ARG:HH21	21:A2:1023:C:P	2.18	0.67
2:AK:50:ILE:HD11	25:AH:13:HIS:CG	2.28	0.67
12:AN:48:PRO:CG	21:A2:44:C:H42	2.07	0.67
21:A2:370:A:P	21:A2:434:A:N6	2.64	0.67
49:BQ:60:ARG:NH2	67:B1:1602:C:H4'	2.10	0.67
67:B1:1969:C:N4	67:B1:2099:G:H22	1.93	0.67
21:A2:1336:U:OP1	25:AH:159:ASP:OD1	2.12	0.66
18:AF:59:ALA:HB1	18:AF:91:ASN:CB	2.24	0.66
12:AN:48:PRO:HG3	21:A2:44:C:H42	1.60	0.66
34:B5:51:LYS:HE3	67:B1:1568:A:C4'	2.20	0.66
31:BY:130:LYS:HZ1	67:B1:1122:C:P	2.15	0.66
2:AK:102:TYR:CE1	25:AH:42:ARG:NE	2.63	0.66
25:AH:87:ARG:HA	25:AH:88:ARG:HD3	1.77	0.66
67:B1:956:U:C5	67:B1:1107:G:N2	2.63	0.66
35:BL:44:LYS:CA	67:B1:961:C:C1'	2.74	0.66
21:A2:1327:C:O2'	29:AL:48:THR:HB	1.96	0.66
21:A2:1463:A:H61	21:A2:1482:C:H42	1.43	0.66
12:AN:79:LYS:CB	21:A2:358:G:H5''	2.22	0.66
18:AF:73:ARG:CZ	21:A2:1034:G:OP1	2.42	0.66
33:BC:263:ARG:HE	47:BI:58:LEU:HD22	1.61	0.66
35:BL:62:GLY:HA2	67:B1:2533:G:H4'	1.77	0.66
21:A2:898:G:H2'	21:A2:899:G:H8	1.60	0.66
49:BQ:82:LYS:HB2	67:B1:1789:A:P	2.36	0.66
21:A2:369:A:C4'	21:A2:434:A:C5	2.69	0.66
18:AF:124:ILE:CD1	18:AF:205:LEU:HD23	2.25	0.66
48:BR:81:SER:CB	67:B1:2474:A:OP2	2.38	0.66
3:AI:96:ALA:HB2	18:AF:143:PHE:CD2	2.29	0.66
18:AF:174:ILE:HD12	18:AF:201:VAL:HG11	1.77	0.66
12:AN:135:LYS:NZ	21:A2:29:G:C2'	2.58	0.66
10:AD:136:ILE:CB	28:AV:60:PHE:HE2	1.94	0.66
35:BL:6:LYS:HD3	67:B1:1339:C:N4	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:145:VAL:HG12	18:AF:156:LEU:HB2	1.76	0.66
3:AI:102:LEU:H	3:AI:113:HIS:HB2	1.61	0.66
21:A2:434:A:C5	28:AV:85:TYR:HE1	2.12	0.66
67:B1:407:A:H3'	67:B1:408:C:H5''	1.77	0.66
67:B1:181:U:O2'	67:B1:810:A:N1	2.27	0.66
12:AN:50:ALA:HA	21:A2:359:A:P	2.36	0.65
21:A2:921:G:C6	21:A2:933:G:O6	2.48	0.65
21:A2:966:G:C2'	21:A2:966:G:N9	2.58	0.65
18:AF:97:GLY:HA2	18:AF:202:PHE:HE2	1.60	0.65
29:AL:50:ARG:HG2	29:AL:61:PHE:CE1	2.31	0.65
18:AF:163:LEU:CD2	18:AF:166:VAL:HG13	2.26	0.65
49:BQ:60:ARG:HD3	67:B1:1602:C:H4'	1.78	0.65
49:BQ:60:ARG:NE	67:B1:1602:C:H4'	2.12	0.65
26:AP:56:GLU:HG2	29:AL:63:ARG:HB3	0.71	0.65
35:BL:17:HIS:HE2	67:B1:945:U:H2'	1.62	0.65
48:BR:59:HIS:CE1	67:B1:994:G:P	2.82	0.65
31:BY:75:ILE:HD12	31:BY:76:GLY:H	1.60	0.65
21:A2:1307:G:H22	25:AH:48:HIS:CG	2.12	0.65
21:A2:369:A:O3'	21:A2:434:A:N6	2.29	0.65
52:BB:69:LYS:CD	67:B1:1304:G:OP1	120.94	0.65
35:BL:11:LEU:CA	67:B1:948:C:OP2	2.44	0.65
67:B1:537:U:H3	67:B1:540:A:H5'	1.59	0.65
35:BL:26:ARG:NH1	67:B1:942:U:OP2	2.30	0.65
12:AN:24:ARG:NH2	21:A2:298:C:H4'	2.03	0.65
4:AG:102:ARG:HG3	21:A2:318:C:O2'	1.95	0.65
18:AF:40:ARG:HB3	18:AF:42:TYR:CE1	2.32	0.65
25:AH:89:GLU:N	25:AH:94:ASN:HB3	2.12	0.65
8:AR:54:TYR:CE1	12:AN:11:PHE:CE1	2.78	0.65
67:B1:1568:A:C5	67:B1:1569:A:N6	2.64	0.65
48:BR:69:ARG:NH1	67:B1:2483:U:H1'	2.11	0.65
18:AF:47:PRO:HB3	18:AF:115:ASN:OD1	1.96	0.65
4:AG:64:ARG:HG2	21:A2:152:G:H5'	1.78	0.65
65:BJ:52:ARG:NH2	67:B1:2202:U:O2'	84.08	0.65
35:BL:63:PHE:CD1	67:B1:2533:G:H1'	2.32	0.65
56:BH:3:LYS:HB3	56:BH:5:VAL:HG23	1.77	0.65
27:A0:71:G:H2'	27:A0:72:C:H5''	1.78	0.65
21:A2:1312:C:H5'	25:AH:80:LYS:CE	2.26	0.65
18:AF:50:ILE:CD1	18:AF:118:LYS:HB3	2.17	0.65
15:AE:68:GLU:HG3	28:AV:13:LEU:HD21	1.79	0.65
68:B3:1:C:OP1	68:B3:117:G:N2	2.30	0.65
3:AI:76:LYS:HG3	21:A2:836:G:P	2.37	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:156:LEU:HD11	18:AF:205:LEU:HD12	1.78	0.65
18:AF:122:ILE:HD13	18:AF:206:TYR:CE2	2.32	0.65
20:B4:2:ALA:HB1	20:B4:55:GLU:HG2	1.79	0.65
56:BH:124:LYS:HB3	67:B1:1219:C:HO2'	1.60	0.65
49:BQ:61:TYR:CZ	67:B1:1618:G:H5''	2.32	0.65
21:A2:1401:U:H4'	50:BV:66:GLU:HA	1.79	0.64
4:AG:64:ARG:HG2	21:A2:152:G:H5''	1.79	0.64
18:AF:53:LEU:O	18:AF:53:LEU:HD13	1.97	0.64
25:AH:3:LYS:CG	30:AU:143:ILE:HG12	2.21	0.64
56:BH:124:LYS:CD	67:B1:1220:U:H5'	2.25	0.64
56:BH:110:LYS:HG3	56:BH:114:MET:HE3	1.80	0.64
3:AI:96:ALA:HB3	18:AF:143:PHE:HZ	1.55	0.64
67:B1:1557:G:O6	67:B1:1746:C:N4	2.30	0.64
68:B3:26:C:H1'	68:B3:53:A:H61	1.62	0.64
35:BL:113:LEU:HD11	67:B1:732:G:N1	2.13	0.64
21:A2:798:U:N1	21:A2:798:U:C2'	2.58	0.64
18:AF:69:ALA:O	18:AF:83:PHE:HD1	1.81	0.64
49:BQ:82:LYS:CD	67:B1:1788:G:H4'	2.21	0.64
8:AR:62:ARG:NH1	12:AN:8:ASN:HD21	1.94	0.64
49:BQ:8:ARG:NH2	67:B1:1433:C:O3'	2.30	0.64
56:BH:32:VAL:HG22	56:BH:36:VAL:HG23	1.77	0.64
25:AH:81:VAL:CG1	30:AU:80:ARG:HE	2.10	0.64
67:B1:1506:U:H4'	67:B1:1947:A:C2	2.32	0.64
34:B5:46:ARG:HD2	67:B1:1567:C:H4'	1.79	0.64
53:BD:91:ARG:NH2	67:B1:488:A:C5'	2.57	0.64
18:AF:145:VAL:CG1	18:AF:156:LEU:HD12	2.28	0.64
18:AF:170:VAL:HG13	18:AF:171:GLY:N	2.13	0.64
35:BL:10:LYS:C	67:B1:947:C:H5'	2.18	0.64
7:AB:104:PRO:HG3	18:AF:19:LYS:CE	1.95	0.64
47:BI:8:GLY:O	67:B1:839:A:C4'	127.15	0.64
31:BY:126:PHE:CZ	67:B1:1134:A:C1'	2.77	0.64
2:AK:102:TYR:CZ	25:AH:42:ARG:HB2	2.32	0.64
31:BY:130:LYS:HE2	67:B1:1122:C:H5'	1.79	0.64
18:AF:192:ARG:NH2	21:A2:7:G:O6	2.31	0.64
1:AQ:15:LYS:CB	3:AI:57:ARG:HH11	2.11	0.64
52:BB:69:LYS:HD2	67:B1:1304:G:P	120.68	0.64
67:B1:2232:U:O2	67:B1:2303:A:C2	2.51	0.64
48:BR:87:PHE:CE1	67:B1:2482:G:O2'	2.51	0.64
2:AK:39:GLU:OE1	25:AH:105:LYS:NZ	2.25	0.64
34:B5:47:ARG:O	67:B1:1567:C:H1'	1.98	0.64
35:BL:38:GLY:HA3	35:BL:45:SER:HB3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BG:59:PRO:HG3	59:BM:43:THR:CA	2.27	0.64
10:AD:93:LEU:HD13	18:AF:160:PRO:HB2	1.79	0.63
25:AH:90:HIS:CG	25:AH:91:ARG:H	2.15	0.63
21:A2:1333:G:H5''	25:AH:97:LYS:HG2	1.80	0.63
3:AI:57:ARG:CA	21:A2:607:U:OP1	2.46	0.63
2:AK:40:ILE:CG2	25:AH:44:LEU:HD21	2.29	0.63
40:BE:21:ARG:NH2	67:B1:123:A:C6	153.34	0.63
34:B5:3:ALA:N	57:BZ:28:LYS:CA	2.61	0.63
40:BE:163:ARG:HA	40:BE:163:ARG:HE	1.63	0.63
65:BJ:52:ARG:NE	67:B1:2202:U:H4'	83.37	0.63
21:A2:438:A:H3'	21:A2:439:G:H5''	1.79	0.63
10:AD:59:LEU:HD11	18:AF:132:GLU:CG	2.27	0.63
18:AF:83:PHE:CD2	18:AF:106:VAL:HG22	2.34	0.63
49:BQ:76:ARG:HH12	67:B1:1884:C:H5	0.69	0.63
18:AF:84:ARG:NH1	21:A2:1031:G:H5''	2.13	0.63
3:AI:6:PRO:HG2	21:A2:541:G:H5''	1.80	0.63
26:AP:47:ALA:CB	29:AL:64:TRP:CH2	2.80	0.63
13:AX:20:THR:HG23	21:A2:1341:C:N1	2.14	0.63
35:BL:44:LYS:HA	67:B1:961:C:O2'	1.96	0.63
47:BI:8:GLY:C	67:B1:839:A:H4'	126.53	0.63
35:BL:17:HIS:CD2	67:B1:945:U:H2'	2.33	0.63
18:AF:145:VAL:HG22	18:AF:146:GLU:N	2.14	0.63
18:AF:166:VAL:HG21	18:AF:184:TRP:CE3	2.34	0.63
21:A2:1200:U:C4	25:AH:91:ARG:CA	2.80	0.63
3:AI:57:ARG:NH2	21:A2:607:U:H4'	2.13	0.63
35:BL:24:LYS:NZ	67:B1:1080:G:C4'	2.62	0.63
35:BL:25:HIS:NE2	67:B1:678:G:C6	2.65	0.63
31:BY:126:PHE:CZ	67:B1:1134:A:O2'	2.51	0.63
18:AF:110:ILE:O	18:AF:114:ILE:HG13	1.98	0.63
49:BQ:82:LYS:O	67:B1:1842:C:C5'	2.46	0.63
31:BY:123:ARG:HD2	67:B1:1132:U:O3'	1.97	0.63
26:AP:40:ARG:HH11	29:AL:53:PRO:HA	1.64	0.63
53:BD:87:ARG:NE	67:B1:487:U:C2	2.65	0.63
68:B3:12:G:H2'	68:B3:13:C:H5'	1.81	0.63
21:A2:186:U:C2'	21:A2:187:C:H5'	2.28	0.63
67:B1:1570:C:H5''	67:B1:1666:G:O2'	1.99	0.63
4:AG:34:ILE:HG22	4:AG:110:ASN:ND2	2.13	0.63
25:AH:87:ARG:HG3	25:AH:90:HIS:CA	2.28	0.63
48:BR:70:GLY:CA	67:B1:2484:C:H4'	2.28	0.63
21:A2:561:A:C2	21:A2:562:A:H1'	2.33	0.62
18:AF:86:LEU:HD21	18:AF:195:VAL:HA	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1395:G:O4'	67:B1:1395:G:N9	2.30	0.62
67:B1:1443:G:H5'	67:B1:1444:A:C8	2.34	0.62
67:B1:956:U:C2'	67:B1:956:U:N1	2.58	0.62
56:BH:70:VAL:HG13	56:BH:71:PRO:HD2	1.79	0.62
4:AG:16:ALA:O	21:A2:140:C:O2'	2.16	0.62
67:B1:1949:A:C5	67:B1:1950:G:H1'	2.33	0.62
25:AH:86:MET:HA	25:AH:88:ARG:CD	2.29	0.62
25:AH:3:LYS:HZ1	30:AU:144:ILE:H	1.47	0.62
31:BY:131:LYS:HZ3	67:B1:1136:G:P	2.19	0.62
21:A2:1209:C:H41	21:A2:1247:A:H3'	1.65	0.62
3:AI:2:THR:HG21	21:A2:709:G:N3	2.14	0.62
18:AF:170:VAL:HG13	18:AF:197:PHE:CE2	2.34	0.62
25:AH:87:ARG:CG	25:AH:90:HIS:HA	2.29	0.62
67:B1:1827:A:N6	67:B1:1835:A:H61	1.97	0.62
21:A2:1490:C:C4	21:A2:1491:C:C5	2.87	0.62
46:BA:41:ARG:HH21	67:B1:3029:A:C1'	158.27	0.62
20:BG:59:PRO:HG3	59:BM:43:THR:O	2.00	0.62
18:AF:73:ARG:NE	21:A2:879:U:C4'	2.54	0.62
2:AK:40:ILE:HG22	25:AH:44:LEU:CD1	2.21	0.62
67:B1:1678:A:N9	67:B1:1678:A:C2'	2.57	0.62
35:BL:15:HIS:CA	67:B1:946:U:OP1	2.47	0.62
18:AF:201:VAL:HG22	18:AF:205:LEU:HD13	1.80	0.62
18:AF:75:THR:HG22	18:AF:76:ASP:N	2.14	0.62
25:AH:169:ALA:O	25:AH:173:CYS:HB2	1.99	0.62
67:B1:1245:C:H3'	67:B1:1245:C:H6	1.64	0.62
21:A2:440:C:C4	21:A2:441:U:C4	2.88	0.62
21:A2:971:G:H1	21:A2:979:U:H3	1.47	0.62
6:AC:4:GLU:OE1	29:AL:45:ILE:HB	2.00	0.62
18:AF:80:ARG:NH1	21:A2:1022:U:H5'	2.15	0.62
2:AK:40:ILE:HD13	25:AH:101:TYR:CD2	2.35	0.62
65:BJ:52:ARG:HH22	67:B1:188:A:H1'	83.87	0.62
48:BR:82:LYS:CG	67:B1:2473:C:H5''	2.27	0.62
40:BE:22:ARG:O	67:B1:54:G:N2	150.76	0.62
4:AG:120:ASN:CB	21:A2:151:G:O2'	2.47	0.62
56:BH:134:GLY:HA2	67:B1:1202:G:N3	2.15	0.62
67:B1:1907:G:H1	67:B1:2108:U:H3	1.46	0.62
67:B1:2507:C:C6	67:B1:2507:C:C3'	2.83	0.62
26:AP:56:GLU:C	29:AL:63:ARG:CD	2.66	0.62
31:BY:126:PHE:N	67:B1:1134:A:OP1	2.33	0.62
3:AI:57:ARG:HH21	21:A2:607:U:C3'	2.13	0.61
2:AK:102:TYR:HE1	25:AH:42:ARG:HG3	0.52	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1574:A:N9	67:B1:1574:A:O4'	2.32	0.61
67:B1:350:A:C2'	67:B1:350:A:N9	2.57	0.61
35:BL:44:LYS:HE2	67:B1:960:C:O2'	2.00	0.61
49:BQ:82:LYS:HD2	67:B1:1788:G:C4'	2.23	0.61
21:A2:1341:C:H2'	21:A2:1342:C:C6	2.35	0.61
16:AJ:101:ILE:HG12	16:AJ:102:GLU:H	1.64	0.61
67:B1:1568:A:H2	67:B1:1569:A:C2	2.10	0.61
46:BA:41:ARG:HH21	67:B1:3029:A:H1'	157.62	0.61
35:BL:24:LYS:HZ3	67:B1:1080:G:C5'	2.11	0.61
49:BQ:64:LYS:HE2	67:B1:1603:G:C5'	2.29	0.61
21:A2:1259:A:N9	21:A2:1259:A:O4'	2.29	0.61
21:A2:411:C:H4'	21:A2:413:G:C4	2.36	0.61
25:AH:16:LYS:HB3	25:AH:21:TRP:H	1.65	0.61
8:AR:63:TYR:O	12:AN:10:GLU:O	2.18	0.61
67:B1:1012:G:H1	67:B1:1038:U:H3	1.48	0.61
67:B1:1394:G:O4'	67:B1:1394:G:N9	2.33	0.61
67:B1:1418:A:H2	67:B1:1438:C:O2	1.83	0.61
67:B1:1762:G:H4'	67:B1:1763:A:C8	2.36	0.61
40:BE:22:ARG:HA	67:B1:54:G:N2	152.52	0.61
68:B3:1:C:P	68:B3:2:G:N9	2.73	0.61
53:BD:85:PHE:HB2	67:B1:675:G:H22	1.65	0.61
21:A2:434:A:H1'	28:AV:85:TYR:HB3	1.81	0.61
21:A2:42:G:C8	21:A2:361:A:C2	2.88	0.61
67:B1:1569:A:P	67:B1:1569:A:C5'	2.88	0.61
35:BL:63:PHE:CD1	67:B1:2533:G:H4'	2.32	0.61
15:AE:64:LYS:HD3	28:AV:81:ILE:HD13	1.83	0.61
10:AD:56:ARG:HG3	18:AF:160:PRO:CG	2.29	0.61
25:AH:44:LEU:HD22	25:AH:46:HIS:HB2	1.81	0.61
3:AI:28:LYS:CE	5:AW:4:PRO:CB	2.54	0.61
33:BC:76:PRO:HA	67:B1:573:G:H21	70.78	0.61
20:BG:5:SER:OG	59:BM:22:LEU:CD2	2.34	0.61
35:BL:119:THR:CG2	58:BP:73:LYS:HE3	2.29	0.61
21:A2:1334:A:O2'	25:AH:69:ASN:ND2	2.34	0.61
18:AF:141:VAL:HG23	18:AF:142:PRO:HD2	1.82	0.61
56:BH:94:ILE:HD11	56:BH:97:ASN:HB2	1.82	0.61
21:A2:434:A:H2	28:AV:84:GLU:CA	2.13	0.61
25:AH:93:LEU:C	25:AH:95:SER:N	2.53	0.61
4:AG:102:ARG:CD	21:A2:318:C:C4'	2.77	0.61
21:A2:843:G:H1	21:A2:870:U:H3	1.46	0.61
18:AF:50:ILE:HD11	18:AF:118:LYS:O	2.01	0.61
18:AF:53:LEU:HD13	18:AF:54:LEU:HD23	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:71:THR:HG1	21:A2:1033:G:P	2.23	0.61
67:B1:1354:G:H1'	67:B1:1378:G:N2	2.15	0.61
49:BQ:57:GLY:HA3	67:B1:1620:C:P	2.41	0.61
4:AG:102:ARG:HG3	21:A2:318:C:H4'	1.83	0.61
18:AF:198:ALA:O	18:AF:201:VAL:HG12	2.00	0.61
4:AG:6:LEU:HD13	4:AG:21:ILE:HD12	1.81	0.61
35:BL:25:HIS:CE1	67:B1:678:G:O6	2.54	0.61
35:BL:15:HIS:HB2	67:B1:945:U:H3'	1.83	0.61
4:AG:29:LEU:HD11	4:AG:63:ILE:HD11	1.82	0.60
56:BH:124:LYS:CB	67:B1:1219:C:O2'	2.35	0.60
20:BG:13:LYS:HD2	54:BF:184:PHE:HB2	181.16	0.60
31:BY:30:ARG:NH2	67:B1:1297:C:OP1	2.34	0.60
31:BY:75:ILE:HD12	31:BY:76:GLY:N	2.16	0.60
21:A2:60:A:C6	21:A2:65:G:O6	2.53	0.60
8:AR:86:VAL:CG1	8:AR:102:VAL:HG13	2.31	0.60
67:B1:2260:C:N4	67:B1:2277:G:H1	1.98	0.60
49:BQ:118:LYS:HA	49:BQ:121:ARG:CZ	2.31	0.60
49:BQ:60:ARG:CD	67:B1:1602:C:H4'	2.30	0.60
21:A2:1401:U:H3	21:A2:1414:G:H1	1.47	0.60
7:AB:104:PRO:HG2	18:AF:19:LYS:HZ1	1.65	0.60
40:BE:22:ARG:O	67:B1:55:G:H1'	150.53	0.60
50:BV:45:ARG:HH12	50:BV:50:LEU:HD21	1.66	0.60
31:BY:129:SER:HB2	67:B1:1135:A:OP1	2.01	0.60
7:AB:111:GLU:HB3	18:AF:21:LYS:NZ	2.17	0.60
18:AF:20:THR:CG2	18:AF:45:LYS:HD2	2.32	0.60
4:AG:88:LEU:O	21:A2:1413:G:P	2.59	0.60
21:A2:1334:A:C2'	25:AH:69:ASN:CG	2.67	0.60
67:B1:1955:U:H3'	67:B1:1956:G:H5'	1.82	0.60
21:A2:1032:A:N7	21:A2:1033:G:H1'	2.16	0.60
21:A2:334:G:H22	21:A2:347:G:H22	1.48	0.60
8:AR:60:TYR:CE2	12:AN:16:LEU:HD11	2.33	0.60
35:BL:5:ARG:HD2	67:B1:1392:G:N7	2.17	0.60
48:BR:70:GLY:CA	67:B1:2484:C:C5'	2.78	0.60
67:B1:82:C:N3	67:B1:103:A:N6	2.49	0.60
56:BH:124:LYS:HG3	67:B1:1220:U:H5'	1.82	0.60
4:AG:102:ARG:CD	21:A2:318:C:H4'	2.29	0.60
21:A2:936:A:H2'	21:A2:937:A:H5''	1.83	0.60
4:AG:99:LYS:HE2	21:A2:319:U:O2'	2.02	0.60
50:BV:14:PHE:HZ	65:BJ:95:MET:CE	2.13	0.60
21:A2:59:C:N3	21:A2:88:G:N1	2.48	0.60
18:AF:131:TRP:CZ3	18:AF:160:PRO:HD3	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AK:42:ARG:CD	25:AH:9:PHE:HE1	2.14	0.60
67:B1:1600:G:H1'	67:B1:1707:A:H61	1.67	0.60
50:BV:43:MET:CE	67:B1:1893:C:O4'	2.50	0.60
35:BL:132:LYS:NZ	67:B1:734:C:P	2.75	0.60
35:BL:24:LYS:HZ2	67:B1:1080:G:C5'	2.10	0.60
35:BL:44:LYS:HG3	35:BL:47:TRP:CE3	2.36	0.60
49:BQ:23:TRP:CH2	67:B1:1436:A:P	2.95	0.60
31:BY:120:HIS:CE1	67:B1:1298:C:O2'	2.55	0.60
4:AG:86:VAL:CG1	21:A2:1414:G:P	2.57	0.60
4:AG:103:ARG:NH2	21:A2:329:G:O3'	2.35	0.60
12:AN:110:GLY:C	21:A2:506:G:OP1	2.40	0.60
33:BC:76:PRO:O	67:B1:649:A:H1'	68.58	0.60
21:A2:439:G:N9	21:A2:439:G:O4'	2.32	0.60
21:A2:1311:C:H4'	25:AH:94:ASN:O	2.02	0.60
34:B5:31:ASN:ND2	57:BZ:25:ARG:HH11	2.00	0.60
50:BV:14:PHE:CZ	65:BJ:95:MET:CE	2.84	0.60
35:BL:132:LYS:HZ3	67:B1:733:A:C4'	2.14	0.60
21:A2:1251:C:OP2	25:AH:99:LYS:CD	2.38	0.60
18:AF:145:VAL:HG21	18:AF:207:ASN:HB2	1.84	0.60
26:AP:56:GLU:CB	29:AL:63:ARG:CB	2.79	0.60
12:AN:135:LYS:HZ3	21:A2:29:G:C2'	2.15	0.60
67:B1:1179:G:C8	67:B1:1179:G:C2'	2.84	0.60
53:BD:48:ARG:H	67:B1:1668:G:H4'	92.54	0.60
67:B1:2987:U:H4'	67:B1:2988:A:H5'	1.84	0.60
49:BQ:95:TRP:HB2	67:B1:857:U:OP1	2.01	0.60
4:AG:103:ARG:CZ	21:A2:329:G:O3'	2.49	0.59
21:A2:7:G:N2	21:A2:18:C:C2	2.70	0.59
54:BF:1:MET:CE	67:B1:1450:C:H5'	130.65	0.59
67:B1:1632:U:O2	67:B1:1670:A:C2	2.55	0.59
20:BG:3:LYS:HB2	20:BG:55:GLU:HB3	1.83	0.59
3:AI:31:SER:CB	21:A2:542:G:OP1	2.50	0.59
10:AD:136:ILE:O	28:AV:60:PHE:HE2	1.73	0.59
25:AH:87:ARG:CB	25:AH:90:HIS:HA	2.32	0.59
12:AN:21:LYS:CE	21:A2:237:C:OP1	2.50	0.59
35:BL:132:LYS:CG	67:B1:733:A:OP1	2.50	0.59
35:BL:10:LYS:CB	67:B1:947:C:H5'	2.31	0.59
33:BC:108:ASN:CA	33:BC:172:TRP:CH2	2.80	0.59
21:A2:1220:G:H21	21:A2:1235:A:H62	1.50	0.59
4:AG:76:PRO:HB2	21:A2:1404:C:C4'	2.32	0.59
21:A2:434:A:N1	28:AV:84:GLU:OE2	2.35	0.59
15:AE:64:LYS:CD	28:AV:81:ILE:HD13	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:214:SER:HB3	18:AF:215:PRO:HD3	1.84	0.59
4:AG:84:VAL:HG11	21:A2:1414:G:H5''	1.83	0.59
13:AX:61:GLU:CD	14:AM:107:ARG:HB3	2.23	0.59
20:BG:3:LYS:CD	20:BG:55:GLU:O	2.49	0.59
34:BK:46:ARG:NH2	67:B1:1222:U:OP1	77.04	0.59
21:A2:540:G:C6	21:A2:709:G:C6	2.89	0.59
3:AI:57:ARG:HH21	21:A2:607:U:H4'	1.67	0.59
21:A2:991:C:C5	21:A2:992:G:N7	2.70	0.59
18:AF:86:LEU:N	18:AF:86:LEU:HD12	2.17	0.59
2:AK:50:ILE:CG1	25:AH:13:HIS:ND1	2.65	0.59
67:B1:1092:U:H3	67:B1:1097:G:H1	1.50	0.59
67:B1:2225:C:H42	67:B1:2310:G:H1	1.50	0.59
49:BQ:84:LYS:HG3	67:B1:1843:C:P	2.41	0.59
21:A2:677:U:O2	21:A2:1493:C:H5'	2.02	0.59
67:B1:1179:G:C8	67:B1:1179:G:H2'	2.37	0.59
54:BF:1:MET:CE	67:B1:1450:C:C5'	130.01	0.59
67:B1:237:G:C2'	67:B1:237:G:N9	2.59	0.59
35:BL:132:LYS:NZ	67:B1:733:A:C4'	2.65	0.59
10:AD:123:GLN:HE21	21:A2:402:G:H21	1.50	0.59
67:B1:1253:U:H3'	67:B1:1254:C:H5''	1.85	0.59
48:BR:59:HIS:CE1	67:B1:994:G:OP1	2.55	0.59
65:BJ:62:VAL:HG23	67:B1:2397:C:C5'	96.57	0.59
49:BQ:83:GLY:N	67:B1:1789:A:OP1	2.35	0.59
67:B1:2800:U:H3	67:B1:2839:A:H61	1.51	0.59
21:A2:439:G:H1'	21:A2:440:C:C5	2.38	0.59
21:A2:516:A:H61	21:A2:842:U:H3	1.51	0.59
18:AF:73:ARG:CZ	21:A2:879:U:C3'	2.55	0.59
67:B1:1313:G:N2	67:B1:1316:U:C4	2.71	0.59
67:B1:1313:G:N2	67:B1:1316:U:C5	2.71	0.59
33:BC:108:ASN:CB	33:BC:172:TRP:HH2	1.62	0.59
40:BE:120:HIS:CG	40:BE:121:ILE:H	2.20	0.59
35:BL:7:LYS:HZ3	67:B1:1335:C:P	2.25	0.59
49:BQ:94:LEU:O	49:BQ:98:THR:HG23	2.02	0.59
31:BY:123:ARG:HG2	31:BY:123:ARG:HH11	1.67	0.59
12:AN:20:ARG:NH1	21:A2:516:A:N3	2.50	0.59
21:A2:786:G:H1	21:A2:812:U:H3	1.50	0.59
10:AD:44:HIS:HE1	10:AD:104:ARG:HD2	1.67	0.59
21:A2:934:G:H1	29:AL:49:THR:HA	1.68	0.59
10:AD:136:ILE:N	28:AV:60:PHE:CE2	2.69	0.59
67:B1:1569:A:C2'	67:B1:1569:A:HO2'	2.10	0.59
67:B1:614:G:O4'	67:B1:614:G:N9	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BG:37:ASN:HB2	59:BM:3:MET:HE1	1.84	0.59
25:AH:88:ARG:H	25:AH:94:ASN:CG	2.07	0.58
53:BD:87:ARG:NE	67:B1:487:U:C1'	2.66	0.58
31:BY:126:PHE:H	67:B1:1134:A:C5'	2.16	0.58
25:AH:26:VAL:HG21	25:AH:120:ILE:HG23	1.83	0.58
2:AK:39:GLU:CG	25:AH:5:LEU:HD21	2.33	0.58
25:AH:80:LYS:HD3	25:AH:89:GLU:CD	2.24	0.58
21:A2:1311:C:H5''	25:AH:94:ASN:O	2.02	0.58
3:AI:31:SER:HA	21:A2:542:G:H5''	1.85	0.58
49:BQ:84:LYS:CG	67:B1:1843:C:OP1	2.52	0.58
20:B4:57:VAL:HG11	20:B4:63:VAL:HG21	1.84	0.58
2:AK:40:ILE:CD1	25:AH:101:TYR:CE2	2.86	0.58
65:BJ:52:ARG:HG2	67:B1:2548:A:N1	83.95	0.58
21:A2:472:C:H2'	21:A2:473:A:C8	2.39	0.58
21:A2:616:G:N1	21:A2:697:A:C2	2.70	0.58
18:AF:201:VAL:O	18:AF:205:LEU:HD13	2.03	0.58
25:AH:39:LEU:HD12	25:AH:124:VAL:HG21	1.85	0.58
67:B1:2629:U:H3	67:B1:2685:G:H1	1.50	0.58
67:B1:407:A:H3'	67:B1:408:C:C5'	2.33	0.58
56:BH:128:GLY:HA3	67:B1:1198:G:H21	0.78	0.58
4:AG:85:ARG:CZ	21:A2:331:C:OP1	2.52	0.58
18:AF:46:GLU:HB2	18:AF:49:ILE:CG1	2.32	0.58
21:A2:1240:A:H8	29:AL:40:LEU:HD22	1.67	0.58
67:B1:1465:A:H2	67:B1:1476:C:O2'	1.86	0.58
67:B1:1955:U:H3'	67:B1:1956:G:C5'	2.32	0.58
20:BG:60:GLU:HG3	59:BM:26:ARG:NH2	2.17	0.58
10:AD:44:HIS:CE1	10:AD:104:ARG:HD2	2.39	0.58
18:AF:124:ILE:HG23	18:AF:124:ILE:O	2.04	0.58
18:AF:141:VAL:CG2	18:AF:142:PRO:HD2	2.34	0.58
67:B1:1568:A:N1	67:B1:1569:A:N6	2.35	0.58
56:BH:60:VAL:HG12	56:BH:61:THR:H	1.68	0.58
56:BH:60:VAL:H	56:BH:62:LYS:CG	2.15	0.58
21:A2:1013:G:H1	21:A2:1155:U:H3	1.52	0.58
21:A2:1395:G:H1	21:A2:1420:U:H3	1.51	0.58
4:AG:77:ASP:OD2	21:A2:1413:G:C2	2.57	0.58
20:BG:37:ASN:HB2	59:BM:3:MET:HE2	1.85	0.58
12:AN:50:ALA:HA	21:A2:359:A:O5'	2.03	0.58
18:AF:68:ILE:HA	18:AF:85:VAL:HG22	1.85	0.58
67:B1:1465:A:N1	67:B1:1476:C:O2'	2.32	0.58
46:BA:20:LYS:O	67:B1:1811:G:O4'	171.50	0.58
56:BH:3:LYS:HB3	56:BH:5:VAL:CG2	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:860:G:OP2	56:BH:14:LYS:HG2	90.95	0.58
26:AP:56:GLU:HB3	29:AL:63:ARG:HD2	0.65	0.58
49:BQ:8:ARG:NE	67:B1:1434:C:OP1	2.37	0.58
67:B1:1642:G:C2'	67:B1:1642:G:C8	2.86	0.58
56:BH:89:GLU:HA	56:BH:134:GLY:O	2.04	0.58
4:AG:92:PRO:HD3	21:A2:1412:A:O2'	2.01	0.58
21:A2:263:C:H2'	21:A2:264:C:C6	2.39	0.58
67:B1:831:C:H5''	67:B1:1791:A:N1	2.19	0.58
46:BA:20:LYS:HB3	67:B1:1811:G:N7	172.35	0.58
35:BL:5:ARG:HA	35:BL:8:VAL:HB	1.85	0.58
20:BG:5:SER:CB	59:BM:22:LEU:HD21	2.34	0.58
25:AH:51:HIS:CG	25:AH:61:VAL:HG22	2.39	0.57
56:BH:129:THR:HA	67:B1:1199:U:O4	2.04	0.57
34:B5:16:ARG:CZ	67:B1:1565:G:O6	2.52	0.57
49:BQ:61:TYR:CE1	67:B1:1618:G:OP1	2.57	0.57
54:BF:41:TRP:HB3	54:BF:44:ILE:HD12	1.85	0.57
35:BL:38:GLY:CA	35:BL:45:SER:HB3	2.34	0.57
48:BR:74:ILE:HG13	48:BR:85:THR:HG23	1.85	0.57
67:B1:1440:C:O2'	67:B1:1445:G:O6	2.22	0.57
67:B1:1626:A:H2'	67:B1:1627:G:H5'	1.85	0.57
67:B1:237:G:C8	67:B1:237:G:C2'	2.86	0.57
65:BJ:52:ARG:CB	67:B1:2548:A:C2	82.24	0.57
20:B4:57:VAL:HG11	20:B4:63:VAL:HG23	1.85	0.57
21:A2:440:C:O4'	21:A2:440:C:C6	2.57	0.57
10:AD:59:LEU:HD11	18:AF:132:GLU:HG3	1.84	0.57
2:AK:39:GLU:HG2	25:AH:5:LEU:HD21	1.84	0.57
21:A2:1200:U:C4	25:AH:91:ARG:C	2.52	0.57
67:B1:1567:C:C6	67:B1:1567:C:O4'	2.58	0.57
52:BB:97:LEU:HD21	52:BB:159:ILE:HD12	1.86	0.57
31:BY:120:HIS:HB3	31:BY:121:PRO:HD2	1.86	0.57
31:BY:126:PHE:CZ	67:B1:1134:A:C2'	2.83	0.57
21:A2:1334:A:H1'	25:AH:69:ASN:OD1	2.04	0.57
21:A2:334:G:H1	21:A2:347:G:H1	1.49	0.57
21:A2:434:A:C2	28:AV:84:GLU:CA	2.86	0.57
2:AK:40:ILE:HG22	25:AH:44:LEU:HD21	1.86	0.57
26:AP:40:ARG:NH1	29:AL:53:PRO:HA	2.19	0.57
67:B1:117:A:N7	67:B1:118:A:C8	2.72	0.57
33:BC:50:HIS:CD2	33:BC:67:PHE:CE2	2.92	0.57
21:A2:382:G:C1'	21:A2:382:G:O2'	2.48	0.57
21:A2:1334:A:H4'	25:AH:69:ASN:ND2	2.19	0.57
3:AI:99:PHE:CD1	18:AF:143:PHE:CZ	2.91	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:AP:47:ALA:HB2	29:AL:64:TRP:CH2	2.38	0.57
20:BG:37:ASN:OD1	59:BM:3:MET:HB3	2.05	0.57
65:BJ:52:ARG:HE	67:B1:2202:U:C4'	82.22	0.57
50:BV:21:MET:CE	65:BJ:97:VAL:HG13	2.34	0.57
21:A2:1112:G:H5'	29:AL:71:ARG:HH21	1.70	0.57
21:A2:1200:U:O4	25:AH:91:ARG:HB3	2.03	0.57
3:AI:57:ARG:CG	21:A2:607:U:OP1	2.52	0.57
34:B5:16:ARG:NE	67:B1:1565:G:O6	2.38	0.57
67:B1:1594:G:H1	67:B1:1712:U:H3	1.52	0.57
35:BL:11:LEU:HB3	67:B1:948:C:C5	2.40	0.57
68:B3:35:A:O2'	68:B3:35:A:C1'	2.48	0.57
35:BL:6:LYS:HD2	67:B1:1339:C:N4	2.20	0.57
12:AN:5:LYS:CD	21:A2:838:C:H5	2.18	0.57
18:AF:166:VAL:HG23	18:AF:166:VAL:O	2.05	0.57
18:AF:96:VAL:HG22	18:AF:97:GLY:N	2.20	0.57
67:B1:1643:A:H4'	67:B1:1644:G:OP2	2.04	0.57
67:B1:2217:C:N3	67:B1:2318:G:N1	2.51	0.57
68:B3:1:C:P	68:B3:2:G:C1'	2.92	0.57
20:BG:52:ILE:HD11	20:BG:80:VAL:CG2	2.35	0.57
48:BR:7:SER:CB	67:B1:2376:U:OP1	2.51	0.57
48:BR:82:LYS:HD2	67:B1:2473:C:OP1	2.05	0.57
31:BY:75:ILE:HB	67:B1:1324:G:OP1	2.05	0.57
7:AB:104:PRO:CB	18:AF:19:LYS:HE2	2.22	0.57
18:AF:73:ARG:HG2	21:A2:879:U:O2'	2.04	0.57
67:B1:1600:G:H2'	67:B1:1601:G:H8	1.70	0.57
34:B5:50:ILE:CB	57:BZ:28:LYS:HZ1	2.15	0.57
18:AF:124:ILE:HD12	18:AF:205:LEU:CG	2.35	0.57
18:AF:44:ILE:N	18:AF:44:ILE:HD12	2.20	0.57
26:AP:52:PHE:CB	29:AL:64:TRP:CE3	2.82	0.57
67:B1:117:A:C8	67:B1:118:A:C8	2.92	0.57
35:BL:132:LYS:HZ2	67:B1:733:A:C5'	2.18	0.57
20:BG:43:VAL:HG23	20:BG:75:ILE:HG21	1.87	0.57
21:A2:1313:G:OP1	25:AH:81:VAL:HG23	2.04	0.57
15:AE:65:ILE:HG13	28:AV:13:LEU:HD12	1.86	0.57
18:AF:75:THR:HG22	18:AF:76:ASP:H	1.69	0.57
17:AO:94:ILE:HG12	17:AO:95:THR:H	1.70	0.57
67:B1:1968:A:C6	67:B1:2101:A:N6	2.73	0.57
67:B1:646:U:H2'	67:B1:647:G:C8	2.40	0.57
35:BL:4:ARG:HD3	67:B1:678:G:O2'	2.05	0.57
21:A2:1351:U:H2'	21:A2:1352:G:C8	2.40	0.56
21:A2:434:A:N3	28:AV:84:GLU:CB	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:123:GLU:HB3	18:AF:209:ASN:HD21	1.68	0.56
18:AF:33:ASP:HB3	18:AF:36:GLU:CG	2.32	0.56
2:AK:40:ILE:C	25:AH:44:LEU:HD11	2.26	0.56
67:B1:1823:A:H61	67:B1:2120:C:N4	1.93	0.56
67:B1:486:A:C2	67:B1:512:G:C8	2.93	0.56
35:BL:34:ARG:NH2	67:B1:938:U:O3'	2.37	0.56
50:BV:39:ARG:HD2	67:B1:2832:G:OP1	2.05	0.56
18:AF:122:ILE:HG13	18:AF:123:GLU:N	2.20	0.56
18:AF:175:LEU:HD13	18:AF:183:VAL:HG11	1.87	0.56
21:A2:1312:C:H5''	25:AH:80:LYS:HB3	1.87	0.56
21:A2:1311:C:C4'	25:AH:94:ASN:C	2.74	0.56
2:AK:42:ARG:NE	25:AH:9:PHE:HD1	1.85	0.56
56:BH:134:GLY:HA3	67:B1:1203:C:O4'	2.05	0.56
31:BY:123:ARG:HE	67:B1:1132:U:C4'	2.16	0.56
12:AN:21:LYS:NZ	21:A2:237:C:OP1	2.37	0.56
21:A2:45:U:O4	21:A2:361:A:N1	2.38	0.56
6:AC:140:ARG:NH1	21:A2:1156:A:C8	2.73	0.56
18:AF:164:GLY:HA2	18:AF:182:ASP:HA	1.86	0.56
67:B1:1968:A:N6	67:B1:2101:A:N6	2.54	0.56
67:B1:379:U:H2'	67:B1:380:A:C8	2.39	0.56
21:A2:825:C:O2	21:A2:831:A:C2	2.59	0.56
18:AF:175:LEU:HD23	18:AF:205:LEU:HD11	1.86	0.56
18:AF:201:VAL:HG13	18:AF:202:PHE:N	2.20	0.56
12:AN:49:GLN:HG2	12:AN:106:GLU:HG2	1.86	0.56
67:B1:956:U:H5	67:B1:1107:G:N2	2.03	0.56
21:A2:114:A:H2	21:A2:184:G:O2'	1.89	0.56
21:A2:1327:C:O2'	29:AL:48:THR:CB	2.53	0.56
18:AF:73:ARG:NH1	21:A2:879:U:H5'	2.10	0.56
4:AG:77:ASP:H	4:AG:110:ASN:HD22	1.52	0.56
21:A2:1333:G:C5	25:AH:48:HIS:HE1	2.22	0.56
25:AH:80:LYS:HB2	25:AH:86:MET:O	2.06	0.56
67:B1:1039:C:H2'	67:B1:1040:C:C6	2.39	0.56
67:B1:646:U:H2'	67:B1:647:G:H8	1.71	0.56
20:BG:3:LYS:NZ	20:BG:57:VAL:N	2.53	0.56
56:BH:27:PRO:HG2	56:BH:57:VAL:HG11	1.86	0.56
3:AI:57:ARG:NH2	21:A2:608:G:P	2.79	0.56
21:A2:87:C:H2'	21:A2:88:G:H5'	1.86	0.56
15:AE:55:TYR:CE1	28:AV:9:LYS:NZ	2.40	0.56
18:AF:32:THR:O	18:AF:32:THR:HG23	2.04	0.56
11:A1:77:A:H8	67:B1:2511:C:H42	1.53	0.56
18:AF:128:CYS:CA	18:AF:138:PRO:HG3	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:131:TRP:HZ3	18:AF:160:PRO:CD	2.16	0.56
18:AF:167:ILE:HG23	18:AF:172:LYS:HB2	1.88	0.56
18:AF:165:LEU:HD22	18:AF:175:LEU:HD13	1.86	0.56
2:AK:10:ARG:NH2	25:AH:48:HIS:HB3	2.21	0.56
21:A2:1334:A:C1'	25:AH:69:ASN:HD21	2.16	0.56
33:BC:108:ASN:N	33:BC:172:TRP:CZ2	2.74	0.56
20:BG:33:ARG:HE	20:BG:102:ILE:HD12	1.71	0.56
21:A2:1063:A:C8	21:A2:1064:C:C5	2.94	0.56
21:A2:798:U:C6	21:A2:798:U:C2'	2.89	0.56
21:A2:905:A:H2'	21:A2:906:G:C8	2.41	0.56
18:AF:143:PHE:HE1	18:AF:213:ILE:HD11	1.71	0.56
18:AF:191:THR:O	18:AF:191:THR:HG22	2.06	0.56
2:AK:43:PHE:CB	25:AH:43:LEU:HD11	2.25	0.56
2:AK:102:TYR:CE1	25:AH:42:ARG:HD3	2.36	0.56
4:AG:120:ASN:CB	21:A2:151:G:HO2'	2.17	0.56
4:AG:85:ARG:NH2	21:A2:331:C:P	2.79	0.56
67:B1:1199:U:H1'	67:B1:1201:G:H5'	1.87	0.56
21:A2:1311:C:H1'	25:AH:96:LYS:HG2	1.88	0.56
18:AF:145:VAL:HG22	18:AF:146:GLU:H	1.71	0.56
18:AF:86:LEU:HD21	18:AF:195:VAL:HG13	1.88	0.56
25:AH:47:THR:O	25:AH:47:THR:HG22	2.06	0.56
35:BL:26:ARG:HH12	67:B1:942:U:P	2.29	0.56
67:B1:991:U:H3	67:B1:1058:A:H61	1.53	0.55
31:BY:33:HIS:NE2	67:B1:1298:C:OP1	2.39	0.55
35:BL:41:LYS:CG	67:B1:185:A:OP2	2.54	0.55
65:BJ:52:ARG:HB3	67:B1:2548:A:N1	82.23	0.55
31:BY:155:LEU:CD1	67:B1:602:G:P	2.87	0.55
21:A2:1186:C:H4'	21:A2:1187:A:OP1	2.05	0.55
21:A2:1312:C:C5'	25:AH:80:LYS:HE3	2.36	0.55
18:AF:50:ILE:HD12	18:AF:118:LYS:CB	2.21	0.55
2:AK:40:ILE:HD13	25:AH:101:TYR:CE2	2.42	0.55
26:AP:52:PHE:HB2	29:AL:64:TRP:CZ3	2.35	0.55
67:B1:899:A:N6	67:B1:1914:U:C4	2.74	0.55
67:B1:2507:C:C1'	67:B1:2507:C:C3'	2.77	0.55
67:B1:473:C:H2'	67:B1:474:G:C8	2.41	0.55
68:B3:1:C:P	68:B3:2:G:O4'	2.65	0.55
21:A2:1467:U:H3	21:A2:1478:A:H61	1.53	0.55
18:AF:53:LEU:C	18:AF:53:LEU:HD13	2.26	0.55
49:BQ:8:ARG:HH22	67:B1:1433:C:H4'	1.69	0.55
34:B5:16:ARG:HD2	67:B1:1566:G:C6	2.41	0.55
21:A2:367:G:N9	21:A2:367:G:O4'	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:439:G:H4'	21:A2:440:C:O5'	2.06	0.55
21:A2:471:G:H5''	21:A2:472:C:C6	2.41	0.55
18:AF:178:ALA:HB2	18:AF:205:LEU:HD23	1.88	0.55
21:A2:1311:C:C4'	25:AH:94:ASN:O	2.55	0.55
67:B1:122:G:H1	67:B1:126:U:H3	1.55	0.55
53:BD:1:MET:HG2	53:BD:2:LYS:H	3.05	0.55
20:BG:37:ASN:CA	59:BM:3:MET:SD	2.94	0.55
13:AX:71:ARG:NE	21:A2:1041:C:OP1	2.38	0.55
21:A2:152:G:H2'	21:A2:153:G:H8	1.69	0.55
18:AF:34:ILE:HG23	18:AF:35:HIS:N	2.21	0.55
4:AG:120:ASN:CG	21:A2:151:G:C4'	2.72	0.55
67:B1:1009:G:H1	67:B1:1041:U:H3	1.54	0.55
46:BA:20:LYS:O	67:B1:1811:G:C8	173.75	0.55
65:BJ:62:VAL:CG2	67:B1:2397:C:H5''	97.94	0.55
4:AG:102:ARG:NH1	21:A2:318:C:H5'	2.22	0.55
67:B1:1506:U:C4'	67:B1:1947:A:H2	2.19	0.55
67:B1:2275:G:H2'	67:B1:2276:G:H5'	1.88	0.55
37:BU:69:VAL:HA	37:BU:76:ILE:HG22	1.89	0.55
34:B5:50:ILE:HG21	57:BZ:28:LYS:HZ1	1.71	0.55
21:A2:957:A:C2	21:A2:991:C:N4	2.75	0.55
25:AH:89:GLU:HB3	25:AH:95:SER:OG	2.05	0.55
2:AK:102:TYR:OH	25:AH:42:ARG:CG	2.54	0.55
26:AP:56:GLU:O	29:AL:65:GLU:OE2	2.25	0.55
67:B1:1203:C:H2'	67:B1:1204:U:C6	2.42	0.55
35:BL:11:LEU:CB	67:B1:948:C:C5	2.89	0.55
20:BG:36:THR:C	59:BM:3:MET:SD	2.84	0.55
50:BV:49:LYS:HE2	67:B1:1892:G:OP1	2.07	0.55
18:AF:80:ARG:HH11	21:A2:1022:U:H5'	1.71	0.55
21:A2:873:A:H2'	21:A2:874:G:H5'	1.89	0.55
18:AF:73:ARG:NE	21:A2:879:U:C3'	2.69	0.55
18:AF:134:ARG:O	18:AF:134:ARG:HG3	2.06	0.55
18:AF:175:LEU:HD21	18:AF:205:LEU:HD11	1.88	0.55
18:AF:45:LYS:HB2	18:AF:45:LYS:HZ2	1.72	0.55
68:B3:66:A:N6	68:B3:109:A:C2	2.73	0.55
31:BY:51:LYS:CE	68:B3:96:C:H4'	2.35	0.55
33:BC:60:LEU:HD22	65:BJ:14:ALA:HA	1.88	0.55
50:BV:29:VAL:HG11	65:BJ:141:VAL:HG11	1.89	0.55
18:AF:53:LEU:CD1	18:AF:54:LEU:HD23	2.36	0.55
29:AL:59:ALA:HB3	29:AL:61:PHE:CZ	2.42	0.55
21:A2:434:A:H2	28:AV:84:GLU:CB	2.08	0.55
31:BY:130:LYS:HZ3	67:B1:1122:C:H5''	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:2173:U:H2'	67:B1:2174:G:O4'	2.06	0.55
68:B3:21:C:H4'	68:B3:22:C:OP1	2.07	0.55
65:BJ:52:ARG:HE	67:B1:2202:U:C3'	82.98	0.55
21:A2:1307:G:N1	25:AH:48:HIS:CG	2.61	0.55
21:A2:369:A:C4'	21:A2:434:A:C8	2.81	0.55
21:A2:516:A:N6	21:A2:842:U:H3	2.05	0.55
10:AD:93:LEU:CD1	18:AF:160:PRO:CB	2.66	0.55
67:B1:2115:U:N1	67:B1:2115:U:C2'	2.63	0.55
67:B1:2396:G:N3	67:B1:2507:C:N4	2.54	0.55
31:BY:85:VAL:HG11	31:BY:93:ILE:HA	1.89	0.55
21:A2:8:U:C2'	21:A2:8:U:N1	2.63	0.54
18:AF:183:VAL:HG22	18:AF:184:TRP:O	2.07	0.54
67:B1:115:C:N4	67:B1:116:G:C6	2.75	0.54
20:BG:51:VAL:HG21	20:BG:66:LEU:HD21	1.89	0.54
56:BH:1:MET:HB2	56:BH:2:PRO:O	2.07	0.54
21:A2:616:G:N2	21:A2:697:A:C2	2.75	0.54
21:A2:898:G:C2	21:A2:899:G:C6	2.95	0.54
4:AG:76:PRO:HB2	21:A2:1404:C:H4'	1.89	0.54
12:AN:135:LYS:HE2	21:A2:29:G:C2'	2.37	0.54
67:B1:1132:U:H3	67:B1:1296:A:N6	1.99	0.54
67:B1:1568:A:C5	67:B1:1569:A:C6	2.95	0.54
67:B1:579:C:O2'	67:B1:580:G:C8	2.55	0.54
35:BL:9:ARG:HE	35:BL:12:ARG:HE	1.54	0.54
21:A2:1200:U:C2	25:AH:180:PHE:HB2	2.39	0.54
1:AQ:15:LYS:HB3	3:AI:57:ARG:HH11	1.73	0.54
12:AN:135:LYS:HZ1	21:A2:29:G:H1'	0.58	0.54
20:BG:4:PRO:HG2	59:BM:25:GLN:HE22	1.73	0.54
21:A2:1200:U:OP1	25:AH:179:SER:CB	2.53	0.54
18:AF:132:GLU:CG	18:AF:133:CYS:H	2.14	0.54
4:AG:120:ASN:HB3	21:A2:151:G:HO2'	1.73	0.54
11:A1:42:C:O2'	25:AH:206:GLU:HG3	2.07	0.54
21:A2:1312:C:H4'	25:AH:80:LYS:HG2	1.89	0.54
26:AP:41:HIS:CD2	29:AL:53:PRO:HB3	2.42	0.54
46:BA:20:LYS:C	67:B1:1811:G:N9	172.32	0.54
33:BC:153:ASP:HB3	33:BC:160:ILE:HD13	1.87	0.54
12:AN:21:LYS:HE2	21:A2:237:C:OP1	2.07	0.54
25:AH:148:VAL:HG12	25:AH:149:ALA:N	2.22	0.54
26:AP:52:PHE:CD2	29:AL:64:TRP:HE3	2.22	0.54
31:BY:123:ARG:CD	67:B1:1132:U:O2'	2.54	0.54
67:B1:1745:U:H3'	67:B1:1745:U:C6	2.43	0.54
67:B1:1968:A:N7	67:B1:1969:C:C5	2.75	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:B3:73:U:H3'	68:B3:74:U:H5''	1.88	0.54
53:BD:85:PHE:HB2	67:B1:675:G:H21	1.70	0.54
12:AN:110:GLY:N	21:A2:506:G:OP1	2.41	0.54
3:AI:28:LYS:CG	5:AW:4:PRO:CA	2.82	0.54
29:AL:59:ALA:HB1	29:AL:61:PHE:CE1	2.43	0.54
12:AN:24:ARG:HH12	21:A2:298:C:C5'	2.16	0.54
46:BA:20:LYS:CB	67:B1:1811:G:H8	171.39	0.54
67:B1:206:A:H3'	67:B1:207:A:C8	2.43	0.54
67:B1:2257:A:H62	67:B1:2280:G:H1'	1.72	0.54
67:B1:2806:A:C2	67:B1:3020:G:N2	2.76	0.54
67:B1:890:G:H2'	67:B1:891:C:C6	2.42	0.54
49:BQ:76:ARG:CD	67:B1:1884:C:OP2	2.55	0.54
21:A2:1248:A:H4'	30:AU:80:ARG:HH21	1.73	0.54
21:A2:265:C:H2'	21:A2:266:A:C8	2.43	0.54
21:A2:60:A:N6	21:A2:65:G:C6	2.76	0.54
3:AI:95:PRO:HG2	18:AF:143:PHE:HE2	1.73	0.54
18:AF:152:VAL:C	18:AF:153:ARG:HD2	2.27	0.54
18:AF:85:VAL:HG12	18:AF:86:LEU:N	2.23	0.54
34:B5:51:LYS:CE	67:B1:1568:A:O2'	2.56	0.54
35:BL:113:LEU:HD12	67:B1:732:G:C2	2.39	0.54
56:BH:110:LYS:HG3	56:BH:114:MET:CE	2.37	0.54
31:BY:131:LYS:HG2	68:B3:85:C:OP1	2.07	0.54
34:B5:4:ILE:CG1	57:BZ:28:LYS:CG	2.75	0.54
21:A2:430:G:H21	28:AV:33:ARG:HH12	1.56	0.54
18:AF:31:ILE:HG13	18:AF:31:ILE:O	2.07	0.54
67:B1:3021:C:H2'	67:B1:3022:C:H6	1.73	0.54
20:BG:13:LYS:HB2	54:BF:184:PHE:HB2	182.58	0.54
24:AA:120:MET:HG3	24:AA:186:ARG:HH21	1.73	0.54
56:BH:21:LEU:HD23	56:BH:32:VAL:HG21	1.90	0.54
56:BH:90:PRO:C	56:BH:92:HIS:H	2.11	0.54
50:BV:22:TYR:CZ	65:BJ:100:GLU:CG	2.76	0.54
21:A2:1248:A:O3'	25:AH:81:VAL:CG1	2.48	0.54
21:A2:375:G:N2	21:A2:381:C:C2	2.76	0.54
67:B1:1035:G:H2'	67:B1:1036:C:C6	2.43	0.54
67:B1:1273:C:N4	67:B1:1277:G:C6	2.76	0.54
20:BG:4:PRO:O	20:BG:5:SER:CB	2.56	0.54
35:BL:23:LYS:NZ	67:B1:2563:A:N6	2.50	0.54
21:A2:164:A:H2'	21:A2:165:U:C6	2.42	0.53
3:AI:31:SER:CB	21:A2:542:G:H5''	2.37	0.53
25:AH:81:VAL:HG11	30:AU:80:ARG:NE	2.18	0.53
18:AF:73:ARG:CG	21:A2:879:U:O2'	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:976:A:H2'	21:A2:978:G:C8	2.44	0.53
18:AF:145:VAL:HG11	18:AF:156:LEU:HD12	1.90	0.53
25:AH:149:ALA:HB2	25:AH:215:ARG:CB	2.38	0.53
67:B1:1570:C:H5'	67:B1:1666:G:O2'	2.08	0.53
35:BL:64:SER:HB2	67:B1:234:G:OP1	2.05	0.53
20:BG:60:GLU:CD	59:BM:22:LEU:HD22	2.29	0.53
49:BQ:7:GLN:HA	49:BQ:10:ILE:HD12	1.90	0.53
18:AF:71:THR:OG1	21:A2:1032:A:O3'	2.26	0.53
21:A2:1251:C:OP1	25:AH:99:LYS:HD2	2.08	0.53
21:A2:382:G:N9	21:A2:382:G:C2'	2.62	0.53
21:A2:618:G:H22	21:A2:695:G:H1	1.56	0.53
21:A2:60:A:N6	21:A2:85:A:N6	2.56	0.53
18:AF:167:ILE:HG12	18:AF:168:GLY:H	1.74	0.53
18:AF:174:ILE:CD1	18:AF:201:VAL:HG11	2.38	0.53
18:AF:203:ASN:O	18:AF:206:TYR:HB3	2.08	0.53
40:BE:22:ARG:CA	67:B1:54:G:H21	151.79	0.53
67:B1:1096:A:H2'	67:B1:1097:G:H5'	1.88	0.53
67:B1:1234:A:N9	67:B1:1234:A:O4'	2.39	0.53
67:B1:1933:U:H3	67:B1:1964:G:H1	1.56	0.53
67:B1:2088:G:N9	67:B1:2088:G:O4'	2.39	0.53
67:B1:237:G:H3'	67:B1:238:C:H5''	1.88	0.53
67:B1:2586:A:O2'	67:B1:2587:G:C8	2.61	0.53
35:BL:77:ASN:OD1	67:B1:723:A:N7	2.42	0.53
21:A2:1334:A:C1'	25:AH:69:ASN:CG	2.77	0.53
21:A2:218:C:O4'	21:A2:218:C:C6	2.62	0.53
10:AD:90:ASP:OD2	18:AF:161:ARG:HG3	2.07	0.53
18:AF:170:VAL:HG13	18:AF:171:GLY:H	1.73	0.53
18:AF:59:ALA:O	18:AF:60:ARG:HB2	2.08	0.53
18:AF:67:ASP:HB3	18:AF:86:LEU:HD13	1.91	0.53
4:AG:9:SER:CB	4:AG:64:ARG:HH11	2.21	0.53
21:A2:1333:G:H4'	25:AH:97:LYS:HB3	1.90	0.53
3:AI:28:LYS:HE3	5:AW:4:PRO:CG	2.38	0.53
67:B1:2260:C:N4	67:B1:2277:G:H22	2.06	0.53
67:B1:2388:U:C5	67:B1:2390:G:C8	2.97	0.53
35:BL:116:GLY:HA2	67:B1:735:A:OP2	2.08	0.53
4:AG:64:ARG:CG	21:A2:152:G:C5'	2.79	0.53
21:A2:919:U:C4	21:A2:1185:A:H1'	2.44	0.53
18:AF:143:PHE:CE1	18:AF:213:ILE:HD11	2.44	0.53
28:AV:33:ARG:O	28:AV:53:ILE:HG21	2.09	0.53
53:BD:48:ARG:HB3	67:B1:1669:A:H5''	88.95	0.53
56:BH:72:PRO:HB2	67:B1:1199:U:OP2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1024:G:H2'	21:A2:1025:U:C6	2.44	0.53
18:AF:169:ASP:O	18:AF:173:LYS:HG2	2.08	0.53
18:AF:213:ILE:HG12	18:AF:215:PRO:CD	2.16	0.53
25:AH:67:LEU:HG	25:AH:71:ILE:HG13	1.90	0.53
67:B1:2586:A:HO2'	67:B1:2587:G:H8	1.48	0.53
67:B1:2952:C:H2'	67:B1:2953:U:H5'	1.90	0.53
21:A2:1327:C:O2'	29:AL:48:THR:CG2	2.57	0.53
21:A2:530:G:C4	21:A2:770:A:C2	2.97	0.53
18:AF:148:LYS:N	18:AF:148:LYS:HD2	2.23	0.53
25:AH:69:ASN:HD22	25:AH:97:LYS:HZ1	1.55	0.53
67:B1:407:A:C3'	67:B1:408:C:H5''	2.37	0.53
68:B3:1:C:P	68:B3:2:G:H8	2.20	0.53
35:BL:12:ARG:C	35:BL:14:SER:N	2.60	0.53
35:BL:47:TRP:O	35:BL:47:TRP:CD2	2.61	0.53
21:A2:562:A:C1'	21:A2:562:A:O2'	2.49	0.53
4:AG:35:GLY:H	4:AG:63:ILE:HB	1.74	0.53
12:AN:47:ALA:HB1	21:A2:359:A:N7	2.23	0.53
67:B1:1245:C:H2'	67:B1:1246:G:O5'	2.08	0.53
65:BJ:62:VAL:HG23	67:B1:2397:C:H5''	97.50	0.53
67:B1:2586:A:O2'	67:B1:2587:G:H8	1.92	0.53
56:BH:57:VAL:HG13	56:BH:62:LYS:HA	1.90	0.53
20:BG:61:GLU:CD	59:BM:11:TRP:HE1	2.11	0.53
54:BF:1:MET:O	67:B1:1450:C:P	133.12	0.53
65:BJ:21:LEU:HD11	65:BJ:27:LEU:HD21	1.90	0.53
32:BO:28:LEU:HD21	32:BO:34:ARG:HE	1.74	0.53
31:BY:123:ARG:CD	67:B1:1132:U:C4'	2.79	0.53
4:AG:99:LYS:CE	21:A2:319:U:O2'	2.56	0.52
21:A2:788:C:H2'	21:A2:789:G:C8	2.44	0.52
67:B1:228:U:H3	67:B1:247:A:H61	1.57	0.52
21:A2:1006:C:O4'	21:A2:1006:C:O2	2.25	0.52
21:A2:1053:A:N9	21:A2:1053:A:O4'	2.40	0.52
4:AG:67:THR:HG21	21:A2:150:G:H1'	1.91	0.52
18:AF:85:VAL:O	18:AF:100:ILE:HA	2.08	0.52
18:AF:163:LEU:HD11	18:AF:184:TRP:CE2	2.43	0.52
1:AQ:15:LYS:HB3	3:AI:57:ARG:NH1	2.24	0.52
67:B1:1167:A:H2'	67:B1:1168:A:C8	2.44	0.52
67:B1:1348:G:H1	67:B1:1382:C:N4	2.08	0.52
54:BF:1:MET:CE	67:B1:1450:C:H5''	130.52	0.52
40:BE:166:LEU:HD11	40:BE:170:GLU:HB2	1.92	0.52
34:B5:3:ALA:O	57:BZ:29:THR:CA	2.57	0.52
4:AG:102:ARG:HG3	21:A2:318:C:C4'	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AK:42:ARG:HD2	25:AH:9:PHE:CE1	2.44	0.52
67:B1:1023:C:H3'	67:B1:1024:G:H4'	1.91	0.52
54:BF:70:THR:HG21	67:B1:2871:A:C6	2.43	0.52
67:B1:2912:G:H1	67:B1:2937:U:H3	1.57	0.52
67:B1:956:U:C4	67:B1:1107:G:N2	2.75	0.52
68:B3:1:C:OP1	68:B3:117:G:N1	2.41	0.52
35:BL:44:LYS:N	67:B1:961:C:C4'	2.73	0.52
21:A2:460:C:H5''	21:A2:461:A:H5''	1.91	0.52
21:A2:478:C:H2'	21:A2:479:C:C6	2.44	0.52
21:A2:991:C:C5	21:A2:992:G:C5	2.98	0.52
18:AF:146:GLU:HG3	18:AF:154:VAL:O	2.09	0.52
2:AK:42:ARG:HD2	25:AH:9:PHE:HE1	1.73	0.52
12:AN:91:ASP:OD2	21:A2:474:G:H4'	2.08	0.52
67:B1:2733:A:H2'	67:B1:2734:C:C6	2.45	0.52
56:BH:51:VAL:CG1	56:BH:70:VAL:HG12	2.40	0.52
48:BR:69:ARG:NH2	67:B1:2483:U:C1'	2.71	0.52
21:A2:828:U:H5'	21:A2:830:A:C2	2.45	0.52
18:AF:135:CYS:HB3	18:AF:161:ARG:HH12	1.73	0.52
3:AI:57:ARG:HH21	21:A2:608:G:P	2.32	0.52
67:B1:1418:A:C2	67:B1:1438:C:O2	2.63	0.52
67:B1:1943:C:H2'	67:B1:1944:C:C6	2.44	0.52
35:BL:11:LEU:N	67:B1:947:C:H3'	2.24	0.52
48:BR:24:GLY:HA2	67:B1:2447:A:OP2	2.08	0.52
18:AF:5:TRP:CA	18:AF:55:PRO:HB2	2.39	0.52
3:AI:2:THR:HB	21:A2:709:G:O2'	2.10	0.52
28:AV:23:ILE:HG21	28:AV:31:PRO:HG3	1.91	0.52
49:BQ:8:ARG:NH2	67:B1:1433:C:H4'	2.25	0.52
67:B1:366:G:H2'	67:B1:367:G:H5'	1.91	0.52
18:AF:186:GLN:OE1	18:AF:186:GLN:HA	2.10	0.52
18:AF:149:GLU:CD	18:AF:199:LYS:HD3	2.30	0.52
8:AR:43:PRO:HB2	8:AR:46:THR:HB	1.92	0.52
67:B1:1559:A:O4'	67:B1:1559:A:N9	2.37	0.52
34:B5:25:VAL:HG13	34:B5:34:LEU:HD23	1.91	0.52
18:AF:119:LEU:H	18:AF:119:LEU:HD22	1.74	0.52
25:AH:89:GLU:H	25:AH:94:ASN:HB3	1.74	0.52
3:AI:121:ILE:HG13	3:AI:122:GLY:H	1.73	0.52
26:AP:56:GLU:C	29:AL:63:ARG:HH11	2.13	0.52
67:B1:1245:C:H3'	67:B1:1245:C:C6	2.43	0.52
67:B1:2111:C:H2'	67:B1:2112:C:C6	2.44	0.52
53:BD:48:ARG:HD3	67:B1:1669:A:H5'	88.85	0.52
56:BH:58:ASP:C	56:BH:60:VAL:HG23	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:24:LYS:HZ1	67:B1:1080:G:C3'	2.21	0.52
31:BY:135:LYS:NZ	68:B3:95:G:C5'	2.71	0.52
31:BY:15:VAL:CG1	31:BY:19:VAL:HG13	2.40	0.52
21:A2:1371:C:H2'	21:A2:1372:C:C6	2.44	0.52
4:AG:100:GLY:HA3	21:A2:318:C:O2	2.06	0.52
21:A2:423:U:C2'	21:A2:423:U:C6	2.92	0.52
12:AN:111:PRO:CB	21:A2:507:G:OP1	2.55	0.52
29:AL:59:ALA:CB	29:AL:61:PHE:CE1	2.93	0.52
15:AE:64:LYS:NZ	28:AV:81:ILE:CG1	2.73	0.52
35:BL:25:HIS:CD2	67:B1:678:G:H1	2.28	0.52
21:A2:1332:C:O3'	25:AH:98:VAL:HG22	2.10	0.52
21:A2:806:G:O4'	21:A2:806:G:N9	2.39	0.52
21:A2:973:U:H3'	21:A2:974:G:H5''	1.92	0.52
18:AF:132:GLU:HG2	18:AF:133:CYS:N	2.23	0.52
67:B1:1189:A:H61	67:B1:1248:C:H5	1.57	0.52
67:B1:2946:C:N3	67:B1:3038:A:N6	2.57	0.52
50:BV:43:MET:HE3	67:B1:1893:C:O4'	2.10	0.52
31:BY:123:ARG:HD2	67:B1:1132:U:C3'	2.41	0.52
12:AN:48:PRO:HD2	21:A2:359:A:C6	2.44	0.51
25:AH:137:THR:HB	25:AH:139:VAL:HG13	1.91	0.51
67:B1:1754:A:C8	67:B1:1754:A:C2'	2.92	0.51
67:B1:583:A:H3'	67:B1:584:G:C5'	2.40	0.51
21:A2:1311:C:C5'	25:AH:94:ASN:O	2.58	0.51
21:A2:556:G:N2	21:A2:590:G:C5	2.78	0.51
4:AG:84:VAL:CG1	21:A2:1414:G:H5''	2.40	0.51
21:A2:1251:C:P	25:AH:99:LYS:CD	2.97	0.51
52:BB:111:ILE:HG23	52:BB:121:TYR:HB2	1.92	0.51
20:BG:93:GLU:HG3	20:BG:94:VAL:HG23	1.91	0.51
56:BH:124:LYS:HA	56:BH:127:ILE:HG22	1.92	0.51
56:BH:124:LYS:HG3	67:B1:1220:U:C5'	2.40	0.51
56:BH:89:GLU:HB3	56:BH:92:HIS:HB3	1.93	0.51
35:BL:44:LYS:CA	67:B1:961:C:C2'	2.88	0.51
31:BY:121:PRO:HG2	67:B1:1132:U:O2'	2.11	0.51
13:AX:62:ARG:NH2	14:AM:58:TYR:CD1	2.79	0.51
49:BQ:85:LYS:N	67:B1:1843:C:OP1	2.44	0.51
35:BL:58:LEU:C	67:B1:2510:A:O2'	2.39	0.51
67:B1:353:C:H2'	67:B1:354:G:C8	2.45	0.51
67:B1:808:A:C2	67:B1:809:A:C2	2.98	0.51
35:BL:77:ASN:HD21	67:B1:723:A:H8	1.53	0.51
35:BL:6:LYS:O	35:BL:9:ARG:HB3	2.09	0.51
21:A2:1178:C:H2'	21:A2:1179:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AI:4:LEU:HB3	21:A2:540:G:O4'	2.10	0.51
4:AG:99:LYS:HG3	21:A2:319:U:C1'	2.39	0.51
25:AH:28:VAL:HG11	25:AH:34:LYS:HA	1.93	0.51
21:A2:1313:G:C5'	25:AH:81:VAL:HG21	2.17	0.51
3:AI:76:LYS:HG2	21:A2:836:G:OP1	2.10	0.51
2:AK:102:TYR:CZ	25:AH:42:ARG:CD	2.82	0.51
12:AN:8:ASN:O	21:A2:837:C:OP1	2.28	0.51
67:B1:1354:G:H1'	67:B1:1378:G:H22	1.75	0.51
67:B1:1708:U:C5	67:B1:1709:C:C2	2.99	0.51
67:B1:2585:G:O6	67:B1:2591:A:H1'	2.11	0.51
68:B3:12:G:C2'	68:B3:13:C:H5'	2.40	0.51
7:AB:167:ILE:HA	7:AB:170:ILE:HG22	1.91	0.51
67:B1:2382:A:C1'	67:B1:2382:A:O2'	2.51	0.51
67:B1:43:G:O6	67:B1:474:G:C2	2.64	0.51
20:BG:7:VAL:HG22	20:BG:79:TYR:CD2	2.45	0.51
35:BL:14:SER:C	35:BL:16:THR:H	2.14	0.51
31:BY:129:SER:CB	67:B1:1135:A:OP1	2.58	0.51
18:AF:71:THR:OG1	21:A2:1033:G:P	2.68	0.51
18:AF:149:GLU:OE2	18:AF:199:LYS:HD3	2.10	0.51
52:BB:69:LYS:CE	67:B1:1304:G:P	120.84	0.51
33:BC:76:PRO:O	67:B1:649:A:C1'	67.79	0.51
68:B3:1:C:OP2	68:B3:117:G:N1	2.43	0.51
35:BL:132:LYS:HD3	67:B1:733:A:P	2.49	0.51
35:BL:44:LYS:HG2	67:B1:961:C:C4'	2.38	0.51
50:BV:45:ARG:NH1	50:BV:50:LEU:HD21	2.24	0.51
21:A2:1311:C:H2'	21:A2:1312:C:H6	1.76	0.51
4:AG:88:LEU:O	21:A2:1412:A:O3'	2.28	0.51
18:AF:167:ILE:HG12	18:AF:168:GLY:N	2.26	0.51
18:AF:122:ILE:CG1	18:AF:206:TYR:CD2	2.94	0.51
18:AF:97:GLY:HA2	18:AF:202:PHE:CE2	2.43	0.51
2:AK:39:GLU:OE1	25:AH:5:LEU:HD11	2.11	0.51
12:AN:111:PRO:CB	21:A2:507:G:P	2.99	0.51
21:A2:434:A:N3	28:AV:85:TYR:CD1	2.76	0.51
67:B1:366:G:N9	67:B1:366:G:O4'	2.41	0.51
34:B5:3:ALA:N	57:BZ:28:LYS:HA	2.25	0.51
20:BG:59:PRO:CG	59:BM:43:THR:HA	2.36	0.51
21:A2:1194:C:OP2	25:AH:77:SER:HB3	2.11	0.51
21:A2:296:A:H2	21:A2:519:G:O6	1.90	0.51
18:AF:178:ALA:HB2	18:AF:205:LEU:CD2	2.41	0.51
18:AF:5:TRP:HB2	18:AF:55:PRO:HB2	1.93	0.51
25:AH:3:LYS:HD2	30:AU:143:ILE:HG12	0.51	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1506:U:H4'	67:B1:1947:A:H2	1.75	0.51
67:B1:1902:G:H2'	67:B1:1903:G:H4'	1.93	0.51
67:B1:82:C:C6	67:B1:83:G:C8	2.98	0.51
52:BB:111:ILE:HG23	52:BB:121:TYR:CB	2.41	0.51
34:BK:38:ALA:HA	34:BK:72:ARG:HH21	1.76	0.51
35:BL:7:LYS:HA	35:BL:9:ARG:CZ	2.41	0.51
26:AP:52:PHE:HB3	29:AL:64:TRP:HE3	1.69	0.51
67:B1:1566:G:H1	67:B1:1570:C:N4	2.09	0.51
67:B1:1600:G:H2'	67:B1:1601:G:C8	2.46	0.51
67:B1:565:A:C8	67:B1:565:A:C2'	2.94	0.51
68:B3:52:U:C4'	68:B3:53:A:H5'	2.39	0.51
65:BJ:92:LEU:HD23	65:BJ:92:LEU:H	1.76	0.51
35:BL:48:THR:CG2	67:B1:968:A:O2'	2.59	0.51
18:AF:129:GLY:CA	18:AF:134:ARG:HB3	2.24	0.51
12:AN:51:ARG:HB3	21:A2:359:A:OP2	2.09	0.51
31:BY:130:LYS:HZ3	67:B1:1122:C:C5'	2.24	0.51
35:BL:44:LYS:HB2	67:B1:967:G:N2	2.26	0.51
48:BR:37:VAL:HG12	48:BR:38:GLY:H	1.76	0.51
50:BV:40:TYR:OH	67:B1:2986:G:OP2	2.29	0.51
21:A2:1032:A:C8	21:A2:1033:G:H1'	2.45	0.50
21:A2:895:C:H1'	21:A2:1342:C:H42	1.76	0.50
20:A3:20:LEU:HD22	20:A3:89:ALA:HB2	1.93	0.50
18:AF:187:THR:HG21	21:A2:4:C:OP1	2.11	0.50
25:AH:78:HIS:CE1	25:AH:94:ASN:HD21	2.29	0.50
21:A2:1311:C:H4'	25:AH:95:SER:HA	1.91	0.50
31:BY:130:LYS:NZ	67:B1:1122:C:C5'	2.74	0.50
67:B1:2764:G:H1	67:B1:2788:U:H3	1.58	0.50
67:B1:658:C:H42	67:B1:662:A:H8	1.58	0.50
35:BL:113:LEU:HD21	67:B1:732:G:N7	2.26	0.50
35:BL:6:LYS:HD2	67:B1:947:C:H42	1.76	0.50
35:BL:132:LYS:HZ3	67:B1:734:C:P	2.20	0.50
50:BV:35:ARG:CG	50:BV:39:ARG:HE	2.22	0.50
21:A2:1332:C:C4'	25:AH:98:VAL:CG2	2.87	0.50
12:AN:50:ALA:CB	21:A2:359:A:OP1	2.58	0.50
21:A2:458:G:H3'	21:A2:459:G:C5'	2.41	0.50
21:A2:615:G:O6	21:A2:698:A:C6	2.64	0.50
7:AB:61:LYS:NZ	9:A9:25:UNK:H	2.08	0.50
6:AC:8:ILE:HG23	29:AL:66:LEU:CD1	2.41	0.50
12:AN:111:PRO:CD	21:A2:507:G:P	2.93	0.50
67:B1:1486:G:N3	67:B1:1486:G:H2'	2.25	0.50
34:B5:38:ALA:HA	34:B5:72:ARG:HH21	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:44:LYS:HA	67:B1:961:C:C2'	2.39	0.50
35:BL:47:TRP:O	35:BL:48:THR:HG22	2.12	0.50
21:A2:1490:C:N3	21:A2:1491:C:C5	2.79	0.50
18:AF:121:ILE:HG23	18:AF:121:ILE:O	2.11	0.50
18:AF:190:GLU:OE2	18:AF:192:ARG:HD2	2.11	0.50
18:AF:143:PHE:CE1	18:AF:213:ILE:CD1	2.94	0.50
25:AH:87:ARG:CA	25:AH:88:ARG:HD3	2.40	0.50
16:AJ:75:VAL:HG22	16:AJ:76:ARG:H	1.76	0.50
67:B1:1102:C:C4	67:B1:1103:C:C4	2.98	0.50
49:BQ:8:ARG:CZ	67:B1:1433:C:O3'	2.58	0.50
50:BV:35:ARG:NH2	67:B1:2801:G:H5''	2.19	0.50
33:BC:264:VAL:HG12	33:BC:265:MET:O	2.11	0.50
47:BI:77:ARG:HD3	47:BI:80:ARG:HH21	1.76	0.50
50:BV:43:MET:HE2	67:B1:1893:C:O4'	2.10	0.50
21:A2:1444:G:H2'	21:A2:1445:A:H5''	1.93	0.50
3:AI:4:LEU:CD2	21:A2:539:C:O2'	2.59	0.50
18:AF:100:ILE:O	18:AF:100:ILE:HG13	2.11	0.50
4:AG:69:LYS:HE3	21:A2:144:G:H5''	1.94	0.50
4:AG:73:PRO:HB3	21:A2:150:G:C5'	2.41	0.50
4:AG:86:VAL:HG11	21:A2:1413:G:O3'	2.12	0.50
12:AN:128:LYS:HE2	12:AN:131:ARG:HA	1.92	0.50
67:B1:2194:A:H2'	67:B1:2195:G:C8	2.47	0.50
48:BR:3:GLN:HB3	67:B1:2380:A:N1	2.26	0.50
67:B1:181:U:O2'	67:B1:810:A:C2	2.63	0.50
21:A2:1379:G:C6	21:A2:1437:G:C6	3.00	0.50
21:A2:1400:A:H2'	21:A2:1401:U:C6	2.47	0.50
67:B1:1845:C:H2'	67:B1:1846:G:O4'	2.11	0.50
67:B1:2260:C:H42	67:B1:2277:G:H22	1.59	0.50
35:BL:62:GLY:HA2	67:B1:2533:G:O3'	2.10	0.50
46:BA:20:LYS:CD	67:B1:1811:G:H8	173.08	0.50
35:BL:27:GLY:CA	67:B1:940:G:OP2	2.59	0.50
21:A2:138:C:H2'	21:A2:139:C:C6	2.47	0.50
10:AD:137:ILE:H	10:AD:137:ILE:CD1	2.24	0.50
18:AF:149:GLU:HG2	18:AF:196:ASN:CA	2.42	0.50
18:AF:170:VAL:HG13	18:AF:197:PHE:CD2	2.46	0.50
2:AK:50:ILE:HG12	25:AH:13:HIS:CE1	2.45	0.50
12:AN:50:ALA:HA	21:A2:359:A:C5'	2.42	0.50
67:B1:1431:U:C4	67:B1:1470:C:C2	2.99	0.50
67:B1:1689:G:N2	67:B1:1692:A:N7	2.59	0.50
35:BL:47:TRP:CZ2	67:B1:968:A:C2	2.99	0.50
49:BQ:118:LYS:HA	49:BQ:121:ARG:NE	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1195:U:OP2	25:AH:78:HIS:HA	2.12	0.50
12:AN:50:ALA:HB1	21:A2:359:A:OP1	2.12	0.50
21:A2:813:G:H8	21:A2:829:U:O4	1.95	0.50
21:A2:975:A:H2'	21:A2:976:A:C5'	2.41	0.50
18:AF:157:ILE:HG23	18:AF:158:PRO:HD2	1.93	0.50
12:AN:20:ARG:NH1	21:A2:516:A:H2	2.04	0.50
34:B5:16:ARG:HD2	67:B1:1566:G:O6	2.10	0.50
32:BO:14:ARG:HA	67:B1:2448:A:N6	2.27	0.50
35:BL:4:ARG:CD	67:B1:678:G:HO2'	2.22	0.50
12:AN:33:ARG:CZ	21:A2:509:C:OP2	2.60	0.50
3:AI:31:SER:HB3	21:A2:542:G:OP1	2.11	0.50
18:AF:40:ARG:HB3	18:AF:42:TYR:HD1	1.74	0.50
21:A2:901:G:H5''	25:AH:76:GLY:HA3	1.94	0.50
21:A2:1332:C:C2'	25:AH:98:VAL:CG2	2.89	0.50
25:AH:3:LYS:CD	30:AU:143:ILE:CD1	2.67	0.50
67:B1:1037:C:C2'	67:B1:1037:C:C6	2.94	0.50
67:B1:1632:U:O2	67:B1:1670:A:H2	1.94	0.50
67:B1:2265:C:H2'	67:B1:2266:C:C6	2.47	0.50
48:BR:70:GLY:CA	67:B1:2484:C:H5'	2.40	0.50
21:A2:1200:U:C2	25:AH:180:PHE:CB	2.95	0.50
21:A2:17:C:H4'	21:A2:843:G:C8	2.47	0.50
4:AG:97:LYS:CE	21:A2:87:C:OP1	2.58	0.50
18:AF:54:LEU:HD12	18:AF:61:GLU:HB3	1.91	0.50
18:AF:83:PHE:CE2	18:AF:106:VAL:CG2	2.95	0.50
25:AH:90:HIS:ND1	25:AH:91:ARG:HB2	2.27	0.50
10:AD:136:ILE:CA	28:AV:60:PHE:HE2	2.16	0.50
67:B1:1506:U:C4'	67:B1:1947:A:C2	2.93	0.50
46:BA:20:LYS:CG	67:B1:1811:G:H8	172.72	0.50
65:BJ:41:ILE:HG23	67:B1:2076:A:C2	2.46	0.50
31:BY:16:LYS:H	31:BY:16:LYS:HD2	1.77	0.50
4:AG:76:PRO:CB	21:A2:1404:C:H4'	2.42	0.49
21:A2:331:C:H2'	21:A2:332:C:C6	2.47	0.49
12:AN:107:GLY:O	21:A2:505:U:H4'	2.12	0.49
2:AK:39:GLU:HG2	25:AH:5:LEU:CD2	2.41	0.49
46:BA:20:LYS:C	67:B1:1811:G:C8	172.77	0.49
67:B1:410:C:H42	67:B1:443:C:H3'	1.76	0.49
52:BB:198:ASN:H	52:BB:201:ASN:HD22	1.60	0.49
25:AH:149:ALA:HB2	25:AH:215:ARG:HB3	1.93	0.49
28:AV:60:PHE:CG	28:AV:60:PHE:O	2.65	0.49
31:BY:13:VAL:HA	67:B1:1105:C:OP1	2.11	0.49
67:B1:1793:G:H22	67:B1:1898:A:H2	1.58	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:2305:U:H2'	67:B1:2306:C:C6	2.46	0.49
67:B1:2464:G:H1	67:B1:2484:C:H42	1.60	0.49
67:B1:2617:G:O4'	67:B1:2617:G:N9	2.40	0.49
31:BY:122:PRO:O	67:B1:1133:U:H4'	2.12	0.49
21:A2:1016:G:O6	21:A2:1153:G:C6	2.64	0.49
6:AC:140:ARG:NH1	21:A2:1156:A:H8	2.09	0.49
21:A2:1312:C:OP1	25:AH:79:TYR:CA	2.60	0.49
18:AF:16:TRP:CD2	18:AF:48:GLU:HG3	2.47	0.49
21:A2:932:C:H5'	29:AL:55:GLY:HA3	1.93	0.49
67:B1:1233:U:H3	67:B1:1235:A:H3'	1.76	0.49
40:BE:21:ARG:HA	67:B1:125:C:C2	154.26	0.49
67:B1:2570:A:H61	67:B1:2611:U:H3	1.59	0.49
53:BD:84:PRO:HD2	67:B1:806:C:H5'	1.93	0.49
35:BL:6:LYS:NZ	67:B1:1339:C:H41	2.11	0.49
37:BU:105:LEU:HB3	37:BU:112:ARG:HH12	1.76	0.49
21:A2:1046:G:H5''	21:A2:1047:U:H5	1.76	0.49
21:A2:1296:U:C4	25:AH:175:ARG:NE	2.81	0.49
21:A2:460:C:H5'	21:A2:461:A:H5''	1.93	0.49
18:AF:86:LEU:CD2	18:AF:195:VAL:HA	2.41	0.49
25:AH:90:HIS:HB2	25:AH:94:ASN:HB2	1.93	0.49
12:AN:111:PRO:HG2	12:AN:112:LYS:N	2.27	0.49
3:AI:28:LYS:CG	5:AW:4:PRO:HA	2.26	0.49
67:B1:1464:A:H61	67:B1:1477:C:H1'	1.76	0.49
48:BR:69:ARG:CZ	67:B1:2482:G:N2	2.75	0.49
67:B1:353:C:H2'	67:B1:354:G:H8	1.77	0.49
31:BY:7:ILE:HD13	31:BY:154:MET:SD	2.53	0.49
27:A0:21:G:H2'	27:A0:22:G:H5''	1.95	0.49
21:A2:1197:C:O2'	21:A2:1260:G:N2	2.45	0.49
4:AG:64:ARG:NH1	21:A2:152:G:O4'	2.46	0.49
18:AF:170:VAL:CG1	18:AF:197:PHE:CD2	2.94	0.49
4:AG:75:ARG:NH2	21:A2:1412:A:H1'	2.27	0.49
21:A2:1296:U:C4	25:AH:175:ARG:CZ	2.95	0.49
67:B1:1234:A:C8	67:B1:1234:A:O4'	2.65	0.49
67:B1:1745:U:H6	67:B1:1746:C:H5'	1.78	0.49
67:B1:263:U:H3	67:B1:295:G:H1	1.58	0.49
35:BL:25:HIS:NE2	67:B1:678:G:N1	2.48	0.49
68:B3:62:A:C2	68:B3:65:G:O6	2.65	0.49
32:BO:152:TYR:CZ	32:BO:156:LEU:HD11	2.47	0.49
4:AG:102:ARG:CG	21:A2:318:C:H4'	2.42	0.49
21:A2:459:G:H8	21:A2:477:G:H22	1.59	0.49
2:AK:39:GLU:CG	25:AH:5:LEU:HG	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BV:60:ARG:NH1	67:B1:3011:G:OP1	2.33	0.49
35:BL:15:HIS:HB2	67:B1:946:U:OP1	2.05	0.49
65:BJ:62:VAL:CG2	67:B1:2397:C:C5'	97.02	0.49
32:BO:25:LEU:CA	48:BR:28:LEU:HD12	2.42	0.49
21:A2:1148:G:H2'	21:A2:1149:C:H5'	1.94	0.49
18:AF:187:THR:CG2	21:A2:4:C:OP1	2.61	0.49
18:AF:5:TRP:CB	18:AF:55:PRO:HB2	2.43	0.49
18:AF:72:VAL:HG12	18:AF:73:ARG:N	2.28	0.49
21:A2:900:G:H5''	25:AH:74:SER:HA	1.95	0.49
12:AN:108:ILE:HD13	12:AN:125:LYS:HD2	1.94	0.49
12:AN:111:PRO:HB3	21:A2:506:G:O3'	2.12	0.49
12:AN:122:ILE:HG22	12:AN:124:TYR:H	1.78	0.49
12:AN:79:LYS:N	21:A2:358:G:OP1	2.46	0.49
67:B1:1821:C:C2	67:B1:2123:G:N2	2.81	0.49
67:B1:1934:C:O4'	67:B1:1934:C:C6	2.66	0.49
67:B1:2301:C:H2'	67:B1:2302:C:C6	2.46	0.49
65:BJ:87:LYS:NZ	67:B1:2398:C:H5''	108.25	0.49
67:B1:2491:C:H2'	67:B1:2492:G:C8	2.48	0.49
67:B1:2507:C:H6	67:B1:2507:C:C2'	2.26	0.49
67:B1:2568:A:H61	67:B1:2614:C:N4	2.02	0.49
54:BF:41:TRP:CD2	54:BF:42:PRO:HD2	2.47	0.49
65:BJ:44:VAL:HG12	65:BJ:45:GLU:HG3	1.93	0.49
21:A2:1311:C:C5'	25:AH:94:ASN:C	2.80	0.49
21:A2:28:U:H3	21:A2:503:G:H22	1.61	0.49
21:A2:428:G:C2	21:A2:442:C:N3	2.80	0.49
4:AG:64:ARG:CG	4:AG:122:LYS:HG2	2.42	0.49
4:AG:64:ARG:NH2	21:A2:151:G:N3	2.60	0.49
3:AI:79:PHE:HE2	8:AR:62:ARG:HD3	1.78	0.49
56:BH:2:PRO:HA	67:B1:1236:C:C6	2.48	0.49
67:B1:160:C:H2'	67:B1:161:C:C6	2.47	0.49
48:BR:4:LYS:HD3	67:B1:2390:G:C6	2.45	0.49
67:B1:564:U:C6	67:B1:2890:A:H2	2.30	0.49
35:BL:73:VAL:HG12	35:BL:74:ARG:H	1.77	0.49
21:A2:1452:G:H1'	21:A2:1473:A:H2	1.77	0.49
4:AG:102:ARG:CD	21:A2:318:C:O4'	2.61	0.49
21:A2:6:G:C6	21:A2:7:G:C6	3.01	0.49
3:AI:57:ARG:HA	21:A2:607:U:O5'	2.12	0.49
67:B1:1186:G:N9	67:B1:1186:G:O4'	2.38	0.49
40:BE:66:ARG:H	40:BE:66:ARG:HH11	1.59	0.49
6:AC:154:VAL:HG22	21:A2:1061:A:OP2	2.13	0.49
2:AK:46:LEU:HD23	25:AH:13:HIS:CA	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1333:G:C5'	25:AH:97:LYS:HG2	2.41	0.49
67:B1:1118:A:C6	67:B1:1119:A:N1	2.80	0.49
67:B1:685:G:C6	67:B1:686:C:C5	3.01	0.49
35:BL:6:LYS:CD	67:B1:1339:C:H41	2.21	0.49
49:BQ:115:ILE:HB	49:BQ:120:TYR:CE1	2.48	0.49
21:A2:88:G:C8	21:A2:88:G:O4'	2.65	0.48
18:AF:53:LEU:O	18:AF:55:PRO:HD3	2.13	0.48
2:AK:50:ILE:CD1	25:AH:13:HIS:CG	2.92	0.48
48:BR:70:GLY:HA3	67:B1:2484:C:P	2.53	0.48
67:B1:817:G:O4'	67:B1:817:G:C8	2.65	0.48
68:B3:25:A:N6	68:B3:51:U:H3	2.10	0.48
20:BG:36:THR:HB	59:BM:3:MET:SD	2.53	0.48
50:BV:1:MET:HG2	50:BV:2:ALA:H	1.77	0.48
50:BV:48:ARG:HA	50:BV:56:TYR:HB3	1.95	0.48
34:B5:31:ASN:HD21	57:BZ:25:ARG:HH12	1.58	0.48
18:AF:157:ILE:HG22	18:AF:158:PRO:O	2.13	0.48
18:AF:83:PHE:CE2	18:AF:106:VAL:HG22	2.48	0.48
18:AF:84:ARG:NH1	21:A2:1031:G:C5'	2.76	0.48
67:B1:159:C:O2	67:B1:160:C:C6	2.65	0.48
35:BL:41:LYS:HG2	67:B1:185:A:OP2	2.12	0.48
48:BR:69:ARG:HH12	67:B1:2483:U:H1'	1.77	0.48
65:BJ:41:ILE:HD11	65:BJ:65:THR:OG1	2.13	0.48
21:A2:1332:C:H4'	25:AH:98:VAL:HG22	1.93	0.48
21:A2:367:G:C8	21:A2:367:G:O4'	2.66	0.48
21:A2:29:G:H1	21:A2:502:U:H3	1.61	0.48
21:A2:21:A:N6	21:A2:511:C:H1'	2.28	0.48
18:AF:73:ARG:HD2	21:A2:879:U:H4'	1.93	0.48
7:AB:111:GLU:HB3	18:AF:21:LYS:HE3	1.95	0.48
18:AF:119:LEU:N	18:AF:119:LEU:HD22	2.28	0.48
25:AH:12:PRO:HB2	25:AH:43:LEU:HD21	1.95	0.48
29:AL:59:ALA:CB	29:AL:61:PHE:CZ	2.96	0.48
14:AM:79:VAL:HG12	14:AM:80:HIS:O	2.14	0.48
13:AX:61:GLU:HB3	14:AM:61:MET:CE	2.42	0.48
56:BH:124:LYS:HD2	67:B1:1219:C:O2'	2.13	0.48
67:B1:2465:A:H61	67:B1:2483:U:H3	1.59	0.48
67:B1:2798:U:C5	67:B1:2799:C:C5	3.01	0.48
53:BD:87:ARG:CZ	67:B1:487:U:C2	2.96	0.48
44:BW:42:MET:HB2	67:B1:96:C:H4'	1.95	0.48
21:A2:1341:C:H2'	21:A2:1342:C:H6	1.78	0.48
21:A2:453:G:N2	21:A2:498:C:O2	2.47	0.48
21:A2:898:G:C2	21:A2:899:G:C5	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AB:104:PRO:CG	18:AF:19:LYS:NZ	2.57	0.48
4:AG:40:ALA:HB3	4:AG:59:VAL:HG13	1.94	0.48
21:A2:1333:G:C5	25:AH:48:HIS:CE1	2.94	0.48
67:B1:1348:G:H1	67:B1:1382:C:H42	1.60	0.48
34:B5:47:ARG:O	67:B1:1567:C:O2	2.31	0.48
20:BG:37:ASN:OD1	59:BM:4:TYR:CE1	2.66	0.48
20:BG:52:ILE:HD11	20:BG:80:VAL:HG23	1.94	0.48
31:BY:29:HIS:N	31:BY:29:HIS:ND1	2.60	0.48
21:A2:900:G:OP1	25:AH:73:ARG:HG2	2.13	0.48
18:AF:174:ILE:HD11	18:AF:198:ALA:HB1	1.96	0.48
18:AF:201:VAL:HG22	18:AF:205:LEU:CD1	2.43	0.48
26:AP:47:ALA:HB1	29:AL:64:TRP:CZ3	2.48	0.48
67:B1:2837:C:C4	67:B1:2838:U:C4	3.02	0.48
35:BL:44:LYS:N	67:B1:961:C:H4'	2.29	0.48
68:B3:25:A:C2	68:B3:53:A:N6	2.81	0.48
34:B5:50:ILE:HD13	57:BZ:28:LYS:HE3	1.93	0.48
56:BH:90:PRO:HA	56:BH:133:MET:HG2	1.95	0.48
11:A1:42:C:H2'	11:A1:43:G:H5''	1.96	0.48
21:A2:28:U:H3	21:A2:503:G:H1	1.61	0.48
18:AF:33:ASP:OD1	18:AF:35:HIS:HD2	1.96	0.48
67:B1:1713:G:C3'	67:B1:1714:G:H5''	2.42	0.48
56:BH:19:PRO:HB2	56:BH:20:PRO:HD2	1.94	0.48
47:BI:30:ILE:CG2	47:BI:99:VAL:HG22	2.43	0.48
21:A2:1249:A:H2'	21:A2:1250:C:H5'	1.96	0.48
21:A2:1334:A:H4'	25:AH:69:ASN:HD22	1.76	0.48
21:A2:898:G:N1	21:A2:899:G:C6	2.81	0.48
18:AF:187:THR:HG21	21:A2:4:C:P	2.54	0.48
25:AH:97:LYS:HA	25:AH:100:ALA:HB3	1.96	0.48
67:B1:1036:C:O4'	67:B1:1036:C:C6	2.67	0.48
67:B1:1842:C:H2'	67:B1:1843:C:C6	2.48	0.48
65:BJ:62:VAL:HG23	67:B1:2397:C:H5'	96.51	0.48
67:B1:2823:G:H2'	67:B1:2824:C:C6	2.49	0.48
67:B1:409:C:H2'	67:B1:409:C:O2	2.14	0.48
35:BL:113:LEU:HD21	67:B1:732:G:C8	2.49	0.48
67:B1:85:G:H2'	67:B1:86:G:C8	2.48	0.48
35:BL:11:LEU:HB3	67:B1:948:C:H5	1.77	0.48
53:BD:2:LYS:HB3	54:BF:1:MET:HE1	129.40	0.48
20:BG:52:ILE:HD12	20:BG:78:ILE:HG23	1.95	0.48
21:A2:690:C:H2'	21:A2:691:G:C8	2.49	0.48
18:AF:165:LEU:HD22	18:AF:175:LEU:HD12	1.95	0.48
1:AQ:15:LYS:CB	3:AI:57:ARG:NH1	2.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1111:G:O6	67:B1:1123:A:C2	2.67	0.48
68:B3:87:G:H1'	68:B3:90:A:N6	2.29	0.48
53:BD:154:THR:HG23	53:BD:214:HIS:CE1	2.49	0.48
31:BY:15:VAL:HG13	31:BY:19:VAL:HG13	1.94	0.48
21:A2:1115:G:C6	21:A2:1116:G:C6	3.02	0.48
21:A2:460:C:H3'	21:A2:461:A:C5'	2.44	0.48
15:AE:64:LYS:HZ3	28:AV:81:ILE:HG12	1.79	0.48
67:B1:1035:G:H2'	67:B1:1036:C:C5	2.49	0.48
49:BQ:57:GLY:CA	67:B1:1620:C:OP1	2.62	0.48
67:B1:1752:C:H2'	67:B1:1753:G:C8	2.49	0.48
67:B1:537:U:C2	67:B1:540:A:C8	3.01	0.48
35:BL:12:ARG:C	35:BL:14:SER:H	2.16	0.48
58:BP:64:VAL:HG12	58:BP:66:GLY:H	1.79	0.48
21:A2:1248:A:O2'	25:AH:81:VAL:CG2	2.62	0.48
18:AF:166:VAL:HG12	21:A2:1:A:OP2	2.09	0.48
21:A2:898:G:N1	21:A2:899:G:O6	2.47	0.48
12:AN:135:LYS:CE	21:A2:29:G:C2'	2.92	0.48
12:AN:50:ALA:CA	21:A2:359:A:H5'	2.44	0.48
17:AO:23:TRP:CH2	21:A2:1262:U:C4	3.02	0.48
13:AX:7:TYR:CE2	13:AX:31:ILE:HG12	2.49	0.48
31:BY:14:ASN:HA	67:B1:1104:A:O3'	2.14	0.48
67:B1:1977:C:N4	67:B1:2022:U:H2'	2.29	0.48
67:B1:831:C:H5''	67:B1:1791:A:N6	2.25	0.48
40:BE:66:ARG:H	40:BE:66:ARG:HD3	1.78	0.48
56:BH:1:MET:HA	67:B1:1233:U:O2	2.13	0.48
56:BH:27:PRO:HD2	56:BH:57:VAL:HG21	1.95	0.48
21:A2:1311:C:H1'	25:AH:96:LYS:CG	2.43	0.47
21:A2:1441:G:H2'	21:A2:1442:G:O4'	2.14	0.47
12:AN:24:ARG:NH1	21:A2:298:C:H5''	2.22	0.47
21:A2:458:G:C2	21:A2:479:C:O2	2.67	0.47
18:AF:64:GLU:OE2	18:AF:66:LEU:HD23	2.14	0.47
4:AG:102:ARG:NH2	21:A2:317:A:H1'	2.29	0.47
21:A2:1112:G:H5'	29:AL:71:ARG:NH2	2.28	0.47
67:B1:1143:A:H8	67:B1:1143:A:H5'	1.79	0.47
40:BE:1:MET:O	67:B1:1920:A:C2	133.98	0.47
35:BL:75:VAL:HG21	67:B1:732:G:O6	2.13	0.47
21:A2:914:U:H3	21:A2:1185:A:N6	2.12	0.47
21:A2:664:G:C6	21:A2:665:G:C5	3.02	0.47
21:A2:734:G:C2	21:A2:755:U:C5	3.02	0.47
21:A2:1332:C:C4'	25:AH:98:VAL:HG21	2.44	0.47
1:AQ:63:VAL:HG21	1:AQ:78:ILE:HG12	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BC:108:ASN:CA	33:BC:172:TRP:CZ2	2.97	0.47
50:BV:14:PHE:HE2	65:BJ:95:MET:SD	2.37	0.47
21:A2:1115:G:C6	21:A2:1116:G:C5	3.03	0.47
21:A2:1220:G:N2	21:A2:1235:A:H62	2.12	0.47
21:A2:457:G:H2'	21:A2:458:G:H8	1.78	0.47
10:AD:59:LEU:CD1	18:AF:132:GLU:CD	2.79	0.47
67:B1:1177:C:N4	67:B1:1256:G:H1	2.09	0.47
67:B1:1570:C:H5''	67:B1:1666:G:HO2'	1.79	0.47
65:BJ:48:GLY:C	67:B1:189:U:H1'	87.74	0.47
54:BF:130:VAL:HG22	54:BF:139:VAL:HG22	1.96	0.47
3:AI:31:SER:CA	21:A2:542:G:H5''	2.44	0.47
7:AB:111:GLU:HB3	18:AF:21:LYS:CE	2.44	0.47
18:AF:174:ILE:HD12	18:AF:201:VAL:CG1	2.44	0.47
18:AF:5:TRP:CD1	18:AF:6:LYS:N	2.81	0.47
3:AI:57:ARG:NE	21:A2:607:U:C5'	2.73	0.47
3:AI:28:LYS:HG3	5:AW:4:PRO:CB	2.40	0.47
67:B1:2445:G:N2	67:B1:2450:A:C8	2.82	0.47
67:B1:2897:C:H2'	67:B1:2898:G:C8	2.49	0.47
68:B3:18:G:H21	68:B3:20:G:H22	1.61	0.47
40:BE:1:MET:CG	67:B1:1920:A:H61	139.75	0.47
35:BL:9:ARG:HG3	35:BL:12:ARG:N	2.29	0.47
35:BL:7:LYS:HG3	35:BL:9:ARG:NH2	2.30	0.47
31:BY:55:THR:HG23	31:BY:139:ALA:O	2.14	0.47
4:AG:120:ASN:HB2	21:A2:151:G:H4'	1.95	0.47
21:A2:289:C:H42	21:A2:300:G:H1	1.62	0.47
7:AB:151:ASP:O	9:A9:44:UNK:HA	2.15	0.47
31:BY:125:GLY:HA2	67:B1:1133:U:H4'	1.61	0.47
67:B1:1347:U:H3	67:B1:1383:G:H1	1.62	0.47
67:B1:1569:A:O2'	67:B1:1638:C:C1'	2.43	0.47
67:B1:2507:C:C1'	67:B1:2507:C:O2'	2.55	0.47
35:BL:10:LYS:CB	67:B1:947:C:C5'	2.93	0.47
47:BI:8:GLY:O	67:B1:839:A:H4'	127.12	0.47
65:BJ:87:LYS:HZ3	67:B1:2398:C:H5''	107.81	0.47
31:BY:122:PRO:HG2	31:BY:126:PHE:HA	1.95	0.47
21:A2:166:A:H61	21:A2:196:G:C1'	2.16	0.47
21:A2:458:G:H3'	21:A2:459:G:H5''	1.95	0.47
31:BY:123:ARG:HA	67:B1:1133:U:O5'	2.15	0.47
67:B1:2796:C:H2'	67:B1:2797:C:H5''	1.96	0.47
35:BL:11:LEU:O	67:B1:948:C:OP2	2.31	0.47
35:BL:48:THR:HG21	67:B1:969:U:O4'	2.14	0.47
46:BA:20:LYS:HD3	67:B1:1811:G:H8	172.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BC:108:ASN:CB	33:BC:172:TRP:CZ2	2.63	0.47
50:BV:43:MET:CE	50:BV:45:ARG:HE	2.28	0.47
31:BY:21:ASP:O	31:BY:25:MET:HG3	2.15	0.47
57:BZ:28:LYS:HB2	57:BZ:52:TYR:CE1	2.49	0.47
11:A1:51:G:O4'	11:A1:51:G:N9	2.41	0.47
21:A2:428:G:N2	21:A2:442:C:C2	2.66	0.47
20:A3:94:VAL:HG13	21:A2:959:G:H21	1.79	0.47
18:AF:13:LEU:HA	18:AF:27:LYS:HZ3	1.79	0.47
18:AF:163:LEU:HD21	18:AF:166:VAL:HG11	1.93	0.47
29:AL:42:THR:HA	29:AL:68:VAL:O	2.14	0.47
26:AP:52:PHE:HD2	29:AL:64:TRP:HE3	1.59	0.47
56:BH:50:GLN:NE2	67:B1:1207:G:OP1	2.47	0.47
67:B1:2225:C:O4'	67:B1:2225:C:C6	2.67	0.47
53:BD:174:LYS:HE3	67:B1:363:G:H22	1.80	0.47
57:BZ:35:ILE:HD11	57:BZ:53:ALA:HB2	1.96	0.47
4:AG:99:LYS:HG3	21:A2:319:U:H1'	1.97	0.47
18:AF:157:ILE:HG22	18:AF:158:PRO:N	2.28	0.47
67:B1:2376:U:H2'	67:B1:2377:C:C6	2.50	0.47
67:B1:273:G:H1	67:B1:283:U:H3	1.62	0.47
67:B1:1870:G:H4'	67:B1:2998:G:H5'	1.97	0.47
67:B1:393:C:H2'	67:B1:394:A:OP1	2.13	0.47
35:BL:9:ARG:HD3	67:B1:948:C:H41	1.79	0.47
49:BQ:39:GLU:O	49:BQ:43:ARG:HG3	2.15	0.47
21:A2:1195:U:OP1	25:AH:79:TYR:CB	2.62	0.47
21:A2:1387:C:H2'	21:A2:1388:G:C8	2.49	0.47
21:A2:202:G:H2'	21:A2:203:A:C8	2.50	0.47
21:A2:716:G:C5	21:A2:717:C:C5	3.02	0.47
21:A2:75:C:O2	21:A2:75:C:O4'	2.29	0.47
21:A2:901:G:H5'	25:AH:76:GLY:CA	2.44	0.47
18:AF:86:LEU:CG	18:AF:100:ILE:HG22	2.21	0.47
25:AH:118:ASN:OD1	25:AH:120:ILE:HG22	2.15	0.47
25:AH:69:ASN:O	25:AH:72:MET:HG2	2.15	0.47
67:B1:2920:C:C6	67:B1:2920:C:O4'	2.68	0.47
67:B1:453:U:H3	67:B1:2527:G:H1	1.63	0.47
20:BG:57:VAL:HG21	20:BG:97:ALA:HB1	1.97	0.47
35:BL:119:THR:HG21	58:BP:73:LYS:NZ	2.28	0.47
21:A2:1111:G:H5''	29:AL:42:THR:H	1.79	0.47
21:A2:1131:G:H2'	21:A2:1132:C:C6	2.49	0.47
21:A2:1194:C:OP2	25:AH:77:SER:CB	2.62	0.47
21:A2:917:A:C6	21:A2:918:A:N1	2.83	0.47
18:AF:122:ILE:CD1	18:AF:206:TYR:CE2	2.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:92:PRO:HG3	21:A2:1412:A:HO2'	0.64	0.47
67:B1:1083:G:C6	67:B1:1084:G:C5	3.03	0.47
67:B1:1229:U:H2'	67:B1:1230:G:C8	2.49	0.47
67:B1:1702:C:O2	67:B1:1702:C:H2'	2.15	0.47
67:B1:1506:U:O2'	67:B1:1947:A:H2	1.97	0.47
67:B1:787:G:H21	67:B1:788:A:H62	1.62	0.47
67:B1:789:G:H2'	67:B1:790:U:C6	2.50	0.47
35:BL:15:HIS:O	67:B1:945:U:C2	2.68	0.47
60:BS:72:HIS:HE1	67:B1:2738:G:N3	2.12	0.47
21:A2:1333:G:H5''	25:AH:97:LYS:CG	2.45	0.47
21:A2:68:G:C6	21:A2:69:U:C4	3.03	0.47
25:AH:76:GLY:H	25:AH:94:ASN:ND2	2.12	0.47
30:AU:45:PRO:HB2	30:AU:47:GLN:HE21	1.79	0.47
67:B1:116:G:C6	67:B1:118:A:N6	2.83	0.47
56:BH:2:PRO:HD3	67:B1:1236:C:O5'	2.15	0.47
34:B5:50:ILE:CD1	57:BZ:28:LYS:HZ2	2.05	0.47
21:A2:45:U:O4	21:A2:358:G:N2	2.48	0.46
21:A2:516:A:H5'	21:A2:519:G:N2	2.30	0.46
6:AC:92:ALA:HA	6:AC:182:ILE:HD12	1.96	0.46
18:AF:193:THR:HG22	18:AF:196:ASN:H	1.79	0.46
25:AH:111:ILE:HG23	25:AH:119:PRO:HB3	1.97	0.46
3:AI:57:ARG:HG2	21:A2:607:U:O5'	2.15	0.46
13:AX:61:GLU:CG	14:AM:107:ARG:HB3	2.45	0.46
67:B1:1318:G:C6	67:B1:1319:U:C4	3.03	0.46
67:B1:1708:U:H3'	67:B1:1709:C:C6	2.50	0.46
67:B1:1409:U:C5	67:B1:2136:G:N2	2.84	0.46
67:B1:2861:A:C2	67:B1:2870:A:C4	3.03	0.46
67:B1:409:C:H3'	67:B1:410:C:C6	2.50	0.46
67:B1:719:C:C6	67:B1:719:C:O4'	2.68	0.46
46:BA:154:ARG:HE	67:B1:2246:G:H5'	1.79	0.46
35:BL:11:LEU:HD22	67:B1:949:C:H41	1.79	0.46
35:BL:66:PRO:HG3	67:B1:2523:C:C6	2.50	0.46
59:BM:118:TRP:CZ2	59:BM:120:GLY:HA2	2.50	0.46
32:BO:8:ARG:H	48:BR:23:ARG:HB3	1.80	0.46
57:BZ:37:VAL:HG13	57:BZ:62:GLU:HA	1.97	0.46
21:A2:50:C:H2'	21:A2:348:C:H41	1.80	0.46
18:AF:183:VAL:HG13	18:AF:183:VAL:O	2.15	0.46
25:AH:68:ILE:HG21	25:AH:97:LYS:HG3	1.97	0.46
3:AI:31:SER:HB2	21:A2:542:G:OP1	2.15	0.46
67:B1:1029:C:C3'	67:B1:1030:C:H5'	2.45	0.46
31:BY:121:PRO:CG	67:B1:1132:U:O2'	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1643:A:H2'	67:B1:1657:G:C2	2.49	0.46
67:B1:1745:U:C6	67:B1:1746:C:H5'	2.50	0.46
67:B1:422:G:C6	67:B1:423:G:C5	3.02	0.46
67:B1:864:C:H2'	67:B1:865:C:H6	1.79	0.46
46:BA:41:ARG:CZ	67:B1:3029:A:C1'	156.71	0.46
56:BH:59:PRO:HA	56:BH:62:LYS:HG2	1.97	0.46
12:AN:118:ASP:HB3	21:A2:476:C:H42	1.80	0.46
21:A2:677:U:C2	21:A2:1493:C:H5'	2.50	0.46
33:BC:95:THR:HG21	67:B1:2896:G:H21	1.80	0.46
67:B1:324:C:H2'	67:B1:325:G:C8	2.51	0.46
33:BC:136:PRO:HA	33:BC:137:LYS:HB2	1.97	0.46
56:BH:120:LYS:HE3	56:BH:124:LYS:HE2	1.98	0.46
35:BL:25:HIS:CB	67:B1:804:C:N4	2.74	0.46
49:BQ:84:LYS:HG2	67:B1:1843:C:OP1	2.14	0.46
27:A0:32:C:C5	27:A0:33:U:C5	3.02	0.46
21:A2:1492:U:C4	21:A2:1493:C:C5	3.04	0.46
21:A2:199:A:N9	21:A2:199:A:O4'	2.41	0.46
21:A2:200:G:N2	21:A2:201:G:H1'	2.30	0.46
21:A2:797:U:H1'	21:A2:800:G:O6	2.16	0.46
21:A2:901:G:C5'	25:AH:76:GLY:HA3	2.45	0.46
21:A2:1334:A:C2'	25:AH:69:ASN:ND2	2.79	0.46
21:A2:1240:A:C8	29:AL:40:LEU:HD22	2.49	0.46
26:AP:52:PHE:CG	29:AL:64:TRP:CE3	3.03	0.46
67:B1:1029:C:H3'	67:B1:1030:C:H5'	1.96	0.46
67:B1:2517:U:H2'	67:B1:2518:G:C8	2.51	0.46
67:B1:2789:G:H2'	67:B1:2790:C:C6	2.51	0.46
67:B1:479:G:H2'	67:B1:480:A:H5'	1.96	0.46
67:B1:715:G:O4'	67:B1:715:G:C8	2.68	0.46
33:BC:128:LEU:HD11	33:BC:135:LEU:HD13	1.96	0.46
33:BC:85:ALA:HB1	33:BC:160:ILE:HD11	1.97	0.46
40:BE:120:HIS:CG	40:BE:121:ILE:N	2.83	0.46
56:BH:16:THR:H	56:BH:21:LEU:HD22	1.80	0.46
21:A2:651:U:H2'	21:A2:652:C:H5'	1.97	0.46
21:A2:74:U:O2	21:A2:74:U:H2'	2.16	0.46
3:AI:95:PRO:HB2	18:AF:143:PHE:CD2	2.51	0.46
18:AF:48:GLU:HA	18:AF:48:GLU:OE1	2.15	0.46
3:AI:76:LYS:HB3	3:AI:77:PRO:HD3	1.97	0.46
67:B1:1260:C:H2'	67:B1:1261:C:C6	2.50	0.46
67:B1:1568:A:HO2'	67:B1:1568:A:C2'	2.12	0.46
67:B1:1924:A:H2'	67:B1:1925:A:H2'	1.97	0.46
67:B1:2312:U:H2'	67:B1:2313:G:H8	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:2768:C:C5	67:B1:2769:U:C5	3.04	0.46
67:B1:836:U:H2'	67:B1:837:G:O4'	2.16	0.46
33:BC:107:ASP:HB2	33:BC:123:THR:HB	1.98	0.46
20:BG:3:LYS:CB	20:BG:55:GLU:HB3	2.45	0.46
35:BL:9:ARG:HB2	35:BL:11:LEU:N	2.29	0.46
21:A2:1118:C:N3	21:A2:1141:G:N2	2.63	0.46
21:A2:1283:G:H2'	21:A2:1284:C:C6	2.50	0.46
3:AI:57:ARG:N	21:A2:607:U:OP1	2.49	0.46
25:AH:58:LYS:O	25:AH:61:VAL:HG23	2.16	0.46
25:AH:90:HIS:CG	25:AH:91:ARG:N	2.83	0.46
21:A2:1311:C:C4'	25:AH:95:SER:HA	2.45	0.46
67:B1:1628:C:H2'	67:B1:1629:G:C8	2.50	0.46
31:BY:8:ARG:HB3	31:BY:28:LEU:HD22	1.97	0.46
21:A2:1072:C:O4'	21:A2:1072:C:C6	2.69	0.46
7:AB:61:LYS:HZ3	9:A9:25:UNK:H	1.64	0.46
18:AF:124:ILE:HD12	18:AF:205:LEU:HB3	1.98	0.46
18:AF:65:VAL:HG13	18:AF:85:VAL:CG1	2.45	0.46
3:AI:95:PRO:HG2	18:AF:143:PHE:CE2	2.51	0.46
31:BY:126:PHE:CE1	67:B1:1134:A:O3'	2.69	0.46
67:B1:2225:C:N4	67:B1:2310:G:H1	2.14	0.46
67:B1:2796:C:C2'	67:B1:2797:C:H5''	2.45	0.46
35:BL:11:LEU:CB	67:B1:948:C:H5	2.28	0.46
35:BL:119:THR:OG1	58:BP:73:LYS:HE3	2.14	0.46
49:BQ:64:LYS:NZ	67:B1:1603:G:H5''	2.29	0.46
21:A2:218:C:N1	21:A2:218:C:O4'	2.41	0.46
21:A2:985:C:H3'	21:A2:986:G:C2	2.51	0.46
10:AD:135:GLN:HB3	28:AV:60:PHE:CE1	2.51	0.46
18:AF:19:LYS:HB2	18:AF:46:GLU:OE2	2.16	0.46
2:AK:47:GLU:HB3	25:AH:42:ARG:HH21	1.79	0.46
30:AU:39:ARG:HE	30:AU:39:ARG:HA	1.81	0.46
21:A2:434:A:N3	28:AV:85:TYR:HD1	1.99	0.46
67:B1:2476:A:O4'	67:B1:2476:A:N9	2.42	0.46
48:BR:69:ARG:HB2	67:B1:2483:U:O2'	2.16	0.46
67:B1:2587:G:O4'	67:B1:2587:G:N9	2.44	0.46
67:B1:259:A:C2	67:B1:412:G:C4	3.03	0.46
67:B1:43:G:O6	67:B1:474:G:N2	2.49	0.46
68:B3:57:C:O4'	68:B3:57:C:C6	2.68	0.46
20:B4:57:VAL:CG1	20:B4:63:VAL:HG21	2.45	0.46
20:B4:52:ILE:HD12	20:B4:78:ILE:HG23	1.97	0.46
34:B5:46:ARG:HA	67:B1:1567:C:C4'	2.46	0.46
35:BL:7:LYS:NZ	67:B1:1335:C:P	2.88	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BQ:110:LYS:HA	49:BQ:120:TYR:CZ	2.50	0.46
49:BQ:73:GLY:HA2	67:B1:1884:C:N4	2.25	0.46
57:BZ:53:ALA:HA	57:BZ:58:ILE:HD12	1.98	0.46
21:A2:806:G:H2'	21:A2:807:C:C6	2.51	0.46
21:A2:859:A:C5	21:A2:860:G:H1'	2.51	0.46
18:AF:164:GLY:HA2	18:AF:182:ASP:OD1	2.15	0.46
4:AG:64:ARG:HD3	4:AG:122:LYS:HG2	1.97	0.46
49:BQ:8:ARG:CZ	67:B1:1434:C:OP1	2.64	0.46
67:B1:1600:G:C8	67:B1:1600:G:H3'	2.51	0.46
67:B1:2489:C:C6	67:B1:2489:C:O4'	2.68	0.46
35:BL:66:PRO:HB3	67:B1:2523:C:C2	2.50	0.46
21:A2:134:A:H2'	21:A2:135:U:C6	2.50	0.46
21:A2:8:U:C2'	21:A2:8:U:C6	2.99	0.46
21:A2:1248:A:HO2'	25:AH:81:VAL:HG22	1.81	0.46
8:AR:63:TYR:CA	12:AN:10:GLU:O	2.63	0.46
8:AR:63:TYR:HB2	12:AN:10:GLU:O	2.16	0.46
56:BH:1:MET:HA	67:B1:1233:U:C2	2.51	0.46
67:B1:1559:A:H2'	67:B1:1560:G:C8	2.51	0.46
67:B1:2227:G:H1	67:B1:2308:C:H42	1.63	0.46
67:B1:978:C:H2'	67:B1:979:G:C8	2.51	0.46
35:BL:7:LYS:O	35:BL:9:ARG:HG2	2.16	0.46
27:A0:12:U:H4'	67:B1:2032:G:H21	1.81	0.45
21:A2:1450:U:H2'	21:A2:1451:C:C6	2.52	0.45
21:A2:203:A:H2'	21:A2:204:G:C8	2.52	0.45
6:AC:4:GLU:OE1	29:AL:45:ILE:CB	2.64	0.45
18:AF:40:ARG:CB	18:AF:42:TYR:HD1	2.28	0.45
4:AG:40:ALA:HB3	4:AG:59:VAL:CG1	2.47	0.45
2:AK:39:GLU:CG	25:AH:5:LEU:CG	2.94	0.45
21:A2:1196:A:P	25:AH:88:ARG:CZ	3.03	0.45
25:AH:87:ARG:HG3	25:AH:90:HIS:CB	2.46	0.45
13:AX:18:THR:HG22	13:AX:19:GLY:H	1.80	0.45
13:AX:71:ARG:CZ	21:A2:1041:C:P	3.04	0.45
67:B1:956:U:O4	67:B1:1107:G:N3	2.49	0.45
67:B1:1407:A:C8	67:B1:1409:U:C2	3.04	0.45
67:B1:1570:C:C6	67:B1:1570:C:O4'	2.69	0.45
67:B1:1616:A:H2	67:B1:2817:U:H3	1.63	0.45
48:BR:69:ARG:HH22	67:B1:2483:U:C1'	2.28	0.45
21:A2:1072:C:O4'	21:A2:1072:C:N1	2.42	0.45
12:AN:135:LYS:CG	21:A2:29:G:O2'	2.64	0.45
12:AN:23:PHE:O	21:A2:515:U:N3	2.49	0.45
21:A2:988:A:H2'	21:A2:989:C:H5'	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AH:7:GLU:HB2	30:AU:144:ILE:O	2.16	0.45
12:AN:49:GLN:O	21:A2:359:A:C8	2.69	0.45
13:AX:9:ALA:HB1	13:AX:29:VAL:HG12	1.97	0.45
67:B1:51:G:H1'	67:B1:117:A:N6	2.32	0.45
67:B1:45:G:C8	67:B1:204:G:O2'	2.69	0.45
35:BL:77:ASN:ND2	67:B1:723:A:C8	2.81	0.45
31:BY:135:LYS:HZ3	68:B3:95:G:H5''	1.80	0.45
21:A2:742:U:C4	21:A2:743:U:C4	3.05	0.45
21:A2:825:C:O2	21:A2:831:A:H2	1.98	0.45
18:AF:67:ASP:O	18:AF:85:VAL:HA	2.17	0.45
4:AG:94:PHE:CZ	21:A2:148:C:O2'	2.69	0.45
3:AI:57:ARG:NH2	21:A2:607:U:C4'	2.74	0.45
16:AJ:48:THR:HB	21:A2:258:A:H5'	1.99	0.45
67:B1:1568:A:O2'	67:B1:1568:A:H2'	1.96	0.45
54:BF:94:TYR:CD2	54:BF:99:ILE:HG22	2.51	0.45
56:BH:116:ALA:HB1	56:BH:122:ALA:HB2	1.98	0.45
50:BV:14:PHE:CZ	65:BJ:95:MET:HE1	2.44	0.45
35:BL:44:LYS:CE	67:B1:960:C:O2'	2.63	0.45
48:BR:87:PHE:HE1	67:B1:2482:G:O2'	1.96	0.45
21:A2:423:U:C6	21:A2:423:U:H2'	2.51	0.45
21:A2:616:G:C2	21:A2:698:A:C6	3.05	0.45
18:AF:174:ILE:CD1	18:AF:201:VAL:CG1	2.94	0.45
31:BY:14:ASN:N	67:B1:1105:C:OP1	2.37	0.45
50:BV:45:ARG:NE	67:B1:1893:C:OP1	2.49	0.45
67:B1:2507:C:H2'	67:B1:2507:C:H6	1.82	0.45
35:BL:63:PHE:CE1	67:B1:2532:G:N2	2.83	0.45
35:BL:119:THR:HG21	58:BP:73:LYS:HE2	1.89	0.45
50:BV:10:CYS:HA	50:BV:53:THR:HG23	1.99	0.45
31:BY:123:ARG:H	31:BY:153:ARG:HB3	1.80	0.45
11:A1:34:U:H5'	25:AH:138:SER:HB3	1.97	0.45
21:A2:842:U:H4'	21:A2:843:G:H5''	1.99	0.45
18:AF:167:ILE:HG21	18:AF:172:LYS:HA	1.98	0.45
4:AG:19:VAL:HG13	4:AG:50:LEU:H	1.82	0.45
67:B1:1610:C:H2'	67:B1:1611:C:C6	2.52	0.45
67:B1:539:A:H2'	67:B1:540:A:H5''	1.99	0.45
67:B1:864:C:H2'	67:B1:865:C:C6	2.51	0.45
53:BD:83:VAL:O	53:BD:90:ARG:N	2.50	0.45
20:BG:42:ALA:HB1	20:BG:48:ALA:HB2	1.99	0.45
49:BQ:55:ILE:O	67:B1:1620:C:H5'	2.17	0.45
48:BR:49:TYR:CE2	48:BR:91:VAL:HG21	2.52	0.45
50:BV:14:PHE:CZ	50:BV:19:GLY:HA3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BV:4:TRP:CE2	50:BV:6:VAL:HG22	2.52	0.45
21:A2:156:A:C2	21:A2:157:A:C2	3.04	0.45
18:AF:108:ILE:HG23	18:AF:109:ALA:N	2.31	0.45
18:AF:34:ILE:HD11	18:AF:121:ILE:HD13	1.99	0.45
67:B1:2483:U:C5	67:B1:2499:U:C4	3.04	0.45
34:B5:46:ARG:CB	67:B1:1567:C:H4'	2.46	0.45
53:BD:63:LYS:HD3	53:BD:69:ARG:HH11	1.82	0.45
53:BD:83:VAL:HG21	53:BD:86:ALA:HB3	1.98	0.45
20:BG:33:ARG:O	20:BG:99:VAL:HG13	2.17	0.45
34:B5:50:ILE:CD1	57:BZ:28:LYS:CE	2.86	0.45
21:A2:1196:A:OP1	25:AH:88:ARG:NH1	2.48	0.45
18:AF:167:ILE:CG1	18:AF:168:GLY:H	2.30	0.45
25:AH:81:VAL:H	25:AH:81:VAL:HG23	1.23	0.45
67:B1:1765:A:C2	67:B1:1772:A:C6	3.05	0.45
35:BL:41:LYS:HG3	67:B1:185:A:OP2	2.16	0.45
34:B5:35:VAL:HG22	34:B5:46:ARG:HB2	1.99	0.45
58:BP:47:VAL:HG21	58:BP:64:VAL:HG13	1.98	0.45
21:A2:919:U:H6	21:A2:1182:G:HO2'	1.63	0.45
21:A2:375:G:C2	21:A2:381:C:O2	2.70	0.45
15:AE:64:LYS:HZ2	28:AV:81:ILE:CG1	2.28	0.45
4:AG:102:ARG:NH1	21:A2:317:A:HO2'	2.09	0.45
25:AH:85:PHE:C	25:AH:88:ARG:NH2	2.70	0.45
28:AV:7:GLU:HB3	28:AV:20:TYR:HB2	1.98	0.45
67:B1:1125:A:H4'	67:B1:1126:C:OP1	2.16	0.45
67:B1:1155:A:N3	67:B1:1157:U:H1'	2.32	0.45
52:BB:69:LYS:CE	67:B1:1304:G:OP1	120.46	0.45
67:B1:1313:G:C2	67:B1:1316:U:C5	3.04	0.45
49:BQ:82:LYS:CB	67:B1:1788:G:O3'	2.52	0.45
67:B1:2507:C:O4'	67:B1:2507:C:N1	2.46	0.45
67:B1:2584:A:H61	67:B1:2596:G:H1'	1.82	0.45
67:B1:2797:C:N3	67:B1:2838:U:C4	2.85	0.45
65:BJ:123:ALA:HB1	65:BJ:125:GLU:OE1	2.16	0.45
31:BY:24:ALA:HA	31:BY:29:HIS:NE2	2.32	0.45
21:A2:1179:C:C6	21:A2:1179:C:O4'	2.69	0.45
21:A2:1209:C:N4	21:A2:1247:A:H3'	2.30	0.45
21:A2:676:G:C8	21:A2:678:G:H1'	2.52	0.45
18:AF:116:TYR:CZ	18:AF:120:ASN:ND2	2.85	0.45
25:AH:3:LYS:CD	30:AU:143:ILE:HD11	2.46	0.45
67:B1:1278:C:O4'	67:B1:1278:C:C6	2.70	0.45
67:B1:1969:C:N4	67:B1:2099:G:N2	2.62	0.45
67:B1:1981:G:H2'	67:B1:1982:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:2304:C:H2'	67:B1:2305:U:H5'	1.98	0.45
67:B1:82:C:C5	67:B1:83:G:C5	3.04	0.45
34:B5:34:LEU:HD12	34:B5:46:ARG:O	2.17	0.45
52:BB:225:ARG:HG3	67:B1:2352:G:OP1	2.17	0.45
35:BL:3:ARG:HB2	35:BL:6:LYS:HB2	1.99	0.45
48:BR:28:LEU:HD23	48:BR:29:THR:N	2.31	0.45
48:BR:37:VAL:C	48:BR:39:GLN:H	2.19	0.45
31:BY:27:ARG:O	31:BY:116:VAL:HG21	2.17	0.45
31:BY:37:VAL:HG23	31:BY:43:TYR:CD2	2.52	0.45
21:A2:1311:C:H2'	21:A2:1312:C:C6	2.52	0.45
4:AG:64:ARG:HB3	21:A2:151:G:O3'	2.16	0.45
25:AH:71:ILE:HG23	25:AH:180:PHE:CE1	2.52	0.45
53:BD:85:PHE:HB3	67:B1:1396:A:N1	2.32	0.45
67:B1:1592:U:O4'	67:B1:1592:U:C6	2.70	0.45
67:B1:1753:G:H4'	67:B1:1754:A:H5'	1.98	0.45
67:B1:3021:C:H2'	67:B1:3022:C:C6	2.52	0.45
67:B1:31:G:H1	67:B1:513:C:N4	2.15	0.45
20:B4:66:LEU:HG	20:B4:70:CYS:SG	2.56	0.45
46:BA:39:LEU:CD2	46:BA:39:LEU:H	2.25	0.45
33:BC:108:ASN:CG	33:BC:172:TRP:HZ3	2.02	0.45
53:BD:55:ARG:HE	67:B1:1728:C:H4'	67.07	0.45
35:BL:126:ALA:HB3	35:BL:129:PHE:CZ	2.52	0.45
35:BL:27:GLY:HA3	67:B1:940:G:OP2	2.17	0.45
35:BL:5:ARG:CD	67:B1:1392:G:N7	2.79	0.45
35:BL:6:LYS:HE3	67:B1:1338:G:C6	2.46	0.45
49:BQ:103:ARG:HH21	49:BQ:128:LYS:HG2	1.82	0.45
21:A2:1351:U:H2'	21:A2:1352:G:H8	1.82	0.44
4:AG:18:GLN:HG2	21:A2:141:C:H4'	1.98	0.44
21:A2:333:A:C6	21:A2:334:G:C5	3.05	0.44
21:A2:439:G:H1'	21:A2:440:C:H5	1.79	0.44
21:A2:768:A:N7	21:A2:770:A:C4	2.85	0.44
4:AG:99:LYS:HD3	21:A2:320:G:O4'	2.16	0.44
25:AH:15:ILE:HG23	25:AH:15:ILE:O	2.17	0.44
25:AH:50:ARG:H	25:AH:50:ARG:HG3	1.45	0.44
21:A2:1196:A:H5''	25:AH:88:ARG:NH1	2.31	0.44
25:AH:87:ARG:HB2	25:AH:90:HIS:N	2.32	0.44
26:AP:52:PHE:HD2	29:AL:64:TRP:CE3	2.28	0.44
28:AV:60:PHE:N	28:AV:60:PHE:CD1	2.83	0.44
67:B1:1109:G:H1'	67:B1:1125:A:N6	2.14	0.44
67:B1:119:U:H5'	67:B1:121:G:OP2	2.17	0.44
35:BL:6:LYS:CG	67:B1:1338:G:O6	2.63	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:2506:G:H5''	67:B1:2507:C:C2	2.52	0.44
67:B1:51:G:H1'	67:B1:117:A:H61	1.82	0.44
56:BH:12:GLY:H	56:BH:49:MET:H	1.65	0.44
49:BQ:73:GLY:HA2	49:BQ:76:ARG:HH22	1.83	0.44
48:BR:4:LYS:HD2	48:BR:4:LYS:HA	1.60	0.44
57:BZ:53:ALA:HB1	57:BZ:60:VAL:HG22	1.99	0.44
18:AF:192:ARG:NH2	21:A2:6:G:O6	2.51	0.44
21:A2:968:C:C5	21:A2:969:A:C5	3.05	0.44
4:AG:102:ARG:HH12	21:A2:317:A:HO2'	1.65	0.44
4:AG:64:ARG:HG3	4:AG:122:LYS:HG2	1.99	0.44
31:BY:124:GLY:H	67:B1:1133:U:C5'	2.31	0.44
67:B1:147:C:O4'	67:B1:147:C:C6	2.71	0.44
49:BQ:57:GLY:HA3	67:B1:1620:C:OP1	2.17	0.44
53:BD:55:ARG:CZ	67:B1:1728:C:OP1	66.45	0.44
67:B1:700:A:H2'	67:B1:701:G:H5'	1.99	0.44
35:BL:11:LEU:HB2	67:B1:948:C:C5	2.51	0.44
32:BO:171:TYR:O	32:BO:172:LEU:HB2	2.18	0.44
32:BO:193:ILE:HG23	32:BO:195:LYS:H	1.82	0.44
21:A2:1228:A:H2'	21:A2:1229:A:C8	2.52	0.44
4:AG:64:ARG:CB	21:A2:151:G:HO2'	2.18	0.44
21:A2:616:G:C2	21:A2:697:A:C2	3.05	0.44
18:AF:167:ILE:CG2	18:AF:172:LYS:CA	2.95	0.44
18:AF:33:ASP:CB	18:AF:36:GLU:HG3	2.42	0.44
25:AH:93:LEU:HB3	25:AH:95:SER:C	2.36	0.44
2:AK:46:LEU:CD1	25:AH:13:HIS:HE1	1.92	0.44
21:A2:1327:C:O2'	29:AL:48:THR:HG21	2.17	0.44
52:BB:69:LYS:NZ	67:B1:1303:C:OP1	125.39	0.44
67:B1:1605:A:H61	67:B1:1701:C:H42	1.65	0.44
49:BQ:78:PRO:HG2	67:B1:1865:U:H4'	1.99	0.44
20:BG:4:PRO:O	20:BG:5:SER:HB3	2.17	0.44
32:BO:193:ILE:HG13	32:BO:194:GLU:H	1.82	0.44
37:BU:44:LEU:HD22	37:BU:116:ILE:HD12	1.99	0.44
21:A2:1224:U:H3	21:A2:1231:G:H1	1.63	0.44
21:A2:227:C:H2'	21:A2:228:G:C8	2.52	0.44
4:AG:97:LYS:CG	21:A2:87:C:OP1	2.58	0.44
3:AI:28:LYS:HE3	5:AW:4:PRO:HG3	2.00	0.44
67:B1:2590:C:C6	67:B1:2590:C:O4'	2.71	0.44
53:BD:87:ARG:CD	67:B1:487:U:H1'	2.48	0.44
67:B1:36:G:H4'	67:B1:490:C:C2	2.52	0.44
67:B1:553:C:H2'	67:B1:554:C:C6	2.51	0.44
67:B1:776:G:O2'	67:B1:779:A:N6	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:14:LYS:CA	67:B1:995:G:OP2	2.62	0.44
52:BB:189:TRP:CG	52:BB:190:PRO:HA	2.53	0.44
35:BL:11:LEU:CB	67:B1:948:C:OP2	2.65	0.44
48:BR:10:ARG:HH22	67:B1:2377:C:H5	1.66	0.44
48:BR:49:TYR:CD2	48:BR:91:VAL:HG21	2.53	0.44
48:BR:70:GLY:CA	67:B1:2484:C:C4'	2.95	0.44
12:AN:50:ALA:HA	21:A2:359:A:H5'	2.00	0.44
12:AN:51:ARG:N	21:A2:359:A:P	2.63	0.44
25:AH:16:LYS:O	25:AH:43:LEU:HD22	2.17	0.44
25:AH:78:HIS:CD2	25:AH:78:HIS:H	2.36	0.44
25:AH:89:GLU:HB3	25:AH:95:SER:CB	2.47	0.44
2:AK:102:TYR:CE1	25:AH:42:ARG:CB	2.98	0.44
29:AL:5:ARG:HD3	29:AL:72:LEU:HD11	1.98	0.44
67:B1:1642:G:C8	67:B1:1642:G:H2'	2.52	0.44
67:B1:1687:C:H3'	67:B1:1688:C:H5''	1.99	0.44
67:B1:1708:U:C5	67:B1:1709:C:O2	2.71	0.44
67:B1:2011:U:H3'	67:B1:2011:U:C6	2.53	0.44
40:BE:22:ARG:C	67:B1:54:G:H21	150.61	0.44
32:BO:25:LEU:HA	48:BR:28:LEU:HD12	2.00	0.44
49:BQ:85:LYS:HE2	67:B1:1844:C:P	2.52	0.44
18:AF:84:ARG:NH1	21:A2:1031:G:C4'	2.81	0.44
21:A2:1310:C:O3'	25:AH:75:GLY:O	2.36	0.44
21:A2:167:G:O2'	21:A2:168:G:H5'	2.18	0.44
21:A2:434:A:O2'	21:A2:434:A:C1'	2.57	0.44
6:AC:172:LYS:H	6:AC:172:LYS:HD2	1.83	0.44
18:AF:127:GLY:C	18:AF:138:PRO:HB3	2.38	0.44
18:AF:44:ILE:H	18:AF:44:ILE:HD12	1.81	0.44
12:AN:133:SER:O	12:AN:136:GLU:HG3	2.17	0.44
67:B1:1707:A:C2	67:B1:1783:U:C6	3.05	0.44
67:B1:2163:G:H2'	67:B1:2164:G:C8	2.53	0.44
67:B1:303:A:C5	67:B1:305:G:H5''	2.53	0.44
67:B1:84:A:C8	67:B1:101:G:N2	2.82	0.44
20:BG:68:PRO:HG3	59:BM:18:TYR:CE2	2.53	0.44
35:BL:9:ARG:HG3	35:BL:12:ARG:H	1.83	0.44
32:BO:25:LEU:HB2	48:BR:28:LEU:HB2	2.00	0.44
21:A2:367:G:N3	21:A2:369:A:N6	2.66	0.44
21:A2:457:G:H2'	21:A2:458:G:C8	2.53	0.44
18:AF:20:THR:HG21	18:AF:45:LYS:HZ3	1.83	0.44
25:AH:89:GLU:CB	25:AH:95:SER:HB2	2.48	0.44
3:AI:77:PRO:HG2	3:AI:79:PHE:CZ	2.52	0.44
8:AR:62:ARG:HH12	12:AN:8:ASN:HD21	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:2079:U:C5	67:B1:2672:A:C2	3.06	0.44
67:B1:575:G:H2'	67:B1:576:G:H5''	1.99	0.44
67:B1:958:A:H2'	67:B1:959:U:C6	2.52	0.44
46:BA:79:LEU:HA	46:BA:79:LEU:HD13	1.85	0.44
33:BC:80:VAL:HB	33:BC:203:LEU:HA	1.99	0.44
54:BF:65:VAL:HG12	54:BF:65:VAL:O	2.17	0.44
60:BS:23:ARG:HD3	60:BS:145:HIS:CG	2.53	0.44
21:A2:1378:A:H2'	21:A2:1379:G:H5'	2.00	0.44
3:AI:79:PHE:HD2	8:AR:61:GLU:O	1.91	0.44
67:B1:1591:C:O2'	67:B1:1592:U:H5''	2.18	0.44
49:BQ:84:LYS:HA	67:B1:1842:C:O3'	2.17	0.44
67:B1:715:G:O4'	67:B1:715:G:N9	2.45	0.44
56:BH:75:GLN:O	56:BH:78:LYS:HB2	2.18	0.44
35:BL:63:PHE:HB3	67:B1:2533:G:H5'	1.99	0.44
21:A2:369:A:O3'	21:A2:434:A:C5	2.70	0.44
18:AF:68:ILE:HG23	18:AF:85:VAL:HG22	2.00	0.44
2:AK:43:PHE:CE2	25:AH:12:PRO:CG	2.98	0.44
67:B1:1180:G:H1	67:B1:1253:U:H3	1.66	0.44
67:B1:1786:G:N7	67:B1:1787:U:C5	2.86	0.44
67:B1:744:G:H1	67:B1:761:U:H3	1.66	0.44
68:B3:119:C:C5	68:B3:120:C:C2	3.06	0.44
53:BD:85:PHE:CB	67:B1:1396:A:N6	2.80	0.44
49:BQ:4:LEU:HB2	49:BQ:8:ARG:HH21	1.83	0.44
12:AN:79:LYS:CB	21:A2:358:G:C5'	2.75	0.43
21:A2:388:G:H2'	21:A2:389:G:C8	2.53	0.43
3:AI:92:ARG:HH21	21:A2:518:U:H4'	1.82	0.43
21:A2:641:A:C2	21:A2:654:U:O2	2.71	0.43
18:AF:5:TRP:HD1	18:AF:6:LYS:H	1.64	0.43
18:AF:85:VAL:C	18:AF:86:LEU:HD12	2.38	0.43
18:AF:92:ARG:O	18:AF:179:GLY:HA3	2.18	0.43
67:B1:2451:G:C5	67:B1:2452:C:C5	3.06	0.43
67:B1:2507:C:C6	67:B1:2507:C:H2'	2.52	0.43
67:B1:2957:G:C6	67:B1:2959:A:C2	3.06	0.43
67:B1:404:G:C8	67:B1:404:G:C2'	3.01	0.43
20:B4:3:LYS:HG2	20:B4:4:PRO:HD2	1.99	0.43
33:BC:108:ASN:O	33:BC:172:TRP:CZ2	2.70	0.43
49:BQ:123:LEU:HD21	49:BQ:142:LEU:HD13	2.00	0.43
49:BQ:60:ARG:CD	67:B1:1602:C:C5'	2.96	0.43
21:A2:12:U:H2'	21:A2:13:C:C6	2.53	0.43
21:A2:1491:C:C5	21:A2:1492:U:C5	3.06	0.43
8:AR:30:HIS:CD2	21:A2:182:A:N1	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:31:U:H2'	21:A2:32:A:O4'	2.17	0.43
18:AF:190:GLU:HG2	18:AF:192:ARG:H	1.83	0.43
18:AF:47:PRO:HB3	18:AF:115:ASN:CG	2.39	0.43
21:A2:1311:C:O2'	25:AH:95:SER:CB	2.67	0.43
2:AK:43:PHE:CD2	25:AH:12:PRO:CG	3.01	0.43
2:AK:50:ILE:HG13	25:AH:13:HIS:CG	2.53	0.43
12:AN:77:LEU:HA	12:AN:77:LEU:HD23	1.82	0.43
67:B1:1203:C:C4	67:B1:1204:U:N3	2.86	0.43
67:B1:85:G:H2'	67:B1:86:G:H8	1.82	0.43
68:B3:74:U:H1'	68:B3:76:U:C6	2.53	0.43
53:BD:140:LEU:HD12	28:B6:81:ILE:HD11	1.99	0.43
52:BB:97:LEU:HD21	52:BB:159:ILE:CD1	2.48	0.43
33:BC:334:ARG:HD3	33:BC:334:ARG:HH11	1.69	0.43
56:BH:1:MET:CG	67:B1:1233:U:H1'	2.48	0.43
56:BH:1:MET:HG2	67:B1:1233:U:H1'	2.00	0.43
50:BV:40:TYR:HD2	50:BV:45:ARG:HD3	1.84	0.43
31:BY:123:ARG:NE	67:B1:1132:U:C4'	2.74	0.43
31:BY:52:ASP:O	31:BY:140:LEU:HD13	2.17	0.43
31:BY:8:ARG:CB	31:BY:28:LEU:HD22	2.49	0.43
21:A2:340:A:C8	21:A2:340:A:C2'	3.01	0.43
18:AF:71:THR:HB	21:A2:1032:A:H4'	1.99	0.43
2:AK:39:GLU:OE2	25:AH:5:LEU:HD12	2.11	0.43
13:AX:61:GLU:HG3	14:AM:107:ARG:CB	2.48	0.43
67:B1:1233:U:O2	67:B1:1235:A:C8	2.72	0.43
35:BL:47:TRP:CZ2	67:B1:968:A:N3	2.84	0.43
52:BB:69:LYS:CD	67:B1:1304:G:P	121.31	0.43
49:BQ:6:MET:SD	49:BQ:9:ARG:HB2	2.58	0.43
21:A2:348:C:H4'	21:A2:350:G:OP1	2.18	0.43
21:A2:431:U:H3'	21:A2:432:G:C8	2.53	0.43
21:A2:442:C:OP1	28:AV:60:PHE:C	2.56	0.43
21:A2:804:U:H2'	21:A2:805:C:H6	1.83	0.43
21:A2:823:A:H2'	21:A2:824:G:C8	2.53	0.43
15:AE:209:TRP:CD2	15:AE:210:PRO:HD3	2.53	0.43
18:AF:163:LEU:CD1	18:AF:184:TRP:CE2	3.01	0.43
18:AF:36:GLU:HA	18:AF:39:ARG:HE	1.83	0.43
4:AG:64:ARG:CD	4:AG:122:LYS:HG2	2.48	0.43
25:AH:3:LYS:HE2	30:AU:144:ILE:CA	2.19	0.43
67:B1:2417:G:C5	67:B1:2418:G:C8	3.07	0.43
35:BL:26:ARG:HD2	67:B1:941:C:C5	2.47	0.43
46:BA:121:LEU:HB3	46:BA:125:LEU:HD12	2.01	0.43
53:BD:143:ILE:HD11	53:BD:244:VAL:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BH:88:GLY:HA2	67:B1:1203:C:H4'	2.01	0.43
35:BL:6:LYS:CA	67:B1:947:C:N4	2.60	0.43
34:B5:3:ALA:O	57:BZ:29:THR:C	2.56	0.43
18:AF:71:THR:CB	21:A2:1032:A:O3'	2.67	0.43
21:A2:1217:C:N1	21:A2:1217:C:O4'	2.41	0.43
21:A2:787:U:H2'	21:A2:788:C:C6	2.53	0.43
6:AC:4:GLU:CG	29:AL:45:ILE:HG21	2.49	0.43
10:AD:16:HIS:HE1	21:A2:460:C:H2'	1.84	0.43
18:AF:163:LEU:CD1	18:AF:184:TRP:CZ2	2.95	0.43
4:AG:102:ARG:HD3	21:A2:318:C:O4'	2.17	0.43
21:A2:901:G:H5'	25:AH:76:GLY:HA2	2.00	0.43
25:AH:85:PHE:CE2	30:AU:88:GLU:HG3	2.54	0.43
67:B1:160:C:H2'	67:B1:161:C:H6	1.84	0.43
48:BR:10:ARG:NH2	67:B1:2377:C:H5	2.16	0.43
34:B5:11:VAL:HG22	34:B5:12:VAL:H	1.83	0.43
56:BH:107:ALA:HB1	56:BH:122:ALA:CB	2.48	0.43
4:AG:78:ILE:HG23	21:A2:1414:G:H4'	2.00	0.43
21:A2:424:U:C4	21:A2:425:C:C2	3.06	0.43
21:A2:615:G:C6	21:A2:698:A:N1	2.87	0.43
21:A2:976:A:H5'	21:A2:976:A:H8	1.84	0.43
15:AE:78:ARG:HD2	15:AE:83:PHE:CZ	2.54	0.43
25:AH:101:TYR:CD2	25:AH:101:TYR:C	2.91	0.43
25:AH:80:LYS:HZ1	25:AH:95:SER:HB3	1.83	0.43
25:AH:90:HIS:CB	25:AH:92:SER:H	2.19	0.43
3:AI:76:LYS:CG	21:A2:836:G:OP1	2.67	0.43
12:AN:48:PRO:HD2	21:A2:359:A:N6	2.33	0.43
13:AX:20:THR:HG1	21:A2:1341:C:C4'	2.30	0.43
67:B1:237:G:H3'	67:B1:238:C:C5'	2.49	0.43
67:B1:421:C:C2	67:B1:435:G:N2	2.86	0.43
67:B1:523:C:H42	67:B1:535:G:H1	1.65	0.43
67:B1:585:G:C6	67:B1:586:A:C5	3.06	0.43
67:B1:729:A:H2'	67:B1:730:C:H5'	2.00	0.43
67:B1:931:C:H2'	67:B1:932:C:C6	2.54	0.43
35:BL:28:GLY:N	67:B1:939:A:OP1	2.41	0.43
33:BC:52:LEU:HD11	50:BV:16:PRO:HB2	2.00	0.43
20:BG:37:ASN:HA	59:BM:3:MET:CB	2.47	0.43
65:BJ:38:ILE:HG23	65:BJ:64:ALA:HB1	2.00	0.43
31:BY:7:ILE:HD12	31:BY:34:CYS:HB2	2.00	0.43
21:A2:1228:A:C6	21:A2:1229:A:C6	3.07	0.43
21:A2:1255:C:C6	21:A2:1255:C:O4'	2.71	0.43
21:A2:1279:A:H5'	21:A2:1280:C:OP1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:18:GLN:OE1	21:A2:141:C:O3'	2.36	0.43
18:AF:201:VAL:CG1	18:AF:202:PHE:N	2.82	0.43
25:AH:55:HIS:H	25:AH:55:HIS:CD2	2.36	0.43
67:B1:2036:A:C2	67:B1:2043:A:C6	3.07	0.43
35:BL:132:LYS:HZ3	67:B1:733:A:H5''	1.82	0.43
35:BL:44:LYS:HD3	67:B1:961:C:H4'	2.01	0.43
53:BD:48:ARG:HB2	67:B1:1669:A:P	91.46	0.43
50:BV:27:GLY:HA2	65:BJ:121:PRO:CG	2.42	0.43
34:B5:31:ASN:HD22	57:BZ:25:ARG:HH11	1.65	0.43
21:A2:1265:G:H22	21:A2:1291:G:H2'	1.84	0.43
18:AF:83:PHE:O	18:AF:102:HIS:HA	2.19	0.43
18:AF:167:ILE:CG2	18:AF:172:LYS:HA	2.49	0.43
18:AF:53:LEU:CD1	18:AF:54:LEU:CD2	2.95	0.43
21:A2:1196:A:OP2	25:AH:88:ARG:HG2	2.18	0.43
26:AP:41:HIS:N	26:AP:41:HIS:CD2	2.85	0.43
56:BH:128:GLY:O	67:B1:1227:A:N6	2.52	0.43
67:B1:1929:C:H2'	67:B1:1930:A:C4	2.54	0.43
35:BL:131:PRO:CG	67:B1:732:G:OP1	2.66	0.43
67:B1:955:A:H1'	67:B1:1080:G:N2	2.34	0.43
4:AG:87:LEU:HD13	21:A2:1395:G:O3'	2.19	0.43
21:A2:133:G:N2	21:A2:159:C:O2	2.52	0.43
21:A2:406:U:H2'	21:A2:407:G:N7	2.34	0.43
15:AE:242:LEU:HA	15:AE:242:LEU:HD22	1.95	0.43
18:AF:167:ILE:CG1	18:AF:168:GLY:N	2.82	0.43
21:A2:1200:U:C4	25:AH:91:ARG:HA	2.50	0.43
6:AC:8:ILE:HG23	29:AL:66:LEU:HD11	2.01	0.43
13:AX:61:GLU:CG	14:AM:107:ARG:HD3	2.32	0.43
67:B1:1898:A:H2'	67:B1:1899:C:C6	2.54	0.43
67:B1:745:C:C6	67:B1:745:C:O4'	2.71	0.43
56:BH:107:ALA:HB1	56:BH:122:ALA:HB1	2.01	0.43
49:BQ:1:MET:HG2	49:BQ:2:ASN:H	1.84	0.43
49:BQ:95:TRP:HA	49:BQ:98:THR:OG1	2.19	0.43
34:B5:50:ILE:HG21	57:BZ:28:LYS:NZ	2.26	0.43
21:A2:459:G:C5	21:A2:460:C:C6	3.06	0.43
21:A2:556:G:N2	21:A2:590:G:C4	2.87	0.43
6:AC:66:THR:HG23	6:AC:78:PRO:HG2	2.01	0.43
18:AF:75:THR:CG2	18:AF:76:ASP:N	2.82	0.43
67:B1:1271:G:C6	67:B1:1272:A:C2	3.07	0.43
67:B1:1428:G:C6	67:B1:1472:U:C5	3.06	0.43
67:B1:1592:U:N1	67:B1:1592:U:O4'	2.41	0.43
67:B1:2212:C:H2'	67:B1:2213:G:H8	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BG:60:GLU:OE2	59:BM:22:LEU:HD22	2.19	0.43
34:BK:11:VAL:HG22	34:BK:12:VAL:H	1.83	0.43
62:BN:59:GLN:HA	62:BN:62:LEU:HD12	2.01	0.43
50:BV:14:PHE:CZ	65:BJ:95:MET:HE2	2.53	0.43
21:A2:1070:C:H2'	21:A2:1071:C:C6	2.53	0.42
21:A2:362:C:C6	21:A2:391:G:N2	2.87	0.42
21:A2:407:G:H3'	21:A2:407:G:C8	2.54	0.42
3:AI:44:TYR:CG	3:AI:101:ILE:HD11	2.54	0.42
13:AX:71:ARG:NH1	21:A2:1041:C:P	2.89	0.42
67:B1:954:A:C4	67:B1:1332:A:C2	3.07	0.42
67:B1:2129:G:C8	67:B1:2130:C:C5	3.07	0.42
67:B1:2145:G:H4'	67:B1:2732:U:H5''	2.00	0.42
67:B1:2209:U:H2'	67:B1:2210:G:C8	2.53	0.42
67:B1:2630:C:H2'	67:B1:2631:C:C6	2.54	0.42
67:B1:366:G:C2'	67:B1:367:G:H5'	2.49	0.42
35:BL:114:GLY:HA3	67:B1:733:A:OP1	2.19	0.42
20:B4:43:VAL:HG23	20:B4:75:ILE:HG21	2.01	0.42
50:BV:55:ALA:O	50:BV:58:GLU:HB3	2.19	0.42
21:A2:998:A:H61	21:A2:1173:A:H61	1.67	0.42
12:AN:123:ARG:NH1	21:A2:868:C:OP1	2.51	0.42
25:AH:51:HIS:CE1	25:AH:61:VAL:HG22	2.54	0.42
3:AI:53:ILE:HG21	5:AW:6:ILE:HD13	2.01	0.42
1:AQ:47:THR:HA	1:AQ:50:ILE:HD12	2.01	0.42
35:BL:24:LYS:NZ	67:B1:1080:G:C3'	2.82	0.42
67:B1:1465:A:C8	67:B1:1466:U:C5	3.07	0.42
67:B1:1569:A:C5'	67:B1:1570:C:OP2	2.66	0.42
67:B1:1782:C:H1'	67:B1:1791:A:C8	2.54	0.42
67:B1:832:A:H5'	67:B1:1791:A:C6	2.53	0.42
67:B1:2443:G:C6	67:B1:2444:G:C5	3.07	0.42
67:B1:2630:C:H2'	67:B1:2631:C:H6	1.84	0.42
67:B1:686:C:H42	67:B1:795:G:H1	1.66	0.42
67:B1:833:G:O6	67:B1:866:G:C2	2.72	0.42
20:BG:59:PRO:HD3	59:BM:42:PRO:O	2.18	0.42
56:BH:19:PRO:HB2	56:BH:20:PRO:HD3	2.00	0.42
56:BH:60:VAL:CG1	56:BH:61:THR:H	2.29	0.42
35:BL:6:LYS:CG	67:B1:947:C:N4	2.82	0.42
59:BM:194:LYS:HE2	67:B1:423:G:H21	1.84	0.42
37:BU:73:ARG:O	37:BU:74:TYR:HB2	2.19	0.42
31:BY:126:PHE:CD1	67:B1:1134:A:C4'	2.85	0.42
21:A2:617:A:C6	21:A2:697:A:C2	3.07	0.42
67:B1:25:U:C4	67:B1:26:G:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:870:G:O6	67:B1:896:G:C2	2.71	0.42
68:B3:54:A:C2	68:B3:55:G:N7	2.87	0.42
40:BE:37:SER:HA	40:BE:42:THR:HB	2.01	0.42
20:BG:43:VAL:HG22	20:BG:73:LYS:HG3	2.02	0.42
56:BH:58:ASP:O	56:BH:60:VAL:HG23	2.18	0.42
50:BV:22:TYR:HA	65:BJ:98:LYS:HB3	2.01	0.42
35:BL:44:LYS:CG	35:BL:47:TRP:CE3	3.02	0.42
31:BY:24:ALA:HA	31:BY:29:HIS:CD2	2.54	0.42
4:AG:78:ILE:HG23	21:A2:1414:G:C4'	2.49	0.42
21:A2:23:G:C5	21:A2:24:C:C5	3.08	0.42
21:A2:375:G:N1	21:A2:381:C:N3	2.68	0.42
21:A2:409:C:O4'	21:A2:409:C:C6	2.72	0.42
21:A2:534:G:O6	21:A2:712:G:C8	2.72	0.42
20:A3:15:LEU:HD12	20:A3:15:LEU:HA	1.87	0.42
18:AF:132:GLU:CG	18:AF:133:CYS:N	2.81	0.42
18:AF:84:ARG:HH12	21:A2:1031:G:C5'	2.33	0.42
25:AH:149:ALA:HB2	25:AH:215:ARG:HB2	2.00	0.42
25:AH:76:GLY:H	25:AH:94:ASN:CG	2.22	0.42
2:AK:56:ILE:HA	2:AK:56:ILE:HD12	2.00	0.42
30:AU:136:LEU:O	30:AU:140:LEU:HG	2.19	0.42
67:B1:1198:G:H2'	67:B1:1199:U:C5	2.55	0.42
67:B1:121:G:H2'	67:B1:122:G:C8	2.54	0.42
67:B1:2232:U:O2	67:B1:2303:A:H2	2.02	0.42
67:B1:537:U:N3	67:B1:540:A:C8	2.88	0.42
67:B1:790:U:H2'	67:B1:791:C:C6	2.55	0.42
67:B1:78:C:H2'	67:B1:79:C:C6	2.54	0.42
56:BH:1:MET:CB	67:B1:1233:U:H1'	2.49	0.42
35:BL:118:LEU:HD12	35:BL:137:ILE:HA	2.01	0.42
48:BR:45:ILE:HD11	48:BR:56:PRO:HA	2.02	0.42
31:BY:151:ILE:HA	31:BY:154:MET:HB2	2.00	0.42
21:A2:1073:C:H42	21:A2:1112:G:H1	1.68	0.42
21:A2:366:C:O2'	21:A2:435:A:N1	2.53	0.42
18:AF:72:VAL:CG1	18:AF:73:ARG:N	2.83	0.42
2:AK:13:ALA:HA	2:AK:68:GLY:HA3	2.01	0.42
13:AX:61:GLU:HG3	14:AM:107:ARG:HB3	2.01	0.42
31:BY:126:PHE:HZ	67:B1:1134:A:C1'	2.28	0.42
35:BL:6:LYS:CE	67:B1:1339:C:N4	2.82	0.42
67:B1:1617:G:C6	67:B1:1618:G:C5	3.07	0.42
67:B1:1665:G:C6	67:B1:1666:G:C5	3.08	0.42
67:B1:1943:C:H2'	67:B1:1944:C:H6	1.82	0.42
67:B1:688:G:C8	67:B1:688:G:O4'	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:706:U:O2	67:B1:709:A:C8	2.72	0.42
56:BH:50:GLN:CD	56:BH:50:GLN:H	2.22	0.42
35:BL:58:LEU:O	67:B1:2510:A:C2'	2.62	0.42
62:BN:86:ILE:HG23	62:BN:86:ILE:O	2.20	0.42
50:BV:51:LYS:O	50:BV:57:GLN:CG	2.68	0.42
31:BY:84:TYR:O	31:BY:88:LYS:HG2	2.19	0.42
21:A2:1487:U:H2'	21:A2:1488:C:C5	2.54	0.42
24:AA:43:VAL:HG22	24:AA:70:VAL:HG21	2.00	0.42
6:AC:3:ILE:HD11	29:AL:97:GLU:OE2	2.19	0.42
18:AF:193:THR:HG21	18:AF:196:ASN:OD1	2.19	0.42
22:AY:16:ILE:HD12	22:AY:16:ILE:HA	1.99	0.42
67:B1:53:A:H61	67:B1:116:G:H1'	1.84	0.42
67:B1:1203:C:C5	67:B1:1204:U:C4	3.07	0.42
34:B5:46:ARG:HA	67:B1:1567:C:H4'	2.01	0.42
67:B1:1673:C:H2'	67:B1:1674:G:C8	2.55	0.42
67:B1:1948:A:C6	67:B1:1949:A:C6	3.08	0.42
67:B1:2122:G:C6	67:B1:2123:G:C6	3.07	0.42
67:B1:2420:C:O2	67:B1:2423:G:N7	2.52	0.42
67:B1:2921:U:H2'	67:B1:2922:G:C8	2.55	0.42
67:B1:3031:U:H2'	67:B1:3032:C:O4'	2.19	0.42
67:B1:412:G:O4'	67:B1:412:G:N9	2.46	0.42
35:BL:6:LYS:CG	67:B1:947:C:H42	2.33	0.42
20:B4:39:THR:HG23	20:B4:51:VAL:HG11	2.01	0.42
52:BB:70:LEU:HD23	52:BB:70:LEU:H	5.03	0.42
33:BC:51:ILE:HD11	33:BC:359:VAL:HG22	2.02	0.42
20:BG:13:LYS:HB2	54:BF:184:PHE:CB	183.38	0.42
65:BJ:130:TRP:CE3	65:BJ:130:TRP:HA	2.55	0.42
21:A2:1312:C:H5'	25:AH:80:LYS:HE2	2.01	0.42
21:A2:1379:G:C6	21:A2:1437:G:C5	3.08	0.42
10:AD:79:ARG:HE	10:AD:145:LEU:HD13	1.84	0.42
18:AF:194:THR:HG23	18:AF:195:VAL:N	2.33	0.42
2:AK:39:GLU:CG	25:AH:5:LEU:HD11	2.48	0.42
29:AL:50:ARG:HA	29:AL:61:PHE:CD1	2.55	0.42
67:B1:1348:G:N2	67:B1:1382:C:N3	2.65	0.42
67:B1:149:G:C6	67:B1:150:G:C5	3.07	0.42
67:B1:1577:C:C5	67:B1:1734:G:C6	3.08	0.42
67:B1:1977:C:C5	67:B1:2023:A:C5	3.07	0.42
67:B1:2304:C:H2'	67:B1:2305:U:C5'	2.50	0.42
67:B1:2574:G:C5	67:B1:2575:U:C5	3.08	0.42
20:BG:39:THR:HG23	20:BG:100:ALA:HB2	2.01	0.42
21:A2:1042:U:H1'	21:A2:1048:G:N2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1287:G:H2'	21:A2:1288:C:C6	2.54	0.42
18:AF:40:ARG:CB	18:AF:42:TYR:CD1	3.00	0.42
18:AF:70:LEU:HA	18:AF:82:ARG:O	2.20	0.42
21:A2:1334:A:C1'	25:AH:69:ASN:OD1	2.68	0.42
25:AH:87:ARG:C	25:AH:88:ARG:CG	2.88	0.42
29:AL:45:ILE:HD12	29:AL:66:LEU:HB3	2.02	0.42
14:AM:14:TRP:HE1	14:AM:80:HIS:CG	2.37	0.42
67:B1:2263:G:H2'	67:B1:2263:G:N3	2.35	0.42
46:BA:116:LYS:HA	46:BA:119:ARG:HH21	1.85	0.42
53:BD:162:LYS:HA	53:BD:167:TRP:HB2	2.02	0.42
56:BH:1:MET:HB3	67:B1:1233:U:H1'	2.02	0.42
20:BG:37:ASN:HA	59:BM:3:MET:SD	2.59	0.42
50:BV:48:ARG:HA	50:BV:56:TYR:CG	2.55	0.42
31:BY:125:GLY:N	67:B1:1133:U:H5'	2.35	0.42
11:A1:15:G:H5''	11:A1:16:C:OP2	2.19	0.42
21:A2:104:A:N7	21:A2:235:G:N2	2.68	0.42
21:A2:1117:A:H4'	21:A2:1118:C:O5'	2.20	0.42
18:AF:139:HIS:CD2	18:AF:161:ARG:HG2	2.55	0.42
18:AF:149:GLU:OE1	18:AF:149:GLU:HA	2.19	0.42
25:AH:65:GLU:HG2	25:AH:97:LYS:HZ2	1.85	0.42
21:A2:1312:C:OP1	25:AH:79:TYR:HA	2.20	0.42
67:B1:1463:C:N4	67:B1:1473:C:C5	2.88	0.42
67:B1:407:A:H2'	67:B1:408:C:H5''	2.02	0.42
35:BL:113:LEU:HD21	67:B1:732:G:C5	2.54	0.42
34:B5:44:LYS:H	34:B5:46:ARG:NH1	2.17	0.42
47:BI:125:ARG:NE	67:B1:1280:C:H41	2.18	0.42
35:BL:11:LEU:HB2	67:B1:948:C:OP2	2.19	0.42
50:BV:43:MET:CE	67:B1:1893:C:C6	3.03	0.42
21:A2:1311:C:H4'	25:AH:95:SER:OG	2.20	0.42
18:AF:13:LEU:O	18:AF:27:LYS:NZ	2.50	0.42
25:AH:21:TRP:CH2	25:AH:108:PHE:HB3	2.54	0.42
3:AI:53:ILE:N	3:AI:53:ILE:HD12	2.35	0.42
67:B1:1155:A:C2	67:B1:1261:C:H4'	2.54	0.42
67:B1:1894:A:H2'	67:B1:1895:G:H5'	2.01	0.42
67:B1:2963:G:H2'	67:B1:2964:A:H5'	2.01	0.42
67:B1:31:G:O6	67:B1:513:C:N4	2.53	0.42
37:BU:62:HIS:NE2	37:BU:80:GLY:HA3	2.35	0.42
21:A2:1312:C:H5''	25:AH:80:LYS:CB	2.50	0.41
21:A2:1458:A:O2'	21:A2:1458:A:C1'	2.55	0.41
21:A2:22:G:C6	21:A2:23:G:C5	3.08	0.41
21:A2:528:G:H21	21:A2:529:C:H5	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:145:VAL:CG2	18:AF:146:GLU:N	2.83	0.41
18:AF:34:ILE:CG2	18:AF:35:HIS:N	2.82	0.41
18:AF:71:THR:HG21	21:A2:1032:A:C4'	2.50	0.41
1:AQ:63:VAL:HG23	1:AQ:63:VAL:H	1.58	0.41
67:B1:1457:C:H42	67:B1:1481:G:H1	1.67	0.41
67:B1:1991:G:N7	67:B1:2012:G:C5	2.88	0.41
33:BC:87:ARG:HH11	33:BC:96:ALA:HA	1.84	0.41
56:BH:17:PRO:O	56:BH:21:LEU:HB2	2.20	0.41
35:BL:11:LEU:N	67:B1:948:C:OP2	2.52	0.41
35:BL:44:LYS:HB2	67:B1:967:G:H21	1.83	0.41
62:BN:18:THR:HB	62:BN:92:GLN:HA	2.02	0.41
58:BP:47:VAL:HG21	58:BP:64:VAL:CG1	2.50	0.41
49:BQ:81:ARG:NH2	67:B1:1885:G:P	2.90	0.41
50:BV:50:LEU:HA	50:BV:51:LYS:HE2	2.01	0.41
50:BV:36:LYS:HE2	50:BV:52:TRP:CZ2	2.54	0.41
18:AF:126:ARG:HB3	18:AF:138:PRO:HB2	2.02	0.41
10:AD:56:ARG:CD	18:AF:160:PRO:HG2	2.49	0.41
18:AF:1:MET:C	18:AF:57:VAL:HG22	2.40	0.41
18:AF:85:VAL:CG1	18:AF:86:LEU:N	2.83	0.41
25:AH:87:ARG:NE	25:AH:90:HIS:CD2	2.88	0.41
21:A2:1311:C:O2'	25:AH:95:SER:HB3	2.20	0.41
67:B1:1128:G:H1	67:B1:1300:C:H42	1.68	0.41
67:B1:1506:U:O2'	67:B1:1947:A:C2	2.66	0.41
35:BL:62:GLY:N	67:B1:2533:G:O3'	2.53	0.41
67:B1:2190:A:N6	67:B1:2558:U:H3	2.14	0.41
67:B1:2962:A:C6	67:B1:2963:G:C8	3.09	0.41
67:B1:934:G:C6	67:B1:935:A:C6	3.07	0.41
35:BL:11:LEU:O	35:BL:12:ARG:C	2.58	0.41
21:A2:1379:G:O6	21:A2:1437:G:C6	2.73	0.41
21:A2:537:G:C6	21:A2:538:C:C4	3.08	0.41
21:A2:976:A:H3'	21:A2:976:A:C8	2.55	0.41
15:AE:12:ARG:HH21	15:AE:26:TYR:HB2	1.85	0.41
25:AH:8:ARG:O	25:AH:12:PRO:HD3	2.21	0.41
2:AK:37:GLU:HB2	2:AK:38:PRO:HD3	2.02	0.41
29:AL:51:LYS:HB2	29:AL:60:THR:O	2.21	0.41
67:B1:1575:G:C8	67:B1:1575:G:C2'	3.02	0.41
67:B1:173:G:H2'	67:B1:174:C:C6	2.55	0.41
67:B1:1929:C:H2'	67:B1:1930:A:C5	2.54	0.41
67:B1:2107:G:C6	67:B1:2108:U:C4	3.08	0.41
67:B1:30:G:H2'	67:B1:31:G:H8	1.82	0.41
67:B1:858:G:C6	67:B1:859:G:N1	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:6:LYS:HG3	67:B1:947:C:H42	1.85	0.41
20:B4:3:LYS:H	20:B4:7:VAL:HG23	1.85	0.41
48:BR:55:ASP:HA	48:BR:56:PRO:HD2	1.90	0.41
21:A2:1490:C:C2	21:A2:1491:C:C6	3.09	0.41
4:AG:103:ARG:HH11	21:A2:329:G:C4'	2.06	0.41
18:AF:187:THR:HG23	18:AF:187:THR:O	2.20	0.41
18:AF:5:TRP:HB3	18:AF:57:VAL:CG2	2.51	0.41
4:AG:34:ILE:HG21	4:AG:76:PRO:HB3	2.02	0.41
13:AX:61:GLU:HB3	14:AM:61:MET:HE1	2.01	0.41
67:B1:1215:C:H2'	67:B1:1216:A:H8	1.85	0.41
67:B1:12:C:H4'	67:B1:13:U:OP2	2.20	0.41
67:B1:1592:U:O4	67:B1:1714:G:O6	2.38	0.41
67:B1:1969:C:N4	67:B1:2099:G:H1	2.17	0.41
67:B1:2056:A:C2	67:B1:2093:A:C2	3.09	0.41
46:BA:41:ARG:O	67:B1:3029:A:H4'	158.76	0.41
67:B1:817:G:O4'	67:B1:817:G:N9	2.41	0.41
67:B1:822:A:C6	67:B1:823:G:C6	3.08	0.41
46:BA:135:VAL:HB	46:BA:136:PRO:CD	2.50	0.41
35:BL:9:ARG:O	35:BL:10:LYS:C	2.55	0.41
48:BR:85:THR:CG2	67:B1:2467:C:H4'	2.50	0.41
21:A2:1251:C:OP1	25:AH:99:LYS:CD	2.68	0.41
21:A2:1444:G:C2'	21:A2:1445:A:H5''	2.49	0.41
21:A2:147:A:C5	21:A2:148:C:H1'	2.56	0.41
21:A2:1489:A:C5	21:A2:1490:C:C6	3.08	0.41
21:A2:788:C:H2'	21:A2:789:G:H8	1.85	0.41
18:AF:84:ARG:HH12	21:A2:1031:G:H3'	1.83	0.41
2:AK:50:ILE:HD11	25:AH:13:HIS:ND1	2.12	0.41
12:AN:111:PRO:HD3	21:A2:507:G:P	2.52	0.41
67:B1:366:G:C8	67:B1:366:G:O4'	2.73	0.41
56:BH:133:MET:HB3	56:BH:133:MET:HE3	1.76	0.41
35:BL:41:LYS:HB3	35:BL:43:ASN:O	2.21	0.41
35:BL:44:LYS:CB	35:BL:47:TRP:CE3	3.04	0.41
49:BQ:123:LEU:CD1	49:BQ:142:LEU:HD22	2.50	0.41
37:BU:44:LEU:HD12	37:BU:45:PRO:CD	2.51	0.41
50:BV:20:LYS:HD3	65:BJ:96:ARG:HB2	2.02	0.41
21:A2:1190:C:O4'	21:A2:1190:C:C6	2.74	0.41
21:A2:1196:A:OP1	25:AH:88:ARG:NE	2.52	0.41
21:A2:1228:A:C2	21:A2:1229:A:C2	3.08	0.41
21:A2:1276:G:C8	21:A2:1278:A:OP2	2.73	0.41
3:AI:99:PHE:CZ	18:AF:213:ILE:HG13	2.55	0.41
18:AF:96:VAL:CG2	18:AF:97:GLY:N	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AI:4:LEU:CD1	21:A2:540:G:C5'	2.75	0.41
67:B1:1229:U:N1	67:B1:1229:U:O4'	2.43	0.41
52:BB:9:ARG:HH22	67:B1:917:A:H61	1.68	0.41
68:B3:118:G:N2	68:B3:126:C:H42	2.18	0.41
68:B3:45:C:C2'	68:B3:46:G:H5'	2.50	0.41
34:B5:34:LEU:HA	34:B5:47:ARG:HA	2.01	0.41
20:BG:38:GLU:HA	20:BG:41:LYS:HD2	2.01	0.41
65:BJ:52:ARG:NH1	67:B1:2548:A:N1	86.94	0.41
35:BL:24:LYS:NZ	67:B1:1080:G:H4'	2.34	0.41
35:BL:25:HIS:CG	67:B1:804:C:N4	2.89	0.41
21:A2:1329:C:H2'	21:A2:1330:G:C8	2.56	0.41
21:A2:72:C:O2	21:A2:72:C:H2'	2.21	0.41
21:A2:530:G:H1'	21:A2:770:A:H2'	2.03	0.41
21:A2:779:G:H2'	21:A2:780:C:C6	2.56	0.41
3:AI:76:LYS:CG	21:A2:836:G:P	3.07	0.41
9:A9:15:UNK:CB	18:AF:122:ILE:HD12	2.51	0.41
18:AF:161:ARG:HH11	18:AF:161:ARG:HD3	1.73	0.41
4:AG:78:ILE:HG12	21:A2:1413:G:O2'	2.21	0.41
25:AH:15:ILE:HD13	25:AH:42:ARG:NH1	2.36	0.41
21:A2:1307:G:N1	25:AH:48:HIS:CE1	2.64	0.41
25:AH:80:LYS:CA	25:AH:86:MET:H	2.34	0.41
1:AQ:15:LYS:HB2	3:AI:57:ARG:HH11	1.82	0.41
12:AN:108:ILE:HA	21:A2:505:U:H4'	2.02	0.41
12:AN:63:LYS:HG3	12:AN:64:GLN:H	1.85	0.41
28:AV:33:ARG:HD3	28:AV:56:ILE:HB	2.01	0.41
13:AX:61:GLU:HG3	14:AM:107:ARG:CG	2.50	0.41
67:B1:979:G:H1	67:B1:1072:U:H3	1.68	0.41
31:BY:114:LYS:CE	67:B1:1325:A:N6	2.74	0.41
67:B1:2811:U:H2'	67:B1:2812:U:H6	1.85	0.41
35:BL:48:THR:HG23	67:B1:968:A:O2'	2.21	0.41
20:BG:40:THR:HG21	59:BM:3:MET:CA	2.43	0.41
56:BH:70:VAL:HA	56:BH:72:PRO:HD3	2.02	0.41
60:BS:116:HIS:HB3	60:BS:149:VAL:HG13	2.03	0.41
11:A1:7:G:O6	11:A1:50:G:C6	2.73	0.41
18:AF:81:VAL:HG13	18:AF:81:VAL:O	2.20	0.41
3:AI:28:LYS:HZ1	21:A2:780:C:H5''	1.86	0.41
16:AJ:19:LEU:HA	16:AJ:19:LEU:HD12	1.98	0.41
26:AP:56:GLU:OXT	29:AL:63:ARG:NH1	2.54	0.41
67:B1:1029:C:C5	67:B1:1030:C:C5	3.09	0.41
67:B1:1273:C:C6	67:B1:1273:C:O4'	2.74	0.41
67:B1:1639:G:O6	67:B1:1663:C:N3	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1707:A:C6	67:B1:1783:U:C4	3.09	0.41
67:B1:2471:A:C6	67:B1:2476:A:H2'	2.56	0.41
67:B1:43:G:C6	67:B1:44:C:C2	3.09	0.41
67:B1:688:G:O4'	67:B1:688:G:N9	2.43	0.41
35:BL:7:LYS:HA	35:BL:9:ARG:NH1	2.36	0.41
31:BY:30:ARG:NH2	67:B1:1297:C:OP2	2.54	0.41
57:BZ:79:VAL:HG12	57:BZ:80:VAL:H	1.85	0.41
27:A0:41:C:O4'	27:A0:41:C:C6	2.73	0.41
21:A2:1493:C:H3'	21:A2:1494:C:C6	2.56	0.41
14:AM:123:HIS:HA	21:A2:672:G:C8	2.55	0.41
21:A2:6:G:C6	21:A2:19:G:C6	3.09	0.41
24:AA:24:PRO:HA	24:AA:27:PHE:O	2.20	0.41
3:AI:97:PHE:CD1	18:AF:131:TRP:CD1	3.09	0.41
10:AD:93:LEU:O	18:AF:162:GLY:HA3	2.21	0.41
18:AF:46:GLU:HB2	18:AF:49:ILE:CD1	2.51	0.41
16:AJ:4:TRP:HE1	16:AJ:29:GLY:HA3	1.86	0.41
67:B1:1025:A:H4'	67:B1:1026:A:C8	2.56	0.41
67:B1:1473:C:O4'	67:B1:1473:C:C6	2.74	0.41
67:B1:2194:A:H2'	67:B1:2195:G:H8	1.85	0.41
67:B1:2846:A:H2'	67:B1:2847:G:O4'	2.21	0.41
67:B1:522:A:H61	67:B1:536:G:H1'	1.85	0.41
67:B1:691:G:H1	67:B1:790:U:H3	1.69	0.41
56:BH:18:GLY:HA3	56:BH:19:PRO:HD2	1.64	0.41
35:BL:42:ARG:HG2	67:B1:2546:G:C8	2.56	0.41
10:AD:116:ARG:HE	10:AD:170:MET:HB3	1.86	0.41
18:AF:140:SER:HB3	18:AF:141:VAL:H	1.60	0.41
8:AR:63:TYR:C	12:AN:10:GLU:O	2.59	0.41
67:B1:1277:G:H21	67:B1:1282:A:H2	1.67	0.41
67:B1:1712:U:H2'	67:B1:1713:G:OP2	2.20	0.41
67:B1:2463:G:C6	67:B1:2464:G:C6	3.09	0.41
67:B1:257:G:C6	67:B1:258:C:C5	3.09	0.41
67:B1:680:U:H2'	67:B1:681:C:C6	2.56	0.41
20:BG:6:TYR:CZ	20:BG:63:VAL:HG12	2.55	0.41
35:BL:47:TRP:HZ3	67:B1:967:G:H21	1.68	0.41
49:BQ:115:ILE:HB	49:BQ:120:TYR:CZ	2.56	0.41
60:BS:91:ILE:HD12	60:BS:91:ILE:HA	1.99	0.41
27:A0:11:C:O4'	27:A0:11:C:C6	2.74	0.41
21:A2:434:A:C2	28:AV:84:GLU:CD	2.93	0.41
21:A2:42:G:H4'	21:A2:43:A:OP2	2.21	0.41
18:AF:206:TYR:C	18:AF:206:TYR:CD1	2.94	0.41
4:AG:34:ILE:HD13	4:AG:76:PRO:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AH:64:VAL:HG13	25:AH:104:VAL:HG11	2.02	0.41
25:AH:45:PRO:HG2	25:AH:101:TYR:CD1	2.56	0.41
67:B1:1202:G:H1	67:B1:1214:C:H42	1.69	0.41
67:B1:1222:U:O2	67:B1:1225:A:C6	2.74	0.41
67:B1:1608:G:C5	67:B1:1609:G:N7	2.89	0.41
67:B1:1827:A:H61	67:B1:1835:A:N6	2.10	0.41
67:B1:1887:A:H2'	67:B1:1888:G:H8	1.86	0.41
67:B1:2036:A:C2	67:B1:2043:A:C5	3.09	0.41
67:B1:2953:U:H3	67:B1:2969:G:H1	1.67	0.41
20:BG:2:ALA:O	20:BG:3:LYS:O	2.39	0.41
59:BM:41:ARG:HB3	67:B1:292:U:O2	2.21	0.41
62:BN:19:ARG:NH1	67:B1:1045:A:C2	2.89	0.41
49:BQ:88:ARG:HD3	67:B1:1789:A:H5'	2.03	0.41
21:A2:1179:C:O4'	21:A2:1179:C:N1	2.44	0.40
21:A2:1299:A:H2'	21:A2:1300:A:O4'	2.22	0.40
21:A2:1332:C:C3'	25:AH:98:VAL:HG22	2.52	0.40
3:AI:2:THR:CG2	21:A2:709:G:N3	2.82	0.40
21:A2:896:A:H2'	21:A2:897:A:O4'	2.21	0.40
18:AF:16:TRP:O	18:AF:27:LYS:HE2	2.21	0.40
25:AH:179:SER:O	25:AH:182:GLU:HB2	2.22	0.40
25:AH:65:GLU:HG2	25:AH:97:LYS:NZ	2.36	0.40
2:AK:46:LEU:HD21	25:AH:13:HIS:CE1	2.33	0.40
29:AL:77:ALA:HB1	29:AL:81:ALA:HB3	2.03	0.40
12:AN:110:GLY:H	21:A2:506:G:P	2.44	0.40
12:AN:33:ARG:NH1	21:A2:509:C:OP2	2.55	0.40
67:B1:1037:C:C6	67:B1:1037:C:H2'	2.56	0.40
35:BL:6:LYS:HZ3	67:B1:1339:C:N4	2.16	0.40
35:BL:62:GLY:CA	67:B1:2533:G:H4'	2.46	0.40
67:B1:2887:C:N4	67:B1:2888:G:C6	2.90	0.40
67:B1:474:G:N3	67:B1:475:U:O4	2.54	0.40
67:B1:907:C:H2'	67:B1:908:U:C6	2.56	0.40
68:B3:1:C:OP1	68:B3:117:G:C2	2.74	0.40
33:BC:41:PHE:CG	33:BC:212:VAL:HG11	2.56	0.40
40:BE:134:ILE:HD13	40:BE:134:ILE:HG21	1.86	0.40
35:BL:10:LYS:CE	67:B1:946:U:C2	3.05	0.40
48:BR:11:LYS:HE2	48:BR:11:LYS:O	2.21	0.40
21:A2:263:C:H2'	21:A2:264:C:H6	1.83	0.40
21:A2:948:G:N2	21:A2:1177:C:C2	2.89	0.40
6:AC:32:GLY:H	6:AC:47:PHE:HB2	1.84	0.40
18:AF:213:ILE:HG12	18:AF:214:SER:N	2.36	0.40
13:AX:62:ARG:HA	13:AX:62:ARG:HD3	1.91	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1065:C:H2'	67:B1:1066:C:C6	2.55	0.40
40:BE:21:ARG:HB3	67:B1:115:C:O2'	157.06	0.40
67:B1:1569:A:O2'	67:B1:1569:A:C3'	2.54	0.40
67:B1:1653:U:O2	67:B1:1715:G:H4'	2.21	0.40
67:B1:1909:C:C6	67:B1:1909:C:O4'	2.74	0.40
67:B1:2902:G:C8	67:B1:2903:U:C5	3.09	0.40
67:B1:31:G:H1	67:B1:513:C:H42	1.68	0.40
67:B1:874:U:C6	67:B1:874:U:O4'	2.74	0.40
56:BH:114:MET:O	56:BH:115:LEU:HD12	2.20	0.40
35:BL:6:LYS:HD3	67:B1:1339:C:H41	1.78	0.40
37:BU:44:LEU:HD12	37:BU:45:PRO:HD2	2.03	0.40
57:BZ:70:LEU:HD22	57:BZ:81:ALA:HB3	2.03	0.40
11:A1:60:A:C6	11:A1:61:U:O2	2.74	0.40
4:AG:99:LYS:HD3	21:A2:319:U:H2'	2.03	0.40
21:A2:950:C:H3'	21:A2:951:G:H5''	2.03	0.40
10:AD:162:ASN:HB2	10:AD:165:HIS:CE1	2.56	0.40
18:AF:170:VAL:CG1	18:AF:171:GLY:N	2.83	0.40
18:AF:22:LEU:O	18:AF:26:VAL:HG23	2.22	0.40
25:AH:111:ILE:HD11	25:AH:122:VAL:HG11	2.03	0.40
25:AH:87:ARG:HG2	25:AH:88:ARG:N	2.36	0.40
12:AN:61:GLU:CD	12:AN:61:GLU:H	2.24	0.40
67:B1:1148:C:H2'	67:B1:1149:C:C6	2.57	0.40
67:B1:1242:A:H3'	67:B1:1243:C:C5'	2.51	0.40
67:B1:1260:C:H2'	67:B1:1261:C:H6	1.87	0.40
67:B1:1954:U:C5	67:B1:1956:G:C4	3.09	0.40
67:B1:2520:C:C6	67:B1:2520:C:O4'	2.74	0.40
67:B1:2642:C:O4'	67:B1:2642:C:C6	2.74	0.40
67:B1:362:A:H1'	67:B1:379:U:O2	2.21	0.40
67:B1:697:U:H3	67:B1:718:G:H1	1.70	0.40
68:B3:87:G:H1'	68:B3:90:A:H61	1.86	0.40
33:BC:114:ARG:HH21	33:BC:117:LYS:H	1.70	0.40
53:BD:85:PHE:HB3	67:B1:1396:A:N6	2.35	0.40
47:BI:123:LEU:HD11	54:BF:41:TRP:O	2.21	0.40
48:BR:69:ARG:HH21	48:BR:87:PHE:CB	2.33	0.40
37:BU:46:VAL:HG23	37:BU:46:VAL:H	1.67	0.40
11:A1:16:C:H4'	11:A1:61:U:H1'	2.03	0.40
21:A2:1252:C:H2'	21:A2:1253:G:C8	2.56	0.40
21:A2:194:C:O2'	21:A2:195:C:H5'	2.20	0.40
21:A2:29:G:H2'	21:A2:30:C:C6	2.57	0.40
21:A2:428:G:N1	21:A2:442:C:N4	2.49	0.40
21:A2:438:A:H2'	21:A2:439:G:OP1	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:537:G:H2'	21:A2:538:C:C6	2.56	0.40
21:A2:547:U:C4	21:A2:548:A:C6	3.09	0.40
21:A2:530:G:O6	21:A2:719:G:C2	2.74	0.40
28:AV:81:ILE:O	28:AV:81:ILE:HD12	2.21	0.40
67:B1:1215:C:H2'	67:B1:1216:A:C8	2.56	0.40
67:B1:1703:G:C6	67:B1:1704:C:C4	3.10	0.40
65:BJ:52:ARG:CB	67:B1:2548:A:N1	82.37	0.40
67:B1:773:U:H2'	67:B1:774:G:C8	2.57	0.40
48:BR:29:THR:HG21	68:B3:7:C:OP1	2.22	0.40
52:BB:102:ILE:HD13	52:BB:102:ILE:HG21	2.24	0.40
35:BL:44:LYS:CE	35:BL:47:TRP:CG	3.02	0.40
20:BG:5:SER:HG	59:BM:22:LEU:HD21	1.71	0.40
50:BV:48:ARG:HB3	50:BV:56:TYR:CZ	2.56	0.40
21:A2:182:A:H2'	21:A2:183:A:C8	2.56	0.40
21:A2:541:G:C4	21:A2:707:A:C6	3.10	0.40
21:A2:910:G:C6	21:A2:911:C:C4	3.10	0.40
6:AC:69:LEU:CD2	6:AC:73:PHE:CE1	3.04	0.40
18:AF:5:TRP:CG	18:AF:6:LYS:N	2.90	0.40
18:AF:71:THR:HB	21:A2:1032:A:O3'	2.21	0.40
4:AG:87:LEU:HD21	4:AG:102:ARG:NE	2.37	0.40
2:AK:43:PHE:CD2	25:AH:12:PRO:HG3	2.56	0.40
25:AH:16:LYS:HB3	25:AH:21:TRP:N	2.34	0.40
67:B1:1087:G:N2	67:B1:1103:C:H1'	2.37	0.40
67:B1:1198:G:H2'	67:B1:1199:U:C6	2.57	0.40
67:B1:1281:A:N1	67:B1:1283:G:H1'	2.37	0.40
67:B1:1306:A:C2	67:B1:1324:G:C2	3.09	0.40
35:BL:6:LYS:CE	67:B1:1339:C:H41	2.34	0.40
67:B1:1754:A:H2'	67:B1:1754:A:C8	2.56	0.40
46:BA:20:LYS:CG	67:B1:1811:G:C8	173.21	0.40
67:B1:2671:C:C6	67:B1:2671:C:O4'	2.74	0.40
67:B1:499:A:C2	67:B1:509:A:C4	3.10	0.40
67:B1:610:C:O4'	67:B1:610:C:C6	2.75	0.40
67:B1:84:A:C2	67:B1:102:A:C2	3.10	0.40
35:BL:44:LYS:CG	67:B1:961:C:O4'	2.40	0.40
20:B4:52:ILE:HD11	20:B4:80:VAL:CG2	2.52	0.40
53:BD:85:PHE:HB2	67:B1:1396:A:N6	2.37	0.40
56:BH:39:ILE:O	56:BH:43:THR:HG22	2.22	0.40
35:BL:65:ARG:HD3	35:BL:70:GLN:HG2	2.03	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	AQ	156/158 (99%)	139 (89%)	8 (5%)	9 (6%)	2	24
2	AK	133/135 (98%)	119 (90%)	12 (9%)	2 (2%)	12	53
3	AI	127/130 (98%)	121 (95%)	4 (3%)	2 (2%)	11	51
4	AG	123/125 (98%)	103 (84%)	11 (9%)	9 (7%)	1	19
5	AW	61/63 (97%)	55 (90%)	4 (7%)	2 (3%)	4	35
6	AC	184/210 (88%)	175 (95%)	6 (3%)	3 (2%)	11	51
7	AB	200/202 (99%)	177 (88%)	19 (10%)	4 (2%)	9	46
8	AR	111/113 (98%)	100 (90%)	9 (8%)	2 (2%)	10	49
10	AD	170/180 (94%)	151 (89%)	14 (8%)	5 (3%)	5	38
12	AN	143/147 (97%)	129 (90%)	8 (6%)	6 (4%)	3	30
13	AX	69/71 (97%)	59 (86%)	4 (6%)	6 (9%)	1	15
14	AM	131/137 (96%)	118 (90%)	8 (6%)	5 (4%)	4	32
15	AE	239/243 (98%)	210 (88%)	23 (10%)	6 (2%)	6	41
16	AJ	125/127 (98%)	101 (81%)	18 (14%)	6 (5%)	2	27
17	AO	146/148 (99%)	122 (84%)	15 (10%)	9 (6%)	2	22
18	AF	215/236 (91%)	191 (89%)	22 (10%)	2 (1%)	20	63
19	AS	65/67 (97%)	64 (98%)	0	1 (2%)	12	53
20	A3	121/123 (98%)	105 (87%)	8 (7%)	8 (7%)	1	21
20	B4	121/123 (98%)	113 (93%)	6 (5%)	2 (2%)	11	50
20	BG	121/123 (98%)	109 (90%)	8 (7%)	4 (3%)	4	35
22	AY	48/50 (96%)	43 (90%)	3 (6%)	2 (4%)	3	30
23	AT	109/132 (83%)	98 (90%)	9 (8%)	2 (2%)	10	49
24	AA	188/198 (95%)	170 (90%)	12 (6%)	6 (3%)	5	35
25	AH	213/215 (99%)	181 (85%)	14 (7%)	18 (8%)	1	15
26	AP	54/56 (96%)	43 (80%)	8 (15%)	3 (6%)	2	24

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	AV	97/99 (98%)	86 (89%)	6 (6%)	5 (5%)	2	26
28	B6	92/99 (93%)	84 (91%)	4 (4%)	4 (4%)	3	29
29	AL	100/102 (98%)	92 (92%)	1 (1%)	7 (7%)	1	19
30	AU	142/150 (95%)	134 (94%)	5 (4%)	3 (2%)	8	45
31	BY	153/155 (99%)	143 (94%)	5 (3%)	5 (3%)	4	35
32	BO	195/203 (96%)	164 (84%)	17 (9%)	14 (7%)	1	19
33	BC	363/365 (100%)	303 (84%)	34 (9%)	26 (7%)	1	19
34	B5	79/83 (95%)	69 (87%)	5 (6%)	5 (6%)	1	22
34	BK	79/83 (95%)	68 (86%)	6 (8%)	5 (6%)	1	22
35	BL	145/147 (99%)	128 (88%)	8 (6%)	9 (6%)	2	22
36	Bf	49/51 (96%)	37 (76%)	8 (16%)	4 (8%)	1	16
37	BU	119/121 (98%)	113 (95%)	3 (2%)	3 (2%)	6	41
38	Bb	125/130 (96%)	102 (82%)	13 (10%)	10 (8%)	1	17
39	Be	60/62 (97%)	45 (75%)	11 (18%)	4 (7%)	1	21
40	BE	184/186 (99%)	170 (92%)	8 (4%)	6 (3%)	4	35
41	Ba	88/95 (93%)	74 (84%)	7 (8%)	7 (8%)	1	17
42	BT	82/86 (95%)	78 (95%)	3 (4%)	1 (1%)	15	57
43	Bk	210/339 (62%)	187 (89%)	12 (6%)	11 (5%)	2	26
44	BW	70/72 (97%)	70 (100%)	0	0	100	100
45	Bi	76/83 (92%)	70 (92%)	6 (8%)	0	100	100
46	BA	214/216 (99%)	190 (89%)	12 (6%)	12 (6%)	2	24
47	BI	140/142 (99%)	129 (92%)	7 (5%)	4 (3%)	5	38
48	BR	93/97 (96%)	85 (91%)	6 (6%)	2 (2%)	8	44
49	BQ	148/150 (99%)	141 (95%)	4 (3%)	3 (2%)	9	46
50	BV	64/66 (97%)	63 (98%)	1 (2%)	0	100	100
51	Bj	92/94 (98%)	71 (77%)	8 (9%)	13 (14%)	0	5
52	BB	237/239 (99%)	213 (90%)	17 (7%)	7 (3%)	5	37
53	BD	253/255 (99%)	218 (86%)	21 (8%)	14 (6%)	2	25
54	BF	182/184 (99%)	169 (93%)	13 (7%)	0	100	100
55	Bh	22/24 (92%)	21 (96%)	1 (4%)	0	100	100
56	BH	132/164 (80%)	108 (82%)	14 (11%)	10 (8%)	1	18

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
57	BZ	97/99 (98%)	84 (87%)	7 (7%)	6 (6%)	2	22
58	BP	118/120 (98%)	102 (86%)	13 (11%)	3 (2%)	6	41
59	BM	192/194 (99%)	173 (90%)	17 (9%)	2 (1%)	18	61
60	BS	148/155 (96%)	137 (93%)	8 (5%)	3 (2%)	9	46
61	Bd	87/89 (98%)	78 (90%)	6 (7%)	3 (3%)	4	35
62	BN	166/181 (92%)	137 (82%)	20 (12%)	9 (5%)	2	25
63	Bg	43/51 (84%)	31 (72%)	3 (7%)	9 (21%)	0	2
64	Bc	85/87 (98%)	74 (87%)	7 (8%)	4 (5%)	3	28
65	BJ	130/141 (92%)	124 (95%)	4 (3%)	2 (2%)	12	53
66	Bl	75/77 (97%)	69 (92%)	4 (5%)	2 (3%)	6	40
All	All	8599/9048 (95%)	7630 (89%)	608 (7%)	361 (4%)	6	30

All (361) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	AQ	78	ILE
2	AK	133	SER
3	AI	121	ILE
4	AG	48	ASN
4	AG	50	LEU
4	AG	56	PRO
5	AW	2	ALA
7	AB	7	VAL
8	AR	16	CYS
10	AD	163	PRO
10	AD	174	ALA
12	AN	36	ARG
12	AN	43	PRO
12	AN	44	LEU
12	AN	120	PRO
13	AX	4	ASP
14	AM	132	ARG
17	AO	20	GLN
17	AO	113	ARG
17	AO	129	GLN
18	AF	132	GLU
19	AS	6	GLN
20	A3	122	MET

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Mol	Chain	Res	Type
24	AA	193	GLU
24	AA	194	PRO
25	AH	46	HIS
25	AH	47	THR
25	AH	48	HIS
25	AH	49	GLY
25	AH	50	ARG
25	AH	78	HIS
25	AH	89	GLU
25	AH	175	ARG
28	AV	55	TYR
28	AV	95	LYS
28	AV	98	GLY
29	AL	30	THR
29	AL	91	PRO
29	AL	92	GLU
30	AU	35	VAL
30	AU	93	ALA
31	BY	110	LEU
31	BY	112	ASN
31	BY	129	SER
32	BO	56	ASP
32	BO	109	HIS
32	BO	157	LYS
32	BO	193	ILE
33	BC	110	PRO
33	BC	112	LYS
33	BC	125	TYR
33	BC	126	LYS
33	BC	138	ASN
33	BC	292	ASN
34	B5	17	ARG
34	B5	50	ILE
35	BL	9	ARG
35	BL	11	LEU
35	BL	47	TRP
35	BL	64	SER
36	Bf	37	THR
38	Bb	21	PRO
38	Bb	26	GLN
38	Bb	36	ASN
38	Bb	39	LYS

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Mol	Chain	Res	Type
38	Bb	58	PRO
38	Bb	75	HIS
38	Bb	126	LEU
38	Bb	128	PRO
39	Be	52	SER
40	BE	18	HIS
41	Ba	48	VAL
41	Ba	80	LYS
43	Bk	61	GLU
43	Bk	107	ARG
43	Bk	109	PRO
43	Bk	110	ALA
46	BA	160	ASN
47	BI	60	ASN
34	BK	17	ARG
34	BK	50	ILE
49	BQ	2	ASN
51	Bj	25	VAL
51	Bj	31	SER
51	Bj	33	LEU
51	Bj	52	ARG
51	Bj	53	PRO
51	Bj	54	LYS
51	Bj	55	PRO
51	Bj	61	PRO
52	BB	39	LYS
53	BD	75	THR
53	BD	92	THR
53	BD	101	ILE
56	BH	2	PRO
56	BH	12	GLY
56	BH	47	ALA
56	BH	60	VAL
56	BH	71	PRO
57	BZ	79	VAL
28	B6	55	TYR
62	BN	10	ARG
62	BN	19	ARG
63	Bg	34	CYS
63	Bg	36	TYR
63	Bg	44	LYS
63	Bg	45	GLU

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Mol	Chain	Res	Type
64	Bc	58	VAL
1	AQ	114	LYS
4	AG	43	LEU
4	AG	54	GLU
4	AG	102	ARG
6	AC	152	ALA
8	AR	22	PRO
10	AD	175	LYS
12	AN	90	GLY
14	AM	55	PRO
15	AE	150	VAL
15	AE	160	THR
15	AE	193	VAL
20	A3	95	ALA
20	A3	96	ALA
22	AY	5	TRP
23	AT	56	LYS
24	AA	45	ASN
25	AH	77	SER
25	AH	82	ALA
25	AH	90	HIS
25	AH	138	SER
25	AH	178	MET
25	AH	179	SER
26	AP	12	ARG
29	AL	51	LYS
29	AL	88	ILE
31	BY	73	ARG
32	BO	5	PRO
32	BO	136	GLU
32	BO	172	LEU
32	BO	179	GLU
33	BC	56	ASP
33	BC	108	ASN
33	BC	111	ALA
33	BC	173	VAL
33	BC	245	LYS
33	BC	250	ARG
33	BC	304	GLU
34	B5	69	GLU
35	BL	55	PRO
36	Bf	34	ARG

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Mol	Chain	Res	Type
39	Be	3	SER
41	Ba	81	ARG
41	Ba	86	THR
43	Bk	71	LEU
43	Bk	80	ILE
46	BA	127	PRO
47	BI	117	GLU
48	BR	38	GLY
34	BK	69	GLU
51	Bj	42	ARG
51	Bj	58	ARG
52	BB	35	TYR
20	BG	3	LYS
20	BG	4	PRO
20	BG	5	SER
53	BD	189	ARG
56	BH	5	VAL
56	BH	25	ILE
56	BH	33	LYS
57	BZ	57	ASP
57	BZ	90	GLU
28	B6	63	TYR
59	BM	82	PRO
61	Bd	57	LEU
63	Bg	5	PRO
63	Bg	9	ALA
63	Bg	42	LYS
65	BJ	33	SER
1	AQ	7	ARG
1	AQ	71	ASN
1	AQ	72	PRO
3	AI	112	SER
6	AC	31	GLY
6	AC	58	GLY
7	AB	23	GLN
10	AD	84	PRO
13	AX	19	GLY
13	AX	35	ARG
13	AX	62	ARG
16	AJ	4	TRP
16	AJ	82	GLU
16	AJ	105	ILE

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Mol	Chain	Res	Type
17	AO	83	LYS
17	AO	137	ARG
18	AF	165	LEU
20	A3	106	LYS
23	AT	20	SER
26	AP	7	ASN
28	AV	97	GLU
30	AU	117	LYS
33	BC	63	GLY
33	BC	122	MET
33	BC	319	SER
37	BU	74	TYR
37	BU	88	GLY
37	BU	106	ASN
40	BE	123	ILE
40	BE	128	TYR
41	Ba	79	GLU
41	Ba	85	GLU
42	BT	48	ASN
43	Bk	72	GLY
46	BA	19	ALA
46	BA	97	ALA
46	BA	159	ASN
47	BI	84	PRO
49	BQ	4	LEU
51	Bj	34	SER
52	BB	173	VAL
20	BG	103	GLU
53	BD	45	PRO
53	BD	65	HIS
53	BD	68	ALA
53	BD	84	PRO
53	BD	193	LYS
53	BD	205	GLU
56	BH	70	VAL
56	BH	72	PRO
57	BZ	78	PHE
28	B6	26	PRO
59	BM	135	PRO
60	BS	84	PRO
61	Bd	58	PRO
62	BN	163	ARG

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Mol	Chain	Res	Type
62	BN	169	GLY
20	B4	3	LYS
20	B4	103	GLU
64	Bc	65	GLY
1	AQ	150	PRO
4	AG	46	ASN
4	AG	60	LYS
7	AB	38	ASP
10	AD	164	GLN
15	AE	236	ASP
15	AE	237	LYS
17	AO	143	VAL
20	A3	74	GLU
22	AY	23	PRO
24	AA	129	ILE
26	AP	8	LYS
28	AV	73	ASP
32	BO	160	ASP
33	BC	114	ARG
33	BC	116	GLY
33	BC	190	THR
33	BC	306	THR
35	BL	45	SER
35	BL	97	GLU
36	Bf	50	LYS
38	Bb	66	SER
46	BA	45	ARG
46	BA	140	THR
46	BA	151	LYS
51	Bj	62	VAL
52	BB	31	ILE
52	BB	187	LYS
53	BD	58	THR
57	BZ	42	PRO
58	BP	56	ALA
58	BP	71	ALA
60	BS	69	SER
62	BN	82	TYR
62	BN	102	GLY
62	BN	103	ARG
64	Bc	75	LEU
66	Bl	4	LYS

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Mol	Chain	Res	Type
1	AQ	62	SER
1	AQ	112	HIS
2	AK	23	LYS
5	AW	6	ILE
13	AX	69	SER
14	AM	25	ASN
14	AM	85	ALA
15	AE	79	LYS
16	AJ	114	PRO
20	A3	56	ASP
20	A3	103	GLU
24	AA	52	LEU
25	AH	85	PHE
25	AH	93	LEU
29	AL	90	VAL
31	BY	89	LEU
33	BC	34	THR
33	BC	119	LYS
33	BC	162	ASP
34	B5	4	ILE
38	Bb	125	VAL
40	BE	120	HIS
40	BE	121	ILE
41	Ba	46	GLN
43	Bk	36	TYR
43	Bk	74	PRO
46	BA	81	VAL
34	BK	4	ILE
49	BQ	134	ASN
51	Bj	60	LYS
53	BD	77	PRO
60	BS	57	LEU
61	Bd	22	VAL
62	BN	107	ARG
64	Bc	9	SER
66	Bl	28	ILE
12	AN	145	PRO
13	AX	3	GLU
17	AO	74	ILE
17	AO	125	PRO
20	A3	58	ASP
25	AH	88	ARG

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Mol	Chain	Res	Type
32	BO	147	GLU
32	BO	174	LYS
32	BO	180	LYS
32	BO	192	ILE
33	BC	57	GLU
33	BC	137	LYS
34	B5	80	ILE
35	BL	26	ARG
35	BL	88	LEU
36	Bf	23	VAL
39	Be	15	PRO
40	BE	3	VAL
34	BK	80	ILE
53	BD	50	PRO
63	Bg	32	ARG
4	AG	55	PHE
14	AM	128	PRO
16	AJ	65	VAL
24	AA	24	PRO
32	BO	139	PRO
47	BI	104	PRO
48	BR	54	PRO
52	BB	212	GLY
28	B6	83	PRO
62	BN	114	ARG
65	BJ	22	PRO
1	AQ	61	PRO
43	Bk	187	VAL
43	Bk	188	GLY
57	BZ	86	VAL
63	Bg	4	PHE
7	AB	104	PRO
17	AO	82	PRO
29	AL	52	SER
39	Be	4	GLY
46	BA	21	PRO
52	BB	122	VAL
16	AJ	3	ILE
25	AH	83	GLY
46	BA	55	GLY
53	BD	105	ILE
58	BP	65	PRO

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Mol	Chain	Res	Type
33	BC	344	PRO
46	BA	161	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	AQ	143/143 (100%)	138 (96%)	5 (4%)	41	69
2	AK	111/111 (100%)	105 (95%)	6 (5%)	26	58
3	AI	107/108 (99%)	100 (94%)	7 (6%)	20	52
4	AG	108/108 (100%)	88 (82%)	20 (18%)	2	12
5	AW	54/54 (100%)	52 (96%)	2 (4%)	39	68
6	AC	145/167 (87%)	143 (99%)	2 (1%)	71	86
7	AB	173/173 (100%)	164 (95%)	9 (5%)	27	59
8	AR	102/102 (100%)	101 (99%)	1 (1%)	80	90
10	AD	153/160 (96%)	147 (96%)	6 (4%)	37	66
12	AN	118/121 (98%)	104 (88%)	14 (12%)	6	27
13	AX	60/60 (100%)	55 (92%)	5 (8%)	13	43
14	AM	100/104 (96%)	94 (94%)	6 (6%)	22	55
15	AE	212/213 (100%)	198 (93%)	14 (7%)	19	52
16	AJ	103/103 (100%)	98 (95%)	5 (5%)	29	61
17	AO	122/122 (100%)	119 (98%)	3 (2%)	53	77
18	AF	181/197 (92%)	176 (97%)	5 (3%)	49	74
19	AS	61/61 (100%)	61 (100%)	0	100	100
20	A3	99/99 (100%)	95 (96%)	4 (4%)	36	65
20	B4	99/99 (100%)	95 (96%)	4 (4%)	36	65
20	BG	99/99 (100%)	92 (93%)	7 (7%)	17	49
22	AY	41/41 (100%)	39 (95%)	2 (5%)	29	61
23	AT	99/114 (87%)	99 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
24	AA	166/171 (97%)	163 (98%)	3 (2%)	64	84
25	AH	184/184 (100%)	166 (90%)	18 (10%)	9	34
26	AP	46/46 (100%)	39 (85%)	7 (15%)	3	19
28	AV	89/89 (100%)	81 (91%)	8 (9%)	11	38
28	B6	85/89 (96%)	78 (92%)	7 (8%)	13	43
29	AL	91/91 (100%)	82 (90%)	9 (10%)	9	34
30	AU	121/127 (95%)	114 (94%)	7 (6%)	23	56
31	BY	133/133 (100%)	112 (84%)	21 (16%)	3	18
32	BO	166/169 (98%)	157 (95%)	9 (5%)	26	58
33	BC	312/312 (100%)	293 (94%)	19 (6%)	22	55
34	B5	64/66 (97%)	60 (94%)	4 (6%)	21	53
34	BK	64/66 (97%)	62 (97%)	2 (3%)	45	71
35	BL	117/117 (100%)	102 (87%)	15 (13%)	5	25
36	Bf	47/47 (100%)	40 (85%)	7 (15%)	3	20
37	BU	110/110 (100%)	106 (96%)	4 (4%)	40	68
38	Bb	114/117 (97%)	105 (92%)	9 (8%)	14	45
39	Be	51/51 (100%)	46 (90%)	5 (10%)	9	34
40	BE	158/158 (100%)	152 (96%)	6 (4%)	38	67
41	Ba	80/83 (96%)	71 (89%)	9 (11%)	7	29
42	BT	75/77 (97%)	72 (96%)	3 (4%)	36	65
43	Bk	179/280 (64%)	159 (89%)	20 (11%)	7	29
44	BW	66/66 (100%)	63 (96%)	3 (4%)	32	63
45	Bi	57/61 (93%)	55 (96%)	2 (4%)	41	69
46	BA	182/182 (100%)	174 (96%)	8 (4%)	33	63
47	BI	122/122 (100%)	119 (98%)	3 (2%)	53	77
48	BR	85/87 (98%)	75 (88%)	10 (12%)	6	27
49	BQ	130/130 (100%)	121 (93%)	9 (7%)	18	51
50	BV	56/56 (100%)	54 (96%)	2 (4%)	40	68
51	Bj	82/83 (99%)	65 (79%)	17 (21%)	1	8
52	BB	189/189 (100%)	180 (95%)	9 (5%)	30	61
53	BD	213/213 (100%)	197 (92%)	16 (8%)	16	48

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
54	BF	156/156 (100%)	150 (96%)	6 (4%)	38	67
55	Bh	23/23 (100%)	23 (100%)	0	100	100
56	BH	110/137 (80%)	96 (87%)	14 (13%)	5	25
57	BZ	80/80 (100%)	73 (91%)	7 (9%)	12	39
58	BP	101/101 (100%)	98 (97%)	3 (3%)	46	72
59	BM	162/162 (100%)	152 (94%)	10 (6%)	21	54
60	BS	126/130 (97%)	121 (96%)	5 (4%)	36	65
61	Bd	81/81 (100%)	66 (82%)	15 (18%)	2	12
62	BN	140/152 (92%)	138 (99%)	2 (1%)	71	86
63	Bg	37/39 (95%)	29 (78%)	8 (22%)	1	7
64	Bc	74/74 (100%)	65 (88%)	9 (12%)	6	26
65	BJ	104/108 (96%)	99 (95%)	5 (5%)	30	61
66	Bl	72/72 (100%)	68 (94%)	4 (6%)	25	57
All	All	7390/7646 (97%)	6904 (93%)	486 (7%)	24	52

All (486) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	AQ	4	MET
1	AQ	9	ARG
1	AQ	15	LYS
1	AQ	145	ASN
1	AQ	152	THR
2	AK	3	ILE
2	AK	23	LYS
2	AK	31	LYS
2	AK	38	PRO
2	AK	71	PHE
2	AK	112	ARG
3	AI	22	LYS
3	AI	24	GLU
3	AI	27	ILE
3	AI	28	LYS
3	AI	44	TYR
3	AI	110	VAL
3	AI	125	LEU
4	AG	8	ILE

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Mol	Chain	Res	Type
4	AG	15	ILE
4	AG	18	GLN
4	AG	34	ILE
4	AG	48	ASN
4	AG	51	PHE
4	AG	57	GLU
4	AG	64	ARG
4	AG	75	ARG
4	AG	77	ASP
4	AG	79	HIS
4	AG	81	PRO
4	AG	84	VAL
4	AG	86	VAL
4	AG	87	LEU
4	AG	99	LYS
4	AG	102	ARG
4	AG	118	GLN
4	AG	121	VAL
4	AG	122	LYS
5	AW	14	LEU
5	AW	45	VAL
6	AC	75	LEU
6	AC	172	LYS
7	AB	7	VAL
7	AB	13	LEU
7	AB	33	TYR
7	AB	38	ASP
7	AB	52	LEU
7	AB	59	LEU
7	AB	67	ILE
7	AB	114	VAL
7	AB	188	PHE
8	AR	27	LEU
10	AD	34	GLU
10	AD	49	LYS
10	AD	59	LEU
10	AD	118	MET
10	AD	125	ILE
10	AD	137	ILE
12	AN	16	LEU
12	AN	30	TYR
12	AN	57	LYS

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Mol	Chain	Res	Type
12	AN	61	GLU
12	AN	64	GLN
12	AN	69	MET
12	AN	80	ASN
12	AN	97	ILE
12	AN	105	ILE
12	AN	111	PRO
12	AN	119	ILE
12	AN	127	VAL
12	AN	132	VAL
12	AN	136	GLU
13	AX	17	ARG
13	AX	20	THR
13	AX	24	VAL
13	AX	46	ARG
13	AX	65	ARG
14	AM	13	LYS
14	AM	20	TYR
14	AM	42	TRP
14	AM	84	ARG
14	AM	92	LYS
14	AM	137	VAL
15	AE	4	LYS
15	AE	36	PRO
15	AE	41	THR
15	AE	81	TYR
15	AE	122	ILE
15	AE	142	PHE
15	AE	143	HIS
15	AE	179	PHE
15	AE	195	ARG
15	AE	198	ARG
15	AE	212	VAL
15	AE	215	ILE
15	AE	237	LYS
15	AE	242	LEU
16	AJ	34	ASN
16	AJ	45	ILE
16	AJ	49	TYR
16	AJ	83	ASN
16	AJ	105	ILE
17	AO	4	PHE

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Mol	Chain	Res	Type
17	AO	7	ILE
17	AO	139	GLN
18	AF	5	TRP
18	AF	13	LEU
18	AF	21	LYS
18	AF	70	LEU
18	AF	112	LYS
20	A3	1	MET
20	A3	51	VAL
20	A3	62	ILE
20	A3	66	LEU
22	AY	5	TRP
22	AY	15	VAL
24	AA	43	VAL
24	AA	101	THR
24	AA	178	TYR
25	AH	4	PRO
25	AH	9	PHE
25	AH	47	THR
25	AH	48	HIS
25	AH	50	ARG
25	AH	69	ASN
25	AH	73	ARG
25	AH	84	HIS
25	AH	85	PHE
25	AH	86	MET
25	AH	87	ARG
25	AH	88	ARG
25	AH	96	LYS
25	AH	97	LYS
25	AH	119	PRO
25	AH	174	TYR
25	AH	175	ARG
25	AH	212	GLU
26	AP	3	LYS
26	AP	7	ASN
26	AP	11	PRO
26	AP	14	PHE
26	AP	36	LEU
26	AP	41	HIS
26	AP	55	TYR
28	AV	12	LYS

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Mol	Chain	Res	Type
28	AV	14	ILE
28	AV	50	THR
28	AV	57	ARG
28	AV	60	PHE
28	AV	81	ILE
28	AV	85	TYR
28	AV	88	ILE
29	AL	34	MET
29	AL	41	PRO
29	AL	45	ILE
29	AL	48	THR
29	AL	52	SER
29	AL	68	VAL
29	AL	69	HIS
29	AL	70	LYS
29	AL	84	GLN
30	AU	39	ARG
30	AU	61	ARG
30	AU	67	PRO
30	AU	77	TYR
30	AU	81	LYS
30	AU	103	GLN
30	AU	121	ILE
31	BY	3	LYS
31	BY	13	VAL
31	BY	14	ASN
31	BY	18	PRO
31	BY	26	LEU
31	BY	28	LEU
31	BY	37	VAL
31	BY	39	ASP
31	BY	41	PRO
31	BY	43	TYR
31	BY	74	LEU
31	BY	75	ILE
31	BY	88	LYS
31	BY	89	LEU
31	BY	114	LYS
31	BY	116	VAL
31	BY	118	ARG
31	BY	126	PHE
31	BY	127	ARG

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Mol	Chain	Res	Type
31	BY	131	LYS
31	BY	149	GLU
32	BO	9	VAL
32	BO	81	PRO
32	BO	86	LEU
32	BO	103	ILE
32	BO	116	SER
32	BO	140	ASP
32	BO	143	ARG
32	BO	168	PHE
32	BO	176	LEU
33	BC	51	ILE
33	BC	72	ILE
33	BC	79	ARG
33	BC	83	ILE
33	BC	95	THR
33	BC	112	LYS
33	BC	123	THR
33	BC	125	TYR
33	BC	138	ASN
33	BC	176	LEU
33	BC	247	SER
33	BC	252	LYS
33	BC	255	SER
33	BC	263	ARG
33	BC	266	TRP
33	BC	276	PHE
33	BC	286	LEU
33	BC	343	ARG
33	BC	363	SER
34	B5	12	VAL
34	B5	44	LYS
34	B5	45	ARG
34	B5	46	ARG
35	BL	3	ARG
35	BL	8	VAL
35	BL	9	ARG
35	BL	10	LYS
35	BL	11	LEU
35	BL	34	ARG
35	BL	42	ARG
35	BL	43	ASN

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Mol	Chain	Res	Type
35	BL	44	LYS
35	BL	45	SER
35	BL	47	TRP
35	BL	48	THR
35	BL	52	LYS
35	BL	102	ILE
35	BL	110	ASP
36	Bf	1	MET
36	Bf	3	ARG
36	Bf	28	ILE
36	Bf	34	ARG
36	Bf	37	THR
36	Bf	38	HIS
36	Bf	46	ARG
37	BU	8	PRO
37	BU	43	ASN
37	BU	52	VAL
37	BU	93	TYR
38	Bb	5	GLU
38	Bb	18	ARG
38	Bb	26	GLN
38	Bb	41	ARG
38	Bb	48	SER
38	Bb	52	LEU
38	Bb	69	LYS
38	Bb	70	LEU
38	Bb	110	LYS
39	Be	10	LYS
39	Be	43	SER
39	Be	45	ARG
39	Be	55	TRP
39	Be	62	HIS
40	BE	66	ARG
40	BE	101	ARG
40	BE	128	TYR
40	BE	137	MET
40	BE	140	CYS
40	BE	150	VAL
41	Ba	4	LYS
41	Ba	16	LYS
41	Ba	22	VAL
41	Ba	46	GLN

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Mol	Chain	Res	Type
41	Ba	49	ILE
41	Ba	53	LYS
41	Ba	55	ASN
41	Ba	61	ARG
41	Ba	86	THR
42	BT	11	VAL
42	BT	18	SER
42	BT	83	LEU
43	Bk	8	LYS
43	Bk	12	VAL
43	Bk	30	VAL
43	Bk	36	TYR
43	Bk	42	ARG
43	Bk	51	LEU
43	Bk	55	SER
43	Bk	56	ARG
43	Bk	58	THR
43	Bk	59	LEU
43	Bk	61	GLU
43	Bk	66	LYS
43	Bk	74	PRO
43	Bk	98	LYS
43	Bk	117	LYS
43	Bk	136	ILE
43	Bk	151	ARG
43	Bk	158	LYS
43	Bk	183	GLN
43	Bk	192	LEU
44	BW	19	ARG
44	BW	33	THR
44	BW	38	LEU
45	Bi	16	ARG
45	Bi	50	SER
46	BA	4	ASP
46	BA	24	PHE
46	BA	39	LEU
46	BA	48	LEU
46	BA	94	PRO
46	BA	138	THR
46	BA	143	THR
46	BA	206	THR
47	BI	87	THR

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Mol	Chain	Res	Type
47	BI	106	GLU
47	BI	129	VAL
48	BR	4	LYS
48	BR	11	LYS
48	BR	13	ARG
48	BR	23	ARG
48	BR	28	LEU
48	BR	29	THR
48	BR	31	PHE
48	BR	43	ILE
48	BR	47	PRO
48	BR	85	THR
34	BK	12	VAL
34	BK	45	ARG
49	BQ	3	THR
49	BQ	17	CYS
49	BQ	23	TRP
49	BQ	40	ASP
49	BQ	58	GLN
49	BQ	86	THR
49	BQ	103	ARG
49	BQ	119	THR
49	BQ	121	ARG
50	BV	3	ARG
50	BV	51	LYS
51	Bj	2	LYS
51	Bj	7	ILE
51	Bj	8	ARG
51	Bj	17	HIS
51	Bj	24	ARG
51	Bj	33	LEU
51	Bj	34	SER
51	Bj	39	ARG
51	Bj	50	PHE
51	Bj	51	PRO
51	Bj	52	ARG
51	Bj	63	LYS
51	Bj	72	THR
51	Bj	82	ARG
51	Bj	86	VAL
51	Bj	88	LYS
51	Bj	92	VAL

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Mol	Chain	Res	Type
52	BB	23	ARG
52	BB	36	THR
52	BB	39	LYS
52	BB	55	THR
52	BB	83	ILE
52	BB	136	PRO
52	BB	168	LEU
52	BB	196	LYS
52	BB	222	PRO
20	BG	3	LYS
20	BG	6	TYR
20	BG	49	LYS
20	BG	63	VAL
20	BG	92	ILE
20	BG	106	LYS
20	BG	117	LYS
53	BD	12	PRO
53	BD	25	PRO
53	BD	58	THR
53	BD	60	ASN
53	BD	65	HIS
53	BD	69	ARG
53	BD	82	PHE
53	BD	83	VAL
53	BD	90	ARG
53	BD	101	ILE
53	BD	114	LEU
53	BD	123	ASN
53	BD	155	ARG
53	BD	199	ILE
53	BD	209	LEU
53	BD	250	LEU
54	BF	24	TYR
54	BF	29	LYS
54	BF	34	GLU
54	BF	137	ILE
54	BF	167	ILE
54	BF	184	PHE
56	BH	1	MET
56	BH	3	LYS
56	BH	25	ILE
56	BH	50	GLN

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Mol	Chain	Res	Type
56	BH	74	SER
56	BH	81	LEU
56	BH	84	GLU
56	BH	87	SER
56	BH	91	LYS
56	BH	95	VAL
56	BH	115	LEU
56	BH	117	LEU
56	BH	129	THR
56	BH	133	MET
57	BZ	34	LEU
57	BZ	37	VAL
57	BZ	51	TYR
57	BZ	55	LEU
57	BZ	64	GLU
57	BZ	73	LEU
57	BZ	74	LEU
28	B6	5	ILE
28	B6	12	LYS
28	B6	14	ILE
28	B6	33	ARG
28	B6	50	THR
28	B6	66	LYS
28	B6	81	ILE
58	BP	6	PRO
58	BP	79	ILE
58	BP	85	PHE
59	BM	45	LEU
59	BM	59	TYR
59	BM	67	ARG
59	BM	77	LYS
59	BM	90	TYR
59	BM	115	ASN
59	BM	124	MET
59	BM	140	ILE
59	BM	172	LEU
59	BM	173	ARG
60	BS	9	PHE
60	BS	17	MET
60	BS	27	ILE
60	BS	129	TYR
60	BS	155	ARG

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Mol	Chain	Res	Type
61	Bd	7	SER
61	Bd	12	ARG
61	Bd	28	ARG
61	Bd	29	LYS
61	Bd	30	LYS
61	Bd	44	ASN
61	Bd	47	PRO
61	Bd	50	ARG
61	Bd	58	PRO
61	Bd	60	THR
61	Bd	66	ARG
61	Bd	71	LEU
61	Bd	77	ARG
61	Bd	80	MET
61	Bd	88	LEU
62	BN	116	PHE
62	BN	150	ARG
63	Bg	6	GLU
63	Bg	12	PHE
63	Bg	13	LYS
63	Bg	15	TYR
63	Bg	33	LYS
63	Bg	36	TYR
63	Bg	37	LYS
63	Bg	44	LYS
20	B4	6	TYR
20	B4	92	ILE
20	B4	94	VAL
20	B4	106	LYS
64	Bc	16	ASN
64	Bc	17	GLN
64	Bc	19	ASN
64	Bc	23	ILE
64	Bc	25	LYS
64	Bc	51	LYS
64	Bc	53	LEU
64	Bc	67	VAL
64	Bc	73	LYS
65	BJ	21	LEU
65	BJ	38	ILE
65	BJ	101	ASP
65	BJ	107	VAL

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Mol	Chain	Res	Type
65	BJ	109	PRO
66	Bl	26	ARG
66	Bl	41	ILE
66	Bl	49	ARG
66	Bl	77	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (65) such sidechains are listed below:

Mol	Chain	Res	Type
1	AQ	117	HIS
2	AK	29	ASN
2	AK	117	HIS
3	AI	9	ASN
3	AI	13	HIS
3	AI	16	ASN
4	AG	110	ASN
7	AB	22	GLN
10	AD	44	HIS
10	AD	72	GLN
10	AD	165	HIS
12	AN	8	ASN
14	AM	29	HIS
15	AE	37	HIS
15	AE	143	HIS
15	AE	157	ASN
16	AJ	34	ASN
16	AJ	121	ASN
17	AO	72	HIS
17	AO	120	HIS
18	AF	196	ASN
24	AA	133	GLN
25	AH	46	HIS
25	AH	48	HIS
25	AH	69	ASN
25	AH	94	ASN
26	AP	41	HIS
30	AU	47	GLN
31	BY	32	ASN
32	BO	43	HIS
33	BC	50	HIS
33	BC	108	ASN
33	BC	313	HIS

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Mol	Chain	Res	Type
34	B5	31	ASN
35	BL	15	HIS
36	Bf	19	GLN
38	Bb	26	GLN
39	Be	12	ASN
39	Be	17	HIS
40	BE	110	HIS
40	BE	122	ASN
42	BT	37	GLN
43	Bk	40	GLN
43	Bk	183	GLN
46	BA	26	GLN
46	BA	33	ASN
46	BA	186	ASN
47	BI	5	ASN
48	BR	3	GLN
48	BR	19	HIS
50	BV	62	GLN
51	Bj	20	HIS
51	Bj	37	GLN
52	BB	202	HIS
53	BD	123	ASN
53	BD	214	HIS
54	BF	112	ASN
28	B6	11	ASN
58	BP	110	ASN
59	BM	25	GLN
61	Bd	25	HIS
61	Bd	44	ASN
62	BN	50	HIS
62	BN	59	GLN
64	Bc	16	ASN

### 5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
11	A1	76/77 (98%)	15 (19%)	0
21	A2	1494/1495 (99%)	260 (17%)	0
27	A0	75/76 (98%)	18 (24%)	0
67	B1	3046/3049 (99%)	603 (19%)	0
68	B3	125/126 (99%)	35 (28%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
All	All	4816/4823 (99%)	931 (19%)	0

All (931) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
11	A1	8	U
11	A1	9	A
11	A1	10	G
11	A1	16	C
11	A1	21	G
11	A1	22	A
11	A1	23	G
11	A1	43	G
11	A1	47	G
11	A1	48	U
11	A1	50	G
11	A1	59	A
11	A1	60	A
11	A1	62	C
11	A1	77	A
21	A2	3	U
21	A2	4	C
21	A2	42	G
21	A2	43	A
21	A2	46	A
21	A2	47	A
21	A2	48	G
21	A2	57	G
21	A2	63	G
21	A2	64	G
21	A2	71	C
21	A2	72	C
21	A2	73	U
21	A2	74	U
21	A2	75	C
21	A2	80	A
21	A2	100	A
21	A2	102	U
21	A2	104	A
21	A2	105	C
21	A2	106	A
21	A2	112	G

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Mol	Chain	Res	Type
21	A2	114	A
21	A2	115	A
21	A2	116	C
21	A2	127	G
21	A2	151	G
21	A2	160	C
21	A2	166	A
21	A2	177	A
21	A2	184	G
21	A2	195	C
21	A2	196	G
21	A2	197	A
21	A2	199	A
21	A2	200	G
21	A2	202	G
21	A2	211	G
21	A2	240	U
21	A2	243	G
21	A2	247	G
21	A2	248	U
21	A2	249	U
21	A2	262	G
21	A2	263	C
21	A2	276	A
21	A2	278	A
21	A2	285	C
21	A2	317	A
21	A2	324	C
21	A2	325	A
21	A2	326	C
21	A2	328	G
21	A2	340	A
21	A2	341	C
21	A2	348	C
21	A2	349	A
21	A2	350	G
21	A2	362	C
21	A2	363	C
21	A2	369	A
21	A2	393	A
21	A2	394	C
21	A2	407	G

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Mol	Chain	Res	Type
21	A2	409	C
21	A2	410	U
21	A2	411	C
21	A2	412	U
21	A2	413	G
21	A2	423	U
21	A2	425	C
21	A2	431	U
21	A2	432	G
21	A2	433	U
21	A2	434	A
21	A2	435	A
21	A2	438	A
21	A2	439	G
21	A2	440	C
21	A2	449	U
21	A2	450	A
21	A2	459	G
21	A2	460	C
21	A2	461	A
21	A2	462	A
21	A2	463	G
21	A2	464	G
21	A2	471	G
21	A2	472	C
21	A2	480	G
21	A2	485	A
21	A2	486	A
21	A2	487	U
21	A2	500	A
21	A2	512	U
21	A2	513	A
21	A2	514	U
21	A2	515	U
21	A2	525	A
21	A2	526	A
21	A2	528	G
21	A2	529	C
21	A2	530	G
21	A2	541	G
21	A2	574	A
21	A2	585	U

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Mol	Chain	Res	Type
21	A2	586	C
21	A2	607	U
21	A2	619	A
21	A2	640	U
21	A2	642	G
21	A2	648	A
21	A2	655	A
21	A2	656	U
21	A2	657	A
21	A2	672	G
21	A2	673	C
21	A2	677	U
21	A2	678	G
21	A2	685	G
21	A2	702	G
21	A2	703	U
21	A2	709	G
21	A2	731	A
21	A2	735	A
21	A2	736	A
21	A2	747	U
21	A2	748	A
21	A2	767	U
21	A2	769	A
21	A2	771	G
21	A2	782	A
21	A2	801	A
21	A2	805	C
21	A2	806	G
21	A2	816	G
21	A2	843	G
21	A2	860	G
21	A2	872	A
21	A2	884	G
21	A2	885	G
21	A2	892	C
21	A2	893	U
21	A2	904	G
21	A2	919	U
21	A2	920	U
21	A2	925	U
21	A2	928	A

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Mol	Chain	Res	Type
21	A2	933	G
21	A2	934	G
21	A2	935	G
21	A2	936	A
21	A2	942	A
21	A2	950	C
21	A2	951	G
21	A2	952	A
21	A2	953	C
21	A2	960	A
21	A2	961	U
21	A2	962	G
21	A2	964	A
21	A2	965	G
21	A2	970	G
21	A2	972	C
21	A2	973	U
21	A2	974	G
21	A2	975	A
21	A2	976	A
21	A2	977	G
21	A2	978	G
21	A2	986	G
21	A2	988	A
21	A2	989	C
21	A2	993	C
21	A2	1002	G
21	A2	1005	G
21	A2	1006	C
21	A2	1017	U
21	A2	1018	C
21	A2	1019	A
21	A2	1020	G
21	A2	1037	U
21	A2	1038	C
21	A2	1046	G
21	A2	1047	U
21	A2	1053	A
21	A2	1054	A
21	A2	1064	C
21	A2	1068	C
21	A2	1076	G

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Mol	Chain	Res	Type
21	A2	1077	U
21	A2	1078	U
21	A2	1081	C
21	A2	1082	A
21	A2	1083	G
21	A2	1105	C
21	A2	1112	G
21	A2	1117	A
21	A2	1119	U
21	A2	1128	U
21	A2	1143	G
21	A2	1144	G
21	A2	1151	A
21	A2	1156	A
21	A2	1157	G
21	A2	1161	A
21	A2	1162	G
21	A2	1171	G
21	A2	1172	A
21	A2	1175	C
21	A2	1184	U
21	A2	1185	A
21	A2	1186	C
21	A2	1187	A
21	A2	1198	A
21	A2	1208	A
21	A2	1209	C
21	A2	1210	A
21	A2	1216	A
21	A2	1218	C
21	A2	1239	A
21	A2	1240	A
21	A2	1242	C
21	A2	1245	C
21	A2	1246	U
21	A2	1247	A
21	A2	1258	C
21	A2	1260	G
21	A2	1261	U
21	A2	1262	U
21	A2	1263	C
21	A2	1265	G

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Mol	Chain	Res	Type
21	A2	1280	C
21	A2	1292	A
21	A2	1306	A
21	A2	1307	G
21	A2	1308	U
21	A2	1323	A
21	A2	1324	U
21	A2	1325	C
21	A2	1332	C
21	A2	1341	C
21	A2	1354	A
21	A2	1358	A
21	A2	1379	G
21	A2	1424	G
21	A2	1437	G
21	A2	1445	A
21	A2	1448	A
21	A2	1454	A
21	A2	1457	A
21	A2	1458	A
21	A2	1459	G
21	A2	1460	G
21	A2	1461	U
21	A2	1475	C
21	A2	1484	C
21	A2	1485	G
21	A2	1486	A
21	A2	1487	U
27	A0	7	G
27	A0	9	A
27	A0	18	G
27	A0	19	G
27	A0	20	U
27	A0	22	G
27	A0	36	U
27	A0	41	C
27	A0	42	G
27	A0	48	C
27	A0	61	C
27	A0	63	G
27	A0	69	C
27	A0	72	C

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Mol	Chain	Res	Type
27	A0	73	G
27	A0	74	C
27	A0	75	C
27	A0	76	A
67	B1	9	A
67	B1	10	C
67	B1	12	C
67	B1	13	U
67	B1	34	C
67	B1	44	C
67	B1	45	G
67	B1	46	C
67	B1	50	C
67	B1	64	A
67	B1	74	A
67	B1	75	G
67	B1	84	A
67	B1	85	G
67	B1	91	G
67	B1	98	G
67	B1	99	U
67	B1	100	C
67	B1	101	G
67	B1	118	A
67	B1	119	U
67	B1	120	G
67	B1	124	C
67	B1	130	G
67	B1	144	A
67	B1	145	C
67	B1	146	U
67	B1	152	G
67	B1	154	U
67	B1	155	U
67	B1	157	U
67	B1	158	C
67	B1	159	C
67	B1	160	C
67	B1	170	A
67	B1	185	A
67	B1	188	A
67	B1	205	A

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Mol	Chain	Res	Type
67	B1	211	A
67	B1	216	A
67	B1	217	A
67	B1	219	G
67	B1	221	G
67	B1	222	A
67	B1	237	G
67	B1	238	C
67	B1	254	A
67	B1	255	G
67	B1	278	C
67	B1	286	G
67	B1	291	A
67	B1	292	U
67	B1	299	U
67	B1	300	U
67	B1	301	G
67	B1	302	U
67	B1	303	A
67	B1	304	G
67	B1	305	G
67	B1	306	G
67	B1	309	C
67	B1	315	U
67	B1	319	A
67	B1	325	G
67	B1	332	A
67	B1	333	A
67	B1	341	U
67	B1	342	C
67	B1	351	C
67	B1	361	G
67	B1	363	G
67	B1	365	G
67	B1	369	G
67	B1	370	A
67	B1	379	U
67	B1	380	A
67	B1	385	U
67	B1	394	A
67	B1	399	C
67	B1	401	C

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Mol	Chain	Res	Type
67	B1	403	G
67	B1	404	G
67	B1	405	G
67	B1	406	G
67	B1	407	A
67	B1	408	C
67	B1	409	C
67	B1	410	C
67	B1	411	U
67	B1	414	G
67	B1	428	A
67	B1	430	A
67	B1	440	A
67	B1	442	G
67	B1	444	U
67	B1	450	G
67	B1	472	A
67	B1	480	A
67	B1	481	G
67	B1	486	A
67	B1	488	A
67	B1	490	C
67	B1	495	U
67	B1	496	A
67	B1	514	U
67	B1	518	A
67	B1	519	A
67	B1	520	G
67	B1	528	G
67	B1	530	A
67	B1	531	G
67	B1	537	U
67	B1	542	A
67	B1	543	G
67	B1	546	C
67	B1	568	A
67	B1	569	G
67	B1	570	G
67	B1	576	G
67	B1	579	C
67	B1	580	G
67	B1	581	A

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Mol	Chain	Res	Type
67	B1	583	A
67	B1	584	G
67	B1	585	G
67	B1	588	U
67	B1	589	G
67	B1	599	G
67	B1	623	G
67	B1	640	C
67	B1	642	G
67	B1	654	C
67	B1	666	A
67	B1	694	A
67	B1	716	U
67	B1	717	A
67	B1	733	A
67	B1	734	C
67	B1	735	A
67	B1	736	U
67	B1	759	G
67	B1	788	A
67	B1	801	A
67	B1	819	U
67	B1	848	A
67	B1	851	G
67	B1	859	G
67	B1	860	A
67	B1	863	C
67	B1	877	U
67	B1	882	U
67	B1	898	G
67	B1	899	A
67	B1	900	C
67	B1	910	G
67	B1	911	G
67	B1	917	A
67	B1	919	G
67	B1	920	G
67	B1	923	A
67	B1	924	A
67	B1	925	U
67	B1	927	G
67	B1	937	A

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Mol	Chain	Res	Type
67	B1	940	G
67	B1	947	C
67	B1	962	C
67	B1	963	G
67	B1	965	A
67	B1	982	G
67	B1	995	G
67	B1	1002	A
67	B1	1004	U
67	B1	1006	A
67	B1	1007	U
67	B1	1010	G
67	B1	1011	A
67	B1	1013	G
67	B1	1014	U
67	B1	1015	G
67	B1	1016	C
67	B1	1018	G
67	B1	1019	G
67	B1	1024	G
67	B1	1025	A
67	B1	1026	A
67	B1	1027	A
67	B1	1028	G
67	B1	1029	C
67	B1	1030	C
67	B1	1033	C
67	B1	1036	C
67	B1	1037	C
67	B1	1038	U
67	B1	1039	C
67	B1	1041	U
67	B1	1042	G
67	B1	1043	U
67	B1	1046	A
67	B1	1048	C
67	B1	1069	A
67	B1	1070	G
67	B1	1072	U
67	B1	1081	U
67	B1	1083	G
67	B1	1085	G

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Mol	Chain	Res	Type
67	B1	1097	G
67	B1	1109	G
67	B1	1110	A
67	B1	1118	A
67	B1	1126	C
67	B1	1143	A
67	B1	1145	G
67	B1	1146	U
67	B1	1147	G
67	B1	1156	G
67	B1	1161	A
67	B1	1162	C
67	B1	1163	U
67	B1	1178	G
67	B1	1180	G
67	B1	1181	C
67	B1	1185	A
67	B1	1186	G
67	B1	1188	C
67	B1	1194	G
67	B1	1199	U
67	B1	1206	A
67	B1	1217	U
67	B1	1223	A
67	B1	1226	G
67	B1	1227	A
67	B1	1233	U
67	B1	1237	A
67	B1	1241	C
67	B1	1242	A
67	B1	1245	C
67	B1	1246	G
67	B1	1247	U
67	B1	1250	A
67	B1	1251	G
67	B1	1252	G
67	B1	1253	U
67	B1	1254	C
67	B1	1261	C
67	B1	1269	U
67	B1	1271	G
67	B1	1272	A

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Mol	Chain	Res	Type
67	B1	1273	C
67	B1	1274	G
67	B1	1317	G
67	B1	1320	C
67	B1	1325	A
67	B1	1327	C
67	B1	1329	G
67	B1	1348	G
67	B1	1354	G
67	B1	1368	A
67	B1	1369	G
67	B1	1379	A
67	B1	1380	G
67	B1	1391	C
67	B1	1393	C
67	B1	1398	C
67	B1	1407	A
67	B1	1408	G
67	B1	1415	C
67	B1	1416	G
67	B1	1417	U
67	B1	1418	A
67	B1	1427	A
67	B1	1443	G
67	B1	1444	A
67	B1	1446	G
67	B1	1475	G
67	B1	1486	G
67	B1	1488	C
67	B1	1511	C
67	B1	1522	A
67	B1	1523	A
67	B1	1524	A
67	B1	1525	G
67	B1	1543	C
67	B1	1554	G
67	B1	1556	G
67	B1	1561	G
67	B1	1562	U
67	B1	1563	G
67	B1	1564	C
67	B1	1573	A

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Mol	Chain	Res	Type
67	B1	1574	A
67	B1	1575	G
67	B1	1576	C
67	B1	1577	C
67	B1	1578	C
67	B1	1583	G
67	B1	1584	G
67	B1	1585	U
67	B1	1586	G
67	B1	1587	A
67	B1	1588	C
67	B1	1592	U
67	B1	1598	U
67	B1	1602	C
67	B1	1609	G
67	B1	1612	G
67	B1	1613	A
67	B1	1614	U
67	B1	1615	G
67	B1	1616	A
67	B1	1621	G
67	B1	1623	C
67	B1	1627	G
67	B1	1628	C
67	B1	1632	U
67	B1	1633	A
67	B1	1634	A
67	B1	1635	G
67	B1	1637	C
67	B1	1639	G
67	B1	1642	G
67	B1	1643	A
67	B1	1644	G
67	B1	1645	U
67	B1	1646	G
67	B1	1654	G
67	B1	1655	G
67	B1	1656	C
67	B1	1657	G
67	B1	1659	G
67	B1	1663	C
67	B1	1664	G

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Mol	Chain	Res	Type
67	B1	1665	G
67	B1	1668	G
67	B1	1669	A
67	B1	1671	A
67	B1	1672	G
67	B1	1678	A
67	B1	1679	U
67	B1	1682	C
67	B1	1684	C
67	B1	1688	C
67	B1	1690	U
67	B1	1694	G
67	B1	1697	G
67	B1	1701	C
67	B1	1702	C
67	B1	1703	G
67	B1	1705	C
67	B1	1706	G
67	B1	1707	A
67	B1	1708	U
67	B1	1709	C
67	B1	1712	U
67	B1	1713	G
67	B1	1714	G
67	B1	1718	C
67	B1	1719	C
67	B1	1720	G
67	B1	1721	U
67	B1	1722	G
67	B1	1723	A
67	B1	1728	C
67	B1	1729	C
67	B1	1732	C
67	B1	1733	C
67	B1	1734	G
67	B1	1735	G
67	B1	1736	G
67	B1	1738	A
67	B1	1740	U
67	B1	1741	C
67	B1	1744	A
67	B1	1746	C

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Mol	Chain	Res	Type
67	B1	1753	G
67	B1	1754	A
67	B1	1763	A
67	B1	1765	A
67	B1	1771	C
67	B1	1772	A
67	B1	1773	C
67	B1	1777	U
67	B1	1780	C
67	B1	1781	C
67	B1	1782	C
67	B1	1783	U
67	B1	1791	A
67	B1	1803	U
67	B1	1804	G
67	B1	1806	C
67	B1	1812	A
67	B1	1833	G
67	B1	1853	C
67	B1	1855	G
67	B1	1859	A
67	B1	1876	G
67	B1	1878	G
67	B1	1880	A
67	B1	1897	G
67	B1	1902	G
67	B1	1903	G
67	B1	1912	A
67	B1	1919	A
67	B1	1937	A
67	B1	1939	C
67	B1	1940	U
67	B1	1955	U
67	B1	1956	G
67	B1	1957	U
67	B1	1962	G
67	B1	1976	C
67	B1	1991	G
67	B1	2002	A
67	B1	2003	C
67	B1	2013	A
67	B1	2025	A

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Mol	Chain	Res	Type
67	B1	2032	G
67	B1	2033	G
67	B1	2038	C
67	B1	2044	C
67	B1	2054	G
67	B1	2056	A
67	B1	2062	A
67	B1	2065	C
67	B1	2079	U
67	B1	2087	U
67	B1	2088	G
67	B1	2091	U
67	B1	2094	A
67	B1	2095	U
67	B1	2096	G
67	B1	2116	G
67	B1	2117	U
67	B1	2146	C
67	B1	2154	G
67	B1	2155	C
67	B1	2156	A
67	B1	2157	U
67	B1	2159	C
67	B1	2166	C
67	B1	2173	U
67	B1	2178	A
67	B1	2183	A
67	B1	2184	G
67	B1	2192	G
67	B1	2219	A
67	B1	2220	C
67	B1	2224	G
67	B1	2225	C
67	B1	2227	G
67	B1	2230	G
67	B1	2231	G
67	B1	2232	U
67	B1	2233	G
67	B1	2234	C
67	B1	2235	G
67	B1	2236	C
67	B1	2237	A

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Mol	Chain	Res	Type
67	B1	2238	G
67	B1	2239	C
67	B1	2240	G
67	B1	2242	A
67	B1	2243	G
67	B1	2245	C
67	B1	2246	G
67	B1	2249	A
67	B1	2251	G
67	B1	2252	C
67	B1	2254	U
67	B1	2255	C
67	B1	2256	G
67	B1	2258	A
67	B1	2259	G
67	B1	2268	C
67	B1	2269	C
67	B1	2270	G
67	B1	2275	G
67	B1	2276	G
67	B1	2278	U
67	B1	2280	G
67	B1	2281	A
67	B1	2283	C
67	B1	2285	G
67	B1	2286	U
67	B1	2288	C
67	B1	2290	U
67	B1	2292	A
67	B1	2293	G
67	B1	2294	A
67	B1	2295	C
67	B1	2296	A
67	B1	2301	C
67	B1	2302	C
67	B1	2303	A
67	B1	2304	C
67	B1	2306	C
67	B1	2308	C
67	B1	2310	G
67	B1	2321	A
67	B1	2325	C

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Mol	Chain	Res	Type
67	B1	2332	G
67	B1	2338	A
67	B1	2339	C
67	B1	2351	G
67	B1	2352	G
67	B1	2363	G
67	B1	2364	G
67	B1	2371	A
67	B1	2396	G
67	B1	2397	C
67	B1	2401	A
67	B1	2402	A
67	B1	2434	A
67	B1	2441	A
67	B1	2449	A
67	B1	2450	A
67	B1	2451	G
67	B1	2459	G
67	B1	2476	A
67	B1	2502	C
67	B1	2507	C
67	B1	2508	G
67	B1	2515	U
67	B1	2542	G
67	B1	2543	A
67	B1	2544	C
67	B1	2545	A
67	B1	2546	G
67	B1	2547	A
67	B1	2549	A
67	B1	2556	C
67	B1	2562	G
67	B1	2563	A
67	B1	2587	G
67	B1	2588	C
67	B1	2591	A
67	B1	2606	C
67	B1	2607	U
67	B1	2613	C
67	B1	2617	G
67	B1	2618	C
67	B1	2619	U

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Mol	Chain	Res	Type
67	B1	2620	G
67	B1	2621	U
67	B1	2633	A
67	B1	2644	G
67	B1	2669	U
67	B1	2681	A
67	B1	2682	G
67	B1	2688	C
67	B1	2693	G
67	B1	2697	G
67	B1	2718	G
67	B1	2725	U
67	B1	2729	A
67	B1	2744	U
67	B1	2748	C
67	B1	2760	A
67	B1	2761	G
67	B1	2794	G
67	B1	2798	U
67	B1	2826	U
67	B1	2827	C
67	B1	2840	C
67	B1	2846	A
67	B1	2861	A
67	B1	2864	G
67	B1	2870	A
67	B1	2871	A
67	B1	2878	A
67	B1	2889	A
67	B1	2892	A
67	B1	2893	U
67	B1	2904	U
67	B1	2913	C
67	B1	2914	U
67	B1	2915	U
67	B1	2922	G
67	B1	2928	C
67	B1	2930	G
67	B1	2936	U
67	B1	2937	U
67	B1	2942	G
67	B1	2945	A

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Mol	Chain	Res	Type
67	B1	2947	G
67	B1	2949	G
67	B1	2958	U
67	B1	2971	U
67	B1	2988	A
67	B1	2997	G
67	B1	2998	G
67	B1	3001	C
67	B1	3002	A
67	B1	3004	C
67	B1	3005	C
67	B1	3027	C
67	B1	3036	C
67	B1	3037	G
67	B1	3038	A
67	B1	3039	G
67	B1	3040	G
67	B1	3042	C
67	B1	3047	C
68	B3	2	G
68	B3	11	A
68	B3	20	G
68	B3	21	C
68	B3	22	C
68	B3	23	A
68	B3	25	A
68	B3	26	C
68	B3	29	G
68	B3	31	U
68	B3	33	U
68	B3	35	A
68	B3	38	U
68	B3	41	A
68	B3	42	A
68	B3	44	C
68	B3	49	A
68	B3	53	A
68	B3	54	A
68	B3	55	G
68	B3	63	G
68	B3	70	C
68	B3	74	U

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Mol	Chain	Res	Type
68	B3	75	G
68	B3	76	U
68	B3	83	C
68	B3	84	U
68	B3	85	C
68	B3	90	A
68	B3	100	A
68	B3	106	G
68	B3	111	G
68	B3	123	U
68	B3	124	A
68	B3	125	U

There are no RNA pucker outliers to report.

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

There are no non-standard protein/DNA/RNA residues in this entry.

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

There are no ligands in this entry.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
53	BD	1

All chain breaks are listed below:



Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BD	91:ARG	C	92:THR	N	0.93