



Full wwPDB EM Validation Report ⓘ

Mar 10, 2026 – 05:21 PM UTC

PDB ID : 4V6O / pdb_00004v6o
EMDB ID : EMD-5359
Title : Structural characterization of mRNA-tRNA translocation intermediates (class 4a of the six classes)
Authors : Agirrezabala, X.; Liao, H.; Schreiner, E.; Fu, J.; Ortiz-Meoz, R.F.; Schulten, K.; Green, R.; Frank, J.
Deposited on : 2011-12-07
Resolution : 14.70 Å (reported)
Based on initial model : 2I2U

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

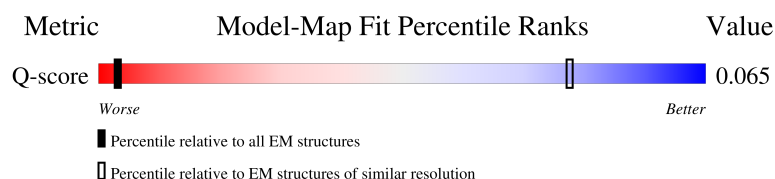
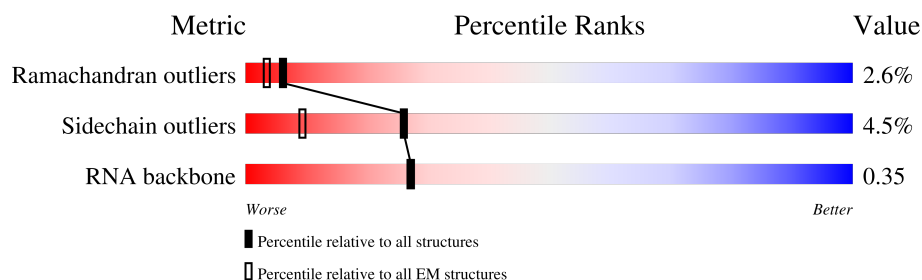
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13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

1 Overall quality at a glance

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

The reported resolution of this entry is 14.70 Å.

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



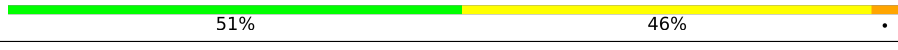
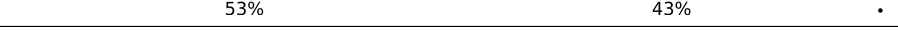
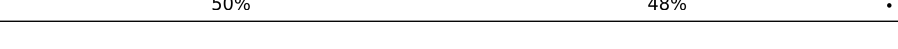
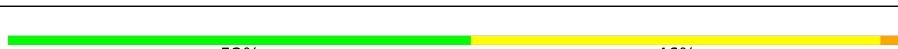
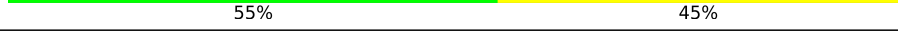
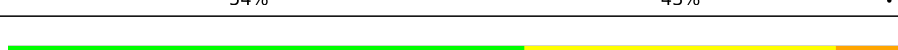
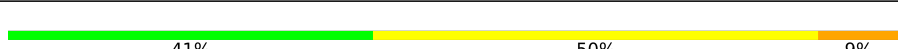
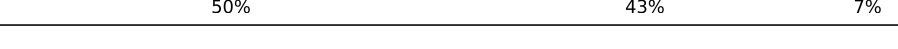
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	31 (14.20 - 15.00)

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

Mol	Chain	Length	Quality of chain
1	AA	1542	
2	AB	76	
3	AC	47	
4	AD	77	

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

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

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Mol	Chain	Length	Quality of chain
55	B4	54	56% 41%
56	B5	46	46% 50%
57	B6	64	56% 42%
58	B7	38	58% 39%

2 Entry composition [i](#)

There are 60 unique types of molecules in this entry. The entry contains 152351 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	AA	1542	Total	C	N	O	P	0	0
			33089	14767	6064	10717	1541		

- Molecule 2 is a RNA chain called A site tRNA.

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

- Molecule 3 is a RNA chain called mRNA.

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AG	205	Total	C	N	O	S	0	0
			1643	1026	315	298	4		

- Molecule 8 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AH	166	Total	C	N	O	S	0	0
			1225	761	232	226	6		

- Molecule 9 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AI	135	Total	C	N	O	S	0	0
			1101	677	198	219	7		

- Molecule 10 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AJ	178	Total	C	N	O	S	0	0
			1400	874	269	253	4		

- Molecule 11 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AK	129	Total	C	N	O	S	0	0
			979	616	173	184	6		

- Molecule 12 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AL	129	Total	C	N	O	S	0	0
			1036	642	208	183	3		

- Molecule 13 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AM	103	Total	C	N	O	S	0	0
			825	514	158	151	2		

- Molecule 14 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AN	128	Total	C	N	O	S	0	0
			965	595	196	171	3		

- Molecule 15 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AO	123	Total	C	N	O	S	0	0
			955	590	196	165	4		

- Molecule 16 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AP	117	Total	C	N	O	S	0	0
			910	564	183	160	3		

- Molecule 17 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AQ	100	Total	C	N	O	S	0	0
			805	499	164	139	3		

- Molecule 18 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AR	88	Total	C	N	O	S	0	0
			716	440	146	129	1		

- Molecule 19 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AS	82	Total	C	N	O	S	0	0
			649	406	128	114	1		

- Molecule 20 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AT	83	Total	C	N	O	S	0	0
			672	425	124	120	3		

- Molecule 21 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AU	74	Total	C	N	O	S	0	0
			626	395	123	107	1		

- Molecule 22 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AV	91	Total	C	N	O	S	0	0
			727	464	139	122	2		

- Molecule 23 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AW	86	Total	C	N	O	S	0	0
			670	414	138	115	3		

- Molecule 24 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AX	70	Total	C	N	O	S	0	0
			590	366	125	98	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
25	BA	120	Total	C	N	O	P	0	0
			2566	1144	468	835	119		

- Molecule 26 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	BB	2904	Total	C	N	O	P	0	0
			62351	27824	11469	20155	2903		

- Molecule 27 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	BC	234	Total	C	N	O	S	0	0
			1733	1081	315	330	7		

- Molecule 28 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	BD	272	Total	C	N	O	S	0	0
			2092	1294	425	366	7		

- Molecule 29 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	BE	209	Total	C	N	O	S	0	0
			1565	979	288	294	4		

- Molecule 30 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BF	201	Total	C	N	O	S	0	0
			1552	974	283	290	5		

- Molecule 31 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BG	178	Total	C	N	O	S	0	0
			1420	905	251	258	6		

- Molecule 32 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	BH	176	Total	C	N	O	S	0	0
			1323	832	243	246	2		

- Molecule 33 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	BI	149	Total	C	N	O	S	0	0
			1111	699	197	214	1		

- Molecule 34 is a protein called 50S ribosomal protein L10.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

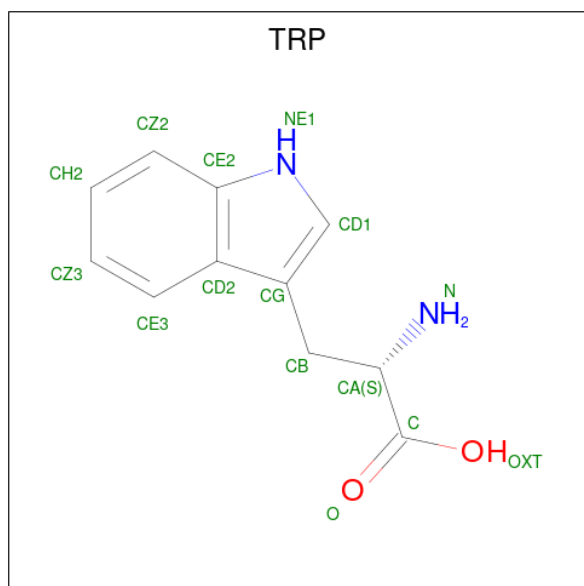
- Molecule 57 is a protein called 50S ribosomal protein L35.

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

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

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

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



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

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

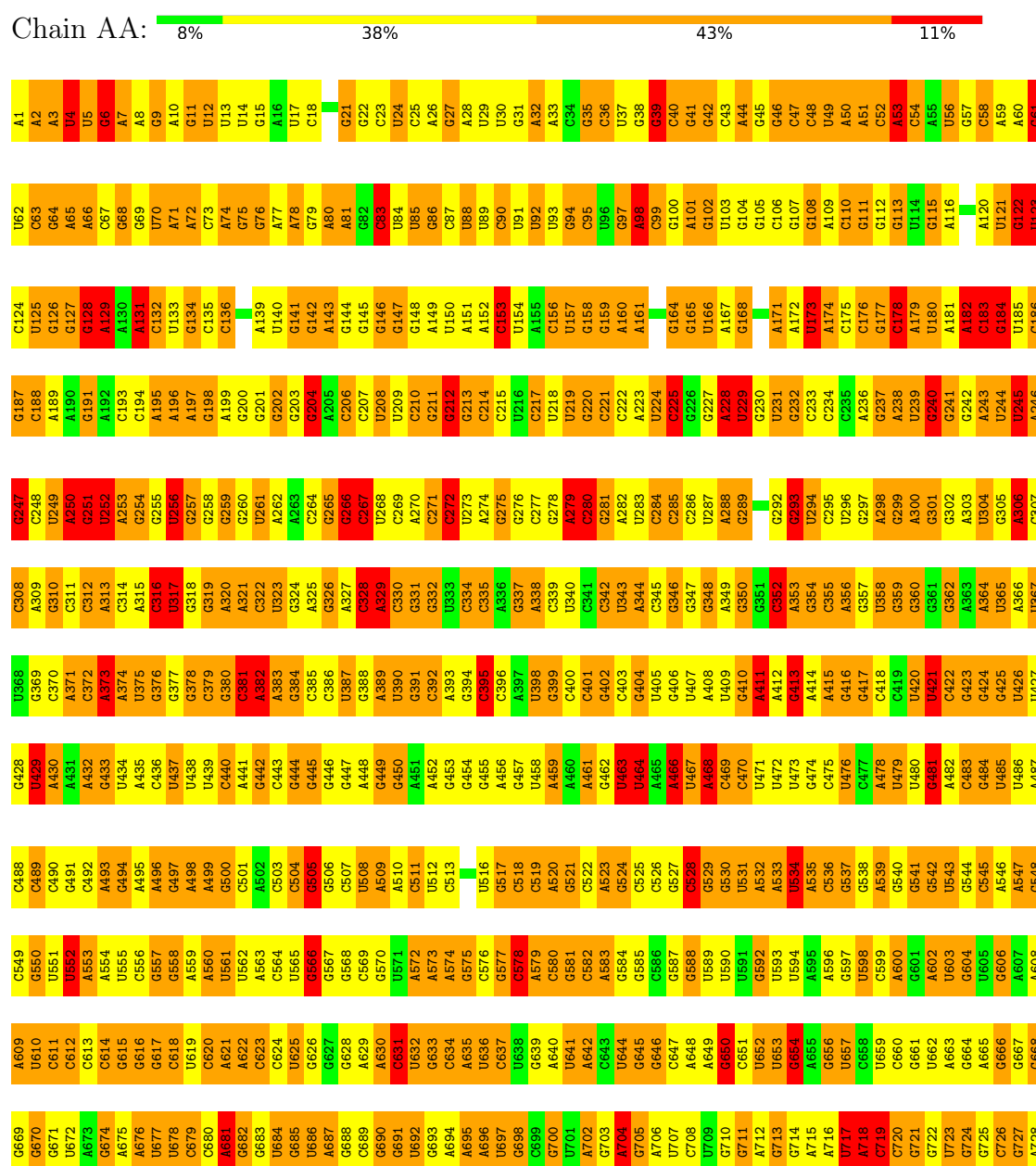


Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	S	
60	BB	1	10	6	1	2	1	0

3 Residue-property plots

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

• Molecule 1: 16S ribosomal RNA



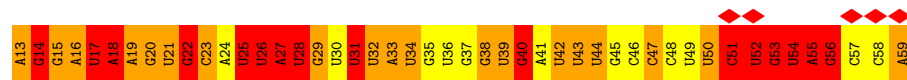
G1511	U1390	U1330	A1269	C1209	C1149	G1089	U1029	A969	A909	G849	U789	A729
U1512	C1452	G1331	A1270	C1210	A1150	U1090	U1030	C970	C910	U850	A790	G730
A1513	G1392	A1332	A1271	C1211	A1151	U1091	U1031	G971	U911	G851	A791	G731
G1514	G1454	A1333	C1272	U1212	A1152	A1092	G1032	A1092	C912	G852	A792	G732
G1515	G1455	A1394	C1273	A1213	G1153	A1093	G1033	G973	C913	G853	A793	G733
G1516	A1456	U1335	A1274	C1214	G1154	G1094	G1034	A974	A914	U854	A794	G734
G1457	A1396	C1336	A1275	G1215	A1155	U1095	A1035	A975	A915	U855	C795	G735
A1518	G1458	A1397	G1276	A1216	G1156	C1096	U1036	G976	A916	C856	C796	G736
A1519	G1459	A1398	C1277	C1217	A1157	C1097	C1037	A977	A917	G857	C797	G737
C1520	A1399	A1339	G1278	C1218	C1158	C1098	U1038	A978	A918	G858	C798	G738
G1461	C1400	A1340	G1279	A1219	A1159	G1099	G1039	G979	A919	G859	G799	C739
C1462	G1401	U1341	A1280	G1220	G1160	C1100	U1040	C980	U920	A860	G800	U740
U1463	C1402	C1342	C1281	G1221	C1161	A1101	G1041	U981	U921	G861	U801	G741
A1464	C1403	G1343	A1282	G1222	C1162	A1102	U1042	U982	G922	G862	A802	G742
G1525	U1465	C1344	A1283	C1223	A1163	C1103	G1043	A983	A923	G863	G803	A743
G1526	C1466	U1345	C1284	U1224	G1164	A1104	A1044	C984	C924	A864	U804	C744
U1527	C1467	A1406	A1285	A1225	U1165	G1105	U1045	C985	G925	A865	C805	G745
U1468	G1467	G1347	U1286	C1226	G1166	U1106	A1046	U986	G926	C866	C806	A746
C1469	A1408	U1348	A1287	A1227	A1167	C1107	G1047	G987	G927	G867	A807	A747
U1470	C1409	A1349	A1288	C1228	U1168	G1108	U1048	U988	G928	C868	C808	G748
A1531	U1471	A1350	A1289	A1229	A1169	C1109	U1049	U989	G929	G869	G809	A749
U1532	C1472	U1351	G1290	C1230	A1170	A1110	U1050	C990	C930	U870	C810	C750
G1473	C1352	G1352	U1291	G1231	A1171	A1111	U1051	U991	C931	U871	C811	U751
A1534	U1474	G1353	G1292	U1232	C1172	C1112	U1052	U992	C932	A872	G812	G752
G1475	G1476	U1354	C1293	G1233	U1173	C1113	G1053	G993	G933	A873	U813	A753
C1536	A1477	G1355	G1294	C1234	G1174	C1114	C1054	A994	C934	G874	A814	C754
U1537	C1477	G1356	U1295	U1235	G1175	U1115	A1055	C995	A935	U875	A815	G755
C1538	U1478	A1357	C1296	A1236	G1176	U1116	U1056	A996	C936	C876	A816	C756
C1479	A1418	U1358	G1297	C1237	G1177	A1117	U1057	U997	A937	G877	C817	U757
A1480	G1419	C1359	U1298	A1238	G1178	U1118	G1058	C998	A938	A878	G818	C758
U1541	U1481	A1360	A1299	A1239	A1179	C1119	U1059	C999	G939	C879	A819	A759
G1482	A1481	G1361	G1300	U1240	A1180	U1120	U1060	A1000	C940	U880	U820	G760
A1483	C1483	A1362	G1301	C1241	G1181	U1121	G1061	C1001	G941	G881	G821	G761
C1484	G1484	C1363	C1302	G1242	G1182	U1122	U1062	G1002	G942	C882	U822	U762
U1485	U1425	U1364	C1303	C1243	U1183	U1123	C1063	G1003	G943	C883	C823	G763
G1486	G1426	G1365	G1304	G1244	A1184	G1124	G1064	A1004	G944	U884	G824	C764
C1427	C1427	C1366	G1305	C1245	G1185	U1125	U1065	A1005	G945	G885	A825	G765
G1488	A1428	C1367	A1306	A1246	G1186	U1126	C1066	G1006	A946	G886	C826	A766
G1489	A1429	A1368	U1307	U1247	G1187	G1127	A1067	U1007	G947	G887	U827	A767
U1490	A1430	C1369	U1308	A1248	A1188	C1128	G1068	U1008	C948	G888	U828	A768
G1491	A1431	G1370	C1309	C1249	U1189	G1129	G1069	A1009	A949	A889	G829	G769
A1492	G1432	G1371	G1310	A1250	G1190	A1130	U1070	U1010	U950	G890	G830	C770
C1493	A1433	U1372	A1311	A1251	A1191	G1131	C1071	C1011	G951	A891	A831	G771
G1494	A1434	C1373	G1312	A1252	C1192	C1132	G1072	A1012	U952	A892	G832	U772
U1495	G1435	A1374	U1313	G1253	G1193	G1133	U1073	G1013	G953	C893	G833	G773
C1496	U1436	A1375	C1314	A1254	U1194	G1134	G1074	A1014	G954	G894	U834	G774
G1497	U1437	U1376	U1315	G1255	C1195	U1135	U1075	G1015	U955	G895	U835	G775
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A1501	A1441	U1380	A1319	C1259	U1199	C1139	G1079	A1019	A959	C899	C839	G779
C1502	G1442	U1381	C1320	G1260	A1200	C1140	A1080	G1020	U960	A900	C840	A780
A1503	C1443	C1382	U1321	A1261	A1201	C1141	A1081	A1021	U961	A901	C841	A781
G1504	U1444	C1383	C1322	C1262	U1202	G1142	A1082	A1022	C862	G902	U842	A782
G1505	U1445	G1384	G1323	C1263	C1203	G1143	U1083	G1023	G963	G903	U843	C783
U1506	C1446	C1385	A1324	U1264	A1204	G1144	G1084	G1024	A964	U904	G844	A784
A1507	U1447	C1386	C1325	C1265	U1205	A1145	U1085	G1025	U965	A905	G845	G785
A1508	C1448	G1387	G1326	G1266	A1206	A1146	U1086	G1026	G966	A906	G846	G786
C1509	U1449	C1388	C1327	C1267	G1207	C1147	G1087	C1027	C967	A907	G847	A787
G1510	C1450	C1389	A1328	C1268	G1208	C1148	G1088	C1028	C968	A908	G848	U788

• Molecule 2: A site tRNA

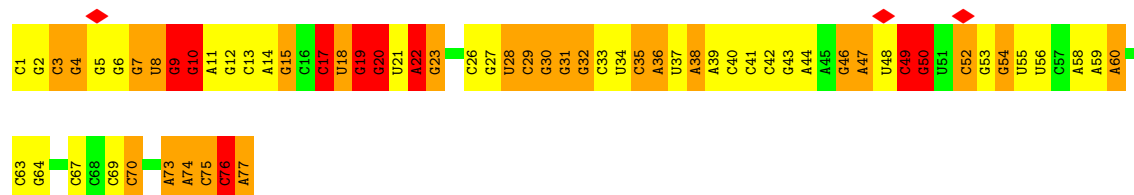
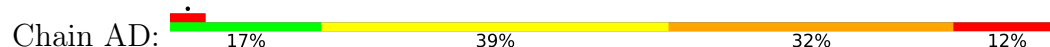
Chain AB: 47% 32% 18%

A	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	A22	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33	A34	A35	A36	A37	A38	A39	A40	A41	A42	A43	A44	A45	A46	A47	A48	A49	A50	A51	A52	A53	A54	A55	A56	A57	A58	A59																					
	C61	C62	C63	C64	C65	C66	C67	C68	C69	C70	C71	C72	C73	C74	C75	C76	C77	C78	C79	C80	C81	C82	C83	C84	C85	C86	C87	C88	C89	C90	C91	C92	C93	C94	C95	C96	C97	C98	C99	C100	C101	C102	C103	C104	C105	C106	C107	C108	C109	C110	C111	C112	C113	C114	C115	C116	C117	C118	C119	C120	C121	C122	C123	C124	C125	C126	C127	C128	C129	C130	C131	C132	C133	C134	C135	C136	C137	C138	C139	C140
	G61	G62	G63	G64	G65	G66	G67	G68	G69	G70	G71	G72	G73	G74	G75	G76	G77	G78	G79	G80	G81	G82	G83	G84	G85	G86	G87	G88	G89	G90	G91	G92	G93	G94	G95	G96	G97	G98	G99	G100	G101	G102	G103	G104	G105	G106	G107	G108	G109	G110	G111	G112	G113	G114	G115	G116	G117	G118	G119	G120	G121	G122	G123	G124	G125	G126	G127	G128	G129	G130	G131	G132	G133	G134	G135	G136	G137	G138	G139	G140

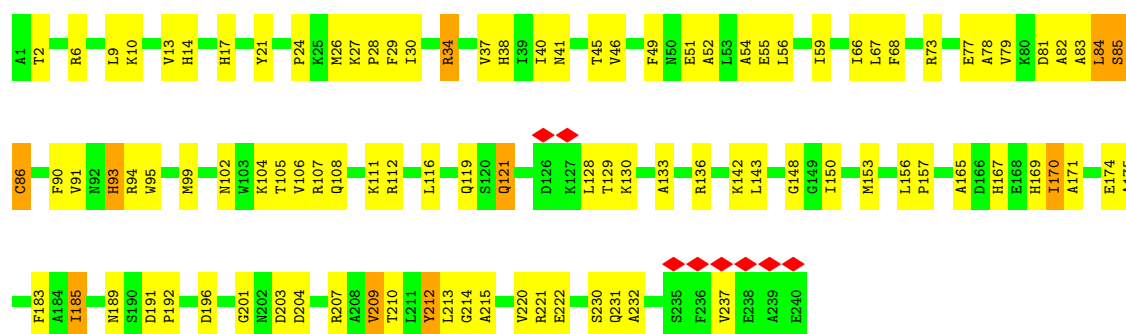
- Molecule 3: mRNA



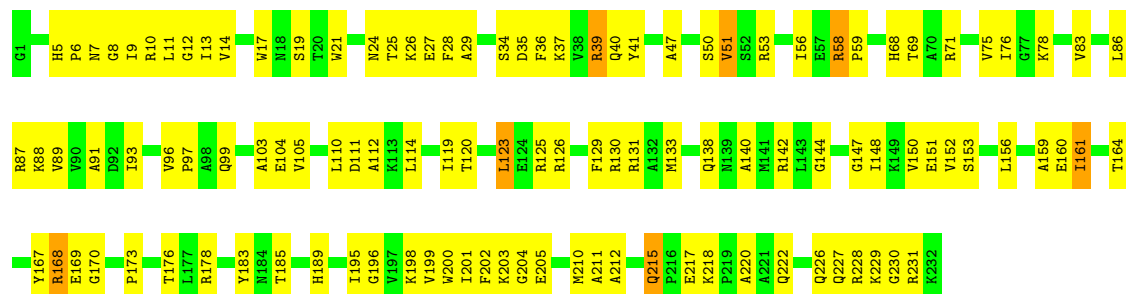
- Molecule 4: P site tRNA



- Molecule 5: 30S ribosomal protein S2

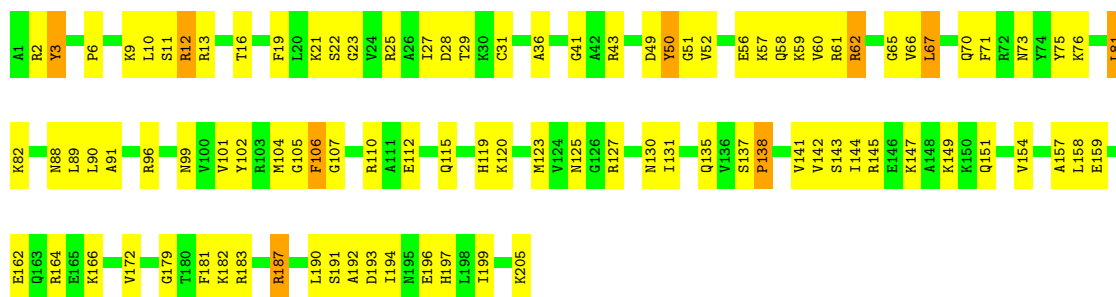


- Molecule 6: 30S ribosomal protein S3



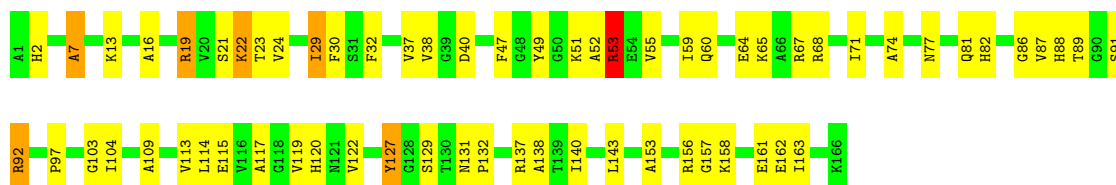
- Molecule 7: 30S ribosomal protein S4





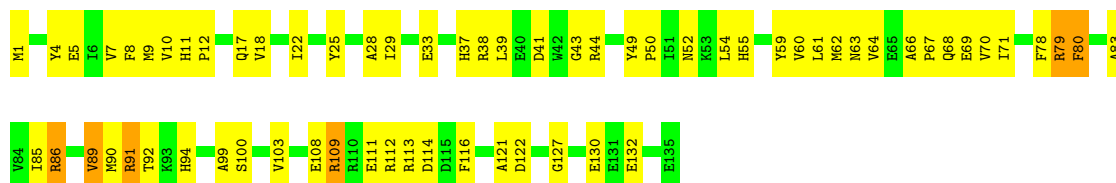
• Molecule 8: 30S ribosomal protein S5

Chain AH: 61% 34%



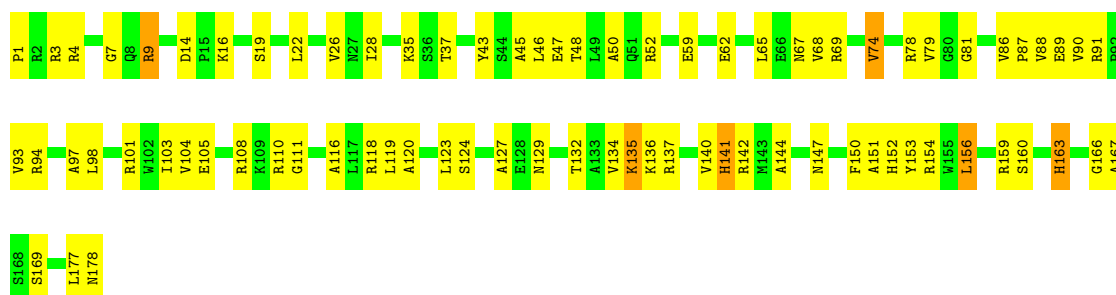
• Molecule 9: 30S ribosomal protein S6

Chain AI: 52% 44%



• Molecule 10: 30S ribosomal protein S7

Chain AJ: 56% 41%



• Molecule 11: 30S ribosomal protein S8

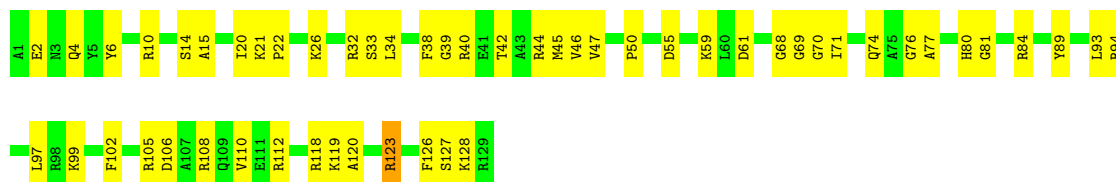
Chain AK: 54% 41% 5%





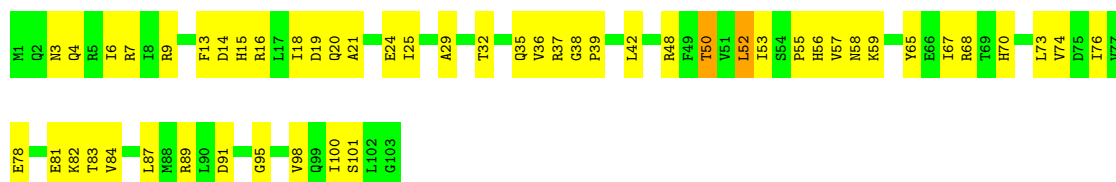
- Molecule 12: 30S ribosomal protein S9

Chain AL: 59% 40% .



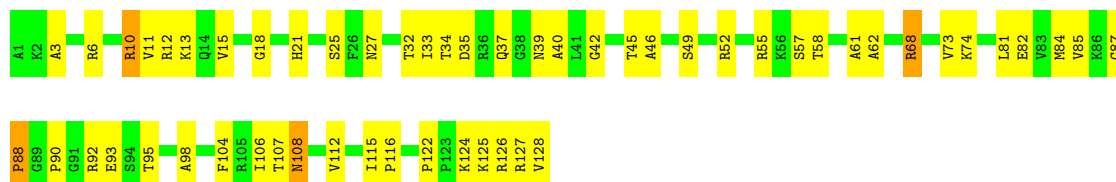
- Molecule 13: 30S ribosomal protein S10

Chain AM: 50% 48% .



- Molecule 14: 30S ribosomal protein S11

Chain AN: 57% 40% .



- Molecule 15: 30S ribosomal protein S12

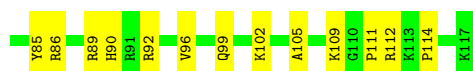
Chain AO: 52% 46% .



- Molecule 16: 30S ribosomal protein S13

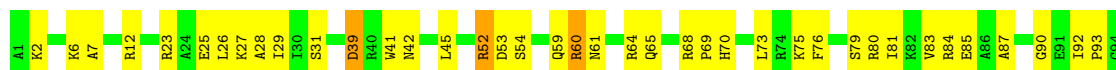
Chain AP: 56% 43% ..





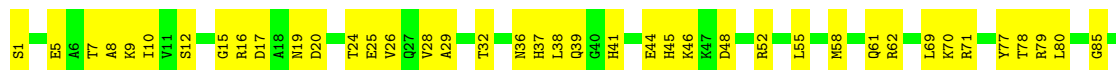
- Molecule 17: 30S ribosomal protein S14

Chain AQ: 59% 38% .



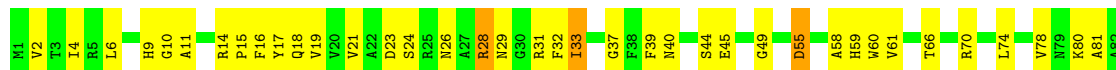
- Molecule 18: 30S ribosomal protein S15

Chain AR: 55% 45% .



- Molecule 19: 30S ribosomal protein S16

Chain AS: 54% 43% .



- Molecule 20: 30S ribosomal protein S17

Chain AT: 58% 35% 7% .



- Molecule 21: 30S ribosomal protein S18

Chain AU: 41% 50% 9% .



- Molecule 22: 30S ribosomal protein S19

Chain AV: 57% 38% .



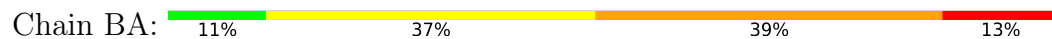
- Molecule 23: 30S ribosomal protein S20



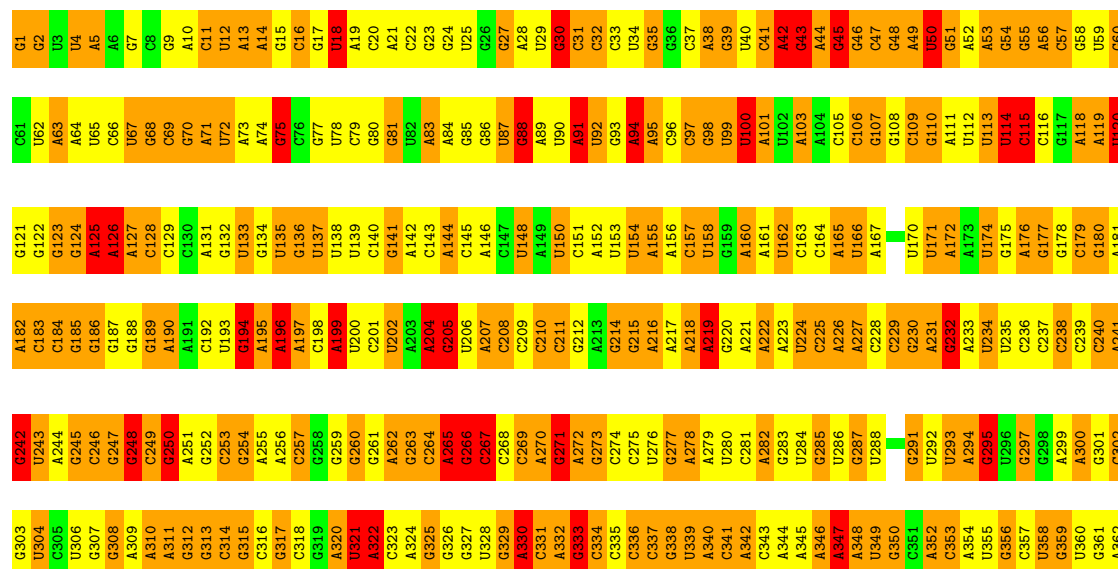
- Molecule 24: 30S ribosomal protein S21



- Molecule 25: 5S ribosomal RNA

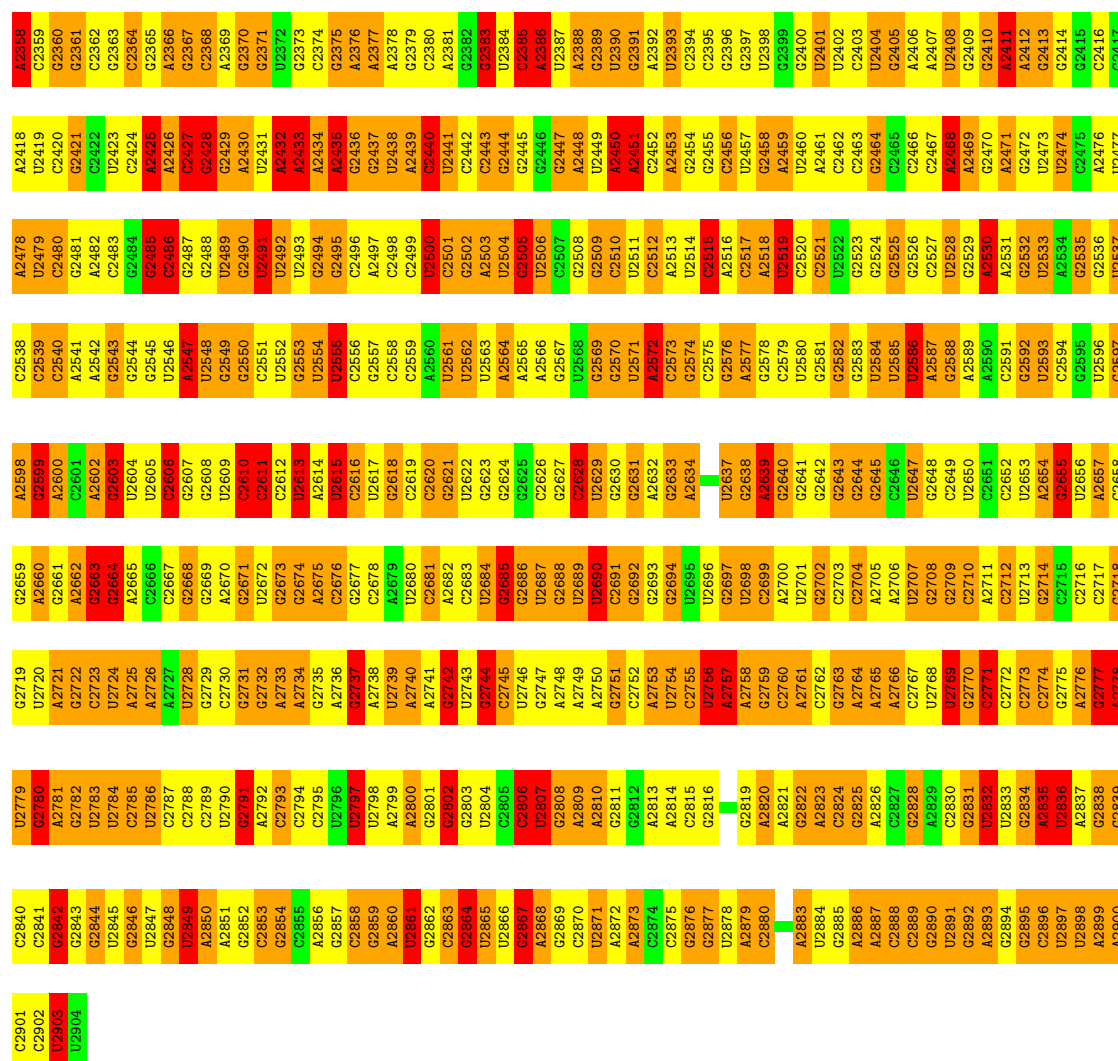


- Molecule 26: 23S ribosomal RNA

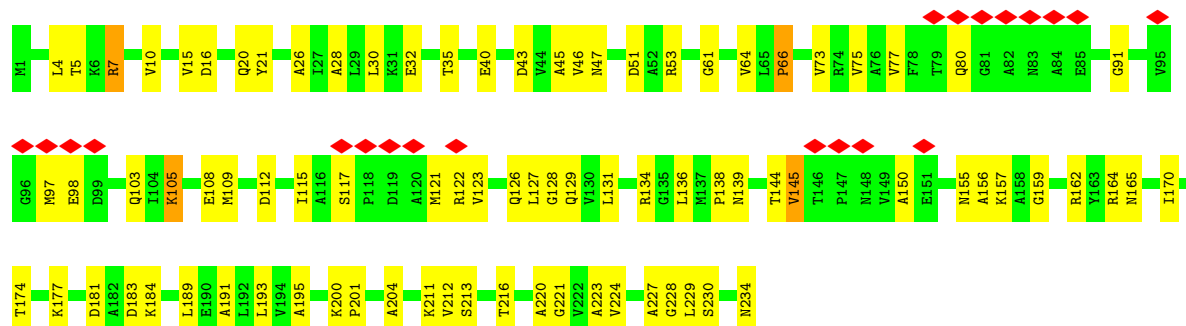


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G1332	A1272	G1212	C1152	G1091	C1030	U970	A909	A849	A789	G729	U687	U607	A547	C487	C426	C364
G1333	A1273	A1213	C1153	G1092	G1031	G971	A910	U850	C790	A730	A668	A608	G548	G488	U427	U365
G1334	A1274	A1214	G1154	G1093	A1032	A972	A911	C851	C791	C731	G669	A609	G549	G489	A428	C366
G1335	A1275	G1215	A1155	U1094	U1033	A973	C912	U852	A792	C732	A670	C610	C550	C490	A429	A367
A1336	A1276	G1216	A1156	A1095	G1034	G974	U913	C853	A793	G733	C671	C611	C551	G491	A430	A368
G1337	G1277	U1217	G1157	A1096	U1035	A975	C914	C854	A794	A734	C672	G612	U552	A492	U431	U369
G1338	G1278	G1218	C1158	U1097	G1036	G976	C915	G855	C795	A735	C673	A613	C553	G493	A432	G370
G1339	U1279	U1219	U1159	A1098	G1037	G977	G916	G856	C796	C736	G674	A614	U554	G494	A433	A371
U1340	G1280	G1220	G1160	G1099	G1038	G978	A917	C857	G797	C737	A675	U615	G555	G495	U434	G372
G1341	G1281	C1221	C1161	C1100	A1039	A979	A918	C858	G798	G738	A676	A616	A556	G496	C435	U373
A1342	U1282	G1222	G1162	U1101	A1040	A980	A919	G859	G799	A739	A677	G617	C557	A497	A436	A374
G1343	G1283	G1223	G1163	C1102	G1041	A981	U920	U860	A800	C740	C678	G618	U558	G498	U437	G375
U1344	U1284	U1224	G1164	A1103	G1042	C982	C921	A861	C801	U741	C679	G619	C559	U499	A438	G376
G1345	A1285	G1225	A1165	C1104	C1043	A983	C922	G862	A802	A742	C680	G620	C560	G500	A439	G377
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C1363	G1303	C1243	U1183	G1122	U1061	A1001	G940	C880	A820	G760	C698	G638	C578	G518	A457	U395
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A1385	A1265	A1265	A1205	A1144	A1084	U1023	U963	C902	U842	A782	U720	C660	G600	C540	A480	C417
C1386	U1326	G1266	G1206	C1145	A1085	G1024	C964	C903	C843	A783	C721	A661	C601	A541	G481	C418
A1387	U1327	U1267	C1207	C1146	A1086	G1025	C965	G904	A844	G784	C722	C662	A602	C542	A482	U419
G1388	A1328	A1268	C1208	C1147	G1087	G1026	G966	A905	A845	G785	G723	G663	A603	G543	A483	C420
G1389	U1329	U1269	U1209	A1088	G1088	U1027	U967	U906	U846	G786	G726	G664	C604	C544	C484	G421
U1390	C1330	C1270	G1210	C1150	A1089	A1028	C968	G907	U847	C787	A727	U665	G605	U545	G485	G424

A2298	G2287	G2116	G2056	U1995	G1933	G1873	G1813	G1753	U1693	G1633	A1572	C1512	G1451	U1391
U2299	G2288	A2117	G2057	C1996	C1934	C1874	G1814	A1754	C1694	A1634	G1573	U1513	G1452	A1392
C2300	G2289	U2118	A2058	C1997	G1935	G1875	A1815	A1755	G1695	A1635	G1574	A1515	A1453	A1393
C2301	C2178	A2119	A2059	A1998	A1936	A1876	C1816	A1756	G1696	A1636	C1575	A1516	U1394	U1394
U2302	G2242	G2120	A2060	C1999	A1937	A1877	G1817	A1757	G1697	A1637	G1576	G1517	G1455	U1396
G2303	U2243	G2121	G2061	C2000	A1938	G1878	U1818	A1758	A1698	C1638	G1577	G1518	U1456	U1396
G2304	U2244	U2122	A2062	C2001	A1939	C1879	A1819	A1759	G1699	C1639	U1578	G1519	U1457	U1397
U2305	G2245	G2123	C2063	G2002	U1940	U1880	U1820	C1760	A1700	A1640	A1579	G1520	U1458	C1398
G2306	U2246	G2124	C2064	A2003	C1941	C1881	A1821	C1761	A1701	A1641	A1580	U1521	G1459	C1399
G2307	A2247	G2125	C2065	G2004	C1942	U1882	C1822	A1762	G1702	G1642	G1581	G1522	U1460	U1400
G2308	C2248	A2126	C2066	A2005	U1943	U1883	G1823	G1763	G1703	G1643	C1582	C1461	G1401	G1401
A2309	U2249	G2127	G2067	C2006	U1944	G1884	G1824	G1764	C1704	G1644	U1583	U1523	G1462	U1402
C2310	G2250	G2128	U2068	U2007	G1945	A1885	G1825	U1765	A1705	G1645	U1584	G1524	C1463	A1403
A2311	G2251	U2129	C2069	C2008	U1946	U1886	G1826	G1766	C1706	G1646	C1585	A1525	G1464	C1404
U2312	G2252	U2130	A2070	A2009	C1947	C1887	U1827	G1767	G1707	U1647	A1586	G1526	G1465	U1405
C2313	G2253	U2131	A2071	G2010	G1948	G1888	G1828	C1768	C1708	U1648	G1587	C1527	U1466	U1406
G2314	U2192	U2132	C2072	U2011	G1949	A1889	A1829	U1769	U1709	A1649	G1588	A1528	U1467	G1407
G2315	G2255	G2133	C2073	G1950	G1950	A1890	C1830	G1770	G1710	A1650	U1589	G1529	U1468	G1408
G2316	G2256	A2134	U2074	A2013	U1951	G1891	G1831	C1771	A1711	G1651	A1590	G1530	A1469	U1409
A2317	U2195	A2135	U2075	A2014	A1952	C1892	C1832	C1772	U1712	A1652	A1591	C1531	G1470	G1410
G2318	C2258	G2136	U2076	C2015	A1953	C1893	C1833	A1773	A1713	G1653	C1592	A1532	G1471	U1411
G2319	U2259	U2137	A2077	U2016	G1954	C1894	U1834	C1774	U1714	A1654	A1593	C1533	C1472	U1412
G2320	C2260	G2138	C2078	U2017	U1955	C1895	G1835	U1775	G1715	A1655	U1594	U1534	G1473	A1413
G2321	G2261	U2139	U2079	G2018	U1956	G1896	C1836	G1776	U1716	C1656	G1595	A1535	U1474	C1414
G2322	U2262	G2140	A2080	A2019	C1957	G1897	C1837	U1777	A1717	U1657	A1596	C1536	G1475	U1415
G2323	C2263	G2141	U2081	A2020	C1958	U1898	C1838	U1778	G1718	C1658	A1597	G1537	U1476	G1416
U2324	G2264	A2142	A2082	C2021	G1959	A1899	G1839	U1779	G1719	C1659	A1598	G1538	A1477	C1417
G2325	U2265	C2143	G2083	U2022	A1960	A1900	U1840	U1780	U1720	G1660	U1599	U1539	G1478	G1418
C2326	A2266	G2144	C2084	C2023	C1961	A1901	U1841	U1781	G1721	G1661	C1600	G1540	G1479	A1419
A2327	A2267	C2145	U2085	G2024	C1962	C1902	G1842	U1782	A1722	U1662	G1601	C1541	C1480	A1420
A2328	G2268	G2146	U2086	C2025	U1963	G1903	C1843	A1783	G1723	G1663	G1602	U1542	U1481	G1421
U2329	C2269	A2147	C2087	U2026	G1964	G1904	C1844	A1784	G1724	A1664	A1603	G1543	G1482	G1422
G2330	A2270	G2148	A2088	G2027	C1965	C1905	G1845	A1785	U1725	A1665	C1604	A1544	G1483	G1423
G2331	G2271	U2149	C2089	U2028	A1966	G1906	G1846	A1786	C1726	G1666	G1605	A1545	U1484	G1424
C2332	A2272	C2150	A2090	G2029	C1967	G1907	A1847	A1787	C1727	G1667	C1606	G1546	U1485	G1425
A2333	C2273	U2151	C2091	A2030	G1968	C1908	A1848	G1788	C1728	A1668	G1607	C1547	U1486	G1426
U2334	A2274	G2152	U2092	A2031	A1969	C1909	G1849	A1789	U1729	A1669	A1608	A1548	U1487	A1427
A2335	C2275	C2153	C2093	G2032	A1970	G1910	G1850	C1790	C1730	C1670	A1609	A1549	C1488	C1428
A2336	G2276	A2154	A2094	A2033	U1971	U1911	U1851	G1791	G1731	U1671	A1610	C1550	C1489	G1429
G2337	G2277	U2155	A2095	U2034	G1972	A1912	U1852	A1792	C1732	A1672	G1611	U1551	A1490	G1430
G2338	A2278	G2156	C2096	G2035	G1973	A1913	A1853	C1793	G1733	G1673	C1612	A1552	G1491	A1431
C2339	U2279	G2157	A2097	C2036	C1974	C1914	A1854	A1794	G1734	G1674	G1613	A1553	G1492	G1432
A2340	G2280	U2158	U2098	A2037	G1975	3TD1915	U1855	G1795	A1735	C1675	A1614	U1554	C1493	A1433
G2341	A2281	G2159	U2099	A2037	U1976	A1916	U1856	U1796	U1736	A1676	C1615	G1555	A1494	A1434
C2342	G2282	C2160	G2100	G2040	G1980	U1917	G1857	G1797	G1737	A1677	A1616	C1556	A1495	G1435
U2343	C2283	C2161	A2101	U2041	A1918	A1918	A1858	U1798	G1738	A1678	C1617	C1557	G1496	G1436
U2344	G2284	G2162	A2102	A2042	A1919	A1919	U1859	G1799	A1739	A1679	A1618	C1558	U1497	C1437
G2345	C2285	A2163	C2103	C2043	U1982	C1920	G1860	C1800	G1740	G1680	G1619	U1559	C1498	U1438
A2346	G2286	C2164	G1983	C2044	G1983	G1921	G1861	A1801	C1741	G1681	G1620	G1560	A1499	A1439
C2347	A2287	C2165	U2105	C2045	G1984	G1922	G1862	A1802	U1742	G1682	U1621	C1561	G1500	U1440
U2348	G2288	U2166	U2106	G2046	C1985	U1923	G1863	A1803	G1743	G1683	G1622	U1562	G1501	G1441
G2349	C2289	G2167	G2107	C2047	C1986	C1924	U1864	C1804	A1744	G1684	G1623	U1563	A1502	U1442
C2350	U2290	A2168	A2108	G2048	A1987	C1925	U1865	A1805	A1745	C1685	U1624	C1564	G1503	U1443
G2351	U2291	A2169	G1988	G2049	G1988	U1926	A1866	C1806	A1746	C1686	C1625	C1565	U1506	G1444
A2352	G2292	G2170	C2060	G1989	A1927	A1927	G1867	A1808	U1747	G1687	G1626	G1567	G1507	G1445
G2353	C2293	A2171	U2051	C2051	G1990	A1928	C1868	A1808	C1748	G1688	G1627	G1567	C1447	G1446
C2354	G2294	U2172	G2112	A2052	U1991	G1929	G1869	A1809	A1749	A1689	G1628	G1568	A1508	A1508
G2355	C2295	A2173	U2113	G2053	U1992	G1930	C1870	A1810	G1750	A1690	G1631	A1569	G1510	G1448
U2356	G2234	C2174	A2114	A2054	G1993	U1931	A1871	G1811	U1751	C1691	G1632	A1571	G1449	G1450
G2357	A2297	C2175	G2115	C2055	C1994	A1932	A1872	U1812	C1752	U1692				

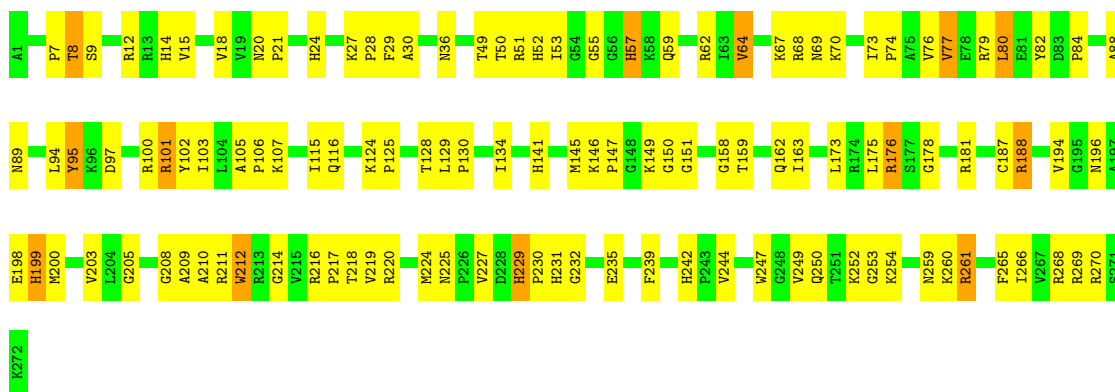


• Molecule 27: 50S ribosomal protein L1



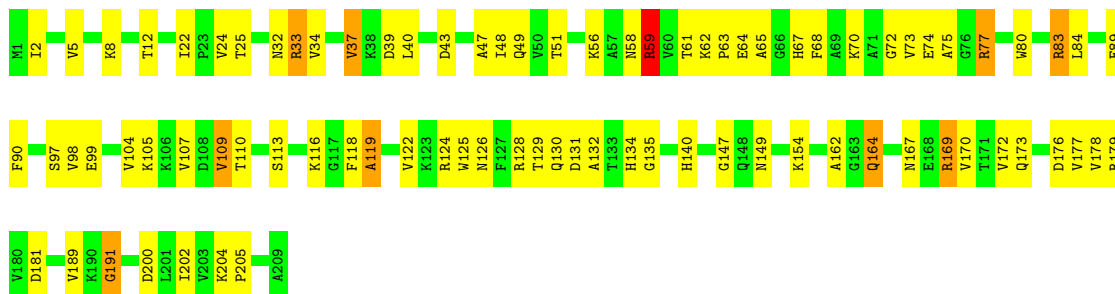
• Molecule 28: 50S ribosomal protein L2





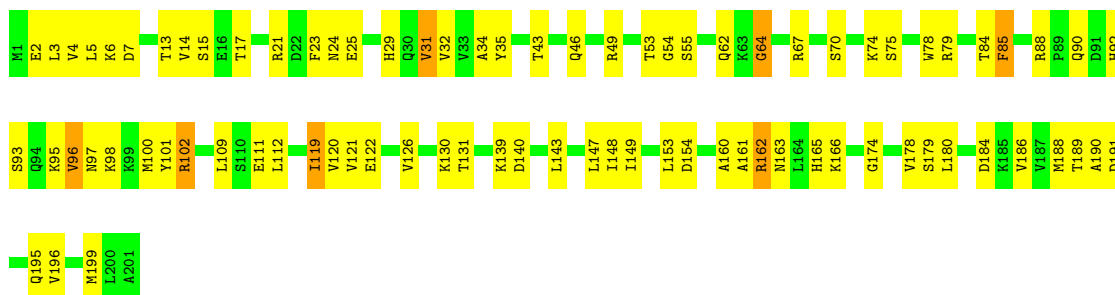
• Molecule 29: 50S ribosomal protein L3

Chain BE: 60% 35%



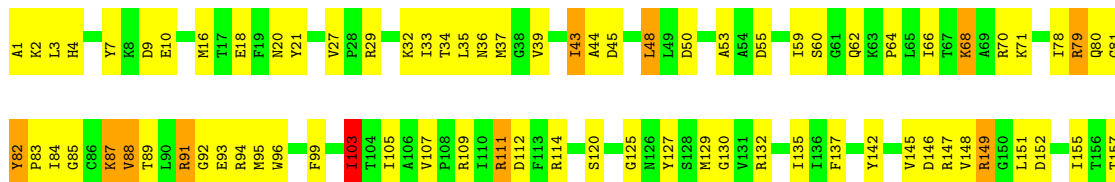
• Molecule 30: 50S ribosomal protein L4

Chain BF: 59% 38%



• Molecule 31: 50S ribosomal protein L5

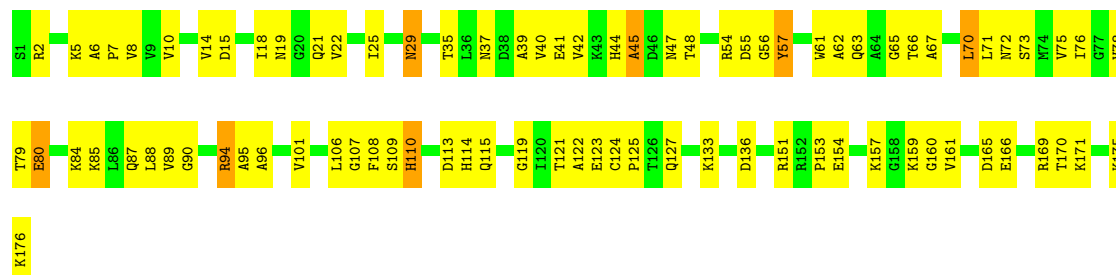
Chain BG: 49% 43% 7%





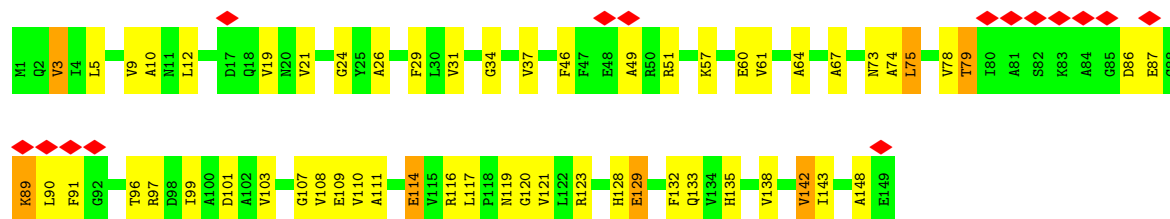
- Molecule 32: 50S ribosomal protein L6

Chain BH: 52% 44%



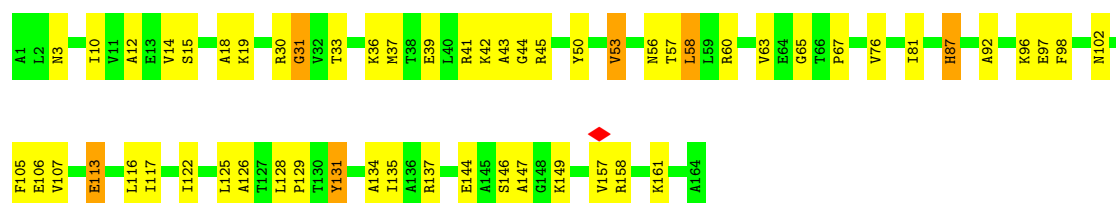
- Molecule 33: 50S ribosomal protein L9

Chain BI: 10% 62% 34% 5%



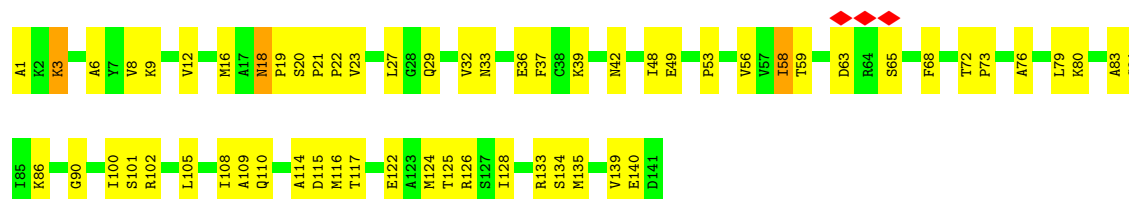
- Molecule 34: 50S ribosomal protein L10

Chain BJ: 65% 31%



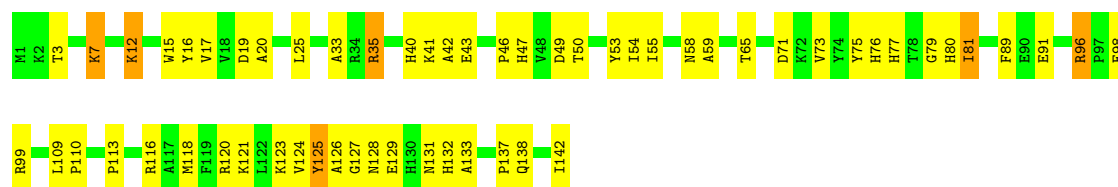
- Molecule 35: 50S ribosomal protein L11

Chain BK: 57% 40%



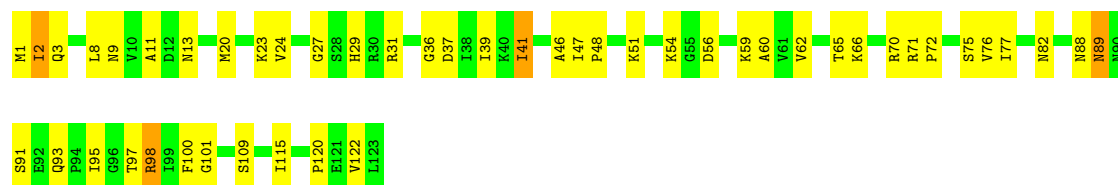
- Molecule 36: 50S ribosomal protein L13

Chain BL:  59% 37%



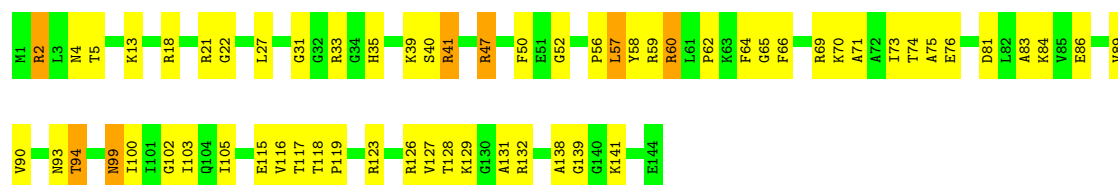
- Molecule 37: 50S ribosomal protein L14

Chain BM:  61% 36%



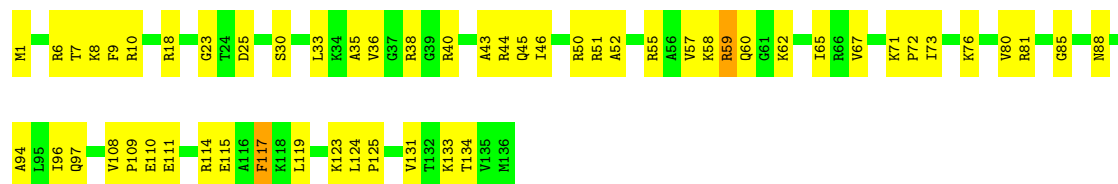
- Molecule 38: 50S ribosomal protein L15

Chain BN:  58% 38% 5%



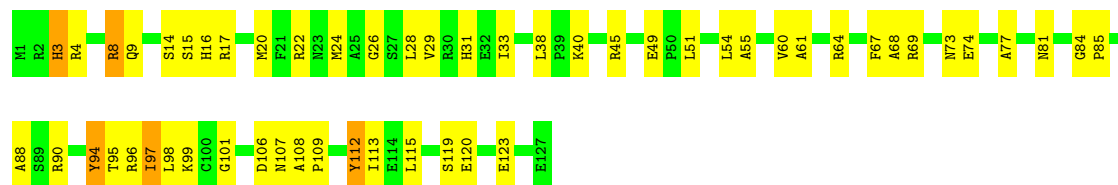
- Molecule 39: 50S ribosomal protein L16

Chain BO:  60% 39%



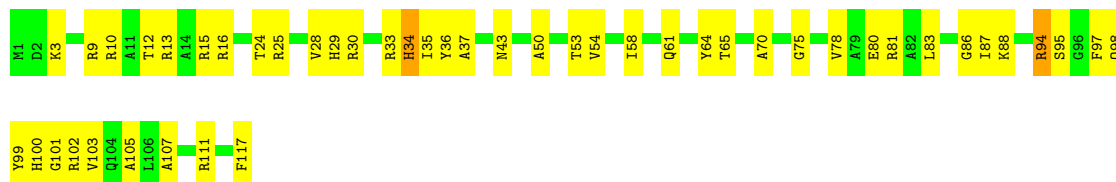
- Molecule 40: 50S ribosomal protein L17

Chain BP:  57% 39%



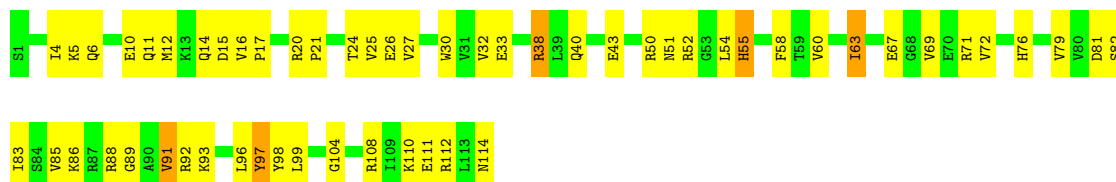
- Molecule 41: 50S ribosomal protein L18

Chain BQ:  60% 38% .



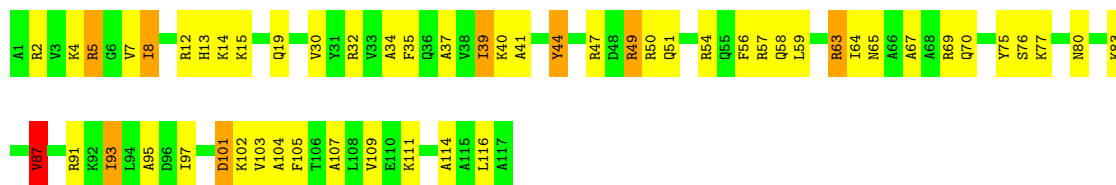
- Molecule 42: 50S ribosomal protein L19

Chain BR:  51% 45% .



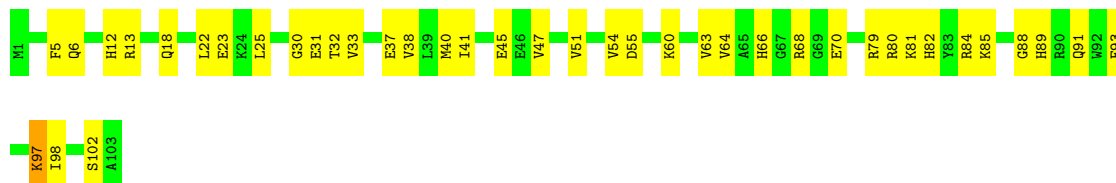
- Molecule 43: 50S ribosomal protein L20

Chain BS:  54% 38% 7% .



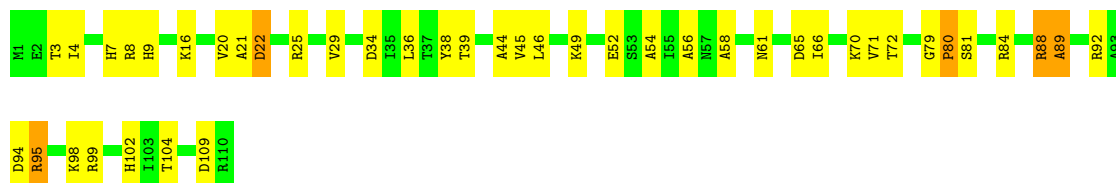
- Molecule 44: 50S ribosomal protein L21

Chain BT:  61% 38% .



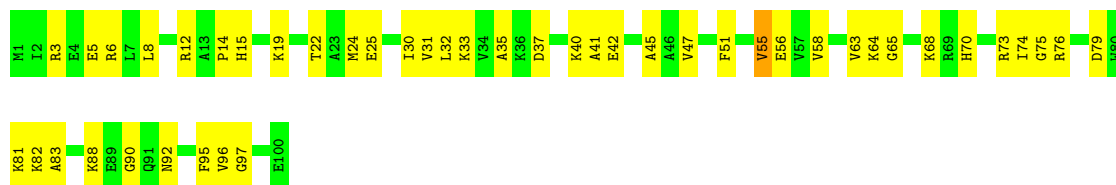
- Molecule 45: 50S ribosomal protein L22

Chain BU:  61% 35% 5% .



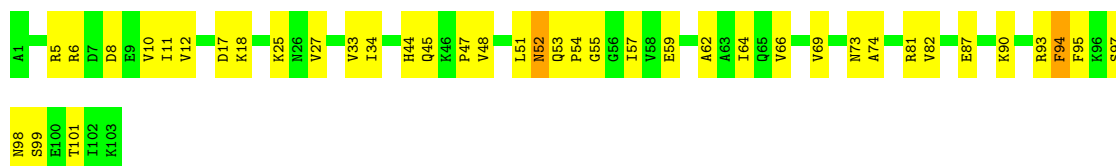
- Molecule 46: 50S ribosomal protein L23

Chain BV:  55% 44%



- Molecule 47: 50S ribosomal protein L24

Chain BW:  61% 37%



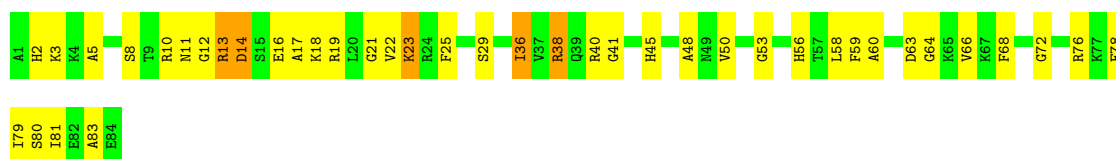
- Molecule 48: 50S ribosomal protein L25

Chain BX:  64% 33%



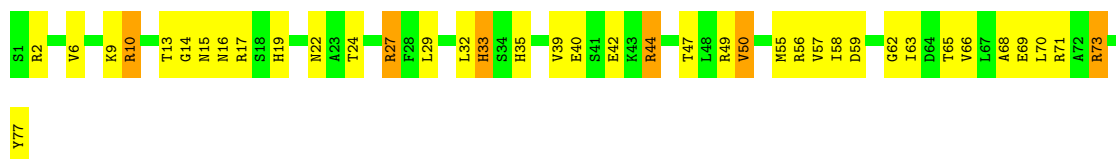
- Molecule 49: 50S ribosomal protein L27

Chain BY:  51% 43% 6%

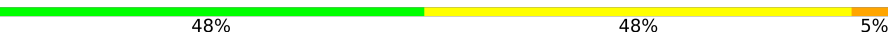


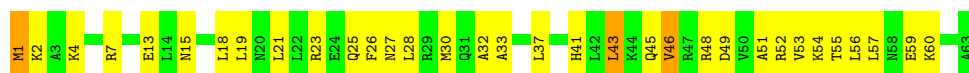
- Molecule 50: 50S ribosomal protein L28

Chain BZ:  49% 43% 8%

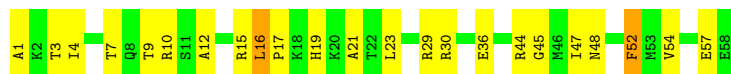


- Molecule 51: 50S ribosomal protein L29

Chain B0:  48% 48% 5%



• Molecule 52: 50S ribosomal protein L30

Chain B1:  60% 36% .

• Molecule 53: 50S ribosomal protein L31

Chain B2:  53% 40% 6% .

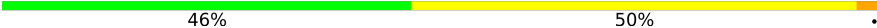
• Molecule 54: 50S ribosomal protein L32

Chain B3:  62% 32% 5% .

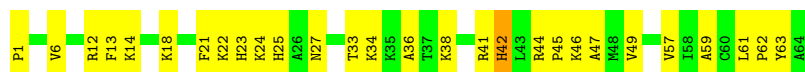
• Molecule 55: 50S ribosomal protein L33

Chain B4:  56% 41% .

• Molecule 56: 50S ribosomal protein L34

Chain B5:  46% 50% .

• Molecule 57: 50S ribosomal protein L35

Chain B6:  56% 42% .

• Molecule 58: 50S ribosomal protein L36

Chain B7:  58% 39% .

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	21000	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Volumes were CTF-corrected in defocus groups	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	58269	Depositor
Image detector	TVIPS TEMCAM-F415 (4k x 4k)	Depositor
Maximum map value	1.422	Depositor
Minimum map value	-0.460	Depositor
Average map value	0.029	Depositor
Map value standard deviation	0.195	Depositor
Recommended contour level	0.1	Depositor
Map size (Å)	375.0, 375.0, 375.0	wwPDB
Map dimensions	250, 250, 250	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.5, 1.5, 1.5	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	AA	1.90	598/36769 (1.6%)	1.98	1872/57354 (3.3%)
2	AB	1.92	30/1600 (1.9%)	2.11	93/2492 (3.7%)
3	AC	1.99	26/1108 (2.3%)	2.05	65/1724 (3.8%)
4	AD	1.85	26/1721 (1.5%)	2.06	105/2683 (3.9%)
5	AE	2.00	46/1904 (2.4%)	2.37	94/2565 (3.7%)
6	AF	2.03	42/1852 (2.3%)	2.42	112/2490 (4.5%)
7	AG	1.93	30/1665 (1.8%)	2.38	102/2227 (4.6%)
8	AH	2.01	25/1239 (2.0%)	2.42	75/1664 (4.5%)
9	AI	2.03	21/1121 (1.9%)	2.44	66/1509 (4.4%)
10	AJ	1.98	30/1422 (2.1%)	2.37	77/1908 (4.0%)
11	AK	2.12	24/989 (2.4%)	2.42	63/1326 (4.8%)
12	AL	2.04	24/1048 (2.3%)	2.32	53/1394 (3.8%)
13	AM	1.97	14/835 (1.7%)	2.46	50/1127 (4.4%)
14	AN	2.03	22/982 (2.2%)	2.32	50/1323 (3.8%)
15	AO	2.06	26/969 (2.7%)	2.44	65/1300 (5.0%)
16	AP	1.98	12/919 (1.3%)	2.45	64/1226 (5.2%)
17	AQ	1.99	20/817 (2.4%)	2.43	46/1088 (4.2%)
18	AR	2.09	17/724 (2.3%)	2.40	43/966 (4.5%)
19	AS	2.05	15/659 (2.3%)	2.48	40/884 (4.5%)
20	AT	2.06	17/681 (2.5%)	2.22	31/913 (3.4%)
21	AU	2.05	12/637 (1.9%)	2.46	50/851 (5.9%)
22	AV	1.96	16/744 (2.2%)	2.34	35/995 (3.5%)
23	AW	1.99	18/676 (2.7%)	2.36	43/895 (4.8%)
24	AX	2.02	9/598 (1.5%)	2.41	41/792 (5.2%)
25	BA	1.89	48/2869 (1.7%)	2.01	150/4474 (3.4%)
26	BB	1.90	1131/69257 (1.6%)	1.98	3513/108040 (3.3%)
27	BC	2.00	36/1748 (2.1%)	2.29	61/2355 (2.6%)
28	BD	2.05	50/2131 (2.3%)	2.32	105/2863 (3.7%)
29	BE	2.02	28/1586 (1.8%)	2.32	73/2134 (3.4%)
30	BF	1.98	27/1571 (1.7%)	2.39	84/2113 (4.0%)
31	BG	2.01	35/1444 (2.4%)	2.29	69/1937 (3.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
32	BH	1.93	26/1343 (1.9%)	2.38	76/1816 (4.2%)
33	BI	1.99	24/1122 (2.1%)	2.42	55/1515 (3.6%)
34	BJ	2.01	28/1247 (2.2%)	2.33	49/1679 (2.9%)
35	BK	2.00	25/1046 (2.4%)	2.43	62/1410 (4.4%)
36	BL	2.01	18/1152 (1.6%)	2.35	60/1551 (3.9%)
37	BM	1.94	18/956 (1.9%)	2.33	39/1279 (3.0%)
38	BN	2.10	20/1062 (1.9%)	2.30	54/1413 (3.8%)
39	BO	2.02	21/1093 (1.9%)	2.46	62/1460 (4.2%)
40	BP	1.96	18/1021 (1.8%)	2.46	65/1364 (4.8%)
41	BQ	2.04	22/910 (2.4%)	2.33	47/1219 (3.9%)
42	BR	2.04	23/929 (2.5%)	2.34	42/1242 (3.4%)
43	BS	1.97	18/960 (1.9%)	2.49	73/1278 (5.7%)
44	BT	2.05	21/829 (2.5%)	2.21	40/1107 (3.6%)
45	BU	2.00	20/864 (2.3%)	2.33	40/1156 (3.5%)
46	BV	2.09	22/794 (2.8%)	2.34	39/1060 (3.7%)
47	BW	1.99	16/797 (2.0%)	2.28	37/1062 (3.5%)
48	BX	1.95	16/766 (2.1%)	2.23	29/1025 (2.8%)
49	BY	2.08	22/642 (3.4%)	2.39	38/848 (4.5%)
50	BZ	2.03	12/635 (1.9%)	2.44	40/848 (4.7%)
51	B0	2.00	12/510 (2.4%)	2.51	39/677 (5.8%)
52	B1	2.01	8/453 (1.8%)	2.23	19/605 (3.1%)
53	B2	2.09	21/559 (3.8%)	2.51	35/745 (4.7%)
54	B3	2.06	12/450 (2.7%)	2.42	20/599 (3.3%)
55	B4	2.01	11/448 (2.5%)	2.20	19/594 (3.2%)
56	B5	2.08	11/380 (2.9%)	2.56	33/498 (6.6%)
57	B6	2.04	9/513 (1.8%)	2.25	25/676 (3.7%)
58	B7	1.90	6/303 (2.0%)	2.29	10/397 (2.5%)
All	All	1.94	2955/164069 (1.8%)	2.10	8537/244735 (3.5%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	888
2	AB	0	39
3	AC	0	23
4	AD	0	34
5	AE	0	6
6	AF	0	8
7	AG	0	11

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Mol	Chain	#Chirality outliers	#Planarity outliers
8	AH	0	5
9	AI	0	11
10	AJ	0	6
11	AK	0	3
12	AL	0	5
13	AM	0	4
14	AN	0	5
15	AO	0	2
16	AP	0	3
17	AQ	0	1
19	AS	0	3
20	AT	0	1
21	AU	0	6
23	AW	0	2
24	AX	0	1
25	BA	0	71
26	BB	0	1680
27	BC	0	4
28	BD	0	11
29	BE	0	7
30	BF	0	6
31	BG	0	8
32	BH	0	3
34	BJ	0	6
36	BL	0	6
37	BM	0	3
38	BN	0	3
39	BO	0	2
40	BP	0	6
41	BQ	0	4
42	BR	0	4
43	BS	0	5
44	BT	0	1
45	BU	0	3
47	BW	0	2
48	BX	0	3
49	BY	0	5
50	BZ	0	4
51	B0	0	2
52	B1	0	2
53	B2	0	1
55	B4	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
56	B5	0	1
57	B6	0	3
58	B7	0	1
All	All	0	2927

All (2955) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2552	OMU	O3'-P	11.42	1.67	1.56
26	BB	757	G	P-O5'	11.28	1.76	1.59
53	B2	66	ILE	CA-CB	10.91	1.60	1.54
26	BB	2569	G	P-O5'	10.73	1.75	1.59
1	AA	1466	C	P-O5'	10.35	1.75	1.59
26	BB	1614	A	O3'-P	10.20	1.76	1.61
26	BB	1641	A	C5'-C4'	10.05	1.66	1.51
26	BB	785	G	P-O5'	9.82	1.74	1.59
1	AA	395	C	P-O5'	9.70	1.74	1.59
26	BB	2079	U	C4'-O4'	-9.63	1.31	1.45
36	BL	7	LYS	N-CA	-9.49	1.37	1.46
13	AM	35	GLN	CA-C	9.43	1.64	1.52
2	AB	8	4SU	O3'-P	9.32	1.65	1.56
13	AM	57	VAL	CA-C	9.19	1.62	1.52
1	AA	710	G	O3'-P	9.18	1.75	1.61
5	AE	192	PRO	N-CA	-9.10	1.36	1.47
6	AF	119	ILE	N-CA	9.08	1.57	1.46
1	AA	1360	A	O3'-P	9.00	1.74	1.61
7	AG	166	LYS	CA-C	8.99	1.62	1.52
1	AA	1236	A	C5'-C4'	8.96	1.64	1.51
11	AK	111	THR	CA-C	8.96	1.65	1.53
26	BB	2322	A	P-O5'	8.90	1.73	1.59
26	BB	2302	U	P-O5'	8.89	1.73	1.59
1	AA	580	C	C4'-O4'	-8.82	1.32	1.45
26	BB	999	U	C4'-O4'	-8.80	1.32	1.45
26	BB	880	G	O3'-P	8.79	1.74	1.61
26	BB	1151	A	P-O5'	8.79	1.73	1.59
26	BB	1558	C	P-O5'	8.79	1.73	1.59
26	BB	1376	C	P-O5'	8.77	1.73	1.59
26	BB	2408	U	P-O5'	8.77	1.73	1.59
26	BB	800	A	P-O5'	8.75	1.72	1.59
1	AA	313	A	C2'-C1'	-8.74	1.40	1.53
28	BD	150	GLY	N-CA	8.70	1.54	1.45
26	BB	798	G	P-O5'	8.69	1.72	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2751	G	P-O5'	8.67	1.72	1.59
43	BS	76	SER	N-CA	8.65	1.57	1.46
26	BB	1930	G	O3'-P	8.63	1.74	1.61
28	BD	268	ARG	NE-CZ	8.62	1.42	1.33
15	AO	79	ILE	N-CA	-8.61	1.36	1.46
1	AA	303	A	P-O5'	8.61	1.72	1.59
1	AA	1368	A	P-O5'	8.59	1.72	1.59
26	BB	822	G	P-O5'	8.59	1.72	1.59
11	AK	24	VAL	CA-C	8.56	1.62	1.52
26	BB	2758	A	P-O5'	8.55	1.72	1.59
1	AA	254	G	O3'-P	8.54	1.74	1.61
1	AA	968	A	C4'-O4'	-8.54	1.33	1.45
55	B4	28	THR	CA-C	8.53	1.64	1.52
26	BB	101	A	C4'-O4'	-8.51	1.33	1.45
27	BC	80	GLN	CA-C	8.51	1.62	1.52
6	AF	205	GLU	CA-C	8.51	1.63	1.52
41	BQ	94	ARG	NE-CZ	8.50	1.42	1.33
26	BB	2708	G	P-O5'	8.49	1.72	1.59
31	BG	71	LYS	CA-C	8.46	1.63	1.52
9	AI	11	HIS	CA-C	-8.44	1.44	1.53
44	BT	38	VAL	CA-CB	8.44	1.64	1.54
53	B2	34	LEU	CA-C	8.44	1.62	1.52
1	AA	49	U	P-O5'	8.42	1.72	1.59
9	AI	132	GLU	CA-C	8.40	1.64	1.52
11	AK	26	MET	N-CA	8.39	1.53	1.45
48	BX	44	HIS	ND1-CE1	8.37	1.41	1.32
34	BJ	144	GLU	CA-C	8.36	1.63	1.52
50	BZ	70	LEU	C-O	-8.36	1.14	1.24
1	AA	134	G	P-O5'	8.31	1.72	1.59
7	AG	143	SER	CA-C	8.29	1.62	1.52
5	AE	46	VAL	CA-C	8.29	1.61	1.52
7	AG	56	GLU	CA-C	8.26	1.64	1.52
20	AT	4	ILE	CA-CB	8.23	1.65	1.54
36	BL	54	ILE	CA-C	-8.23	1.42	1.52
26	BB	404	A	C4'-C3'	8.23	1.64	1.52
1	AA	1226	C	C4'-O4'	-8.22	1.33	1.45
5	AE	201	GLY	CA-C	8.18	1.61	1.51
26	BB	2151	U	C4'-O4'	-8.16	1.33	1.45
2	AB	47	U	C4'-O4'	-8.13	1.33	1.45
50	BZ	15	ASN	N-CA	8.11	1.56	1.45
26	BB	321	U	P-O5'	8.10	1.71	1.59
35	BK	16	MET	N-CA	8.09	1.55	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BY	45	HIS	CE1-NE2	8.02	1.40	1.32
31	BG	10	GLU	CA-C	8.02	1.59	1.52
1	AA	396	C	O3'-P	8.02	1.73	1.61
1	AA	1517	G	P-O5'	8.00	1.71	1.59
41	BQ	33	ARG	CA-C	7.99	1.62	1.52
45	BU	58	ALA	CA-C	7.98	1.63	1.52
48	BX	65	VAL	CA-C	7.97	1.62	1.52
26	BB	111	A	O3'-P	7.96	1.73	1.61
10	AJ	141	HIS	CG-ND1	7.95	1.47	1.38
26	BB	112	U	P-O5'	7.95	1.71	1.59
26	BB	150	U	O3'-P	7.92	1.73	1.61
33	BI	31	VAL	CA-C	7.92	1.61	1.52
3	AC	47	C	C4'-O4'	-7.90	1.33	1.45
28	BD	70	LYS	CA-C	7.89	1.62	1.52
1	AA	961	U	P-O5'	7.89	1.71	1.59
14	AN	68	ARG	CA-CB	7.89	1.65	1.53
1	AA	715	A	C4'-O4'	-7.88	1.33	1.45
26	BB	1022	G	P-O5'	7.87	1.71	1.59
26	BB	2573	C	O3'-P	7.86	1.73	1.61
26	BB	2862	G	C3'-O3'	-7.86	1.30	1.42
43	BS	116	LEU	N-CA	7.85	1.54	1.46
13	AM	13	PHE	CA-C	7.84	1.62	1.52
1	AA	866	C	C2'-O2'	7.84	1.54	1.42
1	AA	1183	U	P-O5'	7.83	1.71	1.59
26	BB	284	U	O3'-P	7.83	1.72	1.61
26	BB	1410	G	P-O5'	7.83	1.71	1.59
24	AX	52	VAL	N-CA	7.81	1.55	1.46
26	BB	2310	C	P-O5'	7.80	1.71	1.59
26	BB	2613	U	P-O5'	7.80	1.71	1.59
15	AO	97	VAL	CA-C	7.80	1.60	1.53
1	AA	102	G	C5'-C4'	7.80	1.62	1.51
25	BA	89	U	C5'-C4'	7.80	1.62	1.51
1	AA	1216	A	O3'-P	7.79	1.72	1.61
11	AK	103	VAL	CA-C	7.79	1.62	1.52
26	BB	2392	A	C4'-C3'	7.79	1.64	1.52
11	AK	50	VAL	C-N	7.77	1.43	1.33
1	AA	1216	A	C4'-O4'	-7.77	1.33	1.45
20	AT	7	LEU	CA-C	-7.77	1.43	1.52
26	BB	1292	G	P-O5'	7.77	1.71	1.59
41	BQ	54	VAL	CA-C	7.76	1.62	1.52
1	AA	583	A	P-O5'	7.76	1.71	1.59
1	AA	165	G	O3'-P	7.75	1.72	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	AN	49	SER	N-CA	7.75	1.56	1.46
1	AA	183	C	C4'-O4'	-7.74	1.33	1.45
1	AA	686	U	C4'-O4'	-7.74	1.34	1.45
17	AQ	6	LYS	N-CA	7.73	1.56	1.46
30	BF	180	LEU	CA-C	7.73	1.63	1.52
26	BB	843	G	C4'-O4'	-7.72	1.33	1.45
26	BB	445	C	O3'-P	7.72	1.72	1.61
26	BB	1812	U	P-O5'	7.70	1.71	1.59
1	AA	31	G	C4'-O4'	-7.69	1.34	1.45
26	BB	778	G	O3'-P	7.69	1.72	1.61
6	AF	201	ILE	CA-C	7.69	1.61	1.52
48	BX	25	LYS	C-N	7.69	1.42	1.33
26	BB	2042	A	P-O5'	7.67	1.71	1.59
26	BB	1846	G	P-O5'	7.67	1.71	1.59
26	BB	1868	C	O3'-P	-7.66	1.49	1.61
1	AA	59	A	O4'-C1'	7.65	1.53	1.41
26	BB	1603	A	C5'-C4'	7.65	1.62	1.51
29	BE	181	ASP	N-CA	7.64	1.55	1.46
26	BB	2860	A	P-O5'	7.64	1.71	1.59
26	BB	1808	A	P-O5'	7.63	1.71	1.59
26	BB	574	A	P-O5'	7.63	1.71	1.59
10	AJ	89	GLU	N-CA	7.63	1.55	1.46
15	AO	26	CYS	CA-C	7.62	1.59	1.52
26	BB	1718	G	C4'-O4'	-7.62	1.34	1.45
19	AS	45	GLU	N-CA	7.62	1.57	1.46
1	AA	30	U	C5'-C4'	7.61	1.62	1.51
26	BB	1414	C	O3'-P	7.61	1.72	1.61
26	BB	1589	U	O5'-C5'	7.61	1.53	1.42
26	BB	124	G	P-O5'	7.61	1.71	1.59
26	BB	2229	U	O3'-P	7.60	1.72	1.61
1	AA	1282	C	C4'-O4'	-7.60	1.34	1.45
1	AA	7	A	C1'-N9	7.59	1.59	1.48
45	BU	8	ARG	CA-CB	7.58	1.65	1.53
30	BF	189	THR	CA-C	7.57	1.62	1.52
26	BB	813	U	O4'-C1'	7.57	1.53	1.41
20	AT	73	THR	CB-OG1	-7.56	1.31	1.43
11	AK	76	ARG	CD-NE	7.55	1.56	1.46
26	BB	1274	A	O4'-C1'	7.55	1.52	1.41
37	BM	70	ARG	NE-CZ	7.54	1.41	1.33
1	AA	48	C	O3'-P	7.54	1.72	1.61
37	BM	62	VAL	CA-C	7.54	1.61	1.52
35	BK	140	GLU	N-CA	7.53	1.54	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	AX	58	LYS	N-CA	7.53	1.55	1.46
26	BB	1517	G	C3'-C2'	7.53	1.64	1.52
1	AA	430	A	C4'-O4'	-7.52	1.34	1.45
1	AA	653	U	C4'-O4'	-7.52	1.34	1.45
1	AA	1417	G	P-O5'	7.52	1.71	1.59
26	BB	1437	C	C5'-C4'	7.52	1.62	1.51
42	BR	85	VAL	CA-CB	7.51	1.64	1.54
26	BB	2455	G	P-O5'	7.51	1.71	1.59
1	AA	444	G	P-O5'	7.50	1.71	1.59
1	AA	651	C	P-O5'	7.50	1.71	1.59
7	AG	164	ARG	CD-NE	7.50	1.56	1.46
26	BB	441	U	C5'-C4'	7.50	1.62	1.51
26	BB	2306	C	O3'-P	7.50	1.72	1.61
26	BB	900	A	C5'-C4'	7.49	1.62	1.51
26	BB	1160	G	P-O5'	7.47	1.71	1.59
26	BB	1747	U	O3'-P	7.47	1.72	1.61
18	AR	45	HIS	CA-C	7.46	1.61	1.52
26	BB	75	G	O3'-P	7.45	1.72	1.61
26	BB	1737	G	C5'-C4'	7.45	1.62	1.51
26	BB	481	G	P-O5'	7.45	1.71	1.59
26	BB	230	G	P-O5'	7.44	1.71	1.59
2	AB	69	C	C5'-C4'	7.43	1.62	1.51
26	BB	918	A	P-O5'	7.42	1.70	1.59
17	AQ	73	LEU	CA-C	7.42	1.61	1.53
26	BB	2312	U	C4'-O4'	-7.41	1.34	1.45
26	BB	2864	G	O3'-P	7.41	1.72	1.61
20	AT	18	LYS	CA-C	7.41	1.62	1.52
26	BB	1216	G	C4'-O4'	-7.40	1.34	1.45
26	BB	584	C	P-O5'	7.40	1.70	1.59
9	AI	66	ALA	N-CA	7.39	1.53	1.46
3	AC	50	U	C4'-O4'	-7.38	1.34	1.45
26	BB	1527	G	C3'-C2'	7.38	1.63	1.52
1	AA	850	U	P-O5'	7.38	1.70	1.59
28	BD	141	HIS	CE1-NE2	7.38	1.40	1.32
23	AW	2	ASN	CA-CB	7.38	1.64	1.53
28	BD	250	GLN	CA-C	7.38	1.62	1.52
1	AA	612	C	C4'-O4'	-7.37	1.34	1.45
11	AK	108	GLY	C-O	7.37	1.30	1.23
39	BO	111	GLU	N-CA	7.36	1.55	1.46
25	BA	67	G	P-O5'	7.36	1.70	1.59
30	BF	64	GLY	CA-C	7.35	1.62	1.51
31	BG	83	PRO	CA-C	7.35	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2387	U	C4'-O4'	-7.35	1.34	1.45
43	BS	77	LYS	CA-C	7.34	1.62	1.52
28	BD	102	TYR	CA-C	7.34	1.62	1.52
1	AA	127	G	C5'-C4'	7.33	1.62	1.51
43	BS	47	ARG	CA-C	7.33	1.62	1.52
34	BJ	134	ALA	CA-CB	7.33	1.64	1.53
26	BB	1352	U	P-O5'	7.32	1.70	1.59
52	B1	45	GLY	CA-C	7.32	1.60	1.52
26	BB	1457	U	C5'-C4'	7.32	1.62	1.51
33	BI	79	THR	CA-C	7.31	1.61	1.52
1	AA	815	A	C3'-C2'	7.30	1.64	1.52
26	BB	1498	C	C4'-O4'	-7.30	1.34	1.45
6	AF	76	ILE	N-CA	7.30	1.56	1.46
10	AJ	19	SER	N-CA	7.30	1.54	1.46
26	BB	1935	G	C3'-O3'	7.30	1.53	1.42
26	BB	2576	G	O4'-C1'	7.30	1.52	1.41
30	BF	199	MET	CA-C	7.29	1.62	1.52
26	BB	1651	G	P-O5'	7.29	1.70	1.59
25	BA	64	G	P-O5'	7.29	1.70	1.59
26	BB	944	C	P-O5'	7.29	1.70	1.59
26	BB	1262	A	P-O5'	7.28	1.70	1.59
1	AA	759	A	O3'-P	7.28	1.72	1.61
1	AA	546	A	O3'-P	7.28	1.72	1.61
1	AA	1353	G	P-O5'	7.28	1.70	1.59
26	BB	257	C	P-O5'	7.27	1.70	1.59
26	BB	833	A	O4'-C1'	7.27	1.52	1.41
26	BB	1948	G	C2'-C1'	7.26	1.64	1.53
15	AO	24	GLU	CA-C	7.26	1.63	1.53
26	BB	905	A	C5'-C4'	7.25	1.62	1.51
26	BB	1782	U	P-O5'	7.25	1.70	1.59
26	BB	2270	A	C4'-O4'	-7.24	1.34	1.45
26	BB	309	A	C4'-O4'	-7.24	1.34	1.45
1	AA	1531	A	P-O5'	7.23	1.70	1.59
26	BB	1232	G	P-O5'	7.23	1.70	1.59
26	BB	1363	C	C4'-O4'	-7.22	1.34	1.45
26	BB	1486	U	P-O5'	7.22	1.70	1.59
26	BB	530	G	P-O5'	7.22	1.70	1.59
29	BE	202	ILE	N-CA	-7.22	1.37	1.46
6	AF	156	LEU	CA-C	7.21	1.62	1.52
49	BY	40	ARG	NE-CZ	7.21	1.41	1.33
55	B4	5	ARG	CA-C	7.21	1.63	1.53
26	BB	115	C	C4'-O4'	-7.21	1.34	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BY	11	ASN	C-N	7.20	1.39	1.33
26	BB	706	A	C4'-O4'	-7.20	1.34	1.45
5	AE	129	THR	CA-C	7.20	1.61	1.52
1	AA	1385	G	P-O5'	7.19	1.70	1.59
2	AB	32	OMC	O3'-P	7.19	1.72	1.61
31	BG	157	THR	CA-C	7.19	1.61	1.52
4	AD	67	C	C4'-C3'	7.19	1.63	1.52
26	BB	2548	U	O3'-P	7.18	1.72	1.61
1	AA	774	G	P-O5'	7.18	1.70	1.59
1	AA	209	U	C5'-C4'	7.18	1.62	1.51
9	AI	109	ARG	CA-C	7.18	1.62	1.52
26	BB	2444	G	C5'-C4'	7.17	1.62	1.51
35	BK	20	SER	C-O	-7.17	1.17	1.24
30	BF	49	ARG	CZ-NH2	7.17	1.42	1.33
1	AA	1457	G	P-O5'	7.17	1.70	1.59
26	BB	90	U	P-O5'	-7.17	1.49	1.59
39	BO	73	ILE	C-O	7.16	1.31	1.24
1	AA	1217	C	P-O5'	7.16	1.70	1.59
26	BB	396	G	P-O5'	7.16	1.70	1.59
8	AH	117	ALA	N-CA	7.14	1.55	1.46
1	AA	808	C	C5'-C4'	7.14	1.61	1.51
39	BO	115	GLU	CA-C	7.13	1.62	1.52
29	BE	77	ARG	NE-CZ	7.13	1.40	1.33
48	BX	29	ILE	CA-C	7.12	1.61	1.52
1	AA	1050	G	P-O5'	7.12	1.70	1.59
26	BB	655	A	C5'-C4'	7.12	1.62	1.51
1	AA	630	A	C4'-O4'	-7.11	1.34	1.45
25	BA	25	U	P-O5'	7.11	1.70	1.59
1	AA	375	U	C3'-O3'	-7.11	1.31	1.42
50	BZ	66	VAL	N-CA	7.11	1.54	1.46
11	AK	94	VAL	CA-CB	7.11	1.61	1.54
26	BB	655	A	O3'-P	7.11	1.71	1.61
1	AA	997	U	C4'-O4'	-7.10	1.34	1.45
10	AJ	14	ASP	C-N	7.10	1.40	1.33
46	BV	47	VAL	CA-C	7.09	1.60	1.52
26	BB	691	C	C4'-O4'	-7.09	1.34	1.45
1	AA	803	G	P-O5'	7.08	1.70	1.59
9	AI	44	ARG	NE-CZ	7.08	1.40	1.33
26	BB	1312	U	C4'-O4'	-7.08	1.35	1.45
26	BB	2118	U	C5'-C4'	7.08	1.61	1.51
26	BB	1893	C	C5'-C4'	7.08	1.61	1.51
26	BB	2539	C	C5'-C4'	7.08	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1198	U	O3'-P	7.08	1.71	1.61
22	AV	83	ALA	C-O	-7.07	1.18	1.23
26	BB	1097	U	C4'-O4'	-7.07	1.34	1.45
28	BD	163	ILE	C-N	7.07	1.39	1.33
26	BB	337	C	C4'-O4'	-7.06	1.34	1.45
26	BB	1046	A	P-O5'	7.06	1.70	1.59
26	BB	1491	G	C5'-C4'	7.06	1.61	1.51
41	BQ	58	ILE	N-CA	7.05	1.52	1.46
12	AL	10	ARG	N-CA	7.05	1.55	1.46
10	AJ	110	ARG	NE-CZ	7.04	1.40	1.33
26	BB	100	U	O5'-C5'	7.04	1.53	1.42
1	AA	308	C	C4'-O4'	-7.04	1.34	1.45
1	AA	1329	A	C5'-C4'	7.04	1.61	1.51
22	AV	24	SER	CA-C	7.04	1.61	1.52
39	BO	62	LYS	CA-C	7.04	1.61	1.52
42	BR	82	SER	N-CA	7.04	1.55	1.46
1	AA	188	C	O3'-P	7.04	1.71	1.61
1	AA	217	C	O3'-P	7.04	1.71	1.61
26	BB	791	C	P-O5'	7.04	1.70	1.59
26	BB	926	G	P-O5'	7.04	1.70	1.59
46	BV	6	ARG	NE-CZ	7.03	1.40	1.33
1	AA	1431	A	P-O5'	7.03	1.70	1.59
26	BB	724	U	P-O5'	7.03	1.70	1.59
26	BB	836	G	O3'-P	-7.03	1.50	1.61
26	BB	1350	C	C5'-C4'	7.03	1.61	1.51
39	BO	30	SER	CA-C	7.03	1.61	1.52
30	BF	92	HIS	CA-C	7.02	1.63	1.53
57	B6	61	LEU	N-CA	-7.02	1.39	1.46
7	AG	51	GLY	CA-C	7.01	1.59	1.52
26	BB	1410	G	C3'-C2'	7.01	1.63	1.52
1	AA	1505	G	C2'-O2'	-7.01	1.31	1.42
22	AV	45	GLY	CA-C	7.01	1.61	1.51
1	AA	687	A	C2'-O2'	-7.00	1.31	1.41
23	AW	79	THR	CB-OG1	-7.00	1.32	1.43
54	B3	36	LYS	CA-C	7.00	1.61	1.52
1	AA	1366	C	O3'-P	7.00	1.71	1.61
6	AF	152	VAL	CA-CB	7.00	1.62	1.54
26	BB	1300	G	C5'-C4'	6.99	1.61	1.51
26	BB	210	C	C1'-N1	6.99	1.58	1.48
30	BF	75	SER	N-CA	6.99	1.53	1.45
26	BB	1226	A	P-O5'	6.99	1.70	1.59
1	AA	454	G	C5'-C4'	6.98	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	42	G	P-O5'	6.98	1.70	1.59
1	AA	367	U	C1'-N1	6.98	1.57	1.47
26	BB	1261	C	C3'-C2'	-6.98	1.42	1.52
1	AA	1297	G	C4'-O4'	-6.98	1.35	1.45
14	AN	122	PRO	CA-C	6.98	1.58	1.52
27	BC	139	ASN	CA-C	6.97	1.58	1.52
33	BI	21	VAL	CA-C	6.97	1.61	1.52
23	AW	67	HIS	CA-C	6.97	1.62	1.52
26	BB	2707	U	C1'-N1	6.97	1.58	1.48
1	AA	380	G	P-O5'	6.97	1.70	1.59
26	BB	1022	G	C2'-C1'	6.96	1.63	1.53
14	AN	32	THR	CA-C	6.96	1.60	1.52
26	BB	773	U	P-O5'	6.96	1.70	1.59
26	BB	2003	A	C5'-C4'	6.96	1.61	1.51
1	AA	123	U	P-O5'	6.96	1.70	1.59
1	AA	1197	A	P-O5'	6.95	1.70	1.59
1	AA	25	C	C4'-O4'	-6.95	1.35	1.45
26	BB	894	U	O3'-P	6.95	1.71	1.61
35	BK	105	LEU	CA-C	6.95	1.61	1.52
26	BB	1685	C	O4'-C1'	6.95	1.52	1.41
26	BB	2202	U	C5'-C4'	6.94	1.61	1.51
32	BH	37	ASN	N-CA	6.94	1.54	1.46
41	BQ	95	SER	C-N	6.94	1.41	1.33
25	BA	68	C	C4'-O4'	-6.93	1.35	1.45
36	BL	131	ASN	N-CA	6.93	1.52	1.46
49	BY	25	PHE	CA-C	6.93	1.61	1.52
26	BB	1519	G	C4'-O4'	-6.93	1.35	1.45
1	AA	1259	C	P-O5'	6.93	1.70	1.59
26	BB	139	U	C2'-C1'	6.93	1.63	1.53
26	BB	2089	C	O4'-C1'	6.93	1.52	1.41
4	AD	67	C	P-O5'	6.92	1.70	1.59
26	BB	1933	G	P-O5'	6.92	1.70	1.59
1	AA	1505	G	P-O5'	6.92	1.70	1.59
1	AA	1495	U	C4'-O4'	-6.91	1.35	1.45
1	AA	1126	U	C1'-N1	6.91	1.57	1.47
38	BN	116	VAL	N-CA	-6.91	1.37	1.46
26	BB	709	U	P-O5'	6.91	1.70	1.59
1	AA	1168	U	C2'-O2'	6.90	1.52	1.42
25	BA	81	G	P-O5'	6.88	1.70	1.59
1	AA	1293	C	P-O5'	6.88	1.70	1.59
26	BB	2122	U	O3'-P	6.88	1.71	1.61
3	AC	19	A	C4'-O4'	-6.87	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2397	G	O5'-C5'	-6.87	1.32	1.42
26	BB	2194	U	O3'-P	6.86	1.71	1.61
1	AA	1455	G	C5'-C4'	6.86	1.61	1.51
1	AA	1306	A	C5'-C4'	6.86	1.61	1.51
1	AA	1488	G	C4'-O4'	-6.86	1.35	1.45
14	AN	10	ARG	NE-CZ	6.85	1.40	1.33
26	BB	2711	A	P-O5'	6.85	1.70	1.59
58	B7	34	LYS	CA-C	6.85	1.61	1.52
26	BB	115	C	O4'-C1'	6.85	1.51	1.41
1	AA	925	G	C4'-O4'	-6.84	1.35	1.45
49	BY	66	VAL	CA-C	6.84	1.60	1.52
50	BZ	68	ALA	CA-C	6.84	1.61	1.52
38	BN	93	ASN	CA-C	6.83	1.60	1.52
26	BB	1184	U	C4'-O4'	-6.83	1.35	1.45
42	BR	111	GLU	CA-C	6.83	1.60	1.52
26	BB	2592	G	O3'-P	6.83	1.71	1.61
26	BB	1200	C	C1'-N1	6.82	1.58	1.48
26	BB	2847	U	C4'-O4'	-6.82	1.35	1.45
26	BB	2129	C	P-O5'	6.82	1.70	1.59
26	BB	1197	G	C2'-O2'	-6.82	1.32	1.42
26	BB	320	A	C4'-O4'	-6.81	1.35	1.45
1	AA	1048	G	O4'-C1'	6.81	1.51	1.41
11	AK	109	VAL	C-O	-6.81	1.17	1.24
26	BB	2887	A	O3'-P	6.81	1.71	1.61
26	BB	2597	G	C3'-O3'	-6.81	1.31	1.42
26	BB	1803	A	P-O5'	6.81	1.70	1.59
26	BB	2553	G	C4'-O4'	-6.81	1.35	1.45
27	BC	15	VAL	CA-C	6.81	1.60	1.52
26	BB	1368	G	O3'-P	6.80	1.71	1.61
5	AE	51	GLU	N-CA	-6.80	1.38	1.46
26	BB	2262	U	C4'-O4'	-6.80	1.35	1.45
1	AA	1286	U	P-O5'	6.80	1.70	1.59
21	AU	70	THR	CA-C	6.80	1.61	1.52
1	AA	121	U	C4'-O4'	-6.80	1.35	1.45
1	AA	710	G	O5'-C5'	-6.79	1.32	1.42
1	AA	632	U	P-O5'	6.79	1.70	1.59
10	AJ	37	THR	CA-C	6.79	1.61	1.52
26	BB	7	G	P-O5'	6.79	1.70	1.59
5	AE	104	LYS	C-N	6.79	1.42	1.33
3	AC	53	G	C4'-O4'	-6.79	1.35	1.45
26	BB	2299	U	P-O5'	6.78	1.70	1.59
26	BB	2518	A	C5'-C4'	6.77	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1044	A	C2'-C1'	-6.76	1.43	1.53
12	AL	4	GLN	N-CA	-6.76	1.37	1.46
1	AA	1194	U	P-O5'	6.76	1.69	1.59
1	AA	835	U	O3'-P	6.76	1.71	1.61
8	AH	55	VAL	CA-CB	6.75	1.58	1.53
1	AA	552	U	O3'-P	6.75	1.71	1.61
25	BA	27	C	C4'-O4'	-6.75	1.35	1.45
26	BB	2154	A	P-O5'	6.75	1.69	1.59
1	AA	10	A	C5'-C4'	6.75	1.61	1.51
26	BB	114	U	C4'-O4'	-6.75	1.35	1.45
26	BB	1474	U	O5'-C5'	6.75	1.52	1.42
26	BB	1739	A	O3'-P	6.75	1.71	1.61
12	AL	105	ARG	CA-C	6.75	1.61	1.52
15	AO	21	PRO	N-CA	6.74	1.54	1.46
26	BB	1746	A	P-O5'	6.74	1.69	1.59
26	BB	919	U	P-O5'	6.74	1.69	1.59
6	AF	217	GLU	N-CA	6.74	1.54	1.45
1	AA	54	C	C4'-O4'	-6.73	1.35	1.45
1	AA	988	G	O4'-C1'	6.73	1.51	1.41
15	AO	54	VAL	N-CA	-6.73	1.38	1.46
26	BB	1409	U	C4'-C3'	6.73	1.62	1.52
21	AU	39	VAL	CA-CB	-6.72	1.49	1.55
26	BB	2354	C	P-O5'	6.72	1.69	1.59
1	AA	295	C	C4'-O4'	-6.72	1.35	1.45
26	BB	187	G	C1'-N9	6.72	1.58	1.48
30	BF	186	VAL	CA-C	6.72	1.61	1.52
26	BB	2301	C	C2'-O2'	-6.72	1.32	1.42
26	BB	72	U	O5'-C5'	-6.71	1.32	1.42
1	AA	468	A	C5'-C4'	6.71	1.61	1.51
26	BB	2453	A	C1'-N9	6.71	1.58	1.48
1	AA	180	U	P-O5'	-6.70	1.49	1.59
6	AF	96	VAL	CA-C	6.70	1.58	1.52
21	AU	29	LYS	N-CA	-6.69	1.37	1.46
26	BB	704	G	O5'-C5'	-6.69	1.32	1.42
26	BB	1327	A	C4'-O4'	-6.68	1.35	1.45
26	BB	860	U	O3'-P	6.68	1.71	1.61
1	AA	1536	C	C4'-O4'	-6.68	1.35	1.45
33	BI	103	VAL	N-CA	6.68	1.54	1.46
4	AD	69	C	C1'-N1	6.67	1.58	1.48
28	BD	242	HIS	CE1-NE2	6.67	1.39	1.32
6	AF	21	TRP	CA-C	6.67	1.60	1.52
26	BB	1314	C	O3'-P	6.67	1.71	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	896	C	O3'-P	6.67	1.71	1.61
26	BB	999	U	C4'-C3'	6.67	1.62	1.52
26	BB	1384	A	O5'-C5'	-6.67	1.32	1.42
26	BB	2699	C	C1'-N1	6.66	1.58	1.48
29	BE	5	VAL	CA-CB	6.66	1.61	1.53
26	BB	1948	G	P-O5'	6.66	1.69	1.59
1	AA	1252	A	P-O5'	6.66	1.69	1.59
27	BC	162	ARG	N-CA	6.66	1.53	1.45
34	BJ	76	VAL	N-CA	6.66	1.53	1.46
14	AN	46	ALA	C-N	6.66	1.42	1.33
26	BB	1448	G	P-O5'	6.65	1.69	1.59
45	BU	104	THR	CA-C	6.65	1.60	1.52
26	BB	1489	C	C5'-C4'	6.65	1.61	1.51
26	BB	198	C	C4'-O4'	-6.65	1.35	1.45
45	BU	56	ALA	C-O	-6.64	1.16	1.24
26	BB	333	G	C5'-C4'	6.64	1.61	1.51
6	AF	12	GLY	N-CA	-6.64	1.35	1.45
33	BI	128	HIS	ND1-CE1	6.63	1.39	1.32
47	BW	69	VAL	C-O	6.63	1.30	1.23
1	AA	8	A	P-O5'	6.63	1.69	1.59
26	BB	328	U	P-O5'	6.63	1.69	1.59
50	BZ	40	GLU	CA-C	6.63	1.61	1.52
1	AA	1106	G	P-O5'	6.62	1.69	1.59
26	BB	1336	A	C4'-O4'	-6.62	1.35	1.45
54	B3	39	ARG	NE-CZ	6.62	1.40	1.33
26	BB	107	G	P-O5'	6.62	1.69	1.59
26	BB	1113	U	P-O5'	6.62	1.69	1.59
26	BB	2229	U	P-O5'	6.62	1.69	1.59
26	BB	2684	U	C3'-C2'	6.62	1.62	1.52
56	B5	6	GLN	CA-C	6.62	1.58	1.52
28	BD	269	ARG	CA-C	6.62	1.60	1.52
26	BB	1902	C	P-O5'	6.61	1.69	1.59
23	AW	49	ALA	N-CA	-6.61	1.38	1.46
1	AA	40	C	O5'-C5'	-6.61	1.32	1.42
19	AS	31	ARG	NE-CZ	6.60	1.40	1.33
1	AA	736	C	O4'-C1'	6.60	1.51	1.41
1	AA	1458	G	C2'-C1'	6.60	1.63	1.53
1	AA	444	G	C5'-C4'	6.60	1.61	1.51
3	AC	43	U	P-O5'	6.60	1.69	1.59
26	BB	2433	A	P-O5'	6.60	1.69	1.59
26	BB	1240	U	O3'-P	6.59	1.71	1.61
37	BM	95	ILE	CA-CB	6.59	1.63	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AC	50	U	C3'-O3'	6.59	1.52	1.42
26	BB	807	U	C4'-O4'	-6.59	1.35	1.45
26	BB	855	G	C4'-O4'	-6.59	1.35	1.45
26	BB	1087	G	C5'-C4'	6.59	1.61	1.51
26	BB	1423	G	C5'-C4'	6.59	1.61	1.51
43	BS	2	ARG	N-CA	6.59	1.54	1.46
48	BX	83	LYS	CA-C	6.59	1.58	1.52
26	BB	1430	G	O3'-P	6.59	1.71	1.61
1	AA	877	G	P-O5'	6.58	1.69	1.59
7	AG	142	VAL	C-O	-6.58	1.16	1.24
26	BB	192	C	O3'-P	-6.58	1.51	1.61
26	BB	1658	C	C4'-O4'	-6.58	1.35	1.45
12	AL	99	LYS	CA-C	6.58	1.61	1.52
26	BB	266	G	C4'-O4'	-6.58	1.35	1.45
33	BI	110	VAL	CA-C	6.58	1.60	1.52
26	BB	411	G	P-O5'	6.57	1.69	1.59
26	BB	1288	G	C4'-O4'	-6.57	1.35	1.45
26	BB	1856	U	C4'-O4'	-6.57	1.35	1.45
55	B4	29	LYS	CA-C	6.57	1.59	1.52
26	BB	190	A	C1'-N9	6.56	1.57	1.48
29	BE	169	ARG	CD-NE	6.56	1.55	1.46
26	BB	1680	U	C4'-O4'	-6.56	1.35	1.45
26	BB	2890	G	C2'-C1'	6.56	1.63	1.53
48	BX	26	PHE	N-CA	6.56	1.52	1.45
26	BB	2127	G	P-O5'	6.56	1.69	1.59
27	BC	144	THR	C-N	6.55	1.40	1.33
40	BP	101	GLY	C-O	-6.55	1.17	1.23
26	BB	941	A	C4'-O4'	-6.55	1.35	1.45
44	BT	89	HIS	CD2-NE2	-6.55	1.30	1.37
1	AA	1403	C	C4'-O4'	-6.55	1.35	1.45
14	AN	107	THR	CA-C	6.55	1.61	1.53
26	BB	2346	A	O3'-P	-6.55	1.51	1.61
5	AE	68	PHE	CA-C	-6.54	1.44	1.52
26	BB	2898	U	O5'-C5'	-6.54	1.32	1.42
46	BV	58	VAL	CA-C	6.54	1.60	1.52
26	BB	1546	G	P-O5'	6.54	1.69	1.59
26	BB	1770	G	C5'-C4'	6.54	1.61	1.51
25	BA	34	A	C3'-O3'	6.54	1.52	1.43
34	BJ	81	ILE	CA-C	6.53	1.61	1.52
26	BB	908	C	C4'-O4'	-6.53	1.35	1.45
1	AA	1076	U	C2-N3	6.53	1.50	1.37
30	BF	14	VAL	CA-C	6.53	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1868	C	C2'-O2'	-6.53	1.32	1.42
18	AR	78	THR	N-CA	6.52	1.54	1.46
39	BO	10	ARG	N-CA	6.52	1.54	1.46
6	AF	103	ALA	CA-C	-6.52	1.44	1.52
26	BB	78	U	C3'-O3'	-6.52	1.32	1.42
26	BB	2524	G	P-O5'	6.52	1.69	1.59
26	BB	1826	G	C1'-N9	6.51	1.57	1.48
26	BB	2164	C	C3'-C2'	-6.51	1.43	1.52
42	BR	69	VAL	N-CA	6.51	1.54	1.46
50	BZ	29	LEU	CA-CB	6.51	1.63	1.53
34	BJ	147	ALA	C-N	-6.51	1.25	1.33
48	BX	12	GLN	CA-C	6.51	1.61	1.52
26	BB	1614	A	C5'-C4'	6.51	1.61	1.51
26	BB	91	A	P-O5'	6.50	1.69	1.59
26	BB	405	U	O4'-C1'	6.50	1.51	1.41
1	AA	1026	G	O4'-C1'	6.50	1.51	1.41
1	AA	1392	G	O3'-P	6.50	1.71	1.61
21	AU	57	ALA	N-CA	6.50	1.54	1.46
42	BR	63	ILE	N-CA	6.50	1.54	1.46
26	BB	2253	G	O3'-P	6.50	1.70	1.61
28	BD	199	HIS	ND1-CE1	6.50	1.39	1.32
35	BK	117	THR	CA-C	6.50	1.60	1.52
26	BB	256	A	C4'-O4'	-6.50	1.35	1.45
1	AA	1386	G	C5'-C4'	6.49	1.60	1.51
32	BH	94	ARG	CZ-NH1	6.49	1.41	1.32
1	AA	512	U	C5'-C4'	6.49	1.60	1.51
1	AA	579	A	C4'-O4'	-6.49	1.35	1.45
32	BH	107	GLY	N-CA	6.49	1.54	1.45
26	BB	279	A	C5'-C4'	6.48	1.60	1.51
29	BE	147	GLY	CA-C	6.48	1.58	1.51
12	AL	127	SER	CA-C	6.48	1.61	1.52
10	AJ	98	LEU	CA-CB	-6.48	1.43	1.53
43	BS	67	ALA	CA-C	6.48	1.61	1.52
53	B2	41	HIS	CD2-NE2	6.48	1.45	1.37
1	AA	657	U	C4'-O4'	-6.47	1.35	1.45
26	BB	715	A	C5'-C4'	6.47	1.60	1.51
56	B5	30	VAL	N-CA	-6.47	1.38	1.46
11	AK	77	VAL	C-O	-6.47	1.17	1.24
26	BB	1403	A	C4'-O4'	-6.47	1.35	1.45
26	BB	1551	A	C4'-O4'	-6.47	1.35	1.45
26	BB	2007	U	O3'-P	6.47	1.70	1.61
42	BR	27	VAL	CA-CB	6.47	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2509	G	C2'-O2'	6.46	1.52	1.42
26	BB	849	A	C5'-C4'	6.46	1.60	1.51
28	BD	128	THR	N-CA	6.46	1.53	1.46
26	BB	403	U	C4'-O4'	-6.46	1.36	1.45
26	BB	1195	G	C5'-C4'	6.45	1.60	1.51
1	AA	1328	C	C4'-O4'	-6.45	1.35	1.45
26	BB	1327	A	P-O5'	6.45	1.69	1.59
33	BI	128	HIS	CE1-NE2	6.45	1.39	1.32
31	BG	27	VAL	N-CA	-6.45	1.40	1.46
1	AA	181	A	C4'-O4'	-6.45	1.36	1.45
26	BB	187	G	C4'-O4'	-6.45	1.35	1.45
26	BB	1666	G	C5'-C4'	6.45	1.60	1.51
26	BB	1971	U	C3'-C2'	6.45	1.62	1.52
2	AB	41	C	C5'-C4'	6.45	1.60	1.51
33	BI	60	GLU	CA-C	6.45	1.61	1.52
26	BB	1308	A	C5'-C4'	6.44	1.60	1.51
31	BG	149	ARG	N-CA	6.44	1.53	1.46
26	BB	505	A	C5'-C4'	6.43	1.60	1.51
42	BR	20	ARG	CA-C	6.43	1.59	1.52
1	AA	622	A	C4'-O4'	-6.43	1.35	1.45
26	BB	1294	U	P-O5'	6.43	1.69	1.59
26	BB	2255	G	O3'-P	6.43	1.70	1.61
1	AA	1160	G	P-O5'	6.43	1.69	1.59
26	BB	2361	G	C4'-C3'	6.43	1.62	1.52
41	BQ	87	ILE	CA-CB	6.43	1.60	1.54
1	AA	272	C	P-O5'	6.43	1.69	1.59
26	BB	2128	G	P-O5'	6.42	1.69	1.59
47	BW	93	ARG	NE-CZ	6.42	1.40	1.33
1	AA	175	C	C3'-O3'	6.42	1.51	1.42
26	BB	123	G	C4'-O4'	-6.42	1.35	1.45
26	BB	321	U	C5'-C4'	6.42	1.60	1.51
26	BB	982	C	C4'-O4'	-6.42	1.35	1.45
40	BP	54	LEU	CA-C	6.42	1.61	1.52
26	BB	365	U	P-O5'	6.42	1.69	1.59
1	AA	391	G	C5'-C4'	6.42	1.60	1.51
1	AA	186	C	C4'-O4'	-6.41	1.35	1.45
26	BB	2565	A	C5'-C4'	6.41	1.60	1.51
26	BB	774	G	C2'-C1'	-6.41	1.43	1.53
5	AE	210	THR	CA-CB	6.41	1.63	1.53
26	BB	727	A	P-O5'	6.41	1.69	1.59
26	BB	1776	G	P-O5'	6.41	1.69	1.59
1	AA	1115	U	C5'-C4'	6.41	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	53	G	P-O5'	6.41	1.69	1.59
26	BB	1135	C	P-O5'	6.41	1.69	1.59
26	BB	823	C	P-O5'	6.41	1.69	1.59
54	B3	49	ARG	CA-C	6.41	1.61	1.52
26	BB	2221	G	C1'-N9	6.40	1.57	1.48
1	AA	1347	G	C4'-O4'	-6.40	1.36	1.45
26	BB	1008	A	C5'-C4'	6.40	1.60	1.51
26	BB	1950	G	P-O5'	6.40	1.69	1.59
36	BL	76	HIS	CB-CG	6.40	1.59	1.50
1	AA	1447	A	O5'-C5'	-6.40	1.33	1.42
27	BC	221	GLY	CA-C	-6.40	1.46	1.52
26	BB	332	A	C4'-O4'	-6.39	1.36	1.45
5	AE	86	CYS	CA-C	6.39	1.61	1.52
9	AI	69	GLU	N-CA	-6.39	1.38	1.46
26	BB	96	C	C1'-N1	6.39	1.58	1.48
1	AA	511	C	C1'-N1	6.39	1.57	1.47
16	AP	47	LEU	CA-CB	6.39	1.63	1.53
28	BD	218	THR	N-CA	-6.39	1.38	1.46
1	AA	469	C	C5'-C4'	6.39	1.60	1.51
26	BB	2173	A	O4'-C1'	6.39	1.51	1.41
8	AH	163	ILE	CA-CB	6.38	1.61	1.54
26	BB	1428	C	C1'-N1	6.38	1.57	1.47
26	BB	2623	G	C3'-O3'	6.38	1.51	1.42
26	BB	2770	G	C5'-C4'	6.38	1.60	1.51
1	AA	24	U	C3'-C2'	6.38	1.62	1.52
4	AD	47	A	C5'-C4'	6.38	1.60	1.51
5	AE	40	ILE	CA-C	6.38	1.60	1.52
26	BB	506	G	O3'-P	6.38	1.70	1.61
5	AE	93	HIS	ND1-CE1	6.38	1.39	1.32
39	BO	50	ARG	CA-C	6.38	1.61	1.52
26	BB	155	A	P-O5'	6.37	1.69	1.59
26	BB	1929	G	C3'-O3'	6.37	1.52	1.43
1	AA	1388	C	O3'-P	6.37	1.70	1.61
26	BB	392	U	O4'-C1'	6.37	1.51	1.41
43	BS	95	ALA	N-CA	6.37	1.53	1.46
13	AM	16	ARG	CA-C	6.37	1.61	1.52
45	BU	9	HIS	ND1-CE1	-6.37	1.26	1.32
26	BB	700	G	C3'-C2'	6.37	1.62	1.52
26	BB	708	G	O3'-P	6.36	1.70	1.61
32	BH	10	VAL	CA-C	6.36	1.59	1.52
26	BB	1422	G	P-O5'	6.36	1.69	1.59
31	BG	37	MET	C-N	6.36	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	BW	44	HIS	CG-ND1	-6.36	1.31	1.38
38	BN	62	PRO	CA-C	6.36	1.60	1.52
26	BB	2862	G	O4'-C1'	6.36	1.51	1.41
26	BB	308	G	P-O5'	6.36	1.69	1.59
26	BB	2886	A	P-O5'	6.35	1.69	1.59
7	AG	119	HIS	ND1-CE1	6.35	1.39	1.32
26	BB	1591	A	C3'-C2'	6.35	1.62	1.52
1	AA	617	G	C5'-C4'	6.35	1.60	1.51
1	AA	1067	A	C1'-N9	6.35	1.56	1.47
1	AA	1314	C	C3'-C2'	6.35	1.62	1.52
26	BB	1990	C	P-O5'	6.35	1.69	1.59
22	AV	43	MET	CA-C	6.34	1.61	1.52
28	BD	53	ILE	CA-CB	6.34	1.61	1.54
6	AF	160	GLU	CA-C	6.34	1.61	1.52
11	AK	120	LEU	C-N	6.34	1.41	1.33
26	BB	816	C	C4'-O4'	-6.34	1.36	1.45
36	BL	40	HIS	CB-CG	6.34	1.59	1.50
1	AA	1308	U	O3'-P	6.34	1.70	1.61
1	AA	470	C	O5'-C5'	-6.34	1.32	1.42
37	BM	109	SER	CA-CB	6.34	1.61	1.54
1	AA	1086	U	P-O5'	6.33	1.69	1.59
26	BB	1451	C	C4'-O4'	-6.33	1.36	1.45
20	AT	58	VAL	CA-C	6.33	1.60	1.52
11	AK	84	ILE	N-CA	-6.33	1.38	1.46
1	AA	903	G	C4'-O4'	-6.32	1.36	1.45
26	BB	45	G	C4'-C3'	6.32	1.62	1.52
31	BG	125	GLY	C-N	6.32	1.41	1.33
26	BB	1683	U	C5'-C4'	6.32	1.60	1.51
28	BD	217	PRO	CA-C	6.32	1.59	1.52
41	BQ	35	ILE	N-CA	6.32	1.53	1.46
54	B3	2	VAL	CA-CB	6.32	1.63	1.54
25	BA	88	C	C2'-O2'	-6.32	1.32	1.42
26	BB	1401	G	C5'-C4'	6.32	1.60	1.51
26	BB	2578	G	O5'-C5'	6.32	1.51	1.42
39	BO	33	LEU	CA-CB	6.32	1.62	1.53
26	BB	1208	C	O3'-P	6.31	1.70	1.61
1	AA	248	C	C4'-O4'	-6.31	1.36	1.45
26	BB	449	A	P-O5'	6.31	1.69	1.59
26	BB	2554	U	P-O5'	6.31	1.69	1.59
31	BG	142	TYR	C-N	6.31	1.42	1.33
47	BW	5	ARG	NE-CZ	6.31	1.40	1.33
1	AA	1065	U	C2'-O2'	-6.31	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	177	G	C1'-N9	6.31	1.56	1.47
26	BB	1036	G	C4'-O4'	-6.31	1.36	1.45
44	BT	66	HIS	CA-CB	6.31	1.62	1.53
26	BB	2737	G	P-O5'	6.30	1.69	1.59
17	AQ	31	SER	CA-C	-6.30	1.46	1.52
1	AA	1350	A	C5'-C4'	6.30	1.60	1.51
26	BB	498	G	P-O5'	6.30	1.69	1.59
26	BB	1907	G	C4'-C3'	6.30	1.61	1.52
30	BF	88	ARG	CZ-NH2	6.30	1.41	1.33
1	AA	662	U	C4'-O4'	-6.30	1.36	1.45
6	AF	56	ILE	CA-C	6.30	1.60	1.52
51	B0	53	VAL	C-O	-6.30	1.16	1.24
1	AA	314	C	O4'-C1'	6.29	1.51	1.41
1	AA	493	A	C5'-C4'	6.29	1.60	1.51
27	BC	134	ARG	NE-CZ	6.29	1.40	1.33
26	BB	1222	U	O3'-P	6.29	1.70	1.61
40	BP	68	ALA	CA-C	-6.29	1.44	1.52
1	AA	461	A	C4'-O4'	-6.29	1.36	1.45
2	AB	5	G	P-O5'	6.29	1.69	1.59
26	BB	651	G	O5'-C5'	-6.29	1.33	1.42
26	BB	2204	G	O4'-C1'	6.29	1.51	1.41
2	AB	3	G	C4'-O4'	-6.29	1.36	1.45
15	AO	40	THR	CA-C	6.28	1.59	1.52
26	BB	655	A	C4'-O4'	-6.28	1.36	1.45
26	BB	682	G	P-O5'	6.28	1.69	1.59
27	BC	64	VAL	CA-C	6.28	1.60	1.52
30	BF	162	ARG	NE-CZ	6.28	1.40	1.33
40	BP	99	LYS	N-CA	-6.28	1.38	1.46
1	AA	1012	A	O3'-P	6.28	1.70	1.61
13	AM	81	GLU	CA-C	6.28	1.61	1.52
29	BE	22	ILE	C-O	-6.28	1.17	1.24
33	BI	89	LYS	N-CA	6.28	1.53	1.46
23	AW	73	ARG	CA-C	6.28	1.60	1.52
26	BB	299	A	P-O5'	6.28	1.69	1.59
26	BB	996	A	C2'-O2'	-6.28	1.33	1.42
20	AT	46	HIS	CE1-NE2	6.27	1.38	1.32
49	BY	38	ARG	CZ-NH1	6.27	1.41	1.32
53	B2	49	ARG	NE-CZ	6.27	1.40	1.33
25	BA	3	C	P-O5'	6.27	1.69	1.59
10	AJ	69	ARG	NE-CZ	6.27	1.40	1.33
18	AR	25	GLU	CA-CB	6.27	1.63	1.53
26	BB	776	G	P-O5'	6.27	1.69	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2535	G	P-O5'	6.27	1.69	1.59
29	BE	37	VAL	N-CA	6.26	1.54	1.46
26	BB	985	C	P-O5'	6.26	1.69	1.59
26	BB	1866	A	C4'-C3'	6.25	1.61	1.52
26	BB	1933	G	C1'-N9	-6.25	1.38	1.48
26	BB	2289	G	O3'-P	6.25	1.70	1.61
26	BB	1106	G	C5'-C4'	6.25	1.60	1.51
26	BB	119	A	C5'-C4'	6.25	1.60	1.51
26	BB	2858	C	O4'-C1'	6.25	1.51	1.41
9	AI	55	HIS	CD2-NE2	-6.25	1.30	1.37
1	AA	436	C	P-O5'	6.24	1.69	1.59
26	BB	847	U	C4'-O4'	-6.24	1.36	1.45
1	AA	62	U	C1'-N1	6.24	1.57	1.48
1	AA	819	A	P-O5'	6.24	1.69	1.59
26	BB	488	G	C5'-C4'	6.24	1.60	1.51
30	BF	53	THR	N-CA	6.24	1.53	1.46
22	AV	49	ALA	N-CA	-6.24	1.38	1.46
26	BB	937	C	C4'-C3'	6.24	1.61	1.52
26	BB	230	G	C2'-O2'	-6.24	1.33	1.42
26	BB	406	G	C2'-C1'	-6.24	1.44	1.53
26	BB	591	U	O3'-P	6.23	1.70	1.61
53	B2	41	HIS	ND1-CE1	6.23	1.38	1.32
15	AO	76	HIS	ND1-CE1	6.23	1.38	1.32
26	BB	2891	U	P-O5'	6.23	1.69	1.59
2	AB	38	A	O3'-P	6.23	1.70	1.61
44	BT	25	LEU	C-O	-6.23	1.16	1.23
34	BJ	31	GLY	CA-C	6.22	1.60	1.51
40	BP	38	LEU	CA-C	6.22	1.60	1.52
26	BB	1076	C	C4'-O4'	-6.22	1.36	1.45
22	AV	79	TYR	CA-C	6.22	1.60	1.52
1	AA	1219	A	C4'-O4'	-6.22	1.36	1.45
26	BB	272	A	C5'-C4'	6.22	1.60	1.51
28	BD	208	GLY	CA-C	6.22	1.60	1.51
29	BE	39	ASP	CA-C	6.22	1.61	1.53
1	AA	1492	A	C4'-O4'	-6.21	1.36	1.45
17	AQ	64	ARG	CD-NE	6.21	1.54	1.46
26	BB	1575	C	C2'-C1'	6.21	1.62	1.53
1	AA	764	C	P-O5'	6.21	1.69	1.59
1	AA	1409	C	C5'-C4'	6.21	1.60	1.51
26	BB	2138	G	C2'-C1'	6.21	1.62	1.53
26	BB	1061	U	C4'-O4'	-6.21	1.36	1.45
26	BB	2330	G	P-O5'	6.21	1.69	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BQ	107	ALA	CA-C	6.21	1.60	1.52
6	AF	169	GLU	CA-C	6.21	1.60	1.52
26	BB	2648	G	C4'-O4'	-6.21	1.36	1.45
1	AA	517	G	C1'-N9	6.20	1.56	1.47
26	BB	2307	G	C4'-O4'	-6.20	1.36	1.45
42	BR	63	ILE	CA-C	6.20	1.60	1.52
1	AA	386	C	O5'-C5'	-6.20	1.33	1.42
25	BA	8	C	C4'-O4'	-6.20	1.36	1.45
26	BB	752	A	C2'-O2'	6.20	1.50	1.41
26	BB	1937	A	C5'-C4'	6.20	1.60	1.51
32	BH	165	ASP	CA-C	6.20	1.60	1.52
13	AM	78	GLU	C-N	6.20	1.41	1.33
16	AP	32	ILE	CA-CB	6.20	1.62	1.54
43	BS	107	ALA	CA-C	6.19	1.60	1.52
5	AE	174	GLU	N-CA	-6.19	1.38	1.46
33	BI	10	ALA	C-O	6.19	1.30	1.24
38	BN	27	LEU	CA-CB	6.19	1.64	1.53
4	AD	11	A	C4'-O4'	-6.19	1.36	1.45
41	BQ	75	GLY	CA-C	6.19	1.59	1.51
26	BB	466	A	P-O5'	6.19	1.69	1.59
26	BB	2830	C	O4'-C1'	6.19	1.50	1.41
26	BB	470	A	C4'-C3'	6.19	1.61	1.52
1	AA	46	G	C1'-N9	6.18	1.57	1.48
1	AA	433	G	C5'-C4'	6.18	1.60	1.51
35	BK	126	ARG	N-CA	-6.18	1.38	1.46
26	BB	1268	A	C4'-C3'	6.18	1.61	1.52
26	BB	1298	C	C4'-O4'	-6.18	1.36	1.45
26	BB	1854	A	C3'-C2'	-6.18	1.43	1.52
26	BB	1891	G	C4'-C3'	6.18	1.61	1.52
26	BB	2096	C	C1'-N1	6.18	1.57	1.48
51	B0	54	LYS	CA-C	6.18	1.60	1.52
26	BB	374	A	O3'-P	6.18	1.70	1.61
53	B2	65	ASN	CA-C	6.18	1.61	1.52
2	AB	50	G	C4'-O4'	-6.18	1.36	1.45
28	BD	100	ARG	CA-CB	6.18	1.61	1.53
1	AA	193	C	C2'-C1'	6.17	1.62	1.53
5	AE	165	ALA	C-N	-6.17	1.25	1.33
26	BB	2845	U	C5'-C4'	6.17	1.60	1.51
1	AA	208	U	C5'-C4'	6.17	1.60	1.51
26	BB	306	U	O3'-P	6.17	1.70	1.61
26	BB	2823	A	C5'-C4'	6.17	1.60	1.51
43	BS	97	ILE	CA-C	6.17	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1281	G	C2'-C1'	-6.17	1.44	1.53
1	AA	1320	C	C4'-O4'	-6.17	1.36	1.45
26	BB	2448	A	C4'-O4'	-6.17	1.36	1.45
26	BB	2510	C	P-O5'	6.17	1.69	1.59
17	AQ	6	LYS	CA-CB	6.17	1.63	1.53
27	BC	138	PRO	CA-C	6.16	1.59	1.52
26	BB	2674	G	P-O5'	6.16	1.69	1.59
28	BD	8	THR	C-N	-6.16	1.26	1.33
26	BB	1613	G	C4'-O4'	-6.16	1.36	1.45
1	AA	441	A	P-O5'	6.16	1.69	1.59
26	BB	1040	A	C3'-O3'	6.16	1.51	1.42
4	AD	3	C	O4'-C1'	6.16	1.50	1.41
35	BK	122	GLU	C-O	-6.16	1.16	1.24
1	AA	1298	U	P-O5'	6.15	1.69	1.59
10	AJ	94	ARG	CD-NE	6.15	1.54	1.46
34	BJ	30	ARG	CD-NE	6.15	1.54	1.46
1	AA	466	A	C4'-O4'	-6.15	1.36	1.45
19	AS	32	PHE	C-N	6.15	1.42	1.33
25	BA	10	G	C5'-C4'	6.15	1.60	1.51
26	BB	1161	C	P-O5'	6.15	1.69	1.59
52	B1	3	THR	CA-CB	6.15	1.62	1.53
1	AA	1152	A	C4'-O4'	-6.15	1.36	1.45
26	BB	2521	C	O3'-P	6.15	1.70	1.61
14	AN	73	VAL	CA-CB	6.15	1.62	1.54
25	BA	63	C	P-O5'	6.15	1.69	1.59
1	AA	829	G	C5'-C4'	6.15	1.60	1.51
1	AA	925	G	C5'-C4'	6.15	1.60	1.51
26	BB	1777	U	C4'-O4'	-6.14	1.36	1.45
34	BJ	3	ASN	CA-C	6.14	1.59	1.52
37	BM	54	LYS	C-O	-6.14	1.16	1.23
44	BT	30	GLY	C-N	6.14	1.42	1.33
1	AA	839	C	C4'-O4'	-6.14	1.36	1.45
26	BB	69	C	C4'-O4'	-6.14	1.36	1.45
26	BB	1506	U	P-O5'	6.14	1.69	1.59
13	AM	42	LEU	N-CA	6.13	1.53	1.45
1	AA	640	A	O3'-P	6.13	1.70	1.61
1	AA	728	A	C5'-C4'	6.13	1.60	1.51
1	AA	769	G	C2'-C1'	6.13	1.62	1.53
12	AL	84	ARG	CA-CB	6.13	1.62	1.53
26	BB	794	A	C5'-C4'	6.13	1.60	1.51
26	BB	1	G	O3'-P	6.13	1.70	1.61
26	BB	1743	G	P-O5'	6.13	1.69	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1946	U	P-O5'	6.13	1.69	1.59
27	BC	40	GLU	N-CA	-6.13	1.38	1.45
31	BG	59	ILE	N-CA	6.13	1.52	1.46
53	B2	35	ASP	CA-C	6.13	1.59	1.52
26	BB	1112	G	C4'-O4'	-6.13	1.36	1.45
26	BB	2844	G	P-O5'	6.13	1.69	1.59
26	BB	548	G	C5'-C4'	6.12	1.60	1.51
26	BB	2888	C	C5'-C4'	6.12	1.60	1.51
6	AF	167	TYR	CA-C	6.12	1.59	1.52
26	BB	663	G	C3'-C2'	6.12	1.61	1.52
26	BB	1824	G	C4'-O4'	-6.12	1.36	1.45
26	BB	340	A	C1'-N9	6.12	1.57	1.48
26	BB	368	A	C1'-N9	6.12	1.57	1.48
12	AL	80	HIS	CA-C	6.12	1.61	1.52
23	AW	20	ASN	CA-C	-6.12	1.45	1.52
26	BB	154	U	C2'-O2'	-6.12	1.33	1.42
27	BC	73	VAL	CA-C	-6.12	1.45	1.52
1	AA	271	C	C5'-C4'	6.12	1.60	1.51
4	AD	64	G	O4'-C1'	6.12	1.50	1.41
31	BG	9	ASP	CA-C	6.12	1.60	1.52
9	AI	64	VAL	CA-C	6.11	1.59	1.52
26	BB	1359	A	C4'-O4'	-6.11	1.36	1.45
26	BB	2248	C	P-O5'	6.11	1.69	1.59
26	BB	2602	A	P-O5'	6.11	1.69	1.59
26	BB	2741	A	C1'-N9	6.11	1.57	1.48
43	BS	102	LYS	N-CA	6.11	1.54	1.46
1	AA	1428	A	C4'-O4'	-6.11	1.36	1.45
26	BB	2764	A	C4'-O4'	-6.11	1.36	1.45
26	BB	2769	U	C1'-N1	6.11	1.57	1.48
28	BD	68	ARG	NE-CZ	6.11	1.39	1.33
9	AI	62	MET	N-CA	-6.11	1.38	1.46
26	BB	499	U	C4'-C3'	6.11	1.61	1.52
26	BB	1043	C	O3'-P	6.11	1.70	1.61
26	BB	1163	G	O3'-P	6.11	1.70	1.61
26	BB	2433	A	O4'-C1'	6.11	1.50	1.41
39	BO	114	ARG	N-CA	-6.11	1.39	1.46
26	BB	210	C	O5'-C5'	6.10	1.51	1.42
1	AA	1491	G	C5'-C4'	6.10	1.60	1.51
1	AA	232	G	C5'-C4'	6.10	1.60	1.51
26	BB	2295	C	C3'-C2'	6.10	1.61	1.52
42	BR	98	TYR	C-N	6.10	1.42	1.33
1	AA	5	U	C5'-C4'	6.10	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	306	A	P-O5'	6.09	1.68	1.59
7	AG	62	ARG	NE-CZ	6.09	1.39	1.33
18	AR	8	ALA	C-N	6.09	1.41	1.33
22	AV	66	VAL	CA-C	6.09	1.61	1.52
26	BB	118	A	P-O5'	6.09	1.68	1.59
26	BB	1021	A	P-O5'	6.09	1.68	1.59
5	AE	38	HIS	ND1-CE1	6.09	1.38	1.32
26	BB	56	A	C4'-C3'	6.09	1.61	1.52
26	BB	2680	U	C2'-O2'	-6.09	1.33	1.42
28	BD	149	LYS	CA-CB	6.09	1.61	1.53
26	BB	176	A	P-O5'	6.09	1.68	1.59
26	BB	2231	U	P-O5'	6.09	1.68	1.59
26	BB	2369	A	C2'-C1'	6.09	1.62	1.53
40	BP	97	ILE	CA-CB	6.09	1.61	1.54
39	BO	81	ARG	N-CA	6.09	1.54	1.46
26	BB	2780	G	C4'-O4'	-6.09	1.36	1.45
41	BQ	97	PHE	C-O	-6.09	1.16	1.23
26	BB	280	U	C4'-O4'	-6.08	1.36	1.45
26	BB	1368	G	C1'-N9	6.08	1.57	1.48
26	BB	2643	G	C4'-C3'	6.08	1.61	1.52
1	AA	251	G	C4'-O4'	-6.08	1.36	1.45
15	AO	108	ASP	N-CA	6.08	1.54	1.46
26	BB	770	G	O5'-C5'	6.08	1.51	1.42
51	B0	28	LEU	CA-CB	6.08	1.63	1.53
26	BB	2721	A	C5'-C4'	6.08	1.60	1.51
46	BV	79	ASP	C-N	6.08	1.41	1.33
1	AA	78	A	C4'-O4'	-6.08	1.36	1.45
1	AA	1419	G	P-O5'	6.08	1.68	1.59
26	BB	539	G	C2'-C1'	-6.08	1.44	1.53
41	BQ	25	ARG	CA-CB	6.08	1.61	1.53
51	B0	32	ALA	CA-C	-6.08	1.45	1.52
26	BB	1602	U	C4'-O4'	-6.08	1.36	1.45
32	BH	159	LYS	CA-CB	6.08	1.57	1.53
26	BB	1332	G	C2'-C1'	6.07	1.62	1.53
26	BB	1594	U	C5'-C4'	6.07	1.60	1.51
1	AA	104	G	C1'-N9	6.07	1.57	1.48
1	AA	898	G	C4'-O4'	-6.07	1.36	1.45
1	AA	952	U	P-O5'	6.07	1.68	1.59
26	BB	2076	U	C5'-C4'	6.07	1.60	1.51
1	AA	893	C	C4'-O4'	-6.07	1.36	1.45
1	AA	1384	C	C4'-O4'	-6.07	1.36	1.45
26	BB	1375	U	C4'-O4'	-6.07	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2421	G	P-O5'	6.07	1.68	1.59
1	AA	531	U	O3'-P	-6.07	1.52	1.61
17	AQ	23	ARG	CD-NE	6.07	1.54	1.46
26	BB	1239	G	C2'-C1'	-6.07	1.44	1.53
26	BB	2515	C	C1'-N1	6.07	1.57	1.48
1	AA	125	U	P-O5'	6.06	1.68	1.59
26	BB	196	A	C4'-O4'	-6.06	1.36	1.45
26	BB	444	C	C4'-O4'	-6.06	1.36	1.45
39	BO	38	ARG	NE-CZ	6.06	1.39	1.33
1	AA	304	U	O3'-P	6.06	1.70	1.61
1	AA	1534	A	C5'-C4'	6.06	1.60	1.51
26	BB	2378	A	P-O5'	6.06	1.68	1.59
26	BB	185	G	C3'-O3'	6.06	1.51	1.42
26	BB	2100	G	P-O5'	6.06	1.68	1.59
28	BD	62	ARG	CA-C	6.06	1.59	1.52
26	BB	1238	G	C5'-C4'	6.05	1.60	1.51
26	BB	1400	U	C4'-O4'	-6.05	1.36	1.45
39	BO	7	THR	CA-C	6.05	1.60	1.52
40	BP	85	PRO	CA-C	6.05	1.61	1.52
43	BS	111	LYS	C-O	-6.05	1.17	1.24
53	B2	50	ASP	N-CA	6.05	1.52	1.45
26	BB	126	A	C4'-O4'	-6.05	1.36	1.45
26	BB	2301	C	C5'-C4'	6.05	1.60	1.51
26	BB	2738	A	O4'-C1'	6.05	1.50	1.41
29	BE	178	VAL	C-N	6.05	1.41	1.33
30	BF	97	ASN	CA-C	-6.05	1.45	1.52
34	BJ	42	LYS	N-CA	-6.05	1.39	1.46
45	BU	3	THR	C-O	-6.05	1.16	1.23
26	BB	929	U	C3'-C2'	6.05	1.61	1.52
1	AA	567	G	C4'-O4'	-6.05	1.36	1.45
25	BA	7	G	P-O5'	6.05	1.68	1.59
26	BB	2743	U	C2'-C1'	6.05	1.62	1.53
29	BE	8	LYS	CA-CB	6.05	1.61	1.53
11	AK	30	LYS	N-CA	6.04	1.53	1.46
19	AS	58	ALA	CA-C	6.04	1.60	1.52
26	BB	772	C	C4'-O4'	-6.04	1.36	1.45
48	BX	70	ILE	N-CA	6.04	1.51	1.46
1	AA	1137	C	P-O5'	6.04	1.68	1.59
2	AB	66	C	C4'-O4'	-6.04	1.36	1.45
16	AP	112	ARG	NE-CZ	6.04	1.39	1.33
1	AA	1295	U	P-O5'	6.04	1.68	1.59
11	AK	4	ASP	CA-C	6.04	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1316	U	C2'-O2'	-6.04	1.33	1.42
31	BG	4	HIS	CD2-NE2	-6.04	1.31	1.37
24	AX	59	LEU	CA-C	6.04	1.60	1.52
1	AA	559	A	O3'-P	6.03	1.70	1.61
25	BA	66	A	P-O5'	6.03	1.68	1.59
26	BB	2577	A	C3'-C2'	6.03	1.61	1.52
26	BB	970	U	P-O5'	6.03	1.68	1.59
1	AA	274	A	C4'-O4'	-6.03	1.36	1.45
8	AH	104	ILE	CA-CB	-6.03	1.46	1.54
15	AO	41	PRO	CA-C	6.03	1.60	1.52
10	AJ	78	ARG	CZ-NH1	6.03	1.41	1.32
26	BB	1268	A	C5'-C4'	6.03	1.60	1.51
56	B5	31	LEU	N-CA	-6.02	1.39	1.46
1	AA	826	C	C5'-C4'	6.02	1.60	1.51
26	BB	1867	G	C5'-C4'	6.02	1.60	1.51
4	AD	22	A	P-O5'	6.02	1.68	1.59
26	BB	933	A	O3'-P	6.02	1.70	1.61
1	AA	834	U	C4'-O4'	-6.02	1.36	1.45
1	AA	1404	C	C4'-C3'	6.02	1.61	1.52
15	AO	92	VAL	N-CA	-6.02	1.39	1.46
26	BB	346	A	C4'-O4'	-6.02	1.36	1.45
26	BB	668	A	C4'-O4'	-6.02	1.36	1.45
26	BB	1703	G	P-O5'	6.02	1.68	1.59
26	BB	2425	A	C4'-O4'	-6.02	1.36	1.45
1	AA	426	U	C4'-O4'	-6.01	1.36	1.45
13	AM	6	ILE	CA-CB	6.01	1.62	1.54
36	BL	96	ARG	CA-C	6.01	1.60	1.52
49	BY	59	PHE	N-CA	-6.01	1.38	1.46
56	B5	24	THR	N-CA	6.01	1.53	1.45
1	AA	1211	U	C1'-N1	6.01	1.56	1.47
1	AA	1281	C	C5'-C4'	6.01	1.60	1.51
18	AR	37	HIS	CA-C	6.01	1.60	1.52
24	AX	4	LYS	N-CA	6.01	1.53	1.46
30	BF	139	LYS	CA-C	6.01	1.60	1.52
45	BU	98	LYS	C-O	-6.01	1.16	1.23
7	AG	197	HIS	CB-CG	6.01	1.58	1.50
1	AA	729	A	C5'-C4'	6.01	1.60	1.51
3	AC	32	U	O3'-P	6.01	1.70	1.61
26	BB	1548	A	O3'-P	6.01	1.70	1.61
1	AA	921	U	C2'-O2'	-6.00	1.33	1.42
26	BB	1480	C	C5'-C4'	6.00	1.60	1.51
1	AA	837	U	C4'-C3'	6.00	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	AN	35	ASP	N-CA	6.00	1.53	1.45
14	AN	39	ASN	CA-C	6.00	1.59	1.52
26	BB	1959	G	C4'-O4'	-6.00	1.36	1.45
8	AH	7	ALA	C-N	6.00	1.42	1.33
47	BW	54	PRO	CA-C	6.00	1.61	1.52
1	AA	1422	G	C3'-C2'	-6.00	1.43	1.52
17	AQ	83	VAL	C-O	-6.00	1.17	1.24
26	BB	631	A	P-O5'	6.00	1.68	1.59
1	AA	1007	U	C5'-C4'	6.00	1.60	1.51
26	BB	1519	G	O5'-C5'	5.99	1.51	1.42
31	BG	152	ASP	N-CA	5.99	1.53	1.46
42	BR	51	ASN	CA-CB	5.99	1.60	1.53
47	BW	51	LEU	CA-C	5.99	1.60	1.52
26	BB	1540	G	P-O5'	5.99	1.68	1.59
1	AA	352	C	C4'-O4'	-5.99	1.36	1.45
11	AK	79	ARG	CZ-NH1	5.99	1.41	1.32
26	BB	380	G	C5'-C4'	5.99	1.60	1.51
26	BB	1187	G	C3'-C2'	-5.99	1.43	1.52
26	BB	1374	G	C4'-O4'	-5.99	1.36	1.45
40	BP	98	LEU	C-O	-5.99	1.17	1.24
1	AA	352	C	P-O5'	5.99	1.68	1.59
32	BH	121	THR	CA-C	5.99	1.60	1.52
1	AA	256	U	C5'-C4'	5.99	1.60	1.51
1	AA	401	C	O3'-P	5.99	1.70	1.61
26	BB	2223	G	P-O5'	5.99	1.68	1.59
34	BJ	96	LYS	CA-C	5.99	1.60	1.52
4	AD	53	G	C4'-O4'	-5.98	1.36	1.45
4	AD	9	G	C5'-C4'	5.98	1.60	1.51
26	BB	333	G	O3'-P	5.98	1.70	1.61
26	BB	683	U	C4'-C3'	-5.98	1.43	1.52
26	BB	2866	U	O3'-P	-5.98	1.52	1.61
1	AA	679	C	C2'-C1'	5.98	1.62	1.53
26	BB	576	U	C4'-O4'	-5.98	1.36	1.45
28	BD	29	PHE	CA-CB	5.98	1.61	1.53
17	AQ	27	LYS	N-CA	-5.98	1.39	1.46
26	BB	756	A	O3'-P	5.98	1.70	1.61
1	AA	1268	G	C4'-C3'	5.98	1.61	1.52
45	BU	25	ARG	CA-C	-5.98	1.45	1.52
17	AQ	92	ILE	CA-C	-5.97	1.46	1.52
26	BB	858	G	P-O5'	5.97	1.68	1.59
26	BB	1237	A	C5'-C4'	5.97	1.60	1.51
26	BB	710	U	C1'-N1	5.97	1.57	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1931	U	O5'-C5'	-5.97	1.33	1.42
25	BA	15	A	C5'-C4'	5.97	1.60	1.51
26	BB	2177	C	C5'-C4'	5.96	1.60	1.51
1	AA	1535	C	C5'-C4'	5.96	1.60	1.51
29	BE	172	VAL	N-CA	5.96	1.54	1.46
1	AA	1358	U	O4'-C1'	5.96	1.50	1.41
1	AA	1280	A	O3'-P	5.96	1.70	1.61
26	BB	986	C	P-O5'	5.96	1.68	1.59
1	AA	438	U	O4'-C1'	5.96	1.50	1.42
3	AC	30	U	C5'-C4'	5.96	1.60	1.51
5	AE	30	ILE	C-O	-5.96	1.17	1.24
37	BM	27	GLY	N-CA	5.96	1.51	1.45
21	AU	68	PRO	C-O	-5.96	1.19	1.24
54	B3	18	HIS	N-CA	5.96	1.52	1.46
54	B3	48	TYR	C-O	-5.96	1.16	1.24
6	AF	24	ASN	CA-C	5.95	1.62	1.52
1	AA	1339	A	C3'-C2'	-5.95	1.43	1.52
1	AA	417	G	C2'-C1'	5.95	1.62	1.53
1	AA	577	G	O3'-P	-5.95	1.52	1.61
1	AA	814	A	C1'-N9	5.95	1.56	1.48
26	BB	2351	G	O3'-P	5.95	1.70	1.61
3	AC	13	A	O4'-C1'	-5.95	1.33	1.42
26	BB	1315	C	P-O5'	5.95	1.68	1.59
49	BY	10	ARG	N-CA	5.95	1.53	1.45
27	BC	184	LYS	N-CA	-5.95	1.39	1.46
29	BE	49	GLN	N-CA	5.94	1.53	1.46
1	AA	903	G	O4'-C1'	5.94	1.50	1.41
26	BB	960	A	O3'-P	-5.94	1.52	1.61
26	BB	1408	G	O3'-P	5.94	1.70	1.61
26	BB	2100	G	O5'-C5'	-5.94	1.33	1.42
26	BB	2342	C	O3'-P	5.94	1.70	1.61
7	AG	107	GLY	CA-C	5.94	1.60	1.51
26	BB	2603	G	O4'-C1'	5.94	1.50	1.41
1	AA	309	A	C2'-O2'	-5.94	1.33	1.42
42	BR	52	ARG	N-CA	5.94	1.53	1.46
26	BB	471	A	C4'-O4'	-5.93	1.36	1.45
26	BB	2179	C	C4'-O4'	-5.93	1.36	1.45
53	B2	48	GLN	N-CA	5.93	1.54	1.46
1	AA	1017	U	P-O5'	5.93	1.68	1.59
1	AA	1540	U	C1'-N1	5.93	1.57	1.48
1	AA	255	G	P-O5'	5.93	1.68	1.59
1	AA	433	G	C3'-O3'	5.93	1.51	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	AS	10	GLY	N-CA	5.93	1.50	1.45
45	BU	45	VAL	CA-C	5.93	1.60	1.52
26	BB	2891	U	C5'-C4'	5.93	1.60	1.51
8	AH	38	VAL	C-N	5.92	1.40	1.33
51	B0	56	LEU	CB-CG	5.92	1.65	1.53
26	BB	931	U	C5'-C4'	5.92	1.60	1.51
1	AA	1260	G	C2'-C1'	-5.92	1.44	1.53
26	BB	627	A	O5'-C5'	-5.92	1.33	1.42
26	BB	1803	A	C4'-O4'	-5.92	1.36	1.45
26	BB	433	C	C4'-O4'	-5.92	1.36	1.45
7	AG	19	PHE	N-CA	5.91	1.53	1.46
26	BB	757	G	C2'-C1'	5.91	1.62	1.53
6	AF	8	GLY	C-N	5.91	1.41	1.33
26	BB	1502	A	O3'-P	5.91	1.70	1.61
1	AA	698	G	C4'-O4'	-5.91	1.36	1.45
26	BB	796	C	P-O5'	5.91	1.68	1.59
26	BB	2001	C	P-O5'	5.91	1.68	1.59
52	B1	19	HIS	CD2-NE2	5.90	1.44	1.37
6	AF	231	ARG	NE-CZ	5.90	1.39	1.33
26	BB	793	A	C5'-C4'	5.90	1.60	1.51
1	AA	801	U	P-O5'	5.90	1.68	1.59
31	BG	162	ASP	N-CA	-5.90	1.38	1.46
48	BX	44	HIS	CA-C	5.90	1.60	1.52
49	BY	53	GLY	CA-C	5.90	1.58	1.51
8	AH	65	LYS	N-CA	5.89	1.54	1.46
26	BB	599	A	P-O5'	5.89	1.68	1.59
22	AV	59	VAL	CA-CB	5.89	1.61	1.54
35	BK	21	PRO	C-O	-5.89	1.17	1.24
1	AA	599	C	C4'-C3'	5.89	1.61	1.52
15	AO	25	ALA	C-N	5.89	1.40	1.32
26	BB	1514	G	O3'-P	5.89	1.70	1.61
2	AB	31	U	C3'-C2'	5.89	1.61	1.52
2	AB	66	C	P-O5'	5.89	1.68	1.59
31	BG	62	GLN	CA-C	5.89	1.60	1.52
1	AA	747	A	P-O5'	5.88	1.68	1.59
13	AM	42	LEU	CA-C	5.88	1.59	1.53
26	BB	645	C	C4'-O4'	-5.88	1.37	1.45
26	BB	1604	C	C3'-O3'	5.88	1.50	1.42
1	AA	277	C	O5'-C5'	-5.88	1.33	1.42
1	AA	1052	U	O3'-P	5.88	1.70	1.61
1	AA	1173	U	C5'-C4'	5.88	1.60	1.51
1	AA	1126	U	C4'-O4'	-5.88	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AD	41	C	O3'-P	5.88	1.70	1.61
29	BE	59	ARG	NE-CZ	5.88	1.39	1.33
26	BB	611	C	P-O5'	5.88	1.68	1.59
29	BE	140	HIS	CE1-NE2	5.88	1.38	1.32
47	BW	87	GLU	CA-C	5.88	1.60	1.52
26	BB	900	A	O3'-P	5.87	1.70	1.61
26	BB	1347	A	C5'-C4'	5.87	1.60	1.51
48	BX	93	ARG	NE-CZ	5.87	1.39	1.33
1	AA	503	C	C5'-C4'	5.87	1.60	1.51
1	AA	787	A	C5'-C4'	5.87	1.60	1.51
44	BT	88	GLY	C-N	5.87	1.40	1.33
1	AA	52	C	C5'-C4'	5.87	1.60	1.51
26	BB	1030	C	O5'-C5'	-5.87	1.33	1.42
19	AS	9	HIS	CD2-NE2	5.87	1.44	1.37
20	AT	30	HIS	CD2-NE2	-5.87	1.31	1.37
26	BB	1307	A	C4'-O4'	-5.87	1.36	1.45
26	BB	2523	G	P-O5'	5.87	1.68	1.59
41	BQ	34	HIS	ND1-CE1	5.87	1.38	1.32
34	BJ	37	MET	CA-C	5.87	1.60	1.52
1	AA	1471	U	P-O5'	5.87	1.68	1.59
26	BB	2020	A	O3'-P	5.87	1.70	1.61
32	BH	153	PRO	N-CD	-5.87	1.39	1.47
44	BT	33	VAL	CA-C	-5.87	1.45	1.52
30	BF	15	SER	N-CA	5.86	1.53	1.46
37	BM	51	LYS	CA-C	5.86	1.60	1.52
34	BJ	146	SER	CA-C	5.86	1.60	1.52
44	BT	54	VAL	CA-C	5.86	1.60	1.52
53	B2	66	ILE	N-CA	5.86	1.53	1.46
56	B5	4	THR	CA-C	5.86	1.60	1.52
26	BB	2383	G	P-O5'	5.86	1.68	1.59
19	AS	37	GLY	CA-C	5.86	1.57	1.51
26	BB	1385	A	C4'-O4'	-5.86	1.37	1.45
34	BJ	113	GLU	CA-C	5.86	1.60	1.52
26	BB	2129	C	C2'-C1'	5.86	1.61	1.53
1	AA	353	A	C4'-O4'	-5.85	1.36	1.45
26	BB	439	A	C3'-O3'	5.85	1.50	1.42
1	AA	842	U	C4-C5	5.85	1.55	1.43
26	BB	2271	G	C4'-O4'	-5.85	1.36	1.45
31	BG	29	ARG	NE-CZ	5.85	1.39	1.33
1	AA	836	G	P-O5'	5.85	1.68	1.59
6	AF	93	ILE	CA-C	5.85	1.60	1.52
1	AA	1306	A	C4'-O4'	-5.84	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	AP	2	ARG	CD-NE	5.84	1.54	1.46
21	AU	18	GLN	C-N	5.84	1.41	1.33
14	AN	33	ILE	N-CA	-5.84	1.39	1.46
8	AH	120	HIS	ND1-CE1	5.84	1.38	1.32
26	BB	2599	G	O4'-C1'	5.84	1.50	1.41
5	AE	237	VAL	CA-C	5.84	1.60	1.52
20	AT	58	VAL	C-O	5.84	1.30	1.23
26	BB	2523	G	O4'-C1'	5.84	1.50	1.41
27	BC	127	LEU	N-CA	5.84	1.53	1.46
1	AA	1275	A	C5'-C4'	5.84	1.60	1.51
22	AV	57	VAL	CA-C	5.84	1.58	1.52
26	BB	2671	G	O3'-P	-5.84	1.52	1.61
36	BL	80	HIS	ND1-CE1	5.84	1.38	1.32
1	AA	321	A	C4'-C3'	-5.84	1.43	1.52
30	BF	112	LEU	N-CA	5.84	1.53	1.46
17	AQ	25	GLU	N-CA	5.83	1.53	1.46
26	BB	1523	U	C3'-O3'	5.83	1.50	1.42
1	AA	416	G	C5'-C4'	5.83	1.59	1.51
1	AA	983	A	C4'-C3'	5.83	1.61	1.52
22	AV	81	GLY	N-CA	5.83	1.53	1.45
26	BB	1033	U	C1'-N1	5.83	1.56	1.47
26	BB	2120	G	C4'-O4'	-5.83	1.36	1.45
1	AA	952	U	O4'-C1'	5.83	1.50	1.41
26	BB	171	U	C1'-N1	5.83	1.57	1.48
26	BB	1162	G	C1'-N9	5.83	1.56	1.48
17	AQ	54	SER	CA-C	5.82	1.59	1.52
41	BQ	30	ARG	C-N	5.82	1.40	1.33
1	AA	1212	U	C1'-N1	5.82	1.56	1.47
1	AA	1480	A	C4'-O4'	-5.82	1.36	1.45
26	BB	2368	C	P-O5'	5.82	1.68	1.59
26	BB	358	U	C4'-O4'	-5.82	1.36	1.45
26	BB	1114	C	P-O5'	5.82	1.68	1.59
22	AV	56	HIS	CG-ND1	-5.82	1.31	1.38
1	AA	1413	A	C3'-O3'	5.82	1.50	1.42
26	BB	2426	A	O3'-P	5.82	1.69	1.61
1	AA	948	C	P-O5'	5.81	1.68	1.59
36	BL	41	LYS	CA-C	5.81	1.60	1.52
49	BY	11	ASN	C-O	5.81	1.31	1.23
2	AB	21	A	C4'-O4'	-5.81	1.36	1.45
10	AJ	123	LEU	CA-C	5.81	1.60	1.52
26	BB	1953	A	C4'-C3'	5.81	1.61	1.53
26	BB	2820	A	C4'-C3'	5.81	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	BO	43	ALA	N-CA	5.81	1.53	1.46
1	AA	485	U	C4'-O4'	-5.81	1.36	1.45
26	BB	337	C	C2'-C1'	5.81	1.62	1.53
55	B4	26	LYS	CA-C	5.81	1.60	1.52
1	AA	705	G	C4'-O4'	-5.80	1.36	1.45
5	AE	203	ASP	N-CA	-5.80	1.39	1.46
26	BB	2747	G	C5'-C4'	5.80	1.59	1.51
40	BP	40	LYS	N-CA	5.80	1.53	1.46
1	AA	444	G	O3'-P	5.80	1.69	1.61
8	AH	86	GLY	CA-C	5.80	1.58	1.51
26	BB	986	C	O4'-C1'	5.80	1.50	1.41
25	BA	40	U	P-O5'	5.80	1.68	1.59
26	BB	554	U	C4'-O4'	-5.80	1.36	1.45
26	BB	1802	A	O3'-P	5.80	1.69	1.61
26	BB	145	C	C4'-O4'	-5.80	1.36	1.45
26	BB	2574	G	O4'-C1'	5.80	1.50	1.41
1	AA	900	A	C4'-C3'	5.80	1.61	1.52
1	AA	1139	G	C5'-C4'	5.80	1.60	1.51
26	BB	1588	G	C5'-C4'	5.80	1.59	1.51
46	BV	33	LYS	N-CA	5.80	1.53	1.46
1	AA	1532	U	C5'-C4'	5.79	1.59	1.51
27	BC	155	ASN	CA-C	5.79	1.60	1.52
34	BJ	65	GLY	C-N	5.79	1.40	1.33
1	AA	509	A	C2'-C1'	-5.79	1.44	1.53
1	AA	528	C	C5'-C4'	5.79	1.59	1.51
1	AA	743	A	C1'-N9	5.79	1.56	1.48
1	AA	1384	C	P-O5'	5.79	1.68	1.59
6	AF	68	HIS	CG-CD2	5.79	1.42	1.35
26	BB	92	U	C5'-C4'	5.79	1.59	1.51
26	BB	1784	A	O3'-P	5.79	1.69	1.61
46	BV	63	VAL	CA-CB	5.79	1.60	1.53
1	AA	990	C	O4'-C1'	5.79	1.50	1.41
26	BB	186	G	C5'-C4'	5.79	1.59	1.51
26	BB	2386	A	C5'-C4'	5.79	1.59	1.51
1	AA	5	U	C3'-C2'	5.79	1.61	1.52
26	BB	315	G	C3'-O3'	-5.79	1.33	1.42
26	BB	1251	C	C1'-N1	5.79	1.56	1.47
26	BB	2515	C	O4'-C1'	-5.79	1.32	1.41
1	AA	984	C	C3'-C2'	-5.78	1.44	1.52
3	AC	39	U	P-O5'	5.78	1.68	1.59
26	BB	54	G	C4'-O4'	-5.78	1.36	1.45
26	BB	1373	A	C5'-C4'	5.78	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BH	136	ASP	CA-C	5.78	1.59	1.52
39	BO	36	VAL	CA-C	5.78	1.60	1.52
35	BK	53	PRO	CA-C	5.78	1.58	1.52
7	AG	123	MET	N-CA	5.78	1.53	1.46
11	AK	111	THR	N-CA	5.78	1.52	1.45
26	BB	109	C	C4'-O4'	-5.78	1.36	1.45
26	BB	2854	G	C1'-N9	5.78	1.56	1.48
34	BJ	117	ILE	C-N	5.78	1.40	1.33
37	BM	120	PRO	N-CD	-5.78	1.39	1.47
53	B2	59	ARG	CZ-NH2	5.78	1.41	1.33
16	AP	71	GLU	N-CA	-5.78	1.39	1.46
35	BK	56	VAL	N-CA	5.78	1.53	1.46
1	AA	413	G	C5'-C4'	5.78	1.60	1.51
20	AT	76	ARG	CD-NE	5.78	1.54	1.46
26	BB	456	C	C4'-O4'	-5.78	1.37	1.45
1	AA	239	U	O5'-C5'	-5.78	1.33	1.42
1	AA	782	A	C4'-O4'	-5.78	1.36	1.45
26	BB	142	A	O5'-C5'	5.77	1.51	1.42
28	BD	130	PRO	CA-C	5.77	1.59	1.52
40	BP	94	TYR	N-CA	-5.77	1.38	1.46
12	AL	20	ILE	N-CA	5.77	1.53	1.46
16	AP	99	GLN	CA-C	5.77	1.60	1.53
25	BA	62	C	C4'-C3'	5.77	1.61	1.52
26	BB	1636	U	C3'-O3'	-5.77	1.33	1.42
26	BB	2294	G	P-O5'	5.77	1.68	1.59
31	BG	127	TYR	N-CA	5.77	1.53	1.45
1	AA	987	G	C1'-N9	5.77	1.56	1.48
26	BB	2811	G	C4'-O4'	-5.77	1.36	1.45
31	BG	87	LYS	C-O	-5.77	1.18	1.24
57	B6	57	VAL	CA-CB	5.77	1.61	1.54
1	AA	901	A	C5'-C4'	5.77	1.59	1.51
9	AI	52	ASN	C-O	-5.77	1.16	1.23
25	BA	22	U	O4'-C1'	5.77	1.50	1.41
26	BB	636	G	O3'-P	5.76	1.69	1.61
26	BB	2649	C	C4'-O4'	-5.76	1.36	1.45
1	AA	505	G	C4'-O4'	-5.76	1.36	1.45
1	AA	1400	C	O3'-P	5.76	1.69	1.61
5	AE	107	ARG	CA-C	5.76	1.60	1.52
27	BC	136	LEU	CA-C	5.76	1.60	1.52
32	BH	6	ALA	C-N	5.76	1.40	1.34
6	AF	168	ARG	CZ-NH1	5.76	1.40	1.32
26	BB	2758	A	O3'-P	5.76	1.69	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	B1	19	HIS	ND1-CE1	5.76	1.38	1.32
26	BB	1882	U	C4'-C3'	-5.75	1.44	1.52
26	BB	2033	A	C4'-O4'	-5.75	1.37	1.45
1	AA	355	C	C5'-C4'	5.75	1.59	1.51
1	AA	1324	A	P-O5'	5.75	1.68	1.59
26	BB	1739	A	P-O5'	5.75	1.68	1.59
1	AA	1367	C	C3'-O3'	5.75	1.50	1.42
6	AF	75	VAL	N-CA	-5.75	1.39	1.46
13	AM	55	PRO	CA-C	5.75	1.61	1.52
26	BB	2353	G	C4'-O4'	-5.75	1.36	1.45
33	BI	34	GLY	C-N	-5.75	1.25	1.33
1	AA	1167	A	O5'-C5'	5.75	1.51	1.42
26	BB	267	C	P-O5'	5.75	1.68	1.59
26	BB	895	U	C5'-C4'	5.75	1.59	1.51
1	AA	691	G	C5'-C4'	5.75	1.59	1.51
26	BB	406	G	C4'-O4'	-5.75	1.36	1.45
26	BB	648	G	C4'-O4'	-5.75	1.36	1.45
26	BB	1674	G	C4'-C3'	5.75	1.61	1.53
26	BB	2323	G	C2'-O2'	-5.75	1.33	1.42
26	BB	2681	C	O3'-P	-5.75	1.52	1.61
4	AD	75	C	C3'-O3'	-5.74	1.34	1.43
26	BB	176	A	C4'-C3'	5.74	1.61	1.52
26	BB	604	G	C5'-C4'	5.74	1.59	1.51
26	BB	2768	U	O5'-C5'	-5.74	1.33	1.42
27	BC	145	VAL	CA-C	5.74	1.59	1.53
26	BB	1336	A	C5'-C4'	5.74	1.59	1.51
26	BB	1992	G	O5'-C5'	5.74	1.51	1.42
26	BB	2529	G	C5'-C4'	5.74	1.59	1.51
1	AA	557	G	C2'-C1'	5.74	1.61	1.53
42	BR	40	GLN	CA-C	5.74	1.59	1.52
26	BB	2329	U	C4'-O4'	-5.74	1.36	1.45
1	AA	901	A	P-O5'	5.74	1.68	1.59
37	BM	20	MET	CA-C	-5.74	1.45	1.52
23	AW	70	LYS	C-N	5.74	1.40	1.33
26	BB	2132	U	C4'-O4'	-5.74	1.36	1.45
26	BB	2880	C	C4'-O4'	-5.74	1.36	1.45
26	BB	2893	A	C5'-C4'	5.74	1.59	1.51
26	BB	1621	U	P-O5'	5.73	1.68	1.59
38	BN	127	VAL	C-O	5.73	1.29	1.24
1	AA	862	C	C5'-C4'	5.73	1.59	1.51
1	AA	1235	U	O5'-C5'	-5.73	1.33	1.42
1	AA	1522	U	P-O5'	5.73	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	AR	20	ASP	N-CA	-5.73	1.39	1.46
26	BB	529	A	C3'-O3'	5.73	1.50	1.42
26	BB	2332	C	C4'-O4'	-5.73	1.36	1.45
7	AG	154	VAL	CA-C	5.73	1.60	1.52
26	BB	711	G	C2'-O2'	-5.73	1.33	1.42
1	AA	1036	A	C2'-C1'	5.73	1.61	1.53
26	BB	2035	G	C4'-O4'	-5.73	1.37	1.45
16	AP	35	ALA	N-CA	-5.73	1.39	1.46
26	BB	27	G	O3'-P	5.73	1.69	1.61
26	BB	551	G	P-O5'	5.73	1.68	1.59
26	BB	1194	A	C4'-O4'	-5.73	1.36	1.45
28	BD	9	SER	CA-C	5.72	1.58	1.52
30	BF	79	ARG	CD-NE	5.72	1.54	1.46
14	AN	88	PRO	CA-C	5.72	1.60	1.52
36	BL	55	ILE	N-CA	5.72	1.53	1.46
26	BB	736	C	O3'-P	5.72	1.69	1.61
1	AA	696	A	C3'-O3'	-5.72	1.33	1.42
1	AA	1039	G	C5'-C4'	5.72	1.59	1.51
10	AJ	7	GLY	N-CA	5.72	1.52	1.45
31	BG	93	GLU	CA-C	5.72	1.60	1.52
26	BB	510	C	P-O5'	5.71	1.68	1.59
1	AA	1039	G	C2'-O2'	-5.71	1.33	1.42
26	BB	1408	G	C4'-O4'	-5.71	1.36	1.45
26	BB	1804	C	C4'-C3'	-5.71	1.44	1.52
26	BB	1877	A	C5'-C4'	-5.71	1.42	1.51
26	BB	2511	U	P-O5'	5.71	1.68	1.59
57	B6	22	LYS	N-CA	5.71	1.53	1.46
1	AA	1122	U	O3'-P	5.71	1.69	1.61
2	AB	33	U	C5'-C4'	5.71	1.59	1.51
15	AO	57	THR	N-CA	5.71	1.53	1.46
26	BB	1305	C	C4'-O4'	-5.71	1.36	1.45
33	BI	119	ASN	N-CA	5.71	1.54	1.46
12	AL	127	SER	N-CA	5.71	1.53	1.46
26	BB	2081	U	C4'-O4'	-5.71	1.36	1.45
26	BB	1056	G	C4'-C3'	5.71	1.61	1.52
26	BB	1612	C	C4'-O4'	-5.71	1.36	1.45
26	BB	1885	A	C2'-C1'	5.71	1.61	1.53
39	BO	73	ILE	N-CA	5.71	1.53	1.46
16	AP	73	SER	N-CA	5.71	1.53	1.46
26	BB	250	G	C1'-N9	-5.71	1.39	1.48
15	AO	72	ASN	N-CA	5.70	1.54	1.46
26	BB	847	U	P-O5'	5.70	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1144	G	C2'-C1'	-5.70	1.44	1.53
26	BB	294	A	P-O5'	5.70	1.68	1.59
26	BB	726	G	C5'-C4'	5.70	1.59	1.51
8	AH	30	PHE	CA-C	5.70	1.59	1.52
33	BI	111	ALA	CA-C	5.70	1.59	1.52
34	BJ	106	GLU	CA-C	5.70	1.60	1.52
47	BW	17	ASP	N-CA	5.70	1.53	1.46
49	BY	14	ASP	C-N	5.70	1.41	1.33
26	BB	1599	U	P-O5'	-5.70	1.51	1.59
26	BB	1784	A	C4'-O4'	-5.70	1.37	1.45
12	AL	106	ASP	CA-C	5.70	1.59	1.52
26	BB	226	A	C5'-C4'	5.70	1.59	1.51
26	BB	2582	G	C5'-C4'	5.70	1.59	1.51
51	B0	48	ARG	CA-C	5.70	1.60	1.52
26	BB	70	G	O5'-C5'	-5.69	1.34	1.42
26	BB	979	A	P-O5'	5.69	1.68	1.59
26	BB	811	U	O5'-C5'	-5.69	1.34	1.42
26	BB	2790	U	P-O5'	5.69	1.68	1.59
31	BG	9	ASP	C-O	-5.69	1.17	1.24
39	BO	62	LYS	N-CA	5.69	1.53	1.45
1	AA	308	C	C5'-C4'	5.69	1.59	1.51
26	BB	610	C	C5'-C4'	5.69	1.59	1.51
26	BB	1511	G	P-O5'	5.69	1.68	1.59
27	BC	228	GLY	CA-C	5.69	1.57	1.51
44	BT	55	ASP	C-N	5.68	1.38	1.33
26	BB	1416	G	O4'-C1'	-5.68	1.33	1.42
44	BT	102	SER	CA-C	5.68	1.61	1.53
49	BY	78	PHE	C-N	5.68	1.39	1.33
25	BA	58	A	P-O5'	5.68	1.68	1.59
26	BB	1367	A	C4'-O4'	-5.68	1.37	1.45
26	BB	1716	U	O4'-C1'	5.68	1.50	1.41
1	AA	592	G	C5'-C4'	5.68	1.59	1.51
13	AM	70	HIS	CG-ND1	5.68	1.44	1.38
8	AH	68	ARG	N-CA	5.68	1.53	1.46
17	AQ	69	PRO	C-O	-5.68	1.17	1.23
17	AQ	80	ARG	NE-CZ	5.68	1.39	1.33
26	BB	1093	G	P-O5'	5.68	1.68	1.59
10	AJ	150	PHE	C-N	5.67	1.40	1.33
26	BB	1706	C	P-O5'	5.67	1.68	1.59
26	BB	2185	U	C4'-O4'	-5.67	1.37	1.45
26	BB	2533	U	P-O5'	5.67	1.68	1.59
1	AA	972	C	C4'-O4'	-5.67	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AC	46	C	P-O5'	5.67	1.68	1.59
26	BB	1182	G	C1'-N9	5.67	1.56	1.48
26	BB	2690	U	C4'-O4'	-5.67	1.37	1.45
3	AC	48	C	C1'-N1	5.67	1.56	1.48
26	BB	307	G	O3'-P	5.67	1.69	1.61
26	BB	1674	G	C3'-O3'	5.67	1.51	1.43
1	AA	815	A	P-O5'	5.67	1.68	1.59
5	AE	207	ARG	CZ-NH2	5.67	1.40	1.33
7	AG	25	ARG	CZ-NH2	5.67	1.40	1.33
26	BB	1108	U	O3'-P	5.67	1.69	1.61
47	BW	6	ARG	CD-NE	5.67	1.54	1.46
14	AN	104	PHE	CA-CB	5.67	1.62	1.53
26	BB	1355	G	C3'-C2'	5.67	1.61	1.52
1	AA	558	G	C4'-O4'	-5.66	1.37	1.45
11	AK	51	GLU	CA-C	5.66	1.59	1.52
32	BH	47	ASN	CA-C	5.66	1.60	1.52
7	AG	179	GLY	CA-C	5.66	1.57	1.51
31	BG	175	PRO	C-O	5.66	1.30	1.23
1	AA	900	A	O3'-P	5.66	1.69	1.61
25	BA	85	G	O4'-C1'	5.66	1.50	1.41
26	BB	334	C	O3'-P	5.66	1.69	1.61
26	BB	656	G	P-O5'	5.66	1.68	1.59
26	BB	1354	A	O5'-C5'	-5.66	1.33	1.42
28	BD	82	TYR	CA-C	5.66	1.59	1.52
32	BH	113	ASP	CA-C	5.66	1.60	1.53
51	B0	4	LYS	N-CA	5.66	1.53	1.46
1	AA	204	G	C1'-N9	5.66	1.55	1.47
1	AA	1356	G	C4'-C3'	5.66	1.61	1.52
26	BB	994	C	C4'-C3'	5.66	1.61	1.52
51	B0	19	LEU	CA-C	5.66	1.59	1.52
23	AW	29	THR	CA-C	5.65	1.60	1.52
26	BB	2682	A	O4'-C1'	5.65	1.50	1.41
1	AA	154	U	C4'-O4'	-5.65	1.37	1.45
1	AA	630	A	O3'-P	5.65	1.69	1.61
1	AA	637	C	C4'-O4'	-5.65	1.37	1.45
1	AA	1015	G	P-O5'	5.65	1.68	1.59
41	BQ	88	LYS	CA-C	5.65	1.59	1.52
1	AA	1375	A	O3'-P	5.65	1.69	1.61
26	BB	53	A	C3'-C2'	5.65	1.61	1.52
26	BB	1379	U	C4'-O4'	-5.65	1.37	1.45
26	BB	1394	U	C5'-C4'	5.65	1.59	1.51
26	BB	2071	A	C3'-C2'	-5.65	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BV	96	VAL	CA-C	-5.65	1.45	1.52
1	AA	896	C	C4'-O4'	-5.65	1.37	1.45
1	AA	1383	C	C4'-O4'	-5.65	1.37	1.45
11	AK	24	VAL	N-CA	5.65	1.53	1.46
26	BB	713	G	O3'-P	5.65	1.69	1.61
30	BF	96	VAL	N-CA	5.65	1.53	1.46
26	BB	2416	C	O3'-P	5.64	1.69	1.61
1	AA	234	C	C2'-O2'	-5.64	1.33	1.42
26	BB	451	U	C1'-N1	5.64	1.55	1.47
26	BB	1484	U	C4'-O4'	-5.64	1.37	1.45
46	BV	90	GLY	N-CA	-5.64	1.39	1.45
57	B6	62	PRO	CA-C	5.64	1.57	1.53
1	AA	74	A	O3'-P	5.64	1.69	1.61
1	AA	1320	C	C4'-C3'	5.64	1.61	1.52
1	AA	1285	A	C5'-C4'	5.64	1.59	1.51
1	AA	1311	A	C5'-C4'	5.64	1.59	1.51
26	BB	1368	G	P-O5'	5.64	1.68	1.59
22	AV	73	PHE	CA-C	5.63	1.60	1.52
26	BB	96	C	C4'-O4'	-5.63	1.37	1.45
26	BB	2765	A	O3'-P	5.63	1.69	1.61
38	BN	13	LYS	CA-C	5.63	1.60	1.52
26	BB	2	G	O3'-P	-5.63	1.52	1.61
53	B2	56	ARG	CA-C	5.63	1.59	1.52
10	AJ	50	ALA	CA-C	5.63	1.60	1.52
26	BB	1849	G	C2'-C1'	5.63	1.61	1.53
34	BJ	126	ALA	N-CA	5.63	1.53	1.46
58	B7	12	ARG	CD-NE	5.63	1.54	1.46
34	BJ	116	LEU	CA-C	-5.63	1.45	1.52
1	AA	280	C	C1'-N1	5.63	1.55	1.47
15	AO	71	HIS	CE1-NE2	5.63	1.38	1.32
26	BB	1785	A	C4'-O4'	-5.63	1.37	1.45
26	BB	2340	A	C4'-O4'	-5.63	1.37	1.45
26	BB	2774	C	C3'-C2'	5.63	1.61	1.52
38	BN	131	ALA	C-N	5.63	1.41	1.33
26	BB	940	G	C2'-C1'	-5.63	1.45	1.53
42	BR	108	ARG	CD-NE	5.63	1.54	1.46
26	BB	1954	G	C1'-N9	5.62	1.55	1.47
44	BT	12	HIS	CE1-NE2	5.62	1.38	1.32
1	AA	76	G	C2'-C1'	5.62	1.61	1.53
3	AC	31	U	O5'-C5'	-5.62	1.34	1.42
26	BB	1585	C	C4'-O4'	-5.62	1.37	1.45
6	AF	147	GLY	CA-C	5.62	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	820	A	C4'-O4'	-5.62	1.37	1.45
26	BB	1272	A	P-O5'	5.62	1.68	1.59
26	BB	2367	G	C4'-O4'	-5.62	1.37	1.45
27	BC	126	GLN	C-O	-5.62	1.17	1.24
1	AA	1431	A	C3'-C2'	5.62	1.61	1.52
25	BA	97	C	O4'-C1'	5.62	1.50	1.41
26	BB	1266	G	C4'-O4'	-5.62	1.37	1.45
1	AA	1454	G	C5'-C4'	5.61	1.59	1.51
36	BL	12	LYS	CA-C	5.61	1.59	1.52
9	AI	60	VAL	N-CA	5.61	1.53	1.46
26	BB	2564	A	C4'-O4'	-5.61	1.37	1.45
14	AN	108	ASN	CA-C	5.61	1.60	1.52
26	BB	2745	C	C3'-C2'	-5.61	1.44	1.52
1	AA	1490	U	P-O5'	5.61	1.68	1.59
26	BB	1000	A	C4'-O4'	-5.61	1.37	1.45
26	BB	2366	A	C5'-C4'	5.61	1.59	1.51
38	BN	73	ILE	CA-CB	5.61	1.61	1.54
1	AA	1025	U	C4'-C3'	5.60	1.61	1.53
1	AA	954	G	O5'-C5'	-5.60	1.34	1.42
5	AE	106	VAL	N-CA	5.60	1.53	1.46
10	AJ	62	GLU	CA-C	5.60	1.60	1.52
26	BB	1400	U	C3'-O3'	5.60	1.50	1.42
5	AE	17	HIS	CE1-NE2	5.60	1.38	1.32
1	AA	1288	A	C2'-C1'	-5.60	1.45	1.53
8	AH	16	ALA	CA-C	5.60	1.59	1.52
26	BB	2793	C	C5'-C4'	5.60	1.59	1.51
25	BA	36	C	O3'-P	5.60	1.69	1.61
26	BB	2290	G	C2'-O2'	-5.60	1.34	1.42
46	BV	8	LEU	CA-CB	5.60	1.60	1.53
51	B0	27	ASN	CA-C	5.60	1.60	1.52
26	BB	1580	A	O3'-P	5.60	1.69	1.61
5	AE	38	HIS	CA-C	-5.59	1.45	1.52
5	AE	213	LEU	N-CA	-5.59	1.39	1.46
25	BA	34	A	O3'-P	5.59	1.69	1.61
26	BB	873	C	C3'-C2'	5.59	1.61	1.52
5	AE	84	LEU	N-CA	5.59	1.53	1.46
12	AL	69	GLY	N-CA	5.59	1.53	1.45
18	AR	69	LEU	CA-C	5.59	1.60	1.52
6	AF	173	PRO	CA-C	5.59	1.59	1.52
26	BB	1654	A	C4'-C3'	5.59	1.60	1.52
34	BJ	44	GLY	CA-C	5.59	1.58	1.52
41	BQ	100	HIS	CG-ND1	5.59	1.44	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	489	C	C4'-C3'	5.59	1.60	1.52
7	AG	194	ILE	CA-C	5.59	1.59	1.52
11	AK	45	ILE	N-CA	-5.59	1.39	1.46
26	BB	1127	A	C4'-O4'	-5.59	1.37	1.45
26	BB	1562	U	P-O5'	5.59	1.68	1.59
26	BB	1980	G	P-O5'	5.59	1.68	1.59
26	BB	789	A	O3'-P	-5.58	1.52	1.61
26	BB	2001	C	C4'-O4'	-5.58	1.37	1.45
1	AA	249	U	C3'-C2'	5.58	1.61	1.52
18	AR	80	LEU	CA-C	5.58	1.59	1.52
45	BU	70	LYS	CA-C	5.58	1.59	1.52
1	AA	1135	U	C4'-O4'	-5.58	1.37	1.45
25	BA	71	C	C1'-N1	5.58	1.56	1.48
34	BJ	135	ILE	N-CA	5.58	1.53	1.46
44	BT	89	HIS	N-CA	5.58	1.52	1.46
1	AA	243	A	O4'-C1'	5.58	1.50	1.42
18	AR	77	TYR	CA-C	5.58	1.59	1.52
47	BW	82	VAL	CA-CB	5.58	1.61	1.54
5	AE	156	LEU	N-CA	5.58	1.54	1.45
37	BM	97	THR	CA-C	5.58	1.59	1.52
28	BD	220	ARG	CZ-NH2	5.58	1.40	1.33
53	B2	66	ILE	CA-C	5.58	1.57	1.52
1	AA	469	C	O3'-P	5.58	1.69	1.61
1	AA	1065	U	P-O5'	5.58	1.68	1.59
4	AD	4	G	C5'-C4'	5.58	1.59	1.51
7	AG	59	LYS	C-N	5.58	1.40	1.33
26	BB	1028	A	O5'-C5'	-5.58	1.34	1.42
27	BC	211	LYS	CA-C	5.58	1.59	1.52
26	BB	924	G	C4'-O4'	-5.57	1.37	1.45
26	BB	2339	C	C2'-C1'	5.57	1.61	1.53
8	AH	119	VAL	N-CA	-5.57	1.39	1.46
26	BB	1007	C	C1'-N1	5.57	1.56	1.48
26	BB	1982	U	C3'-C2'	5.57	1.61	1.52
1	AA	129	A	C4'-O4'	-5.57	1.37	1.45
1	AA	181	A	C5'-C4'	5.57	1.59	1.51
17	AQ	60	ARG	C-N	5.57	1.41	1.33
1	AA	15	G	C4'-O4'	-5.57	1.37	1.45
1	AA	582	C	P-O5'	5.57	1.68	1.59
1	AA	1463	U	C3'-C2'	5.57	1.61	1.52
26	BB	13	A	P-O5'	5.57	1.68	1.59
28	BD	178	GLY	C-N	5.57	1.41	1.33
26	BB	1049	C	C5'-C4'	5.56	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1221	G	P-O5'	5.56	1.68	1.59
9	AI	11	HIS	CE1-NE2	5.56	1.38	1.32
19	AS	33	ILE	CA-CB	5.56	1.62	1.54
27	BC	75	VAL	CA-C	5.56	1.59	1.52
28	BD	134	ILE	N-CA	5.56	1.53	1.46
55	B4	22	THR	N-CA	-5.56	1.39	1.46
1	AA	1037	C	C1'-N1	5.56	1.56	1.48
58	B7	15	LYS	CA-C	5.56	1.60	1.52
1	AA	46	G	O5'-C5'	5.56	1.50	1.42
20	AT	79	GLU	N-CA	5.56	1.52	1.45
26	BB	1195	G	C2'-O2'	-5.56	1.34	1.42
1	AA	453	G	O3'-P	5.56	1.69	1.61
1	AA	561	U	C5'-C4'	5.56	1.59	1.51
3	AC	14	G	C4'-O4'	-5.56	1.37	1.45
29	BE	135	GLY	CA-C	5.56	1.59	1.51
45	BU	80	PRO	C-N	5.56	1.40	1.33
24	AX	61	ARG	CA-C	5.56	1.60	1.52
4	AD	75	C	C4'-O4'	-5.55	1.37	1.45
25	BA	35	C	C2'-C1'	5.55	1.61	1.53
26	BB	415	A	C5'-C4'	5.55	1.59	1.51
26	BB	2771	C	C4'-O4'	-5.55	1.37	1.45
1	AA	870	U	C5'-C4'	5.55	1.59	1.51
1	AA	184	G	P-O5'	5.55	1.68	1.59
1	AA	926	G	P-O5'	5.55	1.68	1.59
20	AT	24	ILE	N-CA	-5.55	1.39	1.46
23	AW	14	GLU	CA-C	-5.55	1.45	1.52
26	BB	1882	U	O3'-P	5.55	1.69	1.61
29	BE	177	VAL	CA-C	5.55	1.59	1.52
26	BB	1078	U	C1'-N1	5.55	1.55	1.47
35	BK	42	ASN	CA-CB	5.54	1.63	1.53
6	AF	230	GLY	C-O	5.54	1.31	1.23
26	BB	158	U	C3'-C2'	5.54	1.61	1.52
26	BB	585	G	C4'-O4'	-5.54	1.37	1.45
26	BB	2609	U	O3'-P	5.54	1.69	1.61
39	BO	18	ARG	NE-CZ	5.54	1.39	1.33
38	BN	94	THR	N-CA	5.54	1.53	1.46
1	AA	109	A	C5'-C4'	5.54	1.59	1.51
23	AW	85	LEU	CA-C	5.54	1.59	1.52
26	BB	328	U	C3'-C2'	5.54	1.61	1.52
26	BB	536	G	C4'-O4'	-5.54	1.37	1.45
26	BB	2393	U	O4'-C1'	5.54	1.50	1.41
38	BN	33	ARG	CZ-NH2	5.54	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	28	C	C4'-C3'	5.54	1.60	1.52
26	BB	992	C	O5'-C5'	-5.54	1.34	1.42
26	BB	2633	G	P-O5'	5.54	1.68	1.59
9	AI	61	LEU	CA-C	5.54	1.59	1.52
27	BC	229	LEU	CA-C	5.54	1.60	1.52
1	AA	870	U	C3'-C2'	5.53	1.61	1.52
26	BB	588	U	P-O5'	5.53	1.68	1.59
32	BH	44	HIS	CD2-NE2	5.53	1.44	1.37
2	AB	41	C	C4'-O4'	-5.53	1.37	1.45
1	AA	530	G	C4'-O4'	-5.53	1.37	1.45
1	AA	1253	G	O4'-C1'	5.53	1.50	1.41
26	BB	1742	U	C5'-C4'	5.53	1.59	1.51
26	BB	1848	A	O5'-C5'	-5.53	1.34	1.42
26	BB	1899	A	C4'-C3'	5.53	1.60	1.52
1	AA	737	C	O4'-C1'	5.53	1.50	1.41
41	BQ	78	VAL	C-N	5.53	1.41	1.33
12	AL	15	ALA	CA-C	5.53	1.59	1.52
26	BB	1082	U	C5'-C4'	5.53	1.59	1.51
1	AA	684	U	P-O5'	5.53	1.68	1.59
26	BB	581	C	O4'-C1'	5.53	1.50	1.41
26	BB	1509	A	C4'-C3'	5.53	1.61	1.53
26	BB	2500	U	C1'-N1	5.53	1.55	1.47
26	BB	2621	G	C5'-C4'	5.53	1.59	1.51
47	BW	53	GLN	C-O	5.53	1.31	1.24
1	AA	1251	A	C2'-C1'	-5.52	1.45	1.53
49	BY	2	HIS	CE1-NE2	5.52	1.38	1.32
54	B3	44	ALA	CA-C	5.52	1.60	1.52
14	AN	84	MET	CA-CB	-5.52	1.45	1.53
49	BY	2	HIS	ND1-CE1	5.52	1.38	1.32
6	AF	41	TYR	CA-C	5.52	1.60	1.52
26	BB	1222	U	C1'-N1	5.52	1.56	1.48
1	AA	282	A	P-O5'	5.52	1.68	1.59
1	AA	479	U	P-O5'	5.52	1.68	1.59
1	AA	1128	C	C4'-O4'	-5.52	1.37	1.45
9	AI	37	HIS	CB-CG	5.52	1.57	1.50
21	AU	26	ALA	N-CA	5.52	1.53	1.46
57	B6	18	LYS	CA-C	5.52	1.60	1.52
26	BB	1671	U	C1'-N1	5.52	1.56	1.48
34	BJ	30	ARG	CA-C	5.52	1.60	1.53
1	AA	745	G	C2'-C1'	5.52	1.61	1.53
26	BB	2079	U	P-O5'	5.52	1.68	1.59
51	B0	41	HIS	N-CA	5.52	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	294	U	C4'-O4'	-5.51	1.37	1.45
23	AW	48	LYS	CA-C	5.51	1.59	1.52
26	BB	2734	A	C5'-C4'	5.51	1.59	1.51
26	BB	1299	G	C5'-C4'	5.51	1.59	1.51
26	BB	1457	U	P-O5'	5.51	1.68	1.59
49	BY	80	SER	C-O	-5.51	1.17	1.23
25	BA	72	G	C4'-O4'	-5.51	1.37	1.45
26	BB	854	C	C5'-C4'	5.51	1.59	1.51
26	BB	1193	G	O3'-P	5.51	1.69	1.61
26	BB	1377	G	C3'-C2'	5.51	1.61	1.52
26	BB	2491	U	C4'-O4'	-5.51	1.37	1.45
1	AA	61	G	O5'-C5'	-5.51	1.34	1.42
1	AA	663	A	C4'-O4'	-5.51	1.37	1.45
1	AA	343	U	P-O5'	5.51	1.68	1.59
25	BA	62	C	C3'-C2'	5.51	1.61	1.52
26	BB	1161	C	O3'-P	5.51	1.69	1.61
26	BB	1701	A	C4'-O4'	-5.51	1.37	1.45
37	BM	100	PHE	CA-C	5.51	1.60	1.52
5	AE	112	ARG	N-CA	5.50	1.53	1.46
26	BB	48	G	P-O5'	5.50	1.68	1.59
1	AA	1046	A	C3'-C2'	5.50	1.61	1.52
19	AS	11	ALA	C-N	5.50	1.41	1.33
38	BN	100	ILE	CA-C	5.50	1.59	1.52
1	AA	936	C	P-O5'	5.50	1.68	1.59
16	AP	45	SER	N-CA	5.50	1.53	1.46
26	BB	205	G	C4'-O4'	-5.50	1.37	1.45
26	BB	1221	C	P-O5'	5.50	1.68	1.59
26	BB	2195	U	C2'-C1'	5.50	1.61	1.53
47	BW	57	ILE	CA-C	5.50	1.59	1.52
6	AF	159	ALA	CA-C	5.50	1.59	1.52
26	BB	182	A	P-O5'	-5.50	1.51	1.59
1	AA	1266	G	O3'-P	5.50	1.69	1.61
2	AB	63	C	C4'-C3'	5.50	1.60	1.52
26	BB	2324	U	C4'-O4'	-5.50	1.37	1.45
44	BT	12	HIS	CD2-NE2	5.50	1.43	1.37
1	AA	937	A	C4'-O4'	-5.50	1.37	1.45
25	BA	86	G	P-O5'	5.50	1.68	1.59
26	BB	738	G	O3'-P	5.50	1.69	1.61
26	BB	1654	A	C5'-C4'	5.49	1.59	1.51
26	BB	2680	U	C5'-C4'	5.49	1.59	1.51
34	BJ	67	PRO	N-CD	-5.49	1.40	1.47
35	BK	86	LYS	N-CA	5.49	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	BN	141	LYS	CA-C	5.49	1.59	1.52
50	BZ	13	THR	CA-C	5.49	1.59	1.52
5	AE	85	SER	N-CA	5.49	1.53	1.46
8	AH	114	LEU	C-O	-5.49	1.17	1.24
26	BB	156	A	C4'-O4'	-5.49	1.37	1.45
26	BB	598	U	C1'-N1	5.49	1.56	1.48
27	BC	144	THR	CA-C	5.49	1.60	1.52
32	BH	114	HIS	CG-ND1	-5.49	1.32	1.38
26	BB	1782	U	C1'-N1	5.49	1.56	1.48
1	AA	56	U	C4'-O4'	-5.49	1.37	1.45
1	AA	250	A	C5'-C4'	5.49	1.59	1.51
21	AU	30	ASN	CA-C	5.49	1.60	1.52
52	B1	23	LEU	CA-C	5.49	1.59	1.52
3	AC	57	C	C2'-O2'	5.48	1.50	1.42
26	BB	335	C	P-O5'	-5.48	1.51	1.59
26	BB	1293	C	P-O5'	5.48	1.68	1.59
26	BB	79	C	C1'-N1	5.48	1.56	1.48
49	BY	18	LYS	CA-CB	5.48	1.62	1.53
1	AA	677	U	O4'-C1'	5.48	1.49	1.41
1	AA	911	U	C2-N3	5.48	1.48	1.37
13	AM	87	LEU	CA-CB	5.48	1.61	1.53
25	BA	23	G	C5'-C4'	5.48	1.59	1.51
26	BB	1841	U	C4'-C3'	5.48	1.60	1.52
26	BB	2238	G	O3'-P	5.48	1.69	1.61
42	BR	21	PRO	CA-C	5.48	1.58	1.52
26	BB	551	G	C5'-C4'	5.48	1.59	1.51
15	AO	92	VAL	CA-CB	5.48	1.59	1.53
26	BB	996	A	C4'-O4'	-5.48	1.37	1.45
26	BB	1381	G	O3'-P	5.48	1.69	1.61
26	BB	2156	G	P-O5'	5.48	1.68	1.59
53	B2	33	ASN	CA-C	5.48	1.60	1.52
58	B7	33	HIS	C-N	5.48	1.40	1.33
26	BB	1506	U	C5'-C4'	5.48	1.59	1.51
1	AA	350	G	O3'-P	5.47	1.69	1.61
26	BB	278	A	C3'-C2'	-5.47	1.44	1.52
26	BB	2759	G	C4'-C3'	-5.47	1.44	1.52
41	BQ	81	ARG	N-CA	5.47	1.53	1.46
42	BR	71	ARG	CD-NE	5.47	1.53	1.46
5	AE	34	ARG	NE-CZ	5.47	1.39	1.33
3	AC	13	A	C5'-C4'	5.47	1.59	1.51
26	BB	334	C	C4'-O4'	-5.47	1.37	1.45
27	BC	51	ASP	CA-C	5.47	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BY	13	ARG	CZ-NH2	5.47	1.40	1.33
1	AA	552	U	C1'-N1	5.47	1.56	1.48
26	BB	364	C	C2'-O2'	-5.47	1.34	1.42
26	BB	451	U	P-O5'	5.47	1.68	1.59
26	BB	463	G	P-O5'	5.47	1.68	1.59
26	BB	1789	A	O3'-P	-5.47	1.52	1.61
26	BB	1851	U	O4'-C1'	5.47	1.49	1.41
9	AI	28	ALA	CA-C	5.46	1.60	1.52
26	BB	744	U	C2'-C1'	5.46	1.61	1.53
26	BB	2510	C	C5'-C4'	5.46	1.59	1.51
47	BW	8	ASP	CA-C	-5.46	1.45	1.52
55	B4	53	ILE	CA-C	5.46	1.60	1.53
1	AA	24	U	O3'-P	5.46	1.69	1.61
12	AL	26	LYS	CA-C	-5.46	1.45	1.52
26	BB	1886	U	P-O5'	5.46	1.68	1.59
1	AA	295	C	O5'-C5'	5.46	1.50	1.42
1	AA	1526	G	C2'-C1'	5.46	1.61	1.53
26	BB	354	A	C3'-C2'	5.46	1.60	1.52
36	BL	65	THR	C-N	5.46	1.39	1.33
40	BP	123	GLU	C-O	-5.46	1.19	1.23
26	BB	2901	C	C5'-C4'	5.46	1.59	1.51
1	AA	1458	G	O5'-C5'	-5.46	1.34	1.42
26	BB	2327	A	P-O5'	5.46	1.68	1.59
1	AA	478	A	C4'-O4'	-5.46	1.37	1.45
19	AS	66	THR	CA-C	5.46	1.60	1.52
25	BA	87	U	O4'-C1'	5.46	1.50	1.42
26	BB	1823	G	O5'-C5'	-5.46	1.34	1.42
32	BH	125	PRO	CA-CB	5.46	1.61	1.53
32	BH	160	GLY	CA-C	5.46	1.57	1.51
45	BU	71	VAL	CA-CB	5.46	1.60	1.53
26	BB	325	G	C2'-O2'	-5.46	1.34	1.42
26	BB	2227	A	C5'-C4'	5.46	1.59	1.51
26	BB	2450	A	C5'-C4'	5.45	1.59	1.51
46	BV	5	GLU	CA-C	5.45	1.60	1.52
1	AA	168	G	C4'-C3'	5.45	1.60	1.52
26	BB	1057	A	O4'-C1'	5.45	1.49	1.41
28	BD	95	TYR	CA-CB	5.45	1.62	1.53
35	BK	108	ILE	CA-C	5.45	1.59	1.52
21	AU	39	VAL	CA-C	5.45	1.57	1.52
26	BB	1240	U	C1'-N1	5.45	1.56	1.48
1	AA	435	A	C5'-C4'	5.45	1.59	1.51
18	AR	46	LYS	N-CA	-5.45	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BL	109	LEU	CA-C	5.45	1.58	1.52
44	BT	85	LYS	CA-C	5.45	1.59	1.52
2	AB	76	A	C4'-O4'	-5.45	1.37	1.45
8	AH	40	ASP	N-CA	5.45	1.53	1.45
26	BB	501	A	C1'-N9	-5.45	1.39	1.48
26	BB	507	A	O5'-C5'	-5.45	1.34	1.42
26	BB	1298	C	O3'-P	5.45	1.69	1.61
38	BN	18	ARG	N-CA	-5.45	1.39	1.46
26	BB	1338	G	C3'-O3'	5.45	1.50	1.42
1	AA	784	A	O4'-C1'	5.44	1.49	1.41
3	AC	44	U	C5'-C4'	5.44	1.59	1.51
26	BB	852	U	C3'-O3'	5.44	1.50	1.42
26	BB	2244	U	O4'-C1'	5.44	1.49	1.41
1	AA	370	C	O5'-C5'	-5.44	1.34	1.42
1	AA	796	C	C2'-C1'	5.44	1.61	1.53
1	AA	1260	G	C1'-N9	5.44	1.56	1.48
26	BB	562	U	C4'-O4'	-5.44	1.37	1.45
26	BB	2736	A	P-O5'	5.44	1.68	1.59
1	AA	1529	G	C1'-N9	5.44	1.55	1.47
23	AW	15	LYS	CA-C	5.44	1.59	1.52
26	BB	2527	C	O4'-C1'	5.44	1.49	1.41
26	BB	2825	G	C5'-C4'	5.44	1.59	1.51
34	BJ	53	VAL	N-CA	-5.44	1.39	1.46
36	BL	128	ASN	CA-C	5.44	1.60	1.53
29	BE	98	VAL	CA-C	5.44	1.60	1.52
4	AD	5	G	O3'-P	5.43	1.69	1.61
17	AQ	68	ARG	CA-C	5.43	1.57	1.52
26	BB	347	A	C2'-C1'	5.43	1.61	1.53
29	BE	189	VAL	CA-CB	5.43	1.61	1.54
30	BF	160	ALA	CA-C	5.43	1.59	1.52
34	BJ	107	VAL	N-CA	5.43	1.52	1.46
1	AA	924	C	O4'-C1'	5.43	1.49	1.41
26	BB	110	G	C5'-C4'	5.43	1.59	1.51
28	BD	147	PRO	N-CD	-5.43	1.40	1.47
35	BK	23	VAL	N-CA	-5.43	1.39	1.46
26	BB	2165	C	C4'-C3'	5.43	1.60	1.52
54	B3	22	THR	CA-C	5.43	1.59	1.52
1	AA	985	C	C1'-N1	5.43	1.56	1.48
26	BB	2127	G	C5'-C4'	5.43	1.59	1.51
26	BB	2227	A	P-O5'	5.43	1.67	1.59
46	BV	95	PHE	CA-C	-5.43	1.45	1.52
54	B3	48	TYR	CA-CB	5.43	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	357	C	P-O5'	5.43	1.67	1.59
26	BB	2259	U	C5'-C4'	5.43	1.59	1.51
28	BD	268	ARG	CD-NE	5.43	1.53	1.46
30	BF	53	THR	CA-CB	5.43	1.61	1.53
53	B2	51	VAL	CA-CB	5.43	1.62	1.54
1	AA	326	G	C5'-C4'	5.43	1.59	1.51
7	AG	151	GLN	CA-CB	5.43	1.59	1.53
26	BB	1753	G	O3'-P	-5.43	1.53	1.61
26	BB	2662	A	O3'-P	-5.43	1.53	1.61
40	BP	8	ARG	CZ-NH1	5.42	1.40	1.32
42	BR	97	TYR	CA-C	5.42	1.60	1.52
3	AC	28	U	P-O5'	5.42	1.67	1.59
7	AG	81	LEU	CA-C	5.42	1.59	1.53
26	BB	569	U	N1-C2	5.42	1.49	1.38
1	AA	546	A	P-O5'	5.42	1.67	1.59
25	BA	109	A	C4'-O4'	-5.42	1.37	1.45
40	BP	24	MET	CA-CB	5.42	1.61	1.53
1	AA	1371	G	C2'-C1'	-5.42	1.45	1.53
1	AA	1458	G	C3'-C2'	5.42	1.60	1.52
18	AR	37	HIS	CE1-NE2	5.42	1.38	1.32
26	BB	1943	U	C4'-O4'	-5.42	1.37	1.45
28	BD	74	PRO	CA-C	5.42	1.59	1.52
6	AF	129	PHE	C-O	-5.42	1.17	1.23
19	AS	61	VAL	CA-CB	5.42	1.61	1.54
26	BB	1922	G	O3'-P	5.42	1.69	1.61
26	BB	767	U	C4'-O4'	-5.42	1.37	1.45
1	AA	442	G	O3'-P	5.41	1.69	1.61
4	AD	42	C	O5'-C5'	5.41	1.50	1.42
31	BG	147	ARG	NE-CZ	5.41	1.39	1.33
1	AA	1192	C	P-O5'	5.41	1.67	1.59
26	BB	1284	A	P-O5'	5.41	1.67	1.59
40	BP	17	ARG	CA-CB	-5.41	1.45	1.53
1	AA	636	U	C3'-C2'	5.41	1.60	1.52
26	BB	828	U	C4'-O4'	-5.41	1.37	1.45
26	BB	2846	G	C2'-O2'	-5.41	1.34	1.42
27	BC	26	ALA	C-O	-5.41	1.17	1.24
49	BY	79	ILE	CA-CB	5.41	1.59	1.53
20	AT	77	VAL	N-CA	5.41	1.53	1.46
22	AV	68	HIS	CD2-NE2	5.41	1.43	1.37
26	BB	639	U	C2'-O2'	5.41	1.50	1.42
26	BB	2110	G	C3'-O3'	-5.41	1.35	1.43
35	BK	22	PRO	N-CA	-5.41	1.40	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1351	U	C1'-N1	5.41	1.56	1.48
7	AG	144	ILE	C-N	5.41	1.40	1.33
1	AA	771	G	C5'-C4'	5.41	1.59	1.51
25	BA	60	C	C1'-N1	5.41	1.56	1.48
26	BB	2283	C	C3'-O3'	5.41	1.50	1.42
26	BB	2793	C	O3'-P	5.41	1.69	1.61
26	BB	256	A	C2'-C1'	-5.40	1.45	1.53
26	BB	386	G	C4'-O4'	-5.40	1.37	1.45
26	BB	719	C	C2'-C1'	-5.40	1.45	1.53
26	BB	1660	G	C4'-O4'	-5.40	1.37	1.45
1	AA	86	G	C2'-O2'	5.40	1.49	1.41
1	AA	1463	U	C4'-O4'	-5.40	1.37	1.45
6	AF	189	HIS	ND1-CE1	5.40	1.38	1.32
26	BB	424	G	P-O5'	5.40	1.67	1.59
26	BB	814	C	P-O5'	5.40	1.67	1.59
26	BB	1176	U	O4'-C1'	5.40	1.49	1.41
26	BB	209	C	P-O5'	5.40	1.67	1.59
26	BB	2102	G	O3'-P	-5.40	1.53	1.61
1	AA	456	A	C1'-N9	5.40	1.56	1.48
7	AG	193	ASP	CA-C	5.40	1.59	1.52
23	AW	67	HIS	CD2-NE2	5.40	1.43	1.37
32	BH	110	HIS	CE1-NE2	5.40	1.38	1.32
35	BK	32	VAL	CA-C	5.40	1.59	1.52
1	AA	870	U	C1'-N1	5.39	1.55	1.47
7	AG	28	ASP	CA-C	5.39	1.59	1.52
1	AA	542	G	P-O5'	-5.39	1.51	1.59
26	BB	1490	A	O5'-C5'	5.39	1.50	1.42
26	BB	1879	C	C4'-O4'	-5.39	1.37	1.45
26	BB	2216	G	P-O5'	5.39	1.67	1.59
38	BN	132	ARG	CZ-NH2	5.39	1.40	1.33
1	AA	40	C	P-O5'	5.39	1.67	1.59
1	AA	1079	G	C2'-O2'	-5.39	1.34	1.42
26	BB	126	A	C5'-C4'	5.39	1.59	1.51
26	BB	1587	G	C4'-O4'	-5.39	1.37	1.45
26	BB	1928	A	P-O5'	5.39	1.67	1.59
26	BB	1542	U	C5'-C4'	5.39	1.59	1.51
1	AA	447	G	C2'-O2'	5.39	1.50	1.42
26	BB	878	A	C1'-N9	5.39	1.56	1.48
26	BB	1355	G	O5'-C5'	5.39	1.50	1.42
50	BZ	9	LYS	CA-C	5.39	1.60	1.53
4	AD	69	C	C4'-O4'	-5.38	1.37	1.45
5	AE	27	LYS	C-O	5.38	1.30	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	AG	145	ARG	C-N	5.38	1.40	1.33
26	BB	985	C	O3'-P	5.38	1.69	1.61
31	BG	120	SER	N-CA	5.38	1.53	1.46
5	AE	93	HIS	CE1-NE2	5.38	1.38	1.32
26	BB	2047	C	C2'-O2'	-5.38	1.34	1.42
28	BD	214	GLY	CA-C	5.38	1.58	1.51
1	AA	720	C	C3'-O3'	5.38	1.50	1.42
26	BB	2789	C	C2'-C1'	5.38	1.61	1.53
48	BX	18	ARG	CA-C	5.38	1.59	1.52
28	BD	269	ARG	NE-CZ	5.38	1.39	1.33
1	AA	765	G	C2'-C1'	-5.38	1.45	1.53
26	BB	67	U	O3'-P	5.38	1.69	1.61
26	BB	580	U	C4'-O4'	-5.38	1.37	1.45
26	BB	2315	G	C4'-O4'	-5.38	1.37	1.45
1	AA	731	G	P-O5'	5.38	1.67	1.59
25	BA	11	C	C1'-N1	5.38	1.56	1.48
25	BA	81	G	C5'-C4'	5.38	1.59	1.51
28	BD	73	ILE	N-CA	5.38	1.50	1.46
43	BS	5	ARG	NE-CZ	5.38	1.39	1.33
44	BT	12	HIS	CG-CD2	5.38	1.41	1.35
1	AA	132	C	C5'-C4'	5.38	1.59	1.51
1	AA	868	C	C1'-N1	5.38	1.56	1.48
48	BX	86	LEU	CA-CB	-5.38	1.46	1.53
1	AA	813	U	P-O5'	5.37	1.67	1.59
26	BB	554	U	O4'-C1'	5.37	1.49	1.41
26	BB	1048	A	C5'-C4'	5.37	1.59	1.51
38	BN	128	THR	CB-OG1	-5.37	1.35	1.43
26	BB	167	A	C1'-N9	5.37	1.56	1.48
26	BB	1381	G	P-O5'	5.37	1.67	1.59
26	BB	2557	G	O3'-P	5.37	1.69	1.61
1	AA	581	G	P-O5'	5.37	1.67	1.59
1	AA	970	C	C4'-C3'	5.37	1.60	1.52
8	AH	157	GLY	CA-C	-5.37	1.46	1.52
1	AA	54	C	O3'-P	5.37	1.69	1.61
1	AA	1295	U	C4'-O4'	-5.37	1.37	1.45
26	BB	1198	U	C1'-N1	5.37	1.56	1.48
26	BB	1862	G	C1'-N9	5.37	1.55	1.48
8	AH	92	ARG	NE-CZ	5.36	1.39	1.33
26	BB	1077	A	C4'-O4'	-5.36	1.37	1.45
1	AA	1478	U	C2'-C1'	-5.36	1.45	1.53
7	AG	73	ASN	C-N	5.36	1.41	1.34
12	AL	10	ARG	NE-CZ	5.36	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	86	G	C4'-O4'	-5.36	1.37	1.45
26	BB	153	U	C4'-O4'	-5.36	1.37	1.45
26	BB	872	U	C4'-O4'	-5.36	1.37	1.45
39	BO	9	PHE	N-CA	5.36	1.52	1.45
1	AA	1437	A	P-O5'	5.36	1.67	1.59
26	BB	1808	A	C4'-C3'	5.36	1.61	1.53
42	BR	21	PRO	N-CD	-5.36	1.40	1.47
26	BB	1644	C	O3'-P	5.36	1.69	1.61
26	BB	2385	C	C2'-C1'	5.36	1.61	1.53
28	BD	89	ASN	C-N	5.36	1.40	1.33
1	AA	217	C	O4'-C1'	5.36	1.49	1.41
26	BB	1747	U	P-O5'	5.36	1.67	1.59
35	BK	63	ASP	CA-CB	5.36	1.61	1.53
24	AX	23	GLU	C-O	-5.35	1.17	1.24
28	BD	106	PRO	N-CA	-5.35	1.40	1.47
3	AC	29	G	P-O5'	5.35	1.67	1.59
26	BB	1256	G	O3'-P	-5.35	1.53	1.61
26	BB	2579	C	P-O5'	5.35	1.67	1.59
26	BB	2825	G	C4'-O4'	-5.35	1.37	1.45
31	BG	48	LEU	CA-C	-5.35	1.45	1.52
37	BM	115	ILE	CA-C	5.35	1.60	1.52
1	AA	106	C	C4'-C3'	5.35	1.60	1.52
26	BB	2639	A	C5'-C4'	5.35	1.59	1.51
37	BM	101	GLY	CA-C	5.35	1.59	1.51
26	BB	4	U	C5'-C4'	5.35	1.59	1.51
26	BB	799	G	C5'-C4'	5.35	1.59	1.51
26	BB	2000	C	C3'-O3'	5.35	1.50	1.42
31	BG	64	PRO	N-CD	-5.35	1.40	1.47
1	AA	1337	G	C4'-C3'	5.35	1.60	1.52
26	BB	124	G	C4'-O4'	-5.35	1.37	1.45
26	BB	2637	U	P-O5'	5.35	1.67	1.59
26	BB	2731	G	C5'-C4'	5.35	1.59	1.51
1	AA	1137	C	C1'-N1	5.35	1.55	1.47
26	BB	215	G	C3'-C2'	5.35	1.60	1.52
30	BF	147	LEU	C-N	5.35	1.39	1.33
1	AA	835	U	P-O5'	5.34	1.67	1.59
1	AA	949	A	C5'-C4'	5.34	1.59	1.51
1	AA	1015	G	O3'-P	5.34	1.69	1.61
26	BB	1576	U	C4'-O4'	-5.34	1.37	1.45
1	AA	1132	C	O3'-P	5.34	1.69	1.61
26	BB	1487	U	C1'-N1	5.34	1.56	1.48
26	BB	1741	C	C2'-O2'	-5.34	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	267	C	C5'-C4'	5.34	1.59	1.51
26	BB	1182	G	C4'-O4'	-5.34	1.37	1.45
12	AL	32	ARG	N-CA	5.34	1.52	1.45
26	BB	2815	C	C3'-O3'	5.34	1.50	1.42
44	BT	18	GLN	C-N	5.34	1.41	1.33
26	BB	2597	G	C4'-C3'	-5.33	1.44	1.52
2	AB	5	G	C2'-C1'	5.33	1.61	1.53
26	BB	691	C	C1'-N1	5.33	1.56	1.48
26	BB	2250	G	C5'-C4'	5.33	1.59	1.51
32	BH	80	GLU	N-CA	5.33	1.53	1.46
2	AB	75	C	O3'-P	5.33	1.69	1.61
4	AD	10	G	C4'-O4'	-5.33	1.37	1.45
6	AF	97	PRO	N-CA	5.33	1.53	1.47
45	BU	94	ASP	CA-C	-5.33	1.45	1.52
8	AH	88	HIS	CE1-NE2	5.33	1.37	1.32
1	AA	723	U	C1'-N1	5.33	1.56	1.48
1	AA	1202	U	C3'-O3'	5.33	1.50	1.42
26	BB	279	A	O3'-P	5.33	1.69	1.61
26	BB	359	G	C3'-O3'	5.33	1.50	1.42
47	BW	59	GLU	N-CA	5.33	1.52	1.46
1	AA	1390	U	C4'-O4'	-5.33	1.37	1.45
11	AK	37	ASN	C-O	5.33	1.30	1.24
57	B6	6	VAL	CA-C	5.33	1.59	1.52
1	AA	795	C	P-O5'	5.33	1.67	1.59
1	AA	1437	A	O5'-C5'	-5.33	1.34	1.42
26	BB	39	G	O3'-P	5.33	1.69	1.61
26	BB	2443	C	P-O5'	5.33	1.67	1.59
29	BE	70	LYS	N-CA	5.33	1.53	1.46
30	BF	154	ASP	N-CA	-5.33	1.40	1.46
1	AA	27	G	C4'-C3'	5.32	1.60	1.52
14	AN	61	ALA	CA-C	5.32	1.60	1.52
26	BB	2323	G	C2'-C1'	5.32	1.61	1.53
46	BV	56	GLU	C-N	5.32	1.40	1.33
54	B3	21	LEU	CA-CB	-5.32	1.45	1.53
26	BB	1057	A	C4'-O4'	-5.32	1.37	1.45
25	BA	60	C	P-O5'	5.32	1.67	1.59
26	BB	2242	G	O3'-P	5.32	1.69	1.61
40	BP	90	ARG	CD-NE	5.32	1.53	1.46
46	BV	12	ARG	C-N	5.32	1.39	1.33
12	AL	68	GLY	N-CA	5.32	1.53	1.45
28	BD	159	THR	CB-OG1	-5.32	1.35	1.43
39	BO	134	THR	N-CA	5.32	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	374	A	C4'-O4'	-5.32	1.37	1.45
1	AA	986	U	P-O5'	5.32	1.67	1.59
1	AA	991	U	C4'-O4'	-5.32	1.37	1.45
22	AV	19	GLU	CA-C	-5.32	1.45	1.52
26	BB	134	G	C4'-O4'	-5.32	1.37	1.45
26	BB	265	A	C4'-O4'	-5.32	1.37	1.45
26	BB	1652	A	P-O5'	5.32	1.67	1.59
26	BB	2354	C	C1'-N1	5.32	1.56	1.48
26	BB	2549	G	C2'-C1'	-5.32	1.45	1.53
26	BB	764	A	O3'-P	-5.32	1.53	1.61
26	BB	869	G	O3'-P	5.32	1.69	1.61
26	BB	2173	A	P-O5'	5.32	1.67	1.59
26	BB	2548	U	C4'-O4'	-5.32	1.37	1.45
26	BB	2619	C	O3'-P	5.32	1.69	1.61
29	BE	89	GLU	N-CA	5.32	1.52	1.45
26	BB	518	G	C4'-O4'	-5.31	1.37	1.45
26	BB	699	A	C5'-C4'	5.31	1.59	1.51
3	AC	53	G	C1'-N9	5.31	1.54	1.47
26	BB	197	A	C5'-C4'	5.31	1.59	1.51
26	BB	2390	U	O3'-P	5.31	1.69	1.61
44	BT	81	LYS	C-N	5.31	1.40	1.33
1	AA	491	G	O3'-P	5.31	1.69	1.61
25	BA	88	C	P-O5'	5.31	1.67	1.59
1	AA	237	G	C4'-C3'	5.31	1.60	1.52
5	AE	136	ARG	N-CA	-5.31	1.39	1.46
26	BB	242	G	C4'-O4'	-5.31	1.37	1.45
26	BB	670	A	C4'-O4'	-5.31	1.37	1.45
26	BB	2614	A	O4'-C1'	5.31	1.50	1.42
28	BD	76	VAL	N-CA	5.31	1.51	1.46
1	AA	295	C	C5'-C4'	5.31	1.59	1.51
9	AI	29	ILE	CA-C	5.31	1.59	1.52
26	BB	2056	G	O4'-C1'	5.31	1.49	1.41
41	BQ	99	TYR	CA-CB	-5.31	1.46	1.52
1	AA	913	A	C3'-O3'	5.31	1.51	1.43
26	BB	984	A	O3'-P	5.30	1.69	1.61
48	BX	65	VAL	N-CA	-5.30	1.39	1.46
50	BZ	58	ILE	CA-C	5.30	1.59	1.52
56	B5	30	VAL	C-N	5.30	1.40	1.33
1	AA	197	A	P-O5'	5.30	1.67	1.59
3	AC	36	U	P-O5'	5.30	1.67	1.59
32	BH	78	VAL	C-N	5.30	1.41	1.33
1	AA	437	U	P-O5'	5.30	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	AM	24	GLU	CA-C	5.30	1.59	1.52
26	BB	140	C	C1'-N1	5.30	1.55	1.47
26	BB	877	A	O3'-P	5.30	1.69	1.61
46	BV	76	ARG	NE-CZ	5.30	1.38	1.33
1	AA	625	U	C4'-O4'	-5.30	1.37	1.45
19	AS	29	ASN	N-CA	-5.30	1.40	1.46
26	BB	133	U	C5'-C4'	5.30	1.59	1.51
26	BB	2570	G	O5'-C5'	-5.30	1.34	1.42
26	BB	1411	U	C1'-N1	5.30	1.56	1.48
27	BC	157	LYS	CA-C	5.30	1.59	1.52
1	AA	800	G	O4'-C1'	5.30	1.49	1.41
27	BC	156	ALA	CA-C	5.30	1.59	1.52
36	BL	46	PRO	N-CD	-5.30	1.40	1.47
55	B4	45	HIS	ND1-CE1	5.30	1.37	1.32
1	AA	58	C	P-O5'	5.29	1.67	1.59
1	AA	747	A	C1'-N9	5.29	1.55	1.48
26	BB	881	G	C5'-C4'	5.29	1.59	1.51
26	BB	1131	G	C1'-N9	5.29	1.54	1.47
26	BB	2676	C	C4'-O4'	-5.29	1.37	1.45
1	AA	610	U	C1'-N1	5.29	1.56	1.48
7	AG	61	ARG	NE-CZ	5.29	1.38	1.33
26	BB	751	A	O3'-P	5.29	1.69	1.61
26	BB	1601	G	P-O5'	5.29	1.67	1.59
35	BK	139	VAL	C-N	5.29	1.40	1.33
1	AA	447	G	C4'-O4'	-5.29	1.37	1.45
26	BB	542	C	C4'-O4'	-5.29	1.37	1.45
55	B4	37	LYS	C-O	5.29	1.30	1.23
12	AL	33	SER	CA-C	5.29	1.60	1.53
26	BB	770	G	C4'-C3'	5.29	1.60	1.52
26	BB	2117	A	C4'-O4'	-5.29	1.37	1.45
42	BR	92	ARG	CD-NE	5.29	1.53	1.46
10	AJ	156	LEU	CA-C	5.29	1.59	1.52
53	B2	6	HIS	CG-ND1	5.29	1.44	1.38
1	AA	1212	U	O3'-P	5.29	1.69	1.61
4	AD	1	C	C5'-C4'	5.29	1.59	1.51
26	BB	517	C	C4'-O4'	-5.29	1.37	1.45
26	BB	1257	C	C3'-C2'	-5.29	1.44	1.52
26	BB	2734	A	O5'-C5'	-5.29	1.34	1.42
38	BN	52	GLY	CA-C	5.29	1.59	1.51
46	BV	47	VAL	C-O	-5.29	1.18	1.24
20	AT	21	VAL	CA-CB	5.28	1.59	1.53
24	AX	9	GLU	CA-C	5.28	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	964	C	C1'-N1	5.28	1.56	1.48
26	BB	1649	G	C1'-N9	5.28	1.55	1.48
29	BE	164	GLN	C-O	5.28	1.30	1.23
43	BS	109	VAL	C-N	5.28	1.40	1.33
58	B7	31	PRO	N-CD	-5.28	1.40	1.47
54	B3	26	SER	N-CA	5.28	1.53	1.46
1	AA	1164	G	C5'-C4'	5.28	1.59	1.51
4	AD	74	A	O4'-C1'	5.28	1.49	1.41
15	AO	109	ARG	CA-C	5.28	1.59	1.52
5	AE	77	GLU	N-CA	5.28	1.52	1.46
19	AS	6	LEU	N-CA	-5.28	1.39	1.45
26	BB	2543	G	C4'-O4'	-5.28	1.37	1.45
1	AA	1004	A	P-O5'	5.28	1.67	1.59
1	AA	1337	G	P-O5'	5.28	1.67	1.59
29	BE	67	HIS	CE1-NE2	5.28	1.37	1.32
57	B6	62	PRO	N-CD	-5.28	1.40	1.47
26	BB	1734	G	O3'-P	5.28	1.69	1.61
44	BT	70	GLU	CA-C	5.28	1.60	1.53
1	AA	136	C	C4'-O4'	-5.27	1.37	1.45
1	AA	391	G	C4'-O4'	-5.27	1.37	1.45
26	BB	1372	U	O4'-C1'	5.27	1.49	1.41
26	BB	2867	G	N3-C4	5.27	1.46	1.35
26	BB	411	G	C5'-C4'	5.27	1.59	1.51
26	BB	2388	A	C4'-O4'	-5.27	1.37	1.45
8	AH	115	GLU	CA-C	5.27	1.59	1.52
14	AN	98	ALA	CA-C	5.27	1.59	1.52
26	BB	760	G	C4'-O4'	-5.27	1.37	1.45
53	B2	56	ARG	NE-CZ	5.27	1.38	1.33
1	AA	991	U	O3'-P	5.27	1.69	1.61
8	AH	13	LYS	CA-C	5.27	1.59	1.52
23	AW	21	ALA	CA-C	5.27	1.59	1.52
26	BB	1757	A	P-O5'	5.27	1.67	1.59
30	BF	121	VAL	CA-C	5.27	1.58	1.52
43	BS	95	ALA	CA-C	5.27	1.59	1.52
1	AA	565	U	C3'-C2'	5.27	1.60	1.52
11	AK	47	ASP	CA-C	5.27	1.58	1.52
26	BB	1828	G	O3'-P	5.27	1.69	1.61
30	BF	191	ASP	C-O	-5.27	1.18	1.24
33	BI	120	GLY	C-O	5.27	1.31	1.23
39	BO	110	GLU	CA-CB	5.27	1.61	1.53
26	BB	824	U	C5'-C4'	5.27	1.59	1.51
1	AA	902	G	C5'-C4'	5.26	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1250	A	P-O5'	5.26	1.67	1.59
1	AA	1272	G	C3'-O3'	-5.26	1.34	1.42
1	AA	1445	U	P-O5'	-5.26	1.51	1.59
1	AA	1476	A	P-O5'	5.26	1.67	1.59
26	BB	2086	U	P-O5'	5.26	1.67	1.59
26	BB	2280	G	C1'-N9	5.26	1.55	1.48
1	AA	818	G	C2'-C1'	5.26	1.60	1.53
26	BB	223	A	C3'-O3'	5.26	1.50	1.42
15	AO	35	ARG	N-CA	5.26	1.52	1.45
26	BB	227	A	C2'-O2'	5.26	1.49	1.41
26	BB	2035	G	O3'-P	5.26	1.69	1.61
26	BB	2769	U	O3'-P	5.26	1.69	1.61
48	BX	88	HIS	C-N	5.26	1.40	1.33
1	AA	439	U	O3'-P	5.26	1.69	1.61
1	AA	1464	U	C5'-C4'	5.26	1.59	1.51
5	AE	119	GLN	CA-CB	5.26	1.61	1.53
10	AJ	47	GLU	C-N	-5.26	1.26	1.33
18	AR	48	ASP	CA-CB	5.26	1.59	1.52
26	BB	1993	U	C4'-O4'	-5.26	1.37	1.45
34	BJ	157	VAL	CA-C	5.26	1.59	1.52
55	B4	27	ARG	CA-CB	5.26	1.61	1.53
26	BB	52	A	O3'-P	5.26	1.69	1.61
1	AA	11	G	C3'-C2'	5.26	1.60	1.52
1	AA	1536	C	P-O5'	5.26	1.67	1.59
26	BB	388	G	C4'-O4'	5.26	1.53	1.45
26	BB	897	C	P-O5'	5.26	1.67	1.59
26	BB	2210	U	C5'-C4'	5.26	1.59	1.51
1	AA	836	G	C3'-C2'	5.25	1.60	1.52
1	AA	843	U	C2'-O2'	5.25	1.49	1.41
26	BB	1079	C	C2'-C1'	-5.25	1.45	1.53
26	BB	1501	G	O3'-P	5.25	1.69	1.61
1	AA	1369	C	C4'-O4'	-5.25	1.37	1.45
26	BB	1281	G	C1'-N9	5.25	1.55	1.48
26	BB	2836	U	C1'-N1	-5.25	1.40	1.48
45	BU	7	HIS	CG-CD2	5.25	1.41	1.35
1	AA	663	A	P-O5'	5.25	1.67	1.59
1	AA	886	G	C1'-N9	-5.25	1.40	1.48
26	BB	1211	C	C1'-N1	5.25	1.55	1.47
26	BB	2353	G	C5'-C4'	5.25	1.59	1.51
26	BB	2769	U	P-O5'	5.25	1.67	1.59
38	BN	40	SER	CA-C	5.25	1.60	1.52
1	AA	401	C	O4'-C1'	5.25	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	BF	21	ARG	NE-CZ	5.25	1.38	1.33
26	BB	1834	U	C4'-O4'	-5.25	1.37	1.45
26	BB	2558	C	C4'-O4'	-5.25	1.37	1.45
35	BK	79	LEU	CA-CB	5.25	1.61	1.53
10	AJ	1	PRO	N-CD	5.25	1.55	1.47
33	BI	121	VAL	C-N	5.25	1.40	1.33
1	AA	723	U	C5'-C4'	5.24	1.59	1.51
26	BB	2454	G	C1'-N9	5.24	1.55	1.48
33	BI	78	VAL	C-O	-5.24	1.18	1.23
33	BI	119	ASN	CA-CB	5.24	1.62	1.53
1	AA	458	U	C4'-O4'	-5.24	1.37	1.45
1	AA	57	G	O3'-P	5.24	1.69	1.61
10	AJ	147	ASN	N-CA	5.24	1.52	1.46
26	BB	1158	C	C3'-C2'	5.24	1.60	1.52
26	BB	1759	A	C2'-O2'	-5.24	1.34	1.42
28	BD	84	PRO	N-CD	-5.24	1.40	1.47
34	BJ	19	LYS	CA-C	5.24	1.59	1.52
1	AA	372	C	O3'-P	5.24	1.69	1.61
1	AA	533	A	C4'-C3'	5.24	1.61	1.53
1	AA	1056	U	P-O5'	5.24	1.67	1.59
26	BB	314	C	C5'-C4'	5.24	1.59	1.51
26	BB	516	C	P-O5'	5.24	1.67	1.59
26	BB	1646	C	O4'-C1'	5.24	1.49	1.41
26	BB	2212	A	C4'-O4'	-5.24	1.38	1.45
31	BG	158	THR	CA-C	5.24	1.59	1.52
34	BJ	67	PRO	CA-C	5.24	1.58	1.52
35	BK	1	ALA	C-N	5.24	1.41	1.33
5	AE	170	ILE	C-O	-5.24	1.18	1.24
26	BB	1526	C	C4'-O4'	-5.24	1.37	1.45
1	AA	153	C	P-O5'	5.24	1.67	1.59
26	BB	801	G	C4'-O4'	-5.24	1.38	1.45
26	BB	838	C	C1'-N1	5.24	1.56	1.48
26	BB	1275	A	C3'-C2'	5.24	1.60	1.52
26	BB	882	G	C4'-C3'	5.23	1.60	1.52
26	BB	2134	A	P-O5'	5.23	1.67	1.59
1	AA	1365	G	C4'-C3'	-5.23	1.44	1.52
3	AC	44	U	C4'-O4'	-5.23	1.37	1.45
26	BB	330	A	O3'-P	5.23	1.69	1.61
26	BB	2901	C	P-O5'	-5.23	1.51	1.59
30	BF	148	ILE	CA-C	5.23	1.58	1.52
31	BG	171	ALA	C-N	5.23	1.40	1.33
41	BQ	100	HIS	CG-CD2	5.23	1.41	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	AR	46	LYS	CA-CB	5.23	1.60	1.53
26	BB	1096	A	P-O5'	5.23	1.67	1.59
26	BB	2800	A	O3'-P	5.23	1.69	1.61
45	BU	99	ARG	NE-CZ	5.23	1.38	1.33
1	AA	10	A	C4'-O4'	-5.23	1.37	1.45
26	BB	2431	U	O5'-C5'	-5.23	1.34	1.42
26	BB	2777	G	P-O5'	5.23	1.67	1.59
42	BR	50	ARG	NE-CZ	5.23	1.38	1.33
46	BV	73	ARG	C-O	-5.23	1.17	1.23
26	BB	1798	U	C2'-C1'	5.23	1.61	1.53
26	BB	2779	U	C1'-N1	5.23	1.55	1.47
33	BI	67	ALA	N-CA	-5.23	1.40	1.46
50	BZ	57	VAL	C-O	-5.23	1.18	1.24
55	B4	14	ALA	N-CA	-5.23	1.39	1.45
1	AA	736	C	C4'-O4'	-5.22	1.37	1.45
26	BB	155	A	O4'-C1'	5.22	1.49	1.41
26	BB	933	A	C5'-C4'	5.22	1.59	1.51
28	BD	158	GLY	CA-C	5.22	1.59	1.51
37	BM	24	VAL	N-CA	5.22	1.52	1.46
26	BB	1027	A	C3'-O3'	5.22	1.50	1.42
26	BB	1292	G	O4'-C1'	5.22	1.49	1.41
1	AA	141	G	C4'-O4'	-5.22	1.37	1.45
1	AA	1075	U	O3'-P	5.22	1.69	1.61
31	BG	85	GLY	N-CA	5.22	1.52	1.45
38	BN	83	ALA	CA-C	5.22	1.59	1.52
10	AJ	67	ASN	C-O	-5.22	1.17	1.24
15	AO	85	ARG	NE-CZ	5.22	1.38	1.33
1	AA	1120	C	C4'-O4'	-5.22	1.37	1.45
7	AG	52	VAL	CA-CB	5.22	1.61	1.54
26	BB	673	C	C4'-C3'	-5.22	1.44	1.52
26	BB	2349	G	C4'-O4'	-5.22	1.37	1.45
30	BF	166	LYS	CA-C	5.22	1.59	1.53
1	AA	383	A	C2'-O2'	5.21	1.50	1.42
1	AA	550	G	C4'-C3'	5.21	1.60	1.52
26	BB	57	C	O3'-P	5.21	1.69	1.61
26	BB	1333	G	P-O5'	5.21	1.67	1.59
26	BB	1932	A	C4'-C3'	5.21	1.60	1.52
26	BB	2149	U	P-O5'	5.21	1.67	1.59
26	BB	2364	C	O3'-P	5.21	1.69	1.61
26	BB	2736	A	C4'-O4'	-5.21	1.37	1.45
31	BG	103	ILE	N-CA	5.21	1.52	1.46
55	B4	38	PHE	C-N	5.21	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	415	A	C5'-C4'	5.21	1.59	1.51
1	AA	1339	A	O3'-P	5.21	1.69	1.61
26	BB	174	U	C4'-O4'	-5.21	1.37	1.45
26	BB	1626	A	C5'-C4'	5.21	1.59	1.51
26	BB	1652	A	C2'-O2'	-5.21	1.34	1.42
1	AA	378	G	C4'-O4'	-5.21	1.37	1.45
1	AA	566	G	P-O5'	5.21	1.67	1.59
21	AU	43	ILE	N-CA	-5.21	1.40	1.46
26	BB	1121	C	C2'-O2'	-5.21	1.34	1.42
26	BB	2066	C	C2'-O2'	-5.21	1.34	1.42
27	BC	28	ALA	CA-C	5.21	1.59	1.52
28	BD	57	HIS	CA-CB	5.21	1.62	1.53
50	BZ	10	ARG	CD-NE	5.21	1.53	1.46
26	BB	861	A	C4'-O4'	-5.21	1.37	1.45
14	AN	106	ILE	C-N	-5.21	1.26	1.33
15	AO	122	LYS	CA-C	5.21	1.59	1.52
26	BB	609	A	P-O5'	5.21	1.67	1.59
26	BB	1004	U	P-O5'	5.21	1.67	1.59
26	BB	1091	G	O5'-C5'	-5.21	1.34	1.42
26	BB	1192	G	C4'-O4'	-5.21	1.37	1.45
26	BB	1772	A	O4'-C1'	5.21	1.49	1.41
1	AA	257	G	C4'-O4'	-5.20	1.37	1.45
1	AA	1191	A	C2'-O2'	5.20	1.50	1.42
5	AE	46	VAL	CA-CB	5.20	1.60	1.54
10	AJ	46	LEU	N-CA	5.20	1.52	1.46
26	BB	714	U	C2'-C1'	5.20	1.61	1.53
26	BB	2903	U	C5'-C4'	5.20	1.59	1.51
1	AA	874	G	O5'-C5'	-5.20	1.34	1.42
1	AA	1188	A	P-O5'	5.20	1.67	1.59
16	AP	6	ILE	CA-C	5.20	1.58	1.52
26	BB	2011	U	C4'-O4'	5.20	1.53	1.45
49	BY	63	ASP	CA-C	5.20	1.59	1.52
53	B2	11	GLU	CA-C	5.20	1.59	1.52
1	AA	310	G	C5'-C4'	5.20	1.59	1.51
5	AE	34	ARG	N-CA	-5.20	1.40	1.46
11	AK	84	ILE	CA-C	5.20	1.59	1.52
26	BB	2436	G	C4'-O4'	-5.20	1.37	1.45
35	BK	134	SER	N-CA	5.20	1.52	1.46
1	AA	518	C	C1'-N1	5.20	1.55	1.47
1	AA	1036	A	C4'-O4'	-5.20	1.37	1.45
1	AA	1123	U	C2'-O2'	5.20	1.50	1.42
6	AF	26	LYS	C-N	5.20	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2173	A	C4'-O4'	-5.20	1.37	1.45
26	BB	2612	C	C4'-O4'	-5.20	1.37	1.45
10	AJ	151	ALA	N-CA	5.20	1.54	1.46
26	BB	238	C	C4'-O4'	-5.20	1.37	1.45
26	BB	513	A	P-O5'	5.20	1.67	1.59
26	BB	697	G	O3'-P	-5.20	1.53	1.61
26	BB	2768	U	C2'-C1'	5.20	1.61	1.53
1	AA	443	C	C4'-C3'	5.20	1.60	1.52
1	AA	637	C	C5'-C4'	5.20	1.59	1.51
1	AA	1062	U	C5'-C4'	5.20	1.59	1.51
7	AG	157	ALA	CA-C	-5.20	1.46	1.52
18	AR	32	THR	CA-CB	5.20	1.61	1.53
26	BB	1243	C	C2'-O2'	5.20	1.50	1.42
26	BB	1711	A	O4'-C1'	5.20	1.49	1.41
26	BB	1753	G	C4'-O4'	-5.20	1.37	1.45
1	AA	275	G	C4'-O4'	-5.19	1.37	1.45
13	AM	18	ILE	C-O	-5.19	1.18	1.24
23	AW	23	ARG	CA-C	5.19	1.59	1.52
26	BB	1059	G	C4'-O4'	-5.19	1.37	1.45
26	BB	1160	G	C5'-C4'	5.19	1.59	1.51
26	BB	1189	A	C1'-N9	5.19	1.55	1.48
29	BE	25	THR	CA-CB	5.19	1.61	1.53
1	AA	334	C	C1'-N1	5.19	1.56	1.48
1	AA	423	G	C2'-O2'	5.19	1.50	1.42
1	AA	1115	U	C4'-O4'	-5.19	1.37	1.45
26	BB	702	U	O3'-P	5.19	1.69	1.61
26	BB	1844	C	C3'-C2'	-5.19	1.45	1.52
1	AA	1160	G	C2'-C1'	-5.19	1.45	1.53
26	BB	369	U	C3'-O3'	5.19	1.50	1.42
26	BB	864	G	P-O5'	5.19	1.67	1.59
26	BB	1222	U	C4'-C3'	5.19	1.60	1.52
1	AA	681	A	C4'-O4'	-5.19	1.37	1.45
2	AB	63	C	C4'-O4'	-5.19	1.37	1.45
4	AD	77	A	P-O5'	5.19	1.67	1.59
25	BA	18	G	C4'-O4'	-5.19	1.37	1.45
26	BB	1131	G	O3'-P	5.19	1.69	1.61
26	BB	1182	G	C5'-C4'	5.19	1.59	1.51
26	BB	2878	U	C4'-O4'	-5.19	1.37	1.45
57	B6	47	ALA	C-O	-5.19	1.17	1.23
5	AE	41	ASN	CA-C	5.19	1.59	1.52
8	AH	2	HIS	CA-C	5.19	1.59	1.52
15	AO	27	PRO	N-CA	-5.19	1.40	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1686	C	C5'-C4'	5.19	1.59	1.51
27	BC	165	ASN	CA-CB	5.19	1.61	1.53
42	BR	67	GLU	CA-C	5.19	1.59	1.52
1	AA	1396	A	C5'-C4'	5.18	1.59	1.51
26	BB	300	A	O3'-P	5.18	1.69	1.61
26	BB	1334	G	P-O5'	5.18	1.67	1.59
26	BB	1478	G	O3'-P	5.18	1.69	1.61
26	BB	1574	C	C4'-C3'	5.18	1.60	1.52
26	BB	1991	U	O3'-P	5.18	1.69	1.61
1	AA	439	U	C5'-C4'	5.18	1.59	1.51
26	BB	1784	A	C3'-C2'	5.18	1.60	1.52
28	BD	125	PRO	N-CA	-5.18	1.40	1.47
47	BW	34	ILE	C-O	5.18	1.29	1.24
6	AF	37	LYS	N-CA	-5.18	1.40	1.46
26	BB	216	A	C5'-C4'	5.18	1.59	1.51
26	BB	776	G	C4'-C3'	5.18	1.60	1.53
26	BB	882	G	P-O5'	5.18	1.67	1.59
26	BB	950	G	C4'-O4'	-5.18	1.37	1.45
26	BB	1082	U	C4'-O4'	-5.18	1.37	1.45
26	BB	2776	A	C4'-O4'	-5.18	1.38	1.45
12	AL	2	GLU	N-CA	-5.18	1.39	1.45
26	BB	622	G	O3'-P	5.18	1.69	1.61
26	BB	658	U	C4'-O4'	-5.18	1.37	1.45
31	BG	137	PHE	CA-CB	5.18	1.61	1.52
33	BI	97	ARG	CA-CB	-5.18	1.45	1.53
1	AA	771	G	O4'-C1'	5.18	1.49	1.41
2	AB	1	A	C4'-C3'	5.18	1.60	1.52
3	AC	16	A	C4'-C3'	5.18	1.60	1.52
26	BB	112	U	C4'-O4'	-5.18	1.37	1.45
26	BB	234	U	C4'-O4'	-5.18	1.37	1.45
26	BB	1242	U	C2'-O2'	-5.18	1.34	1.42
1	AA	929	G	P-O5'	5.17	1.67	1.59
26	BB	2224	G	P-O5'	5.17	1.67	1.59
28	BD	231	HIS	ND1-CE1	5.17	1.37	1.32
42	BR	4	ILE	CA-C	5.17	1.58	1.52
1	AA	346	G	P-O5'	5.17	1.67	1.59
45	BU	39	THR	C-O	5.17	1.30	1.24
26	BB	853	C	C4'-O4'	-5.17	1.37	1.45
3	AC	34	U	O4'-C1'	5.17	1.49	1.41
26	BB	846	U	P-O5'	5.17	1.67	1.59
26	BB	974	G	C2'-O2'	5.17	1.49	1.41
26	BB	2458	G	P-O5'	5.17	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	45	G	C3'-O3'	-5.17	1.34	1.42
1	AA	961	U	C3'-C2'	-5.17	1.45	1.52
1	AA	1362	A	C4'-O4'	-5.17	1.38	1.45
6	AF	215	GLN	CA-CB	5.17	1.61	1.53
26	BB	51	G	C2'-O2'	-5.17	1.33	1.41
26	BB	842	U	C3'-O3'	5.17	1.50	1.42
26	BB	2489	U	O4'-C1'	5.17	1.49	1.41
28	BD	253	GLY	CA-C	5.17	1.58	1.52
5	AE	54	ALA	CA-C	5.17	1.59	1.52
26	BB	2078	C	C4'-O4'	-5.17	1.37	1.45
48	BX	71	LYS	C-N	5.17	1.39	1.33
1	AA	826	C	P-O5'	-5.17	1.52	1.59
1	AA	869	G	P-O5'	5.17	1.67	1.59
15	AO	113	ARG	CA-C	5.17	1.59	1.52
37	BM	88	ASN	C-N	5.17	1.41	1.33
44	BT	80	ARG	CD-NE	5.17	1.53	1.46
53	B2	57	VAL	CA-CB	5.17	1.60	1.54
1	AA	1106	G	C3'-C2'	-5.16	1.45	1.52
20	AT	9	GLY	CA-C	5.16	1.56	1.51
33	BI	75	LEU	C-N	5.16	1.39	1.33
26	BB	2297	A	P-O5'	5.16	1.67	1.59
47	BW	27	VAL	N-CA	5.16	1.52	1.46
49	BY	64	GLY	CA-C	5.16	1.59	1.51
1	AA	344	A	C5'-C4'	5.16	1.59	1.51
6	AF	5	HIS	CD2-NE2	-5.16	1.32	1.37
24	AX	44	ARG	N-CA	5.16	1.52	1.46
26	BB	2097	A	C5'-C4'	5.16	1.58	1.51
52	B1	48	ASN	N-CA	5.16	1.52	1.46
15	AO	93	ARG	N-CA	5.16	1.52	1.46
26	BB	2172	U	C1'-N1	5.16	1.55	1.47
43	BS	80	ASN	C-O	-5.16	1.17	1.24
46	BV	45	ALA	CA-C	-5.16	1.46	1.52
16	AP	96	VAL	C-N	-5.16	1.27	1.33
26	BB	619	G	P-O5'	5.16	1.67	1.59
26	BB	1640	A	C3'-C2'	5.16	1.60	1.52
1	AA	358	U	C2'-O2'	-5.16	1.34	1.42
1	AA	1350	A	C4'-C3'	5.16	1.60	1.52
26	BB	1052	C	C4'-O4'	-5.16	1.37	1.45
33	BI	51	ARG	CD-NE	5.16	1.53	1.46
35	BK	135	MET	N-CA	-5.16	1.39	1.46
46	BV	96	VAL	C-N	5.16	1.40	1.33
57	B6	23	HIS	CE1-NE2	5.16	1.37	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	AE	45	THR	CA-C	5.15	1.59	1.52
14	AN	73	VAL	CA-C	5.15	1.59	1.52
17	AQ	79	SER	CA-C	5.15	1.59	1.52
26	BB	467	G	O4'-C1'	5.15	1.49	1.41
45	BU	102	HIS	CE1-NE2	5.15	1.37	1.32
1	AA	40	C	O4'-C1'	5.15	1.49	1.41
1	AA	314	C	C4'-O4'	-5.15	1.37	1.45
1	AA	1216	A	C5'-C4'	5.15	1.58	1.51
20	AT	19	SER	C-N	5.15	1.40	1.33
22	AV	54	ARG	N-CA	-5.15	1.39	1.46
27	BC	5	THR	CA-CB	5.15	1.63	1.54
1	AA	331	G	C4'-O4'	-5.15	1.37	1.45
4	AD	11	A	C1'-N9	5.15	1.55	1.48
26	BB	1231	U	C5'-C4'	5.15	1.58	1.51
27	BC	73	VAL	CA-CB	5.15	1.61	1.54
43	BS	47	ARG	CD-NE	5.15	1.53	1.46
53	B2	50	ASP	CA-C	5.15	1.60	1.53
1	AA	91	U	O3'-P	5.15	1.68	1.61
1	AA	521	G	C1'-N9	5.15	1.55	1.48
10	AJ	16	LYS	CA-C	-5.15	1.45	1.52
12	AL	102	PHE	CA-C	5.15	1.59	1.52
26	BB	1501	G	C5'-C4'	5.15	1.58	1.51
1	AA	602	A	O5'-C5'	5.15	1.50	1.42
26	BB	98	G	C3'-C2'	-5.15	1.45	1.52
37	BM	122	VAL	C-O	-5.15	1.18	1.24
1	AA	1256	A	O3'-P	5.15	1.68	1.61
5	AE	83	ALA	C-O	-5.15	1.17	1.24
8	AH	37	VAL	CA-C	5.15	1.58	1.52
26	BB	1669	A	C1'-N9	5.15	1.55	1.48
1	AA	753	A	C2'-O2'	5.14	1.49	1.41
1	AA	860	A	P-O5'	5.14	1.67	1.59
26	BB	537	G	C3'-C2'	5.14	1.60	1.52
26	BB	1572	A	C5'-C4'	5.14	1.58	1.51
1	AA	157	U	P-O5'	5.14	1.67	1.59
15	AO	92	VAL	CA-C	-5.14	1.47	1.53
25	BA	120	U	O4'-C1'	5.14	1.49	1.42
26	BB	106	C	C4'-O4'	-5.14	1.37	1.45
26	BB	124	G	C5'-C4'	5.14	1.58	1.51
26	BB	483	A	C4'-O4'	-5.14	1.37	1.45
26	BB	908	C	C2'-O2'	5.14	1.50	1.42
26	BB	1482	G	O4'-C1'	5.14	1.49	1.41
26	BB	2667	C	C5'-C4'	5.14	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BH	40	VAL	N-CA	5.14	1.51	1.46
26	BB	541	A	C5'-C4'	5.14	1.58	1.51
56	B5	35	ARG	CD-NE	-5.14	1.39	1.46
4	AD	11	A	P-O5'	5.14	1.67	1.59
15	AO	32	VAL	N-CA	5.14	1.52	1.46
18	AR	71	ARG	NE-CZ	5.14	1.38	1.33
26	BB	1173	U	C1'-N1	5.14	1.56	1.48
26	BB	2086	U	C4-C5	5.14	1.53	1.43
27	BC	117	SER	CA-C	5.14	1.59	1.53
27	BC	230	SER	N-CA	5.14	1.52	1.46
36	BL	116	ARG	NE-CZ	5.14	1.38	1.33
1	AA	346	G	C4'-O4'	-5.14	1.37	1.45
1	AA	112	G	O3'-P	5.14	1.68	1.61
6	AF	198	LYS	CA-CB	5.14	1.60	1.53
26	BB	944	C	C5'-C4'	5.14	1.58	1.51
26	BB	1095	A	O4'-C1'	5.14	1.49	1.41
26	BB	2320	U	P-O5'	5.14	1.67	1.59
42	BR	10	GLU	CA-C	5.14	1.59	1.52
1	AA	413	G	C1'-N9	5.13	1.54	1.47
12	AL	112	ARG	CA-C	5.13	1.60	1.53
26	BB	2222	C	C5'-C4'	5.13	1.58	1.51
26	BB	2436	G	C4'-C3'	-5.13	1.44	1.52
36	BL	113	PRO	N-CA	-5.13	1.40	1.47
52	B1	7	THR	CA-C	5.13	1.59	1.52
1	AA	775	G	P-O5'	5.13	1.67	1.59
49	BY	12	GLY	CA-C	5.13	1.59	1.52
1	AA	337	G	O3'-P	5.13	1.68	1.61
1	AA	773	G	C2'-O2'	-5.13	1.34	1.42
19	AS	15	PRO	CA-C	5.13	1.59	1.52
25	BA	83	G	C3'-O3'	5.13	1.49	1.42
26	BB	2430	A	C5'-C4'	5.13	1.58	1.51
27	BC	77	VAL	CA-CB	5.13	1.60	1.53
1	AA	756	C	O4'-C1'	5.13	1.49	1.41
1	AA	1160	G	C1'-N9	5.13	1.55	1.48
3	AC	26	U	C2'-C1'	-5.13	1.45	1.53
5	AE	2	THR	CB-OG1	-5.13	1.35	1.43
26	BB	291	G	C3'-O3'	5.13	1.49	1.42
26	BB	417	C	C4'-O4'	-5.13	1.37	1.45
26	BB	2506	U	C3'-O3'	5.13	1.49	1.42
28	BD	216	ARG	CZ-NH1	5.13	1.40	1.32
52	B1	47	ILE	N-CA	-5.13	1.39	1.46
1	AA	749	A	C4'-O4'	-5.13	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1083	U	O5'-C5'	-5.13	1.34	1.42
26	BB	1430	G	C5'-C4'	5.13	1.58	1.51
26	BB	1798	U	C2'-O2'	-5.13	1.34	1.42
26	BB	2139	U	C4'-O4'	-5.13	1.37	1.45
29	BE	109	VAL	CA-C	5.13	1.59	1.52
31	BG	78	ILE	CA-C	5.13	1.59	1.52
41	BQ	100	HIS	CE1-NE2	5.13	1.37	1.32
1	AA	793	U	N1-C2	5.13	1.48	1.38
1	AA	847	G	P-O5'	5.13	1.67	1.59
1	AA	1355	G	C4'-O4'	-5.13	1.37	1.45
10	AJ	35	LYS	N-CA	5.13	1.52	1.46
26	BB	1458	U	O5'-C5'	-5.13	1.35	1.42
26	BB	2194	U	O4'-C1'	5.13	1.49	1.41
26	BB	2482	A	C4'-O4'	-5.13	1.37	1.45
26	BB	2753	A	O3'-P	5.13	1.68	1.61
27	BC	227	ALA	CA-CB	5.13	1.61	1.53
29	BE	61	THR	C-O	-5.13	1.17	1.24
31	BG	53	ALA	CA-CB	-5.13	1.45	1.53
1	AA	524	G	C5'-C4'	5.12	1.58	1.51
9	AI	94	HIS	CD2-NE2	5.12	1.43	1.37
26	BB	912	C	C4'-O4'	-5.12	1.37	1.45
26	BB	1063	G	P-O5'	5.12	1.67	1.59
28	BD	52	HIS	CE1-NE2	5.12	1.37	1.32
32	BH	88	LEU	CB-CG	5.12	1.63	1.53
9	AI	4	TYR	CA-C	5.12	1.58	1.52
14	AN	57	SER	CA-CB	-5.12	1.45	1.53
15	AO	8	ARG	CD-NE	5.12	1.53	1.46
21	AU	72	ARG	NE-CZ	5.12	1.38	1.33
25	BA	61	G	C4'-O4'	-5.12	1.37	1.45
26	BB	1754	A	P-O5'	5.12	1.67	1.59
48	BX	64	VAL	CA-CB	5.12	1.60	1.54
1	AA	1527	U	C3'-C2'	-5.12	1.45	1.52
6	AF	142	ARG	CZ-NH2	5.12	1.40	1.33
14	AN	82	GLU	C-N	5.12	1.40	1.33
18	AR	46	LYS	CA-C	5.12	1.59	1.53
26	BB	814	C	O4'-C1'	5.12	1.49	1.41
26	BB	1453	A	C4'-C3'	5.12	1.60	1.52
26	BB	1557	C	P-O5'	5.12	1.67	1.59
26	BB	2012	G	C5'-C4'	5.12	1.58	1.51
26	BB	2304	G	P-O5'	5.12	1.67	1.59
43	BS	13	HIS	CE1-NE2	5.12	1.37	1.32
6	AF	210	MET	CA-C	5.12	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2763	G	C4'-C3'	5.12	1.60	1.52
1	AA	991	U	C5'-C4'	5.12	1.59	1.51
26	BB	119	A	P-O5'	5.12	1.67	1.59
26	BB	241	A	C4'-O4'	-5.12	1.38	1.45
26	BB	795	C	C5'-C4'	5.12	1.58	1.51
26	BB	1025	G	C2'-O2'	5.12	1.49	1.41
26	BB	2732	G	O3'-P	-5.12	1.53	1.61
26	BB	2753	A	C1'-N9	5.12	1.55	1.48
1	AA	326	G	O3'-P	5.12	1.68	1.61
6	AF	87	ARG	CZ-NH1	5.12	1.40	1.32
26	BB	110	G	C4'-C3'	5.12	1.60	1.52
26	BB	2528	U	O3'-P	-5.12	1.53	1.61
42	BR	26	GLU	N-CA	5.12	1.52	1.46
10	AJ	150	PHE	N-CA	-5.11	1.40	1.46
10	AJ	177	LEU	C-O	-5.11	1.16	1.23
23	AW	67	HIS	ND1-CE1	5.11	1.37	1.32
26	BB	579	G	O3'-P	-5.11	1.53	1.61
26	BB	1214	A	O3'-P	5.11	1.68	1.61
26	BB	1829	A	P-O5'	5.11	1.67	1.59
26	BB	2287	A	C4'-O4'	-5.11	1.38	1.45
29	BE	51	THR	C-N	5.11	1.41	1.33
4	AD	48	U	C4'-O4'	-5.11	1.37	1.45
16	AP	114	PRO	CA-C	5.11	1.57	1.52
26	BB	918	A	O4'-C1'	5.11	1.49	1.41
26	BB	1976	U	C4'-O4'	-5.11	1.37	1.45
38	BN	57	LEU	CA-C	5.11	1.59	1.52
46	BV	96	VAL	N-CA	5.11	1.52	1.46
51	B0	2	LYS	C-O	5.11	1.30	1.24
1	AA	603	U	O3'-P	5.11	1.68	1.61
1	AA	1009	U	C4'-O4'	-5.11	1.37	1.45
26	BB	2513	A	C4'-O4'	-5.11	1.37	1.45
1	AA	273	U	O3'-P	5.11	1.68	1.61
21	AU	60	ARG	CD-NE	5.11	1.53	1.46
26	BB	698	C	C3'-C2'	5.11	1.60	1.52
26	BB	836	G	O4'-C1'	5.11	1.49	1.41
26	BB	1825	U	O3'-P	5.11	1.68	1.61
26	BB	1930	G	C5'-C4'	5.11	1.58	1.51
26	BB	174	U	P-O5'	5.11	1.67	1.59
26	BB	2098	U	P-O5'	5.11	1.67	1.59
26	BB	2222	C	O3'-P	5.11	1.68	1.61
45	BU	95	ARG	C-O	-5.11	1.17	1.23
1	AA	656	G	C4'-O4'	-5.10	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	AH	103	GLY	C-N	5.10	1.39	1.33
26	BB	452	G	C2'-O2'	5.10	1.50	1.42
26	BB	1173	U	O3'-P	5.10	1.68	1.61
37	BM	39	ILE	CA-C	5.10	1.59	1.52
1	AA	1127	G	O3'-P	5.10	1.68	1.61
2	AB	38	A	C2'-O2'	5.10	1.50	1.42
5	AE	237	VAL	C-O	-5.10	1.18	1.24
26	BB	1149	G	C2'-O2'	-5.10	1.34	1.42
26	BB	2295	C	C3'-O3'	5.10	1.49	1.42
46	BV	74	ILE	CA-C	5.10	1.58	1.52
20	AT	65	PRO	N-CA	-5.10	1.41	1.47
1	AA	248	C	C5'-C4'	5.10	1.58	1.51
1	AA	414	A	C5'-C4'	5.10	1.58	1.51
1	AA	1279	G	P-O5'	5.10	1.67	1.59
6	AF	75	VAL	C-O	-5.10	1.18	1.24
22	AV	13	HIS	ND1-CE1	5.10	1.37	1.32
26	BB	42	A	O5'-C5'	5.10	1.50	1.42
26	BB	464	U	C4'-O4'	-5.10	1.38	1.45
28	BD	76	VAL	C-O	-5.10	1.17	1.25
28	BD	129	LEU	CA-C	5.10	1.57	1.52
35	BK	80	LYS	N-CA	-5.10	1.40	1.46
1	AA	476	U	C2'-C1'	-5.10	1.45	1.53
1	AA	912	C	C4'-O4'	-5.10	1.38	1.45
8	AH	138	ALA	CA-C	5.10	1.59	1.52
19	AS	55	ASP	CA-C	5.10	1.59	1.52
26	BB	306	U	O4'-C1'	5.10	1.49	1.41
28	BD	230	PRO	CA-CB	5.10	1.61	1.53
41	BQ	70	ALA	CA-C	-5.10	1.45	1.52
1	AA	647	C	C5'-C4'	5.10	1.58	1.51
2	AB	49	G	O5'-C5'	5.09	1.50	1.42
7	AG	192	ALA	CA-C	5.09	1.59	1.52
26	BB	1229	C	C4'-O4'	-5.09	1.38	1.45
1	AA	532	A	P-O5'	5.09	1.67	1.59
4	AD	2	G	C4'-O4'	-5.09	1.38	1.45
12	AL	38	PHE	N-CA	5.09	1.52	1.46
26	BB	215	G	C5'-C4'	5.09	1.58	1.51
26	BB	1743	G	O3'-P	5.09	1.68	1.61
26	BB	1992	G	O3'-P	5.09	1.68	1.61
26	BB	2002	G	P-O5'	5.09	1.67	1.59
36	BL	71	ASP	N-CA	5.09	1.52	1.46
2	AB	66	C	C2'-O2'	5.09	1.50	1.42
26	BB	863	A	O3'-P	5.09	1.68	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1090	A	P-O5'	5.09	1.67	1.59
33	BI	46	PHE	N-CA	5.09	1.52	1.46
26	BB	239	C	P-O5'	5.09	1.67	1.59
1	AA	891	U	O3'-P	-5.09	1.53	1.61
2	AB	73	G	O3'-P	5.09	1.68	1.61
5	AE	78	ALA	CA-C	5.09	1.59	1.52
26	BB	516	C	C4'-O4'	-5.09	1.38	1.45
9	AI	41	ASP	CA-CB	5.08	1.60	1.53
24	AX	42	THR	CA-C	5.08	1.59	1.52
25	BA	62	C	P-O5'	5.08	1.67	1.59
25	BA	87	U	P-O5'	5.08	1.67	1.59
26	BB	294	A	C4'-O4'	-5.08	1.38	1.45
38	BN	31	GLY	CA-C	5.08	1.58	1.52
1	AA	635	A	C4'-O4'	-5.08	1.38	1.45
11	AK	102	VAL	N-CA	-5.08	1.40	1.46
26	BB	46	G	C2'-C1'	5.08	1.60	1.53
26	BB	1712	U	C3'-C2'	5.08	1.60	1.52
1	AA	611	C	C1'-N1	5.08	1.56	1.48
26	BB	1082	U	C3'-O3'	-5.08	1.34	1.42
1	AA	1421	G	C4'-O4'	-5.08	1.38	1.45
5	AE	82	ALA	N-CA	-5.08	1.39	1.46
7	AG	172	VAL	CA-CB	5.08	1.62	1.55
25	BA	12	C	C5'-C4'	5.08	1.58	1.51
26	BB	435	C	O5'-C5'	-5.08	1.34	1.42
26	BB	2431	U	C4'-O4'	-5.08	1.38	1.45
40	BP	17	ARG	CA-C	5.08	1.59	1.52
44	BT	6	GLN	CA-CB	5.08	1.60	1.53
51	B0	13	GLU	N-CA	-5.08	1.40	1.46
17	AQ	52	ARG	CD-NE	5.08	1.53	1.46
26	BB	144	A	O5'-C5'	-5.08	1.34	1.42
26	BB	761	A	O4'-C1'	5.08	1.49	1.41
1	AA	1435	G	O3'-P	5.08	1.68	1.61
26	BB	620	G	P-O5'	5.08	1.67	1.59
26	BB	1173	U	C5'-C4'	5.08	1.58	1.51
26	BB	2420	C	C4'-C3'	5.08	1.60	1.52
50	BZ	35	HIS	C-O	-5.08	1.18	1.24
1	AA	525	C	P-O5'	5.07	1.67	1.59
1	AA	1422	G	C3'-O3'	5.07	1.49	1.42
1	AA	1494	G	O3'-P	-5.07	1.53	1.61
26	BB	86	G	C4'-C3'	5.07	1.60	1.52
26	BB	1656	C	O3'-P	5.07	1.68	1.61
26	BB	2071	A	C2'-O2'	5.07	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2474	U	C4'-O4'	-5.07	1.38	1.45
36	BL	47	HIS	CE1-NE2	5.07	1.37	1.32
5	AE	21	TYR	C-N	5.07	1.40	1.33
1	AA	892	A	O5'-C5'	-5.07	1.34	1.42
1	AA	936	C	C4'-O4'	-5.07	1.38	1.45
1	AA	1131	G	C5'-C4'	5.07	1.58	1.51
26	BB	286	U	O3'-P	5.07	1.68	1.61
28	BD	217	PRO	CA-CB	-5.07	1.47	1.53
34	BJ	149	LYS	N-CA	5.07	1.52	1.46
58	B7	2	LYS	C-N	5.07	1.40	1.34
1	AA	469	C	C4'-C3'	-5.07	1.45	1.52
7	AG	99	ASN	CA-C	5.07	1.59	1.52
23	AW	27	MET	N-CA	5.07	1.52	1.46
26	BB	60	G	C4'-O4'	-5.07	1.38	1.45
1	AA	29	U	C3'-O3'	5.07	1.49	1.42
1	AA	295	C	O3'-P	5.07	1.68	1.61
1	AA	647	C	O3'-P	5.07	1.68	1.61
1	AA	1204	A	C5'-C4'	5.07	1.58	1.51
26	BB	1206	G	C4'-O4'	-5.07	1.38	1.45
26	BB	1752	C	C2'-O2'	5.07	1.50	1.42
1	AA	269	C	C4'-O4'	-5.06	1.38	1.45
26	BB	18	U	C1'-N1	5.06	1.56	1.48
26	BB	2737	G	O3'-P	5.06	1.68	1.61
33	BI	24	GLY	C-N	5.06	1.40	1.33
46	BV	37	ASP	CA-C	5.06	1.59	1.52
2	AB	1	A	C4'-O4'	-5.06	1.38	1.45
27	BC	213	SER	N-CA	-5.06	1.39	1.46
11	AK	93	LYS	CA-C	5.06	1.59	1.52
26	BB	2437	G	C4'-C3'	5.06	1.60	1.52
12	AL	40	ARG	CZ-NH1	5.06	1.39	1.32
53	B2	49	ARG	C-O	5.06	1.29	1.23
6	AF	151	GLU	CA-CB	5.06	1.61	1.53
10	AJ	4	ARG	CA-C	5.06	1.58	1.52
10	AJ	137	ARG	CA-CB	5.06	1.61	1.53
9	AI	50	PRO	CA-CB	-5.06	1.47	1.53
29	BE	109	VAL	C-O	-5.06	1.18	1.24
32	BH	85	LYS	CA-CB	-5.06	1.46	1.52
6	AF	152	VAL	N-CA	5.05	1.52	1.46
10	AJ	134	VAL	N-CA	-5.05	1.40	1.46
26	BB	1024	G	O3'-P	5.05	1.68	1.61
26	BB	2071	A	O3'-P	-5.05	1.53	1.61
26	BB	2584	U	C5'-C4'	5.05	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2883	A	O4'-C1'	5.05	1.49	1.41
32	BH	94	ARG	N-CA	5.05	1.52	1.46
35	BK	37	PHE	CA-C	5.05	1.59	1.52
56	B5	28	ARG	CZ-NH1	5.05	1.39	1.32
26	BB	2386	A	O3'-P	5.05	1.68	1.61
26	BB	2775	G	O3'-P	5.05	1.68	1.61
1	AA	719	C	C4-C5	5.05	1.53	1.43
26	BB	78	U	C4'-C3'	5.05	1.60	1.52
26	BB	645	C	O3'-P	5.05	1.68	1.61
26	BB	835	C	P-O5'	5.05	1.67	1.59
26	BB	1653	G	C4'-C3'	-5.05	1.45	1.53
39	BO	1	MET	C-N	5.05	1.40	1.33
56	B5	29	GLN	CA-C	5.05	1.59	1.52
1	AA	741	G	C4'-O4'	-5.05	1.38	1.45
1	AA	990	C	C4'-C3'	5.05	1.60	1.52
26	BB	710	U	C4'-O4'	-5.05	1.38	1.45
1	AA	750	C	C5'-C4'	5.05	1.58	1.51
26	BB	690	G	P-O5'	5.05	1.67	1.59
26	BB	2739	U	O4'-C1'	5.05	1.49	1.41
1	AA	1436	U	O3'-P	5.05	1.68	1.61
1	AA	1460	C	C5'-C4'	5.05	1.58	1.51
26	BB	283	G	O3'-P	5.05	1.68	1.61
26	BB	908	C	O3'-P	5.05	1.68	1.61
26	BB	2432	A	C5'-C4'	5.05	1.58	1.51
32	BH	63	GLN	N-CA	-5.05	1.39	1.46
45	BU	21	ALA	CA-C	5.05	1.59	1.52
25	BA	115	A	O3'-P	-5.04	1.53	1.61
26	BB	2489	U	P-O5'	5.04	1.67	1.59
2	AB	14	A	C1'-N9	5.04	1.55	1.48
2	AB	63	C	C3'-C2'	-5.04	1.45	1.52
18	AR	17	ASP	C-N	5.04	1.39	1.33
26	BB	56	A	P-O5'	5.04	1.67	1.59
26	BB	381	G	P-O5'	5.04	1.67	1.59
26	BB	511	U	C2-N3	5.04	1.47	1.37
26	BB	591	U	P-O5'	5.04	1.67	1.59
26	BB	1635	A	C4'-O4'	-5.04	1.38	1.45
1	AA	36	C	O5'-C5'	-5.04	1.34	1.42
1	AA	384	G	C5'-C4'	-5.04	1.43	1.51
1	AA	414	A	C4'-O4'	-5.04	1.38	1.45
5	AE	175	ALA	CA-C	5.04	1.59	1.52
6	AF	211	ALA	CA-C	5.04	1.58	1.52
26	BB	620	G	C5'-C4'	5.04	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1357	C	C3'-C2'	5.04	1.60	1.52
27	BC	45	ALA	CA-CB	5.04	1.60	1.53
40	BP	113	ILE	CB-CG1	5.04	1.63	1.53
12	AL	34	LEU	CA-C	5.04	1.59	1.52
26	BB	346	A	P-O5'	5.04	1.67	1.59
26	BB	1492	G	C2'-C1'	5.04	1.60	1.53
40	BP	106	ASP	CA-CB	5.04	1.62	1.53
1	AA	722	G	P-O5'	5.04	1.67	1.59
1	AA	1484	C	C3'-C2'	5.04	1.60	1.52
26	BB	392	U	C3'-C2'	-5.04	1.45	1.52
26	BB	2091	C	C4'-O4'	-5.04	1.38	1.45
26	BB	2443	C	C2'-C1'	5.04	1.60	1.53
33	BI	109	GLU	CA-C	-5.04	1.46	1.52
44	BT	82	HIS	CE1-NE2	-5.04	1.27	1.32
26	BB	1177	G	C2'-O2'	-5.04	1.34	1.42
26	BB	977	G	C1'-N9	5.04	1.55	1.48
26	BB	2086	U	C1'-N1	5.04	1.56	1.48
49	BY	22	VAL	CA-CB	5.04	1.61	1.54
1	AA	328	C	O3'-P	5.03	1.68	1.61
26	BB	620	G	C4'-O4'	-5.03	1.38	1.45
26	BB	1211	C	C4'-O4'	-5.03	1.38	1.45
26	BB	2015	A	O3'-P	5.03	1.68	1.61
26	BB	2686	G	P-O5'	5.03	1.67	1.59
31	BG	135	ILE	N-CA	-5.03	1.41	1.46
43	BS	19	GLN	CA-C	5.03	1.59	1.52
1	AA	178	C	C5'-C4'	5.03	1.58	1.51
41	BQ	28	VAL	CA-C	5.03	1.60	1.53
1	AA	15	G	C4'-C3'	5.03	1.60	1.52
1	AA	779	C	C4'-O4'	-5.03	1.38	1.45
1	AA	1524	C	O3'-P	-5.03	1.53	1.61
1	AA	1525	G	C4'-O4'	-5.03	1.38	1.45
12	AL	21	LYS	CA-C	5.03	1.57	1.52
20	AT	33	TYR	N-CA	5.03	1.52	1.46
26	BB	1002	G	P-O5'	5.03	1.67	1.59
26	BB	2031	A	C4'-C3'	5.03	1.60	1.53
26	BB	2218	G	P-O5'	5.03	1.67	1.59
3	AC	26	U	P-O5'	5.03	1.67	1.59
26	BB	473	G	P-O5'	5.03	1.67	1.59
26	BB	1709	U	O3'-P	5.03	1.68	1.61
26	BB	1812	U	O3'-P	5.03	1.68	1.61
45	BU	44	ALA	CA-CB	5.03	1.61	1.53
1	AA	405	U	P-O5'	5.03	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	890	G	C1'-N9	5.03	1.54	1.47
1	AA	1332	A	O4'-C1'	5.03	1.49	1.41
8	AH	163	ILE	CA-C	5.03	1.58	1.52
26	BB	134	G	C1'-N9	5.03	1.55	1.48
32	BH	96	ALA	N-CA	-5.03	1.40	1.46
37	BM	36	GLY	CA-C	5.03	1.56	1.51
26	BB	506	G	P-O5'	5.03	1.67	1.59
26	BB	2114	A	P-O5'	5.03	1.67	1.59
26	BB	2221	G	C5'-C4'	5.03	1.58	1.51
26	BB	2381	A	O3'-P	5.03	1.68	1.61
56	B5	40	ALA	CA-C	5.03	1.59	1.52
4	AD	52	C	O3'-P	5.02	1.68	1.61
35	BK	102	ARG	C-N	5.02	1.40	1.34
56	B5	4	THR	CB-OG1	-5.02	1.35	1.43
1	AA	123	U	C5'-C4'	5.02	1.58	1.51
1	AA	906	A	C2'-C1'	5.02	1.60	1.53
17	AQ	39	ASP	N-CA	5.02	1.52	1.46
26	BB	2594	C	P-O5'	5.02	1.67	1.59
32	BH	115	GLN	CA-C	-5.02	1.46	1.52
26	BB	1762	A	C5'-C4'	5.02	1.58	1.51
26	BB	821	A	C4'-O4'	-5.02	1.38	1.45
26	BB	1372	U	P-O5'	5.02	1.67	1.59
54	B3	29	VAL	CA-C	5.02	1.60	1.53
1	AA	207	C	C4'-O4'	-5.02	1.38	1.45
1	AA	1245	C	C3'-C2'	5.02	1.60	1.52
23	AW	32	LYS	CA-CB	5.02	1.61	1.53
26	BB	2328	A	C2'-C1'	5.02	1.60	1.53
26	BB	292	U	P-O5'	5.02	1.67	1.59
1	AA	498	A	C2'-O2'	-5.01	1.34	1.42
1	AA	848	C	C4'-O4'	-5.01	1.38	1.45
25	BA	97	C	P-O5'	5.01	1.67	1.59
26	BB	2140	G	C4'-C3'	-5.01	1.45	1.52
31	BG	39	VAL	CA-C	5.01	1.59	1.52
1	AA	815	A	C2'-O2'	5.01	1.49	1.41
9	AI	68	GLN	C-N	5.01	1.40	1.33
1	AA	988	G	C3'-O3'	5.01	1.49	1.42
1	AA	490	C	C1'-N1	5.01	1.55	1.48
1	AA	1379	G	P-O5'	5.01	1.67	1.59
25	BA	50	A	O3'-P	5.01	1.68	1.61
26	BB	280	U	C5'-C4'	5.01	1.58	1.51
26	BB	2035	G	C4'-C3'	5.01	1.60	1.53
14	AN	21	HIS	C-N	5.01	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1731	G	C2'-C1'	5.01	1.60	1.53
46	BV	64	LYS	C-N	5.01	1.40	1.33
1	AA	68	G	O5'-C5'	-5.01	1.34	1.42
1	AA	204	G	C2'-C1'	-5.01	1.45	1.53
1	AA	935	A	C5'-C4'	5.01	1.58	1.51
1	AA	1141	C	C5'-C4'	5.01	1.58	1.51
10	AJ	159	ARG	N-CA	5.01	1.52	1.46
31	BG	85	GLY	CA-C	5.01	1.56	1.52
1	AA	459	A	P-O5'	5.00	1.67	1.59
26	BB	1596	A	C3'-O3'	5.00	1.49	1.42
26	BB	1632	A	C2'-O2'	-5.00	1.34	1.42
1	AA	592	G	C1'-N9	5.00	1.55	1.48
1	AA	1325	C	O5'-C5'	-5.00	1.34	1.42
17	AQ	93	PRO	N-CA	5.00	1.53	1.47
26	BB	1202	G	C4'-C3'	5.00	1.60	1.52
26	BB	2668	G	O3'-P	5.00	1.68	1.61
1	AA	1225	A	C5'-C4'	5.00	1.58	1.51
17	AQ	68	ARG	NE-CZ	5.00	1.38	1.33
26	BB	32	C	O4'-C1'	-5.00	1.34	1.41
26	BB	792	A	C4'-O4'	-5.00	1.38	1.45
26	BB	927	A	O3'-P	5.00	1.68	1.61
26	BB	1348	C	C1'-N1	5.00	1.55	1.48
26	BB	1567	G	C2'-O2'	-5.00	1.34	1.41

All (8537) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AO	55	ARG	NE-CZ-NH2	-14.32	106.31	119.20
9	AI	17	GLN	CA-C-N	13.74	128.90	120.24
9	AI	17	GLN	C-N-CA	13.74	128.90	120.24
26	BB	2756	U	C2'-C3'-O3'	12.62	128.43	109.50
26	BB	1975	G	C4'-C3'-C2'	-12.49	90.11	102.60
25	BA	35	C	C4'-C3'-C2'	-12.34	90.26	102.60
36	BL	124	VAL	N-CA-C	-12.11	102.06	111.62
26	BB	1802	A	C5'-C4'-C3'	-12.08	97.88	116.00
26	BB	1231	U	C3'-C2'-C1'	11.96	113.26	101.30
1	AA	1537	U	O4'-C1'-C2'	-11.88	95.72	107.60
33	BI	128	HIS	CB-CG-CD2	-11.83	115.82	131.20
1	AA	187	G	C4'-C3'-C2'	-11.74	90.86	102.60
54	B3	37	HIS	CG-CD2-NE2	-11.64	95.56	107.20
54	B3	37	HIS	ND1-CG-CD2	11.42	117.52	106.10
26	BB	321	U	O4'-C1'-C2'	-11.37	96.23	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BY	2	HIS	CA-CB-CG	11.36	125.16	113.80
1	AA	721	G	O4'-C1'-C2'	-11.22	94.58	105.80
1	AA	866	C	C4'-C3'-C2'	-11.21	91.39	102.60
2	AB	36	A	O4'-C4'-C3'	11.21	115.21	104.00
26	BB	2163	A	O4'-C1'-N9	11.20	125.29	108.50
2	AB	61	C	C4'-C3'-C2'	-11.14	91.45	102.60
26	BB	481	G	O4'-C1'-C2'	-11.11	94.69	105.80
26	BB	337	C	O4'-C1'-N1	11.07	125.10	108.50
1	AA	1116	U	C3'-C2'-C1'	11.05	112.35	101.30
26	BB	2481	G	O4'-C4'-C3'	11.01	115.01	104.00
12	AL	69	GLY	CA-C-N	11.00	136.88	121.26
12	AL	69	GLY	C-N-CA	11.00	136.88	121.26
29	BE	59	ARG	NE-CZ-NH2	10.99	129.10	119.20
36	BL	47	HIS	CB-CG-CD2	-10.95	116.97	131.20
58	B7	24	ARG	NE-CZ-NH2	10.88	129.00	119.20
26	BB	2835	A	C3'-C2'-C1'	10.69	112.19	101.50
26	BB	1875	G	C4'-C3'-C2'	-10.64	91.96	102.60
26	BB	2223	G	O4'-C4'-C3'	10.62	114.62	104.00
26	BB	2822	G	C3'-C2'-C1'	10.61	111.91	101.30
26	BB	2645	G	C3'-C2'-C1'	10.53	112.03	101.50
1	AA	350	G	O4'-C4'-C3'	10.47	114.47	104.00
39	BO	88	ASN	OD1-CG-ND2	-10.47	112.13	122.60
1	AA	410	G	C4'-C3'-C2'	-10.42	92.18	102.60
37	BM	120	PRO	N-CA-CB	10.41	113.09	103.20
26	BB	2425	A	C2'-C3'-O3'	10.40	125.10	109.50
1	AA	26	A	O4'-C4'-C3'	10.40	114.40	104.00
26	BB	2530	A	O4'-C4'-C3'	-10.38	93.62	104.00
26	BB	2702	G	C4'-C3'-C2'	-10.33	92.27	102.60
43	BS	91	ARG	NE-CZ-NH2	-10.29	109.94	119.20
36	BL	116	ARG	NE-CZ-NH2	10.26	128.44	119.20
26	BB	274	C	C4'-C3'-C2'	-10.26	92.34	102.60
26	BB	2043	C	O4'-C1'-C2'	-10.25	97.35	107.60
25	BA	117	G	C3'-C2'-C1'	10.25	111.55	101.30
1	AA	1201	A	C2'-C3'-O3'	10.23	124.85	109.50
26	BB	2811	G	C1'-O4'-C4'	10.22	120.12	109.90
26	BB	1950	G	O4'-C4'-C3'	10.21	114.21	104.00
1	AA	185	U	C5'-C4'-O4'	10.18	125.08	109.80
1	AA	325	A	O4'-C4'-C3'	10.18	114.18	104.00
26	BB	1545	A	O4'-C1'-N9	10.16	123.74	108.50
1	AA	352	C	O4'-C1'-C2'	-10.14	97.46	107.60
26	BB	2749	A	O4'-C1'-C2'	-10.12	97.48	107.60
26	BB	2295	C	C4'-C3'-C2'	-10.08	92.52	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BM	13	ASN	CA-CB-CG	10.06	122.66	112.60
1	AA	1201	A	C1'-O4'-C4'	-10.05	99.65	109.70
39	BO	108	VAL	CA-C-N	10.03	132.38	119.84
39	BO	108	VAL	C-N-CA	10.03	132.38	119.84
26	BB	1696	G	O4'-C4'-C3'	10.02	114.02	104.00
13	AM	29	ALA	CA-C-N	10.00	135.51	120.31
13	AM	29	ALA	C-N-CA	10.00	135.51	120.31
25	BA	94	A	C4'-C3'-C2'	-9.99	92.61	102.60
26	BB	1186	G	O4'-C4'-C3'	9.99	113.99	104.00
26	BB	1428	C	O3'-P-O5'	-9.98	89.03	104.00
26	BB	929	U	C3'-C2'-O2'	9.96	125.63	110.70
1	AA	505	G	C5'-C4'-C3'	-9.94	101.09	116.00
26	BB	19	A	C4'-C3'-C2'	-9.90	92.70	102.60
4	AD	17	C	C3'-C2'-C1'	9.90	111.20	101.30
29	BE	130	GLN	OE1-CD-NE2	-9.88	112.72	122.60
34	BJ	43	ALA	CA-C-N	9.88	130.95	119.98
34	BJ	43	ALA	C-N-CA	9.88	130.95	119.98
2	AB	4	G	O4'-C4'-C3'	9.87	113.87	104.00
1	AA	878	A	O4'-C4'-C3'	9.85	113.85	104.00
1	AA	142	G	C4'-C3'-C2'	-9.84	92.76	102.60
2	AB	73	G	C4'-C3'-C2'	-9.84	92.76	102.60
51	B0	7	ARG	NE-CZ-NH2	9.83	128.05	119.20
26	BB	573	U	C4'-C3'-C2'	-9.82	92.78	102.60
26	BB	1920	C	O4'-C4'-C3'	9.81	113.81	104.00
22	AV	13	HIS	CA-C-O	-9.81	109.36	120.24
1	AA	1051	C	O4'-C4'-C3'	9.76	113.76	104.00
26	BB	1261	C	O4'-C4'-C3'	9.75	113.75	104.00
26	BB	1879	C	C4'-C3'-C2'	-9.74	92.86	102.60
21	AU	41	SER	CA-C-N	9.73	134.11	120.29
21	AU	41	SER	C-N-CA	9.73	134.11	120.29
1	AA	1459	G	N9-C1'-C2'	-9.72	97.41	112.00
41	BQ	100	HIS	CA-CB-CG	9.71	123.50	113.80
1	AA	932	C	O4'-C4'-C3'	9.70	113.70	104.00
26	BB	1261	C	C1'-O4'-C4'	-9.70	100.20	109.90
1	AA	599	C	C4'-C3'-C2'	-9.68	92.92	102.60
26	BB	2266	A	O4'-C1'-C2'	-9.65	96.15	105.80
25	BA	81	G	C4'-C3'-C2'	-9.65	92.95	102.60
1	AA	365	U	O3'-P-O5'	-9.63	89.56	104.00
26	BB	246	C	C5'-C4'-O4'	9.62	124.24	109.80
1	AA	88	U	N1-C1'-C2'	9.60	126.39	112.00
26	BB	990	A	C4'-C3'-C2'	9.59	112.19	102.60
27	BC	181	ASP	CA-C-N	9.59	132.91	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	BC	181	ASP	C-N-CA	9.59	132.91	120.44
26	BB	784	G	O3'-P-O5'	-9.58	89.62	104.00
1	AA	870	U	C3'-C2'-O2'	-9.58	100.23	114.60
26	BB	946	C	O4'-C1'-N1	9.57	122.86	108.50
26	BB	2670	A	C4'-C3'-C2'	-9.56	93.04	102.60
1	AA	545	C	O4'-C1'-C2'	-9.56	98.04	107.60
2	AB	61	C	O4'-C4'-C3'	9.55	113.56	104.00
31	BG	96	TRP	N-CA-C	9.55	121.77	111.36
33	BI	96	THR	O-C-N	9.53	133.02	122.15
26	BB	1107	G	O4'-C1'-C2'	-9.51	98.09	107.60
25	BA	27	C	O4'-C4'-C3'	9.49	113.49	104.00
26	BB	1187	G	C3'-C2'-C1'	9.48	110.78	101.30
9	AI	121	ALA	CA-C-N	9.48	134.22	120.38
9	AI	121	ALA	C-N-CA	9.48	134.22	120.38
23	AW	29	THR	CA-C-N	9.47	132.75	120.44
23	AW	29	THR	C-N-CA	9.47	132.75	120.44
26	BB	2336	A	C3'-C2'-C1'	-9.45	92.05	101.50
26	BB	780	G	C4'-C3'-C2'	-9.45	93.15	102.60
26	BB	2165	C	O4'-C1'-C2'	-9.44	98.16	107.60
1	AA	604	G	C4'-C3'-C2'	-9.43	93.17	102.60
2	AB	36	A	C4'-C3'-C2'	-9.43	93.17	102.60
1	AA	1392	G	C4'-C3'-C2'	-9.43	93.17	102.60
10	AJ	129	ASN	CA-CB-CG	9.41	122.01	112.60
35	BK	116	MET	CA-C-N	9.41	137.23	122.26
35	BK	116	MET	C-N-CA	9.41	137.23	122.26
12	AL	46	VAL	O-C-N	9.41	131.13	121.91
1	AA	1383	C	C5'-C4'-C3'	-9.40	101.90	116.00
26	BB	1209	U	O4'-C4'-C3'	-9.39	94.61	104.00
26	BB	606	U	O4'-C4'-C3'	9.38	113.39	104.00
38	BN	4	ASN	CA-CB-CG	9.38	121.98	112.60
26	BB	2835	A	C4'-C3'-C2'	-9.38	93.22	102.60
26	BB	210	C	O4'-C4'-C3'	9.37	113.37	104.00
26	BB	2647	U	O4'-C4'-C3'	9.37	113.36	104.00
9	AI	18	VAL	CA-C-O	-9.36	110.90	118.85
1	AA	266	G	O5'-C5'-C4'	-9.35	97.47	111.50
3	AC	33	A	O4'-C4'-C3'	9.35	113.35	104.00
26	BB	939	G	C4'-C3'-C2'	-9.33	93.27	102.60
38	BN	64	PHE	CA-CB-CG	9.33	123.13	113.80
25	BA	34	A	C4'-C3'-O3'	9.32	123.38	109.40
26	BB	60	G	O4'-C4'-C3'	9.32	115.42	106.10
26	BB	902	C	O4'-C4'-C3'	9.31	113.31	104.00
25	BA	82	U	C4'-C3'-C2'	-9.30	93.30	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BJ	19	LYS	CA-C-N	9.30	132.06	120.34
34	BJ	19	LYS	C-N-CA	9.30	132.06	120.34
1	AA	1201	A	P-O3'-C3'	9.30	134.14	120.20
26	BB	2312	U	C2'-C3'-O3'	9.29	127.64	113.70
26	BB	529	A	O4'-C4'-C3'	9.29	113.29	104.00
17	AQ	53	ASP	CA-CB-CG	9.29	121.89	112.60
26	BB	2743	U	O4'-C1'-N1	9.27	122.40	108.50
26	BB	1920	C	C4'-C3'-C2'	-9.27	93.33	102.60
38	BN	123	ARG	NE-CZ-NH2	-9.26	110.86	119.20
5	AE	81	ASP	CA-CB-CG	9.26	121.86	112.60
1	AA	740	U	C4'-C3'-C2'	-9.26	93.34	102.60
25	BA	44	G	C2'-C3'-O3'	9.25	123.37	109.50
27	BC	43	ASP	CA-CB-CG	9.25	121.85	112.60
1	AA	1070	U	C5'-C4'-C3'	-9.24	102.14	116.00
26	BB	876	C	C4'-C3'-C2'	-9.23	93.37	102.60
26	BB	2847	U	O4'-C1'-N1	9.23	122.34	108.50
26	BB	600	G	C4'-C3'-C2'	-9.22	93.38	102.60
2	AB	4	G	C4'-C3'-C2'	-9.22	93.38	102.60
26	BB	71	A	O4'-C1'-N9	9.22	122.02	108.20
26	BB	141	G	O4'-C1'-N9	9.21	122.32	108.50
1	AA	760	G	C5'-C4'-O4'	9.21	123.61	109.80
26	BB	669	G	O4'-C4'-C3'	9.21	113.20	104.00
16	AP	13	HIS	CB-CG-CD2	-9.20	119.25	131.20
1	AA	294	U	C4'-C3'-C2'	-9.19	93.41	102.60
26	BB	1609	A	C3'-C2'-C1'	9.18	110.48	101.30
28	BD	115	ILE	CB-CA-C	9.18	121.53	111.80
26	BB	1744	A	C3'-C2'-C1'	9.17	110.47	101.30
26	BB	695	G	C4'-C3'-C2'	-9.17	93.43	102.60
1	AA	765	G	O4'-C1'-N9	9.17	122.25	108.50
1	AA	282	A	C4'-C3'-C2'	-9.16	93.44	102.60
15	AO	8	ARG	CA-C-N	9.16	135.76	122.66
15	AO	8	ARG	C-N-CA	9.16	135.76	122.66
32	BH	154	GLU	CA-C-N	9.14	129.74	119.32
32	BH	154	GLU	C-N-CA	9.14	129.74	119.32
25	BA	2	G	C4'-C3'-C2'	-9.13	93.47	102.60
26	BB	1931	U	C4'-C3'-C2'	-9.13	93.47	102.60
40	BP	31	HIS	CE1-NE2-CD2	-9.12	99.88	109.00
26	BB	568	U	O4'-C4'-C3'	9.10	113.10	104.00
26	BB	1603	A	O4'-C4'-C3'	9.10	113.10	104.00
13	AM	68	ARG	NE-CZ-NH2	9.09	127.38	119.20
26	BB	561	G	P-O3'-C3'	9.09	133.83	120.20
1	AA	462	G	C1'-O4'-C4'	-9.08	100.62	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BV	76	ARG	NE-CZ-NH1	9.07	130.57	121.50
26	BB	2685	G	O4'-C4'-C3'	9.07	113.07	104.00
1	AA	1263	C	C4'-C3'-C2'	-9.06	93.53	102.60
1	AA	1214	C	C4'-C3'-O3'	9.05	122.98	109.40
1	AA	421	U	C3'-C2'-C1'	9.05	110.55	101.50
1	AA	253	A	C4'-C3'-C2'	-9.05	93.55	102.60
8	AH	81	GLN	OE1-CD-NE2	9.05	131.65	122.60
26	BB	2091	C	C4'-C3'-C2'	-9.04	93.56	102.60
26	BB	2838	G	O4'-C1'-C2'	-9.02	98.58	107.60
2	AB	73	G	C3'-C2'-C1'	9.01	110.31	101.30
26	BB	1724	G	C1'-O4'-C4'	9.00	118.90	109.90
26	BB	215	G	C1'-O4'-C4'	9.00	118.70	109.70
26	BB	608	A	O3'-P-O5'	-8.99	90.51	104.00
1	AA	385	C	O4'-C1'-C2'	-8.99	98.61	107.60
26	BB	908	C	C1'-O4'-C4'	-8.99	100.91	109.90
26	BB	455	C	O3'-P-O5'	8.98	117.47	104.00
38	BN	59	ARG	NE-CZ-NH2	8.97	127.27	119.20
36	BL	7	LYS	N-CA-C	8.96	118.45	108.14
1	AA	1360	A	C5'-C4'-O4'	8.96	123.24	109.80
1	AA	1524	C	O4'-C4'-C3'	8.96	112.96	104.00
1	AA	1116	U	C4'-C3'-C2'	-8.95	93.65	102.60
32	BH	73	SER	O-C-N	8.95	131.40	122.09
28	BD	89	ASN	CA-CB-CG	-8.95	103.65	112.60
42	BR	38	ARG	NE-CZ-NH1	-8.95	112.55	121.50
1	AA	1217	C	O4'-C1'-C2'	-8.95	98.65	107.60
26	BB	2126	A	C4'-C3'-O3'	-8.95	99.58	113.00
4	AD	40	C	O4'-C1'-N1	8.94	121.92	108.50
26	BB	32	C	C4'-C3'-C2'	-8.94	93.66	102.60
26	BB	41	C	O4'-C1'-N1	8.94	121.92	108.50
1	AA	710	G	C4'-C3'-C2'	-8.94	93.66	102.60
26	BB	332	A	O4'-C1'-C2'	-8.94	96.86	105.80
26	BB	2479	U	O3'-P-O5'	-8.92	90.62	104.00
1	AA	88	U	C4'-C3'-C2'	-8.91	93.69	102.60
26	BB	1029	A	O4'-C4'-C3'	8.91	112.92	104.00
26	BB	2016	U	C3'-C2'-C1'	-8.91	92.39	101.30
26	BB	2029	G	C4'-C3'-C2'	-8.91	93.69	102.60
39	BO	125	PRO	O-C-N	8.91	134.42	122.30
1	AA	478	A	O4'-C1'-N9	8.91	121.86	108.50
1	AA	1539	C	O4'-C4'-C3'	8.90	112.90	104.00
26	BB	2835	A	N9-C1'-C2'	8.90	127.34	114.00
26	BB	1964	G	O4'-C1'-C2'	-8.89	96.91	105.80
26	BB	2270	A	O4'-C4'-C3'	8.89	112.89	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AF	126	ARG	NE-CZ-NH2	8.89	127.20	119.20
26	BB	1314	C	O4'-C1'-C2'	-8.88	98.72	107.60
26	BB	139	U	O4'-C1'-C2'	-8.88	96.92	105.80
14	AN	90	PRO	N-CA-CB	8.88	112.70	103.38
21	AU	29	LYS	N-CA-C	8.87	123.52	112.87
26	BB	669	G	C4'-C3'-C2'	-8.87	93.73	102.60
1	AA	1279	G	O4'-C4'-C3'	8.87	112.87	104.00
27	BC	150	ALA	N-CA-C	8.86	122.10	111.82
1	AA	980	C	O4'-C4'-C3'	8.84	112.84	104.00
2	AB	52	A	O4'-C1'-C2'	-8.83	98.77	107.60
26	BB	156	A	C5'-C4'-C3'	-8.83	102.75	116.00
26	BB	1475	G	O3'-P-O5'	-8.81	90.78	104.00
26	BB	2019	A	C2'-C3'-O3'	8.81	126.92	113.70
2	AB	44	G	C4'-C3'-C2'	-8.81	93.79	102.60
26	BB	1409	U	C4'-C3'-C2'	-8.81	93.79	102.60
26	BB	1795	C	C4'-C3'-C2'	-8.81	93.79	102.60
30	BF	24	ASN	OD1-CG-ND2	-8.80	113.80	122.60
26	BB	2710	C	O4'-C4'-C3'	8.79	112.79	104.00
53	B2	65	ASN	CA-C-N	8.79	127.36	120.33
53	B2	65	ASN	C-N-CA	8.79	127.36	120.33
26	BB	1723	G	C4'-C3'-C2'	-8.79	93.81	102.60
26	BB	1170	C	O4'-C1'-N1	8.78	121.67	108.50
26	BB	1723	G	O4'-C4'-C3'	8.77	112.77	104.00
8	AH	59	ILE	N-CA-CB	8.77	120.81	110.55
26	BB	2140	G	O4'-C4'-C3'	8.77	112.77	104.00
26	BB	264	C	C1'-O4'-C4'	-8.75	101.15	109.90
30	BF	162	ARG	NE-CZ-NH1	-8.74	112.75	121.50
26	BB	1184	U	C3'-C2'-C1'	-8.74	92.56	101.30
42	BR	6	GLN	CA-C-N	8.73	133.59	120.31
42	BR	6	GLN	C-N-CA	8.73	133.59	120.31
9	AI	80	PHE	CA-CB-CG	-8.73	105.07	113.80
26	BB	2888	C	C3'-C2'-C1'	8.73	110.03	101.30
40	BP	31	HIS	ND1-CE1-NE2	8.72	117.12	108.40
26	BB	1206	G	O4'-C4'-C3'	8.72	112.72	104.00
47	BW	66	VAL	CA-C-O	-8.71	111.61	120.85
1	AA	475	C	C4'-C3'-C2'	-8.71	93.89	102.60
26	BB	323	C	O4'-C1'-N1	8.71	121.27	108.20
26	BB	1097	U	O3'-P-O5'	8.71	117.06	104.00
26	BB	1456	G	C5'-C4'-C3'	-8.71	102.93	116.00
26	BB	2223	G	C4'-C3'-C2'	-8.71	93.89	102.60
1	AA	869	G	C5'-C4'-C3'	-8.70	102.95	116.00
26	BB	2592	G	O4'-C1'-N9	8.70	121.55	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2413	G	O5'-C5'-C4'	-8.70	98.45	111.50
16	AP	109	LYS	CA-C-N	8.70	135.52	121.87
16	AP	109	LYS	C-N-CA	8.70	135.52	121.87
45	BU	71	VAL	CA-C-O	-8.70	112.48	121.70
1	AA	618	C	C4'-C3'-C2'	-8.69	93.91	102.60
26	BB	507	A	O4'-C4'-C3'	8.69	112.69	104.00
26	BB	1395	A	C2'-C3'-O3'	8.68	122.52	109.50
1	AA	1217	C	C3'-C2'-C1'	8.68	109.98	101.30
1	AA	1452	C	O4'-C4'-C3'	-8.68	97.42	106.10
1	AA	808	C	O4'-C4'-C3'	8.67	112.67	104.00
26	BB	2389	G	O3'-P-O5'	-8.67	91.00	104.00
53	B2	18	CYS	CA-C-N	8.67	129.62	120.43
53	B2	18	CYS	C-N-CA	8.67	129.62	120.43
4	AD	17	C	O3'-P-O5'	-8.66	91.02	104.00
26	BB	801	G	C1'-C2'-O2'	8.63	124.75	111.80
1	AA	686	U	C3'-C2'-C1'	-8.63	92.87	101.50
26	BB	886	A	O4'-C4'-C3'	8.62	112.62	104.00
26	BB	1954	G	C1'-O4'-C4'	-8.62	101.08	109.70
26	BB	2489	U	C3'-C2'-C1'	8.61	109.91	101.30
26	BB	751	A	C3'-C2'-C1'	8.61	110.11	101.50
26	BB	2551	C	C4'-C3'-C2'	-8.61	93.99	102.60
1	AA	1083	U	C3'-C2'-C1'	8.60	109.90	101.30
17	AQ	45	LEU	CA-C-N	8.60	135.09	120.72
17	AQ	45	LEU	C-N-CA	8.60	135.09	120.72
26	BB	1548	A	N9-C1'-C2'	-8.60	99.10	112.00
26	BB	1842	G	C1'-C2'-O2'	8.60	121.30	108.40
26	BB	2682	A	C5'-C4'-C3'	-8.60	103.11	116.00
1	AA	289	G	O4'-C4'-C3'	8.59	112.59	104.00
26	BB	2043	C	C4'-C3'-C2'	-8.59	94.01	102.60
26	BB	2126	A	C2'-C3'-O3'	8.59	126.59	113.70
1	AA	1105	A	C4'-C3'-C2'	-8.59	94.01	102.60
35	BK	128	ILE	CA-C-N	8.59	132.13	120.54
35	BK	128	ILE	C-N-CA	8.59	132.13	120.54
26	BB	1151	A	C4'-C3'-C2'	-8.58	94.02	102.60
26	BB	1588	G	C4'-C3'-C2'	-8.58	94.02	102.60
26	BB	1813	G	C3'-C2'-C1'	8.58	109.88	101.30
29	BE	128	ARG	NE-CZ-NH2	8.57	126.91	119.20
1	AA	1144	G	C3'-C2'-C1'	8.57	109.87	101.30
26	BB	481	G	O4'-C1'-N9	8.57	121.05	108.20
26	BB	1813	G	O4'-C4'-C3'	8.56	112.56	104.00
1	AA	1441	A	C4'-C3'-C2'	-8.56	94.04	102.60
2	AB	1	A	C4'-C3'-C2'	-8.56	94.04	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	67	C	C3'-C2'-C1'	8.55	109.85	101.30
19	AS	14	ARG	NE-CZ-NH2	-8.55	111.51	119.20
26	BB	266	G	C4'-C3'-C2'	-8.55	94.05	102.60
1	AA	264	C	O5'-C5'-C4'	8.55	124.32	111.50
15	AO	114	SER	O-C-N	8.54	130.91	122.03
4	AD	46	G	O3'-P-O5'	-8.54	91.20	104.00
26	BB	2459	A	O4'-C4'-C3'	8.53	112.53	104.00
26	BB	1947	C	C4'-C3'-C2'	-8.53	94.07	102.60
26	BB	1398	C	C4'-C3'-C2'	-8.53	94.07	102.60
1	AA	475	C	O4'-C4'-C3'	8.52	112.52	104.00
25	BA	57	A	C3'-C2'-O2'	8.52	123.48	110.70
26	BB	2282	G	C4'-C3'-O3'	8.52	122.18	109.40
17	AQ	41	TRP	CA-C-N	8.50	132.03	120.38
17	AQ	41	TRP	C-N-CA	8.50	132.03	120.38
1	AA	29	U	O5'-C5'-C4'	8.50	124.25	111.50
26	BB	1159	U	O4'-C1'-N1	8.50	121.25	108.50
25	BA	75	G	C5'-C4'-C3'	8.49	128.74	116.00
5	AE	143	LEU	CA-C-O	-8.48	111.91	120.82
26	BB	1541	C	C5'-C4'-C3'	-8.48	103.27	116.00
12	AL	39	GLY	CA-C-N	8.48	137.74	121.54
12	AL	39	GLY	C-N-CA	8.48	137.74	121.54
26	BB	1711	A	C5'-C4'-C3'	-8.48	103.28	116.00
26	BB	467	G	O4'-C1'-C2'	-8.48	99.12	107.60
1	AA	1392	G	O4'-C4'-C3'	8.48	112.48	104.00
7	AG	88	ASN	CA-CB-CG	8.47	121.07	112.60
49	BY	72	GLY	CA-C-N	8.47	128.50	119.78
49	BY	72	GLY	C-N-CA	8.47	128.50	119.78
26	BB	1536	C	P-O3'-C3'	8.46	132.90	120.20
26	BB	2045	C	O4'-C1'-N1	8.46	121.19	108.50
1	AA	733	G	O3'-P-O5'	-8.46	91.31	104.00
26	BB	1328	A	C3'-C2'-C1'	8.46	109.75	101.30
45	BU	79	GLY	CA-C-N	8.46	130.41	119.84
45	BU	79	GLY	C-N-CA	8.46	130.41	119.84
26	BB	2129	C	O4'-C1'-N1	8.45	120.87	108.20
15	AO	109	ARG	NE-CZ-NH1	8.45	129.95	121.50
26	BB	984	A	O3'-P-O5'	-8.45	91.33	104.00
26	BB	717	C	C2'-C3'-O3'	-8.43	101.06	113.70
25	BA	91	C	C3'-C2'-O2'	8.42	123.33	110.70
26	BB	2822	G	O4'-C1'-N9	8.42	121.13	108.50
1	AA	473	U	O4'-C1'-N1	8.41	121.12	108.50
26	BB	895	U	O5'-C5'-C4'	-8.41	99.08	111.70
30	BF	4	VAL	CA-C-N	8.41	135.45	122.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	BF	4	VAL	C-N-CA	8.41	135.45	122.24
44	BT	13	ARG	NE-CZ-NH1	8.41	129.91	121.50
56	B5	12	ARG	NE-CZ-NH1	-8.41	113.09	121.50
5	AE	93	HIS	CB-CG-CD2	-8.41	120.27	131.20
26	BB	1410	G	O4'-C4'-C3'	8.41	112.41	104.00
26	BB	2655	G	O4'-C1'-C2'	-8.40	97.40	105.80
26	BB	1664	A	O4'-C1'-C2'	8.40	116.00	107.60
17	AQ	75	LYS	CA-C-O	-8.40	110.31	119.97
26	BB	1757	A	O3'-P-O5'	8.39	116.59	104.00
1	AA	764	C	P-O3'-C3'	8.39	132.78	120.20
31	BG	43	ILE	N-CA-C	-8.39	105.31	113.53
1	AA	855	U	C4'-C3'-C2'	-8.37	94.23	102.60
26	BB	915	C	C4'-C3'-C2'	-8.37	94.23	102.60
10	AJ	69	ARG	CA-C-N	8.37	128.25	120.21
10	AJ	69	ARG	C-N-CA	8.37	128.25	120.21
25	BA	39	A	O4'-C4'-C3'	8.37	112.36	104.00
2	AB	52	A	C1'-O4'-C4'	8.36	118.26	109.90
21	AU	19	GLU	N-CA-C	-8.36	101.75	111.03
1	AA	180	U	O4'-C4'-C3'	8.35	112.35	104.00
1	AA	499	A	O4'-C1'-N9	8.35	120.72	108.20
2	AB	73	G	O4'-C1'-C2'	-8.35	99.25	107.60
10	AJ	86	VAL	CA-C-N	8.35	128.38	119.78
10	AJ	86	VAL	C-N-CA	8.35	128.38	119.78
26	BB	309	A	O4'-C4'-C3'	8.35	112.34	104.00
28	BD	55	GLY	CA-C-O	-8.34	115.54	122.29
1	AA	255	G	O4'-C1'-C2'	-8.33	99.27	107.60
1	AA	614	C	O4'-C1'-N1	8.33	121.00	108.50
1	AA	1377	A	C4'-C3'-C2'	-8.33	94.27	102.60
26	BB	2032	G	C4'-C3'-C2'	-8.33	94.27	102.60
26	BB	75	G	C4'-C3'-C2'	-8.32	94.28	102.60
26	BB	337	C	C3'-C2'-O2'	8.32	123.19	110.70
37	BM	56	ASP	CA-CB-CG	8.32	120.92	112.60
1	AA	103	U	C3'-C2'-C1'	8.31	109.61	101.30
25	BA	27	C	C1'-O4'-C4'	-8.31	101.59	109.90
1	AA	131	A	C4'-C3'-C2'	-8.30	94.30	102.60
2	AB	6	C	C2'-C3'-O3'	-8.29	101.26	113.70
48	BX	90	ASP	CA-CB-CG	8.29	120.89	112.60
1	AA	462	G	O4'-C4'-C3'	8.28	114.38	106.10
26	BB	160	A	C5'-C4'-O4'	8.28	122.23	109.80
46	BV	58	VAL	CA-C-O	-8.28	112.50	121.28
26	BB	1824	G	O4'-C1'-N9	8.28	120.92	108.50
1	AA	1044	A	C5'-C4'-O4'	8.27	122.21	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	BD	210	ALA	CA-C-N	8.27	131.19	120.44
28	BD	210	ALA	C-N-CA	8.27	131.19	120.44
31	BG	176	PHE	CA-CB-CG	8.27	122.07	113.80
41	BQ	16	ARG	NE-CZ-NH2	8.27	126.64	119.20
1	AA	1397	C	C4'-C3'-C2'	-8.27	94.33	102.60
1	AA	176	C	P-O5'-C5'	8.27	133.30	120.90
26	BB	412	A	C1'-O4'-C4'	8.27	118.17	109.90
56	B5	27	GLY	O-C-N	-8.27	114.26	122.19
44	BT	38	VAL	CB-CA-C	8.26	121.16	110.91
26	BB	2822	G	C4'-C3'-C2'	-8.26	94.34	102.60
26	BB	55	G	O4'-C4'-C3'	8.26	112.26	104.00
26	BB	1225	G	C2'-C3'-O3'	8.26	126.08	113.70
36	BL	58	ASN	CA-CB-CG	8.25	120.85	112.60
26	BB	128	C	C4'-C3'-C2'	-8.25	94.35	102.60
26	BB	2270	A	C4'-C3'-C2'	-8.25	94.35	102.60
26	BB	2536	G	O4'-C4'-C3'	8.25	112.25	104.00
44	BT	68	ARG	CA-C-N	8.25	129.85	120.53
26	BB	553	G	O4'-C4'-C3'	8.25	112.25	104.00
26	BB	2518	A	C1'-O4'-C4'	-8.25	101.45	109.70
44	BT	68	ARG	C-N-CA	8.25	129.85	120.53
26	BB	947	A	C3'-C2'-O2'	8.24	123.07	110.70
26	BB	2120	G	O4'-C1'-C2'	-8.24	99.36	107.60
26	BB	1095	A	C3'-C2'-C1'	8.24	109.54	101.30
31	BG	114	ARG	NE-CZ-NH2	8.24	126.61	119.20
1	AA	307	C	C3'-C2'-O2'	-8.24	102.24	114.60
26	BB	2393	U	C1'-O4'-C4'	-8.24	101.66	109.90
2	AB	35	C	C3'-C2'-C1'	8.24	109.54	101.30
26	BB	1758	U	O4'-C1'-N1	8.24	120.55	108.20
1	AA	1106	G	O4'-C4'-C3'	8.23	112.23	104.00
26	BB	2852	G	C4'-C3'-O3'	-8.23	100.65	113.00
1	AA	1452	C	C5'-C4'-O4'	8.23	121.45	109.10
3	AC	43	U	C3'-C2'-O2'	8.23	123.05	110.70
26	BB	2174	C	O4'-C1'-N1	8.23	120.85	108.50
26	BB	2617	U	C4'-C3'-C2'	-8.23	94.37	102.60
1	AA	871	U	C3'-C2'-C1'	-8.23	93.27	101.50
26	BB	487	C	O4'-C1'-N1	8.23	120.84	108.50
1	AA	347	G	C4'-C3'-C2'	-8.23	94.37	102.60
26	BB	1846	G	C4'-C3'-C2'	-8.23	94.37	102.60
19	AS	16	PHE	CA-CB-CG	-8.22	105.58	113.80
1	AA	1055	A	C4'-C3'-C2'	-8.22	94.38	102.60
25	BA	22	U	C1'-O4'-C4'	-8.22	101.68	109.90
55	B4	31	GLU	O-C-N	8.22	132.38	122.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1816	C	C5'-C4'-O4'	8.21	121.42	109.10
1	AA	39	G	O4'-C4'-C3'	-8.21	95.79	104.00
1	AA	160	A	O4'-C4'-C3'	8.21	112.21	104.00
1	AA	1022	A	C4'-C3'-C2'	-8.21	94.39	102.60
11	AK	107	LYS	CA-C-N	8.20	134.90	122.85
11	AK	107	LYS	C-N-CA	8.20	134.90	122.85
18	AR	70	LYS	CA-C-O	-8.20	110.54	119.97
26	BB	1127	A	O4'-C4'-C3'	8.19	112.19	104.00
26	BB	471	A	C4'-C3'-C2'	-8.19	94.41	102.60
1	AA	51	A	P-O3'-C3'	8.19	132.48	120.20
7	AG	76	LYS	CA-C-O	-8.19	111.87	120.55
1	AA	875	U	C5'-C4'-C3'	-8.19	103.72	116.00
26	BB	2571	U	P-O3'-C3'	8.19	132.48	120.20
1	AA	1221	G	O4'-C1'-C2'	-8.18	99.42	107.60
4	AD	22	A	C5'-C4'-O4'	8.18	121.38	109.10
4	AD	9	G	C5'-C4'-O4'	-8.18	96.83	109.10
26	BB	503	A	O4'-C1'-C2'	8.18	113.98	105.80
26	BB	841	G	C5'-C4'-C3'	-8.18	103.73	116.00
32	BH	95	ALA	CA-C-N	8.18	133.01	121.24
32	BH	95	ALA	C-N-CA	8.18	133.01	121.24
26	BB	119	A	C4'-C3'-O3'	8.17	121.66	109.40
1	AA	425	G	O3'-P-O5'	-8.17	91.75	104.00
26	BB	2276	G	O4'-C1'-C2'	-8.16	99.44	107.60
26	BB	1446	C	C4'-C3'-C2'	-8.16	94.44	102.60
26	BB	1801	A	O4'-C1'-C2'	-8.16	97.64	105.80
26	BB	407	G	C5'-C4'-C3'	8.16	128.24	116.00
26	BB	2250	G	O4'-C1'-C2'	8.16	113.96	105.80
40	BP	108	ALA	CA-C-O	-8.16	113.28	119.32
10	AJ	91	ARG	NE-CZ-NH2	8.16	126.54	119.20
26	BB	620	G	O4'-C1'-N9	8.16	120.43	108.20
22	AV	63	ASP	CA-CB-CG	8.15	120.75	112.60
1	AA	338	A	O4'-C1'-C2'	-8.15	99.45	107.60
1	AA	818	G	C3'-C2'-C1'	-8.15	93.35	101.50
1	AA	1109	C	C4'-C3'-C2'	-8.15	94.45	102.60
26	BB	677	A	C5'-C4'-C3'	-8.15	103.78	116.00
1	AA	1537	U	C3'-C2'-C1'	8.14	109.44	101.30
1	AA	788	U	C5'-C4'-O4'	8.14	122.01	109.80
26	BB	698	C	C4'-C3'-O3'	-8.14	100.79	113.00
1	AA	1041	G	C5'-C4'-C3'	8.14	128.21	116.00
26	BB	184	C	O4'-C4'-C3'	8.14	112.14	104.00
26	BB	821	A	C4'-C3'-C2'	-8.14	94.46	102.60
26	BB	1398	C	O4'-C4'-C3'	8.14	112.14	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	396	G	O4'-C4'-C3'	8.13	112.13	104.00
19	AS	11	ALA	CA-C-O	-8.13	112.25	121.19
3	AC	47	C	C3'-C2'-C1'	-8.13	93.37	101.50
26	BB	1801	A	O4'-C1'-N9	8.12	120.38	108.20
26	BB	114	U	C2'-C3'-O3'	8.12	125.88	113.70
26	BB	1704	C	C1'-O4'-C4'	-8.12	101.78	109.90
37	BM	8	LEU	CA-C-O	8.12	130.60	121.51
26	BB	2390	U	O4'-C1'-N1	8.11	120.67	108.50
28	BD	20	ASN	CA-C-N	8.11	127.83	119.56
28	BD	20	ASN	C-N-CA	8.11	127.83	119.56
26	BB	279	A	O4'-C4'-C3'	8.11	112.11	104.00
26	BB	1710	G	C1'-O4'-C4'	-8.11	101.79	109.90
1	AA	600	A	C4'-C3'-C2'	-8.10	94.50	102.60
26	BB	810	U	C4'-C3'-C2'	-8.10	94.50	102.60
26	BB	2179	C	C3'-C2'-O2'	8.10	122.86	110.70
53	B2	35	ASP	CA-C-N	8.10	132.53	120.95
53	B2	35	ASP	C-N-CA	8.10	132.53	120.95
3	AC	47	C	C4'-C3'-C2'	8.09	110.69	102.60
55	B4	5	ARG	NE-CZ-NH2	-8.09	111.92	119.20
1	AA	227	G	O3'-P-O5'	-8.09	91.86	104.00
1	AA	583	A	O4'-C4'-C3'	8.09	112.09	104.00
31	BG	2	LYS	CA-C-N	8.09	131.46	120.54
31	BG	2	LYS	C-N-CA	8.09	131.46	120.54
1	AA	1412	C	C4'-C3'-C2'	-8.08	94.52	102.60
33	BI	91	PHE	CA-CB-CG	8.08	121.88	113.80
26	BB	2477	U	C3'-C2'-C1'	8.08	109.58	101.50
1	AA	404	G	C4'-C3'-C2'	-8.07	94.53	102.60
1	AA	191	G	O4'-C1'-C2'	-8.07	99.53	107.60
26	BB	1358	G	C4'-C3'-C2'	-8.07	94.53	102.60
42	BR	11	GLN	N-CA-C	8.07	120.16	111.36
26	BB	33	C	O4'-C1'-N1	8.07	120.30	108.20
26	BB	1133	A	O4'-C4'-C3'	-8.07	98.03	106.10
26	BB	2582	G	O4'-C4'-C3'	8.07	112.07	104.00
26	BB	2879	A	O3'-P-O5'	-8.07	91.90	104.00
26	BB	2868	A	C4'-C3'-C2'	-8.06	94.54	102.60
1	AA	1347	G	P-O3'-C3'	8.06	132.29	120.20
1	AA	1453	G	C1'-O4'-C4'	-8.06	101.84	109.90
31	BG	9	ASP	N-CA-C	8.06	120.14	111.36
1	AA	1014	A	C2'-C3'-O3'	8.05	125.78	113.70
30	BF	131	THR	CA-C-O	-8.05	112.01	120.55
1	AA	493	A	O4'-C1'-N9	8.05	120.58	108.50
26	BB	2125	G	O4'-C1'-C2'	-8.05	97.75	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1029	U	C4'-C3'-O3'	8.05	121.47	109.40
26	BB	2693	G	C4'-C3'-C2'	-8.04	94.56	102.60
1	AA	957	U	C1'-O4'-C4'	8.04	117.94	109.90
26	BB	2130	U	C1'-O4'-C4'	-8.04	101.86	109.90
26	BB	1512	C	O4'-C4'-C3'	-8.04	95.97	104.00
26	BB	2268	A	C5'-C4'-O4'	8.03	121.85	109.80
50	BZ	73	ARG	NE-CZ-NH2	8.03	126.43	119.20
26	BB	105	C	O4'-C1'-N1	8.03	120.54	108.50
26	BB	1033	U	C4'-C3'-O3'	8.03	121.44	109.40
28	BD	130	PRO	N-CA-CB	8.03	110.45	103.31
26	BB	886	A	C4'-C3'-O3'	8.02	125.03	113.00
26	BB	1906	G	O4'-C1'-N9	8.02	120.53	108.50
26	BB	1921	G	C3'-C2'-O2'	8.02	122.73	110.70
26	BB	2128	G	O3'-P-O5'	-8.02	91.97	104.00
1	AA	191	G	C4'-C3'-C2'	-8.02	94.58	102.60
1	AA	829	G	C4'-C3'-C2'	-8.02	94.58	102.60
26	BB	184	C	C4'-C3'-C2'	-8.02	94.58	102.60
43	BS	69	ARG	NE-CZ-NH1	-8.02	113.48	121.50
26	BB	2822	G	O4'-C4'-C3'	8.01	112.01	104.00
26	BB	2164	C	O4'-C1'-N1	8.01	120.21	108.20
1	AA	678	U	C5'-C4'-O4'	8.01	121.81	109.80
1	AA	1376	U	O4'-C1'-C2'	8.01	115.61	107.60
26	BB	988	A	C1'-O4'-C4'	8.01	117.91	109.90
26	BB	2837	A	C4'-C3'-C2'	-8.00	94.60	102.60
26	BB	304	U	O4'-C1'-N1	8.00	120.50	108.50
1	AA	350	G	C1'-O4'-C4'	-8.00	101.90	109.90
1	AA	1116	U	O4'-C1'-C2'	-7.99	99.61	107.60
26	BB	637	A	C4'-C3'-O3'	7.99	121.39	109.40
26	BB	2133	G	C3'-C2'-C1'	7.99	109.49	101.50
26	BB	573	U	O4'-C1'-N1	7.99	120.18	108.20
26	BB	1451	C	C4'-C3'-C2'	7.99	110.59	102.60
27	BC	103	GLN	N-CA-C	7.99	119.61	111.07
50	BZ	10	ARG	CA-C-O	-7.99	111.44	120.46
26	BB	1085	A	O4'-C4'-C3'	7.98	111.98	104.00
26	BB	581	C	O4'-C1'-N1	7.98	120.47	108.50
26	BB	707	G	C3'-C2'-O2'	7.98	122.67	110.70
26	BB	2592	G	C4'-C3'-C2'	-7.98	94.62	102.60
26	BB	575	A	O4'-C1'-N9	7.98	120.47	108.50
4	AD	48	U	C3'-C2'-C1'	-7.97	93.33	101.30
25	BA	45	A	O4'-C1'-N9	7.97	120.46	108.50
3	AC	42	U	O4'-C1'-C2'	-7.97	97.83	105.80
25	BA	36	C	O4'-C4'-C3'	-7.97	96.03	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1609	A	O4'-C4'-C3'	7.96	111.97	104.00
26	BB	1323	C	O4'-C4'-C3'	7.96	114.06	106.10
26	BB	787	C	C4'-C3'-C2'	-7.96	94.64	102.60
26	BB	662	G	C1'-C2'-O2'	-7.96	96.46	108.40
1	AA	491	G	O4'-C4'-C3'	7.95	111.95	104.00
55	B4	18	HIS	ND1-CE1-NE2	7.95	116.35	108.40
8	AH	22	LYS	CA-C-N	7.95	132.42	121.05
8	AH	22	LYS	C-N-CA	7.95	132.42	121.05
20	AT	52	CYS	CA-C-N	7.95	130.96	122.69
20	AT	52	CYS	C-N-CA	7.95	130.96	122.69
36	BL	80	HIS	O-C-N	7.95	131.21	122.15
26	BB	900	A	C5'-C4'-C3'	-7.95	104.08	116.00
26	BB	2081	U	O4'-C1'-C2'	-7.94	99.66	107.60
1	AA	536	C	O4'-C4'-C3'	7.93	111.93	104.00
1	AA	793	U	O4'-C1'-C2'	-7.93	99.67	107.60
6	AF	17	TRP	CD2-CE2-CZ2	7.93	130.33	122.40
26	BB	969	G	C3'-C2'-C1'	7.93	109.23	101.30
26	BB	1793	C	C4'-C3'-C2'	-7.93	94.67	102.60
26	BB	2482	A	C4'-C3'-O3'	-7.92	101.12	113.00
3	AC	28	U	C3'-C2'-C1'	7.92	109.22	101.30
26	BB	957	C	C3'-C2'-O2'	-7.92	102.72	114.60
26	BB	2733	A	C5'-C4'-C3'	-7.92	104.12	116.00
1	AA	1144	G	C4'-C3'-C2'	-7.92	94.68	102.60
1	AA	1350	A	C2'-C3'-O3'	7.92	125.58	113.70
11	AK	50	VAL	O-C-N	7.91	131.81	123.26
26	BB	2841	C	O4'-C1'-N1	7.91	120.37	108.50
26	BB	1231	U	O4'-C1'-C2'	-7.91	99.69	107.60
15	AO	9	LYS	CA-C-N	7.91	127.67	119.76
15	AO	9	LYS	C-N-CA	7.91	127.67	119.76
18	AR	61	GLN	OE1-CD-NE2	-7.91	114.69	122.60
1	AA	448	A	C3'-C2'-C1'	7.91	109.20	101.30
17	AQ	41	TRP	O-C-N	-7.91	114.96	123.42
26	BB	502	A	C5'-C4'-C3'	-7.90	104.14	116.00
26	BB	1606	C	C4'-C3'-C2'	-7.90	94.70	102.60
26	BB	909	A	O4'-C1'-N9	7.90	120.35	108.50
39	BO	108	VAL	N-CA-CB	-7.90	102.73	110.08
26	BB	1042	G	C4'-C3'-C2'	-7.90	94.70	102.60
1	AA	207	C	O4'-C1'-N1	7.90	120.35	108.50
26	BB	584	C	O4'-C1'-N1	7.90	120.34	108.50
26	BB	1239	G	C5'-C4'-O4'	7.89	121.64	109.80
26	BB	1033	U	O4'-C1'-C2'	-7.89	97.91	105.80
6	AF	119	ILE	CA-C-O	-7.89	112.49	120.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	46	G	C5'-C4'-C3'	-7.89	104.17	116.00
26	BB	713	G	C5'-C4'-O4'	7.89	121.63	109.80
26	BB	2081	U	C4'-C3'-C2'	-7.89	94.71	102.60
26	BB	2898	U	P-O5'-C5'	7.89	132.73	120.90
26	BB	560	C	C4'-C3'-C2'	-7.88	94.72	102.60
26	BB	878	A	C4'-C3'-C2'	-7.88	94.72	102.60
4	AD	7	G	O5'-C5'-C4'	-7.88	99.88	111.70
26	BB	1120	G	O4'-C4'-C3'	7.88	111.88	104.00
1	AA	589	U	C4'-C3'-C2'	-7.88	94.72	102.60
1	AA	1287	A	O4'-C1'-N9	7.88	120.32	108.50
26	BB	1157	G	O4'-C4'-C3'	7.88	111.88	104.00
57	B6	25	HIS	CA-CB-CG	-7.88	105.92	113.80
26	BB	2427	C	O3'-P-O5'	7.88	115.81	104.00
26	BB	947	A	O4'-C4'-C3'	7.87	111.87	104.00
49	BY	56	HIS	CA-CB-CG	7.87	121.67	113.80
26	BB	1460	U	N1-C1'-C2'	7.87	123.80	112.00
26	BB	2877	G	C4'-C3'-C2'	-7.87	94.73	102.60
26	BB	2115	G	N9-C1'-C2'	-7.86	100.20	112.00
56	B5	5	PHE	CA-CB-CG	-7.86	105.94	113.80
26	BB	1061	U	C4'-C3'-O3'	7.86	121.19	109.40
1	AA	1238	A	O3'-P-O5'	7.86	115.79	104.00
22	AV	1	PRO	CA-N-CD	-7.86	101.00	112.00
26	BB	126	A	C1'-O4'-C4'	-7.86	102.04	109.90
2	AB	64	U	O3'-P-O5'	-7.86	92.22	104.00
26	BB	1647	U	N1-C1'-C2'	7.86	123.78	112.00
54	B3	37	HIS	CB-CG-CD2	-7.86	120.99	131.20
26	BB	1017	G	C5'-C4'-C3'	-7.85	104.22	116.00
53	B2	4	ASP	CA-CB-CG	7.85	120.45	112.60
1	AA	1364	U	C2'-C3'-O3'	7.85	121.28	109.50
26	BB	2901	C	C4'-C3'-C2'	-7.85	94.75	102.60
4	AD	17	C	O4'-C1'-C2'	-7.85	99.75	107.60
1	AA	147	G	C3'-C2'-O2'	7.85	122.47	110.70
16	AP	105	ALA	CA-C-N	7.84	131.43	120.29
16	AP	105	ALA	C-N-CA	7.84	131.43	120.29
26	BB	1816	C	C3'-C2'-C1'	7.84	109.34	101.50
40	BP	3	HIS	CB-CG-CD2	-7.84	121.00	131.20
1	AA	399	G	O4'-C1'-C2'	-7.84	99.76	107.60
26	BB	2786	U	C4'-C3'-C2'	-7.84	94.76	102.60
1	AA	1392	G	C1'-O4'-C4'	-7.84	102.06	109.90
26	BB	30	G	C3'-C2'-C1'	-7.83	93.47	101.30
26	BB	585	G	O4'-C4'-C3'	7.83	111.83	104.00
4	AD	26	C	O5'-C5'-C4'	-7.83	99.75	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1799	G	O4'-C4'-C3'	7.83	111.83	104.00
26	BB	2053	G	C5'-C4'-O4'	7.83	121.54	109.80
26	BB	1622	G	C5'-C4'-C3'	7.83	127.74	116.00
2	AB	36	A	C5'-C4'-C3'	-7.83	104.26	116.00
10	AJ	104	VAL	CA-C-O	-7.82	111.71	119.92
26	BB	1087	G	O4'-C4'-C3'	7.82	111.82	104.00
1	AA	685	G	C4'-C3'-C2'	-7.82	94.78	102.60
1	AA	124	C	C5'-C4'-C3'	-7.82	104.27	116.00
26	BB	1178	C	C3'-C2'-O2'	7.82	122.43	110.70
10	AJ	150	PHE	CA-CB-CG	7.82	121.61	113.80
26	BB	2785	C	O4'-C1'-C2'	-7.82	99.78	107.60
56	B5	27	GLY	CA-C-N	7.81	131.53	120.28
56	B5	27	GLY	C-N-CA	7.81	131.53	120.28
26	BB	2043	C	C5'-C4'-C3'	-7.81	104.28	116.00
26	BB	2187	U	O4'-C1'-N1	7.81	120.21	108.50
1	AA	339	C	O4'-C1'-N1	7.81	120.21	108.50
1	AA	656	G	C4'-C3'-C2'	-7.81	94.79	102.60
46	BV	30	ILE	CA-CB-CG2	7.81	123.77	110.50
1	AA	1229	A	O3'-P-O5'	-7.80	92.30	104.00
4	AD	63	C	C3'-C2'-O2'	7.80	122.40	110.70
1	AA	1348	U	O4'-C4'-C3'	7.80	111.80	104.00
1	AA	1453	G	C5'-C4'-C3'	-7.80	104.31	116.00
1	AA	1182	G	O4'-C1'-C2'	7.79	113.59	105.80
18	AR	77	TYR	O-C-N	7.79	130.50	122.09
26	BB	1741	C	O4'-C1'-N1	7.79	120.19	108.50
1	AA	766	A	C4'-C3'-C2'	-7.79	94.81	102.60
37	BM	120	PRO	CA-N-CD	-7.79	101.09	112.00
1	AA	960	U	C4'-C3'-O3'	7.79	121.08	109.40
18	AR	62	ARG	O-C-N	7.79	130.09	122.07
26	BB	128	C	C3'-C2'-C1'	7.79	109.09	101.30
26	BB	2081	U	O4'-C1'-N1	7.78	120.17	108.50
26	BB	1477	A	C3'-C2'-C1'	-7.78	93.52	101.30
37	BM	48	PRO	N-CA-CB	7.78	110.59	103.20
42	BR	79	VAL	CA-CB-CG2	7.78	123.62	110.40
26	BB	430	A	C1'-C2'-O2'	-7.78	96.73	108.40
16	AP	28	ARG	NE-CZ-NH2	-7.78	112.20	119.20
36	BL	76	HIS	CB-CG-CD2	-7.78	121.09	131.20
26	BB	2049	G	O4'-C4'-C3'	7.77	111.77	104.00
26	BB	369	U	C1'-O4'-C4'	-7.77	102.13	109.90
26	BB	1187	G	C4'-C3'-C2'	-7.77	94.83	102.60
1	AA	926	G	C4'-C3'-O3'	7.77	124.65	113.00
31	BG	37	MET	CA-C-N	7.77	127.38	119.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BG	37	MET	C-N-CA	7.77	127.38	119.92
40	BP	108	ALA	CA-C-N	7.77	128.22	119.83
40	BP	108	ALA	C-N-CA	7.77	128.22	119.83
1	AA	549	C	C5'-C4'-O4'	7.76	121.45	109.80
26	BB	1565	C	C3'-C2'-C1'	-7.76	93.74	101.50
26	BB	1223	G	O5'-C5'-C4'	-7.76	99.86	111.50
1	AA	111	G	C4'-C3'-C2'	-7.75	94.84	102.60
26	BB	2198	A	P-O3'-C3'	7.75	131.83	120.20
54	B3	50	GLY	CA-C-N	7.75	136.34	121.54
54	B3	50	GLY	C-N-CA	7.75	136.34	121.54
26	BB	678	C	O4'-C1'-N1	7.75	120.12	108.50
26	BB	2749	A	C5'-C4'-O4'	7.75	121.42	109.80
1	AA	526	C	C5'-C4'-C3'	7.74	127.62	116.00
26	BB	2468	A	O3'-P-O5'	-7.74	92.39	104.00
26	BB	218	A	O4'-C1'-N9	7.74	119.80	108.20
26	BB	573	U	C3'-C2'-C1'	7.74	109.24	101.50
26	BB	2758	A	C4'-C3'-C2'	-7.74	94.86	102.60
26	BB	2811	G	O4'-C1'-C2'	-7.74	99.86	107.60
26	BB	2866	U	O4'-C4'-C3'	7.74	113.83	106.10
26	BB	1825	U	O3'-P-O5'	-7.73	92.40	104.00
51	B0	18	LEU	CA-C-N	7.73	130.96	120.44
51	B0	18	LEU	C-N-CA	7.73	130.96	120.44
22	AV	40	PHE	CA-C-N	7.73	127.28	119.24
22	AV	40	PHE	C-N-CA	7.73	127.28	119.24
26	BB	2411	A	C5'-C4'-O4'	7.73	121.39	109.80
27	BC	66	PRO	N-CA-CB	7.72	111.36	103.25
26	BB	707	G	O4'-C4'-C3'	7.72	111.72	104.00
26	BB	1146	C	O4'-C1'-N1	7.72	120.08	108.50
26	BB	2057	G	C5'-C4'-C3'	-7.72	104.42	116.00
26	BB	2199	A	O4'-C1'-N9	7.72	120.08	108.50
1	AA	1349	A	C5'-C4'-C3'	-7.72	104.42	116.00
26	BB	589	U	O4'-C1'-C2'	-7.72	99.88	107.60
1	AA	770	C	O4'-C4'-C3'	7.72	111.72	104.00
26	BB	1758	U	C3'-C2'-O2'	-7.71	103.03	114.60
26	BB	2702	G	O4'-C4'-C3'	7.71	111.71	104.00
26	BB	1022	G	C3'-C2'-C1'	-7.71	93.79	101.50
1	AA	809	G	O4'-C1'-N9	7.71	120.07	108.50
40	BP	77	ALA	N-CA-C	7.71	121.17	111.69
1	AA	287	U	C3'-C2'-O2'	7.71	122.26	110.70
43	BS	58	GLN	OE1-CD-NE2	7.71	130.31	122.60
26	BB	436	C	C4'-C3'-C2'	-7.71	94.89	102.60
26	BB	2421	G	O4'-C4'-C3'	7.71	111.70	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	BU	22	ASP	CA-CB-CG	7.71	120.31	112.60
1	AA	1077	G	O4'-C4'-C3'	7.70	111.70	104.00
1	AA	1261	A	O4'-C1'-C2'	-7.70	99.90	107.60
26	BB	1348	C	O4'-C1'-N1	7.70	120.05	108.50
38	BN	2	ARG	NE-CZ-NH2	7.70	126.13	119.20
26	BB	216	A	C1'-O4'-C4'	-7.70	102.20	109.90
26	BB	217	A	C4'-C3'-C2'	-7.70	94.90	102.60
8	AH	104	ILE	CB-CA-C	7.69	120.08	111.08
26	BB	1341	G	C4'-C3'-C2'	7.69	110.29	102.60
26	BB	2602	A	N9-C1'-C2'	7.69	125.54	114.00
35	BK	80	LYS	CA-C-N	7.69	130.44	120.44
35	BK	80	LYS	C-N-CA	7.69	130.44	120.44
39	BO	133	LYS	CA-C-O	-7.69	112.78	120.70
21	AU	62	ARG	CA-C-O	7.69	129.12	120.90
26	BB	1348	C	O4'-C1'-C2'	-7.69	99.91	107.60
26	BB	2460	U	C5'-C4'-C3'	-7.69	104.47	116.00
28	BD	9	SER	O-C-N	7.68	127.26	121.65
15	AO	46	SER	CA-C-N	7.68	134.65	122.36
15	AO	46	SER	C-N-CA	7.68	134.65	122.36
1	AA	285	C	O4'-C1'-N1	7.68	120.02	108.50
1	AA	1325	C	O4'-C1'-N1	7.68	120.02	108.50
26	BB	1663	G	C5'-C4'-C3'	-7.68	104.48	116.00
26	BB	2554	U	O4'-C1'-C2'	-7.68	99.92	107.60
40	BP	33	ILE	N-CA-C	7.67	119.38	108.17
1	AA	3	A	O4'-C1'-N9	7.67	120.01	108.50
26	BB	1209	U	C1'-O4'-C4'	7.67	117.57	109.90
26	BB	392	U	O4'-C1'-C2'	-7.67	99.93	107.60
26	BB	2733	A	C4'-C3'-C2'	-7.67	94.93	102.60
26	BB	2858	C	O4'-C4'-C3'	7.67	111.67	104.00
35	BK	8	VAL	O-C-N	7.67	130.49	122.67
26	BB	492	A	O4'-C4'-C3'	7.67	111.67	104.00
26	BB	764	A	C3'-C2'-C1'	-7.67	93.83	101.50
26	BB	881	G	P-O5'-C5'	7.67	132.40	120.90
2	AB	65	C	O5'-C5'-C4'	7.67	123.00	111.50
12	AL	80	HIS	CB-CG-CD2	-7.66	121.24	131.20
26	BB	2845	U	O4'-C1'-N1	7.66	119.99	108.50
9	AI	130	GLU	CA-C-O	-7.66	112.19	120.92
26	BB	1035	U	C4'-C3'-C2'	-7.66	94.94	102.60
5	AE	170	ILE	N-CA-C	7.66	118.43	110.62
26	BB	1854	A	C3'-C2'-C1'	7.66	108.95	101.30
1	AA	527	7MG	P-O3'-C3'	7.65	131.67	120.20
31	BG	167	ALA	N-CA-C	-7.65	102.59	112.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BM	82	ASN	CA-CB-CG	7.65	120.25	112.60
1	AA	1248	A	O4'-C1'-N9	7.64	119.96	108.50
26	BB	1021	A	O4'-C1'-C2'	-7.64	99.96	107.60
26	BB	2287	A	P-O3'-C3'	7.64	131.66	120.20
26	BB	321	U	N1-C1'-C2'	7.64	123.46	112.00
26	BB	1210	G	O4'-C1'-C2'	7.64	113.44	105.80
1	AA	749	A	C4'-C3'-O3'	7.64	124.45	113.00
26	BB	47	C	O4'-C4'-C3'	-7.63	96.37	104.00
26	BB	885	C	C3'-C2'-C1'	7.63	108.93	101.30
26	BB	2608	G	C1'-O4'-C4'	-7.63	102.27	109.90
1	AA	852	G	N9-C1'-C2'	-7.63	100.55	112.00
1	AA	426	U	C1'-C2'-O2'	7.63	119.84	108.40
1	AA	1046	A	C4'-C3'-C2'	-7.63	94.97	102.60
26	BB	1088	A	O4'-C1'-C2'	-7.63	99.97	107.60
4	AD	7	G	C4'-C3'-O3'	7.62	120.84	109.40
26	BB	2871	U	C4'-C3'-O3'	-7.62	101.56	113.00
21	AU	58	ILE	CA-C-N	7.62	130.81	120.44
21	AU	58	ILE	C-N-CA	7.62	130.81	120.44
26	BB	855	G	C4'-C3'-C2'	-7.62	94.98	102.60
1	AA	722	G	C1'-O4'-C4'	-7.62	102.28	109.90
26	BB	689	A	C2'-C3'-O3'	7.62	125.13	113.70
16	AP	86	ARG	NE-CZ-NH2	-7.62	112.35	119.20
26	BB	2573	C	C2'-C3'-O3'	-7.62	102.28	113.70
26	BB	690	G	C3'-C2'-O2'	7.61	122.12	110.70
47	BW	101	THR	CA-C-N	7.61	133.67	122.71
47	BW	101	THR	C-N-CA	7.61	133.67	122.71
3	AC	15	G	O4'-C1'-N9	7.61	119.61	108.20
26	BB	712	G	O4'-C1'-N9	7.61	119.92	108.50
26	BB	2505	G	C4'-C3'-C2'	-7.61	94.99	102.60
43	BS	13	HIS	CB-CG-CD2	-7.61	121.31	131.20
1	AA	131	A	O4'-C4'-C3'	7.61	111.61	104.00
26	BB	2282	G	O3'-P-O5'	-7.61	92.59	104.00
26	BB	2791	G	C1'-O4'-C4'	-7.61	102.29	109.90
26	BB	346	A	N9-C1'-C2'	-7.61	100.59	112.00
26	BB	2349	G	C2'-C3'-O3'	-7.60	102.30	113.70
26	BB	2561	U	C4'-C3'-C2'	-7.60	95.00	102.60
6	AF	71	ARG	NE-CZ-NH2	-7.60	112.36	119.20
23	AW	63	LYS	CA-C-N	7.60	133.22	120.91
23	AW	63	LYS	C-N-CA	7.60	133.22	120.91
26	BB	1844	C	O4'-C1'-C2'	-7.60	100.00	107.60
1	AA	103	U	C4'-C3'-C2'	-7.59	95.00	102.60
1	AA	1337	G	O3'-P-O5'	-7.59	92.61	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	AL	74	GLN	CA-C-N	7.59	130.78	120.38
12	AL	74	GLN	C-N-CA	7.59	130.78	120.38
26	BB	1673	G	O3'-P-O5'	7.59	115.39	104.00
28	BD	76	VAL	CB-CA-C	7.59	117.77	110.63
35	BK	126	ARG	CA-C-N	7.59	131.07	120.29
35	BK	126	ARG	C-N-CA	7.59	131.07	120.29
26	BB	1742	U	C4'-C3'-C2'	-7.59	95.01	102.60
1	AA	1097	C	C1'-O4'-C4'	7.59	117.49	109.90
26	BB	1029	A	C4'-C3'-C2'	-7.59	95.01	102.60
26	BB	2434	A	C1'-O4'-C4'	-7.59	102.11	109.70
37	BM	8	LEU	O-C-N	-7.59	113.40	122.96
26	BB	529	A	C1'-O4'-C4'	-7.58	102.32	109.90
26	BB	2374	C	O3'-P-O5'	-7.58	92.62	104.00
18	AR	37	HIS	ND1-CE1-NE2	7.58	115.98	108.40
26	BB	2647	U	C4'-C3'-C2'	-7.58	95.02	102.60
47	BW	55	GLY	CA-C-N	7.58	128.98	120.42
47	BW	55	GLY	C-N-CA	7.58	128.98	120.42
26	BB	2716	C	O4'-C1'-C2'	-7.58	100.02	107.60
1	AA	1341	U	C4'-C3'-C2'	-7.58	95.02	102.60
1	AA	548	G	O4'-C4'-C3'	-7.57	96.43	104.00
1	AA	593	U	C4'-C3'-C2'	-7.57	95.03	102.60
45	BU	38	TYR	N-CA-CB	-7.57	99.51	110.56
1	AA	805	C	C4'-C3'-C2'	-7.57	95.03	102.60
26	BB	1261	C	C4'-C3'-C2'	-7.57	95.03	102.60
26	BB	2432	A	C4'-C3'-C2'	-7.57	95.03	102.60
26	BB	240	C	O4'-C1'-C2'	-7.57	100.03	107.60
44	BT	13	ARG	NE-CZ-NH2	-7.57	112.39	119.20
33	BI	107	GLY	N-CA-C	-7.57	103.43	115.08
1	AA	830	G	O4'-C1'-C2'	-7.56	100.04	107.60
26	BB	329	G	C2'-C3'-O3'	7.56	120.84	109.50
1	AA	124	C	C5'-C4'-O4'	7.56	121.14	109.80
1	AA	173	U	C5'-C4'-C3'	-7.56	103.86	115.20
1	AA	238	A	C4'-C3'-C2'	-7.56	95.04	102.60
1	AA	1051	C	C3'-C2'-C1'	7.56	108.86	101.30
6	AF	178	ARG	CA-C-N	7.56	135.98	121.54
6	AF	178	ARG	C-N-CA	7.56	135.98	121.54
26	BB	1187	G	O4'-C4'-C3'	7.56	111.56	104.00
26	BB	2324	U	O4'-C4'-C3'	7.56	113.66	106.10
1	AA	480	U	C5'-C4'-C3'	-7.56	104.67	116.00
26	BB	2424	C	O3'-P-O5'	-7.56	92.67	104.00
26	BB	2884	U	O4'-C1'-N1	7.56	119.84	108.50
26	BB	2126	A	C1'-C2'-O2'	7.55	119.73	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BQ	75	GLY	O-C-N	7.55	130.51	122.28
1	AA	1330	U	C4'-C3'-C2'	-7.55	95.05	102.60
26	BB	2652	C	C4'-C3'-C2'	-7.55	95.05	102.60
26	BB	2690	U	O4'-C1'-C2'	7.55	113.35	105.80
26	BB	1702	G	C4'-C3'-C2'	-7.55	95.05	102.60
46	BV	12	ARG	NE-CZ-NH1	7.55	129.05	121.50
26	BB	1928	A	O4'-C4'-C3'	7.55	111.55	104.00
4	AD	36	A	C3'-C2'-C1'	-7.55	93.75	101.30
26	BB	1802	A	C4'-C3'-C2'	-7.55	95.05	102.60
26	BB	345	A	N9-C1'-C2'	-7.55	102.68	114.00
1	AA	464	U	O4'-C1'-N1	7.54	119.52	108.20
30	BF	25	GLU	N-CA-CB	7.54	121.01	110.07
3	AC	36	U	C5'-C4'-C3'	-7.54	104.69	116.00
26	BB	993	G	C4'-C3'-C2'	-7.54	95.06	102.60
33	BI	138	VAL	CB-CA-C	7.54	119.70	110.73
1	AA	520	A	C4'-C3'-C2'	-7.54	95.06	102.60
4	AD	15	G	C4'-C3'-C2'	7.54	110.14	102.60
26	BB	1028	A	C3'-C2'-O2'	7.54	122.00	110.70
26	BB	1188	U	O4'-C1'-N1	7.54	119.80	108.50
26	BB	2153	C	O3'-P-O5'	7.54	115.30	104.00
26	BB	2494	G	O4'-C1'-N9	7.53	119.80	108.50
48	BX	70	ILE	CA-CB-CG1	7.53	123.20	110.40
14	AN	34	THR	CA-CB-CG2	7.52	123.29	110.50
38	BN	105	ILE	O-C-N	7.52	130.80	122.75
2	AB	21	A	C4'-C3'-C2'	-7.52	95.08	102.60
1	AA	932	C	C1'-O4'-C4'	-7.52	102.38	109.90
2	AB	61	C	O5'-C5'-C4'	-7.52	100.22	111.50
26	BB	2118	U	O4'-C1'-N1	7.52	119.48	108.20
3	AC	17	U	C3'-C2'-C1'	7.52	108.82	101.30
26	BB	1552	A	P-O3'-C3'	7.52	131.47	120.20
9	AI	92	THR	CA-CB-CG2	7.51	123.28	110.50
27	BC	30	LEU	CA-C-O	-7.51	112.58	120.55
1	AA	278	G	N9-C1'-C2'	-7.51	100.73	112.00
26	BB	2242	G	C1'-C2'-O2'	-7.51	97.13	108.40
26	BB	232	G	O4'-C1'-C2'	7.51	113.31	105.80
54	B3	51	ARG	NE-CZ-NH1	-7.51	113.99	121.50
26	BB	1032	A	C2'-C3'-O3'	-7.51	102.43	113.70
32	BH	89	VAL	CA-C-N	7.51	133.89	122.85
32	BH	89	VAL	C-N-CA	7.51	133.89	122.85
26	BB	1654	A	C5'-C4'-O4'	7.51	121.06	109.80
28	BD	145	MET	N-CA-C	-7.51	102.24	111.40
1	AA	690	G	O4'-C1'-N9	7.50	119.76	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2266	A	C3'-C2'-C1'	7.50	109.00	101.50
1	AA	109	A	O4'-C4'-C3'	7.50	113.60	106.10
26	BB	2276	G	C5'-C4'-C3'	-7.50	104.75	116.00
13	AM	57	VAL	O-C-N	7.50	130.84	122.67
26	BB	215	G	O4'-C1'-C2'	-7.50	98.30	105.80
25	BA	22	U	O4'-C4'-C3'	7.50	111.50	104.00
1	AA	691	G	O4'-C4'-C3'	7.50	111.50	104.00
1	AA	598	U	O4'-C1'-C2'	-7.49	100.11	107.60
26	BB	1082	U	C5'-C4'-O4'	7.49	121.04	109.80
26	BB	96	C	C4'-C3'-C2'	-7.49	95.11	102.60
1	AA	507	C	O4'-C1'-C2'	-7.49	100.11	107.60
1	AA	1317	C	C4'-C3'-C2'	-7.49	95.11	102.60
31	BG	1	ALA	CA-C-N	7.49	131.69	120.31
31	BG	1	ALA	C-N-CA	7.49	131.69	120.31
26	BB	811	U	C1'-O4'-C4'	-7.49	102.21	109.70
55	B4	18	HIS	CE1-NE2-CD2	-7.49	101.51	109.00
1	AA	1399	C	O4'-C1'-C2'	-7.48	98.32	105.80
26	BB	100	U	O4'-C1'-C2'	-7.48	100.12	107.60
26	BB	165	A	C4'-C3'-C2'	7.48	110.08	102.60
26	BB	2841	C	C3'-C2'-C1'	7.48	108.78	101.30
1	AA	466	A	C4'-C3'-C2'	-7.48	95.12	102.60
4	AD	35	C	O4'-C4'-C3'	7.48	111.48	104.00
26	BB	2295	C	C5'-C4'-C3'	-7.48	104.78	116.00
1	AA	906	A	C4'-C3'-O3'	-7.48	101.78	113.00
26	BB	1936	A	O4'-C4'-C3'	-7.48	98.62	106.10
29	BE	169	ARG	NE-CZ-NH1	-7.48	114.02	121.50
1	AA	1063	C	O3'-P-O5'	7.48	115.22	104.00
25	BA	50	A	C4'-C3'-C2'	-7.48	95.12	102.60
26	BB	2166	U	C4'-C3'-C2'	-7.48	95.12	102.60
12	AL	33	SER	CA-C-N	7.47	130.30	120.28
12	AL	33	SER	C-N-CA	7.47	130.30	120.28
42	BR	55	HIS	CB-CG-CD2	-7.47	121.48	131.20
30	BF	21	ARG	NE-CZ-NH2	7.47	125.92	119.20
1	AA	962	C	C4'-C3'-C2'	-7.47	95.13	102.60
26	BB	811	U	N1-C1'-C2'	-7.47	102.80	114.00
26	BB	2740	A	C3'-C2'-C1'	-7.47	93.83	101.30
4	AD	37	U	C3'-C2'-O2'	7.46	121.90	110.70
26	BB	1004	U	O4'-C4'-C3'	7.46	111.46	104.00
26	BB	1608	A	C2'-C3'-O3'	7.46	120.69	109.50
28	BD	159	THR	CA-C-O	7.46	130.05	121.47
28	BD	261	ARG	N-CA-C	-7.46	106.11	114.62
26	BB	730	A	C4'-C3'-C2'	7.46	110.06	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1753	G	C5'-C4'-C3'	-7.46	104.81	116.00
26	BB	2868	A	O4'-C4'-C3'	7.46	111.46	104.00
28	BD	266	ILE	CB-CA-C	7.46	119.28	111.23
45	BU	102	HIS	CA-CB-CG	7.46	121.26	113.80
1	AA	449	G	O4'-C4'-C3'	7.46	111.46	104.00
1	AA	753	A	C5'-C4'-O4'	7.46	120.28	109.10
26	BB	2892	G	O5'-C5'-C4'	-7.46	100.32	111.50
1	AA	177	G	O4'-C1'-C2'	-7.45	100.15	107.60
7	AG	137	SER	CA-C-N	7.45	127.49	119.89
7	AG	137	SER	C-N-CA	7.45	127.49	119.89
1	AA	1108	G	O4'-C1'-C2'	-7.45	100.15	107.60
26	BB	2515	C	C4'-C3'-C2'	-7.45	95.15	102.60
45	BU	44	ALA	CA-C-N	7.45	131.00	120.42
45	BU	44	ALA	C-N-CA	7.45	131.00	120.42
1	AA	536	C	C3'-C2'-C1'	7.45	108.75	101.30
1	AA	948	C	C5'-C4'-C3'	-7.45	104.83	116.00
7	AG	50	TYR	CA-C-N	7.45	128.21	119.94
7	AG	50	TYR	C-N-CA	7.45	128.21	119.94
26	BB	210	C	C4'-C3'-C2'	-7.45	95.15	102.60
26	BB	671	C	C1'-O4'-C4'	-7.45	102.45	109.90
29	BE	64	GLU	CA-C-N	7.45	130.87	120.29
29	BE	64	GLU	C-N-CA	7.45	130.87	120.29
5	AE	220	VAL	N-CA-C	7.45	118.24	110.72
3	AC	39	U	C4'-C3'-O3'	7.44	124.16	113.00
21	AU	58	ILE	CA-CB-CG2	7.44	123.15	110.50
26	BB	164	C	C1'-C2'-O2'	7.44	119.56	108.40
6	AF	170	GLY	CA-C-O	-7.44	112.31	121.68
26	BB	1108	U	O4'-C1'-N1	7.44	119.65	108.50
1	AA	353	A	O4'-C1'-C2'	-7.43	100.17	107.60
1	AA	693	G	C2'-C3'-O3'	-7.43	102.55	113.70
21	AU	64	LEU	N-CA-C	-7.43	103.78	112.92
50	BZ	33	HIS	CA-CB-CG	-7.43	106.37	113.80
1	AA	646	G	C5'-C4'-O4'	7.43	120.95	109.80
16	AP	11	HIS	ND1-CE1-NE2	7.43	115.83	108.40
26	BB	1605	C	C4'-C3'-C2'	-7.43	95.17	102.60
26	BB	1130	U	C2'-C3'-O3'	7.43	120.64	109.50
1	AA	855	U	O4'-C1'-C2'	-7.43	100.17	107.60
2	AB	35	C	O4'-C1'-C2'	-7.43	100.17	107.60
1	AA	941	G	C5'-C4'-C3'	-7.42	104.86	116.00
7	AG	197	HIS	ND1-CG-CD2	7.42	113.53	106.10
26	BB	1780	A	O4'-C1'-N9	7.42	119.63	108.50
17	AQ	90	GLY	O-C-N	7.42	130.42	122.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1437	A	O5'-C5'-C4'	7.42	122.63	111.50
26	BB	620	G	O3'-P-O5'	7.42	115.13	104.00
41	BQ	29	HIS	CB-CG-CD2	-7.42	121.56	131.20
1	AA	1247	U	C4'-C3'-C2'	-7.42	95.18	102.60
26	BB	105	C	O4'-C1'-C2'	-7.42	100.19	107.60
26	BB	536	G	C4'-C3'-C2'	-7.42	95.19	102.60
14	AN	6	ARG	N-CA-CB	7.41	120.53	110.38
26	BB	1957	C	C1'-C2'-O2'	7.41	119.51	108.40
1	AA	360	G	O4'-C4'-C3'	7.41	111.41	104.00
17	AQ	81	ILE	CA-C-O	-7.40	113.32	121.17
26	BB	346	A	O4'-C4'-C3'	-7.40	96.60	104.00
1	AA	1060	U	C4'-C3'-O3'	-7.40	101.90	113.00
25	BA	48	U	C4'-C3'-C2'	-7.40	95.20	102.60
18	AR	19	ASN	N-CA-C	7.39	121.88	112.86
20	AT	6	THR	CA-CB-CG2	7.39	123.07	110.50
26	BB	328	U	C3'-C2'-C1'	7.39	108.69	101.30
26	BB	1476	U	C1'-O4'-C4'	-7.39	102.51	109.90
1	AA	598	U	C3'-C2'-C1'	7.39	108.69	101.30
26	BB	1295	C	C5'-C4'-C3'	-7.39	104.92	116.00
11	AK	52	GLY	CA-C-N	7.38	135.64	121.54
11	AK	52	GLY	C-N-CA	7.38	135.64	121.54
7	AG	52	VAL	CA-CB-CG2	7.38	122.95	110.40
10	AJ	9	ARG	NE-CZ-NH1	-7.38	114.12	121.50
26	BB	2615	U	C4'-C3'-C2'	-7.38	95.22	102.60
26	BB	1292	G	C1'-C2'-O2'	7.38	119.47	108.40
1	AA	102	G	O4'-C4'-C3'	7.38	111.38	104.00
26	BB	1448	G	C3'-C2'-C1'	-7.38	93.92	101.30
26	BB	1942	C	C3'-C2'-C1'	7.38	108.68	101.30
26	BB	900	A	C3'-C2'-O2'	7.38	121.76	110.70
26	BB	2385	C	O4'-C1'-N1	7.37	119.56	108.50
27	BC	200	LYS	CA-C-N	7.37	127.30	119.85
27	BC	200	LYS	C-N-CA	7.37	127.30	119.85
14	AN	92	ARG	NE-CZ-NH1	7.37	128.87	121.50
26	BB	1696	G	C4'-C3'-C2'	-7.37	95.23	102.60
26	BB	2344	U	O3'-P-O5'	7.37	115.06	104.00
1	AA	70	U	C5'-C4'-C3'	-7.37	104.14	115.20
26	BB	1142	A	O3'-P-O5'	7.37	115.06	104.00
26	BB	215	G	O4'-C4'-C3'	-7.37	98.73	106.10
26	BB	1887	C	C5'-C4'-O4'	7.37	120.85	109.80
26	BB	97	C	O3'-P-O5'	7.36	115.05	104.00
44	BT	40	MET	O-C-N	-7.36	115.54	123.42
1	AA	1503	A	C1'-O4'-C4'	-7.36	102.34	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	10	G	O4'-C4'-C3'	7.36	111.36	104.00
26	BB	337	C	C1'-O4'-C4'	7.36	117.26	109.90
1	AA	1075	U	O4'-C1'-C2'	-7.36	100.24	107.60
26	BB	453	A	O5'-C5'-C4'	-7.36	100.47	111.50
26	BB	2081	U	C3'-C2'-C1'	7.36	108.66	101.30
26	BB	2712	C	C1'-O4'-C4'	7.36	117.06	109.70
1	AA	846	G	C4'-C3'-C2'	-7.35	95.25	102.60
1	AA	393	A	O4'-C4'-C3'	7.35	111.35	104.00
1	AA	1523	G	C5'-C4'-O4'	7.35	120.83	109.80
39	BO	109	PRO	N-CA-CB	7.35	110.97	103.25
10	AJ	134	VAL	CA-CB-CG1	7.35	122.89	110.40
26	BB	692	C	C4'-C3'-C2'	-7.35	95.25	102.60
26	BB	877	A	C4'-C3'-C2'	-7.35	95.25	102.60
26	BB	2513	A	O4'-C1'-C2'	-7.35	100.25	107.60
5	AE	222	GLU	CA-C-N	7.34	128.09	119.94
5	AE	222	GLU	C-N-CA	7.34	128.09	119.94
26	BB	1929	G	O4'-C1'-N9	7.34	119.22	108.20
26	BB	2610	C	O4'-C1'-N1	7.34	119.21	108.20
1	AA	1153	G	O3'-P-O5'	7.34	115.01	104.00
26	BB	220	G	C4'-C3'-C2'	-7.34	95.26	102.60
26	BB	568	U	C1'-O4'-C4'	-7.34	102.56	109.90
26	BB	1498	C	O4'-C4'-C3'	7.34	111.34	104.00
25	BA	94	A	O4'-C4'-C3'	7.34	111.34	104.00
1	AA	526	C	O4'-C1'-N1	7.34	119.50	108.50
43	BS	91	ARG	NH1-CZ-NH2	7.34	128.84	119.30
1	AA	314	C	C4'-C3'-C2'	-7.33	95.27	102.60
26	BB	1826	G	C5'-C4'-C3'	-7.33	105.00	116.00
26	BB	2792	A	N9-C1'-C2'	-7.33	101.00	112.00
1	AA	252	U	C4'-C3'-C2'	-7.33	95.27	102.60
1	AA	1149	C	C3'-C2'-C1'	7.33	108.63	101.30
4	AD	2	G	O4'-C4'-C3'	7.33	111.33	104.00
25	BA	28	C	O4'-C4'-C3'	7.33	111.33	104.00
26	BB	2220	U	N1-C1'-C2'	-7.33	101.00	112.00
26	BB	2869	G	C3'-C2'-O2'	7.33	121.70	110.70
1	AA	525	C	O4'-C1'-C2'	-7.33	100.27	107.60
32	BH	90	GLY	CA-C-O	-7.33	115.61	122.13
9	AI	10	VAL	CA-C-O	-7.33	112.47	120.67
1	AA	847	G	O4'-C4'-C3'	7.32	111.32	104.00
1	AA	1312	G	C3'-C2'-C1'	7.32	108.62	101.30
26	BB	2430	A	C5'-C4'-O4'	7.32	120.78	109.80
26	BB	1230	A	C1'-O4'-C4'	7.32	117.22	109.90
1	AA	1400	C	O4'-C1'-N1	7.32	119.18	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2820	A	C4'-C3'-C2'	-7.32	95.28	102.60
26	BB	718	A	O3'-P-O5'	-7.32	93.03	104.00
26	BB	1714	U	N1-C1'-C2'	-7.31	103.03	114.00
51	B0	15	ASN	CA-C-N	7.31	130.68	120.29
51	B0	15	ASN	C-N-CA	7.31	130.68	120.29
38	BN	139	GLY	O-C-N	-7.31	113.19	122.70
5	AE	66	ILE	CA-C-O	-7.31	112.39	120.72
26	BB	1292	G	O4'-C4'-C3'	7.31	111.31	104.00
26	BB	2344	U	C4'-C3'-C2'	-7.31	95.29	102.60
26	BB	886	A	C3'-C2'-C1'	7.31	108.61	101.30
26	BB	1759	A	C4'-C3'-O3'	-7.30	102.05	113.00
17	AQ	60	ARG	CA-C-N	7.30	132.73	122.36
17	AQ	60	ARG	C-N-CA	7.30	132.73	122.36
26	BB	1566	A	C2'-C3'-O3'	7.30	120.45	109.50
29	BE	62	LYS	CA-C-N	7.30	127.31	119.28
29	BE	62	LYS	C-N-CA	7.30	127.31	119.28
26	BB	733	G	C3'-C2'-C1'	-7.30	94.00	101.30
1	AA	4	U	O4'-C4'-C3'	-7.30	96.70	104.00
4	AD	20	G	C3'-C2'-C1'	-7.29	94.20	101.50
26	BB	233	A	C3'-C2'-C1'	7.29	108.59	101.30
4	AD	17	C	O4'-C1'-N1	7.29	119.44	108.50
26	BB	2301	C	O4'-C4'-C3'	7.29	111.29	104.00
26	BB	2490	G	N9-C1'-C2'	7.29	124.93	114.00
26	BB	2511	U	O3'-P-O5'	-7.29	93.07	104.00
26	BB	2627	G	N9-C1'-C2'	-7.29	101.07	112.00
6	AF	204	GLY	CA-C-N	7.29	130.63	120.29
6	AF	204	GLY	C-N-CA	7.29	130.63	120.29
47	BW	74	ALA	N-CA-C	7.29	121.50	112.47
1	AA	1459	G	O4'-C4'-C3'	7.28	111.28	104.00
26	BB	1598	A	O4'-C4'-C3'	7.28	111.28	104.00
1	AA	545	C	C1'-O4'-C4'	7.28	117.18	109.90
21	AU	39	VAL	CA-C-O	-7.28	111.66	120.90
26	BB	486	C	C5'-C4'-O4'	7.28	120.72	109.80
2	AB	10	G	O4'-C1'-C2'	7.28	114.88	107.60
4	AD	76	C	C5'-C4'-C3'	7.28	126.91	116.00
16	AP	11	HIS	CA-CB-CG	7.28	121.08	113.80
41	BQ	43	ASN	CA-CB-CG	7.27	119.87	112.60
26	BB	1383	A	O4'-C4'-C3'	7.27	111.27	104.00
26	BB	376	G	C1'-O4'-C4'	7.27	117.17	109.90
26	BB	540	C	O4'-C1'-N1	7.27	119.40	108.50
1	AA	929	G	O4'-C1'-N9	7.27	119.40	108.50
26	BB	428	A	C3'-C2'-C1'	7.27	108.77	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1582	C	C1'-O4'-C4'	-7.27	102.63	109.90
33	BI	31	VAL	CA-C-N	7.27	126.94	119.82
33	BI	31	VAL	C-N-CA	7.27	126.94	119.82
5	AE	10	LYS	CA-C-N	7.26	130.32	120.44
5	AE	10	LYS	C-N-CA	7.26	130.32	120.44
19	AS	32	PHE	CA-CB-CG	7.26	121.06	113.80
1	AA	1173	U	O4'-C1'-N1	7.26	119.39	108.50
26	BB	817	C	O4'-C1'-N1	7.26	119.39	108.50
1	AA	126	G	C1'-O4'-C4'	-7.26	102.64	109.90
1	AA	522	C	O5'-C5'-C4'	7.26	122.39	111.50
6	AF	7	ASN	CA-CB-CG	7.26	119.86	112.60
26	BB	1419	A	C1'-O4'-C4'	-7.26	102.64	109.90
29	BE	204	LYS	CA-C-O	-7.26	114.06	120.60
39	BO	108	VAL	O-C-N	-7.26	113.08	121.07
26	BB	93	G	O4'-C1'-C2'	-7.26	100.34	107.60
35	BK	133	ARG	CD-NE-CZ	7.26	134.56	124.40
1	AA	1192	C	C4'-C3'-O3'	7.26	123.89	113.00
26	BB	541	A	C1'-O4'-C4'	-7.26	102.64	109.90
28	BD	203	VAL	CA-CB-CG1	7.26	122.74	110.40
1	AA	710	G	C3'-C2'-O2'	7.25	121.58	110.70
6	AF	5	HIS	CB-CA-C	7.25	118.22	110.17
26	BB	763	G	O4'-C1'-C2'	-7.25	100.35	107.60
26	BB	2059	A	O4'-C1'-C2'	-7.25	98.55	105.80
26	BB	2394	C	C3'-C2'-C1'	7.25	108.55	101.30
26	BB	2432	A	C2'-C3'-O3'	7.25	124.58	113.70
1	AA	483	C	C5'-C4'-O4'	7.25	120.67	109.80
1	AA	1296	C	C4'-C3'-C2'	7.25	109.85	102.60
26	BB	891	G	C4'-C3'-C2'	-7.25	95.35	102.60
26	BB	2808	G	O4'-C1'-N9	7.25	119.37	108.50
1	AA	1030	U	O4'-C1'-C2'	-7.25	100.36	107.60
26	BB	1699	G	C4'-C3'-O3'	-7.25	98.53	109.40
26	BB	1008	A	O4'-C1'-N9	7.24	119.06	108.20
1	AA	132	C	N1-C1'-C2'	-7.24	101.14	112.00
1	AA	471	U	C4'-C3'-C2'	-7.24	95.36	102.60
1	AA	1401	G	C5'-C4'-C3'	-7.24	105.14	116.00
26	BB	2592	G	C5'-C4'-C3'	-7.24	105.14	116.00
26	BB	2822	G	O4'-C1'-C2'	-7.24	100.36	107.60
26	BB	2884	U	C5'-C4'-O4'	7.24	120.66	109.80
41	BQ	117	PHE	CA-CB-CG	7.24	121.04	113.80
1	AA	193	C	N1-C1'-C2'	-7.24	101.14	112.00
7	AG	187	ARG	CA-C-N	7.24	131.31	120.31
7	AG	187	ARG	C-N-CA	7.24	131.31	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1395	A	O4'-C1'-C2'	-7.24	98.56	105.80
26	BB	2758	A	O3'-P-O5'	-7.24	93.14	104.00
57	B6	22	LYS	CA-C-N	7.24	133.94	122.21
57	B6	22	LYS	C-N-CA	7.24	133.94	122.21
1	AA	197	A	C4'-C3'-O3'	-7.24	98.55	109.40
1	AA	1071	C	C4'-C3'-C2'	-7.24	95.36	102.60
26	BB	2505	G	O4'-C4'-C3'	7.24	113.34	106.10
26	BB	131	A	C4'-C3'-C2'	-7.23	95.37	102.60
1	AA	563	A	C1'-O4'-C4'	-7.23	102.67	109.90
1	AA	1000	A	C2'-C3'-O3'	-7.23	102.85	113.70
9	AI	89	VAL	CB-CA-C	7.23	121.33	110.63
26	BB	2902	C	C3'-C2'-C1'	7.23	108.53	101.30
1	AA	881	G	C5'-C4'-C3'	-7.23	105.16	116.00
1	AA	1319	A	O4'-C1'-C2'	7.23	113.03	105.80
26	BB	1920	C	O4'-C1'-C2'	-7.23	100.37	107.60
26	BB	2040	G	N9-C1'-C2'	-7.23	101.16	112.00
56	B5	8	SER	O-C-N	7.23	131.61	122.93
26	BB	2628	C	O4'-C1'-C2'	-7.23	98.57	105.80
1	AA	911	U	P-O3'-C3'	7.22	131.04	120.20
1	AA	1530	G	O5'-C5'-C4'	-7.22	100.66	111.50
26	BB	514	A	C2'-C3'-O3'	-7.22	102.86	113.70
1	AA	864	A	O4'-C4'-C3'	7.22	111.22	104.00
1	AA	1088	G	O4'-C4'-C3'	7.22	111.22	104.00
1	AA	5	U	O4'-C1'-N1	7.22	119.03	108.20
1	AA	799	G	O3'-P-O5'	-7.22	93.17	104.00
1	AA	1530	G	O4'-C4'-C3'	7.22	111.22	104.00
1	AA	1126	U	C1'-C2'-O2'	7.22	122.62	111.80
26	BB	705	A	C1'-O4'-C4'	-7.22	102.68	109.90
1	AA	94	G	P-O3'-C3'	7.21	131.02	120.20
4	AD	11	A	O4'-C1'-N9	7.21	119.32	108.50
49	BY	18	LYS	CA-C-N	7.21	134.64	121.94
49	BY	18	LYS	C-N-CA	7.21	134.64	121.94
26	BB	1585	C	C5'-C4'-C3'	-7.21	105.18	116.00
1	AA	1256	A	C2'-C3'-O3'	7.21	120.32	109.50
30	BF	5	LEU	CA-C-O	7.21	126.77	118.77
26	BB	2317	A	O4'-C4'-C3'	7.21	111.21	104.00
26	BB	2518	A	P-O3'-C3'	7.21	131.01	120.20
1	AA	526	C	C4'-C3'-C2'	-7.21	95.39	102.60
1	AA	726	C	C4'-C3'-C2'	-7.21	95.39	102.60
1	AA	981	U	O4'-C4'-C3'	7.21	111.21	104.00
1	AA	1183	U	O4'-C1'-C2'	-7.21	100.39	107.60
26	BB	274	C	O4'-C4'-C3'	7.21	111.21	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	BT	68	ARG	NE-CZ-NH2	7.21	125.69	119.20
26	BB	60	G	C1'-O4'-C4'	-7.20	102.50	109.70
26	BB	846	U	O3'-P-O5'	-7.20	93.19	104.00
26	BB	2877	G	C3'-C2'-C1'	7.20	108.50	101.30
1	AA	812	G	N9-C1'-C2'	7.20	122.80	112.00
1	AA	296	U	O4'-C1'-N1	7.20	119.30	108.50
26	BB	1698	A	C3'-C2'-C1'	7.20	108.70	101.50
1	AA	640	A	C3'-C2'-O2'	7.20	121.50	110.70
26	BB	68	G	C3'-C2'-C1'	7.20	108.50	101.30
26	BB	762	U	P-O3'-C3'	7.20	130.99	120.20
26	BB	1409	U	C3'-C2'-C1'	7.20	108.50	101.30
46	BV	40	LYS	O-C-N	-7.19	113.02	122.59
26	BB	1052	C	C4'-C3'-O3'	7.19	123.79	113.00
26	BB	368	A	O4'-C1'-N9	7.19	119.29	108.50
26	BB	1453	A	O4'-C1'-C2'	7.19	114.79	107.60
35	BK	115	ASP	CA-CB-CG	7.19	119.79	112.60
1	AA	690	G	O5'-C5'-C4'	-7.19	100.72	111.50
1	AA	917	G	O4'-C4'-C3'	7.19	111.19	104.00
1	AA	1071	C	O4'-C4'-C3'	7.19	111.19	104.00
26	BB	2708	G	C4'-C3'-C2'	-7.19	95.41	102.60
1	AA	935	A	C1'-O4'-C4'	7.19	117.09	109.90
12	AL	6	TYR	CA-C-N	7.19	127.14	122.18
12	AL	6	TYR	C-N-CA	7.19	127.14	122.18
13	AM	32	THR	CA-C-N	7.18	130.76	120.56
13	AM	32	THR	C-N-CA	7.18	130.76	120.56
26	BB	550	C	O3'-P-O5'	-7.18	93.22	104.00
14	AN	18	GLY	CA-C-N	7.18	132.97	123.06
14	AN	18	GLY	C-N-CA	7.18	132.97	123.06
26	BB	885	C	C4'-C3'-O3'	7.18	123.77	113.00
26	BB	899	A	O4'-C1'-N9	7.18	119.27	108.50
1	AA	1480	A	C4'-C3'-C2'	-7.18	95.42	102.60
26	BB	1434	A	O4'-C1'-N9	7.18	119.27	108.50
26	BB	2761	A	C4'-C3'-C2'	-7.18	95.42	102.60
19	AS	2	VAL	CA-C-O	-7.18	112.88	121.28
1	AA	410	G	O4'-C4'-C3'	7.17	111.17	104.00
26	BB	1466	U	O3'-P-O5'	-7.17	93.24	104.00
26	BB	2119	A	O4'-C1'-C2'	-7.17	98.63	105.80
26	BB	2297	A	C5'-C4'-C3'	-7.17	105.25	116.00
28	BD	69	ASN	OD1-CG-ND2	-7.17	115.43	122.60
26	BB	1990	C	O4'-C1'-C2'	-7.17	100.43	107.60
26	BB	2235	G	C4'-C3'-C2'	-7.17	95.43	102.60
30	BF	186	VAL	CB-CA-C	7.17	121.15	111.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	839	U	O4'-C4'-C3'	7.16	111.16	104.00
1	AA	206	C	C4'-C3'-C2'	-7.16	95.44	102.60
1	AA	989	U	C1'-O4'-C4'	-7.16	102.74	109.90
2	AB	61	C	C3'-C2'-C1'	7.16	108.46	101.30
26	BB	2772	C	O3'-P-O5'	-7.16	93.26	104.00
1	AA	173	U	C2'-C3'-O3'	7.16	120.24	109.50
26	BB	2029	G	O4'-C1'-C2'	-7.16	100.44	107.60
32	BH	72	ASN	CA-C-N	7.16	130.21	120.54
32	BH	72	ASN	C-N-CA	7.16	130.21	120.54
9	AI	67	PRO	CA-C-N	7.16	129.74	120.44
9	AI	67	PRO	C-N-CA	7.16	129.74	120.44
26	BB	346	A	C1'-O4'-C4'	7.16	117.06	109.90
26	BB	918	A	C1'-O4'-C4'	-7.16	102.74	109.90
26	BB	1031	G	O3'-P-O5'	-7.16	93.27	104.00
26	BB	2408	U	O4'-C1'-C2'	-7.16	100.44	107.60
41	BQ	10	ARG	NE-CZ-NH2	7.16	125.64	119.20
26	BB	214	G	C1'-O4'-C4'	7.15	117.05	109.90
26	BB	553	G	C4'-C3'-C2'	-7.15	95.45	102.60
26	BB	1250	G	O3'-P-O5'	-7.15	93.27	104.00
26	BB	1400	U	O4'-C1'-C2'	-7.15	100.45	107.60
26	BB	1465	G	C4'-C3'-C2'	-7.15	95.45	102.60
1	AA	302	G	O4'-C1'-N9	7.15	119.23	108.50
18	AR	37	HIS	CE1-NE2-CD2	-7.15	101.85	109.00
26	BB	2820	A	O4'-C1'-C2'	-7.15	100.45	107.60
26	BB	2652	C	C3'-C2'-C1'	7.15	108.45	101.30
1	AA	611	C	O4'-C4'-C3'	7.15	111.15	104.00
31	BG	45	ASP	CA-CB-CG	7.15	119.75	112.60
28	BD	14	HIS	CA-C-N	7.14	130.13	120.63
28	BD	14	HIS	C-N-CA	7.14	130.13	120.63
41	BQ	103	VAL	N-CA-C	-7.14	103.50	110.72
26	BB	848	C	C4'-C3'-C2'	-7.14	95.46	102.60
26	BB	1591	A	C5'-C4'-C3'	-7.14	105.29	116.00
26	BB	1398	C	C3'-C2'-C1'	7.14	108.44	101.30
26	BB	2104	C	C1'-C2'-O2'	7.14	119.11	108.40
1	AA	229	U	O4'-C1'-C2'	-7.14	100.46	107.60
26	BB	1610	A	O5'-C5'-C4'	7.14	122.41	111.70
26	BB	1742	U	C3'-C2'-C1'	7.14	108.44	101.30
26	BB	2511	U	C5'-C4'-C3'	-7.14	105.29	116.00
31	BG	137	PHE	CB-CA-C	7.14	119.82	109.11
1	AA	1413	A	C1'-O4'-C4'	-7.14	102.76	109.90
9	AI	8	PHE	CA-CB-CG	-7.14	106.66	113.80
1	AA	512	U	O4'-C1'-C2'	-7.13	100.47	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1714	U	C1'-O4'-C4'	-7.13	102.57	109.70
39	BO	44	ARG	CA-C-N	7.13	130.42	120.29
39	BO	44	ARG	C-N-CA	7.13	130.42	120.29
1	AA	186	C	O3'-P-O5'	-7.13	93.30	104.00
6	AF	138	GLN	O-C-N	7.13	129.79	122.09
2	AB	24	G	C5'-C4'-O4'	7.13	120.50	109.80
30	BF	46	GLN	OE1-CD-NE2	-7.13	115.47	122.60
26	BB	743	A	C4'-C3'-O3'	7.13	123.69	113.00
26	BB	2490	G	P-O5'-C5'	7.13	131.59	120.90
1	AA	211	G	C4'-C3'-C2'	-7.12	95.47	102.60
1	AA	1022	A	C3'-C2'-C1'	7.12	108.42	101.30
12	AL	80	HIS	CB-CG-ND1	7.12	133.38	122.70
26	BB	616	A	O4'-C1'-N9	7.12	119.18	108.50
26	BB	1270	C	O4'-C4'-C3'	7.12	113.22	106.10
26	BB	1894	C	C5'-C4'-C3'	-7.12	105.32	116.00
26	BB	2248	C	C3'-C2'-C1'	7.12	108.42	101.30
9	AI	112	ARG	NE-CZ-NH2	-7.12	112.79	119.20
26	BB	1048	A	C4'-C3'-O3'	-7.12	102.32	113.00
26	BB	1143	A	O3'-P-O5'	-7.12	93.32	104.00
26	BB	1235	G	C3'-C2'-C1'	7.12	108.42	101.30
48	BX	66	ASP	CA-CB-CG	-7.12	105.48	112.60
28	BD	20	ASN	OD1-CG-ND2	-7.12	115.48	122.60
26	BB	1940	U	C2'-C3'-O3'	7.12	120.17	109.50
26	BB	1838	C	C4'-C3'-O3'	-7.11	98.73	109.40
53	B2	6	HIS	CB-CG-CD2	-7.11	121.95	131.20
3	AC	14	G	O4'-C4'-C3'	7.11	111.11	104.00
42	BR	63	ILE	CA-C-O	-7.11	111.89	120.78
9	AI	114	ASP	CA-CB-CG	7.11	119.71	112.60
26	BB	247	G	O3'-P-O5'	-7.11	93.34	104.00
26	BB	1453	A	C1'-O4'-C4'	-7.11	102.79	109.90
2	AB	18	G	C3'-C2'-C1'	7.11	108.61	101.50
26	BB	1535	A	O4'-C1'-N9	7.11	118.86	108.20
26	BB	769	U	C5'-C4'-C3'	-7.10	105.34	116.00
26	BB	1645	G	O4'-C1'-N9	7.10	118.85	108.20
26	BB	2584	U	N1-C1'-C2'	-7.10	103.35	114.00
27	BC	46	VAL	O-C-N	-7.10	114.79	123.10
1	AA	76	G	C4'-C3'-C2'	-7.10	95.50	102.60
40	BP	107	ASN	OD1-CG-ND2	-7.10	115.50	122.60
1	AA	352	C	C1'-O4'-C4'	7.10	117.00	109.90
1	AA	520	A	C5'-C4'-C3'	-7.10	105.35	116.00
26	BB	231	A	C2'-C3'-O3'	7.10	124.35	113.70
1	AA	1369	C	P-O3'-C3'	7.10	130.84	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2458	G	C1'-C2'-O2'	7.10	122.44	111.80
8	AH	23	THR	CA-C-O	7.09	128.69	120.96
14	AN	92	ARG	NE-CZ-NH2	-7.09	112.81	119.20
1	AA	887	G	C5'-C4'-C3'	-7.09	105.36	116.00
26	BB	2725	A	C2'-C3'-O3'	7.09	120.14	109.50
29	BE	162	ALA	CA-C-N	7.09	127.85	119.98
29	BE	162	ALA	C-N-CA	7.09	127.85	119.98
1	AA	894	G	C5'-C4'-O4'	7.09	120.44	109.80
1	AA	981	U	O4'-C1'-N1	7.09	119.14	108.50
20	AT	64	ARG	NE-CZ-NH2	-7.09	112.82	119.20
26	BB	341	C	C3'-C2'-C1'	7.09	108.39	101.30
26	BB	969	G	C4'-C3'-C2'	-7.09	95.51	102.60
34	BJ	122	ILE	CA-CB-CG1	7.09	122.46	110.40
1	AA	128	G	C3'-C2'-C1'	-7.09	94.21	101.30
1	AA	1362	A	C3'-C2'-C1'	7.09	108.59	101.50
25	BA	67	G	O4'-C4'-C3'	7.09	111.09	104.00
26	BB	146	A	C1'-O4'-C4'	-7.09	102.81	109.90
26	BB	1142	A	C2'-C3'-O3'	7.09	120.13	109.50
26	BB	1807	G	C2'-C3'-O3'	7.09	124.33	113.70
28	BD	134	ILE	CA-C-N	7.09	128.51	120.85
28	BD	134	ILE	C-N-CA	7.09	128.51	120.85
1	AA	1121	U	N1-C1'-C2'	-7.09	101.37	112.00
26	BB	1775	U	O4'-C4'-C3'	7.09	111.09	104.00
26	BB	1895	C	O4'-C1'-N1	7.09	119.13	108.50
26	BB	2314	A	O5'-C5'-C4'	-7.09	100.87	111.50
1	AA	359	G	C3'-C2'-C1'	7.08	108.39	101.30
26	BB	384	A	O4'-C4'-C3'	7.08	111.08	104.00
26	BB	545	U	C3'-C2'-C1'	7.08	108.58	101.50
1	AA	814	A	C5'-C4'-C3'	7.08	126.62	116.00
1	AA	1419	G	O4'-C4'-C3'	7.08	111.08	104.00
26	BB	813	U	O4'-C1'-N1	7.08	119.12	108.50
29	BE	128	ARG	NH1-CZ-NH2	-7.08	110.10	119.30
1	AA	782	A	P-O3'-C3'	7.08	130.82	120.20
1	AA	1000	A	O4'-C1'-N9	7.08	119.12	108.50
20	AT	20	ILE	CA-C-O	-7.08	113.78	121.28
26	BB	2312	U	P-O5'-C5'	7.08	131.52	120.90
53	B2	63	ARG	NE-CZ-NH1	7.08	128.58	121.50
26	BB	126	A	O4'-C1'-N9	7.08	119.11	108.50
41	BQ	12	THR	CA-C-N	7.08	129.64	120.44
41	BQ	12	THR	C-N-CA	7.08	129.64	120.44
44	BT	47	VAL	CA-CB-CG2	7.07	122.42	110.40
21	AU	39	VAL	O-C-N	7.07	127.27	121.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2341	G	C5'-C4'-C3'	-7.07	105.39	116.00
27	BC	47	ASN	OD1-CG-ND2	-7.07	115.53	122.60
1	AA	1341	U	O4'-C1'-N1	7.07	119.10	108.50
26	BB	885	C	O4'-C1'-N1	7.07	119.10	108.50
26	BB	2270	A	O4'-C1'-C2'	-7.07	100.53	107.60
35	BK	109	ALA	N-CA-C	-7.07	103.66	111.36
50	BZ	63	ILE	CA-CB-CG1	7.07	122.41	110.40
26	BB	1974	C	C4'-C3'-C2'	-7.06	95.54	102.60
40	BP	115	LEU	CB-CA-C	7.06	122.14	109.64
26	BB	1022	G	O4'-C4'-C3'	7.06	113.16	106.10
1	AA	71	A	C1'-O4'-C4'	7.06	116.96	109.90
1	AA	1391	U	O4'-C4'-C3'	7.06	111.06	104.00
26	BB	934	U	N1-C1'-C2'	-7.06	101.41	112.00
15	AO	49	ARG	NE-CZ-NH2	-7.06	112.85	119.20
26	BB	1877	A	O3'-P-O5'	-7.06	93.41	104.00
26	BB	2113	U	C1'-O4'-C4'	-7.06	102.84	109.90
1	AA	1149	C	O4'-C1'-C2'	-7.05	100.55	107.60
4	AD	44	A	C3'-C2'-O2'	7.05	121.28	110.70
26	BB	393	C	C2'-C3'-O3'	-7.05	103.12	113.70
1	AA	871	U	C1'-C2'-O2'	7.05	122.38	111.80
1	AA	1152	A	C3'-C2'-O2'	7.05	121.28	110.70
1	AA	620	C	O4'-C1'-N1	7.05	119.08	108.50
1	AA	718	A	C1'-O4'-C4'	-7.05	102.85	109.90
26	BB	2427	C	O4'-C1'-N1	7.05	118.78	108.20
26	BB	2853	C	O4'-C1'-N1	7.05	119.08	108.50
35	BK	84	GLY	CA-C-O	-7.05	111.57	119.04
26	BB	2436	G	C5'-C4'-C3'	-7.05	105.43	116.00
26	BB	2460	U	O5'-C5'-C4'	7.05	122.07	111.50
1	AA	542	G	O4'-C1'-N9	7.05	119.07	108.50
1	AA	1024	G	C4'-C3'-C2'	-7.05	95.55	102.60
4	AD	74	A	C3'-C2'-C1'	7.05	108.35	101.30
26	BB	285	G	C5'-C4'-C3'	-7.05	105.43	116.00
1	AA	840	C	C5'-C4'-O4'	7.04	120.37	109.80
15	AO	39	THR	CA-CB-OG1	7.04	120.17	109.60
40	BP	29	VAL	CA-CB-CG1	7.04	122.38	110.40
1	AA	796	C	C3'-C2'-C1'	-7.04	94.26	101.30
17	AQ	6	LYS	CA-C-N	7.04	130.02	120.44
17	AQ	6	LYS	C-N-CA	7.04	130.02	120.44
26	BB	2265	U	C5'-C4'-C3'	-7.04	105.44	116.00
7	AG	154	VAL	CA-C-N	7.04	129.72	120.28
7	AG	154	VAL	C-N-CA	7.04	129.72	120.28
26	BB	67	U	O4'-C4'-C3'	7.04	111.04	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	138	U	O4'-C1'-C2'	-7.04	100.56	107.60
29	BE	67	HIS	ND1-CE1-NE2	7.04	115.44	108.40
1	AA	485	U	C4'-C3'-C2'	-7.04	95.56	102.60
5	AE	232	ALA	CA-C-O	-7.04	113.37	120.90
27	BC	234	ASN	CA-CB-CG	-7.04	105.56	112.60
13	AM	36	VAL	N-CA-CB	-7.04	105.23	112.06
26	BB	1437	C	O4'-C1'-N1	7.04	119.06	108.50
26	BB	1786	A	O4'-C1'-C2'	-7.04	98.76	105.80
26	BB	589	U	O4'-C1'-N1	7.04	119.06	108.50
26	BB	1539	U	C5'-C4'-O4'	7.04	120.36	109.80
53	B2	62	LYS	CA-C-N	7.04	132.97	121.99
53	B2	62	LYS	C-N-CA	7.04	132.97	121.99
4	AD	69	C	O4'-C1'-C2'	-7.03	100.57	107.60
26	BB	1585	C	C4'-C3'-C2'	-7.03	95.57	102.60
26	BB	1990	C	C3'-C2'-C1'	7.03	108.33	101.30
8	AH	2	HIS	ND1-CG-CD2	7.03	113.13	106.10
26	BB	2252	G	C3'-C2'-C1'	7.03	108.33	101.30
48	BX	65	VAL	CA-CB-CG1	7.03	122.35	110.40
1	AA	183	C	C4'-C3'-C2'	-7.03	95.57	102.60
6	AF	111	ASP	CA-C-N	7.03	132.37	121.19
6	AF	111	ASP	C-N-CA	7.03	132.37	121.19
26	BB	585	G	C4'-C3'-C2'	-7.03	95.57	102.60
26	BB	2650	U	O4'-C1'-C2'	-7.03	100.57	107.60
1	AA	1254	A	C5'-C4'-C3'	7.03	126.54	116.00
26	BB	207	A	C5'-C4'-O4'	7.03	120.34	109.80
26	BB	740	C	N1-C1'-C2'	7.03	122.54	112.00
26	BB	1302	A	O4'-C1'-C2'	-7.03	98.77	105.80
26	BB	1781	U	C3'-C2'-C1'	7.03	108.53	101.50
26	BB	2246	G	O4'-C4'-C3'	7.03	111.03	104.00
1	AA	25	C	O4'-C4'-C3'	7.03	111.03	104.00
1	AA	736	C	C3'-C2'-C1'	-7.03	94.28	101.30
6	AF	195	ILE	O-C-N	-7.03	115.45	122.97
26	BB	174	U	C3'-C2'-C1'	-7.03	94.28	101.30
26	BB	331	C	O4'-C1'-C2'	7.03	112.83	105.80
26	BB	939	G	O4'-C1'-N9	7.03	119.04	108.50
26	BB	1426	G	O4'-C1'-C2'	-7.03	100.57	107.60
26	BB	2354	C	C1'-C2'-O2'	7.03	118.94	108.40
1	AA	379	C	O5'-C5'-C4'	7.02	122.04	111.50
1	AA	545	C	C3'-C2'-C1'	7.02	108.32	101.30
26	BB	47	C	C1'-O4'-C4'	7.02	116.92	109.90
26	BB	931	U	C4'-C3'-O3'	-7.02	98.87	109.40
26	BB	1692	U	C4'-C3'-C2'	-7.02	95.58	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1253	G	C2'-C3'-O3'	7.02	124.23	113.70
26	BB	1033	U	C4'-C3'-C2'	-7.02	95.58	102.60
26	BB	1300	G	C3'-C2'-C1'	7.02	108.52	101.50
1	AA	400	C	O3'-P-O5'	-7.02	93.47	104.00
1	AA	533	A	C5'-C4'-O4'	7.02	119.63	109.10
26	BB	2276	G	C1'-O4'-C4'	7.02	116.92	109.90
38	BN	84	LYS	N-CA-C	-7.02	102.70	112.45
47	BW	73	ASN	CA-CB-CG	7.02	119.62	112.60
1	AA	278	G	C4'-C3'-C2'	-7.02	95.58	102.60
26	BB	669	G	O3'-P-O5'	7.01	114.52	104.00
26	BB	1079	C	C4'-C3'-C2'	-7.01	95.58	102.60
26	BB	1176	U	O4'-C1'-N1	7.01	119.02	108.50
26	BB	2902	C	C4'-C3'-C2'	-7.01	95.58	102.60
32	BH	25	ILE	CB-CA-C	7.01	119.29	111.08
26	BB	1234	U	O3'-P-O5'	-7.01	93.48	104.00
15	AO	43	LYS	CA-C-N	7.01	126.71	119.56
15	AO	43	LYS	C-N-CA	7.01	126.71	119.56
26	BB	320	A	C3'-C2'-C1'	7.01	108.31	101.30
26	BB	885	C	O4'-C1'-C2'	-7.01	100.59	107.60
31	BG	4	HIS	N-CA-C	7.01	120.31	111.69
6	AF	196	GLY	CA-C-N	7.00	132.32	123.14
6	AF	196	GLY	C-N-CA	7.00	132.32	123.14
26	BB	2141	G	C2'-C3'-O3'	-7.00	103.19	113.70
26	BB	393	C	C4'-C3'-O3'	7.00	123.50	113.00
26	BB	598	U	O4'-C1'-N1	7.00	119.00	108.50
26	BB	1404	C	C3'-C2'-C1'	7.00	108.30	101.30
15	AO	66	ILE	N-CA-CB	-7.00	103.68	111.66
26	BB	148	U	C1'-O4'-C4'	7.00	116.90	109.90
25	BA	12	C	C3'-C2'-C1'	7.00	108.50	101.50
26	BB	2492	U	C1'-C2'-O2'	7.00	122.29	111.80
26	BB	2593	U	C5'-C4'-C3'	-7.00	105.51	116.00
1	AA	330	C	C3'-C2'-C1'	6.99	108.29	101.30
1	AA	480	U	C4'-C3'-C2'	-6.99	95.61	102.60
26	BB	110	G	N9-C1'-C2'	-6.99	101.51	112.00
1	AA	350	G	C4'-C3'-C2'	-6.99	95.61	102.60
2	AB	43	G	O4'-C1'-C2'	-6.99	100.61	107.60
26	BB	885	C	P-O5'-C5'	6.99	131.39	120.90
26	BB	2088	A	C4'-C3'-C2'	-6.99	95.61	102.60
37	BM	47	ILE	CA-C-N	6.99	127.59	120.04
37	BM	47	ILE	C-N-CA	6.99	127.59	120.04
1	AA	376	G	C5'-C4'-O4'	6.99	120.28	109.80
1	AA	1076	U	O4'-C1'-N1	6.99	118.98	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AP	28	ARG	CD-NE-CZ	-6.99	114.62	124.40
26	BB	1710	G	O4'-C1'-C2'	6.99	114.59	107.60
26	BB	2270	A	C3'-C2'-O2'	6.99	121.18	110.70
4	AD	22	A	C4'-C3'-O3'	-6.98	98.93	109.40
43	BS	83	LYS	CA-C-N	6.98	130.21	120.29
43	BS	83	LYS	C-N-CA	6.98	130.21	120.29
26	BB	1142	A	P-O3'-C3'	6.98	130.67	120.20
1	AA	408	A	C4'-C3'-C2'	-6.98	95.62	102.60
21	AU	37	LYS	CA-C-N	6.98	129.85	120.50
21	AU	37	LYS	C-N-CA	6.98	129.85	120.50
26	BB	42	A	P-O3'-C3'	6.98	130.67	120.20
26	BB	786	C	O4'-C1'-N1	6.98	118.97	108.50
16	AP	89	ARG	NE-CZ-NH2	-6.98	112.92	119.20
26	BB	2349	G	C4'-C3'-O3'	6.98	123.47	113.00
1	AA	818	G	C5'-C4'-C3'	-6.98	104.74	115.20
14	AN	25	SER	CA-C-N	6.98	131.76	120.60
14	AN	25	SER	C-N-CA	6.98	131.76	120.60
26	BB	664	G	C3'-C2'-O2'	6.97	121.16	110.70
26	BB	1784	A	C4'-C3'-C2'	6.97	109.57	102.60
42	BR	38	ARG	NE-CZ-NH2	6.97	125.47	119.20
1	AA	1239	A	O3'-P-O5'	6.97	114.45	104.00
26	BB	1840	G	C5'-C4'-C3'	-6.97	105.55	116.00
26	BB	2265	U	C5'-C4'-O4'	6.97	120.25	109.80
26	BB	2511	U	C4'-C3'-C2'	-6.97	95.63	102.60
8	AH	153	ALA	CA-C-N	6.97	130.31	120.28
8	AH	153	ALA	C-N-CA	6.97	130.31	120.28
26	BB	1652	A	O4'-C1'-N9	6.97	118.95	108.50
26	BB	2011	U	C4'-C3'-O3'	-6.97	102.55	113.00
26	BB	2821	A	C5'-C4'-C3'	-6.96	105.55	116.00
46	BV	97	GLY	CA-C-O	-6.96	114.38	121.90
1	AA	727	G	O3'-P-O5'	-6.96	93.56	104.00
1	AA	459	A	O3'-P-O5'	6.96	114.44	104.00
26	BB	160	A	C5'-C4'-C3'	-6.96	105.56	116.00
26	BB	2489	U	O4'-C1'-C2'	-6.96	100.64	107.60
39	BO	23	GLY	CA-C-N	6.96	131.74	120.60
39	BO	23	GLY	C-N-CA	6.96	131.74	120.60
1	AA	1022	A	O4'-C4'-C3'	6.96	110.96	104.00
26	BB	1850	G	C5'-C4'-O4'	6.96	120.24	109.80
10	AJ	141	HIS	CB-CG-CD2	-6.96	122.16	131.20
15	AO	52	CYS	O-C-N	6.96	132.04	123.21
26	BB	1062	G	O4'-C4'-C3'	6.96	110.96	104.00
26	BB	1890	A	C2'-C3'-O3'	-6.96	103.27	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	488	G	O5'-C5'-C4'	-6.95	101.07	111.50
26	BB	1080	A	P-O5'-C5'	6.95	131.33	120.90
11	AK	94	VAL	O-C-N	-6.95	116.53	122.65
43	BS	93	ILE	CA-C-N	6.95	130.53	120.38
43	BS	93	ILE	C-N-CA	6.95	130.53	120.38
21	AU	30	ASN	O-C-N	6.95	131.74	122.43
26	BB	1482	G	C1'-O4'-C4'	-6.95	102.95	109.90
28	BD	79	ARG	NE-CZ-NH2	-6.95	112.94	119.20
26	BB	2838	G	O4'-C1'-N9	6.95	118.92	108.50
38	BN	126	ARG	NE-CZ-NH1	-6.95	114.55	121.50
26	BB	2235	G	O5'-C5'-C4'	-6.95	101.08	111.50
1	AA	110	C	O4'-C1'-N1	6.95	118.92	108.50
1	AA	814	A	O4'-C1'-C2'	-6.95	100.65	107.60
26	BB	445	C	C5'-C4'-O4'	6.95	120.22	109.80
26	BB	1940	U	C1'-O4'-C4'	-6.95	102.75	109.70
26	BB	2846	G	C2'-C3'-O3'	-6.95	103.28	113.70
8	AH	2	HIS	ND1-CE1-NE2	6.94	115.34	108.40
1	AA	480	U	C5'-C4'-O4'	6.94	120.21	109.80
26	BB	1082	U	C1'-O4'-C4'	6.94	116.84	109.90
26	BB	1470	A	O4'-C1'-N9	-6.94	98.09	108.50
42	BR	96	LEU	CA-C-N	6.94	130.52	120.38
42	BR	96	LEU	C-N-CA	6.94	130.52	120.38
1	AA	1079	G	C1'-O4'-C4'	6.94	116.84	109.90
6	AF	203	LYS	CA-C-N	6.94	129.94	120.92
6	AF	203	LYS	C-N-CA	6.94	129.94	120.92
26	BB	572	A	O4'-C1'-C2'	-6.94	100.66	107.60
26	BB	1104	C	O4'-C4'-C3'	6.94	110.94	104.00
26	BB	1765	U	C4'-C3'-O3'	-6.94	102.59	113.00
1	AA	231	U	C3'-C2'-C1'	6.94	108.24	101.30
1	AA	1448	C	C4'-C3'-C2'	-6.94	95.66	102.60
13	AM	91	ASP	CA-CB-CG	6.94	119.54	112.60
26	BB	218	A	O4'-C1'-C2'	-6.94	98.86	105.80
26	BB	838	C	C4'-C3'-C2'	-6.94	95.66	102.60
26	BB	2272	U	C4'-C3'-O3'	-6.94	102.59	113.00
11	AK	26	MET	O-C-N	6.94	126.71	121.65
26	BB	249	C	P-O3'-C3'	6.94	130.60	120.20
26	BB	286	U	C1'-C2'-O2'	6.93	118.80	108.40
1	AA	410	G	O4'-C1'-C2'	-6.93	100.67	107.60
1	AA	109	A	O4'-C1'-N9	6.93	118.60	108.20
25	BA	54	G	C5'-C4'-O4'	6.93	120.19	109.80
46	BV	3	ARG	N-CA-CB	6.93	122.20	110.49
26	BB	2842	G	C4'-C3'-O3'	6.93	123.39	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	850	U	C5'-C4'-C3'	-6.93	105.61	116.00
1	AA	1356	G	O3'-P-O5'	-6.93	93.61	104.00
26	BB	781	A	C5'-C4'-O4'	6.93	120.19	109.80
26	BB	1133	A	C4'-C3'-C2'	6.93	109.53	102.60
26	BB	2377	A	O4'-C1'-N9	6.93	118.89	108.50
1	AA	798	U	C2'-C3'-O3'	6.92	124.09	113.70
13	AM	15	HIS	ND1-CE1-NE2	6.92	115.32	108.40
26	BB	1464	G	O5'-C5'-C4'	-6.92	101.11	111.50
26	BB	751	A	C2'-C3'-O3'	6.92	119.88	109.50
18	AR	26	VAL	CA-C-N	6.92	130.12	120.29
18	AR	26	VAL	C-N-CA	6.92	130.12	120.29
26	BB	2154	A	C5'-C4'-C3'	-6.92	105.62	116.00
18	AR	41	HIS	CA-CB-CG	-6.92	106.88	113.80
26	BB	2117	A	C3'-C2'-C1'	-6.92	94.38	101.30
26	BB	2136	G	C1'-C2'-O2'	6.92	118.78	108.40
28	BD	129	LEU	O-C-N	-6.92	116.97	121.88
1	AA	423	G	C5'-C4'-C3'	-6.92	105.63	116.00
26	BB	1803	A	C4'-C3'-C2'	-6.92	95.69	102.60
26	BB	2074	U	C1'-O4'-C4'	-6.92	102.98	109.90
26	BB	589	U	C1'-O4'-C4'	6.91	116.81	109.90
26	BB	2519	U	C4'-C3'-C2'	-6.91	95.69	102.60
26	BB	2426	A	O4'-C1'-C2'	-6.91	98.89	105.80
26	BB	1132	U	O4'-C1'-N1	6.91	118.57	108.20
26	BB	2017	U	C1'-O4'-C4'	-6.91	102.99	109.90
1	AA	542	G	C4'-C3'-C2'	-6.91	95.69	102.60
25	BA	58	A	C5'-C4'-C3'	6.91	126.36	116.00
26	BB	731	C	C3'-C2'-C1'	6.91	108.21	101.30
26	BB	2579	C	C4'-C3'-O3'	6.91	123.36	113.00
1	AA	366	A	O4'-C1'-C2'	-6.90	98.90	105.80
25	BA	102	G	O4'-C1'-C2'	-6.90	100.70	107.60
1	AA	735	C	C1'-C2'-O2'	-6.90	98.05	108.40
7	AG	43	ARG	CD-NE-CZ	6.90	134.06	124.40
36	BL	20	ALA	CA-C-O	-6.90	114.12	121.99
11	AK	66	GLN	OE1-CD-NE2	6.90	129.50	122.60
26	BB	318	C	O4'-C1'-C2'	-6.90	100.70	107.60
26	BB	1219	U	O4'-C1'-N1	6.90	118.84	108.50
6	AF	88	LYS	CA-C-O	-6.89	113.58	120.82
26	BB	1367	A	O4'-C1'-C2'	-6.89	100.70	107.60
1	AA	8	A	C3'-C2'-O2'	-6.89	104.26	114.60
24	AX	33	ARG	CA-C-O	-6.89	113.86	121.23
26	BB	1997	C	N1-C1'-C2'	-6.89	101.66	112.00
17	AQ	26	LEU	CA-C-N	6.89	129.82	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AQ	26	LEU	C-N-CA	6.89	129.82	120.38
26	BB	2294	G	C5'-C4'-C3'	-6.89	105.66	116.00
26	BB	2557	G	O4'-C4'-C3'	6.89	110.89	104.00
1	AA	742	G	C3'-C2'-C1'	-6.89	94.41	101.30
26	BB	2849	U	O5'-C5'-C4'	-6.89	101.37	111.70
1	AA	1382	C	O4'-C1'-N1	6.89	118.83	108.50
26	BB	242	G	C2'-C3'-O3'	6.89	119.83	109.50
26	BB	1112	G	C5'-C4'-C3'	-6.89	105.67	116.00
26	BB	798	G	C5'-C4'-C3'	-6.88	105.67	116.00
26	BB	1606	C	C1'-O4'-C4'	-6.88	103.02	109.90
1	AA	546	A	C4'-C3'-O3'	-6.88	102.67	113.00
25	BA	82	U	C3'-C2'-C1'	6.88	108.18	101.30
26	BB	412	A	O4'-C4'-C3'	-6.88	97.12	104.00
26	BB	1499	C	C5'-C4'-O4'	6.88	120.12	109.80
26	BB	1699	G	C2'-C3'-O3'	6.88	119.82	109.50
26	BB	2618	G	O3'-P-O5'	-6.88	93.68	104.00
1	AA	121	U	O4'-C1'-C2'	-6.88	100.72	107.60
9	AI	62	MET	CA-C-N	6.88	131.90	122.34
9	AI	62	MET	C-N-CA	6.88	131.90	122.34
20	AT	2	ASP	CA-C-N	6.88	130.58	120.95
20	AT	2	ASP	C-N-CA	6.88	130.58	120.95
26	BB	2357	G	C4'-C3'-C2'	-6.88	95.72	102.60
26	BB	439	A	O5'-C5'-C4'	-6.88	101.19	111.50
28	BD	57	HIS	CB-CG-CD2	-6.88	122.26	131.20
55	B4	5	ARG	CA-C-O	-6.88	113.61	121.72
1	AA	72	A	C5'-C4'-O4'	6.87	120.11	109.80
1	AA	282	A	C3'-C2'-C1'	6.87	108.17	101.30
14	AN	40	ALA	N-CA-C	6.87	120.20	109.96
26	BB	1423	G	C4'-C3'-C2'	-6.87	95.73	102.60
26	BB	1438	U	C4'-C3'-C2'	-6.87	95.73	102.60
33	BI	117	LEU	CA-C-N	6.87	126.86	119.78
33	BI	117	LEU	C-N-CA	6.87	126.86	119.78
8	AH	140	ILE	CA-C-N	6.87	130.18	120.28
8	AH	140	ILE	C-N-CA	6.87	130.18	120.28
26	BB	2471	A	C2'-C3'-O3'	6.87	119.81	109.50
18	AR	71	ARG	NE-CZ-NH2	6.87	125.38	119.20
26	BB	1799	G	C5'-C4'-O4'	-6.87	99.50	109.80
26	BB	2551	C	O4'-C4'-C3'	6.87	110.87	104.00
1	AA	1089	G	C5'-C4'-C3'	-6.87	105.70	116.00
19	AS	21	VAL	CA-CB-CG2	6.87	122.07	110.40
26	BB	1682	G	C2'-C3'-O3'	-6.87	103.40	113.70
1	AA	536	C	C4'-C3'-C2'	-6.86	95.74	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1065	U	N1-C1'-C2'	6.86	124.29	114.00
26	BB	1645	G	N9-C1'-C2'	-6.86	103.70	114.00
26	BB	2220	U	O4'-C1'-N1	6.86	118.80	108.50
1	AA	26	A	C4'-C3'-C2'	-6.86	95.74	102.60
1	AA	1105	A	O3'-P-O5'	6.86	114.29	104.00
10	AJ	1	PRO	CA-N-CD	-6.86	102.39	112.00
26	BB	1375	U	O4'-C1'-N1	6.86	118.79	108.50
47	BW	54	PRO	N-CD-CG	6.86	113.49	103.20
6	AF	178	ARG	NH1-CZ-NH2	6.86	128.22	119.30
1	AA	180	U	C4'-C3'-C2'	-6.86	95.75	102.60
1	AA	182	A	C3'-C2'-C1'	-6.86	94.64	101.50
1	AA	1258	G	C4'-C3'-C2'	-6.86	95.74	102.60
20	AT	27	PHE	CA-CB-CG	-6.86	106.94	113.80
22	AV	11	ASP	CA-C-N	6.86	129.77	120.38
22	AV	11	ASP	C-N-CA	6.86	129.77	120.38
26	BB	11	C	C4'-C3'-C2'	-6.86	95.74	102.60
26	BB	815	C	O4'-C4'-C3'	6.86	110.86	104.00
26	BB	1484	U	C5'-C4'-O4'	6.86	120.08	109.80
36	BL	47	HIS	CA-CB-CG	6.86	120.66	113.80
34	BJ	125	LEU	N-CA-C	6.85	119.33	111.11
1	AA	512	U	C1'-O4'-C4'	6.85	116.75	109.90
26	BB	313	G	C3'-C2'-C1'	6.85	108.15	101.30
26	BB	670	A	O3'-P-O5'	-6.85	93.72	104.00
26	BB	2673	G	C4'-C3'-C2'	-6.85	95.75	102.60
26	BB	2830	C	C3'-C2'-C1'	-6.85	94.45	101.30
1	AA	325	A	C4'-C3'-C2'	-6.85	95.75	102.60
15	AO	44	PRO	N-CA-CB	6.85	110.33	103.48
1	AA	239	U	C4'-C3'-C2'	-6.85	95.75	102.60
26	BB	1294	U	C4'-C3'-C2'	-6.85	95.75	102.60
26	BB	1607	C	C4'-C3'-C2'	-6.85	95.75	102.60
26	BB	2010	G	C5'-C4'-C3'	-6.85	105.73	116.00
26	BB	2223	G	C1'-O4'-C4'	-6.85	103.05	109.90
26	BB	2248	C	O4'-C1'-C2'	-6.84	100.76	107.60
1	AA	665	A	O4'-C4'-C3'	-6.84	97.16	104.00
34	BJ	30	ARG	CB-CA-C	6.84	122.00	111.39
1	AA	142	G	C3'-C2'-C1'	6.84	108.14	101.30
5	AE	37	VAL	CA-C-N	6.84	130.59	120.87
5	AE	37	VAL	C-N-CA	6.84	130.59	120.87
26	BB	2497	A	O5'-C5'-C4'	-6.84	101.44	111.70
26	BB	1133	A	P-O5'-C5'	6.84	131.16	120.90
26	BB	1212	G	C3'-C2'-C1'	-6.84	94.66	101.50
1	AA	270	A	C3'-C2'-C1'	-6.84	94.46	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	31	C	C5'-C4'-O4'	6.84	120.05	109.80
26	BB	1126	A	C3'-C2'-C1'	6.84	108.34	101.50
26	BB	2811	G	C5'-C4'-C3'	6.84	126.26	116.00
3	AC	18	A	O4'-C1'-C2'	-6.83	98.97	105.80
13	AM	70	HIS	ND1-CE1-NE2	6.83	115.23	108.40
23	AW	55	PRO	CA-C-N	6.83	129.31	120.56
23	AW	55	PRO	C-N-CA	6.83	129.31	120.56
26	BB	2087	G	C3'-C2'-C1'	6.83	108.13	101.30
26	BB	2846	G	O4'-C1'-N9	6.83	118.75	108.50
19	AS	14	ARG	O-C-N	-6.83	115.70	121.23
26	BB	1897	G	C4'-C3'-O3'	-6.83	102.75	113.00
1	AA	32	A	P-O5'-C5'	6.83	131.14	120.90
1	AA	343	U	C4'-C3'-C2'	-6.83	95.77	102.60
26	BB	1576	U	N1-C1'-C2'	-6.83	101.76	112.00
26	BB	2397	G	P-O5'-C5'	6.83	131.14	120.90
49	BY	23	LYS	CA-C-O	6.83	128.31	119.98
2	AB	65	C	C1'-O4'-C4'	-6.83	103.07	109.90
5	AE	95	TRP	CB-CG-CD2	6.83	136.36	126.80
26	BB	924	G	C5'-C4'-C3'	-6.83	105.76	116.00
1	AA	503	C	O5'-C5'-C4'	-6.82	101.27	111.50
26	BB	579	G	C3'-C2'-C1'	-6.82	94.48	101.30
26	BB	1892	C	C4'-C3'-C2'	-6.82	95.78	102.60
1	AA	625	U	C4'-C3'-C2'	6.82	109.42	102.60
26	BB	1286	A	O4'-C1'-N9	6.82	118.43	108.20
26	BB	485	C	O4'-C1'-N1	6.82	118.73	108.50
26	BB	1255	U	C1'-O4'-C4'	-6.82	103.08	109.90
1	AA	1069	C	O4'-C4'-C3'	6.82	110.82	104.00
26	BB	663	G	O4'-C1'-N9	6.82	118.73	108.50
26	BB	2194	U	C1'-C2'-O2'	6.82	118.63	108.40
26	BB	2820	A	C3'-C2'-C1'	6.82	108.12	101.30
6	AF	34	SER	CA-C-N	6.82	129.41	120.28
6	AF	34	SER	C-N-CA	6.82	129.41	120.28
26	BB	176	A	C4'-C3'-C2'	-6.82	95.78	102.60
26	BB	724	U	C4'-C3'-C2'	-6.82	95.78	102.60
26	BB	2554	U	O4'-C1'-N1	6.82	118.72	108.50
26	BB	2811	G	P-O3'-C3'	6.81	130.42	120.20
35	BK	124	MET	CA-C-O	-6.81	113.67	120.82
26	BB	620	G	O4'-C1'-C2'	-6.81	98.99	105.80
26	BB	2192	U	O4'-C1'-C2'	-6.81	100.79	107.60
26	BB	1967	C	P-O3'-C3'	6.81	130.42	120.20
1	AA	197	A	O4'-C4'-C3'	-6.81	99.29	106.10
1	AA	962	C	O4'-C4'-C3'	6.81	110.81	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	AS	18	GLN	CA-C-O	-6.81	113.14	121.11
20	AT	75	VAL	CB-CA-C	6.81	122.46	111.29
26	BB	578	G	O3'-P-O5'	-6.81	93.79	104.00
26	BB	1043	C	C4'-C3'-C2'	-6.81	95.79	102.60
26	BB	1481	U	O4'-C1'-N1	6.81	118.72	108.50
16	AP	86	ARG	NE-CZ-NH1	6.81	128.31	121.50
26	BB	116	C	C4'-C3'-C2'	-6.81	95.79	102.60
35	BK	36	GLU	CA-C-N	6.81	129.96	120.29
35	BK	36	GLU	C-N-CA	6.81	129.96	120.29
1	AA	196	A	O4'-C4'-C3'	6.81	110.81	104.00
1	AA	690	G	C1'-O4'-C4'	6.81	116.71	109.90
30	BF	98	LYS	CA-C-O	-6.81	113.33	120.55
26	BB	453	A	C4'-C3'-O3'	6.80	123.21	113.00
26	BB	1539	U	O4'-C1'-N1	6.80	118.71	108.50
26	BB	2188	U	O4'-C1'-N1	6.80	118.71	108.50
26	BB	174	U	O4'-C1'-C2'	6.80	114.40	107.60
1	AA	1101	A	O5'-C5'-C4'	6.80	121.90	111.70
1	AA	1319	A	C5'-C4'-C3'	-6.80	105.00	115.20
9	AI	1	MET	CA-C-N	6.80	131.62	120.94
9	AI	1	MET	C-N-CA	6.80	131.62	120.94
26	BB	985	C	O4'-C4'-C3'	6.80	110.80	104.00
1	AA	1095	U	C5'-C4'-O4'	6.80	120.00	109.80
26	BB	1441	G	O4'-C4'-C3'	6.80	110.80	104.00
1	AA	1376	U	C1'-O4'-C4'	-6.80	103.10	109.90
4	AD	11	A	O4'-C4'-C3'	6.80	110.80	104.00
19	AS	39	PHE	CA-CB-CG	-6.80	107.00	113.80
26	BB	2547	A	C5'-C4'-O4'	6.80	120.00	109.80
1	AA	1258	G	O4'-C4'-C3'	6.79	110.79	104.00
26	BB	863	A	C4'-C3'-C2'	-6.79	95.81	102.60
26	BB	1111	A	O4'-C1'-C2'	6.79	112.59	105.80
33	BI	116	ARG	NE-CZ-NH1	6.79	128.29	121.50
1	AA	847	G	C4'-C3'-O3'	6.79	123.18	113.00
13	AM	50	THR	CA-CB-CG2	6.79	122.04	110.50
23	AW	2	ASN	CA-CB-CG	6.79	119.39	112.60
26	BB	1189	A	C5'-C4'-O4'	6.79	119.98	109.80
26	BB	2572	A	O4'-C1'-N9	6.79	118.38	108.20
1	AA	187	G	O4'-C1'-C2'	-6.79	100.81	107.60
6	AF	75	VAL	O-C-N	6.79	128.82	121.83
26	BB	1398	C	C4'-C3'-O3'	6.79	123.18	113.00
1	AA	81	A	C3'-C2'-C1'	-6.79	94.51	101.30
26	BB	1756	G	P-O5'-C5'	6.79	131.08	120.90
48	BX	41	GLU	CA-C-N	6.79	135.18	123.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	BX	41	GLU	C-N-CA	6.79	135.18	123.03
1	AA	2	A	C3'-C2'-C1'	-6.78	94.52	101.30
26	BB	2565	A	C2'-C3'-O3'	-6.78	103.52	113.70
31	BG	158	THR	CA-CB-OG1	6.78	119.78	109.60
2	AB	25	C	C4'-C3'-C2'	-6.78	95.82	102.60
4	AD	43	G	C4'-C3'-O3'	6.78	123.17	113.00
26	BB	1246	A	O4'-C1'-N9	6.78	118.67	108.50
26	BB	2248	C	C4'-C3'-C2'	-6.78	95.82	102.60
30	BF	7	ASP	CA-C-N	6.78	134.43	122.42
30	BF	7	ASP	C-N-CA	6.78	134.43	122.42
1	AA	1263	C	O4'-C1'-C2'	-6.78	100.82	107.60
1	AA	1465	A	C4'-C3'-C2'	-6.78	95.82	102.60
26	BB	114	U	O4'-C4'-C3'	6.78	110.78	104.00
26	BB	1983	G	O4'-C4'-C3'	6.78	110.78	104.00
26	BB	2716	C	O4'-C1'-N1	6.78	118.67	108.50
50	BZ	56	ARG	NE-CZ-NH2	6.78	125.30	119.20
1	AA	623	C	O3'-P-O5'	-6.78	93.84	104.00
1	AA	869	G	O4'-C4'-C3'	6.78	110.78	104.00
1	AA	1258	G	O5'-C5'-C4'	6.78	121.66	111.50
26	BB	1139	G	C3'-C2'-C1'	-6.78	94.52	101.30
5	AE	204	ASP	CA-CB-CG	6.77	119.37	112.60
17	AQ	75	LYS	N-CA-CB	-6.77	99.78	110.28
26	BB	764	A	C4'-C3'-C2'	6.77	109.37	102.60
1	AA	623	C	O4'-C1'-C2'	-6.77	100.83	107.60
25	BA	42	C	C2'-C3'-O3'	6.77	123.86	113.70
26	BB	863	A	O3'-P-O5'	-6.77	93.84	104.00
26	BB	2024	G	C4'-C3'-C2'	-6.77	95.83	102.60
1	AA	142	G	O4'-C4'-C3'	6.77	110.77	104.00
26	BB	1249	U	C5'-C4'-C3'	-6.77	105.84	116.00
40	BP	97	ILE	CA-CB-CG1	6.77	121.91	110.40
1	AA	1281	C	C1'-C2'-O2'	6.77	121.95	111.80
26	BB	163	C	C1'-O4'-C4'	6.77	116.67	109.90
1	AA	1417	G	C3'-C2'-O2'	6.77	120.85	110.70
3	AC	17	U	C4'-C3'-C2'	-6.77	95.83	102.60
26	BB	2734	A	C4'-C3'-C2'	-6.77	95.83	102.60
48	BX	59	GLU	CA-C-N	6.76	130.82	120.13
48	BX	59	GLU	C-N-CA	6.76	130.82	120.13
26	BB	2066	C	O4'-C1'-C2'	6.76	114.36	107.60
1	AA	420	U	C4'-C3'-O3'	-6.76	102.86	113.00
1	AA	458	U	C5'-C4'-O4'	6.76	119.94	109.80
16	AP	73	SER	CA-C-N	6.76	130.59	120.31
16	AP	73	SER	C-N-CA	6.76	130.59	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	111	U	O4'-C1'-N1	6.76	118.64	108.50
26	BB	1582	C	C5'-C4'-C3'	6.76	126.14	116.00
40	BP	85	PRO	CA-C-N	6.76	129.64	120.44
40	BP	85	PRO	C-N-CA	6.76	129.64	120.44
7	AG	196	GLU	O-C-N	-6.76	114.06	122.24
26	BB	2426	A	O4'-C4'-C3'	-6.76	99.34	106.10
26	BB	902	C	C1'-O4'-C4'	-6.76	103.14	109.90
26	BB	2068	U	C5'-C4'-O4'	6.76	119.24	109.10
43	BS	44	TYR	CA-C-N	6.76	129.22	120.44
43	BS	44	TYR	C-N-CA	6.76	129.22	120.44
1	AA	177	G	C3'-C2'-C1'	6.76	108.06	101.30
4	AD	19	G	O4'-C4'-C3'	6.76	112.86	106.10
26	BB	2724	U	C4'-C3'-O3'	-6.76	102.87	113.00
50	BZ	17	ARG	NE-CZ-NH1	-6.76	114.74	121.50
1	AA	991	U	O4'-C1'-N1	6.75	118.33	108.20
16	AP	92	ARG	NE-CZ-NH2	-6.75	113.12	119.20
26	BB	2489	U	O4'-C4'-C3'	6.75	110.75	104.00
38	BN	39	LYS	CA-C-N	6.75	133.55	120.99
38	BN	39	LYS	C-N-CA	6.75	133.55	120.99
26	BB	876	C	C1'-O4'-C4'	-6.75	103.15	109.90
51	B0	56	LEU	CA-C-N	6.75	134.44	121.54
51	B0	56	LEU	C-N-CA	6.75	134.44	121.54
1	AA	338	A	C4'-C3'-C2'	-6.75	95.85	102.60
4	AD	32	G	O4'-C1'-N9	6.75	118.63	108.50
17	AQ	75	LYS	CB-CA-C	6.75	123.63	110.67
26	BB	1677	A	C5'-C4'-O4'	6.75	119.93	109.80
25	BA	66	A	C4'-C3'-O3'	6.75	123.12	113.00
26	BB	413	C	O3'-P-O5'	-6.75	93.88	104.00
26	BB	1614	A	C1'-O4'-C4'	-6.75	103.15	109.90
26	BB	1694	C	O4'-C1'-C2'	-6.75	99.05	105.80
26	BB	2537	U	C1'-O4'-C4'	6.75	116.65	109.90
1	AA	781	A	O5'-C5'-C4'	6.75	121.62	111.50
12	AL	40	ARG	CA-C-O	-6.75	110.86	120.51
27	BC	105	LYS	N-CA-C	6.75	118.72	111.36
52	B1	7	THR	CA-CB-CG2	6.75	121.97	110.50
40	BP	109	PRO	N-CA-CB	6.75	109.34	103.27
17	AQ	42	ASN	CA-CB-CG	6.74	119.34	112.60
26	BB	2491	U	C4'-C3'-C2'	-6.74	95.86	102.60
3	AC	23	C	O4'-C1'-N1	6.74	118.61	108.50
8	AH	59	ILE	CA-C-O	-6.74	114.03	121.17
26	BB	684	G	O4'-C4'-C3'	6.74	110.74	104.00
30	BF	29	HIS	CB-CG-CD2	-6.74	122.44	131.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BY	60	ALA	CA-C-O	6.74	128.91	121.56
2	AB	9	A	C4'-C3'-O3'	6.74	123.11	113.00
15	AO	23	LEU	CA-C-N	6.74	132.17	122.40
15	AO	23	LEU	C-N-CA	6.74	132.17	122.40
1	AA	316	C	O4'-C1'-N1	6.74	118.61	108.50
4	AD	9	G	C1'-C2'-O2'	-6.74	101.69	111.80
26	BB	1251	C	O3'-P-O5'	-6.74	93.89	104.00
47	BW	94	PHE	CA-CB-CG	6.74	120.54	113.80
1	AA	982	U	C5'-C4'-O4'	6.74	119.20	109.10
3	AC	21	U	C4'-C3'-C2'	6.74	109.34	102.60
10	AJ	152	HIS	CA-C-N	6.74	131.70	122.07
10	AJ	152	HIS	C-N-CA	6.74	131.70	122.07
21	AU	26	ALA	N-CA-C	6.74	119.97	111.69
26	BB	301	G	C5'-C4'-C3'	-6.74	105.10	115.20
26	BB	2047	C	O4'-C4'-C3'	6.74	110.74	104.00
55	B4	45	HIS	CB-CG-CD2	-6.74	122.44	131.20
1	AA	722	G	C2'-C3'-O3'	6.73	123.80	113.70
1	AA	1500	A	O5'-C5'-C4'	-6.73	101.40	111.50
25	BA	94	A	C5'-C4'-C3'	-6.73	105.90	116.00
1	AA	1453	G	O4'-C4'-C3'	6.73	110.73	104.00
10	AJ	45	ALA	CA-C-N	6.73	130.21	120.38
10	AJ	45	ALA	C-N-CA	6.73	130.21	120.38
16	AP	59	VAL	N-CA-C	6.73	117.49	110.62
1	AA	1248	A	C4'-C3'-C2'	-6.73	95.87	102.60
26	BB	716	A	C4'-C3'-C2'	-6.73	95.87	102.60
26	BB	1095	A	O4'-C1'-C2'	-6.73	100.87	107.60
26	BB	1436	G	O4'-C1'-C2'	-6.73	100.87	107.60
26	BB	578	G	O4'-C1'-N9	6.73	118.59	108.50
26	BB	1567	G	O4'-C1'-C2'	-6.73	99.07	105.80
1	AA	1395	C	O3'-P-O5'	6.73	114.09	104.00
26	BB	47	C	C5'-C4'-O4'	6.73	119.89	109.80
26	BB	1558	C	O4'-C1'-C2'	6.73	112.53	105.80
31	BG	99	PHE	N-CA-C	6.73	121.08	112.34
18	AR	85	GLY	CA-C-N	6.73	132.99	121.29
18	AR	85	GLY	C-N-CA	6.73	132.99	121.29
7	AG	135	GLN	CB-CA-C	6.72	120.80	109.84
26	BB	883	G	C5'-C4'-C3'	-6.72	105.91	116.00
29	BE	47	ALA	CA-C-O	-6.72	113.80	121.40
1	AA	802	A	O4'-C1'-N9	6.72	118.58	108.50
9	AI	64	VAL	O-C-N	6.72	130.86	122.59
26	BB	688	U	N1-C1'-C2'	6.72	122.08	112.00
26	BB	1473	G	C4'-C3'-C2'	-6.72	95.88	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2511	U	O5'-C5'-C4'	6.72	121.58	111.50
26	BB	278	A	C5'-C4'-O4'	6.72	119.88	109.80
14	AN	58	THR	CA-C-O	-6.72	113.08	120.87
15	AO	66	ILE	CA-C-N	6.72	128.92	122.27
15	AO	66	ILE	C-N-CA	6.72	128.92	122.27
26	BB	908	C	O4'-C1'-N1	6.72	118.58	108.50
26	BB	1154	G	C4'-C3'-O3'	6.72	123.08	113.00
26	BB	1421	G	C4'-C3'-C2'	-6.72	95.88	102.60
26	BB	1784	A	C1'-C2'-O2'	-6.72	101.72	111.80
26	BB	2312	U	O4'-C4'-C3'	6.72	110.72	104.00
26	BB	2342	C	C4'-C3'-C2'	-6.72	95.88	102.60
26	BB	2565	A	C3'-C2'-C1'	6.72	108.02	101.30
26	BB	2840	C	O3'-P-O5'	-6.72	93.92	104.00
31	BG	16	MET	CA-C-N	6.72	129.83	120.29
31	BG	16	MET	C-N-CA	6.72	129.83	120.29
1	AA	773	G	N9-C1'-C2'	-6.72	101.93	112.00
1	AA	864	A	C4'-C3'-O3'	-6.72	102.93	113.00
26	BB	242	G	P-O3'-C3'	6.72	130.28	120.20
26	BB	2897	U	C3'-C2'-C1'	6.72	108.02	101.30
19	AS	26	ASN	CA-CB-CG	6.71	119.31	112.60
27	BC	128	GLY	CA-C-O	-6.71	115.09	121.60
1	AA	372	C	C4'-C3'-O3'	6.71	119.47	109.40
26	BB	1350	C	C1'-O4'-C4'	6.71	116.61	109.90
35	BK	37	PHE	N-CA-C	-6.71	104.05	111.36
1	AA	1512	U	C1'-C2'-O2'	6.71	118.46	108.40
9	AI	91	ARG	NE-CZ-NH2	-6.71	113.16	119.20
26	BB	989	G	O4'-C1'-C2'	-6.71	99.09	105.80
41	BQ	9	ARG	CA-C-N	6.71	129.27	120.28
41	BQ	9	ARG	C-N-CA	6.71	129.27	120.28
1	AA	726	C	O4'-C1'-N1	6.71	118.56	108.50
1	AA	1231	G	O4'-C4'-C3'	6.71	110.70	104.00
2	AB	69	C	C4'-C3'-C2'	-6.71	95.89	102.60
26	BB	2055	C	O5'-C5'-C4'	6.71	121.56	111.50
26	BB	525	U	C4'-C3'-O3'	-6.70	102.94	113.00
26	BB	1288	G	C4'-C3'-O3'	6.70	119.45	109.40
26	BB	1928	A	C1'-O4'-C4'	-6.70	103.20	109.90
26	BB	2029	G	C3'-C2'-C1'	6.70	108.00	101.30
26	BB	529	A	C1'-C2'-O2'	6.70	118.45	108.40
37	BM	95	ILE	CA-CB-CG1	6.70	121.79	110.40
1	AA	995	C	O4'-C1'-N1	6.70	118.55	108.50
1	AA	1361	G	O4'-C1'-N9	6.70	118.55	108.50
26	BB	932	U	C3'-C2'-C1'	6.70	108.00	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1314	C	P-O5'-C5'	6.70	130.95	120.90
26	BB	1905	C	C3'-C2'-O2'	6.70	120.75	110.70
26	BB	2428	G	P-O3'-C3'	6.70	130.25	120.20
34	BJ	87	HIS	CA-C-N	6.70	126.29	119.19
34	BJ	87	HIS	C-N-CA	6.70	126.29	119.19
40	BP	16	HIS	CB-CG-CD2	-6.70	122.49	131.20
1	AA	1097	C	O4'-C1'-C2'	-6.70	100.90	107.60
26	BB	358	U	O4'-C4'-C3'	6.70	110.70	104.00
26	BB	758	C	C5'-C4'-O4'	6.70	119.85	109.80
1	AA	999	C	O4'-C1'-N1	6.70	118.54	108.50
29	BE	90	PHE	N-CA-CB	6.70	119.86	109.48
35	BK	19	PRO	CA-C-N	6.69	128.46	120.09
35	BK	19	PRO	C-N-CA	6.69	128.46	120.09
1	AA	281	G	O3'-P-O5'	-6.69	93.96	104.00
25	BA	89	U	N1-C1'-C2'	6.69	122.04	112.00
26	BB	1476	U	C4'-C3'-C2'	-6.69	95.91	102.60
26	BB	2204	G	O4'-C4'-C3'	6.69	110.69	104.00
26	BB	325	G	O5'-C5'-C4'	-6.69	101.46	111.50
26	BB	566	U	O4'-C4'-C3'	6.69	110.69	104.00
26	BB	2545	G	C1'-C2'-O2'	6.69	118.43	108.40
32	BH	124	CYS	CA-C-N	6.69	126.14	118.85
32	BH	124	CYS	C-N-CA	6.69	126.14	118.85
1	AA	749	A	C4'-C3'-C2'	-6.69	95.91	102.60
1	AA	1343	G	O4'-C4'-C3'	6.69	110.69	104.00
15	AO	7	VAL	CA-CB-CG2	6.69	121.77	110.40
26	BB	1246	A	C3'-C2'-C1'	6.69	107.99	101.30
26	BB	2043	C	O4'-C1'-N1	6.69	118.53	108.50
56	B5	12	ARG	NE-CZ-NH2	6.69	125.22	119.20
6	AF	24	ASN	CA-C-N	6.68	133.54	123.05
6	AF	24	ASN	C-N-CA	6.68	133.54	123.05
26	BB	1032	A	C4'-C3'-O3'	6.68	123.03	113.00
26	BB	1402	U	C3'-C2'-O2'	6.68	120.72	110.70
26	BB	2439	A	O4'-C1'-C2'	-6.68	99.11	105.80
1	AA	86	G	C3'-C2'-O2'	-6.68	104.58	114.60
1	AA	549	C	C4'-C3'-O3'	-6.68	102.98	113.00
1	AA	691	G	C4'-C3'-C2'	-6.68	95.92	102.60
1	AA	1045	C	O4'-C1'-N1	6.68	118.52	108.50
26	BB	847	U	C4'-C3'-C2'	-6.68	95.92	102.60
26	BB	1413	A	C4'-C3'-O3'	-6.68	102.98	113.00
26	BB	2897	U	C4'-C3'-C2'	-6.68	95.92	102.60
1	AA	1211	U	C4'-C3'-C2'	6.68	109.28	102.60
26	BB	1292	G	C1'-O4'-C4'	-6.68	103.22	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	57	A	O3'-P-O5'	-6.68	93.98	104.00
26	BB	558	U	N1-C1'-C2'	-6.68	101.98	112.00
26	BB	2067	G	C5'-C4'-C3'	-6.68	105.18	115.20
1	AA	278	G	O4'-C4'-C3'	6.68	110.68	104.00
1	AA	528	C	C5'-C4'-C3'	-6.68	105.98	116.00
15	AO	55	ARG	NH1-CZ-NH2	6.68	127.98	119.30
26	BB	1887	C	C5'-C4'-C3'	-6.68	105.99	116.00
1	AA	1468	A	C4'-C3'-C2'	-6.67	95.93	102.60
16	AP	90	HIS	CB-CG-CD2	-6.67	122.52	131.20
20	AT	31	PRO	N-CA-CB	6.67	109.54	103.20
35	BK	18	ASN	CA-C-O	-6.67	111.02	120.16
13	AM	37	ARG	N-CA-C	6.67	119.56	110.55
26	BB	2287	A	C2'-C3'-O3'	6.67	119.51	109.50
28	BD	227	VAL	CA-C-N	6.67	132.19	121.98
28	BD	227	VAL	C-N-CA	6.67	132.19	121.98
1	AA	294	U	O4'-C4'-C3'	6.67	110.67	104.00
6	AF	39	ARG	NE-CZ-NH2	-6.67	113.20	119.20
24	AX	27	VAL	CA-C-O	6.67	124.98	118.98
25	BA	10	G	C3'-C2'-O2'	6.67	120.71	110.70
26	BB	472	A	C5'-C4'-O4'	6.67	119.81	109.80
26	BB	941	A	C4'-C3'-C2'	-6.67	95.93	102.60
1	AA	484	G	P-O3'-C3'	6.67	130.20	120.20
2	AB	9	A	O4'-C4'-C3'	6.67	110.67	104.00
20	AT	61	ARG	CA-C-N	6.67	130.34	120.87
20	AT	61	ARG	C-N-CA	6.67	130.34	120.87
25	BA	117	G	O4'-C1'-C2'	-6.67	100.93	107.60
26	BB	185	G	C3'-C2'-O2'	6.67	120.70	110.70
26	BB	1062	G	C2'-C3'-O3'	6.67	123.70	113.70
1	AA	912	C	O4'-C1'-N1	6.67	118.50	108.50
1	AA	1247	U	O4'-C1'-N1	6.67	118.50	108.50
1	AA	1434	A	C4'-C3'-C2'	-6.67	95.93	102.60
10	AJ	105	GLU	CA-C-N	6.67	129.21	120.28
10	AJ	105	GLU	C-N-CA	6.67	129.21	120.28
26	BB	893	C	C2'-C3'-O3'	6.67	123.70	113.70
26	BB	1216	G	C4'-C3'-C2'	-6.67	95.94	102.60
32	BH	72	ASN	CA-CB-CG	6.67	119.27	112.60
1	AA	141	G	O4'-C1'-C2'	-6.66	100.94	107.60
1	AA	1238	A	C4'-C3'-O3'	-6.66	103.00	113.00
21	AU	7	ARG	N-CA-C	6.66	117.07	108.34
1	AA	1094	G	O5'-C5'-C4'	6.66	121.69	111.70
16	AP	51	GLN	OE1-CD-NE2	-6.66	115.94	122.60
1	AA	1077	G	C1'-O4'-C4'	-6.66	103.24	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	417	C	C3'-C2'-C1'	6.66	107.96	101.30
26	BB	1575	C	O4'-C1'-N1	6.66	118.49	108.50
26	BB	1779	U	C1'-O4'-C4'	-6.66	103.24	109.90
38	BN	50	PHE	CA-CB-CG	6.66	120.46	113.80
40	BP	81	ASN	CA-CB-CG	-6.66	105.94	112.60
1	AA	1458	G	O4'-C4'-C3'	6.66	110.66	104.00
26	BB	1587	G	C4'-C3'-C2'	-6.66	95.94	102.60
26	BB	2225	A	C4'-C3'-C2'	-6.66	95.94	102.60
42	BR	60	VAL	O-C-N	-6.66	114.86	122.72
47	BW	45	GLN	OE1-CD-NE2	-6.66	115.94	122.60
57	B6	34	LYS	CA-C-N	6.66	133.82	122.37
57	B6	34	LYS	C-N-CA	6.66	133.82	122.37
1	AA	1060	U	O4'-C1'-N1	6.66	118.48	108.50
42	BR	54	LEU	N-CA-C	-6.66	105.56	113.21
47	BW	17	ASP	CA-CB-CG	-6.66	105.94	112.60
26	BB	2266	A	C4'-C3'-C2'	-6.66	95.94	102.60
1	AA	1380	U	C1'-C2'-O2'	6.65	121.78	111.80
6	AF	140	ALA	N-CA-C	6.65	118.19	111.07
26	BB	219	A	O4'-C4'-C3'	6.65	110.65	104.00
1	AA	1238	A	O4'-C1'-C2'	-6.65	100.95	107.60
26	BB	2047	C	C3'-C2'-C1'	6.65	107.95	101.30
26	BB	2427	C	O5'-C5'-C4'	6.65	121.67	111.70
26	BB	2543	G	C5'-C4'-C3'	-6.65	106.02	116.00
26	BB	531	C	O3'-P-O5'	-6.65	94.03	104.00
1	AA	103	U	O4'-C4'-C3'	6.65	110.65	104.00
6	AF	91	ALA	CA-C-N	6.64	129.19	120.28
6	AF	91	ALA	C-N-CA	6.64	129.19	120.28
6	AF	204	GLY	CA-C-O	-6.64	115.11	121.49
26	BB	70	G	C4'-C3'-C2'	-6.64	95.95	102.60
26	BB	195	A	O4'-C4'-C3'	6.64	110.64	104.00
1	AA	775	G	C3'-C2'-O2'	6.64	120.66	110.70
1	AA	1226	C	C2'-C3'-O3'	6.64	119.46	109.50
1	AA	1530	G	C4'-C3'-C2'	-6.64	95.96	102.60
26	BB	370	G	C3'-C2'-C1'	6.64	108.14	101.50
24	AX	49	ALA	N-CA-C	6.64	118.52	111.28
26	BB	910	A	C4'-C3'-C2'	-6.64	95.96	102.60
1	AA	493	A	C3'-C2'-C1'	6.64	107.94	101.30
1	AA	1181	G	C4'-C3'-O3'	-6.64	99.44	109.40
1	AA	1533	C	O4'-C1'-N1	6.64	118.46	108.50
10	AJ	119	LEU	N-CA-C	-6.64	104.12	111.36
11	AK	94	VAL	CA-C-N	6.64	131.57	122.34
11	AK	94	VAL	C-N-CA	6.64	131.57	122.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	589	U	C5'-C4'-O4'	6.64	119.76	109.80
26	BB	1694	C	O4'-C1'-N1	6.64	118.16	108.20
1	AA	1025	U	O4'-C4'-C3'	6.64	112.74	106.10
26	BB	1567	G	C4'-C3'-C2'	-6.64	95.96	102.60
8	AH	82	HIS	CE1-NE2-CD2	-6.64	102.36	109.00
26	BB	1299	G	C3'-C2'-O2'	6.64	120.66	110.70
46	BV	68	LYS	CA-C-N	6.64	131.20	121.31
46	BV	68	LYS	C-N-CA	6.64	131.20	121.31
26	BB	2467	C	O3'-P-O5'	-6.63	94.05	104.00
1	AA	184	G	N9-C1'-C2'	-6.63	102.05	112.00
17	AQ	59	GLN	CG-CD-NE2	6.63	126.35	116.40
26	BB	997	G	O4'-C1'-N9	6.63	118.45	108.50
7	AG	12	ARG	NE-CZ-NH1	6.63	128.13	121.50
26	BB	1988	G	C4'-C3'-C2'	-6.63	95.97	102.60
43	BS	4	LYS	CA-C-N	6.63	132.02	122.40
43	BS	4	LYS	C-N-CA	6.63	132.02	122.40
43	BS	15	LYS	CA-C-N	6.63	128.92	120.56
43	BS	15	LYS	C-N-CA	6.63	128.92	120.56
50	BZ	63	ILE	N-CA-C	6.63	117.39	110.62
39	BO	45	GLN	O-C-N	6.63	129.71	122.15
6	AF	17	TRP	CE2-CD2-CE3	-6.63	112.17	118.80
12	AL	38	PHE	CA-CB-CG	6.63	120.43	113.80
26	BB	1088	A	C3'-C2'-C1'	6.63	107.93	101.30
26	BB	1201	U	O3'-P-O5'	-6.63	94.06	104.00
26	BB	1678	A	C1'-C2'-O2'	6.63	118.34	108.40
26	BB	2192	U	O4'-C1'-N1	6.63	118.44	108.50
1	AA	320	A	C4'-C3'-C2'	-6.63	95.97	102.60
1	AA	943	U	C4'-C3'-C2'	-6.63	95.97	102.60
1	AA	1220	G	C5'-C4'-O4'	-6.63	99.86	109.80
1	AA	1362	A	O4'-C1'-N9	6.63	118.14	108.20
26	BB	859	G	O3'-P-O5'	-6.63	94.06	104.00
35	BK	39	LYS	N-CA-C	6.63	118.50	111.28
1	AA	649	A	C3'-C2'-C1'	-6.62	94.67	101.30
15	AO	113	ARG	N-CA-C	-6.62	104.57	114.64
26	BB	1351	C	C4'-C3'-C2'	-6.62	95.98	102.60
26	BB	1867	G	O4'-C4'-C3'	6.62	110.62	104.00
1	AA	506	G	C4'-C3'-C2'	-6.62	95.98	102.60
7	AG	99	ASN	CA-C-O	-6.62	111.97	119.79
14	AN	62	ALA	O-C-N	-6.62	115.25	122.07
26	BB	218	A	P-O3'-C3'	6.62	130.13	120.20
26	BB	660	C	O3'-P-O5'	-6.62	94.07	104.00
26	BB	2016	U	C1'-O4'-C4'	-6.62	103.28	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2165	C	N1-C1'-C2'	6.62	121.93	112.00
26	BB	2617	U	C1'-O4'-C4'	-6.62	103.28	109.90
30	BF	79	ARG	N-CA-C	6.62	119.34	111.33
6	AF	19	SER	CA-C-N	6.62	132.40	122.47
6	AF	19	SER	C-N-CA	6.62	132.40	122.47
26	BB	705	A	O4'-C4'-C3'	6.62	110.62	104.00
26	BB	1304	A	C3'-C2'-O2'	6.62	120.63	110.70
1	AA	91	U	C1'-O4'-C4'	6.62	116.52	109.90
1	AA	1096	C	O4'-C1'-N1	6.62	118.43	108.50
43	BS	59	LEU	N-CA-C	6.62	118.49	111.28
1	AA	681	A	C2'-C3'-O3'	6.62	123.63	113.70
12	AL	22	PRO	N-CA-CB	6.62	109.20	103.31
26	BB	1032	A	C3'-C2'-O2'	6.62	120.62	110.70
26	BB	1950	G	C3'-C2'-C1'	6.62	107.92	101.30
26	BB	2473	U	C3'-C2'-C1'	6.62	107.92	101.30
26	BB	2732	G	C1'-O4'-C4'	-6.62	103.28	109.90
37	BM	56	ASP	CA-C-N	6.62	131.37	122.90
37	BM	56	ASP	C-N-CA	6.62	131.37	122.90
1	AA	325	A	C2'-C3'-O3'	6.61	123.62	113.70
1	AA	986	U	O4'-C1'-C2'	-6.61	100.99	107.60
7	AG	157	ALA	CA-C-N	6.61	129.14	120.28
7	AG	157	ALA	C-N-CA	6.61	129.14	120.28
28	BD	68	ARG	NH1-CZ-NH2	-6.61	110.70	119.30
32	BH	48	THR	CA-C-N	6.61	130.26	120.87
32	BH	48	THR	C-N-CA	6.61	130.26	120.87
26	BB	2441	U	O4'-C1'-N1	6.61	118.42	108.50
1	AA	972	C	O4'-C4'-C3'	6.61	110.61	104.00
6	AF	164	THR	CA-C-N	6.61	133.19	121.75
6	AF	164	THR	C-N-CA	6.61	133.19	121.75
7	AG	96	ARG	CA-C-N	6.61	130.36	120.31
7	AG	96	ARG	C-N-CA	6.61	130.36	120.31
9	AI	9	MET	CA-C-N	6.61	132.13	122.94
9	AI	9	MET	C-N-CA	6.61	132.13	122.94
1	AA	380	G	O4'-C1'-N9	6.61	118.41	108.50
1	AA	458	U	C5'-C4'-C3'	-6.61	106.09	116.00
1	AA	740	U	C5'-C4'-O4'	6.61	119.71	109.80
1	AA	979	C	C3'-C2'-C1'	6.61	107.91	101.30
1	AA	1302	C	O3'-P-O5'	-6.61	94.09	104.00
46	BV	31	VAL	N-CA-CB	-6.61	102.26	111.25
1	AA	907	A	C5'-C4'-O4'	6.61	119.71	109.80
1	AA	1371	G	C3'-C2'-O2'	6.61	120.61	110.70
26	BB	1188	U	C4'-C3'-C2'	-6.61	95.99	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	30	G	C3'-C2'-O2'	6.60	120.61	110.70
26	BB	1528	A	O4'-C1'-N9	6.60	118.41	108.50
1	AA	1530	G	C3'-C2'-C1'	6.60	107.90	101.30
6	AF	17	TRP	CB-CG-CD2	6.60	136.04	126.80
38	BN	128	THR	CA-C-N	6.60	130.72	120.82
38	BN	128	THR	C-N-CA	6.60	130.72	120.82
50	BZ	42	GLU	CA-CB-CG	6.60	127.31	114.10
26	BB	843	G	C4'-C3'-C2'	6.60	109.20	102.60
26	BB	2398	U	N1-C1'-C2'	-6.60	102.10	112.00
50	BZ	69	GLU	CA-C-N	6.60	129.42	120.44
50	BZ	69	GLU	C-N-CA	6.60	129.42	120.44
1	AA	578	C	C5'-C4'-O4'	6.60	119.70	109.80
26	BB	611	C	C1'-C2'-O2'	-6.60	98.50	108.40
26	BB	615	U	C1'-O4'-C4'	6.60	116.30	109.70
26	BB	1619	G	C5'-C4'-C3'	-6.60	106.10	116.00
26	BB	1956	U	O4'-C1'-N1	6.60	118.40	108.50
26	BB	2151	U	O4'-C1'-C2'	-6.60	101.00	107.60
26	BB	2877	G	O4'-C4'-C3'	6.60	110.60	104.00
35	BK	21	PRO	N-CA-C	6.60	118.75	110.70
43	BS	51	GLN	CA-C-N	6.60	129.12	120.28
43	BS	51	GLN	C-N-CA	6.60	129.12	120.28
4	AD	29	C	C1'-C2'-O2'	6.60	118.30	108.40
26	BB	19	A	C3'-C2'-C1'	6.60	107.90	101.30
28	BD	247	TRP	CE2-CD2-CG	6.60	115.11	107.20
1	AA	270	A	C3'-C2'-O2'	6.59	120.59	110.70
1	AA	407	U	C4'-C3'-C2'	-6.59	96.00	102.60
1	AA	770	C	C1'-O4'-C4'	-6.59	103.31	109.90
23	AW	78	LEU	CA-C-N	6.59	130.33	120.31
23	AW	78	LEU	C-N-CA	6.59	130.33	120.31
26	BB	1321	A	O4'-C1'-N9	6.59	118.39	108.50
32	BH	78	VAL	CA-CB-CG2	6.59	121.61	110.40
1	AA	51	A	C3'-C2'-C1'	6.59	108.09	101.50
1	AA	423	G	C4'-C3'-C2'	-6.59	96.01	102.60
23	AW	22	SER	N-CA-C	6.59	118.47	111.28
1	AA	507	C	C4'-C3'-C2'	-6.59	96.01	102.60
3	AC	52	U	C1'-O4'-C4'	-6.59	103.11	109.70
21	AU	39	VAL	CA-C-N	6.59	128.08	119.84
21	AU	39	VAL	C-N-CA	6.59	128.08	119.84
26	BB	2162	G	C4'-C3'-O3'	6.59	122.89	113.00
35	BK	114	ALA	N-CA-C	6.59	121.49	113.38
26	BB	2495	G	C4'-C3'-C2'	-6.59	96.01	102.60
1	AA	758	C	O4'-C1'-C2'	-6.59	101.01	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	763	G	O4'-C1'-C2'	6.59	114.19	107.60
26	BB	72	U	C4'-C3'-O3'	-6.59	99.52	109.40
26	BB	2527	C	C3'-C2'-O2'	6.59	120.58	110.70
26	BB	2604	U	C1'-C2'-O2'	-6.59	98.52	108.40
34	BJ	60	ARG	NE-CZ-NH2	6.59	125.13	119.20
41	BQ	28	VAL	N-CA-CB	-6.58	104.11	112.60
1	AA	314	C	O4'-C1'-C2'	-6.58	101.02	107.60
1	AA	1321	U	P-O3'-C3'	6.58	130.08	120.20
26	BB	454	A	P-O5'-C5'	6.58	130.77	120.90
26	BB	783	A	C4'-C3'-C2'	-6.58	96.02	102.60
26	BB	2657	A	C4'-C3'-O3'	6.58	122.87	113.00
26	BB	726	G	O4'-C1'-C2'	6.58	114.18	107.60
26	BB	2688	G	N9-C1'-C2'	6.58	121.87	112.00
26	BB	42	A	C5'-C4'-C3'	-6.58	106.13	116.00
26	BB	1016	G	O4'-C4'-C3'	6.58	110.58	104.00
26	BB	1030	C	C4'-C3'-O3'	-6.58	103.13	113.00
26	BB	1617	C	O4'-C1'-C2'	-6.58	99.22	105.80
26	BB	2066	C	C3'-C2'-C1'	-6.58	94.72	101.30
26	BB	2698	U	O4'-C1'-N1	6.58	118.37	108.50
1	AA	765	G	O4'-C1'-C2'	-6.58	101.02	107.60
2	AB	28	C	O4'-C1'-N1	6.58	118.37	108.50
26	BB	1912	A	O4'-C1'-C2'	-6.58	101.02	107.60
1	AA	1304	G	N9-C1'-C2'	-6.58	102.14	112.00
3	AC	18	A	O3'-P-O5'	-6.58	94.14	104.00
16	AP	89	ARG	NE-CZ-NH1	6.57	128.07	121.50
26	BB	415	A	O4'-C1'-N9	6.57	118.36	108.50
26	BB	876	C	O4'-C4'-C3'	6.57	110.57	104.00
26	BB	1130	U	C4'-C3'-C2'	-6.57	96.03	102.60
1	AA	1235	U	C5'-C4'-C3'	-6.57	106.14	116.00
7	AG	60	VAL	CA-C-O	-6.57	113.15	120.25
1	AA	598	U	O3'-P-O5'	-6.57	94.14	104.00
26	BB	2517	C	O4'-C1'-C2'	-6.57	99.23	105.80
26	BB	2771	C	C4'-C3'-C2'	-6.57	96.03	102.60
26	BB	2412	A	C5'-C4'-C3'	-6.57	106.15	116.00
53	B2	44	PHE	CA-CB-CG	6.57	120.37	113.80
26	BB	2160	C	C4'-C3'-O3'	6.57	122.85	113.00
26	BB	247	G	O4'-C1'-C2'	-6.56	101.04	107.60
18	AR	19	ASN	OD1-CG-ND2	-6.56	116.04	122.60
26	BB	1534	U	O4'-C4'-C3'	6.56	110.56	104.00
49	BY	21	GLY	CA-C-N	6.56	132.83	122.33
49	BY	21	GLY	C-N-CA	6.56	132.83	122.33
1	AA	613	C	C4'-C3'-O3'	6.56	122.84	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AN	27	ASN	CA-C-N	6.56	132.84	122.21
14	AN	27	ASN	C-N-CA	6.56	132.84	122.21
1	AA	1352	C	N1-C1'-C2'	-6.56	102.16	112.00
1	AA	1386	G	N9-C1'-C2'	-6.56	102.16	112.00
1	AA	1448	C	C5'-C4'-C3'	-6.56	106.16	116.00
17	AQ	64	ARG	NH1-CZ-NH2	6.56	127.83	119.30
26	BB	1506	U	C4'-C3'-C2'	-6.56	96.04	102.60
26	BB	2572	A	P-O5'-C5'	6.56	130.74	120.90
1	AA	532	A	O3'-P-O5'	-6.56	94.16	104.00
1	AA	839	C	O3'-P-O5'	6.56	113.84	104.00
1	AA	1178	G	C4'-C3'-C2'	-6.56	96.04	102.60
4	AD	49	C	C3'-C2'-C1'	6.56	108.06	101.50
26	BB	1400	U	C2'-C3'-O3'	6.56	123.54	113.70
26	BB	2207	C	C5'-C4'-O4'	6.56	119.64	109.80
19	AS	60	TRP	CA-C-O	-6.55	113.89	120.90
26	BB	482	A	C4'-C3'-O3'	-6.55	103.17	113.00
26	BB	1453	A	N9-C1'-C2'	-6.55	102.17	112.00
26	BB	2645	G	C2'-C3'-O3'	6.55	119.33	109.50
1	AA	758	C	P-O3'-C3'	6.55	130.03	120.20
26	BB	824	U	C4'-C3'-C2'	-6.55	96.05	102.60
26	BB	2076	U	O4'-C1'-N1	6.55	118.03	108.20
26	BB	2550	G	C1'-C2'-O2'	6.55	118.23	108.40
13	AM	19	ASP	CA-C-O	-6.55	113.61	120.55
26	BB	1391	U	C5'-C4'-O4'	6.55	118.93	109.10
32	BH	157	LYS	CA-C-O	-6.55	113.29	120.30
55	B4	34	GLU	O-C-N	6.55	129.16	122.09
6	AF	200	TRP	CD2-CE2-CZ2	6.55	128.95	122.40
10	AJ	67	ASN	CA-C-O	-6.55	112.97	120.24
25	BA	105	G	O4'-C4'-C3'	6.55	110.55	104.00
2	AB	69	C	O4'-C1'-N1	6.55	118.32	108.50
26	BB	750	A	C3'-C2'-C1'	6.55	107.85	101.30
26	BB	1980	G	C5'-C4'-O4'	6.55	118.92	109.10
1	AA	1340	A	C5'-C4'-C3'	-6.55	106.18	116.00
26	BB	1063	G	C4'-C3'-C2'	-6.54	96.06	102.60
26	BB	2442	C	C3'-C2'-C1'	6.54	107.84	101.30
28	BD	151	GLY	O-C-N	6.54	131.21	122.70
1	AA	1278	G	C3'-C2'-C1'	6.54	107.84	101.30
26	BB	2331	G	C2'-C3'-O3'	-6.54	103.89	113.70
43	BS	105	PHE	CA-CB-CG	6.54	120.34	113.80
26	BB	1022	G	C1'-O4'-C4'	-6.54	103.16	109.70
26	BB	1991	U	C1'-O4'-C4'	6.54	116.44	109.90
26	BB	2345	G	C5'-C4'-C3'	-6.54	105.39	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2577	A	C4'-C3'-C2'	-6.54	96.06	102.60
41	BQ	75	GLY	CA-C-O	-6.54	113.11	120.30
26	BB	2105	U	O3'-P-O5'	-6.54	94.19	104.00
1	AA	432	A	O5'-C5'-C4'	6.54	121.31	111.50
31	BG	82	TYR	CA-C-O	6.54	125.67	119.72
1	AA	499	A	O3'-P-O5'	-6.54	94.20	104.00
26	BB	787	C	C3'-C2'-C1'	6.54	107.84	101.30
49	BY	79	ILE	N-CA-CB	-6.54	103.81	111.39
52	B1	16	LEU	CA-C-N	6.54	126.12	119.19
52	B1	16	LEU	C-N-CA	6.54	126.12	119.19
1	AA	385	C	C1'-O4'-C4'	6.53	116.43	109.90
1	AA	1277	C	O3'-P-O5'	-6.53	94.20	104.00
1	AA	1416	G	O5'-C5'-C4'	6.53	121.30	111.50
21	AU	26	ALA	CA-C-N	6.53	129.33	120.38
21	AU	26	ALA	C-N-CA	6.53	129.33	120.38
26	BB	615	U	O4'-C1'-C2'	-6.53	99.27	105.80
14	AN	58	THR	O-C-N	6.53	129.10	121.66
18	AR	20	ASP	O-C-N	6.53	131.05	123.02
22	AV	82	HIS	CB-CG-CD2	-6.53	122.71	131.20
26	BB	1007	C	O4'-C4'-C3'	6.53	110.53	104.00
26	BB	2272	U	N1-C1'-C2'	6.53	121.80	112.00
26	BB	2520	C	C2'-C3'-O3'	-6.53	103.91	113.70
8	AH	161	GLU	CB-CG-CD	6.53	123.70	112.60
26	BB	1625	C	P-O5'-C5'	6.53	130.69	120.90
26	BB	1950	G	C1'-O4'-C4'	-6.53	103.37	109.90
1	AA	1177	G	C5'-C4'-C3'	-6.53	106.21	116.00
25	BA	85	G	P-O5'-C5'	6.53	130.69	120.90
37	BM	70	ARG	CD-NE-CZ	6.53	133.54	124.40
1	AA	131	A	C1'-O4'-C4'	-6.53	103.38	109.90
26	BB	364	C	C3'-C2'-O2'	6.53	120.49	110.70
26	BB	742	A	O4'-C4'-C3'	6.53	110.53	104.00
26	BB	967	U	O4'-C1'-N1	6.53	118.29	108.50
26	BB	1013	C	P-O3'-C3'	6.53	129.99	120.20
26	BB	1760	C	O4'-C4'-C3'	6.53	110.53	104.00
26	BB	2090	A	C3'-C2'-O2'	6.53	120.49	110.70
29	BE	48	ILE	CA-C-N	6.53	131.73	122.72
29	BE	48	ILE	C-N-CA	6.53	131.73	122.72
1	AA	1369	C	O4'-C4'-C3'	6.52	110.52	104.00
43	BS	49	ARG	CA-C-N	6.52	129.55	120.29
43	BS	49	ARG	C-N-CA	6.52	129.55	120.29
26	BB	380	G	O4'-C1'-N9	6.52	118.28	108.50
26	BB	1344	U	O4'-C1'-N1	6.52	117.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2781	A	P-O3'-C3'	6.52	129.99	120.20
49	BY	58	LEU	CA-C-O	-6.52	113.42	120.92
1	AA	626	G	C3'-C2'-C1'	6.52	107.82	101.30
1	AA	353	A	C1'-O4'-C4'	6.52	116.42	109.90
26	BB	775	G	C4'-C3'-C2'	-6.52	96.08	102.60
26	BB	1542	U	C4'-C3'-C2'	-6.52	96.08	102.60
53	B2	6	HIS	CA-CB-CG	6.52	120.32	113.80
1	AA	1488	G	O4'-C1'-N9	6.52	118.28	108.50
6	AF	142	ARG	NE-CZ-NH2	6.52	125.07	119.20
26	BB	116	C	C3'-C2'-C1'	6.52	107.82	101.30
26	BB	142	A	C3'-C2'-C1'	6.52	107.82	101.30
26	BB	986	C	O4'-C1'-N1	6.52	118.28	108.50
26	BB	2536	G	C1'-O4'-C4'	-6.52	103.38	109.90
43	BS	57	ARG	CA-C-O	-6.52	112.73	120.10
1	AA	556	C	P-O3'-C3'	6.51	129.97	120.20
28	BD	30	ALA	CA-C-N	6.51	127.98	119.84
28	BD	30	ALA	C-N-CA	6.51	127.98	119.84
33	BI	135	HIS	CB-CG-CD2	-6.51	122.73	131.20
26	BB	199	A	C4'-C3'-C2'	6.51	109.11	102.60
26	BB	465	G	C1'-O4'-C4'	6.51	116.41	109.90
28	BD	198	GLU	CA-C-N	6.51	129.30	120.38
28	BD	198	GLU	C-N-CA	6.51	129.30	120.38
17	AQ	87	ALA	O-C-N	6.51	129.12	122.09
26	BB	262	A	C5'-C4'-C3'	-6.51	106.23	116.00
26	BB	489	G	C4'-C3'-C2'	6.51	109.11	102.60
26	BB	490	C	C2'-C3'-O3'	-6.51	103.93	113.70
26	BB	555	G	C3'-C2'-C1'	6.51	107.81	101.30
26	BB	1094	U	P-O3'-C3'	6.51	129.97	120.20
26	BB	1607	C	N1-C1'-C2'	-6.51	104.23	114.00
26	BB	2317	A	C1'-O4'-C4'	-6.51	103.39	109.90
26	BB	2586	U	C5'-C4'-O4'	6.51	119.57	109.80
26	BB	384	A	C4'-C3'-C2'	-6.51	96.09	102.60
26	BB	1214	A	C5'-C4'-C3'	-6.51	106.24	116.00
26	BB	1685	C	O3'-P-O5'	6.51	113.77	104.00
38	BN	57	LEU	N-CA-C	-6.51	105.16	113.23
25	BA	119	A	O4'-C1'-C2'	6.51	114.11	107.60
1	AA	354	G	O4'-C1'-C2'	-6.51	101.09	107.60
1	AA	472	U	N1-C1'-C2'	6.51	121.76	112.00
26	BB	1780	A	C4'-C3'-C2'	-6.50	96.09	102.60
1	AA	812	G	O3'-P-O5'	-6.50	94.25	104.00
1	AA	1426	G	O4'-C4'-C3'	6.50	110.50	104.00
26	BB	936	A	C4'-C3'-C2'	-6.50	96.10	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BG	55	ASP	CA-CB-CG	-6.50	106.10	112.60
5	AE	191	ASP	CA-C-N	6.50	126.42	119.85
5	AE	191	ASP	C-N-CA	6.50	126.42	119.85
21	AU	61	ALA	N-CA-C	6.50	118.91	111.11
30	BF	7	ASP	CA-CB-CG	6.50	119.10	112.60
1	AA	471	U	O3'-P-O5'	6.50	113.75	104.00
26	BB	356	G	O4'-C1'-N9	6.50	118.25	108.50
26	BB	1789	A	C5'-C4'-C3'	-6.50	106.25	116.00
1	AA	412	A	C5'-C4'-O4'	6.50	119.55	109.80
1	AA	1283	U	C3'-C2'-C1'	6.50	107.80	101.30
2	AB	45	U	O4'-C4'-C3'	-6.50	99.60	106.10
25	BA	105	G	C4'-C3'-C2'	-6.50	96.10	102.60
26	BB	797	G	C1'-O4'-C4'	6.50	116.40	109.90
26	BB	1498	C	C5'-C4'-C3'	-6.50	106.25	116.00
1	AA	475	C	C3'-C2'-C1'	6.50	107.80	101.30
7	AG	91	ALA	CA-C-N	6.50	129.51	120.29
7	AG	91	ALA	C-N-CA	6.50	129.51	120.29
26	BB	576	U	P-O3'-C3'	6.50	129.95	120.20
26	BB	2280	G	C4'-C3'-C2'	-6.50	96.10	102.60
44	BT	98	ILE	CB-CA-C	6.50	118.25	111.23
1	AA	833	G	O4'-C4'-C3'	6.50	110.50	104.00
14	AN	21	HIS	CG-CD2-NE2	-6.50	100.70	107.20
32	BH	5	LYS	N-CA-C	-6.50	102.65	110.44
37	BM	41	ILE	O-C-N	-6.50	116.52	123.14
1	AA	481	G	C4'-C3'-C2'	-6.49	96.11	102.60
26	BB	1463	C	O4'-C1'-C2'	-6.49	101.11	107.60
45	BU	71	VAL	CA-C-N	6.49	129.27	120.44
45	BU	71	VAL	C-N-CA	6.49	129.27	120.44
1	AA	1048	G	C5'-C4'-C3'	-6.49	106.26	116.00
26	BB	2166	U	C1'-O4'-C4'	-6.49	103.41	109.90
1	AA	960	U	C2'-C3'-O3'	6.49	119.24	109.50
26	BB	605	G	O4'-C1'-N9	6.49	118.24	108.50
26	BB	2252	G	C4'-C3'-C2'	-6.49	96.11	102.60
26	BB	2678	C	C1'-O4'-C4'	6.49	116.39	109.90
29	BE	99	GLU	N-CA-C	6.49	120.06	111.75
32	BH	119	GLY	CA-C-N	6.49	132.06	122.71
32	BH	119	GLY	C-N-CA	6.49	132.06	122.71
6	AF	185	THR	CA-C-O	6.49	127.21	120.40
26	BB	649	G	N9-C1'-C2'	-6.49	102.27	112.00
26	BB	2084	C	C5'-C4'-C3'	-6.49	106.27	116.00
36	BL	77	HIS	CB-CG-CD2	-6.49	122.76	131.20
1	AA	580	C	O4'-C1'-N1	6.49	118.23	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1491	G	O4'-C1'-N9	6.49	118.23	108.50
26	BB	397	U	C4'-C3'-C2'	-6.49	96.11	102.60
26	BB	915	C	C3'-C2'-C1'	6.49	107.79	101.30
27	BC	51	ASP	CA-C-N	6.49	131.80	122.40
27	BC	51	ASP	C-N-CA	6.49	131.80	122.40
28	BD	162	GLN	OE1-CD-NE2	6.49	129.09	122.60
56	B5	29	GLN	CA-C-N	6.49	128.86	120.56
56	B5	29	GLN	C-N-CA	6.49	128.86	120.56
1	AA	950	U	C3'-C2'-O2'	6.48	120.43	110.70
26	BB	1383	A	C1'-O4'-C4'	-6.48	103.42	109.90
1	AA	791	G	O4'-C4'-C3'	-6.48	97.52	104.00
1	AA	1161	C	C3'-C2'-C1'	6.48	107.78	101.30
6	AF	86	LEU	CA-C-O	-6.48	114.02	120.70
11	AK	113	ARG	O-C-N	6.48	128.75	122.07
23	AW	56	ILE	CB-CA-C	6.48	120.51	112.02
26	BB	2077	A	C3'-C2'-O2'	6.48	120.42	110.70
26	BB	2875	C	P-O5'-C5'	6.48	130.62	120.90
39	BO	109	PRO	CA-N-CD	-6.48	102.92	112.00
1	AA	136	C	C1'-C2'-O2'	6.48	118.12	108.40
56	B5	31	LEU	O-C-N	6.48	128.75	122.07
39	BO	51	ARG	CA-C-N	6.48	128.86	120.44
39	BO	51	ARG	C-N-CA	6.48	128.86	120.44
1	AA	500	G	O4'-C4'-C3'	6.48	110.48	104.00
1	AA	717	U	N1-C1'-C2'	6.48	121.72	112.00
1	AA	965	U	O4'-C1'-N1	6.48	118.22	108.50
24	AX	41	THR	N-CA-C	6.48	120.04	111.75
26	BB	118	A	C5'-C4'-C3'	-6.48	106.28	116.00
26	BB	2347	C	C1'-O4'-C4'	6.48	116.38	109.90
50	BZ	39	VAL	CB-CA-C	6.48	118.44	110.73
26	BB	164	C	O4'-C1'-N1	6.48	118.21	108.50
26	BB	1231	U	C4'-C3'-C2'	-6.48	96.12	102.60
7	AG	66	VAL	CA-C-N	6.47	132.72	122.36
7	AG	66	VAL	C-N-CA	6.47	132.72	122.36
9	AI	89	VAL	CA-CB-CG1	6.47	121.41	110.40
16	AP	33	LEU	CA-C-N	6.47	129.25	120.38
16	AP	33	LEU	C-N-CA	6.47	129.25	120.38
26	BB	415	A	O4'-C1'-C2'	-6.47	101.12	107.60
26	BB	562	U	O4'-C1'-N1	6.47	118.21	108.50
26	BB	2565	A	O4'-C1'-C2'	-6.47	101.12	107.60
1	AA	517	G	N9-C1'-C2'	-6.47	104.29	114.00
26	BB	1651	G	C1'-O4'-C4'	-6.47	103.43	109.90
26	BB	1697	G	C1'-C2'-O2'	6.47	118.11	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1810	A	O4'-C4'-C3'	6.47	110.47	104.00
26	BB	2139	U	C4'-C3'-C2'	-6.47	96.13	102.60
26	BB	2349	G	C5'-C4'-C3'	-6.47	106.29	116.00
28	BD	194	VAL	O-C-N	6.47	130.61	122.52
1	AA	876	C	C5'-C4'-C3'	-6.47	106.29	116.00
3	AC	31	U	O4'-C1'-N1	6.47	118.20	108.50
24	AX	48	LYS	CA-C-N	6.47	128.95	120.28
24	AX	48	LYS	C-N-CA	6.47	128.95	120.28
25	BA	100	G	C1'-C2'-O2'	6.47	118.11	108.40
26	BB	1612	C	O4'-C1'-N1	6.47	118.20	108.50
26	BB	2236	U	O4'-C4'-C3'	-6.47	97.53	104.00
26	BB	2324	U	C5'-C4'-O4'	-6.47	99.39	109.10
4	AD	47	A	C3'-C2'-O2'	-6.47	104.90	114.60
25	BA	57	A	P-O3'-C3'	6.47	129.90	120.20
26	BB	103	A	O4'-C4'-C3'	-6.47	97.53	104.00
26	BB	399	U	C1'-O4'-C4'	-6.47	103.43	109.90
26	BB	837	C	O4'-C4'-C3'	6.47	110.47	104.00
26	BB	2383	G	C5'-C4'-C3'	-6.47	106.30	116.00
1	AA	319	G	O4'-C1'-C2'	-6.46	101.14	107.60
26	BB	541	A	O4'-C4'-C3'	6.46	110.46	104.00
26	BB	1135	C	C4'-C3'-C2'	-6.46	96.14	102.60
2	AB	47	U	P-O3'-C3'	6.46	129.90	120.20
31	BG	152	ASP	CA-CB-CG	6.46	119.06	112.60
1	AA	88	U	C3'-C2'-C1'	6.46	107.76	101.30
1	AA	602	A	O4'-C1'-C2'	-6.46	101.14	107.60
1	AA	1321	U	C1'-O4'-C4'	6.46	116.36	109.90
5	AE	79	VAL	CA-C-N	6.46	128.94	120.28
5	AE	79	VAL	C-N-CA	6.46	128.94	120.28
24	AX	54	ARG	CA-C-N	6.46	128.84	120.44
24	AX	54	ARG	C-N-CA	6.46	128.84	120.44
26	BB	981	A	C2'-C3'-O3'	6.46	119.19	109.50
26	BB	2074	U	C5'-C4'-O4'	6.46	119.49	109.80
40	BP	22	ARG	CA-C-N	6.46	128.84	120.44
40	BP	22	ARG	C-N-CA	6.46	128.84	120.44
26	BB	417	C	C4'-C3'-C2'	-6.46	96.14	102.60
26	BB	513	A	O3'-P-O5'	-6.46	94.31	104.00
30	BF	88	ARG	NE-CZ-NH2	6.46	125.01	119.20
26	BB	2707	U	N1-C1'-C2'	-6.46	102.31	112.00
1	AA	247	G	C5'-C4'-O4'	6.46	119.48	109.80
19	AS	24	SER	CA-C-N	6.46	132.74	122.86
19	AS	24	SER	C-N-CA	6.46	132.74	122.86
26	BB	1954	G	O3'-P-O5'	-6.46	94.31	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2570	G	P-O3'-C3'	6.46	129.88	120.20
1	AA	600	A	O4'-C1'-C2'	-6.46	101.14	107.60
1	AA	602	A	O4'-C1'-N9	6.45	118.18	108.50
1	AA	1316	G	P-O3'-C3'	6.45	129.88	120.20
1	AA	1343	G	C4'-C3'-C2'	-6.45	96.15	102.60
5	AE	130	LYS	N-CA-C	6.45	119.13	111.71
5	AE	212	TYR	O-C-N	6.45	128.72	122.07
7	AG	23	GLY	CA-C-N	6.45	131.44	122.28
7	AG	23	GLY	C-N-CA	6.45	131.44	122.28
9	AI	11	HIS	CA-C-N	6.45	127.91	119.84
9	AI	11	HIS	C-N-CA	6.45	127.91	119.84
14	AN	35	ASP	CA-CB-CG	6.45	119.05	112.60
26	BB	400	G	P-O3'-C3'	6.45	129.88	120.20
26	BB	1547	C	O4'-C1'-N1	6.45	118.18	108.50
26	BB	1971	U	O4'-C4'-C3'	6.45	110.45	104.00
26	BB	2473	U	P-O3'-C3'	6.45	129.88	120.20
3	AC	28	U	C5'-C4'-O4'	6.45	119.48	109.80
21	AU	42	ARG	NE-CZ-NH1	6.45	127.95	121.50
1	AA	106	C	N1-C1'-C2'	-6.45	102.32	112.00
26	BB	1080	A	C3'-C2'-C1'	6.45	107.75	101.30
26	BB	1249	U	O4'-C4'-C3'	6.45	110.45	104.00
48	BX	70	ILE	N-CA-CB	-6.45	104.66	112.33
1	AA	35	G	C1'-C2'-O2'	-6.45	98.73	108.40
1	AA	1297	G	C2'-C3'-O3'	6.45	119.17	109.50
26	BB	997	G	O4'-C1'-C2'	-6.45	101.15	107.60
26	BB	2304	G	O4'-C1'-C2'	6.45	114.05	107.60
25	BA	34	A	C4'-C3'-C2'	-6.45	96.16	102.60
26	BB	23	G	O4'-C4'-C3'	6.45	110.45	104.00
26	BB	223	A	C1'-O4'-C4'	-6.44	103.46	109.90
26	BB	1320	C	O4'-C1'-N1	6.44	117.86	108.20
26	BB	2790	U	O4'-C1'-C2'	-6.44	99.36	105.80
1	AA	128	G	P-O3'-C3'	6.44	129.86	120.20
26	BB	1627	G	O4'-C4'-C3'	-6.44	97.56	104.00
24	AX	6	ARG	CA-C-O	-6.44	111.30	120.51
26	BB	73	A	O4'-C4'-C3'	6.44	110.44	104.00
58	B7	15	LYS	CA-C-N	6.44	133.56	121.97
58	B7	15	LYS	C-N-CA	6.44	133.56	121.97
31	BG	95	MET	CA-C-N	6.44	129.43	120.29
31	BG	95	MET	C-N-CA	6.44	129.43	120.29
34	BJ	117	ILE	CA-C-O	-6.44	114.44	119.98
42	BR	4	ILE	CB-CA-C	6.44	120.33	110.55
1	AA	178	C	C3'-C2'-C1'	6.43	107.73	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1044	A	C1'-O4'-C4'	6.43	116.33	109.90
26	BB	554	U	C4'-C3'-C2'	-6.43	96.17	102.60
26	BB	1265	A	O5'-C5'-C4'	-6.43	102.05	111.70
1	AA	1214	C	C1'-O4'-C4'	-6.43	103.27	109.70
26	BB	217	A	P-O3'-C3'	6.43	129.85	120.20
26	BB	751	A	O4'-C1'-N9	6.43	117.85	108.20
26	BB	1438	U	C5'-C4'-C3'	-6.43	106.35	116.00
26	BB	2040	G	O4'-C1'-N9	6.43	118.15	108.50
26	BB	2788	C	O3'-P-O5'	6.43	113.65	104.00
1	AA	873	A	C4'-C3'-C2'	6.43	109.03	102.60
1	AA	1437	A	C3'-C2'-O2'	-6.43	101.06	110.70
4	AD	49	C	C5'-C4'-C3'	-6.43	105.56	115.20
26	BB	1241	A	C5'-C4'-C3'	-6.43	106.35	116.00
1	AA	582	C	C4'-C3'-C2'	-6.43	96.17	102.60
25	BA	32	U	C3'-C2'-O2'	6.43	120.34	110.70
26	BB	1704	C	O4'-C4'-C3'	6.43	110.43	104.00
1	AA	745	G	O3'-P-O5'	-6.43	94.36	104.00
26	BB	146	A	C3'-C2'-O2'	-6.43	101.06	110.70
26	BB	299	A	C4'-C3'-C2'	-6.43	96.17	102.60
30	BF	93	SER	N-CA-CB	-6.43	99.86	109.69
1	AA	328	C	C2'-C3'-O3'	6.42	119.14	109.50
1	AA	1263	C	C3'-C2'-C1'	6.42	107.72	101.30
1	AA	756	C	C5'-C4'-C3'	-6.42	106.36	116.00
26	BB	58	G	C2'-C3'-O3'	-6.42	104.06	113.70
26	BB	1250	G	O4'-C1'-N9	6.42	117.83	108.20
1	AA	161	A	O4'-C4'-C3'	6.42	110.42	104.00
1	AA	240	G	C4'-C3'-C2'	-6.42	96.18	102.60
1	AA	1109	C	C2'-C3'-O3'	-6.42	104.07	113.70
26	BB	2793	C	P-O5'-C5'	6.42	130.53	120.90
30	BF	188	MET	CG-SD-CE	6.42	115.03	100.90
5	AE	214	GLY	CA-C-O	6.42	127.36	120.30
26	BB	1983	G	C3'-C2'-O2'	6.42	120.33	110.70
1	AA	35	G	O3'-P-O5'	-6.42	94.38	104.00
26	BB	751	A	O4'-C1'-C2'	-6.42	99.38	105.80
26	BB	900	A	P-O3'-C3'	6.42	129.83	120.20
26	BB	1219	U	C5'-C4'-O4'	6.42	119.42	109.80
1	AA	47	C	C5'-C4'-C3'	-6.41	105.58	115.20
1	AA	80	A	C3'-C2'-C1'	6.41	107.71	101.30
1	AA	142	G	C1'-O4'-C4'	-6.41	103.49	109.90
4	AD	50	G	O5'-C5'-C4'	6.41	121.12	111.50
26	BB	603	A	C4'-C3'-O3'	6.41	119.02	109.40
26	BB	810	U	C5'-C4'-C3'	-6.41	106.38	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2073	C	C4'-C3'-O3'	6.41	122.62	113.00
26	BB	2532	G	C5'-C4'-O4'	6.41	119.42	109.80
31	BG	91	ARG	NE-CZ-NH2	6.41	124.97	119.20
1	AA	512	U	C5'-C4'-C3'	-6.41	106.38	116.00
37	BM	89	ASN	CA-CB-CG	6.41	119.01	112.60
2	AB	38	A	C5'-C4'-O4'	6.41	119.42	109.80
10	AJ	103	ILE	CA-C-O	-6.41	113.71	120.57
26	BB	1177	G	C4'-C3'-C2'	-6.41	96.19	102.60
26	BB	1753	G	C4'-C3'-C2'	-6.41	96.19	102.60
26	BB	1809	A	C3'-C2'-O2'	-6.41	101.08	110.70
26	BB	128	C	O4'-C4'-C3'	6.41	110.41	104.00
26	BB	1586	A	O4'-C1'-C2'	6.41	114.01	107.60
26	BB	2839	G	C5'-C4'-O4'	6.41	119.41	109.80
1	AA	425	G	C3'-C2'-O2'	6.41	120.31	110.70
1	AA	935	A	C3'-C2'-C1'	6.41	107.71	101.30
1	AA	308	C	C5'-C4'-O4'	-6.41	100.19	109.80
6	AF	110	LEU	N-CA-C	-6.41	104.95	112.89
13	AM	38	GLY	O-C-N	-6.41	115.36	121.77
26	BB	538	A	O5'-C5'-C4'	6.41	121.11	111.50
28	BD	229	HIS	ND1-CG-CD2	6.41	112.51	106.10
37	BM	8	LEU	CA-C-N	6.41	130.58	121.42
37	BM	8	LEU	C-N-CA	6.41	130.58	121.42
38	BN	103	ILE	CA-C-O	-6.40	113.55	120.47
1	AA	299	G	C1'-O4'-C4'	-6.40	103.50	109.90
1	AA	635	A	N9-C1'-C2'	-6.40	102.39	112.00
1	AA	1315	U	C4'-C3'-C2'	-6.40	96.20	102.60
10	AJ	91	ARG	NE-CZ-NH1	-6.40	115.10	121.50
11	AK	9	MET	CA-CB-CG	-6.40	101.30	114.10
26	BB	869	G	C4'-C3'-C2'	-6.40	96.20	102.60
26	BB	2841	C	O4'-C4'-C3'	6.40	110.40	104.00
16	AP	67	ASP	CA-C-N	6.40	128.76	120.44
16	AP	67	ASP	C-N-CA	6.40	128.76	120.44
26	BB	265	A	C5'-C4'-O4'	6.40	119.40	109.80
26	BB	318	C	O4'-C1'-N1	6.40	118.10	108.50
26	BB	2062	A	C4'-C3'-C2'	-6.40	96.20	102.60
26	BB	2888	C	C4'-C3'-C2'	-6.40	96.20	102.60
1	AA	156	C	O5'-C5'-C4'	6.40	121.10	111.50
3	AC	59	A	C4'-C3'-C2'	-6.40	96.20	102.60
26	BB	748	G	O4'-C1'-N9	6.40	117.80	108.20
1	AA	1210	C	O4'-C1'-N1	6.40	118.10	108.50
26	BB	15	G	O4'-C1'-N9	6.40	118.09	108.50
26	BB	198	C	O4'-C1'-C2'	-6.40	101.20	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2025	C	O3'-P-O5'	6.40	113.60	104.00
1	AA	855	U	C3'-C2'-C1'	6.40	107.70	101.30
1	AA	1120	C	C4'-C3'-C2'	-6.40	96.20	102.60
1	AA	189	A	C4'-C3'-C2'	-6.39	96.20	102.60
1	AA	826	C	P-O5'-C5'	6.39	130.49	120.90
10	AJ	69	ARG	NE-CZ-NH2	-6.39	113.44	119.20
28	BD	188	ARG	CA-C-N	6.39	132.72	122.10
28	BD	188	ARG	C-N-CA	6.39	132.72	122.10
47	BW	64	ILE	CA-C-O	-6.39	114.60	121.19
6	AF	200	TRP	CE2-CD2-CE3	-6.39	112.41	118.80
26	BB	599	A	N9-C1'-C2'	-6.39	102.41	112.00
26	BB	1591	A	C3'-C2'-O2'	6.39	120.29	110.70
26	BB	2500	U	C2'-C3'-O3'	6.39	119.09	109.50
26	BB	1719	G	O4'-C1'-C2'	-6.39	101.21	107.60
26	BB	2718	G	O4'-C1'-C2'	-6.39	101.21	107.60
1	AA	41	G	C4'-C3'-C2'	-6.39	96.21	102.60
1	AA	955	U	P-O5'-C5'	6.39	130.48	120.90
1	AA	1262	C	O5'-C5'-C4'	-6.39	101.92	111.50
44	BT	32	THR	CA-C-N	6.39	132.04	122.91
44	BT	32	THR	C-N-CA	6.39	132.04	122.91
1	AA	218	U	C3'-C2'-O2'	6.39	120.28	110.70
1	AA	752	G	C3'-C2'-O2'	-6.39	105.02	114.60
1	AA	1413	A	O4'-C4'-C3'	6.39	110.39	104.00
26	BB	2	G	C3'-C2'-C1'	6.39	107.69	101.30
26	BB	1062	G	P-O5'-C5'	-6.39	111.32	120.90
26	BB	1400	U	C4'-C3'-C2'	-6.39	96.21	102.60
26	BB	1467	U	O5'-C5'-C4'	6.39	121.08	111.50
43	BS	49	ARG	CB-CA-C	6.39	121.03	110.81
1	AA	281	G	C3'-C2'-C1'	6.38	107.89	101.50
2	AB	23	A	C4'-C3'-C2'	-6.38	96.22	102.60
26	BB	114	U	N1-C1'-C2'	6.38	121.58	112.00
26	BB	1942	C	C5'-C4'-C3'	-6.38	106.42	116.00
53	B2	42	PRO	CA-C-N	6.38	133.73	121.54
53	B2	42	PRO	C-N-CA	6.38	133.73	121.54
1	AA	1214	C	C2'-C3'-O3'	6.38	119.07	109.50
5	AE	167	HIS	CB-CG-CD2	-6.38	122.90	131.20
5	AE	215	ALA	CA-C-N	6.38	128.60	120.56
5	AE	215	ALA	C-N-CA	6.38	128.60	120.56
26	BB	640	C	O4'-C1'-N1	6.38	118.07	108.50
26	BB	1916	A	O4'-C4'-C3'	6.38	110.38	104.00
26	BB	2473	U	O4'-C4'-C3'	6.38	110.38	104.00
35	BK	100	ILE	CA-CB-CG2	6.38	121.35	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	B6	41	ARG	N-CA-C	-6.38	104.19	112.23
1	AA	929	G	C4'-C3'-C2'	-6.38	96.22	102.60
26	BB	1759	A	C2'-C3'-O3'	6.38	123.27	113.70
1	AA	429	U	O4'-C1'-N1	6.38	117.77	108.20
1	AA	679	C	C4'-C3'-O3'	-6.38	103.43	113.00
1	AA	1441	A	C3'-C2'-C1'	6.38	107.68	101.30
26	BB	712	G	C2'-C3'-O3'	-6.38	104.13	113.70
26	BB	1944	U	O4'-C1'-C2'	-6.38	101.22	107.60
1	AA	1112	C	C4'-C3'-O3'	6.38	122.56	113.00
26	BB	2823	A	O3'-P-O5'	6.38	113.57	104.00
26	BB	426	C	C4'-C3'-C2'	-6.38	96.22	102.60
26	BB	2252	G	C4'-C3'-O3'	-6.38	103.44	113.00
33	BI	74	ALA	N-CA-C	-6.38	105.43	113.72
14	AN	87	GLY	CA-C-N	6.37	127.81	119.84
14	AN	87	GLY	C-N-CA	6.37	127.81	119.84
26	BB	265	A	C2'-C3'-O3'	6.37	123.26	113.70
26	BB	278	A	O4'-C1'-C2'	-6.37	101.23	107.60
26	BB	911	A	C3'-C2'-C1'	-6.37	94.93	101.30
1	AA	426	U	C4'-C3'-O3'	-6.37	103.44	113.00
1	AA	735	C	O4'-C1'-N1	6.37	118.06	108.50
26	BB	670	A	C3'-C2'-C1'	-6.37	95.13	101.50
26	BB	1628	G	O4'-C4'-C3'	-6.37	97.63	104.00
30	BF	143	LEU	CA-C-O	-6.37	114.64	121.78
26	BB	2359	C	C1'-C2'-O2'	6.37	117.95	108.40
1	AA	354	G	C3'-C2'-C1'	-6.37	94.93	101.30
10	AJ	118	ARG	NE-CZ-NH2	6.37	124.93	119.20
26	BB	1975	G	O4'-C4'-C3'	6.37	110.37	104.00
26	BB	2707	U	O4'-C1'-N1	6.37	118.05	108.50
25	BA	92	C	C4'-C3'-C2'	-6.37	96.23	102.60
51	B0	4	LYS	CA-C-O	-6.37	112.65	119.97
26	BB	964	C	P-O3'-C3'	6.37	129.75	120.20
26	BB	1058	U	C1'-C2'-O2'	-6.37	98.85	108.40
26	BB	2721	A	C4'-C3'-C2'	-6.37	96.23	102.60
1	AA	320	A	O4'-C4'-C3'	6.36	110.36	104.00
26	BB	295	G	C2'-C3'-O3'	-6.36	104.16	113.70
26	BB	2440	C	C2'-C3'-O3'	6.36	123.24	113.70
51	B0	26	PHE	CA-C-O	-6.36	113.67	120.42
26	BB	1954	G	O4'-C1'-C2'	6.36	112.16	105.80
1	AA	75	G	C2'-C3'-O3'	-6.36	104.16	113.70
1	AA	1128	C	O4'-C1'-N1	6.36	118.04	108.50
7	AG	49	ASP	O-C-N	6.36	128.86	122.12
16	AP	9	PRO	N-CA-C	6.36	121.20	111.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1531	C	C2'-C3'-O3'	-6.36	104.16	113.70
26	BB	2700	A	C4'-C3'-C2'	-6.36	96.24	102.60
26	BB	2751	G	O4'-C1'-C2'	-6.36	99.44	105.80
26	BB	386	G	C1'-O4'-C4'	6.36	116.06	109.70
28	BD	15	VAL	O-C-N	6.36	129.15	122.67
28	BD	124	LYS	CA-C-N	6.36	126.72	119.92
28	BD	124	LYS	C-N-CA	6.36	126.72	119.92
1	AA	183	C	C4'-C3'-O3'	6.35	122.53	113.00
26	BB	2530	A	O4'-C1'-C2'	-6.35	101.25	107.60
28	BD	141	HIS	CB-CG-CD2	-6.35	122.94	131.20
1	AA	273	U	P-O3'-C3'	6.35	129.73	120.20
26	BB	260	G	C1'-O4'-C4'	-6.35	103.55	109.90
26	BB	1137	G	O4'-C1'-C2'	-6.35	101.25	107.60
51	B0	43	LEU	N-CA-C	-6.35	105.69	113.50
1	AA	1344	C	C4'-C3'-C2'	-6.35	96.25	102.60
25	BA	39	A	C4'-C3'-C2'	-6.35	96.25	102.60
26	BB	430	A	O4'-C4'-C3'	6.35	110.35	104.00
34	BJ	98	PHE	N-CA-C	6.35	119.19	111.82
43	BS	63	ARG	NE-CZ-NH1	6.35	127.85	121.50
1	AA	1	A	C3'-C2'-C1'	6.35	107.65	101.30
26	BB	791	C	N1-C1'-C2'	6.35	123.53	114.00
26	BB	2320	U	O4'-C4'-C3'	6.35	110.35	104.00
4	AD	7	G	O4'-C4'-C3'	6.35	112.45	106.10
4	AD	47	A	C5'-C4'-C3'	6.35	124.72	115.20
25	BA	1	U	O4'-C1'-N1	6.35	118.02	108.50
26	BB	233	A	O4'-C1'-C2'	-6.35	101.25	107.60
1	AA	164	G	O4'-C4'-C3'	6.35	110.35	104.00
26	BB	230	G	C5'-C4'-O4'	6.35	119.32	109.80
26	BB	1813	G	C4'-C3'-C2'	-6.35	96.25	102.60
26	BB	2337	G	C2'-C3'-O3'	-6.35	104.18	113.70
26	BB	2421	G	C5'-C4'-C3'	-6.35	106.48	116.00
10	AJ	111	GLY	O-C-N	6.34	130.95	122.70
25	BA	24	G	C4'-C3'-O3'	6.34	118.92	109.40
26	BB	1081	U	O4'-C4'-C3'	6.34	110.34	104.00
26	BB	1319	C	C5'-C4'-C3'	-6.34	106.48	116.00
25	BA	21	G	C4'-C3'-C2'	-6.34	96.26	102.60
3	AC	59	A	C1'-C2'-O2'	-6.34	98.89	108.40
26	BB	570	G	C5'-C4'-C3'	-6.34	106.49	116.00
26	BB	1701	A	O4'-C1'-C2'	-6.34	101.26	107.60
26	BB	1927	A	C2'-C3'-O3'	6.34	123.21	113.70
26	BB	2072	C	O4'-C4'-C3'	6.34	110.34	104.00
31	BG	170	ALA	CA-C-N	6.34	131.68	121.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BG	170	ALA	C-N-CA	6.34	131.68	121.98
26	BB	1818	U	C5'-C4'-O4'	6.34	119.31	109.80
26	BB	2831	G	O3'-P-O5'	-6.34	94.49	104.00
41	BQ	83	LEU	O-C-N	6.34	130.07	122.27
1	AA	115	G	C5'-C4'-C3'	-6.34	105.69	115.20
46	BV	75	GLY	CA-C-O	6.34	126.85	120.64
1	AA	616	G	C1'-O4'-C4'	-6.34	103.56	109.90
1	AA	1260	G	C4'-C3'-C2'	-6.34	96.26	102.60
11	AK	92	PRO	N-CA-CB	6.34	109.90	103.25
25	BA	53	A	C1'-C2'-O2'	6.34	117.91	108.40
26	BB	2158	A	O5'-C5'-C4'	6.34	121.20	111.70
26	BB	2275	C	O4'-C1'-N1	6.34	118.01	108.50
26	BB	325	G	O3'-P-O5'	6.33	113.50	104.00
26	BB	1722	A	N9-C1'-C2'	6.33	121.50	112.00
1	AA	859	G	C5'-C4'-O4'	6.33	119.30	109.80
1	AA	1431	A	C4'-C3'-O3'	-6.33	103.50	113.00
5	AE	6	ARG	NE-CZ-NH1	-6.33	115.17	121.50
16	AP	26	LYS	CA-C-N	6.33	129.05	120.44
16	AP	26	LYS	C-N-CA	6.33	129.05	120.44
26	BB	2482	A	C2'-C3'-O3'	6.33	123.20	113.70
29	BE	154	LYS	N-CA-C	6.33	116.60	108.24
31	BG	88	VAL	CA-CB-CG1	6.33	121.17	110.40
1	AA	204	G	C1'-O4'-C4'	-6.33	103.37	109.70
1	AA	1003	G	O3'-P-O5'	-6.33	94.50	104.00
26	BB	382	A	O3'-P-O5'	-6.33	94.50	104.00
26	BB	960	A	C5'-C4'-O4'	6.33	119.30	109.80
40	BP	95	THR	O-C-N	6.33	130.83	123.17
1	AA	42	G	C4'-C3'-O3'	-6.33	103.51	113.00
1	AA	505	G	C4'-C3'-C2'	-6.33	96.27	102.60
26	BB	2067	G	O4'-C4'-C3'	6.33	112.43	106.10
26	BB	2106	U	C3'-C2'-O2'	6.33	120.19	110.70
1	AA	59	A	O4'-C1'-N9	6.33	117.99	108.50
3	AC	30	U	N1-C1'-C2'	6.33	121.49	112.00
26	BB	2716	C	C3'-C2'-C1'	6.33	107.63	101.30
1	AA	339	C	O4'-C4'-C3'	6.33	110.33	104.00
1	AA	1522	U	O4'-C4'-C3'	6.33	110.33	104.00
1	AA	1537	U	O4'-C4'-C3'	-6.33	97.67	104.00
1	AA	1248	A	O4'-C4'-C3'	6.33	110.33	104.00
1	AA	1263	C	C4'-C3'-O3'	6.33	122.49	113.00
25	BA	102	G	C3'-C2'-C1'	6.33	107.62	101.30
26	BB	337	C	C3'-C2'-C1'	-6.33	94.97	101.30
28	BD	141	HIS	CA-C-N	6.33	131.85	122.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	BD	141	HIS	C-N-CA	6.33	131.85	122.74
30	BF	147	LEU	CA-C-N	6.33	130.65	121.80
30	BF	147	LEU	C-N-CA	6.33	130.65	121.80
39	BO	18	ARG	NE-CZ-NH1	-6.33	115.17	121.50
1	AA	952	U	O4'-C1'-C2'	-6.32	101.28	107.60
4	AD	64	G	O4'-C1'-C2'	-6.32	101.28	107.60
26	BB	379	G	C4'-C3'-O3'	6.32	122.48	113.00
26	BB	1661	G	C1'-C2'-O2'	6.32	117.89	108.40
26	BB	1688	U	P-O3'-C3'	6.32	129.68	120.20
1	AA	214	C	C5'-C4'-O4'	6.32	119.28	109.80
1	AA	531	U	O3'-P-O5'	-6.32	94.52	104.00
26	BB	1697	G	O3'-P-O5'	-6.32	94.52	104.00
30	BF	55	SER	CA-C-N	6.32	133.80	121.41
30	BF	55	SER	C-N-CA	6.32	133.80	121.41
26	BB	114	U	C4'-C3'-C2'	-6.32	96.28	102.60
26	BB	555	G	C4'-C3'-C2'	-6.32	96.28	102.60
50	BZ	65	THR	CA-C-O	6.32	127.12	120.42
1	AA	1508	A	C1'-O4'-C4'	-6.32	103.58	109.90
26	BB	534	U	C2'-C3'-O3'	6.32	123.18	113.70
26	BB	1341	G	C3'-C2'-C1'	-6.32	95.18	101.50
26	BB	2095	A	O4'-C4'-C3'	6.32	110.32	104.00
44	BT	22	LEU	CA-C-N	6.32	130.11	120.82
44	BT	22	LEU	C-N-CA	6.32	130.11	120.82
50	BZ	50	VAL	CB-CA-C	6.32	120.22	111.19
1	AA	895	G	C3'-C2'-C1'	-6.32	94.98	101.30
26	BB	920	A	N9-C1'-C2'	-6.32	102.53	112.00
26	BB	1741	C	O4'-C4'-C3'	6.32	110.31	104.00
26	BB	2426	A	C3'-C2'-C1'	-6.32	95.18	101.50
26	BB	2640	G	C1'-C2'-O2'	6.32	117.87	108.40
26	BB	2644	G	C1'-O4'-C4'	-6.32	103.58	109.90
38	BN	119	PRO	CA-C-N	6.32	130.26	122.37
38	BN	119	PRO	C-N-CA	6.32	130.26	122.37
39	BO	38	ARG	CA-CB-CG	6.32	126.73	114.10
1	AA	173	U	P-O3'-C3'	6.31	129.67	120.20
1	AA	353	A	C5'-C4'-O4'	6.31	119.27	109.80
13	AM	82	LYS	CA-C-O	-6.31	112.71	119.97
1	AA	179	A	O3'-P-O5'	6.31	113.47	104.00
1	AA	758	C	O4'-C1'-N1	6.31	117.97	108.50
11	AK	108	GLY	N-CA-C	6.31	119.42	111.85
12	AL	34	LEU	N-CA-C	6.31	118.16	111.28
14	AN	115	ILE	CA-C-N	6.31	127.73	119.84
14	AN	115	ILE	C-N-CA	6.31	127.73	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1590	A	O4'-C4'-C3'	6.31	110.31	104.00
26	BB	1764	C	P-O5'-C5'	6.31	130.37	120.90
26	BB	1388	G	O4'-C4'-C3'	6.31	110.31	104.00
1	AA	986	U	O4'-C4'-C3'	-6.31	97.69	104.00
2	AB	69	C	O4'-C1'-C2'	-6.31	101.29	107.60
3	AC	43	U	O4'-C4'-C3'	6.31	110.31	104.00
25	BA	12	C	C4'-C3'-C2'	-6.31	96.29	102.60
26	BB	555	G	C2'-C3'-O3'	6.31	123.16	113.70
26	BB	964	C	C1'-O4'-C4'	-6.31	103.59	109.90
26	BB	1128	G	C3'-C2'-C1'	-6.31	95.19	101.50
26	BB	1352	U	C4'-C3'-C2'	-6.31	96.29	102.60
26	BB	1635	A	O4'-C4'-C3'	6.31	110.31	104.00
42	BR	88	ARG	CA-C-O	-6.31	113.36	120.43
27	BC	191	ALA	CA-C-N	6.31	129.25	120.29
27	BC	191	ALA	C-N-CA	6.31	129.25	120.29
1	AA	1067	A	C4'-C3'-O3'	6.31	118.86	109.40
26	BB	276	U	O4'-C1'-N1	6.31	117.96	108.50
1	AA	489	C	C4'-C3'-C2'	-6.30	96.30	102.60
1	AA	547	A	C3'-C2'-C1'	6.30	107.80	101.50
1	AA	865	A	C1'-O4'-C4'	-6.30	103.59	109.90
1	AA	1023	U	O4'-C1'-C2'	-6.30	101.30	107.60
26	BB	16	C	C3'-C2'-C1'	6.30	107.60	101.30
26	BB	553	G	O3'-P-O5'	6.30	113.46	104.00
26	BB	804	A	P-O3'-C3'	6.30	129.66	120.20
1	AA	464	U	C5'-C4'-O4'	6.30	118.56	109.10
1	AA	1426	G	P-O3'-C3'	6.30	129.65	120.20
9	AI	108	GLU	N-CA-C	6.30	117.81	111.07
26	BB	1172	C	C3'-C2'-C1'	-6.30	95.00	101.30
30	BF	24	ASN	CA-C-N	6.30	129.01	120.44
30	BF	24	ASN	C-N-CA	6.30	129.01	120.44
26	BB	164	C	C4'-C3'-C2'	-6.30	96.30	102.60
1	AA	569	C	C4'-C3'-C2'	-6.30	96.30	102.60
1	AA	1154	G	C4'-C3'-C2'	-6.30	96.30	102.60
25	BA	68	C	C2'-C3'-O3'	6.30	123.15	113.70
26	BB	666	A	C3'-C2'-O2'	6.30	120.15	110.70
26	BB	2236	U	O5'-C5'-C4'	6.30	120.95	111.50
26	BB	2845	U	C4'-C3'-O3'	6.30	122.45	113.00
43	BS	114	ALA	N-CA-CB	6.30	119.20	110.07
1	AA	309	A	C4'-C3'-C2'	-6.30	96.30	102.60
26	BB	1409	U	N1-C1'-C2'	-6.30	102.55	112.00
33	BI	57	LYS	CA-C-N	6.30	129.88	120.31
33	BI	57	LYS	C-N-CA	6.30	129.88	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	705	G	O4'-C1'-C2'	-6.30	101.30	107.60
1	AA	885	G	C3'-C2'-C1'	-6.30	95.00	101.30
25	BA	71	C	C1'-O4'-C4'	6.30	116.20	109.90
26	BB	1505	A	O4'-C1'-N9	6.30	117.94	108.50
26	BB	2461	A	O4'-C1'-C2'	-6.30	101.30	107.60
26	BB	2859	G	C1'-C2'-O2'	-6.30	98.96	108.40
26	BB	301	G	O4'-C1'-C2'	-6.29	99.50	105.80
26	BB	1187	G	C4'-C3'-O3'	-6.29	103.56	113.00
32	BH	6	ALA	CA-C-N	6.29	126.84	120.04
32	BH	6	ALA	C-N-CA	6.29	126.84	120.04
26	BB	632	A	O4'-C1'-N9	6.29	117.94	108.50
26	BB	705	A	C5'-C4'-C3'	-6.29	106.56	116.00
26	BB	1780	A	C3'-C2'-C1'	6.29	107.59	101.30
26	BB	2129	C	C1'-C2'-O2'	6.29	121.24	111.80
26	BB	2843	G	C4'-C3'-O3'	-6.29	103.56	113.00
43	BS	32	ARG	O-C-N	6.29	128.55	122.07
1	AA	1408	A	C4'-C3'-O3'	6.29	122.44	113.00
26	BB	679	C	C4'-C3'-C2'	-6.29	96.31	102.60
26	BB	2211	A	C1'-O4'-C4'	6.29	115.99	109.70
26	BB	2873	A	P-O3'-C3'	6.29	129.64	120.20
29	BE	75	ALA	CA-C-N	6.29	128.57	120.64
29	BE	75	ALA	C-N-CA	6.29	128.57	120.64
1	AA	713	G	C2'-C3'-O3'	-6.29	104.27	113.70
1	AA	1238	A	C3'-C2'-C1'	6.29	107.59	101.30
26	BB	2809	A	P-O3'-C3'	6.29	129.63	120.20
1	AA	1335	U	C4'-C3'-O3'	6.29	122.43	113.00
26	BB	2227	A	C2'-C3'-O3'	-6.29	104.27	113.70
32	BH	127	GLN	OE1-CD-NE2	6.29	128.89	122.60
46	BV	42	GLU	CA-C-O	6.29	127.08	120.42
1	AA	667	G	O4'-C1'-C2'	-6.29	101.31	107.60
1	AA	763	G	C5'-C4'-C3'	-6.29	106.57	116.00
1	AA	1040	U	O4'-C1'-C2'	-6.29	101.31	107.60
18	AR	85	GLY	O-C-N	-6.29	116.25	122.41
25	BA	77	U	O3'-P-O5'	-6.29	94.57	104.00
26	BB	232	G	O5'-C5'-C4'	6.29	121.13	111.70
26	BB	275	C	C4'-C3'-O3'	6.29	122.43	113.00
26	BB	291	G	C3'-C2'-C1'	-6.29	95.02	101.30
26	BB	1749	A	O4'-C1'-C2'	-6.29	101.31	107.60
29	BE	134	HIS	CB-CG-CD2	-6.29	123.03	131.20
43	BS	58	GLN	CA-C-N	6.29	128.70	120.28
43	BS	58	GLN	C-N-CA	6.29	128.70	120.28
1	AA	1349	A	C4'-C3'-C2'	-6.28	96.32	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	71	A	O5'-C5'-C4'	-6.28	102.08	111.50
2	AB	26	A	C5'-C4'-C3'	-6.28	106.58	116.00
29	BE	68	PHE	CA-CB-CG	6.28	120.08	113.80
3	AC	17	U	O4'-C1'-C2'	-6.28	101.32	107.60
26	BB	35	G	C3'-C2'-C1'	6.28	107.58	101.30
26	BB	603	A	O3'-P-O5'	-6.28	94.58	104.00
26	BB	850	U	C3'-C2'-C1'	6.28	107.58	101.30
1	AA	231	U	C4'-C3'-C2'	-6.28	96.32	102.60
1	AA	661	G	O4'-C1'-N9	6.28	117.92	108.50
6	AF	123	LEU	CA-C-N	6.28	129.02	120.54
6	AF	123	LEU	C-N-CA	6.28	129.02	120.54
1	AA	606	G	O4'-C1'-N9	6.28	117.92	108.50
24	AX	1	PRO	CA-N-CD	-6.28	103.21	112.00
26	BB	50	U	C4'-C3'-O3'	6.28	118.81	109.40
26	BB	1723	G	C2'-C3'-O3'	6.28	123.12	113.70
11	AK	24	VAL	CB-CA-C	6.28	118.66	110.12
12	AL	10	ARG	NE-CZ-NH2	-6.28	113.55	119.20
26	BB	792	A	O4'-C4'-C3'	6.28	110.28	104.00
26	BB	1644	C	C4'-C3'-C2'	-6.28	96.32	102.60
30	BF	100	MET	CA-C-O	-6.27	114.24	120.70
1	AA	219	U	O4'-C1'-N1	6.27	117.91	108.50
1	AA	1109	C	O5'-C5'-C4'	6.27	120.91	111.50
14	AN	126	ARG	NE-CZ-NH2	6.27	124.84	119.20
16	AP	27	THR	N-CA-C	-6.27	104.36	111.14
26	BB	2841	C	O5'-C5'-C4'	-6.27	102.09	111.50
26	BB	2202	U	O4'-C1'-N1	6.27	117.91	108.50
32	BH	87	GLN	OE1-CD-NE2	-6.27	116.33	122.60
1	AA	36	C	C3'-C2'-C1'	6.27	107.57	101.30
1	AA	790	A	P-O3'-C3'	6.27	129.61	120.20
7	AG	106	PHE	CA-C-N	6.27	133.70	121.41
7	AG	106	PHE	C-N-CA	6.27	133.70	121.41
26	BB	87	U	C4'-C3'-C2'	-6.27	96.33	102.60
26	BB	122	G	C3'-C2'-O2'	6.27	120.11	110.70
40	BP	16	HIS	CB-CG-ND1	6.27	132.10	122.70
1	AA	1103	C	C4'-C3'-O3'	-6.27	103.60	113.00
1	AA	1159	U	C3'-C2'-C1'	6.27	107.77	101.50
9	AI	78	PHE	CA-C-N	6.27	129.19	120.29
9	AI	78	PHE	C-N-CA	6.27	129.19	120.29
26	BB	133	U	C4'-C3'-C2'	-6.27	96.33	102.60
1	AA	243	A	P-O3'-C3'	6.26	129.60	120.20
1	AA	602	A	C5'-C4'-C3'	-6.26	106.60	116.00
1	AA	691	G	O5'-C5'-C4'	-6.26	102.10	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AC	55	A	O4'-C1'-C2'	-6.26	99.53	105.80
6	AF	126	ARG	NE-CZ-NH1	-6.26	115.24	121.50
10	AJ	116	ALA	CA-C-O	-6.26	113.91	120.55
26	BB	1621	U	O3'-P-O5'	-6.26	94.60	104.00
1	AA	770	C	N1-C1'-C2'	6.26	121.39	112.00
26	BB	687	C	C3'-C2'-O2'	6.26	120.09	110.70
27	BC	10	VAL	O-C-N	6.26	127.94	121.87
1	AA	866	C	P-O5'-C5'	6.26	130.29	120.90
26	BB	332	A	C5'-C4'-O4'	6.26	118.49	109.10
26	BB	1775	U	C1'-O4'-C4'	-6.26	103.64	109.90
37	BM	91	SER	CA-CB-OG	6.26	123.62	111.10
44	BT	84	ARG	CB-CA-C	6.26	120.44	109.80
1	AA	44	A	O3'-P-O5'	6.26	113.39	104.00
1	AA	542	G	O4'-C1'-C2'	-6.26	101.34	107.60
1	AA	1097	C	C1'-C2'-O2'	6.26	117.79	108.40
26	BB	409	G	O4'-C1'-N9	6.26	117.89	108.50
26	BB	428	A	O4'-C4'-C3'	6.26	112.36	106.10
26	BB	480	A	C3'-C2'-C1'	6.26	107.56	101.30
26	BB	1225	G	O4'-C4'-C3'	6.26	110.26	104.00
26	BB	2266	A	O4'-C1'-N9	6.26	117.59	108.20
48	BX	35	GLU	O-C-N	6.26	130.39	123.25
1	AA	1045	C	O4'-C1'-C2'	-6.26	101.34	107.60
26	BB	1252	G	O5'-C5'-C4'	-6.26	102.31	111.70
26	BB	2709	G	C5'-C4'-C3'	-6.26	106.61	116.00
53	B2	51	VAL	CA-CB-CG2	6.26	121.04	110.40
4	AD	22	A	C3'-C2'-C1'	6.26	107.76	101.50
26	BB	520	G	O4'-C1'-C2'	-6.26	101.34	107.60
26	BB	1249	U	C1'-O4'-C4'	-6.26	103.64	109.90
26	BB	1567	G	O4'-C4'-C3'	6.26	112.36	106.10
26	BB	1645	G	C3'-C2'-C1'	6.26	107.76	101.50
31	BG	50	ASP	CA-C-N	6.26	129.17	120.29
31	BG	50	ASP	C-N-CA	6.26	129.17	120.29
36	BL	47	HIS	ND1-CG-CD2	6.26	112.36	106.10
1	AA	543	U	O4'-C1'-C2'	6.25	113.86	107.60
1	AA	637	C	C3'-C2'-C1'	-6.25	95.05	101.30
26	BB	2042	A	O4'-C1'-C2'	-6.25	101.34	107.60
50	BZ	14	GLY	O-C-N	-6.25	117.75	123.57
1	AA	519	C	C5'-C4'-O4'	6.25	119.18	109.80
1	AA	1075	U	C3'-C2'-C1'	6.25	107.55	101.30
1	AA	1363	A	N9-C1'-C2'	6.25	123.38	114.00
11	AK	37	ASN	OD1-CG-ND2	-6.25	116.35	122.60
26	BB	268	C	C1'-C2'-O2'	6.25	117.78	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1297	C	C5'-C4'-C3'	-6.25	106.62	116.00
26	BB	2007	U	C5'-C4'-C3'	-6.25	106.62	116.00
3	AC	47	C	O4'-C4'-C3'	-6.25	99.85	106.10
26	BB	781	A	C4'-C3'-C2'	-6.25	96.35	102.60
26	BB	2734	A	O4'-C1'-N9	6.25	117.88	108.50
39	BO	125	PRO	CA-C-O	-6.25	110.25	119.00
1	AA	740	U	C3'-C2'-C1'	6.25	107.55	101.30
24	AX	38	GLU	CA-C-N	6.25	128.83	120.58
24	AX	38	GLU	C-N-CA	6.25	128.83	120.58
2	AB	9	A	C3'-C2'-C1'	6.25	107.55	101.30
11	AK	98	LEU	N-CA-CB	-6.25	103.16	110.35
26	BB	940	G	O4'-C1'-C2'	6.25	113.85	107.60
26	BB	1959	G	O4'-C1'-N9	6.25	117.87	108.50
2	AB	64	U	C4'-C3'-C2'	-6.25	96.35	102.60
26	BB	932	U	O3'-P-O5'	-6.25	94.63	104.00
28	BD	14	HIS	ND1-CG-CD2	6.25	112.35	106.10
1	AA	1207	2MG	P-O3'-C3'	6.25	129.57	120.20
26	BB	505	A	C3'-C2'-O2'	6.25	120.07	110.70
26	BB	1475	G	O4'-C1'-N9	6.25	117.57	108.20
41	BQ	15	ARG	NE-CZ-NH1	6.25	127.75	121.50
1	AA	697	U	O4'-C1'-N1	6.24	117.86	108.50
26	BB	837	C	C4'-C3'-C2'	-6.24	96.36	102.60
26	BB	918	A	O4'-C1'-C2'	6.24	113.84	107.60
35	BK	29	GLN	OE1-CD-NE2	-6.24	116.36	122.60
1	AA	823	C	C4'-C3'-C2'	-6.24	96.36	102.60
1	AA	1452	C	O4'-C1'-N1	6.24	117.56	108.20
26	BB	112	U	O4'-C1'-N1	6.24	117.86	108.50
26	BB	113	U	C5'-C4'-C3'	-6.24	106.64	116.00
26	BB	554	U	O4'-C4'-C3'	6.24	110.24	104.00
26	BB	743	A	C5'-C4'-C3'	-6.24	106.64	116.00
26	BB	1967	C	C5'-C4'-C3'	-6.24	106.64	116.00
31	BG	132	ARG	NE-CZ-NH1	-6.24	115.26	121.50
46	BV	41	ALA	O-C-N	6.24	128.83	122.09
1	AA	732	C	O5'-C5'-C4'	-6.24	102.14	111.50
1	AA	1123	U	C4'-C3'-O3'	-6.24	103.64	113.00
26	BB	2792	A	P-O3'-C3'	6.24	129.56	120.20
39	BO	57	VAL	N-CA-C	6.24	117.17	111.81
9	AI	62	MET	CA-C-O	-6.24	112.30	119.60
26	BB	396	G	C4'-C3'-C2'	-6.24	96.36	102.60
26	BB	1302	A	C2'-C3'-O3'	6.24	118.86	109.50
26	BB	1762	A	C4'-C3'-O3'	6.24	122.36	113.00
4	AD	23	G	C1'-O4'-C4'	-6.24	103.67	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AH	89	THR	CB-CA-C	6.24	121.85	112.06
25	BA	44	G	C4'-C3'-O3'	-6.24	100.05	109.40
26	BB	510	C	O4'-C1'-C2'	-6.24	101.36	107.60
26	BB	1847	A	O4'-C4'-C3'	-6.24	97.77	104.00
26	BB	2128	G	C2'-C3'-O3'	-6.24	104.35	113.70
1	AA	1413	A	C4'-C3'-C2'	-6.23	96.37	102.60
25	BA	119	A	C3'-C2'-O2'	6.23	120.05	110.70
26	BB	92	U	O4'-C4'-C3'	6.23	110.23	104.00
1	AA	279	A	P-O3'-C3'	6.23	129.55	120.20
1	AA	857	C	C4'-C3'-C2'	-6.23	96.37	102.60
10	AJ	144	ALA	CA-C-N	6.23	129.78	120.31
10	AJ	144	ALA	C-N-CA	6.23	129.78	120.31
26	BB	564	C	C3'-C2'-O2'	6.23	120.05	110.70
26	BB	921	C	O4'-C1'-C2'	-6.23	101.37	107.60
1	AA	122	G	C4'-C3'-C2'	-6.23	96.37	102.60
1	AA	533	A	C5'-C4'-C3'	-6.23	105.86	115.20
7	AG	67	LEU	CA-C-N	6.23	128.54	120.44
7	AG	67	LEU	C-N-CA	6.23	128.54	120.44
11	AK	55	LYS	O-C-N	-6.23	116.24	121.54
26	BB	1836	C	C4'-C3'-C2'	-6.23	96.37	102.60
34	BJ	63	VAL	N-CA-CB	-6.23	104.22	112.26
54	B3	18	HIS	CA-CB-CG	6.23	120.03	113.80
20	AT	72	TRP	CA-C-O	-6.23	114.31	121.47
28	BD	62	ARG	NE-CZ-NH2	-6.23	113.59	119.20
25	BA	119	A	O4'-C4'-C3'	6.23	110.23	104.00
26	BB	510	C	O4'-C1'-N1	6.23	117.84	108.50
26	BB	1205	A	N9-C1'-C2'	-6.23	104.66	114.00
26	BB	1991	U	O4'-C4'-C3'	-6.23	97.77	104.00
18	AR	77	TYR	CA-C-O	-6.23	114.29	120.70
1	AA	1156	G	C3'-C2'-C1'	-6.22	95.08	101.30
8	AH	22	LYS	CA-CB-CG	-6.22	101.65	114.10
26	BB	24	G	C5'-C4'-C3'	-6.22	106.66	116.00
26	BB	931	U	O4'-C1'-N1	6.22	117.54	108.20
26	BB	2900	A	C1'-O4'-C4'	-6.22	103.67	109.90
28	BD	97	ASP	CA-CB-CG	6.22	118.83	112.60
1	AA	246	A	O4'-C1'-N9	6.22	117.53	108.20
1	AA	676	A	O4'-C1'-C2'	-6.22	101.38	107.60
2	AB	71	C	C5'-C4'-C3'	-6.22	106.67	116.00
25	BA	44	G	C1'-O4'-C4'	-6.22	103.48	109.70
26	BB	915	C	O4'-C1'-C2'	-6.22	101.38	107.60
26	BB	1844	C	C1'-O4'-C4'	6.22	116.12	109.90
13	AM	84	VAL	CA-C-N	6.22	129.12	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AM	84	VAL	C-N-CA	6.22	129.12	120.29
24	AX	59	LEU	CA-C-O	-6.22	114.29	120.70
26	BB	698	C	O5'-C5'-C4'	-6.22	102.17	111.50
25	BA	81	G	C5'-C4'-C3'	-6.22	106.67	116.00
55	B4	47	ILE	CA-C-O	-6.22	114.58	121.23
6	AF	176	THR	CA-CB-CG2	6.22	121.07	110.50
1	AA	47	C	C3'-C2'-C1'	6.22	107.72	101.50
1	AA	53	A	C5'-C4'-O4'	6.22	119.12	109.80
26	BB	2754	U	C3'-C2'-C1'	6.22	107.52	101.30
32	BH	66	THR	N-CA-C	6.22	117.75	110.97
1	AA	666	G	O4'-C4'-C3'	6.21	110.21	104.00
26	BB	240	C	C1'-O4'-C4'	6.21	116.11	109.90
26	BB	1585	C	C5'-C4'-O4'	6.21	119.12	109.80
26	BB	1602	U	O4'-C4'-C3'	6.21	112.31	106.10
26	BB	1856	U	C5'-C4'-O4'	6.21	119.12	109.80
38	BN	5	THR	CA-CB-CG2	6.21	121.06	110.50
26	BB	91	A	C3'-C2'-C1'	6.21	107.71	101.50
1	AA	381	C	O4'-C1'-N1	6.21	117.52	108.20
1	AA	1364	U	C4'-C3'-O3'	-6.21	100.08	109.40
26	BB	1559	U	O5'-C5'-C4'	-6.21	102.38	111.70
28	BD	225	ASN	CA-C-N	6.21	127.34	120.45
28	BD	225	ASN	C-N-CA	6.21	127.34	120.45
29	BE	5	VAL	N-CA-CB	-6.21	104.19	111.39
1	AA	878	A	C4'-C3'-C2'	-6.21	96.39	102.60
9	AI	94	HIS	CB-CG-CD2	-6.21	123.13	131.20
17	AQ	75	LYS	O-C-N	6.21	129.91	122.27
31	BG	4	HIS	CA-C-N	6.21	129.22	120.28
31	BG	4	HIS	C-N-CA	6.21	129.22	120.28
1	AA	730	G	C2'-C3'-O3'	-6.21	104.39	113.70
1	AA	1478	U	C4'-C3'-C2'	-6.21	96.39	102.60
10	AJ	1	PRO	N-CD-CG	6.21	112.51	103.20
26	BB	470	A	C4'-C3'-C2'	-6.21	96.39	102.60
26	BB	1296	G	C5'-C4'-O4'	6.21	119.11	109.80
26	BB	1604	C	C4'-C3'-C2'	-6.21	96.39	102.60
26	BB	1864	U	C4'-C3'-O3'	-6.21	103.69	113.00
54	B3	41	HIS	CB-CG-CD2	-6.21	123.13	131.20
1	AA	165	G	C4'-C3'-C2'	-6.21	96.39	102.60
1	AA	1476	A	O4'-C1'-N9	6.21	117.81	108.50
26	BB	433	C	C5'-C4'-O4'	6.21	119.11	109.80
26	BB	644	A	O4'-C1'-N9	6.21	117.81	108.50
26	BB	1271	G	C1'-C2'-O2'	6.21	117.71	108.40
26	BB	2202	U	C5'-C4'-C3'	-6.21	106.69	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BQ	86	GLY	O-C-N	6.21	129.91	122.34
48	BX	51	GLN	N-CA-CB	-6.21	100.08	110.57
1	AA	1066	C	O4'-C1'-N1	6.20	117.81	108.50
26	BB	1602	U	C3'-C2'-O2'	-6.20	105.30	114.60
1	AA	197	A	O5'-C5'-C4'	6.20	121.00	111.70
1	AA	795	C	C4'-C3'-O3'	-6.20	103.70	113.00
12	AL	112	ARG	NE-CZ-NH2	6.20	124.78	119.20
26	BB	2628	C	C5'-C4'-O4'	6.20	118.40	109.10
1	AA	776	G	O3'-P-O5'	-6.20	94.70	104.00
4	AD	13	C	O5'-C5'-C4'	-6.20	102.20	111.50
7	AG	194	ILE	O-C-N	6.20	129.21	122.57
10	AJ	4	ARG	NE-CZ-NH2	-6.20	113.62	119.20
26	BB	385	C	O4'-C4'-C3'	6.20	110.20	104.00
26	BB	2676	C	P-O5'-C5'	6.20	130.20	120.90
26	BB	2852	G	C2'-C3'-O3'	6.20	123.00	113.70
34	BJ	45	ARG	CD-NE-CZ	6.20	133.08	124.40
50	BZ	49	ARG	CA-C-O	-6.20	113.59	120.60
1	AA	6	G	P-O5'-C5'	6.20	130.20	120.90
11	AK	87	ARG	NE-CZ-NH2	-6.20	113.62	119.20
26	BB	231	A	P-O3'-C3'	6.20	129.50	120.20
26	BB	236	C	C3'-C2'-C1'	6.20	107.50	101.30
50	BZ	44	ARG	N-CA-CB	-6.20	101.31	111.66
1	AA	1153	G	O4'-C1'-N9	6.20	117.79	108.50
2	AB	17	H2U	O3'-P-O5'	6.20	113.29	104.00
7	AG	51	GLY	CA-C-O	-6.20	114.31	121.00
26	BB	821	A	C5'-C4'-C3'	-6.20	106.70	116.00
26	BB	1599	U	O4'-C4'-C3'	6.20	110.20	104.00
30	BF	31	VAL	CA-C-O	-6.20	114.17	121.05
42	BR	83	ILE	CA-C-N	6.20	131.88	122.65
42	BR	83	ILE	C-N-CA	6.20	131.88	122.65
26	BB	124	G	C4'-C3'-O3'	-6.19	103.71	113.00
26	BB	285	G	C4'-C3'-O3'	6.19	122.29	113.00
26	BB	1939	5MU	O3'-P-O5'	-6.19	94.71	104.00
1	AA	188	C	O4'-C1'-N1	6.19	117.79	108.50
1	AA	1054	C	O3'-P-O5'	-6.19	94.71	104.00
2	AB	71	C	O5'-C5'-C4'	6.19	120.79	111.50
24	AX	44	ARG	NH1-CZ-NH2	-6.19	111.25	119.30
25	BA	105	G	C1'-O4'-C4'	-6.19	103.71	109.90
26	BB	789	A	O4'-C1'-C2'	-6.19	99.61	105.80
26	BB	1420	A	P-O3'-C3'	6.19	129.49	120.20
26	BB	2877	G	O4'-C1'-C2'	-6.19	101.41	107.60
1	AA	1120	C	C5'-C4'-C3'	-6.19	106.71	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	B0	43	LEU	CA-C-O	-6.19	112.33	119.14
1	AA	1186	G	O4'-C4'-C3'	6.19	110.19	104.00
12	AL	59	LYS	CA-C-O	-6.19	111.66	120.51
26	BB	1197	G	O5'-C5'-C4'	-6.19	102.22	111.50
26	BB	1557	C	O4'-C1'-N1	6.19	117.78	108.50
26	BB	2168	G	C4'-C3'-C2'	-6.19	96.41	102.60
19	AS	45	GLU	CB-CA-C	6.19	121.45	111.36
24	AX	8	ASN	OD1-CG-ND2	6.19	128.79	122.60
30	BF	119	ILE	CA-CB-CG2	6.19	121.02	110.50
6	AF	120	THR	N-CA-C	6.19	118.82	111.71
11	AK	75	GLN	CA-C-N	6.19	130.27	121.42
11	AK	75	GLN	C-N-CA	6.19	130.27	121.42
26	BB	1985	C	C3'-C2'-O2'	6.19	119.98	110.70
1	AA	91	U	C5'-C4'-O4'	6.18	119.08	109.80
1	AA	531	U	P-O3'-C3'	6.18	129.48	120.20
2	AB	39	A	C3'-C2'-O2'	6.18	119.98	110.70
26	BB	397	U	C3'-C2'-C1'	6.18	107.48	101.30
26	BB	1912	A	C5'-C4'-C3'	-6.18	106.72	116.00
26	BB	2469	A	O5'-C5'-C4'	-6.18	102.22	111.50
34	BJ	144	GLU	N-CA-C	-6.18	104.54	111.28
40	BP	84	GLY	CA-C-N	6.18	126.08	119.28
40	BP	84	GLY	C-N-CA	6.18	126.08	119.28
1	AA	737	C	C5'-C4'-C3'	-6.18	106.72	116.00
26	BB	771	G	O5'-C5'-C4'	6.18	120.77	111.50
26	BB	1202	G	C4'-C3'-C2'	-6.18	96.42	102.60
26	BB	2505	G	O3'-P-O5'	-6.18	94.73	104.00
2	AB	27	C	C5'-C4'-O4'	6.18	119.07	109.80
26	BB	1000	A	O4'-C1'-C2'	-6.18	101.42	107.60
26	BB	1209	U	C3'-C2'-C1'	-6.18	95.12	101.30
47	BW	44	HIS	ND1-CG-CD2	6.18	112.28	106.10
1	AA	947	G	O3'-P-O5'	6.18	113.27	104.00
5	AE	212	TYR	CA-C-O	-6.18	114.33	120.82
26	BB	909	A	N9-C1'-C2'	-6.18	102.73	112.00
26	BB	1275	A	O4'-C1'-C2'	-6.18	101.42	107.60
1	AA	468	A	C5'-C4'-O4'	6.18	119.07	109.80
26	BB	1785	A	C4'-C3'-C2'	-6.18	96.42	102.60
24	AX	28	LEU	CA-C-N	6.18	132.27	121.52
24	AX	28	LEU	C-N-CA	6.18	132.27	121.52
26	BB	827	U	C3'-C2'-O2'	-6.18	105.33	114.60
26	BB	1040	A	C4'-C3'-O3'	6.18	122.27	113.00
48	BX	77	VAL	CA-CB-CG1	6.18	120.90	110.40
26	BB	1081	U	O3'-P-O5'	-6.17	94.74	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1103	A	O3'-P-O5'	6.17	113.26	104.00
26	BB	1836	C	C4'-C3'-O3'	6.17	122.26	113.00
26	BB	762	U	C2'-C3'-O3'	-6.17	104.44	113.70
27	BC	32	GLU	CA-C-O	-6.17	112.87	119.97
46	BV	12	ARG	CD-NE-CZ	-6.17	115.76	124.40
1	AA	1007	U	N1-C1'-C2'	6.17	121.26	112.00
1	AA	1408	A	C5'-C4'-O4'	6.17	119.06	109.80
26	BB	1261	C	C3'-C2'-C1'	6.17	107.47	101.30
26	BB	1281	G	C3'-C2'-C1'	6.17	107.47	101.30
1	AA	623	C	C1'-O4'-C4'	6.17	116.07	109.90
6	AF	131	ARG	CD-NE-CZ	6.17	133.04	124.40
15	AO	95	HIS	CE1-NE2-CD2	-6.17	102.83	109.00
26	BB	803	U	O4'-C1'-C2'	-6.17	101.43	107.60
26	BB	875	G	C3'-C2'-C1'	-6.17	95.13	101.30
42	BR	10	GLU	CA-C-O	-6.17	113.88	120.42
1	AA	1259	C	C5'-C4'-C3'	-6.17	106.75	116.00
8	AH	53	ARG	NH1-CZ-NH2	-6.17	111.28	119.30
26	BB	47	C	C4'-C3'-C2'	6.17	108.77	102.60
26	BB	97	C	C4'-C3'-C2'	-6.17	96.43	102.60
26	BB	978	G	C4'-C3'-C2'	-6.17	96.43	102.60
28	BD	27	LYS	CA-C-N	6.17	126.38	119.90
28	BD	27	LYS	C-N-CA	6.17	126.38	119.90
1	AA	622	A	N9-C1'-C2'	-6.17	102.75	112.00
21	AU	47	ARG	N-CA-C	-6.17	102.39	110.53
26	BB	138	U	N1-C1'-C2'	-6.17	102.75	112.00
43	BS	8	ILE	CA-C-O	-6.17	113.31	120.83
46	BV	65	GLY	CA-C-N	6.17	132.76	121.85
46	BV	65	GLY	C-N-CA	6.17	132.76	121.85
4	AD	70	C	C4'-C3'-C2'	-6.17	96.44	102.60
6	AF	220	ALA	O-C-N	6.17	130.13	122.86
38	BN	76	GLU	CB-CA-C	6.17	120.00	110.14
8	AH	89	THR	O-C-N	6.16	130.25	122.86
26	BB	1507	C	O4'-C1'-N1	6.16	117.75	108.50
28	BD	146	LYS	CA-C-O	-6.16	113.08	120.41
15	AO	114	SER	CA-C-O	-6.16	114.53	121.00
26	BB	438	G	O4'-C1'-N9	6.16	117.74	108.50
26	BB	615	U	O4'-C1'-N1	6.16	117.44	108.20
1	AA	482	A	O4'-C1'-C2'	-6.16	101.44	107.60
1	AA	556	C	O4'-C4'-C3'	6.16	110.16	104.00
26	BB	2	G	O4'-C1'-C2'	-6.16	101.44	107.60
26	BB	69	C	C4'-C3'-O3'	6.16	122.24	113.00
29	BE	105	LYS	N-CA-C	-6.16	105.07	112.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	284	C	O4'-C1'-N1	6.16	117.74	108.50
1	AA	1126	U	C2'-C3'-O3'	6.16	118.74	109.50
1	AA	1136	C	C3'-C2'-O2'	6.16	119.94	110.70
26	BB	161	A	O3'-P-O5'	-6.16	94.76	104.00
26	BB	2012	G	C4'-C3'-C2'	-6.16	96.44	102.60
55	B4	8	ILE	CA-C-O	-6.16	114.48	121.75
1	AA	652	U	C3'-C2'-O2'	-6.16	105.36	114.60
26	BB	1734	G	C1'-C2'-O2'	6.16	117.64	108.40
1	AA	1195	C	C5'-C4'-O4'	6.16	119.03	109.80
5	AE	196	ASP	N-CA-C	-6.16	103.89	112.45
26	BB	115	C	O4'-C1'-C2'	-6.16	101.44	107.60
26	BB	1021	A	C3'-C2'-C1'	6.16	107.45	101.30
26	BB	1282	U	C4'-C3'-C2'	-6.16	96.44	102.60
26	BB	1752	C	O4'-C1'-C2'	-6.16	101.44	107.60
26	BB	2444	G	O4'-C1'-N9	6.16	117.73	108.50
26	BB	2848	G	P-O3'-C3'	6.16	129.43	120.20
1	AA	528	C	C2'-C3'-O3'	6.15	122.93	113.70
1	AA	760	G	C1'-O4'-C4'	6.15	116.05	109.90
1	AA	944	G	C2'-C3'-O3'	6.15	122.93	113.70
32	BH	55	ASP	CA-CB-CG	-6.15	106.45	112.60
53	B2	7	PRO	N-CA-CB	6.15	108.49	103.32
1	AA	1095	U	O4'-C4'-C3'	6.15	110.15	104.00
26	BB	369	U	O4'-C4'-C3'	6.15	110.15	104.00
26	BB	1489	C	C3'-C2'-C1'	-6.15	95.15	101.30
26	BB	2276	G	O4'-C1'-N9	6.15	117.73	108.50
35	BK	73	PRO	CA-C-N	6.15	126.12	120.03
35	BK	73	PRO	C-N-CA	6.15	126.12	120.03
41	BQ	61	GLN	OE1-CD-NE2	-6.15	116.45	122.60
1	AA	526	C	O4'-C1'-C2'	-6.15	101.45	107.60
26	BB	1589	U	C4'-C3'-C2'	-6.15	96.45	102.60
26	BB	2118	U	C1'-O4'-C4'	-6.15	103.55	109.70
5	AE	150	ILE	CA-C-O	6.15	124.51	118.98
26	BB	940	G	C5'-C4'-C3'	-6.15	106.78	116.00
1	AA	956	U	O4'-C4'-C3'	6.15	110.15	104.00
26	BB	399	U	O4'-C1'-C2'	6.15	113.75	107.60
26	BB	806	C	O5'-C5'-C4'	-6.15	102.28	111.50
26	BB	1169	A	C4'-C3'-C2'	-6.15	96.45	102.60
26	BB	2541	A	C2'-C3'-O3'	6.15	122.92	113.70
26	BB	2663	G	P-O3'-C3'	6.15	129.42	120.20
32	BH	125	PRO	N-CA-CB	6.15	110.32	103.44
1	AA	81	A	C5'-C4'-C3'	6.14	125.22	116.00
1	AA	980	C	C4'-C3'-C2'	-6.14	96.46	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1081	A	C3'-C2'-C1'	-6.14	95.16	101.30
1	AA	1296	C	O4'-C4'-C3'	-6.14	97.86	104.00
3	AC	20	G	C5'-C4'-O4'	6.14	119.02	109.80
23	AW	49	ALA	CA-C-N	6.14	128.51	120.28
23	AW	49	ALA	C-N-CA	6.14	128.51	120.28
26	BB	208	C	C1'-O4'-C4'	6.14	116.04	109.90
26	BB	2870	C	O3'-P-O5'	6.14	113.22	104.00
50	BZ	56	ARG	NE-CZ-NH1	-6.14	115.36	121.50
1	AA	335	C	C4'-C3'-O3'	-6.14	103.79	113.00
26	BB	1468	U	O4'-C1'-N1	6.14	117.72	108.50
39	BO	117	PHE	CA-CB-CG	6.14	119.94	113.80
1	AA	239	U	O4'-C4'-C3'	6.14	110.14	104.00
26	BB	1952	A	N9-C1'-C2'	-6.14	102.79	112.00
26	BB	2045	C	N1-C1'-C2'	-6.14	102.79	112.00
2	AB	58	A	P-O3'-C3'	6.14	129.41	120.20
24	AX	2	VAL	CA-CB-CG2	6.14	120.84	110.40
26	BB	179	C	P-O3'-C3'	-6.14	110.99	120.20
26	BB	287	G	O4'-C4'-C3'	-6.14	97.86	104.00
26	BB	337	C	C5'-C4'-C3'	6.14	125.21	116.00
26	BB	1658	C	C4'-C3'-C2'	-6.14	96.46	102.60
26	BB	2087	G	C4'-C3'-C2'	-6.14	96.46	102.60
40	BP	17	ARG	CA-C-N	6.14	128.79	120.44
40	BP	17	ARG	C-N-CA	6.14	128.79	120.44
7	AG	82	LYS	CA-C-N	6.14	129.13	121.83
7	AG	82	LYS	C-N-CA	6.14	129.13	121.83
25	BA	93	C	C4'-C3'-C2'	-6.14	96.46	102.60
1	AA	298	A	O5'-C5'-C4'	-6.14	102.29	111.50
26	BB	1341	G	C5'-C4'-C3'	-6.14	106.00	115.20
26	BB	2569	G	C4'-C3'-C2'	-6.14	96.46	102.60
1	AA	267	C	N1-C1'-C2'	-6.13	102.80	112.00
1	AA	1472	U	O4'-C1'-N1	6.13	117.70	108.50
4	AD	48	U	C2'-C3'-O3'	-6.13	104.50	113.70
13	AM	15	HIS	ND1-CG-CD2	6.13	112.23	106.10
25	BA	27	C	O4'-C1'-C2'	6.13	113.73	107.60
26	BB	2134	A	O4'-C4'-C3'	6.13	110.13	104.00
26	BB	2330	G	C4'-C3'-C2'	6.13	108.73	102.60
1	AA	513	C	O4'-C1'-C2'	-6.13	101.47	107.60
1	AA	1453	G	O4'-C1'-N9	6.13	117.70	108.50
26	BB	792	A	C2'-C3'-O3'	-6.13	104.50	113.70
26	BB	876	C	C5'-C4'-C3'	-6.13	106.80	116.00
40	BP	73	ASN	CA-C-N	6.13	129.00	120.29
40	BP	73	ASN	C-N-CA	6.13	129.00	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1078	U	C3'-C2'-C1'	6.13	107.43	101.30
5	AE	55	GLU	CA-C-N	6.13	128.78	120.44
5	AE	55	GLU	C-N-CA	6.13	128.78	120.44
6	AF	99	GLN	CB-CG-CD	6.13	123.03	112.60
26	BB	116	C	O4'-C1'-N1	6.13	117.70	108.50
26	BB	271	G	O4'-C1'-N9	6.13	117.40	108.20
26	BB	2122	U	C3'-C2'-C1'	6.13	107.43	101.30
40	BP	49	GLU	CA-C-N	6.13	125.69	119.19
40	BP	49	GLU	C-N-CA	6.13	125.69	119.19
25	BA	70	C	O4'-C1'-N1	6.13	117.69	108.50
1	AA	641	U	O4'-C1'-N1	6.13	117.39	108.20
8	AH	132	PRO	CA-C-N	6.13	131.03	121.35
8	AH	132	PRO	C-N-CA	6.13	131.03	121.35
26	BB	88	G	C5'-C4'-C3'	-6.13	106.81	116.00
26	BB	1220	G	P-O5'-C5'	6.13	130.09	120.90
26	BB	1887	C	C4'-C3'-C2'	-6.13	96.47	102.60
26	BB	2748	A	C5'-C4'-O4'	6.13	118.99	109.80
14	AN	126	ARG	NH1-CZ-NH2	-6.12	111.34	119.30
1	AA	529	G	O4'-C4'-C3'	6.12	110.12	104.00
1	AA	1322	C	C5'-C4'-O4'	-6.12	99.92	109.10
26	BB	1184	U	C4'-C3'-O3'	-6.12	103.81	113.00
26	BB	1285	A	C5'-C4'-C3'	-6.12	106.81	116.00
26	BB	1500	G	O4'-C1'-C2'	-6.12	101.48	107.60
26	BB	2349	G	O4'-C1'-N9	6.12	117.69	108.50
34	BJ	41	ARG	NE-CZ-NH2	-6.12	113.69	119.20
1	AA	248	C	P-O3'-C3'	6.12	129.38	120.20
1	AA	766	A	C5'-C4'-C3'	-6.12	106.82	116.00
1	AA	1143	G	C1'-C2'-O2'	-6.12	99.22	108.40
3	AC	54	U	C4'-C3'-O3'	6.12	118.58	109.40
26	BB	670	A	O4'-C1'-C2'	6.12	111.92	105.80
26	BB	1241	A	C3'-C2'-C1'	6.12	107.42	101.30
26	BB	1614	A	C5'-C4'-O4'	-6.12	100.62	109.80
30	BF	93	SER	CB-CA-C	6.12	119.45	109.90
44	BT	33	VAL	CA-C-O	-6.12	113.74	120.84
1	AA	1517	G	C1'-O4'-C4'	-6.12	103.78	109.90
12	AL	128	LYS	CA-C-N	6.12	132.72	121.70
12	AL	128	LYS	C-N-CA	6.12	132.72	121.70
26	BB	74	A	N9-C1'-C2'	6.12	123.18	114.00
1	AA	523	A	P-O5'-C5'	6.12	130.08	120.90
26	BB	981	A	P-O3'-C3'	6.12	129.38	120.20
26	BB	1619	G	C4'-C3'-O3'	-6.12	103.83	113.00
26	BB	2562	U	C4'-C3'-C2'	-6.12	96.48	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	366	A	C1'-C2'-O2'	6.12	120.97	111.80
3	AC	56	G	O4'-C1'-N9	6.12	117.67	108.50
26	BB	150	U	O4'-C1'-C2'	-6.12	101.48	107.60
26	BB	310	A	O3'-P-O5'	-6.12	94.83	104.00
26	BB	820	A	C1'-C2'-O2'	6.12	117.57	108.40
26	BB	1340	U	P-O3'-C3'	6.12	129.38	120.20
26	BB	1896	G	O4'-C1'-N9	-6.12	99.33	108.50
26	BB	1983	G	C4'-C3'-C2'	-6.12	96.48	102.60
1	AA	340	U	C1'-O4'-C4'	-6.11	103.79	109.90
2	AB	75	C	C3'-C2'-C1'	6.11	107.61	101.50
3	AC	23	C	O4'-C4'-C3'	6.11	110.11	104.00
6	AF	199	VAL	CA-C-N	6.11	131.16	122.72
6	AF	199	VAL	C-N-CA	6.11	131.16	122.72
26	BB	288	U	O4'-C1'-N1	6.11	117.67	108.50
26	BB	1469	A	O4'-C4'-C3'	6.11	110.11	104.00
26	BB	2008	C	P-O5'-C5'	6.11	130.07	120.90
26	BB	2140	G	C4'-C3'-C2'	-6.11	96.49	102.60
26	BB	2736	A	C5'-C4'-C3'	-6.11	106.83	116.00
51	B0	52	ARG	CA-C-N	6.11	128.84	120.46
51	B0	52	ARG	C-N-CA	6.11	128.84	120.46
1	AA	85	U	O4'-C1'-C2'	-6.11	99.69	105.80
26	BB	16	C	C4'-C3'-C2'	-6.11	96.49	102.60
26	BB	1900	A	C2'-C3'-O3'	6.11	118.67	109.50
56	B5	34	ARG	NE-CZ-NH1	6.11	127.61	121.50
1	AA	1	A	C1'-C2'-O2'	-6.11	99.23	108.40
26	BB	123	G	N9-C1'-C2'	-6.11	102.84	112.00
26	BB	196	A	C3'-C2'-C1'	-6.11	95.39	101.50
26	BB	1359	A	C5'-C4'-C3'	-6.11	106.83	116.00
26	BB	2047	C	O4'-C1'-C2'	-6.11	101.49	107.60
26	BB	2780	G	O3'-P-O5'	6.11	113.17	104.00
26	BB	2793	C	O4'-C1'-N1	6.11	117.66	108.50
32	BH	153	PRO	N-CA-CB	6.11	111.03	103.15
26	BB	2263	C	O5'-C5'-C4'	6.11	120.66	111.50
1	AA	27	G	O4'-C1'-C2'	6.11	113.71	107.60
1	AA	320	A	N9-C1'-C2'	-6.11	102.84	112.00
1	AA	360	G	C1'-O4'-C4'	-6.11	103.79	109.90
1	AA	937	A	P-O3'-C3'	6.11	129.36	120.20
8	AH	143	LEU	CB-CA-C	6.11	119.90	111.23
26	BB	623	C	O4'-C1'-C2'	-6.11	101.49	107.60
26	BB	1318	U	O4'-C1'-N1	6.11	117.66	108.50
35	BK	12	VAL	CA-C-N	6.11	129.38	120.71
35	BK	12	VAL	C-N-CA	6.11	129.38	120.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BR	27	VAL	O-C-N	6.11	131.74	122.76
1	AA	1536	C	O4'-C4'-C3'	6.11	110.11	104.00
3	AC	23	C	C4'-C3'-C2'	-6.11	96.49	102.60
26	BB	1013	C	O4'-C4'-C3'	6.11	110.11	104.00
27	BC	10	VAL	CA-C-O	-6.11	114.60	120.95
32	BH	22	VAL	CB-CA-C	6.11	118.22	111.08
42	BR	30	TRP	CA-CB-CG	6.11	125.20	113.60
47	BW	53	GLN	CA-C-N	6.11	125.81	119.64
47	BW	53	GLN	C-N-CA	6.11	125.81	119.64
1	AA	545	C	C4'-C3'-C2'	-6.10	96.50	102.60
26	BB	570	G	C3'-C2'-C1'	6.10	107.40	101.30
26	BB	924	G	C5'-C4'-O4'	6.10	118.96	109.80
1	AA	231	U	O4'-C1'-N1	6.10	117.65	108.50
26	BB	1078	U	O4'-C1'-N1	6.10	117.35	108.20
32	BH	35	THR	CA-CB-CG2	6.10	120.87	110.50
48	BX	23	ALA	CA-C-N	6.10	131.26	122.35
48	BX	23	ALA	C-N-CA	6.10	131.26	122.35
26	BB	918	A	C3'-C2'-O2'	6.10	119.85	110.70
26	BB	1023	U	C2'-C3'-O3'	-6.10	104.55	113.70
8	AH	132	PRO	CA-C-O	6.10	126.42	118.98
26	BB	1217	U	O4'-C1'-N1	6.10	117.65	108.50
26	BB	2775	G	O4'-C1'-C2'	-6.10	101.50	107.60
26	BB	2864	G	C2'-C3'-O3'	-6.10	104.55	113.70
30	BF	130	LYS	CA-C-N	6.10	128.45	120.28
30	BF	130	LYS	C-N-CA	6.10	128.45	120.28
26	BB	2774	C	O4'-C1'-N1	6.10	117.64	108.50
1	AA	694	A	C2'-C3'-O3'	-6.10	104.56	113.70
1	AA	1172	C	O4'-C4'-C3'	6.10	110.10	104.00
16	AP	34	ALA	CA-C-N	6.10	128.37	120.44
16	AP	34	ALA	C-N-CA	6.10	128.37	120.44
26	BB	342	A	C5'-C4'-C3'	-6.10	106.86	116.00
26	BB	1583	A	O4'-C4'-C3'	6.10	112.20	106.10
45	BU	49	LYS	CA-C-N	6.10	130.78	120.29
45	BU	49	LYS	C-N-CA	6.10	130.78	120.29
1	AA	915	A	O4'-C4'-C3'	6.09	110.09	104.00
5	AE	73	ARG	CB-CA-C	6.09	122.60	110.17
1	AA	348	G	C3'-C2'-O2'	6.09	119.84	110.70
1	AA	476	U	O5'-C5'-C4'	-6.09	102.36	111.50
26	BB	1231	U	O5'-C5'-C4'	-6.09	102.36	111.50
27	BC	97	MET	CA-C-N	6.09	128.72	120.44
27	BC	97	MET	C-N-CA	6.09	128.72	120.44
1	AA	185	U	O4'-C1'-N1	6.09	117.63	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	975	A	C5'-C4'-C3'	-6.09	106.87	116.00
26	BB	599	A	C3'-C2'-O2'	6.09	119.83	110.70
26	BB	1150	C	O4'-C1'-N1	6.09	117.63	108.50
28	BD	209	ALA	N-CA-C	-6.09	104.72	111.36
41	BQ	16	ARG	NE-CZ-NH1	-6.09	115.41	121.50
1	AA	697	U	O5'-C5'-C4'	-6.09	102.37	111.50
16	AP	114	PRO	N-CA-CB	6.09	107.31	103.23
26	BB	2319	G	O4'-C1'-N9	6.09	117.33	108.20
26	BB	2851	A	C4'-C3'-O3'	6.09	122.13	113.00
50	BZ	13	THR	CB-CA-C	6.09	119.50	109.70
1	AA	436	C	C3'-C2'-O2'	6.08	119.83	110.70
1	AA	1349	A	C1'-O4'-C4'	-6.08	103.81	109.90
26	BB	2404	U	O3'-P-O5'	-6.08	94.87	104.00
1	AA	440	C	O4'-C1'-N1	6.08	117.63	108.50
24	AX	66	ARG	NE-CZ-NH2	6.08	124.68	119.20
25	BA	28	C	C1'-O4'-C4'	-6.08	103.82	109.90
25	BA	100	G	C4'-C3'-C2'	-6.08	96.52	102.60
26	BB	368	A	O4'-C1'-C2'	-6.08	101.52	107.60
26	BB	884	U	C3'-C2'-C1'	6.08	107.38	101.30
31	BG	68	LYS	N-CA-C	6.08	119.45	109.72
36	BL	59	ALA	CA-C-N	6.08	132.58	122.54
36	BL	59	ALA	C-N-CA	6.08	132.58	122.54
8	AH	91	SER	CA-CB-OG	-6.08	98.94	111.10
10	AJ	79	VAL	CA-CB-CG2	6.08	120.74	110.40
15	AO	120	ARG	CA-C-N	6.08	127.44	119.84
15	AO	120	ARG	C-N-CA	6.08	127.44	119.84
26	BB	1833	C	C3'-C2'-C1'	-6.08	95.22	101.30
26	BB	2131	U	O4'-C1'-N1	6.08	117.62	108.50
26	BB	2791	G	C4'-C3'-C2'	-6.08	96.52	102.60
1	AA	1384	C	O4'-C1'-C2'	-6.08	101.52	107.60
1	AA	12	U	C3'-C2'-O2'	6.08	119.82	110.70
1	AA	827	U	C3'-C2'-O2'	6.08	119.82	110.70
1	AA	1500	A	C4'-C3'-C2'	-6.08	96.52	102.60
26	BB	180	G	C1'-O4'-C4'	-6.08	103.82	109.90
26	BB	521	U	O4'-C4'-C3'	6.08	110.08	104.00
26	BB	1182	G	O4'-C4'-C3'	6.08	110.08	104.00
26	BB	1672	A	O4'-C4'-C3'	-6.08	97.92	104.00
26	BB	1857	G	O4'-C1'-N9	6.08	117.32	108.20
26	BB	2570	G	C5'-C4'-O4'	6.08	118.92	109.80
1	AA	1116	U	O4'-C4'-C3'	6.08	110.08	104.00
26	BB	1416	G	C4'-C3'-C2'	-6.08	96.52	102.60
26	BB	1924	C	O4'-C1'-N1	6.08	117.62	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	50	A	O4'-C1'-N9	6.08	117.31	108.20
8	AH	40	ASP	CA-CB-CG	6.08	118.68	112.60
21	AU	24	ASP	CA-CB-CG	6.08	118.67	112.60
25	BA	35	C	C1'-O4'-C4'	-6.08	103.82	109.90
26	BB	28	A	O4'-C1'-C2'	6.08	113.68	107.60
35	BK	21	PRO	N-CA-CB	6.08	108.97	103.08
37	BM	11	ALA	CA-C-O	-6.08	113.36	120.53
39	BO	96	ILE	CA-CB-CG1	6.08	120.73	110.40
40	BP	120	GLU	CA-C-O	-6.08	114.19	120.99
21	AU	13	THR	N-CA-C	-6.07	104.60	112.68
1	AA	1094	G	C2'-C3'-O3'	6.07	118.61	109.50
2	AB	3	G	O5'-C5'-C4'	6.07	120.61	111.50
26	BB	2128	G	P-O5'-C5'	6.07	130.01	120.90
2	AB	21	A	C3'-C2'-C1'	6.07	107.37	101.30
26	BB	514	A	O4'-C4'-C3'	-6.07	97.93	104.00
26	BB	1450	G	C1'-C2'-O2'	-6.07	99.29	108.40
26	BB	2320	U	N1-C1'-C2'	6.07	121.11	112.00
26	BB	2506	U	O4'-C4'-C3'	6.07	110.07	104.00
26	BB	2743	U	C5'-C4'-C3'	-6.07	106.89	116.00
26	BB	2745	C	C3'-C2'-C1'	6.07	107.37	101.30
26	BB	2832	U	O4'-C1'-N1	6.07	117.31	108.20
57	B6	59	ALA	N-CA-C	6.07	119.88	112.23
45	BU	95	ARG	CB-CG-CD	6.07	125.26	111.30
1	AA	1385	G	C1'-O4'-C4'	-6.07	103.83	109.90
6	AF	133	MET	O-C-N	-6.07	115.23	122.15
26	BB	431	U	C4'-C3'-C2'	-6.07	96.53	102.60
26	BB	646	U	O4'-C4'-C3'	6.07	110.07	104.00
26	BB	1039	A	C3'-C2'-O2'	6.07	119.80	110.70
26	BB	1445	G	P-O5'-C5'	6.07	130.00	120.90
1	AA	197	A	C2'-C3'-O3'	6.07	118.60	109.50
1	AA	626	G	O4'-C1'-C2'	-6.07	101.53	107.60
1	AA	757	U	O4'-C1'-N1	6.07	117.60	108.50
1	AA	887	G	O4'-C4'-C3'	6.07	110.07	104.00
7	AG	106	PHE	CA-C-O	-6.07	113.25	120.10
26	BB	1082	U	O4'-C1'-C2'	-6.07	101.53	107.60
50	BZ	71	ARG	CA-C-N	6.07	130.30	120.60
50	BZ	71	ARG	C-N-CA	6.07	130.30	120.60
1	AA	839	C	C3'-C2'-C1'	-6.06	95.24	101.30
1	AA	1123	U	O3'-P-O5'	-6.06	94.90	104.00
1	AA	1201	A	C1'-C2'-O2'	-6.06	102.70	111.80
1	AA	1502	A	O4'-C1'-N9	6.06	117.30	108.20
26	BB	1816	C	O4'-C1'-C2'	-6.06	99.74	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	B0	41	HIS	CB-CG-CD2	-6.06	123.32	131.20
1	AA	492	C	C4'-C3'-O3'	6.06	122.09	113.00
26	BB	71	A	C3'-C2'-C1'	6.06	107.56	101.50
26	BB	500	G	C5'-C4'-C3'	-6.06	106.91	116.00
26	BB	1901	A	C3'-C2'-O2'	6.06	119.79	110.70
26	BB	2154	A	C2'-C3'-O3'	-6.06	104.61	113.70
27	BC	35	THR	CA-C-N	6.06	129.44	120.95
27	BC	35	THR	C-N-CA	6.06	129.44	120.95
1	AA	157	U	O5'-C5'-C4'	-6.06	102.41	111.50
1	AA	374	A	C4'-C3'-C2'	6.06	108.66	102.60
54	B3	14	MET	CA-C-N	6.06	130.30	120.60
54	B3	14	MET	C-N-CA	6.06	130.30	120.60
1	AA	1146	A	C3'-C2'-C1'	-6.06	95.24	101.30
17	AQ	76	PHE	CA-CB-CG	6.06	119.86	113.80
26	BB	717	C	C4'-C3'-C2'	-6.06	96.54	102.60
26	BB	1960	A	C4'-C3'-O3'	6.06	122.09	113.00
26	BB	2703	C	C5'-C4'-C3'	6.06	125.09	116.00
5	AE	121	GLN	CG-CD-NE2	6.06	125.49	116.40
29	BE	83	ARG	NE-CZ-NH2	6.06	124.65	119.20
26	BB	1210	G	C2'-C3'-O3'	6.06	118.58	109.50
26	BB	2758	A	C1'-O4'-C4'	-6.06	103.84	109.90
27	BC	183	ASP	N-CA-C	6.06	118.38	111.11
51	B0	37	LEU	O-C-N	-6.06	116.12	122.96
26	BB	279	A	C4'-C3'-C2'	-6.05	96.55	102.60
26	BB	1057	A	C5'-C4'-C3'	-6.05	106.92	116.00
32	BH	44	HIS	CE1-NE2-CD2	-6.05	102.95	109.00
40	BP	16	HIS	CA-C-N	6.05	128.71	120.54
40	BP	16	HIS	C-N-CA	6.05	128.71	120.54
1	AA	1	A	C5'-C4'-C3'	-6.05	106.92	116.00
1	AA	1065	U	C4'-C3'-C2'	-6.05	96.55	102.60
6	AF	68	HIS	CB-CG-CD2	-6.05	123.33	131.20
29	BE	56	LYS	CA-C-N	6.05	130.99	122.46
29	BE	56	LYS	C-N-CA	6.05	130.99	122.46
1	AA	805	C	P-O3'-C3'	6.05	129.28	120.20
8	AH	137	ARG	CA-C-N	6.05	128.71	120.54
8	AH	137	ARG	C-N-CA	6.05	128.71	120.54
20	AT	8	GLN	CA-C-O	-6.05	114.27	121.11
26	BB	1186	G	C1'-O4'-C4'	-6.05	103.85	109.90
26	BB	2171	A	O4'-C1'-C2'	-6.05	99.75	105.80
1	AA	992	U	C2'-C3'-O3'	6.05	118.58	109.50
1	AA	1290	G	C1'-C2'-O2'	6.05	117.47	108.40
26	BB	92	U	O4'-C1'-N1	6.05	117.57	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1925	C	O4'-C1'-C2'	-6.05	101.55	107.60
26	BB	1952	A	O4'-C1'-N9	6.05	117.58	108.50
26	BB	2555	U	O4'-C1'-N1	6.05	117.28	108.20
26	BB	2701	U	O4'-C4'-C3'	6.05	110.05	104.00
26	BB	2774	C	O4'-C4'-C3'	6.05	110.05	104.00
35	BK	3	LYS	N-CA-C	6.05	123.69	110.80
1	AA	1120	C	O4'-C1'-N1	6.05	117.57	108.50
3	AC	32	U	C5'-C4'-C3'	-6.05	106.93	116.00
26	BB	12	U	O4'-C1'-N1	6.05	117.57	108.50
26	BB	2439	A	C3'-C2'-C1'	6.05	107.55	101.50
1	AA	391	G	C4'-C3'-C2'	-6.05	96.55	102.60
26	BB	211	C	C4'-C3'-C2'	-6.05	96.55	102.60
1	AA	1113	C	C4'-C3'-O3'	-6.04	103.93	113.00
1	AA	228	A	O4'-C4'-C3'	6.04	110.04	104.00
26	BB	269	C	P-O5'-C5'	6.04	129.97	120.90
26	BB	1416	G	O4'-C1'-C2'	6.04	111.84	105.80
26	BB	1563	U	C4'-C3'-C2'	-6.04	96.56	102.60
26	BB	2165	C	O4'-C1'-N1	6.04	117.57	108.50
26	BB	2402	U	O4'-C1'-N1	6.04	117.56	108.50
26	BB	2746	U	P-O5'-C5'	6.04	129.96	120.90
1	AA	387	U	C2'-C3'-O3'	-6.04	104.64	113.70
1	AA	784	A	C3'-C2'-O2'	6.04	119.76	110.70
1	AA	1106	G	C1'-O4'-C4'	-6.04	103.86	109.90
1	AA	1459	G	P-O5'-C5'	6.04	129.96	120.90
4	AD	18	U	C1'-C2'-O2'	-6.04	102.74	111.80
26	BB	271	G	N9-C1'-C2'	-6.04	104.94	114.00
26	BB	1259	G	O4'-C4'-C3'	6.04	110.04	104.00
26	BB	1719	G	C5'-C4'-O4'	6.04	118.86	109.80
26	BB	2225	A	C1'-C2'-O2'	-6.04	102.74	111.80
26	BB	2469	A	N9-C1'-C2'	-6.04	102.94	112.00
1	AA	507	C	C1'-C2'-O2'	-6.04	99.34	108.40
26	BB	888	C	C2'-C3'-O3'	6.04	122.76	113.70
26	BB	2654	A	C4'-C3'-O3'	-6.04	100.34	109.40
1	AA	1511	G	O4'-C1'-C2'	-6.04	101.56	107.60
25	BA	57	A	C2'-C3'-O3'	6.04	122.76	113.70
26	BB	348	A	O4'-C1'-N9	6.04	117.56	108.50
26	BB	398	C	C5'-C4'-C3'	-6.04	106.94	116.00
26	BB	561	G	O4'-C1'-C2'	-6.04	101.56	107.60
26	BB	1180	U	O4'-C1'-N1	6.04	117.56	108.50
26	BB	2482	A	C3'-C2'-O2'	6.04	119.76	110.70
26	BB	2554	U	C3'-C2'-C1'	6.04	107.34	101.30
26	BB	2690	U	C3'-C2'-C1'	-6.04	95.46	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	106	C	C5'-C4'-C3'	6.04	125.05	116.00
1	AA	623	C	C4'-C3'-O3'	-6.04	103.95	113.00
1	AA	1385	G	O4'-C4'-C3'	6.04	110.04	104.00
15	AO	49	ARG	NE-CZ-NH1	6.04	127.54	121.50
26	BB	71	A	C4'-C3'-C2'	-6.04	96.56	102.60
26	BB	872	U	O5'-C5'-C4'	6.04	120.55	111.50
26	BB	2834	G	C1'-O4'-C4'	-6.04	103.86	109.90
1	AA	146	G	C3'-C2'-O2'	6.03	119.75	110.70
1	AA	461	A	C5'-C4'-C3'	-6.03	106.95	116.00
1	AA	813	U	O5'-C5'-C4'	-6.03	102.45	111.50
26	BB	465	G	O4'-C4'-C3'	-6.03	97.97	104.00
26	BB	1069	A	O3'-P-O5'	-6.03	94.95	104.00
26	BB	1429	G	O4'-C4'-C3'	6.03	110.03	104.00
26	BB	2734	A	C4'-C3'-O3'	6.03	122.05	113.00
51	B0	49	ASP	CA-C-N	6.03	128.99	120.42
51	B0	49	ASP	C-N-CA	6.03	128.99	120.42
32	BH	39	ALA	CA-C-O	-6.03	114.49	122.03
1	AA	433	G	O4'-C1'-N9	6.03	117.55	108.50
4	AD	60	A	C5'-C4'-O4'	6.03	118.84	109.80
7	AG	130	ASN	CA-CB-CG	6.03	118.63	112.60
26	BB	466	A	C4'-C3'-C2'	-6.03	96.57	102.60
26	BB	962	G	C3'-C2'-O2'	6.03	119.75	110.70
26	BB	1846	G	O4'-C4'-C3'	6.03	110.03	104.00
26	BB	2063	C	C5'-C4'-O4'	6.03	118.85	109.80
26	BB	2486	C	O4'-C1'-N1	6.03	117.55	108.50
26	BB	1693	U	C4'-C3'-O3'	6.03	118.44	109.40
26	BB	2773	C	C4'-C3'-O3'	6.03	122.04	113.00
8	AH	129	SER	N-CA-C	-6.03	100.92	109.96
26	BB	628	G	C2'-C3'-O3'	6.03	122.74	113.70
26	BB	630	G	O3'-P-O5'	-6.03	94.96	104.00
26	BB	1322	A	O4'-C1'-C2'	-6.03	101.57	107.60
26	BB	1847	A	O4'-C1'-N9	6.03	117.54	108.50
26	BB	2511	U	O4'-C4'-C3'	6.03	110.03	104.00
26	BB	2889	C	P-O5'-C5'	6.03	129.94	120.90
44	BT	64	VAL	N-CA-C	-6.03	107.62	113.53
1	AA	619	U	C3'-C2'-C1'	-6.03	95.28	101.30
1	AA	778	G	C5'-C4'-C3'	-6.03	106.96	116.00
14	AN	42	GLY	CA-C-O	-6.03	115.72	121.87
25	BA	100	G	O4'-C4'-C3'	6.03	110.03	104.00
26	BB	968	C	O4'-C4'-C3'	-6.03	97.97	104.00
26	BB	997	G	N9-C1'-C2'	-6.03	102.96	112.00
26	BB	1737	G	O4'-C1'-C2'	-6.03	101.58	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1981	A	O3'-P-O5'	-6.03	94.96	104.00
26	BB	2823	A	C3'-C2'-C1'	6.03	107.33	101.30
33	BI	128	HIS	ND1-CG-CD2	6.03	112.12	106.10
36	BL	138	GLN	CB-CA-C	6.03	119.30	110.26
1	AA	1044	A	O4'-C4'-C3'	-6.02	97.98	104.00
23	AW	74	HIS	O-C-N	6.02	128.28	122.07
26	BB	395	U	O4'-C1'-N1	6.02	117.23	108.20
1	AA	665	A	C1'-O4'-C4'	6.02	115.92	109.90
1	AA	777	A	O4'-C1'-N9	6.02	117.53	108.50
11	AK	8	ASP	CA-CB-CG	-6.02	106.58	112.60
14	AN	21	HIS	CE1-NE2-CD2	6.02	115.02	109.00
26	BB	372	G	O5'-C5'-C4'	-6.02	102.67	111.70
26	BB	999	U	O3'-P-O5'	6.02	113.03	104.00
26	BB	1524	G	O4'-C4'-C3'	6.02	110.02	104.00
26	BB	1925	C	C1'-O4'-C4'	6.02	115.92	109.90
26	BB	2555	U	C4'-C3'-C2'	6.02	108.62	102.60
26	BB	2797	U	C5'-C4'-O4'	6.02	118.83	109.80
26	BB	884	U	O3'-P-O5'	6.02	113.03	104.00
26	BB	1919	A	C4'-C3'-C2'	-6.02	96.58	102.60
1	AA	750	C	C5'-C4'-C3'	-6.02	106.97	116.00
1	AA	1343	G	C3'-C2'-C1'	6.02	107.32	101.30
26	BB	1478	G	N9-C1'-C2'	-6.02	102.97	112.00
26	BB	1685	C	C1'-O4'-C4'	-6.02	103.88	109.90
26	BB	1883	U	C5'-C4'-C3'	-6.02	106.97	116.00
1	AA	385	C	C3'-C2'-C1'	6.02	107.32	101.30
1	AA	1460	C	O4'-C4'-C3'	-6.02	97.98	104.00
26	BB	183	C	C3'-C2'-C1'	-6.02	95.28	101.30
26	BB	235	U	O5'-C5'-C4'	-6.02	102.47	111.50
16	AP	28	ARG	NE-CZ-NH1	6.02	127.52	121.50
1	AA	1051	C	C4'-C3'-C2'	-6.01	96.58	102.60
2	AB	61	C	C4'-C3'-O3'	-6.01	103.98	113.00
26	BB	150	U	O4'-C1'-N1	6.01	117.52	108.50
26	BB	990	A	C3'-C2'-O2'	6.01	119.72	110.70
26	BB	2405	G	O4'-C1'-C2'	-6.01	101.59	107.60
26	BB	2469	A	O4'-C1'-N9	6.01	117.52	108.50
3	AC	25	U	O4'-C1'-N1	6.01	117.52	108.50
26	BB	324	A	C3'-C2'-C1'	-6.01	95.29	101.30
1	AA	1004	A	C5'-C4'-O4'	6.01	118.82	109.80
5	AE	189	ASN	CA-CB-CG	6.01	118.61	112.60
12	AL	119	LYS	CA-C-N	6.01	133.02	121.54
12	AL	119	LYS	C-N-CA	6.01	133.02	121.54
26	BB	611	C	C2'-C3'-O3'	6.01	122.72	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2339	C	O5'-C5'-C4'	6.01	120.52	111.50
36	BL	50	THR	CA-C-O	-6.01	113.57	120.24
42	BR	81	ASP	N-CA-C	-6.01	105.61	113.12
1	AA	408	A	C4'-C3'-O3'	6.01	122.01	113.00
1	AA	770	C	C4'-C3'-C2'	-6.01	96.59	102.60
8	AH	89	THR	CA-C-O	-6.01	115.30	122.27
21	AU	51	GLN	CA-C-O	-6.01	113.57	120.24
26	BB	2085	U	C5'-C4'-C3'	-6.01	106.99	116.00
27	BC	121	MET	N-CA-C	6.01	117.83	111.28
30	BF	88	ARG	N-CA-C	6.01	113.42	108.07
1	AA	29	U	C4'-C3'-C2'	-6.01	96.59	102.60
1	AA	692	U	O4'-C4'-C3'	6.01	110.01	104.00
26	BB	438	G	O4'-C1'-C2'	-6.01	101.59	107.60
39	BO	80	VAL	CA-C-N	6.01	130.93	121.56
39	BO	80	VAL	C-N-CA	6.01	130.93	121.56
1	AA	1014	A	C3'-C2'-O2'	6.01	119.71	110.70
1	AA	1219	A	C5'-C4'-C3'	-6.01	106.99	116.00
6	AF	226	GLN	OE1-CD-NE2	-6.01	116.59	122.60
16	AP	7	ASN	OD1-CG-ND2	6.01	128.61	122.60
26	BB	241	A	P-O3'-C3'	6.01	129.21	120.20
26	BB	1215	G	O4'-C1'-C2'	-6.01	101.59	107.60
28	BD	242	HIS	CE1-NE2-CD2	-6.01	102.99	109.00
26	BB	815	C	C5'-C4'-C3'	-6.00	106.99	116.00
26	BB	1000	A	O4'-C4'-C3'	-6.00	98.00	104.00
49	BY	36	ILE	CA-C-N	6.00	132.10	123.27
49	BY	36	ILE	C-N-CA	6.00	132.10	123.27
9	AI	71	ILE	CA-C-N	6.00	128.32	120.28
9	AI	71	ILE	C-N-CA	6.00	128.32	120.28
17	AQ	85	GLU	O-C-N	6.00	128.48	122.12
26	BB	108	G	P-O5'-C5'	6.00	129.91	120.90
26	BB	2542	A	C2'-C3'-O3'	-6.00	100.50	109.50
1	AA	758	C	C1'-O4'-C4'	6.00	115.90	109.90
5	AE	38	HIS	ND1-CE1-NE2	6.00	114.40	108.40
17	AQ	12	ARG	CD-NE-CZ	6.00	132.80	124.40
21	AU	17	VAL	N-CA-CB	-6.00	104.11	111.67
25	BA	115	A	C5'-C4'-C3'	-6.00	107.00	116.00
26	BB	150	U	C1'-C2'-O2'	-6.00	99.40	108.40
26	BB	182	A	N9-C1'-C2'	-6.00	103.00	112.00
26	BB	1876	A	O4'-C4'-C3'	6.00	110.00	104.00
26	BB	2264	C	N1-C1'-C2'	-6.00	103.00	112.00
31	BG	60	SER	CB-CA-C	6.00	119.13	110.79
39	BO	46	ILE	CA-C-N	6.00	128.57	120.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BO	46	ILE	C-N-CA	6.00	128.57	120.65
56	B5	19	ARG	NE-CZ-NH2	6.00	124.60	119.20
1	AA	470	C	C3'-C2'-C1'	6.00	107.30	101.30
1	AA	1304	G	C4'-C3'-C2'	-6.00	96.60	102.60
26	BB	435	C	N1-C1'-C2'	-6.00	103.00	112.00
26	BB	473	G	C3'-C2'-O2'	6.00	119.70	110.70
26	BB	1328	A	O4'-C4'-C3'	6.00	110.00	104.00
26	BB	2447	G	C1'-O4'-C4'	6.00	115.70	109.70
58	B7	24	ARG	NE-CZ-NH1	-6.00	115.50	121.50
26	BB	297	G	O4'-C4'-C3'	6.00	110.00	104.00
28	BD	36	ASN	CA-CB-CG	6.00	118.60	112.60
40	BP	16	HIS	N-CA-C	6.00	117.90	111.36
1	AA	1078	U	O4'-C4'-C3'	6.00	110.00	104.00
5	AE	105	THR	O-C-N	6.00	128.48	122.12
8	AH	24	VAL	CA-CB-CG2	6.00	120.59	110.40
26	BB	810	U	O4'-C4'-C3'	6.00	110.00	104.00
26	BB	1178	C	N1-C1'-C2'	-6.00	103.00	112.00
26	BB	1438	U	C4'-C3'-O3'	6.00	122.00	113.00
26	BB	1743	G	C1'-O4'-C4'	-6.00	103.90	109.90
26	BB	1836	C	O4'-C4'-C3'	6.00	110.00	104.00
27	BC	204	ALA	CA-C-N	6.00	131.97	122.62
27	BC	204	ALA	C-N-CA	6.00	131.97	122.62
1	AA	723	U	O4'-C1'-N1	6.00	117.49	108.50
26	BB	1591	A	C5'-C4'-O4'	6.00	118.79	109.80
41	BQ	24	THR	CA-CB-OG1	6.00	118.59	109.60
1	AA	942	G	C4'-C3'-C2'	-5.99	96.61	102.60
12	AL	55	ASP	CA-CB-CG	5.99	118.59	112.60
26	BB	325	G	N9-C1'-C2'	-5.99	103.01	112.00
26	BB	734	A	C3'-C2'-C1'	5.99	107.29	101.30
1	AA	775	G	C4'-C3'-C2'	-5.99	96.61	102.60
1	AA	1161	C	C5'-C4'-O4'	5.99	118.78	109.80
26	BB	2330	G	O5'-C5'-C4'	5.99	120.49	111.50
26	BB	2351	G	O4'-C1'-C2'	-5.99	101.61	107.60
26	BB	2704	C	O4'-C4'-C3'	5.99	109.99	104.00
37	BM	88	ASN	OD1-CG-ND2	-5.99	116.61	122.60
43	BS	111	LYS	O-C-N	5.99	128.47	122.12
1	AA	122	G	O4'-C1'-C2'	-5.99	101.61	107.60
1	AA	758	C	C1'-C2'-O2'	-5.99	99.42	108.40
26	BB	1598	A	C5'-C4'-O4'	5.99	118.78	109.80
26	BB	2594	C	C4'-C3'-O3'	5.99	121.98	113.00
49	BY	45	HIS	ND1-CG-CD2	5.99	112.09	106.10
26	BB	551	G	C2'-C3'-O3'	5.99	122.68	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	580	U	C5'-C4'-O4'	5.99	118.78	109.80
26	BB	1396	U	C5'-C4'-C3'	5.99	124.18	115.20
1	AA	1282	C	C3'-C2'-C1'	-5.99	95.31	101.30
7	AG	119	HIS	CB-CG-CD2	-5.99	123.42	131.20
11	AK	4	ASP	CA-CB-CG	5.99	118.58	112.60
25	BA	15	A	C2'-C3'-O3'	5.99	118.48	109.50
26	BB	185	G	O4'-C4'-C3'	-5.99	98.02	104.00
26	BB	287	G	O4'-C1'-N9	5.99	117.48	108.50
26	BB	528	A	C1'-O4'-C4'	-5.99	103.91	109.90
26	BB	1131	G	C3'-C2'-O2'	-5.99	105.62	114.60
26	BB	1341	G	O4'-C1'-C2'	5.99	111.78	105.80
26	BB	2033	A	O5'-C5'-C4'	-5.99	102.72	111.70
33	BI	73	ASN	OD1-CG-ND2	5.99	128.59	122.60
45	BU	36	LEU	CA-C-N	5.99	129.41	120.31
45	BU	36	LEU	C-N-CA	5.99	129.41	120.31
26	BB	2675	A	C4'-C3'-O3'	-5.98	104.02	113.00
56	B5	35	ARG	NE-CZ-NH2	5.98	124.59	119.20
1	AA	786	G	O4'-C1'-N9	5.98	117.47	108.50
1	AA	1465	A	C2'-C3'-O3'	-5.98	104.73	113.70
11	AK	12	ARG	NE-CZ-NH1	5.98	127.48	121.50
26	BB	369	U	C3'-C2'-C1'	5.98	107.28	101.30
26	BB	604	G	C4'-C3'-C2'	-5.98	96.62	102.60
26	BB	1431	A	C3'-C2'-O2'	5.98	119.67	110.70
1	AA	78	A	O4'-C4'-C3'	5.98	109.98	104.00
1	AA	750	C	O4'-C1'-N1	5.98	117.47	108.50
25	BA	88	C	O4'-C1'-N1	5.98	117.47	108.50
39	BO	25	ASP	CA-C-O	-5.98	114.89	121.89
39	BO	50	ARG	CA-C-N	5.98	128.62	120.54
39	BO	50	ARG	C-N-CA	5.98	128.62	120.54
1	AA	1119	C	P-O5'-C5'	5.98	129.87	120.90
1	AA	1490	U	P-O5'-C5'	5.98	129.87	120.90
1	AA	1511	G	O4'-C4'-C3'	5.98	109.98	104.00
7	AG	104	MET	CA-C-O	-5.98	113.09	119.97
26	BB	1984	G	C3'-C2'-C1'	-5.98	95.32	101.30
52	B1	45	GLY	CA-C-O	-5.98	114.32	120.66
1	AA	619	U	C2'-C3'-O3'	-5.98	104.73	113.70
1	AA	978	A	C5'-C4'-O4'	5.98	118.77	109.80
1	AA	1300	G	C1'-O4'-C4'	5.98	115.68	109.70
1	AA	1319	A	C3'-C2'-C1'	-5.98	95.52	101.50
8	AH	119	VAL	CA-CB-CG2	5.98	120.56	110.40
26	BB	248	G	C5'-C4'-O4'	-5.98	100.83	109.80
26	BB	1153	C	O4'-C4'-C3'	5.98	109.98	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2410	G	C5'-C4'-O4'	5.98	118.77	109.80
26	BB	2810	A	N9-C1'-C2'	-5.98	103.03	112.00
26	BB	90	U	C4'-C3'-C2'	-5.98	96.62	102.60
1	AA	900	A	C4'-C3'-C2'	-5.97	96.63	102.60
2	AB	40	C	O4'-C1'-C2'	-5.97	101.62	107.60
6	AF	222	GLN	CA-C-N	5.97	127.31	119.84
6	AF	222	GLN	C-N-CA	5.97	127.31	119.84
17	AQ	85	GLU	CA-C-O	-5.97	114.22	120.55
26	BB	585	G	C3'-C2'-C1'	5.97	107.27	101.30
26	BB	2290	G	C5'-C4'-C3'	-5.97	107.04	116.00
26	BB	2437	G	C4'-C3'-C2'	-5.97	96.62	102.60
26	BB	2807	U	C4'-C3'-C2'	-5.97	96.62	102.60
1	AA	149	A	N9-C1'-C2'	-5.97	103.04	112.00
1	AA	612	C	C3'-C2'-O2'	5.97	119.66	110.70
26	BB	231	A	C3'-C2'-O2'	5.97	119.66	110.70
26	BB	1506	U	C3'-C2'-C1'	5.97	107.27	101.30
26	BB	1570	A	O4'-C1'-N9	5.97	117.46	108.50
8	AH	82	HIS	CB-CG-CD2	-5.97	123.44	131.20
10	AJ	136	LYS	N-CA-C	-5.97	104.85	111.36
15	AO	41	PRO	N-CD-CG	5.97	112.16	103.20
25	BA	31	C	C2'-C3'-O3'	-5.97	104.74	113.70
26	BB	2846	G	C3'-C2'-O2'	5.97	119.66	110.70
3	AC	31	U	N1-C1'-C2'	-5.97	103.05	112.00
5	AE	111	LYS	N-CA-C	5.97	117.79	111.28
26	BB	125	A	C2'-C3'-O3'	5.97	118.45	109.50
6	AF	39	ARG	O-C-N	5.97	128.53	122.09
14	AN	93	GLU	CA-C-N	5.97	129.38	120.31
14	AN	93	GLU	C-N-CA	5.97	129.38	120.31
26	BB	54	G	O4'-C4'-C3'	5.97	109.97	104.00
1	AA	317	U	P-O3'-C3'	5.97	129.15	120.20
1	AA	404	G	C2'-C3'-O3'	-5.97	104.75	113.70
1	AA	456	A	C3'-C2'-O2'	5.97	119.65	110.70
1	AA	678	U	C1'-O4'-C4'	5.97	115.87	109.90
26	BB	556	A	C4'-C3'-C2'	-5.97	96.63	102.60
26	BB	1790	C	C5'-C4'-C3'	-5.97	107.05	116.00
26	BB	1841	U	C4'-C3'-C2'	-5.97	96.63	102.60
26	BB	1416	G	P-O3'-C3'	5.96	129.15	120.20
27	BC	174	THR	CA-CB-CG2	5.96	120.64	110.50
41	BQ	29	HIS	ND1-CE1-NE2	5.96	114.36	108.40
54	B3	40	HIS	CB-CG-CD2	-5.96	123.44	131.20
9	AI	116	PHE	CB-CA-C	5.96	120.18	110.22
46	BV	30	ILE	CB-CA-C	5.96	119.04	110.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1446	A	C3'-C2'-C1'	5.96	107.26	101.30
26	BB	317	G	C4'-C3'-C2'	-5.96	96.64	102.60
26	BB	527	C	C4'-C3'-O3'	-5.96	104.06	113.00
26	BB	561	G	C3'-C2'-C1'	5.96	107.26	101.30
26	BB	1058	U	O4'-C1'-C2'	-5.96	101.64	107.60
26	BB	1179	G	O4'-C4'-C3'	-5.96	98.04	104.00
45	BU	20	VAL	CA-C-N	5.96	128.19	120.44
45	BU	20	VAL	C-N-CA	5.96	128.19	120.44
23	AW	51	ASN	OD1-CG-ND2	-5.96	116.64	122.60
26	BB	2329	U	O3'-P-O5'	-5.96	95.06	104.00
1	AA	1197	A	C2'-C3'-O3'	-5.96	104.76	113.70
7	AG	141	VAL	CA-CB-CG2	5.96	120.53	110.40
26	BB	549	G	O4'-C1'-N9	5.96	117.44	108.50
26	BB	1506	U	C4'-C3'-O3'	-5.96	104.06	113.00
34	BJ	97	GLU	CA-C-N	5.96	129.37	120.31
34	BJ	97	GLU	C-N-CA	5.96	129.37	120.31
1	AA	1300	G	P-O5'-C5'	5.96	129.83	120.90
2	AB	10	G	C4'-C3'-C2'	5.96	108.56	102.60
2	AB	62	U	C3'-C2'-O2'	5.96	119.64	110.70
7	AG	162	GLU	N-CA-C	5.96	123.49	110.80
26	BB	131	A	C3'-C2'-C1'	5.96	107.26	101.30
26	BB	176	A	P-O5'-C5'	5.96	129.84	120.90
26	BB	1018	U	C3'-C2'-C1'	5.96	107.26	101.30
26	BB	1669	A	C4'-C3'-C2'	-5.96	96.64	102.60
26	BB	2425	A	C1'-C2'-O2'	5.96	120.73	111.80
1	AA	195	A	C3'-C2'-O2'	5.96	119.63	110.70
1	AA	1072	G	C2'-C3'-O3'	-5.96	104.77	113.70
4	AD	54	G	C4'-C3'-C2'	-5.96	96.64	102.60
1	AA	195	A	C5'-C4'-O4'	5.95	118.73	109.80
5	AE	66	ILE	O-C-N	5.95	129.21	123.14
15	AO	7	VAL	N-CA-C	-5.95	104.71	110.72
26	BB	113	U	O4'-C4'-C3'	-5.95	98.05	104.00
26	BB	604	G	O5'-C5'-C4'	-5.95	102.57	111.50
26	BB	1376	C	C5'-C4'-O4'	-5.95	100.87	109.80
26	BB	1965	C	O3'-P-O5'	-5.95	95.07	104.00
26	BB	2118	U	C4'-C3'-C2'	5.95	108.55	102.60
31	BG	34	THR	CB-CA-C	5.95	120.03	110.09
26	BB	1509	A	C1'-O4'-C4'	-5.95	103.75	109.70
1	AA	507	C	C3'-C2'-O2'	5.95	119.63	110.70
1	AA	588	G	O4'-C4'-C3'	5.95	109.95	104.00
26	BB	141	G	C3'-C2'-C1'	5.95	107.25	101.30
26	BB	2003	A	C4'-C3'-C2'	-5.95	96.65	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2078	C	C1'-O4'-C4'	-5.95	103.95	109.90
26	BB	2664	G	C4'-C3'-C2'	-5.95	96.65	102.60
27	BC	216	THR	CA-C-N	5.95	128.74	120.29
27	BC	216	THR	C-N-CA	5.95	128.74	120.29
50	BZ	9	LYS	CB-CA-C	5.95	121.97	109.65
1	AA	294	U	C3'-C2'-C1'	5.95	107.25	101.30
1	AA	1075	U	C1'-O4'-C4'	5.95	115.85	109.90
25	BA	85	G	C3'-C2'-O2'	5.95	119.62	110.70
26	BB	950	G	O3'-P-O5'	-5.95	95.08	104.00
27	BC	184	LYS	N-CA-C	5.95	117.76	111.28
57	B6	36	ALA	N-CA-C	5.95	118.89	110.50
12	AL	21	LYS	CA-C-N	5.95	125.89	119.76
12	AL	21	LYS	C-N-CA	5.95	125.89	119.76
26	BB	37	C	C4'-C3'-O3'	5.95	121.92	113.00
26	BB	1086	A	O3'-P-O5'	-5.95	95.08	104.00
37	BM	60	ALA	N-CA-CB	-5.95	102.30	111.46
54	B3	49	ARG	N-CA-C	-5.95	106.15	113.41
26	BB	1456	G	O4'-C4'-C3'	5.95	109.94	104.00
26	BB	1469	A	C4'-C3'-C2'	-5.95	96.65	102.60
26	BB	2300	C	O4'-C4'-C3'	5.95	109.95	104.00
57	B6	42	HIS	ND1-CG-CD2	5.95	112.05	106.10
1	AA	113	G	O4'-C1'-C2'	-5.94	101.66	107.60
1	AA	1475	G	C4'-C3'-C2'	-5.94	96.66	102.60
29	BE	67	HIS	ND1-CG-CD2	5.94	112.04	106.10
1	AA	574	A	C4'-C3'-O3'	5.94	121.91	113.00
18	AR	1	SER	CA-C-N	5.94	130.71	121.26
18	AR	1	SER	C-N-CA	5.94	130.71	121.26
20	AT	45	VAL	O-C-N	-5.94	116.76	123.18
23	AW	71	ALA	CA-C-O	-5.94	114.53	121.07
25	BA	13	G	O4'-C1'-N9	5.94	117.41	108.50
26	BB	67	U	C4'-C3'-C2'	-5.94	96.66	102.60
26	BB	700	G	C4'-C3'-C2'	-5.94	96.66	102.60
26	BB	1084	A	C1'-O4'-C4'	-5.94	103.96	109.90
1	AA	1202	U	C5'-C4'-O4'	5.94	118.71	109.80
26	BB	316	C	C4'-C3'-C2'	-5.94	96.66	102.60
26	BB	1614	A	C4'-C3'-O3'	-5.94	104.09	113.00
26	BB	1906	G	C3'-C2'-C1'	5.94	107.24	101.30
26	BB	2357	G	C1'-O4'-C4'	-5.94	103.96	109.90
33	BI	99	ILE	CA-C-N	5.94	132.58	122.36
33	BI	99	ILE	C-N-CA	5.94	132.58	122.36
3	AC	28	U	O4'-C1'-C2'	-5.94	101.66	107.60
6	AF	13	ILE	CA-CB-CG1	5.94	120.50	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	AI	70	VAL	O-C-N	5.94	128.08	121.90
24	AX	66	ARG	CA-CB-CG	5.94	125.98	114.10
26	BB	717	C	C3'-C2'-O2'	5.94	119.61	110.70
50	BZ	24	THR	CA-C-N	5.94	129.72	120.75
50	BZ	24	THR	C-N-CA	5.94	129.72	120.75
1	AA	497	G	C4'-C3'-O3'	5.94	121.91	113.00
1	AA	738	C	C5'-C4'-C3'	-5.94	107.09	116.00
1	AA	1258	G	C1'-O4'-C4'	-5.94	103.96	109.90
5	AE	171	ALA	N-CA-C	5.94	117.75	111.28
26	BB	962	G	C4'-C3'-C2'	5.94	108.54	102.60
26	BB	1714	U	O3'-P-O5'	5.94	112.91	104.00
26	BB	2862	G	C5'-C4'-C3'	5.94	124.91	116.00
40	BP	68	ALA	CA-C-N	5.94	128.52	120.44
40	BP	68	ALA	C-N-CA	5.94	128.52	120.44
8	AH	55	VAL	CA-C-N	5.94	125.64	119.05
8	AH	55	VAL	C-N-CA	5.94	125.64	119.05
26	BB	324	A	C3'-C2'-O2'	5.94	119.61	110.70
26	BB	548	G	N9-C1'-C2'	5.94	120.90	112.00
26	BB	2784	U	O4'-C1'-N1	5.94	117.40	108.50
1	AA	275	G	C2'-C3'-O3'	5.93	122.60	113.70
1	AA	429	U	C4'-C3'-C2'	-5.93	96.67	102.60
1	AA	801	U	O4'-C4'-C3'	5.93	109.93	104.00
13	AM	20	GLN	CB-CG-CD	-5.93	102.51	112.60
26	BB	2054	A	C1'-C2'-O2'	5.93	117.30	108.40
32	BH	75	VAL	N-CA-C	5.93	116.67	110.62
1	AA	939	G	C5'-C4'-O4'	5.93	118.70	109.80
12	AL	42	THR	CA-C-N	5.93	130.09	120.60
12	AL	42	THR	C-N-CA	5.93	130.09	120.60
14	AN	85	VAL	CG1-CB-CG2	-5.93	97.75	110.80
30	BF	109	LEU	CA-C-N	5.93	128.15	120.44
30	BF	109	LEU	C-N-CA	5.93	128.15	120.44
26	BB	1190	G	C1'-O4'-C4'	-5.93	103.97	109.90
26	BB	2576	G	C1'-O4'-C4'	-5.93	103.97	109.90
33	BI	108	VAL	CB-CA-C	5.93	121.02	111.29
35	BK	90	GLY	O-C-N	5.93	129.00	123.19
1	AA	589	U	C1'-O4'-C4'	-5.93	103.97	109.90
6	AF	123	LEU	N-CA-C	5.93	117.82	111.36
26	BB	1560	G	C5'-C4'-O4'	5.93	118.69	109.80
1	AA	66	A	C5'-C4'-C3'	5.93	124.89	116.00
1	AA	596	A	N9-C1'-C2'	5.93	120.89	112.00
26	BB	2059	A	C1'-O4'-C4'	5.93	115.63	109.70
35	BK	83	ALA	CA-C-N	5.93	132.11	122.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BK	83	ALA	C-N-CA	5.93	132.11	122.09
26	BB	292	U	C2'-C3'-O3'	-5.93	104.81	113.70
26	BB	1099	G	C1'-C2'-O2'	-5.93	99.51	108.40
26	BB	2021	C	C3'-C2'-C1'	5.93	107.23	101.30
29	BE	176	ASP	CA-CB-CG	5.93	118.53	112.60
49	BY	19	ARG	CA-C-N	5.93	130.71	121.76
49	BY	19	ARG	C-N-CA	5.93	130.71	121.76
1	AA	547	A	O4'-C1'-C2'	-5.92	99.88	105.80
1	AA	795	C	O3'-P-O5'	-5.92	95.11	104.00
1	AA	1414	U	O4'-C4'-C3'	5.92	109.92	104.00
27	BC	144	THR	N-CA-C	-5.92	105.81	113.16
43	BS	101	ASP	CA-CB-CG	-5.92	106.68	112.60
1	AA	764	C	C2'-C3'-O3'	5.92	122.58	113.70
26	BB	2059	A	C3'-C2'-C1'	5.92	107.42	101.50
26	BB	2698	U	C2'-C3'-O3'	-5.92	104.82	113.70
1	AA	1181	G	O4'-C1'-N9	5.92	117.08	108.20
2	AB	66	C	C1'-C2'-O2'	-5.92	99.52	108.40
20	AT	72	TRP	O-C-N	5.92	129.65	122.96
26	BB	41	C	N1-C1'-C2'	-5.92	103.12	112.00
26	BB	707	G	C5'-C4'-C3'	-5.92	107.12	116.00
26	BB	2388	A	C5'-C4'-O4'	5.92	118.68	109.80
1	AA	578	C	P-O3'-C3'	5.92	129.08	120.20
1	AA	683	G	O4'-C1'-N9	5.92	117.38	108.50
1	AA	1249	C	O4'-C4'-C3'	5.92	109.92	104.00
1	AA	1129	C	C4'-C3'-O3'	-5.92	100.52	109.40
7	AG	190	LEU	N-CA-CB	-5.92	101.93	110.45
26	BB	1710	G	O4'-C4'-C3'	5.92	109.92	104.00
26	BB	2632	A	C5'-C4'-C3'	-5.92	107.12	116.00
33	BI	37	VAL	O-C-N	5.92	127.85	121.10
42	BR	76	HIS	ND1-CG-CD2	5.92	112.02	106.10
2	AB	30	G	O4'-C4'-C3'	5.92	109.92	104.00
26	BB	1300	G	O3'-P-O5'	5.92	112.88	104.00
26	BB	2897	U	O4'-C1'-C2'	-5.92	101.68	107.60
30	BF	88	ARG	NH1-CZ-NH2	-5.92	111.61	119.30
41	BQ	81	ARG	NE-CZ-NH1	5.92	127.42	121.50
26	BB	316	C	O4'-C1'-N1	5.92	117.37	108.50
26	BB	2885	G	C4'-C3'-C2'	-5.92	96.69	102.60
1	AA	259	G	O4'-C4'-C3'	5.91	109.91	104.00
1	AA	959	A	O4'-C4'-C3'	5.91	109.91	104.00
1	AA	1451	U	C1'-O4'-C4'	-5.91	103.79	109.70
16	AP	19	THR	CA-CB-CG2	5.91	120.55	110.50
19	AS	16	PHE	N-CA-CB	-5.91	100.75	110.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	366	C	C2'-C3'-O3'	-5.91	104.83	113.70
26	BB	2759	G	O4'-C1'-N9	5.91	117.37	108.50
38	BN	89	VAL	O-C-N	-5.91	116.94	123.03
1	AA	1049	U	O4'-C1'-N1	5.91	117.07	108.20
5	AE	77	GLU	CA-C-O	5.91	126.78	120.10
26	BB	341	C	O4'-C1'-C2'	-5.91	101.69	107.60
26	BB	2610	C	C4'-C3'-O3'	5.91	118.27	109.40
26	BB	2783	U	O5'-C5'-C4'	-5.91	102.64	111.50
26	BB	2811	G	O4'-C4'-C3'	-5.91	98.09	104.00
26	BB	2884	U	C5'-C4'-C3'	-5.91	107.14	116.00
30	BF	178	VAL	CA-C-O	-5.91	114.39	120.71
43	BS	114	ALA	N-CA-C	-5.91	104.76	111.14
1	AA	329	A	O4'-C1'-N9	5.91	117.06	108.20
1	AA	1481	U	P-O5'-C5'	5.91	129.76	120.90
1	AA	1488	G	C3'-C2'-O2'	5.91	119.56	110.70
26	BB	353	C	C3'-C2'-O2'	5.91	119.56	110.70
26	BB	1322	A	C5'-C4'-O4'	5.91	118.66	109.80
26	BB	1478	G	C1'-O4'-C4'	-5.91	103.99	109.90
26	BB	2434	A	C1'-C2'-O2'	-5.91	102.94	111.80
26	BB	2778	A	O3'-P-O5'	-5.91	95.14	104.00
26	BB	2832	U	O5'-C5'-C4'	-5.91	102.84	111.70
26	BB	2851	A	O4'-C4'-C3'	5.91	109.91	104.00
1	AA	299	G	O4'-C4'-C3'	5.91	109.91	104.00
1	AA	1027	C	C1'-O4'-C4'	-5.91	103.99	109.90
7	AG	71	PHE	CA-CB-CG	5.91	119.71	113.80
26	BB	587	C	C1'-O4'-C4'	5.91	115.61	109.70
26	BB	2447	G	O3'-P-O5'	5.91	112.86	104.00
40	BP	26	GLY	CA-C-O	-5.91	114.40	120.66
1	AA	1369	C	N1-C1'-C2'	-5.91	103.14	112.00
4	AD	35	C	C1'-O4'-C4'	-5.91	103.99	109.90
26	BB	680	C	O5'-C5'-C4'	-5.91	102.64	111.50
26	BB	1420	A	O5'-C5'-C4'	-5.91	102.64	111.50
1	AA	1085	U	C1'-O4'-C4'	-5.90	103.80	109.70
11	AK	34	ALA	CA-C-N	5.90	127.92	120.72
11	AK	34	ALA	C-N-CA	5.90	127.92	120.72
25	BA	41	G	C3'-C2'-C1'	5.90	107.40	101.50
26	BB	733	G	O4'-C1'-N9	5.90	117.36	108.50
26	BB	1845	G	O3'-P-O5'	5.90	112.86	104.00
40	BP	15	SER	N-CA-C	5.90	118.50	111.71
44	BT	45	GLU	O-C-N	5.90	130.44	123.36
1	AA	564	C	O3'-P-O5'	-5.90	95.15	104.00
1	AA	775	G	O4'-C4'-C3'	5.90	109.90	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1067	A	O4'-C1'-N9	5.90	117.05	108.20
25	BA	99	A	O4'-C4'-C3'	5.90	109.90	104.00
26	BB	1201	U	O4'-C4'-C3'	-5.90	98.10	104.00
40	BP	51	LEU	CA-C-N	5.90	128.54	120.46
40	BP	51	LEU	C-N-CA	5.90	128.54	120.46
43	BS	56	PHE	CA-CB-CG	5.90	119.70	113.80
1	AA	946	A	C1'-C2'-O2'	5.90	117.25	108.40
1	AA	1043	G	P-O5'-C5'	5.90	129.75	120.90
1	AA	1395	C	C3'-C2'-O2'	5.90	119.55	110.70
26	BB	383	C	C5'-C4'-C3'	-5.90	107.15	116.00
26	BB	504	A	O3'-P-O5'	-5.90	95.15	104.00
26	BB	2200	C	O4'-C1'-C2'	-5.90	101.70	107.60
1	AA	220	G	C1'-O4'-C4'	5.90	115.80	109.90
1	AA	858	G	C1'-O4'-C4'	5.90	115.80	109.90
26	BB	153	U	C4'-C3'-C2'	-5.90	96.70	102.60
26	BB	234	U	P-O5'-C5'	5.90	129.75	120.90
26	BB	1782	U	C4'-C3'-O3'	-5.90	104.16	113.00
26	BB	1860	G	O4'-C1'-C2'	-5.90	101.70	107.60
34	BJ	134	ALA	CA-C-N	5.90	128.54	120.46
34	BJ	134	ALA	C-N-CA	5.90	128.54	120.46
58	B7	33	HIS	CB-CG-CD2	-5.90	123.53	131.20
26	BB	803	U	C4'-C3'-O3'	5.90	121.84	113.00
26	BB	1556	C	C4'-C3'-C2'	-5.90	96.70	102.60
28	BD	244	VAL	O-C-N	5.90	128.80	122.67
47	BW	62	ALA	CA-C-N	5.90	132.80	121.54
47	BW	62	ALA	C-N-CA	5.90	132.80	121.54
1	AA	188	C	O5'-C5'-C4'	5.89	120.34	111.50
1	AA	830	G	C3'-C2'-O2'	5.89	119.54	110.70
6	AF	17	TRP	CE2-CD2-CG	5.89	114.27	107.20
26	BB	166	U	O4'-C1'-C2'	-5.89	101.70	107.60
26	BB	1423	G	C1'-C2'-O2'	5.89	117.24	108.40
27	BC	224	VAL	CB-CA-C	5.89	119.40	110.62
57	B6	42	HIS	CB-CG-CD2	-5.89	123.54	131.20
1	AA	513	C	C3'-C2'-C1'	5.89	107.19	101.30
1	AA	986	U	C1'-O4'-C4'	5.89	115.79	109.90
9	AI	130	GLU	O-C-N	5.89	130.26	122.95
31	BG	107	VAL	O-C-N	-5.89	114.38	121.10
35	BK	126	ARG	CD-NE-CZ	5.89	132.65	124.40
1	AA	505	G	O4'-C1'-N9	5.89	117.34	108.50
14	AN	112	VAL	CA-CB-CG2	5.89	120.42	110.40
25	BA	58	A	P-O5'-C5'	5.89	129.74	120.90
26	BB	2724	U	C2'-C3'-O3'	5.89	122.54	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	132	C	C3'-C2'-O2'	5.89	119.53	110.70
1	AA	524	G	O4'-C4'-C3'	5.89	109.89	104.00
1	AA	613	C	O4'-C4'-C3'	5.89	109.89	104.00
1	AA	1029	U	O4'-C1'-N1	5.89	117.04	108.20
5	AE	99	MET	CB-CA-C	5.89	118.18	109.29
26	BB	398	C	C3'-C2'-O2'	5.89	119.53	110.70
26	BB	1309	G	C5'-C4'-C3'	5.89	124.83	116.00
26	BB	2771	C	O4'-C4'-C3'	5.89	109.89	104.00
48	BX	69	GLU	O-C-N	-5.89	116.17	123.36
26	BB	2902	C	O4'-C1'-C2'	-5.89	101.71	107.60
1	AA	51	A	O4'-C1'-C2'	-5.89	99.91	105.80
1	AA	1450	U	O4'-C1'-N1	5.89	117.33	108.50
6	AF	200	TRP	CA-C-N	5.89	131.18	123.06
6	AF	200	TRP	C-N-CA	5.89	131.18	123.06
26	BB	265	A	C5'-C4'-C3'	-5.89	107.17	116.00
26	BB	322	A	O5'-C5'-C4'	-5.89	102.87	111.70
26	BB	1250	G	C5'-C4'-C3'	-5.89	106.37	115.20
44	BT	40	MET	CA-C-N	5.89	130.49	123.19
44	BT	40	MET	C-N-CA	5.89	130.49	123.19
52	B1	54	VAL	CB-CA-C	-5.89	101.75	110.82
55	B4	39	ASP	CA-CB-CG	5.89	118.49	112.60
1	AA	1014	A	O3'-P-O5'	-5.88	95.17	104.00
7	AG	149	LYS	N-CA-C	-5.88	105.96	113.02
24	AX	61	ARG	N-CA-C	5.88	118.17	111.11
26	BB	495	G	O3'-P-O5'	-5.88	95.17	104.00
26	BB	1216	G	O4'-C4'-C3'	5.88	109.88	104.00
26	BB	1635	A	O4'-C1'-N9	5.88	117.33	108.50
33	BI	128	HIS	CB-CG-ND1	5.88	131.53	122.70
34	BJ	135	ILE	CA-C-N	5.88	128.16	120.28
34	BJ	135	ILE	C-N-CA	5.88	128.16	120.28
51	B0	60	LYS	CA-C-N	5.88	130.64	120.58
51	B0	60	LYS	C-N-CA	5.88	130.64	120.58
7	AG	16	THR	CA-CB-CG2	5.88	120.50	110.50
11	AK	122	GLY	N-CA-C	5.88	117.82	110.29
26	BB	1567	G	O5'-C5'-C4'	-5.88	102.88	111.70
1	AA	149	A	C3'-C2'-O2'	5.88	119.52	110.70
1	AA	1217	C	C1'-O4'-C4'	5.88	115.78	109.90
26	BB	1500	G	C1'-O4'-C4'	5.88	115.78	109.90
1	AA	501	C	O4'-C1'-C2'	-5.88	101.72	107.60
26	BB	376	G	N9-C1'-C2'	-5.88	103.18	112.00
26	BB	684	G	O3'-P-O5'	-5.88	95.18	104.00
29	BE	132	ALA	O-C-N	5.88	128.33	122.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	BU	81	SER	N-CA-C	5.88	118.08	108.55
47	BW	44	HIS	CB-CG-CD2	-5.88	123.56	131.20
1	AA	711	G	C3'-C2'-O2'	5.88	119.52	110.70
1	AA	721	G	C1'-O4'-C4'	5.88	115.58	109.70
1	AA	1049	U	N1-C1'-C2'	-5.88	105.18	114.00
11	AK	32	LYS	CA-C-N	5.88	128.18	120.60
11	AK	32	LYS	C-N-CA	5.88	128.18	120.60
12	AL	45	MET	CA-C-O	5.88	126.73	119.79
12	AL	123	ARG	CA-C-N	5.88	127.19	119.84
12	AL	123	ARG	C-N-CA	5.88	127.19	119.84
13	AM	101	SER	CA-CB-OG	5.88	122.86	111.10
26	BB	1961	C	C5'-C4'-O4'	5.88	118.62	109.80
26	BB	2395	C	O4'-C4'-C3'	-5.88	98.12	104.00
26	BB	2570	G	O3'-P-O5'	-5.88	95.18	104.00
35	BK	32	VAL	CB-CA-C	5.88	119.74	111.63
43	BS	30	VAL	CA-C-N	5.88	128.16	120.28
43	BS	30	VAL	C-N-CA	5.88	128.16	120.28
45	BU	66	ILE	CA-CB-CG1	5.88	120.39	110.40
1	AA	608	A	O5'-C5'-C4'	-5.88	102.69	111.50
26	BB	789	A	C4'-C3'-C2'	-5.88	96.72	102.60
26	BB	1185	G	C5'-C4'-C3'	-5.88	107.18	116.00
26	BB	1582	C	O4'-C1'-C2'	5.88	113.48	107.60
1	AA	1118	U	O3'-P-O5'	5.88	112.81	104.00
5	AE	185	ILE	CA-CB-CG1	5.88	120.39	110.40
26	BB	246	C	C4'-C3'-C2'	5.88	108.47	102.60
46	BV	19	LYS	CA-C-N	5.88	128.15	120.28
46	BV	19	LYS	C-N-CA	5.88	128.15	120.28
1	AA	282	A	O4'-C1'-C2'	-5.87	101.73	107.60
1	AA	412	A	C4'-C3'-C2'	5.87	108.47	102.60
1	AA	542	G	C5'-C4'-C3'	-5.87	107.19	116.00
7	AG	112	GLU	CA-C-N	5.87	128.07	120.44
7	AG	112	GLU	C-N-CA	5.87	128.07	120.44
1	AA	342	C	C3'-C2'-O2'	5.87	119.51	110.70
1	AA	535	A	O4'-C1'-C2'	5.87	111.67	105.80
1	AA	1049	U	O3'-P-O5'	-5.87	95.19	104.00
1	AA	1118	U	C4'-C3'-O3'	-5.87	104.19	113.00
1	AA	1360	A	C3'-C2'-C1'	-5.87	95.43	101.30
26	BB	874	G	C4'-C3'-C2'	-5.87	96.73	102.60
42	BR	72	VAL	CA-C-O	-5.87	114.25	120.53
1	AA	1426	G	O4'-C1'-N9	5.87	117.31	108.50
1	AA	1517	G	C3'-C2'-O2'	5.87	119.50	110.70
24	AX	60	ALA	CA-C-N	5.87	128.47	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AX	60	ALA	C-N-CA	5.87	128.47	120.54
1	AA	1363	A	C1'-O4'-C4'	-5.87	103.83	109.70
1	AA	1507	A	P-O3'-C3'	5.87	129.00	120.20
26	BB	334	C	O4'-C4'-C3'	5.87	109.87	104.00
26	BB	2355	G	C3'-C2'-C1'	-5.87	95.43	101.30
26	BB	2395	C	C5'-C4'-C3'	-5.87	107.20	116.00
1	AA	599	C	C5'-C4'-C3'	-5.87	107.20	116.00
26	BB	1227	G	C3'-C2'-O2'	5.87	119.50	110.70
26	BB	1549	A	O4'-C1'-N9	5.87	117.30	108.50
26	BB	2386	A	C5'-C4'-C3'	-5.87	107.20	116.00
26	BB	2703	C	C3'-C2'-C1'	5.87	107.17	101.30
1	AA	220	G	O4'-C1'-N9	5.87	117.30	108.50
1	AA	697	U	C5'-C4'-O4'	5.87	118.60	109.80
1	AA	1403	C	C1'-O4'-C4'	-5.87	104.03	109.90
5	AE	142	LYS	CA-C-N	5.87	128.07	120.44
5	AE	142	LYS	C-N-CA	5.87	128.07	120.44
26	BB	342	A	C3'-C2'-O2'	5.87	119.50	110.70
26	BB	999	U	O4'-C4'-C3'	5.87	109.87	104.00
26	BB	1084	A	O4'-C4'-C3'	5.87	109.87	104.00
26	BB	1733	G	O4'-C1'-N9	5.87	117.30	108.50
26	BB	1760	C	C5'-C4'-O4'	-5.87	101.00	109.80
26	BB	2201	G	C4'-C3'-C2'	-5.87	96.73	102.60
26	BB	2519	U	C2'-C3'-O3'	5.87	118.30	109.50
26	BB	2698	U	P-O3'-C3'	5.87	129.00	120.20
26	BB	1407	G	O4'-C1'-N9	5.86	117.30	108.50
26	BB	2079	U	C2'-C3'-O3'	5.86	122.50	113.70
38	BN	69	ARG	CA-CB-CG	5.86	125.83	114.10
41	BQ	70	ALA	CA-C-N	5.86	130.61	120.58
41	BQ	70	ALA	C-N-CA	5.86	130.61	120.58
48	BX	72	VAL	CA-CB-CG1	5.86	120.37	110.40
4	AD	18	U	C5'-C4'-O4'	-5.86	100.31	109.10
20	AT	30	HIS	CA-C-O	-5.86	114.85	119.66
1	AA	1228	C	C4'-C3'-C2'	-5.86	96.74	102.60
1	AA	1542	A	N9-C1'-C2'	5.86	120.79	112.00
12	AL	93	LEU	CA-C-O	5.86	126.74	120.70
21	AU	39	VAL	N-CA-CB	5.86	115.87	111.83
30	BF	29	HIS	N-CA-C	5.86	118.42	111.33
51	B0	59	GLU	CA-C-N	5.86	130.51	120.72
51	B0	59	GLU	C-N-CA	5.86	130.51	120.72
1	AA	401	C	O4'-C1'-N1	5.86	117.29	108.50
4	AD	67	C	C4'-C3'-C2'	-5.86	96.74	102.60
4	AD	3	C	O4'-C1'-C2'	-5.86	101.74	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	74	U	O4'-C4'-C3'	5.86	109.86	104.00
26	BB	46	G	O4'-C4'-C3'	-5.86	98.14	104.00
26	BB	659	G	C5'-C4'-C3'	-5.86	107.21	116.00
26	BB	1172	C	C1'-O4'-C4'	-5.86	104.04	109.90
26	BB	1803	A	O4'-C4'-C3'	5.86	109.86	104.00
26	BB	2434	A	C3'-C2'-C1'	5.86	107.36	101.50
30	BF	43	THR	N-CA-C	-5.86	105.23	112.90
31	BG	112	ASP	CA-CB-CG	5.86	118.46	112.60
1	AA	261	U	O4'-C4'-C3'	5.86	109.86	104.00
1	AA	743	A	C5'-C4'-O4'	5.86	118.58	109.80
14	AN	57	SER	CB-CA-C	5.86	120.07	110.17
25	BA	61	G	C3'-C2'-C1'	-5.86	95.44	101.30
26	BB	91	A	O4'-C4'-C3'	5.86	111.96	106.10
26	BB	234	U	O4'-C1'-N1	5.86	117.28	108.50
26	BB	883	G	C4'-C3'-O3'	5.86	121.78	113.00
26	BB	2082	A	C4'-C3'-O3'	-5.86	104.22	113.00
1	AA	1106	G	C4'-C3'-C2'	-5.85	96.75	102.60
10	AJ	124	SER	CA-C-O	-5.85	114.35	120.55
26	BB	1972	G	C4'-C3'-C2'	-5.85	96.75	102.60
26	BB	2082	A	C5'-C4'-C3'	-5.85	107.22	116.00
1	AA	959	A	C3'-C2'-C1'	5.85	107.15	101.30
10	AJ	67	ASN	N-CA-CB	-5.85	101.48	110.20
26	BB	465	G	C5'-C4'-O4'	5.85	118.58	109.80
26	BB	926	G	C4'-C3'-C2'	-5.85	96.75	102.60
26	BB	1625	C	C3'-C2'-O2'	5.85	119.48	110.70
26	BB	2250	G	C1'-O4'-C4'	-5.85	103.85	109.70
36	BL	47	HIS	CG-CD2-NE2	-5.85	101.35	107.20
1	AA	429	U	O5'-C5'-C4'	-5.85	102.92	111.70
7	AG	3	TYR	CA-C-N	5.85	132.71	121.54
7	AG	3	TYR	C-N-CA	5.85	132.71	121.54
26	BB	160	A	C3'-C2'-O2'	5.85	119.47	110.70
26	BB	779	U	O3'-P-O5'	5.85	112.77	104.00
26	BB	1654	A	C5'-C4'-C3'	-5.85	107.22	116.00
26	BB	1708	C	P-O5'-C5'	5.85	129.68	120.90
26	BB	2506	U	C3'-C2'-C1'	5.85	107.15	101.30
36	BL	121	LYS	CA-C-O	5.85	125.23	118.97
57	B6	44	ARG	O-C-N	5.85	128.05	121.32
4	AD	70	C	O4'-C4'-C3'	5.85	109.85	104.00
26	BB	306	U	C4'-C3'-O3'	-5.85	104.23	113.00
26	BB	504	A	O4'-C1'-C2'	-5.85	101.75	107.60
26	BB	2094	A	C4'-C3'-C2'	-5.85	96.75	102.60
26	BB	2246	G	C4'-C3'-C2'	-5.85	96.75	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BJ	158	ARG	CA-C-N	5.85	128.59	120.29
34	BJ	158	ARG	C-N-CA	5.85	128.59	120.29
1	AA	131	A	C5'-C4'-C3'	-5.85	107.23	116.00
1	AA	389	A	O4'-C4'-C3'	5.85	109.85	104.00
26	BB	30	G	C5'-C4'-O4'	5.85	118.57	109.80
26	BB	1177	G	O4'-C4'-C3'	5.85	109.85	104.00
1	AA	1453	G	N9-C1'-C2'	-5.84	103.23	112.00
2	AB	38	A	O5'-C5'-C4'	-5.84	102.73	111.50
26	BB	891	G	N9-C1'-C2'	-5.84	103.23	112.00
26	BB	2340	A	N9-C1'-C2'	-5.84	103.23	112.00
26	BB	1205	A	O5'-C5'-C4'	-5.84	102.94	111.70
26	BB	1582	C	O4'-C4'-C3'	5.84	109.84	104.00
26	BB	1730	C	O4'-C1'-C2'	-5.84	101.76	107.60
1	AA	17	U	O4'-C1'-N1	5.84	117.26	108.50
1	AA	53	A	C5'-C4'-C3'	-5.84	107.24	116.00
26	BB	1904	G	C2'-C3'-O3'	-5.84	104.94	113.70
26	BB	2520	C	O4'-C1'-N1	5.84	117.26	108.50
33	BI	114	GLU	CB-CG-CD	5.84	122.53	112.60
1	AA	85	U	C1'-C2'-O2'	5.84	120.56	111.80
1	AA	645	G	O4'-C4'-C3'	5.84	109.84	104.00
1	AA	857	C	C1'-C2'-O2'	5.84	117.16	108.40
26	BB	119	A	O3'-P-O5'	-5.84	95.24	104.00
26	BB	1943	U	C1'-C2'-O2'	5.84	120.56	111.80
51	B0	45	GLN	CA-C-N	5.84	132.48	121.97
51	B0	45	GLN	C-N-CA	5.84	132.48	121.97
1	AA	9	G	O4'-C4'-C3'	5.84	109.84	104.00
18	AR	24	THR	CA-C-O	-5.84	114.36	120.55
26	BB	1111	A	O4'-C1'-N9	5.84	116.96	108.20
1	AA	804	U	C4'-C3'-C2'	-5.84	96.76	102.60
1	AA	1511	G	C5'-C4'-C3'	-5.84	107.25	116.00
3	AC	22	G	C4'-C3'-C2'	5.84	108.44	102.60
26	BB	90	U	O4'-C4'-C3'	5.84	109.84	104.00
26	BB	965	C	O4'-C1'-N1	5.84	117.25	108.50
26	BB	1082	U	O4'-C1'-N1	5.84	117.25	108.50
26	BB	1936	A	C1'-O4'-C4'	5.84	115.54	109.70
26	BB	2200	C	O4'-C1'-N1	5.84	117.25	108.50
1	AA	159	G	P-O5'-C5'	5.83	129.65	120.90
1	AA	524	G	P-O5'-C5'	5.83	129.65	120.90
1	AA	622	A	C1'-O4'-C4'	5.83	115.73	109.90
26	BB	1009	A	O5'-C5'-C4'	-5.83	102.75	111.50
26	BB	1827	U	O4'-C1'-N1	5.83	117.25	108.50
26	BB	2408	U	O4'-C1'-N1	5.83	117.25	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	B2	4	ASP	N-CA-C	-5.83	105.93	113.16
26	BB	1992	G	O4'-C1'-C2'	5.83	111.63	105.80
38	BN	118	THR	CA-C-N	5.83	126.02	119.90
38	BN	118	THR	C-N-CA	5.83	126.02	119.90
1	AA	443	C	O4'-C1'-C2'	5.83	113.43	107.60
1	AA	1410	A	C3'-C2'-C1'	5.83	107.13	101.30
10	AJ	14	ASP	CA-CB-CG	5.83	118.43	112.60
26	BB	2712	C	O4'-C4'-C3'	-5.83	100.27	106.10
1	AA	892	A	C3'-C2'-C1'	-5.83	95.47	101.30
1	AA	1337	G	O4'-C4'-C3'	5.83	109.83	104.00
19	AS	2	VAL	CA-CB-CG1	5.83	120.31	110.40
26	BB	92	U	C4'-C3'-C2'	-5.83	96.77	102.60
26	BB	402	A	C4'-C3'-O3'	5.83	121.74	113.00
26	BB	657	U	C2'-C3'-O3'	-5.83	104.96	113.70
26	BB	716	A	O4'-C4'-C3'	5.83	111.93	106.10
26	BB	2565	A	O4'-C4'-C3'	-5.83	98.17	104.00
1	AA	1012	A	N9-C1'-C2'	-5.83	103.26	112.00
1	AA	1198	G	C4'-C3'-O3'	5.83	121.74	113.00
26	BB	918	A	N9-C1'-C2'	-5.83	103.26	112.00
26	BB	1285	A	O4'-C4'-C3'	5.83	109.83	104.00
28	BD	270	ARG	NE-CZ-NH1	-5.83	115.67	121.50
1	AA	1183	U	O3'-P-O5'	-5.83	95.26	104.00
1	AA	1203	C	C4'-C3'-C2'	-5.83	96.78	102.60
1	AA	1208	C	O4'-C1'-C2'	5.83	113.42	107.60
10	AJ	3	ARG	NE-CZ-NH2	5.83	124.44	119.20
26	BB	1260	A	N9-C1'-C2'	-5.83	103.26	112.00
39	BO	119	LEU	N-CA-CB	-5.83	101.56	110.01
48	BX	55	GLU	N-CA-C	5.83	120.00	113.01
26	BB	83	A	C4'-C3'-O3'	-5.82	104.27	113.00
32	BH	45	ALA	CB-CA-C	5.82	122.01	110.42
46	BV	51	PHE	CA-C-N	5.82	130.64	122.08
46	BV	51	PHE	C-N-CA	5.82	130.64	122.08
26	BB	532	A	C3'-C2'-C1'	-5.82	95.68	101.50
26	BB	1041	G	C4'-C3'-C2'	-5.82	96.78	102.60
26	BB	587	C	O4'-C1'-C2'	-5.82	99.98	105.80
26	BB	751	A	C4'-C3'-O3'	-5.82	100.67	109.40
26	BB	793	A	C5'-C4'-C3'	-5.82	106.47	115.20
26	BB	818	G	P-O3'-C3'	5.82	128.93	120.20
26	BB	1116	G	C4'-C3'-C2'	-5.82	96.78	102.60
26	BB	1154	G	C2'-C3'-O3'	-5.82	104.97	113.70
26	BB	1777	U	C5'-C4'-C3'	-5.82	107.27	116.00
27	BC	145	VAL	N-CA-C	-5.82	99.19	107.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BO	35	ALA	CB-CA-C	-5.82	101.74	110.88
42	BR	58	PHE	N-CA-C	5.82	117.78	108.41
26	BB	336	C	O4'-C1'-N1	5.82	117.23	108.50
1	AA	195	A	C5'-C4'-C3'	-5.82	107.27	116.00
3	AC	26	U	C3'-C2'-C1'	5.82	107.32	101.50
5	AE	26	MET	CA-C-N	5.82	128.26	120.58
5	AE	26	MET	C-N-CA	5.82	128.26	120.58
26	BB	103	A	C5'-C4'-C3'	-5.82	107.27	116.00
26	BB	539	G	O4'-C1'-C2'	5.82	113.42	107.60
26	BB	1999	C	C5'-C4'-C3'	-5.82	107.27	116.00
26	BB	2182	U	C2'-C3'-O3'	-5.82	104.97	113.70
26	BB	2358	A	O5'-C5'-C4'	5.82	120.23	111.50
26	BB	2380	C	O4'-C4'-C3'	-5.82	98.18	104.00
26	BB	2557	G	C4'-C3'-C2'	-5.82	96.78	102.60
1	AA	245	U	C4'-C3'-C2'	-5.82	96.78	102.60
1	AA	778	G	P-O3'-C3'	5.82	128.92	120.20
3	AC	39	U	C5'-C4'-C3'	-5.82	107.28	116.00
12	AL	46	VAL	N-CA-C	5.82	116.00	110.42
25	BA	68	C	O4'-C1'-N1	5.82	117.22	108.50
26	BB	1998	A	C4'-C3'-C2'	-5.82	96.78	102.60
26	BB	2022	U	O3'-P-O5'	-5.82	95.28	104.00
26	BB	2461	A	C3'-C2'-C1'	5.82	107.11	101.30
26	BB	2550	G	O4'-C1'-C2'	-5.82	101.78	107.60
49	BY	3	LYS	CA-C-N	5.82	131.41	121.87
49	BY	3	LYS	C-N-CA	5.82	131.41	121.87
1	AA	26	A	C3'-C2'-C1'	5.81	107.11	101.30
1	AA	1136	C	O5'-C5'-C4'	5.81	120.22	111.50
26	BB	2473	U	O4'-C1'-N1	5.81	117.22	108.50
53	B2	13	THR	CA-C-N	5.81	130.07	120.94
53	B2	13	THR	C-N-CA	5.81	130.07	120.94
1	AA	776	G	C3'-C2'-O2'	5.81	119.42	110.70
1	AA	1023	U	C1'-C2'-O2'	5.81	117.12	108.40
1	AA	1312	G	C4'-C3'-C2'	-5.81	96.79	102.60
24	AX	9	GLU	CA-C-N	5.81	127.11	119.84
24	AX	9	GLU	C-N-CA	5.81	127.11	119.84
26	BB	243	U	O4'-C1'-N1	5.81	117.22	108.50
26	BB	1392	A	O3'-P-O5'	-5.81	95.28	104.00
1	AA	599	C	O5'-C5'-C4'	-5.81	102.78	111.50
1	AA	953	G	C1'-O4'-C4'	-5.81	104.09	109.90
1	AA	1313	U	C5'-C4'-O4'	5.81	118.52	109.80
4	AD	46	G	N9-C1'-C2'	-5.81	103.28	112.00
25	BA	50	A	C3'-C2'-C1'	5.81	107.11	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	281	C	C3'-C2'-O2'	5.81	119.42	110.70
1	AA	1236	A	N9-C1'-C2'	-5.81	103.29	112.00
7	AG	120	LYS	N-CA-C	5.81	119.67	112.47
26	BB	829	A	O4'-C1'-C2'	-5.81	99.99	105.80
26	BB	1899	A	O5'-C5'-C4'	5.81	120.21	111.50
26	BB	2097	A	C3'-C2'-O2'	5.81	119.42	110.70
26	BB	2120	G	C1'-O4'-C4'	5.81	115.71	109.90
26	BB	2376	A	O5'-C5'-C4'	5.81	120.21	111.50
26	BB	2691	C	C4'-C3'-C2'	-5.81	96.79	102.60
1	AA	243	A	C4'-C3'-C2'	5.81	108.41	102.60
1	AA	292	G	P-O3'-C3'	5.81	128.91	120.20
1	AA	1076	U	O4'-C1'-C2'	-5.81	101.79	107.60
25	BA	90	C	O4'-C1'-C2'	-5.81	101.79	107.60
26	BB	444	C	O3'-P-O5'	5.81	112.71	104.00
26	BB	838	C	O4'-C4'-C3'	5.81	109.81	104.00
26	BB	1439	A	O4'-C4'-C3'	5.81	109.81	104.00
30	BF	196	VAL	N-CA-C	-5.81	104.85	110.72
26	BB	2598	A	C4'-C3'-C2'	-5.81	96.79	102.60
44	BT	12	HIS	CA-C-N	5.81	129.72	121.42
44	BT	12	HIS	C-N-CA	5.81	129.72	121.42
1	AA	602	A	C1'-O4'-C4'	5.80	115.70	109.90
10	AJ	160	SER	CB-CA-C	5.80	120.72	110.85
26	BB	1338	G	C5'-C4'-O4'	5.80	118.51	109.80
35	BK	42	ASN	O-C-N	5.80	129.94	122.39
1	AA	372	C	C1'-O4'-C4'	-5.80	103.90	109.70
16	AP	55	LEU	CA-C-N	5.80	128.06	120.28
16	AP	55	LEU	C-N-CA	5.80	128.06	120.28
2	AB	43	G	C3'-C2'-O2'	5.80	119.40	110.70
7	AG	36	ALA	CA-C-N	5.80	125.99	119.90
7	AG	36	ALA	C-N-CA	5.80	125.99	119.90
9	AI	63	ASN	CB-CG-ND2	5.80	125.10	116.40
1	AA	907	A	O4'-C1'-N9	5.80	117.20	108.50
5	AE	13	VAL	CA-CB-CG2	5.80	120.26	110.40
26	BB	339	U	C1'-O4'-C4'	-5.80	104.10	109.90
26	BB	619	G	C1'-O4'-C4'	5.80	115.70	109.90
26	BB	955	PSU	O3'-P-O5'	-5.80	95.30	104.00
26	BB	1227	G	C5'-C4'-O4'	5.80	118.50	109.80
26	BB	1266	G	P-O3'-C3'	5.80	128.90	120.20
26	BB	1327	A	O5'-C5'-C4'	5.80	120.20	111.50
26	BB	1529	G	C3'-C2'-C1'	5.80	107.10	101.30
26	BB	1830	C	C3'-C2'-O2'	5.80	119.40	110.70
26	BB	1973	G	O3'-P-O5'	-5.80	95.30	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2615	U	C3'-C2'-O2'	5.80	119.40	110.70
46	BV	51	PHE	CA-CB-CG	5.80	119.60	113.80
1	AA	1230	C	C1'-O4'-C4'	5.80	115.70	109.90
26	BB	1093	G	P-O3'-C3'	5.80	128.90	120.20
1	AA	321	A	C1'-O4'-C4'	-5.80	104.10	109.90
1	AA	875	U	O5'-C5'-C4'	5.80	120.19	111.50
26	BB	352	A	C5'-C4'-C3'	-5.79	107.31	116.00
26	BB	1586	A	C1'-O4'-C4'	-5.79	104.11	109.90
43	BS	70	GLN	N-CA-C	5.79	117.60	111.28
1	AA	463	U	C1'-O4'-C4'	-5.79	104.11	109.90
1	AA	1312	G	O4'-C1'-C2'	-5.79	101.81	107.60
6	AF	53	ARG	CD-NE-CZ	5.79	132.51	124.40
26	BB	89	A	C5'-C4'-C3'	-5.79	107.31	116.00
26	BB	431	U	O4'-C1'-N1	5.79	117.19	108.50
26	BB	812	C	C1'-C2'-O2'	-5.79	99.71	108.40
26	BB	2109	U	O3'-P-O5'	-5.79	95.31	104.00
26	BB	2435	A	C4'-C3'-C2'	-5.79	96.81	102.60
33	BI	143	ILE	CA-C-O	5.79	127.26	120.71
4	AD	40	C	C4'-C3'-O3'	-5.79	104.31	113.00
26	BB	1797	G	C3'-C2'-C1'	5.79	107.09	101.30
26	BB	2537	U	O4'-C1'-C2'	-5.79	101.81	107.60
37	BM	59	LYS	CA-C-O	-5.79	114.41	121.36
26	BB	2896	C	C5'-C4'-O4'	5.79	118.48	109.80
43	BS	64	ILE	CB-CA-C	5.79	119.96	112.14
13	AM	14	ASP	CA-C-N	5.79	129.11	120.31
13	AM	14	ASP	C-N-CA	5.79	129.11	120.31
17	AQ	41	TRP	N-CA-C	5.79	117.65	108.79
26	BB	217	A	C5'-C4'-C3'	-5.79	107.32	116.00
26	BB	1095	A	C1'-C2'-O2'	-5.79	99.72	108.40
26	BB	2310	C	N1-C1'-C2'	5.79	120.68	112.00
26	BB	2561	U	O5'-C5'-C4'	5.79	120.18	111.50
26	BB	2647	U	C1'-O4'-C4'	-5.79	104.11	109.90
26	BB	2866	U	C1'-O4'-C4'	-5.79	103.91	109.70
26	BB	1340	U	O4'-C1'-N1	5.79	117.18	108.50
26	BB	1375	U	C3'-C2'-O2'	5.79	119.38	110.70
1	AA	1222	G	C4'-C3'-O3'	-5.79	104.32	113.00
26	BB	469	G	C5'-C4'-O4'	5.79	118.48	109.80
1	AA	212	G	O4'-C1'-N9	5.78	117.18	108.50
26	BB	146	A	O4'-C1'-C2'	5.78	113.38	107.60
26	BB	921	C	O4'-C1'-N1	5.78	117.17	108.50
26	BB	962	G	C1'-O4'-C4'	5.78	115.68	109.90
26	BB	2122	U	C4'-C3'-O3'	5.78	121.68	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	BE	200	ASP	N-CA-CB	-5.78	101.66	110.45
1	AA	352	C	O4'-C1'-N1	5.78	117.17	108.50
1	AA	848	C	O4'-C1'-N1	5.78	117.17	108.50
14	AN	27	ASN	CA-CB-CG	5.78	118.38	112.60
18	AR	39	GLN	O-C-N	5.78	129.91	122.39
26	BB	358	U	C4'-C3'-C2'	-5.78	96.82	102.60
1	AA	807	A	O5'-C5'-C4'	-5.78	102.83	111.50
1	AA	1037	C	P-O5'-C5'	5.78	129.57	120.90
13	AM	83	THR	CA-C-O	-5.78	114.29	120.42
16	AP	69	ARG	NE-CZ-NH2	-5.78	114.00	119.20
26	BB	473	G	C5'-C4'-C3'	-5.78	107.33	116.00
26	BB	1762	A	O3'-P-O5'	-5.78	95.33	104.00
26	BB	2652	C	C1'-C2'-O2'	5.78	117.07	108.40
1	AA	1487	G	O3'-P-O5'	5.78	112.67	104.00
11	AK	17	GLN	CA-C-N	5.78	128.02	120.28
11	AK	17	GLN	C-N-CA	5.78	128.02	120.28
26	BB	2064	C	C4'-C3'-C2'	-5.78	96.82	102.60
26	BB	2106	U	C2'-C3'-O3'	5.78	122.37	113.70
17	AQ	83	VAL	N-CA-C	-5.78	104.87	110.42
26	BB	2043	C	C3'-C2'-C1'	5.78	107.08	101.30
26	BB	2321	U	C4'-C3'-O3'	5.78	121.67	113.00
38	BN	35	HIS	ND1-CG-CD2	5.78	111.88	106.10
55	B4	44	GLN	N-CA-CB	-5.78	102.43	111.56
1	AA	733	G	P-O3'-C3'	5.78	128.86	120.20
1	AA	1211	U	O4'-C4'-C3'	-5.78	100.32	106.10
5	AE	28	PRO	O-C-N	5.78	129.16	122.23
17	AQ	83	VAL	CA-C-O	-5.78	115.05	121.17
26	BB	151	C	C4'-C3'-C2'	-5.78	96.82	102.60
26	BB	1360	G	C1'-C2'-O2'	5.78	117.06	108.40
30	BF	122	GLU	CB-CA-C	5.78	119.25	109.84
32	BH	161	VAL	N-CA-CB	-5.78	104.48	110.95
33	BI	37	VAL	CA-C-O	-5.78	112.21	119.95
38	BN	90	VAL	CB-CA-C	5.78	118.50	110.99
1	AA	187	G	C3'-C2'-C1'	5.77	107.07	101.30
50	BZ	6	VAL	CA-C-O	-5.77	114.64	121.05
1	AA	798	U	O3'-P-O5'	-5.77	95.34	104.00
1	AA	948	C	C1'-C2'-O2'	-5.77	99.74	108.40
1	AA	1034	G	C2'-C3'-O3'	-5.77	105.04	113.70
14	AN	45	THR	O-C-N	-5.77	116.46	123.10
43	BS	44	TYR	CA-C-O	-5.77	114.76	120.82
13	AM	16	ARG	CD-NE-CZ	5.77	132.48	124.40
23	AW	20	ASN	CA-CB-CG	5.77	118.37	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	BD	247	TRP	CB-CG-CD2	5.77	134.88	126.80
1	AA	208	U	C1'-O4'-C4'	5.77	115.67	109.90
13	AM	3	ASN	CA-CB-CG	5.77	118.37	112.60
25	BA	70	C	C4'-C3'-O3'	-5.77	104.35	113.00
26	BB	484	C	C3'-C2'-C1'	5.77	107.07	101.30
26	BB	992	C	C1'-C2'-O2'	-5.77	99.75	108.40
29	BE	126	ASN	CB-CG-ND2	5.77	125.06	116.40
34	BJ	131	TYR	CA-C-O	-5.77	114.40	120.63
37	BM	2	ILE	CA-CB-CG1	5.77	120.21	110.40
1	AA	464	U	C4'-C3'-C2'	-5.77	96.83	102.60
1	AA	848	C	C5'-C4'-C3'	-5.77	107.35	116.00
1	AA	1530	G	C1'-C2'-O2'	-5.77	99.75	108.40
3	AC	59	A	C3'-C2'-O2'	5.77	119.35	110.70
8	AH	37	VAL	CA-CB-CG2	5.77	120.20	110.40
18	AR	29	ALA	CA-C-N	5.77	128.28	120.44
18	AR	29	ALA	C-N-CA	5.77	128.28	120.44
25	BA	95	U	O3'-P-O5'	5.77	112.65	104.00
26	BB	1323	C	O4'-C1'-N1	5.77	116.85	108.20
26	BB	2742	G	O4'-C1'-C2'	5.77	113.37	107.60
28	BD	196	ASN	CA-CB-CG	5.77	118.37	112.60
48	BX	12	GLN	N-CA-C	-5.77	106.87	114.31
3	AC	55	A	C3'-C2'-C1'	5.77	107.27	101.50
26	BB	81	G	O5'-C5'-C4'	-5.77	102.85	111.50
26	BB	498	G	C4'-C3'-C2'	-5.77	96.83	102.60
9	AI	78	PHE	CB-CG-CD2	-5.76	110.90	120.70
12	AL	26	LYS	N-CA-C	5.76	117.17	108.46
13	AM	16	ARG	CA-C-N	5.76	128.47	120.29
13	AM	16	ARG	C-N-CA	5.76	128.47	120.29
26	BB	412	A	O4'-C1'-C2'	-5.76	101.83	107.60
26	BB	1662	U	O4'-C1'-N1	5.76	117.15	108.50
26	BB	1720	U	O4'-C4'-C3'	5.76	109.77	104.00
26	BB	2735	G	C3'-C2'-C1'	-5.76	95.54	101.30
37	BM	66	LYS	N-CA-C	-5.76	106.22	113.20
41	BQ	80	GLU	N-CA-C	5.76	118.34	111.71
3	AC	46	C	C4'-C3'-C2'	-5.76	96.84	102.60
26	BB	1701	A	C4'-C3'-C2'	-5.76	96.84	102.60
26	BB	1853	A	C4'-C3'-C2'	-5.76	96.84	102.60
26	BB	91	A	O4'-C1'-N9	5.76	116.84	108.20
26	BB	520	G	C5'-C4'-O4'	5.76	118.44	109.80
26	BB	1008	A	O4'-C1'-C2'	-5.76	100.04	105.80
26	BB	1070	A	P-O3'-C3'	5.76	128.84	120.20
26	BB	1542	U	O3'-P-O5'	5.76	112.64	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BN	2	ARG	N-CA-CB	-5.76	102.20	110.44
1	AA	539	A	C4'-C3'-C2'	-5.76	96.84	102.60
1	AA	1348	U	C4'-C3'-C2'	-5.76	96.84	102.60
11	AK	113	ARG	NH1-CZ-NH2	-5.76	111.81	119.30
26	BB	1456	G	O4'-C1'-C2'	5.76	113.36	107.60
26	BB	2207	C	C4'-C3'-O3'	5.76	121.64	113.00
29	BE	140	HIS	CA-CB-CG	5.76	119.56	113.80
32	BH	101	VAL	CB-CA-C	5.76	119.56	110.81
1	AA	122	G	C3'-C2'-O2'	5.76	119.34	110.70
1	AA	243	A	C2'-C3'-O3'	5.76	118.14	109.50
1	AA	373	A	O4'-C4'-C3'	-5.76	98.24	104.00
1	AA	654	G	O4'-C1'-N9	5.76	117.14	108.50
26	BB	1215	G	C3'-C2'-C1'	-5.76	95.54	101.30
26	BB	1769	U	C4'-C3'-C2'	-5.76	96.84	102.60
36	BL	79	GLY	N-CA-C	-5.76	107.78	115.32
1	AA	509	A	O4'-C4'-C3'	-5.76	98.24	104.00
1	AA	631	C	P-O3'-C3'	5.76	128.84	120.20
1	AA	754	C	C5'-C4'-C3'	-5.76	107.37	116.00
1	AA	953	G	O4'-C4'-C3'	5.76	109.76	104.00
26	BB	1384	A	C4'-C3'-C2'	5.76	108.36	102.60
33	BI	73	ASN	CA-CB-CG	5.76	118.36	112.60
1	AA	347	G	P-O5'-C5'	5.75	129.53	120.90
1	AA	350	G	C3'-C2'-C1'	5.75	107.06	101.30
1	AA	662	U	N1-C1'-C2'	-5.75	103.37	112.00
26	BB	1554	U	C4'-C3'-C2'	5.75	108.36	102.60
26	BB	1655	A	C5'-C4'-C3'	-5.75	107.37	116.00
26	BB	2587	A	C1'-O4'-C4'	-5.75	103.94	109.70
1	AA	1211	U	N1-C1'-C2'	-5.75	105.37	114.00
22	AV	14	LEU	CA-C-N	5.75	128.26	120.44
22	AV	14	LEU	C-N-CA	5.75	128.26	120.44
25	BA	106	G	C5'-C4'-O4'	5.75	118.43	109.80
26	BB	2352	A	O5'-C5'-C4'	5.75	120.13	111.50
26	BB	2584	U	O4'-C1'-N1	5.75	116.83	108.20
30	BF	32	VAL	CA-C-N	5.75	128.59	120.42
30	BF	32	VAL	C-N-CA	5.75	128.59	120.42
48	BX	14	LYS	CA-C-N	5.75	126.33	119.94
48	BX	14	LYS	C-N-CA	5.75	126.33	119.94
1	AA	1141	C	C1'-O4'-C4'	-5.75	104.15	109.90
1	AA	1377	A	C3'-C2'-O2'	5.75	119.33	110.70
26	BB	253	C	C1'-C2'-O2'	5.75	117.03	108.40
26	BB	437	U	C1'-O4'-C4'	-5.75	104.15	109.90
26	BB	1540	G	C4'-C3'-C2'	-5.75	96.85	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	344	A	C4'-C3'-O3'	-5.75	100.78	109.40
1	AA	467	U	O4'-C1'-N1	5.75	116.83	108.20
1	AA	496	A	N9-C1'-C2'	5.75	120.62	112.00
4	AD	63	C	C1'-O4'-C4'	5.75	115.65	109.90
22	AV	73	PHE	CA-CB-CG	-5.75	108.05	113.80
25	BA	88	C	O4'-C4'-C3'	-5.75	98.25	104.00
26	BB	1311	G	C2'-C3'-O3'	5.75	118.12	109.50
26	BB	2235	G	C1'-C2'-O2'	-5.75	99.78	108.40
50	BZ	32	LEU	CB-CA-C	5.75	119.18	111.82
1	AA	445	G	O4'-C1'-C2'	5.75	113.35	107.60
1	AA	735	C	N1-C1'-C2'	-5.75	103.38	112.00
1	AA	1214	C	P-O3'-C3'	5.75	128.82	120.20
26	BB	15	G	O4'-C1'-C2'	-5.75	101.85	107.60
26	BB	805	G	O4'-C4'-C3'	5.75	109.75	104.00
26	BB	1718	G	O4'-C4'-C3'	5.75	109.75	104.00
46	BV	14	PRO	CB-CA-C	-5.75	103.56	111.21
47	BW	90	LYS	N-CA-C	-5.75	100.95	109.11
49	BY	8	SER	CA-C-N	5.75	130.93	121.39
49	BY	8	SER	C-N-CA	5.75	130.93	121.39
53	B2	66	ILE	CA-C-N	5.75	125.36	119.56
53	B2	66	ILE	C-N-CA	5.75	125.36	119.56
1	AA	168	G	C5'-C4'-C3'	-5.75	107.38	116.00
14	AN	15	VAL	CA-C-N	5.75	132.52	121.54
14	AN	15	VAL	C-N-CA	5.75	132.52	121.54
26	BB	2876	G	O4'-C1'-C2'	-5.75	101.85	107.60
1	AA	189	A	C3'-C2'-O2'	5.75	119.32	110.70
26	BB	1944	U	O4'-C1'-N1	5.75	117.12	108.50
1	AA	841	C	O4'-C1'-N1	5.74	117.11	108.50
1	AA	1430	A	O3'-P-O5'	5.74	112.62	104.00
1	AA	1523	G	O5'-C5'-C4'	-5.74	102.88	111.50
11	AK	40	LYS	CA-C-O	-5.74	114.79	120.82
13	AM	7	ARG	CA-C-O	-5.74	114.05	120.54
17	AQ	84	ARG	CA-C-N	5.74	127.98	120.28
17	AQ	84	ARG	C-N-CA	5.74	127.98	120.28
18	AR	10	ILE	CA-C-O	-5.74	114.98	120.95
25	BA	87	U	O4'-C1'-C2'	-5.74	100.06	105.80
26	BB	1157	G	C3'-C2'-C1'	5.74	107.04	101.30
26	BB	1801	A	C4'-C3'-O3'	5.74	118.02	109.40
26	BB	2256	G	O4'-C1'-N9	5.74	117.11	108.50
50	BZ	22	ASN	CA-CB-CG	-5.74	106.86	112.60
4	AD	12	G	N9-C1'-C2'	-5.74	103.39	112.00
36	BL	33	ALA	CA-C-N	5.74	127.91	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	BL	33	ALA	C-N-CA	5.74	127.91	120.44
1	AA	478	A	O4'-C1'-C2'	-5.74	101.86	107.60
26	BB	1271	G	P-O5'-C5'	5.74	129.51	120.90
36	BL	76	HIS	CB-CG-ND1	5.74	131.31	122.70
43	BS	2	ARG	NE-CZ-NH1	-5.74	115.76	121.50
44	BT	37	GLU	CB-CA-C	5.74	118.28	111.22
1	AA	1016	A	O4'-C1'-N9	5.74	117.11	108.50
1	AA	1321	U	N1-C1'-C2'	5.74	120.61	112.00
4	AD	53	G	C3'-C2'-O2'	5.74	119.31	110.70
25	BA	47	C	O4'-C1'-N1	5.74	117.11	108.50
26	BB	836	G	C1'-C2'-O2'	5.74	117.01	108.40
26	BB	950	G	C2'-C3'-O3'	-5.74	105.09	113.70
26	BB	1613	G	C3'-C2'-C1'	-5.74	95.56	101.30
26	BB	1689	A	P-O3'-C3'	5.74	128.81	120.20
26	BB	2588	G	C3'-C2'-O2'	5.74	119.31	110.70
31	BG	79	ARG	NE-CZ-NH2	5.74	124.36	119.20
49	BY	2	HIS	CE1-NE2-CD2	-5.74	103.26	109.00
50	BZ	19	HIS	ND1-CG-CD2	-5.74	100.36	106.10
1	AA	1362	A	C4'-C3'-O3'	5.74	118.00	109.40
39	BO	71	LYS	CA-C-O	-5.74	112.89	119.32
45	BU	84	ARG	NE-CZ-NH1	-5.74	115.76	121.50
11	AK	127	TYR	CA-CB-CG	5.74	124.22	113.90
15	AO	41	PRO	CA-N-CD	-5.74	103.97	112.00
26	BB	734	A	O4'-C4'-C3'	5.74	109.74	104.00
26	BB	864	G	P-O3'-C3'	5.74	128.80	120.20
26	BB	1150	C	O3'-P-O5'	-5.74	95.40	104.00
26	BB	1353	A	C5'-C4'-O4'	5.74	118.40	109.80
26	BB	1664	A	C1'-O4'-C4'	-5.74	104.16	109.90
26	BB	2528	U	C2'-C3'-O3'	-5.74	105.10	113.70
26	BB	2848	G	O4'-C1'-C2'	5.74	111.53	105.80
41	BQ	65	THR	CB-CA-C	5.74	121.52	109.65
1	AA	1227	A	O4'-C1'-N9	5.73	116.80	108.20
26	BB	1514	G	C2'-C3'-O3'	5.73	122.30	113.70
26	BB	2049	G	O3'-P-O5'	5.73	112.60	104.00
29	BE	132	ALA	CA-C-N	5.73	132.79	122.64
29	BE	132	ALA	C-N-CA	5.73	132.79	122.64
41	BQ	102	ARG	CA-C-O	5.73	126.50	120.42
1	AA	217	C	O5'-C5'-C4'	5.73	120.10	111.50
26	BB	270	A	C1'-O4'-C4'	5.73	115.63	109.90
26	BB	625	G	C4'-C3'-O3'	-5.73	104.40	113.00
26	BB	1612	C	C3'-C2'-C1'	-5.73	95.57	101.30
30	BF	29	HIS	ND1-CE1-NE2	5.73	114.13	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BW	93	ARG	NE-CZ-NH2	5.73	124.36	119.20
53	B2	36	VAL	CB-CA-C	5.73	117.90	111.59
26	BB	1634	A	O4'-C4'-C3'	5.73	111.83	106.10
26	BB	2100	G	O4'-C4'-C3'	5.73	109.73	104.00
26	BB	2702	G	C1'-O4'-C4'	-5.73	104.17	109.90
46	BV	65	GLY	CA-C-O	-5.73	116.63	122.59
1	AA	1297	G	O4'-C1'-C2'	-5.73	100.07	105.80
26	BB	358	U	O4'-C1'-N1	5.73	117.09	108.50
49	BY	45	HIS	CB-CG-CD2	-5.73	123.75	131.20
5	AE	73	ARG	NE-CZ-NH1	5.73	127.23	121.50
26	BB	910	A	C3'-C2'-O2'	5.73	119.29	110.70
26	BB	2072	C	C1'-O4'-C4'	-5.73	104.17	109.90
26	BB	2125	G	C3'-C2'-C1'	5.73	107.23	101.50
29	BE	80	TRP	CB-CG-CD1	-5.73	118.31	126.90
45	BU	88	ARG	CA-C-N	5.73	132.48	121.54
45	BU	88	ARG	C-N-CA	5.73	132.48	121.54
1	AA	563	A	O3'-P-O5'	-5.73	95.41	104.00
16	AP	13	HIS	CB-CG-ND1	5.73	131.29	122.70
26	BB	1537	G	C2'-C3'-O3'	-5.73	105.11	113.70
26	BB	1681	G	C1'-C2'-O2'	5.73	120.39	111.80
26	BB	1954	G	O4'-C4'-C3'	5.73	111.83	106.10
26	BB	2821	A	O4'-C1'-N9	5.73	117.09	108.50
26	BB	2834	G	P-O3'-C3'	5.73	128.79	120.20
39	BO	85	GLY	O-C-N	-5.73	115.26	122.70
57	B6	61	LEU	O-C-N	5.73	126.65	121.04
1	AA	95	C	C5'-C4'-O4'	5.72	118.39	109.80
1	AA	382	A	C3'-C2'-C1'	-5.72	95.58	101.30
1	AA	525	C	C5'-C4'-O4'	5.72	118.39	109.80
32	BH	73	SER	CA-C-O	-5.72	114.77	120.90
1	AA	1341	U	C5'-C4'-C3'	-5.72	107.42	116.00
5	AE	209	VAL	N-CA-C	5.72	118.24	111.09
18	AR	44	GLU	N-CA-CB	-5.72	100.82	110.49
26	BB	387	U	C4'-C3'-O3'	5.72	117.98	109.40
26	BB	1069	A	O4'-C4'-C3'	5.72	109.72	104.00
26	BB	2770	G	P-O3'-C3'	5.72	128.78	120.20
31	BG	105	ILE	CA-C-O	-5.72	113.63	120.78
34	BJ	65	GLY	CA-C-O	-5.72	113.28	118.95
1	AA	800	G	O4'-C1'-N9	-5.72	99.92	108.50
1	AA	861	G	O4'-C4'-C3'	5.72	109.72	104.00
26	BB	354	A	C4'-C3'-O3'	5.72	121.58	113.00
1	AA	109	A	C5'-C4'-C3'	-5.72	106.62	115.20
1	AA	246	A	O3'-P-O5'	5.72	112.58	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	893	C	C4'-C3'-C2'	-5.72	96.88	102.60
14	AN	10	ARG	NE-CZ-NH2	5.72	124.35	119.20
22	AV	24	SER	CA-C-N	5.72	132.62	121.41
22	AV	24	SER	C-N-CA	5.72	132.62	121.41
26	BB	297	G	C4'-C3'-O3'	-5.72	104.42	113.00
26	BB	1446	C	C2'-C3'-O3'	-5.72	105.12	113.70
26	BB	1756	G	P-O3'-C3'	5.72	128.78	120.20
1	AA	109	A	C3'-C2'-C1'	5.72	107.22	101.50
1	AA	656	G	O4'-C4'-C3'	5.72	109.72	104.00
26	BB	817	C	C4'-C3'-O3'	5.72	121.58	113.00
26	BB	913	U	C3'-C2'-O2'	-5.72	106.02	114.60
26	BB	2005	A	C5'-C4'-C3'	-5.72	107.42	116.00
26	BB	2718	G	C5'-C4'-O4'	5.72	118.38	109.80
57	B6	33	THR	N-CA-C	-5.72	105.97	113.12
1	AA	12	U	P-O3'-C3'	5.72	128.77	120.20
1	AA	1084	G	C4'-C3'-C2'	-5.72	96.88	102.60
1	AA	1278	G	P-O5'-C5'	5.72	129.47	120.90
21	AU	34	GLU	N-CA-C	5.72	119.35	112.38
26	BB	2645	G	C3'-C2'-O2'	-5.72	106.03	114.60
40	BP	3	HIS	CB-CG-ND1	5.72	131.28	122.70
1	AA	53	A	O3'-P-O5'	-5.71	95.43	104.00
1	AA	941	G	C3'-C2'-C1'	5.71	107.02	101.30
11	AK	65	PHE	CA-CB-CG	-5.71	108.08	113.80
12	AL	44	ARG	O-C-N	5.71	129.30	122.27
16	AP	54	THR	N-CA-C	5.71	117.51	111.28
26	BB	23	G	C3'-C2'-C1'	5.71	107.01	101.30
26	BB	1139	G	O4'-C1'-C2'	5.71	113.31	107.60
26	BB	2122	U	C4'-C3'-C2'	-5.71	96.89	102.60
26	BB	2150	C	C5'-C4'-C3'	5.71	124.57	116.00
26	BB	2496	C	C3'-C2'-C1'	5.71	107.01	101.30
36	BL	17	VAL	CA-CB-CG1	5.71	120.11	110.40
20	AT	32	ILE	CA-C-O	-5.71	113.64	120.78
26	BB	417	C	O4'-C4'-C3'	5.71	109.71	104.00
26	BB	645	C	O4'-C1'-C2'	5.71	111.51	105.80
26	BB	2501	C	C4'-C3'-C2'	5.71	108.31	102.60
37	BM	9	ASN	CA-CB-CG	5.71	118.31	112.60
1	AA	143	A	C1'-O4'-C4'	5.71	115.61	109.90
8	AH	68	ARG	CA-CB-CG	5.71	125.52	114.10
26	BB	1350	C	O4'-C1'-C2'	-5.71	101.89	107.60
26	BB	2308	G	C1'-O4'-C4'	5.71	115.61	109.90
26	BB	2332	C	O4'-C1'-N1	5.71	117.07	108.50
28	BD	73	ILE	CA-C-O	5.71	122.52	119.15

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BN	103	ILE	CA-CB-CG2	5.71	120.21	110.50
1	AA	287	U	C4'-C3'-C2'	-5.71	96.89	102.60
1	AA	642	A	O4'-C4'-C3'	5.71	109.71	104.00
8	AH	52	ALA	CA-C-O	-5.71	115.33	121.38
22	AV	10	ILE	CA-C-O	-5.71	115.12	121.17
26	BB	2586	U	C4'-C3'-O3'	5.71	121.56	113.00
28	BD	88	ALA	N-CA-C	5.71	117.43	110.41
53	B2	66	ILE	N-CA-CB	5.71	114.90	110.45
1	AA	194	C	C1'-O4'-C4'	5.71	115.61	109.90
9	AI	79	ARG	CD-NE-CZ	5.71	132.39	124.40
20	AT	50	ASN	CA-CB-CG	5.71	118.31	112.60
26	BB	72	U	O3'-P-O5'	-5.71	95.44	104.00
26	BB	93	G	O4'-C1'-N9	5.71	117.06	108.50
26	BB	326	G	C2'-C3'-O3'	5.71	122.26	113.70
26	BB	2041	U	O4'-C1'-N1	5.71	117.06	108.50
26	BB	2765	A	C3'-C2'-O2'	5.71	119.26	110.70
32	BH	19	ASN	CA-CB-CG	-5.71	106.89	112.60
52	B1	44	ARG	N-CA-C	-5.71	105.06	111.28
1	AA	1448	C	O5'-C5'-C4'	-5.71	102.94	111.50
12	AL	33	SER	O-C-N	-5.71	116.28	122.79
17	AQ	2	LYS	N-CA-C	5.71	118.11	110.35
26	BB	1974	C	C3'-C2'-C1'	5.71	107.01	101.30
35	BK	49	GLU	N-CA-C	5.71	118.60	110.10
1	AA	851	G	C1'-C2'-O2'	-5.71	99.84	108.40
10	AJ	166	GLY	CA-C-N	5.71	131.10	120.95
10	AJ	166	GLY	C-N-CA	5.71	131.10	120.95
1	AA	1249	C	C3'-C2'-C1'	5.70	107.00	101.30
1	AA	1491	G	C4'-C3'-O3'	5.70	121.56	113.00
12	AL	81	GLY	O-C-N	5.70	127.67	122.19
15	AO	123	ALA	CB-CA-C	5.70	119.06	110.50
23	AW	51	ASN	CA-CB-CG	5.70	118.30	112.60
26	BB	271	G	O3'-P-O5'	-5.70	95.44	104.00
26	BB	447	A	C1'-C2'-O2'	-5.70	103.24	111.80
26	BB	608	A	O5'-C5'-C4'	-5.70	102.94	111.50
26	BB	1124	G	O4'-C1'-N9	5.70	117.05	108.50
26	BB	1920	C	C3'-C2'-O2'	5.70	119.25	110.70
51	B0	23	ARG	NH1-CZ-NH2	-5.70	111.89	119.30
1	AA	1298	U	N1-C1'-C2'	5.70	122.55	114.00
2	AB	70	C	O3'-P-O5'	5.70	112.55	104.00
4	AD	32	G	C1'-O4'-C4'	5.70	115.60	109.90
26	BB	617	G	O4'-C1'-C2'	-5.70	101.90	107.60
50	BZ	63	ILE	CA-C-N	5.70	128.19	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	BZ	63	ILE	C-N-CA	5.70	128.19	120.38
54	B3	45	ASP	CA-C-N	5.70	132.26	123.31
54	B3	45	ASP	C-N-CA	5.70	132.26	123.31
1	AA	1403	C	C5'-C4'-C3'	-5.70	107.45	116.00
1	AA	1477	U	C1'-O4'-C4'	5.70	115.60	109.90
36	BL	128	ASN	CA-CB-CG	5.70	118.30	112.60
1	AA	644	U	O4'-C1'-C2'	-5.70	101.90	107.60
1	AA	760	G	O4'-C1'-C2'	-5.70	101.90	107.60
19	AS	14	ARG	CD-NE-CZ	5.70	132.38	124.40
26	BB	85	G	N9-C1'-C2'	-5.70	103.45	112.00
26	BB	142	A	O4'-C4'-C3'	5.70	109.70	104.00
26	BB	1615	C	C3'-C2'-C1'	-5.70	95.80	101.50
41	BQ	99	TYR	CA-C-O	-5.70	114.47	121.02
1	AA	88	U	O4'-C4'-C3'	5.70	109.70	104.00
1	AA	903	G	C2'-C3'-O3'	-5.70	105.15	113.70
13	AM	81	GLU	CA-C-N	5.70	128.97	120.31
13	AM	81	GLU	C-N-CA	5.70	128.97	120.31
26	BB	1993	U	C5'-C4'-O4'	-5.70	101.25	109.80
37	BM	29	HIS	CB-CG-CD2	-5.70	123.79	131.20
4	AD	23	G	O5'-C5'-C4'	-5.70	102.96	111.50
20	AT	75	VAL	CA-C-N	5.70	131.53	122.59
20	AT	75	VAL	C-N-CA	5.70	131.53	122.59
26	BB	783	A	C4'-C3'-O3'	5.70	121.54	113.00
26	BB	1833	C	C4'-C3'-O3'	-5.70	104.46	113.00
1	AA	1338	G	C2'-C3'-O3'	5.69	122.24	113.70
1	AA	1512	U	O4'-C4'-C3'	-5.69	98.31	104.00
5	AE	121	GLN	OE1-CD-NE2	-5.69	116.91	122.60
8	AH	55	VAL	N-CA-CB	5.69	114.09	110.50
26	BB	152	A	C5'-C4'-C3'	-5.69	107.46	116.00
26	BB	2182	U	C3'-C2'-C1'	-5.69	95.61	101.30
26	BB	2700	A	O4'-C4'-C3'	5.69	109.69	104.00
1	AA	1125	U	O4'-C4'-C3'	5.69	111.79	106.10
10	AJ	116	ALA	O-C-N	5.69	128.15	122.12
26	BB	379	G	C4'-C3'-C2'	-5.69	96.91	102.60
26	BB	756	A	C4'-C3'-C2'	-5.69	96.91	102.60
26	BB	1409	U	O4'-C4'-C3'	5.69	109.69	104.00
26	BB	1475	G	O4'-C1'-C2'	-5.69	100.11	105.80
26	BB	2685	G	C1'-O4'-C4'	-5.69	104.21	109.90
26	BB	2802	G	O3'-P-O5'	-5.69	95.46	104.00
1	AA	1115	U	C4'-C3'-O3'	5.69	121.54	113.00
8	AH	113	VAL	CB-CA-C	-5.69	104.69	111.97
21	AU	63	TYR	N-CA-C	5.69	119.32	112.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	60	PHE	O-C-N	5.69	130.02	123.02
26	BB	174	U	C1'-O4'-C4'	-5.69	104.21	109.90
26	BB	590	A	C5'-C4'-O4'	5.69	118.33	109.80
26	BB	2239	G	O5'-C5'-C4'	5.69	120.04	111.50
39	BO	108	VAL	CB-CA-C	5.69	117.04	110.89
40	BP	113	ILE	CB-CA-C	5.69	119.05	110.63
42	BR	24	THR	CA-C-N	5.69	132.21	121.97
42	BR	24	THR	C-N-CA	5.69	132.21	121.97
52	B1	1	ALA	CB-CA-C	5.69	119.04	110.50
54	B3	37	HIS	CE1-NE2-CD2	5.69	114.69	109.00
56	B5	28	ARG	CB-CA-C	5.69	121.16	110.63
1	AA	375	U	C5'-C4'-C3'	-5.69	107.47	116.00
1	AA	1432	G	C4'-C3'-C2'	-5.69	96.91	102.60
44	BT	31	GLU	CA-C-O	-5.69	114.80	121.46
1	AA	369	G	O4'-C1'-N9	5.69	117.03	108.50
2	AB	52	A	O5'-C5'-C4'	-5.69	102.97	111.50
2	AB	61	C	O4'-C1'-N1	5.69	117.03	108.50
18	AR	37	HIS	CB-CG-CD2	-5.69	123.81	131.20
26	BB	2065	C	C4'-C3'-C2'	-5.69	96.91	102.60
26	BB	2084	C	O3'-P-O5'	-5.69	95.47	104.00
5	AE	52	ALA	CA-C-N	5.69	128.95	120.31
5	AE	52	ALA	C-N-CA	5.69	128.95	120.31
26	BB	2513	A	C4'-C3'-C2'	-5.69	96.91	102.60
57	B6	27	ASN	OD1-CG-ND2	5.69	128.29	122.60
2	AB	1	A	O5'-C5'-C4'	5.68	120.03	111.50
26	BB	162	U	O3'-P-O5'	-5.68	95.47	104.00
26	BB	573	U	C3'-C2'-O2'	-5.68	106.07	114.60
26	BB	2491	U	O3'-P-O5'	-5.68	95.47	104.00
42	BR	76	HIS	CG-CD2-NE2	-5.68	101.52	107.20
1	AA	6	G	N9-C1'-C2'	-5.68	105.48	114.00
1	AA	1470	U	O4'-C4'-C3'	5.68	109.68	104.00
1	AA	1483	A	O4'-C1'-N9	5.68	117.02	108.50
6	AF	58	ARG	O-C-N	5.68	126.61	121.04
20	AT	48	GLU	CB-CG-CD	-5.68	102.94	112.60
26	BB	344	A	O4'-C1'-N9	5.68	117.02	108.50
26	BB	1607	C	O4'-C4'-C3'	5.68	111.78	106.10
26	BB	1715	G	P-O3'-C3'	5.68	128.72	120.20
26	BB	2164	C	C2'-C3'-O3'	5.68	118.03	109.50
29	BE	67	HIS	CG-ND1-CE1	-5.68	99.64	109.30
52	B1	52	PHE	CA-CB-CG	-5.68	108.12	113.80
15	AO	27	PRO	N-CD-CG	5.68	111.72	103.20
26	BB	1265	A	C1'-C2'-O2'	5.68	120.32	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1651	G	C5'-C4'-C3'	-5.68	107.48	116.00
31	BG	94	ARG	CA-C-N	5.68	128.36	120.29
31	BG	94	ARG	C-N-CA	5.68	128.36	120.29
1	AA	827	U	C2'-C3'-O3'	-5.68	105.18	113.70
1	AA	1062	U	P-O3'-C3'	5.68	128.72	120.20
6	AF	195	ILE	CA-C-O	5.68	128.45	121.75
17	AQ	28	ALA	CA-C-N	5.68	128.48	120.42
17	AQ	28	ALA	C-N-CA	5.68	128.48	120.42
26	BB	114	U	O4'-C1'-C2'	-5.68	101.92	107.60
26	BB	984	A	C4'-C3'-O3'	5.68	117.92	109.40
26	BB	1615	C	O4'-C1'-N1	5.68	116.72	108.20
26	BB	1726	C	C5'-C4'-O4'	5.68	118.32	109.80
26	BB	2887	A	O4'-C4'-C3'	5.68	109.68	104.00
30	BF	120	VAL	CB-CA-C	5.68	119.03	110.63
39	BO	8	LYS	N-CA-CB	-5.68	103.35	110.90
57	B6	44	ARG	NE-CZ-NH2	5.68	124.31	119.20
12	AL	97	LEU	CA-C-N	5.68	128.35	120.29
12	AL	97	LEU	C-N-CA	5.68	128.35	120.29
1	AA	1194	U	C5'-C4'-O4'	5.68	118.32	109.80
5	AE	56	LEU	CA-C-N	5.68	128.20	120.54
5	AE	56	LEU	C-N-CA	5.68	128.20	120.54
6	AF	153	SER	N-CA-CB	-5.68	102.59	111.56
21	AU	21	ASP	N-CA-C	5.68	117.86	110.43
26	BB	414	C	C4'-C3'-C2'	-5.68	96.92	102.60
26	BB	444	C	C5'-C4'-C3'	-5.68	107.49	116.00
26	BB	1617	C	N1-C1'-C2'	5.68	122.51	114.00
26	BB	1828	G	C1'-O4'-C4'	-5.68	104.02	109.70
26	BB	2113	U	C4'-C3'-C2'	-5.68	96.92	102.60
26	BB	2166	U	C2'-C3'-O3'	-5.68	105.19	113.70
26	BB	2600	A	C1'-O4'-C4'	-5.68	104.22	109.90
42	BR	12	MET	N-CA-CB	5.68	118.40	109.83
1	AA	83	C	C5'-C4'-O4'	5.67	118.31	109.80
1	AA	1135	U	C3'-C2'-O2'	5.67	119.21	110.70
25	BA	44	G	C3'-C2'-C1'	-5.67	95.83	101.50
26	BB	1193	G	C3'-C2'-O2'	5.67	119.21	110.70
26	BB	1377	G	O4'-C1'-C2'	5.67	113.28	107.60
26	BB	1786	A	C1'-C2'-O2'	-5.67	103.29	111.80
26	BB	2653	U	O3'-P-O5'	-5.67	95.49	104.00
26	BB	2828	G	C3'-C2'-O2'	-5.67	102.19	110.70
28	BD	249	VAL	CA-C-N	5.67	128.77	120.71
28	BD	249	VAL	C-N-CA	5.67	128.77	120.71
43	BS	35	PHE	N-CA-C	-5.67	105.01	111.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BY	79	ILE	CB-CG1-CD1	5.67	125.72	113.80
26	BB	293	U	C4'-C3'-C2'	5.67	108.27	102.60
26	BB	1742	U	O4'-C1'-C2'	-5.67	101.93	107.60
26	BB	2317	A	O4'-C1'-C2'	5.67	113.27	107.60
1	AA	1065	U	C1'-C2'-O2'	5.67	120.31	111.80
6	AF	178	ARG	NE-CZ-NH1	-5.67	115.83	121.50
12	AL	50	PRO	CA-N-CD	-5.67	104.06	112.00
26	BB	1577	C	C4'-C3'-C2'	-5.67	96.93	102.60
36	BL	49	ASP	CA-CB-CG	5.67	118.27	112.60
55	B4	34	GLU	CA-C-O	-5.67	114.86	120.70
1	AA	417	G	C3'-C2'-C1'	-5.67	95.63	101.30
26	BB	253	C	C5'-C4'-O4'	5.67	118.30	109.80
26	BB	2623	G	C3'-C2'-C1'	-5.67	95.63	101.30
1	AA	717	U	C4'-C3'-C2'	-5.67	96.93	102.60
25	BA	6	G	C1'-O4'-C4'	5.67	115.57	109.90
25	BA	47	C	C1'-O4'-C4'	-5.67	104.23	109.90
1	AA	492	C	C4'-C3'-C2'	-5.67	96.93	102.60
1	AA	951	G	O4'-C4'-C3'	-5.67	98.33	104.00
26	BB	1406	U	O4'-C1'-C2'	5.67	113.27	107.60
26	BB	1841	U	O4'-C1'-N1	5.67	117.00	108.50
29	BE	65	ALA	CA-C-O	-5.67	114.41	120.42
32	BH	122	ALA	CA-C-N	5.67	131.16	121.87
32	BH	122	ALA	C-N-CA	5.67	131.16	121.87
1	AA	902	G	O4'-C1'-N9	5.67	117.00	108.50
21	AU	4	PHE	CA-CB-CG	5.67	119.47	113.80
23	AW	4	LYS	CA-C-N	5.67	133.27	121.94
23	AW	4	LYS	C-N-CA	5.67	133.27	121.94
1	AA	705	G	C5'-C4'-C3'	-5.66	107.51	116.00
1	AA	1017	U	O4'-C1'-N1	5.66	116.99	108.50
5	AE	107	ARG	NE-CZ-NH2	-5.66	114.10	119.20
5	AE	185	ILE	O-C-N	-5.66	117.54	123.03
25	BA	119	A	C1'-O4'-C4'	-5.66	104.24	109.90
26	BB	1040	A	O3'-P-O5'	5.66	112.49	104.00
26	BB	1134	A	C4'-C3'-O3'	5.66	117.90	109.40
26	BB	1141	U	C5'-C4'-C3'	-5.66	106.71	115.20
26	BB	1462	C	C3'-C2'-C1'	-5.66	95.64	101.30
26	BB	1614	A	C2'-C3'-O3'	5.66	122.19	113.70
26	BB	2131	U	O5'-C5'-C4'	5.66	119.99	111.50
26	BB	2573	C	O3'-P-O5'	-5.66	95.50	104.00
26	BB	2606	C	O4'-C1'-N1	5.66	117.00	108.50
26	BB	2838	G	C1'-O4'-C4'	5.66	115.56	109.90
51	B0	25	GLN	CA-C-N	5.66	128.33	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	B0	25	GLN	C-N-CA	5.66	128.33	120.29
57	B6	12	ARG	N-CA-CB	-5.66	102.21	110.53
1	AA	504	C	C3'-C2'-C1'	5.66	106.96	101.30
1	AA	790	A	C4'-C3'-O3'	5.66	121.49	113.00
1	AA	1224	U	C3'-C2'-C1'	5.66	107.16	101.50
1	AA	143	A	O4'-C1'-C2'	-5.66	101.94	107.60
4	AD	32	G	O4'-C4'-C3'	-5.66	98.34	104.00
26	BB	378	C	C3'-C2'-O2'	5.66	119.19	110.70
26	BB	458	G	C5'-C4'-C3'	-5.66	106.71	115.20
26	BB	1084	A	O3'-P-O5'	5.66	112.49	104.00
26	BB	1988	G	O4'-C4'-C3'	5.66	109.66	104.00
26	BB	2657	A	C5'-C4'-C3'	-5.66	107.51	116.00
36	BL	96	ARG	NE-CZ-NH1	-5.66	115.84	121.50
53	B2	45	THR	N-CA-C	-5.66	106.17	112.57
1	AA	1536	C	N1-C1'-C2'	5.66	120.49	112.00
4	AD	48	U	C5'-C4'-C3'	5.66	124.49	116.00
15	AO	110	LYS	O-C-N	5.66	128.88	122.20
25	BA	86	G	O3'-P-O5'	5.66	112.49	104.00
26	BB	1904	G	C3'-C2'-O2'	5.66	119.19	110.70
26	BB	2345	G	C1'-C2'-O2'	-5.66	103.31	111.80
26	BB	2347	C	O4'-C1'-N1	5.66	116.99	108.50
37	BM	3	GLN	OE1-CD-NE2	-5.66	116.94	122.60
56	B5	24	THR	CA-C-O	-5.66	114.57	121.36
16	AP	31	ALA	CA-C-N	5.66	128.45	120.42
16	AP	31	ALA	C-N-CA	5.66	128.45	120.42
23	AW	31	ILE	CA-C-N	5.66	127.86	120.28
23	AW	31	ILE	C-N-CA	5.66	127.86	120.28
26	BB	1498	C	C4'-C3'-C2'	-5.66	96.94	102.60
1	AA	93	U	C3'-C2'-C1'	5.66	106.96	101.30
1	AA	339	C	N1-C1'-C2'	-5.66	103.52	112.00
1	AA	843	U	C5'-C4'-C3'	-5.66	106.72	115.20
1	AA	1235	U	O4'-C1'-N1	5.66	116.98	108.50
3	AC	58	C	C4'-C3'-C2'	5.66	108.25	102.60
4	AD	7	G	C3'-C2'-C1'	5.66	107.16	101.50
23	AW	30	PHE	N-CA-CB	5.66	118.21	110.01
26	BB	375	G	O4'-C1'-C2'	-5.66	101.94	107.60
26	BB	859	G	C3'-C2'-O2'	-5.66	106.12	114.60
26	BB	1446	C	O4'-C1'-C2'	-5.66	101.94	107.60
26	BB	2811	G	O3'-P-O5'	-5.66	95.52	104.00
26	BB	2858	C	N1-C1'-C2'	5.66	120.48	112.00
26	BB	2901	C	C1'-O4'-C4'	-5.66	104.25	109.90
30	BF	179	SER	O-C-N	5.66	127.89	122.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BM	120	PRO	N-CD-CG	5.66	111.68	103.20
39	BO	124	LEU	CA-C-N	5.66	125.27	119.56
39	BO	124	LEU	C-N-CA	5.66	125.27	119.56
49	BY	76	ARG	CB-CA-C	5.66	119.32	109.65
30	BF	191	ASP	CA-C-O	-5.65	114.88	120.70
1	AA	459	A	N9-C1'-C2'	-5.65	103.52	112.00
5	AE	207	ARG	N-CA-C	5.65	118.38	111.82
25	BA	43	C	P-O3'-C3'	5.65	128.68	120.20
26	BB	597	G	C2'-C3'-O3'	-5.65	105.22	113.70
26	BB	1271	G	N9-C1'-C2'	5.65	120.48	112.00
29	BE	32	ASN	N-CA-CB	-5.65	101.83	110.65
40	BP	55	ALA	N-CA-C	5.65	119.80	113.02
47	BW	95	PHE	CA-CB-CG	5.65	119.45	113.80
52	B1	54	VAL	CA-C-O	5.65	128.78	121.32
1	AA	1249	C	C4'-C3'-C2'	-5.65	96.95	102.60
22	AV	72	GLU	N-CA-C	5.65	117.24	111.14
25	BA	17	C	O4'-C4'-C3'	5.65	109.65	104.00
26	BB	554	U	O4'-C1'-C2'	-5.65	101.95	107.60
15	AO	44	PRO	CA-N-CD	-5.65	104.09	112.00
26	BB	2820	A	O4'-C1'-N9	5.65	116.97	108.50
1	AA	820	U	C4'-C3'-O3'	5.65	117.87	109.40
6	AF	185	THR	O-C-N	-5.65	115.67	123.12
7	AG	2	ARG	CA-C-N	5.65	132.33	121.54
7	AG	2	ARG	C-N-CA	5.65	132.33	121.54
24	AX	30	GLU	CA-C-N	5.65	130.26	121.85
24	AX	30	GLU	C-N-CA	5.65	130.26	121.85
26	BB	633	A	C1'-O4'-C4'	5.65	115.55	109.90
26	BB	693	A	O4'-C1'-N9	5.65	116.97	108.50
26	BB	832	U	C5'-C4'-O4'	5.65	118.27	109.80
26	BB	2876	G	O4'-C4'-C3'	-5.65	98.35	104.00
26	BB	31	C	C5'-C4'-C3'	-5.65	107.53	116.00
26	BB	1927	A	O4'-C1'-C2'	-5.65	101.95	107.60
1	AA	499	A	C1'-C2'-O2'	5.64	120.27	111.80
1	AA	620	C	C2'-C3'-O3'	-5.64	105.23	113.70
1	AA	731	G	O3'-P-O5'	-5.64	95.53	104.00
3	AC	52	U	O4'-C4'-C3'	5.64	111.74	106.10
26	BB	479	A	C2'-C3'-O3'	5.64	117.97	109.50
26	BB	704	G	C1'-O4'-C4'	-5.64	104.26	109.90
28	BD	28	PRO	CA-N-CD	-5.64	104.10	112.00
6	AF	97	PRO	N-CA-C	5.64	120.08	111.11
14	AN	122	PRO	N-CA-CB	5.64	108.55	103.08
26	BB	1460	U	O4'-C4'-C3'	5.64	109.64	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1975	G	C1'-O4'-C4'	-5.64	104.26	109.90
25	BA	66	A	C1'-C2'-O2'	5.64	116.86	108.40
26	BB	1043	C	N1-C1'-C2'	-5.64	103.54	112.00
26	BB	1280	G	N9-C1'-C2'	-5.64	103.54	112.00
26	BB	1927	A	C3'-C2'-O2'	5.64	119.16	110.70
1	AA	1001	C	C1'-O4'-C4'	-5.64	104.26	109.90
26	BB	1364	G	C3'-C2'-C1'	-5.64	95.66	101.30
26	BB	1490	A	P-O3'-C3'	5.64	128.66	120.20
26	BB	2633	G	O4'-C1'-N9	5.64	116.96	108.50
26	BB	2865	U	O4'-C1'-N1	5.64	116.96	108.50
33	BI	132	PHE	CA-C-O	-5.64	115.42	121.45
5	AE	143	LEU	O-C-N	5.64	127.88	122.07
6	AF	200	TRP	CG-CD1-NE1	-5.64	102.87	110.20
21	AU	9	PHE	O-C-N	-5.64	114.95	122.00
26	BB	244	A	C4'-C3'-C2'	-5.64	96.96	102.60
26	BB	2048	G	C4'-C3'-C2'	-5.64	96.96	102.60
2	AB	27	C	P-O5'-C5'	5.64	129.35	120.90
2	AB	47	U	O4'-C1'-C2'	-5.64	100.16	105.80
35	BK	126	ARG	N-CA-C	5.64	118.19	111.71
43	BS	14	LYS	CA-C-O	-5.64	113.73	120.10
1	AA	694	A	C4'-C3'-O3'	5.63	121.45	113.00
1	AA	777	A	C3'-C2'-O2'	-5.63	102.25	110.70
1	AA	1114	C	C5'-C4'-C3'	-5.63	107.55	116.00
26	BB	623	C	C3'-C2'-O2'	5.63	119.15	110.70
26	BB	782	A	O4'-C1'-N9	5.63	116.65	108.20
26	BB	924	G	C4'-C3'-C2'	-5.63	96.97	102.60
26	BB	1426	G	C4'-C3'-C2'	-5.63	96.97	102.60
28	BD	57	HIS	CE1-NE2-CD2	-5.63	103.36	109.00
51	B0	28	LEU	CA-C-N	5.63	128.39	120.28
51	B0	28	LEU	C-N-CA	5.63	128.39	120.28
1	AA	382	A	C1'-C2'-O2'	5.63	116.85	108.40
1	AA	609	A	C2'-C3'-O3'	-5.63	105.25	113.70
10	AJ	167	ALA	CA-C-O	-5.63	115.67	122.03
12	AL	105	ARG	CA-C-O	-5.63	114.85	121.16
16	AP	32	ILE	N-CA-C	5.63	116.41	110.72
19	AS	11	ALA	O-C-N	5.63	129.80	122.87
26	BB	217	A	C3'-C2'-O2'	5.63	119.15	110.70
38	BN	71	ALA	CA-C-O	-5.63	112.46	120.51
1	AA	452	A	C2'-C3'-O3'	-5.63	105.25	113.70
1	AA	1222	G	C1'-C2'-O2'	5.63	116.84	108.40
22	AV	78	THR	CA-C-N	5.63	132.05	122.37
22	AV	78	THR	C-N-CA	5.63	132.05	122.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	456	C	C3'-C2'-O2'	-5.63	106.16	114.60
26	BB	2592	G	C3'-C2'-C1'	5.63	106.93	101.30
46	BV	92	ASN	CA-CB-CG	5.63	118.23	112.60
1	AA	202	G	C4'-C3'-C2'	-5.63	96.97	102.60
1	AA	934	C	O4'-C1'-N1	5.63	116.64	108.20
1	AA	1298	U	O4'-C1'-C2'	-5.63	100.17	105.80
14	AN	3	ALA	N-CA-CB	-5.63	104.20	111.35
26	BB	1360	G	P-O5'-C5'	5.63	129.34	120.90
26	BB	1802	A	O4'-C4'-C3'	5.63	109.63	104.00
26	BB	2850	A	O3'-P-O5'	-5.63	95.56	104.00
45	BU	88	ARG	NE-CZ-NH2	5.63	124.27	119.20
47	BW	11	ILE	CA-CB-CG1	5.63	119.97	110.40
1	AA	782	A	N9-C1'-C2'	-5.63	103.56	112.00
1	AA	1257	A	O3'-P-O5'	-5.63	95.56	104.00
11	AK	48	PHE	N-CA-CB	-5.63	102.27	111.66
26	BB	1635	A	C4'-C3'-O3'	-5.62	104.56	113.00
1	AA	484	G	N9-C1'-C2'	-5.62	105.57	114.00
1	AA	744	C	C2'-C3'-O3'	5.62	122.14	113.70
2	AB	66	C	O4'-C1'-C2'	-5.62	101.98	107.60
13	AM	76	ILE	N-CA-CB	-5.62	102.05	111.38
21	AU	7	ARG	NE-CZ-NH2	5.62	124.26	119.20
26	BB	843	G	C3'-C2'-C1'	-5.62	95.68	101.30
26	BB	1394	U	O4'-C1'-N1	5.62	116.94	108.50
26	BB	2012	G	O5'-C5'-C4'	5.62	119.93	111.50
26	BB	2468	A	C1'-O4'-C4'	-5.62	104.08	109.70
26	BB	2622	U	C3'-C2'-C1'	5.62	106.92	101.30
51	B0	30	MET	CA-C-N	5.62	128.28	120.29
51	B0	30	MET	C-N-CA	5.62	128.28	120.29
1	AA	21	G	C5'-C4'-O4'	5.62	118.23	109.80
1	AA	246	A	C1'-O4'-C4'	5.62	115.32	109.70
1	AA	311	C	C1'-O4'-C4'	5.62	115.52	109.90
1	AA	760	G	O4'-C1'-N9	5.62	116.93	108.50
1	AA	806	C	O4'-C1'-C2'	5.62	113.22	107.60
1	AA	1097	C	C5'-C4'-O4'	5.62	118.23	109.80
1	AA	1113	C	O4'-C1'-N1	5.62	116.93	108.50
26	BB	1293	C	P-O3'-C3'	5.62	128.63	120.20
27	BC	122	ARG	CD-NE-CZ	5.62	132.27	124.40
38	BN	2	ARG	NH1-CZ-NH2	-5.62	111.99	119.30
9	AI	43	GLY	CA-C-N	5.62	128.85	120.87
9	AI	43	GLY	C-N-CA	5.62	128.85	120.87
26	BB	1589	U	C1'-O4'-C4'	-5.62	104.28	109.90
26	BB	2116	G	C3'-C2'-O2'	5.62	119.13	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	833	G	C4'-C3'-C2'	-5.62	96.98	102.60
1	AA	1437	A	C1'-C2'-O2'	5.62	116.83	108.40
7	AG	65	GLY	O-C-N	5.62	128.48	122.41
11	AK	6	ILE	CA-CB-CG1	5.62	119.95	110.40
23	AW	70	LYS	CA-C-N	5.62	128.60	120.79
23	AW	70	LYS	C-N-CA	5.62	128.60	120.79
26	BB	990	A	P-O3'-C3'	5.62	128.63	120.20
26	BB	2091	C	C2'-C3'-O3'	-5.62	105.27	113.70
26	BB	2354	C	O5'-C5'-C4'	-5.62	103.07	111.50
47	BW	66	VAL	CA-CB-CG2	5.62	119.95	110.40
1	AA	326	G	O4'-C1'-N9	5.62	116.93	108.50
1	AA	9	G	N9-C1'-C2'	-5.62	103.58	112.00
1	AA	58	C	C3'-C2'-C1'	-5.62	95.68	101.30
1	AA	1128	C	O4'-C4'-C3'	5.62	109.62	104.00
25	BA	46	A	O4'-C1'-N9	5.62	116.92	108.50
26	BB	1058	U	C5'-C4'-O4'	5.62	118.22	109.80
26	BB	2332	C	C2'-C3'-O3'	-5.62	105.28	113.70
26	BB	2708	G	P-O5'-C5'	5.62	129.32	120.90
30	BF	32	VAL	CA-CB-CG1	5.62	119.95	110.40
43	BS	39	ILE	O-C-N	-5.62	116.05	121.83
1	AA	1101	A	O4'-C1'-N9	5.61	116.62	108.20
26	BB	254	G	C3'-C2'-C1'	5.61	106.91	101.30
26	BB	551	G	C3'-C2'-O2'	5.61	119.12	110.70
26	BB	775	G	O4'-C4'-C3'	5.61	111.71	106.10
26	BB	784	G	O4'-C1'-N9	5.61	116.92	108.50
26	BB	2569	G	O4'-C1'-N9	5.61	116.92	108.50
45	BU	54	ALA	CA-C-N	5.61	128.15	120.46
45	BU	54	ALA	C-N-CA	5.61	128.15	120.46
10	AJ	135	LYS	CA-C-N	5.61	128.26	120.29
10	AJ	135	LYS	C-N-CA	5.61	128.26	120.29
15	AO	113	ARG	CD-NE-CZ	5.61	132.26	124.40
26	BB	2759	G	O4'-C4'-C3'	5.61	109.61	104.00
32	BH	7	PRO	CA-C-N	5.61	132.07	121.97
32	BH	7	PRO	C-N-CA	5.61	132.07	121.97
1	AA	1025	U	C1'-O4'-C4'	-5.61	104.09	109.70
1	AA	1465	A	C3'-C2'-O2'	5.61	119.12	110.70
4	AD	44	A	C2'-C3'-O3'	-5.61	105.28	113.70
26	BB	42	A	C4'-C3'-C2'	-5.61	96.99	102.60
26	BB	381	G	C5'-C4'-C3'	-5.61	107.59	116.00
26	BB	449	A	O4'-C1'-C2'	-5.61	101.99	107.60
26	BB	998	C	C3'-C2'-C1'	5.61	106.91	101.30
26	BB	1207	C	C4'-C3'-C2'	5.61	108.21	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2681	C	C5'-C4'-C3'	-5.61	106.78	115.20
26	BB	2866	U	O3'-P-O5'	-5.61	95.59	104.00
30	BF	184	ASP	N-CA-C	5.61	117.07	111.07
1	AA	913	A	O4'-C1'-N9	5.61	116.61	108.20
3	AC	17	U	O4'-C1'-N1	5.61	116.91	108.50
4	AD	2	G	C5'-C4'-C3'	-5.61	107.59	116.00
26	BB	1844	C	C1'-C2'-O2'	5.61	116.81	108.40
36	BL	71	ASP	N-CA-C	5.61	119.97	113.18
1	AA	182	A	C5'-C4'-C3'	-5.61	106.79	115.20
1	AA	772	U	O4'-C1'-N1	5.61	116.91	108.50
1	AA	1230	C	O4'-C4'-C3'	-5.61	98.39	104.00
26	BB	939	G	C3'-C2'-O2'	5.61	119.11	110.70
26	BB	1280	G	C1'-C2'-O2'	-5.61	99.99	108.40
28	BD	147	PRO	N-CA-CB	5.61	108.01	103.36
28	BD	187	CYS	O-C-N	5.61	129.22	122.94
1	AA	180	U	O3'-P-O5'	-5.61	95.59	104.00
1	AA	461	A	C1'-C2'-O2'	5.61	116.81	108.40
1	AA	1128	C	C4'-C3'-C2'	-5.61	96.99	102.60
26	BB	1224	U	P-O3'-C3'	5.61	128.61	120.20
26	BB	1568	G	C5'-C4'-O4'	5.61	118.21	109.80
26	BB	2084	C	C1'-O4'-C4'	-5.61	104.30	109.90
26	BB	2401	U	P-O3'-C3'	5.61	128.61	120.20
26	BB	2687	U	P-O3'-C3'	5.61	128.61	120.20
40	BP	69	ARG	CA-C-O	-5.61	114.93	120.70
51	B0	23	ARG	NE-CZ-NH1	5.61	127.11	121.50
1	AA	122	G	O4'-C1'-N9	5.60	116.91	108.50
1	AA	1359	C	O3'-P-O5'	-5.60	95.59	104.00
26	BB	468	G	O5'-C5'-C4'	-5.60	103.09	111.50
26	BB	1404	C	C4'-C3'-C2'	-5.60	97.00	102.60
1	AA	1208	C	C1'-O4'-C4'	-5.60	104.30	109.90
1	AA	1231	G	C1'-O4'-C4'	-5.60	104.30	109.90
13	AM	15	HIS	CB-CG-CD2	-5.60	123.92	131.20
26	BB	1952	A	O4'-C4'-C3'	5.60	109.60	104.00
26	BB	2726	A	C4'-C3'-C2'	5.60	108.20	102.60
29	BE	116	LYS	CA-CB-CG	5.60	125.31	114.10
32	BH	21	GLN	CA-C-N	5.60	129.64	121.80
32	BH	21	GLN	C-N-CA	5.60	129.64	121.80
39	BO	65	ILE	CA-CB-CG1	5.60	119.92	110.40
1	AA	51	A	O3'-P-O5'	-5.60	95.60	104.00
1	AA	866	C	O4'-C4'-C3'	5.60	109.60	104.00
33	BI	123	ARG	CD-NE-CZ	5.60	132.24	124.40
1	AA	511	C	C1'-O4'-C4'	-5.60	104.10	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	654	G	C5'-C4'-O4'	-5.60	101.40	109.80
1	AA	871	U	C1'-O4'-C4'	-5.60	104.10	109.70
1	AA	914	A	C4'-C3'-O3'	-5.60	104.60	113.00
6	AF	88	LYS	O-C-N	5.60	127.84	122.07
7	AG	110	ARG	CA-C-O	-5.60	114.61	120.55
8	AH	32	PHE	CB-CG-CD2	-5.60	111.18	120.70
24	AX	17	ARG	NE-CZ-NH2	-5.60	114.16	119.20
25	BA	73	A	C5'-C4'-O4'	5.60	118.20	109.80
26	BB	308	G	C1'-O4'-C4'	5.60	115.50	109.90
26	BB	619	G	O4'-C4'-C3'	-5.60	98.40	104.00
26	BB	954	G	O4'-C4'-C3'	5.60	109.60	104.00
26	BB	2799	A	O3'-P-O5'	5.60	112.40	104.00
29	BE	118	PHE	CA-C-N	5.60	132.23	121.54
29	BE	118	PHE	C-N-CA	5.60	132.23	121.54
1	AA	1058	G	C4'-C3'-C2'	5.60	108.20	102.60
1	AA	1201	A	O4'-C1'-C2'	5.60	111.40	105.80
15	AO	90	PRO	CA-C-N	5.60	131.09	121.07
15	AO	90	PRO	C-N-CA	5.60	131.09	121.07
26	BB	172	A	C3'-C2'-C1'	-5.60	95.70	101.30
26	BB	747	5MU	O3'-P-O5'	-5.60	95.60	104.00
26	BB	1683	U	O4'-C1'-N1	5.60	116.90	108.50
26	BB	2632	A	C1'-C2'-O2'	-5.60	100.00	108.40
30	BF	195	GLN	OE1-CD-NE2	-5.60	117.00	122.60
33	BI	96	THR	CA-C-O	-5.60	114.49	120.42
36	BL	137	PRO	N-CA-CB	5.60	109.13	103.25
42	BR	114	ASN	OD1-CG-ND2	-5.60	117.00	122.60
51	B0	41	HIS	N-CA-C	-5.60	105.71	112.54
56	B5	43	THR	CA-CB-OG1	-5.60	101.20	109.60
1	AA	105	G	C4'-C3'-C2'	-5.60	97.00	102.60
4	AD	52	C	C1'-C2'-O2'	-5.60	100.01	108.40
26	BB	1826	G	C4'-C3'-C2'	-5.60	97.00	102.60
40	BP	112	TYR	N-CA-C	-5.60	100.56	109.96
1	AA	51	A	C5'-C4'-O4'	5.59	117.49	109.10
7	AG	10	LEU	CA-C-O	-5.59	113.19	119.79
24	AX	56	ALA	N-CA-C	-5.59	104.40	111.11
26	BB	707	G	C1'-C2'-O2'	-5.59	100.01	108.40
26	BB	837	C	C1'-O4'-C4'	-5.59	104.31	109.90
26	BB	1510	G	O4'-C1'-C2'	-5.59	102.00	107.60
36	BL	35	ARG	CA-C-O	-5.59	114.49	120.42
38	BN	70	LYS	CB-CG-CD	5.59	124.17	111.30
1	AA	1515	G	C5'-C4'-O4'	5.59	118.19	109.80
26	BB	2481	G	C5'-C4'-C3'	-5.59	107.61	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BY	48	ALA	CA-C-N	5.59	131.78	121.94
49	BY	48	ALA	C-N-CA	5.59	131.78	121.94
1	AA	300	A	O5'-C5'-C4'	5.59	119.89	111.50
1	AA	1127	G	C3'-C2'-C1'	5.59	106.89	101.30
5	AE	102	ASN	CA-CB-CG	5.59	118.19	112.60
16	AP	111	PRO	CA-C-N	5.59	129.72	120.94
16	AP	111	PRO	C-N-CA	5.59	129.72	120.94
26	BB	599	A	C1'-O4'-C4'	-5.59	104.31	109.90
26	BB	1505	A	O3'-P-O5'	5.59	112.39	104.00
27	BC	195	ALA	O-C-N	-5.59	115.78	122.15
1	AA	17	U	O4'-C1'-C2'	-5.59	102.01	107.60
19	AS	40	ASN	CA-C-N	5.59	125.20	119.56
19	AS	40	ASN	C-N-CA	5.59	125.20	119.56
26	BB	1905	C	C1'-C2'-O2'	-5.59	100.02	108.40
35	BK	27	LEU	CA-C-N	5.59	127.12	120.14
35	BK	27	LEU	C-N-CA	5.59	127.12	120.14
1	AA	312	C	C3'-C2'-C1'	5.59	106.89	101.30
1	AA	1091	U	O4'-C4'-C3'	5.59	109.59	104.00
18	AR	28	VAL	CB-CA-C	5.59	119.12	111.97
26	BB	829	A	C3'-C2'-O2'	-5.59	106.22	114.60
26	BB	1102	C	C5'-C4'-C3'	-5.59	107.62	116.00
26	BB	1568	G	O4'-C4'-C3'	5.59	109.59	104.00
26	BB	2571	U	O4'-C1'-C2'	-5.59	102.01	107.60
34	BJ	161	LYS	CA-C-N	5.59	129.04	121.05
34	BJ	161	LYS	C-N-CA	5.59	129.04	121.05
41	BQ	37	ALA	O-C-N	5.59	130.09	123.33
51	B0	25	GLN	N-CA-C	5.59	117.45	111.36
1	AA	47	C	O4'-C1'-N1	5.58	116.58	108.20
1	AA	665	A	O4'-C1'-C2'	-5.58	102.02	107.60
5	AE	49	PHE	CA-C-N	5.58	128.22	120.29
5	AE	49	PHE	C-N-CA	5.58	128.22	120.29
7	AG	31	CYS	N-CA-C	-5.58	107.71	114.75
26	BB	886	A	C5'-C4'-C3'	-5.58	107.62	116.00
26	BB	1210	G	C4'-C3'-C2'	5.58	108.19	102.60
26	BB	2284	A	C1'-C2'-O2'	5.58	116.78	108.40
30	BF	189	THR	N-CA-C	-5.58	101.03	108.74
1	AA	323	U	O5'-C5'-C4'	5.58	119.87	111.50
1	AA	436	C	C1'-C2'-O2'	-5.58	100.02	108.40
4	AD	26	C	O4'-C4'-C3'	5.58	109.58	104.00
4	AD	76	C	C1'-O4'-C4'	-5.58	104.32	109.90
10	AJ	152	HIS	ND1-CE1-NE2	5.58	113.98	108.40
20	AT	28	VAL	CA-C-N	5.58	130.35	122.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	AT	28	VAL	C-N-CA	5.58	130.35	122.09
26	BB	1155	A	O3'-P-O5'	-5.58	95.62	104.00
26	BB	2771	C	C5'-C4'-O4'	5.58	118.18	109.80
36	BL	91	GLU	CB-CA-C	5.58	119.65	110.88
1	AA	11	G	C4'-C3'-C2'	-5.58	97.02	102.60
1	AA	59	A	O4'-C1'-C2'	-5.58	102.02	107.60
1	AA	109	A	C4'-C3'-C2'	-5.58	97.02	102.60
26	BB	1442	U	O5'-C5'-C4'	5.58	119.87	111.50
31	BG	178	LYS	CA-CB-CG	-5.58	102.94	114.10
36	BL	110	PRO	N-CA-C	5.58	119.23	110.80
1	AA	177	G	O4'-C4'-C3'	-5.58	98.42	104.00
26	BB	1176	U	C3'-C2'-C1'	5.58	106.88	101.30
26	BB	1885	A	O4'-C1'-C2'	-5.58	102.02	107.60
35	BK	134	SER	CA-C-O	-5.58	113.79	120.10
45	BU	56	ALA	CA-C-O	-5.58	114.50	120.42
54	B3	29	VAL	CA-CB-CG1	5.58	119.89	110.40
1	AA	767	A	C1'-O4'-C4'	-5.58	104.32	109.90
1	AA	823	C	C3'-C2'-C1'	5.58	106.88	101.30
1	AA	1113	C	O3'-P-O5'	-5.58	95.63	104.00
4	AD	48	U	C1'-O4'-C4'	-5.58	104.32	109.90
4	AD	75	C	O4'-C1'-C2'	5.58	111.38	105.80
18	AR	9	LYS	CA-C-O	5.58	126.68	120.82
26	BB	60	G	C5'-C4'-C3'	-5.58	106.83	115.20
29	BE	191	GLY	CA-C-N	5.58	128.79	120.87
29	BE	191	GLY	C-N-CA	5.58	128.79	120.87
32	BH	18	ILE	CA-CB-CG1	5.58	119.88	110.40
52	B1	4	ILE	CA-C-O	-5.58	116.11	121.63
1	AA	1478	U	C3'-C2'-C1'	5.58	106.88	101.30
8	AH	19	ARG	NE-CZ-NH1	-5.58	115.92	121.50
34	BJ	58	LEU	O-C-N	-5.58	114.82	122.46
38	BN	21	ARG	CA-C-O	5.58	128.57	121.82
1	AA	1502	A	C4'-C3'-C2'	-5.58	97.02	102.60
24	AX	34	ARG	CA-C-O	-5.58	115.23	121.81
26	BB	839	U	P-O3'-C3'	5.58	128.56	120.20
26	BB	927	A	C3'-C2'-C1'	5.58	106.88	101.30
34	BJ	63	VAL	CA-C-N	5.58	131.12	121.64
34	BJ	63	VAL	C-N-CA	5.58	131.12	121.64
1	AA	73	C	O4'-C1'-N1	5.57	116.86	108.50
2	AB	12	U	C4'-C3'-C2'	-5.57	97.03	102.60
16	AP	7	ASN	CA-CB-CG	5.57	118.17	112.60
26	BB	1073	A	O4'-C4'-C3'	5.57	109.57	104.00
26	BB	2325	G	C1'-C2'-O2'	5.57	116.76	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2694	G	C2'-C3'-O3'	-5.57	105.34	113.70
28	BD	176	ARG	N-CA-C	5.57	118.25	109.39
1	AA	253	A	C1'-O4'-C4'	-5.57	104.33	109.90
1	AA	74	A	O4'-C1'-N9	5.57	116.86	108.50
1	AA	932	C	O4'-C1'-C2'	5.57	113.17	107.60
4	AD	74	A	O4'-C4'-C3'	5.57	109.57	104.00
25	BA	1	U	O4'-C4'-C3'	5.57	109.57	104.00
26	BB	234	U	C5'-C4'-C3'	5.57	124.36	116.00
26	BB	1995	U	C3'-C2'-C1'	5.57	106.87	101.30
31	BG	93	GLU	CA-C-N	5.57	127.74	120.28
31	BG	93	GLU	C-N-CA	5.57	127.74	120.28
46	BV	79	ASP	CA-CB-CG	5.57	118.17	112.60
1	AA	992	U	C1'-O4'-C4'	-5.57	104.13	109.70
25	BA	55	U	C5'-C4'-C3'	-5.57	107.65	116.00
26	BB	438	G	O5'-C5'-C4'	-5.57	103.15	111.50
26	BB	498	G	O4'-C1'-C2'	-5.57	102.03	107.60
26	BB	1252	G	C3'-C2'-C1'	5.57	107.07	101.50
1	AA	1085	U	O4'-C4'-C3'	5.57	111.67	106.10
1	AA	1368	A	C1'-C2'-O2'	-5.57	100.05	108.40
26	BB	508	A	C4'-C3'-C2'	-5.57	97.03	102.60
26	BB	1830	C	C4'-C3'-O3'	-5.57	104.65	113.00
29	BE	129	THR	CA-C-N	5.57	129.68	120.94
29	BE	129	THR	C-N-CA	5.57	129.68	120.94
53	B2	31	ASP	CA-CB-CG	5.57	118.17	112.60
1	AA	198	G	C1'-O4'-C4'	-5.57	104.33	109.90
1	AA	1153	G	C2'-C3'-O3'	-5.57	105.35	113.70
26	BB	1183	U	O4'-C1'-N1	5.57	116.85	108.50
26	BB	1419	A	C4'-C3'-C2'	-5.57	97.03	102.60
26	BB	2055	C	C3'-C2'-O2'	5.57	119.05	110.70
1	AA	1182	G	C3'-C2'-O2'	-5.56	106.25	114.60
1	AA	1279	G	O5'-C5'-C4'	-5.56	103.15	111.50
39	BO	114	ARG	O-C-N	5.56	127.80	122.07
47	BW	12	VAL	CG1-CB-CG2	-5.56	98.56	110.80
1	AA	1171	A	C5'-C4'-C3'	-5.56	107.66	116.00
18	AR	62	ARG	NH1-CZ-NH2	5.56	126.53	119.30
26	BB	268	C	O5'-C5'-C4'	-5.56	103.16	111.50
26	BB	1119	U	O5'-C5'-C4'	5.56	119.84	111.50
26	BB	2016	U	O4'-C1'-C2'	5.56	113.16	107.60
32	BH	94	ARG	CA-C-N	5.56	130.30	121.18
32	BH	94	ARG	C-N-CA	5.56	130.30	121.18
1	AA	1184	G	C4'-C3'-O3'	-5.56	104.66	113.00
8	AH	138	ALA	O-C-N	5.56	127.87	122.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1013	C	O4'-C1'-N1	5.56	116.84	108.50
26	BB	1740	G	O4'-C4'-C3'	5.56	109.56	104.00
1	AA	1447	A	P-O5'-C5'	5.56	129.24	120.90
1	AA	1484	C	O5'-C5'-C4'	5.56	119.84	111.50
11	AK	61	THR	CB-CA-C	5.56	119.99	109.37
26	BB	541	A	O4'-C1'-N9	-5.56	100.16	108.50
26	BB	939	G	O4'-C4'-C3'	5.56	109.56	104.00
29	BE	12	THR	N-CA-C	5.56	118.53	108.69
34	BJ	81	ILE	CA-C-O	5.56	125.76	120.31
41	BQ	58	ILE	CB-CA-C	5.56	116.10	110.65
17	AQ	73	LEU	O-C-N	5.56	130.25	123.14
25	BA	88	C	C3'-C2'-C1'	-5.56	95.74	101.30
26	BB	1353	A	O4'-C1'-C2'	-5.56	102.04	107.60
26	BB	1781	U	O4'-C1'-N1	5.56	116.54	108.20
43	BS	34	ALA	CA-C-N	5.56	128.00	120.44
43	BS	34	ALA	C-N-CA	5.56	128.00	120.44
48	BX	23	ALA	O-C-N	5.56	128.91	122.19
1	AA	217	C	O4'-C1'-N1	5.56	116.83	108.50
26	BB	68	G	N9-C1'-C2'	-5.56	103.67	112.00
26	BB	832	U	C3'-C2'-O2'	5.56	119.03	110.70
26	BB	1636	U	O4'-C1'-N1	5.56	116.83	108.50
26	BB	2282	G	C2'-C3'-O3'	5.56	117.83	109.50
26	BB	2888	C	O4'-C1'-C2'	-5.56	102.04	107.60
1	AA	95	C	C5'-C4'-C3'	-5.55	107.67	116.00
26	BB	928	A	O4'-C1'-C2'	-5.55	102.05	107.60
26	BB	2887	A	C5'-C4'-C3'	-5.55	107.67	116.00
35	BK	110	GLN	N-CA-C	5.55	118.10	111.71
1	AA	947	G	C5'-C4'-O4'	-5.55	101.47	109.80
1	AA	1514	G	C3'-C2'-O2'	5.55	119.03	110.70
26	BB	10	A	P-O5'-C5'	5.55	129.23	120.90
26	BB	1168	G	N9-C1'-C2'	-5.55	103.67	112.00
26	BB	1912	A	O4'-C1'-N9	5.55	116.83	108.50
26	BB	2074	U	C5'-C4'-C3'	-5.55	107.67	116.00
26	BB	2289	G	C5'-C4'-O4'	5.55	118.13	109.80
26	BB	2588	G	O5'-C5'-C4'	-5.55	103.17	111.50
1	AA	849	G	C2'-C3'-O3'	-5.55	105.37	113.70
8	AH	74	ALA	O-C-N	5.55	129.18	122.85
14	AN	11	VAL	O-C-N	-5.55	117.19	123.18
26	BB	249	C	C2'-C3'-O3'	5.55	117.83	109.50
26	BB	1193	G	O4'-C4'-C3'	5.55	109.55	104.00
26	BB	1567	G	C2'-C3'-O3'	5.55	117.83	109.50
26	BB	1576	U	O4'-C1'-N1	5.55	116.83	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2638	G	C2'-C3'-O3'	5.55	117.83	109.50
1	AA	4	U	C1'-C2'-O2'	5.55	116.72	108.40
1	AA	173	U	O3'-P-O5'	-5.55	95.68	104.00
1	AA	1221	G	C1'-O4'-C4'	5.55	115.45	109.90
24	AX	55	HIS	CB-CG-CD2	-5.55	123.99	131.20
26	BB	73	A	O3'-P-O5'	-5.55	95.67	104.00
26	BB	611	C	C4'-C3'-C2'	-5.55	97.05	102.60
26	BB	856	G	C4'-C3'-C2'	-5.55	97.05	102.60
26	BB	1481	U	P-O3'-C3'	5.55	128.52	120.20
26	BB	2486	C	C3'-C2'-C1'	5.55	106.85	101.30
26	BB	2615	U	O4'-C4'-C3'	5.55	109.55	104.00
30	BF	84	THR	CA-CB-CG2	5.55	119.93	110.50
32	BH	67	ALA	O-C-N	5.55	128.00	122.12
33	BI	101	ASP	N-CA-C	-5.55	104.05	112.04
1	AA	339	C	C1'-O4'-C4'	-5.55	104.35	109.90
1	AA	373	A	C4'-C3'-O3'	-5.55	104.68	113.00
1	AA	574	A	N9-C1'-C2'	5.55	120.32	112.00
3	AC	13	A	C5'-C4'-O4'	-5.55	100.78	109.10
26	BB	1519	G	O4'-C1'-N9	5.55	116.82	108.50
26	BB	1983	G	C5'-C4'-C3'	-5.55	107.68	116.00
26	BB	2790	U	N1-C1'-C2'	5.55	122.32	114.00
1	AA	134	G	C5'-C4'-O4'	5.55	118.12	109.80
1	AA	1498	UR3	OP1-P-O3'	5.55	117.40	105.20
7	AG	90	LEU	CA-C-O	-5.55	114.54	120.42
1	AA	1018	G	C4'-C3'-O3'	5.54	121.32	113.00
26	BB	838	C	O4'-C1'-N1	5.54	116.82	108.50
1	AA	194	C	C3'-C2'-O2'	5.54	119.02	110.70
22	AV	48	ILE	CA-C-N	5.54	129.79	122.42
22	AV	48	ILE	C-N-CA	5.54	129.79	122.42
26	BB	1051	G	O4'-C4'-C3'	5.54	109.54	104.00
1	AA	371	A	O4'-C1'-N9	-5.54	100.19	108.50
1	AA	1192	C	C3'-C2'-O2'	-5.54	102.39	110.70
1	AA	1272	G	P-O3'-C3'	5.54	128.51	120.20
5	AE	230	SER	CA-C-O	-5.54	114.67	120.55
6	AF	87	ARG	NE-CZ-NH2	-5.54	114.21	119.20
10	AJ	110	ARG	CA-C-N	5.54	132.27	121.41
10	AJ	110	ARG	C-N-CA	5.54	132.27	121.41
26	BB	349	U	C4'-C3'-C2'	-5.54	97.06	102.60
26	BB	379	G	O4'-C1'-C2'	-5.54	102.06	107.60
26	BB	854	C	C4'-C3'-C2'	-5.54	97.06	102.60
26	BB	1138	G	C5'-C4'-O4'	5.54	118.11	109.80
26	BB	1215	G	C1'-O4'-C4'	5.54	115.44	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1493	C	O5'-C5'-C4'	-5.54	103.19	111.50
26	BB	1867	G	C4'-C3'-C2'	-5.54	97.06	102.60
36	BL	73	VAL	N-CA-C	5.54	115.55	108.12
56	B5	32	ALA	CA-C-N	5.54	127.70	120.28
56	B5	32	ALA	C-N-CA	5.54	127.70	120.28
1	AA	313	A	C4'-C3'-O3'	5.54	121.31	113.00
5	AE	150	ILE	N-CA-C	5.54	119.07	113.47
26	BB	909	A	C4'-C3'-C2'	-5.54	97.06	102.60
1	AA	24	U	C1'-O4'-C4'	5.54	115.44	109.90
1	AA	556	C	C4'-C3'-C2'	-5.54	97.06	102.60
1	AA	757	U	P-O3'-C3'	5.54	128.51	120.20
7	AG	183	ARG	O-C-N	5.54	129.61	123.52
18	AR	41	HIS	ND1-CE1-NE2	5.54	113.94	108.40
19	AS	28	ARG	CD-NE-CZ	5.54	132.15	124.40
26	BB	804	A	C3'-C2'-C1'	5.54	106.84	101.30
26	BB	1384	A	O4'-C1'-C2'	5.54	113.14	107.60
26	BB	1405	U	C3'-C2'-C1'	5.54	106.84	101.30
26	BB	2138	G	P-O5'-C5'	5.54	129.21	120.90
29	BE	134	HIS	CE1-NE2-CD2	-5.54	103.46	109.00
31	BG	18	GLU	CA-C-O	-5.54	113.60	119.97
41	BQ	101	GLY	CA-C-N	5.54	128.16	120.29
41	BQ	101	GLY	C-N-CA	5.54	128.16	120.29
1	AA	613	C	O5'-C5'-C4'	-5.54	103.19	111.50
1	AA	1485	U	O4'-C1'-N1	5.54	116.81	108.50
17	AQ	73	LEU	CA-C-O	-5.54	113.00	120.47
26	BB	2692	G	C4'-C3'-C2'	-5.54	97.06	102.60
1	AA	316	C	N1-C1'-C2'	-5.54	103.70	112.00
8	AH	97	PRO	CB-CA-C	5.54	117.59	111.56
18	AR	79	ARG	NE-CZ-NH2	5.54	124.18	119.20
26	BB	363	G	C5'-C4'-C3'	-5.54	107.70	116.00
26	BB	1132	U	C4'-C3'-C2'	-5.54	97.06	102.60
26	BB	1675	C	O4'-C1'-N1	5.54	116.50	108.20
26	BB	1837	C	O4'-C1'-N1	5.54	116.80	108.50
26	BB	2720	U	C5'-C4'-C3'	-5.54	107.70	116.00
27	BC	61	GLY	CA-C-O	-5.54	116.03	120.79
31	BG	129	MET	CA-C-O	-5.54	115.38	121.58
49	BY	68	PHE	CA-CB-CG	5.54	119.33	113.80
1	AA	35	G	C3'-C2'-C1'	5.53	106.83	101.30
1	AA	239	U	P-O3'-C3'	5.53	128.50	120.20
1	AA	422	C	P-O3'-C3'	5.53	128.50	120.20
1	AA	750	C	C1'-C2'-O2'	5.53	116.70	108.40
7	AG	199	ILE	O-C-N	5.53	128.05	121.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2	G	C4'-C3'-C2'	-5.53	97.07	102.60
26	BB	449	A	C1'-O4'-C4'	5.53	115.43	109.90
26	BB	614	A	O4'-C1'-C2'	-5.53	100.27	105.80
26	BB	774	G	O4'-C1'-N9	5.53	116.50	108.20
26	BB	1065	U	C2'-C3'-O3'	-5.53	105.40	113.70
26	BB	1117	C	O4'-C1'-C2'	-5.53	102.07	107.60
26	BB	1127	A	C1'-C2'-O2'	5.53	116.70	108.40
26	BB	1810	A	O5'-C5'-C4'	5.53	119.80	111.50
26	BB	2637	U	P-O3'-C3'	5.53	128.50	120.20
34	BJ	96	LYS	CA-C-O	-5.53	113.26	119.79
40	BP	4	ARG	CB-CA-C	5.53	120.25	111.95
26	BB	804	A	O4'-C1'-C2'	-5.53	102.07	107.60
26	BB	1010	A	C3'-C2'-C1'	-5.53	95.77	101.30
53	B2	43	PHE	CA-C-N	5.53	130.20	122.79
53	B2	43	PHE	C-N-CA	5.53	130.20	122.79
1	AA	878	A	C5'-C4'-C3'	-5.53	107.70	116.00
1	AA	1257	A	C4'-C3'-C2'	5.53	108.13	102.60
3	AC	21	U	C1'-O4'-C4'	-5.53	104.17	109.70
16	AP	102	LYS	O-C-N	5.53	128.46	122.15
26	BB	373	U	O4'-C1'-N1	5.53	116.79	108.50
26	BB	407	G	C4'-C3'-C2'	-5.53	97.07	102.60
26	BB	956	G	C3'-C2'-C1'	5.53	106.83	101.30
26	BB	1493	C	P-O5'-C5'	5.53	129.19	120.90
26	BB	1950	G	O4'-C1'-N9	5.53	116.80	108.50
26	BB	2690	U	O4'-C1'-N1	5.53	116.50	108.20
1	AA	664	G	C4'-C3'-O3'	-5.53	104.71	113.00
1	AA	1045	C	O3'-P-O5'	5.53	112.29	104.00
1	AA	1310	G	C4'-C3'-C2'	-5.53	97.07	102.60
10	AJ	28	ILE	CA-CB-CG2	5.53	119.90	110.50
16	AP	2	ARG	NE-CZ-NH1	-5.53	115.97	121.50
26	BB	1916	A	O5'-C5'-C4'	-5.53	103.21	111.50
26	BB	2154	A	O4'-C4'-C3'	5.53	109.53	104.00
26	BB	2162	G	C4'-C3'-C2'	-5.53	97.07	102.60
26	BB	2731	G	C5'-C4'-O4'	5.53	118.09	109.80
56	B5	24	THR	CA-CB-CG2	5.53	119.90	110.50
1	AA	53	A	C1'-O4'-C4'	-5.53	104.37	109.90
1	AA	1122	U	O5'-C5'-C4'	-5.53	103.21	111.50
1	AA	1185	G	O4'-C4'-C3'	5.53	109.53	104.00
10	AJ	59	GLU	CA-C-O	-5.53	114.55	121.02
13	AM	57	VAL	CA-CB-CG1	5.53	119.80	110.40
25	BA	15	A	C3'-C2'-C1'	5.53	107.03	101.50
26	BB	51	G	P-O3'-C3'	5.53	128.49	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	540	C	O4'-C4'-C3'	5.53	109.53	104.00
26	BB	1563	U	C5'-C4'-C3'	-5.53	107.71	116.00
28	BD	219	VAL	CA-CB-CG2	5.53	119.80	110.40
1	AA	549	C	C5'-C4'-C3'	-5.53	107.71	116.00
1	AA	921	U	P-O5'-C5'	5.53	129.19	120.90
1	AA	1212	U	C2'-C3'-O3'	5.53	117.79	109.50
1	AA	1286	U	O4'-C4'-C3'	5.53	109.53	104.00
25	BA	106	G	O4'-C4'-C3'	-5.53	98.47	104.00
26	BB	224	U	C4'-C3'-O3'	-5.53	104.71	113.00
26	BB	768	G	C3'-C2'-C1'	5.53	106.83	101.30
26	BB	1477	A	C2'-C3'-O3'	-5.53	105.41	113.70
26	BB	1721	G	O4'-C1'-N9	5.53	116.49	108.20
26	BB	1758	U	O4'-C1'-C2'	-5.53	100.28	105.80
26	BB	1824	G	C1'-O4'-C4'	5.53	115.43	109.90
26	BB	1884	G	P-O3'-C3'	5.53	128.49	120.20
26	BB	2087	G	C2'-C3'-O3'	5.53	121.99	113.70
26	BB	2157	G	O4'-C1'-C2'	-5.53	100.28	105.80
26	BB	2256	G	O3'-P-O5'	5.53	112.29	104.00
26	BB	2704	C	O4'-C1'-N1	5.53	116.79	108.50
37	BM	1	MET	CA-C-N	5.53	129.81	120.64
37	BM	1	MET	C-N-CA	5.53	129.81	120.64
44	BT	5	PHE	CA-C-O	5.53	127.70	121.51
1	AA	765	G	C1'-O4'-C4'	-5.52	104.38	109.90
1	AA	788	U	O4'-C1'-C2'	5.52	113.12	107.60
26	BB	1984	G	C3'-C2'-O2'	5.52	118.99	110.70
26	BB	2634	A	O4'-C1'-N9	5.52	116.79	108.50
38	BN	5	THR	CB-CA-C	5.52	121.41	110.42
57	B6	14	LYS	N-CA-CB	-5.52	101.90	110.57
17	AQ	29	ILE	CA-C-O	-5.52	115.00	120.85
23	AW	47	GLN	N-CA-C	-5.52	105.34	111.36
23	AW	58	ASP	CA-CB-CG	5.52	118.12	112.60
25	BA	3	C	O4'-C1'-C2'	-5.52	102.08	107.60
26	BB	595	C	C3'-C2'-C1'	5.52	106.82	101.30
1	AA	862	C	C1'-O4'-C4'	-5.52	104.38	109.90
9	AI	100	SER	CA-C-N	5.52	126.74	119.84
9	AI	100	SER	C-N-CA	5.52	126.74	119.84
26	BB	363	G	C4'-C3'-C2'	-5.52	97.08	102.60
52	B1	3	THR	CA-CB-CG2	5.52	119.89	110.50
58	B7	5	ALA	N-CA-CB	-5.52	101.99	109.94
1	AA	178	C	C5'-C4'-C3'	5.52	124.28	116.00
1	AA	771	G	C4'-C3'-O3'	5.52	121.28	113.00
1	AA	829	G	C3'-C2'-O2'	5.52	118.98	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1223	C	C4'-C3'-O3'	5.52	121.28	113.00
4	AD	1	C	O4'-C4'-C3'	-5.52	98.48	104.00
26	BB	15	G	C3'-C2'-C1'	5.52	106.82	101.30
26	BB	99	U	O4'-C4'-C3'	5.52	111.62	106.10
34	BJ	116	LEU	CB-CA-C	5.52	118.72	109.89
44	BT	70	GLU	O-C-N	5.52	129.12	122.94
1	AA	851	G	O5'-C5'-C4'	-5.52	103.22	111.50
1	AA	1511	G	C3'-C2'-C1'	5.52	106.82	101.30
26	BB	582	A	C1'-O4'-C4'	5.52	115.42	109.90
26	BB	684	G	C3'-C2'-C1'	5.52	106.82	101.30
26	BB	1514	G	O4'-C1'-C2'	-5.52	102.08	107.60
26	BB	1607	C	C2'-C3'-O3'	5.52	117.78	109.50
26	BB	1609	A	O4'-C1'-C2'	-5.52	102.08	107.60
29	BE	167	ASN	CA-CB-CG	5.52	118.12	112.60
43	BS	35	PHE	O-C-N	5.52	128.05	122.09
43	BS	57	ARG	CA-C-N	5.52	127.61	120.44
43	BS	57	ARG	C-N-CA	5.52	127.61	120.44
25	BA	43	C	O4'-C1'-N1	5.52	116.77	108.50
26	BB	2370	G	C3'-C2'-O2'	5.52	118.97	110.70
39	BO	60	GLN	OE1-CD-NE2	5.52	128.12	122.60
1	AA	481	G	O3'-P-O5'	-5.51	95.73	104.00
1	AA	690	G	C3'-C2'-O2'	5.51	118.97	110.70
1	AA	1240	U	C1'-O4'-C4'	-5.51	104.19	109.70
6	AF	68	HIS	CB-CG-ND1	5.51	130.97	122.70
8	AH	24	VAL	CA-C-N	5.51	128.67	120.95
8	AH	24	VAL	C-N-CA	5.51	128.67	120.95
8	AH	109	ALA	CA-C-N	5.51	130.05	120.68
8	AH	109	ALA	C-N-CA	5.51	130.05	120.68
9	AI	60	VAL	CA-C-N	5.51	130.94	123.11
9	AI	60	VAL	C-N-CA	5.51	130.94	123.11
26	BB	684	G	O5'-C5'-C4'	5.51	119.77	111.50
26	BB	987	C	O3'-P-O5'	5.51	112.27	104.00
26	BB	1069	A	C1'-O4'-C4'	-5.51	104.39	109.90
26	BB	2052	A	O4'-C4'-C3'	5.51	109.51	104.00
26	BB	2150	C	N1-C1'-C2'	-5.51	103.73	112.00
26	BB	2320	U	C4'-C3'-C2'	-5.51	97.08	102.60
26	BB	2732	G	O4'-C1'-C2'	5.51	113.11	107.60
33	BI	64	ALA	CA-C-O	5.51	126.36	120.24
36	BL	15	TRP	CA-C-N	5.51	130.76	122.99
36	BL	15	TRP	C-N-CA	5.51	130.76	122.99
1	AA	1006	G	C5'-C4'-O4'	5.51	118.07	109.80
26	BB	713	G	O3'-P-O5'	5.51	112.27	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BR	38	ARG	O-C-N	5.51	130.34	123.01
3	AC	51	C	O3'-P-O5'	-5.51	95.73	104.00
26	BB	2425	A	N9-C1'-C2'	5.51	122.27	114.00
55	B4	1	ALA	CA-C-N	5.51	131.64	121.94
55	B4	1	ALA	C-N-CA	5.51	131.64	121.94
1	AA	256	U	N1-C1'-C2'	-5.51	103.74	112.00
25	BA	57	A	C4'-C3'-C2'	-5.51	97.09	102.60
27	BC	26	ALA	CA-C-O	-5.51	115.03	120.82
9	AI	83	ALA	N-CA-C	-5.51	104.92	111.69
19	AS	66	THR	CA-CB-OG1	5.51	117.86	109.60
26	BB	1769	U	O4'-C1'-N1	5.51	116.76	108.50
26	BB	2600	A	O4'-C4'-C3'	5.51	109.51	104.00
26	BB	2714	G	C4'-C3'-C2'	5.51	108.11	102.60
29	BE	172	VAL	CA-C-N	5.51	132.06	121.54
29	BE	172	VAL	C-N-CA	5.51	132.06	121.54
1	AA	227	G	C4'-C3'-C2'	-5.51	97.09	102.60
1	AA	276	G	P-O3'-C3'	5.51	128.46	120.20
15	AO	10	PRO	CB-CA-C	5.51	118.53	111.21
15	AO	53	ARG	O-C-N	5.51	129.48	123.04
26	BB	2341	G	C5'-C4'-O4'	5.51	118.06	109.80
30	BF	24	ASN	CB-CG-ND2	5.51	124.66	116.40
45	BU	88	ARG	NH1-CZ-NH2	-5.51	112.14	119.30
1	AA	168	G	N9-C1'-C2'	-5.50	103.74	112.00
26	BB	89	A	C3'-C2'-O2'	5.50	118.96	110.70
26	BB	1589	U	O4'-C4'-C3'	5.50	109.50	104.00
26	BB	2571	U	C4'-C3'-O3'	5.50	121.26	113.00
44	BT	12	HIS	CB-CG-ND1	5.50	130.96	122.70
6	AF	27	GLU	CB-CG-CD	5.50	121.96	112.60
6	AF	89	VAL	CA-C-O	-5.50	112.92	119.58
26	BB	529	A	C4'-C3'-C2'	-5.50	97.10	102.60
26	BB	784	G	C5'-C4'-C3'	-5.50	107.74	116.00
26	BB	1908	C	C5'-C4'-C3'	-5.50	107.74	116.00
26	BB	2716	C	O3'-P-O5'	-5.50	95.75	104.00
41	BQ	3	LYS	CA-CB-CG	5.50	125.11	114.10
1	AA	321	A	C5'-C4'-O4'	-5.50	101.55	109.80
26	BB	328	U	C1'-O4'-C4'	5.50	115.40	109.90
26	BB	700	G	C4'-C3'-O3'	5.50	121.25	113.00
26	BB	1047	G	C2'-C3'-O3'	5.50	117.75	109.50
26	BB	1760	C	O5'-C5'-C4'	-5.50	103.25	111.50
26	BB	2277	G	C2'-C3'-O3'	5.50	121.95	113.70
26	BB	2883	A	O3'-P-O5'	5.50	112.25	104.00
1	AA	974	A	N9-C1'-C2'	5.50	122.25	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	447	A	C4'-C3'-O3'	5.50	117.65	109.40
26	BB	518	G	C4'-C3'-C2'	-5.50	97.10	102.60
26	BB	754	U	C3'-C2'-O2'	5.50	118.95	110.70
26	BB	1693	U	C3'-C2'-C1'	5.50	107.00	101.50
26	BB	1777	U	O4'-C1'-N1	5.50	116.75	108.50
47	BW	47	PRO	N-CD-CG	5.50	111.45	103.20
1	AA	335	C	C3'-C2'-C1'	-5.50	95.80	101.30
1	AA	635	A	O4'-C1'-N9	5.50	116.75	108.50
1	AA	847	G	C1'-O4'-C4'	-5.50	104.40	109.90
6	AF	29	ALA	CA-C-O	-5.50	114.59	120.42
7	AG	105	GLY	O-C-N	5.50	128.69	122.42
26	BB	481	G	C1'-C2'-O2'	5.50	120.05	111.80
26	BB	1836	C	C5'-C4'-O4'	5.50	118.05	109.80
31	BG	169	LEU	CB-CA-C	5.50	119.83	111.80
1	AA	63	C	C1'-O4'-C4'	-5.50	104.40	109.90
1	AA	320	A	O3'-P-O5'	5.50	112.25	104.00
1	AA	1215	G	C3'-C2'-O2'	5.50	118.94	110.70
26	BB	288	U	C3'-C2'-O2'	5.50	118.94	110.70
26	BB	483	A	O4'-C4'-C3'	5.50	109.50	104.00
26	BB	839	U	O3'-P-O5'	5.50	112.24	104.00
26	BB	1928	A	C4'-C3'-C2'	-5.50	97.10	102.60
26	BB	2468	A	O4'-C4'-C3'	5.50	111.60	106.10
30	BF	31	VAL	CA-CB-CG1	5.50	119.74	110.40
32	BH	133	LYS	CA-C-O	-5.50	114.34	120.66
47	BW	11	ILE	CA-C-N	5.50	129.46	122.37
47	BW	11	ILE	C-N-CA	5.50	129.46	122.37
1	AA	362	G	P-O5'-C5'	5.50	129.14	120.90
1	AA	424	G	C4'-C3'-C2'	-5.50	97.11	102.60
26	BB	157	C	C3'-C2'-C1'	5.50	106.80	101.30
26	BB	1207	C	C2'-C3'-O3'	5.50	121.94	113.70
26	BB	1796	U	C4'-C3'-C2'	-5.50	97.11	102.60
28	BD	59	GLN	N-CA-C	5.50	119.15	111.90
1	AA	99	C	P-O3'-C3'	5.49	128.44	120.20
1	AA	1003	G	O4'-C4'-C3'	5.49	109.49	104.00
1	AA	1484	C	C3'-C2'-O2'	5.49	118.94	110.70
9	AI	86	ARG	CA-C-N	5.49	131.35	122.29
9	AI	86	ARG	C-N-CA	5.49	131.35	122.29
24	AX	46	ARG	CD-NE-CZ	5.49	132.09	124.40
26	BB	152	A	C5'-C4'-O4'	5.49	118.04	109.80
26	BB	408	G	C4'-C3'-C2'	-5.49	97.11	102.60
26	BB	1205	A	C4'-C3'-O3'	-5.49	101.16	109.40
26	BB	1531	C	C4'-C3'-C2'	-5.49	97.11	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2096	C	O4'-C1'-N1	5.49	116.74	108.50
26	BB	2471	A	C4'-C3'-O3'	-5.49	101.16	109.40
26	BB	2579	C	C2'-C3'-O3'	-5.49	105.46	113.70
29	BE	83	ARG	CB-CA-C	5.49	119.45	109.62
30	BF	6	LYS	N-CA-C	-5.49	106.53	113.23
32	BH	54	ARG	CA-C-O	-5.49	115.40	121.33
32	BH	76	ILE	CA-C-N	5.49	126.04	119.94
32	BH	76	ILE	C-N-CA	5.49	126.04	119.94
39	BO	85	GLY	CA-C-N	5.49	129.75	121.40
39	BO	85	GLY	C-N-CA	5.49	129.75	121.40
40	BP	107	ASN	CA-C-N	5.49	129.25	121.61
40	BP	107	ASN	C-N-CA	5.49	129.25	121.61
1	AA	306	A	O4'-C4'-C3'	-5.49	100.61	106.10
5	AE	148	GLY	N-CA-C	5.49	120.57	113.27
5	AE	207	ARG	NE-CZ-NH2	5.49	124.14	119.20
26	BB	1439	A	C1'-C2'-O2'	-5.49	100.16	108.40
1	AA	213	G	O4'-C4'-C3'	5.49	109.49	104.00
1	AA	865	A	O4'-C4'-C3'	5.49	109.49	104.00
1	AA	1439	G	C4'-C3'-C2'	-5.49	97.11	102.60
1	AA	1447	A	O4'-C1'-C2'	5.49	111.29	105.80
5	AE	14	HIS	N-CA-CB	-5.49	101.19	110.41
25	BA	25	U	P-O3'-C3'	5.49	128.44	120.20
26	BB	27	G	O4'-C1'-N9	5.49	116.74	108.50
26	BB	87	U	N1-C1'-C2'	-5.49	103.76	112.00
26	BB	444	C	C3'-C2'-C1'	-5.49	95.81	101.30
26	BB	2170	A	C1'-C2'-O2'	5.49	116.64	108.40
26	BB	2899	A	O3'-P-O5'	5.49	112.24	104.00
42	BR	54	LEU	CB-CA-C	5.49	120.44	110.72
1	AA	207	C	C1'-O4'-C4'	5.49	115.39	109.90
1	AA	1443	C	C4'-C3'-O3'	-5.49	104.77	113.00
4	AD	28	U	C5'-C4'-C3'	-5.49	107.77	116.00
8	AH	162	GLU	O-C-N	-5.49	116.16	122.09
26	BB	1349	C	C4'-C3'-C2'	-5.49	97.11	102.60
26	BB	2034	U	O5'-C5'-C4'	5.49	119.73	111.50
26	BB	2246	G	C1'-C2'-O2'	-5.49	100.17	108.40
26	BB	2561	U	C3'-C2'-O2'	5.49	118.93	110.70
26	BB	2591	C	O5'-C5'-C4'	-5.49	103.27	111.50
32	BH	71	LEU	CA-C-O	-5.49	114.73	120.55
33	BI	135	HIS	CB-CG-ND1	5.49	130.93	122.70
36	BL	81	ILE	CB-CA-C	5.49	119.57	110.30
46	BV	73	ARG	CA-C-N	5.49	127.93	120.63
46	BV	73	ARG	C-N-CA	5.49	127.93	120.63

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1515	A	C1'-O4'-C4'	-5.49	104.41	109.90
26	BB	1750	G	O4'-C1'-N9	5.49	116.73	108.50
1	AA	1385	G	C4'-C3'-C2'	-5.49	97.11	102.60
26	BB	2473	U	C2'-C3'-O3'	5.49	121.93	113.70
27	BC	136	LEU	CA-C-O	-5.49	115.03	120.90
49	BY	56	HIS	CE1-NE2-CD2	-5.49	103.51	109.00
1	AA	1522	U	O4'-C1'-N1	5.48	116.73	108.50
26	BB	763	G	C2'-C3'-O3'	5.48	121.93	113.70
26	BB	1133	A	O3'-P-O5'	-5.48	95.77	104.00
26	BB	2662	A	C5'-C4'-O4'	5.48	118.03	109.80
28	BD	28	PRO	N-CA-CB	5.48	108.19	103.36
38	BN	75	ALA	CA-C-O	-5.48	115.41	121.33
1	AA	588	G	C3'-C2'-C1'	5.48	106.78	101.30
15	AO	72	ASN	CA-C-N	5.48	128.55	120.82
15	AO	72	ASN	C-N-CA	5.48	128.55	120.82
26	BB	1144	A	C3'-C2'-C1'	-5.48	95.82	101.30
26	BB	1217	U	O3'-P-O5'	5.48	112.22	104.00
34	BJ	92	ALA	CA-C-N	5.48	127.63	120.28
34	BJ	92	ALA	C-N-CA	5.48	127.63	120.28
1	AA	11	G	N9-C1'-C2'	-5.48	103.78	112.00
1	AA	280	C	O4'-C4'-C3'	5.48	111.58	106.10
26	BB	30	G	C1'-O4'-C4'	-5.48	104.42	109.90
26	BB	1538	G	C3'-C2'-O2'	5.48	118.92	110.70
26	BB	2589	A	C4'-C3'-C2'	-5.48	97.12	102.60
26	BB	2617	U	N1-C1'-C2'	-5.48	103.78	112.00
34	BJ	30	ARG	N-CA-C	-5.48	105.89	112.58
36	BL	99	ARG	NE-CZ-NH1	-5.48	116.02	121.50
39	BO	119	LEU	CA-C-N	5.48	128.17	120.28
39	BO	119	LEU	C-N-CA	5.48	128.17	120.28
42	BR	17	PRO	N-CA-CB	5.48	108.47	103.15
42	BR	112	ARG	NE-CZ-NH1	5.48	126.98	121.50
48	BX	77	VAL	CA-C-N	5.48	130.28	122.72
48	BX	77	VAL	C-N-CA	5.48	130.28	122.72
49	BY	17	ALA	O-C-N	-5.48	116.20	121.85
1	AA	957	U	C3'-C2'-C1'	5.48	106.78	101.30
1	AA	1065	U	P-O3'-C3'	5.48	128.42	120.20
1	AA	1435	G	O3'-P-O5'	-5.48	95.78	104.00
4	AD	31	G	O4'-C1'-N9	5.48	116.72	108.50
7	AG	159	GLU	CA-C-O	-5.48	113.33	119.79
11	AK	57	GLU	CA-C-N	5.48	130.56	123.00
11	AK	57	GLU	C-N-CA	5.48	130.56	123.00
26	BB	1082	U	C5'-C4'-C3'	-5.48	107.78	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	62	U	C4'-C3'-O3'	-5.48	104.78	113.00
1	AA	377	G	P-O5'-C5'	5.48	129.12	120.90
6	AF	36	PHE	N-CA-C	5.48	116.93	111.07
26	BB	126	A	C2'-C3'-O3'	5.48	121.92	113.70
26	BB	535	G	O3'-P-O5'	-5.48	95.78	104.00
26	BB	1008	A	C3'-C2'-C1'	5.48	106.98	101.50
26	BB	2222	C	C4'-C3'-C2'	-5.48	97.12	102.60
26	BB	2264	C	O4'-C1'-N1	5.48	116.72	108.50
43	BS	40	LYS	CA-C-N	5.48	127.56	120.44
43	BS	40	LYS	C-N-CA	5.48	127.56	120.44
1	AA	35	G	C4'-C3'-C2'	-5.48	97.12	102.60
1	AA	257	G	O4'-C1'-C2'	-5.48	102.12	107.60
4	AD	37	U	C4'-C3'-C2'	-5.48	97.12	102.60
9	AI	103	VAL	CA-C-N	5.48	128.07	120.29
9	AI	103	VAL	C-N-CA	5.48	128.07	120.29
13	AM	87	LEU	O-C-N	5.48	127.71	122.07
26	BB	894	U	C4'-C3'-C2'	-5.48	97.12	102.60
26	BB	2384	U	O5'-C5'-C4'	-5.48	103.48	111.70
26	BB	2664	G	C3'-C2'-C1'	5.48	106.78	101.30
1	AA	365	U	C1'-O4'-C4'	-5.47	104.43	109.90
1	AA	383	A	P-O3'-C3'	5.47	128.41	120.20
1	AA	407	U	C5'-C4'-C3'	-5.47	107.79	116.00
26	BB	640	C	O4'-C1'-C2'	-5.47	102.12	107.60
26	BB	2066	C	C5'-C4'-O4'	5.47	118.01	109.80
26	BB	2091	C	O4'-C1'-N1	5.47	116.71	108.50
26	BB	2512	C	C4'-C3'-C2'	-5.47	97.12	102.60
28	BD	242	HIS	CB-CG-CD2	-5.47	124.08	131.20
43	BS	65	ASN	CA-C-O	-5.47	114.75	120.55
57	B6	25	HIS	CB-CG-ND1	5.47	130.91	122.70
1	AA	136	C	C2'-C3'-O3'	-5.47	105.49	113.70
1	AA	313	A	C5'-C4'-O4'	5.47	118.01	109.80
1	AA	1304	G	C4'-C3'-O3'	5.47	121.21	113.00
26	BB	538	A	C5'-C4'-C3'	-5.47	107.79	116.00
26	BB	1002	G	O3'-P-O5'	-5.47	95.79	104.00
26	BB	1668	A	O4'-C1'-N9	5.47	116.41	108.20
26	BB	2118	U	N1-C1'-C2'	-5.47	105.79	114.00
26	BB	2141	G	C5'-C4'-O4'	5.47	118.01	109.80
1	AA	786	G	O4'-C1'-C2'	-5.47	102.13	107.60
1	AA	1490	U	O4'-C4'-C3'	-5.47	98.53	104.00
22	AV	75	PRO	N-CA-CB	5.47	109.12	103.38
25	BA	5	U	C3'-C2'-O2'	5.47	118.91	110.70
26	BB	115	C	O5'-C5'-C4'	-5.47	103.29	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	217	A	O4'-C4'-C3'	5.47	109.47	104.00
1	AA	187	G	C2'-C3'-O3'	5.47	121.90	113.70
1	AA	776	G	O4'-C4'-C3'	5.47	109.47	104.00
1	AA	1070	U	C5'-C4'-O4'	5.47	118.00	109.80
13	AM	25	ILE	CB-CG1-CD1	5.47	125.28	113.80
26	BB	752	A	O4'-C4'-C3'	5.47	111.57	106.10
26	BB	876	C	C3'-C2'-C1'	5.47	106.77	101.30
40	BP	67	PHE	N-CA-C	5.47	119.05	112.38
1	AA	850	U	O3'-P-O5'	-5.47	95.80	104.00
3	AC	42	U	O4'-C1'-N1	5.47	116.40	108.20
7	AG	151	GLN	N-CA-C	5.47	117.02	109.15
9	AI	10	VAL	CA-C-N	5.47	127.99	120.39
9	AI	10	VAL	C-N-CA	5.47	127.99	120.39
26	BB	690	G	C3'-C2'-C1'	-5.47	95.83	101.30
26	BB	1173	U	O3'-P-O5'	-5.47	95.80	104.00
26	BB	1825	U	C2'-C3'-O3'	-5.47	105.50	113.70
1	AA	374	A	C5'-C4'-O4'	5.47	118.00	109.80
6	AF	231	ARG	CA-C-N	5.47	131.54	121.70
6	AF	231	ARG	C-N-CA	5.47	131.54	121.70
20	AT	58	VAL	N-CA-C	5.47	117.97	108.95
25	BA	92	C	O3'-P-O5'	-5.47	95.80	104.00
26	BB	1007	C	C3'-C2'-O2'	5.47	118.90	110.70
26	BB	1112	G	N9-C1'-C2'	-5.47	103.80	112.00
26	BB	1549	A	C4'-C3'-C2'	-5.47	97.13	102.60
26	BB	2531	A	O4'-C1'-N9	5.47	116.70	108.50
38	BN	47	ARG	NE-CZ-NH2	5.47	124.12	119.20
39	BO	108	VAL	CA-CB-CG2	5.47	119.69	110.40
54	B3	51	ARG	NE-CZ-NH2	5.47	124.12	119.20
1	AA	62	U	C2'-C3'-O3'	5.46	121.90	113.70
1	AA	128	G	O4'-C4'-C3'	-5.46	98.53	104.00
1	AA	223	A	O3'-P-O5'	-5.46	95.80	104.00
1	AA	803	G	C5'-C4'-O4'	5.46	118.00	109.80
1	AA	944	G	O4'-C1'-C2'	-5.46	102.14	107.60
1	AA	1534	A	C4'-C3'-O3'	-5.46	104.81	113.00
8	AH	87	VAL	O-C-N	-5.46	117.30	123.20
11	AK	70	VAL	CA-C-N	5.46	129.97	123.19
11	AK	70	VAL	C-N-CA	5.46	129.97	123.19
26	BB	1119	U	N1-C1'-C2'	-5.46	103.80	112.00
41	BQ	53	THR	N-CA-C	-5.46	106.45	113.23
1	AA	225	C	C3'-C2'-O2'	5.46	118.89	110.70
26	BB	1300	G	P-O3'-C3'	5.46	128.40	120.20
26	BB	1931	U	O4'-C4'-C3'	5.46	109.46	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2368	C	O4'-C1'-N1	5.46	116.69	108.50
1	AA	364	A	C2'-C3'-O3'	-5.46	105.51	113.70
1	AA	684	U	N1-C1'-C2'	-5.46	103.81	112.00
1	AA	1477	U	O4'-C4'-C3'	-5.46	98.54	104.00
2	AB	73	G	O4'-C4'-C3'	5.46	109.46	104.00
10	AJ	134	VAL	O-C-N	5.46	127.58	121.90
11	AK	77	VAL	CA-CB-CG2	5.46	119.69	110.40
26	BB	1681	G	O4'-C1'-C2'	5.46	111.26	105.80
26	BB	2842	G	O4'-C4'-C3'	5.46	109.46	104.00
52	B1	15	ARG	NE-CZ-NH1	-5.46	116.04	121.50
26	BB	105	C	C4'-C3'-C2'	-5.46	97.14	102.60
26	BB	1845	G	C2'-C3'-O3'	5.46	121.89	113.70
47	BW	25	LYS	CB-CA-C	5.46	119.36	110.24
51	B0	51	ALA	CA-C-O	-5.46	115.09	120.82
1	AA	150	U	C5'-C4'-C3'	5.46	124.19	116.00
26	BB	50	U	C1'-C2'-O2'	5.46	119.99	111.80
26	BB	407	G	O4'-C1'-C2'	-5.46	102.14	107.60
26	BB	603	A	C4'-C3'-C2'	-5.46	97.14	102.60
26	BB	1559	U	O3'-P-O5'	-5.46	95.81	104.00
53	B2	14	ALA	N-CA-C	5.46	118.20	110.50
1	AA	1320	C	O4'-C1'-N1	5.46	116.69	108.50
26	BB	254	G	O4'-C4'-C3'	5.46	109.46	104.00
26	BB	1624	U	O4'-C4'-C3'	5.46	109.46	104.00
40	BP	64	ARG	NE-CZ-NH1	5.46	126.96	121.50
1	AA	1438	G	O4'-C4'-C3'	5.46	109.45	104.00
26	BB	1853	A	O4'-C4'-C3'	5.46	109.45	104.00
36	BL	42	ALA	N-CA-CB	-5.46	101.95	109.97
42	BR	76	HIS	CB-CG-CD2	-5.46	124.11	131.20
49	BY	3	LYS	O-C-N	-5.46	116.06	123.10
1	AA	4	U	C5'-C4'-O4'	5.45	117.98	109.80
1	AA	90	C	O3'-P-O5'	-5.45	95.82	104.00
21	AU	49	LYS	O-C-N	5.45	127.92	122.08
26	BB	1955	U	O4'-C1'-C2'	-5.45	100.35	105.80
26	BB	2088	A	C3'-C2'-C1'	5.45	106.75	101.30
40	BP	20	MET	N-CA-CB	5.45	117.98	110.07
41	BQ	29	HIS	CA-CB-CG	-5.45	108.35	113.80
1	AA	412	A	O4'-C1'-C2'	-5.45	102.15	107.60
6	AF	131	ARG	CA-C-N	5.45	127.58	120.28
6	AF	131	ARG	C-N-CA	5.45	127.58	120.28
26	BB	124	G	O4'-C4'-C3'	5.45	109.45	104.00
26	BB	1242	U	C4'-C3'-O3'	-5.45	104.82	113.00
26	BB	1410	G	C4'-C3'-C2'	-5.45	97.15	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	427	U	C1'-C2'-O2'	5.45	116.58	108.40
26	BB	1538	G	C4'-C3'-C2'	-5.45	97.15	102.60
26	BB	2228	G	O4'-C4'-C3'	5.45	109.45	104.00
26	BB	2421	G	C4'-C3'-C2'	-5.45	97.15	102.60
26	BB	2785	C	C1'-O4'-C4'	5.45	115.35	109.90
1	AA	534	U	C4'-C3'-C2'	-5.45	97.15	102.60
1	AA	714	G	P-O3'-C3'	5.45	128.37	120.20
1	AA	1292	G	O5'-C5'-C4'	5.45	119.67	111.50
1	AA	1406	U	O4'-C4'-C3'	5.45	109.45	104.00
2	AB	67	G	C1'-C2'-O2'	-5.45	100.23	108.40
5	AE	153	MET	CA-CB-CG	-5.45	103.20	114.10
10	AJ	127	ALA	CA-C-N	5.45	131.53	122.54
10	AJ	127	ALA	C-N-CA	5.45	131.53	122.54
26	BB	363	G	C3'-C2'-C1'	5.45	106.75	101.30
26	BB	458	G	O4'-C1'-C2'	-5.45	100.35	105.80
26	BB	791	C	C4'-C3'-O3'	5.45	117.57	109.40
26	BB	1733	G	C4'-C3'-C2'	-5.45	97.15	102.60
26	BB	2801	G	O3'-P-O5'	5.45	112.17	104.00
28	BD	18	VAL	N-CA-CB	-5.45	104.83	111.21
33	BI	60	GLU	N-CA-CB	-5.45	101.83	110.28
40	BP	61	ALA	CA-C-N	5.45	129.94	120.68
40	BP	61	ALA	C-N-CA	5.45	129.94	120.68
4	AD	59	A	C1'-O4'-C4'	5.45	115.15	109.70
26	BB	1453	A	O4'-C4'-C3'	5.45	109.45	104.00
26	BB	2710	C	C3'-C2'-C1'	5.45	106.75	101.30
1	AA	18	C	C5'-C4'-O4'	5.45	117.97	109.80
1	AA	1040	U	O3'-P-O5'	-5.45	95.83	104.00
1	AA	1494	G	C5'-C4'-C3'	-5.45	107.83	116.00
6	AF	178	ARG	CA-C-O	5.45	125.14	119.91
26	BB	1138	G	C4'-C3'-C2'	-5.45	97.15	102.60
26	BB	2427	C	P-O5'-C5'	5.45	129.07	120.90
26	BB	1849	G	O4'-C1'-N9	5.44	116.67	108.50
26	BB	2584	U	C2'-C3'-O3'	5.44	117.67	109.50
26	BB	2592	G	C1'-C2'-O2'	5.44	116.57	108.40
53	B2	6	HIS	CB-CG-ND1	5.44	130.87	122.70
1	AA	93	U	C4'-C3'-C2'	-5.44	97.16	102.60
1	AA	1463	U	O4'-C4'-C3'	5.44	109.44	104.00
4	AD	3	C	O4'-C1'-N1	5.44	116.67	108.50
6	AF	189	HIS	CA-C-O	5.44	127.31	121.16
25	BA	88	C	P-O5'-C5'	5.44	129.06	120.90
26	BB	192	C	O5'-C5'-C4'	5.44	119.66	111.50
26	BB	418	C	C1'-C2'-O2'	-5.44	100.23	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1540	G	N9-C1'-C2'	-5.44	103.84	112.00
26	BB	1699	G	O4'-C1'-N9	5.44	116.36	108.20
26	BB	2483	C	O5'-C5'-C4'	-5.44	103.34	111.50
1	AA	58	C	C1'-C2'-O2'	5.44	116.56	108.40
1	AA	668	G	C4'-C3'-C2'	-5.44	97.16	102.60
1	AA	1034	G	C5'-C4'-O4'	5.44	117.96	109.80
22	AV	2	ARG	NE-CZ-NH2	5.44	124.10	119.20
26	BB	998	C	C2'-C3'-O3'	5.44	121.86	113.70
26	BB	1297	C	C5'-C4'-O4'	5.44	117.96	109.80
26	BB	1347	A	O4'-C1'-C2'	-5.44	102.16	107.60
26	BB	2614	A	P-O3'-C3'	5.44	128.36	120.20
27	BC	201	PRO	N-CA-CB	5.44	108.39	103.33
41	BQ	24	THR	N-CA-C	5.44	118.21	110.10
57	B6	1	PRO	CA-N-CD	-5.44	104.39	112.00
1	AA	255	G	C1'-O4'-C4'	5.44	115.34	109.90
1	AA	304	U	C3'-C2'-C1'	5.44	106.74	101.30
1	AA	674	G	O3'-P-O5'	-5.44	95.84	104.00
3	AC	18	A	N9-C1'-C2'	5.44	122.16	114.00
26	BB	38	A	C1'-O4'-C4'	-5.44	104.46	109.90
35	BK	68	PHE	CA-C-O	-5.44	113.59	120.28
1	AA	28	A	C2'-C3'-O3'	-5.44	105.54	113.70
1	AA	720	C	O4'-C1'-C2'	5.44	113.04	107.60
7	AG	58	GLN	CA-C-N	5.44	127.88	120.54
7	AG	58	GLN	C-N-CA	5.44	127.88	120.54
7	AG	110	ARG	O-C-N	5.44	127.88	122.12
11	AK	65	PHE	N-CA-C	-5.44	105.46	111.71
25	BA	95	U	C4'-C3'-C2'	-5.44	97.16	102.60
26	BB	115	C	O4'-C1'-N1	5.44	116.66	108.50
26	BB	1271	G	O4'-C4'-C3'	-5.44	98.56	104.00
8	AH	127	TYR	CA-C-O	-5.44	115.63	121.45
26	BB	484	C	C4'-C3'-C2'	-5.44	97.16	102.60
26	BB	792	A	C4'-C3'-O3'	5.44	121.15	113.00
30	BF	55	SER	O-C-N	-5.44	115.05	122.33
43	BS	34	ALA	CA-C-O	-5.44	115.11	120.82
1	AA	897	C	C5'-C4'-O4'	5.43	117.95	109.80
1	AA	961	U	C5'-C4'-O4'	5.43	117.95	109.80
5	AE	169	HIS	CA-C-N	5.43	127.91	120.46
5	AE	169	HIS	C-N-CA	5.43	127.91	120.46
14	AN	88	PRO	CA-C-N	5.43	130.40	121.87
14	AN	88	PRO	C-N-CA	5.43	130.40	121.87
26	BB	624	C	C4'-C3'-C2'	-5.43	97.17	102.60
26	BB	1168	G	C1'-O4'-C4'	5.43	115.33	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1447	A	C2'-C3'-O3'	5.43	117.65	109.50
1	AA	1459	G	O3'-P-O5'	-5.43	95.85	104.00
15	AO	72	ASN	CA-C-O	5.43	125.22	118.43
26	BB	1055	G	C1'-O4'-C4'	-5.43	104.47	109.90
26	BB	1063	G	P-O5'-C5'	5.43	129.05	120.90
26	BB	1080	A	O3'-P-O5'	-5.43	95.85	104.00
26	BB	1812	U	P-O3'-C3'	5.43	128.35	120.20
26	BB	2546	U	P-O3'-C3'	5.43	128.35	120.20
26	BB	2858	C	C5'-C4'-C3'	-5.43	107.85	116.00
39	BO	71	LYS	O-C-N	5.43	127.39	121.36
45	BU	71	VAL	O-C-N	5.43	128.39	122.36
1	AA	61	G	O5'-C5'-C4'	-5.43	103.35	111.50
1	AA	470	C	C5'-C4'-C3'	-5.43	107.85	116.00
2	AB	38	A	C3'-C2'-C1'	-5.43	95.87	101.30
26	BB	1702	G	C5'-C4'-C3'	-5.43	107.85	116.00
26	BB	2207	C	O4'-C1'-N1	5.43	116.65	108.50
5	AE	112	ARG	N-CA-C	5.43	117.20	111.28
5	AE	214	GLY	CA-C-N	5.43	128.00	120.29
5	AE	214	GLY	C-N-CA	5.43	128.00	120.29
23	AW	20	ASN	OD1-CG-ND2	-5.43	117.17	122.60
26	BB	1518	C	C3'-C2'-C1'	-5.43	95.87	101.30
26	BB	1845	G	O4'-C4'-C3'	5.43	109.43	104.00
26	BB	2381	A	O3'-P-O5'	-5.43	95.86	104.00
26	BB	2716	C	C1'-O4'-C4'	5.43	115.33	109.90
26	BB	216	A	O4'-C4'-C3'	5.43	109.43	104.00
26	BB	390	U	P-O5'-C5'	5.43	129.04	120.90
26	BB	2252	G	O4'-C4'-C3'	5.43	109.43	104.00
51	B0	1	MET	CA-C-N	5.43	127.55	120.28
51	B0	1	MET	C-N-CA	5.43	127.55	120.28
1	AA	497	G	P-O3'-C3'	5.43	128.34	120.20
1	AA	1159	U	C1'-O4'-C4'	-5.43	104.27	109.70
1	AA	1430	A	O4'-C1'-N9	5.43	116.64	108.50
2	AB	5	G	C1'-O4'-C4'	5.43	115.33	109.90
26	BB	157	C	C1'-O4'-C4'	5.43	115.33	109.90
26	BB	638	G	C1'-C2'-O2'	5.43	116.54	108.40
26	BB	932	U	C5'-C4'-O4'	-5.43	101.66	109.80
26	BB	1136	G	O5'-C5'-C4'	5.43	119.64	111.50
26	BB	2346	A	O4'-C4'-C3'	5.43	111.53	106.10
26	BB	2451	A	C4'-C3'-C2'	-5.43	97.17	102.60
29	BE	8	LYS	CB-CA-C	5.43	119.19	110.29
41	BQ	50	ALA	O-C-N	-5.43	116.97	123.27
52	B1	21	ALA	N-CA-C	5.43	117.62	111.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1212	U	O4'-C1'-N1	5.42	116.34	108.20
21	AU	67	LEU	CB-CA-C	5.42	117.03	108.84
26	BB	1033	U	C3'-C2'-O2'	-5.42	106.46	114.60
26	BB	1347	A	C4'-C3'-O3'	5.42	121.14	113.00
26	BB	1354	A	C5'-C4'-O4'	5.42	117.94	109.80
26	BB	1829	A	C3'-C2'-C1'	-5.42	95.88	101.30
26	BB	2309	A	C5'-C4'-C3'	-5.42	107.86	116.00
30	BF	161	ALA	CA-C-N	5.42	132.16	121.58
30	BF	161	ALA	C-N-CA	5.42	132.16	121.58
30	BF	165	HIS	CB-CG-CD2	-5.42	124.15	131.20
47	BW	33	VAL	CA-CB-CG2	5.42	119.62	110.40
7	AG	131	ILE	CA-C-N	5.42	127.55	120.28
7	AG	131	ILE	C-N-CA	5.42	127.55	120.28
26	BB	58	G	C5'-C4'-O4'	5.42	117.93	109.80
26	BB	1081	U	C1'-O4'-C4'	-5.42	104.48	109.90
29	BE	149	ASN	OD1-CG-ND2	-5.42	117.18	122.60
47	BW	53	GLN	CG-CD-NE2	5.42	124.53	116.40
1	AA	280	C	C1'-O4'-C4'	-5.42	104.28	109.70
1	AA	777	A	C5'-C4'-C3'	-5.42	107.87	116.00
1	AA	1474	U	O4'-C1'-C2'	-5.42	102.18	107.60
15	AO	95	HIS	ND1-CE1-NE2	5.42	113.82	108.40
26	BB	135	U	C4'-C3'-O3'	-5.42	104.87	113.00
26	BB	809	G	P-O5'-C5'	5.42	129.03	120.90
26	BB	1234	U	O4'-C1'-N1	5.42	116.63	108.50
26	BB	1246	A	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	1413	A	C5'-C4'-C3'	5.42	124.13	116.00
26	BB	2722	G	P-O5'-C5'	5.42	129.03	120.90
39	BO	67	VAL	CB-CA-C	5.42	118.85	110.50
46	BV	70	HIS	CB-CA-C	5.42	119.32	109.83
26	BB	687	C	O4'-C1'-C2'	5.42	113.02	107.60
26	BB	764	A	O4'-C4'-C3'	-5.42	100.68	106.10
26	BB	1359	A	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	1996	C	O4'-C4'-C3'	5.42	111.52	106.10
49	BY	50	VAL	CA-CB-CG1	5.42	119.61	110.40
1	AA	218	U	C4'-C3'-C2'	-5.42	97.18	102.60
1	AA	592	G	C1'-O4'-C4'	-5.42	104.48	109.90
1	AA	1418	A	C4'-C3'-O3'	5.42	121.13	113.00
12	AL	77	ALA	N-CA-C	-5.42	105.45	111.36
26	BB	302	C	C3'-C2'-O2'	5.42	118.83	110.70
26	BB	718	A	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	757	G	O4'-C4'-C3'	5.42	109.42	104.00
26	BB	1586	A	C3'-C2'-C1'	-5.42	95.88	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2060	A	N9-C1'-C2'	5.42	120.13	112.00
26	BB	2122	U	C1'-C2'-O2'	-5.42	100.27	108.40
26	BB	2175	C	C1'-O4'-C4'	5.42	115.32	109.90
28	BD	266	ILE	CA-CB-CG2	-5.42	101.29	110.50
38	BN	138	ALA	O-C-N	-5.42	115.38	122.59
1	AA	689	C	C1'-C2'-O2'	5.42	116.52	108.40
7	AG	70	GLN	CA-C-N	5.42	128.54	120.31
7	AG	70	GLN	C-N-CA	5.42	128.54	120.31
10	AJ	69	ARG	CB-CA-C	5.42	118.57	109.85
13	AM	98	VAL	CA-C-O	5.42	126.49	120.59
22	AV	47	THR	CA-CB-CG2	5.42	119.71	110.50
22	AV	64	GLU	CA-CB-CG	-5.42	103.27	114.10
26	BB	1753	G	O4'-C4'-C3'	5.42	109.42	104.00
26	BB	2723	C	O4'-C1'-N1	5.42	116.62	108.50
27	BC	165	ASN	O-C-N	5.42	129.40	123.01
26	BB	1346	G	C2'-C3'-O3'	-5.42	105.58	113.70
26	BB	2183	A	O4'-C4'-C3'	5.42	109.42	104.00
26	BB	2677	G	O4'-C1'-N9	5.42	116.62	108.50
1	AA	220	G	O4'-C4'-C3'	-5.41	98.59	104.00
1	AA	372	C	O3'-P-O5'	5.41	112.12	104.00
1	AA	944	G	O4'-C4'-C3'	5.41	109.41	104.00
1	AA	1542	A	C3'-C2'-C1'	-5.41	95.89	101.30
26	BB	312	G	O5'-C5'-C4'	5.41	119.62	111.50
1	AA	32	A	O4'-C1'-N9	5.41	116.62	108.50
7	AG	23	GLY	O-C-N	5.41	129.74	122.70
16	AP	25	GLY	CA-C-N	5.41	127.48	120.44
16	AP	25	GLY	C-N-CA	5.41	127.48	120.44
1	AA	145	G	O4'-C1'-N9	5.41	116.62	108.50
26	BB	112	U	O4'-C4'-C3'	5.41	109.41	104.00
26	BB	787	C	O4'-C1'-C2'	-5.41	102.19	107.60
26	BB	967	U	C1'-O4'-C4'	5.41	115.31	109.90
26	BB	1606	C	C3'-C2'-C1'	5.41	106.71	101.30
26	BB	1812	U	C2'-C3'-O3'	-5.41	105.58	113.70
26	BB	2371	G	C1'-C2'-O2'	5.41	116.52	108.40
26	BB	2652	C	O4'-C1'-N1	5.41	116.62	108.50
35	BK	125	THR	CA-C-O	-5.41	115.11	120.90
1	AA	468	A	C4'-C3'-O3'	5.41	121.11	113.00
1	AA	1417	G	C5'-C4'-O4'	5.41	117.91	109.80
1	AA	1445	U	O3'-P-O5'	-5.41	95.89	104.00
26	BB	773	U	C4'-C3'-C2'	5.41	108.01	102.60
26	BB	997	G	C5'-C4'-O4'	5.41	117.91	109.80
26	BB	2174	C	C3'-C2'-O2'	5.41	118.81	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	BD	259	ASN	CA-CB-CG	5.41	118.01	112.60
6	AF	200	TRP	CA-CB-CG	5.41	123.87	113.60
26	BB	108	G	O4'-C1'-N9	5.41	116.61	108.50
31	BG	3	LEU	CA-C-O	5.41	126.69	120.90
1	AA	781	A	C4'-C3'-C2'	-5.41	97.19	102.60
1	AA	1047	G	C2'-C3'-O3'	5.41	121.81	113.70
8	AH	143	LEU	N-CA-CB	-5.41	101.60	110.95
26	BB	1400	U	O4'-C1'-N1	5.41	116.61	108.50
26	BB	1531	C	O3'-P-O5'	-5.41	95.89	104.00
28	BD	175	LEU	CD1-CG-CD2	-5.41	98.91	110.80
30	BF	162	ARG	CD-NE-CZ	-5.41	116.83	124.40
43	BS	59	LEU	CA-C-N	5.41	127.47	120.44
43	BS	59	LEU	C-N-CA	5.41	127.47	120.44
46	BV	88	LYS	O-C-N	-5.41	116.62	123.05
1	AA	30	U	C2'-C3'-O3'	5.40	117.61	109.50
1	AA	1233	G	C4'-C3'-C2'	-5.40	97.20	102.60
2	AB	52	A	C4'-C3'-O3'	5.40	121.11	113.00
11	AK	39	LEU	N-CA-C	5.40	117.17	111.28
25	BA	117	G	C4'-C3'-C2'	-5.40	97.20	102.60
26	BB	1168	G	O4'-C1'-N9	5.40	116.61	108.50
26	BB	2085	U	C3'-C2'-C1'	-5.40	95.90	101.30
26	BB	2797	U	O4'-C1'-C2'	-5.40	102.20	107.60
36	BL	16	TYR	CA-C-N	-5.40	116.49	123.19
36	BL	16	TYR	C-N-CA	-5.40	116.49	123.19
1	AA	376	G	C4'-C3'-C2'	-5.40	97.20	102.60
26	BB	286	U	O4'-C1'-N1	5.40	116.61	108.50
26	BB	730	A	O5'-C5'-C4'	-5.40	103.40	111.50
26	BB	915	C	C1'-O4'-C4'	-5.40	104.50	109.90
26	BB	1635	A	C5'-C4'-O4'	5.40	117.90	109.80
26	BB	1957	C	C5'-C4'-C3'	-5.40	107.90	116.00
27	BC	53	ARG	CA-C-N	5.40	129.25	120.23
27	BC	53	ARG	C-N-CA	5.40	129.25	120.23
56	B5	18	PHE	CA-C-N	5.40	127.52	120.28
56	B5	18	PHE	C-N-CA	5.40	127.52	120.28
6	AF	69	THR	CA-CB-CG2	5.40	119.68	110.50
26	BB	671	C	C3'-C2'-C1'	-5.40	95.90	101.30
26	BB	808	G	O4'-C1'-C2'	-5.40	102.20	107.60
26	BB	1392	A	C3'-C2'-O2'	-5.40	106.50	114.60
26	BB	2565	A	P-O3'-C3'	5.40	128.30	120.20
26	BB	2620	C	C3'-C2'-O2'	5.40	118.80	110.70
33	BI	49	ALA	N-CA-CB	-5.40	102.14	110.13
38	BN	65	GLY	CA-C-N	5.40	131.06	122.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BN	65	GLY	C-N-CA	5.40	131.06	122.74
56	B5	26	ASN	CA-C-O	-5.40	114.00	120.10
26	BB	561	G	C4'-C3'-C2'	-5.40	97.20	102.60
26	BB	1510	G	C3'-C2'-C1'	5.40	106.70	101.30
26	BB	1643	G	O4'-C1'-N9	5.40	116.60	108.50
26	BB	2370	G	P-O3'-C3'	5.40	128.30	120.20
1	AA	365	U	O5'-C5'-C4'	5.40	119.59	111.50
1	AA	958	A	O4'-C4'-C3'	5.40	109.40	104.00
1	AA	1110	A	O4'-C1'-C2'	-5.40	102.20	107.60
1	AA	1509	C	O4'-C1'-N1	5.40	116.60	108.50
26	BB	410	G	C5'-C4'-C3'	5.40	124.10	116.00
26	BB	922	C	O4'-C1'-N1	5.40	116.60	108.50
26	BB	1118	C	O4'-C1'-N1	5.40	116.60	108.50
26	BB	1177	G	C1'-O4'-C4'	-5.40	104.50	109.90
26	BB	2480	C	O3'-P-O5'	5.40	112.10	104.00
30	BF	126	VAL	CA-C-N	5.40	132.15	122.38
30	BF	126	VAL	C-N-CA	5.40	132.15	122.38
32	BH	73	SER	CB-CA-C	5.40	119.44	110.81
17	AQ	7	ALA	O-C-N	-5.40	116.26	122.09
26	BB	1751	U	O4'-C1'-N1	5.40	116.59	108.50
1	AA	279	A	C3'-C2'-O2'	5.39	118.79	110.70
1	AA	421	U	O4'-C4'-C3'	5.39	111.49	106.10
6	AF	212	ALA	N-CA-CB	-5.39	103.27	111.15
8	AH	19	ARG	NE-CZ-NH2	5.39	124.06	119.20
20	AT	76	ARG	NE-CZ-NH2	-5.39	114.35	119.20
26	BB	1763	G	C2'-C3'-O3'	5.39	121.79	113.70
26	BB	2318	G	C2'-C3'-O3'	-5.39	105.61	113.70
33	BI	46	PHE	N-CA-CB	5.39	118.05	110.12
44	BT	33	VAL	O-C-N	5.39	128.65	122.93
1	AA	339	C	C4'-C3'-C2'	-5.39	97.21	102.60
26	BB	137	U	C4'-C3'-C2'	-5.39	97.21	102.60
26	BB	561	G	O4'-C1'-N9	5.39	116.59	108.50
26	BB	1056	G	C1'-O4'-C4'	5.39	115.29	109.90
26	BB	1461	C	C1'-C2'-O2'	5.39	116.49	108.40
26	BB	2032	G	C3'-C2'-O2'	-5.39	106.51	114.60
26	BB	2711	A	C1'-O4'-C4'	-5.39	104.51	109.90
36	BL	133	ALA	N-CA-CB	-5.39	101.44	110.39
26	BB	801	G	O3'-P-O5'	5.39	112.09	104.00
26	BB	1011	G	O4'-C1'-N9	5.39	116.29	108.20
26	BB	1411	U	O4'-C4'-C3'	5.39	109.39	104.00
26	BB	2743	U	O4'-C4'-C3'	5.39	109.39	104.00
35	BK	108	ILE	N-CA-C	-5.39	105.25	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	131	A	C1'-C2'-O2'	5.39	116.48	108.40
1	AA	1227	A	C4'-C3'-C2'	-5.39	97.21	102.60
1	AA	1319	A	C1'-C2'-O2'	5.39	119.88	111.80
8	AH	71	ILE	CA-C-N	5.39	131.05	122.59
8	AH	71	ILE	C-N-CA	5.39	131.05	122.59
26	BB	309	A	C5'-C4'-O4'	5.39	117.88	109.80
26	BB	388	G	N9-C1'-C2'	5.39	120.08	112.00
26	BB	575	A	C4'-C3'-O3'	5.39	121.09	113.00
28	BD	229	HIS	CA-C-O	-5.39	114.21	120.03
43	BS	80	ASN	CA-C-N	5.39	125.96	119.98
43	BS	80	ASN	C-N-CA	5.39	125.96	119.98
26	BB	1241	A	O5'-C5'-C4'	-5.39	103.42	111.50
1	AA	604	G	C3'-C2'-C1'	5.39	106.69	101.30
1	AA	1420	U	C3'-C2'-O2'	-5.39	102.62	110.70
19	AS	31	ARG	CD-NE-CZ	5.39	131.94	124.40
25	BA	101	A	C5'-C4'-O4'	5.39	117.88	109.80
26	BB	684	G	C4'-C3'-C2'	-5.39	97.21	102.60
26	BB	1438	U	O4'-C4'-C3'	5.39	109.39	104.00
26	BB	1778	U	C5'-C4'-C3'	-5.39	107.92	116.00
26	BB	2705	A	O4'-C1'-N9	5.39	116.58	108.50
38	BN	41	ARG	CA-CB-CG	5.39	124.87	114.10
57	B6	24	LYS	CA-C-N	5.39	128.49	120.95
57	B6	24	LYS	C-N-CA	5.39	128.49	120.95
1	AA	711	G	C5'-C4'-C3'	-5.38	107.92	116.00
1	AA	974	A	P-O3'-C3'	5.38	128.28	120.20
5	AE	6	ARG	CA-C-O	5.38	126.13	120.42
8	AH	38	VAL	CB-CA-C	5.38	118.85	110.83
16	AP	21	ILE	CA-CB-CG1	5.38	119.55	110.40
18	AR	85	GLY	CA-C-O	5.38	126.31	119.80
26	BB	622	G	C5'-C4'-O4'	5.38	117.88	109.80
26	BB	854	C	C1'-C2'-O2'	5.38	116.48	108.40
2	AB	38	A	O4'-C1'-N9	5.38	116.58	108.50
19	AS	21	VAL	N-CA-CB	-5.38	104.86	111.00
26	BB	846	U	C5'-C4'-O4'	5.38	117.88	109.80
58	B7	30	GLU	CA-CB-CG	5.38	124.87	114.10
1	AA	894	G	C5'-C4'-C3'	-5.38	107.93	116.00
6	AF	25	THR	OG1-CB-CG2	-5.38	98.53	109.30
21	AU	3	TYR	CA-C-N	5.38	131.63	122.37
21	AU	3	TYR	C-N-CA	5.38	131.63	122.37
30	BF	190	ALA	CA-C-N	5.38	127.76	120.44
30	BF	190	ALA	C-N-CA	5.38	127.76	120.44
1	AA	1030	U	C4'-C3'-C2'	5.38	107.98	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1323	G	C1'-O4'-C4'	-5.38	104.52	109.90
11	AK	100	ILE	CA-CB-CG1	5.38	119.55	110.40
19	AS	4	ILE	CA-CB-CG1	5.38	119.55	110.40
19	AS	74	LEU	CA-C-N	5.38	127.34	120.56
19	AS	74	LEU	C-N-CA	5.38	127.34	120.56
26	BB	1711	A	C1'-O4'-C4'	-5.38	104.52	109.90
26	BB	2131	U	O4'-C1'-C2'	-5.38	102.22	107.60
26	BB	2242	G	C5'-C4'-O4'	5.38	117.87	109.80
43	BS	41	ALA	CA-C-N	5.38	127.05	120.22
43	BS	41	ALA	C-N-CA	5.38	127.05	120.22
1	AA	720	C	C1'-O4'-C4'	-5.38	104.52	109.90
26	BB	1178	C	C1'-C2'-O2'	-5.38	100.33	108.40
26	BB	2445	2MG	O3'-P-O5'	5.38	112.07	104.00
26	BB	2838	G	C2'-C3'-O3'	5.38	121.77	113.70
44	BT	79	ARG	O-C-N	5.38	129.04	122.75
1	AA	736	C	C1'-C2'-O2'	5.38	116.47	108.40
6	AF	130	ARG	NE-CZ-NH2	5.38	124.04	119.20
25	BA	95	U	C3'-C2'-C1'	5.38	106.68	101.30
26	BB	897	C	C3'-C2'-O2'	5.38	118.76	110.70
26	BB	1557	C	C4'-C3'-C2'	-5.38	97.22	102.60
35	BK	3	LYS	CA-C-O	-5.38	112.82	120.51
1	AA	356	A	P-O5'-C5'	5.38	128.96	120.90
3	AC	32	U	O4'-C4'-C3'	-5.38	98.62	104.00
22	AV	79	TYR	O-C-N	5.38	129.83	123.33
26	BB	2071	A	C1'-O4'-C4'	-5.38	104.53	109.90
26	BB	2148	G	C1'-C2'-O2'	5.38	116.46	108.40
1	AA	222	C	O3'-P-O5'	5.37	112.06	104.00
1	AA	763	G	C1'-O4'-C4'	-5.37	104.53	109.90
1	AA	948	C	C3'-C2'-C1'	5.37	106.67	101.30
1	AA	1323	G	C4'-C3'-C2'	-5.37	97.23	102.60
13	AM	56	HIS	CB-CG-CD2	-5.37	124.22	131.20
26	BB	703	U	N1-C1'-C2'	-5.37	103.94	112.00
26	BB	1068	G	C2'-C3'-O3'	-5.37	105.64	113.70
26	BB	1360	G	C3'-C2'-C1'	-5.37	95.93	101.30
26	BB	2463	C	N1-C1'-C2'	-5.37	103.94	112.00
26	BB	2750	A	C3'-C2'-O2'	-5.37	106.54	114.60
37	BM	75	SER	CB-CA-C	5.37	119.10	110.29
39	BO	52	ALA	N-CA-C	5.37	116.82	111.07
1	AA	1500	A	C5'-C4'-C3'	-5.37	107.94	116.00
4	AD	44	A	O4'-C1'-N9	5.37	116.56	108.50
16	AP	68	LEU	CB-CA-C	5.37	119.31	110.88
24	AX	30	GLU	CB-CG-CD	5.37	121.73	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	22	U	P-O5'-C5'	5.37	128.96	120.90
26	BB	828	U	C3'-C2'-C1'	5.37	106.67	101.30
26	BB	1080	A	O4'-C1'-N9	5.37	116.56	108.50
26	BB	2171	A	C4'-C3'-C2'	-5.37	97.23	102.60
26	BB	2370	G	C3'-C2'-C1'	-5.37	95.93	101.30
42	BR	6	GLN	CA-C-O	5.37	126.11	120.42
43	BS	77	LYS	N-CA-C	-5.37	105.51	111.36
1	AA	1489	G	O4'-C4'-C3'	5.37	109.37	104.00
26	BB	636	G	O5'-C5'-C4'	5.37	119.56	111.50
26	BB	693	A	P-O3'-C3'	5.37	128.25	120.20
28	BD	14	HIS	CB-CG-CD2	-5.37	124.22	131.20
35	BK	8	VAL	CA-C-O	-5.37	114.90	121.13
1	AA	963	G	P-O3'-C3'	-5.37	112.15	120.20
26	BB	194	G	O5'-C5'-C4'	5.37	119.55	111.50
26	BB	273	G	O4'-C1'-N9	5.37	116.55	108.50
26	BB	339	U	O5'-C5'-C4'	5.37	119.55	111.50
26	BB	582	A	P-O5'-C5'	5.37	128.95	120.90
26	BB	963	U	C5'-C4'-C3'	-5.37	107.95	116.00
26	BB	1103	A	N9-C1'-C2'	5.37	120.05	112.00
26	BB	1268	A	C4'-C3'-C2'	-5.37	97.23	102.60
26	BB	1515	A	C4'-C3'-O3'	5.37	121.05	113.00
26	BB	1744	A	C4'-C3'-C2'	-5.37	97.23	102.60
26	BB	2017	U	C4'-C3'-C2'	-5.37	97.23	102.60
26	BB	2674	G	C3'-C2'-C1'	-5.37	95.93	101.30
30	BF	64	GLY	CA-C-N	5.37	130.13	122.72
30	BF	64	GLY	C-N-CA	5.37	130.13	122.72
37	BM	98	ARG	NE-CZ-NH1	5.37	126.87	121.50
45	BU	89	ALA	CA-C-N	5.37	129.97	122.08
45	BU	89	ALA	C-N-CA	5.37	129.97	122.08
1	AA	185	U	C5'-C4'-C3'	-5.37	107.95	116.00
26	BB	301	G	C4'-C3'-C2'	-5.37	97.23	102.60
26	BB	1848	A	O4'-C4'-C3'	5.37	109.37	104.00
26	BB	2356	U	N1-C1'-C2'	-5.37	103.95	112.00
26	BB	2481	G	C1'-O4'-C4'	-5.37	104.53	109.90
27	BC	53	ARG	NE-CZ-NH2	5.37	124.03	119.20
32	BH	29	ASN	CA-C-N	5.37	126.36	121.31
32	BH	29	ASN	C-N-CA	5.37	126.36	121.31
1	AA	582	C	C2'-C3'-O3'	5.37	121.75	113.70
1	AA	1415	G	C2'-C3'-O3'	-5.37	105.65	113.70
6	AF	227	GLN	CA-C-O	-5.37	115.10	121.16
26	BB	29	U	C3'-C2'-C1'	5.37	106.67	101.30
26	BB	53	A	C4'-C3'-C2'	-5.37	97.23	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	297	G	O3'-P-O5'	5.37	112.05	104.00
26	BB	1189	A	C3'-C2'-O2'	5.37	118.75	110.70
26	BB	2214	C	O4'-C1'-N1	5.37	116.55	108.50
27	BC	164	ARG	NE-CZ-NH2	-5.37	114.37	119.20
29	BE	33	ARG	N-CA-CB	5.37	119.38	110.47
30	BF	154	ASP	CA-C-N	5.37	129.19	120.60
30	BF	154	ASP	C-N-CA	5.37	129.19	120.60
49	BY	18	LYS	N-CA-C	5.37	118.05	111.82
1	AA	6	G	O4'-C1'-N9	5.36	116.25	108.20
10	AJ	169	SER	CA-CB-OG	5.36	121.83	111.10
11	AK	94	VAL	CB-CA-C	5.36	117.94	111.13
15	AO	64	SER	CB-CA-C	5.36	119.89	109.33
26	BB	1635	A	O4'-C1'-C2'	-5.36	102.24	107.60
26	BB	2323	G	C4'-C3'-O3'	5.36	121.05	113.00
26	BB	899	A	P-O5'-C5'	5.36	128.94	120.90
26	BB	2824	C	O4'-C4'-C3'	5.36	109.36	104.00
44	BT	97	LYS	N-CA-CB	-5.36	102.13	110.55
1	AA	1221	G	O5'-C5'-C4'	5.36	119.54	111.50
1	AA	1246	A	C4'-C3'-C2'	-5.36	97.24	102.60
4	AD	76	C	C4'-C3'-C2'	-5.36	97.24	102.60
25	BA	11	C	O5'-C5'-C4'	5.36	119.54	111.50
25	BA	84	G	C4'-C3'-C2'	-5.36	97.24	102.60
26	BB	314	C	C2'-C3'-O3'	-5.36	105.66	113.70
26	BB	404	A	O4'-C1'-C2'	5.36	112.96	107.60
26	BB	437	U	C4'-C3'-C2'	-5.36	97.24	102.60
26	BB	437	U	C5'-C4'-C3'	-5.36	107.96	116.00
26	BB	444	C	C5'-C4'-O4'	5.36	117.84	109.80
26	BB	550	C	C1'-C2'-O2'	5.36	116.44	108.40
26	BB	927	A	C5'-C4'-O4'	5.36	117.84	109.80
26	BB	1047	G	C4'-C3'-O3'	-5.36	101.36	109.40
26	BB	1155	A	C2'-C3'-O3'	-5.36	105.66	113.70
26	BB	1213	A	C4'-C3'-C2'	-5.36	97.24	102.60
26	BB	1604	C	C5'-C4'-C3'	-5.36	107.96	116.00
26	BB	2271	G	P-O3'-C3'	5.36	128.24	120.20
26	BB	2441	U	C5'-C4'-O4'	5.36	117.84	109.80
26	BB	2875	C	O4'-C1'-C2'	5.36	112.96	107.60
46	BV	55	VAL	CA-CB-CG2	5.36	119.51	110.40
1	AA	13	U	C3'-C2'-C1'	-5.36	96.14	101.50
1	AA	875	U	O4'-C1'-N1	5.36	116.54	108.50
26	BB	2439	A	C1'-O4'-C4'	5.36	115.06	109.70
1	AA	356	A	C4'-C3'-O3'	5.36	121.04	113.00
26	BB	2117	A	C5'-C4'-C3'	5.36	124.04	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BI	61	VAL	CA-CB-CG1	5.36	119.51	110.40
39	BO	55	ARG	NE-CZ-NH2	5.36	124.02	119.20
1	AA	120	A	O3'-P-O5'	5.36	112.03	104.00
1	AA	1042	A	C1'-C2'-O2'	5.36	116.43	108.40
26	BB	44	A	C4'-C3'-C2'	5.36	107.95	102.60
26	BB	202	U	C5'-C4'-O4'	5.36	117.83	109.80
26	BB	937	C	C4'-C3'-C2'	-5.36	97.24	102.60
26	BB	1596	A	O5'-C5'-C4'	5.36	119.53	111.50
26	BB	2056	G	O5'-C5'-C4'	-5.36	103.47	111.50
26	BB	2307	G	C2'-C3'-O3'	5.36	117.53	109.50
26	BB	2872	A	C4'-C3'-C2'	-5.36	97.25	102.60
28	BD	7	PRO	CA-C-N	5.36	131.77	121.54
28	BD	7	PRO	C-N-CA	5.36	131.77	121.54
28	BD	229	HIS	CB-CG-CD2	-5.36	124.24	131.20
32	BH	14	VAL	CB-CA-C	5.36	116.64	111.23
45	BU	52	GLU	CA-C-N	5.36	127.45	120.28
45	BU	52	GLU	C-N-CA	5.36	127.45	120.28
52	B1	10	ARG	O-C-N	5.36	129.68	123.41
1	AA	888	G	C4'-C3'-O3'	-5.35	104.97	113.00
52	B1	57	GLU	CA-CB-CG	5.35	124.81	114.10
1	AA	506	G	O4'-C1'-N9	5.35	116.53	108.50
6	AF	218	LYS	CB-CA-C	5.35	120.72	110.17
25	BA	8	C	C4'-C3'-C2'	-5.35	97.25	102.60
26	BB	304	U	O4'-C4'-C3'	5.35	109.35	104.00
26	BB	1356	G	C5'-C4'-O4'	5.35	117.83	109.80
26	BB	1799	G	C3'-C2'-C1'	5.35	106.65	101.30
26	BB	1918	A	O4'-C1'-C2'	-5.35	100.45	105.80
26	BB	1988	G	O5'-C5'-C4'	-5.35	103.47	111.50
26	BB	2004	G	C5'-C4'-C3'	-5.35	107.97	116.00
44	BT	63	VAL	CA-C-O	-5.35	115.50	121.23
1	AA	1200	C	C4'-C3'-C2'	-5.35	97.25	102.60
26	BB	1581	G	N9-C1'-C2'	5.35	120.03	112.00
32	BH	57	TYR	N-CA-C	-5.35	106.51	114.64
1	AA	240	G	C3'-C2'-C1'	5.35	106.65	101.30
1	AA	286	C	O4'-C1'-C2'	5.35	112.95	107.60
1	AA	450	G	C5'-C4'-O4'	5.35	117.82	109.80
26	BB	1273	U	C5'-C4'-O4'	5.35	117.83	109.80
26	BB	1523	U	C5'-C4'-C3'	-5.35	107.98	116.00
26	BB	2586	U	O4'-C1'-C2'	-5.35	102.25	107.60
26	BB	2711	A	O4'-C4'-C3'	5.35	109.35	104.00
30	BF	140	ASP	CA-CB-CG	-5.35	107.25	112.60
56	B5	4	THR	OG1-CB-CG2	5.35	120.00	109.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	915	A	C1'-O4'-C4'	-5.35	104.55	109.90
1	AA	1138	G	O4'-C1'-N9	5.35	116.52	108.50
5	AE	90	PHE	CA-C-N	5.35	132.11	122.43
5	AE	90	PHE	C-N-CA	5.35	132.11	122.43
19	AS	59	HIS	CA-C-O	-5.35	115.39	121.00
23	AW	21	ALA	CA-C-N	-5.35	113.11	120.28
23	AW	21	ALA	C-N-CA	-5.35	113.11	120.28
25	BA	61	G	C1'-O4'-C4'	5.35	115.25	109.90
26	BB	821	A	C3'-C2'-C1'	5.35	106.65	101.30
26	BB	1418	G	C4'-C3'-O3'	-5.35	104.98	113.00
26	BB	1739	A	C2'-C3'-O3'	-5.35	105.68	113.70
26	BB	2265	U	C2'-C3'-O3'	-5.35	105.68	113.70
26	BB	2356	U	C2'-C3'-O3'	5.35	121.72	113.70
28	BD	181	ARG	N-CA-CB	-5.35	102.54	111.20
1	AA	158	G	C5'-C4'-O4'	5.35	117.82	109.80
1	AA	197	A	C1'-O4'-C4'	5.35	115.05	109.70
1	AA	1077	G	O3'-P-O5'	-5.35	95.98	104.00
26	BB	1047	G	C5'-C4'-C3'	-5.35	107.18	115.20
1	AA	92	U	C5'-C4'-C3'	-5.34	107.98	116.00
1	AA	494	G	C4'-C3'-C2'	5.34	107.94	102.60
1	AA	1125	U	C4'-C3'-C2'	-5.34	97.25	102.60
1	AA	1219	A	C4'-C3'-C2'	-5.34	97.26	102.60
1	AA	1335	U	P-O3'-C3'	5.34	128.22	120.20
12	AL	70	GLY	O-C-N	-5.34	118.62	123.54
26	BB	758	C	C4'-C3'-O3'	-5.34	104.98	113.00
26	BB	1807	G	C4'-C3'-O3'	-5.34	104.98	113.00
26	BB	1828	G	C5'-C4'-C3'	-5.34	107.18	115.20
26	BB	2021	C	P-O3'-C3'	5.34	128.22	120.20
1	AA	723	U	C4'-C3'-C2'	-5.34	97.26	102.60
1	AA	1132	C	C4'-C3'-C2'	-5.34	97.26	102.60
12	AL	118	ARG	N-CA-C	5.34	119.55	113.19
26	BB	368	A	O5'-C5'-C4'	-5.34	103.49	111.50
26	BB	2631	G	C1'-C2'-O2'	-5.34	100.39	108.40
26	BB	2697	G	C4'-C3'-O3'	5.34	121.01	113.00
32	BH	61	TRP	N-CA-C	5.34	119.63	113.38
43	BS	63	ARG	NH1-CZ-NH2	-5.34	112.35	119.30
1	AA	682	G	C2'-C3'-O3'	5.34	121.71	113.70
1	AA	1448	C	O4'-C4'-C3'	5.34	109.34	104.00
2	AB	44	G	C1'-C2'-O2'	5.34	116.41	108.40
26	BB	274	C	C1'-O4'-C4'	-5.34	104.56	109.90
26	BB	1279	G	O4'-C1'-C2'	-5.34	102.26	107.60
26	BB	1508	A	C3'-C2'-C1'	5.34	106.84	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1514	G	C4'-C3'-C2'	-5.34	97.26	102.60
26	BB	2197	U	C5'-C4'-C3'	5.34	123.21	115.20
26	BB	2542	A	C1'-O4'-C4'	-5.34	104.36	109.70
6	AF	51	VAL	CA-C-O	-5.34	114.89	120.76
7	AG	181	PHE	N-CA-C	5.34	116.84	109.15
18	AR	7	THR	CA-CB-CG2	5.34	119.58	110.50
21	AU	65	SER	CB-CA-C	5.34	119.31	111.73
26	BB	538	A	C4'-C3'-C2'	-5.34	97.26	102.60
26	BB	1733	G	P-O3'-C3'	5.34	128.21	120.20
26	BB	2099	U	C4'-C3'-C2'	-5.34	97.26	102.60
31	BG	111	ARG	CD-NE-CZ	5.34	131.88	124.40
32	BH	42	VAL	CA-CB-CG1	5.34	119.48	110.40
47	BW	66	VAL	O-C-N	5.34	127.33	121.83
1	AA	17	U	C5'-C4'-C3'	-5.34	107.99	116.00
1	AA	57	G	C3'-C2'-C1'	-5.34	95.96	101.30
1	AA	271	C	N1-C1'-C2'	5.34	120.01	112.00
1	AA	760	G	O4'-C4'-C3'	-5.34	98.66	104.00
1	AA	1397	C	C3'-C2'-O2'	-5.34	106.59	114.60
1	AA	1500	A	C3'-C2'-C1'	5.34	106.64	101.30
26	BB	888	C	P-O3'-C3'	5.34	128.21	120.20
26	BB	1594	U	O4'-C1'-N1	5.34	116.51	108.50
26	BB	2501	C	C5'-C4'-C3'	5.34	124.01	116.00
1	AA	371	A	C1'-O4'-C4'	-5.34	104.56	109.90
1	AA	1183	U	C3'-C2'-O2'	5.34	118.70	110.70
1	AA	1314	C	O3'-P-O5'	-5.34	96.00	104.00
2	AB	60	U	C2'-C3'-O3'	-5.34	105.70	113.70
8	AH	156	ARG	CA-C-O	-5.34	113.11	119.35
26	BB	453	A	P-O3'-C3'	5.34	128.20	120.20
26	BB	2781	A	C4'-C3'-O3'	5.34	121.01	113.00
26	BB	2831	G	C5'-C4'-O4'	5.34	117.80	109.80
40	BP	49	GLU	O-C-N	-5.34	115.69	120.71
1	AA	1264	U	C1'-C2'-O2'	-5.33	100.40	108.40
26	BB	263	G	C4'-C3'-C2'	-5.33	97.27	102.60
26	BB	1210	G	P-O3'-C3'	5.33	128.20	120.20
26	BB	2011	U	N1-C1'-C2'	-5.33	104.00	112.00
26	BB	2021	C	O5'-C5'-C4'	-5.33	103.50	111.50
1	AA	620	C	C5'-C4'-O4'	5.33	117.80	109.80
2	AB	76	A	O5'-C5'-C4'	-5.33	103.70	111.70
26	BB	474	G	P-O5'-C5'	5.33	128.90	120.90
28	BD	200	MET	O-C-N	5.33	129.52	122.43
1	AA	238	A	O4'-C1'-C2'	-5.33	102.27	107.60
1	AA	550	G	C3'-C2'-O2'	5.33	118.70	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	888	G	C4'-C3'-C2'	-5.33	97.27	102.60
1	AA	901	A	C1'-C2'-O2'	-5.33	100.40	108.40
15	AO	118	VAL	CA-C-O	5.33	127.44	120.78
26	BB	48	G	C4'-C3'-C2'	-5.33	97.27	102.60
26	BB	612	G	P-O3'-C3'	5.33	128.20	120.20
26	BB	1759	A	N9-C1'-C2'	5.33	120.00	112.00
26	BB	2685	G	C5'-C4'-O4'	5.33	117.80	109.80
1	AA	268	U	C4'-C3'-C2'	-5.33	97.27	102.60
1	AA	740	U	C5'-C4'-C3'	-5.33	108.01	116.00
26	BB	1194	A	O5'-C5'-C4'	-5.33	103.51	111.50
26	BB	1760	C	P-O3'-C3'	5.33	128.19	120.20
26	BB	2026	U	O4'-C1'-N1	5.33	116.50	108.50
31	BG	157	THR	CA-C-N	5.33	131.72	121.54
31	BG	157	THR	C-N-CA	5.33	131.72	121.54
1	AA	657	U	O4'-C1'-C2'	-5.33	102.27	107.60
1	AA	945	G	C5'-C4'-C3'	-5.33	108.01	116.00
1	AA	1194	U	C5'-C4'-C3'	-5.33	108.01	116.00
6	AF	105	VAL	O-C-N	5.33	128.47	122.18
26	BB	281	C	O4'-C1'-C2'	-5.33	102.27	107.60
26	BB	651	G	O3'-P-O5'	-5.33	96.01	104.00
26	BB	1217	U	O4'-C1'-C2'	-5.33	102.27	107.60
26	BB	1223	G	C4'-C3'-C2'	-5.33	97.27	102.60
26	BB	2738	A	C3'-C2'-O2'	5.33	118.69	110.70
46	BV	22	THR	O-C-N	5.33	129.16	122.23
56	B5	34	ARG	N-CA-C	5.33	117.09	111.28
1	AA	445	G	C3'-C2'-O2'	5.33	118.69	110.70
2	AB	53	G	C5'-C4'-O4'	5.33	117.79	109.80
11	AK	109	VAL	N-CA-CB	5.33	116.92	110.95
26	BB	264	C	N1-C1'-C2'	-5.33	104.01	112.00
26	BB	711	G	O4'-C1'-N9	5.33	116.49	108.50
26	BB	2856	A	C5'-C4'-C3'	-5.33	108.01	116.00
33	BI	19	VAL	O-C-N	-5.33	117.44	123.03
55	B4	23	THR	CB-CA-C	5.33	118.43	109.48
1	AA	220	G	C4'-C3'-O3'	-5.33	105.01	113.00
1	AA	259	G	O4'-C1'-C2'	-5.33	102.27	107.60
1	AA	505	G	N9-C1'-C2'	5.33	119.99	112.00
1	AA	525	C	C3'-C2'-C1'	5.33	106.62	101.30
1	AA	1368	A	C5'-C4'-O4'	5.33	117.79	109.80
11	AK	29	SER	CA-C-N	5.33	127.42	120.28
11	AK	29	SER	C-N-CA	5.33	127.42	120.28
26	BB	1338	G	C4'-C3'-O3'	-5.33	105.01	113.00
26	BB	1469	A	O3'-P-O5'	-5.33	96.01	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2368	C	C5'-C4'-C3'	-5.33	108.01	116.00
29	BE	73	VAL	CA-CB-CG2	5.33	119.45	110.40
30	BF	149	ILE	CA-C-N	5.33	129.03	121.42
30	BF	149	ILE	C-N-CA	5.33	129.03	121.42
31	BG	173	ASP	CA-C-N	5.33	134.80	121.80
31	BG	173	ASP	C-N-CA	5.33	134.80	121.80
1	AA	1183	U	C3'-C2'-C1'	5.32	106.62	101.30
1	AA	1384	C	O5'-C5'-C4'	-5.32	103.51	111.50
10	AJ	163	HIS	N-CA-C	-5.32	106.63	113.23
24	AX	55	HIS	CE1-NE2-CD2	-5.32	103.68	109.00
25	BA	43	C	C3'-C2'-C1'	5.32	106.62	101.30
25	BA	73	A	O3'-P-O5'	-5.32	96.01	104.00
26	BB	2126	A	C5'-C4'-O4'	5.32	117.78	109.80
40	BP	24	MET	N-CA-C	5.32	117.16	111.36
50	BZ	19	HIS	CG-CD2-NE2	5.32	112.52	107.20
1	AA	288	A	O3'-P-O5'	5.32	111.98	104.00
8	AH	129	SER	CA-C-N	5.32	129.92	122.79
8	AH	129	SER	C-N-CA	5.32	129.92	122.79
15	AO	28	GLN	OE1-CD-NE2	-5.32	117.28	122.60
26	BB	1118	C	C3'-C2'-C1'	5.32	106.62	101.30
26	BB	1616	A	O4'-C1'-N9	5.32	116.18	108.20
26	BB	2280	G	O4'-C1'-C2'	-5.32	102.28	107.60
26	BB	2657	A	C2'-C3'-O3'	-5.32	105.72	113.70
52	B1	17	PRO	CA-C-N	5.32	127.41	120.28
52	B1	17	PRO	C-N-CA	5.32	127.41	120.28
1	AA	32	A	C5'-C4'-O4'	-5.32	101.82	109.80
1	AA	1004	A	P-O3'-C3'	5.32	128.18	120.20
1	AA	1287	A	C4'-C3'-C2'	-5.32	97.28	102.60
5	AE	220	VAL	CA-C-N	5.32	127.85	120.29
5	AE	220	VAL	C-N-CA	5.32	127.85	120.29
11	AK	119	GLY	CA-C-N	5.32	130.27	122.77
11	AK	119	GLY	C-N-CA	5.32	130.27	122.77
26	BB	891	G	C3'-C2'-C1'	-5.32	95.98	101.30
26	BB	1892	C	P-O3'-C3'	5.32	128.18	120.20
26	BB	2092	U	O4'-C1'-C2'	-5.32	100.48	105.80
26	BB	2175	C	O4'-C1'-N1	5.32	116.48	108.50
26	BB	2902	C	O4'-C1'-N1	5.32	116.48	108.50
26	BB	1673	G	C1'-C2'-O2'	-5.32	100.42	108.40
26	BB	1976	U	C4'-C3'-O3'	-5.32	105.02	113.00
40	BP	99	LYS	CB-CA-C	5.32	120.19	111.41
1	AA	1121	U	C4'-C3'-C2'	-5.32	97.28	102.60
17	AQ	7	ALA	CA-C-N	5.32	127.35	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AQ	7	ALA	C-N-CA	5.32	127.35	120.44
24	AX	63	ASN	CA-CB-CG	5.32	117.92	112.60
26	BB	74	A	O5'-C5'-C4'	5.32	119.68	111.70
26	BB	245	G	P-O5'-C5'	5.32	128.88	120.90
26	BB	443	A	C5'-C4'-C3'	5.32	123.98	116.00
26	BB	1347	A	C4'-C3'-C2'	-5.32	97.28	102.60
26	BB	1445	G	O4'-C1'-C2'	-5.32	102.28	107.60
26	BB	1982	U	C2'-C3'-O3'	-5.32	105.72	113.70
26	BB	2246	G	C2'-C3'-O3'	5.32	121.68	113.70
26	BB	2464	G	C4'-C3'-C2'	-5.32	97.28	102.60
1	AA	843	U	C3'-C2'-O2'	-5.32	106.63	114.60
1	AA	1321	U	O4'-C1'-C2'	-5.32	102.28	107.60
1	AA	1365	G	O4'-C4'-C3'	5.32	109.32	104.00
4	AD	73	A	O4'-C1'-C2'	-5.32	102.28	107.60
26	BB	88	G	C3'-C2'-C1'	-5.32	95.98	101.30
26	BB	510	C	C4'-C3'-O3'	-5.32	105.03	113.00
26	BB	950	G	C3'-C2'-C1'	-5.32	95.98	101.30
26	BB	1055	G	O5'-C5'-C4'	-5.32	103.53	111.50
26	BB	1829	A	O4'-C1'-N9	5.32	116.47	108.50
26	BB	1949	G	C4'-C3'-C2'	-5.32	97.28	102.60
26	BB	2249	U	C3'-C2'-C1'	5.32	106.81	101.50
26	BB	2307	G	C4'-C3'-O3'	-5.32	101.43	109.40
1	AA	411	A	P-O5'-C5'	5.31	128.87	120.90
26	BB	152	A	O4'-C1'-N9	5.31	116.47	108.50
26	BB	664	G	C1'-C2'-O2'	-5.31	100.43	108.40
26	BB	1078	U	O3'-P-O5'	-5.31	96.03	104.00
1	AA	428	G	C1'-C2'-O2'	5.31	119.77	111.80
1	AA	550	G	O4'-C1'-N9	5.31	116.47	108.50
1	AA	784	A	O4'-C4'-C3'	5.31	109.31	104.00
2	AB	44	G	C3'-C2'-C1'	5.31	106.61	101.30
15	AO	8	ARG	CA-C-O	-5.31	113.52	119.79
21	AU	72	ARG	CA-CB-CG	5.31	124.72	114.10
25	BA	2	G	O4'-C1'-C2'	-5.31	102.29	107.60
26	BB	350	G	O5'-C5'-C4'	-5.31	103.53	111.50
26	BB	602	A	C5'-C4'-C3'	-5.31	108.03	116.00
26	BB	1436	G	C3'-C2'-O2'	5.31	118.67	110.70
26	BB	2520	C	C3'-C2'-O2'	5.31	118.67	110.70
36	BL	89	PHE	CA-C-O	-5.31	114.89	120.63
40	BP	16	HIS	CE1-NE2-CD2	-5.31	103.69	109.00
50	BZ	49	ARG	NE-CZ-NH2	5.31	123.98	119.20
58	B7	10	LEU	N-CA-CB	-5.31	103.97	110.98
1	AA	109	A	P-O5'-C5'	-5.31	112.93	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	503	A	C4'-C3'-C2'	5.31	107.91	102.60
26	BB	663	G	C2'-C3'-O3'	-5.31	105.73	113.70
36	BL	47	HIS	CB-CG-ND1	5.31	130.67	122.70
1	AA	62	U	O4'-C1'-N1	5.31	116.47	108.50
1	AA	944	G	C4'-C3'-C2'	-5.31	97.29	102.60
1	AA	1095	U	N1-C1'-C2'	5.31	119.97	112.00
1	AA	1353	G	C1'-O4'-C4'	5.31	115.21	109.90
8	AH	23	THR	CA-CB-OG1	5.31	117.56	109.60
10	AJ	52	ARG	N-CA-C	5.31	117.07	111.28
12	AL	76	GLY	CA-C-O	-5.31	114.46	120.30
26	BB	1593	A	O4'-C1'-N9	5.31	116.46	108.50
26	BB	1784	A	P-O3'-C3'	5.31	128.16	120.20
26	BB	1973	G	C1'-C2'-O2'	5.31	116.36	108.40
26	BB	2068	U	C4'-C3'-O3'	5.31	117.37	109.40
26	BB	2858	C	C1'-O4'-C4'	-5.31	104.59	109.90
38	BN	74	THR	CA-CB-CG2	5.31	119.53	110.50
1	AA	8	A	C5'-C4'-C3'	5.31	123.16	115.20
1	AA	952	U	C4'-C3'-C2'	-5.31	97.29	102.60
1	AA	1020	G	O4'-C1'-N9	5.31	116.46	108.50
1	AA	1191	A	O3'-P-O5'	-5.31	96.04	104.00
6	AF	161	ILE	CB-CA-C	5.31	118.92	111.70
7	AG	137	SER	CB-CA-C	5.31	117.23	109.48
26	BB	80	G	O4'-C1'-N9	5.31	116.46	108.50
26	BB	997	G	C5'-C4'-C3'	-5.31	108.04	116.00
26	BB	1093	G	C5'-C4'-O4'	5.31	117.76	109.80
26	BB	1315	C	P-O5'-C5'	5.31	128.86	120.90
26	BB	1361	G	P-O5'-C5'	5.31	128.86	120.90
26	BB	2600	A	C5'-C4'-C3'	-5.31	108.04	116.00
30	BF	3	LEU	N-CA-C	5.31	117.39	109.59
36	BL	91	GLU	CA-C-N	5.31	129.09	120.60
36	BL	91	GLU	C-N-CA	5.31	129.09	120.60
42	BR	99	LEU	N-CA-C	5.31	119.86	113.17
19	AS	78	VAL	O-C-N	5.31	127.80	121.80
26	BB	1424	G	O4'-C1'-N9	5.31	116.46	108.50
33	BI	129	GLU	CA-C-O	-5.31	114.82	120.92
1	AA	303	A	C5'-C4'-O4'	5.30	117.76	109.80
4	AD	41	C	C4'-C3'-C2'	-5.30	97.30	102.60
8	AH	53	ARG	NE-CZ-NH1	5.30	126.80	121.50
19	AS	28	ARG	NE-CZ-NH2	5.30	123.97	119.20
26	BB	172	A	C4'-C3'-C2'	5.30	107.91	102.60
26	BB	636	G	C5'-C4'-O4'	5.30	117.76	109.80
26	BB	1025	G	O4'-C1'-N9	5.30	116.16	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2902	C	C4'-C3'-O3'	5.30	120.96	113.00
31	BG	83	PRO	N-CD-CG	5.30	111.16	103.20
26	BB	2594	C	O4'-C1'-N1	5.30	116.45	108.50
27	BC	21	TYR	CA-C-O	-5.30	115.06	120.89
1	AA	88	U	O3'-P-O5'	-5.30	96.05	104.00
1	AA	619	U	C1'-O4'-C4'	-5.30	104.60	109.90
1	AA	912	C	O4'-C1'-C2'	-5.30	102.30	107.60
1	AA	1091	U	C4'-C3'-C2'	-5.30	97.30	102.60
4	AD	10	G	C5'-C4'-C3'	-5.30	108.05	116.00
26	BB	606	U	O4'-C1'-N1	5.30	116.45	108.50
26	BB	641	U	N1-C1'-C2'	5.30	119.95	112.00
26	BB	657	U	C5'-C4'-O4'	5.30	117.75	109.80
26	BB	835	C	O5'-C5'-C4'	5.30	119.45	111.50
26	BB	894	U	O4'-C1'-N1	5.30	116.45	108.50
26	BB	934	U	O4'-C1'-C2'	5.30	112.90	107.60
26	BB	1409	U	O5'-C5'-C4'	-5.30	103.55	111.50
26	BB	1677	A	C3'-C2'-O2'	5.30	118.65	110.70
26	BB	2192	U	N1-C1'-C2'	5.30	119.95	112.00
26	BB	2745	C	C1'-O4'-C4'	5.30	115.20	109.90
31	BG	107	VAL	CA-C-N	5.30	124.97	119.56
31	BG	107	VAL	C-N-CA	5.30	124.97	119.56
48	BX	44	HIS	CB-CG-CD2	-5.30	124.31	131.20
53	B2	6	HIS	CB-CA-C	5.30	115.73	109.47
1	AA	1500	A	O4'-C1'-C2'	-5.30	102.30	107.60
4	AD	42	C	O4'-C1'-C2'	-5.30	102.30	107.60
5	AE	116	LEU	N-CA-CB	-5.30	101.76	110.40
26	BB	46	G	C3'-C2'-O2'	5.30	118.65	110.70
26	BB	913	U	P-O3'-C3'	5.30	128.15	120.20
26	BB	973	A	O4'-C1'-N9	5.30	116.15	108.20
26	BB	1019	U	C3'-C2'-C1'	5.30	106.60	101.30
26	BB	1226	A	C4'-C3'-O3'	5.30	120.95	113.00
26	BB	1424	G	C3'-C2'-O2'	5.30	118.65	110.70
26	BB	1587	G	O4'-C4'-C3'	5.30	109.30	104.00
26	BB	2611	C	C2'-C3'-O3'	5.30	121.65	113.70
1	AA	301	G	O4'-C1'-C2'	-5.30	102.30	107.60
1	AA	545	C	O3'-P-O5'	5.30	111.95	104.00
1	AA	726	C	N1-C1'-C2'	-5.30	104.05	112.00
14	AN	35	ASP	CA-C-O	-5.30	115.78	121.56
26	BB	23	G	C4'-C3'-C2'	-5.30	97.30	102.60
26	BB	481	G	C3'-C2'-O2'	-5.30	106.65	114.60
26	BB	611	C	P-O3'-C3'	5.30	128.15	120.20
26	BB	1046	A	C5'-C4'-O4'	5.30	117.05	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1946	U	O4'-C4'-C3'	5.30	109.30	104.00
28	BD	194	VAL	CA-C-O	-5.30	115.57	121.98
1	AA	266	G	O4'-C1'-C2'	-5.30	102.30	107.60
1	AA	1538	C	C3'-C2'-C1'	5.30	106.80	101.50
4	AD	63	C	O4'-C1'-C2'	-5.30	102.30	107.60
7	AG	138	PRO	N-CD-CG	5.30	111.14	103.20
19	AS	28	ARG	CA-C-N	5.30	131.09	122.67
19	AS	28	ARG	C-N-CA	5.30	131.09	122.67
26	BB	567	U	O5'-C5'-C4'	-5.30	103.56	111.50
33	BI	19	VAL	CG1-CB-CG2	-5.30	99.15	110.80
5	AE	183	PHE	CA-C-O	5.29	125.96	120.40
13	AM	67	ILE	CA-C-O	5.29	125.62	120.27
26	BB	1857	G	C3'-C2'-O2'	-5.29	106.66	114.60
26	BB	1882	U	O4'-C1'-N1	5.29	116.44	108.50
26	BB	2521	C	C3'-C2'-C1'	5.29	106.59	101.30
31	BG	92	GLY	CA-C-O	-5.29	114.77	121.44
1	AA	261	U	C4'-C3'-C2'	-5.29	97.31	102.60
1	AA	447	G	C4'-C3'-O3'	-5.29	105.06	113.00
1	AA	555	U	C5'-C4'-C3'	-5.29	108.06	116.00
1	AA	1503	A	P-O3'-C3'	5.29	128.14	120.20
4	AD	63	C	C5'-C4'-O4'	5.29	117.74	109.80
26	BB	710	U	C4'-C3'-C2'	-5.29	97.31	102.60
26	BB	1690	A	N9-C1'-C2'	-5.29	104.06	112.00
26	BB	1851	U	C3'-C2'-O2'	5.29	118.64	110.70
26	BB	1944	U	P-O3'-C3'	5.29	128.14	120.20
26	BB	2285	C	C1'-C2'-O2'	5.29	116.34	108.40
26	BB	2571	U	O4'-C1'-N1	5.29	116.44	108.50
26	BB	2759	G	C4'-C3'-O3'	5.29	120.94	113.00
26	BB	2840	C	O4'-C1'-N1	5.29	116.44	108.50
26	BB	2903	U	O4'-C4'-C3'	5.29	109.29	104.00
29	BE	67	HIS	CB-CG-CD2	-5.29	124.32	131.20
30	BF	67	ARG	CA-C-N	5.29	131.65	121.54
30	BF	67	ARG	C-N-CA	5.29	131.65	121.54
55	B4	45	HIS	CA-C-N	5.29	130.41	122.58
55	B4	45	HIS	C-N-CA	5.29	130.41	122.58
1	AA	335	C	O4'-C1'-N1	5.29	116.44	108.50
1	AA	1011	C	P-O5'-C5'	5.29	128.84	120.90
1	AA	1136	C	C4'-C3'-O3'	-5.29	105.06	113.00
4	AD	3	C	N1-C1'-C2'	-5.29	104.06	112.00
9	AI	90	MET	CA-C-N	5.29	130.60	120.97
9	AI	90	MET	C-N-CA	5.29	130.60	120.97
26	BB	598	U	C4'-C3'-O3'	-5.29	105.06	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1021	A	O3'-P-O5'	-5.29	96.06	104.00
26	BB	1820	U	P-O3'-C3'	5.29	128.14	120.20
26	BB	1937	A	C3'-C2'-C1'	-5.29	96.21	101.50
26	BB	2903	U	O5'-C5'-C4'	5.29	119.44	111.50
32	BH	15	ASP	CA-CB-CG	5.29	117.89	112.60
32	BH	70	LEU	N-CA-CB	5.29	118.09	110.20
49	BY	29	SER	N-CA-CB	-5.29	102.08	110.28
50	BZ	47	THR	CA-C-N	5.29	130.45	122.99
50	BZ	47	THR	C-N-CA	5.29	130.45	122.99
26	BB	337	C	O4'-C1'-C2'	-5.29	102.31	107.60
26	BB	494	G	C3'-C2'-O2'	5.29	118.64	110.70
1	AA	421	U	O4'-C1'-N1	5.29	116.13	108.20
1	AA	1463	U	C4'-C3'-C2'	-5.29	97.31	102.60
2	AB	34	C	N1-C1'-C2'	5.29	119.93	112.00
26	BB	2220	U	C4'-C3'-C2'	-5.29	97.31	102.60
26	BB	2375	G	C4'-C3'-C2'	-5.29	97.31	102.60
26	BB	2591	C	C4'-C3'-C2'	-5.29	97.31	102.60
26	BB	2649	C	N1-C1'-C2'	-5.29	104.07	112.00
1	AA	1377	A	P-O3'-C3'	5.29	128.13	120.20
1	AA	1382	C	O3'-P-O5'	5.29	111.93	104.00
21	AU	42	ARG	NH1-CZ-NH2	-5.29	112.43	119.30
26	BB	1122	G	O3'-P-O5'	5.29	111.93	104.00
26	BB	1729	U	O4'-C1'-N1	5.29	116.43	108.50
26	BB	1797	G	O3'-P-O5'	-5.29	96.07	104.00
1	AA	675	A	O3'-P-O5'	-5.29	96.07	104.00
24	AX	62	GLU	CA-C-O	-5.29	114.95	120.55
26	BB	1314	C	O4'-C1'-N1	5.29	116.43	108.50
26	BB	2323	G	O4'-C4'-C3'	5.29	109.28	104.00
26	BB	2353	G	C3'-C2'-C1'	-5.29	96.01	101.30
26	BB	2471	A	C3'-C2'-C1'	-5.29	96.22	101.50
27	BC	162	ARG	CD-NE-CZ	5.29	131.80	124.40
38	BN	52	GLY	CA-C-N	5.29	126.93	120.22
38	BN	52	GLY	C-N-CA	5.29	126.93	120.22
50	BZ	62	GLY	CA-C-N	5.29	127.70	120.46
50	BZ	62	GLY	C-N-CA	5.29	127.70	120.46
1	AA	402	G	O4'-C4'-C3'	5.28	109.28	104.00
1	AA	1057	G	C4'-C3'-C2'	-5.28	97.32	102.60
8	AH	131	ASN	CA-CB-CG	5.28	117.88	112.60
25	BA	77	U	O4'-C1'-C2'	-5.28	102.32	107.60
26	BB	957	C	C1'-C2'-O2'	5.28	119.72	111.80
26	BB	1515	A	O5'-C5'-C4'	-5.28	103.57	111.50
26	BB	1715	G	O3'-P-O5'	-5.28	96.07	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BH	79	THR	CA-CB-OG1	5.28	117.53	109.60
33	BI	5	LEU	CA-C-O	-5.28	114.67	120.69
57	B6	22	LYS	CA-CB-CG	5.28	124.67	114.10
1	AA	1501	C	O4'-C1'-C2'	5.28	112.88	107.60
26	BB	1332	G	O4'-C1'-N9	5.28	116.12	108.20
26	BB	2144	G	P-O3'-C3'	5.28	128.12	120.20
26	BB	2427	C	O4'-C4'-C3'	-5.28	100.82	106.10
35	BK	6	ALA	N-CA-CB	-5.28	103.14	110.38
9	AI	37	HIS	ND1-CG-CD2	5.28	111.38	106.10
15	AO	102	ASP	CA-CB-CG	5.28	117.88	112.60
23	AW	29	THR	N-CA-C	5.28	117.78	111.71
26	BB	301	G	C3'-C2'-C1'	5.28	106.78	101.50
26	BB	765	C	C3'-C2'-C1'	5.28	106.58	101.30
26	BB	803	U	C3'-C2'-C1'	5.28	106.58	101.30
26	BB	1439	A	P-O5'-C5'	5.28	128.82	120.90
26	BB	1021	A	C4'-C3'-C2'	-5.28	97.32	102.60
26	BB	1920	C	C3'-C2'-C1'	5.28	106.58	101.30
1	AA	35	G	O4'-C4'-C3'	5.28	109.28	104.00
1	AA	1074	G	C4'-C3'-O3'	5.28	120.92	113.00
7	AG	141	VAL	CB-CA-C	5.28	118.44	110.63
16	AP	14	ALA	CA-C-O	-5.28	113.90	119.97
26	BB	222	A	O4'-C1'-N9	5.28	116.12	108.20
26	BB	367	G	O4'-C1'-N9	5.28	116.42	108.50
26	BB	1367	A	C1'-O4'-C4'	5.28	115.18	109.90
1	AA	1316	G	C3'-C2'-C1'	5.28	106.58	101.30
1	AA	1474	U	C3'-C2'-C1'	5.28	106.58	101.30
23	AW	56	ILE	N-CA-CB	-5.28	103.82	110.57
26	BB	7	G	O4'-C4'-C3'	5.28	109.28	104.00
26	BB	1118	C	C4'-C3'-O3'	5.28	120.91	113.00
26	BB	1256	G	P-O3'-C3'	5.28	128.11	120.20
26	BB	1474	U	O4'-C1'-N1	5.28	116.42	108.50
26	BB	1874	C	C4'-C3'-C2'	-5.28	97.33	102.60
26	BB	1997	C	O4'-C1'-N1	5.28	116.41	108.50
26	BB	2726	A	O4'-C1'-N9	5.28	116.11	108.20
26	BB	2886	A	C4'-C3'-O3'	-5.28	105.09	113.00
32	BH	62	ALA	CA-C-O	-5.28	115.28	120.82
1	AA	668	G	C1'-O4'-C4'	-5.27	104.63	109.90
1	AA	729	A	C1'-O4'-C4'	5.27	115.17	109.90
26	BB	1724	G	O4'-C1'-C2'	-5.27	102.33	107.60
26	BB	2481	G	O4'-C1'-N9	5.27	116.41	108.50
27	BC	200	LYS	O-C-N	-5.27	116.01	121.28
33	BI	12	LEU	CA-C-N	5.27	125.73	120.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BI	12	LEU	C-N-CA	5.27	125.73	120.98
48	BX	24	ASN	CB-CA-C	5.27	118.80	111.63
13	AM	39	PRO	N-CA-CB	5.27	107.52	103.30
26	BB	896	A	O4'-C1'-C2'	-5.27	100.53	105.80
26	BB	1390	U	O4'-C1'-N1	5.27	116.41	108.50
43	BS	83	LYS	O-C-N	-5.27	116.53	122.12
10	AJ	140	VAL	N-CA-CB	-5.27	102.67	110.58
25	BA	77	U	C1'-C2'-O2'	5.27	116.31	108.40
26	BB	802	A	O4'-C4'-C3'	5.27	109.27	104.00
26	BB	1354	A	O4'-C1'-N9	5.27	116.41	108.50
26	BB	1820	U	N1-C1'-C2'	-5.27	106.09	114.00
26	BB	2711	A	C4'-C3'-C2'	-5.27	97.33	102.60
34	BJ	149	LYS	CA-C-N	5.27	129.64	120.68
34	BJ	149	LYS	C-N-CA	5.27	129.64	120.68
47	BW	54	PRO	N-CA-CB	5.27	108.36	103.46
1	AA	143	A	C5'-C4'-O4'	5.27	117.70	109.80
1	AA	487	A	P-O5'-C5'	5.27	128.81	120.90
1	AA	920	U	O4'-C4'-C3'	5.27	109.27	104.00
1	AA	1040	U	O5'-C5'-C4'	-5.27	103.59	111.50
1	AA	1102	A	C3'-C2'-O2'	-5.27	102.80	110.70
19	AS	55	ASP	N-CA-C	5.27	117.77	111.71
26	BB	1696	G	O4'-C1'-N9	5.27	116.41	108.50
26	BB	2366	A	N9-C1'-C2'	-5.27	104.09	112.00
26	BB	2513	A	P-O3'-C3'	5.27	128.10	120.20
26	BB	2513	A	C3'-C2'-C1'	5.27	106.57	101.30
26	BB	2883	A	C1'-O4'-C4'	5.27	115.17	109.90
31	BG	155	ILE	CB-CA-C	5.27	119.27	111.26
1	AA	1008	U	C5'-C4'-C3'	-5.27	108.10	116.00
1	AA	1505	G	O5'-C5'-C4'	5.27	119.40	111.50
17	AQ	85	GLU	N-CA-C	5.27	117.02	111.28
26	BB	1209	U	O4'-C1'-C2'	-5.27	102.33	107.60
29	BE	125	TRP	CA-C-N	5.27	131.60	121.54
29	BE	125	TRP	C-N-CA	5.27	131.60	121.54
1	AA	67	C	C4'-C3'-C2'	-5.27	97.33	102.60
1	AA	332	G	P-O5'-C5'	5.27	128.80	120.90
1	AA	1302	C	P-O3'-C3'	5.27	128.10	120.20
1	AA	1496	C	O5'-C5'-C4'	-5.27	103.60	111.50
5	AE	21	TYR	CB-CA-C	5.27	118.22	109.53
15	AO	102	ASP	CA-C-N	5.27	128.95	121.42
15	AO	102	ASP	C-N-CA	5.27	128.95	121.42
26	BB	478	A	P-O5'-C5'	5.27	128.80	120.90
26	BB	561	G	C2'-C3'-O3'	5.27	121.60	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	323	U	C4'-C3'-C2'	-5.26	97.34	102.60
1	AA	1366	C	C3'-C2'-O2'	5.26	118.60	110.70
5	AE	9	LEU	CA-C-N	5.26	127.33	120.28
5	AE	9	LEU	C-N-CA	5.26	127.33	120.28
26	BB	5	A	N9-C1'-C2'	5.26	119.90	112.00
26	BB	198	C	C1'-O4'-C4'	5.26	115.16	109.90
26	BB	410	G	C3'-C2'-C1'	-5.26	96.04	101.30
26	BB	710	U	O4'-C1'-C2'	-5.26	102.34	107.60
26	BB	1299	G	C4'-C3'-C2'	5.26	107.86	102.60
26	BB	2051	A	O4'-C1'-N9	5.26	116.10	108.20
26	BB	2700	A	C3'-C2'-C1'	5.26	106.56	101.30
4	AD	28	U	C5'-C4'-O4'	5.26	117.69	109.80
16	AP	20	SER	CA-C-N	5.26	128.79	120.47
16	AP	20	SER	C-N-CA	5.26	128.79	120.47
26	BB	2268	A	C5'-C4'-C3'	-5.26	108.11	116.00
26	BB	2326	C	C1'-O4'-C4'	5.26	115.16	109.90
56	B5	38	GLY	CA-C-O	5.26	123.72	118.77
1	AA	187	G	O4'-C4'-C3'	5.26	109.26	104.00
6	AF	198	LYS	CB-CG-CD	5.26	123.40	111.30
15	AO	115	LYS	CA-C-N	5.26	131.59	121.54
15	AO	115	LYS	C-N-CA	5.26	131.59	121.54
25	BA	87	U	O5'-C5'-C4'	5.26	119.59	111.70
26	BB	544	C	O4'-C1'-N1	5.26	116.39	108.50
26	BB	608	A	O4'-C1'-N9	5.26	116.39	108.50
26	BB	791	C	O4'-C1'-N1	5.26	116.09	108.20
26	BB	1211	C	C1'-O4'-C4'	5.26	114.96	109.70
26	BB	2005	A	O4'-C4'-C3'	5.26	109.26	104.00
26	BB	2163	A	N9-C1'-C2'	-5.26	104.11	112.00
26	BB	2259	U	C1'-O4'-C4'	5.26	115.16	109.90
30	BF	67	ARG	N-CA-C	5.26	118.00	108.69
38	BN	56	PRO	CA-C-N	5.26	130.92	121.66
38	BN	56	PRO	C-N-CA	5.26	130.92	121.66
47	BW	98	ASN	N-CA-CB	-5.26	101.60	110.49
18	AR	52	ARG	CA-C-N	5.26	127.58	120.38
18	AR	52	ARG	C-N-CA	5.26	127.58	120.38
26	BB	4	U	C2'-C3'-O3'	5.26	121.59	113.70
26	BB	293	U	C3'-C2'-C1'	-5.26	96.04	101.30
26	BB	862	G	C4'-C3'-C2'	-5.26	97.34	102.60
26	BB	1048	A	C3'-C2'-C1'	5.26	106.56	101.30
26	BB	1487	U	C3'-C2'-O2'	5.26	118.59	110.70
26	BB	1808	A	O4'-C1'-C2'	5.26	111.06	105.80
1	AA	168	G	C5'-C4'-O4'	5.26	117.69	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AP	50	GLY	N-CA-C	5.26	120.52	114.16
26	BB	1856	U	O4'-C1'-C2'	-5.26	102.34	107.60
26	BB	2343	U	P-O3'-C3'	5.26	128.09	120.20
1	AA	367	U	O3'-P-O5'	-5.26	96.12	104.00
1	AA	410	G	C5'-C4'-C3'	-5.26	108.11	116.00
1	AA	541	G	O4'-C1'-N9	5.26	116.38	108.50
2	AB	30	G	O5'-C5'-C4'	5.26	119.39	111.50
6	AF	5	HIS	ND1-CE1-NE2	5.26	113.66	108.40
10	AJ	43	TYR	CB-CG-CD2	-5.26	112.91	120.80
25	BA	68	C	C4'-C3'-C2'	-5.26	97.34	102.60
26	BB	313	G	C4'-C3'-C2'	-5.26	97.34	102.60
26	BB	518	G	C1'-C2'-O2'	5.26	116.28	108.40
26	BB	1149	G	C4'-C3'-C2'	-5.26	97.34	102.60
26	BB	1680	U	O4'-C4'-C3'	5.26	109.26	104.00
26	BB	1937	A	O3'-P-O5'	-5.26	96.11	104.00
26	BB	2095	A	C5'-C4'-O4'	5.26	117.69	109.80
46	BV	83	ALA	CA-C-N	5.26	130.41	123.00
46	BV	83	ALA	C-N-CA	5.26	130.41	123.00
56	B5	41	ARG	CD-NE-CZ	5.26	131.76	124.40
1	AA	629	A	C4'-C3'-O3'	-5.25	105.12	113.00
25	BA	34	A	O4'-C4'-C3'	-5.25	100.84	106.10
25	BA	119	A	O3'-P-O5'	-5.25	96.12	104.00
26	BB	174	U	C1'-C2'-O2'	5.25	116.28	108.40
26	BB	1192	G	C1'-C2'-O2'	-5.25	100.52	108.40
46	BV	81	LYS	CA-C-N	5.25	130.40	122.99
46	BV	81	LYS	C-N-CA	5.25	130.40	122.99
1	AA	306	A	O3'-P-O5'	-5.25	96.12	104.00
1	AA	499	A	C4'-C3'-C2'	-5.25	97.35	102.60
1	AA	1217	C	P-O5'-C5'	5.25	128.78	120.90
7	AG	6	PRO	CA-C-N	5.25	127.58	120.44
7	AG	6	PRO	C-N-CA	5.25	127.58	120.44
11	AK	27	PRO	CA-C-O	-5.25	115.42	121.36
26	BB	810	U	O3'-P-O5'	-5.25	96.12	104.00
26	BB	814	C	O4'-C1'-N1	5.25	116.38	108.50
26	BB	989	G	O3'-P-O5'	-5.25	96.12	104.00
26	BB	1343	G	P-O3'-C3'	5.25	128.08	120.20
26	BB	1773	A	C4'-C3'-C2'	-5.25	97.35	102.60
30	BF	95	LYS	N-CA-CB	-5.25	102.38	110.42
1	AA	331	G	C3'-C2'-O2'	5.25	118.58	110.70
1	AA	392	C	C5'-C4'-O4'	5.25	117.68	109.80
1	AA	1106	G	O4'-C1'-N9	5.25	116.38	108.50
3	AC	30	U	C4'-C3'-C2'	-5.25	97.35	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AN	81	LEU	CA-C-N	5.25	130.81	122.62
14	AN	81	LEU	C-N-CA	5.25	130.81	122.62
25	BA	90	C	P-O3'-C3'	5.25	128.08	120.20
26	BB	73	A	C5'-C4'-C3'	-5.25	108.12	116.00
26	BB	383	C	C1'-C2'-O2'	-5.25	100.52	108.40
26	BB	495	G	O4'-C1'-C2'	-5.25	102.35	107.60
26	BB	675	A	C4'-C3'-C2'	-5.25	97.35	102.60
26	BB	856	G	O5'-C5'-C4'	-5.25	103.62	111.50
26	BB	2014	A	O4'-C1'-N9	5.25	116.38	108.50
26	BB	2391	G	O4'-C1'-N9	5.25	116.08	108.20
26	BB	2454	G	C4'-C3'-C2'	-5.25	97.35	102.60
31	BG	36	ASN	CA-C-O	-5.25	113.00	120.51
1	AA	634	C	O4'-C1'-N1	5.25	116.37	108.50
26	BB	677	A	N9-C1'-C2'	-5.25	104.12	112.00
26	BB	1239	G	C3'-C2'-O2'	5.25	118.58	110.70
26	BB	1703	G	C3'-C2'-C1'	5.25	106.55	101.30
26	BB	2571	U	O3'-P-O5'	5.25	111.87	104.00
26	BB	2870	C	C4'-C3'-C2'	5.25	107.85	102.60
38	BN	116	VAL	CA-CB-CG2	5.25	119.33	110.40
1	AA	544	G	O3'-P-O5'	5.25	111.87	104.00
1	AA	982	U	O4'-C1'-C2'	5.25	111.05	105.80
1	AA	1065	U	C5'-C4'-O4'	5.25	116.97	109.10
1	AA	1109	C	C5'-C4'-C3'	-5.25	108.13	116.00
26	BB	621	A	O5'-C5'-C4'	5.25	119.37	111.50
26	BB	1007	C	C1'-O4'-C4'	-5.25	104.65	109.90
26	BB	2105	U	C5'-C4'-C3'	-5.25	108.13	116.00
1	AA	189	A	P-O3'-C3'	5.25	128.07	120.20
1	AA	525	C	C1'-O4'-C4'	5.25	115.15	109.90
1	AA	558	G	C5'-C4'-C3'	-5.25	108.13	116.00
6	AF	227	GLN	CB-CG-CD	5.25	121.52	112.60
26	BB	17	G	N9-C1'-C2'	5.25	119.87	112.00
26	BB	650	C	C5'-C4'-C3'	-5.25	108.13	116.00
26	BB	1002	G	C1'-C2'-O2'	5.25	116.27	108.40
26	BB	1337	G	P-O5'-C5'	5.25	128.77	120.90
26	BB	1712	U	C4'-C3'-C2'	-5.25	97.35	102.60
26	BB	2301	C	C3'-C2'-O2'	5.25	118.57	110.70
39	BO	59	ARG	CD-NE-CZ	5.25	131.74	124.40
1	AA	1179	A	C3'-C2'-C1'	-5.25	96.06	101.30
26	BB	2145	C	C3'-C2'-C1'	-5.25	96.25	101.50
26	BB	2578	G	O4'-C1'-N9	5.25	116.37	108.50
30	BF	190	ALA	CA-C-O	-5.25	113.94	119.97
33	BI	142	VAL	CA-CB-CG2	5.25	119.32	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	164	G	C4'-C3'-C2'	-5.24	97.36	102.60
1	AA	996	A	C3'-C2'-O2'	5.24	118.57	110.70
1	AA	1227	A	C5'-C4'-C3'	-5.24	107.33	115.20
5	AE	41	ASN	OD1-CG-ND2	-5.24	117.36	122.60
26	BB	295	G	C5'-C4'-O4'	5.24	117.66	109.80
26	BB	456	C	O4'-C1'-N1	5.24	116.07	108.20
26	BB	607	U	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	1842	G	C4'-C3'-C2'	-5.24	97.36	102.60
41	BQ	81	ARG	NE-CZ-NH2	-5.24	114.48	119.20
1	AA	1245	C	P-O3'-C3'	5.24	128.06	120.20
26	BB	1137	G	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	1464	G	N9-C1'-C2'	-5.24	104.14	112.00
26	BB	2089	C	C3'-C2'-O2'	-5.24	102.84	110.70
26	BB	2757	A	C1'-C2'-O2'	-5.24	100.54	108.40
1	AA	933	G	O4'-C1'-C2'	-5.24	102.36	107.60
1	AA	1156	G	O4'-C1'-C2'	5.24	112.84	107.60
1	AA	1379	G	P-O5'-C5'	-5.24	113.04	120.90
2	AB	57	G	C4'-C3'-O3'	-5.24	105.14	113.00
4	AD	19	G	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	94	A	C3'-C2'-O2'	5.24	118.56	110.70
26	BB	705	A	C4'-C3'-O3'	-5.24	105.14	113.00
26	BB	1051	G	O4'-C1'-N9	5.24	116.36	108.50
26	BB	2785	C	C3'-C2'-C1'	5.24	106.54	101.30
29	BE	58	ASN	CA-C-O	5.24	124.91	119.14
1	AA	240	G	O4'-C4'-C3'	5.24	109.24	104.00
1	AA	674	G	C5'-C4'-C3'	-5.24	108.14	116.00
1	AA	1183	U	C1'-C2'-O2'	-5.24	100.54	108.40
26	BB	136	G	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	1473	G	O3'-P-O5'	-5.24	96.14	104.00
26	BB	1855	U	O4'-C1'-N1	5.24	116.36	108.50
26	BB	1954	G	O5'-C5'-C4'	-5.24	103.84	111.70
26	BB	2536	G	C4'-C3'-C2'	-5.24	97.36	102.60
33	BI	3	VAL	CA-C-N	5.24	130.22	123.10
33	BI	3	VAL	C-N-CA	5.24	130.22	123.10
1	AA	159	G	N9-C1'-C2'	-5.24	104.14	112.00
1	AA	198	G	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	286	U	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	2002	G	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	2135	A	O5'-C5'-C4'	-5.24	103.64	111.50
26	BB	2629	U	C1'-O4'-C4'	-5.24	104.46	109.70
1	AA	1056	U	O5'-C5'-C4'	-5.24	103.65	111.50
26	BB	514	A	P-O3'-C3'	5.24	128.05	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	964	C	O4'-C4'-C3'	5.24	109.24	104.00
26	BB	1169	A	C5'-C4'-O4'	-5.24	101.95	109.80
26	BB	1472	C	C5'-C4'-O4'	-5.24	101.95	109.80
26	BB	2603	G	C3'-C2'-O2'	5.24	118.55	110.70
35	BK	18	ASN	CA-CB-CG	-5.24	107.36	112.60
7	AG	159	GLU	CA-C-N	5.23	127.29	120.28
7	AG	159	GLU	C-N-CA	5.23	127.29	120.28
26	BB	180	G	O4'-C4'-C3'	-5.23	98.77	104.00
26	BB	205	G	C4'-C3'-O3'	5.23	117.25	109.40
1	AA	849	G	O4'-C1'-C2'	-5.23	102.37	107.60
6	AF	78	LYS	CA-C-O	5.23	126.95	121.19
23	AW	28	ARG	N-CA-C	5.23	119.95	111.37
26	BB	63	A	C5'-C4'-O4'	5.23	117.65	109.80
26	BB	254	G	O4'-C1'-C2'	-5.23	102.37	107.60
26	BB	294	A	C3'-C2'-O2'	5.23	118.55	110.70
26	BB	356	G	P-O3'-C3'	5.23	128.05	120.20
26	BB	792	A	C3'-C2'-C1'	5.23	106.53	101.30
26	BB	1303	G	O4'-C4'-C3'	5.23	109.23	104.00
26	BB	1510	G	C1'-O4'-C4'	5.23	115.13	109.90
26	BB	1567	G	O4'-C1'-N9	5.23	116.05	108.20
26	BB	2757	A	C5'-C4'-C3'	-5.23	108.15	116.00
43	BS	87	VAL	CB-CA-C	5.23	119.87	111.29
50	BZ	56	ARG	CA-C-N	5.23	127.24	120.70
50	BZ	56	ARG	C-N-CA	5.23	127.24	120.70
1	AA	541	G	O4'-C4'-C3'	5.23	109.23	104.00
1	AA	760	G	C2'-C3'-O3'	-5.23	105.86	113.70
13	AM	57	VAL	CA-C-O	-5.23	115.08	121.04
26	BB	65	U	C1'-O4'-C4'	-5.23	104.67	109.90
26	BB	247	G	C1'-O4'-C4'	5.23	115.13	109.90
26	BB	1290	C	C1'-C2'-O2'	5.23	116.25	108.40
26	BB	1697	G	O4'-C1'-C2'	-5.23	102.37	107.60
26	BB	2332	C	O3'-P-O5'	-5.23	96.15	104.00
35	BK	72	THR	CA-C-N	5.23	125.77	120.38
35	BK	72	THR	C-N-CA	5.23	125.77	120.38
1	AA	911	U	C4'-C3'-C2'	5.23	107.83	102.60
26	BB	89	A	O5'-C5'-C4'	-5.23	103.66	111.50
26	BB	325	G	O4'-C1'-C2'	5.23	112.83	107.60
26	BB	734	A	N9-C1'-C2'	5.23	119.84	112.00
26	BB	2020	A	P-O3'-C3'	5.23	128.04	120.20
28	BD	247	TRP	CD1-CG-CD2	-5.23	97.93	106.30
44	BT	54	VAL	CA-CB-CG1	5.23	119.29	110.40
1	AA	1397	C	C3'-C2'-C1'	5.23	106.73	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	189	G	C5'-C4'-C3'	-5.23	108.16	116.00
26	BB	1063	G	C1'-C2'-O2'	5.23	116.24	108.40
36	BL	19	ASP	CA-C-O	-5.23	116.22	122.13
1	AA	401	C	C1'-O4'-C4'	-5.23	104.67	109.90
1	AA	32	A	O4'-C4'-C3'	5.22	109.22	104.00
1	AA	694	A	O3'-P-O5'	5.22	111.84	104.00
26	BB	581	C	N1-C1'-C2'	-5.22	104.16	112.00
26	BB	1765	U	P-O3'-C3'	5.22	128.03	120.20
26	BB	2228	G	C5'-C4'-O4'	5.22	117.64	109.80
26	BB	2235	G	C3'-C2'-C1'	5.22	106.53	101.30
26	BB	2459	A	O3'-P-O5'	-5.22	96.16	104.00
26	BB	2799	A	O4'-C4'-C3'	5.22	109.22	104.00
32	BH	89	VAL	CA-C-O	-5.22	114.90	120.39
42	BR	83	ILE	CA-CB-CG2	5.22	119.38	110.50
53	B2	38	SER	O-C-N	5.22	129.38	123.27
1	AA	453	G	C1'-C2'-O2'	5.22	116.23	108.40
15	AO	86	VAL	CA-C-N	5.22	131.52	121.54
15	AO	86	VAL	C-N-CA	5.22	131.52	121.54
26	BB	341	C	O3'-P-O5'	-5.22	96.17	104.00
26	BB	2237	G	C4'-C3'-O3'	5.22	120.83	113.00
26	BB	2803	G	C3'-C2'-C1'	-5.22	96.08	101.30
57	B6	38	LYS	CA-C-N	5.22	128.05	120.79
57	B6	38	LYS	C-N-CA	5.22	128.05	120.79
1	AA	466	A	O4'-C1'-C2'	-5.22	102.38	107.60
1	AA	652	U	O4'-C1'-C2'	-5.22	100.58	105.80
1	AA	759	A	C3'-C2'-O2'	5.22	118.53	110.70
1	AA	973	G	P-O3'-C3'	5.22	128.03	120.20
1	AA	1397	C	N1-C1'-C2'	5.22	121.83	114.00
24	AX	55	HIS	CA-CB-CG	5.22	119.02	113.80
26	BB	451	U	C2'-C3'-O3'	5.22	117.33	109.50
26	BB	1168	G	C4'-C3'-C2'	5.22	107.82	102.60
26	BB	1497	U	P-O3'-C3'	5.22	128.03	120.20
26	BB	1701	A	C1'-O4'-C4'	5.22	115.12	109.90
5	AE	67	LEU	N-CA-CB	5.22	118.97	110.77
5	AE	231	GLN	N-CA-C	-5.22	105.67	111.36
9	AI	91	ARG	N-CA-C	5.22	117.42	110.53
22	AV	22	VAL	CA-C-O	-5.22	114.83	120.47
26	BB	511	U	O4'-C1'-N1	5.22	116.33	108.50
26	BB	2277	G	C3'-C2'-C1'	-5.22	96.08	101.30
26	BB	2360	G	O4'-C1'-N9	5.22	116.33	108.50
3	AC	36	U	O4'-C1'-N1	5.22	116.33	108.50
26	BB	2024	G	O4'-C4'-C3'	5.22	109.22	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2081	U	P-O3'-C3'	5.22	128.03	120.20
26	BB	2463	C	C1'-O4'-C4'	5.22	115.12	109.90
26	BB	2850	A	C4'-C3'-C2'	-5.22	97.38	102.60
1	AA	302	G	O4'-C1'-C2'	-5.22	102.38	107.60
1	AA	322	C	C4'-C3'-C2'	-5.22	97.38	102.60
1	AA	328	C	P-O3'-C3'	5.22	128.03	120.20
1	AA	743	A	C3'-C2'-C1'	5.22	106.52	101.30
1	AA	1165	U	O4'-C1'-C2'	-5.22	102.38	107.60
8	AH	21	SER	CA-C-N	5.22	131.50	121.54
8	AH	21	SER	C-N-CA	5.22	131.50	121.54
16	AP	6	ILE	CB-CA-C	5.22	116.67	110.93
26	BB	1802	A	C3'-C2'-C1'	5.22	106.52	101.30
26	BB	1881	C	P-O5'-C5'	5.22	128.72	120.90
26	BB	1922	G	C4'-C3'-C2'	-5.22	97.38	102.60
36	BL	123	LYS	CA-C-N	5.22	128.69	123.16
36	BL	123	LYS	C-N-CA	5.22	128.69	123.16
1	AA	511	C	C3'-C2'-C1'	-5.21	96.29	101.50
19	AS	81	ALA	O-C-N	-5.21	117.78	123.26
26	BB	322	A	C4'-C3'-O3'	-5.21	101.58	109.40
26	BB	344	A	C1'-C2'-O2'	5.21	116.22	108.40
26	BB	426	C	C5'-C4'-O4'	5.21	117.62	109.80
26	BB	663	G	C4'-C3'-C2'	-5.21	97.39	102.60
26	BB	967	U	O4'-C1'-C2'	-5.21	102.39	107.60
26	BB	968	C	C2'-C3'-O3'	-5.21	105.88	113.70
26	BB	1146	C	N1-C1'-C2'	-5.21	104.18	112.00
26	BB	2400	G	O5'-C5'-C4'	-5.21	103.68	111.50
26	BB	2402	U	C5'-C4'-C3'	-5.21	108.18	116.00
26	BB	2440	C	O4'-C1'-C2'	-5.21	102.39	107.60
39	BO	60	GLN	CB-CG-CD	-5.21	103.74	112.60
43	BS	103	VAL	CB-CA-C	5.21	117.87	111.25
1	AA	900	A	C1'-O4'-C4'	5.21	115.11	109.90
1	AA	1410	A	P-O3'-C3'	5.21	128.02	120.20
26	BB	678	C	C5'-C4'-O4'	5.21	117.62	109.80
26	BB	1229	C	C4'-C3'-O3'	5.21	120.82	113.00
26	BB	1845	G	O4'-C1'-N9	5.21	116.32	108.50
26	BB	2243	U	O5'-C5'-C4'	-5.21	103.68	111.50
1	AA	573	A	O4'-C1'-C2'	5.21	112.81	107.60
8	AH	52	ALA	CA-C-N	5.21	129.02	120.63
8	AH	52	ALA	C-N-CA	5.21	129.02	120.63
11	AK	79	ARG	CD-NE-CZ	5.21	131.70	124.40
18	AR	58	MET	CA-C-N	5.21	127.23	120.56
18	AR	58	MET	C-N-CA	5.21	127.23	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	524	G	C3'-C2'-O2'	5.21	118.52	110.70
26	BB	1279	G	C5'-C4'-C3'	-5.21	108.18	116.00
26	BB	1584	U	C3'-C2'-O2'	-5.21	106.78	114.60
26	BB	2489	U	C2'-C3'-O3'	5.21	121.52	113.70
38	BN	129	LYS	CB-CA-C	5.21	119.39	110.74
56	B5	26	ASN	CA-C-N	5.21	125.62	119.94
56	B5	26	ASN	C-N-CA	5.21	125.62	119.94
1	AA	241	G	C3'-C2'-C1'	-5.21	96.09	101.30
1	AA	321	A	C2'-C3'-O3'	-5.21	105.89	113.70
1	AA	573	A	C1'-O4'-C4'	-5.21	104.69	109.90
2	AB	76	A	C3'-C2'-C1'	5.21	106.71	101.50
26	BB	821	A	O4'-C1'-C2'	-5.21	102.39	107.60
26	BB	1057	A	C3'-C2'-C1'	-5.21	96.09	101.30
26	BB	2328	A	C4'-C3'-O3'	5.21	120.81	113.00
1	AA	1155	A	O5'-C5'-C4'	-5.21	103.69	111.50
7	AG	21	LYS	CA-C-O	-5.21	115.68	122.45
7	AG	67	LEU	O-C-N	-5.21	116.40	122.96
7	AG	88	ASN	O-C-N	5.21	127.44	122.07
13	AM	84	VAL	CA-C-O	-5.21	114.84	120.47
18	AR	36	ASN	CA-CB-CG	5.21	117.81	112.60
26	BB	526	A	C3'-C2'-C1'	5.21	106.51	101.30
26	BB	672	C	P-O5'-C5'	5.21	128.71	120.90
26	BB	695	G	O4'-C1'-C2'	-5.21	102.39	107.60
26	BB	981	A	O4'-C1'-N9	5.21	116.01	108.20
26	BB	2060	A	C1'-C2'-O2'	5.21	116.21	108.40
26	BB	2456	C	O4'-C4'-C3'	5.21	109.21	104.00
30	BF	111	GLU	O-C-N	5.21	127.64	122.12
34	BJ	157	VAL	CG1-CB-CG2	-5.21	99.34	110.80
1	AA	665	A	O4'-C1'-N9	5.21	116.31	108.50
1	AA	899	C	O4'-C1'-N1	5.21	116.31	108.50
1	AA	1499	A	N9-C1'-C2'	5.21	119.81	112.00
25	BA	106	G	C3'-C2'-C1'	-5.21	96.09	101.30
26	BB	86	G	O4'-C4'-C3'	-5.21	98.79	104.00
26	BB	2543	G	N9-C1'-C2'	5.21	119.81	112.00
31	BG	71	LYS	N-CA-C	-5.21	106.26	113.18
43	BS	54	ARG	O-C-N	5.21	127.64	122.12
2	AB	42	G	C2'-C3'-O3'	5.21	121.51	113.70
12	AL	2	GLU	CA-CB-CG	-5.21	103.69	114.10
28	BD	76	VAL	CA-CB-CG2	5.21	119.25	110.40
45	BU	29	VAL	CA-CB-CG1	5.21	119.25	110.40
1	AA	649	A	P-O3'-C3'	5.20	128.01	120.20
1	AA	772	U	C4'-C3'-C2'	-5.20	97.40	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	AI	70	VAL	CG1-CB-CG2	-5.20	99.35	110.80
16	AP	92	ARG	NH1-CZ-NH2	5.20	126.06	119.30
26	BB	872	U	P-O5'-C5'	5.20	128.70	120.90
26	BB	923	G	C2'-C3'-O3'	-5.20	105.89	113.70
1	AA	1342	C	C4'-C3'-C2'	-5.20	97.40	102.60
26	BB	481	G	C4'-C3'-C2'	-5.20	97.40	102.60
26	BB	502	A	C3'-C2'-O2'	5.20	118.50	110.70
26	BB	1183	U	O3'-P-O5'	5.20	111.80	104.00
26	BB	1235	G	O4'-C1'-C2'	-5.20	102.40	107.60
26	BB	1649	G	C5'-C4'-O4'	5.20	117.60	109.80
41	BQ	78	VAL	CA-C-O	5.20	127.28	120.78
45	BU	80	PRO	N-CA-CB	5.20	108.71	103.25
55	B4	39	ASP	CA-C-O	-5.20	112.98	119.54
1	AA	1065	U	C3'-C2'-C1'	5.20	106.70	101.50
1	AA	1195	C	O4'-C4'-C3'	5.20	109.20	104.00
1	AA	1328	C	P-O5'-C5'	5.20	128.70	120.90
1	AA	1524	C	C4'-C3'-C2'	-5.20	97.40	102.60
8	AH	131	ASN	CA-C-N	5.20	126.22	120.45
8	AH	131	ASN	C-N-CA	5.20	126.22	120.45
10	AJ	137	ARG	CA-C-N	5.20	127.51	120.44
10	AJ	137	ARG	C-N-CA	5.20	127.51	120.44
13	AM	39	PRO	CA-N-CD	-5.20	104.72	112.00
25	BA	27	C	O3'-P-O5'	5.20	111.80	104.00
26	BB	623	C	C3'-C2'-C1'	-5.20	96.10	101.30
26	BB	1370	C	N1-C1'-C2'	-5.20	104.20	112.00
1	AA	76	G	C5'-C4'-C3'	-5.20	108.20	116.00
1	AA	293	G	O4'-C1'-C2'	-5.20	102.40	107.60
3	AC	27	A	P-O5'-C5'	5.20	128.70	120.90
10	AJ	90	VAL	CA-CB-CG1	5.20	119.24	110.40
26	BB	1076	C	N1-C1'-C2'	-5.20	104.20	112.00
26	BB	1193	G	C4'-C3'-C2'	-5.20	97.40	102.60
26	BB	1555	G	C4'-C3'-C2'	-5.20	97.40	102.60
26	BB	1705	A	C4'-C3'-C2'	-5.20	97.40	102.60
26	BB	2678	C	O4'-C1'-C2'	-5.20	102.40	107.60
26	BB	2766	A	O3'-P-O5'	-5.20	96.20	104.00
38	BN	127	VAL	CA-CB-CG1	5.20	119.24	110.40
40	BP	74	GLU	CA-C-O	-5.20	114.91	120.42
50	BZ	66	VAL	CA-C-N	5.20	127.25	120.28
50	BZ	66	VAL	C-N-CA	5.20	127.25	120.28
26	BB	548	G	C1'-O4'-C4'	-5.20	104.70	109.90
26	BB	2336	A	C1'-C2'-O2'	5.20	119.59	111.80
29	BE	104	VAL	CA-CB-CG2	5.20	119.24	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1483	A	O4'-C4'-C3'	5.20	109.20	104.00
16	AP	6	ILE	N-CA-C	-5.20	108.06	113.10
26	BB	218	A	C3'-C2'-C1'	5.20	106.69	101.50
26	BB	900	A	C1'-C2'-O2'	-5.20	100.61	108.40
26	BB	1069	A	N9-C1'-C2'	5.20	119.79	112.00
26	BB	1135	C	C3'-C2'-C1'	5.20	106.50	101.30
26	BB	1234	U	C3'-C2'-C1'	5.20	106.50	101.30
26	BB	1900	A	O3'-P-O5'	-5.20	96.20	104.00
26	BB	2000	C	C5'-C4'-C3'	-5.20	108.21	116.00
26	BB	2141	G	O4'-C1'-N9	5.20	116.29	108.50
29	BE	63	PRO	CA-C-N	5.20	129.46	120.58
29	BE	63	PRO	C-N-CA	5.20	129.46	120.58
26	BB	754	U	O4'-C4'-C3'	5.19	109.19	104.00
26	BB	2236	U	C3'-C2'-O2'	5.19	118.49	110.70
26	BB	2311	A	C4'-C3'-O3'	5.19	117.19	109.40
26	BB	2617	U	O4'-C4'-C3'	5.19	109.19	104.00
26	BB	2903	U	C3'-C2'-C1'	5.19	106.49	101.30
41	BQ	9	ARG	N-CA-C	5.19	116.75	111.14
1	AA	570	G	C5'-C4'-C3'	-5.19	108.21	116.00
1	AA	847	G	P-O5'-C5'	5.19	128.69	120.90
1	AA	1253	G	P-O3'-C3'	5.19	127.99	120.20
1	AA	1540	U	C3'-C2'-C1'	5.19	106.49	101.30
4	AD	29	C	N1-C1'-C2'	-5.19	104.21	112.00
26	BB	1439	A	C3'-C2'-O2'	5.19	118.49	110.70
26	BB	1482	G	O4'-C4'-C3'	5.19	109.19	104.00
26	BB	2464	G	O4'-C4'-C3'	-5.19	98.81	104.00
39	BO	131	VAL	CB-CA-C	5.19	118.36	110.62
1	AA	768	A	O4'-C1'-N9	5.19	116.28	108.50
1	AA	1086	U	O3'-P-O5'	5.19	111.79	104.00
25	BA	18	G	C2'-C3'-O3'	-5.19	105.91	113.70
26	BB	1110	G	O4'-C4'-C3'	-5.19	100.91	106.10
26	BB	1696	G	C5'-C4'-C3'	-5.19	108.22	116.00
26	BB	2523	G	C1'-C2'-O2'	5.19	116.19	108.40
27	BC	212	VAL	CA-CB-CG2	5.19	119.22	110.40
26	BB	1560	G	C1'-C2'-O2'	-5.19	100.62	108.40
26	BB	1738	G	C4'-C3'-O3'	-5.19	101.62	109.40
26	BB	2333	A	C4'-C3'-O3'	5.19	117.18	109.40
51	B0	33	ALA	CA-C-N	5.19	131.26	122.65
51	B0	33	ALA	C-N-CA	5.19	131.26	122.65
1	AA	120	A	C5'-C4'-O4'	5.19	117.58	109.80
1	AA	712	A	O3'-P-O5'	-5.19	96.22	104.00
1	AA	787	A	C3'-C2'-C1'	-5.19	96.11	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1022	A	C5'-C4'-C3'	-5.19	108.22	116.00
1	AA	1199	U	N1-C1'-C2'	5.19	119.78	112.00
3	AC	40	G	C1'-C2'-O2'	5.19	116.18	108.40
24	AX	42	THR	CA-C-N	5.19	127.50	120.44
24	AX	42	THR	C-N-CA	5.19	127.50	120.44
26	BB	65	U	C4'-C3'-O3'	-5.19	105.22	113.00
26	BB	248	G	C2'-C3'-O3'	5.19	121.48	113.70
26	BB	979	A	C4'-C3'-C2'	-5.19	97.41	102.60
26	BB	1332	G	O5'-C5'-C4'	-5.19	103.92	111.70
40	BP	28	LEU	CA-C-N	5.19	128.81	120.30
40	BP	28	LEU	C-N-CA	5.19	128.81	120.30
47	BW	99	SER	CB-CA-C	5.19	119.71	111.51
1	AA	936	C	O4'-C4'-C3'	5.19	109.19	104.00
26	BB	1553	A	O4'-C1'-N9	5.19	116.28	108.50
26	BB	1968	G	N9-C1'-C2'	-5.19	104.22	112.00
1	AA	398	U	C2'-C3'-O3'	5.18	121.48	113.70
1	AA	629	A	C2'-C3'-O3'	5.18	121.48	113.70
1	AA	1300	G	O3'-P-O5'	-5.18	96.22	104.00
4	AD	49	C	C3'-C2'-O2'	-5.18	106.83	114.60
5	AE	73	ARG	N-CA-C	-5.18	106.79	113.01
6	AF	28	PHE	N-CA-CB	-5.18	102.50	110.12
26	BB	1144	A	C4'-C3'-C2'	5.18	107.78	102.60
26	BB	1465	G	C5'-C4'-C3'	-5.18	108.22	116.00
26	BB	1467	U	O4'-C1'-N1	5.18	116.28	108.50
26	BB	2278	A	N9-C1'-C2'	-5.18	104.22	112.00
26	BB	2469	A	C5'-C4'-O4'	5.18	117.58	109.80
9	AI	80	PHE	N-CA-C	5.18	119.24	113.02
15	AO	15	VAL	O-C-N	5.18	128.62	122.66
15	AO	85	ARG	CB-CA-C	5.18	118.29	109.84
22	AV	28	LYS	CA-C-O	-5.18	115.34	120.26
26	BB	186	G	O4'-C1'-N9	5.18	116.27	108.50
26	BB	282	A	C4'-C3'-C2'	-5.18	97.42	102.60
26	BB	408	G	O4'-C1'-C2'	-5.18	102.42	107.60
26	BB	1019	U	O4'-C1'-C2'	-5.18	102.42	107.60
26	BB	1083	U	C4'-C3'-C2'	-5.18	97.42	102.60
26	BB	1221	C	C2'-C3'-O3'	5.18	121.47	113.70
26	BB	1254	A	C5'-C4'-O4'	-5.18	102.03	109.80
26	BB	1410	G	C1'-O4'-C4'	-5.18	104.72	109.90
26	BB	2209	G	C2'-C3'-O3'	5.18	121.47	113.70
26	BB	2760	C	N1-C1'-C2'	-5.18	104.22	112.00
54	B3	10	SER	CA-C-O	-5.18	115.06	120.55
1	AA	958	A	C2'-C3'-O3'	5.18	121.47	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	34	C	C5'-C4'-C3'	-5.18	108.23	116.00
37	BM	76	VAL	CA-CB-CG1	5.18	119.21	110.40
1	AA	221	C	O4'-C1'-N1	5.18	116.27	108.50
1	AA	549	C	C1'-O4'-C4'	5.18	115.08	109.90
1	AA	1251	A	C3'-C2'-C1'	5.18	106.48	101.30
6	AF	41	TYR	CB-CG-CD1	-5.18	113.03	120.80
12	AL	110	VAL	CA-CB-CG1	5.18	119.20	110.40
22	AV	75	PRO	CA-N-CD	-5.18	104.75	112.00
26	BB	45	G	O3'-P-O5'	5.18	111.77	104.00
26	BB	569	U	O4'-C4'-C3'	-5.18	100.92	106.10
26	BB	2026	U	O4'-C4'-C3'	5.18	109.18	104.00
26	BB	2471	A	C1'-C2'-O2'	5.18	119.57	111.80
42	BR	16	VAL	CA-CB-CG1	5.18	119.21	110.40
7	AG	96	ARG	NE-CZ-NH2	5.18	123.86	119.20
13	AM	14	ASP	CA-C-O	-5.18	114.82	120.36
26	BB	752	A	O4'-C1'-N9	5.18	115.97	108.20
26	BB	1051	G	C4'-C3'-O3'	-5.18	105.23	113.00
26	BB	1217	U	C1'-O4'-C4'	5.18	115.08	109.90
26	BB	1586	A	C1'-C2'-O2'	5.18	116.17	108.40
26	BB	1905	C	O3'-P-O5'	-5.18	96.23	104.00
26	BB	1970	A	O3'-P-O5'	-5.18	96.23	104.00
26	BB	2721	A	C5'-C4'-C3'	-5.18	108.23	116.00
28	BD	224	MET	CA-C-O	-5.18	115.77	121.31
1	AA	159	G	O4'-C1'-C2'	-5.18	102.42	107.60
1	AA	1123	U	C2'-C3'-O3'	5.18	121.46	113.70
2	AB	59	G	C1'-C2'-O2'	-5.18	104.03	111.80
23	AW	73	ARG	CA-C-O	-5.18	115.38	120.82
26	BB	1151	A	C5'-C4'-O4'	5.18	117.56	109.80
26	BB	1225	G	C3'-C2'-C1'	5.18	106.48	101.30
26	BB	2211	A	O4'-C1'-C2'	-5.18	100.62	105.80
26	BB	2431	U	C3'-C2'-C1'	-5.18	96.12	101.30
30	BF	70	SER	O-C-N	-5.18	116.95	123.27
32	BH	35	THR	CA-CB-OG1	-5.18	101.83	109.60
35	BK	59	THR	CA-CB-OG1	-5.18	101.83	109.60
36	BL	118	MET	O-C-N	5.18	127.68	122.09
1	AA	557	G	C3'-C2'-O2'	5.17	118.46	110.70
1	AA	621	A	O3'-P-O5'	-5.17	96.24	104.00
1	AA	948	C	C4'-C3'-C2'	-5.17	97.43	102.60
1	AA	995	C	O5'-C5'-C4'	-5.17	103.74	111.50
1	AA	1256	A	O4'-C4'-C3'	-5.17	100.93	106.10
12	AL	39	GLY	O-C-N	-5.17	118.22	122.77
22	AV	40	PHE	CA-C-O	-5.17	115.34	120.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	317	G	O4'-C1'-C2'	-5.17	102.43	107.60
26	BB	405	U	C4'-C3'-O3'	-5.17	105.24	113.00
26	BB	1272	A	C5'-C4'-C3'	5.17	122.96	115.20
26	BB	1603	A	C4'-C3'-C2'	-5.17	97.42	102.60
26	BB	2678	C	O4'-C4'-C3'	-5.17	98.83	104.00
26	BB	2739	U	O4'-C1'-C2'	-5.17	102.42	107.60
27	BC	165	ASN	CA-CB-CG	-5.17	107.42	112.60
27	BC	193	LEU	CA-C-N	5.17	128.79	120.30
27	BC	193	LEU	C-N-CA	5.17	128.79	120.30
28	BD	270	ARG	NE-CZ-NH2	5.17	123.86	119.20
40	BP	88	ALA	N-CA-C	5.17	116.92	111.28
40	BP	115	LEU	CA-C-O	-5.17	115.85	121.44
25	BA	116	G	O4'-C1'-N9	5.17	116.26	108.50
26	BB	1222	U	C4'-C3'-C2'	-5.17	97.43	102.60
26	BB	1439	A	C1'-O4'-C4'	-5.17	104.73	109.90
26	BB	1929	G	C4'-C3'-O3'	-5.17	101.64	109.40
1	AA	50	A	P-O3'-C3'	5.17	127.96	120.20
1	AA	264	C	C5'-C4'-O4'	-5.17	102.04	109.80
1	AA	1202	U	N1-C1'-C2'	5.17	119.76	112.00
1	AA	1508	A	C5'-C4'-O4'	5.17	117.56	109.80
7	AG	101	VAL	CA-CB-CG1	5.17	119.19	110.40
10	AJ	134	VAL	CA-C-O	-5.17	115.31	121.05
13	AM	35	GLN	N-CA-C	5.17	117.53	109.52
15	AO	39	THR	CA-C-O	5.17	127.24	121.40
15	AO	41	PRO	N-CA-CB	5.17	108.68	103.25
26	BB	57	C	P-O5'-C5'	5.17	128.66	120.90
26	BB	69	C	C5'-C4'-C3'	-5.17	108.24	116.00
26	BB	1105	U	C4'-C3'-C2'	-5.17	97.43	102.60
26	BB	1171	G	C5'-C4'-C3'	-5.17	108.24	116.00
32	BH	65	GLY	CA-C-O	-5.17	115.42	120.75
33	BI	86	ASP	N-CA-C	-5.17	106.93	114.12
44	BT	60	LYS	CB-CA-C	5.17	118.06	109.53
52	B1	12	ALA	N-CA-C	-5.17	106.81	113.02
1	AA	916	U	C1'-O4'-C4'	5.17	115.07	109.90
16	AP	43	LYS	O-C-N	-5.17	116.96	122.85
26	BB	243	U	C5'-C4'-C3'	-5.17	108.25	116.00
29	BE	200	ASP	CB-CA-C	5.17	120.05	109.76
30	BF	85	PHE	CB-CG-CD2	-5.17	111.91	120.70
3	AC	44	U	C4'-C3'-C2'	-5.17	97.43	102.60
16	AP	65	GLU	CA-C-O	-5.17	115.07	120.55
26	BB	639	U	C4'-C3'-C2'	5.17	107.77	102.60
26	BB	1926	U	C4'-C3'-C2'	-5.17	97.43	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1984	G	C4'-C3'-O3'	-5.17	105.25	113.00
26	BB	2029	G	O4'-C4'-C3'	5.17	109.17	104.00
26	BB	2438	U	O4'-C1'-N1	5.17	116.25	108.50
26	BB	2528	U	C4'-C3'-C2'	-5.17	97.43	102.60
26	BB	2585	U	C3'-C2'-C1'	-5.17	96.33	101.50
33	BI	26	ALA	CA-C-N	5.17	131.41	121.54
33	BI	26	ALA	C-N-CA	5.17	131.41	121.54
1	AA	728	A	C1'-C2'-O2'	5.17	116.15	108.40
1	AA	901	A	P-O5'-C5'	5.17	128.65	120.90
1	AA	938	A	O4'-C1'-C2'	-5.17	102.43	107.60
26	BB	463	G	C3'-C2'-O2'	5.17	118.45	110.70
26	BB	492	A	C4'-C3'-C2'	-5.17	97.43	102.60
26	BB	1097	U	C1'-O4'-C4'	5.17	115.07	109.90
26	BB	1778	U	O4'-C4'-C3'	5.17	109.17	104.00
26	BB	1947	C	O4'-C1'-N1	5.17	116.25	108.50
28	BD	77	VAL	N-CA-CB	5.17	119.76	111.23
56	B5	8	SER	CA-C-O	-5.17	115.05	120.58
1	AA	110	C	O4'-C1'-C2'	-5.17	102.44	107.60
1	AA	411	A	C5'-C4'-O4'	-5.17	102.05	109.80
1	AA	1478	U	C1'-C2'-O2'	-5.17	100.65	108.40
7	AG	11	SER	CA-C-N	5.17	128.16	120.31
7	AG	11	SER	C-N-CA	5.17	128.16	120.31
9	AI	44	ARG	CA-C-O	-5.17	115.38	121.16
24	AX	6	ARG	CA-CB-CG	5.17	124.43	114.10
26	BB	1195	G	P-O5'-C5'	5.17	128.65	120.90
26	BB	2212	A	N9-C1'-C2'	5.17	121.75	114.00
26	BB	2295	C	C2'-C3'-O3'	-5.17	105.95	113.70
26	BB	2561	U	O4'-C1'-N1	5.17	116.25	108.50
1	AA	191	G	O4'-C1'-N9	5.16	116.24	108.50
1	AA	537	G	C4'-C3'-C2'	-5.16	97.44	102.60
1	AA	1180	A	O5'-C5'-C4'	-5.16	103.76	111.50
3	AC	13	A	C4'-C3'-C2'	-5.16	97.44	102.60
3	AC	38	G	P-O5'-C5'	-5.16	113.16	120.90
9	AI	89	VAL	CA-C-O	-5.16	114.97	120.39
26	BB	330	A	C2'-C3'-O3'	5.16	117.24	109.50
26	BB	837	C	C5'-C4'-C3'	-5.16	108.25	116.00
26	BB	2708	G	O5'-C5'-C4'	-5.16	103.75	111.50
31	BG	44	ALA	CA-C-N	5.16	131.40	121.54
31	BG	44	ALA	C-N-CA	5.16	131.40	121.54
45	BU	34	ASP	N-CA-CB	-5.16	102.58	110.07
1	AA	834	U	C3'-C2'-O2'	5.16	118.44	110.70
1	AA	1452	C	C1'-O4'-C4'	5.16	114.86	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AF	35	ASP	CA-CB-CG	5.16	117.76	112.60
26	BB	474	G	C3'-C2'-O2'	-5.16	106.86	114.60
26	BB	1574	C	C4'-C3'-C2'	-5.16	97.44	102.60
34	BJ	147	ALA	CA-C-N	5.16	125.68	120.00
34	BJ	147	ALA	C-N-CA	5.16	125.68	120.00
1	AA	2	A	C2'-C3'-O3'	-5.16	105.96	113.70
1	AA	492	C	P-O5'-C5'	5.16	128.64	120.90
1	AA	1150	A	N9-C1'-C2'	5.16	119.74	112.00
6	AF	40	GLN	CA-C-O	5.16	125.89	120.42
17	AQ	64	ARG	NE-CZ-NH2	-5.16	114.56	119.20
26	BB	1323	C	C1'-O4'-C4'	-5.16	104.54	109.70
26	BB	1987	A	C3'-C2'-O2'	5.16	118.44	110.70
26	BB	2644	G	C4'-C3'-C2'	-5.16	97.44	102.60
26	BB	2834	G	N9-C1'-C2'	5.16	119.74	112.00
28	BD	253	GLY	CA-C-N	5.16	131.40	121.54
28	BD	253	GLY	C-N-CA	5.16	131.40	121.54
39	BO	94	ALA	CB-CA-C	5.16	118.26	109.80
1	AA	360	G	C4'-C3'-C2'	-5.16	97.44	102.60
1	AA	597	G	C3'-C2'-O2'	5.16	118.44	110.70
1	AA	614	C	C1'-O4'-C4'	5.16	115.06	109.90
7	AG	127	ARG	CD-NE-CZ	5.16	131.62	124.40
13	AM	13	PHE	N-CA-C	-5.16	107.16	113.50
23	AW	34	VAL	CA-C-O	-5.16	114.82	120.96
26	BB	427	U	O5'-C5'-C4'	-5.16	103.76	111.50
26	BB	2078	C	C4'-C3'-O3'	5.16	120.74	113.00
26	BB	2496	C	O4'-C1'-N1	5.16	116.24	108.50
1	AA	568	G	O4'-C1'-C2'	-5.16	102.44	107.60
26	BB	534	U	C5'-C4'-C3'	5.16	123.73	116.00
26	BB	2888	C	O4'-C1'-N1	5.16	116.23	108.50
40	BP	3	HIS	CA-C-O	-5.16	115.08	121.11
1	AA	509	A	C2'-C3'-O3'	-5.16	105.97	113.70
3	AC	13	A	O4'-C4'-C3'	5.16	111.25	106.10
11	AK	80	PRO	N-CD-CG	5.16	110.93	103.20
25	BA	95	U	O4'-C1'-C2'	-5.16	102.44	107.60
26	BB	1041	G	O4'-C1'-N9	5.16	116.23	108.50
26	BB	1732	C	O4'-C1'-C2'	5.16	110.95	105.80
26	BB	1752	C	C4'-C3'-C2'	-5.16	97.44	102.60
26	BB	2557	G	C1'-O4'-C4'	-5.16	104.74	109.90
26	BB	2747	G	C5'-C4'-O4'	5.16	117.53	109.80
31	BG	94	ARG	NE-CZ-NH2	-5.16	114.56	119.20
46	BV	74	ILE	CA-C-N	5.16	127.80	122.80
46	BV	74	ILE	C-N-CA	5.16	127.80	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1403	C	P-O3'-C3'	5.15	127.93	120.20
14	AN	13	LYS	N-CA-C	5.15	119.19	113.01
23	AW	32	LYS	CA-C-N	5.15	127.70	120.28
23	AW	32	LYS	C-N-CA	5.15	127.70	120.28
26	BB	837	C	O3'-P-O5'	5.15	111.73	104.00
30	BF	131	THR	N-CA-C	-5.15	105.66	111.28
1	AA	745	G	N9-C1'-C2'	-5.15	104.27	112.00
26	BB	271	G	O5'-C5'-C4'	5.15	119.43	111.70
26	BB	790	U	P-O3'-C3'	5.15	127.93	120.20
26	BB	839	U	C5'-C4'-C3'	-5.15	108.27	116.00
26	BB	1412	U	C5'-C4'-O4'	5.15	117.53	109.80
26	BB	2584	U	O4'-C1'-C2'	-5.15	100.65	105.80
32	BH	109	SER	N-CA-CB	-5.15	102.37	110.46
48	BX	92	VAL	CA-CB-CG1	5.15	119.16	110.40
1	AA	660	C	O4'-C1'-C2'	-5.15	102.45	107.60
1	AA	672	U	C3'-C2'-C1'	5.15	106.45	101.30
11	AK	50	VAL	CB-CA-C	5.15	118.25	110.63
26	BB	299	A	C2'-C3'-O3'	-5.15	105.97	113.70
26	BB	715	A	N9-C1'-C2'	5.15	119.72	112.00
26	BB	857	G	O3'-P-O5'	-5.15	96.27	104.00
26	BB	1005	C	O4'-C4'-C3'	5.15	109.15	104.00
26	BB	1134	A	O3'-P-O5'	-5.15	96.28	104.00
26	BB	1590	A	O5'-C5'-C4'	5.15	119.23	111.50
26	BB	1805	A	O4'-C1'-C2'	-5.15	102.45	107.60
26	BB	1814	G	P-O3'-C3'	5.15	127.93	120.20
26	BB	1966	A	C5'-C4'-C3'	-5.15	107.47	115.20
26	BB	2555	U	O4'-C4'-C3'	-5.15	100.95	106.10
26	BB	2691	C	O4'-C1'-N1	5.15	116.22	108.50
26	BB	2728	U	O3'-P-O5'	-5.15	96.27	104.00
41	BQ	105	ALA	CA-C-N	5.15	127.60	120.29
41	BQ	105	ALA	C-N-CA	5.15	127.60	120.29
44	BT	12	HIS	CE1-NE2-CD2	-5.15	103.85	109.00
15	AO	88	ASP	CA-CB-CG	5.15	117.75	112.60
26	BB	376	G	O4'-C1'-C2'	-5.15	102.45	107.60
26	BB	1396	U	C1'-O4'-C4'	5.15	114.85	109.70
26	BB	2005	A	C2'-C3'-O3'	5.15	121.42	113.70
26	BB	2181	U	O4'-C1'-N1	5.15	116.22	108.50
26	BB	2252	G	C2'-C3'-O3'	5.15	121.42	113.70
33	BI	148	ALA	CA-C-N	5.15	130.97	121.70
33	BI	148	ALA	C-N-CA	5.15	130.97	121.70
36	BL	80	HIS	CA-CB-CG	-5.15	108.65	113.80
38	BN	102	GLY	CA-C-O	5.15	126.30	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	650	G	C4'-C3'-C2'	-5.15	97.45	102.60
1	AA	1357	A	O4'-C1'-N9	5.15	116.22	108.50
26	BB	95	A	O4'-C1'-N9	-5.15	100.78	108.50
26	BB	994	C	O4'-C1'-N1	5.15	116.22	108.50
26	BB	2440	C	O4'-C1'-N1	5.15	116.22	108.50
26	BB	2540	C	C4'-C3'-C2'	-5.15	97.45	102.60
39	BO	97	GLN	O-C-N	-5.15	116.57	121.20
1	AA	670	G	C4'-C3'-O3'	5.15	120.72	113.00
1	AA	727	G	C2'-C3'-O3'	-5.15	105.98	113.70
1	AA	1136	C	O4'-C1'-C2'	-5.15	102.45	107.60
14	AN	55	ARG	CB-CA-C	5.15	121.18	110.32
26	BB	650	C	O3'-P-O5'	-5.15	96.28	104.00
26	BB	1696	G	O3'-P-O5'	5.15	111.72	104.00
26	BB	1966	A	O4'-C1'-C2'	-5.15	100.65	105.80
26	BB	2485	G	O4'-C1'-C2'	-5.15	102.45	107.60
31	BG	103	ILE	CA-CB-CG2	5.15	119.25	110.50
44	BT	45	GLU	CA-C-O	-5.15	113.96	119.98
44	BT	89	HIS	CB-CG-CD2	-5.15	124.51	131.20
1	AA	289	G	C3'-C2'-O2'	5.14	118.42	110.70
1	AA	387	U	C3'-C2'-C1'	-5.14	96.16	101.30
1	AA	1108	G	C3'-C2'-O2'	5.14	118.42	110.70
2	AB	38	A	C1'-C2'-O2'	5.14	116.12	108.40
7	AG	137	SER	CA-C-O	-5.14	116.50	121.08
11	AK	13	ILE	N-CA-C	5.14	115.37	110.53
11	AK	124	ILE	CA-C-O	5.14	127.03	120.75
18	AR	12	SER	CA-CB-OG	5.14	121.39	111.10
26	BB	120	U	C5'-C4'-O4'	5.14	116.82	109.10
26	BB	485	C	O4'-C4'-C3'	-5.14	98.86	104.00
26	BB	557	C	C4'-C3'-C2'	-5.14	97.45	102.60
26	BB	1135	C	C5'-C4'-O4'	5.14	117.52	109.80
26	BB	1263	U	C4'-C3'-C2'	5.14	107.75	102.60
26	BB	1358	G	N9-C1'-C2'	5.14	119.72	112.00
26	BB	1520	U	C4'-C3'-O3'	5.14	120.72	113.00
26	BB	2182	U	C3'-C2'-O2'	5.14	118.42	110.70
26	BB	2807	U	P-O3'-C3'	5.14	127.92	120.20
56	B5	29	GLN	N-CA-CB	-5.14	102.01	110.40
1	AA	1101	A	C3'-C2'-O2'	-5.14	106.89	114.60
1	AA	1393	U	P-O3'-C3'	5.14	127.91	120.20
1	AA	1466	C	C3'-C2'-O2'	5.14	118.41	110.70
1	AA	1536	C	C4'-C3'-C2'	-5.14	97.46	102.60
2	AB	38	A	O4'-C1'-C2'	5.14	112.74	107.60
18	AR	15	GLY	CA-C-O	-5.14	116.06	122.74

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2521	C	O4'-C1'-C2'	-5.14	102.46	107.60
29	BE	34	VAL	CA-C-O	-5.14	116.29	121.59
35	BK	101	SER	CA-C-N	5.14	127.17	120.28
35	BK	101	SER	C-N-CA	5.14	127.17	120.28
42	BR	5	LYS	N-CA-CB	5.14	119.18	110.49
11	AK	42	GLU	CA-CB-CG	5.14	124.38	114.10
26	BB	2349	G	C5'-C4'-O4'	5.14	117.51	109.80
1	AA	147	G	O4'-C1'-N9	5.14	116.21	108.50
1	AA	327	A	O4'-C4'-C3'	5.14	111.24	106.10
1	AA	412	A	C3'-C2'-O2'	5.14	118.41	110.70
1	AA	984	C	C5'-C4'-O4'	5.14	117.51	109.80
1	AA	1341	U	C5'-C4'-O4'	5.14	117.51	109.80
6	AF	56	ILE	N-CA-C	-5.14	101.08	108.48
25	BA	14	U	O5'-C5'-C4'	5.14	119.41	111.70
26	BB	769	U	C1'-O4'-C4'	5.14	115.04	109.90
26	BB	1555	G	O4'-C1'-N9	5.14	116.21	108.50
26	BB	1711	A	P-O5'-C5'	5.14	128.61	120.90
26	BB	2052	A	O4'-C1'-N9	5.14	116.21	108.50
26	BB	2066	C	N1-C1'-C2'	-5.14	104.29	112.00
32	BH	41	GLU	CA-C-N	5.14	130.10	123.11
32	BH	41	GLU	C-N-CA	5.14	130.10	123.11
42	BR	108	ARG	O-C-N	5.14	129.63	123.36
10	AJ	35	LYS	CA-C-N	5.14	129.30	120.72
10	AJ	35	LYS	C-N-CA	5.14	129.30	120.72
20	AT	61	ARG	NE-CZ-NH2	5.14	123.83	119.20
21	AU	64	LEU	CB-CA-C	5.14	119.24	110.56
26	BB	144	A	C5'-C4'-O4'	5.14	117.51	109.80
26	BB	524	G	O5'-C5'-C4'	5.14	119.21	111.50
26	BB	927	A	C1'-O4'-C4'	5.14	115.04	109.90
26	BB	1800	C	C2'-C3'-O3'	-5.14	101.79	109.50
26	BB	2486	C	C4'-C3'-C2'	-5.14	97.46	102.60
32	BH	169	ARG	CA-C-N	5.14	131.35	121.54
32	BH	169	ARG	C-N-CA	5.14	131.35	121.54
1	AA	614	C	O4'-C4'-C3'	-5.14	98.86	104.00
3	AC	16	A	C4'-C3'-C2'	-5.14	97.46	102.60
19	AS	19	VAL	CB-CA-C	5.14	118.48	110.83
21	AU	30	ASN	CA-C-O	-5.14	113.06	119.38
26	BB	2428	G	O4'-C4'-C3'	5.14	109.14	104.00
26	BB	2562	U	O4'-C4'-C3'	5.14	109.14	104.00
36	BL	125	TYR	CA-C-N	5.14	131.35	121.54
36	BL	125	TYR	C-N-CA	5.14	131.35	121.54
41	BQ	9	ARG	NE-CZ-NH1	5.14	126.64	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BW	52	ASN	CA-CB-CG	-5.14	107.46	112.60
1	AA	208	U	O4'-C1'-N1	5.13	116.20	108.50
1	AA	433	G	N9-C1'-C2'	-5.13	104.30	112.00
1	AA	570	G	C4'-C3'-O3'	-5.13	105.30	113.00
1	AA	588	G	N9-C1'-C2'	-5.13	104.30	112.00
1	AA	912	C	O4'-C4'-C3'	-5.13	98.86	104.00
1	AA	1244	G	O3'-P-O5'	-5.13	96.30	104.00
15	AO	30	ARG	CA-C-N	5.13	128.55	121.26
15	AO	30	ARG	C-N-CA	5.13	128.55	121.26
26	BB	1112	G	O5'-C5'-C4'	5.13	119.20	111.50
26	BB	1863	G	O4'-C1'-C2'	5.13	112.73	107.60
26	BB	2393	U	O4'-C4'-C3'	5.13	109.13	104.00
27	BC	123	VAL	CA-C-N	5.13	131.21	121.97
27	BC	123	VAL	C-N-CA	5.13	131.21	121.97
30	BF	102	ARG	N-CA-C	-5.13	105.81	111.71
40	BP	113	ILE	O-C-N	5.13	128.80	123.26
26	BB	122	G	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	1111	A	N9-C1'-C2'	-5.13	106.30	114.00
26	BB	1392	A	C1'-C2'-O2'	5.13	119.50	111.80
26	BB	2101	A	C3'-C2'-C1'	-5.13	96.17	101.30
26	BB	2840	C	C4'-C3'-O3'	-5.13	105.30	113.00
49	BY	29	SER	CB-CA-C	5.13	120.53	110.67
1	AA	257	G	C1'-O4'-C4'	5.13	115.03	109.90
1	AA	935	A	O5'-C5'-C4'	5.13	119.20	111.50
26	BB	1197	G	O4'-C1'-N9	5.13	116.20	108.50
26	BB	1380	G	O4'-C1'-N9	5.13	116.20	108.50
26	BB	1714	U	O4'-C4'-C3'	5.13	111.23	106.10
26	BB	1797	G	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	1844	C	O4'-C4'-C3'	-5.13	98.87	104.00
32	BH	176	LYS	CA-CB-CG	-5.13	103.83	114.10
1	AA	1333	A	O4'-C1'-C2'	5.13	112.73	107.60
4	AD	15	G	C1'-O4'-C4'	5.13	115.03	109.90
26	BB	1425	G	C5'-C4'-C3'	-5.13	108.31	116.00
26	BB	2442	C	O4'-C1'-N1	5.13	116.20	108.50
28	BD	18	VAL	CA-CB-CG1	5.13	119.12	110.40
1	AA	377	G	O3'-P-O5'	-5.13	96.31	104.00
1	AA	647	C	C3'-C2'-O2'	5.13	118.39	110.70
2	AB	47	U	C2'-C3'-O3'	5.13	117.19	109.50
10	AJ	65	LEU	N-CA-C	5.13	119.16	113.01
21	AU	60	ARG	CA-C-N	5.13	127.46	120.54
21	AU	60	ARG	C-N-CA	5.13	127.46	120.54
26	BB	499	U	C5'-C4'-O4'	5.13	117.49	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1202	G	O3'-P-O5'	-5.13	96.31	104.00
26	BB	1349	C	C5'-C4'-C3'	-5.13	108.31	116.00
26	BB	2744	G	O5'-C5'-C4'	-5.13	103.81	111.50
26	BB	2759	G	C2'-C3'-O3'	-5.13	106.01	113.70
35	BK	76	ALA	O-C-N	-5.13	116.79	122.07
1	AA	1222	G	C2'-C3'-O3'	5.13	121.39	113.70
4	AD	40	C	N1-C1'-C2'	-5.13	104.31	112.00
14	AN	74	LYS	CB-CA-C	5.13	120.63	110.17
14	AN	95	THR	CA-C-N	5.13	127.70	120.42
14	AN	95	THR	C-N-CA	5.13	127.70	120.42
21	AU	33	THR	N-CA-CB	-5.13	103.32	110.29
25	BA	53	A	O5'-C5'-C4'	5.13	119.19	111.50
26	BB	10	A	C3'-C2'-C1'	5.13	106.43	101.30
26	BB	348	A	O4'-C4'-C3'	5.13	109.13	104.00
26	BB	618	G	C5'-C4'-O4'	5.13	117.49	109.80
26	BB	934	U	C1'-O4'-C4'	-5.13	104.77	109.90
26	BB	1373	A	C1'-C2'-O2'	-5.13	100.71	108.40
26	BB	1581	G	C1'-C2'-O2'	5.13	116.09	108.40
26	BB	1728	C	C3'-C2'-C1'	5.13	106.43	101.30
26	BB	2344	U	O4'-C1'-C2'	-5.13	100.67	105.80
42	BR	91	VAL	CB-CA-C	5.13	119.70	111.29
1	AA	745	G	O5'-C5'-C4'	5.12	119.19	111.50
1	AA	1433	A	O4'-C1'-C2'	-5.12	102.47	107.60
3	AC	31	U	C2'-C3'-O3'	5.12	121.39	113.70
5	AE	108	GLN	OE1-CD-NE2	-5.12	117.47	122.60
8	AH	88	HIS	CB-CG-CD2	-5.12	124.54	131.20
26	BB	1136	G	N9-C1'-C2'	-5.12	104.31	112.00
26	BB	1553	A	C5'-C4'-O4'	5.12	117.49	109.80
26	BB	1725	U	C3'-C2'-C1'	5.12	106.42	101.30
26	BB	2268	A	C4'-C3'-C2'	-5.12	97.47	102.60
34	BJ	12	ALA	N-CA-C	5.12	119.25	113.15
38	BN	81	ASP	CA-C-N	5.12	127.66	120.28
38	BN	81	ASP	C-N-CA	5.12	127.66	120.28
1	AA	98	A	C1'-O4'-C4'	-5.12	104.78	109.90
1	AA	458	U	C3'-C2'-C1'	-5.12	96.18	101.30
1	AA	704	A	O4'-C1'-C2'	-5.12	102.48	107.60
1	AA	755	G	C5'-C4'-C3'	-5.12	108.31	116.00
1	AA	1143	G	C4'-C3'-O3'	5.12	120.68	113.00
1	AA	1292	G	C4'-C3'-C2'	-5.12	97.48	102.60
1	AA	1403	C	C1'-C2'-O2'	-5.12	100.71	108.40
7	AG	115	GLN	CA-C-O	-5.12	115.12	120.55
9	AI	132	GLU	CA-C-O	-5.12	114.92	120.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	AL	14	SER	CB-CA-C	5.12	118.75	109.37
26	BB	528	A	O4'-C1'-C2'	5.12	112.72	107.60
26	BB	970	U	O4'-C1'-C2'	-5.12	102.48	107.60
26	BB	1646	C	O4'-C4'-C3'	5.12	109.12	104.00
26	BB	1955	U	C4'-C3'-O3'	-5.12	101.71	109.40
26	BB	2392	A	C5'-C4'-O4'	5.12	117.48	109.80
39	BO	6	ARG	CA-C-N	5.12	130.51	122.21
39	BO	6	ARG	C-N-CA	5.12	130.51	122.21
26	BB	314	C	C3'-C2'-C1'	-5.12	96.18	101.30
26	BB	406	G	C3'-C2'-O2'	5.12	118.38	110.70
27	BC	115	ILE	CB-CA-C	5.12	117.26	110.91
44	BT	81	LYS	O-C-N	5.12	128.74	122.34
1	AA	5	U	C5'-C4'-C3'	-5.12	107.52	115.20
1	AA	307	C	O4'-C1'-N1	5.12	115.88	108.20
1	AA	548	G	C1'-O4'-C4'	5.12	115.02	109.90
1	AA	1344	C	O4'-C4'-C3'	5.12	109.12	104.00
2	AB	11	U	C4'-C3'-C2'	-5.12	97.48	102.60
26	BB	153	U	C5'-C4'-C3'	-5.12	108.32	116.00
26	BB	871	U	C4'-C3'-C2'	-5.12	97.48	102.60
1	AA	113	G	C4'-C3'-C2'	-5.12	97.48	102.60
1	AA	265	G	C4'-C3'-C2'	5.12	107.72	102.60
1	AA	738	C	O4'-C1'-C2'	-5.12	102.48	107.60
1	AA	874	G	C5'-C4'-O4'	5.12	117.48	109.80
1	AA	1181	G	C4'-C3'-C2'	-5.12	97.48	102.60
16	AP	80	MET	CA-C-O	-5.12	114.31	120.10
26	BB	794	A	O3'-P-O5'	-5.12	96.32	104.00
26	BB	1055	G	C5'-C4'-O4'	5.12	117.48	109.80
26	BB	1088	A	C1'-C2'-O2'	-5.12	100.72	108.40
26	BB	1194	A	C4'-C3'-C2'	-5.12	97.48	102.60
26	BB	1230	A	C5'-C4'-O4'	5.12	117.48	109.80
26	BB	1325	U	C5'-C4'-O4'	5.12	116.78	109.10
26	BB	1806	C	O4'-C1'-C2'	-5.12	102.48	107.60
26	BB	2091	C	O4'-C4'-C3'	5.12	109.12	104.00
26	BB	2283	C	C1'-C2'-O2'	5.12	116.08	108.40
26	BB	2358	A	C1'-O4'-C4'	-5.12	104.78	109.90
1	AA	39	G	O5'-C5'-C4'	5.12	119.18	111.50
1	AA	1485	U	N1-C1'-C2'	-5.12	104.32	112.00
3	AC	46	C	O4'-C1'-N1	5.12	116.18	108.50
21	AU	26	ALA	N-CA-CB	-5.12	102.58	110.20
26	BB	977	G	C5'-C4'-C3'	-5.12	108.32	116.00
26	BB	2652	C	O4'-C1'-C2'	-5.12	102.48	107.60
1	AA	94	G	O5'-C5'-C4'	-5.12	104.03	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	184	G	C1'-C2'-O2'	-5.12	100.73	108.40
1	AA	593	U	O4'-C1'-C2'	-5.12	102.48	107.60
1	AA	933	G	C4'-C3'-C2'	-5.12	97.48	102.60
1	AA	1319	A	P-O5'-C5'	5.12	128.57	120.90
5	AE	207	ARG	NE-CZ-NH1	-5.12	116.39	121.50
6	AF	83	VAL	CA-C-N	5.12	127.55	120.29
6	AF	83	VAL	C-N-CA	5.12	127.55	120.29
7	AG	199	ILE	CA-CB-CG2	5.12	119.20	110.50
12	AL	80	HIS	CA-C-N	5.12	125.66	119.98
12	AL	80	HIS	C-N-CA	5.12	125.66	119.98
21	AU	50	TYR	CA-C-O	-5.12	115.11	120.63
26	BB	2196	C	N1-C1'-C2'	-5.12	104.33	112.00
26	BB	2203	U	O4'-C1'-N1	5.12	116.17	108.50
26	BB	2863	C	C2'-C3'-O3'	-5.12	106.03	113.70
1	AA	44	A	C3'-C2'-C1'	-5.11	96.19	101.30
1	AA	167	A	O3'-P-O5'	5.11	111.67	104.00
1	AA	422	C	O4'-C1'-C2'	-5.11	100.69	105.80
1	AA	725	G	C3'-C2'-O2'	5.11	118.37	110.70
1	AA	917	G	O5'-C5'-C4'	-5.11	103.83	111.50
1	AA	1128	C	O4'-C1'-C2'	-5.11	102.49	107.60
7	AG	205	LYS	CA-CB-CG	-5.11	103.87	114.10
26	BB	86	G	O3'-P-O5'	-5.11	96.33	104.00
26	BB	202	U	C5'-C4'-C3'	-5.11	108.33	116.00
26	BB	985	C	P-O5'-C5'	5.11	128.57	120.90
26	BB	1565	C	C5'-C4'-C3'	5.11	122.87	115.20
26	BB	1955	U	C1'-O4'-C4'	-5.11	104.59	109.70
26	BB	2353	G	C4'-C3'-O3'	5.11	120.67	113.00
40	BP	108	ALA	O-C-N	5.11	126.06	121.35
49	BY	2	HIS	CB-CG-CD2	-5.11	124.55	131.20
1	AA	218	U	C1'-O4'-C4'	-5.11	104.79	109.90
26	BB	1302	A	C1'-O4'-C4'	5.11	114.81	109.70
26	BB	2692	G	C3'-C2'-C1'	5.11	106.41	101.30
44	BT	40	MET	CA-C-O	5.11	126.70	121.23
1	AA	110	C	C5'-C4'-O4'	5.11	117.47	109.80
1	AA	690	G	O4'-C1'-C2'	-5.11	102.49	107.60
1	AA	992	U	P-O3'-C3'	5.11	127.86	120.20
1	AA	1165	U	C4'-C3'-C2'	-5.11	97.49	102.60
4	AD	32	G	C1'-C2'-O2'	-5.11	100.73	108.40
4	AD	47	A	C2'-C3'-O3'	5.11	117.17	109.50
26	BB	507	A	C1'-O4'-C4'	-5.11	104.79	109.90
26	BB	589	U	C3'-C2'-C1'	5.11	106.41	101.30
26	BB	1029	A	C5'-C4'-C3'	-5.11	108.33	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1491	G	C2'-C3'-O3'	5.11	121.36	113.70
26	BB	1598	A	C5'-C4'-C3'	-5.11	108.33	116.00
26	BB	1827	U	C4'-C3'-O3'	5.11	120.67	113.00
26	BB	1934	C	O5'-C5'-C4'	5.11	119.17	111.50
26	BB	2172	U	C2'-C3'-O3'	5.11	117.17	109.50
26	BB	2485	G	C4'-C3'-C2'	-5.11	97.49	102.60
10	AJ	108	ARG	NH1-CZ-NH2	-5.11	112.66	119.30
18	AR	5	GLU	CA-C-N	5.11	127.55	120.29
18	AR	5	GLU	C-N-CA	5.11	127.55	120.29
26	BB	538	A	N9-C1'-C2'	5.11	119.66	112.00
26	BB	672	C	C5'-C4'-C3'	-5.11	108.34	116.00
26	BB	1303	G	C4'-C3'-O3'	-5.11	105.34	113.00
26	BB	1546	G	C1'-O4'-C4'	-5.11	104.79	109.90
26	BB	2261	C	O4'-C4'-C3'	5.11	109.11	104.00
26	BB	2803	G	C5'-C4'-O4'	5.11	117.46	109.80
35	BK	63	ASP	N-CA-C	-5.11	106.29	112.88
1	AA	165	G	O4'-C4'-C3'	5.11	109.11	104.00
1	AA	316	C	C4'-C3'-C2'	5.11	107.71	102.60
1	AA	476	U	N1-C1'-C2'	-5.11	104.34	112.00
1	AA	528	C	C4'-C3'-O3'	-5.11	105.34	113.00
1	AA	661	G	C5'-C4'-C3'	-5.11	108.34	116.00
1	AA	786	G	C3'-C2'-C1'	5.11	106.41	101.30
1	AA	948	C	O4'-C4'-C3'	5.11	109.11	104.00
1	AA	1099	G	C3'-C2'-O2'	5.11	118.36	110.70
1	AA	1115	U	C4'-C3'-C2'	-5.11	97.49	102.60
24	AX	57	LYS	CA-C-O	-5.11	115.14	120.55
26	BB	107	G	C3'-C2'-C1'	-5.11	96.19	101.30
26	BB	121	G	O4'-C4'-C3'	5.11	109.11	104.00
26	BB	416	U	O4'-C1'-N1	5.11	116.16	108.50
26	BB	481	G	C3'-C2'-C1'	5.11	106.61	101.50
26	BB	796	C	N1-C1'-C2'	-5.11	104.34	112.00
26	BB	1256	G	O5'-C5'-C4'	5.11	119.16	111.50
26	BB	1971	U	C5'-C4'-C3'	-5.11	108.34	116.00
29	BE	134	HIS	ND1-CE1-NE2	5.11	113.51	108.40
47	BW	27	VAL	CB-CA-C	5.11	119.55	110.71
1	AA	105	G	C5'-C4'-C3'	-5.11	108.34	116.00
1	AA	285	C	C4'-C3'-C2'	-5.11	97.50	102.60
1	AA	925	G	O3'-P-O5'	-5.11	96.34	104.00
2	AB	4	G	C3'-C2'-C1'	5.11	106.41	101.30
26	BB	1748	C	O5'-C5'-C4'	5.11	119.16	111.50
26	BB	1782	U	C5'-C4'-C3'	-5.11	108.34	116.00
26	BB	2085	U	O4'-C1'-N1	5.11	116.16	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	BD	80	LEU	CA-C-O	-5.11	114.86	120.43
33	BI	108	VAL	CG1-CB-CG2	-5.11	99.57	110.80
1	AA	127	G	O4'-C1'-N9	5.10	116.16	108.50
26	BB	1675	C	C4'-C3'-O3'	5.10	117.06	109.40
1	AA	609	A	O3'-P-O5'	-5.10	96.35	104.00
1	AA	1444	U	C5'-C4'-O4'	5.10	117.45	109.80
1	AA	1507	A	C5'-C4'-C3'	-5.10	108.35	116.00
25	BA	68	C	O4'-C4'-C3'	5.10	109.10	104.00
26	BB	260	G	O4'-C1'-C2'	5.10	112.70	107.60
26	BB	483	A	O5'-C5'-C4'	5.10	119.15	111.50
26	BB	757	G	N9-C1'-C2'	-5.10	104.35	112.00
26	BB	1829	A	C4'-C3'-O3'	-5.10	105.34	113.00
26	BB	2219	U	C5'-C4'-C3'	-5.10	108.35	116.00
43	BS	7	VAL	CA-CB-CG2	5.10	119.07	110.40
1	AA	156	C	C4'-C3'-O3'	-5.10	105.35	113.00
1	AA	349	A	O3'-P-O5'	-5.10	96.35	104.00
14	AN	95	THR	OG1-CB-CG2	-5.10	99.10	109.30
17	AQ	61	ASN	OD1-CG-ND2	5.10	127.70	122.60
26	BB	1704	C	O4'-C1'-C2'	5.10	112.70	107.60
26	BB	1766	G	O4'-C4'-C3'	5.10	109.10	104.00
26	BB	2334	U	C4'-C3'-O3'	5.10	120.65	113.00
29	BE	59	ARG	NH1-CZ-NH2	-5.10	112.67	119.30
1	AA	228	A	C4'-C3'-O3'	-5.10	105.35	113.00
1	AA	366	A	C3'-C2'-O2'	-5.10	106.95	114.60
1	AA	487	A	O4'-C4'-C3'	5.10	109.10	104.00
1	AA	1359	C	C3'-C2'-O2'	-5.10	103.05	110.70
6	AF	50	SER	CA-C-N	5.10	130.05	122.71
6	AF	50	SER	C-N-CA	5.10	130.05	122.71
6	AF	114	LEU	N-CA-C	-5.10	106.57	112.89
19	AS	18	GLN	N-CA-C	5.10	117.56	109.50
21	AU	32	ILE	CA-C-N	5.10	130.03	120.95
21	AU	32	ILE	C-N-CA	5.10	130.03	120.95
26	BB	204	A	C4'-C3'-C2'	-5.10	97.50	102.60
26	BB	267	C	C4'-C3'-C2'	-5.10	97.50	102.60
26	BB	297	G	O5'-C5'-C4'	5.10	119.15	111.50
26	BB	742	A	C4'-C3'-C2'	-5.10	97.50	102.60
26	BB	813	U	O5'-C5'-C4'	5.10	119.15	111.50
26	BB	1680	U	C4'-C3'-O3'	-5.10	105.35	113.00
26	BB	1716	U	O4'-C1'-C2'	-5.10	102.50	107.60
29	BE	132	ALA	CA-C-O	-5.10	112.74	118.55
1	AA	464	U	P-O3'-C3'	5.10	127.84	120.20
1	AA	901	A	P-O3'-C3'	5.10	127.84	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1224	U	C1'-O4'-C4'	5.10	114.80	109.70
3	AC	46	C	O4'-C4'-C3'	5.10	109.10	104.00
26	BB	928	A	C4'-C3'-C2'	-5.10	97.50	102.60
26	BB	969	G	O4'-C1'-C2'	-5.10	102.50	107.60
26	BB	1279	G	O4'-C1'-N9	5.10	116.14	108.50
26	BB	1533	C	C3'-C2'-O2'	5.10	118.35	110.70
26	BB	2806	C	O4'-C1'-N1	5.10	116.14	108.50
26	BB	2823	A	O5'-C5'-C4'	5.10	119.15	111.50
26	BB	2869	G	C5'-C4'-O4'	5.10	117.45	109.80
28	BD	21	PRO	N-CA-CB	5.10	108.58	103.48
5	AE	24	PRO	N-CA-CB	5.10	109.01	103.30
25	BA	35	C	O4'-C1'-C2'	-5.10	102.50	107.60
26	BB	163	C	O4'-C1'-C2'	-5.10	102.50	107.60
26	BB	2270	A	C2'-C3'-O3'	-5.10	106.06	113.70
1	AA	1278	G	O4'-C1'-N9	5.09	116.14	108.50
3	AC	59	A	O5'-C5'-C4'	-5.09	103.86	111.50
7	AG	125	ASN	N-CA-CB	5.09	119.82	112.13
10	AJ	159	ARG	O-C-N	5.09	128.85	122.23
26	BB	1050	A	C4'-C3'-C2'	-5.09	97.50	102.60
26	BB	1202	G	C1'-C2'-O2'	-5.09	100.76	108.40
26	BB	1365	A	C5'-C4'-C3'	-5.09	108.36	116.00
26	BB	1854	A	O4'-C4'-C3'	5.09	109.09	104.00
26	BB	2023	C	O4'-C4'-C3'	5.09	109.09	104.00
26	BB	2089	C	C5'-C4'-C3'	-5.09	108.36	116.00
39	BO	80	VAL	CA-C-O	5.09	127.15	120.78
56	B5	28	ARG	N-CA-CB	-5.09	102.38	110.22
57	B6	45	PRO	CB-CA-C	5.09	117.69	111.12
1	AA	1351	U	O4'-C1'-C2'	-5.09	102.51	107.60
1	AA	1533	C	C1'-O4'-C4'	5.09	114.99	109.90
9	AI	64	VAL	CA-C-O	-5.09	115.33	121.54
26	BB	22	C	O4'-C1'-N1	5.09	116.14	108.50
26	BB	1815	A	C1'-C2'-O2'	-5.09	104.16	111.80
26	BB	2403	C	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	2513	A	O5'-C5'-C4'	-5.09	103.86	111.50
26	BB	2525	G	C1'-C2'-O2'	5.09	116.04	108.40
47	BW	18	LYS	CA-C-O	-5.09	114.78	120.54
51	B0	7	ARG	CD-NE-CZ	5.09	131.53	124.40
1	AA	128	G	O4'-C1'-N9	5.09	116.14	108.50
1	AA	225	C	N1-C1'-C2'	-5.09	104.36	112.00
5	AE	133	ALA	N-CA-CB	5.09	117.78	110.20
6	AF	59	PRO	N-CA-C	5.09	118.61	111.33
8	AH	60	GLN	CA-C-O	-5.09	115.15	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AM	15	HIS	CG-ND1-CE1	-5.09	100.65	109.30
13	AM	21	ALA	O-C-N	5.09	127.95	122.15
16	AP	65	GLU	O-C-N	5.09	127.52	122.12
26	BB	614	A	C5'-C4'-C3'	-5.09	107.56	115.20
26	BB	826	U	O3'-P-O5'	-5.09	96.36	104.00
26	BB	1249	U	O4'-C1'-N1	5.09	116.14	108.50
26	BB	1377	G	C3'-C2'-C1'	-5.09	96.21	101.30
26	BB	2002	G	C4'-C3'-O3'	5.09	120.64	113.00
28	BD	49	THR	O-C-N	5.09	128.70	121.83
58	B7	23	ILE	N-CA-C	5.09	116.07	108.54
1	AA	882	C	C3'-C2'-C1'	5.09	106.39	101.30
1	AA	1023	U	C3'-C2'-C1'	5.09	106.39	101.30
1	AA	1158	C	C1'-O4'-C4'	-5.09	104.81	109.90
1	AA	1280	A	C4'-C3'-O3'	5.09	117.03	109.40
4	AD	17	C	C1'-O4'-C4'	5.09	114.99	109.90
26	BB	73	A	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	1288	G	O4'-C1'-N9	5.09	115.83	108.20
26	BB	2146	C	O5'-C5'-C4'	-5.09	104.06	111.70
26	BB	2298	A	O3'-P-O5'	-5.09	96.36	104.00
26	BB	2377	A	C1'-C2'-O2'	-5.09	100.77	108.40
26	BB	2492	U	C3'-C2'-O2'	-5.09	106.97	114.60
43	BS	44	TYR	O-C-N	5.09	127.31	122.07
1	AA	1	A	C5'-C4'-O4'	5.09	117.43	109.80
1	AA	682	G	C1'-C2'-O2'	5.09	116.03	108.40
26	BB	43	G	C4'-C3'-O3'	5.09	120.63	113.00
26	BB	1756	G	O3'-P-O5'	-5.09	96.37	104.00
26	BB	1831	G	P-O5'-C5'	5.09	128.53	120.90
26	BB	2802	G	C5'-C4'-O4'	5.09	117.43	109.80
26	BB	2823	A	C5'-C4'-O4'	5.09	117.43	109.80
42	BR	33	GLU	CA-C-O	5.09	127.33	121.28
53	B2	57	VAL	CA-C-N	5.09	128.93	120.94
53	B2	57	VAL	C-N-CA	5.09	128.93	120.94
1	AA	347	G	C3'-C2'-C1'	5.09	106.39	101.30
1	AA	1301	U	C5'-C4'-O4'	5.09	116.73	109.10
26	BB	432	A	C5'-C4'-O4'	5.09	117.43	109.80
26	BB	597	G	O3'-P-O5'	-5.09	96.37	104.00
26	BB	863	A	O4'-C4'-C3'	5.09	109.09	104.00
26	BB	921	C	N1-C1'-C2'	-5.09	104.37	112.00
26	BB	1328	A	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	2018	G	C1'-C2'-O2'	5.09	116.03	108.40
26	BB	2841	C	C1'-C2'-O2'	-5.09	100.77	108.40
33	BI	90	LEU	N-CA-C	5.09	117.85	110.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	739	C	C4'-C3'-C2'	-5.08	97.52	102.60
5	AE	38	HIS	CB-CG-CD2	-5.08	124.59	131.20
26	BB	180	G	C4'-C3'-C2'	5.08	107.69	102.60
26	BB	2650	U	C3'-C2'-C1'	5.08	106.39	101.30
1	AA	1458	G	C4'-C3'-C2'	-5.08	97.52	102.60
1	AA	1500	A	O4'-C4'-C3'	5.08	109.08	104.00
10	AJ	132	THR	N-CA-C	-5.08	106.59	112.89
25	BA	89	U	O4'-C1'-C2'	-5.08	102.52	107.60
26	BB	2059	A	P-O5'-C5'	5.08	128.52	120.90
27	BC	15	VAL	CA-CB-CG1	5.08	119.04	110.40
1	AA	243	A	C4'-C3'-O3'	5.08	117.02	109.40
1	AA	1083	U	O4'-C4'-C3'	5.08	109.08	104.00
1	AA	1222	G	C4'-C3'-C2'	5.08	107.68	102.60
1	AA	1482	G	C1'-O4'-C4'	5.08	114.98	109.90
4	AD	36	A	C4'-C3'-O3'	-5.08	105.38	113.00
13	AM	24	GLU	CA-C-N	5.08	127.64	120.42
13	AM	24	GLU	C-N-CA	5.08	127.64	120.42
23	AW	71	ALA	CA-C-N	5.08	129.27	121.19
23	AW	71	ALA	C-N-CA	5.08	129.27	121.19
26	BB	644	A	C3'-C2'-O2'	5.08	118.32	110.70
26	BB	1201	U	O4'-C1'-N1	5.08	116.12	108.50
26	BB	2019	A	O3'-P-O5'	5.08	111.62	104.00
26	BB	2126	A	C1'-O4'-C4'	-5.08	104.82	109.90
26	BB	2486	C	C5'-C4'-O4'	5.08	117.42	109.80
33	BI	29	PHE	N-CA-CB	-5.08	101.90	110.49
39	BO	108	VAL	N-CA-C	5.08	113.93	108.95
1	AA	791	G	O4'-C1'-C2'	-5.08	102.52	107.60
1	AA	964	A	C5'-C4'-O4'	5.08	117.42	109.80
1	AA	1022	A	C1'-O4'-C4'	-5.08	104.82	109.90
25	BA	44	G	C4'-C3'-C2'	5.08	107.68	102.60
26	BB	99	U	C4'-C3'-C2'	-5.08	97.52	102.60
26	BB	1653	G	C1'-C2'-O2'	5.08	119.42	111.80
26	BB	2077	A	P-O5'-C5'	5.08	128.52	120.90
26	BB	2354	C	P-O3'-C3'	5.08	127.82	120.20
26	BB	2861	U	C2'-C3'-O3'	5.08	121.32	113.70
45	BU	46	LEU	CB-CA-C	5.08	118.86	110.88
16	AP	78	ARG	CA-C-N	5.08	127.35	120.44
16	AP	78	ARG	C-N-CA	5.08	127.35	120.44
22	AV	35	ARG	CA-C-N	5.08	133.40	121.52
22	AV	35	ARG	C-N-CA	5.08	133.40	121.52
25	BA	30	C	C4'-C3'-C2'	-5.08	97.52	102.60
26	BB	1034	G	N9-C1'-C2'	-5.08	104.38	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2431	U	P-O3'-C3'	5.08	127.82	120.20
56	B5	37	LYS	N-CA-C	-5.08	105.83	111.36
4	AD	53	G	C4'-C3'-C2'	-5.08	97.52	102.60
26	BB	30	G	O4'-C1'-C2'	5.08	112.68	107.60
26	BB	180	G	C4'-C3'-O3'	-5.08	105.38	113.00
26	BB	490	C	O5'-C5'-C4'	5.08	119.11	111.50
56	B5	33	ARG	NE-CZ-NH2	5.08	123.77	119.20
1	AA	231	U	O4'-C4'-C3'	5.08	109.08	104.00
1	AA	238	A	O3'-P-O5'	5.08	111.61	104.00
1	AA	1006	G	O4'-C1'-C2'	-5.08	102.53	107.60
10	AJ	178	ASN	OD1-CG-ND2	-5.08	117.53	122.60
26	BB	883	G	C4'-C3'-C2'	-5.08	97.53	102.60
26	BB	2368	C	O4'-C4'-C3'	5.08	109.08	104.00
26	BB	2520	C	C1'-C2'-O2'	5.08	116.01	108.40
26	BB	2743	U	C4'-C3'-C2'	-5.08	97.52	102.60
26	BB	2832	U	P-O5'-C5'	5.08	128.51	120.90
29	BE	80	TRP	CG-CD2-CE3	5.08	138.97	133.90
34	BJ	10	ILE	O-C-N	-5.08	117.03	122.06
37	BM	37	ASP	CA-C-O	-5.08	115.73	121.72
1	AA	491	G	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	933	G	C3'-C2'-C1'	5.07	106.37	101.30
4	AD	22	A	C2'-C3'-O3'	5.07	117.11	109.50
7	AG	25	ARG	NH1-CZ-NH2	5.07	125.90	119.30
11	AK	7	ALA	O-C-N	5.07	127.50	122.12
20	AT	30	HIS	CE1-NE2-CD2	-5.07	103.93	109.00
26	BB	23	G	O4'-C1'-C2'	-5.07	102.53	107.60
26	BB	219	A	C4'-C3'-O3'	5.07	120.61	113.00
26	BB	2551	C	C3'-C2'-C1'	5.07	106.37	101.30
4	AD	39	A	C1'-O4'-C4'	-5.07	104.83	109.90
10	AJ	88	VAL	CA-CB-CG1	5.07	119.02	110.40
25	BA	44	G	O5'-C5'-C4'	5.07	119.31	111.70
44	BT	41	ILE	N-CA-CB	-5.07	104.35	111.25
1	AA	806	C	C1'-O4'-C4'	-5.07	104.83	109.90
1	AA	1265	C	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	1391	U	C4'-C3'-C2'	-5.07	97.53	102.60
10	AJ	26	VAL	CA-C-N	5.07	127.34	120.44
10	AJ	26	VAL	C-N-CA	5.07	127.34	120.44
15	AO	14	LYS	CA-C-N	5.07	128.78	121.18
15	AO	14	LYS	C-N-CA	5.07	128.78	121.18
19	AS	44	SER	CB-CA-C	5.07	119.98	109.38
26	BB	376	G	C1'-C2'-O2'	-5.07	100.80	108.40
26	BB	498	G	O4'-C1'-N9	5.07	116.11	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	757	G	O5'-C5'-C4'	5.07	119.11	111.50
26	BB	1491	G	C4'-C3'-O3'	-5.07	105.40	113.00
26	BB	1574	C	P-O3'-C3'	5.07	127.81	120.20
26	BB	2062	A	C3'-C2'-C1'	5.07	106.57	101.50
26	BB	2104	C	C4'-C3'-C2'	-5.07	97.53	102.60
26	BB	2312	U	C4'-C3'-C2'	-5.07	97.53	102.60
35	BK	39	LYS	CA-CB-CG	5.07	124.24	114.10
40	BP	60	VAL	CA-CB-CG2	5.07	119.02	110.40
46	BV	6	ARG	CA-C-O	-5.07	112.46	119.05
1	AA	338	A	C5'-C4'-O4'	5.07	117.40	109.80
12	AL	47	VAL	N-CA-C	5.07	117.43	111.09
26	BB	1592	C	O5'-C5'-C4'	-5.07	103.90	111.50
30	BF	34	ALA	N-CA-C	5.07	118.62	112.23
36	BL	129	GLU	N-CA-CB	-5.07	101.75	111.53
1	AA	533	A	O4'-C1'-C2'	-5.07	100.73	105.80
1	AA	697	U	N1-C1'-C2'	-5.07	104.40	112.00
22	AV	52	ASN	CA-CB-CG	5.07	117.67	112.60
26	BB	1093	G	C2'-C3'-O3'	-5.07	106.10	113.70
26	BB	1583	A	C3'-C2'-C1'	5.07	106.57	101.50
26	BB	1942	C	C1'-C2'-O2'	-5.07	100.80	108.40
26	BB	2700	A	O4'-C1'-C2'	-5.07	102.53	107.60
27	BC	150	ALA	N-CA-CB	-5.07	102.43	110.28
34	BJ	56	ASN	CA-C-N	5.07	128.01	120.31
34	BJ	56	ASN	C-N-CA	5.07	128.01	120.31
36	BL	116	ARG	CA-C-N	5.07	128.01	120.31
36	BL	116	ARG	C-N-CA	5.07	128.01	120.31
1	AA	257	G	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	517	G	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	1109	C	O3'-P-O5'	5.07	111.60	104.00
4	AD	34	U	C3'-C2'-O2'	5.07	118.30	110.70
7	AG	9	LYS	N-CA-C	5.07	117.46	111.33
15	AO	51	VAL	CA-CB-CG2	5.07	119.01	110.40
20	AT	18	LYS	CA-C-N	5.07	130.91	122.20
20	AT	18	LYS	C-N-CA	5.07	130.91	122.20
26	BB	66	C	C4'-C3'-C2'	-5.07	97.53	102.60
26	BB	511	U	C4'-C3'-C2'	-5.07	97.53	102.60
26	BB	599	A	O4'-C1'-C2'	5.07	112.67	107.60
33	BI	133	GLN	CA-C-N	5.07	128.47	120.47
33	BI	133	GLN	C-N-CA	5.07	128.47	120.47
39	BO	76	LYS	O-C-N	5.07	124.79	121.14
43	BS	5	ARG	CB-CA-C	5.07	119.52	111.51
1	AA	125	U	O5'-C5'-C4'	-5.06	103.91	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AE	59	ILE	CA-C-N	5.06	127.32	120.38
5	AE	59	ILE	C-N-CA	5.06	127.32	120.38
26	BB	1006	C	C5'-C4'-O4'	5.06	117.40	109.80
26	BB	1764	C	O3'-P-O5'	-5.06	96.41	104.00
26	BB	2016	U	C2'-C3'-O3'	-5.06	106.10	113.70
37	BM	91	SER	CA-C-N	5.06	131.21	121.54
37	BM	91	SER	C-N-CA	5.06	131.21	121.54
1	AA	575	G	C5'-C4'-O4'	5.06	116.69	109.10
1	AA	582	C	O4'-C1'-N1	5.06	116.09	108.50
1	AA	850	U	C1'-O4'-C4'	-5.06	104.84	109.90
8	AH	64	GLU	N-CA-CB	-5.06	102.68	110.12
26	BB	56	A	O4'-C1'-C2'	5.06	112.66	107.60
26	BB	576	U	O4'-C1'-N1	5.06	116.09	108.50
26	BB	711	G	O4'-C1'-C2'	-5.06	102.54	107.60
26	BB	1552	A	P-O5'-C5'	5.06	128.49	120.90
26	BB	1648	U	C5'-C4'-C3'	-5.06	108.41	116.00
29	BE	63	PRO	CA-C-O	-5.06	111.85	119.55
26	BB	1092	C	O4'-C4'-C3'	5.06	109.06	104.00
26	BB	2704	C	C1'-O4'-C4'	-5.06	104.84	109.90
49	BY	83	ALA	CA-C-N	5.06	130.81	121.70
49	BY	83	ALA	C-N-CA	5.06	130.81	121.70
9	AI	122	ASP	CA-C-O	-5.06	114.53	120.20
10	AJ	74	VAL	CA-CB-CG1	5.06	119.00	110.40
10	AJ	152	HIS	CE1-NE2-CD2	-5.06	103.94	109.00
18	AR	16	ARG	NE-CZ-NH1	5.06	126.56	121.50
22	AV	2	ARG	CD-NE-CZ	5.06	131.49	124.40
26	BB	103	A	C2'-C3'-O3'	-5.06	106.11	113.70
26	BB	214	G	C5'-C4'-O4'	5.06	117.39	109.80
26	BB	900	A	C2'-C3'-O3'	5.06	121.29	113.70
26	BB	1200	C	O4'-C1'-N1	5.06	116.09	108.50
26	BB	1615	C	O4'-C1'-C2'	-5.06	100.74	105.80
26	BB	1662	U	N1-C1'-C2'	-5.06	104.41	112.00
26	BB	1679	A	O5'-C5'-C4'	-5.06	103.91	111.50
26	BB	2474	U	O4'-C1'-N1	5.06	116.09	108.50
27	BC	223	ALA	CB-CA-C	5.06	118.77	109.46
54	B3	52	LYS	CB-CA-C	5.06	120.49	110.42
6	AF	11	LEU	N-CA-CB	-5.06	103.14	110.47
9	AI	5	GLU	CA-C-O	-5.06	115.74	121.66
10	AJ	120	ALA	N-CA-C	5.06	117.53	111.71
26	BB	257	C	O4'-C1'-N1	5.06	116.09	108.50
26	BB	999	U	C4'-C3'-C2'	-5.06	97.54	102.60
26	BB	1772	A	N9-C1'-C2'	-5.06	104.42	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2627	G	C1'-O4'-C4'	-5.06	104.84	109.90
28	BD	231	HIS	CB-CG-CD2	-5.06	124.62	131.20
28	BD	252	LYS	N-CA-C	-5.06	107.39	113.21
35	BK	58	ILE	CB-CG1-CD1	5.06	124.42	113.80
52	B1	15	ARG	NE-CZ-NH2	5.06	123.75	119.20
10	AJ	87	PRO	O-C-N	5.06	129.28	123.01
26	BB	704	G	C5'-C4'-C3'	-5.06	108.42	116.00
1	AA	146	G	C4'-C3'-C2'	-5.05	97.55	102.60
1	AA	1083	U	O4'-C1'-C2'	-5.05	102.55	107.60
1	AA	1241	G	C3'-C2'-C1'	5.05	106.35	101.30
22	AV	39	ILE	O-C-N	-5.05	115.85	122.47
26	BB	574	A	C4'-C3'-O3'	5.05	116.98	109.40
26	BB	1351	C	C4'-C3'-O3'	5.05	120.58	113.00
26	BB	1441	G	O3'-P-O5'	-5.05	96.42	104.00
26	BB	1463	C	O4'-C1'-N1	5.05	116.08	108.50
26	BB	1594	U	N1-C1'-C2'	-5.05	104.42	112.00
26	BB	2164	C	N1-C1'-C2'	-5.05	106.42	114.00
26	BB	2529	G	C3'-C2'-C1'	5.05	106.36	101.30
36	BL	58	ASN	N-CA-C	-5.05	105.68	111.14
36	BL	113	PRO	N-CD-CG	5.05	110.78	103.20
41	BQ	43	ASN	OD1-CG-ND2	-5.05	117.55	122.60
44	BT	66	HIS	CB-CG-CD2	-5.05	124.63	131.20
1	AA	355	C	N1-C1'-C2'	-5.05	104.42	112.00
1	AA	466	A	O5'-C5'-C4'	5.05	119.08	111.50
1	AA	665	A	C5'-C4'-C3'	5.05	123.58	116.00
1	AA	1341	U	O4'-C4'-C3'	5.05	109.05	104.00
9	AI	109	ARG	NE-CZ-NH2	-5.05	114.65	119.20
26	BB	2702	G	C3'-C2'-C1'	5.05	106.35	101.30
29	BE	72	GLY	CA-C-N	5.05	127.85	120.98
29	BE	72	GLY	C-N-CA	5.05	127.85	120.98
25	BA	33	G	C3'-C2'-O2'	5.05	118.28	110.70
26	BB	2491	U	O4'-C1'-N1	5.05	115.78	108.20
26	BB	2714	G	C1'-O4'-C4'	5.05	114.95	109.90
31	BG	163	GLU	CB-CG-CD	5.05	121.19	112.60
43	BS	104	ALA	CA-C-O	-5.05	115.33	120.89
1	AA	121	U	O4'-C1'-N1	5.05	116.07	108.50
1	AA	664	G	C3'-C2'-C1'	-5.05	96.25	101.30
1	AA	780	A	P-O5'-C5'	5.05	128.47	120.90
1	AA	1017	U	O5'-C5'-C4'	5.05	119.07	111.50
4	AD	36	A	C4'-C3'-C2'	5.05	107.65	102.60
26	BB	1490	A	C3'-C2'-O2'	5.05	118.27	110.70
26	BB	1745	A	C4'-C3'-C2'	-5.05	97.55	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BQ	98	GLN	CB-CA-C	5.05	117.97	109.89
44	BT	37	GLU	N-CA-C	-5.05	105.85	112.72
45	BU	7	HIS	ND1-CE1-NE2	5.05	113.45	108.40
1	AA	512	U	O5'-C5'-C4'	-5.05	103.93	111.50
26	BB	1662	U	O4'-C1'-C2'	-5.05	102.55	107.60
26	BB	2067	G	N9-C1'-C2'	-5.05	106.43	114.00
34	BJ	116	LEU	CA-C-N	5.05	130.40	123.28
34	BJ	116	LEU	C-N-CA	5.05	130.40	123.28
1	AA	1081	A	O4'-C1'-C2'	5.05	112.65	107.60
1	AA	1250	A	O4'-C1'-N9	5.05	116.07	108.50
1	AA	1306	A	C3'-C2'-O2'	5.05	118.27	110.70
10	AJ	48	THR	O-C-N	5.05	127.90	122.15
26	BB	127	A	P-O5'-C5'	5.05	128.47	120.90
26	BB	551	G	C5'-C4'-C3'	-5.05	108.43	116.00
26	BB	716	A	O4'-C1'-C2'	-5.05	100.75	105.80
26	BB	1440	U	C3'-C2'-C1'	-5.05	96.25	101.30
26	BB	1525	A	O4'-C1'-N9	5.05	116.07	108.50
26	BB	1866	A	C4'-C3'-O3'	5.05	120.57	113.00
26	BB	2355	G	C5'-C4'-O4'	5.05	117.37	109.80
26	BB	2780	G	O4'-C1'-C2'	-5.05	100.75	105.80
1	AA	997	U	O4'-C1'-N1	5.04	116.07	108.50
1	AA	1201	A	C5'-C4'-C3'	-5.04	107.63	115.20
26	BB	725	G	C1'-C2'-O2'	5.04	115.97	108.40
26	BB	890	C	N1-C1'-C2'	5.04	119.57	112.00
26	BB	2603	G	C3'-C2'-C1'	-5.04	96.25	101.30
30	BF	101	TYR	CA-CB-CG	5.04	122.98	113.90
7	AG	158	LEU	CA-C-O	-5.04	115.20	120.55
7	AG	190	LEU	CA-C-N	5.04	128.37	120.75
7	AG	190	LEU	C-N-CA	5.04	128.37	120.75
26	BB	48	G	C3'-C2'-O2'	5.04	118.27	110.70
26	BB	1285	A	O5'-C5'-C4'	5.04	119.07	111.50
26	BB	2304	G	C1'-O4'-C4'	-5.04	104.86	109.90
1	AA	485	U	P-O3'-C3'	5.04	127.76	120.20
1	AA	594	U	O5'-C5'-C4'	-5.04	103.94	111.50
1	AA	859	G	C5'-C4'-C3'	-5.04	108.44	116.00
1	AA	941	G	C4'-C3'-C2'	-5.04	97.56	102.60
4	AD	77	A	O4'-C1'-N9	5.04	115.76	108.20
19	AS	23	ASP	CA-C-N	5.04	131.16	121.18
19	AS	23	ASP	C-N-CA	5.04	131.16	121.18
25	BA	66	A	N9-C1'-C2'	5.04	119.56	112.00
26	BB	645	C	P-O5'-C5'	5.04	128.46	120.90
26	BB	691	C	O5'-C5'-C4'	-5.04	103.94	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	710	U	O3'-P-O5'	-5.04	96.44	104.00
26	BB	1935	G	C3'-C2'-C1'	-5.04	96.26	101.30
37	BM	77	ILE	CB-CA-C	5.04	116.73	110.73
1	AA	455	G	O5'-C5'-C4'	5.04	119.06	111.50
14	AN	127	ARG	CA-CB-CG	5.04	124.18	114.10
26	BB	593	U	C2'-C3'-O3'	-5.04	106.14	113.70
7	AG	182	LYS	N-CA-CB	-5.04	103.02	110.53
26	BB	220	G	C1'-O4'-C4'	-5.04	104.86	109.90
26	BB	1744	A	O4'-C1'-N9	5.04	116.06	108.50
1	AA	1465	A	P-O3'-C3'	5.04	127.75	120.20
3	AC	29	G	O4'-C4'-C3'	-5.04	98.96	104.00
4	AD	12	G	C1'-C2'-O2'	-5.04	100.84	108.40
8	AH	158	LYS	CA-C-N	5.04	127.28	120.38
8	AH	158	LYS	C-N-CA	5.04	127.28	120.38
26	BB	2131	U	O3'-P-O5'	-5.04	96.44	104.00
34	BJ	87	HIS	CB-CG-CD2	-5.04	124.65	131.20
1	AA	574	A	C2'-C3'-O3'	-5.04	106.14	113.70
1	AA	1278	G	O4'-C1'-C2'	-5.04	102.56	107.60
1	AA	1475	G	P-O3'-C3'	5.04	127.75	120.20
1	AA	1531	A	C4'-C3'-C2'	-5.04	97.56	102.60
7	AG	197	HIS	CG-CD2-NE2	-5.04	102.17	107.20
11	AK	23	ALA	N-CA-CB	-5.04	102.21	111.37
13	AM	48	ARG	CD-NE-CZ	5.04	131.45	124.40
26	BB	1677	A	O5'-C5'-C4'	-5.04	103.95	111.50
26	BB	2232	C	O3'-P-O5'	-5.04	96.45	104.00
28	BD	14	HIS	CG-ND1-CE1	-5.04	100.74	109.30
28	BD	211	ARG	NH1-CZ-NH2	-5.04	112.75	119.30
45	BU	29	VAL	N-CA-C	5.04	115.76	110.62
45	BU	109	ASP	CA-C-O	-5.04	116.03	121.87
48	BX	93	ARG	O-C-N	-5.04	116.71	122.95
50	BZ	17	ARG	NE-CZ-NH2	5.04	123.73	119.20
53	B2	57	VAL	CA-CB-CG1	5.04	118.96	110.40
1	AA	1313	U	C3'-C2'-O2'	5.03	118.25	110.70
17	AQ	42	ASN	N-CA-C	5.03	117.42	111.33
17	AQ	69	PRO	CA-C-N	5.03	131.16	121.54
17	AQ	69	PRO	C-N-CA	5.03	131.16	121.54
26	BB	1632	A	C3'-C2'-C1'	5.03	106.33	101.30
43	BS	39	ILE	CA-C-O	5.03	126.19	120.85
1	AA	1490	U	C2'-C3'-O3'	-5.03	106.15	113.70
20	AT	35	LYS	N-CA-C	5.03	118.32	110.32
26	BB	208	C	O4'-C1'-C2'	-5.03	102.57	107.60
26	BB	914	G	O4'-C4'-C3'	5.03	109.03	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2060	A	O5'-C5'-C4'	5.03	119.05	111.50
1	AA	106	C	C3'-C2'-O2'	5.03	118.25	110.70
1	AA	207	C	O4'-C1'-C2'	-5.03	102.57	107.60
1	AA	782	A	O4'-C4'-C3'	5.03	109.03	104.00
9	AI	69	GLU	N-CA-C	5.03	117.15	111.11
11	AK	30	LYS	CA-C-N	5.03	127.28	120.44
11	AK	30	LYS	C-N-CA	5.03	127.28	120.44
26	BB	291	G	C3'-C2'-O2'	5.03	118.25	110.70
26	BB	1100	C	P-O3'-C3'	5.03	127.75	120.20
26	BB	1719	G	O4'-C1'-N9	5.03	116.05	108.50
26	BB	2087	G	C4'-C3'-O3'	-5.03	105.45	113.00
26	BB	2330	G	C3'-C2'-C1'	-5.03	96.27	101.30
26	BB	2692	G	C5'-C4'-O4'	5.03	117.34	109.80
33	BI	90	LEU	O-C-N	5.03	128.77	122.43
35	BK	90	GLY	N-CA-C	-5.03	103.74	111.24
35	BK	133	ARG	NE-CZ-NH2	-5.03	114.67	119.20
42	BR	93	LYS	N-CA-CB	-5.03	102.91	111.31
1	AA	642	A	C4'-C3'-C2'	-5.03	97.57	102.60
1	AA	793	U	C3'-C2'-C1'	-5.03	96.27	101.30
1	AA	1031	C	P-O3'-C3'	5.03	127.74	120.20
10	AJ	97	ALA	N-CA-C	5.03	116.84	111.36
16	AP	34	ALA	CA-C-O	-5.03	115.20	120.63
26	BB	704	G	O4'-C4'-C3'	5.03	109.03	104.00
26	BB	1460	U	C4'-C3'-O3'	5.03	120.54	113.00
26	BB	1475	G	C1'-O4'-C4'	5.03	114.73	109.70
26	BB	1548	A	C4'-C3'-C2'	-5.03	97.57	102.60
26	BB	1941	C	O4'-C1'-N1	5.03	116.04	108.50
28	BD	212	TRP	CB-CA-C	5.03	120.33	110.67
32	BH	62	ALA	CA-C-N	5.03	130.96	122.26
32	BH	62	ALA	C-N-CA	5.03	130.96	122.26
38	BN	123	ARG	O-C-N	5.03	128.13	123.50
1	AA	443	C	O3'-P-O5'	-5.03	96.46	104.00
1	AA	685	G	O4'-C4'-C3'	5.03	109.03	104.00
1	AA	716	A	O4'-C4'-C3'	5.03	109.03	104.00
1	AA	1211	U	C1'-O4'-C4'	-5.03	104.67	109.70
1	AA	1530	G	C1'-O4'-C4'	-5.03	104.87	109.90
25	BA	86	G	C4'-C3'-C2'	-5.03	97.57	102.60
26	BB	1072	C	C4'-C3'-C2'	5.03	107.63	102.60
26	BB	1609	A	C4'-C3'-C2'	-5.03	97.57	102.60
26	BB	2258	C	O5'-C5'-C4'	5.03	119.24	111.70
28	BD	105	ALA	N-CA-CB	5.03	117.96	110.02
36	BL	127	GLY	O-C-N	5.03	128.02	122.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	BN	60	ARG	NE-CZ-NH2	-5.03	114.67	119.20
38	BN	128	THR	N-CA-CB	5.03	118.09	110.45
39	BO	50	ARG	O-C-N	5.03	127.45	122.12
55	B4	39	ASP	O-C-N	5.03	127.52	121.29
1	AA	10	A	O4'-C4'-C3'	5.03	109.03	104.00
1	AA	83	C	C4'-C3'-C2'	-5.03	97.57	102.60
1	AA	459	A	C4'-C3'-O3'	5.03	120.54	113.00
1	AA	560	A	C3'-C2'-C1'	5.03	106.33	101.30
1	AA	720	C	C4'-C3'-O3'	5.03	120.54	113.00
1	AA	1221	G	C3'-C2'-C1'	5.03	106.33	101.30
23	AW	39	GLU	CA-C-O	-5.03	114.19	119.97
26	BB	1821	A	C3'-C2'-C1'	-5.03	96.27	101.30
28	BD	52	HIS	CB-CG-CD2	-5.03	124.67	131.20
36	BL	33	ALA	N-CA-C	5.03	117.41	111.33
26	BB	733	G	P-O3'-C3'	5.02	127.74	120.20
26	BB	1029	A	C3'-C2'-C1'	5.02	106.32	101.30
26	BB	1787	A	O3'-P-O5'	-5.02	96.46	104.00
26	BB	2188	U	C3'-C2'-C1'	5.02	106.32	101.30
54	B3	19	ASP	O-C-N	5.02	127.02	121.85
1	AA	113	G	C3'-C2'-C1'	5.02	106.32	101.30
1	AA	533	A	C4'-C3'-C2'	-5.02	97.58	102.60
1	AA	913	A	C4'-C3'-C2'	-5.02	97.58	102.60
1	AA	1162	C	P-O5'-C5'	5.02	128.43	120.90
2	AB	31	U	O4'-C1'-C2'	5.02	112.62	107.60
23	AW	57	VAL	CA-C-N	5.02	127.95	120.31
23	AW	57	VAL	C-N-CA	5.02	127.95	120.31
26	BB	98	G	N9-C1'-C2'	5.02	119.53	112.00
26	BB	199	A	C3'-C2'-C1'	-5.02	96.48	101.50
26	BB	436	C	O4'-C1'-C2'	-5.02	102.58	107.60
26	BB	816	C	N1-C1'-C2'	-5.02	104.47	112.00
26	BB	985	C	O4'-C1'-N1	5.02	116.03	108.50
26	BB	2004	G	O4'-C1'-C2'	-5.02	102.58	107.60
26	BB	2813	A	C5'-C4'-O4'	5.02	117.33	109.80
35	BK	65	SER	CB-CA-C	-5.02	101.38	109.72
1	AA	308	C	C5'-C4'-C3'	5.02	123.53	116.00
1	AA	1435	G	O4'-C4'-C3'	5.02	109.02	104.00
26	BB	2826	A	C5'-C4'-C3'	-5.02	108.47	116.00
31	BG	130	GLY	O-C-N	5.02	129.23	122.70
1	AA	570	G	P-O3'-C3'	5.02	127.73	120.20
1	AA	744	C	O4'-C1'-N1	5.02	116.03	108.50
1	AA	1050	G	O5'-C5'-C4'	5.02	119.03	111.50
1	AA	1442	G	C3'-C2'-O2'	5.02	118.23	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	63	C	O4'-C1'-N1	5.02	116.03	108.50
22	AV	13	HIS	CB-CG-CD2	-5.02	124.67	131.20
26	BB	691	C	O4'-C1'-C2'	-5.02	102.58	107.60
26	BB	1165	A	P-O5'-C5'	5.02	128.43	120.90
26	BB	1726	C	C5'-C4'-C3'	-5.02	108.47	116.00
26	BB	1786	A	O3'-P-O5'	-5.02	96.47	104.00
26	BB	1927	A	O4'-C1'-N9	5.02	116.03	108.50
36	BL	33	ALA	O-C-N	5.02	127.44	122.12
1	AA	343	U	O4'-C1'-N1	5.02	116.03	108.50
1	AA	468	A	C2'-C3'-O3'	-5.02	106.17	113.70
1	AA	890	G	P-O3'-C3'	5.02	127.72	120.20
1	AA	1282	C	O4'-C1'-N1	5.02	116.03	108.50
1	AA	1366	C	O4'-C1'-C2'	-5.02	102.58	107.60
1	AA	1490	U	C4'-C3'-O3'	5.02	120.53	113.00
23	AW	48	LYS	O-C-N	5.02	127.44	122.12
26	BB	863	A	C3'-C2'-C1'	5.02	106.32	101.30
26	BB	1061	U	O4'-C1'-N1	5.02	115.73	108.20
26	BB	1453	A	P-O3'-C3'	5.02	127.73	120.20
28	BD	107	LYS	N-CA-CB	-5.02	102.53	110.06
43	BS	37	ALA	CA-C-N	5.02	127.55	120.42
43	BS	37	ALA	C-N-CA	5.02	127.55	120.42
43	BS	50	ARG	CA-C-N	5.02	127.94	120.31
43	BS	50	ARG	C-N-CA	5.02	127.94	120.31
48	BX	15	GLY	CA-C-N	5.02	127.31	120.54
48	BX	15	GLY	C-N-CA	5.02	127.31	120.54
1	AA	572	A	O3'-P-O5'	-5.02	96.48	104.00
1	AA	1319	A	C5'-C4'-O4'	5.02	116.62	109.10
1	AA	1432	G	O4'-C1'-C2'	-5.02	100.78	105.80
25	BA	116	G	C3'-C2'-C1'	-5.02	96.28	101.30
26	BB	405	U	C1'-O4'-C4'	-5.02	104.88	109.90
26	BB	1715	G	N9-C1'-C2'	5.02	121.52	114.00
1	AA	32	A	O3'-P-O5'	5.01	111.52	104.00
1	AA	88	U	O4'-C1'-N1	5.01	116.02	108.50
1	AA	305	G	P-O5'-C5'	5.01	128.42	120.90
1	AA	771	G	C5'-C4'-C3'	-5.01	108.48	116.00
1	AA	897	C	C4'-C3'-C2'	-5.01	97.59	102.60
1	AA	1231	G	O4'-C1'-C2'	5.01	112.61	107.60
8	AH	29	ILE	CA-C-N	5.01	129.41	121.44
8	AH	29	ILE	C-N-CA	5.01	129.41	121.44
19	AS	70	ARG	CA-C-O	-5.01	115.11	120.42
26	BB	282	A	O4'-C4'-C3'	5.01	109.02	104.00
26	BB	676	A	C5'-C4'-O4'	-5.01	102.28	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	825	A	C4'-C3'-O3'	-5.01	105.48	113.00
26	BB	963	U	O5'-C5'-C4'	5.01	119.02	111.50
26	BB	989	G	O4'-C1'-N9	5.01	115.72	108.20
26	BB	1960	A	O3'-P-O5'	-5.01	96.48	104.00
26	BB	2648	G	C1'-O4'-C4'	5.01	114.92	109.90
27	BC	170	ILE	CB-CA-C	5.01	117.67	111.15
28	BD	101	ARG	CA-C-O	-5.01	115.75	121.82
37	BM	23	LYS	N-CA-CB	-5.01	103.79	111.56
39	BO	72	PRO	CA-C-N	5.01	129.96	122.99
39	BO	72	PRO	C-N-CA	5.01	129.96	122.99
1	AA	773	G	C1'-C2'-O2'	-5.01	100.88	108.40
26	BB	340	A	C4'-C3'-C2'	-5.01	97.59	102.60
26	BB	972	A	C3'-C2'-C1'	5.01	106.31	101.30
26	BB	1342	A	C1'-O4'-C4'	5.01	114.71	109.70
1	AA	864	A	C5'-C4'-C3'	-5.01	108.48	116.00
1	AA	1269	A	N9-C1'-C2'	-5.01	104.48	112.00
2	AB	47	U	C5'-C4'-C3'	-5.01	107.68	115.20
2	AB	52	A	C5'-C4'-O4'	5.01	117.32	109.80
26	BB	686	U	C1'-O4'-C4'	5.01	114.71	109.70
26	BB	1015	U	C4'-C3'-C2'	-5.01	97.59	102.60
26	BB	1349	C	O4'-C1'-N1	5.01	116.02	108.50
26	BB	1441	G	O4'-C1'-N9	5.01	116.02	108.50
26	BB	2259	U	C3'-C2'-O2'	5.01	118.22	110.70
26	BB	2814	A	O4'-C1'-N9	5.01	116.02	108.50
41	BQ	64	TYR	CA-C-N	5.01	129.34	120.87
41	BQ	64	TYR	C-N-CA	5.01	129.34	120.87
45	BU	16	LYS	CA-C-O	5.01	125.70	119.79
1	AA	222	C	C4'-C3'-C2'	-5.01	97.59	102.60
1	AA	343	U	C2'-C3'-O3'	5.01	121.22	113.70
1	AA	786	G	C5'-C4'-O4'	5.01	117.31	109.80
3	AC	24	A	O4'-C4'-C3'	-5.01	98.99	104.00
25	BA	8	C	C1'-O4'-C4'	-5.01	104.89	109.90
26	BB	382	A	O4'-C4'-C3'	-5.01	98.99	104.00
26	BB	2510	C	O4'-C1'-N1	5.01	116.01	108.50
26	BB	2694	G	C4'-C3'-C2'	5.01	107.61	102.60
28	BD	116	GLN	OE1-CD-NE2	5.01	127.61	122.60
36	BL	132	HIS	CA-C-N	5.01	129.09	120.72
36	BL	132	HIS	C-N-CA	5.01	129.09	120.72
6	AF	9	ILE	N-CA-C	-5.01	106.57	111.88
26	BB	89	A	C5'-C4'-O4'	5.01	117.31	109.80
26	BB	1651	G	C4'-C3'-O3'	5.01	120.51	113.00
26	BB	2003	A	O4'-C4'-C3'	5.01	109.01	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	445	G	C1'-O4'-C4'	-5.01	104.89	109.90
1	AA	885	G	O5'-C5'-C4'	-5.01	103.99	111.50
26	BB	70	G	C4'-C3'-O3'	5.01	116.91	109.40
26	BB	79	C	C5'-C4'-C3'	-5.01	108.49	116.00
26	BB	83	A	C5'-C4'-O4'	5.01	117.31	109.80
26	BB	328	U	O4'-C1'-C2'	-5.01	102.59	107.60
26	BB	1368	G	C3'-C2'-O2'	5.01	118.21	110.70
26	BB	2010	G	C1'-C2'-O2'	5.01	115.91	108.40
26	BB	2426	A	C5'-C4'-O4'	5.01	116.61	109.10
26	BB	2609	U	C5'-C4'-O4'	-5.01	101.59	109.10
43	BS	12	ARG	CA-C-O	-5.01	115.11	120.42
1	AA	92	U	O4'-C4'-C3'	-5.00	99.00	104.00
1	AA	209	U	O4'-C1'-N1	5.00	116.01	108.50
4	AD	31	G	N9-C1'-C2'	-5.00	104.49	112.00
26	BB	410	G	O3'-P-O5'	5.00	111.51	104.00
1	AA	122	G	P-O3'-C3'	5.00	127.71	120.20
1	AA	399	G	C1'-O4'-C4'	5.00	114.90	109.90
1	AA	1126	U	C3'-C2'-O2'	-5.00	107.09	114.60
1	AA	1152	A	C4'-C3'-O3'	5.00	120.51	113.00
1	AA	1246	A	C3'-C2'-C1'	5.00	106.30	101.30
1	AA	1315	U	O4'-C1'-N1	5.00	116.01	108.50
25	BA	28	C	C4'-C3'-C2'	-5.00	97.60	102.60
25	BA	45	A	O4'-C1'-C2'	-5.00	102.60	107.60
26	BB	339	U	C4'-C3'-O3'	-5.00	105.50	113.00
26	BB	650	C	O4'-C1'-N1	5.00	116.00	108.50
26	BB	1033	U	C5'-C4'-O4'	5.00	116.61	109.10
26	BB	2328	A	C1'-O4'-C4'	5.00	114.90	109.90
38	BN	86	GLU	CB-CG-CD	5.00	121.11	112.60
58	B7	36	ARG	NH1-CZ-NH2	-5.00	112.80	119.30
1	AA	64	G	O4'-C1'-N9	5.00	115.70	108.20
1	AA	1450	U	N1-C1'-C2'	-5.00	104.50	112.00
26	BB	518	G	O3'-P-O5'	-5.00	96.50	104.00
26	BB	1008	A	C1'-O4'-C4'	5.00	114.70	109.70
26	BB	1386	C	C5'-C4'-O4'	5.00	117.30	109.80
26	BB	1419	A	C5'-C4'-C3'	-5.00	108.50	116.00
26	BB	2362	C	O4'-C1'-N1	5.00	116.00	108.50
31	BG	89	THR	OG1-CB-CG2	-5.00	99.30	109.30
31	BG	167	ALA	O-C-N	-5.00	115.63	122.33

There are no chirality outliers.

All (2927) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	100	G	Sidechain
1	AA	1002	G	Sidechain
1	AA	1004	A	Sidechain
1	AA	1005	A	Sidechain
1	AA	1006	G	Sidechain
1	AA	1008	U	Sidechain
1	AA	1009	U	Sidechain
1	AA	101	A	Sidechain
1	AA	1010	U	Sidechain
1	AA	1012	A	Sidechain
1	AA	1013	G	Sidechain
1	AA	1014	A	Sidechain
1	AA	1017	U	Sidechain
1	AA	1018	G	Sidechain
1	AA	102	G	Sidechain
1	AA	1029	U	Sidechain
1	AA	1032	G	Sidechain
1	AA	1033	G	Sidechain
1	AA	1037	C	Sidechain
1	AA	1040	U	Sidechain
1	AA	1042	A	Sidechain
1	AA	1045	C	Sidechain
1	AA	1046	A	Sidechain
1	AA	1047	G	Sidechain
1	AA	1048	G	Sidechain
1	AA	1049	U	Sidechain
1	AA	1050	G	Sidechain
1	AA	1051	C	Sidechain
1	AA	1054	C	Sidechain
1	AA	1057	G	Sidechain
1	AA	1061	G	Sidechain
1	AA	1064	G	Sidechain
1	AA	1066	C	Sidechain
1	AA	1067	A	Sidechain
1	AA	1068	G	Sidechain
1	AA	1069	C	Sidechain
1	AA	107	G	Sidechain
1	AA	1070	U	Sidechain
1	AA	1073	U	Sidechain
1	AA	1075	U	Sidechain
1	AA	1077	G	Sidechain
1	AA	1079	G	Sidechain
1	AA	108	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1081	A	Sidechain
1	AA	1082	A	Sidechain
1	AA	1085	U	Sidechain
1	AA	1089	G	Sidechain
1	AA	1092	A	Sidechain
1	AA	1093	A	Sidechain
1	AA	1094	G	Sidechain
1	AA	1095	U	Sidechain
1	AA	1096	C	Sidechain
1	AA	1097	C	Sidechain
1	AA	1099	G	Sidechain
1	AA	11	G	Sidechain
1	AA	110	C	Sidechain
1	AA	1101	A	Sidechain
1	AA	1104	G	Sidechain
1	AA	1105	A	Sidechain
1	AA	1106	G	Sidechain
1	AA	1108	G	Sidechain
1	AA	1109	C	Sidechain
1	AA	111	G	Sidechain
1	AA	1110	A	Sidechain
1	AA	1112	C	Sidechain
1	AA	1113	C	Sidechain
1	AA	1117	A	Sidechain
1	AA	1118	U	Sidechain
1	AA	1120	C	Sidechain
1	AA	1122	U	Sidechain
1	AA	1124	G	Sidechain
1	AA	1125	U	Sidechain
1	AA	1127	G	Sidechain
1	AA	113	G	Sidechain
1	AA	1130	A	Sidechain
1	AA	1131	G	Sidechain
1	AA	1132	C	Sidechain
1	AA	1133	G	Sidechain
1	AA	1134	G	Sidechain
1	AA	1136	C	Sidechain
1	AA	1137	C	Sidechain
1	AA	1138	G	Sidechain
1	AA	1139	G	Sidechain
1	AA	1141	C	Sidechain
1	AA	1143	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1144	G	Sidechain
1	AA	1148	U	Sidechain
1	AA	1149	C	Sidechain
1	AA	115	G	Sidechain
1	AA	1151	A	Sidechain
1	AA	1152	A	Sidechain
1	AA	1153	G	Sidechain
1	AA	1155	A	Sidechain
1	AA	1156	G	Sidechain
1	AA	1157	A	Sidechain
1	AA	116	A	Sidechain
1	AA	1162	C	Sidechain
1	AA	1164	G	Sidechain
1	AA	1166	G	Sidechain
1	AA	1168	U	Sidechain
1	AA	1169	A	Sidechain
1	AA	1170	A	Sidechain
1	AA	1171	A	Sidechain
1	AA	1173	U	Sidechain
1	AA	1174	G	Sidechain
1	AA	1175	G	Sidechain
1	AA	1177	G	Sidechain
1	AA	1178	G	Sidechain
1	AA	1180	A	Sidechain
1	AA	1182	G	Sidechain
1	AA	1183	U	Sidechain
1	AA	1184	G	Sidechain
1	AA	1185	G	Sidechain
1	AA	1186	G	Sidechain
1	AA	1187	G	Sidechain
1	AA	1188	A	Sidechain
1	AA	1189	U	Sidechain
1	AA	1190	G	Sidechain
1	AA	1191	A	Sidechain
1	AA	1193	G	Sidechain
1	AA	1194	U	Sidechain
1	AA	1198	G	Sidechain
1	AA	1199	U	Sidechain
1	AA	12	U	Sidechain
1	AA	1200	C	Sidechain
1	AA	1201	A	Sidechain
1	AA	1202	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1204	A	Sidechain
1	AA	1205	U	Sidechain
1	AA	1206	G	Sidechain
1	AA	121	U	Sidechain
1	AA	1210	C	Sidechain
1	AA	1212	U	Sidechain
1	AA	1213	A	Sidechain
1	AA	1214	C	Sidechain
1	AA	1215	G	Sidechain
1	AA	1216	A	Sidechain
1	AA	1217	C	Sidechain
1	AA	1219	A	Sidechain
1	AA	122	G	Sidechain
1	AA	1220	G	Sidechain
1	AA	1221	G	Sidechain
1	AA	1222	G	Sidechain
1	AA	1225	A	Sidechain
1	AA	1226	C	Sidechain
1	AA	123	U	Sidechain
1	AA	1230	C	Sidechain
1	AA	1232	U	Sidechain
1	AA	1233	G	Sidechain
1	AA	1234	C	Sidechain
1	AA	1236	A	Sidechain
1	AA	1237	C	Sidechain
1	AA	1239	A	Sidechain
1	AA	1240	U	Sidechain
1	AA	1241	G	Sidechain
1	AA	1243	C	Sidechain
1	AA	1244	G	Sidechain
1	AA	1247	U	Sidechain
1	AA	125	U	Sidechain
1	AA	1253	G	Sidechain
1	AA	1255	G	Sidechain
1	AA	1257	A	Sidechain
1	AA	1258	G	Sidechain
1	AA	126	G	Sidechain
1	AA	1261	A	Sidechain
1	AA	1263	C	Sidechain
1	AA	1264	U	Sidechain
1	AA	1266	G	Sidechain
1	AA	1268	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1269	A	Sidechain
1	AA	127	G	Sidechain
1	AA	1270	G	Sidechain
1	AA	1274	A	Sidechain
1	AA	1275	A	Sidechain
1	AA	1276	G	Sidechain
1	AA	1278	G	Sidechain
1	AA	128	G	Sidechain
1	AA	1280	A	Sidechain
1	AA	1281	C	Sidechain
1	AA	1284	C	Sidechain
1	AA	1286	U	Sidechain
1	AA	1289	A	Sidechain
1	AA	129	A	Sidechain
1	AA	1290	G	Sidechain
1	AA	1291	U	Sidechain
1	AA	1292	G	Sidechain
1	AA	1293	C	Sidechain
1	AA	1295	U	Sidechain
1	AA	1297	G	Sidechain
1	AA	1298	U	Sidechain
1	AA	1302	C	Sidechain
1	AA	1304	G	Sidechain
1	AA	1308	U	Sidechain
1	AA	1309	G	Sidechain
1	AA	131	A	Sidechain
1	AA	1310	G	Sidechain
1	AA	1312	G	Sidechain
1	AA	1313	U	Sidechain
1	AA	1315	U	Sidechain
1	AA	1316	G	Sidechain
1	AA	1317	C	Sidechain
1	AA	1318	A	Sidechain
1	AA	132	C	Sidechain
1	AA	1320	C	Sidechain
1	AA	1321	U	Sidechain
1	AA	1328	C	Sidechain
1	AA	133	U	Sidechain
1	AA	1330	U	Sidechain
1	AA	1333	A	Sidechain
1	AA	1334	G	Sidechain
1	AA	1336	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	134	G	Sidechain
1	AA	1340	A	Sidechain
1	AA	1343	G	Sidechain
1	AA	1344	C	Sidechain
1	AA	1346	A	Sidechain
1	AA	1347	G	Sidechain
1	AA	1348	U	Sidechain
1	AA	135	C	Sidechain
1	AA	1351	U	Sidechain
1	AA	1353	G	Sidechain
1	AA	1356	G	Sidechain
1	AA	1357	A	Sidechain
1	AA	1358	U	Sidechain
1	AA	136	C	Sidechain
1	AA	1360	A	Sidechain
1	AA	1361	G	Sidechain
1	AA	1362	A	Sidechain
1	AA	1363	A	Sidechain
1	AA	1364	U	Sidechain
1	AA	1366	C	Sidechain
1	AA	1368	A	Sidechain
1	AA	1369	C	Sidechain
1	AA	1370	G	Sidechain
1	AA	1371	G	Sidechain
1	AA	1373	G	Sidechain
1	AA	1375	A	Sidechain
1	AA	1376	U	Sidechain
1	AA	1377	A	Sidechain
1	AA	1379	G	Sidechain
1	AA	1381	U	Sidechain
1	AA	1382	C	Sidechain
1	AA	1383	C	Sidechain
1	AA	1385	G	Sidechain
1	AA	139	A	Sidechain
1	AA	1391	U	Sidechain
1	AA	1392	G	Sidechain
1	AA	1393	U	Sidechain
1	AA	1394	A	Sidechain
1	AA	1395	C	Sidechain
1	AA	1399	C	Sidechain
1	AA	14	U	Sidechain
1	AA	140	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1403	C	Sidechain
1	AA	1405	G	Sidechain
1	AA	1406	U	Sidechain
1	AA	141	G	Sidechain
1	AA	1411	C	Sidechain
1	AA	1412	C	Sidechain
1	AA	1413	A	Sidechain
1	AA	1415	G	Sidechain
1	AA	1416	G	Sidechain
1	AA	1417	G	Sidechain
1	AA	1419	G	Sidechain
1	AA	142	G	Sidechain
1	AA	1420	U	Sidechain
1	AA	1421	G	Sidechain
1	AA	1425	U	Sidechain
1	AA	1428	A	Sidechain
1	AA	143	A	Sidechain
1	AA	1430	A	Sidechain
1	AA	1432	G	Sidechain
1	AA	1433	A	Sidechain
1	AA	1434	A	Sidechain
1	AA	1436	U	Sidechain
1	AA	1437	A	Sidechain
1	AA	144	G	Sidechain
1	AA	1440	U	Sidechain
1	AA	1443	C	Sidechain
1	AA	1445	U	Sidechain
1	AA	1450	U	Sidechain
1	AA	1452	C	Sidechain
1	AA	1453	G	Sidechain
1	AA	1454	G	Sidechain
1	AA	1455	G	Sidechain
1	AA	1456	A	Sidechain
1	AA	1457	G	Sidechain
1	AA	1458	G	Sidechain
1	AA	146	G	Sidechain
1	AA	1460	C	Sidechain
1	AA	1461	G	Sidechain
1	AA	1463	U	Sidechain
1	AA	1464	U	Sidechain
1	AA	1465	A	Sidechain
1	AA	1466	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1467	C	Sidechain
1	AA	1469	C	Sidechain
1	AA	147	G	Sidechain
1	AA	1470	U	Sidechain
1	AA	1471	U	Sidechain
1	AA	1472	U	Sidechain
1	AA	1473	G	Sidechain
1	AA	1475	G	Sidechain
1	AA	1477	U	Sidechain
1	AA	148	G	Sidechain
1	AA	1480	A	Sidechain
1	AA	1481	U	Sidechain
1	AA	1482	G	Sidechain
1	AA	1483	A	Sidechain
1	AA	1485	U	Sidechain
1	AA	1486	G	Sidechain
1	AA	1487	G	Sidechain
1	AA	1488	G	Sidechain
1	AA	1489	G	Sidechain
1	AA	1490	U	Sidechain
1	AA	1494	G	Sidechain
1	AA	1499	A	Sidechain
1	AA	1501	C	Sidechain
1	AA	1503	A	Sidechain
1	AA	1504	G	Sidechain
1	AA	1506	U	Sidechain
1	AA	1508	A	Sidechain
1	AA	151	A	Sidechain
1	AA	1513	A	Sidechain
1	AA	1514	G	Sidechain
1	AA	1517	G	Sidechain
1	AA	152	A	Sidechain
1	AA	1521	C	Sidechain
1	AA	1522	U	Sidechain
1	AA	1523	G	Sidechain
1	AA	1525	G	Sidechain
1	AA	1527	U	Sidechain
1	AA	1528	U	Sidechain
1	AA	153	C	Sidechain
1	AA	1530	G	Sidechain
1	AA	1531	A	Sidechain
1	AA	1535	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1536	C	Sidechain
1	AA	1541	U	Sidechain
1	AA	156	C	Sidechain
1	AA	157	U	Sidechain
1	AA	158	G	Sidechain
1	AA	159	G	Sidechain
1	AA	160	A	Sidechain
1	AA	161	A	Sidechain
1	AA	165	G	Sidechain
1	AA	166	U	Sidechain
1	AA	168	G	Sidechain
1	AA	171	A	Sidechain
1	AA	172	A	Sidechain
1	AA	173	U	Sidechain
1	AA	174	A	Sidechain
1	AA	176	C	Sidechain
1	AA	177	G	Sidechain
1	AA	178	C	Sidechain
1	AA	179	A	Sidechain
1	AA	180	U	Sidechain
1	AA	182	A	Sidechain
1	AA	183	C	Sidechain
1	AA	184	G	Sidechain
1	AA	186	C	Sidechain
1	AA	191	G	Sidechain
1	AA	195	A	Sidechain
1	AA	196	A	Sidechain
1	AA	198	G	Sidechain
1	AA	199	A	Sidechain
1	AA	200	G	Sidechain
1	AA	201	G	Sidechain
1	AA	202	G	Sidechain
1	AA	203	G	Sidechain
1	AA	204	G	Sidechain
1	AA	208	U	Sidechain
1	AA	21	G	Sidechain
1	AA	210	C	Sidechain
1	AA	211	G	Sidechain
1	AA	212	G	Sidechain
1	AA	213	G	Sidechain
1	AA	214	C	Sidechain
1	AA	215	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	217	C	Sidechain
1	AA	219	U	Sidechain
1	AA	22	G	Sidechain
1	AA	220	G	Sidechain
1	AA	221	C	Sidechain
1	AA	224	U	Sidechain
1	AA	225	C	Sidechain
1	AA	228	A	Sidechain
1	AA	229	U	Sidechain
1	AA	23	C	Sidechain
1	AA	230	G	Sidechain
1	AA	231	U	Sidechain
1	AA	232	G	Sidechain
1	AA	233	C	Sidechain
1	AA	236	A	Sidechain
1	AA	237	G	Sidechain
1	AA	238	A	Sidechain
1	AA	24	U	Sidechain
1	AA	240	G	Sidechain
1	AA	241	G	Sidechain
1	AA	242	G	Sidechain
1	AA	244	U	Sidechain
1	AA	245	U	Sidechain
1	AA	246	A	Sidechain
1	AA	247	G	Sidechain
1	AA	249	U	Sidechain
1	AA	250	A	Sidechain
1	AA	251	G	Sidechain
1	AA	252	U	Sidechain
1	AA	253	A	Sidechain
1	AA	254	G	Sidechain
1	AA	256	U	Sidechain
1	AA	257	G	Sidechain
1	AA	258	G	Sidechain
1	AA	259	G	Sidechain
1	AA	260	G	Sidechain
1	AA	261	U	Sidechain
1	AA	265	G	Sidechain
1	AA	266	G	Sidechain
1	AA	267	C	Sidechain
1	AA	27	G	Sidechain
1	AA	271	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	272	C	Sidechain
1	AA	275	G	Sidechain
1	AA	279	A	Sidechain
1	AA	280	C	Sidechain
1	AA	281	G	Sidechain
1	AA	283	U	Sidechain
1	AA	284	C	Sidechain
1	AA	285	C	Sidechain
1	AA	288	A	Sidechain
1	AA	293	G	Sidechain
1	AA	294	U	Sidechain
1	AA	297	G	Sidechain
1	AA	298	A	Sidechain
1	AA	299	G	Sidechain
1	AA	3	A	Sidechain
1	AA	300	A	Sidechain
1	AA	301	G	Sidechain
1	AA	304	U	Sidechain
1	AA	306	A	Sidechain
1	AA	308	C	Sidechain
1	AA	310	G	Sidechain
1	AA	312	C	Sidechain
1	AA	313	A	Sidechain
1	AA	315	A	Sidechain
1	AA	316	C	Sidechain
1	AA	317	U	Sidechain
1	AA	318	G	Sidechain
1	AA	320	A	Sidechain
1	AA	321	A	Sidechain
1	AA	322	C	Sidechain
1	AA	323	U	Sidechain
1	AA	324	G	Sidechain
1	AA	326	G	Sidechain
1	AA	328	C	Sidechain
1	AA	329	A	Sidechain
1	AA	33	A	Sidechain
1	AA	331	G	Sidechain
1	AA	332	G	Sidechain
1	AA	334	C	Sidechain
1	AA	335	C	Sidechain
1	AA	337	G	Sidechain
1	AA	338	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	342	C	Sidechain
1	AA	343	U	Sidechain
1	AA	345	C	Sidechain
1	AA	346	G	Sidechain
1	AA	348	G	Sidechain
1	AA	35	G	Sidechain
1	AA	350	G	Sidechain
1	AA	352	C	Sidechain
1	AA	355	C	Sidechain
1	AA	356	A	Sidechain
1	AA	357	G	Sidechain
1	AA	358	U	Sidechain
1	AA	359	G	Sidechain
1	AA	360	G	Sidechain
1	AA	362	G	Sidechain
1	AA	364	A	Sidechain
1	AA	365	U	Sidechain
1	AA	367	U	Sidechain
1	AA	37	U	Sidechain
1	AA	371	A	Sidechain
1	AA	373	A	Sidechain
1	AA	375	U	Sidechain
1	AA	376	G	Sidechain
1	AA	378	G	Sidechain
1	AA	379	C	Sidechain
1	AA	38	G	Sidechain
1	AA	380	G	Sidechain
1	AA	381	C	Sidechain
1	AA	382	A	Sidechain
1	AA	383	A	Sidechain
1	AA	387	U	Sidechain
1	AA	388	G	Sidechain
1	AA	39	G	Sidechain
1	AA	390	U	Sidechain
1	AA	391	G	Sidechain
1	AA	394	G	Sidechain
1	AA	395	C	Sidechain
1	AA	399	G	Sidechain
1	AA	4	U	Sidechain
1	AA	40	C	Sidechain
1	AA	401	C	Sidechain
1	AA	402	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	403	C	Sidechain
1	AA	404	G	Sidechain
1	AA	409	U	Sidechain
1	AA	41	G	Sidechain
1	AA	411	A	Sidechain
1	AA	413	G	Sidechain
1	AA	416	G	Sidechain
1	AA	417	G	Sidechain
1	AA	418	C	Sidechain
1	AA	42	G	Sidechain
1	AA	420	U	Sidechain
1	AA	421	U	Sidechain
1	AA	423	G	Sidechain
1	AA	424	G	Sidechain
1	AA	425	G	Sidechain
1	AA	426	U	Sidechain
1	AA	427	U	Sidechain
1	AA	429	U	Sidechain
1	AA	43	C	Sidechain
1	AA	430	A	Sidechain
1	AA	432	A	Sidechain
1	AA	433	G	Sidechain
1	AA	434	U	Sidechain
1	AA	437	U	Sidechain
1	AA	44	A	Sidechain
1	AA	440	C	Sidechain
1	AA	442	G	Sidechain
1	AA	445	G	Sidechain
1	AA	446	G	Sidechain
1	AA	449	G	Sidechain
1	AA	450	G	Sidechain
1	AA	457	G	Sidechain
1	AA	459	A	Sidechain
1	AA	46	G	Sidechain
1	AA	461	A	Sidechain
1	AA	463	U	Sidechain
1	AA	464	U	Sidechain
1	AA	466	A	Sidechain
1	AA	468	A	Sidechain
1	AA	469	C	Sidechain
1	AA	47	C	Sidechain
1	AA	470	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	474	G	Sidechain
1	AA	476	U	Sidechain
1	AA	478	A	Sidechain
1	AA	481	G	Sidechain
1	AA	483	C	Sidechain
1	AA	484	G	Sidechain
1	AA	488	C	Sidechain
1	AA	489	C	Sidechain
1	AA	49	U	Sidechain
1	AA	493	A	Sidechain
1	AA	495	A	Sidechain
1	AA	499	A	Sidechain
1	AA	50	A	Sidechain
1	AA	500	G	Sidechain
1	AA	504	C	Sidechain
1	AA	505	G	Sidechain
1	AA	508	U	Sidechain
1	AA	509	A	Sidechain
1	AA	511	C	Sidechain
1	AA	517	G	Sidechain
1	AA	519	C	Sidechain
1	AA	520	A	Sidechain
1	AA	521	G	Sidechain
1	AA	523	A	Sidechain
1	AA	524	G	Sidechain
1	AA	528	C	Sidechain
1	AA	529	G	Sidechain
1	AA	53	A	Sidechain
1	AA	530	G	Sidechain
1	AA	534	U	Sidechain
1	AA	536	C	Sidechain
1	AA	537	G	Sidechain
1	AA	538	G	Sidechain
1	AA	539	A	Sidechain
1	AA	540	G	Sidechain
1	AA	541	G	Sidechain
1	AA	542	G	Sidechain
1	AA	543	U	Sidechain
1	AA	545	C	Sidechain
1	AA	548	G	Sidechain
1	AA	550	G	Sidechain
1	AA	551	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	552	U	Sidechain
1	AA	553	A	Sidechain
1	AA	554	A	Sidechain
1	AA	557	G	Sidechain
1	AA	558	G	Sidechain
1	AA	56	U	Sidechain
1	AA	560	A	Sidechain
1	AA	562	U	Sidechain
1	AA	566	G	Sidechain
1	AA	574	A	Sidechain
1	AA	578	C	Sidechain
1	AA	579	A	Sidechain
1	AA	58	C	Sidechain
1	AA	580	C	Sidechain
1	AA	581	G	Sidechain
1	AA	584	G	Sidechain
1	AA	585	G	Sidechain
1	AA	587	G	Sidechain
1	AA	588	G	Sidechain
1	AA	590	U	Sidechain
1	AA	592	G	Sidechain
1	AA	598	U	Sidechain
1	AA	6	G	Sidechain
1	AA	600	A	Sidechain
1	AA	602	A	Sidechain
1	AA	603	U	Sidechain
1	AA	604	G	Sidechain
1	AA	606	G	Sidechain
1	AA	609	A	Sidechain
1	AA	61	G	Sidechain
1	AA	610	U	Sidechain
1	AA	611	C	Sidechain
1	AA	612	C	Sidechain
1	AA	614	C	Sidechain
1	AA	615	G	Sidechain
1	AA	616	G	Sidechain
1	AA	617	G	Sidechain
1	AA	618	C	Sidechain
1	AA	620	C	Sidechain
1	AA	621	A	Sidechain
1	AA	622	A	Sidechain
1	AA	623	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	624	C	Sidechain
1	AA	625	U	Sidechain
1	AA	628	G	Sidechain
1	AA	63	C	Sidechain
1	AA	630	A	Sidechain
1	AA	631	C	Sidechain
1	AA	633	G	Sidechain
1	AA	634	C	Sidechain
1	AA	635	A	Sidechain
1	AA	637	C	Sidechain
1	AA	639	G	Sidechain
1	AA	64	G	Sidechain
1	AA	644	U	Sidechain
1	AA	645	G	Sidechain
1	AA	646	G	Sidechain
1	AA	648	A	Sidechain
1	AA	65	A	Sidechain
1	AA	650	G	Sidechain
1	AA	652	U	Sidechain
1	AA	654	G	Sidechain
1	AA	656	G	Sidechain
1	AA	657	U	Sidechain
1	AA	659	U	Sidechain
1	AA	66	A	Sidechain
1	AA	666	G	Sidechain
1	AA	668	G	Sidechain
1	AA	669	G	Sidechain
1	AA	670	G	Sidechain
1	AA	671	G	Sidechain
1	AA	674	G	Sidechain
1	AA	676	A	Sidechain
1	AA	677	U	Sidechain
1	AA	678	U	Sidechain
1	AA	679	C	Sidechain
1	AA	68	G	Sidechain
1	AA	680	C	Sidechain
1	AA	681	A	Sidechain
1	AA	684	U	Sidechain
1	AA	685	G	Sidechain
1	AA	686	U	Sidechain
1	AA	69	G	Sidechain
1	AA	690	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	691	G	Sidechain
1	AA	692	U	Sidechain
1	AA	695	A	Sidechain
1	AA	696	A	Sidechain
1	AA	697	U	Sidechain
1	AA	698	G	Sidechain
1	AA	7	A	Sidechain
1	AA	70	U	Sidechain
1	AA	700	G	Sidechain
1	AA	702	A	Sidechain
1	AA	703	G	Sidechain
1	AA	704	A	Sidechain
1	AA	705	G	Sidechain
1	AA	706	A	Sidechain
1	AA	707	U	Sidechain
1	AA	708	C	Sidechain
1	AA	71	A	Sidechain
1	AA	711	G	Sidechain
1	AA	713	G	Sidechain
1	AA	717	U	Sidechain
1	AA	718	A	Sidechain
1	AA	719	C	Sidechain
1	AA	72	A	Sidechain
1	AA	720	C	Sidechain
1	AA	723	U	Sidechain
1	AA	724	G	Sidechain
1	AA	726	C	Sidechain
1	AA	727	G	Sidechain
1	AA	729	A	Sidechain
1	AA	730	G	Sidechain
1	AA	731	G	Sidechain
1	AA	734	G	Sidechain
1	AA	74	A	Sidechain
1	AA	740	U	Sidechain
1	AA	741	G	Sidechain
1	AA	744	C	Sidechain
1	AA	747	A	Sidechain
1	AA	749	A	Sidechain
1	AA	75	G	Sidechain
1	AA	750	C	Sidechain
1	AA	751	U	Sidechain
1	AA	752	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	753	A	Sidechain
1	AA	755	G	Sidechain
1	AA	757	U	Sidechain
1	AA	758	C	Sidechain
1	AA	759	A	Sidechain
1	AA	76	G	Sidechain
1	AA	762	U	Sidechain
1	AA	763	G	Sidechain
1	AA	764	C	Sidechain
1	AA	765	G	Sidechain
1	AA	766	A	Sidechain
1	AA	77	A	Sidechain
1	AA	770	C	Sidechain
1	AA	771	G	Sidechain
1	AA	773	G	Sidechain
1	AA	774	G	Sidechain
1	AA	775	G	Sidechain
1	AA	778	G	Sidechain
1	AA	78	A	Sidechain
1	AA	781	A	Sidechain
1	AA	785	G	Sidechain
1	AA	786	G	Sidechain
1	AA	787	A	Sidechain
1	AA	789	U	Sidechain
1	AA	79	G	Sidechain
1	AA	791	G	Sidechain
1	AA	793	U	Sidechain
1	AA	794	A	Sidechain
1	AA	795	C	Sidechain
1	AA	796	C	Sidechain
1	AA	80	A	Sidechain
1	AA	800	G	Sidechain
1	AA	801	U	Sidechain
1	AA	802	A	Sidechain
1	AA	803	G	Sidechain
1	AA	804	U	Sidechain
1	AA	805	C	Sidechain
1	AA	81	A	Sidechain
1	AA	810	C	Sidechain
1	AA	811	C	Sidechain
1	AA	812	G	Sidechain
1	AA	813	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	815	A	Sidechain
1	AA	816	A	Sidechain
1	AA	818	G	Sidechain
1	AA	819	A	Sidechain
1	AA	820	U	Sidechain
1	AA	821	G	Sidechain
1	AA	822	U	Sidechain
1	AA	825	A	Sidechain
1	AA	829	G	Sidechain
1	AA	83	C	Sidechain
1	AA	830	G	Sidechain
1	AA	832	G	Sidechain
1	AA	833	G	Sidechain
1	AA	835	U	Sidechain
1	AA	842	U	Sidechain
1	AA	843	U	Sidechain
1	AA	844	G	Sidechain
1	AA	846	G	Sidechain
1	AA	847	G	Sidechain
1	AA	849	G	Sidechain
1	AA	85	U	Sidechain
1	AA	854	U	Sidechain
1	AA	855	U	Sidechain
1	AA	856	C	Sidechain
1	AA	858	G	Sidechain
1	AA	859	G	Sidechain
1	AA	86	G	Sidechain
1	AA	860	A	Sidechain
1	AA	861	G	Sidechain
1	AA	862	C	Sidechain
1	AA	863	U	Sidechain
1	AA	864	A	Sidechain
1	AA	866	C	Sidechain
1	AA	869	G	Sidechain
1	AA	87	C	Sidechain
1	AA	870	U	Sidechain
1	AA	871	U	Sidechain
1	AA	872	A	Sidechain
1	AA	874	G	Sidechain
1	AA	875	U	Sidechain
1	AA	877	G	Sidechain
1	AA	878	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	879	C	Sidechain
1	AA	88	U	Sidechain
1	AA	881	G	Sidechain
1	AA	883	C	Sidechain
1	AA	884	U	Sidechain
1	AA	885	G	Sidechain
1	AA	886	G	Sidechain
1	AA	887	G	Sidechain
1	AA	888	G	Sidechain
1	AA	889	A	Sidechain
1	AA	89	U	Sidechain
1	AA	890	G	Sidechain
1	AA	895	G	Sidechain
1	AA	898	G	Sidechain
1	AA	9	G	Sidechain
1	AA	90	C	Sidechain
1	AA	900	A	Sidechain
1	AA	901	A	Sidechain
1	AA	902	G	Sidechain
1	AA	903	G	Sidechain
1	AA	905	U	Sidechain
1	AA	906	A	Sidechain
1	AA	907	A	Sidechain
1	AA	908	A	Sidechain
1	AA	910	C	Sidechain
1	AA	914	A	Sidechain
1	AA	916	U	Sidechain
1	AA	919	A	Sidechain
1	AA	92	U	Sidechain
1	AA	920	U	Sidechain
1	AA	922	G	Sidechain
1	AA	923	A	Sidechain
1	AA	924	C	Sidechain
1	AA	925	G	Sidechain
1	AA	926	G	Sidechain
1	AA	928	G	Sidechain
1	AA	929	G	Sidechain
1	AA	933	G	Sidechain
1	AA	934	C	Sidechain
1	AA	937	A	Sidechain
1	AA	938	A	Sidechain
1	AA	939	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	94	G	Sidechain
1	AA	941	G	Sidechain
1	AA	942	G	Sidechain
1	AA	943	U	Sidechain
1	AA	944	G	Sidechain
1	AA	945	G	Sidechain
1	AA	946	A	Sidechain
1	AA	947	G	Sidechain
1	AA	949	A	Sidechain
1	AA	95	C	Sidechain
1	AA	950	U	Sidechain
1	AA	951	G	Sidechain
1	AA	953	G	Sidechain
1	AA	954	G	Sidechain
1	AA	957	U	Sidechain
1	AA	958	A	Sidechain
1	AA	960	U	Sidechain
1	AA	961	U	Sidechain
1	AA	962	C	Sidechain
1	AA	963	G	Sidechain
1	AA	965	U	Sidechain
1	AA	968	A	Sidechain
1	AA	97	G	Sidechain
1	AA	970	C	Sidechain
1	AA	971	G	Sidechain
1	AA	972	C	Sidechain
1	AA	973	G	Sidechain
1	AA	974	A	Sidechain
1	AA	975	A	Sidechain
1	AA	976	G	Sidechain
1	AA	977	A	Sidechain
1	AA	978	A	Sidechain
1	AA	98	A	Sidechain
1	AA	981	U	Sidechain
1	AA	982	U	Sidechain
1	AA	983	A	Sidechain
1	AA	984	C	Sidechain
1	AA	986	U	Sidechain
1	AA	987	G	Sidechain
1	AA	989	U	Sidechain
1	AA	99	C	Sidechain
1	AA	991	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	992	U	Sidechain
1	AA	994	A	Sidechain
1	AA	995	C	Sidechain
1	AA	996	A	Sidechain
1	AA	998	C	Sidechain
2	AB	1	A	Sidechain
2	AB	10	G	Sidechain
2	AB	11	U	Sidechain
2	AB	12	U	Sidechain
2	AB	13	C	Sidechain
2	AB	15	A	Sidechain
2	AB	19	G	Sidechain
2	AB	2	G	Sidechain
2	AB	21	A	Sidechain
2	AB	22	G	Sidechain
2	AB	23	A	Sidechain
2	AB	24	G	Sidechain
2	AB	26	A	Sidechain
2	AB	27	C	Sidechain
2	AB	29	G	Sidechain
2	AB	31	U	Sidechain
2	AB	34	C	Sidechain
2	AB	35	C	Sidechain
2	AB	36	A	Sidechain
2	AB	4	G	Sidechain
2	AB	41	C	Sidechain
2	AB	43	G	Sidechain
2	AB	44	G	Sidechain
2	AB	45	U	Sidechain
2	AB	47	U	Sidechain
2	AB	49	G	Sidechain
2	AB	50	G	Sidechain
2	AB	56	C	Sidechain
2	AB	58	A	Sidechain
2	AB	60	U	Sidechain
2	AB	61	C	Sidechain
2	AB	62	U	Sidechain
2	AB	63	C	Sidechain
2	AB	65	C	Sidechain
2	AB	66	C	Sidechain
2	AB	67	G	Sidechain
2	AB	7	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	72	U	Sidechain
2	AB	9	A	Sidechain
3	AC	14	G	Sidechain
3	AC	17	U	Sidechain
3	AC	18	A	Sidechain
3	AC	22	G	Sidechain
3	AC	25	U	Sidechain
3	AC	26	U	Sidechain
3	AC	27	A	Sidechain
3	AC	28	U	Sidechain
3	AC	31	U	Sidechain
3	AC	33	A	Sidechain
3	AC	35	G	Sidechain
3	AC	37	G	Sidechain
3	AC	38	G	Sidechain
3	AC	40	G	Sidechain
3	AC	42	U	Sidechain
3	AC	49	U	Sidechain
3	AC	51	C	Sidechain
3	AC	52	U	Sidechain
3	AC	53	G	Sidechain
3	AC	54	U	Sidechain
3	AC	55	A	Sidechain
3	AC	56	G	Sidechain
3	AC	59	A	Sidechain
4	AD	10	G	Sidechain
4	AD	14	A	Sidechain
4	AD	15	G	Sidechain
4	AD	17	C	Sidechain
4	AD	19	G	Sidechain
4	AD	20	G	Sidechain
4	AD	22	A	Sidechain
4	AD	23	G	Sidechain
4	AD	27	G	Sidechain
4	AD	28	U	Sidechain
4	AD	29	C	Sidechain
4	AD	3	C	Sidechain
4	AD	30	G	Sidechain
4	AD	31	G	Sidechain
4	AD	32	G	Sidechain
4	AD	35	C	Sidechain
4	AD	36	A	Sidechain

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Mol	Chain	Res	Type	Group
4	AD	38	A	Sidechain
4	AD	4	G	Sidechain
4	AD	46	G	Sidechain
4	AD	47	A	Sidechain
4	AD	49	C	Sidechain
4	AD	50	G	Sidechain
4	AD	52	C	Sidechain
4	AD	54	G	Sidechain
4	AD	58	A	Sidechain
4	AD	6	G	Sidechain
4	AD	60	A	Sidechain
4	AD	7	G	Sidechain
4	AD	70	C	Sidechain
4	AD	74	A	Sidechain
4	AD	75	C	Sidechain
4	AD	76	C	Sidechain
4	AD	9	G	Sidechain
5	AE	212	TYR	Sidechain
5	AE	221	ARG	Sidechain
5	AE	29	PHE	Sidechain
5	AE	34	ARG	Sidechain
5	AE	85	SER	Mainchain
5	AE	86	CYS	Peptide
6	AF	10	ARG	Peptide
6	AF	112	ALA	Mainchain
6	AF	125	ARG	Sidechain
6	AF	168	ARG	Sidechain
6	AF	183	TYR	Sidechain
6	AF	202	PHE	Sidechain
6	AF	228	ARG	Sidechain
6	AF	39	ARG	Sidechain
7	AG	102	TYR	Sidechain
7	AG	106	PHE	Mainchain,Peptide
7	AG	12	ARG	Sidechain
7	AG	13	ARG	Sidechain
7	AG	187	ARG	Sidechain
7	AG	50	TYR	Sidechain
7	AG	62	ARG	Sidechain
7	AG	67	LEU	Mainchain
7	AG	75	TYR	Sidechain
7	AG	81	LEU	Peptide
8	AH	127	TYR	Mainchain

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Mol	Chain	Res	Type	Group
8	AH	19	ARG	Sidechain
8	AH	49	TYR	Sidechain
8	AH	67	ARG	Sidechain
8	AH	92	ARG	Sidechain
9	AI	109	ARG	Sidechain
9	AI	111	GLU	Peptide
9	AI	113	ARG	Sidechain
9	AI	25	TYR	Sidechain
9	AI	38	ARG	Sidechain
9	AI	49	TYR	Sidechain
9	AI	59	TYR	Sidechain
9	AI	79	ARG	Sidechain
9	AI	80	PHE	Sidechain
9	AI	86	ARG	Sidechain
9	AI	91	ARG	Sidechain
10	AJ	101	ARG	Sidechain
10	AJ	141	HIS	Sidechain
10	AJ	142	ARG	Sidechain
10	AJ	153	TYR	Sidechain
10	AJ	154	ARG	Sidechain
10	AJ	163	HIS	Sidechain
11	AK	127	TYR	Sidechain
11	AK	14	ARG	Sidechain
11	AK	79	ARG	Peptide
12	AL	108	ARG	Sidechain
12	AL	123	ARG	Sidechain
12	AL	126	PHE	Sidechain
12	AL	89	TYR	Sidechain
12	AL	94	ARG	Sidechain
13	AM	53	ILE	Mainchain
13	AM	65	TYR	Sidechain
13	AM	89	ARG	Sidechain
13	AM	9	ARG	Sidechain
14	AN	10	ARG	Sidechain
14	AN	12	ARG	Sidechain
14	AN	37	GLN	Peptide
14	AN	52	ARG	Sidechain
14	AN	68	ARG	Sidechain
15	AO	11	ARG	Sidechain
15	AO	37	TYR	Sidechain
16	AP	13	HIS	Sidechain
16	AP	56	ARG	Sidechain

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Mol	Chain	Res	Type	Group
16	AP	69	ARG	Sidechain
17	AQ	99	SER	Mainchain
19	AS	17	TYR	Sidechain
19	AS	28	ARG	Sidechain
19	AS	33	ILE	Mainchain
20	AT	39	ARG	Sidechain
21	AU	10	CYS	Peptide
21	AU	11	ARG	Sidechain
21	AU	3	TYR	Sidechain
21	AU	4	PHE	Sidechain
21	AU	62	ARG	Sidechain
21	AU	7	ARG	Sidechain
23	AW	23	ARG	Sidechain
23	AW	28	ARG	Sidechain
24	AX	17	ARG	Sidechain
51	B0	21	LEU	Mainchain
51	B0	46	VAL	Mainchain
52	B1	30	ARG	Sidechain
52	B1	52	PHE	Sidechain
53	B2	63	ARG	Sidechain
55	B4	20	TYR	Sidechain
55	B4	38	PHE	Sidechain
55	B4	48	TYR	Sidechain
56	B5	28	ARG	Sidechain
57	B6	13	PHE	Sidechain
57	B6	21	PHE	Sidechain
57	B6	63	TYR	Sidechain
58	B7	19	ARG	Sidechain
25	BA	10	G	Sidechain
25	BA	100	G	Sidechain
25	BA	104	A	Sidechain
25	BA	105	G	Sidechain
25	BA	106	G	Sidechain
25	BA	108	A	Sidechain
25	BA	109	A	Sidechain
25	BA	11	C	Sidechain
25	BA	110	C	Sidechain
25	BA	114	C	Sidechain
25	BA	117	G	Sidechain
25	BA	119	A	Sidechain
25	BA	12	C	Sidechain
25	BA	120	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BA	13	G	Sidechain
25	BA	14	U	Sidechain
25	BA	15	A	Sidechain
25	BA	18	G	Sidechain
25	BA	19	C	Sidechain
25	BA	2	G	Sidechain
25	BA	20	G	Sidechain
25	BA	24	G	Sidechain
25	BA	25	U	Sidechain
25	BA	26	C	Sidechain
25	BA	27	C	Sidechain
25	BA	30	C	Sidechain
25	BA	32	U	Sidechain
25	BA	33	G	Sidechain
25	BA	34	A	Sidechain
25	BA	35	C	Sidechain
25	BA	37	C	Sidechain
25	BA	39	A	Sidechain
25	BA	41	G	Sidechain
25	BA	42	C	Sidechain
25	BA	44	G	Sidechain
25	BA	45	A	Sidechain
25	BA	47	C	Sidechain
25	BA	48	U	Sidechain
25	BA	5	U	Sidechain
25	BA	50	A	Sidechain
25	BA	52	A	Sidechain
25	BA	53	A	Sidechain
25	BA	54	G	Sidechain
25	BA	55	U	Sidechain
25	BA	6	G	Sidechain
25	BA	60	C	Sidechain
25	BA	61	G	Sidechain
25	BA	64	G	Sidechain
25	BA	66	A	Sidechain
25	BA	67	G	Sidechain
25	BA	69	G	Sidechain
25	BA	72	G	Sidechain
25	BA	73	A	Sidechain
25	BA	74	U	Sidechain
25	BA	76	G	Sidechain
25	BA	78	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BA	8	C	Sidechain
25	BA	81	G	Sidechain
25	BA	82	U	Sidechain
25	BA	83	G	Sidechain
25	BA	84	G	Sidechain
25	BA	85	G	Sidechain
25	BA	86	G	Sidechain
25	BA	87	U	Sidechain
25	BA	88	C	Sidechain
25	BA	89	U	Sidechain
25	BA	91	C	Sidechain
25	BA	95	U	Sidechain
25	BA	96	G	Sidechain
25	BA	97	C	Sidechain
25	BA	98	G	Sidechain
26	BB	1	G	Sidechain
26	BB	100	U	Sidechain
26	BB	1000	A	Sidechain
26	BB	1001	A	Sidechain
26	BB	1002	G	Sidechain
26	BB	1004	U	Sidechain
26	BB	1005	C	Sidechain
26	BB	1007	C	Sidechain
26	BB	1008	A	Sidechain
26	BB	1010	A	Sidechain
26	BB	1011	G	Sidechain
26	BB	1012	U	Sidechain
26	BB	1013	C	Sidechain
26	BB	1014	A	Sidechain
26	BB	1015	U	Sidechain
26	BB	1016	G	Sidechain
26	BB	1019	U	Sidechain
26	BB	1020	A	Sidechain
26	BB	1021	A	Sidechain
26	BB	1022	G	Sidechain
26	BB	1023	U	Sidechain
26	BB	1024	G	Sidechain
26	BB	1025	G	Sidechain
26	BB	1027	A	Sidechain
26	BB	1028	A	Sidechain
26	BB	1031	G	Sidechain
26	BB	1037	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1038	G	Sidechain
26	BB	1039	A	Sidechain
26	BB	1040	A	Sidechain
26	BB	1041	G	Sidechain
26	BB	1043	C	Sidechain
26	BB	1045	C	Sidechain
26	BB	1047	G	Sidechain
26	BB	1050	A	Sidechain
26	BB	1053	C	Sidechain
26	BB	1055	G	Sidechain
26	BB	1056	G	Sidechain
26	BB	1057	A	Sidechain
26	BB	1058	U	Sidechain
26	BB	1059	G	Sidechain
26	BB	106	C	Sidechain
26	BB	1060	U	Sidechain
26	BB	1061	U	Sidechain
26	BB	1062	G	Sidechain
26	BB	1063	G	Sidechain
26	BB	1065	U	Sidechain
26	BB	1066	U	Sidechain
26	BB	1068	G	Sidechain
26	BB	107	G	Sidechain
26	BB	1072	C	Sidechain
26	BB	1073	A	Sidechain
26	BB	1078	U	Sidechain
26	BB	1079	C	Sidechain
26	BB	1080	A	Sidechain
26	BB	1081	U	Sidechain
26	BB	1083	U	Sidechain
26	BB	1084	A	Sidechain
26	BB	1087	G	Sidechain
26	BB	1089	A	Sidechain
26	BB	109	C	Sidechain
26	BB	1090	A	Sidechain
26	BB	1092	C	Sidechain
26	BB	1093	G	Sidechain
26	BB	1094	U	Sidechain
26	BB	1096	A	Sidechain
26	BB	1097	U	Sidechain
26	BB	1099	G	Sidechain
26	BB	11	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	110	G	Sidechain
26	BB	1100	C	Sidechain
26	BB	1106	G	Sidechain
26	BB	1107	G	Sidechain
26	BB	1109	C	Sidechain
26	BB	1110	G	Sidechain
26	BB	1111	A	Sidechain
26	BB	1112	G	Sidechain
26	BB	1113	U	Sidechain
26	BB	1115	G	Sidechain
26	BB	1116	G	Sidechain
26	BB	1119	U	Sidechain
26	BB	1121	C	Sidechain
26	BB	1122	G	Sidechain
26	BB	1125	G	Sidechain
26	BB	1126	A	Sidechain
26	BB	1127	A	Sidechain
26	BB	113	U	Sidechain
26	BB	1131	G	Sidechain
26	BB	1132	U	Sidechain
26	BB	1134	A	Sidechain
26	BB	1136	G	Sidechain
26	BB	1137	G	Sidechain
26	BB	1138	G	Sidechain
26	BB	1139	G	Sidechain
26	BB	114	U	Sidechain
26	BB	1141	U	Sidechain
26	BB	1142	A	Sidechain
26	BB	1143	A	Sidechain
26	BB	1149	G	Sidechain
26	BB	115	C	Sidechain
26	BB	1152	C	Sidechain
26	BB	1155	A	Sidechain
26	BB	1156	A	Sidechain
26	BB	1157	G	Sidechain
26	BB	1162	G	Sidechain
26	BB	1165	A	Sidechain
26	BB	1167	C	Sidechain
26	BB	1168	G	Sidechain
26	BB	1169	A	Sidechain
26	BB	1170	C	Sidechain
26	BB	1171	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1173	U	Sidechain
26	BB	1175	A	Sidechain
26	BB	1176	U	Sidechain
26	BB	1177	G	Sidechain
26	BB	1178	C	Sidechain
26	BB	1179	G	Sidechain
26	BB	118	A	Sidechain
26	BB	1181	U	Sidechain
26	BB	1182	G	Sidechain
26	BB	1183	U	Sidechain
26	BB	1185	G	Sidechain
26	BB	1186	G	Sidechain
26	BB	1187	G	Sidechain
26	BB	1190	G	Sidechain
26	BB	1192	G	Sidechain
26	BB	1193	G	Sidechain
26	BB	1194	A	Sidechain
26	BB	1195	G	Sidechain
26	BB	1197	G	Sidechain
26	BB	1198	U	Sidechain
26	BB	12	U	Sidechain
26	BB	120	U	Sidechain
26	BB	1200	C	Sidechain
26	BB	1201	U	Sidechain
26	BB	1202	G	Sidechain
26	BB	1203	U	Sidechain
26	BB	1205	A	Sidechain
26	BB	1206	G	Sidechain
26	BB	1208	C	Sidechain
26	BB	1209	U	Sidechain
26	BB	1210	G	Sidechain
26	BB	1211	C	Sidechain
26	BB	1212	G	Sidechain
26	BB	1213	A	Sidechain
26	BB	1214	A	Sidechain
26	BB	1215	G	Sidechain
26	BB	1218	G	Sidechain
26	BB	1220	G	Sidechain
26	BB	1221	C	Sidechain
26	BB	1222	U	Sidechain
26	BB	1223	G	Sidechain
26	BB	1226	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1227	G	Sidechain
26	BB	1228	G	Sidechain
26	BB	1229	C	Sidechain
26	BB	123	G	Sidechain
26	BB	1230	A	Sidechain
26	BB	1231	U	Sidechain
26	BB	1235	G	Sidechain
26	BB	1236	G	Sidechain
26	BB	1238	G	Sidechain
26	BB	124	G	Sidechain
26	BB	1242	U	Sidechain
26	BB	1243	C	Sidechain
26	BB	1244	A	Sidechain
26	BB	1245	G	Sidechain
26	BB	1246	A	Sidechain
26	BB	1248	G	Sidechain
26	BB	1249	U	Sidechain
26	BB	125	A	Sidechain
26	BB	1250	G	Sidechain
26	BB	1252	G	Sidechain
26	BB	1253	A	Sidechain
26	BB	1254	A	Sidechain
26	BB	1255	U	Sidechain
26	BB	1256	G	Sidechain
26	BB	1258	U	Sidechain
26	BB	1259	G	Sidechain
26	BB	126	A	Sidechain
26	BB	1261	C	Sidechain
26	BB	1262	A	Sidechain
26	BB	1263	U	Sidechain
26	BB	1264	A	Sidechain
26	BB	1265	A	Sidechain
26	BB	1266	G	Sidechain
26	BB	1267	U	Sidechain
26	BB	1268	A	Sidechain
26	BB	127	A	Sidechain
26	BB	1271	G	Sidechain
26	BB	1273	U	Sidechain
26	BB	1275	A	Sidechain
26	BB	1276	A	Sidechain
26	BB	1277	G	Sidechain
26	BB	1279	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1280	G	Sidechain
26	BB	1281	G	Sidechain
26	BB	1282	U	Sidechain
26	BB	1283	G	Sidechain
26	BB	1284	A	Sidechain
26	BB	1287	A	Sidechain
26	BB	1288	G	Sidechain
26	BB	129	C	Sidechain
26	BB	1290	C	Sidechain
26	BB	1292	G	Sidechain
26	BB	1293	C	Sidechain
26	BB	1294	U	Sidechain
26	BB	1295	C	Sidechain
26	BB	1296	G	Sidechain
26	BB	1297	C	Sidechain
26	BB	1298	C	Sidechain
26	BB	1299	G	Sidechain
26	BB	1300	G	Sidechain
26	BB	1301	A	Sidechain
26	BB	1302	A	Sidechain
26	BB	1305	C	Sidechain
26	BB	1306	C	Sidechain
26	BB	1307	A	Sidechain
26	BB	1309	G	Sidechain
26	BB	1311	G	Sidechain
26	BB	1313	U	Sidechain
26	BB	1316	U	Sidechain
26	BB	1317	G	Sidechain
26	BB	1319	C	Sidechain
26	BB	132	G	Sidechain
26	BB	1321	A	Sidechain
26	BB	1325	U	Sidechain
26	BB	1326	U	Sidechain
26	BB	1327	A	Sidechain
26	BB	133	U	Sidechain
26	BB	1332	G	Sidechain
26	BB	1334	G	Sidechain
26	BB	1336	A	Sidechain
26	BB	1338	G	Sidechain
26	BB	1339	G	Sidechain
26	BB	1340	U	Sidechain
26	BB	1341	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1343	G	Sidechain
26	BB	1345	C	Sidechain
26	BB	1349	C	Sidechain
26	BB	135	U	Sidechain
26	BB	1350	C	Sidechain
26	BB	1353	A	Sidechain
26	BB	1354	A	Sidechain
26	BB	1355	G	Sidechain
26	BB	1356	G	Sidechain
26	BB	1359	A	Sidechain
26	BB	136	G	Sidechain
26	BB	1360	G	Sidechain
26	BB	1361	G	Sidechain
26	BB	1362	C	Sidechain
26	BB	1365	A	Sidechain
26	BB	1366	A	Sidechain
26	BB	1367	A	Sidechain
26	BB	1368	G	Sidechain
26	BB	1369	G	Sidechain
26	BB	137	U	Sidechain
26	BB	1370	C	Sidechain
26	BB	1371	G	Sidechain
26	BB	1374	G	Sidechain
26	BB	1375	U	Sidechain
26	BB	1376	C	Sidechain
26	BB	1377	G	Sidechain
26	BB	1380	G	Sidechain
26	BB	1381	G	Sidechain
26	BB	1382	G	Sidechain
26	BB	1383	A	Sidechain
26	BB	1385	A	Sidechain
26	BB	1386	C	Sidechain
26	BB	1388	G	Sidechain
26	BB	1389	G	Sidechain
26	BB	1390	U	Sidechain
26	BB	1392	A	Sidechain
26	BB	1393	A	Sidechain
26	BB	1394	U	Sidechain
26	BB	1395	A	Sidechain
26	BB	1396	U	Sidechain
26	BB	1397	U	Sidechain
26	BB	1398	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	14	A	Sidechain
26	BB	1401	G	Sidechain
26	BB	1402	U	Sidechain
26	BB	1404	C	Sidechain
26	BB	1405	U	Sidechain
26	BB	1406	U	Sidechain
26	BB	1407	G	Sidechain
26	BB	1408	G	Sidechain
26	BB	1409	U	Sidechain
26	BB	141	G	Sidechain
26	BB	1410	G	Sidechain
26	BB	1411	U	Sidechain
26	BB	1412	U	Sidechain
26	BB	1413	A	Sidechain
26	BB	1414	C	Sidechain
26	BB	1416	G	Sidechain
26	BB	1417	C	Sidechain
26	BB	1418	G	Sidechain
26	BB	1419	A	Sidechain
26	BB	1420	A	Sidechain
26	BB	1423	G	Sidechain
26	BB	1424	G	Sidechain
26	BB	1426	G	Sidechain
26	BB	1427	A	Sidechain
26	BB	1428	C	Sidechain
26	BB	1429	G	Sidechain
26	BB	143	C	Sidechain
26	BB	1430	G	Sidechain
26	BB	1432	G	Sidechain
26	BB	1433	A	Sidechain
26	BB	1434	A	Sidechain
26	BB	1435	G	Sidechain
26	BB	1436	G	Sidechain
26	BB	1438	U	Sidechain
26	BB	1439	A	Sidechain
26	BB	144	A	Sidechain
26	BB	1440	U	Sidechain
26	BB	1443	U	Sidechain
26	BB	1444	G	Sidechain
26	BB	1448	G	Sidechain
26	BB	1452	G	Sidechain
26	BB	1453	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1454	C	Sidechain
26	BB	1457	U	Sidechain
26	BB	1459	G	Sidechain
26	BB	1460	U	Sidechain
26	BB	1461	C	Sidechain
26	BB	1464	G	Sidechain
26	BB	1466	U	Sidechain
26	BB	1467	U	Sidechain
26	BB	1468	U	Sidechain
26	BB	1470	A	Sidechain
26	BB	1471	G	Sidechain
26	BB	1473	G	Sidechain
26	BB	1474	U	Sidechain
26	BB	1477	A	Sidechain
26	BB	1478	G	Sidechain
26	BB	148	U	Sidechain
26	BB	1480	C	Sidechain
26	BB	1482	G	Sidechain
26	BB	1483	G	Sidechain
26	BB	1484	U	Sidechain
26	BB	1485	U	Sidechain
26	BB	1487	U	Sidechain
26	BB	1488	C	Sidechain
26	BB	1491	G	Sidechain
26	BB	1492	G	Sidechain
26	BB	1493	C	Sidechain
26	BB	1494	A	Sidechain
26	BB	1495	A	Sidechain
26	BB	1498	C	Sidechain
26	BB	150	U	Sidechain
26	BB	1507	C	Sidechain
26	BB	1510	G	Sidechain
26	BB	1511	G	Sidechain
26	BB	1513	U	Sidechain
26	BB	1514	G	Sidechain
26	BB	1518	C	Sidechain
26	BB	1522	A	Sidechain
26	BB	1523	U	Sidechain
26	BB	1524	G	Sidechain
26	BB	1528	A	Sidechain
26	BB	1529	G	Sidechain
26	BB	1533	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1535	A	Sidechain
26	BB	1536	C	Sidechain
26	BB	1538	G	Sidechain
26	BB	1539	U	Sidechain
26	BB	154	U	Sidechain
26	BB	1540	G	Sidechain
26	BB	1542	U	Sidechain
26	BB	1544	A	Sidechain
26	BB	1546	G	Sidechain
26	BB	1548	A	Sidechain
26	BB	155	A	Sidechain
26	BB	1551	A	Sidechain
26	BB	1552	A	Sidechain
26	BB	1553	A	Sidechain
26	BB	1556	C	Sidechain
26	BB	1559	U	Sidechain
26	BB	1560	G	Sidechain
26	BB	1563	U	Sidechain
26	BB	1565	C	Sidechain
26	BB	1566	A	Sidechain
26	BB	1567	G	Sidechain
26	BB	1569	A	Sidechain
26	BB	157	C	Sidechain
26	BB	1572	A	Sidechain
26	BB	1574	C	Sidechain
26	BB	1577	C	Sidechain
26	BB	158	U	Sidechain
26	BB	1580	A	Sidechain
26	BB	1581	G	Sidechain
26	BB	1583	A	Sidechain
26	BB	1584	U	Sidechain
26	BB	1587	G	Sidechain
26	BB	1588	G	Sidechain
26	BB	1589	U	Sidechain
26	BB	1590	A	Sidechain
26	BB	1591	A	Sidechain
26	BB	1594	U	Sidechain
26	BB	1598	A	Sidechain
26	BB	1599	U	Sidechain
26	BB	16	C	Sidechain
26	BB	160	A	Sidechain
26	BB	1601	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1603	A	Sidechain
26	BB	1604	C	Sidechain
26	BB	1605	C	Sidechain
26	BB	1607	C	Sidechain
26	BB	1608	A	Sidechain
26	BB	1612	C	Sidechain
26	BB	1617	C	Sidechain
26	BB	1619	G	Sidechain
26	BB	162	U	Sidechain
26	BB	1620	G	Sidechain
26	BB	1622	G	Sidechain
26	BB	1623	G	Sidechain
26	BB	1624	U	Sidechain
26	BB	1626	A	Sidechain
26	BB	1627	G	Sidechain
26	BB	1628	G	Sidechain
26	BB	1631	G	Sidechain
26	BB	1633	G	Sidechain
26	BB	1634	A	Sidechain
26	BB	1635	A	Sidechain
26	BB	1636	U	Sidechain
26	BB	1637	A	Sidechain
26	BB	1638	C	Sidechain
26	BB	1639	C	Sidechain
26	BB	1640	A	Sidechain
26	BB	1641	A	Sidechain
26	BB	1645	G	Sidechain
26	BB	1646	C	Sidechain
26	BB	1648	U	Sidechain
26	BB	165	A	Sidechain
26	BB	1651	G	Sidechain
26	BB	1652	A	Sidechain
26	BB	1654	A	Sidechain
26	BB	1655	A	Sidechain
26	BB	1656	C	Sidechain
26	BB	1658	C	Sidechain
26	BB	1659	G	Sidechain
26	BB	166	U	Sidechain
26	BB	1660	G	Sidechain
26	BB	1661	G	Sidechain
26	BB	1662	U	Sidechain
26	BB	1663	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1664	A	Sidechain
26	BB	1665	A	Sidechain
26	BB	1666	G	Sidechain
26	BB	1667	G	Sidechain
26	BB	1668	A	Sidechain
26	BB	1669	A	Sidechain
26	BB	1671	U	Sidechain
26	BB	1672	A	Sidechain
26	BB	1678	A	Sidechain
26	BB	1680	U	Sidechain
26	BB	1681	G	Sidechain
26	BB	1682	G	Sidechain
26	BB	1687	G	Sidechain
26	BB	1691	C	Sidechain
26	BB	1693	U	Sidechain
26	BB	1694	C	Sidechain
26	BB	1695	G	Sidechain
26	BB	1696	G	Sidechain
26	BB	170	U	Sidechain
26	BB	1700	A	Sidechain
26	BB	1703	G	Sidechain
26	BB	1706	C	Sidechain
26	BB	1708	C	Sidechain
26	BB	1709	U	Sidechain
26	BB	171	U	Sidechain
26	BB	1713	A	Sidechain
26	BB	1715	G	Sidechain
26	BB	172	A	Sidechain
26	BB	1720	U	Sidechain
26	BB	1721	G	Sidechain
26	BB	1724	G	Sidechain
26	BB	1725	U	Sidechain
26	BB	1727	C	Sidechain
26	BB	1728	C	Sidechain
26	BB	1729	U	Sidechain
26	BB	1735	A	Sidechain
26	BB	1736	U	Sidechain
26	BB	1737	G	Sidechain
26	BB	1738	G	Sidechain
26	BB	1739	A	Sidechain
26	BB	174	U	Sidechain
26	BB	1740	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1745	A	Sidechain
26	BB	1746	A	Sidechain
26	BB	1747	U	Sidechain
26	BB	1748	C	Sidechain
26	BB	175	G	Sidechain
26	BB	1750	G	Sidechain
26	BB	1751	U	Sidechain
26	BB	1752	C	Sidechain
26	BB	1753	G	Sidechain
26	BB	1754	A	Sidechain
26	BB	1755	A	Sidechain
26	BB	1756	G	Sidechain
26	BB	1758	U	Sidechain
26	BB	1759	A	Sidechain
26	BB	176	A	Sidechain
26	BB	1761	C	Sidechain
26	BB	1764	C	Sidechain
26	BB	1765	U	Sidechain
26	BB	1766	G	Sidechain
26	BB	1768	C	Sidechain
26	BB	1769	U	Sidechain
26	BB	177	G	Sidechain
26	BB	1770	G	Sidechain
26	BB	1772	A	Sidechain
26	BB	1773	A	Sidechain
26	BB	1775	U	Sidechain
26	BB	1777	U	Sidechain
26	BB	1778	U	Sidechain
26	BB	178	G	Sidechain
26	BB	1780	A	Sidechain
26	BB	1782	U	Sidechain
26	BB	1784	A	Sidechain
26	BB	1789	A	Sidechain
26	BB	179	C	Sidechain
26	BB	1792	G	Sidechain
26	BB	1795	C	Sidechain
26	BB	1796	U	Sidechain
26	BB	1797	G	Sidechain
26	BB	18	U	Sidechain
26	BB	180	G	Sidechain
26	BB	1800	C	Sidechain
26	BB	1801	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1802	A	Sidechain
26	BB	1803	A	Sidechain
26	BB	1805	A	Sidechain
26	BB	1808	A	Sidechain
26	BB	1810	A	Sidechain
26	BB	1811	G	Sidechain
26	BB	1812	U	Sidechain
26	BB	1813	G	Sidechain
26	BB	1814	G	Sidechain
26	BB	1815	A	Sidechain
26	BB	1817	G	Sidechain
26	BB	182	A	Sidechain
26	BB	1820	U	Sidechain
26	BB	1822	C	Sidechain
26	BB	1823	G	Sidechain
26	BB	1824	G	Sidechain
26	BB	1826	G	Sidechain
26	BB	1828	G	Sidechain
26	BB	1829	A	Sidechain
26	BB	183	C	Sidechain
26	BB	1831	G	Sidechain
26	BB	1832	C	Sidechain
26	BB	1833	C	Sidechain
26	BB	1836	C	Sidechain
26	BB	1837	C	Sidechain
26	BB	1838	C	Sidechain
26	BB	184	C	Sidechain
26	BB	1840	G	Sidechain
26	BB	1841	U	Sidechain
26	BB	1842	G	Sidechain
26	BB	1845	G	Sidechain
26	BB	1846	G	Sidechain
26	BB	1849	G	Sidechain
26	BB	185	G	Sidechain
26	BB	1850	G	Sidechain
26	BB	1851	U	Sidechain
26	BB	1853	A	Sidechain
26	BB	1855	U	Sidechain
26	BB	1857	G	Sidechain
26	BB	1859	U	Sidechain
26	BB	186	G	Sidechain
26	BB	1863	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1865	U	Sidechain
26	BB	1867	G	Sidechain
26	BB	1868	C	Sidechain
26	BB	1869	G	Sidechain
26	BB	1871	A	Sidechain
26	BB	1872	A	Sidechain
26	BB	1875	G	Sidechain
26	BB	188	G	Sidechain
26	BB	1884	G	Sidechain
26	BB	1885	A	Sidechain
26	BB	1886	U	Sidechain
26	BB	1888	G	Sidechain
26	BB	1889	A	Sidechain
26	BB	189	G	Sidechain
26	BB	1890	A	Sidechain
26	BB	1891	G	Sidechain
26	BB	1894	C	Sidechain
26	BB	1895	C	Sidechain
26	BB	1897	G	Sidechain
26	BB	1898	U	Sidechain
26	BB	1899	A	Sidechain
26	BB	190	A	Sidechain
26	BB	1901	A	Sidechain
26	BB	1902	C	Sidechain
26	BB	1904	G	Sidechain
26	BB	1907	G	Sidechain
26	BB	1908	C	Sidechain
26	BB	1909	C	Sidechain
26	BB	1910	G	Sidechain
26	BB	1912	A	Sidechain
26	BB	1913	A	Sidechain
26	BB	1914	C	Sidechain
26	BB	1918	A	Sidechain
26	BB	1919	A	Sidechain
26	BB	1920	C	Sidechain
26	BB	1921	G	Sidechain
26	BB	1923	U	Sidechain
26	BB	1924	C	Sidechain
26	BB	1929	G	Sidechain
26	BB	193	U	Sidechain
26	BB	1930	G	Sidechain
26	BB	1931	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1932	A	Sidechain
26	BB	1934	C	Sidechain
26	BB	1935	G	Sidechain
26	BB	1936	A	Sidechain
26	BB	1938	A	Sidechain
26	BB	194	G	Sidechain
26	BB	1944	U	Sidechain
26	BB	1948	G	Sidechain
26	BB	1949	G	Sidechain
26	BB	195	A	Sidechain
26	BB	1952	A	Sidechain
26	BB	1954	G	Sidechain
26	BB	1955	U	Sidechain
26	BB	1959	G	Sidechain
26	BB	196	A	Sidechain
26	BB	1960	A	Sidechain
26	BB	1963	U	Sidechain
26	BB	1964	G	Sidechain
26	BB	1968	G	Sidechain
26	BB	1969	A	Sidechain
26	BB	1970	A	Sidechain
26	BB	1971	U	Sidechain
26	BB	1975	G	Sidechain
26	BB	1976	U	Sidechain
26	BB	1980	G	Sidechain
26	BB	1983	G	Sidechain
26	BB	1984	G	Sidechain
26	BB	1987	A	Sidechain
26	BB	1988	G	Sidechain
26	BB	1989	G	Sidechain
26	BB	199	A	Sidechain
26	BB	1990	C	Sidechain
26	BB	1991	U	Sidechain
26	BB	1992	G	Sidechain
26	BB	1994	C	Sidechain
26	BB	1995	U	Sidechain
26	BB	1997	C	Sidechain
26	BB	1999	C	Sidechain
26	BB	2	G	Sidechain
26	BB	20	C	Sidechain
26	BB	200	U	Sidechain
26	BB	2000	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2002	G	Sidechain
26	BB	2005	A	Sidechain
26	BB	2008	C	Sidechain
26	BB	201	C	Sidechain
26	BB	2010	G	Sidechain
26	BB	2016	U	Sidechain
26	BB	202	U	Sidechain
26	BB	2021	C	Sidechain
26	BB	2022	U	Sidechain
26	BB	2023	C	Sidechain
26	BB	2024	G	Sidechain
26	BB	2026	U	Sidechain
26	BB	2027	G	Sidechain
26	BB	2029	G	Sidechain
26	BB	2031	A	Sidechain
26	BB	2034	U	Sidechain
26	BB	2036	C	Sidechain
26	BB	2037	A	Sidechain
26	BB	204	A	Sidechain
26	BB	2040	G	Sidechain
26	BB	2042	A	Sidechain
26	BB	2043	C	Sidechain
26	BB	2044	C	Sidechain
26	BB	2048	G	Sidechain
26	BB	2049	G	Sidechain
26	BB	205	G	Sidechain
26	BB	2055	C	Sidechain
26	BB	2056	G	Sidechain
26	BB	2057	G	Sidechain
26	BB	2059	A	Sidechain
26	BB	206	U	Sidechain
26	BB	2060	A	Sidechain
26	BB	2061	G	Sidechain
26	BB	2064	C	Sidechain
26	BB	2065	C	Sidechain
26	BB	2066	C	Sidechain
26	BB	2068	U	Sidechain
26	BB	207	A	Sidechain
26	BB	2070	A	Sidechain
26	BB	2071	A	Sidechain
26	BB	2072	C	Sidechain
26	BB	2073	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2074	U	Sidechain
26	BB	2076	U	Sidechain
26	BB	208	C	Sidechain
26	BB	2086	U	Sidechain
26	BB	2087	G	Sidechain
26	BB	2090	A	Sidechain
26	BB	2091	C	Sidechain
26	BB	2092	U	Sidechain
26	BB	2093	G	Sidechain
26	BB	2094	A	Sidechain
26	BB	2098	U	Sidechain
26	BB	2099	U	Sidechain
26	BB	21	A	Sidechain
26	BB	210	C	Sidechain
26	BB	2102	G	Sidechain
26	BB	2103	C	Sidechain
26	BB	2105	U	Sidechain
26	BB	2106	U	Sidechain
26	BB	2107	G	Sidechain
26	BB	2108	A	Sidechain
26	BB	211	C	Sidechain
26	BB	2111	U	Sidechain
26	BB	2112	G	Sidechain
26	BB	2113	U	Sidechain
26	BB	2114	A	Sidechain
26	BB	2115	G	Sidechain
26	BB	2117	A	Sidechain
26	BB	2118	U	Sidechain
26	BB	212	G	Sidechain
26	BB	2120	G	Sidechain
26	BB	2121	G	Sidechain
26	BB	2122	U	Sidechain
26	BB	2124	G	Sidechain
26	BB	2125	G	Sidechain
26	BB	2126	A	Sidechain
26	BB	2128	G	Sidechain
26	BB	2129	C	Sidechain
26	BB	2130	U	Sidechain
26	BB	2131	U	Sidechain
26	BB	2132	U	Sidechain
26	BB	2133	G	Sidechain
26	BB	2134	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2136	G	Sidechain
26	BB	2138	G	Sidechain
26	BB	214	G	Sidechain
26	BB	2143	C	Sidechain
26	BB	2144	G	Sidechain
26	BB	2146	C	Sidechain
26	BB	2147	A	Sidechain
26	BB	2150	C	Sidechain
26	BB	2151	U	Sidechain
26	BB	2152	G	Sidechain
26	BB	2153	C	Sidechain
26	BB	2156	G	Sidechain
26	BB	2157	G	Sidechain
26	BB	2160	C	Sidechain
26	BB	2163	A	Sidechain
26	BB	2166	U	Sidechain
26	BB	2167	U	Sidechain
26	BB	2168	G	Sidechain
26	BB	2169	A	Sidechain
26	BB	2174	C	Sidechain
26	BB	2181	U	Sidechain
26	BB	2183	A	Sidechain
26	BB	2184	A	Sidechain
26	BB	2186	G	Sidechain
26	BB	2188	U	Sidechain
26	BB	219	A	Sidechain
26	BB	2190	G	Sidechain
26	BB	2191	A	Sidechain
26	BB	2193	G	Sidechain
26	BB	2196	C	Sidechain
26	BB	2197	U	Sidechain
26	BB	2198	A	Sidechain
26	BB	2200	C	Sidechain
26	BB	2204	G	Sidechain
26	BB	2209	G	Sidechain
26	BB	221	A	Sidechain
26	BB	2210	U	Sidechain
26	BB	2213	U	Sidechain
26	BB	2214	C	Sidechain
26	BB	2216	G	Sidechain
26	BB	2217	G	Sidechain
26	BB	2218	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2221	G	Sidechain
26	BB	2224	G	Sidechain
26	BB	2228	G	Sidechain
26	BB	2229	U	Sidechain
26	BB	2233	U	Sidechain
26	BB	2234	G	Sidechain
26	BB	2237	G	Sidechain
26	BB	2239	G	Sidechain
26	BB	2242	G	Sidechain
26	BB	2243	U	Sidechain
26	BB	2244	U	Sidechain
26	BB	2246	G	Sidechain
26	BB	2248	C	Sidechain
26	BB	225	C	Sidechain
26	BB	2250	G	Sidechain
26	BB	2252	G	Sidechain
26	BB	2253	G	Sidechain
26	BB	2255	G	Sidechain
26	BB	2257	U	Sidechain
26	BB	2258	C	Sidechain
26	BB	2259	U	Sidechain
26	BB	226	A	Sidechain
26	BB	2264	C	Sidechain
26	BB	2267	A	Sidechain
26	BB	2268	A	Sidechain
26	BB	2269	G	Sidechain
26	BB	227	A	Sidechain
26	BB	2270	A	Sidechain
26	BB	2273	A	Sidechain
26	BB	2277	G	Sidechain
26	BB	2279	G	Sidechain
26	BB	2281	A	Sidechain
26	BB	2282	G	Sidechain
26	BB	2283	C	Sidechain
26	BB	2284	A	Sidechain
26	BB	2285	C	Sidechain
26	BB	2289	G	Sidechain
26	BB	229	C	Sidechain
26	BB	2290	G	Sidechain
26	BB	2291	U	Sidechain
26	BB	2293	G	Sidechain
26	BB	2296	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2297	A	Sidechain
26	BB	2298	A	Sidechain
26	BB	2299	U	Sidechain
26	BB	230	G	Sidechain
26	BB	2300	C	Sidechain
26	BB	2303	G	Sidechain
26	BB	2304	G	Sidechain
26	BB	2305	U	Sidechain
26	BB	2306	C	Sidechain
26	BB	2308	G	Sidechain
26	BB	2309	A	Sidechain
26	BB	2311	A	Sidechain
26	BB	2312	U	Sidechain
26	BB	2313	C	Sidechain
26	BB	2315	G	Sidechain
26	BB	2316	G	Sidechain
26	BB	2318	G	Sidechain
26	BB	232	G	Sidechain
26	BB	2320	U	Sidechain
26	BB	2321	U	Sidechain
26	BB	2323	G	Sidechain
26	BB	2325	G	Sidechain
26	BB	2326	C	Sidechain
26	BB	2327	A	Sidechain
26	BB	2328	A	Sidechain
26	BB	2329	U	Sidechain
26	BB	2330	G	Sidechain
26	BB	2332	C	Sidechain
26	BB	2333	A	Sidechain
26	BB	2334	U	Sidechain
26	BB	2336	A	Sidechain
26	BB	2339	C	Sidechain
26	BB	234	U	Sidechain
26	BB	2340	A	Sidechain
26	BB	2341	G	Sidechain
26	BB	2344	U	Sidechain
26	BB	2345	G	Sidechain
26	BB	2348	U	Sidechain
26	BB	2349	G	Sidechain
26	BB	2350	C	Sidechain
26	BB	2353	G	Sidechain
26	BB	2355	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2358	A	Sidechain
26	BB	2360	G	Sidechain
26	BB	2361	G	Sidechain
26	BB	2363	G	Sidechain
26	BB	2364	C	Sidechain
26	BB	2365	G	Sidechain
26	BB	2366	A	Sidechain
26	BB	2367	G	Sidechain
26	BB	2368	C	Sidechain
26	BB	237	C	Sidechain
26	BB	2370	G	Sidechain
26	BB	2371	G	Sidechain
26	BB	2373	G	Sidechain
26	BB	2375	G	Sidechain
26	BB	2376	A	Sidechain
26	BB	2377	A	Sidechain
26	BB	2379	G	Sidechain
26	BB	238	C	Sidechain
26	BB	2383	G	Sidechain
26	BB	2385	C	Sidechain
26	BB	2386	A	Sidechain
26	BB	2388	A	Sidechain
26	BB	2390	U	Sidechain
26	BB	2391	G	Sidechain
26	BB	2393	U	Sidechain
26	BB	2396	G	Sidechain
26	BB	240	C	Sidechain
26	BB	2401	U	Sidechain
26	BB	2404	U	Sidechain
26	BB	2405	G	Sidechain
26	BB	2408	U	Sidechain
26	BB	2409	G	Sidechain
26	BB	2410	G	Sidechain
26	BB	2411	A	Sidechain
26	BB	2412	A	Sidechain
26	BB	2413	G	Sidechain
26	BB	2414	G	Sidechain
26	BB	2418	A	Sidechain
26	BB	2419	U	Sidechain
26	BB	242	G	Sidechain
26	BB	2421	G	Sidechain
26	BB	2423	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2425	A	Sidechain
26	BB	2427	C	Sidechain
26	BB	2428	G	Sidechain
26	BB	2429	G	Sidechain
26	BB	2432	A	Sidechain
26	BB	2433	A	Sidechain
26	BB	2435	A	Sidechain
26	BB	2436	G	Sidechain
26	BB	2437	G	Sidechain
26	BB	2438	U	Sidechain
26	BB	2439	A	Sidechain
26	BB	2440	C	Sidechain
26	BB	2443	C	Sidechain
26	BB	2444	G	Sidechain
26	BB	2447	G	Sidechain
26	BB	2448	A	Sidechain
26	BB	245	G	Sidechain
26	BB	2450	A	Sidechain
26	BB	2451	A	Sidechain
26	BB	2456	C	Sidechain
26	BB	2458	G	Sidechain
26	BB	2459	A	Sidechain
26	BB	246	C	Sidechain
26	BB	2462	C	Sidechain
26	BB	2464	G	Sidechain
26	BB	2466	C	Sidechain
26	BB	2468	A	Sidechain
26	BB	2469	A	Sidechain
26	BB	247	G	Sidechain
26	BB	2470	G	Sidechain
26	BB	2471	A	Sidechain
26	BB	2474	U	Sidechain
26	BB	2476	A	Sidechain
26	BB	2478	A	Sidechain
26	BB	2479	U	Sidechain
26	BB	248	G	Sidechain
26	BB	2480	C	Sidechain
26	BB	2485	G	Sidechain
26	BB	2486	C	Sidechain
26	BB	2487	G	Sidechain
26	BB	2488	G	Sidechain
26	BB	2489	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2490	G	Sidechain
26	BB	2491	U	Sidechain
26	BB	2492	U	Sidechain
26	BB	2493	U	Sidechain
26	BB	2495	G	Sidechain
26	BB	2499	C	Sidechain
26	BB	25	U	Sidechain
26	BB	250	G	Sidechain
26	BB	2500	U	Sidechain
26	BB	2502	G	Sidechain
26	BB	2505	G	Sidechain
26	BB	2506	U	Sidechain
26	BB	2508	G	Sidechain
26	BB	2509	G	Sidechain
26	BB	251	A	Sidechain
26	BB	2510	C	Sidechain
26	BB	2512	C	Sidechain
26	BB	2514	U	Sidechain
26	BB	2515	C	Sidechain
26	BB	2517	C	Sidechain
26	BB	2519	U	Sidechain
26	BB	252	G	Sidechain
26	BB	2521	C	Sidechain
26	BB	2525	G	Sidechain
26	BB	2526	G	Sidechain
26	BB	2528	U	Sidechain
26	BB	253	C	Sidechain
26	BB	2530	A	Sidechain
26	BB	2532	G	Sidechain
26	BB	2533	U	Sidechain
26	BB	2535	G	Sidechain
26	BB	2537	U	Sidechain
26	BB	2538	C	Sidechain
26	BB	2539	C	Sidechain
26	BB	254	G	Sidechain
26	BB	2540	C	Sidechain
26	BB	2543	G	Sidechain
26	BB	2544	G	Sidechain
26	BB	2547	A	Sidechain
26	BB	2548	U	Sidechain
26	BB	2549	G	Sidechain
26	BB	2550	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2553	G	Sidechain
26	BB	2555	U	Sidechain
26	BB	2556	C	Sidechain
26	BB	2559	C	Sidechain
26	BB	2561	U	Sidechain
26	BB	2562	U	Sidechain
26	BB	2563	U	Sidechain
26	BB	2564	A	Sidechain
26	BB	2569	G	Sidechain
26	BB	257	C	Sidechain
26	BB	2570	G	Sidechain
26	BB	2572	A	Sidechain
26	BB	2574	G	Sidechain
26	BB	2576	G	Sidechain
26	BB	2582	G	Sidechain
26	BB	2583	G	Sidechain
26	BB	2584	U	Sidechain
26	BB	2585	U	Sidechain
26	BB	2586	U	Sidechain
26	BB	2588	G	Sidechain
26	BB	259	G	Sidechain
26	BB	2592	G	Sidechain
26	BB	2593	U	Sidechain
26	BB	2596	U	Sidechain
26	BB	2597	G	Sidechain
26	BB	2598	A	Sidechain
26	BB	2599	G	Sidechain
26	BB	260	G	Sidechain
26	BB	2600	A	Sidechain
26	BB	2603	G	Sidechain
26	BB	2606	C	Sidechain
26	BB	2607	G	Sidechain
26	BB	261	G	Sidechain
26	BB	2610	C	Sidechain
26	BB	2611	C	Sidechain
26	BB	2613	U	Sidechain
26	BB	2615	U	Sidechain
26	BB	2616	C	Sidechain
26	BB	2618	G	Sidechain
26	BB	262	A	Sidechain
26	BB	2620	C	Sidechain
26	BB	2621	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2624	G	Sidechain
26	BB	2626	C	Sidechain
26	BB	2628	C	Sidechain
26	BB	263	G	Sidechain
26	BB	2630	G	Sidechain
26	BB	2631	G	Sidechain
26	BB	2633	G	Sidechain
26	BB	2634	A	Sidechain
26	BB	2637	U	Sidechain
26	BB	2638	G	Sidechain
26	BB	2639	A	Sidechain
26	BB	264	C	Sidechain
26	BB	2640	G	Sidechain
26	BB	2641	G	Sidechain
26	BB	2642	G	Sidechain
26	BB	2643	G	Sidechain
26	BB	2644	G	Sidechain
26	BB	2645	G	Sidechain
26	BB	2647	U	Sidechain
26	BB	265	A	Sidechain
26	BB	2655	G	Sidechain
26	BB	2657	A	Sidechain
26	BB	2658	C	Sidechain
26	BB	2659	G	Sidechain
26	BB	266	G	Sidechain
26	BB	2660	A	Sidechain
26	BB	2661	G	Sidechain
26	BB	2662	A	Sidechain
26	BB	2663	G	Sidechain
26	BB	2664	G	Sidechain
26	BB	2665	A	Sidechain
26	BB	2668	G	Sidechain
26	BB	2669	G	Sidechain
26	BB	267	C	Sidechain
26	BB	2671	G	Sidechain
26	BB	2672	U	Sidechain
26	BB	2673	G	Sidechain
26	BB	2674	G	Sidechain
26	BB	2675	A	Sidechain
26	BB	2676	C	Sidechain
26	BB	2681	C	Sidechain
26	BB	2683	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2684	U	Sidechain
26	BB	2685	G	Sidechain
26	BB	2686	G	Sidechain
26	BB	2687	U	Sidechain
26	BB	2688	G	Sidechain
26	BB	2689	U	Sidechain
26	BB	269	C	Sidechain
26	BB	2690	U	Sidechain
26	BB	2691	C	Sidechain
26	BB	2692	G	Sidechain
26	BB	2694	G	Sidechain
26	BB	2696	U	Sidechain
26	BB	2697	G	Sidechain
26	BB	2698	U	Sidechain
26	BB	2699	C	Sidechain
26	BB	27	G	Sidechain
26	BB	270	A	Sidechain
26	BB	2702	G	Sidechain
26	BB	2704	C	Sidechain
26	BB	2706	A	Sidechain
26	BB	2707	U	Sidechain
26	BB	2708	G	Sidechain
26	BB	2709	G	Sidechain
26	BB	271	G	Sidechain
26	BB	2710	C	Sidechain
26	BB	2712	C	Sidechain
26	BB	2713	U	Sidechain
26	BB	2717	C	Sidechain
26	BB	2718	G	Sidechain
26	BB	2719	G	Sidechain
26	BB	272	A	Sidechain
26	BB	2721	A	Sidechain
26	BB	2722	G	Sidechain
26	BB	2723	C	Sidechain
26	BB	2724	U	Sidechain
26	BB	2725	A	Sidechain
26	BB	2726	A	Sidechain
26	BB	2728	U	Sidechain
26	BB	2729	G	Sidechain
26	BB	273	G	Sidechain
26	BB	2730	C	Sidechain
26	BB	2731	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2732	G	Sidechain
26	BB	2733	A	Sidechain
26	BB	2734	A	Sidechain
26	BB	2737	G	Sidechain
26	BB	2740	A	Sidechain
26	BB	2742	G	Sidechain
26	BB	2744	G	Sidechain
26	BB	2745	C	Sidechain
26	BB	2751	G	Sidechain
26	BB	2752	C	Sidechain
26	BB	2753	A	Sidechain
26	BB	2754	U	Sidechain
26	BB	2755	C	Sidechain
26	BB	2756	U	Sidechain
26	BB	2757	A	Sidechain
26	BB	2758	A	Sidechain
26	BB	2759	G	Sidechain
26	BB	2760	C	Sidechain
26	BB	2761	A	Sidechain
26	BB	2762	C	Sidechain
26	BB	2763	G	Sidechain
26	BB	2764	A	Sidechain
26	BB	2767	C	Sidechain
26	BB	2769	U	Sidechain
26	BB	277	G	Sidechain
26	BB	2770	G	Sidechain
26	BB	2771	C	Sidechain
26	BB	2773	C	Sidechain
26	BB	2776	A	Sidechain
26	BB	2777	G	Sidechain
26	BB	2778	A	Sidechain
26	BB	278	A	Sidechain
26	BB	2780	G	Sidechain
26	BB	2781	A	Sidechain
26	BB	2782	G	Sidechain
26	BB	2783	U	Sidechain
26	BB	2784	U	Sidechain
26	BB	2785	C	Sidechain
26	BB	2786	U	Sidechain
26	BB	2787	C	Sidechain
26	BB	2791	G	Sidechain
26	BB	2793	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2794	C	Sidechain
26	BB	2795	C	Sidechain
26	BB	2797	U	Sidechain
26	BB	2798	U	Sidechain
26	BB	2802	G	Sidechain
26	BB	2804	U	Sidechain
26	BB	2806	C	Sidechain
26	BB	2807	U	Sidechain
26	BB	2808	G	Sidechain
26	BB	2809	A	Sidechain
26	BB	2810	A	Sidechain
26	BB	2816	G	Sidechain
26	BB	2819	G	Sidechain
26	BB	282	A	Sidechain
26	BB	2820	A	Sidechain
26	BB	2822	G	Sidechain
26	BB	2823	A	Sidechain
26	BB	2824	C	Sidechain
26	BB	2828	G	Sidechain
26	BB	2831	G	Sidechain
26	BB	2832	U	Sidechain
26	BB	2834	G	Sidechain
26	BB	2835	A	Sidechain
26	BB	2836	U	Sidechain
26	BB	2838	G	Sidechain
26	BB	2839	G	Sidechain
26	BB	2842	G	Sidechain
26	BB	2844	G	Sidechain
26	BB	2846	G	Sidechain
26	BB	2848	G	Sidechain
26	BB	2849	U	Sidechain
26	BB	285	G	Sidechain
26	BB	2853	C	Sidechain
26	BB	2854	G	Sidechain
26	BB	2857	G	Sidechain
26	BB	2858	C	Sidechain
26	BB	2859	G	Sidechain
26	BB	2860	A	Sidechain
26	BB	2861	U	Sidechain
26	BB	2863	C	Sidechain
26	BB	2864	G	Sidechain
26	BB	2865	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2867	G	Sidechain
26	BB	287	G	Sidechain
26	BB	2871	U	Sidechain
26	BB	2873	A	Sidechain
26	BB	2876	G	Sidechain
26	BB	2877	G	Sidechain
26	BB	2887	A	Sidechain
26	BB	2888	C	Sidechain
26	BB	2890	G	Sidechain
26	BB	2891	U	Sidechain
26	BB	2892	G	Sidechain
26	BB	2894	G	Sidechain
26	BB	2895	G	Sidechain
26	BB	2896	C	Sidechain
26	BB	2897	U	Sidechain
26	BB	2898	U	Sidechain
26	BB	2899	A	Sidechain
26	BB	2900	A	Sidechain
26	BB	2903	U	Sidechain
26	BB	291	G	Sidechain
26	BB	293	U	Sidechain
26	BB	295	G	Sidechain
26	BB	297	G	Sidechain
26	BB	30	G	Sidechain
26	BB	300	A	Sidechain
26	BB	302	C	Sidechain
26	BB	303	G	Sidechain
26	BB	304	U	Sidechain
26	BB	308	G	Sidechain
26	BB	31	C	Sidechain
26	BB	310	A	Sidechain
26	BB	311	A	Sidechain
26	BB	312	G	Sidechain
26	BB	313	G	Sidechain
26	BB	314	C	Sidechain
26	BB	315	G	Sidechain
26	BB	317	G	Sidechain
26	BB	32	C	Sidechain
26	BB	320	A	Sidechain
26	BB	321	U	Sidechain
26	BB	322	A	Sidechain
26	BB	325	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	327	G	Sidechain
26	BB	329	G	Sidechain
26	BB	330	A	Sidechain
26	BB	331	C	Sidechain
26	BB	333	G	Sidechain
26	BB	334	C	Sidechain
26	BB	336	C	Sidechain
26	BB	337	C	Sidechain
26	BB	338	G	Sidechain
26	BB	339	U	Sidechain
26	BB	340	A	Sidechain
26	BB	341	C	Sidechain
26	BB	342	A	Sidechain
26	BB	343	C	Sidechain
26	BB	346	A	Sidechain
26	BB	347	A	Sidechain
26	BB	348	A	Sidechain
26	BB	349	U	Sidechain
26	BB	35	G	Sidechain
26	BB	350	G	Sidechain
26	BB	352	A	Sidechain
26	BB	353	C	Sidechain
26	BB	355	U	Sidechain
26	BB	356	G	Sidechain
26	BB	358	U	Sidechain
26	BB	359	G	Sidechain
26	BB	360	U	Sidechain
26	BB	361	G	Sidechain
26	BB	362	A	Sidechain
26	BB	365	U	Sidechain
26	BB	366	C	Sidechain
26	BB	368	A	Sidechain
26	BB	370	G	Sidechain
26	BB	372	G	Sidechain
26	BB	373	U	Sidechain
26	BB	376	G	Sidechain
26	BB	377	G	Sidechain
26	BB	379	G	Sidechain
26	BB	38	A	Sidechain
26	BB	380	G	Sidechain
26	BB	381	G	Sidechain
26	BB	383	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	386	G	Sidechain
26	BB	387	U	Sidechain
26	BB	389	G	Sidechain
26	BB	39	G	Sidechain
26	BB	392	U	Sidechain
26	BB	393	C	Sidechain
26	BB	395	U	Sidechain
26	BB	396	G	Sidechain
26	BB	397	U	Sidechain
26	BB	398	C	Sidechain
26	BB	4	U	Sidechain
26	BB	40	U	Sidechain
26	BB	403	U	Sidechain
26	BB	404	A	Sidechain
26	BB	406	G	Sidechain
26	BB	407	G	Sidechain
26	BB	408	G	Sidechain
26	BB	409	G	Sidechain
26	BB	41	C	Sidechain
26	BB	412	A	Sidechain
26	BB	418	C	Sidechain
26	BB	42	A	Sidechain
26	BB	420	C	Sidechain
26	BB	424	G	Sidechain
26	BB	425	G	Sidechain
26	BB	426	C	Sidechain
26	BB	428	A	Sidechain
26	BB	43	G	Sidechain
26	BB	430	A	Sidechain
26	BB	431	U	Sidechain
26	BB	432	A	Sidechain
26	BB	434	U	Sidechain
26	BB	436	C	Sidechain
26	BB	44	A	Sidechain
26	BB	441	U	Sidechain
26	BB	443	A	Sidechain
26	BB	448	U	Sidechain
26	BB	449	A	Sidechain
26	BB	45	G	Sidechain
26	BB	450	G	Sidechain
26	BB	451	U	Sidechain
26	BB	452	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	453	A	Sidechain
26	BB	454	A	Sidechain
26	BB	455	C	Sidechain
26	BB	457	A	Sidechain
26	BB	458	G	Sidechain
26	BB	461	C	Sidechain
26	BB	462	C	Sidechain
26	BB	464	U	Sidechain
26	BB	465	G	Sidechain
26	BB	467	G	Sidechain
26	BB	468	G	Sidechain
26	BB	469	G	Sidechain
26	BB	47	C	Sidechain
26	BB	471	A	Sidechain
26	BB	474	G	Sidechain
26	BB	475	C	Sidechain
26	BB	476	G	Sidechain
26	BB	477	A	Sidechain
26	BB	479	A	Sidechain
26	BB	48	G	Sidechain
26	BB	480	A	Sidechain
26	BB	481	G	Sidechain
26	BB	483	A	Sidechain
26	BB	484	C	Sidechain
26	BB	488	G	Sidechain
26	BB	489	G	Sidechain
26	BB	49	A	Sidechain
26	BB	490	C	Sidechain
26	BB	491	G	Sidechain
26	BB	493	G	Sidechain
26	BB	494	G	Sidechain
26	BB	496	G	Sidechain
26	BB	497	A	Sidechain
26	BB	498	G	Sidechain
26	BB	499	U	Sidechain
26	BB	5	A	Sidechain
26	BB	50	U	Sidechain
26	BB	500	G	Sidechain
26	BB	501	A	Sidechain
26	BB	504	A	Sidechain
26	BB	505	A	Sidechain
26	BB	506	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	509	C	Sidechain
26	BB	51	G	Sidechain
26	BB	510	C	Sidechain
26	BB	512	G	Sidechain
26	BB	514	A	Sidechain
26	BB	516	C	Sidechain
26	BB	518	G	Sidechain
26	BB	519	U	Sidechain
26	BB	522	A	Sidechain
26	BB	523	C	Sidechain
26	BB	524	G	Sidechain
26	BB	525	U	Sidechain
26	BB	526	A	Sidechain
26	BB	53	A	Sidechain
26	BB	530	G	Sidechain
26	BB	532	A	Sidechain
26	BB	533	G	Sidechain
26	BB	534	U	Sidechain
26	BB	535	G	Sidechain
26	BB	54	G	Sidechain
26	BB	540	C	Sidechain
26	BB	541	A	Sidechain
26	BB	542	C	Sidechain
26	BB	543	G	Sidechain
26	BB	544	C	Sidechain
26	BB	547	A	Sidechain
26	BB	548	G	Sidechain
26	BB	549	G	Sidechain
26	BB	55	G	Sidechain
26	BB	550	C	Sidechain
26	BB	551	G	Sidechain
26	BB	553	G	Sidechain
26	BB	554	U	Sidechain
26	BB	556	A	Sidechain
26	BB	558	U	Sidechain
26	BB	559	G	Sidechain
26	BB	56	A	Sidechain
26	BB	561	G	Sidechain
26	BB	563	A	Sidechain
26	BB	566	U	Sidechain
26	BB	57	C	Sidechain
26	BB	570	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	571	U	Sidechain
26	BB	572	A	Sidechain
26	BB	573	U	Sidechain
26	BB	574	A	Sidechain
26	BB	576	U	Sidechain
26	BB	577	G	Sidechain
26	BB	579	G	Sidechain
26	BB	580	U	Sidechain
26	BB	583	G	Sidechain
26	BB	586	A	Sidechain
26	BB	589	U	Sidechain
26	BB	59	U	Sidechain
26	BB	590	A	Sidechain
26	BB	591	U	Sidechain
26	BB	595	C	Sidechain
26	BB	598	U	Sidechain
26	BB	599	A	Sidechain
26	BB	60	G	Sidechain
26	BB	601	C	Sidechain
26	BB	604	G	Sidechain
26	BB	605	G	Sidechain
26	BB	606	U	Sidechain
26	BB	607	U	Sidechain
26	BB	608	A	Sidechain
26	BB	614	A	Sidechain
26	BB	615	U	Sidechain
26	BB	617	G	Sidechain
26	BB	618	G	Sidechain
26	BB	619	G	Sidechain
26	BB	62	U	Sidechain
26	BB	620	G	Sidechain
26	BB	623	C	Sidechain
26	BB	624	C	Sidechain
26	BB	625	G	Sidechain
26	BB	626	A	Sidechain
26	BB	628	G	Sidechain
26	BB	630	G	Sidechain
26	BB	631	A	Sidechain
26	BB	632	A	Sidechain
26	BB	633	A	Sidechain
26	BB	636	G	Sidechain
26	BB	637	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	638	G	Sidechain
26	BB	64	A	Sidechain
26	BB	640	C	Sidechain
26	BB	641	U	Sidechain
26	BB	642	U	Sidechain
26	BB	643	A	Sidechain
26	BB	644	A	Sidechain
26	BB	647	G	Sidechain
26	BB	648	G	Sidechain
26	BB	652	U	Sidechain
26	BB	654	A	Sidechain
26	BB	655	A	Sidechain
26	BB	656	G	Sidechain
26	BB	659	G	Sidechain
26	BB	660	C	Sidechain
26	BB	662	G	Sidechain
26	BB	664	G	Sidechain
26	BB	665	U	Sidechain
26	BB	666	A	Sidechain
26	BB	67	U	Sidechain
26	BB	674	G	Sidechain
26	BB	676	A	Sidechain
26	BB	677	A	Sidechain
26	BB	678	C	Sidechain
26	BB	68	G	Sidechain
26	BB	683	U	Sidechain
26	BB	684	G	Sidechain
26	BB	689	A	Sidechain
26	BB	69	C	Sidechain
26	BB	690	G	Sidechain
26	BB	691	C	Sidechain
26	BB	694	U	Sidechain
26	BB	695	G	Sidechain
26	BB	697	G	Sidechain
26	BB	698	C	Sidechain
26	BB	699	A	Sidechain
26	BB	70	G	Sidechain
26	BB	700	G	Sidechain
26	BB	701	G	Sidechain
26	BB	702	U	Sidechain
26	BB	705	A	Sidechain
26	BB	706	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	707	G	Sidechain
26	BB	708	G	Sidechain
26	BB	709	U	Sidechain
26	BB	711	G	Sidechain
26	BB	712	G	Sidechain
26	BB	713	G	Sidechain
26	BB	715	A	Sidechain
26	BB	716	A	Sidechain
26	BB	717	C	Sidechain
26	BB	718	A	Sidechain
26	BB	720	U	Sidechain
26	BB	726	G	Sidechain
26	BB	729	G	Sidechain
26	BB	731	C	Sidechain
26	BB	736	C	Sidechain
26	BB	737	C	Sidechain
26	BB	739	A	Sidechain
26	BB	741	U	Sidechain
26	BB	744	U	Sidechain
26	BB	749	A	Sidechain
26	BB	75	G	Sidechain
26	BB	750	A	Sidechain
26	BB	752	A	Sidechain
26	BB	756	A	Sidechain
26	BB	757	G	Sidechain
26	BB	758	C	Sidechain
26	BB	759	G	Sidechain
26	BB	760	G	Sidechain
26	BB	761	A	Sidechain
26	BB	762	U	Sidechain
26	BB	763	G	Sidechain
26	BB	764	A	Sidechain
26	BB	765	C	Sidechain
26	BB	766	U	Sidechain
26	BB	767	U	Sidechain
26	BB	768	G	Sidechain
26	BB	77	G	Sidechain
26	BB	771	G	Sidechain
26	BB	772	C	Sidechain
26	BB	774	G	Sidechain
26	BB	775	G	Sidechain
26	BB	776	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	777	G	Sidechain
26	BB	778	G	Sidechain
26	BB	780	G	Sidechain
26	BB	781	A	Sidechain
26	BB	783	A	Sidechain
26	BB	785	G	Sidechain
26	BB	788	A	Sidechain
26	BB	789	A	Sidechain
26	BB	799	G	Sidechain
26	BB	800	A	Sidechain
26	BB	801	G	Sidechain
26	BB	802	A	Sidechain
26	BB	804	A	Sidechain
26	BB	805	G	Sidechain
26	BB	806	C	Sidechain
26	BB	807	U	Sidechain
26	BB	809	G	Sidechain
26	BB	81	G	Sidechain
26	BB	811	U	Sidechain
26	BB	812	C	Sidechain
26	BB	814	C	Sidechain
26	BB	817	C	Sidechain
26	BB	818	G	Sidechain
26	BB	819	A	Sidechain
26	BB	820	A	Sidechain
26	BB	821	A	Sidechain
26	BB	824	U	Sidechain
26	BB	826	U	Sidechain
26	BB	828	U	Sidechain
26	BB	829	A	Sidechain
26	BB	83	A	Sidechain
26	BB	830	G	Sidechain
26	BB	831	G	Sidechain
26	BB	832	U	Sidechain
26	BB	834	G	Sidechain
26	BB	835	C	Sidechain
26	BB	836	G	Sidechain
26	BB	838	C	Sidechain
26	BB	839	U	Sidechain
26	BB	84	A	Sidechain
26	BB	840	C	Sidechain
26	BB	841	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	842	U	Sidechain
26	BB	844	A	Sidechain
26	BB	845	A	Sidechain
26	BB	846	U	Sidechain
26	BB	847	U	Sidechain
26	BB	848	C	Sidechain
26	BB	849	A	Sidechain
26	BB	850	U	Sidechain
26	BB	851	C	Sidechain
26	BB	852	U	Sidechain
26	BB	853	C	Sidechain
26	BB	856	G	Sidechain
26	BB	857	G	Sidechain
26	BB	860	U	Sidechain
26	BB	861	A	Sidechain
26	BB	865	C	Sidechain
26	BB	866	A	Sidechain
26	BB	867	C	Sidechain
26	BB	868	U	Sidechain
26	BB	869	G	Sidechain
26	BB	87	U	Sidechain
26	BB	870	U	Sidechain
26	BB	871	U	Sidechain
26	BB	875	G	Sidechain
26	BB	876	C	Sidechain
26	BB	877	A	Sidechain
26	BB	879	G	Sidechain
26	BB	88	G	Sidechain
26	BB	881	G	Sidechain
26	BB	883	G	Sidechain
26	BB	886	A	Sidechain
26	BB	889	C	Sidechain
26	BB	893	C	Sidechain
26	BB	894	U	Sidechain
26	BB	896	A	Sidechain
26	BB	897	C	Sidechain
26	BB	898	C	Sidechain
26	BB	9	G	Sidechain
26	BB	900	A	Sidechain
26	BB	901	C	Sidechain
26	BB	902	C	Sidechain
26	BB	903	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	904	G	Sidechain
26	BB	907	G	Sidechain
26	BB	91	A	Sidechain
26	BB	910	A	Sidechain
26	BB	912	C	Sidechain
26	BB	914	G	Sidechain
26	BB	916	G	Sidechain
26	BB	918	A	Sidechain
26	BB	92	U	Sidechain
26	BB	920	A	Sidechain
26	BB	923	G	Sidechain
26	BB	924	G	Sidechain
26	BB	926	G	Sidechain
26	BB	927	A	Sidechain
26	BB	930	G	Sidechain
26	BB	931	U	Sidechain
26	BB	932	U	Sidechain
26	BB	934	U	Sidechain
26	BB	936	A	Sidechain
26	BB	937	C	Sidechain
26	BB	938	G	Sidechain
26	BB	94	A	Sidechain
26	BB	940	G	Sidechain
26	BB	941	A	Sidechain
26	BB	943	A	Sidechain
26	BB	944	C	Sidechain
26	BB	946	C	Sidechain
26	BB	950	G	Sidechain
26	BB	951	C	Sidechain
26	BB	952	G	Sidechain
26	BB	953	G	Sidechain
26	BB	954	G	Sidechain
26	BB	957	C	Sidechain
26	BB	958	U	Sidechain
26	BB	959	A	Sidechain
26	BB	961	C	Sidechain
26	BB	962	G	Sidechain
26	BB	963	U	Sidechain
26	BB	966	G	Sidechain
26	BB	968	C	Sidechain
26	BB	969	G	Sidechain
26	BB	97	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	970	U	Sidechain
26	BB	971	G	Sidechain
26	BB	975	A	Sidechain
26	BB	976	G	Sidechain
26	BB	977	G	Sidechain
26	BB	978	G	Sidechain
26	BB	98	G	Sidechain
26	BB	984	A	Sidechain
26	BB	985	C	Sidechain
26	BB	989	G	Sidechain
26	BB	99	U	Sidechain
26	BB	990	A	Sidechain
26	BB	991	C	Sidechain
26	BB	993	G	Sidechain
26	BB	997	G	Sidechain
27	BC	177	LYS	Mainchain,Peptide
27	BC	220	ALA	Peptide
27	BC	7	ARG	Sidechain
28	BD	101	ARG	Sidechain
28	BD	12	ARG	Sidechain
28	BD	199	HIS	Sidechain
28	BD	229	HIS	Sidechain
28	BD	232	GLY	Peptide
28	BD	24	HIS	Sidechain
28	BD	261	ARG	Sidechain
28	BD	50	THR	Mainchain
28	BD	51	ARG	Sidechain
28	BD	57	HIS	Sidechain
28	BD	95	TYR	Sidechain
29	BE	113	SER	Peptide
29	BE	119	ALA	Peptide
29	BE	124	ARG	Sidechain
29	BE	179	ARG	Peptide
29	BE	59	ARG	Sidechain
29	BE	77	ARG	Sidechain
29	BE	83	ARG	Sidechain
30	BF	102	ARG	Sidechain
30	BF	119	ILE	Peptide
30	BF	162	ARG	Sidechain
30	BF	23	PHE	Sidechain
30	BF	35	TYR	Sidechain
30	BF	85	PHE	Sidechain

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Mol	Chain	Res	Type	Group
31	BG	109	ARG	Sidechain
31	BG	149	ARG	Peptide
31	BG	151	LEU	Peptide
31	BG	176	PHE	Sidechain
31	BG	21	TYR	Sidechain
31	BG	7	TYR	Sidechain
31	BG	82	TYR	Sidechain
31	BG	87	LYS	Peptide
32	BH	108	PHE	Sidechain
32	BH	2	ARG	Sidechain
32	BH	57	TYR	Sidechain
34	BJ	129	PRO	Peptide
34	BJ	131	TYR	Sidechain
34	BJ	137	ARG	Sidechain
34	BJ	18	ALA	Peptide
34	BJ	50	TYR	Sidechain
34	BJ	53	VAL	Peptide
36	BL	125	TYR	Sidechain
36	BL	35	ARG	Sidechain
36	BL	53	TYR	Sidechain
36	BL	7	LYS	Mainchain
36	BL	75	TYR	Sidechain
36	BL	98	GLU	Peptide
37	BM	31	ARG	Sidechain
37	BM	41	ILE	Peptide
37	BM	98	ARG	Peptide
38	BN	47	ARG	Sidechain
38	BN	60	ARG	Sidechain
38	BN	66	PHE	Sidechain
39	BO	117	PHE	Sidechain
39	BO	40	ARG	Sidechain
40	BP	112	TYR	Sidechain
40	BP	119	SER	Mainchain
40	BP	3	HIS	Sidechain
40	BP	45	ARG	Sidechain
40	BP	94	TYR	Sidechain
40	BP	96	ARG	Sidechain
41	BQ	111	ARG	Sidechain
41	BQ	13	ARG	Sidechain
41	BQ	34	HIS	Sidechain
41	BQ	36	TYR	Sidechain
42	BR	104	GLY	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
42	BR	38	ARG	Sidechain
42	BR	97	TYR	Sidechain
43	BS	44	TYR	Sidechain
43	BS	49	ARG	Sidechain
43	BS	5	ARG	Peptide
43	BS	63	ARG	Sidechain
43	BS	75	TYR	Sidechain
44	BT	93	PHE	Sidechain
45	BU	4	ILE	Peptide
45	BU	88	ARG	Sidechain
45	BU	92	ARG	Sidechain
47	BW	10	VAL	Mainchain,Peptide
48	BX	21	ARG	Sidechain
48	BX	31	TYR	Sidechain
48	BX	56	PHE	Sidechain
49	BY	13	ARG	Peptide
49	BY	14	ASP	Peptide
49	BY	16	GLU	Peptide
49	BY	38	ARG	Sidechain
49	BY	81	ILE	Peptide
50	BZ	27	ARG	Sidechain
50	BZ	44	ARG	Sidechain
50	BZ	73	ARG	Sidechain
50	BZ	77	TYR	Sidechain

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	33089	0	16610	0	0
2	AB	1627	0	843	0	0
3	AC	993	0	497	0	0
4	AD	1641	0	841	0	0
5	AE	1872	0	1885	0	0
6	AF	1822	0	1913	0	0
7	AG	1643	0	1710	0	0
8	AH	1225	0	1273	0	0
9	AI	1101	0	1050	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	AJ	1400	0	1449	0	0
11	AK	979	0	1034	0	0
12	AL	1036	0	1084	0	0
13	AM	825	0	865	0	0
14	AN	965	0	997	0	0
15	AO	955	0	1019	0	0
16	AP	910	0	981	0	0
17	AQ	805	0	847	0	0
18	AR	716	0	742	0	0
19	AS	649	0	666	0	0
20	AT	672	0	716	0	0
21	AU	626	0	651	0	0
22	AV	727	0	769	0	0
23	AW	670	0	722	0	0
24	AX	590	0	631	0	0
25	BA	2566	0	1302	0	0
26	BB	62351	0	31246	0	0
27	BC	1733	0	1824	0	0
28	BD	2092	0	2170	0	0
29	BE	1565	0	1616	0	0
30	BF	1552	0	1619	0	0
31	BG	1420	0	1460	0	0
32	BH	1323	0	1374	0	0
33	BI	1111	0	1148	0	0
34	BJ	1233	0	1283	0	0
35	BK	1032	0	1088	0	0
36	BL	1129	0	1162	0	0
37	BM	947	0	1023	0	0
38	BN	1053	0	1129	0	0
39	BO	1074	0	1157	0	0
40	BP	1008	0	1045	0	0
41	BQ	900	0	935	0	0
42	BR	917	0	965	0	0
43	BS	947	0	1022	0	0
44	BT	816	0	839	0	0
45	BU	857	0	922	0	0
46	BV	787	0	846	0	0
47	BW	789	0	847	0	0
48	BX	753	0	780	0	0
49	BY	634	0	656	0	0
50	BZ	625	0	655	0	0
51	B0	509	0	543	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	B1	449	0	491	0	0
53	B2	549	0	552	0	0
54	B3	444	0	461	0	0
55	B4	441	0	485	0	0
56	B5	377	0	418	0	0
57	B6	504	0	574	0	0
58	B7	302	0	343	0	0
59	AB	14	0	9	0	0
60	BB	10	0	10	0	0
All	All	152351	0	103794	0	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). Clashscore could not be calculated for this entry.

There are no clashes within the asymmetric unit.

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	AE	238/240 (99%)	221 (93%)	13 (6%)	4 (2%)	7	36
6	AF	230/232 (99%)	200 (87%)	25 (11%)	5 (2%)	5	29
7	AG	203/205 (99%)	180 (89%)	18 (9%)	5 (2%)	4	26
8	AH	164/166 (99%)	141 (86%)	19 (12%)	4 (2%)	4	27
9	AI	133/135 (98%)	118 (89%)	11 (8%)	4 (3%)	3	23
10	AJ	176/178 (99%)	164 (93%)	11 (6%)	1 (1%)	21	59
11	AK	127/129 (98%)	114 (90%)	11 (9%)	2 (2%)	7	38
12	AL	127/129 (98%)	109 (86%)	17 (13%)	1 (1%)	16	54
13	AM	101/103 (98%)	90 (89%)	7 (7%)	4 (4%)	2	18
14	AN	126/128 (98%)	105 (83%)	18 (14%)	3 (2%)	4	27

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	AO	121/123 (98%)	102 (84%)	16 (13%)	3 (2%)	4	26
16	AP	115/117 (98%)	104 (90%)	10 (9%)	1 (1%)	14	51
17	AQ	98/100 (98%)	84 (86%)	10 (10%)	4 (4%)	2	18
18	AR	86/88 (98%)	80 (93%)	6 (7%)	0	100	100
19	AS	80/82 (98%)	69 (86%)	9 (11%)	2 (2%)	4	26
20	AT	81/83 (98%)	71 (88%)	10 (12%)	0	100	100
21	AU	72/74 (97%)	63 (88%)	6 (8%)	3 (4%)	2	17
22	AV	89/91 (98%)	78 (88%)	10 (11%)	1 (1%)	11	46
23	AW	84/86 (98%)	79 (94%)	4 (5%)	1 (1%)	10	44
24	AX	68/70 (97%)	55 (81%)	9 (13%)	4 (6%)	1	13
27	BC	232/234 (99%)	208 (90%)	20 (9%)	4 (2%)	7	36
28	BD	270/272 (99%)	227 (84%)	37 (14%)	6 (2%)	5	29
29	BE	207/209 (99%)	171 (83%)	25 (12%)	11 (5%)	1	15
30	BF	199/201 (99%)	167 (84%)	26 (13%)	6 (3%)	3	23
31	BG	176/178 (99%)	144 (82%)	19 (11%)	13 (7%)	1	10
32	BH	174/176 (99%)	149 (86%)	16 (9%)	9 (5%)	1	15
33	BI	147/149 (99%)	132 (90%)	12 (8%)	3 (2%)	6	31
34	BJ	162/164 (99%)	140 (86%)	16 (10%)	6 (4%)	2	20
35	BK	139/141 (99%)	128 (92%)	9 (6%)	2 (1%)	9	40
36	BL	140/142 (99%)	118 (84%)	18 (13%)	4 (3%)	3	23
37	BM	121/123 (98%)	102 (84%)	14 (12%)	5 (4%)	2	18
38	BN	142/144 (99%)	113 (80%)	25 (18%)	4 (3%)	4	24
39	BO	134/136 (98%)	120 (90%)	13 (10%)	1 (1%)	18	56
40	BP	125/127 (98%)	116 (93%)	9 (7%)	0	100	100
41	BQ	115/117 (98%)	103 (90%)	12 (10%)	0	100	100
42	BR	112/114 (98%)	90 (80%)	16 (14%)	6 (5%)	1	15
43	BS	115/117 (98%)	105 (91%)	7 (6%)	3 (3%)	4	25
44	BT	101/103 (98%)	92 (91%)	8 (8%)	1 (1%)	12	49
45	BU	108/110 (98%)	100 (93%)	4 (4%)	4 (4%)	2	20
46	BV	98/100 (98%)	85 (87%)	12 (12%)	1 (1%)	12	49
47	BW	101/103 (98%)	84 (83%)	15 (15%)	2 (2%)	6	31

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
48	BX	92/94 (98%)	79 (86%)	11 (12%)	2 (2%)	5	29
49	BY	82/84 (98%)	64 (78%)	15 (18%)	3 (4%)	2	20
50	BZ	75/77 (97%)	63 (84%)	9 (12%)	3 (4%)	2	18
51	B0	61/63 (97%)	53 (87%)	6 (10%)	2 (3%)	3	21
52	B1	56/58 (97%)	55 (98%)	1 (2%)	0	100	100
53	B2	68/70 (97%)	51 (75%)	12 (18%)	5 (7%)	1	10
54	B3	54/56 (96%)	38 (70%)	14 (26%)	2 (4%)	2	20
55	B4	52/54 (96%)	47 (90%)	4 (8%)	1 (2%)	6	32
56	B5	44/46 (96%)	39 (89%)	4 (9%)	1 (2%)	5	28
57	B6	62/64 (97%)	59 (95%)	3 (5%)	0	100	100
58	B7	36/38 (95%)	28 (78%)	6 (17%)	2 (6%)	1	14
All	All	6319/6423 (98%)	5497 (87%)	658 (10%)	164 (3%)	6	25

All (164) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	AE	84	LEU
5	AE	93	HIS
7	AG	3	TYR
8	AH	77	ASN
9	AI	99	ALA
14	AN	125	LYS
24	AX	24	LYS
28	BD	8	THR
28	BD	64	VAL
30	BF	62	GLN
31	BG	88	VAL
31	BG	103	ILE
31	BG	148	VAL
31	BG	174	PHE
32	BH	8	VAL
32	BH	94	ARG
35	BK	3	LYS
38	BN	94	THR
42	BR	25	VAL
47	BW	52	ASN
49	BY	36	ILE
53	B2	9	TYR

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Mol	Chain	Res	Type
54	B3	2	VAL
54	B3	51	ARG
55	B4	52	LYS
5	AE	128	LEU
6	AF	47	ALA
7	AG	27	ILE
9	AI	39	LEU
15	AO	87	LYS
15	AO	118	VAL
19	AS	80	LYS
24	AX	3	ILE
28	BD	77	VAL
29	BE	37	VAL
29	BE	109	VAL
30	BF	96	VAL
31	BG	66	ILE
31	BG	79	ARG
31	BG	80	GLN
31	BG	145	VAL
31	BG	170	ALA
32	BH	45	ALA
32	BH	170	THR
33	BI	3	VAL
33	BI	75	LEU
34	BJ	113	GLU
36	BL	126	ALA
37	BM	71	ARG
38	BN	22	GLY
39	BO	59	ARG
42	BR	32	VAL
43	BS	87	VAL
47	BW	97	SER
50	BZ	16	ASN
50	BZ	27	ARG
51	B0	46	VAL
5	AE	94	ARG
6	AF	14	VAL
7	AG	41	GLY
8	AH	22	LYS
11	AK	69	ALA
13	AM	95	GLY
14	AN	108	ASN

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Mol	Chain	Res	Type
15	AO	121	PRO
22	AV	31	ARG
23	AW	67	HIS
28	BD	94	LEU
29	BE	43	ASP
29	BE	119	ALA
29	BE	170	VAL
29	BE	173	GLN
30	BF	54	GLY
30	BF	153	LEU
30	BF	174	GLY
31	BG	35	LEU
32	BH	29	ASN
32	BH	84	LYS
36	BL	120	ARG
37	BM	72	PRO
45	BU	65	ASP
45	BU	80	PRO
46	BV	35	ALA
49	BY	41	GLY
51	B0	57	LEU
53	B2	41	HIS
58	B7	6	SER
7	AG	29	THR
8	AH	7	ALA
8	AH	53	ARG
9	AI	54	LEU
11	AK	80	PRO
12	AL	120	ALA
13	AM	52	LEU
13	AM	58	ASN
17	AQ	52	ARG
17	AQ	65	GLN
17	AQ	70	HIS
19	AS	49	GLY
21	AU	20	ILE
27	BC	159	GLY
29	BE	97	SER
29	BE	191	GLY
31	BG	20	ASN
31	BG	81	GLY
32	BH	56	GLY

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Mol	Chain	Res	Type
32	BH	80	GLU
32	BH	175	LYS
34	BJ	31	GLY
34	BJ	33	THR
37	BM	46	ALA
37	BM	89	ASN
38	BN	99	ASN
38	BN	117	THR
42	BR	86	LYS
42	BR	110	LYS
43	BS	101	ASP
44	BT	91	GLN
48	BX	71	LYS
50	BZ	2	ARG
53	B2	43	PHE
56	B5	16	HIS
6	AF	6	PRO
7	AG	22	SER
9	AI	127	GLY
10	AJ	81	GLY
14	AN	116	PRO
16	AP	22	TYR
21	AU	11	ARG
27	BC	20	GLN
27	BC	66	PRO
28	BD	254	LYS
34	BJ	87	HIS
34	BJ	102	ASN
45	BU	89	ALA
49	BY	5	ALA
53	B2	21	VAL
58	B7	16	ILE
6	AF	104	GLU
17	AQ	39	ASP
24	AX	9	GLU
29	BE	131	ASP
35	BK	18	ASN
36	BL	3	THR
36	BL	96	ARG
45	BU	61	ASN
30	BF	64	GLY
33	BI	9	VAL

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Mol	Chain	Res	Type
34	BJ	14	VAL
37	BM	93	GLN
24	AX	26	GLY
28	BD	205	GLY
29	BE	205	PRO
42	BR	89	GLY
43	BS	93	ILE
53	B2	5	ILE
6	AF	144	GLY
13	AM	74	VAL
21	AU	40	PRO
27	BC	91	GLY
29	BE	122	VAL
42	BR	63	ILE
31	BG	84	ILE
48	BX	37	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	
5	AE	198/198 (100%)	192 (97%)	6 (3%)	36	57
6	AF	189/189 (100%)	181 (96%)	8 (4%)	26	48
7	AG	172/172 (100%)	167 (97%)	5 (3%)	37	58
8	AH	125/125 (100%)	120 (96%)	5 (4%)	28	49
9	AI	116/116 (100%)	110 (95%)	6 (5%)	21	42
10	AJ	146/146 (100%)	139 (95%)	7 (5%)	23	44
11	AK	104/104 (100%)	100 (96%)	4 (4%)	29	50
12	AL	106/106 (100%)	104 (98%)	2 (2%)	50	67
13	AM	90/90 (100%)	84 (93%)	6 (7%)	15	36
14	AN	98/98 (100%)	95 (97%)	3 (3%)	35	56
15	AO	103/103 (100%)	101 (98%)	2 (2%)	50	67

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	AP	95/95 (100%)	91 (96%)	4 (4%)	26	48
17	AQ	83/83 (100%)	81 (98%)	2 (2%)	43	64
18	AR	76/76 (100%)	74 (97%)	2 (3%)	40	62
19	AS	65/65 (100%)	64 (98%)	1 (2%)	57	72
20	AT	77/77 (100%)	70 (91%)	7 (9%)	9	27
21	AU	64/64 (100%)	59 (92%)	5 (8%)	11	32
22	AV	78/78 (100%)	72 (92%)	6 (8%)	12	32
23	AW	65/65 (100%)	64 (98%)	1 (2%)	57	72
24	AX	60/60 (100%)	57 (95%)	3 (5%)	22	43
27	BC	181/181 (100%)	169 (93%)	12 (7%)	15	37
28	BD	217/217 (100%)	205 (94%)	12 (6%)	19	41
29	BE	164/164 (100%)	153 (93%)	11 (7%)	15	36
30	BF	165/165 (100%)	157 (95%)	8 (5%)	23	44
31	BG	149/149 (100%)	139 (93%)	10 (7%)	15	36
32	BH	137/137 (100%)	130 (95%)	7 (5%)	21	42
33	BI	114/114 (100%)	108 (95%)	6 (5%)	20	41
34	BJ	122/122 (100%)	115 (94%)	7 (6%)	18	40
35	BK	109/109 (100%)	105 (96%)	4 (4%)	30	51
36	BL	116/116 (100%)	111 (96%)	5 (4%)	26	47
37	BM	104/104 (100%)	102 (98%)	2 (2%)	50	67
38	BN	103/103 (100%)	97 (94%)	6 (6%)	18	40
39	BO	109/109 (100%)	107 (98%)	2 (2%)	51	68
40	BP	103/103 (100%)	99 (96%)	4 (4%)	28	49
41	BQ	87/87 (100%)	86 (99%)	1 (1%)	65	76
42	BR	99/99 (100%)	94 (95%)	5 (5%)	21	42
43	BS	89/89 (100%)	86 (97%)	3 (3%)	32	54
44	BT	84/84 (100%)	81 (96%)	3 (4%)	31	52
45	BU	93/93 (100%)	90 (97%)	3 (3%)	34	56
46	BV	84/84 (100%)	78 (93%)	6 (7%)	13	35
47	BW	84/84 (100%)	81 (96%)	3 (4%)	31	52
48	BX	78/78 (100%)	75 (96%)	3 (4%)	29	50

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
49	BY	62/62 (100%)	61 (98%)	1 (2%)	55	70
50	BZ	67/67 (100%)	62 (92%)	5 (8%)	12	33
51	B0	55/55 (100%)	52 (94%)	3 (6%)	19	41
52	B1	48/48 (100%)	44 (92%)	4 (8%)	10	30
53	B2	62/62 (100%)	58 (94%)	4 (6%)	15	37
54	B3	47/47 (100%)	46 (98%)	1 (2%)	47	65
55	B4	48/48 (100%)	46 (96%)	2 (4%)	26	48
56	B5	38/38 (100%)	36 (95%)	2 (5%)	20	41
57	B6	51/51 (100%)	48 (94%)	3 (6%)	18	39
58	B7	34/34 (100%)	32 (94%)	2 (6%)	18	39
All	All	5213/5213 (100%)	4978 (96%)	235 (4%)	26	46

All (235) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	AE	91	VAL
5	AE	121	GLN
5	AE	157	PRO
5	AE	170	ILE
5	AE	185	ILE
5	AE	209	VAL
6	AF	51	VAL
6	AF	58	ARG
6	AF	123	LEU
6	AF	148	ILE
6	AF	150	VAL
6	AF	161	ILE
6	AF	215	GLN
6	AF	229	LYS
7	AG	57	LYS
7	AG	89	LEU
7	AG	138	PRO
7	AG	147	LYS
7	AG	191	SER
8	AH	29	ILE
8	AH	47	PHE
8	AH	51	LYS
8	AH	53	ARG

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Mol	Chain	Res	Type
8	AH	122	VAL
9	AI	7	VAL
9	AI	12	PRO
9	AI	22	ILE
9	AI	33	GLU
9	AI	85	ILE
9	AI	89	VAL
10	AJ	9	ARG
10	AJ	22	LEU
10	AJ	68	VAL
10	AJ	74	VAL
10	AJ	93	VAL
10	AJ	135	LYS
10	AJ	156	LEU
11	AK	47	ASP
11	AK	60	LEU
11	AK	66	GLN
11	AK	98	LEU
12	AL	61	ASP
12	AL	71	ILE
13	AM	4	GLN
13	AM	50	THR
13	AM	52	LEU
13	AM	59	LYS
13	AM	73	LEU
13	AM	100	ILE
14	AN	88	PRO
14	AN	124	LYS
14	AN	128	VAL
15	AO	28	GLN
15	AO	29	LYS
16	AP	15	VAL
16	AP	41	ASP
16	AP	69	ARG
16	AP	85	TYR
17	AQ	60	ARG
17	AQ	95	LEU
18	AR	38	LEU
18	AR	55	LEU
19	AS	55	ASP
20	AT	18	LYS
20	AT	19	SER

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Mol	Chain	Res	Type
20	AT	24	ILE
20	AT	64	ARG
20	AT	75	VAL
20	AT	76	ARG
20	AT	78	VAL
21	AU	2	ARG
21	AU	39	VAL
21	AU	49	LYS
21	AU	56	ARG
21	AU	59	LYS
22	AV	4	LEU
22	AV	33	TRP
22	AV	35	ARG
22	AV	52	ASN
22	AV	54	ARG
22	AV	56	HIS
23	AW	34	VAL
24	AX	3	ILE
24	AX	6	ARG
24	AX	57	LYS
27	BC	4	LEU
27	BC	7	ARG
27	BC	16	ASP
27	BC	98	GLU
27	BC	105	LYS
27	BC	108	GLU
27	BC	109	MET
27	BC	112	ASP
27	BC	129	GLN
27	BC	131	LEU
27	BC	145	VAL
27	BC	189	LEU
28	BD	64	VAL
28	BD	67	LYS
28	BD	80	LEU
28	BD	103	ILE
28	BD	173	LEU
28	BD	176	ARG
28	BD	188	ARG
28	BD	212	TRP
28	BD	235	GLU
28	BD	239	PHE

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Mol	Chain	Res	Type
28	BD	260	LYS
28	BD	265	PHE
29	BE	2	ILE
29	BE	24	VAL
29	BE	33	ARG
29	BE	40	LEU
29	BE	59	ARG
29	BE	74	GLU
29	BE	84	LEU
29	BE	107	VAL
29	BE	110	THR
29	BE	164	GLN
29	BE	169	ARG
30	BF	2	GLU
30	BF	13	THR
30	BF	17	THR
30	BF	31	VAL
30	BF	74	LYS
30	BF	78	TRP
30	BF	90	GLN
30	BF	163	ASN
31	BG	32	LYS
31	BG	33	ILE
31	BG	43	ILE
31	BG	48	LEU
31	BG	68	LYS
31	BG	70	ARG
31	BG	91	ARG
31	BG	103	ILE
31	BG	111	ARG
31	BG	146	ASP
32	BH	70	LEU
32	BH	106	LEU
32	BH	110	HIS
32	BH	123	GLU
32	BH	151	ARG
32	BH	166	GLU
32	BH	171	LYS
33	BI	79	THR
33	BI	87	GLU
33	BI	89	LYS
33	BI	114	GLU

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Mol	Chain	Res	Type
33	BI	129	GLU
33	BI	142	VAL
34	BJ	15	SER
34	BJ	36	LYS
34	BJ	39	GLU
34	BJ	57	THR
34	BJ	58	LEU
34	BJ	105	PHE
34	BJ	128	LEU
35	BK	9	LYS
35	BK	33	ASN
35	BK	48	ILE
35	BK	58	ILE
36	BL	12	LYS
36	BL	25	LEU
36	BL	43	GLU
36	BL	81	ILE
36	BL	142	ILE
37	BM	2	ILE
37	BM	65	THR
38	BN	2	ARG
38	BN	41	ARG
38	BN	57	LEU
38	BN	58	TYR
38	BN	99	ASN
38	BN	115	GLU
39	BO	58	LYS
39	BO	123	LYS
40	BP	8	ARG
40	BP	9	GLN
40	BP	14	SER
40	BP	97	ILE
41	BQ	94	ARG
42	BR	14	GLN
42	BR	15	ASP
42	BR	43	GLU
42	BR	55	HIS
42	BR	91	VAL
43	BS	8	ILE
43	BS	39	ILE
43	BS	87	VAL
44	BT	23	GLU

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Mol	Chain	Res	Type
44	BT	51	VAL
44	BT	97	LYS
45	BU	22	ASP
45	BU	72	THR
45	BU	95	ARG
46	BV	15	HIS
46	BV	24	MET
46	BV	25	GLU
46	BV	32	LEU
46	BV	55	VAL
46	BV	82	LYS
47	BW	48	VAL
47	BW	81	ARG
47	BW	94	PHE
48	BX	9	ARG
48	BX	70	ILE
48	BX	86	LEU
49	BY	23	LYS
50	BZ	10	ARG
50	BZ	33	HIS
50	BZ	50	VAL
50	BZ	55	MET
50	BZ	59	ASP
51	B0	1	MET
51	B0	43	LEU
51	B0	55	THR
52	B1	9	THR
52	B1	16	LEU
52	B1	29	ARG
52	B1	36	GLU
53	B2	3	LYS
53	B2	11	GLU
53	B2	43	PHE
53	B2	45	THR
54	B3	41	HIS
55	B4	8	ILE
55	B4	35	LEU
56	B5	1	MET
56	B5	43	THR
57	B6	42	HIS
57	B6	46	LYS
57	B6	49	VAL

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Mol	Chain	Res	Type
58	B7	18	LYS
58	B7	23	ILE

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

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1541/1542 (99%)	292 (18%)	93 (6%)
2	AB	75/76 (98%)	23 (30%)	7 (9%)
25	BA	119/120 (99%)	23 (19%)	13 (10%)
26	BB	2901/2904 (99%)	555 (19%)	180 (6%)
3	AC	47/47 (100%)	30 (63%)	14 (29%)
4	AD	76/77 (98%)	13 (17%)	4 (5%)
All	All	4759/4766 (99%)	936 (19%)	311 (6%)

All (936) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	2	A
1	AA	5	U
1	AA	6	G
1	AA	32	A
1	AA	36	C
1	AA	48	C
1	AA	52	C
1	AA	53	A
1	AA	54	C
1	AA	60	A
1	AA	61	G
1	AA	83	C
1	AA	84	U
1	AA	98	A
1	AA	108	G
1	AA	122	G
1	AA	123	U
1	AA	129	A
1	AA	131	A
1	AA	153	C
1	AA	164	G

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Mol	Chain	Res	Type
1	AA	166	U
1	AA	171	A
1	AA	174	A
1	AA	182	A
1	AA	183	C
1	AA	184	G
1	AA	188	C
1	AA	197	A
1	AA	204	G
1	AA	210	C
1	AA	212	G
1	AA	225	C
1	AA	228	A
1	AA	229	U
1	AA	240	G
1	AA	244	U
1	AA	245	U
1	AA	247	G
1	AA	250	A
1	AA	251	G
1	AA	252	U
1	AA	262	A
1	AA	266	G
1	AA	267	C
1	AA	272	C
1	AA	280	C
1	AA	289	G
1	AA	293	G
1	AA	306	A
1	AA	316	C
1	AA	317	U
1	AA	319	G
1	AA	328	C
1	AA	329	A
1	AA	330	C
1	AA	344	A
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	372	C
1	AA	373	A
1	AA	374	A

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Mol	Chain	Res	Type
1	AA	381	C
1	AA	382	A
1	AA	384	G
1	AA	389	A
1	AA	390	U
1	AA	392	C
1	AA	395	C
1	AA	398	U
1	AA	406	G
1	AA	411	A
1	AA	413	G
1	AA	415	A
1	AA	421	U
1	AA	422	C
1	AA	429	U
1	AA	444	G
1	AA	463	U
1	AA	464	U
1	AA	466	A
1	AA	467	U
1	AA	468	A
1	AA	479	U
1	AA	481	G
1	AA	485	U
1	AA	486	U
1	AA	494	G
1	AA	496	A
1	AA	497	G
1	AA	498	A
1	AA	505	G
1	AA	508	U
1	AA	510	A
1	AA	518	C
1	AA	528	C
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	535	A
1	AA	547	A
1	AA	552	U
1	AA	553	A

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Mol	Chain	Res	Type
1	AA	561	U
1	AA	566	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	C
1	AA	577	G
1	AA	578	C
1	AA	583	A
1	AA	615	G
1	AA	631	C
1	AA	632	U
1	AA	633	G
1	AA	636	U
1	AA	641	U
1	AA	642	A
1	AA	650	G
1	AA	653	U
1	AA	654	G
1	AA	687	A
1	AA	688	G
1	AA	695	A
1	AA	702	A
1	AA	704	A
1	AA	718	A
1	AA	721	G
1	AA	724	G
1	AA	755	G
1	AA	760	G
1	AA	765	G
1	AA	766	A
1	AA	770	C
1	AA	777	A
1	AA	783	C
1	AA	790	A
1	AA	791	G
1	AA	805	C
1	AA	810	C
1	AA	812	G
1	AA	815	A
1	AA	816	A
1	AA	817	C

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Mol	Chain	Res	Type
1	AA	819	A
1	AA	821	G
1	AA	828	U
1	AA	829	G
1	AA	834	U
1	AA	840	C
1	AA	841	C
1	AA	842	U
1	AA	843	U
1	AA	846	G
1	AA	870	U
1	AA	871	U
1	AA	873	A
1	AA	874	G
1	AA	876	C
1	AA	890	G
1	AA	899	C
1	AA	900	A
1	AA	910	C
1	AA	914	A
1	AA	926	G
1	AA	927	G
1	AA	933	G
1	AA	938	A
1	AA	939	G
1	AA	945	G
1	AA	960	U
1	AA	961	U
1	AA	962	C
1	AA	968	A
1	AA	969	A
1	AA	973	G
1	AA	974	A
1	AA	975	A
1	AA	978	A
1	AA	981	U
1	AA	984	C
1	AA	993	G
1	AA	994	A
1	AA	995	C
1	AA	1004	A
1	AA	1006	G

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Mol	Chain	Res	Type
1	AA	1014	A
1	AA	1015	G
1	AA	1026	G
1	AA	1028	C
1	AA	1030	U
1	AA	1031	C
1	AA	1050	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1081	A
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1118	U
1	AA	1126	U
1	AA	1127	G
1	AA	1137	C
1	AA	1139	G
1	AA	1148	U
1	AA	1149	C
1	AA	1152	A
1	AA	1154	G
1	AA	1159	U
1	AA	1168	U
1	AA	1181	G
1	AA	1183	U
1	AA	1184	G
1	AA	1190	G
1	AA	1197	A
1	AA	1198	G
1	AA	1200	C
1	AA	1201	A
1	AA	1202	U
1	AA	1208	C
1	AA	1212	U
1	AA	1214	C
1	AA	1215	G
1	AA	1224	U
1	AA	1226	C
1	AA	1227	A

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Mol	Chain	Res	Type
1	AA	1228	C
1	AA	1238	A
1	AA	1240	U
1	AA	1241	G
1	AA	1250	A
1	AA	1253	G
1	AA	1254	A
1	AA	1256	A
1	AA	1264	U
1	AA	1270	G
1	AA	1278	G
1	AA	1279	G
1	AA	1280	A
1	AA	1281	C
1	AA	1286	U
1	AA	1290	G
1	AA	1297	G
1	AA	1300	G
1	AA	1301	U
1	AA	1303	C
1	AA	1305	G
1	AA	1315	U
1	AA	1317	C
1	AA	1318	A
1	AA	1319	A
1	AA	1322	C
1	AA	1336	C
1	AA	1340	A
1	AA	1345	U
1	AA	1346	A
1	AA	1347	G
1	AA	1348	U
1	AA	1360	A
1	AA	1362	A
1	AA	1363	A
1	AA	1368	A
1	AA	1378	C
1	AA	1397	C
1	AA	1398	A
1	AA	1401	G
1	AA	1431	A
1	AA	1432	G

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Mol	Chain	Res	Type
1	AA	1437	A
1	AA	1446	A
1	AA	1448	C
1	AA	1454	G
1	AA	1490	U
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1502	A
1	AA	1503	A
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1518	MA6
1	AA	1529	G
1	AA	1530	G
1	AA	1534	A
1	AA	1535	C
1	AA	1540	U
2	AB	8	4SU
2	AB	9	A
2	AB	10	G
2	AB	11	U
2	AB	17	H2U
2	AB	23	A
2	AB	24	G
2	AB	34	C
2	AB	35	C
2	AB	36	A
2	AB	46	7MG
2	AB	47	U
2	AB	48	U
2	AB	49	G
2	AB	58	A
2	AB	59	G
2	AB	60	U
2	AB	61	C
2	AB	65	C
2	AB	73	G
2	AB	74	C
2	AB	75	C
2	AB	76	A

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Mol	Chain	Res	Type
3	AC	14	G
3	AC	15	G
3	AC	16	A
3	AC	17	U
3	AC	18	A
3	AC	19	A
3	AC	21	U
3	AC	22	G
3	AC	23	C
3	AC	25	U
3	AC	26	U
3	AC	27	A
3	AC	28	U
3	AC	29	G
3	AC	31	U
3	AC	32	U
3	AC	34	U
3	AC	40	G
3	AC	41	A
3	AC	43	U
3	AC	44	U
3	AC	45	G
3	AC	47	C
3	AC	50	U
3	AC	51	C
3	AC	52	U
3	AC	53	G
3	AC	54	U
3	AC	55	A
3	AC	56	G
4	AD	8	4SU
4	AD	9	G
4	AD	10	G
4	AD	18	U
4	AD	19	G
4	AD	20	G
4	AD	22	A
4	AD	38	A
4	AD	49	C
4	AD	50	G
4	AD	73	A
4	AD	76	C

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Mol	Chain	Res	Type
4	AD	77	A
25	BA	9	G
25	BA	13	G
25	BA	14	U
25	BA	15	A
25	BA	16	G
25	BA	25	U
25	BA	26	C
25	BA	35	C
25	BA	41	G
25	BA	42	C
25	BA	44	G
25	BA	51	G
25	BA	58	A
25	BA	66	A
25	BA	67	G
25	BA	73	A
25	BA	87	U
25	BA	88	C
25	BA	89	U
25	BA	90	C
25	BA	99	A
25	BA	106	G
25	BA	107	G
26	BB	13	A
26	BB	14	A
26	BB	18	U
26	BB	30	G
26	BB	34	U
26	BB	42	A
26	BB	43	G
26	BB	45	G
26	BB	46	G
26	BB	49	A
26	BB	50	U
26	BB	71	A
26	BB	72	U
26	BB	75	G
26	BB	88	G
26	BB	91	A
26	BB	95	A
26	BB	100	U

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Mol	Chain	Res	Type
26	BB	101	A
26	BB	103	A
26	BB	115	C
26	BB	119	A
26	BB	120	U
26	BB	125	A
26	BB	126	A
26	BB	128	C
26	BB	181	A
26	BB	194	G
26	BB	196	A
26	BB	197	A
26	BB	199	A
26	BB	204	A
26	BB	205	G
26	BB	215	G
26	BB	216	A
26	BB	218	A
26	BB	219	A
26	BB	222	A
26	BB	224	U
26	BB	225	C
26	BB	228	C
26	BB	229	C
26	BB	232	G
26	BB	242	G
26	BB	243	U
26	BB	248	G
26	BB	249	C
26	BB	250	G
26	BB	255	A
26	BB	265	A
26	BB	266	G
26	BB	267	C
26	BB	271	G
26	BB	277	G
26	BB	294	A
26	BB	295	G
26	BB	311	A
26	BB	321	U
26	BB	322	A
26	BB	330	A

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Mol	Chain	Res	Type
26	BB	332	A
26	BB	333	G
26	BB	338	G
26	BB	368	A
26	BB	369	U
26	BB	371	A
26	BB	372	G
26	BB	386	G
26	BB	389	G
26	BB	390	U
26	BB	391	A
26	BB	396	G
26	BB	403	U
26	BB	404	A
26	BB	405	U
26	BB	406	G
26	BB	411	G
26	BB	424	G
26	BB	428	A
26	BB	429	A
26	BB	431	U
26	BB	436	C
26	BB	451	U
26	BB	452	G
26	BB	454	A
26	BB	456	C
26	BB	472	A
26	BB	479	A
26	BB	480	A
26	BB	481	G
26	BB	484	C
26	BB	489	G
26	BB	490	C
26	BB	504	A
26	BB	505	A
26	BB	508	A
26	BB	509	C
26	BB	527	C
26	BB	532	A
26	BB	545	U
26	BB	546	U
26	BB	550	C

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Mol	Chain	Res	Type
26	BB	562	U
26	BB	563	A
26	BB	570	G
26	BB	571	U
26	BB	573	U
26	BB	574	A
26	BB	575	A
26	BB	602	A
26	BB	603	A
26	BB	604	G
26	BB	612	G
26	BB	620	G
26	BB	621	A
26	BB	635	C
26	BB	637	A
26	BB	644	A
26	BB	645	C
26	BB	652	U
26	BB	653	U
26	BB	654	A
26	BB	655	A
26	BB	656	G
26	BB	671	C
26	BB	675	A
26	BB	686	U
26	BB	696	G
26	BB	718	A
26	BB	719	C
26	BB	728	G
26	BB	730	A
26	BB	732	C
26	BB	736	C
26	BB	747	5MU
26	BB	751	A
26	BB	752	A
26	BB	753	A
26	BB	758	C
26	BB	762	U
26	BB	763	G
26	BB	764	A
26	BB	775	G
26	BB	782	A

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Mol	Chain	Res	Type
26	BB	784	G
26	BB	786	C
26	BB	789	A
26	BB	793	A
26	BB	805	G
26	BB	812	C
26	BB	830	G
26	BB	846	U
26	BB	847	U
26	BB	848	C
26	BB	859	G
26	BB	870	U
26	BB	887	U
26	BB	889	C
26	BB	894	U
26	BB	896	A
26	BB	897	C
26	BB	901	C
26	BB	910	A
26	BB	914	G
26	BB	915	C
26	BB	925	A
26	BB	932	U
26	BB	933	A
26	BB	938	G
26	BB	941	A
26	BB	945	A
26	BB	946	C
26	BB	957	C
26	BB	961	C
26	BB	973	A
26	BB	974	G
26	BB	980	A
26	BB	982	C
26	BB	985	C
26	BB	986	C
26	BB	990	A
26	BB	991	C
26	BB	995	C
26	BB	996	A
26	BB	1002	G
26	BB	1003	G

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Mol	Chain	Res	Type
26	BB	1005	C
26	BB	1008	A
26	BB	1010	A
26	BB	1012	U
26	BB	1013	C
26	BB	1022	G
26	BB	1025	G
26	BB	1034	G
26	BB	1044	C
26	BB	1048	A
26	BB	1052	C
26	BB	1060	U
26	BB	1061	U
26	BB	1062	G
26	BB	1069	A
26	BB	1070	A
26	BB	1073	A
26	BB	1078	U
26	BB	1081	U
26	BB	1085	A
26	BB	1087	G
26	BB	1098	A
26	BB	1104	C
26	BB	1109	C
26	BB	1110	G
26	BB	1112	G
26	BB	1123	C
26	BB	1129	A
26	BB	1130	U
26	BB	1132	U
26	BB	1134	A
26	BB	1135	C
26	BB	1142	A
26	BB	1143	A
26	BB	1157	G
26	BB	1158	C
26	BB	1173	U
26	BB	1175	A
26	BB	1177	G
26	BB	1184	U
26	BB	1204	A
26	BB	1211	C

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Mol	Chain	Res	Type
26	BB	1212	G
26	BB	1236	G
26	BB	1237	A
26	BB	1238	G
26	BB	1239	G
26	BB	1241	A
26	BB	1253	A
26	BB	1254	A
26	BB	1255	U
26	BB	1256	G
26	BB	1266	G
26	BB	1272	A
26	BB	1273	U
26	BB	1274	A
26	BB	1275	A
26	BB	1283	G
26	BB	1284	A
26	BB	1287	A
26	BB	1288	G
26	BB	1289	C
26	BB	1300	G
26	BB	1301	A
26	BB	1302	A
26	BB	1303	G
26	BB	1307	A
26	BB	1308	A
26	BB	1318	U
26	BB	1321	A
26	BB	1322	A
26	BB	1323	C
26	BB	1329	U
26	BB	1330	C
26	BB	1340	U
26	BB	1341	G
26	BB	1349	C
26	BB	1354	A
26	BB	1362	C
26	BB	1363	C
26	BB	1365	A
26	BB	1368	G
26	BB	1378	A
26	BB	1379	U

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Mol	Chain	Res	Type
26	BB	1383	A
26	BB	1385	A
26	BB	1386	C
26	BB	1387	A
26	BB	1391	U
26	BB	1392	A
26	BB	1395	A
26	BB	1396	U
26	BB	1416	G
26	BB	1417	C
26	BB	1420	A
26	BB	1421	G
26	BB	1453	A
26	BB	1458	U
26	BB	1459	G
26	BB	1460	U
26	BB	1461	C
26	BB	1482	G
26	BB	1509	A
26	BB	1510	G
26	BB	1514	G
26	BB	1515	A
26	BB	1522	A
26	BB	1523	U
26	BB	1524	G
26	BB	1552	A
26	BB	1558	C
26	BB	1565	C
26	BB	1566	A
26	BB	1567	G
26	BB	1578	U
26	BB	1584	U
26	BB	1585	C
26	BB	1607	C
26	BB	1608	A
26	BB	1609	A
26	BB	1610	A
26	BB	1612	C
26	BB	1616	A
26	BB	1617	C
26	BB	1618	6MZ
26	BB	1619	G

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Mol	Chain	Res	Type
26	BB	1627	G
26	BB	1634	A
26	BB	1635	A
26	BB	1636	U
26	BB	1646	C
26	BB	1648	U
26	BB	1669	A
26	BB	1670	C
26	BB	1674	G
26	BB	1676	A
26	BB	1694	C
26	BB	1713	A
26	BB	1714	U
26	BB	1715	G
26	BB	1724	G
26	BB	1739	A
26	BB	1763	G
26	BB	1764	C
26	BB	1773	A
26	BB	1781	U
26	BB	1786	A
26	BB	1787	A
26	BB	1800	C
26	BB	1801	A
26	BB	1808	A
26	BB	1809	A
26	BB	1815	A
26	BB	1816	C
26	BB	1817	G
26	BB	1818	U
26	BB	1825	U
26	BB	1830	C
26	BB	1831	G
26	BB	1833	C
26	BB	1851	U
26	BB	1856	U
26	BB	1873	G
26	BB	1900	A
26	BB	1906	G
26	BB	1912	A
26	BB	1913	A
26	BB	1914	C

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Mol	Chain	Res	Type
26	BB	1918	A
26	BB	1928	A
26	BB	1930	G
26	BB	1937	A
26	BB	1940	U
26	BB	1941	C
26	BB	1944	U
26	BB	1945	G
26	BB	1952	A
26	BB	1953	A
26	BB	1955	U
26	BB	1956	U
26	BB	1963	U
26	BB	1964	G
26	BB	1965	C
26	BB	1967	C
26	BB	1968	G
26	BB	1970	A
26	BB	1971	U
26	BB	1972	G
26	BB	1982	U
26	BB	1993	U
26	BB	1996	C
26	BB	2004	G
26	BB	2012	G
26	BB	2020	A
26	BB	2021	C
26	BB	2022	U
26	BB	2023	C
26	BB	2030	6MZ
26	BB	2031	A
26	BB	2032	G
26	BB	2034	U
26	BB	2040	G
26	BB	2043	C
26	BB	2056	G
26	BB	2059	A
26	BB	2061	G
26	BB	2069	7MG
26	BB	2093	G
26	BB	2095	A
26	BB	2107	G

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Mol	Chain	Res	Type
26	BB	2111	U
26	BB	2112	G
26	BB	2118	U
26	BB	2119	A
26	BB	2120	G
26	BB	2125	G
26	BB	2126	A
26	BB	2127	G
26	BB	2128	G
26	BB	2129	C
26	BB	2130	U
26	BB	2131	U
26	BB	2132	U
26	BB	2134	A
26	BB	2137	U
26	BB	2143	C
26	BB	2148	G
26	BB	2154	A
26	BB	2158	A
26	BB	2164	C
26	BB	2173	A
26	BB	2198	A
26	BB	2199	A
26	BB	2204	G
26	BB	2211	A
26	BB	2212	A
26	BB	2213	U
26	BB	2214	C
26	BB	2215	C
26	BB	2224	G
26	BB	2225	A
26	BB	2226	C
26	BB	2237	G
26	BB	2238	G
26	BB	2239	G
26	BB	2246	G
26	BB	2249	U
26	BB	2250	G
26	BB	2266	A
26	BB	2267	A
26	BB	2282	G
26	BB	2283	C

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Mol	Chain	Res	Type
26	BB	2287	A
26	BB	2288	A
26	BB	2306	C
26	BB	2309	A
26	BB	2321	U
26	BB	2322	A
26	BB	2325	G
26	BB	2335	A
26	BB	2340	A
26	BB	2345	G
26	BB	2346	A
26	BB	2347	C
26	BB	2350	C
26	BB	2354	C
26	BB	2358	A
26	BB	2383	G
26	BB	2385	C
26	BB	2386	A
26	BB	2389	G
26	BB	2406	A
26	BB	2407	A
26	BB	2411	A
26	BB	2426	A
26	BB	2427	C
26	BB	2428	G
26	BB	2429	G
26	BB	2430	A
26	BB	2433	A
26	BB	2435	A
26	BB	2441	U
26	BB	2450	A
26	BB	2451	A
26	BB	2452	C
26	BB	2453	A
26	BB	2472	G
26	BB	2478	A
26	BB	2486	C
26	BB	2491	U
26	BB	2494	G
26	BB	2501	C
26	BB	2502	G
26	BB	2503	2MA

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Mol	Chain	Res	Type
26	BB	2504	PSU
26	BB	2505	G
26	BB	2515	C
26	BB	2516	A
26	BB	2518	A
26	BB	2519	U
26	BB	2530	A
26	BB	2547	A
26	BB	2554	U
26	BB	2566	A
26	BB	2567	G
26	BB	2572	A
26	BB	2573	C
26	BB	2577	A
26	BB	2586	U
26	BB	2599	G
26	BB	2602	A
26	BB	2603	G
26	BB	2606	C
26	BB	2610	C
26	BB	2611	C
26	BB	2613	U
26	BB	2616	C
26	BB	2628	C
26	BB	2629	U
26	BB	2639	A
26	BB	2654	A
26	BB	2655	G
26	BB	2656	U
26	BB	2660	A
26	BB	2664	G
26	BB	2685	G
26	BB	2689	U
26	BB	2690	U
26	BB	2714	G
26	BB	2737	G
26	BB	2739	U
26	BB	2742	G
26	BB	2744	G
26	BB	2755	C
26	BB	2757	A
26	BB	2765	A

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Mol	Chain	Res	Type
26	BB	2766	A
26	BB	2769	U
26	BB	2771	C
26	BB	2774	C
26	BB	2777	G
26	BB	2778	A
26	BB	2779	U
26	BB	2780	G
26	BB	2782	G
26	BB	2791	G
26	BB	2797	U
26	BB	2800	A
26	BB	2807	U
26	BB	2825	G
26	BB	2832	U
26	BB	2833	U
26	BB	2835	A
26	BB	2836	U
26	BB	2842	G
26	BB	2849	U
26	BB	2850	A
26	BB	2861	U
26	BB	2864	G
26	BB	2867	G
26	BB	2868	A
26	BB	2879	A
26	BB	2880	C
26	BB	2883	A
26	BB	2886	A
26	BB	2889	C
26	BB	2893	A
26	BB	2895	G
26	BB	2903	U

All (311) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	5	U
1	AA	39	G
1	AA	51	A
1	AA	65	A

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Mol	Chain	Res	Type
1	AA	97	G
1	AA	101	A
1	AA	128	G
1	AA	173	U
1	AA	178	C
1	AA	187	G
1	AA	206	C
1	AA	224	U
1	AA	239	U
1	AA	243	A
1	AA	244	U
1	AA	251	G
1	AA	256	U
1	AA	272	C
1	AA	279	A
1	AA	328	C
1	AA	372	C
1	AA	410	G
1	AA	421	U
1	AA	429	U
1	AA	467	U
1	AA	497	G
1	AA	533	A
1	AA	552	U
1	AA	582	C
1	AA	632	U
1	AA	653	U
1	AA	681	A
1	AA	682	G
1	AA	700	G
1	AA	717	U
1	AA	719	C
1	AA	721	G
1	AA	744	C
1	AA	764	C
1	AA	765	G
1	AA	782	A
1	AA	815	A
1	AA	819	A
1	AA	840	C
1	AA	870	U
1	AA	872	A

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Mol	Chain	Res	Type
1	AA	897	C
1	AA	899	C
1	AA	907	A
1	AA	926	G
1	AA	931	C
1	AA	937	A
1	AA	944	G
1	AA	960	U
1	AA	968	A
1	AA	974	A
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	1014	A
1	AA	1029	U
1	AA	1030	U
1	AA	1101	A
1	AA	1108	G
1	AA	1126	U
1	AA	1167	A
1	AA	1183	U
1	AA	1201	A
1	AA	1211	U
1	AA	1213	A
1	AA	1214	C
1	AA	1226	C
1	AA	1253	G
1	AA	1263	C
1	AA	1278	G
1	AA	1289	A
1	AA	1297	G
1	AA	1302	C
1	AA	1313	U
1	AA	1318	A
1	AA	1346	A
1	AA	1347	G
1	AA	1362	A
1	AA	1369	C
1	AA	1384	C
1	AA	1452	C
1	AA	1491	G
1	AA	1502	A

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Mol	Chain	Res	Type
1	AA	1509	C
1	AA	1512	U
1	AA	1529	G
1	AA	1538	C
2	AB	9	A
2	AB	34	C
2	AB	38	A
2	AB	47	U
2	AB	58	A
2	AB	59	G
2	AB	75	C
3	AC	13	A
3	AC	14	G
3	AC	16	A
3	AC	18	A
3	AC	20	G
3	AC	21	U
3	AC	26	U
3	AC	27	A
3	AC	39	U
3	AC	43	U
3	AC	44	U
3	AC	52	U
3	AC	53	G
3	AC	55	A
4	AD	9	G
4	AD	17	C
4	AD	22	A
4	AD	76	C
25	BA	14	U
25	BA	15	A
25	BA	25	U
25	BA	34	A
25	BA	35	C
25	BA	36	C
25	BA	41	G
25	BA	44	G
25	BA	57	A
25	BA	66	A
25	BA	88	C
25	BA	89	U
25	BA	106	G

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Mol	Chain	Res	Type
26	BB	13	A
26	BB	46	G
26	BB	49	A
26	BB	63	A
26	BB	71	A
26	BB	94	A
26	BB	100	U
26	BB	114	U
26	BB	125	A
26	BB	196	A
26	BB	199	A
26	BB	218	A
26	BB	219	A
26	BB	228	C
26	BB	231	A
26	BB	241	A
26	BB	242	G
26	BB	249	C
26	BB	265	A
26	BB	321	U
26	BB	332	A
26	BB	347	A
26	BB	368	A
26	BB	388	G
26	BB	389	G
26	BB	390	U
26	BB	404	A
26	BB	428	A
26	BB	451	U
26	BB	453	A
26	BB	463	G
26	BB	479	A
26	BB	489	G
26	BB	503	A
26	BB	534	U
26	BB	545	U
26	BB	561	G
26	BB	569	U
26	BB	570	G
26	BB	572	A
26	BB	574	A
26	BB	575	A

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Mol	Chain	Res	Type
26	BB	603	A
26	BB	611	C
26	BB	620	G
26	BB	628	G
26	BB	635	C
26	BB	649	G
26	BB	702	U
26	BB	748	G
26	BB	751	A
26	BB	762	U
26	BB	776	G
26	BB	829	A
26	BB	846	U
26	BB	847	U
26	BB	870	U
26	BB	888	C
26	BB	900	A
26	BB	941	A
26	BB	945	A
26	BB	990	A
26	BB	1012	U
26	BB	1043	C
26	BB	1061	U
26	BB	1069	A
26	BB	1070	A
26	BB	1095	A
26	BB	1129	A
26	BB	1133	A
26	BB	1134	A
26	BB	1142	A
26	BB	1157	G
26	BB	1210	G
26	BB	1211	C
26	BB	1239	G
26	BB	1240	U
26	BB	1248	G
26	BB	1254	A
26	BB	1272	A
26	BB	1274	A
26	BB	1288	G
26	BB	1300	G
26	BB	1329	U

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Mol	Chain	Res	Type
26	BB	1348	C
26	BB	1351	C
26	BB	1386	C
26	BB	1391	U
26	BB	1392	A
26	BB	1395	A
26	BB	1451	C
26	BB	1460	U
26	BB	1509	A
26	BB	1567	G
26	BB	1608	A
26	BB	1609	A
26	BB	1626	A
26	BB	1634	A
26	BB	1649	G
26	BB	1693	U
26	BB	1697	G
26	BB	1699	G
26	BB	1701	A
26	BB	1715	G
26	BB	1723	G
26	BB	1778	U
26	BB	1784	A
26	BB	1786	A
26	BB	1816	C
26	BB	1862	G
26	BB	1901	A
26	BB	1912	A
26	BB	1927	A
26	BB	1939	5MU
26	BB	1940	U
26	BB	1944	U
26	BB	1952	A
26	BB	1955	U
26	BB	2019	A
26	BB	2031	A
26	BB	2060	A
26	BB	2068	U
26	BB	2079	U
26	BB	2092	U
26	BB	2098	U
26	BB	2106	U

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Mol	Chain	Res	Type
26	BB	2113	U
26	BB	2118	U
26	BB	2125	G
26	BB	2129	C
26	BB	2130	U
26	BB	2159	G
26	BB	2173	A
26	BB	2194	U
26	BB	2198	A
26	BB	2223	G
26	BB	2225	A
26	BB	2236	U
26	BB	2238	G
26	BB	2249	U
26	BB	2264	C
26	BB	2282	G
26	BB	2287	A
26	BB	2385	C
26	BB	2425	A
26	BB	2426	A
26	BB	2427	C
26	BB	2429	G
26	BB	2432	A
26	BB	2434	A
26	BB	2440	C
26	BB	2441	U
26	BB	2468	A
26	BB	2485	G
26	BB	2491	U
26	BB	2500	U
26	BB	2515	C
26	BB	2555	U
26	BB	2571	U
26	BB	2581	G
26	BB	2586	U
26	BB	2587	A
26	BB	2602	A
26	BB	2610	C
26	BB	2613	U
26	BB	2615	U
26	BB	2628	C
26	BB	2655	G

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Mol	Chain	Res	Type
26	BB	2663	G
26	BB	2756	U
26	BB	2771	C
26	BB	2777	G
26	BB	2780	G
26	BB	2791	G
26	BB	2802	G
26	BB	2806	C
26	BB	2835	A
26	BB	2842	G
26	BB	2867	G
26	BB	2879	A

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

49 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	7MG	AA	527	1	23,26,27	3.55	7 (30%)	27,39,42	2.11	7 (25%)
2	MIA	AB	37	2	28,31,32	1.73	4 (14%)	38,44,47	2.59	9 (23%)
4	OMC	AD	33	4	19,22,23	1.45	3 (15%)	25,31,34	1.36	5 (20%)
2	7MG	AB	46	2	23,26,27	4.09	5 (21%)	27,39,42	1.91	6 (22%)
26	PSU	BB	2457	26	18,21,22	1.12	2 (11%)	21,30,33	2.57	9 (42%)
26	OMC	BB	2498	26	19,22,23	1.19	2 (10%)	25,31,34	1.39	3 (12%)
2	PSU	AB	55	2	18,21,22	1.45	2 (11%)	21,30,33	2.46	7 (33%)
26	OMU	BB	2552	26	19,22,23	1.43	4 (21%)	25,31,34	2.16	7 (28%)
26	PSU	BB	2580	26	18,21,22	1.48	2 (11%)	21,30,33	1.85	10 (47%)
26	2MG	BB	1835	26	23,26,27	1.41	5 (21%)	33,38,41	1.47	5 (15%)
26	PSU	BB	1911	26	18,21,22	1.53	3 (16%)	21,30,33	2.31	4 (19%)
26	PSU	BB	2504	26	18,21,22	1.36	3 (16%)	21,30,33	2.02	7 (33%)
26	PSU	BB	2605	26	18,21,22	1.63	4 (22%)	21,30,33	1.91	3 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	PSU	AD	56	4	18,21,22	1.75	5 (27%)	21,30,33	1.39	3 (14%)
1	5MC	AA	967	1	19,22,23	1.45	3 (15%)	26,32,35	1.25	1 (3%)
26	PSU	BB	955	26	18,21,22	1.76	3 (16%)	21,30,33	1.45	4 (19%)
2	H2U	AB	16	2	18,21,22	1.46	1 (5%)	19,30,33	1.96	6 (31%)
26	PSU	BB	746	26	18,21,22	2.32	6 (33%)	21,30,33	2.29	8 (38%)
26	2MA	BB	2503	26	22,25,26	1.52	3 (13%)	32,37,40	1.65	6 (18%)
1	MA6	AA	1519	1	23,26,27	1.20	3 (13%)	33,38,41	1.77	11 (33%)
1	UR3	AA	1498	1	19,22,23	1.15	1 (5%)	26,32,35	1.61	6 (23%)
4	H2U	AD	21	4	18,21,22	1.36	3 (16%)	19,30,33	2.33	5 (26%)
1	5MC	AA	1407	1	19,22,23	1.42	2 (10%)	26,32,35	1.99	6 (23%)
2	H2U	AB	17	2	18,21,22	1.34	3 (16%)	19,30,33	2.13	2 (10%)
26	5MU	BB	747	26	19,22,23	1.13	1 (5%)	27,32,35	1.65	7 (25%)
26	2MG	BB	2445	26	23,26,27	1.33	2 (8%)	33,38,41	1.71	6 (18%)
1	2MG	AA	966	1	23,26,27	1.05	2 (8%)	33,38,41	1.99	9 (27%)
1	4OC	AA	1402	-	20,23,24	1.30	2 (10%)	25,32,35	1.47	6 (24%)
26	6MZ	BB	1618	26	22,25,26	1.50	4 (18%)	29,36,39	2.00	8 (27%)
26	5MC	BB	1962	26	19,22,23	1.62	6 (31%)	26,32,35	1.67	6 (23%)
26	6MZ	BB	2030	26	22,25,26	1.00	1 (4%)	29,36,39	1.68	8 (27%)
26	OMG	BB	2251	26	23,26,27	1.23	3 (13%)	32,38,41	1.60	6 (18%)
1	PSU	AA	516	1	18,21,22	1.38	3 (16%)	21,30,33	2.99	7 (33%)
26	3TD	BB	1915	26	19,22,23	1.82	5 (26%)	23,32,35	1.34	2 (8%)
26	CH	BB	2575	26	16,21,22	1.56	3 (18%)	19,30,33	2.31	8 (42%)
4	5MU	AD	55	4	19,22,23	1.35	4 (21%)	27,32,35	2.18	6 (22%)
1	2MG	AA	1516	1	23,26,27	1.72	5 (21%)	33,38,41	1.59	9 (27%)
26	PSU	BB	1917	26	18,21,22	1.43	3 (16%)	21,30,33	1.63	4 (19%)
1	2MG	AA	1207	1	23,26,27	1.46	2 (8%)	33,38,41	1.89	7 (21%)
26	5MU	BB	1939	26	19,22,23	1.46	4 (21%)	27,32,35	2.08	11 (40%)
2	5MU	AB	54	2	19,22,23	0.95	1 (5%)	27,32,35	1.51	5 (18%)
26	H2U	BB	2449	26	18,21,22	1.65	3 (16%)	19,30,33	1.65	3 (15%)
2	H2U	AB	20	2	18,21,22	1.51	3 (16%)	19,30,33	1.41	3 (15%)
2	OMC	AB	32	2	19,22,23	1.51	4 (21%)	25,31,34	1.67	5 (20%)
2	4SU	AB	8	2	18,21,22	1.77	2 (11%)	25,30,33	1.97	4 (16%)
26	1MG	BB	745	26	23,26,27	1.35	3 (13%)	33,39,42	1.94	9 (27%)
4	4SU	AD	8	4	18,21,22	1.80	5 (27%)	25,30,33	2.07	7 (28%)
26	7MG	BB	2069	26	23,26,27	3.66	5 (21%)	27,39,42	1.97	7 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	MA6	AA	1518	1	23,26,27	1.45	3 (13%)	33,38,41	2.18	11 (33%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	7MG	AA	527	1	-	2/7/37/38	0/3/3/3
2	MIA	AB	37	2	-	0/15/33/34	0/3/3/3
4	OMC	AD	33	4	-	0/9/27/28	0/2/2/2
2	7MG	AB	46	2	-	3/7/37/38	0/3/3/3
26	PSU	BB	2457	26	-	0/7/25/26	0/2/2/2
26	OMC	BB	2498	26	-	0/9/27/28	0/2/2/2
2	PSU	AB	55	2	-	1/7/25/26	0/2/2/2
26	OMU	BB	2552	26	-	0/9/27/28	0/2/2/2
26	PSU	BB	2580	26	-	4/7/25/26	0/2/2/2
26	2MG	BB	1835	26	-	0/9/27/28	0/3/3/3
26	PSU	BB	1911	26	-	1/7/25/26	0/2/2/2
26	PSU	BB	2504	26	-	0/7/25/26	0/2/2/2
26	PSU	BB	2605	26	-	0/7/25/26	0/2/2/2
4	PSU	AD	56	4	-	0/7/25/26	0/2/2/2
1	5MC	AA	967	1	-	0/7/25/26	0/2/2/2
26	PSU	BB	955	26	-	0/7/25/26	0/2/2/2
2	H2U	AB	16	2	-	0/7/38/39	0/2/2/2
26	PSU	BB	746	26	-	0/7/25/26	0/2/2/2
26	2MA	BB	2503	26	-	2/7/25/26	0/3/3/3
1	MA6	AA	1519	1	-	0/11/29/30	0/3/3/3
1	UR3	AA	1498	1	-	2/7/25/26	0/2/2/2
4	H2U	AD	21	4	-	0/7/38/39	0/2/2/2
1	5MC	AA	1407	1	-	0/7/25/26	0/2/2/2
2	H2U	AB	17	2	-	0/7/38/39	0/2/2/2
26	5MU	BB	747	26	-	0/7/25/26	0/2/2/2
26	2MG	BB	2445	26	-	0/9/27/28	0/3/3/3
1	2MG	AA	966	1	-	0/9/27/28	0/3/3/3
1	4OC	AA	1402	-	-	0/9/29/30	0/2/2/2
26	6MZ	BB	1618	26	-	1/9/27/28	0/3/3/3
26	5MC	BB	1962	26	-	1/7/25/26	0/2/2/2
26	6MZ	BB	2030	26	-	2/9/27/28	0/3/3/3
26	OMG	BB	2251	26	-	0/9/27/28	0/3/3/3
1	PSU	AA	516	1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
26	3TD	BB	1915	26	-	2/7/25/26	0/2/2/2
26	CH	BB	2575	26	-	0/5/25/26	0/2/2/2
4	5MU	AD	55	4	-	0/7/25/26	0/2/2/2
1	2MG	AA	1516	1	-	0/9/27/28	0/3/3/3
26	PSU	BB	1917	26	-	3/7/25/26	0/2/2/2
1	2MG	AA	1207	1	-	1/9/27/28	0/3/3/3
26	5MU	BB	1939	26	-	0/7/25/26	0/2/2/2
2	5MU	AB	54	2	-	1/7/25/26	0/2/2/2
26	H2U	BB	2449	26	-	1/7/38/39	0/2/2/2
2	H2U	AB	20	2	-	0/7/38/39	0/2/2/2
2	OMC	AB	32	2	-	0/9/27/28	0/2/2/2
2	4SU	AB	8	2	-	5/7/25/26	0/2/2/2
26	1MG	BB	745	26	-	0/7/25/26	0/3/3/3
4	4SU	AD	8	4	-	0/7/25/26	0/2/2/2
26	7MG	BB	2069	26	-	0/7/37/38	0/3/3/3
1	MA6	AA	1518	1	-	2/11/29/30	0/3/3/3

All (158) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	46	7MG	C8-N9	-17.83	1.34	1.45
26	BB	2069	7MG	C8-N9	-16.09	1.35	1.45
1	AA	527	7MG	C8-N9	-15.35	1.35	1.45
26	BB	955	PSU	C2-N1	6.43	1.45	1.36
26	BB	746	PSU	C2-N1	5.40	1.43	1.36
2	AB	8	4SU	C5-C4	-5.21	1.36	1.42
1	AA	1516	2MG	CM2-N2	4.85	1.54	1.45
2	AB	37	MIA	C1'-N9	4.76	1.59	1.46
1	AA	1207	2MG	C2-N1	4.68	1.44	1.36
2	AB	37	MIA	C2-S10	4.64	1.79	1.75
2	AB	16	H2U	C2-N3	-4.63	1.29	1.38
4	AD	8	4SU	C5-C4	-4.44	1.37	1.42
26	BB	2449	H2U	C2-N1	4.11	1.41	1.35
26	BB	1939	5MU	O4'-C1'	3.91	1.51	1.42
26	BB	745	1MG	C5-N7	-3.75	1.31	1.39
26	BB	2503	2MA	C6-N1	-3.71	1.30	1.35
4	AD	33	OMC	O4'-C4'	-3.67	1.36	1.45
2	AB	46	7MG	O4'-C4'	-3.62	1.36	1.45
1	AA	1407	5MC	O4'-C4'	-3.61	1.37	1.45
26	BB	1915	3TD	C6-N1	3.59	1.42	1.36
26	BB	2605	PSU	C6-N1	3.57	1.42	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	37	MIA	C5'-C4'	3.57	1.62	1.51
26	BB	1915	3TD	C10-N3	3.54	1.53	1.47
4	AD	56	PSU	C2-N3	3.52	1.43	1.37
26	BB	746	PSU	C6-C5	3.48	1.39	1.35
4	AD	56	PSU	O4'-C4'	-3.47	1.37	1.45
2	AB	46	7MG	C4-N3	3.45	1.42	1.34
26	BB	1618	6MZ	C6-N1	3.44	1.40	1.35
26	BB	2575	CH	C4-N3	3.44	1.41	1.37
4	AD	8	4SU	O4'-C4'	-3.42	1.37	1.45
26	BB	2580	PSU	O4'-C1'	-3.42	1.39	1.43
26	BB	746	PSU	C3'-C2'	3.37	1.62	1.53
26	BB	2575	CH	C5-C4	3.36	1.44	1.39
1	AA	1516	2MG	C2-N1	3.32	1.42	1.36
1	AA	1498	UR3	C2-N1	3.32	1.43	1.38
1	AA	516	PSU	C6-C5	3.29	1.38	1.35
2	AB	20	H2U	C5-C4	3.24	1.57	1.50
2	AB	55	PSU	C2-N1	3.23	1.40	1.36
26	BB	746	PSU	C5'-C4'	3.23	1.61	1.51
26	BB	1911	PSU	C4-N3	3.18	1.44	1.38
1	AA	527	7MG	O6-C6	-3.18	1.17	1.23
4	AD	8	4SU	O4'-C1'	3.14	1.49	1.42
26	BB	2552	OMU	C5'-C4'	3.14	1.61	1.51
1	AA	1518	MA6	C5-N7	-3.12	1.33	1.39
2	AB	32	OMC	C2-N3	3.12	1.42	1.36
26	BB	746	PSU	O2'-C2'	-3.10	1.35	1.43
26	BB	1618	6MZ	O4'-C4'	-3.08	1.38	1.45
2	AB	32	OMC	C2'-C1'	3.06	1.60	1.53
1	AA	1518	MA6	C4-N3	3.04	1.40	1.34
26	BB	747	5MU	O2'-C2'	-3.03	1.35	1.43
26	BB	2457	PSU	C2-N1	3.02	1.40	1.36
2	AB	20	H2U	C1'-N1	-2.99	1.41	1.46
1	AA	527	7MG	C4-N9	-2.97	1.34	1.37
26	BB	2498	OMC	C5'-C4'	2.97	1.60	1.51
26	BB	2552	OMU	O5'-C5'	-2.93	1.35	1.44
26	BB	1915	3TD	C2-N1	2.93	1.40	1.37
26	BB	1911	PSU	C2-N1	2.92	1.40	1.36
2	AB	32	OMC	C3'-C2'	2.92	1.59	1.53
2	AB	20	H2U	C4-N3	-2.91	1.32	1.37
1	AA	967	5MC	C4-N3	2.91	1.38	1.34
26	BB	2069	7MG	C5'-C4'	2.88	1.60	1.51
2	AB	17	H2U	C6-N1	-2.88	1.42	1.47
1	AA	966	2MG	CM2-N2	2.86	1.50	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2449	H2U	C6-N1	-2.86	1.42	1.47
26	BB	1917	PSU	C2-N1	2.85	1.40	1.36
2	AB	46	7MG	C5-N7	2.83	1.39	1.35
26	BB	2251	OMG	C1'-N9	2.82	1.55	1.47
26	BB	1962	5MC	O3'-C3'	-2.81	1.36	1.43
1	AA	1516	2MG	C5'-C4'	2.81	1.60	1.51
4	AD	55	5MU	O4'-C1'	-2.81	1.35	1.42
26	BB	745	1MG	C8-N7	-2.79	1.24	1.32
26	BB	2605	PSU	C2'-C1'	2.79	1.57	1.53
26	BB	1962	5MC	C6-N1	-2.78	1.33	1.38
26	BB	1962	5MC	O5'-C5'	-2.76	1.36	1.44
4	AD	56	PSU	C2'-C1'	-2.73	1.50	1.53
26	BB	1939	5MU	C3'-C4'	2.73	1.59	1.53
26	BB	2504	PSU	O4'-C4'	-2.72	1.38	1.45
26	BB	1917	PSU	C4-N3	2.72	1.43	1.38
26	BB	2449	H2U	C1'-N1	2.71	1.51	1.46
26	BB	1618	6MZ	C6-N6	2.71	1.37	1.34
26	BB	1835	2MG	C4-N3	2.70	1.40	1.34
1	AA	1519	MA6	C5-C4	2.70	1.43	1.39
4	AD	21	H2U	C2-N1	2.70	1.39	1.35
26	BB	2445	2MG	C2'-C3'	2.68	1.60	1.53
26	BB	1835	2MG	O3'-C3'	2.68	1.49	1.43
1	AA	1402	4OC	C4-N3	2.68	1.37	1.32
4	AD	56	PSU	C1'-C5	2.63	1.56	1.50
26	BB	2069	7MG	C8-N7	-2.62	1.29	1.42
26	BB	2552	OMU	O4'-C4'	-2.61	1.39	1.45
1	AA	516	PSU	O4-C4	2.61	1.28	1.23
1	AA	1518	MA6	C3'-C4'	2.59	1.59	1.53
26	BB	2503	2MA	C8-N7	-2.58	1.26	1.31
1	AA	967	5MC	C5-C4	-2.58	1.42	1.44
1	AA	527	7MG	C6-N1	-2.55	1.34	1.38
26	BB	746	PSU	C6-N1	2.54	1.40	1.36
4	AD	8	4SU	C1'-N1	2.54	1.54	1.47
26	BB	1835	2MG	C2-N3	2.54	1.36	1.32
1	AA	527	7MG	C1'-N9	2.52	1.51	1.46
2	AB	37	MIA	C5-N7	2.50	1.43	1.39
26	BB	1911	PSU	C6-C5	2.49	1.38	1.35
4	AD	55	5MU	C4-N3	-2.49	1.34	1.38
26	BB	2580	PSU	C4-C5	2.48	1.51	1.44
1	AA	1519	MA6	C2-N3	-2.46	1.29	1.33
26	BB	1915	3TD	C1'-C5	2.45	1.55	1.50
26	BB	1917	PSU	O4'-C1'	-2.45	1.40	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2552	OMU	C3'-C2'	-2.45	1.47	1.53
1	AA	967	5MC	CM5-C5	2.45	1.56	1.50
2	AB	46	7MG	C8-N7	-2.45	1.30	1.42
26	BB	1915	3TD	C2-N3	2.39	1.43	1.38
26	BB	1939	5MU	C4-C5	2.39	1.48	1.44
26	BB	2605	PSU	C4-N3	-2.38	1.34	1.38
1	AA	527	7MG	C4-N3	2.37	1.39	1.34
1	AA	1207	2MG	C4-N3	2.37	1.39	1.34
26	BB	2575	CH	C2'-C1'	-2.35	1.50	1.53
4	AD	33	OMC	C1'-N1	2.34	1.54	1.47
26	BB	2445	2MG	C8-N7	-2.34	1.26	1.32
4	AD	21	H2U	O3'-C3'	-2.34	1.37	1.43
1	AA	516	PSU	C3'-C4'	2.31	1.58	1.53
26	BB	2069	7MG	O6-C6	2.30	1.27	1.23
2	AB	54	5MU	O4'-C4'	-2.29	1.39	1.45
1	AA	1519	MA6	C8-N9	-2.29	1.33	1.37
26	BB	1835	2MG	CM2-N2	2.29	1.49	1.45
26	BB	2069	7MG	C4-N9	-2.28	1.35	1.37
26	BB	2504	PSU	O3'-C3'	-2.27	1.37	1.43
4	AD	55	5MU	C6-N1	2.26	1.41	1.38
26	BB	2605	PSU	O4'-C1'	-2.26	1.40	1.43
26	BB	2498	OMC	C3'-C4'	-2.25	1.47	1.53
4	AD	56	PSU	O5'-C5'	-2.25	1.37	1.44
26	BB	955	PSU	C1'-C5	2.24	1.55	1.50
26	BB	2251	OMG	C5'-C4'	2.23	1.58	1.51
26	BB	745	1MG	O2'-C2'	-2.23	1.37	1.43
2	AB	8	4SU	C1'-N1	2.23	1.53	1.47
1	AA	1516	2MG	C2-N2	2.23	1.38	1.33
1	AA	1407	5MC	C5'-C4'	2.22	1.58	1.51
26	BB	955	PSU	O4'-C4'	-2.22	1.40	1.45
26	BB	1962	5MC	O4'-C4'	-2.22	1.40	1.45
1	AA	966	2MG	C2-N2	2.22	1.38	1.33
4	AD	33	OMC	C6-N1	-2.21	1.32	1.38
26	BB	2251	OMG	O4'-C4'	-2.19	1.40	1.45
2	AB	17	H2U	C2'-C3'	-2.19	1.47	1.53
4	AD	21	H2U	C2'-C3'	2.19	1.59	1.53
1	AA	1516	2MG	O4'-C4'	-2.15	1.40	1.45
26	BB	1962	5MC	O4'-C1'	-2.15	1.37	1.42
1	AA	527	7MG	C8-N7	-2.14	1.31	1.42
2	AB	17	H2U	C2-N3	-2.14	1.34	1.38
26	BB	1939	5MU	C2-N1	2.13	1.41	1.38
26	BB	2030	6MZ	C2-N3	-2.12	1.30	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	55	PSU	C2'-C1'	2.10	1.56	1.53
26	BB	2457	PSU	O4'-C4'	2.10	1.49	1.45
26	BB	1962	5MC	C6-C5	2.10	1.38	1.34
1	AA	1402	4OC	O2'-C2'	2.10	1.47	1.42
4	AD	55	5MU	O4-C4	-2.07	1.19	1.23
26	BB	1835	2MG	C5'-C4'	2.07	1.57	1.51
2	AB	32	OMC	O4'-C4'	-2.04	1.40	1.45
26	BB	2504	PSU	O4'-C1'	-2.04	1.41	1.43
4	AD	8	4SU	C2-N3	2.03	1.41	1.38
26	BB	1618	6MZ	C2-N3	2.03	1.37	1.33
26	BB	2503	2MA	C8-N9	2.03	1.41	1.37

All (304) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	37	MIA	C11-S10-C2	12.37	111.53	102.25
1	AA	516	PSU	C6-C5-C4	8.81	124.12	118.17
26	BB	1911	PSU	C6-C5-C4	8.66	124.02	118.17
2	AB	17	H2U	O4'-C1'-N1	8.59	121.00	109.30
2	AB	46	7MG	N9-C8-N7	7.00	113.28	103.37
26	BB	1618	6MZ	C9-N6-C6	6.97	129.31	122.85
26	BB	2552	OMU	C6-C5-C4	6.79	128.21	119.53
26	BB	2605	PSU	C6-N1-C2	-6.39	116.76	122.69
1	AA	516	PSU	O2-C2-N1	-5.90	116.71	122.79
26	BB	2457	PSU	C6-C5-C4	5.66	121.99	118.17
2	AB	37	MIA	C6-C5-N7	5.55	138.48	132.43
4	AD	55	5MU	O4'-C1'-N1	5.54	120.91	108.36
2	AB	8	4SU	C4-N3-C2	-5.53	122.01	127.31
26	BB	2575	CH	C5-C4-N4	-5.50	118.53	123.88
1	AA	527	7MG	N9-C8-N7	5.48	111.13	103.37
2	AB	55	PSU	C6-C5-C4	5.43	121.84	118.17
4	AD	21	H2U	O4'-C1'-N1	5.39	116.65	109.30
1	AA	1407	5MC	C5-C6-N1	-5.37	117.48	123.31
26	BB	2445	2MG	O6-C6-N1	-5.35	110.06	120.11
4	AD	8	4SU	S4-C4-N3	5.26	125.71	120.20
26	BB	2069	7MG	N9-C8-N7	5.18	110.70	103.37
4	AD	21	H2U	C5-C4-N3	-5.05	111.32	116.69
26	BB	2457	PSU	C6-N1-C2	-5.04	118.01	122.69
26	BB	745	1MG	C5-C4-N3	-4.97	120.48	128.39
26	BB	1939	5MU	O4'-C4'-C5'	4.91	125.05	109.33
1	AA	966	2MG	N2-C2-N3	-4.89	114.29	120.51
1	AA	1207	2MG	N1-C2-N2	-4.78	111.68	116.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	55	PSU	C6-N1-C2	4.73	127.08	122.69
26	BB	2030	6MZ	O4'-C1'-N9	4.67	117.07	108.09
4	AD	55	5MU	C2'-C3'-C4'	-4.65	93.62	102.61
1	AA	1518	MA6	C5-C4-N9	4.63	110.86	105.81
26	BB	2457	PSU	N1-C2-N3	4.56	119.98	115.17
4	AD	8	4SU	C5-C4-S4	-4.56	119.09	124.31
26	BB	2503	2MA	C2-N1-C6	4.56	125.11	118.10
1	AA	1207	2MG	C2-N1-C6	-4.55	119.05	124.55
2	AB	55	PSU	N1-C2-N3	-4.52	110.40	115.17
2	AB	55	PSU	C5-C6-N1	-4.46	115.95	122.14
26	BB	2504	PSU	C6-N1-C2	4.45	126.82	122.69
26	BB	747	5MU	C6-C5-C4	4.44	121.68	118.02
1	AA	1518	MA6	C2-N1-C6	4.42	122.63	111.83
26	BB	746	PSU	C6-N1-C2	4.30	126.68	122.69
1	AA	516	PSU	C5-C6-N1	-4.30	116.18	122.14
2	AB	8	4SU	C5-C4-N3	4.28	118.73	114.75
26	BB	746	PSU	C6-C5-C4	4.27	121.06	118.17
1	AA	1518	MA6	C4-N9-C8	-4.21	101.32	105.74
26	BB	2504	PSU	O2-C2-N1	-4.19	118.47	122.79
2	AB	16	H2U	O4-C4-N3	4.16	126.72	120.30
26	BB	2575	CH	C4'-O4'-C1'	-4.10	105.57	109.74
26	BB	2552	OMU	C5-C6-N1	-4.09	115.18	121.84
26	BB	1917	PSU	C6-C5-C4	4.08	120.92	118.17
1	AA	1518	MA6	C4-C5-N7	-4.06	105.94	110.58
4	AD	55	5MU	C5-C6-N1	-4.03	118.94	123.31
4	AD	21	H2U	O4-C4-N3	4.00	126.47	120.30
1	AA	1518	MA6	N1-C6-N6	3.99	121.72	116.86
4	AD	8	4SU	C6-C5-C4	3.97	123.39	119.95
26	BB	2069	7MG	O4'-C1'-N9	-3.93	103.94	109.30
26	BB	2503	2MA	N6-C6-N1	3.93	122.33	117.03
26	BB	2449	H2U	O3'-C3'-C4'	-3.92	99.83	111.08
2	AB	32	OMC	O3'-C3'-C2'	3.88	122.05	111.19
2	AB	20	H2U	N3-C2-N1	-3.87	112.76	116.65
1	AA	1498	UR3	C6-N1-C2	-3.80	118.70	121.80
1	AA	1519	MA6	C2-N1-C6	3.76	121.01	111.83
2	AB	32	OMC	O2-C2-N3	-3.66	116.56	122.33
26	BB	1962	5MC	C5-C6-N1	-3.64	119.36	123.31
2	AB	8	4SU	S4-C4-N3	-3.64	116.40	120.20
1	AA	966	2MG	O6-C6-N1	-3.63	113.29	120.11
26	BB	746	PSU	C5-C6-N1	-3.63	117.11	122.14
1	AA	1519	MA6	C6-C5-N7	3.62	139.22	133.43
2	AB	37	MIA	C4-C5-N7	-3.62	106.44	110.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	55	PSU	O2-C2-N1	3.61	126.51	122.79
2	AB	16	H2U	C2'-C3'-C4'	-3.61	95.63	102.61
26	BB	2445	2MG	C2'-C3'-C4'	-3.60	95.66	102.61
4	AD	55	5MU	C6-C5-C4	3.59	120.98	118.02
1	AA	527	7MG	C2-N1-C6	-3.59	118.60	125.11
26	BB	1911	PSU	C5-C6-N1	-3.55	117.22	122.14
4	AD	55	5MU	C5M-C5-C6	-3.55	118.05	122.85
26	BB	2457	PSU	O2-C2-N3	-3.53	115.58	121.86
26	BB	2251	OMG	O3'-C3'-C4'	3.53	121.22	111.08
1	AA	966	2MG	O6-C6-C5	3.52	135.83	126.53
1	AA	966	2MG	C6-C5-C4	3.52	124.12	118.83
1	AA	527	7MG	O4'-C1'-N9	-3.51	104.51	109.30
1	AA	1516	2MG	N2-C2-N3	3.51	124.98	120.51
26	BB	2504	PSU	O2-C2-N3	3.48	128.05	121.86
1	AA	516	PSU	O4-C4-N3	-3.44	113.65	120.11
26	BB	1939	5MU	C4-N3-C2	-3.43	122.84	127.34
26	BB	746	PSU	O2-C2-N1	3.42	126.31	122.79
26	BB	745	1MG	N9-C4-N3	3.42	132.79	125.95
26	BB	2498	OMC	O2'-C2'-C1'	3.42	115.48	108.99
4	AD	33	OMC	O2-C2-N3	-3.41	116.96	122.33
4	AD	8	4SU	O4'-C1'-N1	3.41	116.08	108.36
1	AA	967	5MC	O4'-C4'-C5'	3.40	120.23	109.33
1	AA	516	PSU	O4-C4-C5	3.36	132.35	124.01
26	BB	1939	5MU	C6-C5-C4	3.35	120.78	118.02
1	AA	966	2MG	C5-C4-N3	-3.34	123.07	128.39
26	BB	2069	7MG	C2-N3-C4	3.33	118.04	112.30
26	BB	2503	2MA	O4'-C1'-N9	3.33	114.49	108.09
1	AA	1518	MA6	C5-N7-C8	3.32	108.67	103.45
26	BB	1618	6MZ	C5-C4-N3	-3.32	122.15	126.72
1	AA	1407	5MC	CM5-C5-C6	-3.31	118.37	122.85
4	AD	21	H2U	O4'-C4'-C3'	-3.27	98.67	105.15
1	AA	1407	5MC	C5-C4-N4	-3.26	116.79	121.39
2	AB	54	5MU	C4-N3-C2	-3.26	123.06	127.34
26	BB	2457	PSU	O2'-C2'-C1'	-3.25	103.50	111.21
1	AA	527	7MG	N1-C2-N3	3.25	129.26	123.32
26	BB	955	PSU	N1-C2-N3	-3.24	111.75	115.17
1	AA	1402	4OC	CM4-N4-C4	3.24	128.78	122.45
26	BB	1835	2MG	C2'-C3'-C4'	-3.21	96.40	102.61
26	BB	746	PSU	C2'-C3'-C4'	-3.20	96.42	102.61
2	AB	32	OMC	O4'-C4'-C3'	3.20	111.50	105.15
26	BB	2575	CH	O4'-C1'-C2'	3.19	111.59	106.89
26	BB	1962	5MC	CM5-C5-C6	-3.15	118.58	122.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1618	6MZ	C4-C5-C6	3.15	119.40	116.78
1	AA	1498	UR3	C1'-N1-C2	3.13	122.16	117.04
26	BB	1962	5MC	O4'-C1'-N1	3.11	115.40	108.36
26	BB	2030	6MZ	C5-C6-N1	3.10	121.48	118.15
26	BB	2445	2MG	C2-N3-C4	3.09	115.87	112.00
1	AA	1207	2MG	C2-N3-C4	3.09	115.87	112.00
2	AB	46	7MG	O3'-C3'-C2'	3.09	121.72	111.82
26	BB	2457	PSU	C3'-C2'-C1'	3.09	105.33	101.69
26	BB	747	5MU	C2'-C3'-C4'	-3.08	96.66	102.61
26	BB	2575	CH	C3'-C2'-C1'	-3.05	96.45	100.84
26	BB	2069	7MG	C5'-C4'-C3'	-3.05	104.23	115.21
2	AB	16	H2U	C5-C4-N3	-3.04	113.45	116.69
1	AA	516	PSU	O2'-C2'-C1'	-3.03	104.01	111.21
26	BB	2251	OMG	N2-C2-N3	3.03	125.59	119.67
26	BB	745	1MG	C2-N3-C4	3.02	118.77	111.98
1	AA	527	7MG	O3'-C3'-C4'	3.01	119.72	111.08
26	BB	1835	2MG	O4'-C4'-C3'	3.00	111.12	105.15
1	AA	1207	2MG	O2'-C2'-C3'	3.00	121.42	111.82
1	AA	1207	2MG	N9-C8-N7	2.98	118.93	113.40
26	BB	2504	PSU	C6-C5-C4	2.95	120.16	118.17
1	AA	527	7MG	O4'-C4'-C3'	2.94	111.00	105.15
1	AA	1519	MA6	C4-C5-C6	-2.94	112.87	115.91
26	BB	745	1MG	C6-C5-C4	2.94	123.30	119.97
2	AB	32	OMC	C2'-C3'-C4'	-2.94	95.68	101.99
26	BB	2580	PSU	O4-C4-N3	-2.93	114.61	120.11
26	BB	746	PSU	N1-C2-N3	-2.90	112.10	115.17
2	AB	55	PSU	O4'-C1'-C2'	2.90	109.16	105.15
26	BB	2580	PSU	O4-C4-C5	2.90	131.21	124.01
26	BB	2251	OMG	O4'-C1'-N9	2.90	114.92	108.36
26	BB	2503	2MA	O4'-C4'-C5'	2.89	118.59	109.33
26	BB	2552	OMU	O4-C4-N3	2.87	123.44	119.27
1	AA	1498	UR3	O3'-C3'-C4'	2.84	119.25	111.08
4	AD	33	OMC	O2'-C2'-C1'	2.84	114.38	108.99
1	AA	1518	MA6	C4-C5-C6	2.84	118.84	115.91
1	AA	1207	2MG	C5-C4-N3	-2.83	123.89	128.39
26	BB	2552	OMU	N3-C2-N1	2.82	118.57	114.89
26	BB	745	1MG	C8-N9-C4	-2.82	100.74	106.03
26	BB	746	PSU	O3'-C3'-C4'	2.81	119.14	111.08
26	BB	2457	PSU	C4-N3-C2	-2.80	122.51	126.37
26	BB	2552	OMU	O4'-C1'-N1	2.78	114.66	108.36
26	BB	1917	PSU	C6-N1-C2	2.77	125.26	122.69
26	BB	745	1MG	C5-C6-N1	-2.76	109.92	115.02

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1939	5MU	O2-C2-N3	-2.76	116.41	121.49
26	BB	1939	5MU	O4'-C1'-C2'	-2.73	100.78	106.62
1	AA	1519	MA6	O3'-C3'-C4'	2.73	118.91	111.08
26	BB	2498	OMC	C3'-C2'-C1'	-2.71	97.61	102.81
1	AA	1519	MA6	N1-C2-N3	-2.71	124.48	128.58
26	BB	1939	5MU	C5-C6-N1	-2.71	120.37	123.31
26	BB	955	PSU	C6-C5-C4	2.70	120.00	118.17
26	BB	746	PSU	C3'-C2'-C1'	2.69	104.86	101.69
26	BB	2580	PSU	O2-C2-N1	-2.68	120.02	122.79
2	AB	16	H2U	O3'-C3'-C4'	2.67	118.76	111.08
26	BB	2504	PSU	N1-C2-N3	-2.65	112.37	115.17
26	BB	745	1MG	C3'-C2'-C1'	2.64	106.46	101.46
26	BB	1618	6MZ	C5-N7-C8	2.63	107.59	103.45
26	BB	2457	PSU	O3'-C3'-C2'	2.63	120.23	111.82
1	AA	1402	4OC	O2'-C2'-C1'	2.63	113.97	108.99
1	AA	1518	MA6	N1-C2-N3	-2.63	124.61	128.58
1	AA	966	2MG	C6-C5-N7	-2.62	125.51	130.29
2	AB	54	5MU	O4-C4-N3	-2.62	115.18	120.11
26	BB	1939	5MU	N3-C2-N1	2.62	118.30	114.89
26	BB	2251	OMG	C6-C5-C4	-2.62	114.89	118.83
26	BB	745	1MG	C2-N1-C6	2.61	123.16	120.99
1	AA	1516	2MG	C8-N7-C5	-2.60	99.62	104.26
4	AD	56	PSU	O4-C4-N3	2.60	125.00	120.11
26	BB	2580	PSU	N1-C2-N3	2.58	117.89	115.17
26	BB	1962	5MC	O2-C2-N3	-2.58	118.27	122.33
26	BB	2575	CH	C5-C4-N3	2.56	119.50	118.04
26	BB	747	5MU	O3'-C3'-C2'	2.56	120.01	111.82
2	AB	37	MIA	C12-C13-C14	-2.55	122.44	127.01
26	BB	1939	5MU	C1'-N1-C6	-2.53	116.98	121.15
26	BB	1835	2MG	O2'-C2'-C3'	2.53	119.92	111.82
4	AD	21	H2U	O3'-C3'-C2'	2.52	119.91	111.82
4	AD	8	4SU	O2'-C2'-C1'	2.52	118.79	110.10
2	AB	32	OMC	O4'-C1'-N1	2.52	114.07	108.36
26	BB	2030	6MZ	O4'-C4'-C5'	2.52	117.40	109.33
4	AD	56	PSU	O3'-C3'-C4'	2.50	118.28	111.08
26	BB	2445	2MG	C2-N1-C6	-2.50	121.52	124.55
26	BB	955	PSU	C4-N3-C2	2.50	129.82	126.37
26	BB	2030	6MZ	C4-C5-C6	-2.50	114.70	116.78
2	AB	8	4SU	C6-C5-C4	-2.49	117.79	119.95
26	BB	2580	PSU	C6-C5-C4	2.49	119.85	118.17
1	AA	1519	MA6	C2'-C3'-C4'	-2.48	97.81	102.61
1	AA	1402	4OC	C5-C4-N4	-2.47	116.98	122.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	966	2MG	C2'-C3'-C4'	2.46	107.37	102.61
26	BB	1618	6MZ	O3'-C3'-C4'	-2.46	104.01	111.08
1	AA	1207	2MG	N2-C2-N3	2.46	123.64	120.51
26	BB	1915	3TD	C1'-C5-C4	2.46	121.33	117.61
4	AD	8	4SU	C4-N3-C2	-2.45	124.97	127.31
26	BB	2575	CH	N4-C4-N3	2.45	121.97	117.23
2	AB	20	H2U	O4'-C1'-N1	2.45	112.63	109.30
2	AB	55	PSU	O3'-C3'-C4'	2.44	118.09	111.08
26	BB	2449	H2U	O4-C4-N3	2.44	124.06	120.30
26	BB	1915	3TD	O4-C4-C5	2.43	126.77	122.58
26	BB	2580	PSU	C4-N3-C2	-2.43	123.03	126.37
26	BB	2580	PSU	C5-C6-N1	-2.42	118.78	122.14
26	BB	1917	PSU	O4'-C1'-C2'	2.42	108.50	105.15
1	AA	966	2MG	O4'-C4'-C3'	-2.41	100.37	105.15
2	AB	46	7MG	C3'-C2'-C1'	-2.41	96.91	101.46
2	AB	54	5MU	O4'-C1'-N1	2.40	113.80	108.36
26	BB	2498	OMC	O4'-C1'-N1	2.39	113.78	108.36
26	BB	2552	OMU	C4-N3-C2	-2.39	123.65	126.61
2	AB	54	5MU	C5-C4-N3	2.39	117.40	115.32
26	BB	1939	5MU	C1'-N1-C2	2.38	121.87	117.59
1	AA	1516	2MG	C2-N3-C4	2.38	114.98	112.00
26	BB	1618	6MZ	N3-C4-N9	2.38	131.21	127.17
2	AB	16	H2U	C5-C6-N1	-2.37	104.36	111.52
26	BB	2069	7MG	C5-C4-N3	-2.37	123.69	128.13
26	BB	1618	6MZ	N1-C2-N3	2.36	132.16	128.58
2	AB	37	MIA	C16-C14-C15	-2.35	109.18	114.59
26	BB	2580	PSU	O4'-C1'-C2'	2.35	108.40	105.15
2	AB	37	MIA	C2'-C1'-N9	-2.35	107.47	113.30
1	AA	1516	2MG	N1-C2-N2	-2.34	114.17	116.56
1	AA	1519	MA6	C4-C5-N7	-2.34	107.91	110.58
1	AA	1519	MA6	C5'-C4'-C3'	2.34	123.63	115.21
26	BB	2449	H2U	O4-C4-C5	-2.34	117.42	122.20
2	AB	20	H2U	O2-C2-N1	2.33	125.91	123.10
26	BB	1917	PSU	N1-C2-N3	-2.33	112.71	115.17
1	AA	1407	5MC	CM5-C5-C4	2.32	124.33	120.51
1	AA	1518	MA6	C9-N6-C6	2.32	126.43	120.52
26	BB	2605	PSU	O2-C2-N1	-2.32	120.39	122.79
1	AA	1407	5MC	C1'-N1-C2	-2.32	113.32	118.44
1	AA	1407	5MC	C6-N1-C2	2.32	124.04	120.95
2	AB	46	7MG	O4'-C1'-C2'	2.31	111.55	106.62
26	BB	747	5MU	C5M-C5-C4	-2.31	116.32	118.78
1	AA	1519	MA6	C3'-C2'-C1'	2.30	105.82	101.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1516	2MG	C1'-N9-C8	2.30	133.26	126.73
2	AB	17	H2U	C3'-C2'-C1'	2.30	105.81	101.46
26	BB	2575	CH	O2-C2-N1	2.29	126.96	120.81
1	AA	1498	UR3	C3'-C2'-C1'	-2.29	97.14	101.46
26	BB	2030	6MZ	C4'-O4'-C1'	-2.28	104.42	109.47
26	BB	1835	2MG	C4'-O4'-C1'	-2.28	104.43	109.47
1	AA	1516	2MG	N1-C2-N3	-2.27	119.85	123.68
26	BB	745	1MG	CM1-N1-C6	-2.26	114.14	117.64
26	BB	2445	2MG	C8-N7-C5	2.26	108.28	104.26
1	AA	1519	MA6	C10-N6-C6	2.25	126.24	120.52
4	AD	33	OMC	O4'-C1'-N1	2.25	113.45	108.36
1	AA	1516	2MG	O4'-C4'-C5'	2.23	116.48	109.33
26	BB	747	5MU	C5-C4-N3	-2.23	113.39	115.32
26	BB	2030	6MZ	C4-N9-C8	2.23	108.08	105.74
26	BB	747	5MU	C5-C6-N1	-2.22	120.90	123.31
1	AA	1518	MA6	C5-C4-N3	-2.22	123.66	126.72
2	AB	16	H2U	O4'-C4'-C5'	2.22	116.43	109.33
26	BB	2445	2MG	O6-C6-C5	2.20	132.34	126.53
26	BB	2251	OMG	C1'-N9-C8	2.19	132.96	126.73
4	AD	56	PSU	C3'-C2'-C1'	-2.19	99.11	101.69
1	AA	1498	UR3	O4'-C4'-C5'	2.18	116.32	109.33
26	BB	1962	5MC	O4'-C4'-C3'	2.18	109.48	105.15
4	AD	8	4SU	O4'-C4'-C3'	2.18	109.47	105.15
1	AA	1519	MA6	C10-N6-C9	-2.17	109.19	116.18
26	BB	2605	PSU	N1-C2-N3	2.17	117.46	115.17
1	AA	1402	4OC	C2'-C3'-C4'	-2.17	97.33	101.99
26	BB	1835	2MG	N1-C2-N2	-2.17	114.35	116.56
26	BB	747	5MU	O4'-C4'-C3'	2.16	109.45	105.15
26	BB	2457	PSU	O4'-C1'-C2'	2.16	108.14	105.15
26	BB	1911	PSU	C6-N1-C2	2.16	124.69	122.69
1	AA	1516	2MG	O4'-C1'-N9	-2.14	103.51	108.36
26	BB	1939	5MU	C5'-C4'-C3'	-2.14	107.51	115.21
26	BB	2069	7MG	N1-C2-N3	-2.14	119.41	123.32
4	AD	55	5MU	N3-C2-N1	2.13	117.67	114.89
26	BB	1618	6MZ	C4-C5-N7	-2.12	108.16	110.58
26	BB	2504	PSU	O3'-C3'-C4'	2.12	117.17	111.08
26	BB	2251	OMG	C6-C5-N7	2.12	134.14	130.29
26	BB	2504	PSU	C2'-C3'-C4'	-2.11	98.54	102.61
1	AA	1516	2MG	O4'-C4'-C3'	-2.11	100.97	105.15
26	BB	2503	2MA	C5-C6-N1	-2.11	115.63	118.90
2	AB	54	5MU	O4-C4-C5	2.11	127.32	124.92
4	AD	33	OMC	O2-C2-N1	2.10	123.02	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1939	5MU	O4-C4-C5	-2.10	122.51	124.92
26	BB	1911	PSU	O3'-C3'-C4'	2.10	117.12	111.08
1	AA	516	PSU	N1-C2-N3	2.10	117.38	115.17
26	BB	2580	PSU	C6-N1-C2	2.10	124.64	122.69
2	AB	46	7MG	N1-C2-N3	2.09	127.15	123.32
4	AD	33	OMC	C3'-C2'-C1'	-2.09	98.81	102.81
2	AB	37	MIA	S10-C2-N1	-2.08	108.86	116.04
26	BB	1962	5MC	C4-N3-C2	-2.08	117.92	120.81
2	AB	37	MIA	C2'-C3'-C4'	-2.08	98.59	102.61
26	BB	2552	OMU	C3'-C2'-C1'	-2.07	98.84	102.81
26	BB	2580	PSU	O3'-C3'-C4'	2.07	117.03	111.08
26	BB	2069	7MG	O2'-C2'-C3'	-2.07	105.19	111.82
1	AA	527	7MG	C2-N3-C4	-2.05	108.76	112.30
2	AB	46	7MG	O4'-C4'-C3'	-2.05	101.08	105.15
1	AA	1498	UR3	C3U-N3-C2	2.05	120.90	117.33
26	BB	2503	2MA	O2'-C2'-C1'	2.05	117.15	110.10
2	AB	37	MIA	C4-C5-C6	-2.05	115.08	116.78
1	AA	1402	4OC	C2'-C1'-N1	-2.04	110.36	114.24
26	BB	2030	6MZ	O4'-C1'-C2'	-2.04	102.24	106.62
26	BB	955	PSU	O2-C2-N3	2.03	125.48	121.86
1	AA	1518	MA6	C1'-N9-C8	2.02	131.58	127.09
26	BB	2030	6MZ	C6-C5-N7	2.02	134.63	132.43
1	AA	966	2MG	O2'-C2'-C3'	2.01	118.27	111.82
1	AA	1402	4OC	C5-C6-N1	2.01	125.10	121.84
26	BB	2575	CH	O4'-C4'-C5'	2.01	115.76	109.33

There are no chirality outliers.

All (34) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	AA	1207	2MG	N3-C2-N2-CM2
2	AB	8	4SU	C2'-C1'-N1-C2
2	AB	8	4SU	C2'-C1'-N1-C6
2	AB	46	7MG	C4'-C5'-O5'-P
26	BB	1915	3TD	C2'-C1'-C5-C4
26	BB	1915	3TD	C2'-C1'-C5-C6
26	BB	1917	PSU	C2'-C1'-C5-C4
26	BB	1917	PSU	C2'-C1'-C5-C6
26	BB	2503	2MA	O4'-C1'-N9-C8
26	BB	2503	2MA	O4'-C1'-N9-C4
26	BB	2580	PSU	O4'-C1'-C5-C4
26	BB	2580	PSU	O4'-C1'-C5-C6

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Mol	Chain	Res	Type	Atoms
26	BB	2030	6MZ	O4'-C4'-C5'-O5'
26	BB	2030	6MZ	C3'-C4'-C5'-O5'
1	AA	1518	MA6	N1-C6-N6-C10
1	AA	1518	MA6	C5-C6-N6-C10
26	BB	2580	PSU	C3'-C4'-C5'-O5'
26	BB	2449	H2U	O4'-C4'-C5'-O5'
1	AA	1498	UR3	C3'-C4'-C5'-O5'
26	BB	2580	PSU	O4'-C4'-C5'-O5'
1	AA	527	7MG	C4'-C5'-O5'-P
2	AB	8	4SU	C4'-C5'-O5'-P
2	AB	55	PSU	O4'-C1'-C5-C4
26	BB	1911	PSU	O4'-C1'-C5-C4
26	BB	1917	PSU	O4'-C1'-C5-C4
1	AA	1498	UR3	O4'-C4'-C5'-O5'
2	AB	8	4SU	O4'-C1'-N1-C6
1	AA	527	7MG	O4'-C4'-C5'-O5'
2	AB	54	5MU	O4'-C4'-C5'-O5'
2	AB	46	7MG	O4'-C4'-C5'-O5'
26	BB	1962	5MC	O4'-C1'-N1-C6
2	AB	46	7MG	C2'-C1'-N9-C8
2	AB	8	4SU	O4'-C1'-N1-C2
26	BB	1618	6MZ	O4'-C4'-C5'-O5'

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

2 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
59	TRP	AB	101	60,2	15,15,16	1.79	5 (33%)	17,20,22	2.56	7 (41%)
60	FME	BB	3001	59	8,9,10	1.64	1 (12%)	8,9,11	1.90	4 (50%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
59	TRP	AB	101	60,2	-	4/6/6/8	0/2/2/2
60	FME	BB	3001	59	-	2/7/9/11	-

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	AB	101	TRP	OXT-C	-3.98	1.25	1.42
60	BB	3001	FME	CA-N	-3.81	1.41	1.46
59	AB	101	TRP	CD2-CG	2.59	1.48	1.44
59	AB	101	TRP	C-CA	2.51	1.56	1.52
59	AB	101	TRP	CE2-NE1	2.37	1.41	1.37
59	AB	101	TRP	CD1-CG	-2.27	1.33	1.36

All (11) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	AB	101	TRP	CZ2-CE2-CD2	-5.56	116.81	122.19
59	AB	101	TRP	CZ2-CE2-NE1	5.01	138.77	130.74
59	AB	101	TRP	CD2-CE2-NE1	-3.71	104.43	107.52
60	BB	3001	FME	CG-CB-CA	3.15	122.50	112.87
59	AB	101	TRP	CZ3-CE3-CD2	3.04	125.30	119.80
59	AB	101	TRP	CH2-CZ3-CE3	-2.76	116.83	120.24
59	AB	101	TRP	CH2-CZ2-CE2	2.60	123.97	118.69
60	BB	3001	FME	O-C-CA	-2.33	118.77	124.77
60	BB	3001	FME	CB-CA-N	-2.16	106.58	110.52
60	BB	3001	FME	C-CA-N	2.13	113.61	109.50
59	AB	101	TRP	CB-CG-CD1	-2.01	123.06	126.97

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
60	BB	3001	FME	O1-CN-N-CA
60	BB	3001	FME	CB-CG-SD-CE
59	AB	101	TRP	N-CA-CB-CG
59	AB	101	TRP	CA-CB-CG-CD1
59	AB	101	TRP	CA-CB-CG-CD2
59	AB	101	TRP	OXT-C-CA-CB

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
26	BB	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BB	1614:A	O3'	1615:C	P	1.76

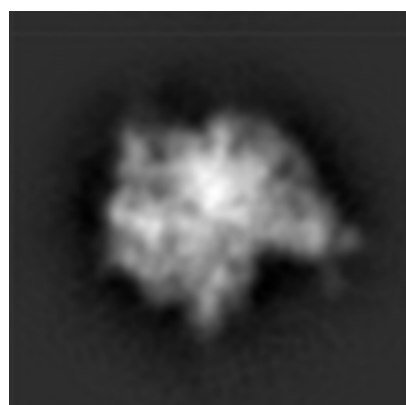
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-5359. These allow visual inspection of the internal detail of the map and identification of artifacts.

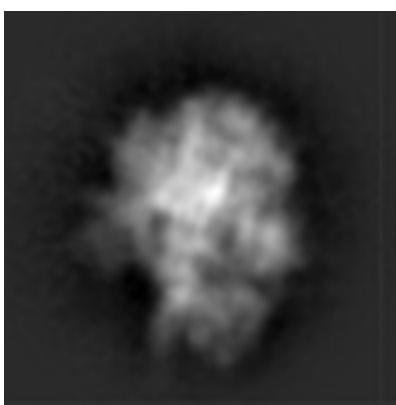
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

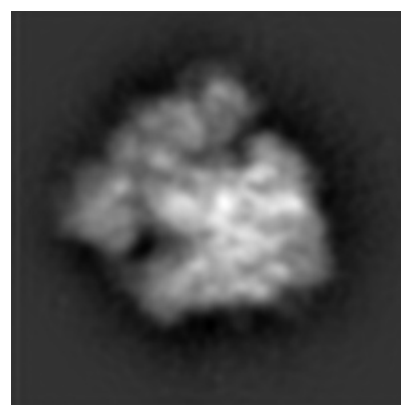
6.1.1 Primary map



X



Y

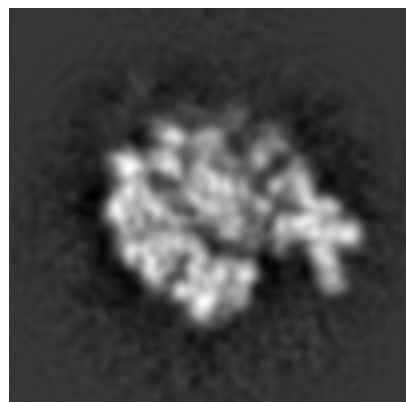


Z

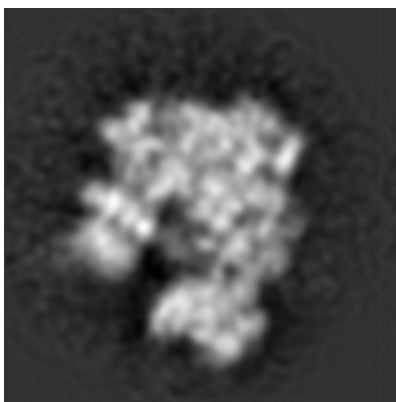
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

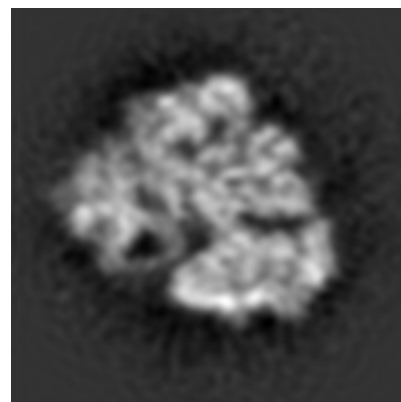
6.2.1 Primary map



X Index: 125



Y Index: 125

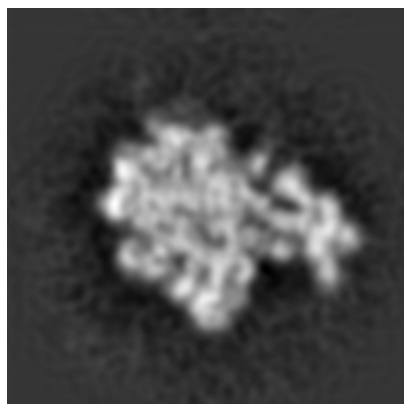


Z Index: 125

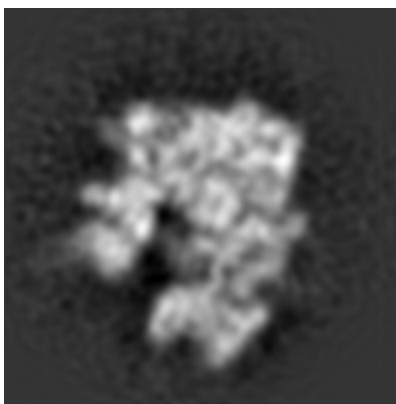
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

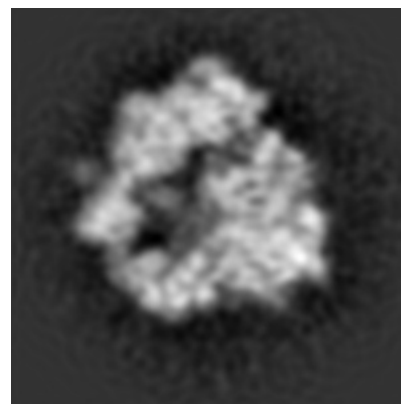
6.3.1 Primary map



X Index: 131



Y Index: 129

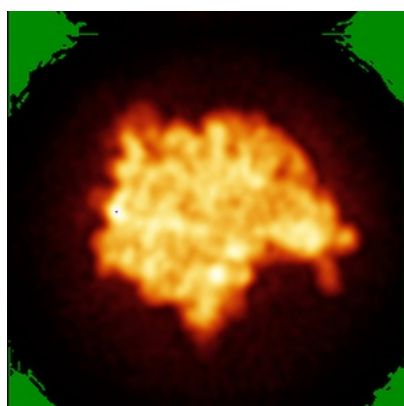


Z Index: 114

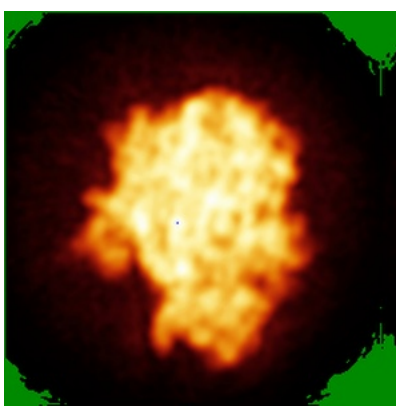
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

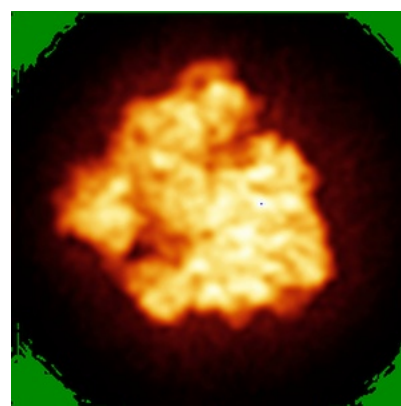
6.4.1 Primary map



X



Y



Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.1. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

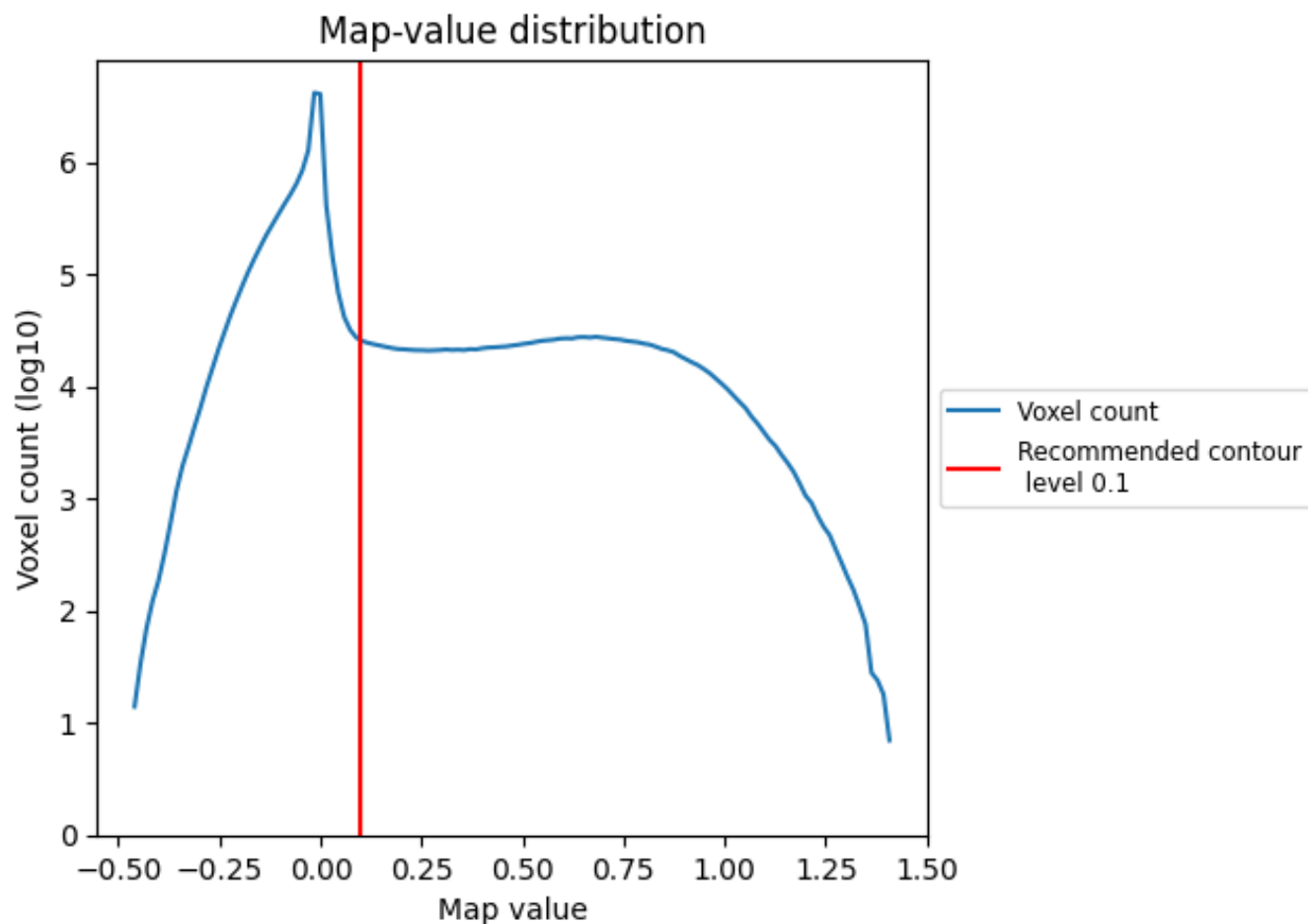
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

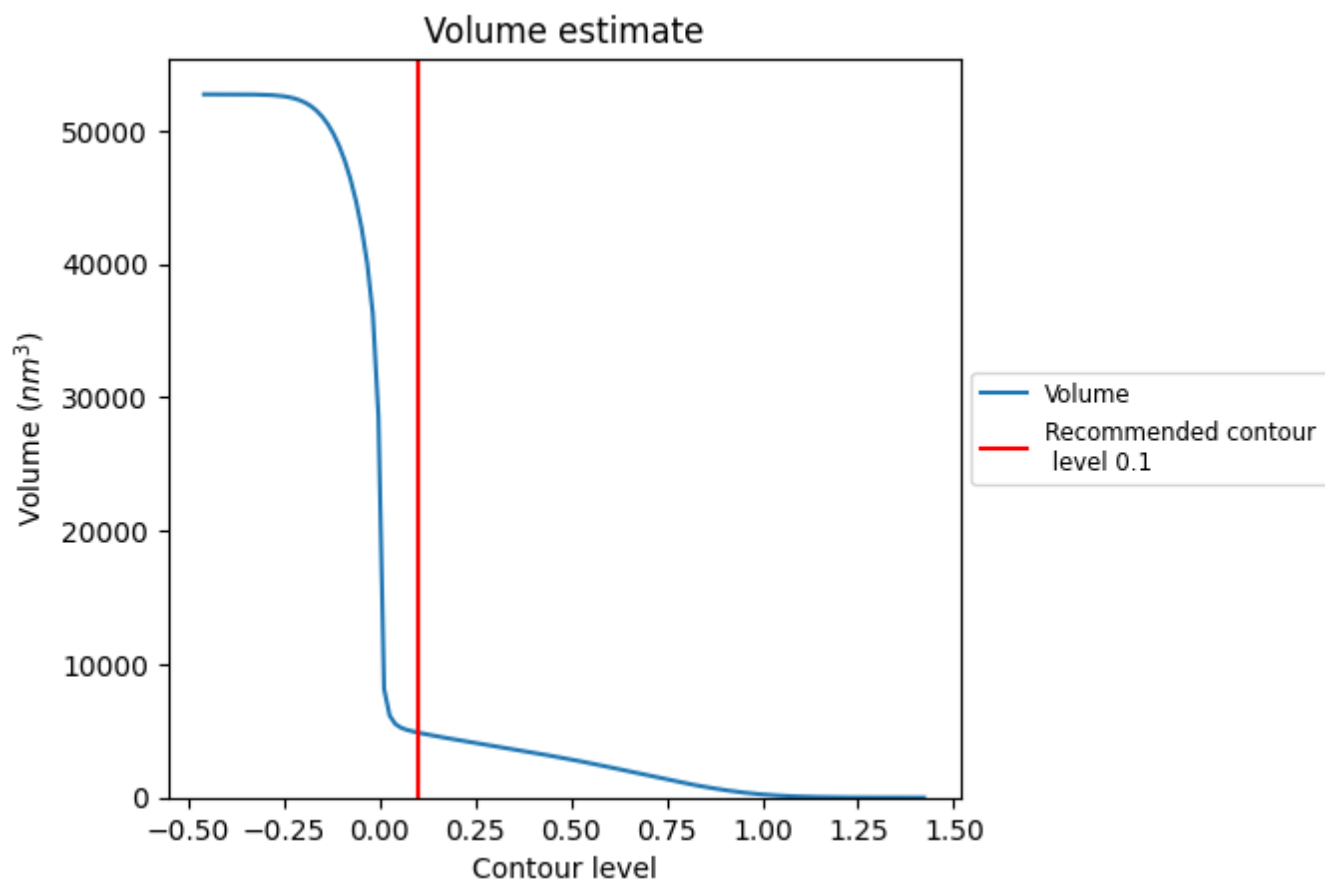
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

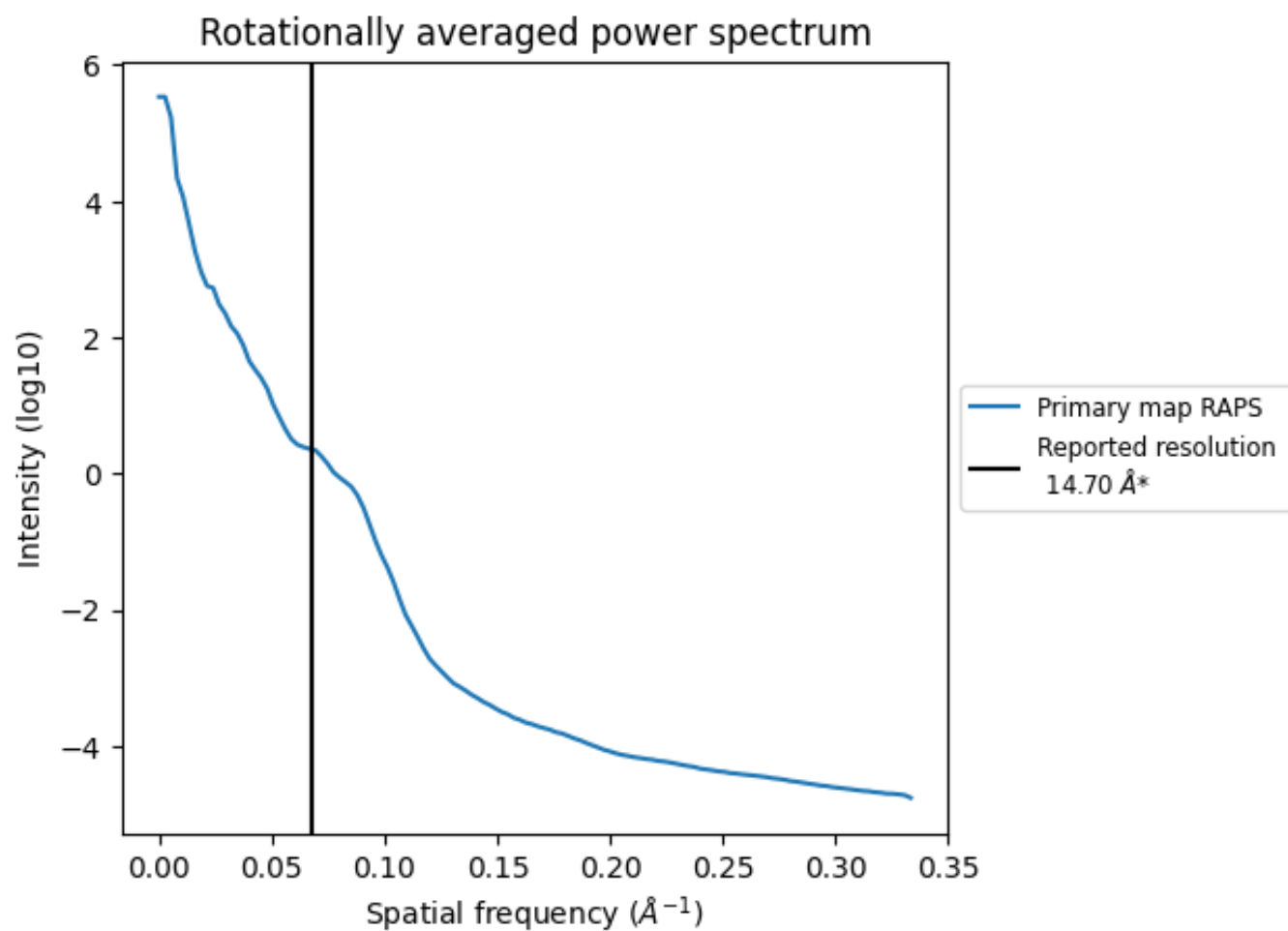
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 4871 nm^3 ; this corresponds to an approximate mass of 4400 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.068 Å⁻¹

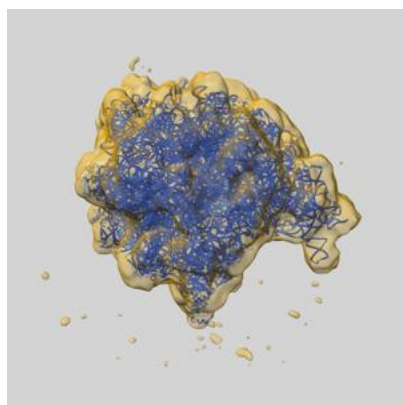
8 Fourier-Shell correlation

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

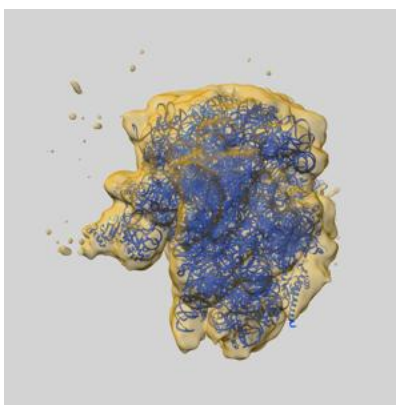
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-5359 and PDB model 4V6O. Per-residue inclusion information can be found in section 3 on page 16.

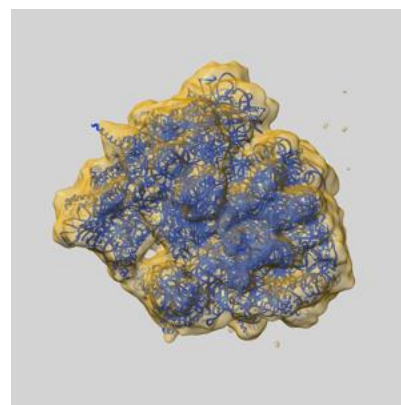
9.1 Map-model overlay [i](#)



X



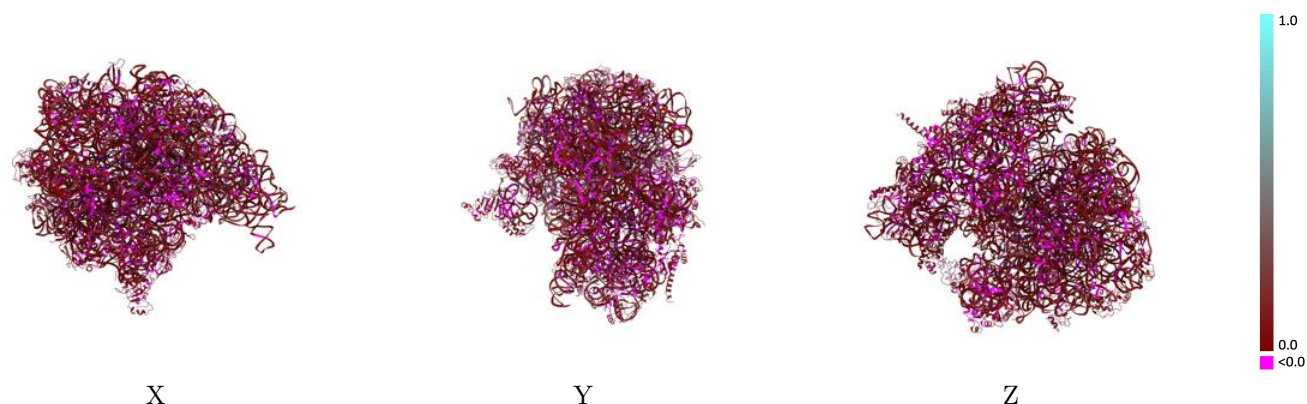
Y



Z

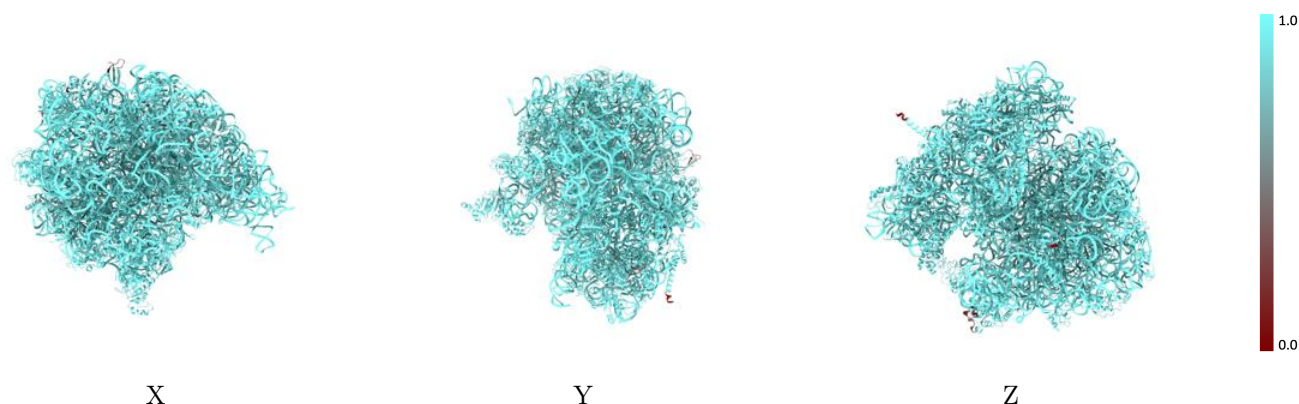
The images above show the 3D surface view of the map at the recommended contour level 0.1 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



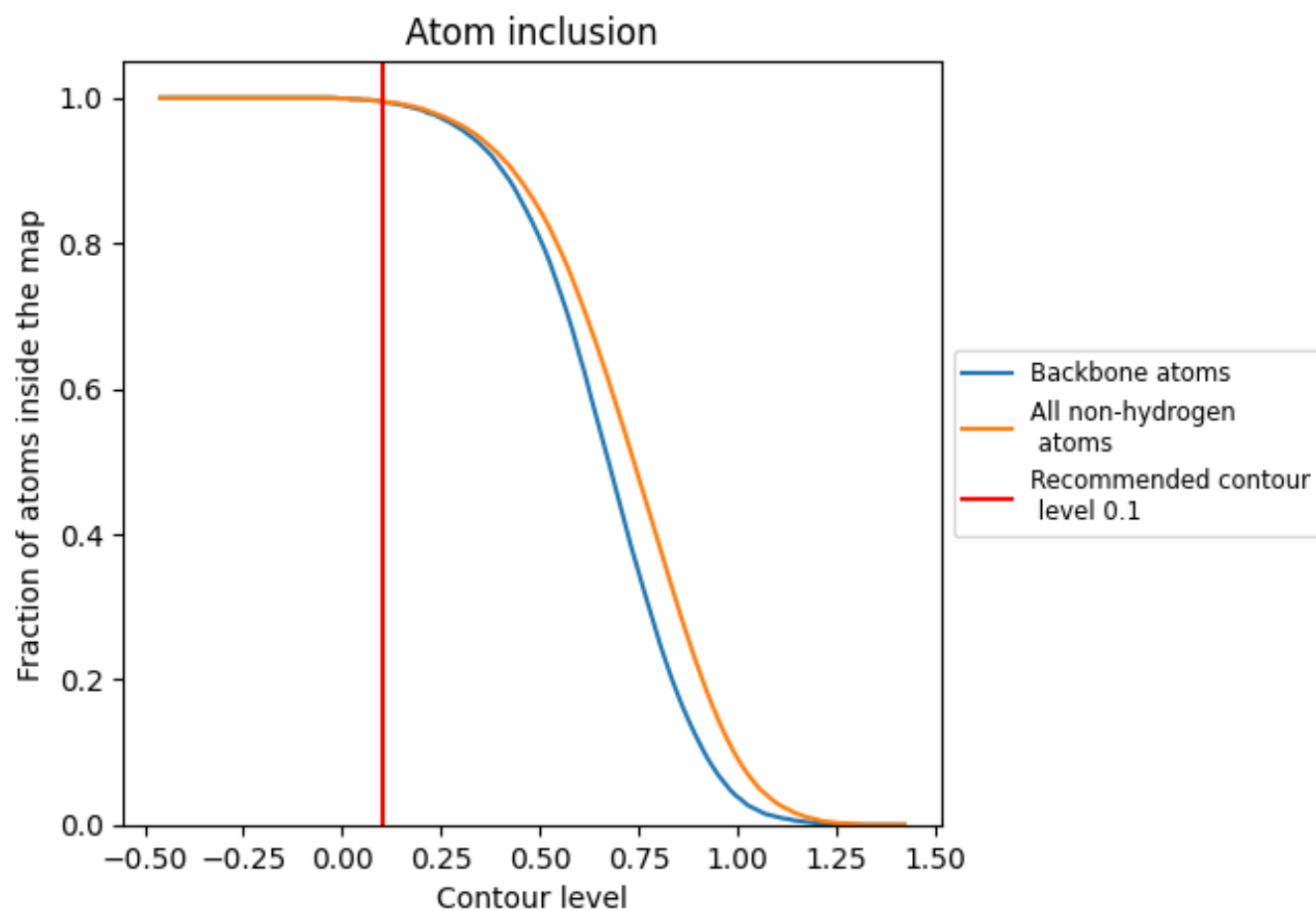
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

9.3 Atom inclusion mapped to coordinate model [i](#)



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

9.4 Atom inclusion ⓘ



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

9.5 Map-model fit summary ⓘ

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

Chain	Atom inclusion	Q-score
All	 0.9950	 0.0650
AA	 1.0000	 0.0830
AB	 0.9690	 0.0430
AC	 0.8940	 -0.0220
AD	 0.9520	 0.0710
AE	 0.9670	 0.0380
AF	 0.9970	 0.0560
AG	 1.0000	 0.0330
AH	 0.9980	 0.0240
AI	 0.9970	 0.0450
AJ	 1.0000	 0.0640
AK	 1.0000	 0.0190
AL	 0.9890	 0.0450
AM	 1.0000	 0.0320
AN	 0.9960	 0.0540
AO	 0.9890	 0.0180
AP	 0.9980	 0.0630
AQ	 1.0000	 0.0310
AR	 1.0000	 0.0320
AS	 1.0000	 0.0250
AT	 1.0000	 0.0470
AU	 1.0000	 0.0490
AV	 1.0000	 0.0290
AW	 1.0000	 0.0250
AX	 0.9980	 0.0020
B0	 1.0000	 0.0290
B1	 0.9950	 0.0370
B2	 0.9960	 0.0110
B3	 1.0000	 0.0300
B4	 1.0000	 0.0400
B5	 1.0000	 0.0280
B6	 1.0000	 0.0010
B7	 1.0000	 0.0530
BA	 1.0000	 0.0950
BB	 1.0000	 0.0830



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Chain	Atom inclusion	Q-score
BC	 0.9100	 0.0280
BD	 1.0000	 0.0180
BE	 0.9990	 0.0270
BF	 1.0000	 0.0500
BG	 1.0000	 0.0610
BH	 0.9990	 0.0300
BI	 0.8800	 0.0350
BJ	 0.9880	 0.0510
BK	 0.9760	 0.0350
BL	 1.0000	 0.0130
BM	 0.9900	 0.0300
BN	 1.0000	 0.0050
BO	 1.0000	 0.0130
BP	 1.0000	 0.0190
BQ	 0.9950	 0.0460
BR	 0.9920	 0.0300
BS	 1.0000	 0.0050
BT	 0.9990	 0.0530
BU	 0.9990	 0.0180
BV	 1.0000	 0.0110
BW	 1.0000	 0.0510
BX	 1.0000	 0.0520
BY	 1.0000	 -0.0050
BZ	 1.0000	 0.0250