



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 02:09 PM UTC

PDB ID : 4V6R / pdb_00004v6r
EMDB ID : EMD-5362
Title : Structural characterization of mRNA-tRNA translocation intermediates (class 6 of the six classes)
Authors : Agirrezabala, X.; Liao, H.; Schreiner, E.; Fu, J.; Ortiz-Meoz, R.F.; Schulten, K.; Green, R.; Frank, J.
Deposited on : 2011-12-08
Resolution : 11.50 Å (reported)
Based on initial model : 2I2U

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ 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

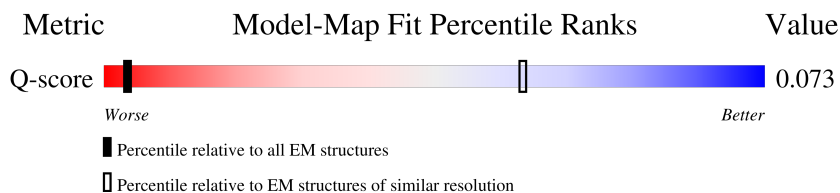
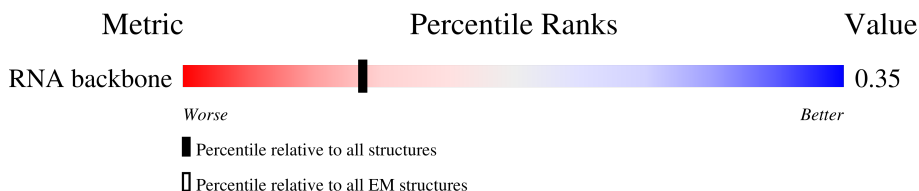
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

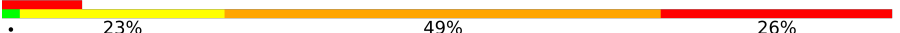
The reported resolution of this entry is 11.50 Å.

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



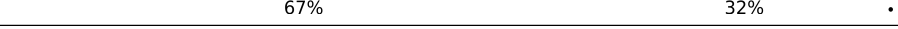
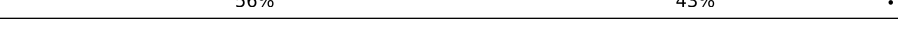
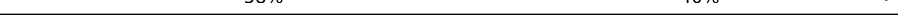
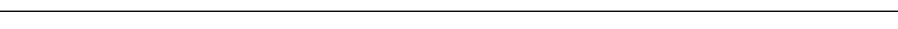
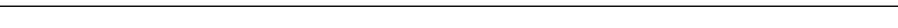
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
RNA backbone	8273	3508	-
Q-score	-	25397	117 (11.00 - 12.00)

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	
5	AE	240	
6	AF	232	

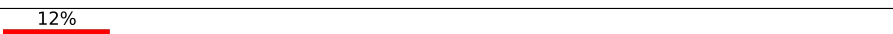
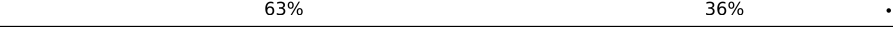
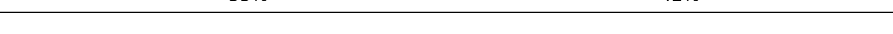
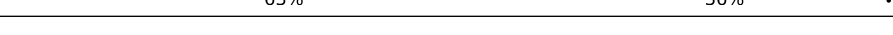
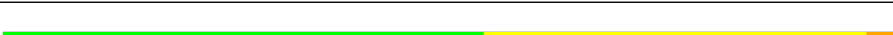
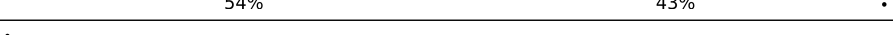
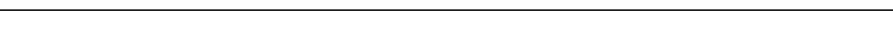
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Mol	Chain	Length	Quality of chain
7	AG	205	
8	AH	166	
9	AI	135	
10	AJ	178	
11	AK	129	
12	AL	129	
13	AM	103	
14	AN	128	
15	AO	123	
16	AP	117	
17	AQ	100	
18	AR	88	
19	AS	82	
20	AT	83	
21	AU	74	
22	AV	91	
23	AW	86	
24	AX	70	
25	BA	120	
26	BB	2904	
27	BC	234	
28	BD	272	
29	BE	209	
30	BF	201	
31	BG	178	

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Mol	Chain	Length	Quality of chain
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	
55	B4	54	
56	B5	46	

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Mol	Chain	Length	Quality of chain
57	B6	64	 61% 38% .
58	B7	38	 68% 32%

2 Entry composition

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	S	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	S	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		

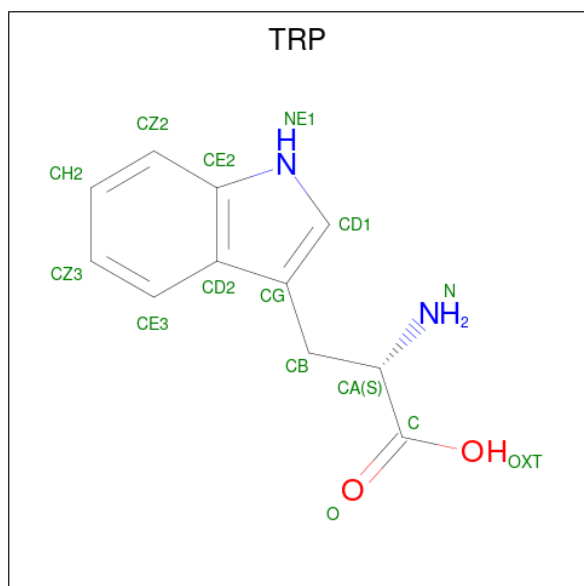
- Molecule 57 is a protein called 50S ribosomal protein L35.

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.

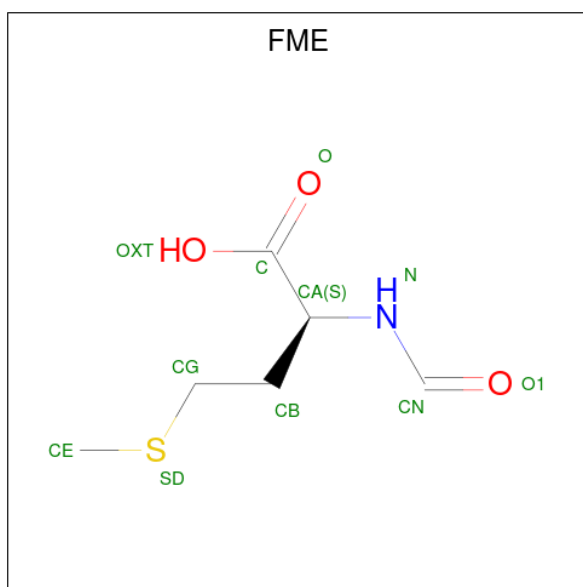
Mol	Chain	Residues	Atoms					AltConf	Trace
58	B7	38	Total	C	N	O	S	0	0
			302	185	65	48	4		

- 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: $C_6H_{11}NO_3S$).

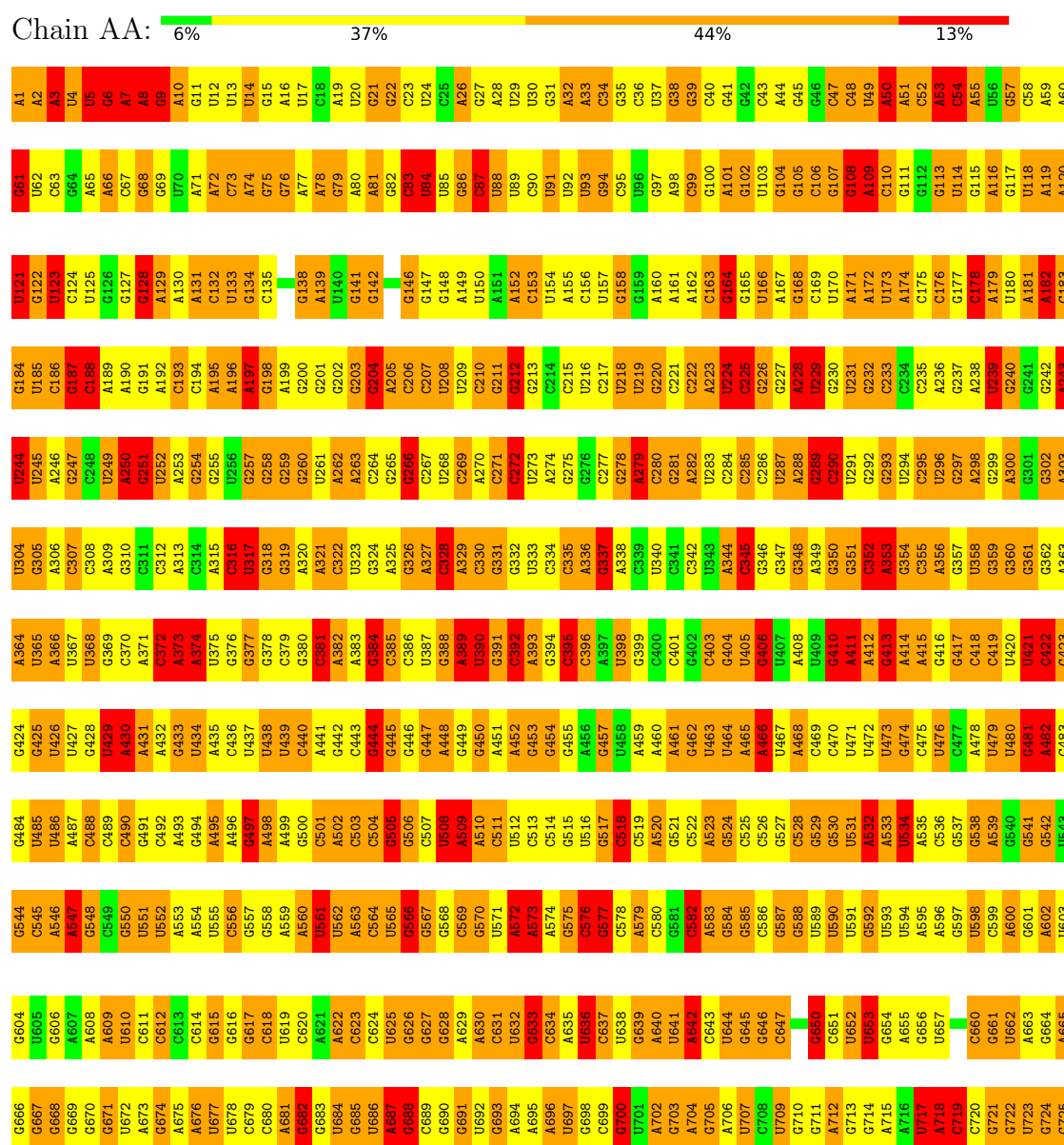


Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	S	
60	BB	1	10	6	1	2	1	0

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

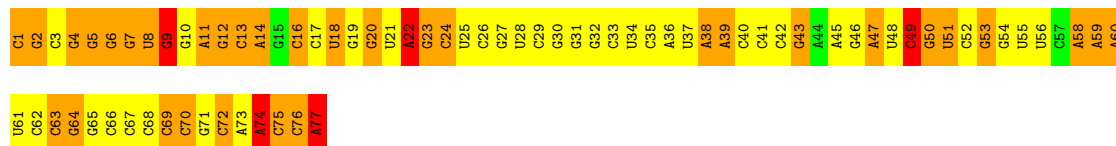


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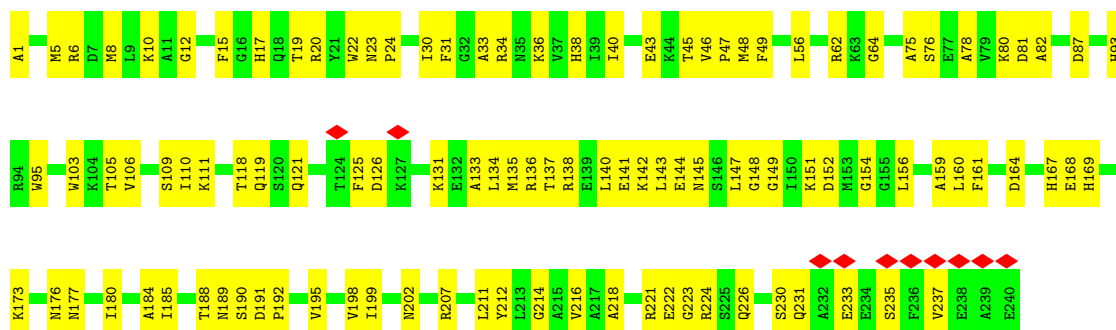
● Molecule 3: mRNA



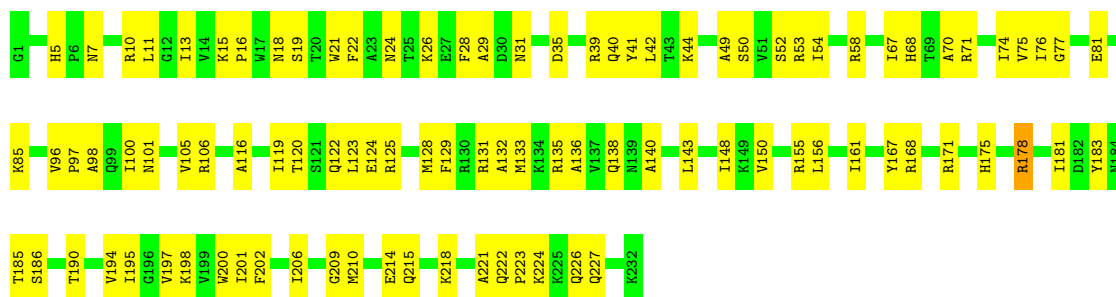
● Molecule 4: P site tRNA



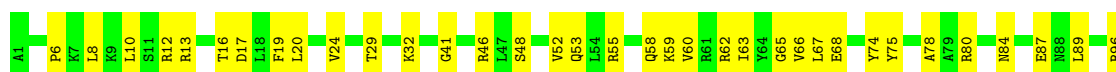
● Molecule 5: 30S ribosomal protein S2



● Molecule 6: 30S ribosomal protein S3

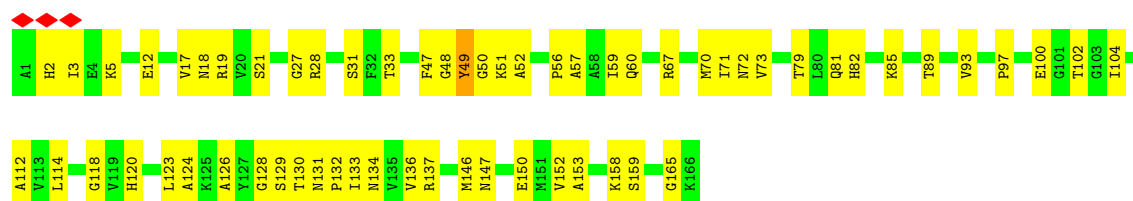


● Molecule 7: 30S ribosomal protein S4

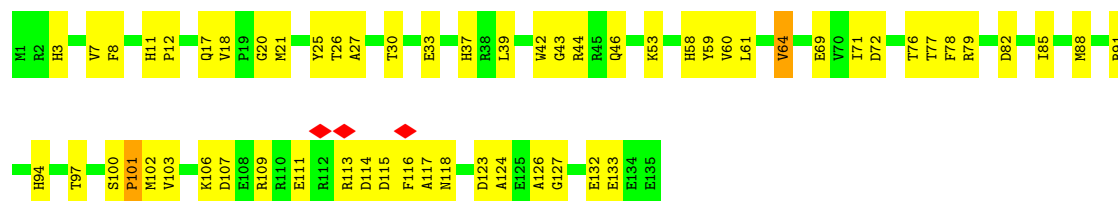




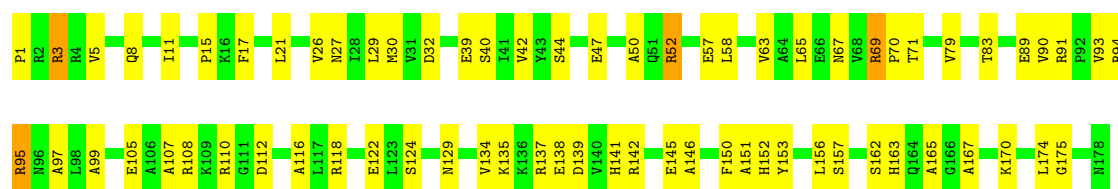
• Molecule 8: 30S ribosomal protein S5



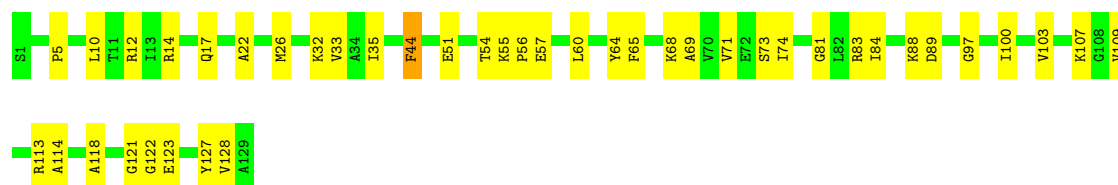
• Molecule 9: 30S ribosomal protein S6



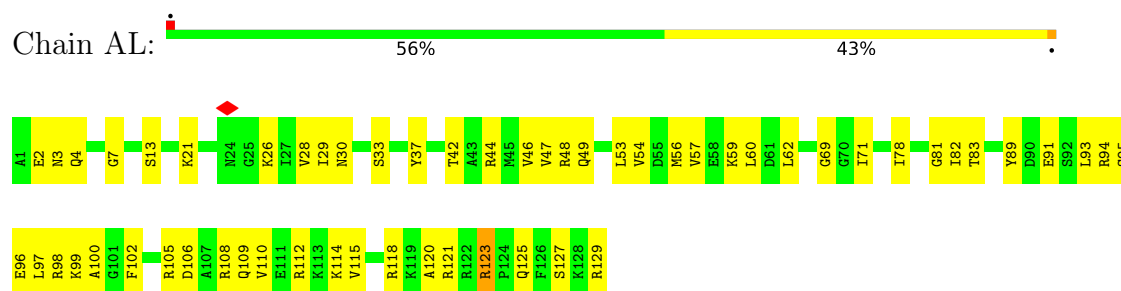
• Molecule 10: 30S ribosomal protein S7



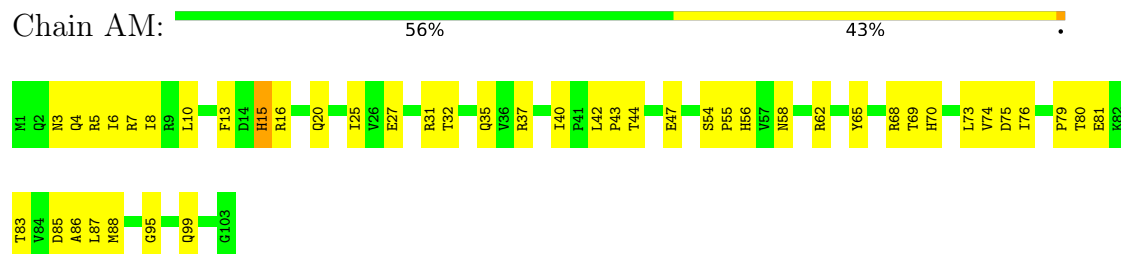
• Molecule 11: 30S ribosomal protein S8



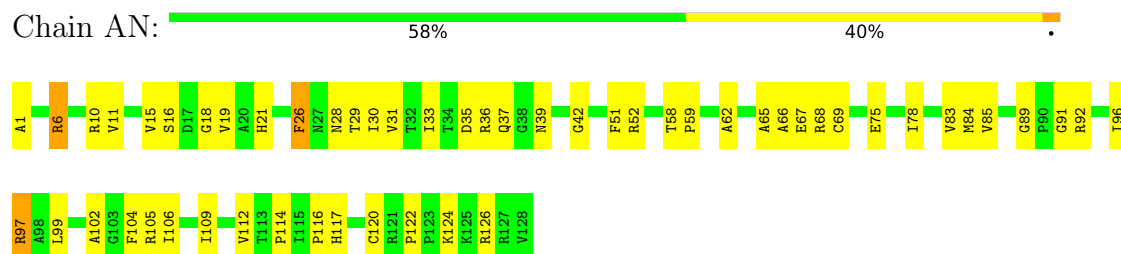
• Molecule 12: 30S ribosomal protein S9



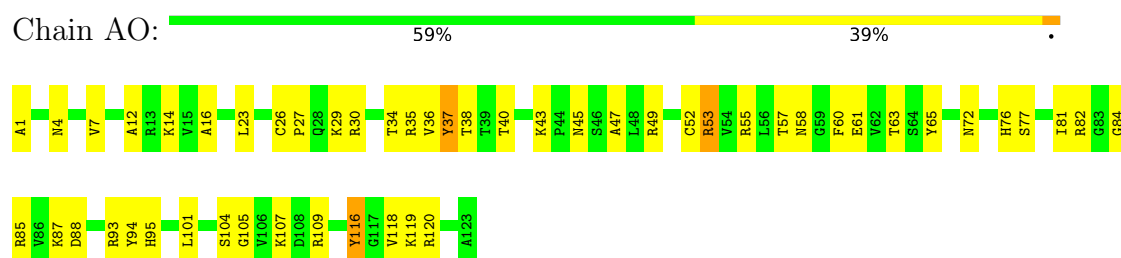
- Molecule 13: 30S ribosomal protein S10



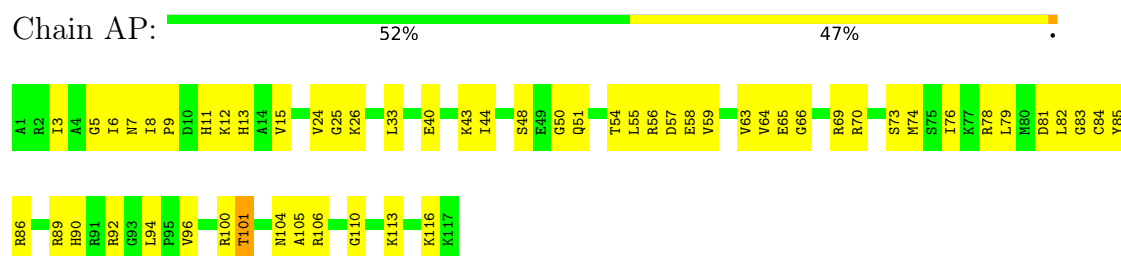
- Molecule 14: 30S ribosomal protein S11



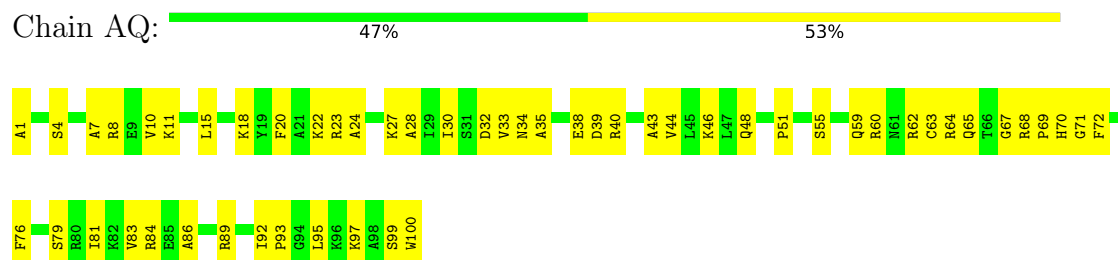
- Molecule 15: 30S ribosomal protein S12



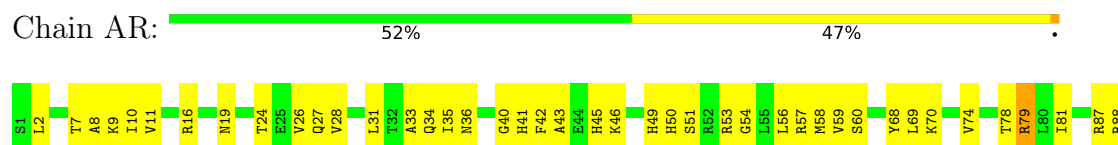
- Molecule 16: 30S ribosomal protein S13



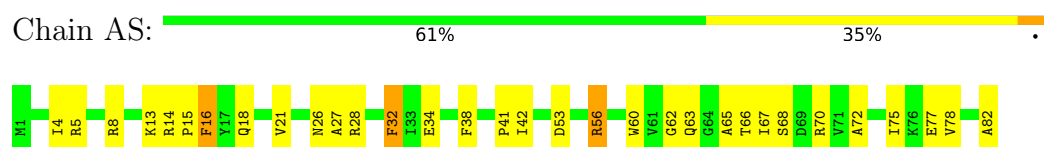
- Molecule 17: 30S ribosomal protein S14



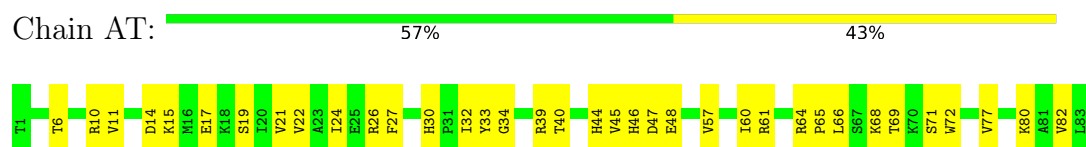
- Molecule 18: 30S ribosomal protein S15



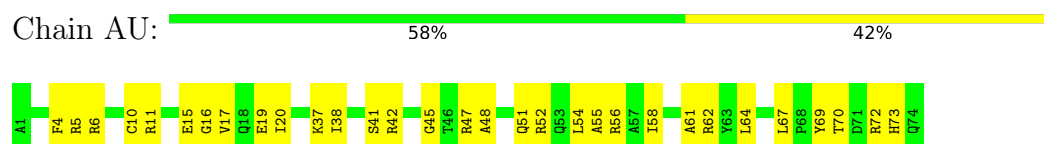
- Molecule 19: 30S ribosomal protein S16



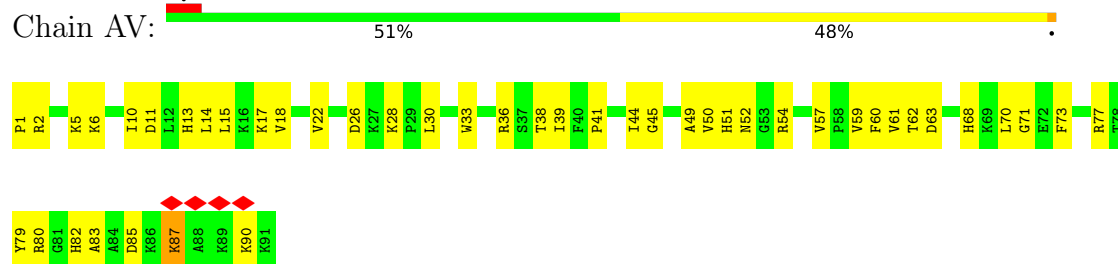
- Molecule 20: 30S ribosomal protein S17



- Molecule 21: 30S ribosomal protein S18



- Molecule 22: 30S ribosomal protein S19



- Molecule 23: 30S ribosomal protein S20

Chain AW:  55% 44%



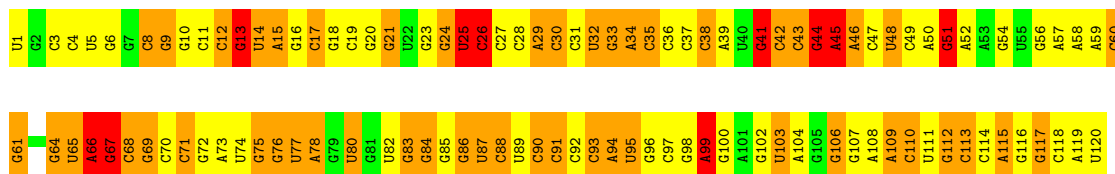
- Molecule 24: 30S ribosomal protein S21

Chain AX:  54% 41%



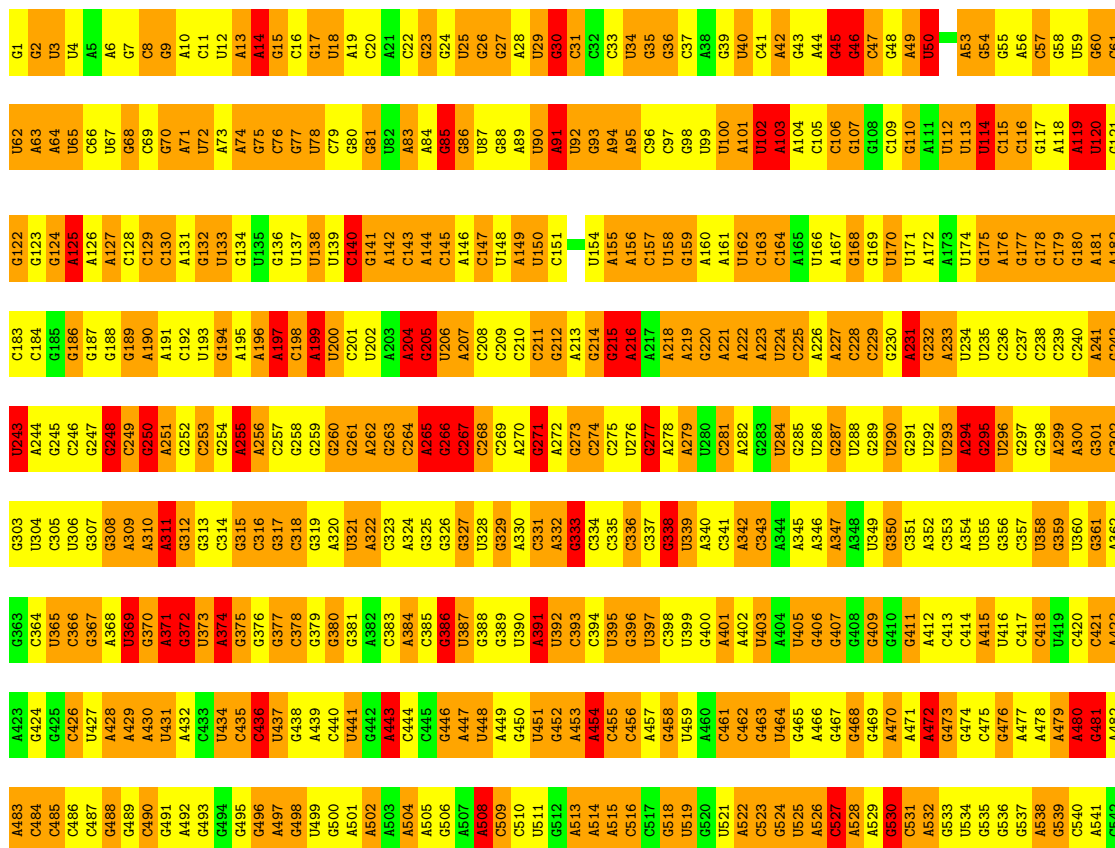
- Molecule 25: 5S ribosomal RNA

Chain BA:  10% 41% 41% 8%



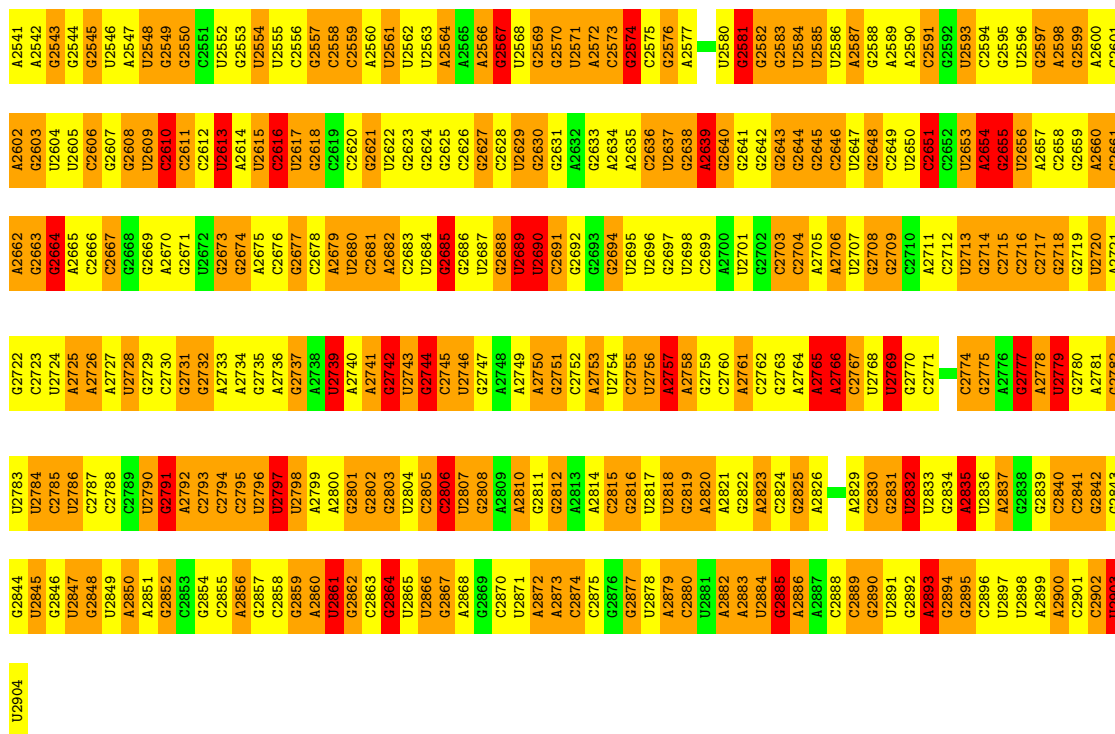
- Molecule 26: 23S ribosomal RNA

Chain BB:  8% 37% 46% 10%

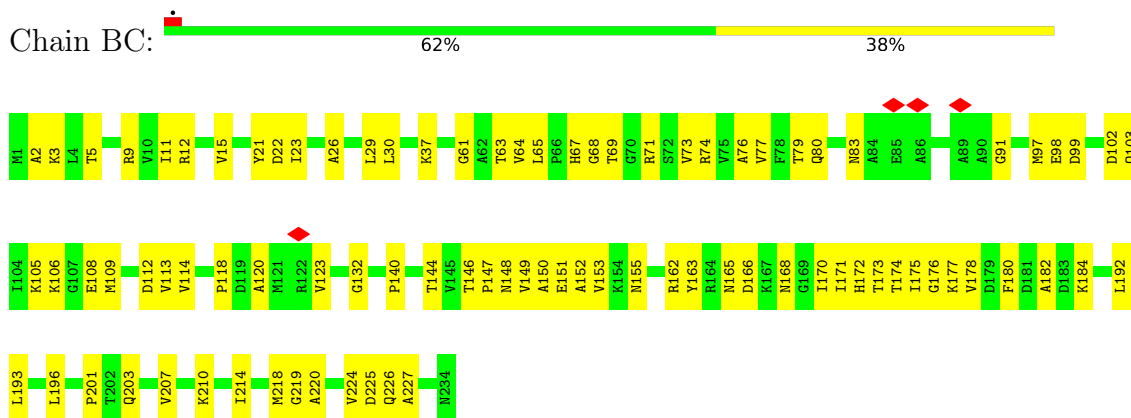


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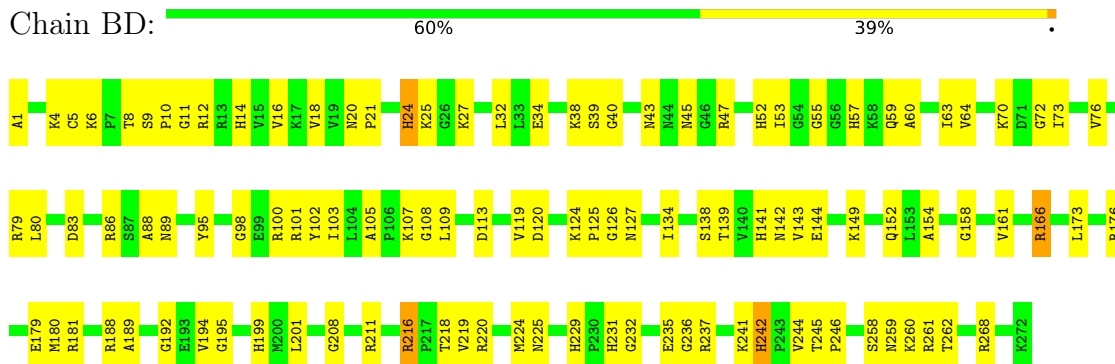
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C2199	G2000	G2001	G2002	G2003	G2004	G2005	G2006	G2007	G2008	G2009	G2010	U2011	G2012	G2013	G2014	U2015	G2016	U2017	G2018	G2019	A2020	G2021	U2022	G2023	G2024	G2025	U2026	G2027	G2028	G2029	A2030	G2031	G2032	G2033	U2034	G2035	G2036	G2037	G2038	U2039	G2040	G2041	G2042	G2043	G2044	G2045	G2046	G2047	G2048	G2049	G2050	G2051	G2052	G2053	G2054	G2055	G2056	G2057	G2058	G2059	
U1939	U1940	C1941	C1942	U1943	U1944	G1945	U1946	U1947	G1948	G1949	G1950	U1951	G1952	A1953	G1954	U1955	U1956	G1957	C1958	G1959	A1960	G1961	G1962	U1963	G1964	G1965	U1966	G1967	G1968	U1969	A1970	G1971	G1972	G1973	C1974	G1975	U1976	A1977	U1978	U1979	G1980	G1981	G1982	U1983	G1984	G1985	U1986	G1987	G1988	G1989	G1990	G1991	G1992	U1993	G1994	U1995	G1996	G1997	G1998	G1999	G2000
A1876	A1877		U1882	U1883	G1884	A1885	U1886	U1887	G1888	A1889	G1890	A1891	G1892	C1893	G1894	U1895	G1896	G1897	U1898	A1899	G1900	A1901	G1902	G1903	G1904	G1905	G1906	G1907	G1908	G1909	G1910	U1911	A1912	G1913	G1914	U1915	A1916	U1917	U1918	U1919	G1920	G1921	G1922	U1923	G1924	G1925	U1926	G1927	U1928	G1929	G1930	U1931	A1932	G1933	G1934	G1935	A1936	G1937	A1938		
C1816	G1817	U1818	A1819	U1820	U1821	G1822	G1823	G1824	U1825	G1826	U1827	G1828	A1829	C1830	G1831	G1832	C1833	U1834	G1835	A1836	G1837	C1838	G1839	G1840	U1841	G1842	G1843	G1844	G1845	G1846	A1847	U1848	G1849	U1850	U1851	U1852	U1853	U1854	U1855	G1856	G1857	G1858	G1859	G1860	G1861	G1862	G1863	U1864	U1865	A1866	G1867	C1868	G1869	U1870	G1871	A1872	G1873	G1874	G1875		
A1754	A1755	G1756	A1757	U1758	U1759	G1760	C1761	A1762	G1763	G1764	U1765	G1766	G1767	U1768	U1769	A1770	G1771	A1772	G1773	C1774	U1775	G1776	U1777	U1778	U1779	A1780	U1781	U1782	A1783	G1784	A1785	U1786	A1787	U1788	A1789	U1790	A1791	G1792	C1793		G1797	U1798	G1799	C1800	A1801	A1802	G1803	U1804	A1805	G1806	G1807	A1808	A1809	U1810	G1811	U1812	G1813	A1814	A1815		
G1694	G1695	U1696	G1697	U1698	G1699	A1700	A1701	G1702	G1703	C1704	U1705	G1706	G1707	U1648	G1649	A1650	G1651	U1711	U1712	G1652	G1653	A1654	C1655	U1656	U1657	G1658	G1659	G1660	G1661	U1662	G1663	A1664	U1665	G1666	C1667	A1668	A1669	A1610	C1611	C1612	G1613	A1614	C1615	A1616	U1617	G1618	G1619	U1620	U1621	G1622	G1623	U1624	G1625	A1626	G1627	U1628	U1629	A1630	G1631	U1632	U1633
A1634	A1635	U1636	A1637	U1638	C1639	A1640	A1641	G1642	G1643	C1644	U1645	U1646	U1647	U1588	U1589	A1590	G1591	U1592	C1593	A1594	C1595	U1596	U1597	A1598	U1599	C1600	G1601	G1602	G1603	A1604	C1605	G1606	C1607	A1608	A1609	A1610	C1611	C1612	G1613	A1614	C1615	A1616	U1617	G1618	G1619	U1620	U1621	G1622	G1623	U1624	G1625	A1626	G1627	U1628	U1629	A1630	G1631	U1632	U1633		



• Molecule 27: 50S ribosomal protein L1

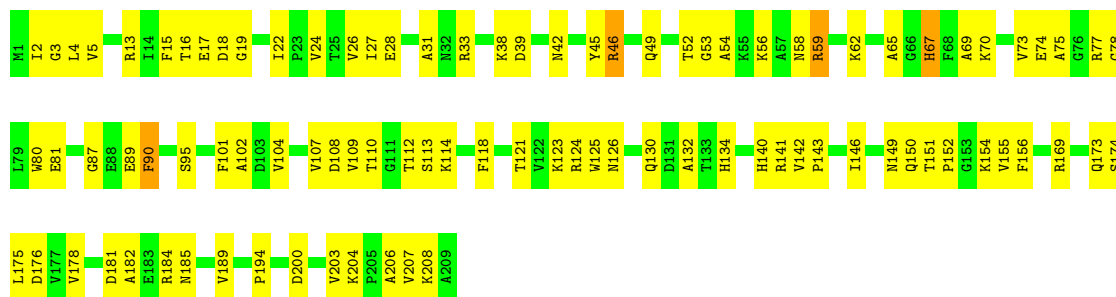


• Molecule 28: 50S ribosomal protein L2



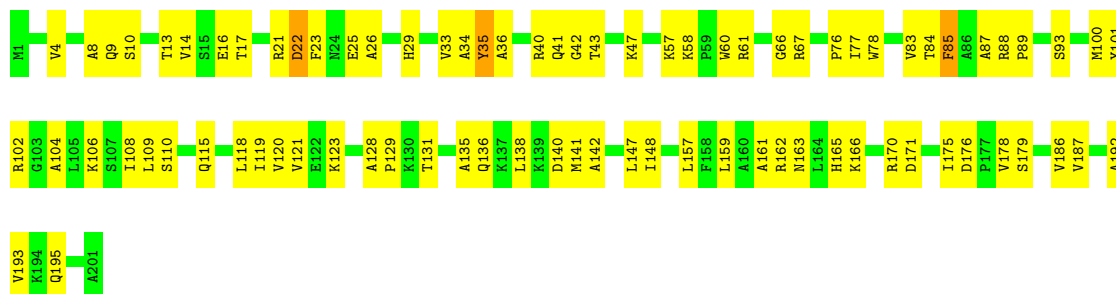
• Molecule 29: 50S ribosomal protein L3

Chain BE:  55% 43%



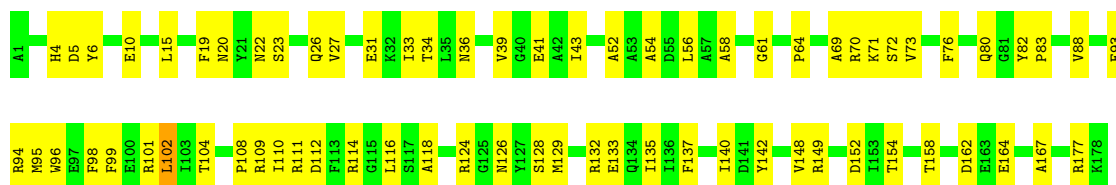
• Molecule 30: 50S ribosomal protein L4

Chain BF:  59% 39%



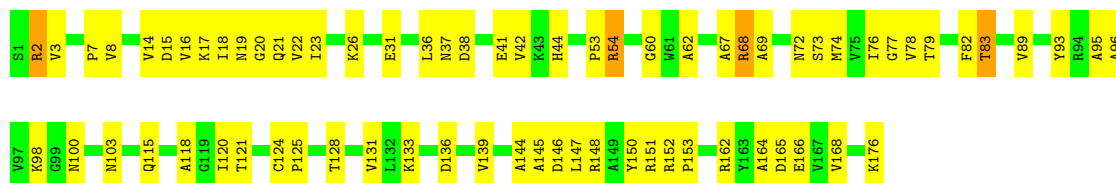
• Molecule 31: 50S ribosomal protein L5

Chain BG:  61% 39%



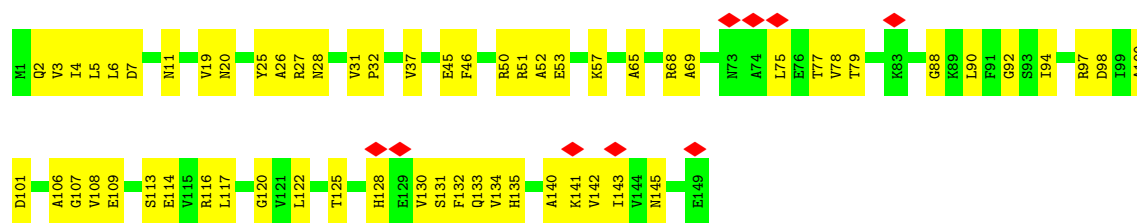
• Molecule 32: 50S ribosomal protein L6

Chain BH:  60% 38%



• Molecule 33: 50S ribosomal protein L9

Chain BI:  6% 59% 41%



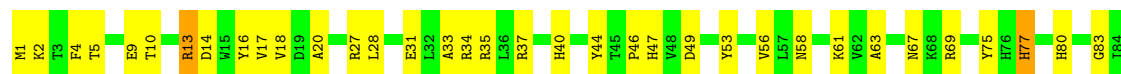
• Molecule 34: 50S ribosomal protein L10



• Molecule 35: 50S ribosomal protein L11



• Molecule 36: 50S ribosomal protein L13



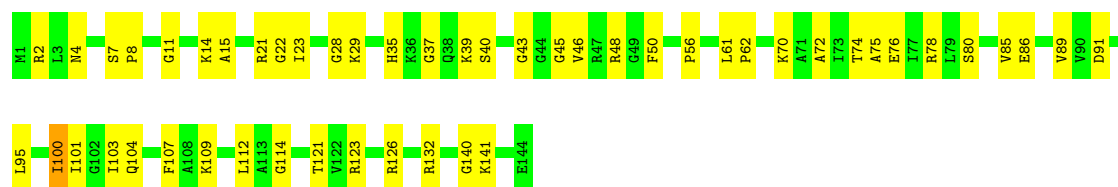
• Molecule 37: 50S ribosomal protein L14



• Molecule 38: 50S ribosomal protein L15



Chain BN:  65% 34%



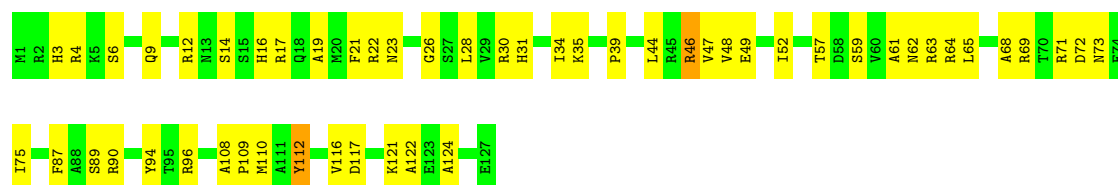
- Molecule 39: 50S ribosomal protein L16

Chain BO:  63% 36%



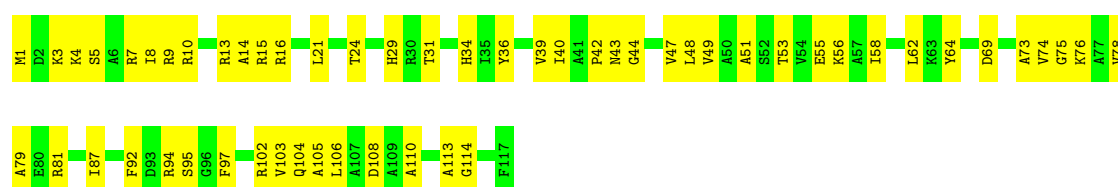
- Molecule 40: 50S ribosomal protein L17

Chain BP:  59% 39%



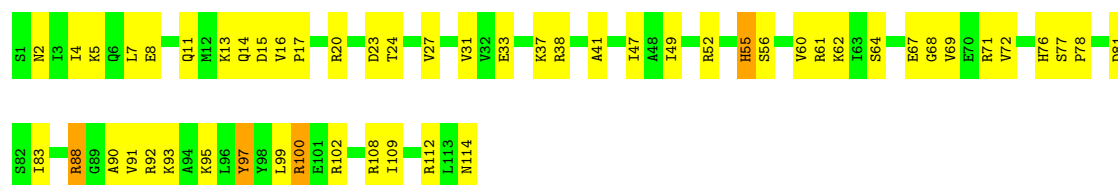
- Molecule 41: 50S ribosomal protein L18

Chain BQ:  53% 47%



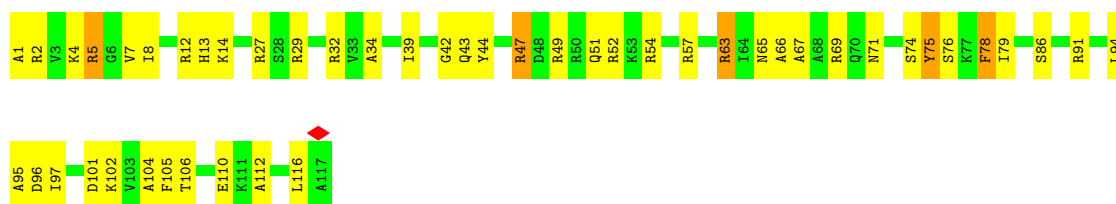
- Molecule 42: 50S ribosomal protein L19

Chain BR:  54% 43%



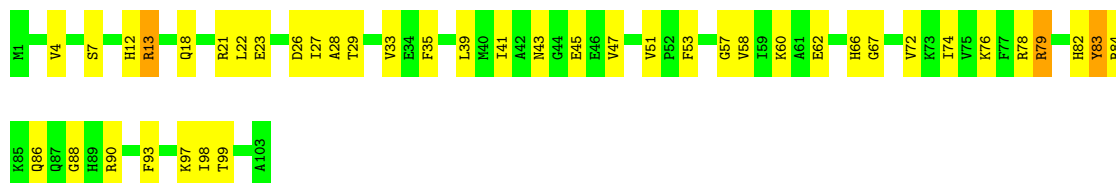
- Molecule 43: 50S ribosomal protein L20

Chain BS:  59% 37%



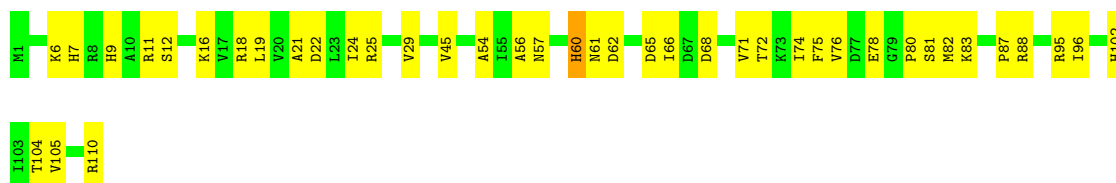
- Molecule 44: 50S ribosomal protein L21

Chain BT:  59% 38%



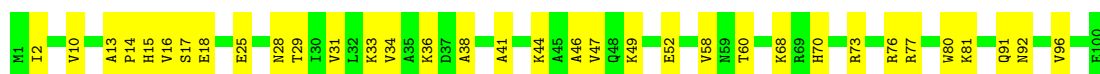
- Molecule 45: 50S ribosomal protein L22

Chain BU:  63% 36%



- Molecule 46: 50S ribosomal protein L23

Chain BV:  66% 34%



- Molecule 47: 50S ribosomal protein L24

Chain BW:  58% 42%



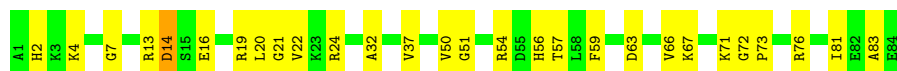
- Molecule 48: 50S ribosomal protein L25

Chain BX:  60% 39%



- Molecule 49: 50S ribosomal protein L27

Chain BY: 67% 32%



- Molecule 50: 50S ribosomal protein L28

Chain BZ: 58% 40%



- Molecule 51: 50S ribosomal protein L29

Chain B0: 60% 38%



- Molecule 52: 50S ribosomal protein L30

Chain B1: 57% 43%



- Molecule 53: 50S ribosomal protein L31

Chain B2: 59% 36% 6%



- Molecule 54: 50S ribosomal protein L32

Chain B3: 55% 41%



- Molecule 55: 50S ribosomal protein L33

Chain B4:  52% 44%



- Molecule 56: 50S ribosomal protein L34

Chain B5:  52% 46%



- Molecule 57: 50S ribosomal protein L35

Chain B6:  61% 38%



- Molecule 58: 50S ribosomal protein L36

Chain B7:  68% 32%



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	37000	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	1.575	Depositor
Minimum map value	-0.492	Depositor
Average map value	0.029	Depositor
Map value standard deviation	0.204	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: 2MA, 2MG, MIA, 7MG, OMC, H2U, MA6, OMG, OMU, 3TD, PSU, 5MC, 1MG, 5MU, FME, 4OC, CH, UR3, 4SU, 6MZ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	AA	1.89	582/36769 (1.6%)	2.00	1927/57354 (3.4%)
2	AB	1.97	35/1600 (2.2%)	1.99	84/2492 (3.4%)
3	AC	1.94	18/1108 (1.6%)	2.01	59/1724 (3.4%)
4	AD	1.92	29/1721 (1.7%)	1.97	98/2683 (3.7%)
5	AE	2.03	41/1904 (2.2%)	2.46	131/2565 (5.1%)
6	AF	2.03	35/1852 (1.9%)	2.42	110/2490 (4.4%)
7	AG	1.92	27/1665 (1.6%)	2.32	82/2227 (3.7%)
8	AH	2.05	27/1239 (2.2%)	2.37	70/1664 (4.2%)
9	AI	2.01	23/1121 (2.1%)	2.44	68/1509 (4.5%)
10	AJ	1.95	25/1422 (1.8%)	2.38	83/1908 (4.4%)
11	AK	1.99	18/989 (1.8%)	2.28	41/1326 (3.1%)
12	AL	1.96	26/1048 (2.5%)	2.40	61/1394 (4.4%)
13	AM	2.04	18/835 (2.2%)	2.42	48/1127 (4.3%)
14	AN	2.10	26/982 (2.6%)	2.42	56/1323 (4.2%)
15	AO	2.01	16/969 (1.7%)	2.33	51/1300 (3.9%)
16	AP	2.10	22/919 (2.4%)	2.45	62/1226 (5.1%)
17	AQ	2.05	22/817 (2.7%)	2.37	60/1088 (5.5%)
18	AR	1.97	13/724 (1.8%)	2.50	52/966 (5.4%)
19	AS	1.97	12/659 (1.8%)	2.33	30/884 (3.4%)
20	AT	2.09	17/681 (2.5%)	2.32	35/913 (3.8%)
21	AU	2.00	12/637 (1.9%)	2.30	25/851 (2.9%)
22	AV	1.97	10/744 (1.3%)	2.51	57/995 (5.7%)
23	AW	2.08	20/676 (3.0%)	2.55	52/895 (5.8%)
24	AX	1.98	11/598 (1.8%)	2.46	45/792 (5.7%)
25	BA	1.88	50/2869 (1.7%)	1.95	142/4474 (3.2%)
26	BB	1.90	1137/69257 (1.6%)	1.98	3500/108040 (3.2%)
27	BC	2.00	35/1748 (2.0%)	2.35	95/2355 (4.0%)
28	BD	2.02	47/2131 (2.2%)	2.43	130/2863 (4.5%)
29	BE	2.09	31/1586 (2.0%)	2.44	107/2134 (5.0%)
30	BF	2.04	35/1571 (2.2%)	2.36	91/2113 (4.3%)
31	BG	1.95	25/1444 (1.7%)	2.33	76/1937 (3.9%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
32	BH	2.05	34/1343 (2.5%)	2.39	71/1816 (3.9%)
33	BI	2.03	30/1122 (2.7%)	2.34	56/1515 (3.7%)
34	BJ	2.05	28/1247 (2.2%)	2.38	66/1679 (3.9%)
35	BK	1.98	21/1046 (2.0%)	2.42	72/1410 (5.1%)
36	BL	2.03	26/1152 (2.3%)	2.33	59/1551 (3.8%)
37	BM	2.01	17/956 (1.8%)	2.43	60/1279 (4.7%)
38	BN	2.03	26/1062 (2.4%)	2.38	50/1413 (3.5%)
39	BO	1.91	17/1093 (1.6%)	2.40	58/1460 (4.0%)
40	BP	1.98	19/1021 (1.9%)	2.41	64/1364 (4.7%)
41	BQ	2.12	23/910 (2.5%)	2.42	71/1219 (5.8%)
42	BR	1.98	15/929 (1.6%)	2.47	66/1242 (5.3%)
43	BS	1.97	13/960 (1.4%)	2.52	70/1278 (5.5%)
44	BT	2.12	25/829 (3.0%)	2.29	39/1107 (3.5%)
45	BU	2.00	21/864 (2.4%)	2.42	38/1156 (3.3%)
46	BV	2.02	17/794 (2.1%)	2.38	41/1060 (3.9%)
47	BW	2.06	22/797 (2.8%)	2.36	44/1062 (4.1%)
48	BX	1.89	10/766 (1.3%)	2.36	39/1025 (3.8%)
49	BY	1.96	11/642 (1.7%)	2.32	28/848 (3.3%)
50	BZ	2.01	14/635 (2.2%)	2.37	40/848 (4.7%)
51	B0	1.94	8/510 (1.6%)	2.47	38/677 (5.6%)
52	B1	2.04	7/453 (1.5%)	2.60	37/605 (6.1%)
53	B2	2.10	15/559 (2.7%)	2.38	29/745 (3.9%)
54	B3	2.11	10/450 (2.2%)	2.42	24/599 (4.0%)
55	B4	1.91	10/448 (2.2%)	2.27	26/594 (4.4%)
56	B5	1.96	5/380 (1.3%)	2.55	25/498 (5.0%)
57	B6	1.99	10/513 (1.9%)	2.32	26/676 (3.8%)
58	B7	1.88	1/303 (0.3%)	2.33	17/397 (4.3%)
All	All	1.94	2900/164069 (1.8%)	2.11	8782/244735 (3.6%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	910
2	AB	0	43
3	AC	0	30
4	AD	0	37
5	AE	0	1
6	AF	0	3
7	AG	0	9

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Mol	Chain	#Chirality outliers	#Planarity outliers
8	AH	0	2
9	AI	0	5
10	AJ	0	6
11	AK	0	2
12	AL	0	3
13	AM	0	2
14	AN	0	4
15	AO	0	9
16	AP	0	4
17	AQ	0	1
18	AR	0	3
19	AS	0	3
20	AT	0	2
21	AU	0	5
22	AV	0	3
23	AW	0	2
24	AX	0	4
25	BA	0	65
26	BB	0	1685
27	BC	0	1
28	BD	0	10
29	BE	0	8
30	BF	0	6
31	BG	0	7
32	BH	0	6
33	BI	0	3
34	BJ	0	4
35	BK	0	5
36	BL	0	8
37	BM	0	4
38	BN	0	2
39	BO	0	4
40	BP	0	2
41	BQ	0	2
42	BR	0	5
43	BS	0	6
44	BT	0	3
45	BU	0	1
46	BV	0	2
47	BW	0	1
48	BX	0	5
49	BY	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
50	BZ	0	1
51	B0	0	1
53	B2	0	5
54	B3	0	4
55	B4	0	3
56	B5	0	2
57	B6	0	1
All	All	0	2959

All (2900) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2552	OMU	O3'-P	14.21	1.70	1.56
1	AA	1457	G	O3'-P	10.76	1.77	1.61
52	B1	30	ARG	NE-CZ	10.56	1.44	1.33
32	BH	93	TYR	CA-C	10.32	1.66	1.53
28	BD	18	VAL	CA-C	-10.21	1.40	1.52
49	BY	21	GLY	N-CA	9.96	1.55	1.45
14	AN	116	PRO	CA-C	9.93	1.64	1.52
1	AA	631	C	P-O5'	9.78	1.74	1.59
29	BE	154	LYS	N-CA	9.57	1.58	1.46
1	AA	848	C	P-O5'	9.54	1.74	1.59
1	AA	687	A	P-O5'	9.47	1.74	1.59
44	BT	51	VAL	CA-C	9.43	1.60	1.53
26	BB	2382	G	P-O5'	9.40	1.73	1.59
1	AA	1498	UR3	O3'-P	9.31	1.65	1.56
26	BB	2164	C	P-O5'	9.27	1.73	1.59
26	BB	1448	G	P-O5'	9.21	1.73	1.59
26	BB	2205	A	C4'-O4'	-9.11	1.31	1.45
1	AA	805	C	P-O5'	9.06	1.73	1.59
44	BT	47	VAL	CA-C	9.04	1.64	1.52
46	BV	80	TRP	CA-CB	8.98	1.68	1.53
26	BB	2582	G	C4'-O4'	-8.93	1.32	1.45
1	AA	208	U	P-O5'	8.90	1.73	1.59
26	BB	666	A	C5'-C4'	8.87	1.64	1.51
1	AA	1429	A	P-O5'	8.84	1.73	1.59
26	BB	1720	U	P-O5'	8.84	1.73	1.59
26	BB	2437	G	P-O5'	8.76	1.72	1.59
26	BB	2900	A	C4'-C3'	-8.73	1.39	1.52
10	AJ	11	ILE	CA-C	8.70	1.62	1.52
25	BA	119	A	C5'-C4'	8.69	1.64	1.51
28	BD	181	ARG	CA-C	8.69	1.63	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AF	155	ARG	CZ-NH2	8.69	1.44	1.33
26	BB	2571	U	O3'-P	8.68	1.74	1.61
29	BE	56	LYS	CA-C	8.61	1.64	1.52
26	BB	1371	G	C5'-C4'	8.60	1.64	1.51
2	AB	8	4SU	O3'-P	8.56	1.64	1.56
5	AE	141	GLU	CA-C	8.54	1.63	1.52
21	AU	67	LEU	N-CA	8.53	1.54	1.45
28	BD	73	ILE	CA-C	8.52	1.59	1.53
9	AI	25	TYR	CA-C	8.49	1.63	1.52
47	BW	51	LEU	CA-C	8.47	1.64	1.52
36	BL	77	HIS	CE1-NE2	8.44	1.41	1.32
26	BB	1504	A	C1'-N9	8.44	1.60	1.48
26	BB	794	A	P-O5'	8.43	1.72	1.59
32	BH	7	PRO	CA-C	8.43	1.63	1.52
26	BB	1477	A	C5'-C4'	8.41	1.63	1.51
14	AN	58	THR	C-O	8.40	1.31	1.24
29	BE	140	HIS	CA-C	8.39	1.63	1.52
33	BI	69	ALA	CA-C	8.38	1.63	1.52
1	AA	794	A	C5'-C4'	8.38	1.63	1.51
1	AA	1257	A	P-O5'	8.38	1.72	1.59
26	BB	2023	C	P-O5'	8.35	1.72	1.59
1	AA	457	G	C4'-O4'	-8.33	1.33	1.45
42	BR	55	HIS	ND1-CE1	8.29	1.40	1.32
26	BB	1270	C	C5'-C4'	8.26	1.63	1.51
4	AD	60	A	P-O5'	8.24	1.72	1.59
26	BB	885	C	C1'-N1	8.23	1.60	1.48
3	AC	50	U	C4'-O4'	-8.20	1.33	1.45
26	BB	1149	G	O3'-P	8.20	1.73	1.61
26	BB	2897	U	O3'-P	8.19	1.73	1.61
26	BB	369	U	C4'-O4'	-8.18	1.33	1.45
45	BU	96	ILE	CA-CB	8.18	1.64	1.54
28	BD	235	GLU	CA-CB	8.18	1.63	1.52
1	AA	211	G	C5'-C4'	8.17	1.63	1.51
15	AO	93	ARG	NE-CZ	8.15	1.42	1.33
26	BB	753	A	O3'-P	8.15	1.73	1.61
44	BT	4	VAL	CA-C	8.14	1.62	1.52
28	BD	108	GLY	CA-C	8.13	1.59	1.52
26	BB	611	C	P-O5'	8.12	1.72	1.59
1	AA	819	A	O5'-C5'	8.11	1.55	1.42
26	BB	554	U	C4'-O4'	-8.09	1.33	1.45
53	B2	36	VAL	CA-CB	8.09	1.63	1.54
26	BB	2790	U	O3'-P	8.08	1.73	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1067	A	C4'-O4'	-8.06	1.33	1.45
1	AA	208	U	C5'-C4'	8.06	1.63	1.51
26	BB	2616	C	C5'-C4'	8.06	1.63	1.51
53	B2	63	ARG	CZ-NH1	8.05	1.44	1.32
26	BB	2136	G	C4'-C3'	8.05	1.64	1.52
14	AN	18	GLY	CA-C	8.05	1.61	1.51
30	BF	162	ARG	CA-C	8.04	1.63	1.52
11	AK	84	ILE	CA-C	8.03	1.63	1.52
9	AI	11	HIS	ND1-CE1	8.02	1.40	1.32
36	BL	129	GLU	N-CA	8.00	1.55	1.46
57	B6	16	THR	N-CA	8.00	1.55	1.45
1	AA	683	G	P-O5'	8.00	1.71	1.59
1	AA	1340	A	P-O5'	7.99	1.71	1.59
4	AD	39	A	O3'-P	7.99	1.73	1.61
26	BB	2769	U	C4'-O4'	-7.98	1.33	1.45
26	BB	2331	G	C5'-C4'	7.96	1.63	1.51
1	AA	1234	C	C4'-O4'	-7.96	1.33	1.45
1	AA	1450	U	P-O5'	7.96	1.71	1.59
18	AR	74	VAL	CA-C	7.94	1.64	1.52
26	BB	546	U	C3'-C2'	7.94	1.64	1.52
19	AS	62	GLY	CA-C	7.94	1.61	1.51
26	BB	365	U	O3'-P	7.94	1.73	1.61
26	BB	838	C	P-O5'	7.93	1.71	1.59
33	BI	131	SER	CA-C	7.93	1.62	1.52
2	AB	2	G	P-O5'	7.92	1.71	1.59
1	AA	1507	A	C4'-C3'	7.92	1.64	1.52
26	BB	1535	A	C4'-O4'	-7.91	1.33	1.45
1	AA	967	5MC	O3'-P	7.91	1.73	1.61
1	AA	1380	U	C5'-C4'	7.90	1.63	1.51
50	BZ	40	GLU	CA-C	7.90	1.63	1.52
26	BB	2035	G	C4'-O4'	-7.89	1.34	1.45
26	BB	598	U	P-O5'	7.89	1.71	1.59
9	AI	39	LEU	CA-C	7.88	1.63	1.52
13	AM	79	PRO	N-CD	-7.87	1.36	1.47
24	AX	69	LEU	CA-C	7.87	1.62	1.52
33	BI	116	ARG	CD-NE	7.83	1.57	1.46
26	BB	2433	A	C4'-O4'	-7.82	1.33	1.45
26	BB	362	A	P-O5'	7.82	1.71	1.59
26	BB	2865	U	P-O5'	7.82	1.71	1.59
15	AO	12	ALA	CA-C	7.81	1.61	1.52
26	BB	1697	G	O3'-P	7.80	1.72	1.61
10	AJ	108	ARG	NE-CZ	7.80	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2554	U	C5'-C4'	7.80	1.62	1.51
31	BG	118	ALA	N-CA	7.79	1.56	1.46
26	BB	2644	G	P-O5'	7.78	1.71	1.59
26	BB	207	A	O3'-P	7.76	1.72	1.61
26	BB	2162	G	P-O5'	7.76	1.71	1.59
47	BW	94	PHE	CA-C	7.76	1.61	1.52
46	BV	73	ARG	CA-C	7.76	1.56	1.52
45	BU	83	LYS	CA-C	7.74	1.62	1.52
26	BB	2758	A	C5'-C4'	7.71	1.62	1.51
20	AT	22	VAL	CA-C	-7.71	1.42	1.52
1	AA	391	G	P-O5'	7.70	1.71	1.59
14	AN	117	HIS	N-CA	-7.70	1.36	1.46
26	BB	781	A	O3'-P	7.70	1.72	1.61
26	BB	880	G	C4'-O4'	-7.68	1.34	1.45
26	BB	600	G	C4'-O4'	-7.67	1.34	1.45
6	AF	215	GLN	CA-C	7.66	1.60	1.52
27	BC	192	LEU	CA-C	7.66	1.62	1.52
26	BB	917	A	O4'-C1'	7.65	1.53	1.41
27	BC	76	ALA	CA-CB	7.64	1.66	1.53
30	BF	121	VAL	CA-C	7.64	1.61	1.52
16	AP	6	ILE	CA-C	7.64	1.62	1.52
32	BH	79	THR	CA-C	7.63	1.61	1.53
1	AA	1167	A	C4'-O4'	-7.63	1.34	1.45
26	BB	2017	U	P-O5'	7.63	1.71	1.59
2	AB	13	C	O3'-P	7.62	1.72	1.61
26	BB	2893	A	C5'-C4'	7.62	1.62	1.51
26	BB	175	G	C3'-C2'	7.62	1.64	1.52
28	BD	100	ARG	NE-CZ	7.62	1.41	1.33
1	AA	1086	U	O3'-P	7.61	1.72	1.61
26	BB	749	A	C4'-O4'	-7.61	1.34	1.45
26	BB	1324	G	C5'-C4'	7.60	1.62	1.51
35	BK	21	PRO	CA-C	7.60	1.59	1.52
18	AR	10	ILE	CA-C	7.59	1.62	1.52
26	BB	526	A	O5'-C5'	-7.59	1.31	1.42
1	AA	1103	C	O3'-P	7.58	1.72	1.61
26	BB	653	U	P-O5'	7.58	1.71	1.59
27	BC	225	ASP	CA-C	-7.57	1.43	1.52
6	AF	186	SER	CA-C	7.57	1.62	1.52
26	BB	2428	G	P-O5'	7.56	1.71	1.59
15	AO	104	SER	CA-C	7.55	1.61	1.52
52	B1	49	ALA	CA-C	-7.55	1.42	1.52
1	AA	124	C	C2'-O2'	-7.54	1.31	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1953	A	C5'-C4'	7.54	1.62	1.51
26	BB	840	C	P-O5'	7.53	1.71	1.59
32	BH	16	VAL	CA-CB	7.53	1.62	1.53
26	BB	2731	G	C4'-O4'	-7.52	1.34	1.45
34	BJ	89	GLY	CA-C	7.52	1.60	1.52
26	BB	561	G	C2'-C1'	-7.51	1.42	1.53
32	BH	148	ARG	NE-CZ	7.51	1.41	1.33
48	BX	68	LYS	C-N	7.50	1.43	1.33
1	AA	263	A	P-O5'	7.50	1.71	1.59
1	AA	1053	G	P-O5'	7.50	1.71	1.59
26	BB	516	C	P-O5'	7.50	1.71	1.59
41	BQ	31	THR	N-CA	7.48	1.53	1.46
17	AQ	92	ILE	CA-C	7.47	1.59	1.53
1	AA	317	U	C4'-O4'	-7.47	1.34	1.45
1	AA	901	A	P-O5'	7.46	1.71	1.59
4	AD	63	C	O3'-P	7.46	1.72	1.61
26	BB	2832	U	C4'-O4'	-7.44	1.34	1.45
26	BB	760	G	O3'-P	7.44	1.72	1.61
26	BB	69	C	P-O5'	7.44	1.71	1.59
26	BB	1473	G	C1'-N9	7.43	1.59	1.48
1	AA	245	U	O4'-C1'	7.43	1.52	1.41
4	AD	36	A	C5'-C4'	7.43	1.62	1.51
26	BB	1233	C	C4'-O4'	-7.43	1.34	1.45
26	BB	1268	A	P-O5'	7.43	1.70	1.59
32	BH	18	ILE	CA-CB	7.42	1.63	1.54
26	BB	934	U	P-O5'	7.41	1.70	1.59
14	AN	109	ILE	CA-C	7.40	1.62	1.52
1	AA	1353	G	P-O5'	7.39	1.70	1.59
26	BB	1830	C	C4'-O4'	-7.39	1.34	1.45
26	BB	1184	U	O3'-P	-7.38	1.50	1.61
25	BA	86	G	O3'-P	7.38	1.72	1.61
1	AA	692	U	P-O5'	7.38	1.70	1.59
26	BB	1308	A	O3'-P	7.38	1.72	1.61
27	BC	15	VAL	CA-CB	7.37	1.61	1.54
8	AH	49	TYR	CA-C	7.36	1.62	1.52
26	BB	1552	A	C4'-O4'	-7.36	1.34	1.45
26	BB	2682	A	C4'-O4'	-7.36	1.34	1.45
26	BB	456	C	O3'-P	7.35	1.72	1.61
1	AA	398	U	O3'-P	7.35	1.72	1.61
1	AA	702	A	C4'-O4'	-7.35	1.34	1.45
26	BB	585	G	P-O5'	7.35	1.70	1.59
26	BB	1453	A	C5'-C4'	7.35	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	239	U	C5'-C4'	7.34	1.62	1.51
26	BB	2211	A	P-O5'	7.34	1.70	1.59
26	BB	1417	C	C4'-C3'	7.34	1.63	1.52
1	AA	1442	G	P-O5'	7.34	1.70	1.59
26	BB	94	A	C5'-C4'	7.33	1.62	1.51
43	BS	65	ASN	CA-C	7.33	1.62	1.52
7	AG	100	VAL	CA-CB	7.33	1.63	1.54
27	BC	210	LYS	CA-C	7.32	1.62	1.52
6	AF	67	ILE	CA-C	7.32	1.61	1.52
55	B4	11	VAL	CA-C	7.32	1.61	1.52
26	BB	1165	A	P-O5'	7.31	1.70	1.59
1	AA	69	G	O3'-P	7.31	1.72	1.61
31	BG	140	ILE	CA-CB	7.31	1.63	1.54
1	AA	328	C	O3'-P	7.31	1.72	1.61
25	BA	67	G	O3'-P	7.31	1.72	1.61
18	AR	45	HIS	ND1-CE1	7.30	1.39	1.32
26	BB	1374	G	P-O5'	7.30	1.70	1.59
9	AI	102	MET	CA-C	-7.30	1.43	1.52
26	BB	206	U	O5'-C5'	-7.30	1.31	1.42
26	BB	898	C	P-O5'	7.30	1.70	1.59
11	AK	121	GLY	N-CA	-7.28	1.39	1.44
1	AA	772	U	C4'-O4'	-7.28	1.34	1.45
26	BB	920	A	P-O5'	7.27	1.70	1.59
30	BF	121	VAL	CA-CB	7.26	1.62	1.54
26	BB	1741	C	C5'-C4'	7.26	1.62	1.51
3	AC	38	G	P-O5'	7.26	1.70	1.59
26	BB	718	A	C4'-O4'	-7.25	1.34	1.45
26	BB	1525	A	C3'-O3'	-7.25	1.31	1.42
1	AA	952	U	C5'-C4'	7.25	1.62	1.51
1	AA	731	G	P-O5'	7.24	1.70	1.59
45	BU	18	ARG	NE-CZ	7.24	1.41	1.33
26	BB	93	G	O5'-C5'	-7.24	1.31	1.42
43	BS	91	ARG	N-CA	7.24	1.55	1.46
26	BB	2293	G	P-O5'	7.23	1.70	1.59
1	AA	390	U	C1'-N1	7.23	1.59	1.48
26	BB	409	G	C5'-C4'	7.23	1.62	1.51
17	AQ	81	ILE	CA-CB	7.22	1.62	1.54
26	BB	871	U	O3'-P	7.21	1.72	1.61
56	B5	37	LYS	N-CA	7.20	1.55	1.46
33	BI	11	ASN	CA-CB	7.20	1.65	1.53
28	BD	73	ILE	CA-CB	7.19	1.61	1.53
26	BB	2862	G	P-O5'	7.19	1.70	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BJ	117	ILE	CA-C	7.19	1.59	1.53
26	BB	659	G	C4'-O4'	-7.18	1.34	1.45
34	BJ	38	THR	CA-C	7.18	1.62	1.52
26	BB	129	C	C5'-C4'	7.18	1.62	1.51
23	AW	65	LEU	C-N	7.17	1.39	1.33
26	BB	2222	C	O3'-P	7.17	1.72	1.61
26	BB	1387	A	O3'-P	-7.17	1.50	1.61
26	BB	2765	A	C4'-O4'	-7.17	1.34	1.45
34	BJ	58	LEU	N-CA	7.16	1.54	1.46
5	AE	64	GLY	CA-C	7.16	1.61	1.51
26	BB	310	A	C5'-C4'	7.16	1.62	1.51
40	BP	94	TYR	CA-C	7.16	1.62	1.52
26	BB	2742	G	C2'-O2'	-7.15	1.31	1.42
50	BZ	60	LYS	CA-C	7.15	1.62	1.52
6	AF	68	HIS	CE1-NE2	7.15	1.39	1.32
26	BB	2583	G	C5'-C4'	7.15	1.61	1.51
26	BB	2145	C	C4'-O4'	-7.15	1.34	1.45
6	AF	194	VAL	CA-C	7.14	1.60	1.52
33	BI	128	HIS	C-N	7.14	1.43	1.33
26	BB	2037	A	C4'-O4'	-7.14	1.34	1.45
1	AA	1515	G	C4'-O4'	-7.14	1.34	1.45
8	AH	134	ASN	CA-CB	-7.14	1.43	1.54
10	AJ	79	VAL	CA-CB	7.13	1.61	1.53
1	AA	1083	U	C2'-C1'	7.13	1.64	1.53
26	BB	2686	G	C5'-C4'	7.13	1.61	1.51
31	BG	152	ASP	N-CA	-7.12	1.36	1.46
26	BB	1994	C	O4'-C1'	7.12	1.52	1.41
5	AE	81	ASP	CA-C	7.12	1.62	1.52
26	BB	224	U	C4'-O4'	-7.12	1.34	1.45
1	AA	700	G	O4'-C1'	7.11	1.52	1.41
1	AA	1222	G	P-O5'	7.11	1.70	1.59
31	BG	61	GLY	CA-C	7.10	1.63	1.51
26	BB	206	U	C3'-O3'	-7.10	1.31	1.42
26	BB	1556	C	O3'-P	7.09	1.71	1.61
37	BM	29	HIS	CG-CD2	7.09	1.43	1.35
26	BB	2725	A	C5'-C4'	7.08	1.61	1.51
1	AA	845	A	P-O5'	7.08	1.70	1.59
24	AX	24	LYS	N-CA	7.08	1.55	1.46
40	BP	3	HIS	CE1-NE2	7.07	1.39	1.32
1	AA	162	A	C5'-C4'	7.07	1.61	1.51
26	BB	1896	G	O4'-C1'	7.07	1.52	1.41
1	AA	738	C	C5'-C4'	7.07	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BL	63	ALA	N-CA	7.07	1.54	1.46
26	BB	1466	U	C4'-O4'	-7.06	1.34	1.45
20	AT	21	VAL	N-CA	7.06	1.54	1.46
28	BD	98	GLY	CA-C	7.06	1.61	1.51
35	BK	85	ILE	CA-CB	7.05	1.63	1.54
16	AP	92	ARG	NE-CZ	7.05	1.40	1.33
26	BB	2830	C	C5'-C4'	7.05	1.61	1.51
1	AA	662	U	O3'-P	7.05	1.71	1.61
1	AA	113	G	C4'-O4'	-7.04	1.34	1.45
1	AA	735	C	C2'-C1'	7.04	1.64	1.53
44	BT	41	ILE	N-CA	-7.04	1.37	1.46
26	BB	736	C	P-O5'	7.03	1.70	1.59
26	BB	2413	G	C3'-O3'	7.03	1.52	1.42
32	BH	7	PRO	N-CA	7.03	1.55	1.47
1	AA	134	G	P-O5'	7.01	1.70	1.59
26	BB	2717	C	P-O5'	7.01	1.70	1.59
1	AA	1093	A	C2'-C1'	-7.01	1.42	1.53
26	BB	1894	C	C5'-C4'	7.01	1.61	1.51
45	BU	9	HIS	ND1-CE1	7.00	1.39	1.32
26	BB	518	G	O3'-P	7.00	1.71	1.61
26	BB	1180	U	C3'-C2'	7.00	1.63	1.52
26	BB	2406	A	P-O5'	7.00	1.70	1.59
1	AA	1024	G	O3'-P	6.99	1.71	1.61
1	AA	344	A	C1'-N9	6.99	1.57	1.47
9	AI	103	VAL	CA-C	6.99	1.61	1.52
41	BQ	87	ILE	CA-C	6.98	1.60	1.52
26	BB	830	G	C4'-O4'	-6.97	1.35	1.45
37	BM	34	GLY	N-CA	6.97	1.53	1.45
1	AA	425	G	C4'-O4'	-6.97	1.35	1.45
26	BB	1470	A	C4'-O4'	-6.97	1.35	1.45
26	BB	2058	A	C5'-C4'	6.97	1.61	1.51
8	AH	82	HIS	CA-C	6.96	1.61	1.52
26	BB	471	A	O3'-P	6.96	1.71	1.61
8	AH	47	PHE	N-CA	6.96	1.54	1.46
35	BK	58	ILE	CA-C	6.96	1.60	1.52
26	BB	446	G	C5'-C4'	6.95	1.61	1.51
7	AG	188	SER	CA-C	-6.95	1.43	1.52
1	AA	841	C	C4'-O4'	-6.94	1.35	1.45
26	BB	148	U	C4'-O4'	-6.94	1.35	1.45
26	BB	2667	C	C4'-O4'	-6.94	1.35	1.45
26	BB	1543	G	C4'-O4'	-6.93	1.35	1.45
26	BB	2494	G	C5'-C4'	6.93	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	BD	4	LYS	CA-CB	6.93	1.63	1.53
26	BB	1259	G	C5'-C4'	6.93	1.61	1.51
1	AA	797	C	C4'-O4'	-6.92	1.35	1.45
8	AH	70	MET	CA-C	6.92	1.60	1.52
26	BB	842	U	O5'-C5'	-6.92	1.32	1.42
25	BA	64	G	P-O5'	6.92	1.70	1.59
1	AA	558	G	P-O5'	6.91	1.70	1.59
26	BB	24	G	O3'-P	6.91	1.71	1.61
26	BB	2150	C	P-O5'	6.91	1.70	1.59
1	AA	839	C	C5'-C4'	6.91	1.61	1.51
26	BB	2416	C	C3'-O3'	6.91	1.52	1.42
40	BP	49	GLU	CA-C	6.91	1.61	1.52
31	BG	101	ARG	CA-C	6.91	1.62	1.52
1	AA	565	U	C5'-C4'	6.91	1.61	1.51
3	AC	49	U	C4'-C3'	6.91	1.62	1.52
26	BB	407	G	O3'-P	6.91	1.71	1.61
44	BT	57	GLY	CA-C	6.90	1.57	1.51
30	BF	192	ALA	CA-C	6.90	1.61	1.52
26	BB	2567	G	C5'-C4'	6.89	1.61	1.51
41	BQ	104	GLN	CA-C	6.89	1.61	1.52
26	BB	1989	G	O3'-P	6.89	1.71	1.61
26	BB	1099	G	C5'-C4'	6.88	1.61	1.51
35	BK	32	VAL	C-O	6.88	1.31	1.23
37	BM	10	VAL	CA-C	6.88	1.61	1.52
47	BW	45	GLN	CA-C	6.88	1.61	1.52
26	BB	2166	U	O3'-P	6.88	1.71	1.61
1	AA	438	U	P-O5'	6.87	1.70	1.59
26	BB	27	G	C4'-C3'	6.87	1.62	1.52
26	BB	1352	U	C5'-C4'	6.87	1.61	1.51
26	BB	2359	C	C4'-O4'	-6.87	1.35	1.45
29	BE	22	ILE	C-N	6.87	1.41	1.33
26	BB	1937	A	C5'-C4'	6.86	1.61	1.51
1	AA	485	U	C4'-C3'	6.86	1.63	1.53
35	BK	79	LEU	CA-C	6.86	1.61	1.52
26	BB	2091	C	O3'-P	6.85	1.71	1.61
20	AT	61	ARG	C-N	6.85	1.42	1.33
26	BB	2803	G	O3'-P	-6.85	1.50	1.61
47	BW	69	VAL	CA-C	6.85	1.60	1.52
1	AA	1405	G	P-O5'	-6.85	1.49	1.59
26	BB	2191	A	P-O5'	6.85	1.70	1.59
26	BB	1703	G	C4'-C3'	6.85	1.62	1.52
26	BB	2119	A	C4'-O4'	-6.85	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	30	C	C4'-O4'	-6.84	1.35	1.45
26	BB	2826	A	C4'-C3'	6.84	1.62	1.52
27	BC	166	ASP	CA-C	6.84	1.61	1.52
49	BY	2	HIS	CE1-NE2	6.84	1.39	1.32
26	BB	1369	G	C3'-O3'	-6.84	1.31	1.42
5	AE	36	LYS	CA-C	6.84	1.63	1.52
18	AR	50	HIS	CG-CD2	6.83	1.43	1.35
26	BB	762	U	C5'-C4'	6.83	1.61	1.51
28	BD	57	HIS	CD2-NE2	6.83	1.45	1.37
20	AT	34	GLY	CA-C	6.83	1.61	1.51
26	BB	2268	A	O4'-C1'	6.83	1.51	1.41
1	AA	1279	G	C4'-O4'	-6.83	1.35	1.45
1	AA	1177	G	C2'-O2'	-6.82	1.32	1.42
1	AA	30	U	C3'-O3'	-6.82	1.32	1.43
1	AA	350	G	P-O5'	6.82	1.70	1.59
26	BB	469	G	C2'-C1'	6.81	1.63	1.53
1	AA	1261	A	O3'-P	-6.81	1.50	1.61
16	AP	100	ARG	CD-NE	6.80	1.55	1.46
10	AJ	90	VAL	CA-C	6.80	1.60	1.52
6	AF	206	ILE	CA-CB	6.80	1.62	1.54
14	AN	59	PRO	CA-C	6.80	1.62	1.52
26	BB	326	G	O3'-P	6.80	1.71	1.61
7	AG	139	ASN	CA-C	6.80	1.62	1.52
15	AO	7	VAL	CA-C	6.80	1.61	1.52
1	AA	801	U	P-O5'	6.79	1.70	1.59
51	B0	41	HIS	N-CA	6.79	1.54	1.46
26	BB	1754	A	C3'-C2'	-6.79	1.42	1.52
26	BB	2157	G	C3'-C2'	6.79	1.63	1.52
1	AA	300	A	C3'-O3'	6.79	1.52	1.42
26	BB	2877	G	C2'-C1'	6.79	1.63	1.53
26	BB	2518	A	O3'-P	-6.79	1.50	1.61
26	BB	2186	G	O5'-C5'	6.78	1.52	1.42
26	BB	2618	G	C5'-C4'	6.78	1.61	1.51
9	AI	79	ARG	N-CA	-6.78	1.38	1.46
26	BB	759	G	C4'-O4'	-6.78	1.35	1.45
26	BB	1086	A	C5'-C4'	6.77	1.61	1.51
13	AM	7	ARG	CZ-NH1	6.77	1.42	1.32
26	BB	2419	U	C4'-O4'	-6.77	1.35	1.45
28	BD	76	VAL	CA-CB	6.76	1.62	1.54
1	AA	327	A	P-O5'	6.76	1.69	1.59
26	BB	321	U	P-O5'	6.76	1.69	1.59
26	BB	2139	U	O3'-P	6.76	1.71	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2804	U	C4'-O4'	-6.76	1.35	1.45
4	AD	11	A	C4'-O4'	-6.75	1.35	1.45
26	BB	2622	U	C2'-C1'	6.75	1.63	1.53
26	BB	1386	C	O3'-P	6.75	1.71	1.61
39	BO	39	GLY	N-CA	6.75	1.51	1.45
26	BB	1624	U	C4'-O4'	-6.75	1.35	1.45
26	BB	2370	G	O3'-P	6.75	1.71	1.61
53	B2	41	HIS	C-N	6.75	1.41	1.33
26	BB	95	A	O3'-P	6.74	1.71	1.61
26	BB	1045	C	P-O5'	6.74	1.69	1.59
26	BB	653	U	C1'-N1	-6.74	1.38	1.48
30	BF	78	TRP	NE1-CE2	6.74	1.44	1.37
2	AB	18	G	C4'-O4'	-6.73	1.35	1.45
29	BE	149	ASN	CA-C	6.73	1.61	1.52
26	BB	1625	C	C4'-O4'	-6.73	1.35	1.45
14	AN	10	ARG	CZ-NH1	6.72	1.42	1.32
26	BB	2436	G	P-O5'	6.72	1.69	1.59
26	BB	2423	U	C5'-C4'	6.72	1.61	1.51
1	AA	58	C	O4'-C1'	6.72	1.51	1.41
26	BB	381	G	C5'-C4'	6.72	1.61	1.51
26	BB	510	C	C5'-C4'	6.71	1.61	1.51
26	BB	526	A	P-O5'	6.71	1.69	1.59
30	BF	131	THR	CA-CB	6.71	1.63	1.53
1	AA	302	G	C4'-O4'	-6.71	1.35	1.45
1	AA	703	G	P-O5'	6.71	1.69	1.59
51	B0	48	ARG	NE-CZ	6.70	1.40	1.33
1	AA	1003	G	P-O5'	6.70	1.69	1.59
1	AA	1112	C	P-O5'	6.70	1.69	1.59
9	AI	106	LYS	CA-C	6.70	1.61	1.52
26	BB	910	A	C2'-O2'	-6.70	1.32	1.42
26	BB	2723	C	P-O5'	6.69	1.69	1.59
2	AB	41	C	C2'-O2'	-6.68	1.32	1.42
44	BT	4	VAL	N-CA	-6.68	1.38	1.46
24	AX	3	ILE	N-CA	6.67	1.54	1.46
27	BC	112	ASP	CA-C	6.67	1.61	1.52
47	BW	85	ARG	CZ-NH2	6.67	1.42	1.33
1	AA	522	C	C5'-C4'	6.67	1.61	1.51
26	BB	893	C	P-O5'	6.67	1.69	1.59
54	B3	4	GLN	CA-C	-6.67	1.44	1.52
26	BB	780	G	C4'-C3'	6.67	1.62	1.52
26	BB	2098	U	C5'-C4'	6.66	1.61	1.51
26	BB	570	G	C5'-C4'	6.66	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BI	68	ARG	NE-CZ	6.66	1.40	1.33
34	BJ	108	LYS	CA-C	6.66	1.61	1.53
1	AA	544	G	O3'-P	6.65	1.71	1.61
1	AA	866	C	O5'-C5'	6.65	1.52	1.42
23	AW	14	GLU	CA-C	6.65	1.61	1.52
26	BB	681	G	C2'-C1'	-6.65	1.43	1.53
1	AA	1237	C	C5'-C4'	6.65	1.61	1.51
11	AK	14	ARG	CD-NE	6.64	1.55	1.46
51	B0	20	ASN	CA-C	6.64	1.61	1.52
18	AR	24	THR	N-CA	6.64	1.54	1.46
26	BB	1064	C	P-O5'	6.64	1.69	1.59
26	BB	2330	G	C2'-O2'	-6.64	1.32	1.42
27	BC	30	LEU	CA-CB	6.64	1.63	1.53
31	BG	27	VAL	CA-C	6.64	1.59	1.52
1	AA	511	C	P-O5'	6.63	1.69	1.59
26	BB	631	A	C4'-O4'	-6.63	1.35	1.45
26	BB	752	A	O3'-P	6.63	1.71	1.61
2	AB	36	A	P-O5'	6.63	1.69	1.59
26	BB	2005	A	O4'-C1'	6.63	1.51	1.41
1	AA	628	G	O3'-P	6.63	1.71	1.61
1	AA	573	A	O3'-P	6.63	1.71	1.61
39	BO	82	MET	C-O	-6.63	1.15	1.23
49	BY	14	ASP	CA-C	6.63	1.61	1.52
26	BB	2302	U	O3'-P	6.62	1.71	1.61
26	BB	2613	U	P-O5'	6.62	1.69	1.59
30	BF	21	ARG	CD-NE	6.62	1.55	1.46
5	AE	195	VAL	C-O	6.62	1.30	1.23
1	AA	1459	G	O3'-P	6.62	1.71	1.61
26	BB	2250	G	C5'-C4'	6.62	1.61	1.51
26	BB	2396	G	C1'-N9	6.62	1.57	1.48
54	B3	10	SER	N-CA	6.61	1.54	1.46
26	BB	2708	G	C5'-C4'	6.61	1.61	1.51
26	BB	1851	U	P-O5'	6.61	1.69	1.59
50	BZ	36	ARG	CA-C	6.61	1.61	1.52
36	BL	102	GLU	N-CA	6.60	1.54	1.46
26	BB	2764	A	P-O5'	6.60	1.69	1.59
30	BF	29	HIS	ND1-CE1	6.60	1.39	1.32
38	BN	114	GLY	CA-C	6.60	1.60	1.51
7	AG	156	ALA	N-CA	-6.60	1.38	1.46
26	BB	694	U	C2'-C1'	6.60	1.63	1.53
11	AK	83	ARG	NE-CZ	6.59	1.40	1.33
1	AA	1189	U	C5'-C4'	6.59	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	566	U	C4'-O4'	-6.58	1.35	1.45
26	BB	2179	C	P-O5'	6.58	1.69	1.59
26	BB	308	G	C2'-O2'	-6.57	1.32	1.42
26	BB	2728	U	C5'-C4'	6.57	1.61	1.51
24	AX	16	ARG	CA-C	6.57	1.61	1.52
28	BD	70	LYS	N-CA	-6.57	1.38	1.46
17	AQ	51	PRO	CA-C	6.56	1.58	1.52
2	AB	40	C	C2'-C1'	6.56	1.63	1.53
1	AA	1444	U	C3'-C2'	6.56	1.62	1.52
27	BC	2	ALA	CA-C	6.56	1.61	1.53
26	BB	2664	G	C3'-C2'	6.56	1.62	1.52
1	AA	1425	U	O3'-P	6.56	1.71	1.61
26	BB	2448	A	N3-C4	6.56	1.48	1.34
26	BB	2418	A	C2'-O2'	-6.55	1.32	1.42
26	BB	2541	A	C1'-N9	6.55	1.57	1.48
41	BQ	34	HIS	N-CA	6.55	1.54	1.46
26	BB	1708	C	C5'-C4'	6.55	1.61	1.51
26	BB	1833	C	O3'-P	6.55	1.71	1.61
26	BB	2226	C	C5'-C4'	6.55	1.61	1.51
26	BB	197	A	C5'-C4'	6.54	1.61	1.51
26	BB	585	G	O4'-C1'	6.54	1.51	1.41
1	AA	1088	G	C2'-C1'	6.54	1.63	1.53
28	BD	194	VAL	CA-CB	6.54	1.61	1.54
10	AJ	99	ALA	CA-C	6.54	1.61	1.52
26	BB	2140	G	P-O5'	6.54	1.69	1.59
21	AU	72	ARG	NE-CZ	6.53	1.40	1.33
26	BB	1253	A	O3'-P	6.53	1.71	1.61
25	BA	71	C	O5'-C5'	6.53	1.52	1.42
26	BB	1576	U	P-O5'	6.53	1.69	1.59
48	BX	30	ILE	CA-CB	6.53	1.62	1.53
1	AA	1321	U	O4'-C1'	6.53	1.51	1.41
1	AA	358	U	C5'-C4'	6.53	1.61	1.51
1	AA	564	C	P-O5'	6.53	1.69	1.59
26	BB	514	A	P-O5'	6.53	1.69	1.59
26	BB	2818	U	C5'-C4'	6.53	1.61	1.51
37	BM	38	ILE	CA-C	6.53	1.60	1.52
26	BB	150	U	P-O5'	6.52	1.69	1.59
26	BB	1690	A	C3'-O3'	-6.52	1.32	1.42
34	BJ	98	PHE	CA-C	6.52	1.61	1.52
26	BB	1938	A	P-O5'	6.52	1.69	1.59
26	BB	2235	G	C5'-C4'	6.51	1.61	1.51
1	AA	130	A	C1'-N9	6.51	1.56	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	940	C	P-O5'	6.51	1.69	1.59
27	BC	220	ALA	CA-C	6.51	1.61	1.53
26	BB	947	A	C5'-C4'	6.50	1.61	1.51
33	BI	79	THR	CB-OG1	-6.50	1.33	1.43
36	BL	117	ALA	CA-C	6.50	1.61	1.52
1	AA	325	A	C2'-O2'	6.49	1.52	1.42
26	BB	2678	C	P-O5'	6.49	1.69	1.59
26	BB	200	U	O3'-P	6.49	1.70	1.61
18	AR	19	ASN	N-CA	6.49	1.54	1.46
1	AA	1141	C	C4'-O4'	-6.49	1.35	1.45
35	BK	138	VAL	CA-CB	6.48	1.62	1.54
36	BL	136	GLN	CA-C	6.48	1.60	1.52
41	BQ	4	LYS	CA-C	6.48	1.61	1.52
26	BB	202	U	C4'-O4'	-6.48	1.35	1.45
26	BB	1747	U	P-O5'	6.48	1.69	1.59
33	BI	51	ARG	NE-CZ	6.48	1.40	1.33
1	AA	348	G	O3'-P	6.47	1.70	1.61
3	AC	33	A	C3'-C2'	6.47	1.62	1.52
14	AN	15	VAL	CA-CB	6.47	1.63	1.54
26	BB	2143	C	C2'-O2'	-6.47	1.32	1.42
30	BF	148	ILE	CA-CB	6.47	1.61	1.54
8	AH	152	VAL	CA-C	6.47	1.62	1.52
12	AL	108	ARG	CA-C	6.47	1.61	1.52
25	BA	100	G	C5'-C4'	6.47	1.60	1.51
26	BB	2844	G	P-O5'	6.47	1.69	1.59
26	BB	2206	C	C4'-C3'	6.46	1.62	1.52
26	BB	2240	U	P-O5'	6.46	1.69	1.59
29	BE	134	HIS	CD2-NE2	6.46	1.45	1.37
1	AA	559	A	C1'-N9	6.46	1.56	1.47
1	AA	1172	C	P-O5'	6.46	1.69	1.59
2	AB	75	C	P-O5'	6.46	1.69	1.59
26	BB	2461	A	O4'-C1'	6.46	1.51	1.41
2	AB	53	G	C4'-O4'	-6.46	1.35	1.45
13	AM	16	ARG	C-N	6.46	1.42	1.33
44	BT	29	THR	N-CA	6.45	1.54	1.46
1	AA	784	A	O3'-P	6.45	1.70	1.61
26	BB	2558	C	O3'-P	6.45	1.70	1.61
41	BQ	8	ILE	N-CA	6.45	1.54	1.46
26	BB	2352	A	C4'-O4'	-6.45	1.35	1.45
26	BB	1147	A	C4'-O4'	-6.44	1.35	1.45
26	BB	2609	U	C1'-N1	6.44	1.57	1.47
9	AI	97	THR	N-CA	6.44	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BQ	74	VAL	CA-CB	-6.44	1.46	1.54
1	AA	1501	C	P-O5'	6.44	1.69	1.59
26	BB	1730	C	C2'-C1'	6.44	1.63	1.53
1	AA	453	G	C2'-O2'	-6.43	1.32	1.42
1	AA	1071	C	C4'-O4'	-6.43	1.35	1.45
26	BB	2886	A	C4'-O4'	-6.43	1.35	1.45
53	B2	49	ARG	NE-CZ	6.43	1.40	1.33
33	BI	140	ALA	CA-C	-6.43	1.44	1.52
26	BB	236	C	O3'-P	6.42	1.70	1.61
1	AA	1082	A	C5'-C4'	6.42	1.60	1.51
44	BT	90	ARG	CZ-NH1	6.42	1.41	1.32
28	BD	59	GLN	CA-C	6.41	1.61	1.52
57	B6	42	HIS	ND1-CE1	6.41	1.39	1.32
26	BB	1819	A	O3'-P	6.41	1.70	1.61
26	BB	214	G	O3'-P	6.41	1.70	1.61
26	BB	255	A	C5'-C4'	6.40	1.60	1.51
26	BB	693	A	C5'-C4'	6.40	1.60	1.51
26	BB	740	C	C5'-C4'	6.40	1.60	1.51
1	AA	133	U	P-O5'	6.40	1.69	1.59
6	AF	85	LYS	N-CA	6.40	1.54	1.46
24	AX	33	ARG	NE-CZ	6.40	1.40	1.33
26	BB	1120	G	C5'-C4'	6.40	1.60	1.51
26	BB	415	A	P-O5'	6.40	1.69	1.59
26	BB	2084	C	C2'-O2'	-6.40	1.32	1.42
26	BB	2136	G	C2'-C1'	-6.40	1.43	1.53
1	AA	116	A	C5'-C4'	6.39	1.60	1.51
4	AD	17	C	C4'-O4'	-6.39	1.35	1.45
26	BB	123	G	P-O5'	6.39	1.69	1.59
26	BB	2290	G	C4'-C3'	6.39	1.62	1.52
26	BB	2791	G	C5'-C4'	6.39	1.60	1.51
34	BJ	117	ILE	C-N	6.38	1.41	1.33
1	AA	353	A	O3'-P	6.38	1.70	1.61
1	AA	1323	G	C4'-O4'	-6.38	1.35	1.45
26	BB	97	C	O4'-C1'	6.38	1.51	1.41
10	AJ	65	LEU	CA-C	6.38	1.61	1.52
36	BL	111	LYS	CA-C	6.38	1.61	1.52
43	BS	39	ILE	CA-CB	6.38	1.62	1.54
26	BB	659	G	P-O5'	6.37	1.69	1.59
1	AA	1428	A	O3'-P	6.37	1.70	1.61
43	BS	13	HIS	CD2-NE2	-6.37	1.30	1.37
47	BW	91	LYS	CA-C	6.37	1.60	1.52
1	AA	67	C	C4'-O4'	-6.37	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	554	U	P-O5'	6.37	1.69	1.59
28	BD	32	LEU	N-CA	-6.37	1.38	1.46
1	AA	228	A	C4'-O4'	-6.36	1.36	1.45
1	AA	608	A	C5'-C4'	6.36	1.60	1.51
25	BA	59	A	C4'-O4'	-6.36	1.36	1.45
26	BB	1866	A	O4'-C1'	6.36	1.51	1.41
26	BB	2371	G	P-O5'	6.36	1.69	1.59
26	BB	1921	G	C4'-O4'	-6.36	1.36	1.45
1	AA	1235	U	P-O5'	6.36	1.69	1.59
26	BB	905	A	C4'-O4'	-6.36	1.36	1.45
26	BB	2466	C	P-O5'	6.36	1.69	1.59
1	AA	1409	C	C4'-C3'	6.36	1.62	1.52
21	AU	55	ALA	CA-C	6.36	1.61	1.52
26	BB	2466	C	O5'-C5'	6.36	1.51	1.42
26	BB	2564	A	C5'-C4'	6.35	1.60	1.51
26	BB	1646	C	O5'-C5'	6.34	1.51	1.42
5	AE	5	MET	C-N	6.34	1.42	1.33
25	BA	99	A	C4'-O4'	-6.34	1.36	1.45
26	BB	985	C	C3'-C2'	6.34	1.62	1.52
26	BB	1306	C	O3'-P	6.34	1.70	1.61
38	BN	141	LYS	CA-C	6.34	1.60	1.52
48	BX	15	GLY	C-O	-6.34	1.16	1.23
52	B1	33	HIS	CD2-NE2	6.34	1.44	1.37
8	AH	2	HIS	CE1-NE2	6.34	1.38	1.32
26	BB	70	G	O4'-C1'	6.34	1.51	1.42
26	BB	1710	G	O3'-P	6.34	1.70	1.61
26	BB	1982	U	O3'-P	6.34	1.70	1.61
1	AA	1193	G	P-O5'	6.33	1.69	1.59
3	AC	24	A	C1'-N9	6.33	1.57	1.48
26	BB	463	G	C5'-C4'	6.33	1.60	1.51
26	BB	1388	G	P-O5'	6.33	1.69	1.59
26	BB	2284	A	P-O5'	6.33	1.69	1.59
26	BB	1619	G	O3'-P	6.33	1.70	1.61
26	BB	290	U	C5'-C4'	6.33	1.60	1.51
26	BB	2122	U	O3'-P	6.33	1.70	1.61
1	AA	277	C	O3'-P	6.33	1.70	1.61
22	AV	10	ILE	CA-C	6.33	1.60	1.52
26	BB	907	G	C5'-C4'	6.33	1.60	1.51
1	AA	296	U	C4'-O4'	-6.33	1.36	1.45
26	BB	364	C	C3'-O3'	-6.33	1.32	1.42
1	AA	589	U	O3'-P	6.33	1.70	1.61
1	AA	667	G	P-O5'	6.33	1.69	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	922	G	O5'-C5'	-6.33	1.32	1.42
1	AA	944	G	C5'-C4'	6.33	1.60	1.51
26	BB	2095	A	O3'-P	6.32	1.70	1.61
1	AA	1477	U	C5'-C4'	6.32	1.60	1.51
1	AA	1457	G	P-O5'	6.32	1.69	1.59
26	BB	1637	A	P-O5'	6.31	1.69	1.59
33	BI	88	GLY	CA-C	6.31	1.60	1.51
33	BI	98	ASP	C-N	6.31	1.40	1.34
1	AA	1031	C	C4'-O4'	-6.31	1.36	1.45
33	BI	37	VAL	N-CA	6.31	1.51	1.46
3	AC	43	U	P-O5'	6.31	1.69	1.59
1	AA	813	U	P-O5'	-6.31	1.50	1.59
5	AE	47	PRO	CA-CB	6.31	1.62	1.53
25	BA	16	G	O3'-P	6.31	1.70	1.61
26	BB	1831	G	O5'-C5'	-6.30	1.32	1.42
45	BU	25	ARG	NE-CZ	6.30	1.40	1.33
11	AK	22	ALA	CA-C	6.30	1.60	1.52
26	BB	2200	C	P-O5'	6.30	1.69	1.59
4	AD	6	G	C3'-O3'	6.30	1.51	1.42
11	AK	97	GLY	CA-C	6.30	1.59	1.51
29	BE	74	GLU	CA-CB	6.30	1.61	1.53
4	AD	21	H2U	O3'-P	6.30	1.70	1.61
26	BB	589	U	P-O5'	6.30	1.69	1.59
26	BB	1652	A	C2'-C1'	-6.30	1.44	1.53
26	BB	1768	C	P-O5'	6.30	1.69	1.59
26	BB	2077	A	P-O5'	6.30	1.69	1.59
26	BB	1938	A	C4'-O4'	-6.29	1.36	1.45
26	BB	2325	G	C4'-O4'	-6.29	1.36	1.45
26	BB	1776	G	C5'-C4'	6.29	1.60	1.51
1	AA	987	G	C2'-C1'	6.29	1.62	1.53
26	BB	2648	G	P-O5'	6.29	1.69	1.59
26	BB	1362	C	C5'-C4'	6.29	1.60	1.51
7	AG	130	ASN	N-CA	-6.29	1.39	1.46
16	AP	69	ARG	CA-CB	6.29	1.64	1.53
26	BB	172	A	P-O5'	-6.29	1.50	1.59
26	BB	1803	A	C4'-O4'	-6.29	1.36	1.45
26	BB	2505	G	C4'-O4'	-6.29	1.36	1.45
42	BR	60	VAL	N-CA	6.28	1.53	1.46
1	AA	1415	G	C4'-C3'	6.28	1.61	1.52
26	BB	2512	C	P-O5'	6.28	1.69	1.59
20	AT	24	ILE	N-CA	6.28	1.54	1.46
32	BH	14	VAL	C-O	-6.28	1.17	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	AU	15	GLU	C-N	-6.28	1.27	1.33
28	BD	166	ARG	CD-NE	6.28	1.55	1.46
26	BB	1391	U	C4'-O4'	-6.27	1.36	1.45
26	BB	2660	A	C4'-O4'	-6.27	1.36	1.45
37	BM	88	ASN	CA-C	6.27	1.60	1.52
1	AA	104	G	C4'-C3'	-6.27	1.43	1.52
26	BB	62	U	C1'-N1	6.27	1.57	1.48
26	BB	387	U	O3'-P	6.26	1.70	1.61
21	AU	11	ARG	NE-CZ	6.26	1.40	1.33
26	BB	1638	C	O3'-P	6.26	1.70	1.61
7	AG	66	VAL	C-O	6.26	1.30	1.24
1	AA	150	U	O5'-C5'	6.26	1.51	1.42
29	BE	107	VAL	CA-C	6.26	1.60	1.52
10	AJ	27	ASN	C-N	6.25	1.41	1.34
26	BB	724	U	C4'-O4'	-6.25	1.36	1.45
38	BN	78	ARG	CA-C	6.25	1.60	1.52
57	B6	31	ILE	CA-C	6.25	1.60	1.52
36	BL	69	ARG	CD-NE	6.25	1.55	1.46
1	AA	1171	A	C2'-O2'	-6.25	1.33	1.42
1	AA	661	G	C5'-C4'	6.25	1.60	1.51
1	AA	1205	U	C5'-C4'	6.25	1.60	1.51
26	BB	2727	A	C5'-C4'	6.25	1.60	1.51
50	BZ	4	CYS	CA-CB	-6.25	1.45	1.52
1	AA	210	C	P-O5'	6.25	1.69	1.59
26	BB	1892	C	C5'-C4'	6.25	1.60	1.51
26	BB	89	A	C5'-C4'	6.25	1.60	1.51
1	AA	933	G	O4'-C1'	6.24	1.51	1.41
1	AA	993	G	C5'-C4'	6.24	1.60	1.51
26	BB	2608	G	C5'-C4'	6.24	1.60	1.51
1	AA	793	U	P-O5'	6.24	1.69	1.59
26	BB	2101	A	C3'-C2'	6.24	1.62	1.52
1	AA	964	A	C4'-O4'	-6.24	1.36	1.45
1	AA	1032	G	C5'-C4'	6.24	1.60	1.51
42	BR	31	VAL	C-O	-6.24	1.17	1.24
1	AA	182	A	O3'-P	6.24	1.70	1.61
1	AA	452	A	C5'-C4'	6.24	1.60	1.51
1	AA	1203	C	C5'-C4'	6.24	1.60	1.51
26	BB	895	U	C2'-O2'	6.24	1.51	1.41
1	AA	660	C	C5'-C4'	6.24	1.60	1.51
26	BB	1124	G	C3'-C2'	6.24	1.62	1.52
44	BT	53	PHE	C-N	6.24	1.42	1.33
26	BB	1350	C	O3'-P	-6.23	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	AL	59	LYS	CA-C	6.23	1.60	1.52
26	BB	2493	U	C3'-O3'	6.23	1.51	1.42
34	BJ	60	ARG	CD-NE	6.23	1.54	1.46
33	BI	122	LEU	CA-C	6.23	1.61	1.52
1	AA	907	A	P-O5'	6.23	1.69	1.59
46	BV	76	ARG	NE-CZ	6.23	1.39	1.33
6	AF	5	HIS	CA-C	6.22	1.59	1.53
26	BB	801	G	O3'-P	6.22	1.70	1.61
26	BB	1792	G	O4'-C1'	-6.22	1.32	1.41
26	BB	447	A	C2'-O2'	-6.22	1.32	1.41
26	BB	1552	A	P-O5'	6.22	1.69	1.59
26	BB	2173	A	C1'-N9	6.22	1.57	1.48
10	AJ	151	ALA	CA-C	6.22	1.60	1.52
1	AA	1452	C	O3'-P	6.22	1.70	1.61
26	BB	1003	G	C5'-C4'	6.22	1.60	1.51
35	BK	105	LEU	CA-C	6.22	1.60	1.52
14	AN	78	ILE	CA-CB	6.22	1.62	1.54
34	BJ	163	ALA	N-CA	6.22	1.53	1.46
26	BB	338	G	O3'-P	6.21	1.70	1.61
1	AA	1156	G	P-O5'	6.21	1.69	1.59
12	AL	89	TYR	CA-C	-6.21	1.44	1.52
26	BB	1346	G	P-O5'	6.21	1.69	1.59
48	BX	79	ARG	CD-NE	6.21	1.54	1.46
1	AA	252	U	P-O5'	6.21	1.69	1.59
26	BB	1816	C	C4'-O4'	-6.20	1.36	1.45
26	BB	1945	G	C4'-O4'	-6.20	1.36	1.45
33	BI	130	VAL	CA-C	-6.20	1.45	1.52
15	AO	101	LEU	CA-C	6.20	1.59	1.53
35	BK	15	GLY	N-CA	6.20	1.54	1.45
1	AA	1216	A	C4'-O4'	-6.20	1.36	1.45
2	AB	59	G	C4'-O4'	-6.20	1.36	1.45
29	BE	4	LEU	CA-CB	6.20	1.61	1.53
1	AA	1422	G	C1'-N9	6.19	1.57	1.48
26	BB	70	G	C4'-O4'	-6.19	1.36	1.45
26	BB	1877	A	C4'-O4'	-6.19	1.36	1.45
6	AF	178	ARG	CA-C	6.19	1.60	1.52
26	BB	213	A	C5'-C4'	6.19	1.60	1.51
44	BT	45	GLU	CA-C	6.19	1.60	1.52
1	AA	953	G	C3'-O3'	6.19	1.51	1.42
1	AA	1088	G	C4'-O4'	-6.19	1.36	1.45
1	AA	1494	G	P-O5'	6.19	1.69	1.59
1	AA	1150	A	C5'-C4'	6.19	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	610	C	C4'-O4'	-6.19	1.36	1.45
1	AA	657	U	P-O5'	-6.18	1.50	1.59
26	BB	1557	C	C5'-C4'	6.18	1.60	1.51
26	BB	1889	A	C3'-O3'	6.18	1.51	1.42
26	BB	2105	U	P-O5'	6.18	1.69	1.59
38	BN	21	ARG	CA-C	6.18	1.59	1.52
5	AE	148	GLY	CA-C	6.18	1.59	1.51
24	AX	8	ASN	N-CA	6.18	1.53	1.46
26	BB	1223	G	C5'-C4'	6.18	1.60	1.51
26	BB	1932	A	P-O5'	6.18	1.69	1.59
35	BK	72	THR	CA-CB	6.18	1.62	1.53
26	BB	1751	U	C4'-O4'	-6.18	1.36	1.45
33	BI	32	PRO	N-CD	-6.18	1.39	1.47
46	BV	17	SER	N-CA	-6.18	1.38	1.46
26	BB	2166	U	P-O5'	6.18	1.69	1.59
26	BB	1659	G	C4'-O4'	-6.18	1.36	1.45
28	BD	86	ARG	CA-C	6.18	1.60	1.52
26	BB	486	C	P-O5'	6.17	1.69	1.59
1	AA	494	G	C4'-O4'	-6.17	1.36	1.45
1	AA	883	C	P-O5'	6.17	1.69	1.59
26	BB	681	G	P-O5'	6.17	1.69	1.59
26	BB	819	A	O5'-C5'	6.17	1.51	1.42
31	BG	36	ASN	N-CA	-6.17	1.38	1.46
26	BB	738	G	C5'-C4'	6.17	1.60	1.51
1	AA	1252	A	C4'-O4'	-6.16	1.36	1.45
25	BA	10	G	C3'-C2'	-6.16	1.43	1.52
26	BB	898	C	C5'-C4'	6.16	1.60	1.51
26	BB	2820	A	C5'-C4'	6.16	1.60	1.51
50	BZ	20	ALA	C-N	6.16	1.42	1.33
1	AA	1281	C	C3'-C2'	6.16	1.62	1.52
53	B2	67	PRO	CA-C	6.16	1.61	1.52
1	AA	320	A	P-O5'	6.16	1.69	1.59
26	BB	2386	A	C3'-C2'	-6.16	1.43	1.52
39	BO	36	VAL	CA-C	6.15	1.60	1.52
26	BB	2434	A	C4'-O4'	-6.15	1.36	1.45
26	BB	2556	C	C5'-C4'	6.15	1.60	1.51
1	AA	1192	C	C1'-N1	6.15	1.57	1.48
35	BK	106	GLN	CA-C	6.15	1.61	1.52
26	BB	1893	C	O3'-P	6.15	1.70	1.61
26	BB	89	A	C1'-N9	6.14	1.57	1.48
26	BB	402	A	C4'-O4'	-6.14	1.36	1.45
26	BB	776	G	O5'-C5'	-6.14	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2595	G	C5'-C4'	6.14	1.60	1.51
1	AA	536	C	C4'-O4'	-6.14	1.36	1.45
1	AA	469	C	C5'-C4'	6.14	1.60	1.51
26	BB	1725	U	C3'-C2'	6.14	1.61	1.52
29	BE	3	GLY	N-CA	6.14	1.51	1.44
26	BB	1054	A	C3'-O3'	-6.14	1.32	1.42
26	BB	2459	A	C3'-O3'	-6.14	1.32	1.42
1	AA	121	U	C1'-N1	6.14	1.56	1.47
26	BB	1598	A	O3'-P	6.14	1.70	1.61
34	BJ	132	GLU	CA-C	6.14	1.60	1.52
38	BN	72	ALA	CA-C	-6.14	1.44	1.52
38	BN	132	ARG	C-O	-6.14	1.16	1.24
11	AK	69	ALA	CA-C	6.13	1.60	1.52
26	BB	892	A	P-O5'	6.13	1.69	1.59
30	BF	16	GLU	N-CA	-6.13	1.39	1.46
1	AA	12	U	O3'-P	6.13	1.70	1.61
10	AJ	116	ALA	CA-C	6.13	1.60	1.52
30	BF	104	ALA	C-N	6.13	1.42	1.34
1	AA	129	A	C1'-N9	6.13	1.56	1.47
26	BB	206	U	O3'-P	6.13	1.70	1.61
1	AA	429	U	C4'-C3'	6.13	1.62	1.53
1	AA	890	G	C4'-C3'	6.12	1.62	1.53
26	BB	194	G	C4'-O4'	-6.12	1.36	1.45
57	B6	17	GLY	CA-C	6.12	1.59	1.52
7	AG	103	ARG	CD-NE	6.12	1.54	1.46
32	BH	128	THR	CB-OG1	-6.12	1.33	1.43
1	AA	404	G	C2'-O2'	-6.12	1.33	1.42
5	AE	82	ALA	CA-C	6.11	1.61	1.52
10	AJ	139	ASP	CA-C	6.11	1.60	1.52
26	BB	1354	A	C4'-C3'	6.11	1.61	1.52
26	BB	2662	A	O3'-P	6.11	1.70	1.61
33	BI	53	GLU	CA-C	6.11	1.60	1.52
45	BU	78	GLU	CA-CB	6.11	1.60	1.53
1	AA	107	G	P-O5'	6.11	1.69	1.59
16	AP	101	THR	CA-C	6.11	1.60	1.52
1	AA	763	G	P-O5'	6.11	1.69	1.59
25	BA	5	U	C1'-N1	6.11	1.57	1.48
1	AA	328	C	C4'-O4'	-6.11	1.36	1.45
23	AW	82	ILE	CA-CB	6.11	1.61	1.54
42	BR	76	HIS	CE1-NE2	6.11	1.38	1.32
1	AA	536	C	C2'-C1'	6.11	1.62	1.53
28	BD	103	ILE	CA-CB	6.11	1.63	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	584	G	C4'-O4'	-6.10	1.36	1.45
1	AA	1224	U	C4'-O4'	-6.10	1.36	1.45
29	BE	78	GLY	CA-C	6.10	1.58	1.51
41	BQ	97	PHE	N-CA	-6.10	1.38	1.46
1	AA	1288	A	O3'-P	6.10	1.70	1.61
14	AN	75	GLU	CA-C	6.10	1.61	1.52
7	AG	191	SER	CA-C	6.10	1.59	1.52
40	BP	19	ALA	N-CA	6.10	1.53	1.46
3	AC	41	A	C4'-O4'	-6.09	1.36	1.45
26	BB	769	U	C2'-C1'	6.09	1.62	1.53
29	BE	70	LYS	CA-C	6.09	1.61	1.52
1	AA	768	A	P-O5'	6.09	1.68	1.59
1	AA	1391	U	C5'-C4'	6.09	1.60	1.51
7	AG	108	ALA	CA-CB	6.09	1.62	1.54
26	BB	1286	A	P-O5'	6.09	1.68	1.59
10	AJ	170	LYS	CA-CB	6.09	1.62	1.53
26	BB	1711	A	C4'-O4'	-6.09	1.36	1.45
26	BB	509	C	C5'-C4'	6.09	1.60	1.51
26	BB	1927	A	O3'-P	6.09	1.70	1.61
1	AA	551	U	C3'-C2'	6.08	1.61	1.52
1	AA	1408	A	C4'-C3'	6.08	1.61	1.52
26	BB	678	C	O3'-P	6.08	1.70	1.61
1	AA	106	C	P-O5'	6.08	1.68	1.59
26	BB	1201	U	C4'-O4'	-6.08	1.36	1.45
26	BB	1556	C	C5'-C4'	6.08	1.60	1.51
1	AA	1139	G	C4'-O4'	-6.08	1.36	1.45
26	BB	2507	C	P-O5'	6.08	1.68	1.59
26	BB	2778	A	P-O5'	6.08	1.68	1.59
50	BZ	45	PHE	C-O	-6.08	1.16	1.24
1	AA	508	U	O3'-P	-6.08	1.52	1.61
26	BB	336	C	C1'-N1	6.08	1.57	1.48
26	BB	379	G	C4'-O4'	-6.08	1.36	1.45
26	BB	1124	G	O3'-P	6.08	1.70	1.61
12	AL	99	LYS	N-CA	6.08	1.54	1.46
26	BB	727	A	C5'-C4'	6.08	1.60	1.51
26	BB	761	A	P-O5'	6.08	1.68	1.59
20	AT	77	VAL	CA-C	6.07	1.60	1.52
26	BB	1588	G	O5'-C5'	-6.07	1.33	1.42
5	AE	180	ILE	N-CA	6.07	1.52	1.46
1	AA	886	G	P-O5'	6.07	1.68	1.59
6	AF	178	ARG	NE-CZ	6.07	1.39	1.33
25	BA	90	C	P-O5'	6.07	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	190	A	C3'-C2'	6.07	1.61	1.52
1	AA	1100	C	C4'-O4'	-6.06	1.36	1.45
1	AA	1136	C	P-O5'	-6.06	1.50	1.59
39	BO	106	ASP	C-N	6.06	1.40	1.33
5	AE	167	HIS	CG-CD2	6.06	1.42	1.35
13	AM	68	ARG	N-CA	-6.06	1.38	1.45
35	BK	51	GLY	CA-C	6.06	1.60	1.51
1	AA	539	A	P-O5'	6.06	1.68	1.59
26	BB	992	C	C4'-O4'	-6.06	1.36	1.45
1	AA	326	G	P-O5'	6.06	1.68	1.59
39	BO	127	LYS	N-CA	6.06	1.53	1.46
1	AA	1186	G	C5'-C4'	6.06	1.60	1.51
26	BB	2576	G	C5'-C4'	6.06	1.60	1.51
31	BG	167	ALA	N-CA	-6.06	1.38	1.46
33	BI	37	VAL	CA-CB	6.06	1.59	1.54
32	BH	147	LEU	CA-C	6.06	1.60	1.52
26	BB	511	U	C4'-O4'	-6.05	1.36	1.45
26	BB	1896	G	P-O5'	6.05	1.68	1.59
1	AA	242	G	O3'-P	-6.05	1.52	1.61
1	AA	19	A	O3'-P	6.05	1.70	1.61
9	AI	82	ASP	CA-C	-6.05	1.44	1.52
18	AR	88	ARG	CD-NE	6.05	1.54	1.46
28	BD	195	GLY	CA-C	6.05	1.60	1.51
26	BB	2636	C	O3'-P	6.05	1.70	1.61
31	BG	27	VAL	N-CA	-6.05	1.39	1.46
32	BH	54	ARG	NE-CZ	6.05	1.39	1.33
5	AE	159	ALA	N-CA	6.05	1.53	1.45
6	AF	171	ARG	C-N	6.05	1.40	1.33
20	AT	30	HIS	CE1-NE2	6.05	1.38	1.32
26	BB	2237	G	P-O5'	6.05	1.68	1.59
25	BA	23	G	O3'-P	6.04	1.70	1.61
26	BB	1567	G	P-O5'	6.04	1.68	1.59
5	AE	121	GLN	CA-C	6.04	1.61	1.52
26	BB	516	C	C4'-O4'	-6.04	1.36	1.45
30	BF	109	LEU	C-N	6.04	1.41	1.33
22	AV	79	TYR	N-CA	-6.04	1.38	1.46
12	AL	29	ILE	CA-C	6.04	1.60	1.52
5	AE	93	HIS	CG-ND1	6.04	1.44	1.38
26	BB	2118	U	C5'-C4'	6.04	1.60	1.51
1	AA	229	U	O3'-P	6.04	1.70	1.61
26	BB	2685	G	C4'-O4'	-6.04	1.36	1.45
26	BB	461	C	C5'-C4'	6.03	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	391	G	C5'-C4'	6.03	1.60	1.51
1	AA	1179	A	C4'-O4'	-6.03	1.36	1.45
26	BB	1649	G	C3'-C2'	6.03	1.61	1.52
26	BB	605	G	C5'-C4'	6.03	1.60	1.51
43	BS	13	HIS	CE1-NE2	6.03	1.38	1.32
26	BB	661	A	C4'-O4'	-6.03	1.36	1.45
26	BB	1266	G	C5'-C4'	6.03	1.60	1.51
23	AW	67	HIS	CA-C	6.03	1.60	1.52
26	BB	294	A	C4'-O4'	-6.03	1.36	1.45
26	BB	2114	A	C5'-C4'	6.03	1.60	1.51
32	BH	139	VAL	CA-CB	6.02	1.62	1.54
25	BA	12	C	C5'-C4'	6.02	1.60	1.51
26	BB	1777	U	C5'-C4'	6.02	1.60	1.51
1	AA	1132	C	C3'-C2'	6.02	1.61	1.52
1	AA	891	U	P-O5'	6.02	1.68	1.59
22	AV	90	LYS	CA-CB	6.02	1.62	1.53
26	BB	1558	C	P-O5'	6.01	1.68	1.59
26	BB	1753	G	C4'-O4'	-6.01	1.36	1.45
26	BB	2181	U	C5'-C4'	6.01	1.60	1.51
26	BB	2797	U	C4'-O4'	-6.01	1.36	1.45
26	BB	2762	C	O4'-C1'	6.01	1.50	1.41
1	AA	1315	U	C5'-C4'	6.01	1.60	1.51
6	AF	52	SER	N-CA	6.01	1.53	1.46
38	BN	23	ILE	CA-CB	6.01	1.61	1.54
15	AO	23	LEU	N-CA	6.01	1.53	1.46
43	BS	12	ARG	CZ-NH2	6.01	1.41	1.33
1	AA	282	A	O3'-P	6.01	1.70	1.61
1	AA	1484	C	C4'-C3'	-6.01	1.43	1.52
2	AB	3	G	C4'-O4'	-6.01	1.36	1.45
51	B0	58	ASN	N-CA	6.01	1.53	1.45
1	AA	1288	A	C1'-N9	6.00	1.56	1.48
13	AM	6	ILE	CA-C	6.00	1.59	1.52
26	BB	2051	A	P-O5'	6.00	1.68	1.59
2	AB	22	G	C3'-O3'	6.00	1.51	1.42
30	BF	58	LYS	CA-C	6.00	1.59	1.52
1	AA	637	C	O3'-P	6.00	1.70	1.61
1	AA	1202	U	P-O5'	6.00	1.68	1.59
26	BB	725	G	C2'-O2'	6.00	1.51	1.42
1	AA	260	G	P-O5'	6.00	1.68	1.59
13	AM	76	ILE	C-O	6.00	1.30	1.24
28	BD	6	LYS	CA-C	6.00	1.59	1.53
37	BM	112	PHE	CA-C	6.00	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BY	54	ARG	NE-CZ	6.00	1.39	1.33
1	AA	739	C	C4'-O4'	-6.00	1.36	1.45
25	BA	59	A	O4'-C1'	6.00	1.50	1.41
26	BB	1642	G	C1'-N9	6.00	1.56	1.48
35	BK	50	LYS	N-CA	6.00	1.53	1.46
1	AA	534	U	C1'-N1	6.00	1.57	1.48
21	AU	61	ALA	C-N	5.99	1.41	1.33
25	BA	10	G	C5'-C4'	5.99	1.60	1.51
26	BB	2801	G	C4'-C3'	5.99	1.61	1.52
25	BA	45	A	O3'-P	5.99	1.70	1.61
26	BB	2491	U	C1'-N1	5.99	1.56	1.47
1	AA	723	U	C4'-O4'	-5.99	1.36	1.45
26	BB	2333	A	C2'-C1'	-5.98	1.44	1.53
27	BC	65	LEU	N-CA	5.98	1.53	1.45
1	AA	1315	U	O3'-P	-5.98	1.52	1.61
26	BB	2085	U	O3'-P	5.98	1.70	1.61
1	AA	1241	G	C5'-C4'	5.98	1.60	1.51
26	BB	20	C	C1'-N1	5.98	1.57	1.48
26	BB	1349	C	C4'-O4'	-5.98	1.36	1.45
1	AA	1227	A	C1'-N9	5.98	1.55	1.47
1	AA	163	C	C3'-O3'	5.98	1.51	1.42
1	AA	1342	C	P-O5'	5.98	1.68	1.59
13	AM	42	LEU	C-O	-5.98	1.16	1.24
26	BB	2443	C	C4'-O4'	-5.97	1.36	1.45
29	BE	26	VAL	C-N	5.97	1.40	1.33
32	BH	60	GLY	CA-C	5.97	1.57	1.51
38	BN	109	LYS	CA-CB	5.97	1.64	1.53
26	BB	171	U	O3'-P	5.97	1.70	1.61
27	BC	214	ILE	CA-C	5.97	1.59	1.52
36	BL	141	ASP	N-CA	5.97	1.53	1.46
31	BG	102	LEU	CA-CB	5.97	1.63	1.53
36	BL	132	HIS	N-CA	5.97	1.54	1.46
1	AA	924	C	C4'-O4'	-5.97	1.36	1.45
26	BB	2064	C	C2'-C1'	5.97	1.62	1.53
26	BB	2181	U	P-O5'	5.97	1.68	1.59
41	BQ	58	ILE	CB-CG1	5.97	1.65	1.53
26	BB	671	C	O4'-C1'	5.96	1.50	1.41
26	BB	1546	G	C3'-C2'	-5.96	1.43	1.52
26	BB	2277	G	O4'-C1'	5.96	1.50	1.41
42	BR	68	GLY	CA-C	5.96	1.59	1.52
26	BB	2505	G	C5'-C4'	5.96	1.60	1.51
26	BB	902	C	P-O5'	5.96	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	B1	45	GLY	CA-C	5.96	1.58	1.52
26	BB	649	G	C4'-O4'	-5.95	1.36	1.45
26	BB	571	U	C4'-O4'	-5.95	1.36	1.45
31	BG	111	ARG	C-N	5.95	1.41	1.33
22	AV	82	HIS	CE1-NE2	5.95	1.38	1.32
26	BB	327	G	P-O5'	5.95	1.68	1.59
38	BN	85	VAL	CA-C	-5.95	1.45	1.52
1	AA	609	A	P-O5'	5.94	1.68	1.59
30	BF	29	HIS	CA-CB	5.94	1.62	1.53
28	BD	235	GLU	N-CA	-5.94	1.39	1.46
34	BJ	80	LEU	N-CA	5.94	1.52	1.45
41	BQ	44	GLY	N-CA	5.94	1.54	1.45
1	AA	988	G	C4'-O4'	-5.94	1.36	1.45
14	AN	117	HIS	CE1-NE2	5.94	1.38	1.32
26	BB	2888	C	P-O5'	5.94	1.68	1.59
1	AA	74	A	O4'-C1'	-5.93	1.32	1.41
1	AA	534	U	O5'-C5'	5.93	1.51	1.42
26	BB	1504	A	P-O5'	5.93	1.68	1.59
26	BB	326	G	C5'-C4'	5.93	1.60	1.51
26	BB	1861	G	P-O5'	5.93	1.68	1.59
49	BY	20	LEU	C-N	5.93	1.39	1.32
3	AC	35	G	C5'-C4'	5.93	1.60	1.51
1	AA	908	A	C5'-C4'	5.93	1.60	1.51
20	AT	17	GLU	N-CA	5.93	1.53	1.46
44	BT	33	VAL	CA-CB	5.93	1.61	1.54
44	BT	39	LEU	C-N	5.93	1.40	1.33
1	AA	66	A	O4'-C1'	5.93	1.50	1.41
6	AF	50	SER	C-N	5.93	1.40	1.33
26	BB	2354	C	C4'-O4'	-5.93	1.36	1.45
2	AB	29	G	P-O5'	5.92	1.68	1.59
26	BB	336	C	C3'-C2'	-5.92	1.43	1.52
28	BD	89	ASN	CA-C	5.92	1.60	1.52
27	BC	144	THR	CB-OG1	-5.92	1.34	1.43
1	AA	918	A	C2'-O2'	-5.92	1.33	1.42
1	AA	979	C	C1'-N1	5.92	1.57	1.48
4	AD	30	G	C5'-C4'	5.92	1.60	1.51
8	AH	2	HIS	ND1-CE1	5.92	1.38	1.32
26	BB	694	U	C4'-C3'	5.92	1.61	1.52
26	BB	1105	U	C2'-O2'	5.92	1.51	1.42
26	BB	1222	U	C4'-O4'	-5.92	1.36	1.45
26	BB	375	G	C4'-O4'	-5.92	1.36	1.45
40	BP	39	PRO	N-CD	-5.92	1.39	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AD	14	A	O3'-P	-5.92	1.52	1.61
16	AP	74	MET	CA-C	5.92	1.60	1.52
29	BE	146	ILE	CA-CB	5.92	1.62	1.54
1	AA	546	A	C5'-C4'	5.92	1.60	1.51
1	AA	1153	G	C1'-N9	5.92	1.56	1.48
26	BB	495	G	C5'-C4'	5.92	1.60	1.51
1	AA	7	A	O3'-P	5.91	1.70	1.61
26	BB	1489	C	O3'-P	5.91	1.70	1.61
33	BI	125	THR	N-CA	5.91	1.53	1.46
1	AA	848	C	C2'-O2'	-5.91	1.33	1.42
22	AV	17	LYS	CA-C	-5.91	1.45	1.52
26	BB	888	C	P-O5'	5.91	1.68	1.59
5	AE	95	TRP	N-CA	5.91	1.53	1.45
23	AW	83	ASN	CA-C	5.91	1.60	1.52
9	AI	127	GLY	CA-C	5.91	1.58	1.51
10	AJ	57	GLU	N-CA	5.91	1.53	1.46
1	AA	224	U	C2'-C1'	5.91	1.62	1.53
1	AA	432	A	C4'-O4'	-5.91	1.36	1.45
1	AA	434	U	C1'-N1	5.90	1.57	1.48
28	BD	161	VAL	N-CA	5.90	1.53	1.46
1	AA	587	G	C5'-C4'	5.90	1.60	1.51
26	BB	1887	C	C5'-C4'	5.90	1.60	1.51
26	BB	1846	G	O3'-P	-5.90	1.52	1.61
27	BC	12	ARG	NE-CZ	5.90	1.39	1.33
54	B3	8	THR	N-CA	5.90	1.53	1.45
1	AA	1320	C	O3'-P	5.90	1.70	1.61
1	AA	1528	U	C5'-C4'	5.90	1.60	1.51
26	BB	1166	G	O4'-C1'	5.90	1.50	1.41
26	BB	1743	G	C2'-C1'	-5.90	1.44	1.53
53	B2	54	GLY	CA-C	5.90	1.60	1.51
1	AA	1118	U	P-O5'	5.89	1.68	1.59
26	BB	114	U	C3'-O3'	5.89	1.50	1.42
38	BN	123	ARG	CA-C	5.89	1.59	1.52
7	AG	59	LYS	N-CA	-5.89	1.39	1.46
7	AG	158	LEU	CA-C	5.89	1.60	1.52
26	BB	1294	U	C2'-C1'	5.89	1.62	1.53
26	BB	2613	U	O3'-P	5.89	1.70	1.61
1	AA	389	A	O3'-P	5.89	1.70	1.61
26	BB	549	G	C5'-C4'	5.89	1.60	1.51
26	BB	2696	U	O4'-C1'	5.89	1.50	1.41
55	B4	47	ILE	CA-CB	-5.89	1.47	1.54
25	BA	91	C	C2'-O2'	-5.89	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BH	41	GLU	C-O	-5.89	1.16	1.24
26	BB	186	G	C2'-O2'	5.88	1.51	1.42
26	BB	2293	G	C5'-C4'	5.88	1.60	1.51
32	BH	68	ARG	N-CA	5.88	1.53	1.46
14	AN	66	ALA	CA-C	5.88	1.60	1.52
10	AJ	44	SER	CA-C	5.88	1.60	1.52
26	BB	504	A	P-O5'	5.88	1.68	1.59
38	BN	91	ASP	N-CA	5.88	1.52	1.45
8	AH	12	GLU	N-CA	5.88	1.53	1.46
8	AH	126	ALA	C-N	5.88	1.41	1.33
8	AH	97	PRO	N-CA	-5.88	1.40	1.47
28	BD	53	ILE	CA-CB	5.88	1.61	1.54
40	BP	121	LYS	N-CA	5.88	1.53	1.46
1	AA	864	A	O3'-P	5.87	1.70	1.61
1	AA	1381	U	C2'-C1'	5.87	1.62	1.53
26	BB	2895	G	C5'-C4'	5.87	1.60	1.51
35	BK	108	ILE	C-O	5.87	1.31	1.24
51	B0	41	HIS	CE1-NE2	5.87	1.38	1.32
5	AE	78	ALA	CA-CB	5.87	1.63	1.53
45	BU	96	ILE	N-CA	-5.87	1.39	1.46
26	BB	804	A	C5'-C4'	5.87	1.60	1.51
26	BB	2791	G	C2'-C1'	5.87	1.62	1.53
52	B1	20	LYS	CA-C	5.87	1.60	1.52
26	BB	1224	U	C4'-O4'	-5.86	1.36	1.45
26	BB	1670	C	C5'-C4'	5.86	1.60	1.51
29	BE	80	TRP	N-CA	5.86	1.53	1.46
54	B3	19	ASP	CA-C	5.86	1.60	1.52
9	AI	60	VAL	N-CA	5.86	1.53	1.46
1	AA	529	G	O4'-C1'	5.86	1.50	1.41
26	BB	939	G	C5'-C4'	5.86	1.60	1.51
26	BB	1565	C	C4'-O4'	-5.86	1.37	1.45
26	BB	1557	C	P-O5'	5.85	1.68	1.59
26	BB	2092	U	C4'-C3'	5.85	1.61	1.53
26	BB	2766	A	O3'-P	-5.85	1.52	1.61
1	AA	225	C	C2'-O2'	-5.85	1.33	1.42
1	AA	840	C	O3'-P	5.85	1.70	1.61
1	AA	825	A	C4'-O4'	-5.85	1.36	1.45
26	BB	50	U	C4'-O4'	-5.85	1.37	1.45
6	AF	21	TRP	NE1-CE2	5.85	1.43	1.37
8	AH	67	ARG	NE-CZ	5.85	1.39	1.33
12	AL	106	ASP	CA-C	5.85	1.60	1.52
16	AP	58	GLU	CA-C	5.84	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	227	A	C5'-C4'	5.84	1.60	1.51
1	AA	77	A	C5'-C4'	5.84	1.60	1.51
1	AA	517	G	C4'-O4'	-5.84	1.37	1.45
4	AD	47	A	O5'-C5'	-5.84	1.34	1.42
17	AQ	95	LEU	CA-C	5.84	1.60	1.52
24	AX	44	ARG	CA-C	5.84	1.59	1.52
26	BB	409	G	C1'-N9	5.84	1.56	1.48
27	BC	155	ASN	C-N	-5.84	1.26	1.33
39	BO	40	ARG	NE-CZ	5.84	1.39	1.33
26	BB	1417	C	C4'-O4'	-5.84	1.36	1.45
26	BB	1874	C	C3'-C2'	5.84	1.61	1.52
56	B5	17	GLY	CA-C	5.84	1.58	1.51
1	AA	1379	G	C4'-O4'	-5.84	1.36	1.45
30	BF	87	ALA	CA-C	-5.84	1.45	1.52
1	AA	1303	C	O4'-C1'	5.84	1.50	1.41
20	AT	19	SER	C-N	5.84	1.40	1.33
26	BB	1026	G	C2'-C1'	-5.84	1.44	1.53
34	BJ	10	ILE	CA-C	5.84	1.61	1.52
21	AU	70	THR	CA-C	5.83	1.60	1.52
26	BB	1131	G	C4'-O4'	-5.83	1.37	1.45
6	AF	98	ALA	N-CA	5.83	1.53	1.45
26	BB	2663	G	O3'-P	5.83	1.69	1.61
1	AA	806	C	O5'-C5'	5.83	1.51	1.42
2	AB	58	A	C4'-O4'	-5.83	1.37	1.45
14	AN	19	VAL	N-CA	5.83	1.52	1.46
1	AA	501	C	C3'-O3'	-5.83	1.33	1.42
1	AA	1311	A	C1'-N9	5.83	1.56	1.48
1	AA	597	G	C3'-O3'	5.82	1.50	1.42
2	AB	50	G	C2'-O2'	5.82	1.51	1.42
26	BB	376	G	C2'-O2'	-5.82	1.33	1.42
29	BE	69	ALA	CA-CB	5.82	1.62	1.53
30	BF	120	VAL	N-CA	5.82	1.53	1.46
15	AO	38	THR	CA-C	5.82	1.60	1.52
26	BB	1737	G	C1'-N9	5.82	1.56	1.48
1	AA	57	G	C2'-O2'	-5.82	1.33	1.42
14	AN	65	ALA	N-CA	-5.82	1.39	1.46
14	AN	105	ARG	NE-CZ	5.82	1.39	1.33
29	BE	89	GLU	C-N	5.82	1.41	1.33
26	BB	1896	G	O3'-P	5.82	1.69	1.61
26	BB	2261	C	C4'-O4'	-5.82	1.36	1.45
4	AD	29	C	C3'-C2'	-5.82	1.44	1.52
10	AJ	152	HIS	N-CA	-5.82	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	AQ	65	GLN	CA-C	5.82	1.60	1.52
43	BS	44	TYR	C-O	-5.82	1.17	1.24
40	BP	65	LEU	N-CA	5.81	1.53	1.46
1	AA	724	G	P-O5'	5.81	1.68	1.59
26	BB	923	G	C2'-C1'	5.81	1.62	1.53
26	BB	2194	U	C5'-C4'	5.81	1.59	1.51
1	AA	1035	A	P-O5'	5.81	1.68	1.59
1	AA	1209	C	P-O5'	-5.81	1.51	1.59
4	AD	68	C	C1'-N1	5.81	1.57	1.48
25	BA	109	A	C4'-O4'	-5.81	1.36	1.45
37	BM	110	GLU	CA-C	5.81	1.60	1.52
15	AO	95	HIS	CE1-NE2	5.80	1.38	1.32
25	BA	118	C	C2'-C1'	5.80	1.62	1.53
26	BB	1650	A	P-O5'	5.80	1.68	1.59
26	BB	2155	U	P-O5'	-5.80	1.51	1.59
49	BY	4	LYS	CA-C	5.80	1.59	1.52
1	AA	237	G	O4'-C1'	5.80	1.50	1.41
26	BB	1276	A	C4'-O4'	-5.80	1.36	1.45
26	BB	1755	A	C4'-C3'	5.80	1.61	1.52
26	BB	2277	G	C4'-O4'	-5.80	1.36	1.45
26	BB	2901	C	P-O5'	5.80	1.68	1.59
3	AC	53	G	C3'-C2'	5.80	1.61	1.52
14	AN	78	ILE	C-O	5.80	1.31	1.24
26	BB	1405	U	P-O5'	5.80	1.68	1.59
28	BD	109	LEU	CA-C	5.80	1.60	1.52
47	BW	93	ARG	N-CA	-5.80	1.38	1.46
50	BZ	26	ARG	NE-CZ	5.80	1.39	1.33
26	BB	1305	C	P-O5'	-5.80	1.51	1.59
26	BB	1959	G	P-O5'	5.79	1.68	1.59
1	AA	980	C	C1'-N1	5.79	1.57	1.48
26	BB	1014	A	C5'-C4'	5.79	1.59	1.51
26	BB	2063	C	P-O5'	5.79	1.68	1.59
1	AA	1242	G	C4'-C3'	5.79	1.61	1.52
26	BB	2430	A	C1'-N9	-5.79	1.39	1.48
1	AA	1499	A	O4'-C1'	5.79	1.50	1.41
50	BZ	53	LYS	N-CA	5.79	1.55	1.46
1	AA	1466	C	P-O5'	5.79	1.68	1.59
8	AH	50	GLY	N-CA	5.79	1.50	1.45
35	BK	122	GLU	CA-C	5.79	1.60	1.52
26	BB	2582	G	C5'-C4'	5.79	1.59	1.51
44	BT	97	LYS	N-CA	5.79	1.53	1.46
11	AK	5	PRO	CA-C	5.79	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1425	G	C2'-C1'	5.79	1.62	1.53
26	BB	1463	C	P-O5'	5.79	1.68	1.59
26	BB	2636	C	C3'-O3'	5.79	1.50	1.42
26	BB	789	A	C5'-C4'	5.78	1.60	1.51
26	BB	443	A	C4'-O4'	-5.78	1.37	1.45
26	BB	2001	C	O4'-C1'	-5.78	1.32	1.41
38	BN	95	LEU	CA-C	5.78	1.60	1.52
1	AA	1056	U	O4'-C1'	5.78	1.50	1.41
8	AH	146	MET	C-N	5.78	1.41	1.33
34	BJ	12	ALA	CA-C	5.78	1.60	1.52
26	BB	113	U	C5'-C4'	5.78	1.59	1.51
1	AA	71	A	O5'-C5'	-5.77	1.33	1.42
26	BB	1875	G	O3'-P	5.77	1.69	1.61
38	BN	39	LYS	CA-C	5.77	1.60	1.52
1	AA	8	A	O5'-C5'	-5.77	1.34	1.42
2	AB	23	A	P-O5'	5.77	1.68	1.59
26	BB	1366	A	C5'-C4'	5.77	1.59	1.51
31	BG	64	PRO	CA-CB	5.77	1.61	1.53
1	AA	1013	G	C4'-O4'	-5.77	1.36	1.45
1	AA	1023	U	P-O5'	5.77	1.68	1.59
1	AA	541	G	C2'-C1'	-5.77	1.44	1.53
26	BB	157	C	C5'-C4'	5.77	1.59	1.51
26	BB	360	U	P-O5'	5.77	1.68	1.59
26	BB	1235	G	C5'-C4'	5.77	1.59	1.51
1	AA	78	A	C5'-C4'	5.76	1.59	1.51
1	AA	174	A	C5'-C4'	5.76	1.59	1.51
1	AA	674	G	C5'-C4'	5.76	1.59	1.51
1	AA	741	G	C5'-C4'	5.76	1.59	1.51
1	AA	1388	C	O3'-P	5.76	1.69	1.61
26	BB	1992	G	C4'-O4'	-5.76	1.37	1.45
30	BF	34	ALA	CA-C	-5.76	1.44	1.52
32	BH	121	THR	CA-C	5.76	1.59	1.52
1	AA	746	A	C5'-C4'	5.76	1.59	1.51
7	AG	173	ASP	CA-C	5.76	1.59	1.52
26	BB	847	U	C3'-O3'	5.76	1.50	1.42
26	BB	1508	A	C4'-O4'	-5.76	1.37	1.45
33	BI	145	ASN	N-CA	5.76	1.53	1.46
5	AE	6	ARG	C-N	5.76	1.41	1.33
5	AE	222	GLU	N-CA	5.76	1.53	1.46
26	BB	945	A	O4'-C1'	-5.76	1.33	1.42
37	BM	112	PHE	CA-CB	5.76	1.61	1.53
23	AW	51	ASN	CA-C	5.76	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	776	G	C4'-C3'	5.76	1.61	1.53
1	AA	445	G	C1'-N9	5.76	1.56	1.48
25	BA	117	G	P-O5'	5.76	1.68	1.59
26	BB	12	U	C5'-C4'	5.76	1.59	1.51
26	BB	1012	U	C2'-O2'	5.76	1.50	1.41
1	AA	77	A	C4'-O4'	-5.75	1.36	1.45
26	BB	1109	C	C4'-O4'	-5.75	1.36	1.45
26	BB	2557	G	P-O5'	5.75	1.68	1.59
26	BB	1011	G	C1'-N9	5.75	1.55	1.47
26	BB	1922	G	C5'-C4'	5.75	1.59	1.51
1	AA	1118	U	C4'-O4'	-5.75	1.36	1.45
1	AA	362	G	O3'-P	5.74	1.69	1.61
26	BB	40	U	P-O5'	5.74	1.68	1.59
26	BB	2157	G	C5'-C4'	5.74	1.59	1.51
26	BB	2799	A	O3'-P	5.74	1.69	1.61
42	BR	102	ARG	CA-CB	5.74	1.61	1.53
35	BK	117	THR	CA-C	5.74	1.60	1.52
1	AA	130	A	C4'-O4'	-5.74	1.37	1.45
1	AA	991	U	P-O5'	5.74	1.68	1.59
8	AH	118	GLY	N-CA	5.74	1.53	1.45
26	BB	2024	G	C5'-C4'	5.74	1.59	1.51
1	AA	937	A	C4'-O4'	-5.74	1.36	1.45
10	AJ	146	ALA	N-CA	-5.74	1.39	1.46
26	BB	2245	U	C5'-C4'	5.74	1.59	1.51
26	BB	2399	G	O3'-P	5.74	1.69	1.61
2	AB	39	A	P-O5'	5.73	1.68	1.59
14	AN	124	LYS	C-N	5.73	1.39	1.33
26	BB	1131	G	P-O5'	5.73	1.68	1.59
27	BC	175	ILE	N-CA	5.73	1.52	1.45
26	BB	101	A	C2'-O2'	5.72	1.50	1.41
26	BB	608	A	C4'-O4'	-5.72	1.36	1.45
26	BB	1592	C	P-O5'	5.72	1.68	1.59
26	BB	1701	A	C4'-O4'	-5.72	1.36	1.45
26	BB	1891	G	P-O5'	5.72	1.68	1.59
2	AB	68	C	C5'-C4'	5.72	1.59	1.51
26	BB	209	C	P-O5'	5.72	1.68	1.59
3	AC	27	A	C3'-O3'	5.72	1.50	1.42
26	BB	559	G	P-O5'	5.72	1.68	1.59
26	BB	2569	G	C5'-C4'	5.72	1.59	1.51
50	BZ	57	VAL	CA-C	5.72	1.59	1.52
1	AA	1092	A	O3'-P	-5.72	1.52	1.61
26	BB	190	A	C4'-O4'	-5.72	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1756	G	P-O5'	5.72	1.68	1.59
26	BB	2864	G	C5'-C4'	5.72	1.59	1.51
52	B1	41	PRO	CA-C	5.72	1.60	1.52
26	BB	684	G	C4'-O4'	-5.71	1.36	1.45
26	BB	1641	A	C5'-C4'	5.71	1.59	1.51
26	BB	1713	A	P-O5'	5.71	1.68	1.59
26	BB	2727	A	P-O5'	5.71	1.68	1.59
2	AB	19	G	P-O5'	5.71	1.68	1.59
12	AL	28	VAL	CA-C	5.71	1.59	1.52
1	AA	1354	U	C4'-O4'	-5.71	1.36	1.45
26	BB	145	C	C2'-C1'	-5.71	1.44	1.53
8	AH	147	ASN	CA-C	5.71	1.59	1.52
44	BT	53	PHE	CA-C	5.71	1.60	1.53
1	AA	1532	U	C1'-N1	5.71	1.57	1.48
5	AE	105	THR	CA-C	5.71	1.60	1.52
26	BB	164	C	C4'-O4'	-5.71	1.36	1.45
40	BP	62	ASN	N-CA	-5.71	1.38	1.46
46	BV	2	ILE	CA-C	5.71	1.59	1.52
32	BH	67	ALA	N-CA	-5.71	1.39	1.46
35	BK	127	SER	CA-C	5.71	1.60	1.52
1	AA	836	G	P-O5'	5.70	1.68	1.59
4	AD	70	C	P-O5'	5.70	1.68	1.59
26	BB	1285	A	O3'-P	5.70	1.69	1.61
47	BW	84	PHE	CA-C	5.70	1.59	1.52
5	AE	33	ALA	N-CA	-5.70	1.38	1.46
31	BG	43	ILE	CA-C	5.70	1.60	1.52
26	BB	1383	A	P-O5'	5.70	1.68	1.59
26	BB	2138	G	C5'-C4'	5.70	1.59	1.51
23	AW	40	ALA	C-N	5.70	1.41	1.33
26	BB	1207	C	C1'-N1	5.70	1.56	1.48
26	BB	1836	C	C5'-C4'	5.70	1.59	1.51
38	BN	112	LEU	N-CA	5.70	1.53	1.46
1	AA	822	U	O5'-C5'	-5.70	1.33	1.42
1	AA	1150	A	P-O5'	-5.70	1.51	1.59
30	BF	76	PRO	N-CA	-5.70	1.40	1.47
26	BB	1194	A	C4'-O4'	-5.70	1.37	1.45
26	BB	2004	G	C4'-C3'	-5.70	1.44	1.52
26	BB	2439	A	P-O5'	5.70	1.68	1.59
26	BB	110	G	C5'-C4'	5.69	1.59	1.51
26	BB	2517	C	C4'-C3'	5.69	1.61	1.53
31	BG	10	GLU	CA-C	5.69	1.57	1.52
46	BV	96	VAL	CA-C	5.69	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	AL	2	GLU	N-CA	5.69	1.53	1.45
26	BB	1720	U	C1'-N1	5.69	1.56	1.48
45	BU	72	THR	CA-C	5.69	1.60	1.52
28	BD	144	GLU	N-CA	-5.69	1.39	1.46
14	AN	122	PRO	N-CD	5.69	1.55	1.47
26	BB	1424	G	O5'-C5'	5.69	1.50	1.42
36	BL	9	GLU	N-CA	5.69	1.53	1.46
26	BB	2728	U	P-O5'	5.68	1.68	1.59
26	BB	2843	G	O3'-P	5.68	1.69	1.61
1	AA	161	A	P-O5'	5.68	1.68	1.59
1	AA	1396	A	C5'-C4'	5.68	1.59	1.51
22	AV	63	ASP	N-CA	-5.68	1.39	1.46
25	BA	25	U	C3'-O3'	5.68	1.51	1.43
26	BB	1385	A	C5'-C4'	5.68	1.59	1.51
1	AA	639	G	C4'-C3'	-5.68	1.44	1.52
10	AJ	52	ARG	NE-CZ	5.68	1.39	1.33
26	BB	1042	G	O3'-P	5.68	1.69	1.61
33	BI	3	VAL	CA-C	5.68	1.59	1.52
1	AA	77	A	P-O5'	5.68	1.68	1.59
26	BB	780	G	C2'-O2'	5.67	1.50	1.42
26	BB	1319	C	C2'-O2'	-5.67	1.33	1.42
1	AA	326	G	C4'-O4'	-5.67	1.37	1.45
2	AB	33	U	C3'-C2'	5.67	1.61	1.52
26	BB	367	G	C4'-O4'	-5.67	1.37	1.45
14	AN	96	ILE	N-CA	5.67	1.53	1.46
1	AA	1499	A	O3'-P	5.67	1.69	1.61
5	AE	109	SER	CA-C	5.67	1.60	1.52
53	B2	46	GLY	CA-C	5.67	1.59	1.52
26	BB	965	C	C2'-C1'	-5.67	1.44	1.53
25	BA	23	G	P-O5'	5.66	1.68	1.59
26	BB	811	U	C1'-N1	5.66	1.55	1.47
26	BB	1512	C	P-O5'	5.66	1.68	1.59
28	BD	224	MET	CA-C	5.66	1.61	1.53
1	AA	418	C	C4'-O4'	-5.66	1.37	1.45
47	BW	44	HIS	CE1-NE2	5.66	1.38	1.32
17	AQ	18	LYS	N-CA	5.66	1.53	1.46
26	BB	2814	A	C3'-O3'	5.66	1.50	1.42
42	BR	112	ARG	NE-CZ	5.66	1.39	1.33
5	AE	199	ILE	C-N	5.66	1.40	1.33
28	BD	113	ASP	CA-C	5.66	1.60	1.53
26	BB	1734	G	O3'-P	-5.66	1.52	1.61
26	BB	15	G	P-O5'	5.66	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2163	A	C5'-C4'	5.66	1.59	1.51
26	BB	2165	C	P-O5'	5.66	1.68	1.59
36	BL	10	THR	CA-C	5.66	1.60	1.52
40	BP	124	ALA	N-CA	5.66	1.53	1.46
9	AI	85	ILE	CA-CB	5.65	1.62	1.54
26	BB	2072	C	P-O5'	5.65	1.68	1.59
9	AI	61	LEU	CA-C	5.65	1.60	1.52
26	BB	1882	U	O3'-P	5.65	1.69	1.61
26	BB	1885	A	O3'-P	5.65	1.69	1.61
26	BB	2766	A	C3'-O3'	5.65	1.50	1.42
31	BG	132	ARG	CA-C	5.65	1.60	1.52
1	AA	1329	A	P-O5'	5.65	1.68	1.59
9	AI	132	GLU	CA-C	5.65	1.59	1.52
26	BB	1499	C	C1'-N1	5.65	1.56	1.48
26	BB	2179	C	O3'-P	-5.65	1.52	1.61
1	AA	1071	C	O3'-P	5.65	1.69	1.61
8	AH	79	THR	C-N	5.65	1.41	1.33
26	BB	1488	C	O3'-P	5.65	1.69	1.61
26	BB	2767	C	C3'-C2'	5.64	1.61	1.52
34	BJ	61	ARG	NE-CZ	5.64	1.39	1.33
1	AA	1215	G	C3'-C2'	5.64	1.61	1.52
1	AA	1312	G	P-O5'	5.64	1.68	1.59
26	BB	791	C	O3'-P	5.64	1.69	1.61
54	B3	32	THR	CA-C	5.64	1.60	1.52
2	AB	76	A	C1'-N9	5.64	1.56	1.48
26	BB	1979	U	C1'-N1	5.64	1.56	1.48
26	BB	2639	A	C5'-C4'	5.64	1.59	1.51
26	BB	1086	A	P-O5'	5.64	1.68	1.59
1	AA	251	G	P-O5'	5.64	1.68	1.59
46	BV	47	VAL	N-CA	5.64	1.52	1.46
16	AP	83	GLY	CA-C	5.63	1.59	1.51
16	AP	113	LYS	CA-CB	5.63	1.60	1.54
26	BB	14	A	P-O5'	5.63	1.68	1.59
26	BB	1045	C	C2'-C1'	-5.63	1.44	1.53
26	BB	1373	A	C5'-C4'	5.63	1.59	1.51
26	BB	1839	G	P-O5'	5.63	1.68	1.59
16	AP	24	VAL	CA-CB	5.63	1.62	1.54
26	BB	1721	G	C1'-N9	5.63	1.55	1.47
1	AA	84	U	P-O5'	5.63	1.68	1.59
1	AA	1169	A	C4'-O4'	-5.63	1.37	1.45
1	AA	835	U	O3'-P	5.63	1.69	1.61
1	AA	1008	U	C4'-O4'	-5.63	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	691	C	C3'-C2'	5.63	1.61	1.52
1	AA	962	C	P-O5'	5.63	1.68	1.59
4	AD	7	G	C3'-C2'	5.63	1.61	1.52
25	BA	37	C	C1'-N1	5.63	1.56	1.48
38	BN	50	PHE	CA-C	5.63	1.60	1.52
46	BV	68	LYS	CA-C	-5.63	1.46	1.52
47	BW	67	SER	N-CA	5.63	1.53	1.46
28	BD	158	GLY	C-O	-5.62	1.16	1.23
1	AA	20	U	C4'-O4'	-5.62	1.37	1.45
25	BA	82	U	C1'-N1	5.62	1.56	1.48
27	BC	83	ASN	CA-CB	-5.62	1.45	1.53
1	AA	430	A	P-O5'	5.62	1.68	1.59
26	BB	1540	G	C4'-C3'	5.62	1.60	1.52
26	BB	1843	C	C2'-O2'	-5.62	1.34	1.42
34	BJ	30	ARG	CA-C	5.62	1.60	1.53
53	B2	65	ASN	N-CA	-5.62	1.39	1.46
32	BH	73	SER	CA-C	5.62	1.60	1.52
1	AA	538	G	C2'-O2'	-5.62	1.34	1.42
1	AA	1441	A	P-O5'	5.62	1.68	1.59
17	AQ	76	PHE	C-N	5.62	1.39	1.33
27	BC	177	LYS	C-N	5.62	1.40	1.34
26	BB	1080	A	C4'-O4'	-5.62	1.37	1.45
26	BB	2401	U	O3'-P	5.62	1.69	1.61
1	AA	961	U	C4'-O4'	-5.61	1.37	1.45
26	BB	2564	A	C2'-C1'	5.61	1.61	1.53
41	BQ	87	ILE	C-O	5.61	1.30	1.24
1	AA	724	G	O5'-C5'	-5.61	1.34	1.42
16	AP	26	LYS	N-CA	5.61	1.53	1.46
1	AA	1305	G	P-O5'	5.61	1.68	1.59
14	AN	85	VAL	CA-C	5.61	1.59	1.52
26	BB	102	U	P-O5'	5.61	1.68	1.59
26	BB	147	C	C4'-O4'	-5.61	1.37	1.45
26	BB	318	C	O3'-P	5.61	1.69	1.61
26	BB	2376	A	C4'-C3'	5.61	1.60	1.52
29	BE	53	GLY	CA-C	5.61	1.58	1.51
1	AA	934	C	C1'-N1	5.61	1.55	1.47
26	BB	2227	A	O3'-P	-5.61	1.52	1.61
1	AA	705	G	O5'-C5'	5.61	1.50	1.42
36	BL	53	TYR	CA-CB	5.61	1.60	1.53
42	BR	76	HIS	ND1-CE1	5.61	1.38	1.32
1	AA	80	A	C3'-C2'	5.61	1.61	1.52
1	AA	726	C	O3'-P	5.61	1.69	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	AG	127	ARG	CD-NE	5.61	1.54	1.46
7	AG	137	SER	CA-C	5.61	1.58	1.52
13	AM	15	HIS	CG-ND1	5.61	1.44	1.38
26	BB	1020	A	P-O5'	5.61	1.68	1.59
26	BB	1315	C	C2-N3	5.61	1.47	1.35
26	BB	1503	A	C5'-C4'	5.61	1.59	1.51
29	BE	77	ARG	CA-C	5.61	1.60	1.52
8	AH	33	THR	C-O	-5.60	1.17	1.23
26	BB	1676	A	C1'-N9	5.60	1.56	1.48
1	AA	195	A	C2'-C1'	5.60	1.61	1.53
1	AA	1227	A	P-O5'	5.60	1.68	1.59
20	AT	34	GLY	C-N	5.60	1.41	1.33
26	BB	756	A	C4'-O4'	-5.60	1.37	1.45
26	BB	2374	C	C4'-O4'	-5.60	1.37	1.45
26	BB	2481	G	P-O5'	5.60	1.68	1.59
34	BJ	140	ALA	CA-C	5.60	1.60	1.52
21	AU	6	ARG	CA-CB	5.60	1.61	1.53
51	B0	21	LEU	CA-C	5.60	1.59	1.52
35	BK	19	PRO	CA-C	5.60	1.59	1.52
1	AA	434	U	P-O5'	5.59	1.68	1.59
26	BB	988	A	C2'-C1'	5.59	1.61	1.53
26	BB	1722	A	C2'-C1'	-5.59	1.45	1.53
26	BB	1836	C	P-O5'	5.59	1.68	1.59
27	BC	9	ARG	CD-NE	5.59	1.54	1.46
1	AA	697	U	C4'-O4'	-5.59	1.37	1.45
7	AG	8	LEU	C-O	-5.59	1.16	1.24
29	BE	33	ARG	CD-NE	5.59	1.54	1.46
39	BO	41	LEU	CA-C	5.59	1.59	1.52
30	BF	25	GLU	N-CA	5.59	1.53	1.46
35	BK	21	PRO	C-O	-5.59	1.18	1.24
15	AO	4	ASN	N-CA	5.59	1.53	1.46
1	AA	170	U	C5'-C4'	5.59	1.59	1.51
1	AA	335	C	P-O5'	5.59	1.68	1.59
6	AF	68	HIS	ND1-CE1	5.59	1.38	1.32
26	BB	178	G	C4'-O4'	-5.59	1.37	1.45
26	BB	1891	G	C2'-C1'	5.59	1.61	1.53
39	BO	129	THR	N-CA	5.59	1.53	1.46
5	AE	223	GLY	CA-C	5.58	1.58	1.52
25	BA	80	U	C5'-C4'	5.58	1.59	1.51
26	BB	2903	U	C5'-C4'	5.58	1.59	1.51
1	AA	1541	U	P-O5'	5.58	1.68	1.59
23	AW	63	LYS	CA-C	5.58	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	788	A	C4'-O4'	-5.58	1.37	1.45
33	BI	5	LEU	CA-C	-5.58	1.45	1.52
25	BA	112	G	P-O5'	5.58	1.68	1.59
26	BB	1398	C	O3'-P	5.58	1.69	1.61
26	BB	1423	G	P-O5'	5.58	1.68	1.59
1	AA	223	A	C5'-C4'	5.58	1.59	1.51
7	AG	173	ASP	N-CA	5.58	1.52	1.46
12	AL	98	ARG	NE-CZ	5.58	1.39	1.33
26	BB	384	A	O4'-C1'	5.58	1.50	1.41
26	BB	585	G	C4'-O4'	-5.58	1.37	1.45
26	BB	2839	G	O3'-P	5.58	1.69	1.61
1	AA	827	U	O3'-P	5.58	1.69	1.61
6	AF	214	GLU	C-N	5.58	1.40	1.32
26	BB	302	C	C1'-N1	5.58	1.56	1.48
26	BB	458	G	C5'-C4'	5.58	1.59	1.51
26	BB	1882	U	C2'-O2'	-5.58	1.34	1.42
44	BT	13	ARG	NE-CZ	-5.58	1.26	1.33
14	AN	92	ARG	CD-NE	5.57	1.54	1.46
26	BB	103	A	C4'-O4'	-5.57	1.37	1.45
34	BJ	20	GLY	C-N	5.57	1.41	1.33
40	BP	96	ARG	NE-CZ	5.57	1.39	1.33
8	AH	89	THR	CA-C	5.57	1.60	1.53
26	BB	71	A	C5'-C4'	5.57	1.59	1.51
5	AE	198	VAL	C-O	5.57	1.29	1.24
26	BB	499	U	P-O5'	5.57	1.68	1.59
26	BB	154	U	C4'-O4'	-5.57	1.37	1.45
1	AA	718	A	C4'-O4'	-5.57	1.37	1.45
5	AE	62	ARG	C-O	-5.57	1.16	1.24
30	BF	93	SER	N-CA	5.57	1.53	1.46
57	B6	42	HIS	CG-ND1	5.57	1.44	1.38
13	AM	27	GLU	C-O	-5.57	1.17	1.24
25	BA	115	A	C2'-C1'	5.57	1.61	1.53
26	BB	26	G	C5'-C4'	5.56	1.59	1.51
36	BL	61	LYS	CA-C	5.56	1.59	1.52
1	AA	213	G	P-O5'	5.56	1.68	1.59
18	AR	79	ARG	CD-NE	5.56	1.54	1.46
36	BL	97	PRO	N-CD	-5.56	1.40	1.47
1	AA	317	U	C5'-C4'	5.56	1.59	1.51
4	AD	24	C	P-O5'	5.56	1.68	1.59
26	BB	835	C	C5'-C4'	5.56	1.59	1.51
26	BB	2015	A	C4'-O4'	-5.56	1.37	1.45
1	AA	453	G	C3'-C2'	5.56	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	911	U	C1'-N1	5.56	1.56	1.48
17	AQ	68	ARG	NE-CZ	5.56	1.39	1.33
26	BB	473	G	C2'-C1'	-5.56	1.45	1.53
1	AA	201	G	C3'-C2'	5.56	1.61	1.52
1	AA	1268	G	O3'-P	5.56	1.69	1.61
26	BB	277	G	C4'-O4'	-5.55	1.37	1.45
26	BB	2451	A	C4'-O4'	-5.55	1.37	1.45
28	BD	259	ASN	N-CA	5.55	1.53	1.46
44	BT	45	GLU	N-CA	5.55	1.52	1.45
51	B0	13	GLU	N-CA	5.55	1.52	1.46
1	AA	1212	U	C4'-O4'	-5.55	1.37	1.45
19	AS	41	PRO	N-CA	5.55	1.53	1.47
26	BB	1209	U	O5'-C5'	-5.55	1.34	1.42
26	BB	2005	A	C4'-O4'	-5.55	1.37	1.45
12	AL	112	ARG	CA-C	5.55	1.60	1.52
26	BB	218	A	C5'-C4'	5.55	1.59	1.51
26	BB	334	C	C3'-C2'	-5.55	1.44	1.52
26	BB	2806	C	C5'-C4'	5.55	1.59	1.51
53	B2	22	MET	CA-CB	-5.55	1.46	1.54
1	AA	1050	G	O5'-C5'	-5.55	1.34	1.42
26	BB	453	A	P-O5'	5.55	1.68	1.59
26	BB	1530	G	C4'-O4'	-5.55	1.37	1.45
14	AN	29	THR	C-N	-5.55	1.26	1.33
1	AA	722	G	C4'-O4'	-5.55	1.37	1.45
2	AB	27	C	P-O5'	5.55	1.68	1.59
26	BB	205	G	C3'-C2'	5.55	1.61	1.52
26	BB	2660	A	C1'-N9	5.54	1.56	1.48
46	BV	68	LYS	C-O	-5.54	1.17	1.23
53	B2	31	ASP	CA-C	5.54	1.60	1.52
7	AG	55	ARG	N-CA	-5.54	1.39	1.46
20	AT	14	ASP	CA-C	5.54	1.59	1.52
26	BB	246	C	O5'-C5'	-5.54	1.34	1.42
26	BB	263	G	O3'-P	5.54	1.69	1.61
26	BB	1332	G	O5'-C5'	-5.54	1.34	1.42
38	BN	126	ARG	CD-NE	5.54	1.54	1.46
26	BB	225	C	O3'-P	5.54	1.69	1.61
26	BB	1597	A	C4'-O4'	-5.54	1.37	1.45
26	BB	2186	G	P-O5'	5.54	1.68	1.59
23	AW	27	MET	CA-C	5.54	1.59	1.52
26	BB	2337	G	C4'-O4'	-5.54	1.37	1.45
1	AA	1369	C	P-O5'	5.54	1.68	1.59
26	BB	1544	A	O4'-C1'	-5.54	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BV	15	HIS	N-CA	5.54	1.53	1.46
26	BB	1265	A	C5'-C4'	5.54	1.59	1.51
18	AR	36	ASN	C-N	5.54	1.41	1.33
26	BB	175	G	P-O5'	5.53	1.68	1.59
26	BB	2499	C	C5'-C4'	5.53	1.59	1.51
3	AC	13	A	C3'-C2'	5.53	1.61	1.52
23	AW	31	ILE	CA-CB	-5.53	1.47	1.54
26	BB	907	G	O5'-C5'	-5.53	1.34	1.42
23	AW	7	LYS	CA-C	5.53	1.60	1.52
26	BB	667	U	C5'-C4'	5.53	1.59	1.51
26	BB	2610	C	C4'-O4'	-5.53	1.37	1.45
26	BB	2102	G	P-O5'	5.53	1.68	1.59
1	AA	1176	A	O3'-P	5.53	1.69	1.61
10	AJ	90	VAL	N-CA	-5.53	1.39	1.46
26	BB	1538	G	O3'-P	5.53	1.69	1.61
9	AI	12	PRO	CA-CB	-5.53	1.46	1.53
22	AV	61	VAL	CA-C	5.53	1.59	1.52
26	BB	2716	C	C4'-O4'	-5.53	1.37	1.45
26	BB	967	U	P-O5'	5.52	1.68	1.59
31	BG	109	ARG	NE-CZ	5.52	1.39	1.33
5	AE	43	GLU	N-CA	-5.52	1.39	1.46
26	BB	267	C	C1'-N1	5.52	1.56	1.48
26	BB	1711	A	C4'-C3'	5.52	1.60	1.52
1	AA	480	U	O3'-P	5.52	1.69	1.61
25	BA	15	A	P-O5'	5.52	1.68	1.59
26	BB	592	A	C5'-C4'	5.52	1.59	1.51
26	BB	2384	U	C5'-C4'	5.52	1.59	1.51
25	BA	11	C	C1'-N1	5.52	1.55	1.47
1	AA	614	C	O3'-P	-5.52	1.52	1.61
1	AA	1493	A	O3'-P	5.52	1.69	1.61
50	BZ	5	GLN	C-N	5.52	1.40	1.33
3	AC	28	U	C4'-O4'	-5.51	1.37	1.45
15	AO	84	GLY	CA-C	5.51	1.59	1.51
26	BB	562	U	O5'-C5'	5.51	1.50	1.42
26	BB	1770	G	C3'-C2'	-5.51	1.44	1.52
26	BB	1930	G	C4'-O4'	-5.51	1.37	1.45
36	BL	99	ARG	NE-CZ	5.51	1.39	1.33
1	AA	208	U	C4'-O4'	-5.51	1.37	1.45
1	AA	920	U	C3'-C2'	5.51	1.61	1.52
1	AA	427	U	P-O5'	5.51	1.68	1.59
16	AP	13	HIS	CB-CG	5.51	1.57	1.50
26	BB	184	C	O4'-C1'	5.51	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2097	A	O3'-P	5.51	1.69	1.61
34	BJ	148	GLY	N-CA	-5.51	1.39	1.45
11	AK	100	ILE	CA-CB	5.51	1.62	1.54
26	BB	777	G	O3'-P	5.51	1.69	1.61
26	BB	1490	A	P-O5'	5.51	1.68	1.59
27	BC	193	LEU	CA-CB	5.51	1.61	1.53
39	BO	14	LYS	CA-C	5.51	1.59	1.52
26	BB	2015	A	C2'-C1'	-5.51	1.45	1.53
26	BB	338	G	O5'-C5'	5.51	1.50	1.42
26	BB	884	U	C2'-C1'	5.51	1.61	1.53
26	BB	951	C	O3'-P	5.51	1.69	1.61
26	BB	1659	G	O4'-C1'	5.51	1.50	1.41
26	BB	251	A	C5'-C4'	5.50	1.59	1.51
1	AA	561	U	C4'-O4'	-5.50	1.37	1.45
40	BP	63	ARG	NE-CZ	5.50	1.39	1.33
1	AA	486	U	P-O5'	5.50	1.68	1.59
26	BB	458	G	O3'-P	5.50	1.69	1.61
26	BB	2183	A	C5'-C4'	5.50	1.59	1.51
26	BB	2390	U	O4'-C1'	5.50	1.50	1.41
32	BH	73	SER	N-CA	-5.50	1.39	1.46
32	BH	120	ILE	CB-CG1	5.50	1.64	1.53
1	AA	371	A	C5'-C4'	5.50	1.59	1.51
26	BB	416	U	O3'-P	5.50	1.69	1.61
26	BB	1856	U	C3'-C2'	5.50	1.60	1.52
27	BC	153	VAL	CA-C	5.50	1.59	1.52
33	BI	77	THR	CA-C	5.50	1.59	1.52
26	BB	2154	A	C5'-C4'	5.50	1.59	1.51
31	BG	95	MET	CA-C	5.50	1.59	1.52
26	BB	1324	G	C3'-C2'	5.50	1.61	1.52
28	BD	176	ARG	CA-CB	5.50	1.63	1.53
29	BE	174	SER	C-N	5.50	1.40	1.33
1	AA	742	G	P-O5'	5.49	1.68	1.59
1	AA	775	G	C5'-C4'	5.49	1.59	1.51
19	AS	66	THR	CB-OG1	-5.49	1.34	1.43
26	BB	1409	U	C5'-C4'	5.49	1.59	1.51
26	BB	1866	A	O3'-P	5.49	1.69	1.61
46	BV	41	ALA	CA-C	5.49	1.59	1.52
1	AA	532	A	C3'-C2'	5.49	1.60	1.52
26	BB	1815	A	C5'-C4'	5.49	1.59	1.51
26	BB	580	U	C3'-O3'	5.49	1.50	1.42
26	BB	1990	C	C5'-C4'	5.49	1.59	1.51
6	AF	15	LYS	CA-C	5.49	1.58	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	829	A	O3'-P	5.49	1.69	1.61
26	BB	2620	C	C4'-O4'	-5.49	1.37	1.45
45	BU	75	PHE	CA-C	5.49	1.59	1.52
47	BW	53	GLN	N-CA	5.49	1.50	1.45
47	BW	91	LYS	C-O	-5.49	1.17	1.24
1	AA	724	G	O4'-C1'	5.49	1.49	1.41
2	AB	62	U	C2'-C1'	5.49	1.61	1.53
3	AC	28	U	C1'-N1	5.49	1.56	1.48
42	BR	47	ILE	CA-C	5.49	1.59	1.52
1	AA	435	A	P-O5'	5.48	1.68	1.59
26	BB	13	A	C4'-O4'	-5.48	1.37	1.45
1	AA	171	A	C4'-O4'	-5.48	1.37	1.45
1	AA	544	G	C4'-O4'	-5.48	1.37	1.45
1	AA	1264	U	C5'-C4'	5.48	1.59	1.51
26	BB	202	U	C3'-O3'	5.48	1.50	1.42
26	BB	2856	A	C5'-C4'	5.48	1.59	1.51
1	AA	1051	C	O3'-P	5.48	1.69	1.61
17	AQ	68	ARG	CA-C	5.48	1.59	1.52
26	BB	1786	A	C4'-C3'	5.48	1.60	1.52
26	BB	2178	C	C3'-C2'	5.48	1.60	1.52
26	BB	2900	A	C4'-O4'	-5.48	1.37	1.45
32	BH	118	ALA	C-O	-5.48	1.17	1.24
1	AA	823	C	O3'-P	5.48	1.69	1.61
57	B6	63	TYR	CA-C	5.48	1.58	1.52
26	BB	378	C	P-O5'	5.48	1.68	1.59
32	BH	22	VAL	N-CA	5.48	1.52	1.46
26	BB	110	G	C3'-C2'	5.48	1.60	1.52
26	BB	812	C	O3'-P	5.48	1.69	1.61
26	BB	2680	U	P-O5'	-5.48	1.51	1.59
56	B5	39	ARG	CZ-NH1	5.48	1.40	1.32
1	AA	196	A	P-O5'	5.47	1.68	1.59
1	AA	1159	U	O5'-C5'	-5.47	1.34	1.42
2	AB	59	G	C5'-C4'	5.47	1.59	1.51
26	BB	609	A	P-O5'	5.47	1.68	1.59
27	BC	99	ASP	CA-C	5.47	1.60	1.52
23	AW	81	GLN	C-O	-5.47	1.17	1.24
26	BB	1092	C	C5'-C4'	5.47	1.59	1.51
26	BB	2337	G	P-O5'	5.47	1.68	1.59
44	BT	88	GLY	N-CA	-5.47	1.39	1.44
26	BB	1019	U	C2'-C1'	5.47	1.61	1.53
1	AA	281	G	C3'-C2'	-5.47	1.44	1.52
1	AA	1180	A	C4'-O4'	-5.47	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2331	G	P-O5'	5.47	1.68	1.59
26	BB	2385	C	C4'-O4'	-5.47	1.37	1.45
30	BF	66	GLY	N-CA	5.47	1.53	1.45
26	BB	1636	U	C5'-C4'	5.47	1.59	1.51
26	BB	2169	A	C4'-O4'	-5.47	1.37	1.45
26	BB	2427	C	C1'-N1	5.47	1.55	1.47
50	BZ	55	MET	CA-C	5.47	1.59	1.52
1	AA	890	G	C5'-C4'	5.47	1.59	1.51
23	AW	16	ALA	N-CA	5.47	1.52	1.46
55	B4	21	THR	CA-C	-5.47	1.46	1.52
1	AA	1094	G	P-O5'	5.46	1.68	1.59
1	AA	1479	C	C4'-O4'	-5.46	1.37	1.45
22	AV	85	ASP	CA-C	5.46	1.60	1.52
26	BB	2036	C	P-O5'	5.46	1.68	1.59
30	BF	60	TRP	NE1-CE2	-5.46	1.31	1.37
26	BB	471	A	C4'-O4'	-5.46	1.37	1.45
26	BB	422	A	C1'-N9	5.46	1.56	1.48
26	BB	2737	G	P-O5'	5.46	1.68	1.59
18	AR	33	ALA	CA-C	5.46	1.60	1.52
40	BP	22	ARG	NE-CZ	5.46	1.39	1.33
1	AA	119	A	C4'-O4'	-5.46	1.37	1.45
1	AA	939	G	C4'-O4'	-5.46	1.37	1.45
26	BB	1310	G	C5'-C4'	5.46	1.59	1.51
30	BF	108	ILE	N-CA	5.46	1.53	1.46
31	BG	83	PRO	N-CD	-5.46	1.40	1.47
1	AA	1288	A	C4'-O4'	-5.46	1.37	1.45
12	AL	71	ILE	C-N	5.46	1.41	1.33
26	BB	479	A	O3'-P	5.46	1.69	1.61
26	BB	544	C	P-O5'	5.46	1.68	1.59
26	BB	657	U	C4'-O4'	-5.46	1.37	1.45
28	BD	5	CYS	N-CA	5.46	1.52	1.46
51	B0	50	VAL	C-O	-5.46	1.17	1.24
1	AA	879	C	C5'-C4'	5.46	1.59	1.51
11	AK	17	GLN	N-CA	-5.46	1.39	1.46
41	BQ	39	VAL	CA-C	5.46	1.59	1.52
26	BB	1742	U	C5'-C4'	5.45	1.59	1.51
29	BE	102	ALA	CA-C	5.45	1.59	1.52
30	BF	4	VAL	N-CA	-5.45	1.40	1.46
1	AA	440	C	C4'-O4'	-5.45	1.37	1.45
1	AA	1237	C	P-O5'	5.45	1.68	1.59
40	BP	35	LYS	CA-C	5.45	1.59	1.52
41	BQ	113	ALA	N-CA	-5.45	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	851	C	C3'-O3'	-5.45	1.33	1.42
26	BB	1274	A	O3'-P	5.45	1.69	1.61
47	BW	14	THR	CA-C	5.45	1.59	1.52
1	AA	1265	C	O4'-C1'	5.45	1.49	1.41
26	BB	19	A	O3'-P	5.45	1.69	1.61
26	BB	1805	A	C5'-C4'	5.45	1.59	1.51
29	BE	178	VAL	CA-CB	5.45	1.61	1.54
40	BP	14	SER	CB-OG	-5.45	1.31	1.42
8	AH	114	LEU	CA-C	5.45	1.60	1.52
26	BB	2272	U	O3'-P	5.45	1.69	1.61
44	BT	99	THR	CA-CB	5.45	1.62	1.53
26	BB	187	G	C5'-C4'	5.45	1.59	1.51
26	BB	1318	U	P-O5'	5.45	1.68	1.59
26	BB	1811	G	C4'-O4'	-5.45	1.37	1.45
38	BN	121	THR	CA-C	-5.45	1.46	1.52
55	B4	36	LYS	C-N	5.45	1.40	1.33
1	AA	372	C	C4'-O4'	-5.44	1.37	1.45
1	AA	682	G	C4'-O4'	-5.44	1.37	1.45
1	AA	1097	C	C5'-C4'	5.44	1.59	1.51
1	AA	452	A	P-O5'	5.44	1.68	1.59
28	BD	40	GLY	N-CA	5.44	1.53	1.45
42	BR	91	VAL	CA-CB	5.44	1.61	1.54
1	AA	531	U	C4'-O4'	-5.44	1.37	1.45
1	AA	682	G	P-O5'	5.44	1.68	1.59
26	BB	1528	A	P-O5'	5.44	1.68	1.59
29	BE	27	ILE	C-N	5.44	1.41	1.33
53	B2	44	PHE	C-O	5.44	1.30	1.24
1	AA	424	G	P-O5'	5.44	1.68	1.59
4	AD	4	G	C2'-C1'	5.44	1.61	1.53
25	BA	3	C	C5'-C4'	5.44	1.59	1.51
26	BB	26	G	P-O5'	5.44	1.68	1.59
26	BB	341	C	C2'-C1'	5.44	1.61	1.53
26	BB	2044	C	C1'-N1	5.44	1.56	1.48
26	BB	2625	G	P-O5'	5.44	1.68	1.59
26	BB	2754	U	C1'-N1	5.44	1.56	1.48
44	BT	76	LYS	N-CA	5.44	1.52	1.46
1	AA	81	A	C5'-C4'	5.43	1.59	1.51
1	AA	639	G	C5'-C4'	5.43	1.59	1.51
10	AJ	89	GLU	N-CA	5.43	1.52	1.46
26	BB	2217	G	C2'-O2'	5.43	1.50	1.42
26	BB	2719	G	C5'-C4'	5.43	1.59	1.51
26	BB	1370	C	C3'-O3'	-5.43	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1436	G	C2'-C1'	5.43	1.61	1.53
39	BO	92	TRP	CA-C	5.43	1.59	1.52
1	AA	222	C	O3'-P	5.43	1.69	1.61
1	AA	1216	A	O3'-P	5.43	1.69	1.61
1	AA	1220	G	C5'-C4'	5.43	1.59	1.51
26	BB	2489	U	P-O5'	5.43	1.67	1.59
26	BB	2529	G	C4'-O4'	-5.43	1.37	1.45
26	BB	2698	U	O3'-P	5.43	1.69	1.61
50	BZ	10	ARG	NE-CZ	5.43	1.39	1.33
1	AA	1208	C	C1'-N1	5.43	1.56	1.48
57	B6	4	LYS	CA-CB	-5.43	1.45	1.53
1	AA	662	U	C4'-O4'	-5.43	1.37	1.45
6	AF	183	TYR	CA-C	-5.43	1.45	1.52
1	AA	73	C	O4'-C1'	5.42	1.49	1.41
1	AA	803	G	C5'-C4'	5.42	1.59	1.51
1	AA	1298	U	C5'-C4'	5.42	1.59	1.51
26	BB	778	G	O3'-P	5.42	1.69	1.61
26	BB	2677	G	C1'-N9	5.42	1.56	1.48
27	BC	224	VAL	CA-C	5.42	1.59	1.52
54	B3	2	VAL	N-CA	5.42	1.53	1.46
21	AU	38	ILE	C-O	-5.42	1.18	1.24
14	AN	42	GLY	N-CA	5.42	1.50	1.45
26	BB	398	C	O5'-C5'	-5.42	1.34	1.42
26	BB	1222	U	C5'-C4'	5.42	1.59	1.51
26	BB	1241	A	C3'-C2'	5.42	1.60	1.52
28	BD	120	ASP	CA-C	5.42	1.60	1.52
56	B5	44	VAL	CA-C	5.42	1.59	1.52
26	BB	274	C	C4'-O4'	-5.42	1.37	1.45
26	BB	1176	U	C5'-C4'	5.42	1.59	1.51
50	BZ	32	LEU	CA-C	5.42	1.60	1.52
25	BA	36	C	P-O5'	5.42	1.67	1.59
26	BB	190	A	P-O5'	5.42	1.67	1.59
26	BB	218	A	C4'-O4'	-5.42	1.37	1.45
26	BB	345	A	C3'-O3'	-5.42	1.35	1.43
26	BB	1357	C	P-O5'	5.42	1.67	1.59
1	AA	277	C	C4'-C3'	-5.41	1.44	1.52
1	AA	1531	A	C5'-C4'	5.41	1.59	1.51
8	AH	100	GLU	N-CA	5.41	1.53	1.46
26	BB	24	G	P-O5'	5.41	1.67	1.59
30	BF	84	THR	N-CA	5.41	1.53	1.46
1	AA	1073	U	P-O5'	5.41	1.67	1.59
26	BB	774	G	C1'-N9	5.41	1.55	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1330	C	P-O5'	5.41	1.67	1.59
1	AA	160	A	C1'-N9	5.41	1.56	1.48
1	AA	1486	G	O3'-P	5.41	1.69	1.61
26	BB	378	C	C3'-C2'	5.41	1.60	1.52
26	BB	750	A	P-O5'	5.41	1.67	1.59
2	AB	71	C	C2'-C1'	5.41	1.61	1.53
1	AA	468	A	P-O5'	5.41	1.67	1.59
1	AA	717	U	C2-N3	5.41	1.48	1.37
1	AA	954	G	C5'-C4'	5.41	1.59	1.51
23	AW	29	THR	CB-OG1	-5.41	1.35	1.43
26	BB	89	A	P-O5'	5.41	1.67	1.59
26	BB	1982	U	P-O5'	5.41	1.67	1.59
26	BB	2402	U	C4'-O4'	-5.41	1.37	1.45
1	AA	555	U	O3'-P	5.40	1.69	1.61
16	AP	65	GLU	C-O	-5.40	1.17	1.24
26	BB	1747	U	C4'-O4'	-5.40	1.37	1.45
26	BB	1005	C	C5'-C4'	5.40	1.59	1.51
26	BB	1151	A	C5'-C4'	5.40	1.59	1.51
26	BB	1680	U	P-O5'	5.40	1.67	1.59
26	BB	2805	C	C3'-C2'	5.40	1.60	1.52
1	AA	286	C	C2'-O2'	-5.40	1.34	1.42
26	BB	752	A	P-O5'	5.40	1.67	1.59
5	AE	180	ILE	CA-C	5.40	1.57	1.52
26	BB	995	C	C4'-O4'	-5.40	1.37	1.45
4	AD	76	C	O3'-P	5.40	1.69	1.61
26	BB	862	G	C4'-O4'	-5.39	1.37	1.45
26	BB	2065	C	C1'-N1	5.39	1.56	1.48
21	AU	42	ARG	C-N	5.39	1.40	1.33
26	BB	526	A	C5'-C4'	5.39	1.59	1.51
26	BB	1203	U	C2'-O2'	-5.39	1.34	1.42
26	BB	1220	G	P-O5'	5.39	1.67	1.59
46	BV	10	VAL	N-CA	5.39	1.53	1.46
5	AE	17	HIS	CE1-NE2	5.39	1.38	1.32
26	BB	2359	C	P-O5'	5.39	1.67	1.59
1	AA	1446	A	C1'-N9	5.39	1.56	1.48
26	BB	736	C	C5'-C4'	5.39	1.59	1.51
26	BB	2704	C	C4'-O4'	-5.39	1.37	1.45
1	AA	263	A	C5'-C4'	5.39	1.59	1.51
1	AA	1282	C	C5'-C4'	5.39	1.59	1.51
20	AT	66	LEU	CA-C	5.39	1.59	1.52
26	BB	1823	G	P-O5'	5.39	1.67	1.59
26	BB	1856	U	C2'-O2'	-5.39	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1060	U	C4'-C3'	5.38	1.60	1.52
26	BB	866	A	P-O5'	5.38	1.67	1.59
26	BB	926	G	C5'-C4'	5.38	1.59	1.51
53	B2	11	GLU	N-CA	5.38	1.52	1.46
8	AH	128	GLY	C-N	5.38	1.40	1.33
28	BD	127	ASN	N-CA	5.38	1.53	1.46
1	AA	1415	G	C3'-C2'	5.38	1.60	1.52
6	AF	58	ARG	CA-C	5.38	1.58	1.52
23	AW	66	ILE	C-O	-5.38	1.17	1.25
26	BB	284	U	C5'-C4'	5.38	1.59	1.51
26	BB	2248	C	P-O5'	5.38	1.67	1.59
26	BB	2250	G	O5'-C5'	5.38	1.50	1.42
31	BG	26	GLN	CA-C	-5.38	1.45	1.52
45	BU	74	ILE	CA-C	5.38	1.59	1.52
1	AA	838	G	O3'-P	5.38	1.69	1.61
26	BB	2196	C	C5'-C4'	5.38	1.59	1.51
1	AA	389	A	O5'-C5'	-5.38	1.34	1.42
26	BB	2206	C	C2'-O2'	-5.38	1.34	1.42
1	AA	867	G	C5'-C4'	5.38	1.59	1.51
1	AA	1417	G	P-O5'	5.38	1.67	1.59
26	BB	1184	U	C4'-O4'	-5.38	1.37	1.45
26	BB	1889	A	C1'-N9	5.38	1.56	1.48
1	AA	464	U	P-O5'	5.38	1.67	1.59
1	AA	34	C	C5'-C4'	5.37	1.59	1.51
1	AA	38	G	O3'-P	-5.37	1.53	1.61
1	AA	93	U	C4'-O4'	-5.37	1.37	1.45
26	BB	1316	U	O3'-P	5.37	1.69	1.61
26	BB	2486	C	P-O5'	5.37	1.67	1.59
41	BQ	74	VAL	N-CA	5.37	1.52	1.46
41	BQ	78	VAL	CA-CB	5.37	1.61	1.54
1	AA	1141	C	O3'-P	5.37	1.69	1.61
20	AT	60	ILE	CA-CB	5.37	1.64	1.55
26	BB	656	G	C5'-C4'	5.37	1.59	1.51
1	AA	834	U	P-O5'	5.37	1.67	1.59
2	AB	64	U	C4'-O4'	-5.37	1.37	1.45
25	BA	49	C	C2'-C1'	5.37	1.61	1.53
26	BB	41	C	C5'-C4'	5.37	1.59	1.51
47	BW	4	ILE	N-CA	5.37	1.52	1.46
5	AE	144	GLU	CA-C	5.37	1.59	1.52
26	BB	1387	A	P-O5'	5.37	1.67	1.59
26	BB	2414	G	P-O5'	5.37	1.67	1.59
26	BB	2448	A	C4'-O4'	-5.37	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	8	C	C2'-C1'	5.37	1.61	1.53
1	AA	931	C	O3'-P	-5.36	1.53	1.61
25	BA	21	G	O3'-P	5.36	1.69	1.61
26	BB	809	G	P-O5'	5.36	1.67	1.59
18	AR	40	GLY	CA-C	5.36	1.58	1.52
26	BB	750	A	O3'-P	5.36	1.69	1.61
26	BB	1680	U	O5'-C5'	-5.36	1.34	1.42
29	BE	110	THR	CA-C	5.36	1.59	1.52
24	AX	23	GLU	CA-CB	5.36	1.61	1.53
26	BB	1283	G	O3'-P	-5.36	1.53	1.61
26	BB	1286	A	O3'-P	-5.36	1.53	1.61
26	BB	1341	G	O5'-C5'	-5.36	1.34	1.42
26	BB	1354	A	O3'-P	5.36	1.69	1.61
37	BM	17	ARG	CD-NE	5.36	1.53	1.46
1	AA	187	G	C4'-O4'	-5.36	1.37	1.45
3	AC	13	A	O4'-C1'	5.36	1.50	1.42
1	AA	1208	C	O3'-P	5.36	1.69	1.61
1	AA	1535	C	C3'-C2'	-5.36	1.44	1.52
11	AK	57	GLU	N-CA	5.36	1.52	1.46
26	BB	2098	U	C4'-O4'	-5.36	1.37	1.45
37	BM	59	LYS	CA-C	5.36	1.59	1.52
1	AA	66	A	C3'-O3'	5.36	1.50	1.42
1	AA	569	C	O4'-C1'	5.36	1.49	1.41
1	AA	756	C	C4'-O4'	-5.36	1.37	1.45
26	BB	1821	A	C1'-N9	5.36	1.55	1.48
26	BB	1992	G	O3'-P	5.36	1.69	1.61
26	BB	2330	G	N1-C2	5.36	1.48	1.37
1	AA	889	A	C1'-N9	-5.35	1.39	1.47
26	BB	256	A	O3'-P	5.35	1.69	1.61
26	BB	1984	G	O4'-C1'	5.35	1.49	1.41
27	BC	29	LEU	N-CA	5.35	1.52	1.46
49	BY	56	HIS	CA-CB	-5.35	1.44	1.53
1	AA	1317	C	C4'-C3'	5.35	1.60	1.52
13	AM	95	GLY	CA-C	5.35	1.58	1.52
26	BB	957	C	O5'-C5'	-5.35	1.34	1.42
26	BB	2174	C	C3'-C2'	5.35	1.60	1.52
29	BE	169	ARG	NE-CZ	5.35	1.39	1.33
43	BS	96	ASP	CA-CB	5.35	1.62	1.53
1	AA	294	U	C4'-O4'	-5.35	1.37	1.45
6	AF	135	ARG	C-N	5.35	1.40	1.33
1	AA	225	C	C1'-N1	5.35	1.56	1.48
1	AA	859	G	P-O5'	-5.35	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	AJ	40	SER	CA-C	5.35	1.59	1.52
26	BB	1241	A	C3'-O3'	5.35	1.50	1.42
26	BB	1411	U	P-O5'	5.35	1.67	1.59
26	BB	2810	A	P-O5'	5.35	1.67	1.59
26	BB	2834	G	O3'-P	5.35	1.69	1.61
30	BF	161	ALA	CA-C	5.35	1.59	1.52
1	AA	266	G	C2'-O2'	-5.35	1.34	1.42
26	BB	2304	G	C2'-C1'	5.35	1.61	1.53
16	AP	25	GLY	CA-C	5.34	1.59	1.52
26	BB	1345	C	C5'-C4'	5.34	1.59	1.51
1	AA	490	C	C3'-O3'	5.34	1.50	1.42
7	AG	130	ASN	CA-C	5.34	1.59	1.52
26	BB	749	A	P-O5'	-5.34	1.51	1.59
26	BB	2229	U	P-O5'	5.34	1.67	1.59
35	BK	8	VAL	CA-CB	-5.34	1.47	1.54
1	AA	118	U	O4'-C1'	5.34	1.49	1.41
9	AI	124	ALA	CA-C	5.34	1.59	1.52
26	BB	1036	G	P-O5'	5.34	1.67	1.59
26	BB	1558	C	C4'-O4'	-5.34	1.37	1.45
26	BB	2291	U	O4'-C1'	5.34	1.49	1.41
26	BB	2537	U	O4'-C1'	-5.34	1.33	1.41
26	BB	2608	G	C4'-O4'	-5.34	1.37	1.45
39	BO	114	ARG	NE-CZ	5.34	1.39	1.33
1	AA	61	G	P-O5'	5.34	1.67	1.59
1	AA	537	G	O3'-P	5.34	1.69	1.61
10	AJ	174	LEU	C-N	5.34	1.40	1.33
26	BB	767	U	C1'-N1	5.34	1.56	1.48
26	BB	995	C	C1'-N1	5.34	1.55	1.47
26	BB	1992	G	C1'-N9	5.34	1.54	1.47
32	BH	115	GLN	CA-C	-5.33	1.46	1.52
37	BM	31	ARG	CZ-NH1	5.33	1.40	1.32
17	AQ	11	LYS	N-CA	-5.33	1.39	1.46
25	BA	44	G	P-O5'	5.33	1.67	1.59
26	BB	2399	G	C4'-O4'	-5.33	1.37	1.45
26	BB	2718	G	C4'-C3'	5.33	1.60	1.52
1	AA	138	G	P-O5'	5.33	1.67	1.59
1	AA	1287	A	C2'-O2'	-5.33	1.34	1.42
2	AB	57	G	P-O5'	5.33	1.67	1.59
26	BB	2819	G	O3'-P	5.33	1.69	1.61
40	BP	122	ALA	CA-C	5.33	1.59	1.52
1	AA	622	A	C4'-O4'	-5.33	1.37	1.45
1	AA	851	G	C6-N1	-5.33	1.28	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1896	G	C4'-C3'	-5.33	1.44	1.52
8	AH	2	HIS	CG-CD2	5.33	1.41	1.35
26	BB	1128	G	P-O5'	5.33	1.67	1.59
31	BG	23	SER	N-CA	-5.33	1.39	1.46
13	AM	10	LEU	CA-C	5.33	1.59	1.52
21	AU	20	ILE	C-N	5.33	1.40	1.33
26	BB	827	U	C4'-O4'	-5.33	1.37	1.45
32	BH	165	ASP	CA-CB	5.33	1.61	1.53
6	AF	53	ARG	CZ-NH1	5.32	1.40	1.32
26	BB	323	C	C1'-N1	5.32	1.55	1.47
26	BB	508	A	C3'-O3'	5.32	1.50	1.42
26	BB	2385	C	O3'-P	-5.32	1.53	1.61
36	BL	113	PRO	C-N	5.32	1.41	1.33
1	AA	1241	G	C3'-O3'	-5.32	1.34	1.42
12	AL	60	LEU	N-CA	5.32	1.52	1.46
26	BB	120	U	O5'-C5'	-5.32	1.34	1.42
12	AL	56	MET	CA-C	5.32	1.60	1.52
24	AX	59	LEU	CA-C	5.32	1.59	1.52
25	BA	87	U	O3'-P	5.32	1.69	1.61
26	BB	1065	U	C3'-C2'	-5.32	1.44	1.52
26	BB	1645	G	O3'-P	5.32	1.69	1.61
26	BB	1760	C	C4'-O4'	-5.32	1.37	1.45
26	BB	2660	A	C5'-C4'	5.32	1.59	1.51
26	BB	2903	U	C1'-N1	5.32	1.56	1.48
46	BV	28	ASN	CA-C	5.32	1.59	1.52
26	BB	391	A	C2'-O2'	5.32	1.50	1.42
26	BB	1591	A	P-O5'	5.32	1.67	1.59
26	BB	1812	U	C5'-C4'	5.32	1.59	1.51
1	AA	552	U	C3'-C2'	5.32	1.60	1.52
2	AB	76	A	C4'-C3'	5.32	1.60	1.52
16	AP	66	GLY	CA-C	5.32	1.58	1.52
17	AQ	30	ILE	CB-CG1	5.32	1.64	1.53
26	BB	1267	U	C2'-O2'	-5.32	1.34	1.42
26	BB	1459	G	P-O5'	5.32	1.67	1.59
26	BB	2521	C	C4'-O4'	-5.32	1.37	1.45
38	BN	61	LEU	CA-C	5.32	1.57	1.52
2	AB	22	G	C5'-C4'	5.32	1.59	1.51
26	BB	1070	A	C1'-N9	5.32	1.54	1.47
1	AA	976	G	P-O5'	5.31	1.67	1.59
1	AA	1497	G	C4'-O4'	-5.31	1.37	1.45
26	BB	1454	C	P-O5'	5.31	1.67	1.59
26	BB	1585	C	C3'-O3'	5.31	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	83	A	C3'-O3'	5.31	1.50	1.42
26	BB	606	U	C4'-O4'	-5.31	1.37	1.45
26	BB	662	G	C4'-C3'	5.31	1.60	1.52
39	BO	62	LYS	CA-CB	5.31	1.66	1.53
1	AA	392	C	C4'-O4'	-5.31	1.37	1.45
11	AK	33	VAL	CA-C	5.31	1.59	1.52
26	BB	204	A	C5'-C4'	5.31	1.59	1.51
48	BX	80	HIS	CA-C	5.31	1.59	1.53
1	AA	333	U	C4'-O4'	-5.31	1.37	1.45
26	BB	1706	C	P-O5'	-5.31	1.51	1.59
30	BF	147	LEU	CA-CB	5.31	1.59	1.53
49	BY	37	VAL	CA-CB	5.31	1.59	1.54
1	AA	68	G	P-O5'	5.31	1.67	1.59
1	AA	229	U	C4'-O4'	-5.31	1.37	1.45
1	AA	1444	U	C5'-C4'	5.31	1.59	1.51
26	BB	160	A	C5'-C4'	5.31	1.59	1.51
57	B6	61	LEU	N-CA	-5.31	1.41	1.46
1	AA	812	G	C3'-C2'	5.31	1.60	1.52
28	BD	12	ARG	CA-C	5.31	1.59	1.52
57	B6	50	SER	CA-C	5.31	1.59	1.52
1	AA	1346	A	C4'-C3'	5.30	1.61	1.53
26	BB	393	C	C1'-N1	5.30	1.56	1.48
26	BB	553	G	C2'-O2'	5.30	1.50	1.42
26	BB	633	A	P-O5'	5.30	1.67	1.59
26	BB	1293	C	C4'-C3'	5.30	1.60	1.52
1	AA	849	G	C5'-C4'	5.30	1.59	1.51
7	AG	96	ARG	CZ-NH1	5.30	1.40	1.32
26	BB	2440	C	P-O5'	5.30	1.67	1.59
31	BG	137	PHE	CA-C	5.30	1.59	1.52
52	B1	34	THR	CB-OG1	-5.30	1.35	1.43
1	AA	929	G	C5'-C4'	5.30	1.59	1.51
26	BB	1568	G	C5'-C4'	5.30	1.59	1.51
26	BB	2158	A	P-O5'	5.30	1.67	1.59
48	BX	14	LYS	C-N	5.30	1.40	1.33
1	AA	161	A	O3'-P	5.30	1.69	1.61
1	AA	366	A	O3'-P	5.30	1.69	1.61
26	BB	133	U	C2'-O2'	-5.30	1.34	1.42
26	BB	1037	G	C3'-C2'	-5.30	1.44	1.52
26	BB	1416	G	O5'-C5'	-5.30	1.34	1.42
26	BB	1624	U	C4'-C3'	5.30	1.60	1.52
27	BC	172	HIS	ND1-CE1	5.30	1.37	1.32
30	BF	142	ALA	CA-C	5.30	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BV	70	HIS	CE1-NE2	5.30	1.37	1.32
48	BX	76	ASP	N-CA	5.30	1.52	1.46
1	AA	355	C	C5'-C4'	5.29	1.59	1.51
26	BB	468	G	O5'-C5'	5.29	1.50	1.42
1	AA	254	G	O3'-P	5.29	1.69	1.61
1	AA	492	C	P-O5'	5.29	1.67	1.59
1	AA	565	U	C4'-O4'	-5.29	1.37	1.45
1	AA	1233	G	C5'-C4'	5.29	1.59	1.51
11	AK	51	GLU	CA-C	5.29	1.59	1.52
15	AO	85	ARG	NE-CZ	5.29	1.38	1.33
32	BH	79	THR	C-O	-5.29	1.18	1.23
38	BN	76	GLU	N-CA	5.29	1.52	1.46
41	BQ	7	ARG	N-CA	-5.29	1.39	1.46
58	B7	35	GLN	CA-C	5.29	1.59	1.52
1	AA	1309	G	O5'-C5'	-5.29	1.34	1.42
26	BB	1118	C	C5'-C4'	5.29	1.59	1.51
47	BW	41	VAL	N-CA	-5.29	1.40	1.46
26	BB	806	C	O3'-P	5.29	1.69	1.61
1	AA	785	G	O3'-P	5.29	1.69	1.61
1	AA	951	G	C2'-O2'	-5.29	1.34	1.42
1	AA	1303	C	P-O5'	5.29	1.67	1.59
34	BJ	106	GLU	N-CA	-5.29	1.39	1.46
1	AA	280	C	C4'-O4'	-5.29	1.38	1.45
45	BU	60	HIS	CE1-NE2	5.29	1.37	1.32
26	BB	2094	A	C5'-C4'	5.29	1.59	1.51
3	AC	15	G	O3'-P	5.28	1.69	1.61
26	BB	151	C	C4'-O4'	-5.28	1.37	1.45
26	BB	790	U	C1'-N1	5.28	1.56	1.48
26	BB	1006	C	C1'-N1	5.28	1.56	1.48
26	BB	1025	G	P-O5'	5.28	1.67	1.59
26	BB	1529	G	C5'-C4'	5.28	1.59	1.51
47	BW	79	ALA	CA-C	5.28	1.59	1.52
1	AA	1417	G	O3'-P	5.28	1.69	1.61
26	BB	1351	C	O3'-P	-5.28	1.53	1.61
26	BB	2651	C	O4'-C1'	5.28	1.49	1.41
26	BB	2781	A	P-O5'	5.28	1.67	1.59
1	AA	754	C	O5'-C5'	-5.28	1.34	1.42
26	BB	481	G	C4'-O4'	5.28	1.53	1.45
26	BB	2723	C	C4'-O4'	-5.28	1.37	1.45
26	BB	2808	G	O5'-C5'	5.28	1.50	1.42
12	AL	71	ILE	N-CA	-5.28	1.40	1.46
26	BB	1165	A	C3'-C2'	-5.28	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BL	46	PRO	CA-C	5.28	1.58	1.52
41	BQ	21	LEU	CA-C	5.28	1.60	1.52
1	AA	237	G	C4'-O4'	-5.28	1.37	1.45
4	AD	30	G	P-O5'	5.28	1.67	1.59
17	AQ	43	ALA	C-N	5.28	1.40	1.33
26	BB	498	G	P-O5'	-5.28	1.51	1.59
42	BR	49	ILE	CB-CG1	5.28	1.64	1.53
5	AE	221	ARG	NE-CZ	5.28	1.38	1.33
26	BB	2279	G	O3'-P	5.28	1.69	1.61
27	BC	22	ASP	CA-C	5.28	1.59	1.52
26	BB	2035	G	C5'-C4'	-5.27	1.43	1.51
1	AA	413	G	C5'-C4'	5.27	1.59	1.51
1	AA	499	A	C1'-N9	5.27	1.54	1.47
13	AM	43	PRO	C-O	5.27	1.29	1.23
40	BP	16	HIS	C-O	-5.27	1.18	1.24
47	BW	97	SER	C-N	5.27	1.41	1.33
11	AK	56	PRO	CA-C	5.27	1.59	1.52
26	BB	2741	A	C5'-C4'	5.27	1.59	1.51
13	AM	37	ARG	CA-C	5.27	1.58	1.52
26	BB	1405	U	C3'-C2'	5.27	1.60	1.52
26	BB	2391	G	C4'-O4'	-5.27	1.38	1.45
27	BC	175	ILE	CA-CB	5.27	1.61	1.54
1	AA	782	A	O3'-P	5.27	1.69	1.61
6	AF	101	ASN	N-CA	5.27	1.52	1.45
9	AI	44	ARG	NE-CZ	5.27	1.38	1.33
26	BB	823	C	O4'-C1'	5.27	1.49	1.41
26	BB	1029	A	C4'-O4'	-5.27	1.37	1.45
3	AC	36	U	P-O5'	5.27	1.67	1.59
26	BB	418	C	C5'-C4'	5.26	1.59	1.51
12	AL	21	LYS	CA-C	5.26	1.57	1.52
26	BB	1676	A	C4'-C3'	5.26	1.60	1.52
31	BG	129	MET	N-CA	-5.26	1.40	1.46
1	AA	848	C	O3'-P	5.26	1.69	1.61
5	AE	212	TYR	C-O	5.26	1.30	1.24
26	BB	220	G	C4'-O4'	-5.26	1.37	1.45
26	BB	1683	U	C1'-N1	5.26	1.56	1.48
26	BB	2075	U	O3'-P	-5.26	1.53	1.61
26	BB	2636	C	C2'-O2'	5.26	1.50	1.42
43	BS	94	LEU	CA-C	5.26	1.59	1.52
1	AA	1374	A	C4'-C3'	5.26	1.60	1.52
2	AB	24	G	C3'-O3'	5.26	1.50	1.42
9	AI	76	THR	CA-CB	5.26	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1324	G	P-O5'	5.26	1.67	1.59
26	BB	2115	G	C5'-C4'	5.26	1.59	1.51
26	BB	1372	U	P-O5'	5.26	1.67	1.59
26	BB	2146	C	O5'-C5'	-5.26	1.34	1.42
1	AA	591	U	C3'-C2'	5.26	1.60	1.52
1	AA	971	G	O5'-C5'	-5.26	1.34	1.42
9	AI	132	GLU	N-CA	-5.26	1.39	1.45
12	AL	112	ARG	CD-NE	5.26	1.53	1.46
26	BB	386	G	C4'-O4'	-5.26	1.38	1.45
26	BB	1021	A	P-O5'	5.26	1.67	1.59
26	BB	1400	U	C2'-O2'	-5.26	1.34	1.42
26	BB	1987	A	C2'-C1'	-5.26	1.45	1.53
27	BC	21	TYR	N-CA	5.26	1.52	1.45
38	BN	140	GLY	CA-C	5.26	1.61	1.52
42	BR	76	HIS	CG-ND1	5.26	1.44	1.38
1	AA	11	G	P-O5'	5.25	1.67	1.59
26	BB	1176	U	C1'-N1	5.25	1.56	1.48
1	AA	780	A	P-O5'	5.25	1.67	1.59
19	AS	62	GLY	N-CA	5.25	1.52	1.45
23	AW	66	ILE	N-CA	5.25	1.50	1.46
26	BB	514	A	C5'-C4'	5.25	1.59	1.51
33	BI	128	HIS	CD2-NE2	5.25	1.43	1.37
49	BY	20	LEU	N-CA	5.25	1.52	1.46
1	AA	107	G	C5'-C4'	5.25	1.59	1.51
1	AA	499	A	C5'-C4'	5.25	1.59	1.51
5	AE	75	ALA	CA-CB	-5.25	1.46	1.54
26	BB	2155	U	C5'-C4'	5.25	1.59	1.51
28	BD	126	GLY	CA-C	5.25	1.59	1.51
5	AE	81	ASP	C-O	-5.25	1.17	1.24
25	BA	76	G	P-O5'	5.25	1.67	1.59
26	BB	1290	C	C2'-C1'	5.25	1.61	1.53
26	BB	1980	G	P-O5'	5.25	1.67	1.59
26	BB	1518	C	P-O5'	5.25	1.67	1.59
36	BL	113	PRO	N-CD	-5.25	1.40	1.47
1	AA	378	G	C4'-C3'	-5.25	1.44	1.52
26	BB	1324	G	C1'-N9	5.25	1.54	1.47
1	AA	744	C	C4'-O4'	-5.24	1.37	1.45
8	AH	132	PRO	CA-CB	5.24	1.61	1.53
18	AR	7	THR	CA-C	5.24	1.59	1.52
26	BB	627	A	C4'-O4'	-5.24	1.38	1.45
26	BB	1166	G	C2'-O2'	-5.24	1.34	1.42
26	BB	1634	A	C4'-O4'	-5.24	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2042	A	O3'-P	5.24	1.69	1.61
26	BB	2662	A	C2'-O2'	-5.24	1.34	1.42
36	BL	109	LEU	CA-C	5.24	1.60	1.53
1	AA	1165	U	C4'-O4'	-5.24	1.37	1.45
11	AK	109	VAL	CA-C	5.24	1.58	1.52
55	B4	18	HIS	CG-ND1	5.24	1.44	1.38
18	AR	49	HIS	CG-CD2	5.24	1.41	1.35
26	BB	75	G	C2'-O2'	-5.24	1.34	1.42
1	AA	504	C	C4'-O4'	-5.24	1.37	1.45
26	BB	885	C	C3'-O3'	-5.24	1.34	1.42
34	BJ	116	LEU	CA-CB	5.24	1.61	1.53
1	AA	1144	G	C3'-O3'	-5.24	1.34	1.42
1	AA	131	A	O3'-P	5.24	1.69	1.61
1	AA	226	G	O4'-C1'	5.24	1.49	1.41
1	AA	707	U	C1'-N1	5.24	1.56	1.48
26	BB	373	U	O5'-C5'	5.24	1.50	1.42
26	BB	668	A	C4'-C3'	5.24	1.60	1.52
30	BF	123	LYS	C-N	5.24	1.40	1.33
54	B3	7	PRO	CA-CB	-5.24	1.47	1.53
33	BI	122	LEU	CA-CB	5.23	1.62	1.53
14	AN	6	ARG	CZ-NH2	-5.23	1.26	1.33
26	BB	353	C	C5'-C4'	5.23	1.59	1.51
26	BB	1263	U	C5'-C4'	5.23	1.59	1.51
45	BU	95	ARG	CA-C	5.23	1.59	1.52
48	BX	12	GLN	N-CA	5.23	1.52	1.45
4	AD	32	G	C2'-C1'	-5.23	1.45	1.53
25	BA	13	G	P-O5'	5.23	1.67	1.59
26	BB	384	A	O3'-P	5.23	1.69	1.61
26	BB	2033	A	C4'-C3'	-5.23	1.45	1.53
26	BB	2140	G	C4'-C3'	5.23	1.60	1.52
33	BI	68	ARG	N-CA	5.23	1.52	1.46
38	BN	86	GLU	CA-CB	5.23	1.62	1.53
45	BU	24	ILE	CA-CB	5.23	1.61	1.54
16	AP	43	LYS	C-N	5.23	1.40	1.33
19	AS	67	ILE	CB-CG1	5.23	1.64	1.53
38	BN	85	VAL	CA-CB	5.23	1.60	1.54
1	AA	1077	G	C1'-N9	5.23	1.55	1.48
28	BD	173	LEU	CA-C	5.23	1.58	1.52
33	BI	94	ILE	CA-CB	5.23	1.61	1.54
46	BV	33	LYS	CA-C	5.23	1.59	1.52
53	B2	13	THR	N-CA	5.23	1.53	1.46
55	B4	11	VAL	C-N	5.23	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	488	G	C1'-N9	5.23	1.55	1.48
26	BB	1529	G	N3-C4	5.23	1.46	1.35
1	AA	1501	C	C5'-C4'	5.22	1.59	1.51
5	AE	131	LYS	CA-CB	5.22	1.61	1.53
26	BB	2001	C	C3'-C2'	5.22	1.60	1.52
29	BE	95	SER	C-N	5.22	1.39	1.33
48	BX	13	GLY	N-CA	-5.22	1.40	1.45
2	AB	57	G	C3'-C2'	5.22	1.60	1.52
16	AP	82	LEU	C-N	5.22	1.40	1.33
26	BB	85	G	O5'-C5'	5.22	1.50	1.42
26	BB	139	U	C3'-C2'	-5.22	1.45	1.52
26	BB	2088	A	C4'-O4'	-5.22	1.37	1.45
9	AI	79	ARG	CA-CB	5.22	1.61	1.53
1	AA	372	C	C5'-C4'	5.22	1.59	1.51
6	AF	125	ARG	N-CA	5.22	1.52	1.46
32	BH	151	ARG	NE-CZ	5.22	1.38	1.33
34	BJ	67	PRO	C-N	5.22	1.41	1.33
1	AA	193	C	P-O5'	5.22	1.67	1.59
1	AA	294	U	O3'-P	5.22	1.69	1.61
26	BB	965	C	C5'-C4'	5.22	1.59	1.51
26	BB	2424	C	P-O5'	5.22	1.67	1.59
1	AA	58	C	C4'-O4'	-5.22	1.37	1.45
10	AJ	83	THR	N-CA	5.22	1.52	1.46
19	AS	27	ALA	CA-C	5.22	1.59	1.52
26	BB	170	U	P-O5'	5.22	1.67	1.59
26	BB	453	A	C2'-O2'	5.22	1.50	1.42
26	BB	898	C	C3'-C2'	-5.22	1.45	1.52
26	BB	1313	U	C2'-O2'	-5.22	1.34	1.42
28	BD	192	GLY	CA-C	5.22	1.59	1.51
1	AA	139	A	O3'-P	5.21	1.69	1.61
4	AD	24	C	O4'-C1'	5.21	1.49	1.41
6	AF	105	VAL	CA-C	5.21	1.58	1.52
26	BB	1601	G	C5'-C4'	5.21	1.59	1.51
1	AA	459	A	C4'-O4'	-5.21	1.37	1.45
26	BB	2646	C	C4'-O4'	-5.21	1.37	1.45
27	BC	151	GLU	N-CA	5.21	1.52	1.46
34	BJ	13	GLU	CA-CB	-5.21	1.45	1.53
1	AA	50	A	C5'-C4'	5.21	1.59	1.51
1	AA	801	U	C3'-O3'	5.21	1.50	1.42
6	AF	168	ARG	NE-CZ	5.21	1.38	1.33
26	BB	1136	G	C3'-O3'	5.21	1.50	1.42
26	BB	2034	U	C4-C5	5.21	1.53	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2653	U	P-O5'	5.21	1.67	1.59
27	BC	26	ALA	C-N	5.21	1.40	1.33
39	BO	60	GLN	CA-C	-5.21	1.46	1.53
47	BW	44	HIS	ND1-CE1	5.21	1.37	1.32
57	B6	29	ARG	CA-C	5.21	1.59	1.52
9	AI	59	TYR	C-O	-5.21	1.17	1.24
26	BB	73	A	C3'-C2'	5.21	1.60	1.52
1	AA	679	C	C4'-O4'	-5.21	1.37	1.45
1	AA	926	G	C4'-O4'	-5.21	1.38	1.45
1	AA	1412	C	C5'-C4'	5.21	1.59	1.51
7	AG	184	LYS	N-CA	5.21	1.53	1.45
14	AN	62	ALA	C-O	-5.21	1.18	1.24
26	BB	68	G	P-O5'	5.21	1.67	1.59
26	BB	1662	U	C4'-O4'	-5.21	1.37	1.45
1	AA	768	A	O3'-P	5.21	1.69	1.61
26	BB	2757	A	C4'-C3'	5.21	1.60	1.52
47	BW	7	ASP	N-CA	5.21	1.51	1.46
1	AA	790	A	O5'-C5'	-5.21	1.35	1.42
26	BB	2396	G	C2-N3	5.21	1.43	1.32
1	AA	90	C	C1'-N1	5.20	1.56	1.48
26	BB	2210	U	C1'-N1	5.20	1.55	1.47
32	BH	98	LYS	CA-C	5.20	1.59	1.53
13	AM	83	THR	C-N	5.20	1.40	1.33
26	BB	764	A	C4'-O4'	-5.20	1.38	1.45
26	BB	1060	U	O5'-C5'	-5.20	1.35	1.42
33	BI	134	VAL	CA-C	5.20	1.59	1.52
1	AA	451	A	C1'-N9	5.20	1.54	1.47
1	AA	753	A	P-O5'	5.20	1.67	1.59
1	AA	808	C	O3'-P	5.20	1.69	1.61
4	AD	18	U	O3'-P	5.20	1.69	1.61
16	AP	110	GLY	CA-C	5.20	1.59	1.51
22	AV	50	VAL	CA-CB	5.20	1.60	1.53
26	BB	1157	G	O3'-P	5.20	1.69	1.61
26	BB	2094	A	O3'-P	5.20	1.69	1.61
53	B2	14	ALA	N-CA	-5.20	1.39	1.46
55	B4	32	LYS	CA-C	5.20	1.60	1.53
1	AA	335	C	C2'-O2'	-5.20	1.34	1.42
1	AA	926	G	O3'-P	5.20	1.69	1.61
17	AQ	69	PRO	N-CD	5.20	1.55	1.47
26	BB	1424	G	P-O5'	5.20	1.67	1.59
37	BM	98	ARG	CA-C	-5.20	1.46	1.52
16	AP	73	SER	N-CA	5.20	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	28	C	C2'-O2'	5.20	1.50	1.42
37	BM	116	ILE	CA-CB	-5.20	1.48	1.54
1	AA	738	C	C2'-C1'	5.20	1.61	1.53
26	BB	502	A	C4'-O4'	-5.20	1.37	1.45
26	BB	635	C	C1'-N1	5.20	1.56	1.48
26	BB	2737	G	C1'-N9	5.20	1.55	1.48
26	BB	2823	A	C4'-O4'	-5.20	1.37	1.45
44	BT	43	ASN	N-CA	5.20	1.52	1.46
46	BV	31	VAL	C-N	5.20	1.40	1.33
1	AA	1101	A	O5'-C5'	-5.19	1.35	1.42
12	AL	120	ALA	C-O	-5.19	1.18	1.24
17	AQ	62	ARG	CZ-NH1	5.19	1.40	1.32
4	AD	42	C	P-O5'	5.19	1.67	1.59
16	AP	48	SER	C-N	-5.19	1.27	1.34
19	AS	34	GLU	CA-C	5.19	1.58	1.52
26	BB	892	A	C5'-C4'	5.19	1.59	1.51
26	BB	2380	C	C2'-C1'	5.19	1.61	1.53
4	AD	5	G	O3'-P	-5.19	1.53	1.61
19	AS	15	PRO	CA-CB	-5.19	1.46	1.53
26	BB	1197	G	C5'-C4'	5.19	1.59	1.51
26	BB	1337	G	C4'-O4'	-5.19	1.37	1.45
26	BB	1339	G	C4'-O4'	-5.19	1.37	1.45
26	BB	1411	U	O3'-P	5.19	1.69	1.61
26	BB	2401	U	C5'-C4'	5.19	1.59	1.51
26	BB	2540	C	C5'-C4'	5.19	1.59	1.51
26	BB	2744	G	P-O5'	5.19	1.67	1.59
32	BH	153	PRO	N-CD	5.19	1.55	1.47
1	AA	1211	U	O5'-C5'	-5.19	1.34	1.42
14	AN	85	VAL	C-O	-5.19	1.18	1.24
26	BB	2384	U	O5'-C5'	-5.19	1.35	1.42
34	BJ	101	ALA	CA-C	5.19	1.59	1.52
43	BS	54	ARG	CA-C	5.19	1.59	1.52
1	AA	1176	A	P-O5'	-5.19	1.51	1.59
6	AF	42	LEU	CA-C	5.19	1.59	1.52
47	BW	73	ASN	C-N	5.19	1.41	1.33
1	AA	351	G	C4'-C3'	5.18	1.60	1.53
24	AX	44	ARG	CD-NE	5.18	1.53	1.46
26	BB	2770	G	C4'-O4'	-5.18	1.37	1.45
26	BB	2779	U	C4'-O4'	-5.18	1.38	1.45
27	BC	102	ASP	N-CA	5.18	1.52	1.46
32	BH	3	VAL	CA-C	5.18	1.59	1.52
1	AA	742	G	C1'-N9	5.18	1.55	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	2	G	O5'-C5'	-5.18	1.34	1.42
23	AW	67	HIS	CG-CD2	5.18	1.41	1.35
26	BB	273	G	C5'-C4'	5.18	1.59	1.51
26	BB	1575	C	C5'-C4'	5.18	1.59	1.51
27	BC	132	GLY	N-CA	5.18	1.51	1.44
55	B4	32	LYS	CA-CB	5.18	1.61	1.53
1	AA	651	C	C5'-C4'	5.18	1.59	1.51
1	AA	1466	C	C1'-N1	5.18	1.56	1.48
6	AF	167	TYR	N-CA	-5.18	1.40	1.46
26	BB	1056	G	C3'-O3'	5.18	1.50	1.42
32	BH	95	ALA	C-O	-5.18	1.19	1.24
23	AW	62	ALA	CA-CB	5.18	1.61	1.53
40	BP	52	ILE	C-O	-5.18	1.18	1.24
6	AF	133	MET	CA-C	5.18	1.59	1.52
28	BD	208	GLY	CA-C	5.18	1.59	1.51
1	AA	1309	G	C4'-O4'	-5.18	1.37	1.45
26	BB	1381	G	C2'-O2'	-5.18	1.34	1.42
7	AG	118	SER	C-O	-5.17	1.18	1.24
26	BB	646	U	C5'-C4'	5.17	1.59	1.51
26	BB	1109	C	O5'-C5'	-5.17	1.34	1.42
44	BT	86	GLN	CA-C	-5.17	1.46	1.52
54	B3	16	ARG	CA-C	5.17	1.59	1.52
26	BB	202	U	C1'-N1	5.17	1.56	1.48
26	BB	1785	A	P-O5'	5.17	1.67	1.59
26	BB	2421	G	P-O5'	5.17	1.67	1.59
37	BM	47	ILE	CA-CB	5.17	1.60	1.54
1	AA	47	C	C5'-C4'	5.17	1.59	1.51
1	AA	828	U	C3'-C2'	5.17	1.60	1.52
1	AA	1496	C	O5'-C5'	-5.17	1.34	1.42
5	AE	189	ASN	CA-C	5.17	1.59	1.52
26	BB	1815	A	C4'-C3'	-5.17	1.45	1.53
17	AQ	33	VAL	N-CA	-5.17	1.39	1.46
26	BB	1633	G	C3'-C2'	5.17	1.60	1.52
26	BB	2409	G	O3'-P	5.17	1.69	1.61
4	AD	48	U	O3'-P	5.17	1.69	1.61
5	AE	149	GLY	C-N	5.17	1.40	1.33
8	AH	67	ARG	CZ-NH1	5.17	1.40	1.32
25	BA	21	G	C2'-C1'	5.17	1.61	1.53
26	BB	371	A	C5'-C4'	5.17	1.59	1.51
26	BB	1418	G	C4'-O4'	-5.17	1.37	1.45
36	BL	40	HIS	CA-C	-5.17	1.45	1.52
1	AA	643	C	O3'-P	-5.17	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	AH	19	ARG	CZ-NH2	5.17	1.40	1.33
26	BB	277	G	C5'-C4'	5.17	1.58	1.51
26	BB	2487	G	C1'-N9	5.17	1.55	1.48
26	BB	2506	U	C3'-O3'	5.17	1.49	1.42
26	BB	817	C	O3'-P	5.17	1.68	1.61
26	BB	1943	U	C1'-N1	5.17	1.55	1.47
1	AA	483	C	C2'-C1'	5.16	1.61	1.53
1	AA	799	G	P-O5'	5.16	1.67	1.59
15	AO	61	GLU	CA-C	-5.16	1.46	1.52
26	BB	719	C	C2'-C1'	5.16	1.61	1.53
26	BB	824	U	C3'-C2'	5.16	1.60	1.52
26	BB	2164	C	C1'-N1	5.16	1.56	1.48
26	BB	2302	U	P-O5'	5.16	1.67	1.59
30	BF	135	ALA	CA-C	-5.16	1.45	1.52
30	BF	186	VAL	CA-C	5.16	1.59	1.52
27	BC	227	ALA	C-N	-5.16	1.26	1.33
33	BI	135	HIS	CE1-NE2	5.16	1.37	1.32
1	AA	10	A	C2'-C1'	5.16	1.61	1.53
26	BB	2254	C	C2'-O2'	5.16	1.50	1.42
12	AL	82	ILE	C-O	-5.16	1.18	1.24
13	AM	44	THR	CA-C	5.16	1.59	1.52
36	BL	44	TYR	CA-C	5.16	1.59	1.52
36	BL	87	ALA	N-CA	5.16	1.52	1.46
25	BA	118	C	C3'-C2'	-5.16	1.45	1.52
26	BB	2842	G	P-O5'	5.16	1.67	1.59
25	BA	90	C	O3'-P	5.16	1.68	1.61
26	BB	244	A	C4'-C3'	5.15	1.60	1.52
26	BB	1312	U	O4'-C1'	5.15	1.49	1.42
26	BB	2410	G	C3'-O3'	5.15	1.49	1.42
32	BH	69	ALA	CA-CB	-5.15	1.45	1.53
1	AA	337	G	C4'-C3'	-5.15	1.44	1.52
1	AA	451	A	N3-C4	5.15	1.45	1.34
1	AA	937	A	O3'-P	5.15	1.68	1.61
19	AS	28	ARG	CZ-NH2	5.15	1.40	1.33
26	BB	169	G	C5'-C4'	5.15	1.58	1.51
26	BB	2658	C	P-O5'	5.15	1.67	1.59
26	BB	2903	U	O5'-C5'	5.15	1.50	1.42
28	BD	138	SER	CA-C	5.15	1.59	1.52
36	BL	131	ASN	N-CA	5.15	1.52	1.46
37	BM	27	GLY	CA-C	5.15	1.57	1.51
41	BQ	13	ARG	N-CA	-5.15	1.40	1.46
26	BB	336	C	O4'-C1'	5.15	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1383	A	C4'-O4'	-5.15	1.37	1.45
4	AD	77	A	O4'-C1'	5.15	1.49	1.41
15	AO	43	LYS	N-CA	5.15	1.53	1.46
26	BB	87	U	C4'-O4'	-5.15	1.37	1.45
1	AA	511	C	O4'-C1'	5.15	1.49	1.42
8	AH	133	ILE	N-CA	5.15	1.52	1.46
26	BB	529	A	C4'-O4'	-5.15	1.38	1.45
26	BB	2511	U	C4'-O4'	-5.15	1.37	1.45
44	BT	84	ARG	NE-CZ	5.15	1.38	1.33
22	AV	45	GLY	C-N	5.15	1.40	1.33
26	BB	1159	U	C1'-N1	5.15	1.56	1.48
26	BB	2817	U	C4'-O4'	-5.15	1.37	1.45
29	BE	46	ARG	NE-CZ	5.15	1.38	1.33
30	BF	42	GLY	CA-C	5.15	1.59	1.51
10	AJ	141	HIS	N-CA	-5.14	1.39	1.46
26	BB	735	A	C3'-O3'	5.14	1.49	1.42
26	BB	981	A	C2'-C1'	5.14	1.61	1.53
30	BF	36	ALA	N-CA	5.14	1.52	1.46
45	BU	7	HIS	CB-CG	5.14	1.57	1.50
2	AB	19	G	C4'-C3'	5.14	1.60	1.52
26	BB	459	U	C5'-C4'	5.14	1.58	1.51
26	BB	1124	G	C5'-C4'	5.14	1.58	1.51
35	BK	17	ALA	N-CA	5.14	1.52	1.46
38	BN	22	GLY	N-CA	5.14	1.52	1.45
39	BO	29	GLY	N-CA	5.14	1.49	1.44
41	BQ	10	ARG	CZ-NH1	5.14	1.40	1.32
26	BB	1898	U	C3'-O3'	5.14	1.49	1.42
26	BB	2891	U	O3'-P	5.14	1.68	1.61
1	AA	699	C	C2'-O2'	-5.14	1.34	1.42
1	AA	786	G	O3'-P	5.14	1.68	1.61
38	BN	35	HIS	CE1-NE2	5.14	1.37	1.32
1	AA	1110	A	O3'-P	5.14	1.68	1.61
26	BB	443	A	C5'-C4'	5.14	1.59	1.51
1	AA	563	A	C5'-C4'	5.14	1.58	1.51
1	AA	630	A	P-O5'	5.14	1.67	1.59
17	AQ	39	ASP	CA-CB	5.14	1.62	1.53
26	BB	264	C	C4'-O4'	-5.14	1.37	1.45
26	BB	1603	A	P-O5'	5.14	1.67	1.59
32	BH	36	LEU	N-CA	5.14	1.52	1.46
33	BI	143	ILE	N-CA	5.14	1.52	1.46
47	BW	82	VAL	CA-CB	5.14	1.61	1.54
11	AK	97	GLY	N-CA	5.13	1.52	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1520	U	P-O5'	5.13	1.67	1.59
42	BR	5	LYS	CA-C	5.13	1.59	1.52
26	BB	302	C	C2'-O2'	5.13	1.50	1.42
26	BB	1739	A	O5'-C5'	-5.13	1.34	1.42
40	BP	9	GLN	CA-C	5.13	1.59	1.52
1	AA	1021	A	C5'-C4'	5.13	1.58	1.51
6	AF	24	ASN	CA-C	-5.13	1.47	1.53
20	AT	64	ARG	CA-CB	5.13	1.61	1.53
26	BB	1117	C	P-O5'	5.13	1.67	1.59
26	BB	1413	A	C1'-N9	5.13	1.55	1.48
26	BB	2785	C	C4'-C3'	5.13	1.60	1.52
31	BG	101	ARG	NE-CZ	5.13	1.38	1.33
26	BB	1464	G	C4'-O4'	-5.13	1.37	1.45
1	AA	401	C	C4'-O4'	-5.13	1.37	1.45
1	AA	1074	G	O3'-P	5.13	1.68	1.61
26	BB	2116	G	C4'-O4'	-5.13	1.37	1.45
56	B5	13	ASN	N-CA	5.13	1.52	1.46
1	AA	28	A	C5'-C4'	5.13	1.58	1.51
1	AA	263	A	O3'-P	5.13	1.68	1.61
6	AF	135	ARG	CA-C	5.13	1.59	1.52
7	AG	126	GLY	CA-C	5.13	1.58	1.51
26	BB	833	A	O3'-P	5.13	1.68	1.61
26	BB	1474	U	O4'-C1'	5.13	1.49	1.41
26	BB	2351	G	O5'-C5'	5.13	1.50	1.42
45	BU	19	LEU	CA-CB	-5.13	1.45	1.53
1	AA	1014	A	C2'-C1'	5.12	1.61	1.53
26	BB	166	U	O3'-P	5.12	1.68	1.61
1	AA	803	G	P-O5'	5.12	1.67	1.59
5	AE	48	MET	N-CA	-5.12	1.40	1.46
38	BN	14	LYS	N-CA	5.12	1.52	1.46
54	B3	18	HIS	ND1-CE1	5.12	1.37	1.32
1	AA	178	C	P-O5'	5.12	1.67	1.59
26	BB	1216	G	O3'-P	5.12	1.68	1.61
44	BT	27	ILE	CA-C	5.12	1.58	1.52
1	AA	563	A	P-O5'	5.12	1.67	1.59
1	AA	917	G	C3'-C2'	5.12	1.60	1.52
28	BD	119	VAL	CA-CB	5.12	1.60	1.54
23	AW	3	ILE	C-N	5.12	1.40	1.33
26	BB	142	A	C4'-C3'	5.12	1.60	1.52
26	BB	1291	C	P-O5'	5.12	1.67	1.59
26	BB	892	A	C4'-O4'	-5.12	1.37	1.45
1	AA	1191	A	O5'-C5'	5.12	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	AS	5	ARG	CA-C	5.12	1.58	1.52
26	BB	132	G	C5'-C4'	5.12	1.58	1.51
26	BB	1053	C	C2'-O2'	5.12	1.50	1.42
26	BB	2755	C	P-O5'	5.12	1.67	1.59
1	AA	1348	U	C5'-C4'	5.11	1.58	1.51
12	AL	78	ILE	CA-C	5.11	1.59	1.52
15	AO	119	LYS	N-CA	-5.11	1.39	1.46
26	BB	721	A	C1'-N9	5.11	1.55	1.48
26	BB	1306	C	C1'-N1	5.11	1.56	1.48
1	AA	1064	G	C4'-C3'	5.11	1.60	1.53
1	AA	1214	C	C4'-O4'	-5.11	1.38	1.45
26	BB	1471	G	P-O5'	5.11	1.67	1.59
37	BM	104	THR	CA-CB	5.11	1.60	1.53
26	BB	875	G	C4'-O4'	-5.11	1.37	1.45
26	BB	2720	U	C5'-C4'	5.11	1.58	1.51
33	BI	37	VAL	C-N	5.11	1.40	1.33
26	BB	1071	G	C5'-C4'	5.11	1.58	1.51
27	BC	91	GLY	N-CA	-5.11	1.38	1.45
49	BY	59	PHE	N-CA	5.11	1.52	1.46
12	AL	95	SER	N-CA	-5.11	1.40	1.46
16	AP	3	ILE	CA-CB	5.11	1.60	1.54
19	AS	16	PHE	CA-C	5.11	1.58	1.52
26	BB	530	G	C5'-C4'	5.11	1.58	1.51
26	BB	1901	A	O5'-C5'	-5.11	1.34	1.42
1	AA	523	A	P-O5'	5.10	1.67	1.59
26	BB	48	G	C2'-C1'	5.10	1.61	1.53
26	BB	416	U	C5'-C4'	5.10	1.58	1.51
26	BB	1851	U	C4'-O4'	-5.10	1.37	1.45
32	BH	44	HIS	CG-CD2	5.10	1.41	1.35
36	BL	92	MET	N-CA	-5.10	1.39	1.46
45	BU	105	VAL	C-O	-5.10	1.18	1.24
37	BM	31	ARG	N-CA	5.10	1.52	1.46
6	AF	18	ASN	CA-CB	5.10	1.62	1.53
26	BB	448	U	C1'-N1	5.10	1.55	1.47
26	BB	1492	G	O4'-C1'	5.10	1.49	1.41
26	BB	2315	G	P-O5'	5.10	1.67	1.59
55	B4	40	PRO	CA-C	5.10	1.59	1.52
1	AA	1092	A	C4'-O4'	-5.10	1.38	1.45
5	AE	34	ARG	CZ-NH2	5.10	1.40	1.33
12	AL	29	ILE	N-CA	5.10	1.52	1.46
26	BB	527	C	P-O5'	5.10	1.67	1.59
26	BB	1406	U	C3'-C2'	5.10	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1110	A	P-O5'	5.10	1.67	1.59
26	BB	1087	G	C2'-O2'	5.10	1.50	1.42
26	BB	1155	A	O5'-C5'	-5.10	1.34	1.42
1	AA	569	C	C3'-C2'	5.09	1.60	1.52
26	BB	893	C	C3'-C2'	-5.09	1.45	1.52
1	AA	609	A	C2'-C1'	-5.09	1.45	1.53
43	BS	52	ARG	CZ-NH2	5.09	1.40	1.33
1	AA	568	G	O4'-C1'	-5.09	1.34	1.41
10	AJ	157	SER	C-O	5.09	1.30	1.24
26	BB	853	C	C3'-C2'	5.09	1.60	1.52
26	BB	1391	U	P-O5'	5.09	1.67	1.59
26	BB	1412	U	C3'-O3'	5.09	1.49	1.42
26	BB	2573	C	P-O5'	5.09	1.67	1.59
28	BD	236	GLY	N-CA	5.09	1.52	1.45
34	BJ	8	GLN	C-N	5.09	1.40	1.33
36	BL	17	VAL	N-CA	5.09	1.52	1.46
1	AA	1111	A	C4'-O4'	-5.09	1.38	1.45
17	AQ	8	ARG	N-CA	-5.09	1.40	1.46
26	BB	1430	G	P-O5'	5.09	1.67	1.59
54	B3	41	HIS	CD2-NE2	-5.09	1.32	1.37
1	AA	336	A	O3'-P	5.09	1.68	1.61
12	AL	105	ARG	NE-CZ	5.09	1.38	1.33
26	BB	937	C	C3'-O3'	5.09	1.49	1.42
26	BB	1197	G	C4'-O4'	-5.09	1.38	1.45
29	BE	200	ASP	CA-C	5.09	1.59	1.53
26	BB	1679	A	C4'-O4'	-5.09	1.38	1.45
26	BB	1829	A	O3'-P	5.09	1.68	1.61
48	BX	11	GLU	CA-C	5.09	1.58	1.52
1	AA	414	A	P-O5'	5.08	1.67	1.59
1	AA	892	A	P-O5'	5.08	1.67	1.59
26	BB	1103	A	C4'-O4'	-5.08	1.38	1.45
26	BB	1161	C	C4'-O4'	-5.08	1.38	1.45
1	AA	72	A	O3'-P	-5.08	1.53	1.61
1	AA	1465	A	O4'-C1'	5.08	1.49	1.41
4	AD	65	G	C3'-O3'	5.08	1.49	1.42
13	AM	13	PHE	CA-CB	5.08	1.61	1.53
26	BB	1805	A	C4'-O4'	-5.08	1.38	1.45
34	BJ	78	PRO	N-CA	-5.08	1.41	1.47
26	BB	272	A	C4'-O4'	-5.08	1.38	1.45
26	BB	838	C	C4'-C3'	5.08	1.60	1.52
29	BE	151	THR	C-O	-5.08	1.19	1.24
40	BP	34	ILE	N-CA	5.08	1.51	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1859	U	O3'-P	5.08	1.68	1.61
26	BB	2875	C	C3'-O3'	5.08	1.49	1.42
1	AA	1101	A	C4'-C3'	5.08	1.60	1.53
1	AA	1403	C	C2'-C1'	5.08	1.60	1.53
1	AA	1482	G	C3'-O3'	5.08	1.49	1.42
26	BB	1340	U	C5'-C4'	5.08	1.58	1.51
26	BB	1647	U	C5'-C4'	5.08	1.58	1.51
1	AA	1269	A	C3'-O3'	-5.08	1.34	1.42
7	AG	67	LEU	C-O	5.08	1.30	1.23
12	AL	44	ARG	CA-C	5.08	1.59	1.52
26	BB	354	A	C2'-O2'	-5.08	1.34	1.42
26	BB	2470	G	P-O5'	5.08	1.67	1.59
46	BV	91	GLN	CA-C	5.08	1.59	1.52
26	BB	1749	A	C5'-C4'	5.07	1.58	1.51
30	BF	175	ILE	C-O	-5.07	1.19	1.24
1	AA	377	G	C2'-O2'	-5.07	1.34	1.42
1	AA	1275	A	O5'-C5'	-5.07	1.34	1.42
11	AK	123	GLU	CA-C	-5.07	1.46	1.52
26	BB	1891	G	C4'-C3'	-5.07	1.45	1.52
35	BK	14	ALA	C-O	-5.07	1.17	1.24
1	AA	37	U	C5'-C4'	5.07	1.58	1.51
2	AB	48	U	C4'-C3'	5.07	1.60	1.52
12	AL	118	ARG	CD-NE	5.07	1.53	1.46
26	BB	2422	C	O3'-P	5.07	1.68	1.61
43	BS	69	ARG	CD-NE	5.07	1.53	1.46
26	BB	537	G	C4'-O4'	-5.07	1.38	1.45
26	BB	2077	A	C5'-C4'	5.07	1.58	1.51
28	BD	199	HIS	CD2-NE2	5.07	1.43	1.37
13	AM	86	ALA	N-CA	-5.07	1.40	1.46
20	AT	10	ARG	NE-CZ	5.07	1.38	1.33
26	BB	141	G	P-O5'	5.07	1.67	1.59
26	BB	227	A	O3'-P	-5.07	1.53	1.61
26	BB	310	A	C3'-O3'	5.07	1.50	1.43
26	BB	2060	A	O4'-C1'	-5.07	1.34	1.42
26	BB	2170	A	C2'-C1'	-5.07	1.45	1.53
26	BB	2353	G	C1'-N9	5.07	1.55	1.48
26	BB	2806	C	C4'-O4'	-5.07	1.38	1.45
29	BE	114	LYS	N-CA	5.07	1.52	1.45
44	BT	45	GLU	C-O	-5.07	1.17	1.23
1	AA	1462	C	C5'-C4'	5.07	1.58	1.51
7	AG	161	ALA	CA-C	5.07	1.59	1.52
25	BA	41	G	C4'-O4'	-5.07	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	394	C	C1'-N1	5.07	1.56	1.48
26	BB	1343	G	O4'-C1'	5.07	1.49	1.41
26	BB	1503	A	O4'-C1'	5.07	1.49	1.41
26	BB	2560	A	O5'-C5'	-5.07	1.34	1.42
31	BG	104	THR	N-CA	5.07	1.52	1.46
42	BR	56	SER	N-CA	-5.07	1.39	1.46
45	BU	7	HIS	CA-C	5.07	1.58	1.52
26	BB	2249	U	C4'-O4'	-5.06	1.38	1.45
26	BB	2395	C	P-O5'	5.06	1.67	1.59
12	AL	83	THR	C-N	5.06	1.40	1.33
26	BB	2	G	O3'-P	5.06	1.68	1.61
26	BB	2684	U	C5'-C4'	5.06	1.58	1.51
34	BJ	82	ALA	N-CA	5.06	1.52	1.46
49	BY	63	ASP	C-N	5.06	1.38	1.33
55	B4	25	ASN	CA-CB	5.06	1.59	1.53
6	AF	39	ARG	CA-C	5.06	1.59	1.52
21	AU	54	LEU	N-CA	5.06	1.52	1.46
25	BA	45	A	C2'-C1'	5.06	1.60	1.53
26	BB	765	C	P-O5'	5.06	1.67	1.59
41	BQ	5	SER	N-CA	-5.06	1.40	1.46
2	AB	38	A	C4'-O4'	-5.06	1.38	1.45
17	AQ	40	ARG	NE-CZ	5.06	1.38	1.33
1	AA	88	U	C3'-O3'	5.06	1.49	1.42
1	AA	1211	U	C4'-O4'	-5.06	1.38	1.45
1	AA	1481	U	C4'-C3'	5.06	1.60	1.52
17	AQ	70	HIS	CA-C	5.06	1.59	1.52
20	AT	26	ARG	N-CA	-5.06	1.40	1.46
26	BB	68	G	C4'-O4'	-5.06	1.38	1.45
26	BB	1418	G	C5'-C4'	5.06	1.58	1.51
26	BB	2262	U	P-O5'	5.06	1.67	1.59
45	BU	76	VAL	CA-C	5.06	1.58	1.52
26	BB	273	G	C3'-O3'	5.06	1.49	1.42
39	BO	51	ARG	CZ-NH1	5.06	1.39	1.32
43	BS	105	PHE	N-CA	5.06	1.52	1.46
1	AA	226	G	C3'-C2'	5.05	1.60	1.52
4	AD	18	U	C4'-O4'	-5.05	1.38	1.45
26	BB	182	A	C4'-O4'	-5.05	1.38	1.45
26	BB	1984	G	O3'-P	5.05	1.68	1.61
26	BB	2374	C	P-O5'	5.05	1.67	1.59
26	BB	2508	G	P-O5'	5.05	1.67	1.59
28	BD	11	GLY	N-CA	5.05	1.52	1.45
31	BG	34	THR	N-CA	5.05	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1511	G	C5'-C4'	5.05	1.58	1.51
26	BB	1862	G	C4'-C3'	-5.05	1.45	1.52
1	AA	1052	U	O3'-P	-5.05	1.53	1.61
26	BB	1758	U	O3'-P	-5.05	1.53	1.61
1	AA	87	C	O4'-C1'	5.05	1.49	1.41
1	AA	294	U	C5'-C4'	5.05	1.58	1.51
1	AA	526	C	P-O5'	5.05	1.67	1.59
26	BB	179	C	C4'-O4'	-5.05	1.38	1.45
26	BB	339	U	C4'-C3'	-5.05	1.45	1.52
26	BB	1747	U	C2'-O2'	-5.05	1.34	1.42
26	BB	1775	U	C4'-C3'	5.05	1.60	1.52
26	BB	166	U	P-O5'	5.05	1.67	1.59
1	AA	355	C	O3'-P	5.05	1.68	1.61
1	AA	566	G	C4'-O4'	-5.05	1.38	1.45
26	BB	953	G	C5'-C4'	5.05	1.58	1.51
6	AF	143	LEU	C-N	5.04	1.40	1.33
26	BB	2673	G	C5'-C4'	5.04	1.58	1.51
41	BQ	7	ARG	NE-CZ	5.04	1.38	1.33
1	AA	773	G	P-O5'	5.04	1.67	1.59
5	AE	237	VAL	N-CA	5.04	1.52	1.46
7	AG	63	ILE	CA-CB	5.04	1.60	1.54
26	BB	1316	U	C2'-O2'	-5.04	1.34	1.42
44	BT	21	ARG	CD-NE	5.04	1.53	1.46
45	BU	21	ALA	N-CA	-5.04	1.40	1.46
1	AA	733	G	O5'-C5'	-5.04	1.35	1.42
3	AC	51	C	C2'-C1'	5.04	1.60	1.53
25	BA	11	C	C5'-C4'	5.04	1.58	1.51
25	BA	102	G	C4'-O4'	-5.04	1.38	1.45
26	BB	85	G	C5'-C4'	5.04	1.58	1.51
26	BB	1133	A	C2'-O2'	-5.04	1.34	1.41
26	BB	2825	G	P-O5'	5.04	1.67	1.59
27	BC	73	VAL	CA-C	5.04	1.59	1.52
45	BU	60	HIS	ND1-CE1	5.04	1.37	1.32
4	AD	52	C	C4'-C3'	5.04	1.60	1.52
26	BB	1227	G	P-O5'	5.04	1.67	1.59
1	AA	1102	A	C2'-C1'	5.04	1.60	1.53
26	BB	243	U	P-O5'	5.04	1.67	1.59
26	BB	1173	U	C1'-N1	5.04	1.56	1.48
26	BB	2345	G	C2-N3	5.04	1.42	1.32
26	BB	2832	U	C2'-O2'	5.04	1.49	1.41
1	AA	1403	C	O5'-C5'	-5.04	1.34	1.42
26	BB	1047	G	P-O5'	5.04	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	AE	151	LYS	C-N	5.04	1.40	1.33
7	AG	201	GLU	C-O	-5.04	1.17	1.24
13	AM	62	ARG	C-N	5.04	1.40	1.33
30	BF	179	SER	C-N	5.04	1.40	1.34
42	BR	38	ARG	CA-C	5.04	1.58	1.52
10	AJ	15	PRO	C-O	5.03	1.30	1.24
15	AO	47	ALA	N-CA	5.03	1.51	1.46
26	BB	539	G	P-O5'	5.03	1.67	1.59
26	BB	1705	A	C1'-N9	5.03	1.55	1.48
26	BB	2017	U	C4'-O4'	-5.03	1.38	1.45
3	AC	32	U	C4'-C3'	5.03	1.60	1.52
26	BB	2623	G	O5'-C5'	-5.03	1.34	1.42
26	BB	837	C	C4'-O4'	-5.03	1.38	1.45
26	BB	1800	C	C4'-C3'	-5.03	1.45	1.53
26	BB	2018	G	O3'-P	5.03	1.68	1.61
1	AA	345	C	P-O5'	5.03	1.67	1.59
11	AK	128	VAL	N-CA	5.03	1.52	1.46
26	BB	2831	G	C4'-O4'	-5.03	1.38	1.45
1	AA	92	U	O3'-P	5.03	1.68	1.61
1	AA	1130	A	O5'-C5'	5.03	1.50	1.42
1	AA	1315	U	O4'-C1'	5.03	1.49	1.41
1	AA	1373	G	C3'-C2'	5.03	1.60	1.52
26	BB	1888	G	C3'-O3'	5.03	1.49	1.42
16	AP	90	HIS	ND1-CE1	5.03	1.37	1.32
26	BB	80	G	P-O5'	5.03	1.67	1.59
26	BB	1912	A	P-O5'	5.03	1.67	1.59
34	BJ	119	ALA	N-CA	-5.03	1.40	1.46
47	BW	73	ASN	CA-CB	5.03	1.61	1.53
26	BB	1253	A	C5'-C4'	5.02	1.58	1.51
50	BZ	42	GLU	N-CA	5.02	1.52	1.46
1	AA	353	A	P-O5'	5.02	1.67	1.59
1	AA	1169	A	P-O5'	5.02	1.67	1.59
1	AA	1289	A	C5'-C4'	5.02	1.58	1.51
28	BD	231	HIS	CG-ND1	5.02	1.43	1.38
1	AA	20	U	C1'-N1	5.02	1.55	1.48
26	BB	1907	G	C4'-C3'	5.02	1.60	1.52
26	BB	2382	G	C4'-O4'	-5.02	1.38	1.45
5	AE	154	GLY	C-O	5.02	1.29	1.24
26	BB	1784	A	P-O5'	5.02	1.67	1.59
26	BB	2376	A	O3'-P	5.02	1.68	1.61
34	BJ	11	VAL	N-CA	-5.02	1.40	1.46
26	BB	352	A	O4'-C1'	5.02	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BQ	14	ALA	CA-C	5.02	1.59	1.52
26	BB	144	A	O3'-P	5.02	1.68	1.61
26	BB	253	C	C5'-C4'	5.02	1.58	1.51
1	AA	786	G	C4'-O4'	-5.01	1.38	1.45
24	AX	39	LYS	N-CA	5.01	1.51	1.46
25	BA	30	C	C5'-C4'	5.01	1.58	1.51
32	BH	18	ILE	N-CA	5.01	1.52	1.46
39	BO	75	GLU	CD-OE2	5.01	1.34	1.25
12	AL	108	ARG	N-CA	-5.01	1.39	1.46
19	AS	8	ARG	NE-CZ	5.01	1.38	1.33
23	AW	8	LYS	CA-C	5.01	1.59	1.52
17	AQ	32	ASP	C-N	5.01	1.39	1.33
26	BB	121	G	P-O5'	5.01	1.67	1.59
26	BB	188	G	C5'-C4'	5.01	1.58	1.51
26	BB	659	G	C4'-C3'	5.01	1.60	1.52
26	BB	1338	G	C4'-O4'	-5.01	1.38	1.45
26	BB	2872	A	C1'-N9	5.01	1.55	1.48
1	AA	221	C	C2'-C1'	-5.01	1.45	1.53
1	AA	1482	G	O3'-P	5.01	1.68	1.61
7	AG	78	ALA	N-CA	5.01	1.52	1.46
9	AI	94	HIS	CE1-NE2	5.01	1.37	1.32
20	AT	71	SER	C-O	-5.01	1.17	1.24
26	BB	1719	G	C5'-C4'	5.01	1.58	1.51
26	BB	2536	G	C4'-O4'	-5.01	1.38	1.45
38	BN	75	ALA	CA-C	5.01	1.58	1.52
41	BQ	110	ALA	C-O	-5.01	1.18	1.24
1	AA	181	A	C3'-C2'	5.01	1.60	1.52
1	AA	1023	U	O3'-P	5.01	1.68	1.61
26	BB	966	G	O3'-P	5.01	1.68	1.61
26	BB	1902	C	C3'-C2'	5.01	1.60	1.52
15	AO	57	THR	N-CA	5.01	1.52	1.46
17	AQ	23	ARG	NE-CZ	-5.01	1.27	1.33
26	BB	768	G	C6-N1	5.01	1.49	1.39
26	BB	860	U	O5'-C5'	-5.01	1.34	1.42
26	BB	964	C	C1'-N1	5.01	1.55	1.48
26	BB	2193	G	C4'-O4'	-5.01	1.38	1.45
26	BB	2477	U	P-O5'	-5.01	1.52	1.59
28	BD	72	GLY	CA-C	5.01	1.58	1.51
1	AA	592	G	C4'-O4'	-5.00	1.38	1.45
9	AI	113	ARG	CD-NE	5.00	1.53	1.46
17	AQ	62	ARG	NE-CZ	5.00	1.38	1.33
26	BB	1175	A	C3'-O3'	-5.00	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1719	G	P-O5'	5.00	1.67	1.59
10	AJ	107	ALA	CA-C	5.00	1.59	1.52
26	BB	46	G	C3'-C2'	5.00	1.60	1.52
26	BB	293	U	P-O5'	5.00	1.67	1.59
26	BB	583	G	C1'-N9	5.00	1.55	1.48
26	BB	736	C	C4'-O4'	-5.00	1.38	1.45
26	BB	854	C	C1'-N1	5.00	1.55	1.48
26	BB	1014	A	O3'-P	5.00	1.68	1.61
26	BB	1246	A	C4'-O4'	-5.00	1.38	1.45
26	BB	1685	C	P-O5'	5.00	1.67	1.59
25	BA	103	U	C3'-C2'	5.00	1.60	1.52
39	BO	67	VAL	CA-C	5.00	1.58	1.52
45	BU	54	ALA	CA-C	5.00	1.59	1.52
53	B2	25	ARG	CA-CB	5.00	1.61	1.53

All (8782) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1452	G	O4'-C4'-C3'	14.11	118.11	104.00
13	AM	95	GLY	CA-C-O	-13.30	107.05	120.75
7	AG	164	ARG	NE-CZ-NH2	-13.06	107.44	119.20
1	AA	1201	A	C2'-C3'-O3'	13.00	129.00	109.50
21	AU	62	ARG	NE-CZ-NH2	12.72	130.65	119.20
23	AW	74	HIS	CB-CG-CD2	-12.23	115.30	131.20
26	BB	2035	G	C3'-C2'-C1'	-12.23	89.27	101.50
26	BB	54	G	C4'-C3'-C2'	-11.93	90.67	102.60
26	BB	2055	C	C1'-O4'-C4'	-11.91	97.79	109.70
26	BB	1791	A	O4'-C4'-C3'	11.88	115.89	104.00
1	AA	845	A	O4'-C4'-C3'	11.79	115.79	104.00
26	BB	2136	G	C4'-C3'-C2'	-11.73	90.87	102.60
1	AA	993	G	C2'-C3'-O3'	11.70	127.05	109.50
28	BD	9	SER	CA-C-N	11.60	131.73	119.90
28	BD	9	SER	C-N-CA	11.60	131.73	119.90
1	AA	522	C	C3'-C2'-C1'	11.51	112.81	101.30
28	BD	211	ARG	CA-C-O	-11.46	108.79	120.82
26	BB	849	A	C4'-C3'-C2'	-11.45	91.15	102.60
7	AG	114	ARG	NE-CZ-NH2	-11.24	109.08	119.20
9	AI	78	PHE	CA-CB-CG	11.21	125.01	113.80
26	BB	1050	A	C4'-C3'-C2'	-11.19	91.41	102.60
26	BB	846	U	C1'-O4'-C4'	-11.18	98.72	109.90
2	AB	35	C	O4'-C1'-C2'	-11.16	96.44	107.60
27	BC	180	PHE	CA-CB-CG	11.14	124.94	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	102	G	C4'-C3'-C2'	-11.12	91.48	102.60
42	BR	61	ARG	NE-CZ-NH1	-11.05	110.45	121.50
44	BT	79	ARG	NE-CZ-NH1	-11.05	110.45	121.50
1	AA	1527	U	O4'-C1'-C2'	-11.04	96.56	107.60
3	AC	42	U	O4'-C1'-C2'	-11.01	96.59	107.60
1	AA	1105	A	C4'-C3'-C2'	-10.92	91.68	102.60
50	BZ	28	PHE	CA-CB-CG	10.90	124.70	113.80
1	AA	863	U	C4'-C3'-C2'	-10.88	91.72	102.60
38	BN	70	LYS	CA-C-N	10.84	135.22	120.38
38	BN	70	LYS	C-N-CA	10.84	135.22	120.38
13	AM	95	GLY	O-C-N	10.80	132.56	122.19
26	BB	2314	A	C4'-C3'-C2'	-10.78	91.82	102.60
34	BJ	67	PRO	N-CA-CB	10.77	113.42	103.19
26	BB	2681	C	C3'-C2'-O2'	-10.72	98.52	114.60
26	BB	2885	G	O3'-P-O5'	-10.70	87.94	104.00
1	AA	756	C	O4'-C1'-C2'	-10.65	96.95	107.60
26	BB	2756	U	C2'-C3'-O3'	10.64	125.46	109.50
26	BB	519	U	O4'-C4'-C3'	10.58	114.58	104.00
26	BB	175	G	C4'-C3'-C2'	-10.57	92.03	102.60
26	BB	127	A	O4'-C4'-C3'	10.52	114.52	104.00
26	BB	218	A	O4'-C4'-C3'	10.50	114.50	104.00
21	AU	62	ARG	NE-CZ-NH1	-10.48	111.02	121.50
1	AA	1506	U	O4'-C1'-N1	10.46	123.89	108.20
24	AX	12	ASP	CA-CB-CG	10.45	123.05	112.60
7	AG	164	ARG	NE-CZ-NH1	10.42	131.92	121.50
6	AF	75	VAL	CA-C-N	10.39	133.66	120.56
6	AF	75	VAL	C-N-CA	10.39	133.66	120.56
26	BB	1870	C	O4'-C4'-C3'	10.39	114.39	104.00
26	BB	331	C	O3'-P-O5'	-10.37	88.44	104.00
26	BB	511	U	C4'-C3'-C2'	-10.34	92.26	102.60
26	BB	574	A	O4'-C4'-C3'	-10.32	95.78	106.10
26	BB	1738	G	C4'-C3'-C2'	-10.31	92.29	102.60
26	BB	2063	C	C3'-C2'-C1'	10.29	111.59	101.30
26	BB	976	G	O4'-C4'-C3'	10.28	114.28	104.00
29	BE	49	GLN	OE1-CD-NE2	-10.24	112.36	122.60
3	AC	33	A	C5'-C4'-C3'	-10.23	100.66	116.00
26	BB	2819	G	O4'-C4'-C3'	10.22	114.22	104.00
1	AA	889	A	O4'-C1'-C2'	-10.21	95.59	105.80
26	BB	2047	C	C3'-C2'-C1'	10.20	111.50	101.30
5	AE	176	ASN	CA-CB-CG	10.18	122.78	112.60
26	BB	2425	A	C2'-C3'-O3'	10.14	124.71	109.50
26	BB	773	U	C3'-C2'-C1'	10.11	111.41	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BS	29	ARG	NE-CZ-NH2	-10.10	110.11	119.20
11	AK	65	PHE	CA-CB-CG	10.10	123.90	113.80
26	BB	2227	A	O4'-C1'-C2'	10.09	117.69	107.60
26	BB	2492	U	O4'-C1'-N1	10.09	123.34	108.20
1	AA	805	C	O4'-C1'-N1	10.08	123.62	108.50
45	BU	65	ASP	CA-CB-CG	-10.07	102.53	112.60
26	BB	171	U	C3'-C2'-O2'	10.07	125.81	110.70
32	BH	148	ARG	N-CA-C	10.05	125.16	113.19
1	AA	347	G	C4'-C3'-C2'	-10.03	92.57	102.60
26	BB	1038	G	O4'-C1'-C2'	-10.01	97.59	107.60
26	BB	479	A	C2'-C3'-O3'	10.00	124.50	109.50
26	BB	2583	G	O4'-C4'-C3'	9.98	113.98	104.00
26	BB	1000	A	C5'-C4'-O4'	9.98	124.77	109.80
26	BB	2026	U	O5'-C5'-C4'	9.96	126.43	111.50
26	BB	2475	C	O4'-C1'-C2'	-9.94	97.66	107.60
52	B1	17	PRO	CA-C-N	9.90	133.54	120.28
52	B1	17	PRO	C-N-CA	9.90	133.54	120.28
25	BA	44	G	O3'-P-O5'	-9.88	89.18	104.00
26	BB	1210	G	C2'-C3'-O3'	9.88	124.32	109.50
1	AA	522	C	O4'-C1'-C2'	-9.87	97.73	107.60
26	BB	2211	A	O3'-P-O5'	-9.87	89.20	104.00
7	AG	17	ASP	N-CA-C	9.86	123.05	111.71
1	AA	336	A	O4'-C1'-N9	9.84	123.25	108.50
9	AI	114	ASP	CA-C-N	9.81	133.20	120.44
9	AI	114	ASP	C-N-CA	9.81	133.20	120.44
5	AE	17	HIS	CA-CB-CG	9.80	123.60	113.80
26	BB	1083	U	C1'-O4'-C4'	9.80	119.70	109.90
26	BB	834	G	O4'-C1'-C2'	-9.78	97.82	107.60
28	BD	211	ARG	O-C-N	9.75	132.11	122.07
54	B3	6	LYS	CA-C-N	9.74	130.46	120.14
54	B3	6	LYS	C-N-CA	9.74	130.46	120.14
1	AA	1325	C	C4'-C3'-C2'	-9.73	92.87	102.60
1	AA	206	C	C5'-C4'-O4'	9.72	124.38	109.80
26	BB	2757	A	C4'-C3'-C2'	-9.71	92.89	102.60
26	BB	1138	G	C4'-C3'-C2'	-9.69	92.91	102.60
1	AA	388	G	O4'-C1'-C2'	-9.68	96.12	105.80
26	BB	1289	C	C3'-C2'-C1'	9.67	110.97	101.30
1	AA	10	A	O4'-C4'-C3'	9.64	113.64	104.00
1	AA	195	A	C5'-C4'-C3'	-9.63	101.55	116.00
26	BB	1830	C	C4'-C3'-C2'	-9.62	92.98	102.60
26	BB	725	G	C4'-C3'-C2'	-9.61	93.00	102.60
56	B5	6	GLN	CA-C-N	9.61	131.85	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	B5	6	GLN	C-N-CA	9.61	131.85	119.84
1	AA	231	U	C3'-C2'-C1'	9.59	110.89	101.30
4	AD	75	C	C1'-O4'-C4'	-9.59	100.11	109.70
1	AA	1299	A	C4'-C3'-C2'	9.57	112.17	102.60
26	BB	2440	C	C3'-C2'-O2'	9.57	125.05	110.70
1	AA	835	U	C4'-C3'-C2'	-9.55	93.05	102.60
5	AE	189	ASN	OD1-CG-ND2	-9.54	113.06	122.60
11	AK	26	MET	N-CA-C	9.51	116.53	108.07
13	AM	43	PRO	N-CA-CB	9.47	111.74	103.31
26	BB	1502	A	C4'-C3'-C2'	-9.47	93.13	102.60
1	AA	180	U	O5'-C5'-C4'	9.47	125.70	111.50
7	AG	119	HIS	CA-C-N	9.46	135.49	122.34
7	AG	119	HIS	C-N-CA	9.46	135.49	122.34
1	AA	885	G	O4'-C4'-C3'	-9.46	94.54	104.00
26	BB	822	G	C5'-C4'-C3'	-9.46	101.81	116.00
43	BS	54	ARG	NE-CZ-NH2	-9.44	110.70	119.20
26	BB	1132	U	C1'-C2'-O2'	9.44	125.96	111.80
26	BB	2501	C	C4'-C3'-C2'	-9.44	93.16	102.60
27	BC	196	LEU	CA-C-O	-9.43	110.55	120.55
45	BU	60	HIS	CA-CB-CG	9.43	123.23	113.80
26	BB	1478	G	C4'-C3'-C2'	-9.42	93.18	102.60
26	BB	695	G	C4'-C3'-C2'	-9.39	93.21	102.60
26	BB	347	A	C4'-C3'-C2'	-9.38	93.22	102.60
1	AA	1221	G	O3'-P-O5'	-9.38	89.94	104.00
26	BB	1870	C	C3'-C2'-C1'	9.37	110.67	101.30
5	AE	202	ASN	CA-CB-CG	9.37	121.97	112.60
26	BB	1736	U	C4'-C3'-C2'	-9.37	93.23	102.60
1	AA	1088	G	O4'-C4'-C3'	9.37	113.37	104.00
1	AA	1226	C	C2'-C3'-O3'	9.35	123.53	109.50
1	AA	775	G	O4'-C4'-C3'	9.35	113.35	104.00
21	AU	37	LYS	CA-C-N	9.34	133.38	120.49
21	AU	37	LYS	C-N-CA	9.34	133.38	120.49
1	AA	1028	C	C1'-O4'-C4'	-9.34	100.56	109.90
2	AB	47	U	O3'-P-O5'	-9.33	90.01	104.00
1	AA	464	U	O4'-C4'-C3'	9.32	113.32	104.00
26	BB	1452	G	C1'-O4'-C4'	-9.29	100.61	109.90
24	AX	55	HIS	CA-C-O	-9.29	111.13	120.70
1	AA	570	G	C5'-C4'-C3'	-9.29	102.07	116.00
40	BP	3	HIS	CB-CG-CD2	-9.29	119.12	131.20
1	AA	907	A	C5'-C4'-O4'	9.28	123.72	109.80
1	AA	769	G	C4'-C3'-C2'	-9.27	93.33	102.60
12	AL	69	GLY	CA-C-N	9.27	131.28	121.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	AL	69	GLY	C-N-CA	9.27	131.28	121.45
26	BB	1729	U	C4'-C3'-C2'	-9.24	93.36	102.60
4	AD	20	G	C3'-C2'-C1'	-9.23	92.27	101.50
26	BB	109	C	C5'-C4'-O4'	9.22	123.64	109.80
57	B6	25	HIS	CB-CG-CD2	-9.21	119.23	131.20
1	AA	626	G	O4'-C4'-C3'	9.20	113.20	104.00
4	AD	20	G	O4'-C1'-C2'	9.18	114.98	105.80
26	BB	1423	G	C4'-C3'-C2'	-9.18	93.42	102.60
53	B2	24	ILE	CA-CB-CG1	9.18	126.00	110.40
22	AV	44	ILE	CA-C-N	9.18	138.00	121.85
22	AV	44	ILE	C-N-CA	9.18	138.00	121.85
26	BB	2398	U	C5'-C4'-C3'	-9.18	102.24	116.00
37	BM	29	HIS	CB-CG-CD2	-9.18	119.27	131.20
1	AA	557	G	C1'-O4'-C4'	-9.17	100.73	109.90
1	AA	231	U	C4'-C3'-C2'	-9.17	93.43	102.60
4	AD	22	A	C1'-O4'-C4'	-9.17	100.53	109.70
45	BU	7	HIS	CB-CG-CD2	-9.17	119.28	131.20
1	AA	1020	G	C4'-C3'-C2'	-9.16	93.44	102.60
9	AI	126	ALA	CA-C-N	9.16	133.36	122.19
9	AI	126	ALA	C-N-CA	9.16	133.36	122.19
26	BB	940	G	C4'-C3'-C2'	-9.16	93.44	102.60
24	AX	10	PRO	CB-CA-C	9.15	122.54	111.46
26	BB	2796	U	O4'-C1'-N1	9.15	122.23	108.50
2	AB	58	A	C4'-C3'-O3'	9.15	123.13	109.40
5	AE	169	HIS	CA-C-N	9.15	132.99	120.46
5	AE	169	HIS	C-N-CA	9.15	132.99	120.46
26	BB	548	G	O4'-C1'-C2'	9.15	114.95	105.80
26	BB	1919	A	O3'-P-O5'	-9.14	90.28	104.00
36	BL	136	GLN	CA-C-N	9.14	128.90	119.76
36	BL	136	GLN	C-N-CA	9.14	128.90	119.76
22	AV	68	HIS	CB-CG-CD2	-9.13	119.33	131.20
44	BT	78	ARG	NE-CZ-NH1	-9.13	112.37	121.50
26	BB	1153	C	C1'-O4'-C4'	-9.12	100.78	109.90
1	AA	831	A	C4'-C3'-C2'	-9.12	93.48	102.60
34	BJ	35	ASP	CA-CB-CG	-9.11	103.49	112.60
26	BB	2323	G	C5'-C4'-O4'	9.10	123.45	109.80
1	AA	720	C	C3'-C2'-C1'	9.10	110.40	101.30
6	AF	74	ILE	O-C-N	9.10	131.20	121.83
26	BB	2757	A	C3'-C2'-C1'	9.09	110.39	101.30
1	AA	149	A	C4'-C3'-C2'	-9.08	93.52	102.60
29	BE	173	GLN	OE1-CD-NE2	-9.08	113.52	122.60
52	B1	32	GLY	CA-C-N	9.07	132.79	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	B1	32	GLY	C-N-CA	9.07	132.79	120.54
26	BB	1094	U	O4'-C4'-C3'	9.07	113.07	104.00
14	AN	97	ARG	NE-CZ-NH2	-9.06	111.05	119.20
1	AA	12	U	O4'-C4'-C3'	-9.06	94.94	104.00
26	BB	583	G	C4'-C3'-C2'	-9.06	93.54	102.60
23	AW	2	ASN	CA-C-N	9.05	132.67	120.63
23	AW	2	ASN	C-N-CA	9.05	132.67	120.63
46	BV	70	HIS	CA-C-N	9.05	131.45	120.14
46	BV	70	HIS	C-N-CA	9.05	131.45	120.14
26	BB	2382	G	O3'-P-O5'	-9.04	90.44	104.00
26	BB	546	U	O4'-C1'-N1	9.04	122.06	108.50
26	BB	1855	U	C5'-C4'-C3'	-9.04	102.44	116.00
16	AP	86	ARG	NE-CZ-NH2	-9.03	111.07	119.20
52	B1	44	ARG	NE-CZ-NH2	9.03	127.33	119.20
1	AA	410	G	C5'-C4'-C3'	-9.03	102.45	116.00
26	BB	1380	G	C4'-C3'-C2'	-9.03	93.57	102.60
26	BB	718	A	C4'-C3'-C2'	-9.03	93.57	102.60
1	AA	1037	C	C4'-C3'-C2'	-9.03	93.57	102.60
26	BB	582	A	C4'-C3'-C2'	-9.03	93.57	102.60
26	BB	1474	U	O4'-C4'-C3'	9.03	113.03	104.00
26	BB	1940	U	C1'-O4'-C4'	-9.03	100.67	109.70
1	AA	1251	A	C3'-C2'-C1'	9.02	110.32	101.30
26	BB	504	A	C4'-C3'-C2'	-9.02	93.58	102.60
1	AA	373	A	O4'-C4'-C3'	-9.02	94.98	104.00
1	AA	764	C	P-O3'-C3'	9.01	133.72	120.20
26	BB	218	A	C4'-C3'-C2'	-9.01	93.59	102.60
26	BB	2139	U	C5'-C4'-C3'	-9.01	102.48	116.00
14	AN	1	ALA	CA-C-N	9.00	135.07	120.94
14	AN	1	ALA	C-N-CA	9.00	135.07	120.94
26	BB	2063	C	C4'-C3'-C2'	-9.00	93.60	102.60
33	BI	52	ALA	CA-C-N	9.00	132.15	120.44
33	BI	52	ALA	C-N-CA	9.00	132.15	120.44
26	BB	256	A	C3'-C2'-C1'	8.98	110.28	101.30
26	BB	601	C	C5'-C4'-O4'	8.98	123.27	109.80
26	BB	2698	U	C2'-C3'-O3'	-8.98	100.23	113.70
26	BB	294	A	O4'-C4'-C3'	-8.97	95.03	104.00
44	BT	78	ARG	NE-CZ-NH2	8.96	127.26	119.20
25	BA	94	A	C2'-C3'-O3'	-8.95	100.28	113.70
26	BB	1784	A	C3'-C2'-C1'	8.95	110.25	101.30
26	BB	1459	G	C1'-O4'-C4'	-8.94	100.96	109.90
16	AP	15	VAL	O-C-N	8.92	130.65	121.91
1	AA	840	C	C5'-C4'-O4'	8.91	123.17	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1359	A	C4'-C3'-C2'	-8.91	93.69	102.60
26	BB	1540	G	O4'-C1'-N9	8.89	121.84	108.50
26	BB	2708	G	C4'-C3'-C2'	-8.89	93.71	102.60
1	AA	149	A	O4'-C4'-C3'	8.88	112.88	104.00
1	AA	1388	C	C4'-C3'-C2'	-8.88	93.72	102.60
1	AA	1453	G	C5'-C4'-C3'	-8.88	102.69	116.00
26	BB	2017	U	C1'-O4'-C4'	-8.88	101.02	109.90
26	BB	659	G	C4'-C3'-C2'	-8.88	93.72	102.60
26	BB	1279	G	C5'-C4'-C3'	-8.87	102.69	116.00
26	BB	2406	A	O4'-C4'-C3'	8.87	112.87	104.00
26	BB	599	A	C4'-C3'-C2'	-8.86	93.74	102.60
1	AA	720	C	C4'-C3'-C2'	-8.86	93.74	102.60
26	BB	1637	A	C3'-C2'-C1'	8.86	110.16	101.30
26	BB	2095	A	O4'-C4'-C3'	8.86	112.86	104.00
25	BA	104	A	C5'-C4'-C3'	-8.85	102.73	116.00
26	BB	601	C	C1'-O4'-C4'	8.84	118.74	109.90
33	BI	116	ARG	NE-CZ-NH2	-8.84	111.25	119.20
57	B6	54	LEU	CA-C-O	-8.84	111.45	120.90
1	AA	213	G	C5'-C4'-C3'	-8.83	102.76	116.00
26	BB	1196	C	C4'-C3'-C2'	-8.83	93.77	102.60
26	BB	1907	G	O4'-C1'-C2'	-8.82	98.78	107.60
28	BD	39	SER	N-CA-C	-8.82	101.50	112.88
1	AA	187	G	O4'-C1'-N9	8.82	121.73	108.50
26	BB	1324	G	O4'-C1'-N9	8.81	121.42	108.20
1	AA	863	U	C3'-C2'-C1'	8.81	110.11	101.30
27	BC	173	THR	CA-C-N	8.81	134.06	121.02
27	BC	173	THR	C-N-CA	8.81	134.06	121.02
26	BB	123	G	O3'-P-O5'	-8.81	90.79	104.00
26	BB	1234	U	O4'-C1'-N1	8.80	121.71	108.50
26	BB	1507	C	C1'-C2'-O2'	-8.80	95.20	108.40
26	BB	1814	G	C4'-C3'-O3'	8.80	126.19	113.00
26	BB	2204	G	O4'-C4'-C3'	8.79	112.79	104.00
1	AA	1253	G	C2'-C3'-O3'	8.79	126.88	113.70
26	BB	473	G	C4'-C3'-O3'	8.79	126.18	113.00
26	BB	2004	G	O5'-C5'-C4'	8.78	124.67	111.50
26	BB	1176	U	O4'-C1'-C2'	-8.77	98.83	107.60
1	AA	135	C	C1'-O4'-C4'	-8.77	101.13	109.90
1	AA	799	G	O4'-C4'-C3'	8.77	112.77	104.00
1	AA	1466	C	C3'-C2'-C1'	8.77	110.07	101.30
25	BA	34	A	C4'-C3'-O3'	8.76	122.55	109.40
26	BB	2127	G	C4'-C3'-O3'	-8.76	99.86	113.00
29	BE	204	LYS	CA-C-N	8.76	128.83	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	BE	204	LYS	C-N-CA	8.76	128.83	119.90
1	AA	417	G	O4'-C4'-C3'	8.75	112.75	104.00
34	BJ	66	THR	CA-C-N	8.75	129.44	119.99
34	BJ	66	THR	C-N-CA	8.75	129.44	119.99
26	BB	1143	A	O3'-P-O5'	-8.75	90.88	104.00
1	AA	1198	G	O4'-C1'-C2'	-8.74	98.86	107.60
6	AF	70	ALA	CA-C-O	-8.74	109.48	119.79
26	BB	244	A	C4'-C3'-C2'	-8.74	93.86	102.60
26	BB	365	U	C4'-C3'-C2'	-8.73	93.87	102.60
22	AV	13	HIS	CA-CB-CG	8.73	122.53	113.80
26	BB	1824	G	C4'-C3'-C2'	-8.73	93.87	102.60
1	AA	654	G	C1'-C2'-O2'	8.73	121.49	108.40
26	BB	2279	G	C4'-C3'-C2'	-8.72	93.88	102.60
6	AF	218	LYS	CA-C-O	-8.72	109.88	118.34
17	AQ	35	ALA	CB-CA-C	8.72	122.03	111.22
26	BB	2110	G	C4'-C3'-O3'	8.71	122.46	109.40
26	BB	1924	C	C4'-C3'-C2'	-8.71	93.89	102.60
26	BB	2338	C	C1'-O4'-C4'	-8.70	101.20	109.90
36	BL	13	ARG	NE-CZ-NH2	8.70	127.03	119.20
9	AI	94	HIS	CE1-NE2-CD2	-8.69	100.31	109.00
1	AA	1142	G	C4'-C3'-C2'	-8.69	93.92	102.60
3	AC	17	U	O4'-C1'-C2'	-8.69	98.91	107.60
26	BB	443	A	C4'-C3'-C2'	-8.68	93.92	102.60
26	BB	1103	A	O4'-C1'-N9	8.67	121.51	108.50
26	BB	1568	G	O4'-C4'-C3'	8.67	112.67	104.00
1	AA	1119	C	O4'-C4'-C3'	8.66	112.66	104.00
26	BB	1925	C	C5'-C4'-O4'	8.66	122.79	109.80
26	BB	69	C	C4'-C3'-C2'	-8.66	93.94	102.60
5	AE	147	LEU	CA-C-N	8.65	131.03	120.13
5	AE	147	LEU	C-N-CA	8.65	131.03	120.13
26	BB	2849	U	O4'-C1'-C2'	-8.65	97.15	105.80
28	BD	127	ASN	CA-C-N	8.65	132.99	120.71
28	BD	127	ASN	C-N-CA	8.65	132.99	120.71
1	AA	693	G	C3'-C2'-C1'	8.65	109.95	101.30
26	BB	976	G	C4'-C3'-C2'	-8.65	93.95	102.60
1	AA	1253	G	C4'-C3'-C2'	-8.64	93.96	102.60
26	BB	350	G	C4'-C3'-C2'	-8.63	93.97	102.60
1	AA	933	G	O4'-C1'-C2'	-8.63	98.97	107.60
1	AA	765	G	O4'-C1'-N9	8.63	121.14	108.20
26	BB	1736	U	C3'-C2'-C1'	8.63	109.93	101.30
26	BB	1863	G	C3'-C2'-C1'	-8.63	92.67	101.30
1	AA	389	A	C5'-C4'-O4'	8.62	122.72	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	626	G	C3'-C2'-C1'	8.61	109.91	101.30
26	BB	1564	C	C3'-C2'-C1'	8.61	109.91	101.30
1	AA	232	G	C1'-C2'-O2'	8.61	121.31	108.40
38	BN	107	PHE	CA-CB-CG	8.61	122.41	113.80
26	BB	359	G	O4'-C1'-N9	8.60	121.41	108.50
32	BH	37	ASN	CA-CB-CG	8.60	121.20	112.60
1	AA	240	G	C5'-C4'-C3'	8.60	128.90	116.00
1	AA	753	A	C5'-C4'-C3'	-8.60	102.31	115.20
26	BB	34	U	C2'-C3'-O3'	8.60	122.39	109.50
8	AH	52	ALA	CA-C-O	-8.59	112.28	121.38
28	BD	119	VAL	CA-CB-CG2	8.59	125.00	110.40
17	AQ	15	LEU	CA-C-N	8.59	132.13	120.54
17	AQ	15	LEU	C-N-CA	8.59	132.13	120.54
26	BB	2703	C	O4'-C1'-C2'	-8.59	99.01	107.60
44	BT	79	ARG	NE-CZ-NH2	8.59	126.93	119.20
34	BJ	19	LYS	CA-C-N	8.58	131.12	120.22
34	BJ	19	LYS	C-N-CA	8.58	131.12	120.22
1	AA	897	C	C4'-C3'-C2'	-8.58	94.02	102.60
1	AA	537	G	C4'-C3'-C2'	-8.57	94.03	102.60
26	BB	1907	G	C1'-O4'-C4'	8.57	118.47	109.90
26	BB	1964	G	O4'-C1'-C2'	-8.57	97.23	105.80
54	B3	51	ARG	NE-CZ-NH1	-8.57	112.93	121.50
39	BO	108	VAL	CA-C-N	8.56	130.54	119.84
39	BO	108	VAL	C-N-CA	8.56	130.54	119.84
26	BB	2367	G	C5'-C4'-O4'	8.55	122.63	109.80
4	AD	16	C	C1'-O4'-C4'	-8.54	101.16	109.70
1	AA	1180	A	O4'-C4'-C3'	8.54	112.54	104.00
26	BB	2653	U	C3'-C2'-C1'	8.54	109.84	101.30
1	AA	440	C	O4'-C1'-N1	8.54	121.30	108.50
26	BB	1521	G	C3'-C2'-C1'	8.53	109.83	101.30
39	BO	13	HIS	CA-C-N	8.53	131.53	120.44
39	BO	13	HIS	C-N-CA	8.53	131.53	120.44
26	BB	1964	G	C4'-C3'-C2'	-8.53	94.07	102.60
12	AL	89	TYR	CA-C-N	8.52	136.93	121.85
12	AL	89	TYR	C-N-CA	8.52	136.93	121.85
26	BB	735	A	C4'-C3'-C2'	-8.52	94.08	102.60
26	BB	336	C	O4'-C1'-N1	8.52	121.28	108.50
1	AA	579	A	O4'-C4'-C3'	8.52	112.52	104.00
34	BJ	137	ARG	CA-C-O	-8.52	110.18	119.97
1	AA	926	G	O4'-C1'-N9	8.51	120.97	108.20
26	BB	824	U	C4'-C3'-C2'	-8.51	94.09	102.60
29	BE	124	ARG	NE-CZ-NH2	8.51	126.86	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2690	U	C3'-C2'-C1'	8.50	110.00	101.50
26	BB	2043	C	O4'-C4'-C3'	8.50	112.50	104.00
1	AA	542	G	C5'-C4'-C3'	-8.49	103.27	116.00
27	BC	175	ILE	CB-CA-C	-8.49	103.59	111.06
37	BM	9	ASN	OD1-CG-ND2	-8.49	114.11	122.60
1	AA	550	G	C3'-C2'-C1'	8.48	109.78	101.30
26	BB	670	A	O3'-P-O5'	-8.47	91.29	104.00
33	BI	100	ALA	O-C-N	8.47	131.94	122.11
26	BB	1649	G	O3'-P-O5'	-8.47	91.30	104.00
26	BB	611	C	C2'-C3'-O3'	8.46	126.40	113.70
18	AR	41	HIS	CA-CB-CG	8.46	122.26	113.80
26	BB	1056	G	O5'-C5'-C4'	8.46	124.19	111.50
1	AA	233	C	O3'-P-O5'	-8.46	91.31	104.00
1	AA	956	U	C3'-C2'-C1'	8.46	109.76	101.30
1	AA	1017	U	C4'-C3'-C2'	-8.46	94.14	102.60
26	BB	1582	C	O4'-C1'-N1	8.45	121.18	108.50
26	BB	1778	U	C3'-C2'-C1'	8.45	109.75	101.30
20	AT	32	ILE	CA-C-O	-8.45	113.28	120.80
26	BB	364	C	C1'-C2'-O2'	8.44	121.07	108.40
26	BB	2033	A	O4'-C1'-C2'	-8.45	97.36	105.80
1	AA	700	G	C5'-C4'-O4'	8.44	122.46	109.80
1	AA	476	U	P-O5'-C5'	8.44	133.56	120.90
31	BG	5	ASP	CA-CB-CG	8.44	121.04	112.60
26	BB	1030	C	O4'-C4'-C3'	-8.44	95.56	104.00
26	BB	812	C	C4'-C3'-C2'	-8.43	94.17	102.60
26	BB	1075	C	C4'-C3'-C2'	-8.42	94.18	102.60
26	BB	377	G	C4'-C3'-C2'	-8.42	94.18	102.60
26	BB	439	A	C5'-C4'-O4'	8.42	122.43	109.80
1	AA	759	A	C5'-C4'-C3'	-8.42	103.38	116.00
26	BB	659	G	O4'-C4'-C3'	8.41	112.41	104.00
1	AA	121	U	C3'-C2'-C1'	8.40	109.91	101.50
1	AA	971	G	C3'-C2'-C1'	-8.40	93.10	101.50
2	AB	51	G	C5'-C4'-C3'	8.40	128.60	116.00
1	AA	183	C	C4'-C3'-C2'	-8.39	94.21	102.60
1	AA	173	U	C2'-C3'-O3'	8.39	122.08	109.50
26	BB	1481	U	O4'-C1'-N1	8.39	121.08	108.50
26	BB	2655	G	C1'-O4'-C4'	-8.39	101.31	109.70
1	AA	385	C	C4'-C3'-O3'	-8.37	100.45	113.00
7	AG	111	ALA	N-CA-C	8.37	120.18	111.14
26	BB	2047	C	O4'-C1'-C2'	-8.37	99.23	107.60
26	BB	273	G	C3'-C2'-O2'	-8.37	98.15	110.70
26	BB	1773	A	C5'-C4'-O4'	8.36	122.34	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	909	A	O4'-C1'-C2'	8.36	115.95	107.60
33	BI	37	VAL	CA-C-O	-8.36	114.33	119.51
26	BB	287	G	O4'-C1'-N9	8.35	121.03	108.50
26	BB	672	C	P-O5'-C5'	8.35	133.42	120.90
26	BB	1176	U	C3'-C2'-C1'	8.35	109.65	101.30
26	BB	1423	G	O4'-C4'-C3'	8.35	112.35	104.00
26	BB	2450	A	C4'-C3'-C2'	-8.35	94.25	102.60
26	BB	2664	G	O4'-C4'-C3'	8.35	112.35	104.00
26	BB	16	C	O4'-C1'-N1	8.34	121.01	108.50
26	BB	2186	G	C5'-C4'-C3'	-8.34	103.50	116.00
26	BB	922	C	C3'-C2'-C1'	8.33	109.63	101.30
25	BA	83	G	C5'-C4'-C3'	-8.33	103.50	116.00
26	BB	1843	C	O4'-C1'-N1	8.33	120.99	108.50
26	BB	1788	C	C5'-C4'-C3'	-8.33	103.51	116.00
26	BB	160	A	C1'-O4'-C4'	-8.32	101.58	109.90
18	AR	34	GLN	CG-CD-NE2	8.32	128.88	116.40
26	BB	213	A	C4'-C3'-C2'	-8.32	94.28	102.60
1	AA	1350	A	C5'-C4'-O4'	8.32	122.27	109.80
26	BB	1639	C	C3'-C2'-C1'	8.32	109.62	101.30
32	BH	152	ARG	CA-C-O	-8.32	112.36	119.76
26	BB	806	C	O4'-C1'-N1	8.31	120.97	108.50
26	BB	1391	U	C1'-O4'-C4'	-8.31	101.39	109.70
5	AE	56	LEU	O-C-N	8.31	130.93	122.12
4	AD	7	G	C4'-C3'-O3'	8.31	121.86	109.40
26	BB	2259	U	O3'-P-O5'	-8.31	91.54	104.00
46	BV	25	GLU	O-C-N	8.30	130.72	122.09
1	AA	183	C	O4'-C4'-C3'	-8.30	95.70	104.00
1	AA	727	G	O3'-P-O5'	-8.30	91.55	104.00
9	AI	88	MET	CA-C-N	8.30	134.01	123.14
9	AI	88	MET	C-N-CA	8.30	134.01	123.14
1	AA	1351	U	O4'-C1'-N1	8.29	120.93	108.50
33	BI	28	ASN	CA-C-O	-8.29	109.19	119.38
26	BB	1270	C	O4'-C4'-C3'	8.28	114.38	106.10
43	BS	63	ARG	NE-CZ-NH2	-8.28	111.75	119.20
26	BB	2145	C	O4'-C4'-C3'	-8.28	95.72	104.00
26	BB	2280	G	C4'-C3'-C2'	-8.28	94.32	102.60
10	AJ	110	ARG	NE-CZ-NH1	8.28	129.78	121.50
26	BB	571	U	O4'-C4'-C3'	8.27	114.37	106.10
32	BH	115	GLN	CA-C-N	8.27	131.75	120.67
32	BH	115	GLN	C-N-CA	8.27	131.75	120.67
25	BA	112	G	O4'-C1'-C2'	-8.26	99.34	107.60
1	AA	1302	C	C2'-C3'-O3'	8.26	126.08	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	29	U	O4'-C4'-C3'	8.26	112.25	104.00
4	AD	68	C	O4'-C1'-N1	8.25	120.88	108.50
1	AA	1000	A	C2'-C3'-O3'	-8.25	101.33	113.70
26	BB	1239	G	C4'-C3'-C2'	-8.25	94.35	102.60
26	BB	776	G	O4'-C1'-C2'	-8.25	97.55	105.80
1	AA	1233	G	C4'-C3'-C2'	-8.24	94.36	102.60
7	AG	6	PRO	N-CA-CB	8.24	109.89	103.30
1	AA	1080	A	O4'-C4'-C3'	8.23	112.23	104.00
26	BB	1009	A	O4'-C4'-C3'	8.23	112.23	104.00
1	AA	1152	A	C1'-O4'-C4'	-8.23	101.67	109.90
26	BB	2146	C	O4'-C1'-N1	8.23	120.55	108.20
26	BB	804	A	C1'-O4'-C4'	-8.23	101.67	109.90
26	BB	2362	C	C5'-C4'-C3'	-8.23	103.66	116.00
1	AA	39	G	C1'-O4'-C4'	-8.23	101.67	109.90
16	AP	15	VAL	CA-C-O	-8.23	112.45	121.17
26	BB	162	U	O4'-C1'-C2'	-8.23	97.57	105.80
49	BY	76	ARG	NE-CZ-NH2	8.22	126.60	119.20
2	AB	45	U	O4'-C1'-N1	8.22	120.83	108.50
10	AJ	32	ASP	CA-CB-CG	8.22	120.82	112.60
1	AA	1448	C	O4'-C4'-C3'	8.22	112.22	104.00
36	BL	120	ARG	NE-CZ-NH1	-8.22	113.28	121.50
25	BA	35	C	C4'-C3'-C2'	-8.22	94.38	102.60
26	BB	2098	U	O4'-C1'-N1	8.22	120.83	108.50
26	BB	849	A	O4'-C4'-C3'	8.22	112.22	104.00
26	BB	265	A	C4'-C3'-C2'	-8.21	94.39	102.60
1	AA	83	C	O4'-C1'-C2'	-8.21	99.39	107.60
40	BP	72	ASP	CA-CB-CG	8.21	120.81	112.60
26	BB	335	C	C5'-C4'-C3'	-8.20	103.70	116.00
26	BB	994	C	O3'-P-O5'	-8.20	91.70	104.00
26	BB	17	G	C4'-C3'-O3'	-8.19	100.71	113.00
26	BB	1990	C	O4'-C1'-N1	8.19	120.79	108.50
39	BO	126	ILE	CA-C-N	8.19	132.34	120.71
39	BO	126	ILE	C-N-CA	8.19	132.34	120.71
1	AA	55	A	C4'-C3'-C2'	-8.18	94.42	102.60
26	BB	2583	G	C4'-C3'-C2'	-8.18	94.42	102.60
26	BB	1038	G	C4'-C3'-C2'	-8.18	94.42	102.60
2	AB	35	C	C3'-C2'-C1'	8.18	109.48	101.30
26	BB	2190	G	O4'-C1'-N9	8.18	120.77	108.50
26	BB	2902	C	O4'-C4'-C3'	8.18	112.17	104.00
28	BD	73	ILE	CA-C-O	8.18	123.97	119.15
1	AA	933	G	C3'-C2'-C1'	8.17	109.47	101.30
26	BB	2674	G	C4'-C3'-C2'	-8.17	94.43	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1082	U	C1'-O4'-C4'	-8.17	101.73	109.90
33	BI	125	THR	CA-C-O	-8.17	112.89	121.55
28	BD	189	ALA	O-C-N	-8.17	114.25	122.99
19	AS	26	ASN	OD1-CG-ND2	-8.16	114.44	122.60
35	BK	73	PRO	N-CA-CB	8.16	110.99	103.08
7	AG	24	VAL	N-CA-C	-8.15	105.30	111.90
26	BB	238	C	C1'-C2'-O2'	8.15	120.63	108.40
26	BB	1672	A	C4'-C3'-C2'	-8.15	94.45	102.60
38	BN	61	LEU	CA-C-O	-8.15	111.25	120.46
47	BW	6	ARG	NE-CZ-NH2	-8.15	111.87	119.20
1	AA	645	G	O4'-C1'-N9	8.14	120.72	108.50
26	BB	2102	G	O4'-C4'-C3'	8.14	112.14	104.00
54	B3	9	ARG	NE-CZ-NH2	8.14	126.53	119.20
47	BW	43	LYS	CA-C-N	8.14	134.38	122.41
47	BW	43	LYS	C-N-CA	8.14	134.38	122.41
1	AA	187	G	C3'-C2'-O2'	8.14	122.91	110.70
1	AA	355	C	O4'-C1'-C2'	-8.14	99.46	107.60
26	BB	2213	U	C5'-C4'-O4'	8.14	122.00	109.80
26	BB	2092	U	O4'-C1'-N1	8.13	120.40	108.20
26	BB	631	A	C4'-C3'-O3'	8.13	125.20	113.00
26	BB	31	C	C5'-C4'-C3'	-8.13	103.81	116.00
26	BB	713	G	C3'-C2'-C1'	-8.13	93.17	101.30
43	BS	54	ARG	CA-C-N	8.13	131.50	120.44
43	BS	54	ARG	C-N-CA	8.13	131.50	120.44
1	AA	922	G	C1'-C2'-O2'	8.12	120.58	108.40
1	AA	1015	G	O4'-C1'-N9	8.12	120.68	108.50
1	AA	1456	A	C3'-C2'-C1'	-8.12	93.18	101.30
26	BB	1634	A	C3'-C2'-C1'	8.12	109.62	101.50
26	BB	1921	G	C3'-C2'-C1'	-8.12	93.18	101.30
29	BE	118	PHE	CA-C-N	8.12	137.04	121.54
29	BE	118	PHE	C-N-CA	8.12	137.04	121.54
1	AA	763	G	C4'-C3'-C2'	-8.11	94.49	102.60
27	BC	64	VAL	CA-C-N	8.11	131.67	120.39
27	BC	64	VAL	C-N-CA	8.11	131.67	120.39
6	AF	227	GLN	CA-C-N	8.11	132.22	120.38
6	AF	227	GLN	C-N-CA	8.11	132.22	120.38
1	AA	974	A	C4'-C3'-C2'	-8.10	94.50	102.60
26	BB	1907	G	C3'-C2'-C1'	8.10	109.40	101.30
26	BB	752	A	C5'-C4'-C3'	-8.10	103.05	115.20
26	BB	773	U	O4'-C4'-C3'	8.10	112.10	104.00
56	B5	27	GLY	O-C-N	8.10	130.05	122.19
1	AA	331	G	C5'-C4'-O4'	8.10	121.94	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	631	A	O4'-C4'-C3'	8.10	112.10	104.00
26	BB	2154	A	O4'-C4'-C3'	8.10	112.09	104.00
26	BB	1051	G	O4'-C1'-N9	8.09	120.64	108.50
46	BV	91	GLN	CA-C-O	-8.09	112.97	121.55
42	BR	100	ARG	NE-CZ-NH2	8.09	126.48	119.20
17	AQ	64	ARG	NE-CZ-NH2	-8.09	111.92	119.20
26	BB	225	C	O4'-C1'-C2'	-8.09	99.51	107.60
26	BB	1791	A	C1'-O4'-C4'	-8.09	101.81	109.90
36	BL	5	THR	CA-C-O	-8.09	112.60	121.33
24	AX	55	HIS	ND1-CE1-NE2	8.08	116.48	108.40
27	BC	2	ALA	N-CA-C	8.08	122.65	111.74
37	BM	9	ASN	CA-CB-CG	8.08	120.68	112.60
26	BB	628	G	C4'-C3'-C2'	-8.08	94.52	102.60
1	AA	408	A	O4'-C4'-C3'	8.08	112.08	104.00
26	BB	2165	C	C4'-C3'-C2'	-8.08	94.52	102.60
6	AF	222	GLN	CA-C-N	8.07	129.93	119.84
6	AF	222	GLN	C-N-CA	8.07	129.93	119.84
1	AA	1510	C	C4'-C3'-C2'	-8.07	94.53	102.60
12	AL	2	GLU	CA-C-N	8.07	130.93	120.44
12	AL	2	GLU	C-N-CA	8.07	130.93	120.44
26	BB	9	G	O4'-C1'-N9	8.07	120.60	108.50
26	BB	980	A	O4'-C4'-C3'	8.07	112.07	104.00
1	AA	1408	A	C4'-C3'-C2'	-8.06	94.53	102.60
3	AC	32	U	C4'-C3'-C2'	-8.06	94.54	102.60
19	AS	18	GLN	OE1-CD-NE2	8.06	130.66	122.60
1	AA	7	A	P-O5'-C5'	8.06	132.99	120.90
26	BB	502	A	C2'-C3'-O3'	-8.06	101.61	113.70
26	BB	277	G	O3'-P-O5'	-8.06	91.92	104.00
24	AX	16	ARG	CA-C-O	-8.05	111.00	120.10
26	BB	1567	G	C5'-C4'-O4'	8.06	121.18	109.10
26	BB	1333	G	O4'-C4'-C3'	-8.05	95.95	104.00
29	BE	58	ASN	CA-C-O	-8.05	109.85	119.27
26	BB	913	U	O4'-C4'-C3'	8.05	114.15	106.10
26	BB	603	A	C4'-C3'-O3'	8.05	121.47	109.40
1	AA	439	U	C1'-O4'-C4'	-8.04	101.86	109.90
1	AA	639	G	C3'-C2'-O2'	8.04	122.77	110.70
26	BB	1789	A	O4'-C4'-C3'	8.04	112.04	104.00
26	BB	2140	G	C4'-C3'-C2'	-8.04	94.56	102.60
26	BB	2132	U	O3'-P-O5'	-8.04	91.95	104.00
1	AA	1262	C	C5'-C4'-O4'	8.03	121.84	109.80
26	BB	732	C	C3'-C2'-C1'	8.03	109.33	101.30
1	AA	487	A	C3'-C2'-C1'	8.03	109.33	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	AR	26	VAL	N-CA-C	8.03	121.12	111.09
1	AA	802	A	O4'-C4'-C3'	8.02	112.02	104.00
1	AA	907	A	O4'-C1'-N9	8.02	120.53	108.50
26	BB	1074	G	C3'-C2'-C1'	-8.02	93.28	101.30
26	BB	2425	A	C1'-O4'-C4'	-8.02	101.68	109.70
1	AA	913	A	O4'-C1'-N9	8.02	120.22	108.20
26	BB	2375	G	C4'-C3'-C2'	-8.01	94.59	102.60
26	BB	95	A	C4'-C3'-C2'	-8.01	94.59	102.60
26	BB	169	G	C4'-C3'-C2'	-8.01	94.59	102.60
26	BB	246	C	C3'-C2'-C1'	8.01	109.31	101.30
40	BP	90	ARG	NE-CZ-NH2	-8.01	111.99	119.20
23	AW	74	HIS	ND1-CE1-NE2	8.01	116.41	108.40
26	BB	1846	G	C5'-C4'-O4'	8.00	121.79	109.80
26	BB	817	C	C4'-C3'-C2'	-7.99	94.61	102.60
26	BB	1060	U	O4'-C1'-N1	7.99	120.19	108.20
36	BL	120	ARG	NE-CZ-NH2	7.99	126.39	119.20
2	AB	33	U	O5'-C5'-C4'	-7.99	99.52	111.50
36	BL	37	ARG	NH1-CZ-NH2	-7.99	108.92	119.30
1	AA	53	A	C2'-C3'-O3'	7.98	125.68	113.70
27	BC	9	ARG	NE-CZ-NH2	7.98	126.39	119.20
7	AG	63	ILE	O-C-N	7.98	130.05	121.83
26	BB	993	G	O4'-C1'-N9	7.98	120.47	108.50
2	AB	36	A	C5'-C4'-C3'	-7.98	104.03	116.00
1	AA	719	C	O4'-C4'-C3'	-7.97	96.03	104.00
26	BB	88	G	O4'-C1'-C2'	7.97	115.57	107.60
25	BA	102	G	O4'-C4'-C3'	7.97	111.97	104.00
26	BB	1607	C	C5'-C4'-C3'	-7.97	103.25	115.20
29	BE	132	ALA	CA-C-N	7.97	136.21	122.82
29	BE	132	ALA	C-N-CA	7.97	136.21	122.82
28	BD	262	THR	CA-C-N	7.97	133.35	120.60
28	BD	262	THR	C-N-CA	7.97	133.35	120.60
1	AA	205	A	O4'-C1'-C2'	-7.96	99.64	107.60
26	BB	849	A	P-O5'-C5'	7.96	132.85	120.90
28	BD	236	GLY	CA-C-N	7.96	136.75	121.54
28	BD	236	GLY	C-N-CA	7.96	136.75	121.54
54	B3	29	VAL	N-CA-CB	-7.96	99.06	112.44
26	BB	2309	A	C4'-C3'-O3'	-7.96	101.06	113.00
1	AA	1408	A	C1'-O4'-C4'	-7.96	101.94	109.90
39	BO	120	ALA	N-CA-C	7.96	120.86	111.71
26	BB	980	A	C3'-C2'-C1'	7.95	109.25	101.30
33	BI	46	PHE	CA-CB-CG	7.95	121.75	113.80
1	AA	395	C	O4'-C1'-N1	7.95	120.42	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	814	A	C1'-O4'-C4'	-7.95	101.95	109.90
7	AG	19	PHE	CA-CB-CG	7.95	121.75	113.80
26	BB	2213	U	C3'-C2'-O2'	7.95	122.62	110.70
28	BD	260	LYS	CB-CA-C	7.95	124.07	111.51
1	AA	1240	U	C3'-C2'-O2'	-7.95	102.68	114.60
26	BB	2584	U	C4'-C3'-C2'	-7.95	94.66	102.60
1	AA	1330	U	C1'-C2'-O2'	-7.94	96.48	108.40
12	AL	102	PHE	CA-CB-CG	7.94	121.74	113.80
26	BB	1555	G	C5'-C4'-C3'	-7.94	104.08	116.00
26	BB	2154	A	C4'-C3'-C2'	-7.94	94.66	102.60
26	BB	2810	A	C3'-C2'-O2'	7.94	122.60	110.70
1	AA	333	U	C4'-C3'-O3'	-7.93	101.10	113.00
25	BA	61	G	C1'-O4'-C4'	7.93	117.83	109.90
26	BB	2661	G	O4'-C4'-C3'	7.93	111.93	104.00
1	AA	533	A	O4'-C1'-C2'	-7.93	97.87	105.80
26	BB	2682	A	O4'-C4'-C3'	7.93	111.93	104.00
1	AA	420	U	C2'-C3'-O3'	7.93	125.59	113.70
26	BB	53	A	C4'-C3'-O3'	-7.93	101.11	113.00
1	AA	1538	C	C4'-C3'-C2'	-7.93	94.67	102.60
26	BB	1089	A	C5'-C4'-O4'	7.93	120.99	109.10
26	BB	1241	A	C4'-C3'-C2'	-7.93	94.67	102.60
13	AM	8	ILE	N-CA-CB	-7.92	101.48	111.46
30	BF	17	THR	N-CA-C	7.92	119.92	111.28
1	AA	809	G	C4'-C3'-C2'	-7.92	94.68	102.60
1	AA	1011	C	O4'-C1'-N1	7.91	120.37	108.50
26	BB	2874	C	O4'-C1'-C2'	-7.91	99.69	107.60
46	BV	18	GLU	CA-C-N	7.91	132.68	120.82
46	BV	18	GLU	C-N-CA	7.91	132.68	120.82
45	BU	110	ARG	NE-CZ-NH1	-7.91	113.59	121.50
4	AD	16	C	O4'-C4'-C3'	7.90	114.00	106.10
14	AN	112	VAL	CA-CB-CG2	7.90	123.83	110.40
26	BB	2543	G	C3'-C2'-C1'	7.90	109.20	101.30
29	BE	77	ARG	NE-CZ-NH1	-7.90	113.60	121.50
25	BA	10	G	C3'-C2'-O2'	7.90	122.54	110.70
50	BZ	57	VAL	N-CA-CB	7.89	118.91	110.62
26	BB	443	A	O4'-C1'-C2'	-7.89	97.91	105.80
52	B1	55	LYS	CA-C-O	7.89	129.00	120.32
1	AA	266	G	O5'-C5'-C4'	-7.89	99.66	111.50
26	BB	959	A	O5'-C5'-C4'	-7.89	99.66	111.50
26	BB	2452	C	C3'-C2'-C1'	7.89	109.19	101.30
23	AW	26	MET	CA-C-N	7.89	130.69	120.44
23	AW	26	MET	C-N-CA	7.89	130.69	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	13	U	O4'-C1'-C2'	-7.89	97.91	105.80
55	B4	43	ARG	NE-CZ-NH2	7.89	126.30	119.20
1	AA	620	C	O4'-C1'-N1	7.88	120.33	108.50
26	BB	2112	G	C1'-O4'-C4'	-7.88	102.02	109.90
26	BB	2656	U	C3'-C2'-O2'	7.88	122.52	110.70
14	AN	39	ASN	CA-CB-CG	7.88	120.48	112.60
1	AA	1198	G	C3'-C2'-C1'	7.88	109.18	101.30
6	AF	44	LYS	CA-C-O	-7.88	112.07	120.42
9	AI	78	PHE	N-CA-C	7.88	119.95	111.36
5	AE	169	HIS	CA-CB-CG	7.87	121.67	113.80
26	BB	1142	A	O3'-P-O5'	7.87	115.81	104.00
26	BB	431	U	C4'-C3'-C2'	-7.87	94.73	102.60
26	BB	644	A	C5'-C4'-C3'	-7.87	104.20	116.00
26	BB	2287	A	C2'-C3'-O3'	7.87	121.30	109.50
26	BB	2461	A	O4'-C4'-C3'	7.87	111.87	104.00
1	AA	40	C	C1'-O4'-C4'	-7.87	102.03	109.90
12	AL	46	VAL	N-CA-C	7.87	117.97	110.42
26	BB	1775	U	O4'-C1'-N1	7.86	120.29	108.50
5	AE	17	HIS	CB-CG-CD2	-7.86	120.98	131.20
26	BB	273	G	C1'-C2'-O2'	7.86	120.19	108.40
34	BJ	78	PRO	N-CA-CB	7.86	110.34	103.27
1	AA	482	A	O4'-C4'-C3'	7.86	111.86	104.00
26	BB	14	A	O4'-C4'-C3'	7.86	111.86	104.00
8	AH	59	ILE	CA-C-O	-7.85	112.84	121.17
26	BB	2709	G	C5'-C4'-O4'	7.85	121.57	109.80
26	BB	1532	A	C4'-C3'-C2'	7.85	110.45	102.60
25	BA	18	G	C3'-C2'-C1'	7.84	109.14	101.30
26	BB	1914	C	O4'-C1'-C2'	-7.84	99.76	107.60
26	BB	2832	U	O4'-C1'-N1	7.84	119.96	108.20
4	AD	1	C	O3'-P-O5'	7.83	115.75	104.00
26	BB	1546	G	O3'-P-O5'	-7.83	92.25	104.00
2	AB	60	U	C2'-C3'-O3'	-7.83	101.95	113.70
26	BB	1140	C	O3'-P-O5'	7.83	115.75	104.00
26	BB	2861	U	C5'-C4'-O4'	7.83	121.54	109.80
26	BB	2749	A	C4'-C3'-C2'	-7.83	94.77	102.60
1	AA	1340	A	C5'-C4'-C3'	-7.83	104.26	116.00
26	BB	1738	G	O4'-C4'-C3'	7.83	113.93	106.10
1	AA	848	C	C5'-C4'-C3'	-7.82	104.28	116.00
26	BB	54	G	O4'-C4'-C3'	7.82	111.82	104.00
26	BB	1210	G	P-O3'-C3'	7.82	131.93	120.20
1	AA	793	U	N1-C1'-C2'	7.81	123.72	112.00
26	BB	261	G	C4'-C3'-C2'	-7.81	94.79	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1274	A	O3'-P-O5'	-7.81	92.28	104.00
45	BU	22	ASP	N-CA-C	7.81	121.91	112.38
26	BB	1306	C	O5'-C5'-C4'	7.81	123.21	111.50
1	AA	536	C	O5'-C5'-C4'	7.81	123.21	111.50
10	AJ	118	ARG	O-C-N	7.80	130.11	122.07
23	AW	59	ARG	NE-CZ-NH2	-7.80	112.17	119.20
29	BE	33	ARG	NE-CZ-NH2	7.80	126.22	119.20
1	AA	453	G	C4'-C3'-C2'	-7.80	94.80	102.60
1	AA	739	C	C5'-C4'-O4'	7.80	121.50	109.80
26	BB	1752	C	C5'-C4'-O4'	7.80	121.50	109.80
26	BB	1707	G	C1'-O4'-C4'	7.80	117.70	109.90
1	AA	388	G	O4'-C1'-N9	7.79	119.89	108.20
26	BB	1397	U	C1'-O4'-C4'	7.79	117.49	109.70
26	BB	2371	G	C1'-C2'-O2'	7.79	120.09	108.40
28	BD	141	HIS	CA-CB-CG	7.79	121.59	113.80
1	AA	426	U	C4'-C3'-C2'	-7.79	94.81	102.60
3	AC	39	U	C2'-C3'-O3'	7.79	125.39	113.70
1	AA	1237	C	C4'-C3'-C2'	-7.79	94.81	102.60
1	AA	1109	C	C3'-C2'-C1'	-7.79	93.51	101.30
26	BB	650	C	C4'-C3'-C2'	-7.79	94.81	102.60
26	BB	2173	A	C5'-C4'-C3'	-7.79	104.32	116.00
26	BB	2278	A	C4'-C3'-O3'	7.79	124.68	113.00
26	BB	2201	G	C3'-C2'-C1'	7.78	109.08	101.30
54	B3	51	ARG	NE-CZ-NH2	7.78	126.20	119.20
1	AA	452	A	C3'-C2'-O2'	7.78	122.37	110.70
26	BB	99	U	C3'-C2'-O2'	7.78	122.37	110.70
26	BB	2766	A	C5'-C4'-O4'	7.78	121.46	109.80
1	AA	1317	C	C4'-C3'-C2'	-7.77	94.83	102.60
25	BA	90	C	O4'-C1'-C2'	-7.77	99.83	107.60
26	BB	2657	A	O4'-C4'-C3'	7.77	111.77	104.00
26	BB	2199	A	O4'-C4'-C3'	7.77	111.77	104.00
9	AI	101	PRO	CA-C-N	7.77	135.03	122.67
9	AI	101	PRO	C-N-CA	7.77	135.03	122.67
26	BB	401	A	O4'-C4'-C3'	-7.77	96.23	104.00
1	AA	545	C	C4'-C3'-C2'	-7.76	94.83	102.60
1	AA	1338	G	O4'-C1'-C2'	-7.76	99.83	107.60
26	BB	669	G	O4'-C1'-C2'	-7.76	99.83	107.60
26	BB	421	C	O3'-P-O5'	-7.76	92.36	104.00
26	BB	2175	C	O3'-P-O5'	-7.76	92.36	104.00
26	BB	1730	C	O5'-C5'-C4'	7.75	123.13	111.50
31	BG	135	ILE	CA-C-N	7.75	135.93	121.97
31	BG	135	ILE	C-N-CA	7.75	135.93	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	378	G	C4'-C3'-O3'	-7.75	101.37	113.00
26	BB	1331	G	C3'-C2'-C1'	7.75	109.05	101.30
26	BB	1166	G	C5'-C4'-C3'	-7.75	104.38	116.00
1	AA	240	G	P-O3'-C3'	7.74	131.81	120.20
1	AA	855	U	C4'-C3'-C2'	-7.74	94.86	102.60
3	AC	57	C	C3'-C2'-C1'	7.74	109.04	101.30
25	BA	87	U	C2'-C3'-O3'	7.74	125.31	113.70
26	BB	1537	G	C3'-C2'-C1'	7.73	109.03	101.30
35	BK	21	PRO	N-CA-CB	7.73	110.58	103.08
26	BB	679	C	O4'-C1'-N1	7.73	120.09	108.50
1	AA	193	C	C4'-C3'-C2'	-7.73	94.87	102.60
1	AA	675	A	P-O5'-C5'	7.73	132.49	120.90
26	BB	1742	U	C4'-C3'-C2'	-7.73	94.87	102.60
44	BT	12	HIS	CA-CB-CG	-7.72	106.08	113.80
1	AA	720	C	O4'-C4'-C3'	7.72	111.72	104.00
47	BW	76	THR	CA-CB-CG2	7.72	123.63	110.50
1	AA	899	C	O4'-C1'-N1	7.72	120.08	108.50
26	BB	1735	A	C4'-C3'-C2'	-7.72	94.88	102.60
1	AA	6	G	C1'-O4'-C4'	-7.72	101.98	109.70
32	BH	72	ASN	CA-CB-CG	7.72	120.32	112.60
22	AV	2	ARG	CA-C-O	-7.71	112.44	121.16
50	BZ	65	THR	CA-CB-OG1	7.71	121.17	109.60
25	BA	46	A	O4'-C4'-C3'	7.71	111.71	104.00
32	BH	136	ASP	CA-C-N	7.71	131.38	120.28
32	BH	136	ASP	C-N-CA	7.71	131.38	120.28
1	AA	1057	G	O4'-C1'-C2'	-7.71	99.89	107.60
26	BB	2059	A	O5'-C5'-C4'	-7.71	99.94	111.50
1	AA	466	A	C4'-C3'-C2'	-7.71	94.89	102.60
26	BB	286	U	O4'-C4'-C3'	-7.71	96.29	104.00
26	BB	1582	C	O4'-C1'-C2'	-7.71	99.89	107.60
26	BB	1733	G	O4'-C4'-C3'	7.71	111.70	104.00
4	AD	65	G	C4'-C3'-C2'	-7.70	94.90	102.60
26	BB	196	A	O4'-C1'-C2'	-7.70	98.10	105.80
22	AV	68	HIS	CB-CG-ND1	7.70	134.25	122.70
1	AA	1526	G	O3'-P-O5'	-7.70	92.45	104.00
7	AG	145	ARG	CA-C-N	7.70	130.59	120.28
7	AG	145	ARG	C-N-CA	7.70	130.59	120.28
26	BB	1532	A	O4'-C4'-C3'	-7.70	96.30	104.00
13	AM	69	THR	CA-C-O	7.69	129.58	120.20
26	BB	922	C	C4'-C3'-C2'	-7.69	94.91	102.60
26	BB	1349	C	C4'-C3'-C2'	-7.69	94.91	102.60
26	BB	1142	A	P-O3'-C3'	7.69	131.73	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	493	A	C1'-O4'-C4'	-7.68	102.22	109.90
1	AA	1317	C	O4'-C1'-N1	7.68	120.03	108.50
26	BB	454	A	C1'-C2'-O2'	7.68	123.33	111.80
17	AQ	34	ASN	OD1-CG-ND2	-7.68	114.92	122.60
26	BB	485	C	O4'-C1'-N1	7.68	120.03	108.50
1	AA	1075	U	P-O5'-C5'	7.68	132.42	120.90
26	BB	101	A	N9-C1'-C2'	7.68	125.52	114.00
26	BB	311	A	C3'-C2'-C1'	7.68	109.18	101.50
26	BB	1320	C	C5'-C4'-O4'	7.68	120.62	109.10
33	BI	20	ASN	CA-CB-CG	7.68	120.28	112.60
26	BB	1872	A	O4'-C4'-C3'	7.67	111.67	104.00
1	AA	1399	C	C5'-C4'-C3'	-7.67	103.69	115.20
26	BB	168	G	C5'-C4'-O4'	7.67	121.31	109.80
26	BB	987	C	C2'-C3'-O3'	7.67	125.21	113.70
2	AB	4	G	C3'-C2'-C1'	7.67	108.97	101.30
1	AA	875	U	C3'-C2'-C1'	7.67	108.97	101.30
26	BB	2126	A	O4'-C4'-C3'	7.67	113.77	106.10
1	AA	636	U	C3'-C2'-C1'	7.67	108.97	101.30
26	BB	1287	A	C5'-C4'-O4'	7.66	121.30	109.80
1	AA	1078	U	C4'-C3'-C2'	-7.66	94.94	102.60
11	AK	122	GLY	N-CA-C	7.66	120.41	110.45
26	BB	989	G	O4'-C1'-C2'	-7.66	98.14	105.80
26	BB	661	A	N9-C1'-C2'	-7.66	100.51	112.00
26	BB	1052	C	C3'-C2'-C1'	7.66	108.96	101.30
18	AR	35	ILE	N-CA-C	7.66	118.43	110.62
26	BB	236	C	O4'-C1'-C2'	-7.66	99.94	107.60
26	BB	2525	G	C4'-C3'-C2'	-7.66	94.94	102.60
28	BD	218	THR	CA-C-N	7.66	131.93	120.75
28	BD	218	THR	C-N-CA	7.66	131.93	120.75
26	BB	1489	C	C5'-C4'-C3'	-7.66	104.52	116.00
25	BA	67	G	C4'-C3'-C2'	-7.65	94.95	102.60
1	AA	646	G	O4'-C4'-C3'	-7.65	96.35	104.00
26	BB	2110	G	N9-C1'-C2'	-7.65	102.52	114.00
44	BT	83	TYR	O-C-N	7.65	132.22	123.27
1	AA	646	G	C5'-C4'-O4'	7.65	121.27	109.80
1	AA	872	A	C4'-C3'-C2'	-7.64	94.96	102.60
2	AB	34	C	C1'-C2'-O2'	7.64	119.86	108.40
43	BS	57	ARG	CA-C-N	7.64	130.38	120.44
43	BS	57	ARG	C-N-CA	7.64	130.38	120.44
30	BF	136	GLN	CA-C-O	-7.64	111.18	119.97
3	AC	26	U	C1'-O4'-C4'	7.64	117.54	109.90
26	BB	574	A	C2'-C3'-O3'	7.64	120.96	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AE	103	TRP	CA-C-N	7.63	133.33	121.19
5	AE	103	TRP	C-N-CA	7.63	133.33	121.19
36	BL	67	ASN	CA-CB-CG	7.63	120.23	112.60
1	AA	973	G	P-O3'-C3'	7.63	131.65	120.20
1	AA	998	C	O3'-P-O5'	-7.63	92.55	104.00
4	AD	63	C	P-O5'-C5'	7.63	132.35	120.90
16	AP	54	THR	CA-C-N	7.62	130.81	120.44
16	AP	54	THR	C-N-CA	7.62	130.81	120.44
1	AA	1427	C	O4'-C4'-C3'	-7.62	96.38	104.00
26	BB	1120	G	O4'-C1'-C2'	-7.62	99.98	107.60
26	BB	2856	A	O4'-C1'-N9	7.62	119.93	108.50
7	AG	29	THR	N-CA-C	-7.62	101.50	111.02
26	BB	167	A	O4'-C1'-C2'	-7.62	99.98	107.60
11	AK	32	LYS	CA-C-N	7.61	130.74	120.77
11	AK	32	LYS	C-N-CA	7.61	130.74	120.77
16	AP	44	ILE	CA-C-N	7.61	132.78	120.60
16	AP	44	ILE	C-N-CA	7.61	132.78	120.60
26	BB	2219	U	O4'-C1'-N1	7.61	119.92	108.50
30	BF	47	LYS	N-CA-C	7.61	122.16	108.69
31	BG	4	HIS	CB-CG-CD2	-7.61	121.31	131.20
37	BM	3	GLN	O-C-N	7.61	131.67	122.84
16	AP	78	ARG	CD-NE-CZ	7.61	135.05	124.40
25	BA	118	C	C3'-C2'-C1'	-7.60	93.70	101.30
26	BB	939	G	C3'-C2'-C1'	-7.60	93.70	101.30
26	BB	1987	A	C4'-C3'-C2'	-7.60	95.00	102.60
1	AA	1053	G	C1'-C2'-O2'	-7.60	100.41	111.80
1	AA	304	U	C5'-C4'-C3'	-7.59	104.61	116.00
26	BB	2257	U	C3'-C2'-C1'	-7.59	93.70	101.30
26	BB	2471	A	C4'-C3'-C2'	-7.59	95.01	102.60
26	BB	2669	G	C4'-C3'-O3'	7.59	124.39	113.00
1	AA	742	G	C4'-C3'-C2'	-7.59	95.01	102.60
10	AJ	141	HIS	CA-CB-CG	7.59	121.39	113.80
16	AP	70	ARG	NE-CZ-NH2	-7.59	112.37	119.20
26	BB	1114	C	C4'-C3'-C2'	-7.59	95.01	102.60
26	BB	2215	C	C5'-C4'-O4'	7.59	121.19	109.80
1	AA	703	G	O4'-C1'-N9	7.59	119.58	108.20
1	AA	882	C	O4'-C1'-N1	7.59	119.89	108.50
32	BH	124	CYS	CA-C-N	7.59	129.33	119.84
32	BH	124	CYS	C-N-CA	7.59	129.33	119.84
26	BB	1044	C	O3'-P-O5'	-7.59	92.62	104.00
27	BC	11	ILE	O-C-N	7.59	129.65	121.83
26	BB	1101	U	O4'-C1'-N1	7.59	119.88	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	B0	47	ARG	N-CA-C	-7.59	103.64	113.12
26	BB	1523	U	O4'-C1'-C2'	-7.58	100.02	107.60
26	BB	1376	C	C5'-C4'-O4'	-7.58	98.42	109.80
26	BB	487	C	O3'-P-O5'	-7.58	92.63	104.00
26	BB	1821	A	O4'-C1'-C2'	7.58	115.18	107.60
26	BB	2260	C	C5'-C4'-C3'	-7.58	104.63	116.00
51	B0	3	ALA	CA-C-O	-7.58	111.25	119.97
1	AA	602	A	N9-C1'-C2'	-7.58	100.63	112.00
1	AA	928	G	C4'-C3'-C2'	-7.58	95.02	102.60
26	BB	1075	C	O4'-C1'-N1	7.57	119.86	108.50
26	BB	726	G	C2'-C3'-O3'	-7.57	102.34	113.70
22	AV	71	GLY	O-C-N	7.57	131.62	122.84
39	BO	93	VAL	CA-CB-CG1	7.57	123.27	110.40
27	BC	225	ASP	CA-CB-CG	7.57	120.17	112.60
1	AA	141	G	C4'-C3'-C2'	-7.57	95.03	102.60
26	BB	830	G	C1'-O4'-C4'	7.56	117.26	109.70
1	AA	1005	A	C3'-C2'-C1'	7.56	108.86	101.30
52	B1	24	LEU	CA-C-N	7.56	128.37	119.98
52	B1	24	LEU	C-N-CA	7.56	128.37	119.98
26	BB	2740	A	C1'-O4'-C4'	-7.56	102.34	109.90
1	AA	542	G	C4'-C3'-C2'	-7.56	95.04	102.60
5	AE	192	PRO	CA-C-N	7.56	131.44	120.71
5	AE	192	PRO	C-N-CA	7.56	131.44	120.71
26	BB	2597	G	C4'-C3'-O3'	-7.56	101.67	113.00
18	AR	9	LYS	CA-C-N	7.55	130.34	120.60
18	AR	9	LYS	C-N-CA	7.55	130.34	120.60
26	BB	1685	C	C4'-C3'-C2'	-7.55	95.05	102.60
1	AA	103	U	C3'-C2'-C1'	-7.55	93.75	101.30
1	AA	618	C	O4'-C4'-C3'	7.55	111.55	104.00
26	BB	2535	G	O4'-C1'-N9	7.55	119.83	108.50
28	BD	258	SER	CA-C-O	-7.55	114.65	121.67
26	BB	905	A	C5'-C4'-C3'	-7.55	104.68	116.00
1	AA	702	A	O4'-C4'-C3'	7.55	113.65	106.10
49	BY	76	ARG	NH1-CZ-NH2	-7.55	109.49	119.30
26	BB	917	A	O4'-C4'-C3'	7.54	111.55	104.00
16	AP	55	LEU	CA-C-N	7.54	130.39	120.28
16	AP	55	LEU	C-N-CA	7.54	130.39	120.28
26	BB	1635	A	O4'-C4'-C3'	7.54	111.54	104.00
15	AO	37	TYR	CA-CB-CG	7.54	127.48	113.90
26	BB	1239	G	C1'-O4'-C4'	-7.54	102.36	109.90
43	BS	13	HIS	CB-CG-CD2	-7.54	121.40	131.20
26	BB	60	G	C1'-O4'-C4'	-7.54	102.16	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1870	C	C4'-C3'-C2'	-7.54	95.06	102.60
1	AA	187	G	C4'-C3'-C2'	-7.53	95.07	102.60
17	AQ	92	ILE	CA-C-N	7.53	127.97	119.83
17	AQ	92	ILE	C-N-CA	7.53	127.97	119.83
26	BB	1359	A	C3'-C2'-C1'	7.53	108.83	101.30
26	BB	1919	A	O4'-C1'-C2'	-7.53	100.07	107.60
26	BB	2768	U	O5'-C5'-C4'	7.53	122.80	111.50
47	BW	96	LYS	CA-C-N	7.53	135.93	121.54
47	BW	96	LYS	C-N-CA	7.53	135.93	121.54
15	AO	63	THR	CA-CB-OG1	7.53	120.89	109.60
27	BC	118	PRO	N-CA-CB	7.53	111.84	103.26
26	BB	1564	C	C4'-C3'-C2'	-7.53	95.07	102.60
40	BP	87	PHE	CA-CB-CG	7.53	121.33	113.80
1	AA	1330	U	C4'-C3'-C2'	-7.53	95.08	102.60
26	BB	1848	A	C4'-C3'-C2'	-7.53	95.07	102.60
35	BK	67	THR	CA-C-O	-7.52	112.61	121.11
1	AA	149	A	C3'-C2'-C1'	7.52	108.82	101.30
1	AA	1493	A	C3'-C2'-O2'	7.52	121.98	110.70
26	BB	1400	U	O4'-C1'-N1	7.52	119.78	108.50
26	BB	2676	C	C3'-C2'-C1'	-7.52	93.78	101.30
31	BG	80	GLN	OE1-CD-NE2	7.52	130.12	122.60
25	BA	20	G	O4'-C1'-C2'	7.52	115.12	107.60
27	BC	65	LEU	O-C-N	7.52	129.05	121.30
2	AB	57	G	O4'-C4'-C3'	7.52	111.52	104.00
26	BB	451	U	O4'-C4'-C3'	7.52	113.62	106.10
26	BB	508	A	C4'-C3'-C2'	-7.52	95.08	102.60
26	BB	1834	U	C4'-C3'-C2'	-7.52	95.08	102.60
30	BF	138	LEU	CA-C-N	7.51	130.96	120.29
30	BF	138	LEU	C-N-CA	7.51	130.96	120.29
4	AD	17	C	O4'-C4'-C3'	7.51	111.51	104.00
26	BB	610	C	C1'-O4'-C4'	7.51	117.41	109.90
3	AC	33	A	C4'-C3'-C2'	-7.51	95.09	102.60
26	BB	749	A	C4'-C3'-C2'	-7.51	95.09	102.60
1	AA	410	G	C4'-C3'-C2'	-7.51	95.09	102.60
1	AA	1214	C	C2'-C3'-O3'	7.51	120.76	109.50
26	BB	160	A	O4'-C4'-C3'	7.51	111.51	104.00
26	BB	1742	U	O5'-C5'-C4'	-7.51	100.24	111.50
26	BB	2541	A	C4'-C3'-O3'	-7.51	101.74	113.00
20	AT	80	LYS	CA-C-N	7.50	135.87	121.54
20	AT	80	LYS	C-N-CA	7.50	135.87	121.54
26	BB	570	G	C5'-C4'-C3'	-7.50	103.95	115.20
26	BB	1421	G	C4'-C3'-O3'	-7.50	101.75	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	BQ	56	LYS	CA-CB-CG	7.50	129.10	114.10
1	AA	796	C	C4'-C3'-C2'	-7.50	95.11	102.60
26	BB	2129	C	O4'-C4'-C3'	7.50	113.59	106.10
26	BB	1706	C	O4'-C1'-N1	7.49	119.44	108.20
2	AB	31	U	C4'-C3'-O3'	-7.49	101.76	113.00
1	AA	934	C	P-O3'-C3'	7.49	131.44	120.20
12	AL	7	GLY	CA-C-O	-7.49	114.37	121.11
26	BB	334	C	O4'-C4'-C3'	7.49	111.49	104.00
26	BB	2505	G	C4'-C3'-O3'	-7.49	98.17	109.40
18	AR	69	LEU	CA-C-O	-7.49	112.61	120.55
26	BB	1143	A	P-O3'-C3'	7.48	131.42	120.20
26	BB	2846	G	C1'-C2'-O2'	7.48	119.62	108.40
28	BD	216	ARG	CB-CA-C	7.48	119.63	108.86
26	BB	231	A	C2'-C3'-O3'	7.48	124.92	113.70
26	BB	1201	U	O3'-P-O5'	-7.48	92.78	104.00
26	BB	2402	U	O4'-C4'-C3'	-7.48	96.52	104.00
26	BB	2840	C	C5'-C4'-C3'	-7.48	104.78	116.00
1	AA	835	U	C3'-C2'-C1'	7.47	108.78	101.30
15	AO	87	LYS	CA-C-N	7.47	130.90	120.29
15	AO	87	LYS	C-N-CA	7.47	130.90	120.29
26	BB	2211	A	C4'-C3'-C2'	-7.47	95.13	102.60
26	BB	942	G	C4'-C3'-C2'	-7.47	95.13	102.60
26	BB	1407	G	O4'-C4'-C3'	7.47	111.47	104.00
32	BH	21	GLN	OE1-CD-NE2	7.47	130.07	122.60
1	AA	991	U	C5'-C4'-O4'	7.47	120.31	109.10
26	BB	837	C	C4'-C3'-C2'	-7.47	95.13	102.60
26	BB	1875	G	C4'-C3'-C2'	-7.47	95.13	102.60
1	AA	287	U	C4'-C3'-C2'	-7.47	95.13	102.60
26	BB	1553	A	O4'-C1'-N9	7.47	119.70	108.50
26	BB	2664	G	C4'-C3'-C2'	-7.47	95.13	102.60
26	BB	839	U	C3'-C2'-C1'	7.46	108.76	101.30
26	BB	2505	G	O3'-P-O5'	-7.46	92.80	104.00
38	BN	103	ILE	N-CA-C	7.46	117.55	110.53
1	AA	582	C	C4'-C3'-C2'	-7.46	95.14	102.60
1	AA	1135	U	O3'-P-O5'	7.46	115.19	104.00
1	AA	1278	G	O4'-C4'-C3'	7.46	113.56	106.10
26	BB	312	G	C4'-C3'-O3'	-7.46	101.81	113.00
26	BB	2145	C	C3'-C2'-C1'	-7.46	93.84	101.30
1	AA	781	A	C5'-C4'-O4'	7.46	120.99	109.80
26	BB	2340	A	C4'-C3'-C2'	-7.46	95.14	102.60
26	BB	2189	U	C3'-C2'-C1'	7.46	108.75	101.30
6	AF	123	LEU	CA-C-N	7.45	130.60	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AF	123	LEU	C-N-CA	7.45	130.60	120.54
26	BB	2834	G	O4'-C1'-C2'	7.45	115.05	107.60
1	AA	1532	U	C1'-O4'-C4'	7.45	117.35	109.90
26	BB	615	U	C5'-C4'-O4'	7.45	120.28	109.10
26	BB	1085	A	C3'-C2'-O2'	7.45	121.87	110.70
26	BB	1773	A	C5'-C4'-C3'	-7.45	104.82	116.00
26	BB	2507	C	O4'-C4'-C3'	7.45	111.45	104.00
25	BA	38	C	N1-C1'-C2'	-7.45	100.83	112.00
5	AE	119	GLN	CA-C-O	-7.45	113.03	120.70
26	BB	1702	G	C1'-C2'-O2'	-7.45	97.23	108.40
4	AD	61	U	O3'-P-O5'	-7.44	92.83	104.00
9	AI	78	PHE	CA-C-N	7.44	130.25	120.28
9	AI	78	PHE	C-N-CA	7.44	130.25	120.28
26	BB	2714	G	O4'-C1'-N9	7.44	119.67	108.50
1	AA	844	G	C5'-C4'-O4'	7.44	120.27	109.10
8	AH	130	THR	N-CA-C	-7.44	104.23	112.72
26	BB	426	C	C4'-C3'-C2'	-7.44	95.16	102.60
26	BB	968	C	O4'-C1'-N1	7.44	119.66	108.50
2	AB	58	A	C2'-C3'-O3'	7.44	120.66	109.50
26	BB	574	A	O4'-C1'-C2'	7.44	113.24	105.80
26	BB	2137	U	O4'-C1'-N1	7.44	119.66	108.50
26	BB	2515	C	C4'-C3'-C2'	-7.44	95.16	102.60
1	AA	740	U	C4'-C3'-O3'	7.43	124.15	113.00
9	AI	100	SER	CA-C-N	7.43	127.14	119.56
9	AI	100	SER	C-N-CA	7.43	127.14	119.56
26	BB	729	G	C1'-O4'-C4'	-7.43	102.47	109.90
26	BB	1337	G	O4'-C4'-C3'	7.43	111.43	104.00
26	BB	2335	A	C5'-C4'-C3'	-7.43	104.85	116.00
51	B0	26	PHE	N-CA-C	7.43	120.44	111.82
16	AP	84	CYS	N-CA-C	-7.43	100.72	110.53
25	BA	44	G	C2'-C3'-O3'	7.43	120.64	109.50
26	BB	1979	U	C5'-C4'-C3'	-7.43	104.86	116.00
26	BB	969	G	O4'-C1'-N9	7.43	119.64	108.50
26	BB	787	C	C4'-C3'-C2'	-7.43	95.17	102.60
26	BB	1079	C	C5'-C4'-C3'	-7.43	104.86	116.00
26	BB	2375	G	O4'-C4'-C3'	7.43	111.43	104.00
1	AA	1247	U	C4'-C3'-C2'	-7.42	95.17	102.60
1	AA	1539	C	C4'-C3'-O3'	-7.42	101.86	113.00
4	AD	58	A	O4'-C4'-C3'	7.42	111.42	104.00
26	BB	2803	G	C3'-C2'-C1'	-7.42	93.88	101.30
5	AE	185	ILE	CB-CA-C	7.42	119.56	110.73
26	BB	498	G	C4'-C3'-C2'	-7.42	95.18	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	522	A	C4'-C3'-C2'	-7.42	95.18	102.60
1	AA	725	G	O5'-C5'-C4'	-7.42	100.37	111.50
15	AO	107	LYS	CA-C-N	7.42	132.65	122.19
15	AO	107	LYS	C-N-CA	7.42	132.65	122.19
1	AA	558	G	C5'-C4'-O4'	7.41	120.92	109.80
12	AL	105	ARG	NE-CZ-NH1	-7.41	114.09	121.50
26	BB	1213	A	C5'-C4'-O4'	7.41	120.92	109.80
1	AA	1477	U	O4'-C1'-C2'	-7.41	100.19	107.60
26	BB	431	U	O5'-C5'-C4'	-7.41	100.38	111.50
26	BB	2227	A	C3'-C2'-C1'	-7.41	93.89	101.30
54	B3	18	HIS	CA-CB-CG	-7.41	106.39	113.80
26	BB	1769	U	O4'-C1'-N1	7.41	119.61	108.50
10	AJ	129	ASN	CA-CB-CG	7.41	120.01	112.60
26	BB	80	G	O4'-C1'-N9	7.41	119.61	108.50
35	BK	92	PRO	N-CA-CB	7.41	110.22	103.33
1	AA	213	G	C4'-C3'-O3'	7.41	124.11	113.00
1	AA	316	C	O4'-C1'-C2'	-7.41	100.19	107.60
1	AA	782	A	C3'-C2'-C1'	7.41	108.71	101.30
1	AA	976	G	C4'-C3'-C2'	-7.41	95.19	102.60
1	AA	1213	A	P-O3'-C3'	7.41	131.31	120.20
26	BB	870	U	C5'-C4'-O4'	7.40	120.90	109.80
26	BB	1342	A	C5'-C4'-C3'	-7.40	104.10	115.20
26	BB	107	G	C4'-C3'-C2'	-7.40	95.20	102.60
26	BB	436	C	O4'-C1'-N1	7.40	119.60	108.50
51	B0	47	ARG	NE-CZ-NH2	7.40	125.86	119.20
26	BB	673	C	O4'-C1'-N1	7.40	119.60	108.50
26	BB	1311	G	C3'-C2'-C1'	7.40	108.90	101.50
1	AA	1177	G	O4'-C4'-C3'	7.39	111.39	104.00
26	BB	729	G	C4'-C3'-C2'	-7.39	95.21	102.60
26	BB	1388	G	C4'-C3'-C2'	7.39	109.99	102.60
26	BB	2609	U	C1'-C2'-O2'	7.39	122.89	111.80
1	AA	530	G	O4'-C1'-N9	7.39	119.59	108.50
1	AA	1287	A	O3'-P-O5'	7.39	115.09	104.00
41	BQ	34	HIS	CB-CG-CD2	-7.39	121.59	131.20
26	BB	931	U	C2'-C3'-O3'	7.39	120.59	109.50
26	BB	2871	U	O4'-C1'-N1	7.39	119.58	108.50
1	AA	943	U	C1'-O4'-C4'	7.39	117.29	109.90
4	AD	34	U	C5'-C4'-C3'	-7.39	104.92	116.00
5	AE	140	LEU	CA-C-N	7.38	130.04	120.44
5	AE	140	LEU	C-N-CA	7.38	130.04	120.44
26	BB	242	G	C2'-C3'-O3'	7.38	120.58	109.50
26	BB	1114	C	O4'-C1'-C2'	-7.38	100.22	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BO	118	LYS	CA-C-N	7.38	130.04	120.44
39	BO	118	LYS	C-N-CA	7.38	130.04	120.44
1	AA	514	C	C4'-C3'-O3'	7.38	124.07	113.00
26	BB	597	G	O4'-C1'-N9	7.38	119.57	108.50
26	BB	1106	G	O4'-C1'-N9	7.38	119.57	108.50
26	BB	2820	A	C5'-C4'-C3'	7.38	127.07	116.00
26	BB	243	U	O4'-C4'-C3'	7.38	111.38	104.00
46	BV	77	ARG	N-CA-C	-7.38	98.74	109.59
26	BB	2465	C	P-O5'-C5'	7.37	131.95	120.90
26	BB	2872	A	C4'-C3'-C2'	-7.37	95.23	102.60
30	BF	100	MET	CA-C-N	7.37	130.38	120.65
30	BF	100	MET	C-N-CA	7.37	130.38	120.65
42	BR	97	TYR	CA-C-O	-7.37	111.95	120.20
15	AO	45	ASN	CA-CB-CG	7.37	119.97	112.60
26	BB	1778	U	O4'-C4'-C3'	7.37	111.37	104.00
26	BB	2610	C	C4'-C3'-O3'	-7.37	101.95	113.00
1	AA	526	C	C4'-C3'-C2'	-7.37	95.23	102.60
1	AA	788	U	C3'-C2'-C1'	7.37	108.67	101.30
26	BB	1613	G	C1'-C2'-O2'	7.37	119.45	108.40
1	AA	1189	U	O5'-C5'-C4'	-7.36	100.46	111.50
1	AA	218	U	C1'-C2'-O2'	7.36	119.44	108.40
26	BB	323	C	N1-C1'-C2'	-7.36	102.96	114.00
1	AA	17	U	C3'-C2'-C1'	7.36	108.66	101.30
18	AR	28	VAL	CA-C-N	7.36	131.50	120.31
18	AR	28	VAL	C-N-CA	7.36	131.50	120.31
26	BB	325	G	C4'-C3'-C2'	-7.36	95.24	102.60
1	AA	108	G	O4'-C1'-C2'	7.36	114.96	107.60
1	AA	735	C	O4'-C1'-N1	7.36	119.53	108.50
26	BB	2719	G	O4'-C4'-C3'	7.36	111.36	104.00
1	AA	179	A	C4'-C3'-C2'	7.35	109.95	102.60
26	BB	101	A	C1'-O4'-C4'	7.35	117.05	109.70
1	AA	1076	U	O4'-C1'-C2'	-7.35	100.25	107.60
5	AE	142	LYS	CA-C-N	7.35	130.13	120.28
5	AE	142	LYS	C-N-CA	7.35	130.13	120.28
26	BB	1171	G	N9-C1'-C2'	-7.35	100.97	112.00
26	BB	2884	U	N1-C1'-C2'	7.35	123.03	112.00
26	BB	1250	G	C3'-C2'-O2'	-7.35	103.58	114.60
26	BB	2627	G	C1'-O4'-C4'	-7.35	102.55	109.90
37	BM	114	LYS	CA-C-O	-7.35	112.08	120.24
26	BB	112	U	O3'-P-O5'	7.34	115.02	104.00
1	AA	1076	U	C4'-C3'-C2'	-7.34	95.26	102.60
26	BB	2626	C	C4'-C3'-C2'	-7.34	95.26	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	AS	32	PHE	CA-CB-CG	7.34	121.14	113.80
26	BB	478	A	O4'-C4'-C3'	7.34	111.34	104.00
26	BB	1844	C	C4'-C3'-C2'	7.34	109.94	102.60
1	AA	1043	G	O4'-C4'-C3'	7.34	111.34	104.00
51	B0	52	ARG	NE-CZ-NH1	-7.34	114.16	121.50
26	BB	1896	G	O4'-C1'-C2'	-7.34	100.26	107.60
26	BB	683	U	O4'-C1'-N1	7.33	119.50	108.50
26	BB	2640	G	C4'-C3'-C2'	-7.33	95.27	102.60
28	BD	109	LEU	CA-C-N	7.33	131.54	121.05
28	BD	109	LEU	C-N-CA	7.33	131.54	121.05
37	BM	43	ILE	CA-CB-CG1	7.33	122.87	110.40
26	BB	1292	G	C3'-C2'-C1'	7.33	108.63	101.30
26	BB	1431	A	C4'-C3'-C2'	-7.33	95.27	102.60
53	B2	19	GLY	O-C-N	7.33	129.84	122.88
36	BL	130	HIS	ND1-CG-CD2	7.33	113.43	106.10
3	AC	50	U	P-O3'-C3'	7.33	131.19	120.20
13	AM	7	ARG	CA-C-N	7.33	132.64	123.12
13	AM	7	ARG	C-N-CA	7.33	132.64	123.12
1	AA	1377	A	C5'-C4'-O4'	7.32	120.79	109.80
12	AL	48	ARG	CA-C-O	-7.32	111.55	119.97
1	AA	650	G	O4'-C4'-C3'	7.32	111.32	104.00
26	BB	75	G	O5'-C5'-C4'	-7.32	100.52	111.50
1	AA	321	A	C4'-C3'-C2'	-7.32	95.28	102.60
10	AJ	21	LEU	CA-C-N	7.32	130.69	120.29
10	AJ	21	LEU	C-N-CA	7.32	130.69	120.29
26	BB	356	G	C3'-C2'-C1'	7.32	108.62	101.30
26	BB	631	A	C4'-C3'-C2'	-7.32	95.28	102.60
12	AL	54	VAL	CA-C-N	7.32	133.44	122.68
12	AL	54	VAL	C-N-CA	7.32	133.44	122.68
32	BH	146	ASP	CA-CB-CG	7.32	119.92	112.60
1	AA	646	G	O4'-C1'-C2'	-7.32	100.28	107.60
1	AA	964	A	C3'-C2'-C1'	-7.32	93.98	101.30
1	AA	1140	C	C4'-C3'-C2'	-7.32	95.28	102.60
7	AG	98	ASP	CB-CA-C	7.32	122.94	110.79
25	BA	29	A	O4'-C1'-C2'	-7.32	100.28	107.60
26	BB	1140	C	C1'-C2'-O2'	7.32	119.38	108.40
43	BS	29	ARG	NE-CZ-NH1	7.32	128.81	121.50
46	BV	25	GLU	CA-C-O	-7.32	113.07	120.90
1	AA	476	U	C4'-C3'-O3'	7.31	123.97	113.00
1	AA	1005	A	N9-C1'-C2'	-7.31	101.03	112.00
26	BB	2846	G	O4'-C1'-N9	7.31	119.47	108.50
57	B6	42	HIS	CA-C-N	7.31	130.08	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	B6	42	HIS	C-N-CA	7.31	130.08	120.28
25	BA	46	A	C1'-O4'-C4'	-7.31	102.59	109.90
26	BB	1858	A	C3'-C2'-C1'	-7.31	93.99	101.30
1	AA	523	A	O4'-C4'-C3'	7.31	111.31	104.00
26	BB	2450	A	O4'-C1'-C2'	-7.31	100.29	107.60
26	BB	984	A	O4'-C4'-C3'	7.31	111.31	104.00
1	AA	399	G	O5'-C5'-C4'	-7.30	100.54	111.50
16	AP	96	VAL	N-CA-CB	-7.30	102.27	112.35
26	BB	956	G	C5'-C4'-C3'	-7.30	105.04	116.00
26	BB	1904	G	O5'-C5'-C4'	7.30	122.45	111.50
26	BB	586	A	C3'-C2'-C1'	7.30	108.60	101.30
26	BB	695	G	O4'-C4'-C3'	7.30	111.30	104.00
26	BB	2818	U	C4'-C3'-C2'	-7.30	95.30	102.60
1	AA	484	G	O4'-C1'-C2'	7.29	113.09	105.80
25	BA	88	C	O4'-C1'-N1	7.29	119.44	108.50
1	AA	533	A	C1'-O4'-C4'	7.29	116.99	109.70
26	BB	2655	G	C3'-C2'-C1'	-7.29	94.21	101.50
1	AA	631	C	C5'-C4'-O4'	7.29	120.73	109.80
1	AA	1045	C	O4'-C4'-C3'	-7.29	96.71	104.00
26	BB	1134	A	O3'-P-O5'	-7.29	93.07	104.00
26	BB	1461	C	O4'-C1'-C2'	-7.29	100.31	107.60
58	B7	19	ARG	NE-CZ-NH2	-7.29	112.64	119.20
18	AR	34	GLN	CA-C-N	7.29	130.44	120.46
18	AR	34	GLN	C-N-CA	7.29	130.44	120.46
1	AA	782	A	C4'-C3'-C2'	-7.28	95.32	102.60
1	AA	837	U	C4'-C3'-O3'	7.28	123.92	113.00
47	BW	81	ARG	NE-CZ-NH1	7.28	128.78	121.50
1	AA	118	U	O4'-C4'-C3'	7.28	111.28	104.00
1	AA	1323	G	C4'-C3'-C2'	-7.28	95.32	102.60
25	BA	29	A	C1'-O4'-C4'	7.28	117.18	109.90
26	BB	1846	G	C5'-C4'-C3'	-7.28	105.08	116.00
1	AA	872	A	O4'-C4'-C3'	7.28	113.38	106.10
26	BB	1012	U	O4'-C4'-C3'	7.28	113.38	106.10
26	BB	2327	A	C5'-C4'-C3'	-7.28	105.08	116.00
1	AA	801	U	O5'-C5'-C4'	7.28	122.41	111.50
26	BB	54	G	C3'-C2'-C1'	7.28	108.58	101.30
43	BS	67	ALA	CA-C-O	7.27	128.68	120.90
1	AA	938	A	N9-C1'-C2'	-7.27	101.09	112.00
2	AB	26	A	P-O5'-C5'	7.27	131.81	120.90
19	AS	38	PHE	CA-CB-CG	7.27	121.07	113.80
14	AN	89	GLY	CA-C-N	7.27	127.19	120.21
14	AN	89	GLY	C-N-CA	7.27	127.19	120.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	BE	74	GLU	CA-C-N	7.27	132.71	122.46
29	BE	74	GLU	C-N-CA	7.27	132.71	122.46
26	BB	2119	A	C4'-C3'-C2'	7.27	109.87	102.60
40	BP	21	PHE	CA-CB-CG	7.26	121.06	113.80
1	AA	1465	A	C1'-O4'-C4'	-7.26	102.64	109.90
13	AM	40	ILE	CA-CB-CG1	7.26	122.75	110.40
26	BB	342	A	C5'-C4'-O4'	7.26	120.69	109.80
26	BB	1627	G	C4'-C3'-C2'	-7.26	95.34	102.60
29	BE	13	ARG	NE-CZ-NH2	7.26	125.73	119.20
1	AA	51	A	C2'-C3'-O3'	7.26	120.39	109.50
26	BB	94	A	C2'-C3'-O3'	7.26	124.58	113.70
26	BB	216	A	O4'-C1'-N9	7.26	119.39	108.50
26	BB	785	G	O4'-C1'-C2'	-7.26	100.34	107.60
26	BB	1319	C	C3'-C2'-C1'	7.26	108.56	101.30
26	BB	2510	C	O4'-C4'-C3'	7.26	111.26	104.00
54	B3	30	ASP	CA-CB-CG	-7.25	105.34	112.60
26	BB	124	G	O3'-P-O5'	-7.25	93.12	104.00
26	BB	236	C	C3'-C2'-C1'	7.25	108.55	101.30
26	BB	821	A	O5'-C5'-C4'	7.25	122.38	111.50
26	BB	866	A	O3'-P-O5'	-7.25	93.12	104.00
26	BB	2387	U	N1-C1'-C2'	7.25	122.88	112.00
1	AA	376	G	C4'-C3'-C2'	-7.25	95.35	102.60
1	AA	1338	G	C5'-C4'-O4'	7.25	120.67	109.80
1	AA	1302	C	O3'-P-O5'	-7.25	93.13	104.00
26	BB	1056	G	C1'-C2'-O2'	7.25	119.27	108.40
26	BB	1812	U	C4'-C3'-C2'	-7.25	95.35	102.60
48	BX	32	GLY	CA-C-O	-7.25	116.80	122.52
26	BB	1863	G	C3'-C2'-O2'	7.25	121.57	110.70
52	B1	48	ASN	CA-CB-CG	7.24	119.84	112.60
2	AB	75	C	C5'-C4'-C3'	-7.24	105.14	116.00
1	AA	417	G	C1'-O4'-C4'	-7.24	102.66	109.90
26	BB	2158	A	O5'-C5'-C4'	7.24	122.56	111.70
26	BB	1987	A	O3'-P-O5'	-7.24	93.14	104.00
27	BC	114	VAL	CA-C-N	7.24	131.71	122.37
27	BC	114	VAL	C-N-CA	7.24	131.71	122.37
25	BA	97	C	C1'-C2'-O2'	7.24	119.25	108.40
1	AA	316	C	O3'-P-O5'	-7.23	93.15	104.00
24	AX	19	LYS	CA-C-O	-7.23	111.27	120.31
26	BB	789	A	C5'-C4'-C3'	-7.23	104.35	115.20
1	AA	347	G	O4'-C4'-C3'	7.23	111.23	104.00
7	AG	68	GLU	CA-C-O	-7.23	112.88	120.55
26	BB	50	U	O4'-C1'-N1	7.23	119.05	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	316	C	O3'-P-O5'	-7.23	93.15	104.00
27	BC	196	LEU	O-C-N	7.23	129.78	122.12
5	AE	138	ARG	CA-C-N	7.23	130.55	120.29
5	AE	138	ARG	C-N-CA	7.23	130.55	120.29
37	BM	52	VAL	N-CA-C	7.23	118.56	108.23
4	AD	3	C	O4'-C1'-N1	7.22	119.34	108.50
1	AA	1299	A	O4'-C4'-C3'	-7.22	96.78	104.00
26	BB	1977	A	C4'-C3'-C2'	-7.22	95.38	102.60
30	BF	88	ARG	NE-CZ-NH1	-7.22	114.28	121.50
20	AT	32	ILE	CA-CB-CG1	7.22	122.67	110.40
26	BB	924	G	C3'-C2'-C1'	7.22	108.52	101.30
29	BE	52	THR	CA-CB-OG1	7.22	120.43	109.60
50	BZ	37	PHE	CA-CB-CG	7.22	121.02	113.80
26	BB	2278	A	C4'-C3'-C2'	-7.22	95.38	102.60
1	AA	740	U	C5'-C4'-O4'	7.22	120.63	109.80
26	BB	2173	A	O4'-C1'-C2'	7.22	114.82	107.60
35	BK	19	PRO	N-CA-CB	7.22	110.15	103.15
1	AA	848	C	N1-C1'-C2'	-7.21	101.18	112.00
26	BB	762	U	O4'-C1'-N1	7.21	119.02	108.20
26	BB	1620	G	O3'-P-O5'	-7.21	93.18	104.00
49	BY	72	GLY	CA-C-N	7.21	127.21	119.78
49	BY	72	GLY	C-N-CA	7.21	127.21	119.78
26	BB	2105	U	O3'-P-O5'	-7.21	93.18	104.00
1	AA	1347	G	C2'-C3'-O3'	7.21	120.32	109.50
26	BB	453	A	P-O3'-C3'	7.21	131.01	120.20
20	AT	46	HIS	CB-CG-CD2	-7.21	121.83	131.20
1	AA	1325	C	N1-C1'-C2'	-7.21	101.19	112.00
26	BB	117	G	C3'-C2'-C1'	7.21	108.51	101.30
1	AA	573	A	C1'-C2'-O2'	7.20	119.21	108.40
26	BB	219	A	C2'-C3'-O3'	-7.20	102.89	113.70
34	BJ	34	VAL	CA-C-O	-7.20	113.46	120.95
26	BB	1536	C	C4'-C3'-C2'	-7.20	95.40	102.60
28	BD	201	LEU	CA-C-N	7.20	130.93	120.71
28	BD	201	LEU	C-N-CA	7.20	130.93	120.71
26	BB	931	U	O3'-P-O5'	-7.20	93.20	104.00
26	BB	1282	U	O4'-C1'-N1	7.20	119.30	108.50
56	B5	12	ARG	CA-C-N	7.20	130.24	120.38
56	B5	12	ARG	C-N-CA	7.20	130.24	120.38
14	AN	51	PHE	CA-CB-CG	-7.20	106.60	113.80
1	AA	877	G	C1'-C2'-O2'	7.20	119.19	108.40
26	BB	2232	C	C4'-C3'-C2'	-7.20	95.41	102.60
1	AA	693	G	O4'-C1'-N9	7.19	119.29	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	70	C	O4'-C1'-N1	7.19	119.28	108.50
26	BB	81	G	O4'-C1'-N9	7.19	119.29	108.50
26	BB	2520	C	C3'-C2'-O2'	7.19	121.49	110.70
1	AA	290	C	C4'-C3'-C2'	-7.19	95.41	102.60
26	BB	1905	C	C1'-O4'-C4'	-7.19	102.71	109.90
6	AF	81	GLU	N-CA-C	7.19	119.11	111.28
26	BB	2483	C	O3'-P-O5'	-7.19	93.22	104.00
1	AA	197	A	P-O5'-C5'	-7.18	110.12	120.90
26	BB	241	A	P-O3'-C3'	7.18	130.98	120.20
26	BB	2370	G	C1'-C2'-O2'	7.18	119.18	108.40
1	AA	63	C	C5'-C4'-O4'	7.18	120.58	109.80
29	BE	141	ARG	NE-CZ-NH1	7.18	128.68	121.50
1	AA	1116	U	O4'-C4'-C3'	7.18	111.18	104.00
26	BB	1802	A	O5'-C5'-C4'	-7.18	100.73	111.50
26	BB	2501	C	C4'-C3'-O3'	7.18	123.77	113.00
26	BB	65	U	C4'-C3'-O3'	-7.18	102.23	113.00
26	BB	1763	G	C4'-C3'-C2'	-7.18	95.42	102.60
26	BB	2175	C	O4'-C1'-N1	7.18	119.27	108.50
26	BB	2839	G	C3'-C2'-C1'	7.18	108.48	101.30
57	B6	58	ILE	O-C-N	7.18	129.22	121.83
1	AA	1308	U	C4'-C3'-C2'	-7.17	95.43	102.60
1	AA	495	A	C4'-C3'-C2'	-7.17	95.43	102.60
26	BB	981	A	C3'-C2'-C1'	-7.17	94.13	101.30
32	BH	31	GLU	O-C-N	-7.17	114.42	123.24
44	BT	7	SER	N-CA-C	-7.17	103.79	112.54
1	AA	691	G	O4'-C4'-C3'	7.17	111.17	104.00
26	BB	1622	G	C4'-C3'-C2'	-7.17	95.43	102.60
44	BT	35	PHE	CA-C-O	-7.17	112.87	120.40
1	AA	926	G	C4'-C3'-O3'	7.16	120.15	109.40
26	BB	449	A	C2'-C3'-O3'	-7.16	102.95	113.70
10	AJ	69	ARG	N-CA-C	7.16	120.02	109.42
1	AA	606	G	C4'-C3'-O3'	7.16	123.74	113.00
1	AA	1089	G	C4'-C3'-C2'	-7.16	95.44	102.60
26	BB	2696	U	C1'-C2'-O2'	7.16	119.14	108.40
26	BB	446	G	C2'-C3'-O3'	7.16	120.24	109.50
1	AA	492	C	O3'-P-O5'	7.16	114.73	104.00
26	BB	1729	U	C3'-C2'-C1'	7.16	108.45	101.30
29	BE	134	HIS	O-C-N	7.16	129.30	122.00
1	AA	905	U	O4'-C4'-C3'	7.15	111.15	104.00
26	BB	1559	U	C4'-C3'-C2'	-7.15	95.45	102.60
36	BL	112	GLY	CA-C-N	7.15	126.41	118.97
36	BL	112	GLY	C-N-CA	7.15	126.41	118.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	908	C	O4'-C1'-N1	7.15	119.22	108.50
28	BD	79	ARG	NE-CZ-NH2	-7.15	112.76	119.20
1	AA	114	U	O4'-C1'-C2'	-7.15	100.45	107.60
26	BB	1284	A	C1'-C2'-O2'	-7.15	97.68	108.40
26	BB	1613	G	C4'-C3'-C2'	-7.15	95.45	102.60
26	BB	2357	G	O4'-C1'-C2'	-7.15	100.45	107.60
32	BH	78	VAL	CA-CB-CG1	7.15	122.55	110.40
35	BK	6	ALA	N-CA-CB	-7.15	99.43	110.29
1	AA	596	A	O3'-P-O5'	-7.14	93.29	104.00
26	BB	329	G	C5'-C4'-O4'	7.14	119.81	109.10
26	BB	946	C	O4'-C1'-C2'	-7.14	100.46	107.60
1	AA	185	U	C1'-O4'-C4'	-7.14	102.76	109.90
26	BB	1997	C	C4'-C3'-C2'	-7.14	95.46	102.60
26	BB	2386	A	O4'-C1'-C2'	-7.14	100.46	107.60
26	BB	2681	C	C1'-C2'-O2'	7.14	122.51	111.80
26	BB	2744	G	C4'-C3'-C2'	-7.14	95.46	102.60
57	B6	37	THR	CA-C-N	7.14	132.54	121.19
57	B6	37	THR	C-N-CA	7.14	132.54	121.19
26	BB	2646	C	C1'-O4'-C4'	7.14	117.04	109.90
45	BU	45	VAL	CA-C-O	-7.14	113.29	120.85
1	AA	321	A	O4'-C1'-N9	7.13	119.20	108.50
26	BB	1122	G	P-O3'-C3'	7.13	130.90	120.20
1	AA	524	G	C5'-C4'-O4'	7.13	120.50	109.80
1	AA	1219	A	C5'-C4'-O4'	7.13	120.50	109.80
25	BA	93	C	C3'-C2'-C1'	7.13	108.43	101.30
26	BB	919	U	C4'-C3'-C2'	-7.13	95.47	102.60
39	BO	45	GLN	OE1-CD-NE2	-7.13	115.47	122.60
25	BA	78	A	C5'-C4'-C3'	-7.13	105.31	116.00
26	BB	1149	G	C5'-C4'-C3'	-7.13	105.31	116.00
26	BB	2762	C	O4'-C4'-C3'	7.13	111.13	104.00
43	BS	106	THR	O-C-N	7.13	130.28	122.15
6	AF	136	ALA	CA-C-O	-7.12	113.24	121.07
14	AN	65	ALA	N-CA-C	7.12	118.69	111.07
1	AA	465	A	O4'-C1'-C2'	-7.12	98.68	105.80
6	AF	215	GLN	CA-C-N	7.12	127.04	120.21
6	AF	215	GLN	C-N-CA	7.12	127.04	120.21
1	AA	654	G	C3'-C2'-C1'	-7.12	94.18	101.30
1	AA	1355	G	C3'-C2'-O2'	7.12	121.38	110.70
4	AD	38	A	O5'-C5'-C4'	7.12	122.18	111.50
1	AA	1037	C	O4'-C1'-N1	7.12	119.17	108.50
1	AA	1406	U	O4'-C4'-C3'	7.12	111.11	104.00
26	BB	753	A	C4'-C3'-C2'	-7.12	95.48	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1733	G	C5'-C4'-C3'	-7.12	105.33	116.00
43	BS	78	PHE	CA-C-O	-7.12	112.88	120.42
26	BB	341	C	C4'-C3'-C2'	-7.11	95.49	102.60
1	AA	183	C	O4'-C1'-N1	7.11	119.17	108.50
26	BB	1505	A	O3'-P-O5'	7.11	114.66	104.00
26	BB	1753	G	C1'-O4'-C4'	-7.11	102.79	109.90
48	BX	85	LYS	N-CA-C	7.11	120.30	110.35
1	AA	197	A	C4'-C3'-O3'	-7.11	98.74	109.40
26	BB	255	A	C3'-C2'-C1'	7.11	108.41	101.30
26	BB	743	A	C2'-C3'-O3'	7.11	124.36	113.70
43	BS	4	LYS	CA-C-O	-7.11	112.89	120.42
1	AA	295	C	C4'-C3'-O3'	7.10	123.65	113.00
6	AF	200	TRP	CA-C-O	-7.10	112.76	120.36
25	BA	102	G	C3'-C2'-C1'	7.10	108.40	101.30
26	BB	561	G	C4'-C3'-O3'	7.10	123.65	113.00
46	BV	44	LYS	CA-C-N	7.10	130.10	120.44
46	BV	44	LYS	C-N-CA	7.10	130.10	120.44
26	BB	874	G	C4'-C3'-C2'	-7.10	95.50	102.60
55	B4	43	ARG	NE-CZ-NH1	-7.10	114.40	121.50
23	AW	81	GLN	CA-C-N	7.10	129.76	120.60
23	AW	81	GLN	C-N-CA	7.10	129.76	120.60
26	BB	2213	U	C1'-C2'-O2'	-7.10	97.75	108.40
12	AL	109	GLN	CA-C-O	-7.10	113.09	121.11
1	AA	562	U	O4'-C4'-C3'	7.09	113.19	106.10
1	AA	567	G	C2'-C3'-O3'	-7.09	103.06	113.70
17	AQ	7	ALA	CA-C-N	7.09	130.12	120.54
17	AQ	7	ALA	C-N-CA	7.09	130.12	120.54
26	BB	1604	C	O4'-C1'-C2'	-7.09	100.51	107.60
26	BB	1778	U	C5'-C4'-C3'	-7.09	105.36	116.00
26	BB	11	C	C4'-C3'-C2'	-7.09	95.51	102.60
26	BB	2336	A	C3'-C2'-C1'	-7.09	94.41	101.50
26	BB	2446	G	C5'-C4'-O4'	7.09	120.44	109.80
36	BL	119	PHE	CA-C-O	-7.09	113.37	120.82
50	BZ	63	ILE	O-C-N	7.09	129.03	121.94
1	AA	67	C	O4'-C1'-N1	7.09	119.13	108.50
26	BB	2507	C	C3'-C2'-C1'	7.09	108.39	101.30
42	BR	13	LYS	O-C-N	-7.09	114.49	122.86
51	B0	29	ARG	NE-CZ-NH2	7.09	125.58	119.20
26	BB	2176	A	O4'-C4'-C3'	7.09	111.09	104.00
26	BB	2443	C	O4'-C1'-N1	7.09	119.13	108.50
1	AA	1527	U	C3'-C2'-C1'	7.09	108.39	101.30
26	BB	662	G	N9-C1'-C2'	-7.09	101.37	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	711	G	O5'-C5'-C4'	7.09	122.13	111.50
1	AA	198	G	O4'-C4'-C3'	-7.08	96.92	104.00
1	AA	1357	A	O4'-C1'-C2'	7.08	114.68	107.60
17	AQ	99	SER	O-C-N	7.08	131.49	123.27
26	BB	2648	G	C1'-C2'-O2'	-7.08	97.78	108.40
1	AA	470	C	C1'-O4'-C4'	-7.08	102.82	109.90
1	AA	547	A	C1'-O4'-C4'	7.08	116.78	109.70
26	BB	524	G	O5'-C5'-C4'	7.08	122.12	111.50
9	AI	117	ALA	O-C-N	-7.08	114.04	122.96
26	BB	1086	A	N9-C1'-C2'	7.08	122.61	112.00
26	BB	464	U	C4'-C3'-C2'	7.07	109.67	102.60
26	BB	2161	C	C4'-C3'-O3'	-7.07	102.39	113.00
26	BB	2100	G	C5'-C4'-C3'	-7.07	105.39	116.00
2	AB	9	A	C4'-C3'-O3'	7.07	123.61	113.00
17	AQ	99	SER	CA-C-O	-7.07	112.86	121.06
26	BB	2274	A	O4'-C4'-C3'	7.07	111.07	104.00
26	BB	2572	A	C1'-O4'-C4'	7.07	116.77	109.70
17	AQ	95	LEU	CB-CA-C	7.07	121.88	110.29
26	BB	675	A	O4'-C4'-C3'	7.07	111.07	104.00
26	BB	1661	G	C4'-C3'-C2'	-7.07	95.53	102.60
1	AA	270	A	N9-C1'-C2'	-7.07	101.40	112.00
1	AA	991	U	O3'-P-O5'	-7.07	93.40	104.00
1	AA	1275	A	C4'-C3'-C2'	-7.07	95.53	102.60
31	BG	142	TYR	CA-C-N	7.07	131.42	121.24
31	BG	142	TYR	C-N-CA	7.07	131.42	121.24
26	BB	355	U	C5'-C4'-O4'	7.07	120.40	109.80
40	BP	46	ARG	CA-C-N	7.07	130.45	120.42
40	BP	46	ARG	C-N-CA	7.07	130.45	120.42
26	BB	2591	C	C2'-C3'-O3'	7.06	124.30	113.70
26	BB	2711	A	C4'-C3'-O3'	-7.06	102.41	113.00
25	BA	75	G	C1'-C2'-O2'	7.06	118.99	108.40
26	BB	1237	A	C4'-C3'-C2'	-7.06	95.54	102.60
26	BB	2215	C	O5'-C5'-C4'	7.06	122.09	111.50
1	AA	717	U	C3'-C2'-O2'	7.06	121.29	110.70
1	AA	845	A	C1'-O4'-C4'	-7.06	102.84	109.90
1	AA	1458	G	O3'-P-O5'	-7.06	93.41	104.00
1	AA	1525	G	C5'-C4'-O4'	7.06	120.39	109.80
3	AC	42	U	O3'-P-O5'	7.06	114.59	104.00
15	AO	36	VAL	CA-C-N	7.06	132.72	122.77
15	AO	36	VAL	C-N-CA	7.06	132.72	122.77
26	BB	675	A	C1'-O4'-C4'	-7.06	102.84	109.90
26	BB	1345	C	O3'-P-O5'	-7.06	93.41	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	BE	143	PRO	N-CA-CB	7.06	111.00	103.52
1	AA	876	C	C4'-C3'-C2'	-7.06	95.54	102.60
1	AA	978	A	O5'-C5'-C4'	7.06	122.09	111.50
25	BA	90	C	N1-C1'-C2'	-7.06	101.41	112.00
57	B6	1	PRO	CA-N-CD	-7.06	102.12	112.00
37	BM	34	GLY	CA-C-N	7.06	131.84	120.55
37	BM	34	GLY	C-N-CA	7.06	131.84	120.55
1	AA	652	U	C3'-C2'-C1'	-7.05	94.44	101.50
26	BB	909	A	C1'-O4'-C4'	-7.05	102.85	109.90
1	AA	1273	C	C4'-C3'-C2'	-7.05	95.55	102.60
1	AA	1542	A	O4'-C1'-C2'	-7.05	100.55	107.60
17	AQ	1	ALA	CA-C-N	7.05	135.01	121.54
17	AQ	1	ALA	C-N-CA	7.05	135.01	121.54
1	AA	77	A	O4'-C1'-N9	7.05	119.07	108.50
4	AD	26	C	N1-C1'-C2'	7.05	122.57	112.00
26	BB	1520	U	O4'-C1'-N1	7.05	119.08	108.50
26	BB	2820	A	O4'-C4'-C3'	7.05	111.05	104.00
49	BY	71	LYS	CA-C-N	7.05	132.94	121.87
49	BY	71	LYS	C-N-CA	7.05	132.94	121.87
26	BB	263	G	C4'-C3'-O3'	-7.05	102.43	113.00
26	BB	744	U	C4'-C3'-C2'	-7.05	95.55	102.60
26	BB	1231	U	C4'-C3'-C2'	-7.05	95.55	102.60
26	BB	1503	A	C5'-C4'-C3'	-7.05	105.43	116.00
1	AA	291	U	O4'-C4'-C3'	7.04	111.04	104.00
1	AA	298	A	C3'-C2'-C1'	7.04	108.34	101.30
1	AA	1252	A	C4'-C3'-C2'	-7.04	95.56	102.60
26	BB	3	U	C3'-C2'-C1'	7.04	108.34	101.30
26	BB	2152	G	O4'-C4'-C3'	7.04	111.04	104.00
32	BH	42	VAL	CB-CA-C	7.04	120.77	110.77
1	AA	769	G	C2'-C3'-O3'	7.04	124.26	113.70
26	BB	224	U	O4'-C1'-N1	7.04	119.06	108.50
1	AA	469	C	C4'-C3'-O3'	-7.03	102.45	113.00
26	BB	1512	C	C3'-C2'-O2'	7.03	121.25	110.70
27	BC	61	GLY	CA-C-O	-7.03	116.06	120.91
38	BN	40	SER	CA-C-N	7.03	133.47	120.95
38	BN	40	SER	C-N-CA	7.03	133.47	120.95
53	B2	8	LYS	N-CA-C	7.03	119.64	110.43
26	BB	795	C	O4'-C1'-C2'	7.03	114.63	107.60
36	BL	35	ARG	NE-CZ-NH1	7.03	128.53	121.50
7	AG	29	THR	CA-C-N	7.03	133.47	122.78
7	AG	29	THR	C-N-CA	7.03	133.47	122.78
22	AV	6	LYS	N-CA-CB	-7.03	101.55	110.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	385	C	C2'-C3'-O3'	7.03	124.24	113.70
35	BK	48	ILE	CA-C-N	7.03	130.85	120.87
35	BK	48	ILE	C-N-CA	7.03	130.85	120.87
47	BW	74	ALA	CA-C-N	7.03	129.58	120.44
47	BW	74	ALA	C-N-CA	7.03	129.58	120.44
2	AB	49	G	O4'-C1'-C2'	-7.03	100.58	107.60
26	BB	244	A	O4'-C4'-C3'	7.03	111.03	104.00
26	BB	899	A	O4'-C1'-C2'	-7.03	100.57	107.60
26	BB	2626	C	N1-C1'-C2'	-7.03	101.46	112.00
1	AA	1399	C	O4'-C1'-N1	7.02	118.74	108.20
26	BB	1951	U	C4'-C3'-O3'	-7.02	102.46	113.00
26	BB	2349	G	C5'-C4'-C3'	-7.02	105.46	116.00
1	AA	404	G	C5'-C4'-C3'	-7.02	105.47	116.00
26	BB	335	C	C5'-C4'-O4'	7.02	120.33	109.80
26	BB	1141	U	O4'-C1'-N1	7.02	118.73	108.20
26	BB	1277	G	O4'-C4'-C3'	-7.02	96.98	104.00
27	BC	172	HIS	ND1-CG-CD2	7.02	113.12	106.10
1	AA	789	U	C4'-C3'-C2'	7.02	109.62	102.60
1	AA	1223	C	O4'-C1'-C2'	-7.02	100.58	107.60
1	AA	1520	C	C2'-C3'-O3'	-7.02	103.17	113.70
26	BB	1988	G	C4'-C3'-C2'	-7.02	95.58	102.60
1	AA	404	G	C4'-C3'-C2'	-7.02	95.58	102.60
1	AA	844	G	C4'-C3'-C2'	-7.02	95.58	102.60
25	BA	10	G	O4'-C1'-C2'	-7.02	100.58	107.60
26	BB	2033	A	O4'-C4'-C3'	7.02	113.12	106.10
26	BB	2149	U	C5'-C4'-C3'	7.02	126.53	116.00
40	BP	109	PRO	CA-C-O	-7.02	113.72	121.23
41	BQ	43	ASN	CA-CB-CG	7.01	119.61	112.60
53	B2	55	GLY	O-C-N	-7.01	115.39	122.54
26	BB	400	G	O4'-C1'-C2'	-7.01	100.59	107.60
1	AA	1527	U	C4'-C3'-C2'	-7.01	95.59	102.60
26	BB	1190	G	C4'-C3'-C2'	-7.01	95.59	102.60
26	BB	2106	U	C2'-C3'-O3'	7.01	124.21	113.70
1	AA	499	A	C1'-O4'-C4'	-7.01	102.69	109.70
1	AA	1431	A	C3'-C2'-C1'	7.01	108.31	101.30
1	AA	198	G	C4'-C3'-O3'	-7.01	102.49	113.00
1	AA	997	U	O4'-C1'-N1	7.00	119.01	108.50
41	BQ	76	LYS	CA-C-N	7.00	130.00	120.54
41	BQ	76	LYS	C-N-CA	7.00	130.00	120.54
26	BB	1779	U	C1'-O4'-C4'	-7.00	102.90	109.90
15	AO	95	HIS	CE1-NE2-CD2	-7.00	102.00	109.00
26	BB	1612	C	N1-C1'-C2'	-7.00	101.50	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	BX	26	PHE	N-CA-CB	-7.00	102.46	111.35
1	AA	12	U	C1'-O4'-C4'	7.00	116.90	109.90
1	AA	491	G	O4'-C4'-C3'	7.00	111.00	104.00
1	AA	806	C	O4'-C1'-N1	7.00	119.00	108.50
26	BB	1497	U	O5'-C5'-C4'	7.00	122.20	111.70
1	AA	634	C	O3'-P-O5'	-7.00	93.51	104.00
1	AA	688	G	C3'-C2'-O2'	7.00	121.19	110.70
26	BB	546	U	C4'-C3'-C2'	-7.00	95.61	102.60
1	AA	1426	G	C5'-C4'-C3'	-6.99	105.51	116.00
3	AC	32	U	O4'-C1'-C2'	-6.99	100.61	107.60
26	BB	1707	G	O4'-C1'-C2'	-6.99	100.61	107.60
29	BE	173	GLN	CG-CD-NE2	6.99	126.89	116.40
31	BG	73	VAL	CA-CB-CG2	6.99	122.29	110.40
1	AA	685	G	O4'-C1'-C2'	-6.99	100.61	107.60
6	AF	190	THR	CA-C-N	6.99	129.96	120.38
6	AF	190	THR	C-N-CA	6.99	129.96	120.38
26	BB	578	G	O3'-P-O5'	-6.99	93.52	104.00
26	BB	1069	A	O4'-C1'-N9	6.99	118.69	108.20
26	BB	1812	U	C3'-C2'-C1'	6.99	108.29	101.30
26	BB	2023	C	O5'-C5'-C4'	-6.99	101.02	111.50
26	BB	2196	C	C5'-C4'-C3'	-6.99	105.52	116.00
1	AA	970	C	C1'-O4'-C4'	-6.98	102.92	109.90
1	AA	1040	U	C4'-C3'-C2'	-6.98	95.62	102.60
31	BG	177	ARG	NE-CZ-NH1	6.98	128.48	121.50
45	BU	81	SER	CA-C-N	6.98	132.35	122.72
45	BU	81	SER	C-N-CA	6.98	132.35	122.72
1	AA	1258	G	C5'-C4'-C3'	-6.98	105.53	116.00
1	AA	1383	C	C5'-C4'-C3'	-6.98	105.53	116.00
26	BB	2	G	C1'-C2'-O2'	-6.98	97.93	108.40
26	BB	509	C	O4'-C4'-C3'	6.98	110.98	104.00
26	BB	1140	C	C3'-C2'-O2'	-6.98	100.23	110.70
1	AA	150	U	O4'-C4'-C3'	6.98	110.98	104.00
26	BB	817	C	O4'-C4'-C3'	6.98	110.98	104.00
26	BB	1062	G	C1'-O4'-C4'	6.98	116.88	109.90
1	AA	1045	C	O3'-P-O5'	6.97	114.46	104.00
26	BB	1179	G	C5'-C4'-O4'	6.97	120.26	109.80
26	BB	2427	C	P-O5'-C5'	6.97	131.36	120.90
1	AA	422	C	C1'-C2'-O2'	6.97	122.26	111.80
1	AA	872	A	C1'-O4'-C4'	-6.97	102.73	109.70
20	AT	30	HIS	CB-CG-CD2	-6.97	122.14	131.20
26	BB	683	U	C4'-C3'-C2'	-6.97	95.63	102.60
26	BB	2372	U	O4'-C1'-C2'	-6.97	100.63	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1067	A	C2'-C3'-O3'	6.97	119.96	109.50
11	AK	68	LYS	CA-C-N	6.97	131.27	120.75
11	AK	68	LYS	C-N-CA	6.97	131.27	120.75
25	BA	25	U	P-O3'-C3'	6.97	130.66	120.20
26	BB	734	A	O4'-C1'-N9	6.97	118.95	108.50
26	BB	1634	A	P-O3'-C3'	6.97	130.65	120.20
26	BB	1738	G	C1'-C2'-O2'	-6.97	101.35	111.80
26	BB	2347	C	O5'-C5'-C4'	6.97	121.95	111.50
27	BC	74	ARG	N-CA-CB	6.97	120.34	110.24
1	AA	601	G	C4'-C3'-C2'	-6.97	95.63	102.60
26	BB	922	C	O4'-C1'-C2'	-6.97	100.63	107.60
1	AA	1022	A	P-O5'-C5'	6.96	131.35	120.90
26	BB	1140	C	O4'-C4'-C3'	6.96	110.96	104.00
26	BB	2530	A	O4'-C4'-C3'	-6.96	97.04	104.00
40	BP	122	ALA	CA-C-N	6.96	133.16	122.23
40	BP	122	ALA	C-N-CA	6.96	133.16	122.23
51	B0	58	ASN	CA-CB-CG	6.96	119.56	112.60
52	B1	41	PRO	CA-C-N	6.96	129.91	120.44
52	B1	41	PRO	C-N-CA	6.96	129.91	120.44
25	BA	3	C	C4'-C3'-O3'	6.96	123.44	113.00
26	BB	981	A	O5'-C5'-C4'	6.96	121.94	111.50
1	AA	1102	A	O4'-C1'-C2'	-6.96	100.64	107.60
19	AS	21	VAL	CA-C-O	-6.96	112.84	120.71
28	BD	86	ARG	CD-NE-CZ	6.96	134.15	124.40
32	BH	19	ASN	CA-C-O	6.96	127.70	119.56
26	BB	1679	A	O4'-C1'-N9	6.96	118.94	108.50
1	AA	749	A	N9-C1'-C2'	-6.96	101.56	112.00
26	BB	2283	C	O4'-C1'-N1	6.96	118.94	108.50
1	AA	1319	A	C4'-C3'-O3'	6.96	119.84	109.40
26	BB	1075	C	O4'-C4'-C3'	6.96	110.96	104.00
1	AA	600	A	C1'-O4'-C4'	-6.96	102.94	109.90
1	AA	1051	C	C4'-C3'-O3'	-6.95	102.57	113.00
1	AA	105	G	O4'-C1'-C2'	-6.95	100.65	107.60
26	BB	729	G	O5'-C5'-C4'	-6.95	101.08	111.50
26	BB	2690	U	C5'-C4'-C3'	-6.95	104.77	115.20
26	BB	2882	A	O4'-C4'-C3'	6.95	110.95	104.00
26	BB	1002	G	C4'-C3'-O3'	6.95	123.42	113.00
23	AW	6	ALA	CA-C-N	6.95	132.47	121.08
23	AW	6	ALA	C-N-CA	6.95	132.47	121.08
28	BD	125	PRO	N-CA-CB	6.95	109.52	103.27
1	AA	84	U	O4'-C1'-C2'	-6.95	98.86	105.80
8	AH	97	PRO	N-CA-CB	6.95	109.36	103.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	548	G	C1'-O4'-C4'	-6.95	102.75	109.70
26	BB	2138	G	O5'-C5'-C4'	-6.95	101.08	111.50
1	AA	460	A	C1'-C2'-O2'	-6.94	97.98	108.40
1	AA	1341	U	O4'-C1'-N1	6.94	118.91	108.50
26	BB	119	A	C1'-O4'-C4'	-6.94	102.76	109.70
26	BB	811	U	O4'-C1'-N1	6.94	118.61	108.20
36	BL	130	HIS	CB-CG-CD2	-6.94	122.17	131.20
26	BB	2066	C	O4'-C1'-N1	6.94	118.91	108.50
1	AA	105	G	C4'-C3'-C2'	-6.94	95.66	102.60
26	BB	680	C	O4'-C4'-C3'	6.94	110.94	104.00
26	BB	1057	A	C5'-C4'-C3'	-6.94	105.59	116.00
26	BB	1958	C	C1'-O4'-C4'	-6.94	102.96	109.90
26	BB	2572	A	O4'-C1'-N9	6.94	118.60	108.20
33	BI	2	GLN	N-CA-C	6.94	119.86	111.40
40	BP	4	ARG	CB-CA-C	6.94	122.47	111.51
26	BB	536	G	O4'-C4'-C3'	6.93	110.94	104.00
26	BB	936	A	O4'-C4'-C3'	6.93	110.94	104.00
42	BR	8	GLU	CA-C-N	6.93	130.85	120.31
42	BR	8	GLU	C-N-CA	6.93	130.85	120.31
1	AA	1358	U	C4'-C3'-C2'	-6.93	95.67	102.60
26	BB	836	G	C3'-C2'-C1'	-6.93	94.37	101.30
26	BB	1074	G	O4'-C1'-N9	6.93	118.90	108.50
26	BB	1727	C	O3'-P-O5'	-6.93	93.60	104.00
26	BB	2172	U	C5'-C4'-C3'	-6.93	104.80	115.20
26	BB	2666	C	O4'-C1'-C2'	6.93	114.53	107.60
26	BB	1924	C	O4'-C1'-C2'	-6.93	100.67	107.60
26	BB	1925	C	O4'-C4'-C3'	6.93	110.93	104.00
1	AA	1517	G	C5'-C4'-O4'	6.93	120.19	109.80
26	BB	586	A	C4'-C3'-C2'	-6.93	95.67	102.60
1	AA	727	G	C2'-C3'-O3'	-6.93	103.31	113.70
26	BB	1411	U	O4'-C1'-N1	6.93	118.89	108.50
1	AA	653	U	C1'-O4'-C4'	-6.92	102.78	109.70
6	AF	202	PHE	CA-C-O	-6.92	113.13	120.40
26	BB	2411	A	C3'-C2'-O2'	6.92	121.09	110.70
12	AL	96	GLU	CA-C-N	6.92	129.56	120.28
12	AL	96	GLU	C-N-CA	6.92	129.56	120.28
1	AA	1345	U	C4'-C3'-O3'	6.92	119.78	109.40
1	AA	1491	G	C4'-C3'-O3'	6.92	123.38	113.00
25	BA	72	G	O4'-C4'-C3'	6.92	110.92	104.00
26	BB	1861	G	C3'-C2'-C1'	6.92	108.22	101.30
30	BF	140	ASP	O-C-N	6.92	130.04	122.15
26	BB	488	G	C3'-C2'-C1'	-6.92	94.38	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1313	U	O4'-C4'-C3'	-6.92	97.08	104.00
26	BB	1654	A	O5'-C5'-C4'	-6.92	101.12	111.50
26	BB	2047	C	O4'-C1'-N1	6.92	118.88	108.50
1	AA	43	C	O4'-C1'-C2'	-6.92	100.68	107.60
1	AA	316	C	O4'-C1'-N1	6.92	118.88	108.50
1	AA	327	A	C3'-C2'-O2'	-6.92	104.22	114.60
1	AA	727	G	O4'-C1'-C2'	-6.92	100.68	107.60
26	BB	1956	U	O4'-C1'-N1	6.92	118.88	108.50
10	AJ	71	THR	O-C-N	6.92	131.76	122.49
21	AU	47	ARG	NE-CZ-NH2	6.92	125.42	119.20
26	BB	2405	G	O4'-C1'-N9	6.92	118.88	108.50
40	BP	6	SER	CA-C-N	6.92	131.47	121.44
40	BP	6	SER	C-N-CA	6.92	131.47	121.44
26	BB	2741	A	C4'-C3'-O3'	-6.92	102.63	113.00
23	AW	17	ARG	CA-C-O	-6.91	113.56	120.82
26	BB	511	U	C3'-C2'-C1'	6.91	108.21	101.30
26	BB	924	G	C3'-C2'-O2'	6.91	121.07	110.70
29	BE	67	HIS	CB-CG-CD2	-6.91	122.21	131.20
51	B0	9	LYS	CB-CA-C	6.91	122.00	109.62
1	AA	931	C	C5'-C4'-C3'	-6.91	105.63	116.00
1	AA	1451	U	C4'-C3'-C2'	6.91	109.51	102.60
26	BB	1439	A	C4'-C3'-C2'	-6.91	95.69	102.60
42	BR	17	PRO	CB-CA-C	6.91	120.08	111.23
1	AA	766	A	C5'-C4'-C3'	-6.91	105.64	116.00
19	AS	70	ARG	CA-C-O	-6.91	113.10	120.42
43	BS	105	PHE	CA-CB-CG	6.91	120.71	113.80
1	AA	1514	G	O4'-C4'-C3'	6.91	110.91	104.00
34	BJ	130	THR	CA-CB-CG2	6.91	122.24	110.50
25	BA	95	U	O4'-C4'-C3'	6.91	110.91	104.00
26	BB	331	C	C2'-C3'-O3'	6.91	119.86	109.50
26	BB	2309	A	O4'-C1'-N9	6.91	118.86	108.50
26	BB	2384	U	O3'-P-O5'	-6.91	93.64	104.00
26	BB	627	A	O4'-C1'-C2'	6.90	112.70	105.80
26	BB	1407	G	C4'-C3'-C2'	-6.90	95.70	102.60
26	BB	384	A	C4'-C3'-C2'	6.90	109.50	102.60
26	BB	2640	G	C3'-C2'-C1'	6.90	108.20	101.30
37	BM	32	TYR	CA-C-O	6.90	128.91	121.11
40	BP	3	HIS	CB-CG-ND1	6.90	133.05	122.70
1	AA	428	G	C1'-C2'-O2'	6.90	122.15	111.80
26	BB	2118	U	O4'-C1'-C2'	-6.90	98.90	105.80
30	BF	109	LEU	CA-C-N	6.90	129.41	120.44
30	BF	109	LEU	C-N-CA	6.90	129.41	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BS	63	ARG	CD-NE-CZ	-6.90	114.74	124.40
1	AA	1363	A	O3'-P-O5'	-6.90	93.65	104.00
1	AA	1286	U	P-O3'-C3'	6.90	130.55	120.20
26	BB	22	C	C4'-C3'-C2'	-6.90	95.70	102.60
26	BB	2242	G	N9-C1'-C2'	-6.90	101.66	112.00
43	BS	86	SER	CA-C-N	6.90	134.38	121.97
43	BS	86	SER	C-N-CA	6.90	134.38	121.97
45	BU	87	PRO	N-CD-CG	6.90	113.54	103.20
55	B4	13	SER	CA-C-O	-6.90	110.41	119.10
26	BB	2746	U	C3'-C2'-O2'	6.89	121.04	110.70
34	BJ	124	ARG	CA-C-N	6.89	129.82	120.38
34	BJ	124	ARG	C-N-CA	6.89	129.82	120.38
26	BB	611	C	O4'-C1'-N1	6.89	118.84	108.50
30	BF	83	VAL	CA-CB-CG1	6.89	122.12	110.40
7	AG	114	ARG	NE-CZ-NH1	6.89	128.39	121.50
26	BB	1871	A	C4'-C3'-C2'	-6.89	95.71	102.60
10	AJ	97	ALA	CA-C-O	-6.89	113.25	120.55
13	AM	88	MET	N-CA-C	6.89	119.81	111.82
26	BB	83	A	C4'-C3'-C2'	-6.89	95.71	102.60
41	BQ	92	PHE	CA-C-N	6.89	132.64	122.86
41	BQ	92	PHE	C-N-CA	6.89	132.64	122.86
1	AA	832	G	O4'-C1'-C2'	-6.89	100.71	107.60
14	AN	67	GLU	CA-C-N	6.89	129.39	120.44
14	AN	67	GLU	C-N-CA	6.89	129.39	120.44
26	BB	2528	U	O4'-C1'-N1	6.89	118.83	108.50
43	BS	65	ASN	OD1-CG-ND2	6.89	129.49	122.60
1	AA	419	C	O4'-C1'-C2'	-6.89	100.71	107.60
1	AA	1087	G	O4'-C1'-C2'	-6.88	100.72	107.60
26	BB	985	C	P-O5'-C5'	6.88	131.23	120.90
26	BB	1775	U	O5'-C5'-C4'	6.88	121.82	111.50
26	BB	2698	U	C3'-C2'-O2'	6.88	121.03	110.70
4	AD	72	C	C3'-C2'-C1'	6.88	108.18	101.30
26	BB	1157	G	C4'-C3'-O3'	-6.88	102.68	113.00
1	AA	53	A	O4'-C4'-C3'	6.88	110.88	104.00
1	AA	547	A	O4'-C1'-C2'	-6.88	98.92	105.80
1	AA	713	G	C4'-C3'-C2'	-6.88	95.72	102.60
17	AQ	63	CYS	N-CA-C	6.88	120.20	110.23
26	BB	643	A	C4'-C3'-O3'	-6.88	102.68	113.00
26	BB	2369	A	C4'-C3'-C2'	-6.88	95.72	102.60
1	AA	122	G	C3'-C2'-C1'	6.88	108.18	101.30
1	AA	277	C	O4'-C1'-N1	6.88	118.81	108.50
26	BB	246	C	O4'-C1'-C2'	-6.88	100.72	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BH	26	LYS	CA-C-N	6.88	129.87	120.72
32	BH	26	LYS	C-N-CA	6.88	129.87	120.72
56	B5	19	ARG	NE-CZ-NH2	6.88	125.39	119.20
1	AA	1415	G	O4'-C1'-N9	6.88	118.81	108.50
53	B2	41	HIS	CA-C-N	6.88	126.84	120.03
53	B2	41	HIS	C-N-CA	6.88	126.84	120.03
26	BB	59	U	C5'-C4'-C3'	-6.87	105.69	116.00
26	BB	223	A	O5'-C5'-C4'	-6.87	101.19	111.50
26	BB	974	G	C2'-C3'-O3'	6.87	119.81	109.50
26	BB	167	A	C4'-C3'-C2'	-6.87	95.73	102.60
1	AA	636	U	C4'-C3'-C2'	-6.87	95.73	102.60
1	AA	285	C	O5'-C5'-C4'	6.87	121.80	111.50
26	BB	623	C	O4'-C1'-N1	6.87	118.80	108.50
26	BB	1344	U	C3'-C2'-C1'	-6.87	94.63	101.50
26	BB	2653	U	O4'-C1'-C2'	-6.87	100.73	107.60
1	AA	1356	G	C3'-C2'-C1'	6.87	108.17	101.30
26	BB	742	A	O4'-C1'-N9	6.87	118.80	108.50
1	AA	108	G	C1'-O4'-C4'	-6.87	103.03	109.90
1	AA	279	A	C5'-C4'-O4'	6.87	119.40	109.10
5	AE	168	GLU	CA-C-N	6.87	129.79	120.38
5	AE	168	GLU	C-N-CA	6.87	129.79	120.38
26	BB	1869	G	O4'-C1'-C2'	-6.87	100.73	107.60
3	AC	39	U	P-O3'-C3'	6.86	130.50	120.20
26	BB	2013	A	O4'-C1'-C2'	-6.86	100.74	107.60
42	BR	78	PRO	N-CA-CB	6.86	110.10	103.51
13	AM	4	GLN	CA-C-N	6.86	129.96	120.63
13	AM	4	GLN	C-N-CA	6.86	129.96	120.63
1	AA	229	U	O4'-C1'-C2'	-6.86	100.74	107.60
1	AA	843	U	O4'-C1'-C2'	-6.86	100.74	107.60
26	BB	1393	A	C5'-C4'-O4'	6.86	120.09	109.80
26	BB	1754	A	C4'-C3'-C2'	6.86	109.46	102.60
26	BB	1906	G	C2'-C3'-O3'	6.86	123.99	113.70
49	BY	66	VAL	N-CA-C	6.86	118.19	108.93
1	AA	135	C	C4'-C3'-C2'	-6.86	95.74	102.60
1	AA	1153	G	C2'-C3'-O3'	-6.86	103.41	113.70
11	AK	89	ASP	CA-C-N	6.86	132.99	122.29
11	AK	89	ASP	C-N-CA	6.86	132.99	122.29
5	AE	230	SER	O-C-N	6.86	129.39	122.12
39	BO	113	ALA	CA-C-N	6.86	129.35	120.44
39	BO	113	ALA	C-N-CA	6.86	129.35	120.44
52	B1	33	HIS	CE1-NE2-CD2	-6.86	102.14	109.00
1	AA	1117	A	O4'-C1'-C2'	-6.86	100.75	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1318	A	C5'-C4'-O4'	6.86	120.08	109.80
26	BB	2703	C	O3'-P-O5'	-6.86	93.72	104.00
1	AA	152	A	O4'-C1'-C2'	-6.85	100.75	107.60
26	BB	633	A	O3'-P-O5'	-6.85	93.72	104.00
1	AA	935	A	C3'-C2'-C1'	6.85	108.15	101.30
26	BB	2355	G	C4'-C3'-C2'	-6.85	95.75	102.60
7	AG	16	THR	CA-C-N	6.85	130.14	120.28
7	AG	16	THR	C-N-CA	6.85	130.14	120.28
23	AW	11	ILE	CA-C-N	6.85	129.46	120.28
23	AW	11	ILE	C-N-CA	6.85	129.46	120.28
26	BB	104	A	N9-C1'-C2'	6.85	122.28	112.00
1	AA	1014	A	C3'-C2'-C1'	-6.85	94.45	101.30
26	BB	2604	U	C3'-C2'-C1'	6.85	108.15	101.30
50	BZ	55	MET	N-CA-C	6.85	118.74	111.28
26	BB	2458	G	O4'-C4'-C3'	6.85	112.95	106.10
1	AA	129	A	P-O3'-C3'	6.84	130.47	120.20
1	AA	902	G	C5'-C4'-O4'	6.84	120.07	109.80
1	AA	1047	G	C4'-C3'-C2'	-6.84	95.75	102.60
1	AA	1438	G	O4'-C1'-C2'	-6.84	100.75	107.60
31	BG	58	ALA	CA-C-O	6.84	127.86	120.20
24	AX	1	PRO	CA-N-CD	-6.84	102.42	112.00
1	AA	1458	G	O4'-C4'-C3'	6.84	110.84	104.00
26	BB	1702	G	C1'-O4'-C4'	-6.84	103.06	109.90
26	BB	2027	G	O4'-C1'-C2'	6.84	114.44	107.60
26	BB	2350	C	C3'-C2'-O2'	6.84	120.96	110.70
13	AM	32	THR	CA-CB-CG2	6.84	122.13	110.50
26	BB	2533	U	O3'-P-O5'	-6.84	93.74	104.00
1	AA	992	U	C4'-C3'-O3'	6.84	119.66	109.40
25	BA	87	U	C3'-C2'-O2'	6.84	120.96	110.70
26	BB	1144	A	O3'-P-O5'	-6.84	93.74	104.00
26	BB	1359	A	O4'-C1'-N9	6.84	118.76	108.50
4	AD	34	U	C5'-C4'-O4'	6.84	120.05	109.80
26	BB	1295	C	O4'-C1'-C2'	-6.84	100.76	107.60
26	BB	2509	G	O4'-C1'-C2'	-6.84	100.76	107.60
1	AA	1142	G	C2'-C3'-O3'	-6.83	103.45	113.70
16	AP	94	LEU	CA-C-N	6.83	128.38	119.84
16	AP	94	LEU	C-N-CA	6.83	128.38	119.84
26	BB	405	U	N1-C1'-C2'	6.83	122.25	112.00
44	BT	62	GLU	CA-C-O	-6.83	113.34	120.99
1	AA	150	U	O5'-C5'-C4'	-6.83	101.25	111.50
1	AA	501	C	O3'-P-O5'	6.83	114.25	104.00
25	BA	25	U	O4'-C1'-C2'	-6.83	98.97	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	2	A	C3'-C2'-C1'	6.83	108.33	101.50
1	AA	194	C	C5'-C4'-C3'	-6.83	105.75	116.00
26	BB	451	U	C1'-O4'-C4'	-6.83	102.87	109.70
29	BE	126	ASN	OD1-CG-ND2	6.83	129.43	122.60
5	AE	56	LEU	CA-C-O	-6.83	113.31	120.55
16	AP	63	VAL	CA-C-N	6.83	130.40	120.91
16	AP	63	VAL	C-N-CA	6.83	130.40	120.91
26	BB	116	C	O4'-C1'-N1	6.83	118.74	108.50
29	BE	2	ILE	CA-C-N	6.83	128.55	122.47
29	BE	2	ILE	C-N-CA	6.83	128.55	122.47
1	AA	473	U	C2'-C3'-O3'	-6.83	103.46	113.70
1	AA	1108	G	O4'-C1'-C2'	-6.83	100.77	107.60
26	BB	1289	C	O4'-C1'-C2'	-6.83	100.78	107.60
32	BH	96	ALA	CA-C-O	-6.83	112.66	120.58
1	AA	686	U	O4'-C1'-N1	6.82	118.44	108.20
1	AA	1320	C	C4'-C3'-C2'	-6.82	95.78	102.60
1	AA	1479	C	O3'-P-O5'	-6.82	93.77	104.00
34	BJ	58	LEU	N-CA-C	-6.82	103.77	111.14
1	AA	729	A	O5'-C5'-C4'	6.82	121.73	111.50
1	AA	938	A	C1'-C2'-O2'	6.82	118.63	108.40
26	BB	157	C	O4'-C1'-N1	6.82	118.73	108.50
1	AA	561	U	O4'-C4'-C3'	6.82	110.82	104.00
26	BB	1927	A	C2'-C3'-O3'	6.82	123.93	113.70
26	BB	23	G	P-O3'-C3'	6.82	130.43	120.20
26	BB	2594	C	C5'-C4'-C3'	-6.82	105.77	116.00
29	BE	104	VAL	N-CA-CB	-6.82	103.48	111.39
1	AA	141	G	O4'-C1'-C2'	-6.82	100.78	107.60
8	AH	82	HIS	ND1-CE1-NE2	6.82	115.22	108.40
26	BB	1075	C	C3'-C2'-C1'	6.82	108.12	101.30
26	BB	1176	U	C4'-C3'-C2'	-6.82	95.78	102.60
1	AA	49	U	C1'-O4'-C4'	6.81	116.51	109.70
8	AH	137	ARG	CA-C-N	6.81	129.74	120.54
8	AH	137	ARG	C-N-CA	6.81	129.74	120.54
43	BS	106	THR	CA-C-O	-6.81	113.20	120.42
1	AA	1095	U	C5'-C4'-C3'	-6.81	105.78	116.00
26	BB	1044	C	O4'-C4'-C3'	-6.81	97.19	104.00
1	AA	1086	U	O4'-C1'-N1	6.81	118.71	108.50
22	AV	1	PRO	CA-N-CD	-6.81	102.47	112.00
26	BB	1292	G	O4'-C1'-C2'	-6.81	100.79	107.60
26	BB	1567	G	C3'-C2'-C1'	-6.81	94.69	101.50
26	BB	2189	U	O4'-C4'-C3'	6.81	110.81	104.00
42	BR	27	VAL	N-CA-CB	6.81	119.69	111.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	976	G	C3'-C2'-C1'	6.81	108.11	101.30
26	BB	2611	C	C3'-C2'-C1'	6.81	108.11	101.30
26	BB	268	C	O4'-C1'-N1	6.81	118.71	108.50
1	AA	1136	C	O4'-C1'-C2'	-6.80	100.80	107.60
26	BB	2036	C	O4'-C1'-N1	6.80	118.70	108.50
26	BB	829	A	O4'-C4'-C3'	6.80	112.90	106.10
26	BB	536	G	O4'-C1'-N9	6.80	118.70	108.50
26	BB	1477	A	C5'-C4'-O4'	6.80	120.00	109.80
26	BB	2154	A	C1'-O4'-C4'	-6.80	103.10	109.90
26	BB	2496	C	C3'-C2'-C1'	6.80	108.10	101.30
1	AA	1079	G	C1'-O4'-C4'	6.80	116.70	109.90
1	AA	1125	U	C1'-O4'-C4'	-6.80	102.90	109.70
26	BB	830	G	C5'-C4'-O4'	-6.80	98.90	109.10
26	BB	1254	A	N9-C1'-C2'	-6.80	103.80	114.00
26	BB	1995	U	C2'-C3'-O3'	-6.80	103.50	113.70
26	BB	2492	U	O4'-C1'-C2'	-6.80	99.00	105.80
17	AQ	93	PRO	N-CA-CB	6.80	109.39	103.27
26	BB	339	U	O4'-C4'-C3'	6.80	110.80	104.00
26	BB	1734	G	C4'-C3'-C2'	-6.80	95.80	102.60
30	BF	170	ARG	NE-CZ-NH2	6.80	125.32	119.20
26	BB	1802	A	C4'-C3'-C2'	-6.79	95.81	102.60
26	BB	2053	G	C5'-C4'-O4'	6.79	119.99	109.80
1	AA	347	G	O4'-C1'-C2'	-6.79	100.81	107.60
33	BI	65	ALA	CA-C-N	6.79	129.27	120.44
33	BI	65	ALA	C-N-CA	6.79	129.27	120.44
42	BR	38	ARG	NE-CZ-NH1	-6.79	114.71	121.50
30	BF	161	ALA	CA-C-N	6.79	129.38	120.28
30	BF	161	ALA	C-N-CA	6.79	129.38	120.28
1	AA	1196	A	O4'-C4'-C3'	6.79	112.89	106.10
26	BB	1242	U	O4'-C1'-C2'	-6.79	100.81	107.60
26	BB	1815	A	C5'-C4'-O4'	-6.79	98.92	109.10
26	BB	2679	A	O5'-C5'-C4'	6.79	121.68	111.50
29	BE	181	ASP	CA-CB-CG	6.79	119.39	112.60
4	AD	13	C	C5'-C4'-C3'	-6.79	105.82	116.00
13	AM	15	HIS	CA-C-O	6.79	127.77	119.97
26	BB	262	A	C2'-C3'-O3'	-6.79	103.52	113.70
26	BB	1508	A	O4'-C1'-N9	6.79	118.38	108.20
1	AA	85	U	O3'-P-O5'	-6.78	93.83	104.00
15	AO	120	ARG	CD-NE-CZ	6.78	133.90	124.40
26	BB	156	A	O4'-C4'-C3'	6.78	110.78	104.00
26	BB	1987	A	C3'-C2'-C1'	6.78	108.08	101.30
1	AA	1175	G	C3'-C2'-O2'	6.78	120.87	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	866	A	C3'-C2'-O2'	6.78	120.87	110.70
1	AA	550	G	O4'-C4'-C3'	6.78	110.78	104.00
26	BB	197	A	O4'-C1'-C2'	-6.78	100.82	107.60
26	BB	1882	U	C3'-C2'-O2'	6.78	120.87	110.70
1	AA	1141	C	O4'-C4'-C3'	6.78	110.78	104.00
26	BB	760	G	C5'-C4'-O4'	6.78	119.96	109.80
26	BB	1799	G	C5'-C4'-O4'	6.78	119.26	109.10
27	BC	12	ARG	NE-CZ-NH1	6.78	128.28	121.50
39	BO	65	ILE	CA-CB-CG1	6.78	121.92	110.40
26	BB	74	A	C3'-C2'-C1'	6.77	108.27	101.50
26	BB	589	U	C4'-C3'-C2'	-6.77	95.83	102.60
1	AA	40	C	C4'-C3'-C2'	-6.77	95.83	102.60
1	AA	808	C	O4'-C4'-C3'	6.77	110.77	104.00
6	AF	131	ARG	CA-C-N	6.77	129.68	120.54
6	AF	131	ARG	C-N-CA	6.77	129.68	120.54
26	BB	83	A	O4'-C4'-C3'	6.77	110.77	104.00
26	BB	929	U	C2'-C3'-O3'	6.77	123.86	113.70
1	AA	1053	G	C3'-C2'-O2'	6.77	124.76	114.60
1	AA	688	G	C3'-C2'-C1'	-6.77	94.53	101.30
26	BB	829	A	C5'-C4'-C3'	-6.77	105.04	115.20
26	BB	1760	C	C3'-C2'-C1'	6.77	108.07	101.30
45	BU	88	ARG	NE-CZ-NH1	-6.77	114.73	121.50
1	AA	1125	U	O4'-C4'-C3'	6.77	112.87	106.10
26	BB	409	G	C1'-C2'-O2'	6.77	118.55	108.40
26	BB	1325	U	C5'-C4'-C3'	-6.77	105.05	115.20
1	AA	899	C	C5'-C4'-O4'	6.77	119.95	109.80
25	BA	74	U	O4'-C1'-C2'	6.76	114.36	107.60
26	BB	731	C	P-O3'-C3'	6.76	130.35	120.20
37	BM	82	ASN	CA-CB-CG	6.76	119.36	112.60
1	AA	1496	C	C1'-O4'-C4'	6.76	116.66	109.90
26	BB	202	U	C5'-C4'-C3'	-6.76	105.86	116.00
29	BE	39	ASP	N-CA-CB	-6.76	100.68	111.43
32	BH	100	ASN	CA-CB-CG	6.76	119.36	112.60
26	BB	45	G	C5'-C4'-C3'	-6.76	105.86	116.00
26	BB	1142	A	C4'-C3'-O3'	6.76	119.54	109.40
26	BB	2024	G	O3'-P-O5'	6.76	114.14	104.00
1	AA	1510	C	O4'-C4'-C3'	6.76	110.76	104.00
1	AA	691	G	N9-C1'-C2'	-6.76	101.86	112.00
1	AA	871	U	O4'-C1'-N1	6.75	118.33	108.20
1	AA	875	U	C4'-C3'-C2'	-6.75	95.85	102.60
2	AB	11	U	C4'-C3'-C2'	-6.75	95.85	102.60
10	AJ	137	ARG	NE-CZ-NH1	6.75	128.25	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1005	C	O3'-P-O5'	-6.75	93.87	104.00
26	BB	2859	G	C3'-C2'-C1'	6.75	108.05	101.30
32	BH	76	ILE	CA-C-N	6.75	127.44	119.94
32	BH	76	ILE	C-N-CA	6.75	127.44	119.94
26	BB	1627	G	C1'-O4'-C4'	-6.75	103.15	109.90
1	AA	109	A	O4'-C1'-C2'	-6.75	99.05	105.80
1	AA	333	U	O4'-C1'-C2'	-6.75	100.85	107.60
26	BB	1769	U	C5'-C4'-O4'	-6.75	99.68	109.80
26	BB	2007	U	O4'-C1'-C2'	-6.75	100.85	107.60
31	BG	36	ASN	CA-CB-CG	-6.75	105.85	112.60
1	AA	1358	U	O4'-C1'-C2'	-6.75	100.85	107.60
15	AO	116	TYR	CA-C-N	6.75	132.51	120.77
15	AO	116	TYR	C-N-CA	6.75	132.51	120.77
6	AF	178	ARG	NE-CZ-NH1	-6.74	114.76	121.50
26	BB	2502	G	C4'-C3'-C2'	6.74	109.34	102.60
1	AA	408	A	C2'-C3'-O3'	-6.74	103.59	113.70
10	AJ	152	HIS	CA-CB-CG	6.74	120.54	113.80
26	BB	1138	G	O4'-C4'-C3'	6.74	110.74	104.00
26	BB	1947	C	C4'-C3'-C2'	-6.74	95.86	102.60
1	AA	192	A	O3'-P-O5'	-6.74	93.89	104.00
1	AA	743	A	O4'-C4'-C3'	6.74	110.74	104.00
1	AA	1072	G	O4'-C1'-C2'	-6.74	100.86	107.60
41	BQ	103	VAL	CA-CB-CG2	6.74	121.86	110.40
48	BX	3	THR	CB-CA-C	6.74	121.59	110.74
26	BB	1222	U	O4'-C1'-C2'	-6.74	100.86	107.60
1	AA	1308	U	O4'-C1'-N1	6.74	118.60	108.50
26	BB	418	C	O4'-C1'-N1	6.74	118.60	108.50
28	BD	268	ARG	NE-CZ-NH2	-6.74	113.14	119.20
33	BI	120	GLY	CA-C-N	6.74	132.36	123.06
33	BI	120	GLY	C-N-CA	6.74	132.36	123.06
1	AA	270	A	O4'-C1'-N9	6.73	118.60	108.50
26	BB	2171	A	C3'-C2'-C1'	-6.73	94.77	101.50
6	AF	29	ALA	N-CA-C	6.73	118.70	111.36
26	BB	774	G	O4'-C1'-C2'	6.73	112.53	105.80
26	BB	1980	G	C4'-C3'-C2'	-6.73	95.87	102.60
26	BB	2021	C	O4'-C1'-N1	6.73	118.30	108.20
1	AA	212	G	C5'-C4'-C3'	-6.73	105.90	116.00
26	BB	1039	A	C5'-C4'-C3'	-6.73	105.90	116.00
26	BB	1727	C	O4'-C4'-C3'	6.73	110.73	104.00
6	AF	68	HIS	CA-CB-CG	-6.73	107.07	113.80
12	AL	37	TYR	CA-CB-CG	6.73	126.01	113.90
22	AV	6	LYS	CB-CA-C	6.73	120.32	109.02

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	44	A	N9-C1'-C2'	-6.73	101.91	112.00
26	BB	49	A	P-O5'-C5'	-6.73	110.81	120.90
26	BB	2443	C	C5'-C4'-O4'	6.73	119.89	109.80
26	BB	2751	G	C3'-C2'-C1'	-6.73	94.77	101.50
1	AA	87	C	C1'-C2'-O2'	-6.72	98.31	108.40
26	BB	346	A	O4'-C1'-C2'	-6.72	100.88	107.60
26	BB	2755	C	C3'-C2'-O2'	6.72	120.79	110.70
32	BH	103	ASN	O-C-N	6.72	130.89	123.22
39	BO	92	TRP	NE1-CE2-CZ2	6.72	140.19	130.10
26	BB	2682	A	C4'-C3'-O3'	6.72	123.08	113.00
26	BB	2686	G	C4'-C3'-C2'	-6.72	95.88	102.60
33	BI	117	LEU	CA-C-O	-6.72	113.42	121.22
1	AA	272	C	C1'-O4'-C4'	-6.72	103.18	109.90
26	BB	317	G	O4'-C4'-C3'	6.72	110.72	104.00
26	BB	2733	A	P-O5'-C5'	6.72	130.98	120.90
1	AA	1326	U	O4'-C1'-N1	6.72	118.58	108.50
6	AF	136	ALA	O-C-N	6.72	129.27	122.08
31	BG	72	SER	CA-C-O	-6.72	113.63	122.03
1	AA	109	A	O4'-C1'-N9	6.72	118.27	108.20
1	AA	536	C	C3'-C2'-O2'	6.72	120.77	110.70
1	AA	1105	A	C3'-C2'-C1'	6.72	108.02	101.30
1	AA	1348	U	O4'-C1'-N1	6.72	118.57	108.50
1	AA	1406	U	O4'-C1'-N1	6.72	118.57	108.50
4	AD	29	C	C4'-C3'-O3'	6.72	123.08	113.00
26	BB	849	A	C3'-C2'-C1'	6.72	108.02	101.30
26	BB	1460	U	P-O3'-C3'	6.72	130.28	120.20
26	BB	2159	G	O4'-C1'-C2'	-6.72	100.88	107.60
27	BC	203	GLN	OE1-CD-NE2	-6.72	115.88	122.60
26	BB	688	U	O4'-C4'-C3'	6.71	110.72	104.00
58	B7	4	ARG	NE-CZ-NH2	-6.71	113.16	119.20
1	AA	1278	G	C1'-O4'-C4'	-6.71	102.99	109.70
17	AQ	83	VAL	O-C-N	6.71	128.49	121.91
26	BB	198	C	C4'-C3'-C2'	-6.71	95.89	102.60
1	AA	587	G	C3'-C2'-O2'	6.71	124.67	114.60
4	AD	16	C	C5'-C4'-C3'	-6.71	105.13	115.20
49	BY	83	ALA	CA-C-O	-6.71	113.09	120.81
1	AA	1030	U	P-O5'-C5'	6.71	130.97	120.90
1	AA	254	G	C4'-C3'-C2'	-6.71	95.89	102.60
1	AA	1000	A	C5'-C4'-C3'	-6.71	105.94	116.00
26	BB	2479	U	N1-C1'-C2'	6.71	122.06	112.00
1	AA	799	G	C4'-C3'-C2'	-6.71	95.89	102.60
1	AA	826	C	C3'-C2'-C1'	6.71	108.01	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1539	C	C4'-C3'-C2'	6.71	109.31	102.60
4	AD	23	G	O4'-C4'-C3'	6.71	110.71	104.00
8	AH	56	PRO	N-CA-CB	6.71	110.71	103.33
26	BB	649	G	O4'-C4'-C3'	6.71	110.71	104.00
26	BB	947	A	O5'-C5'-C4'	-6.71	101.44	111.50
1	AA	320	A	C4'-C3'-C2'	-6.71	95.89	102.60
1	AA	995	C	C4'-C3'-C2'	-6.71	95.89	102.60
26	BB	2559	C	C4'-C3'-C2'	-6.71	95.89	102.60
1	AA	365	U	C1'-O4'-C4'	-6.70	103.20	109.90
1	AA	1080	A	C4'-C3'-C2'	-6.70	95.90	102.60
7	AG	59	LYS	CA-C-O	-6.70	113.73	120.90
26	BB	342	A	O5'-C5'-C4'	-6.70	101.45	111.50
3	AC	57	C	O4'-C1'-N1	6.70	118.55	108.50
1	AA	682	G	C5'-C4'-O4'	6.70	119.85	109.80
26	BB	2781	A	C1'-O4'-C4'	-6.70	103.20	109.90
26	BB	773	U	C4'-C3'-C2'	-6.70	95.90	102.60
26	BB	2081	U	C1'-C2'-O2'	-6.70	98.35	108.40
1	AA	758	C	C5'-C4'-C3'	6.70	126.05	116.00
26	BB	935	C	C5'-C4'-C3'	-6.70	105.95	116.00
26	BB	1220	G	C3'-C2'-C1'	-6.70	94.60	101.30
1	AA	224	U	O4'-C1'-C2'	-6.70	100.91	107.60
26	BB	611	C	C3'-C2'-O2'	6.70	120.74	110.70
35	BK	52	LEU	CA-C-O	-6.70	114.36	119.32
1	AA	83	C	O4'-C1'-N1	6.69	118.54	108.50
26	BB	735	A	C5'-C4'-O4'	6.69	119.84	109.80
42	BR	71	ARG	NE-CZ-NH2	-6.69	113.17	119.20
26	BB	1463	C	C4'-C3'-C2'	-6.69	95.91	102.60
1	AA	197	A	O5'-C5'-C4'	6.69	121.73	111.70
30	BF	77	ILE	CA-CB-CG1	6.69	121.78	110.40
1	AA	1251	A	O4'-C1'-C2'	-6.69	100.91	107.60
48	BX	49	ASN	CA-CB-CG	6.69	119.29	112.60
26	BB	1172	C	C3'-C2'-O2'	6.69	120.73	110.70
35	BK	52	LEU	O-C-N	6.69	127.50	121.35
1	AA	328	C	C2'-C3'-O3'	6.68	119.53	109.50
26	BB	2238	G	O3'-P-O5'	-6.68	93.97	104.00
26	BB	2884	U	O5'-C5'-C4'	6.68	121.53	111.50
30	BF	193	VAL	CA-C-O	-6.68	114.00	120.95
1	AA	236	A	C4'-C3'-O3'	6.68	123.02	113.00
1	AA	1363	A	O4'-C1'-C2'	-6.68	99.12	105.80
26	BB	879	G	O4'-C1'-C2'	-6.68	100.92	107.60
26	BB	1373	A	O4'-C1'-N9	6.68	118.52	108.50
26	BB	2260	C	O4'-C1'-N1	6.68	118.52	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	BE	59	ARG	NE-CZ-NH1	-6.68	114.82	121.50
26	BB	1975	G	O4'-C1'-N9	6.68	118.52	108.50
43	BS	4	LYS	O-C-N	6.68	129.77	122.15
43	BS	112	ALA	CA-C-N	6.68	129.23	120.28
43	BS	112	ALA	C-N-CA	6.68	129.23	120.28
50	BZ	7	THR	N-CA-CB	-6.68	100.83	110.65
26	BB	1228	G	N9-C1'-C2'	6.68	122.02	112.00
26	BB	2885	G	O4'-C1'-C2'	-6.68	100.92	107.60
26	BB	2889	C	P-O5'-C5'	6.68	130.92	120.90
34	BJ	92	ALA	CA-C-N	6.68	129.90	120.28
34	BJ	92	ALA	C-N-CA	6.68	129.90	120.28
26	BB	1798	U	C4'-C3'-O3'	-6.68	102.98	113.00
26	BB	2819	G	C1'-O4'-C4'	-6.68	103.22	109.90
34	BJ	67	PRO	CA-N-CD	-6.68	102.65	112.00
1	AA	476	U	C4'-C3'-C2'	-6.67	95.93	102.60
26	BB	1746	A	O4'-C1'-N9	6.67	118.51	108.50
26	BB	2222	C	O4'-C1'-N1	6.67	118.51	108.50
1	AA	128	G	C3'-C2'-O2'	6.67	120.71	110.70
26	BB	334	C	C4'-C3'-C2'	-6.67	95.93	102.60
26	BB	1544	A	O5'-C5'-C4'	6.67	121.51	111.50
1	AA	346	G	O3'-P-O5'	6.67	114.01	104.00
7	AG	131	ILE	CA-C-O	-6.67	113.39	120.39
26	BB	1672	A	C4'-C3'-O3'	6.67	123.01	113.00
26	BB	1782	U	C4'-C3'-C2'	-6.67	95.93	102.60
26	BB	2399	G	C5'-C4'-C3'	-6.67	105.99	116.00
29	BE	13	ARG	NH1-CZ-NH2	-6.67	110.63	119.30
1	AA	192	A	C3'-C2'-O2'	6.67	120.70	110.70
20	AT	77	VAL	N-CA-C	-6.67	97.57	107.51
1	AA	1290	G	C3'-C2'-C1'	-6.67	94.63	101.30
26	BB	2112	G	C3'-C2'-C1'	-6.67	94.63	101.30
26	BB	2904	U	C4'-C3'-O3'	-6.67	103.00	113.00
26	BB	892	A	O3'-P-O5'	-6.67	94.00	104.00
1	AA	101	A	C5'-C4'-O4'	6.67	119.80	109.80
1	AA	652	U	N1-C1'-C2'	-6.66	104.00	114.00
1	AA	817	C	O5'-C5'-C4'	-6.66	101.71	111.70
1	AA	1330	U	O4'-C4'-C3'	6.66	110.66	104.00
8	AH	17	VAL	CA-C-N	6.66	132.80	121.87
8	AH	17	VAL	C-N-CA	6.66	132.80	121.87
43	BS	104	ALA	N-CA-C	6.66	120.69	110.36
55	B4	21	THR	CA-C-N	6.66	134.43	121.63
55	B4	21	THR	C-N-CA	6.66	134.43	121.63
26	BB	63	A	C4'-C3'-O3'	6.66	122.99	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	73	A	C5'-C4'-C3'	-6.66	106.01	116.00
15	AO	72	ASN	CA-CB-CG	-6.66	105.94	112.60
43	BS	54	ARG	NE-CZ-NH1	6.66	128.16	121.50
1	AA	10	A	C4'-C3'-C2'	-6.66	95.94	102.60
1	AA	262	A	O4'-C4'-C3'	6.66	110.66	104.00
1	AA	718	A	C1'-O4'-C4'	6.66	116.36	109.70
33	BI	141	LYS	N-CA-C	6.66	120.35	109.76
26	BB	225	C	C4'-C3'-C2'	-6.66	95.94	102.60
26	BB	274	C	C3'-C2'-C1'	-6.66	94.64	101.30
26	BB	2324	U	O4'-C1'-N1	6.66	118.19	108.20
1	AA	812	G	C4'-C3'-C2'	-6.66	95.94	102.60
1	AA	1485	U	C3'-C2'-C1'	6.66	107.95	101.30
2	AB	36	A	C5'-C4'-O4'	6.66	119.78	109.80
26	BB	1200	C	O5'-C5'-C4'	6.66	121.48	111.50
1	AA	985	C	O4'-C1'-N1	6.65	118.48	108.50
1	AA	52	C	C5'-C4'-C3'	-6.65	106.02	116.00
1	AA	196	A	C5'-C4'-C3'	-6.65	106.02	116.00
1	AA	1126	U	N1-C1'-C2'	-6.65	104.02	114.00
1	AA	1302	C	P-O3'-C3'	6.65	130.18	120.20
26	BB	274	C	O4'-C1'-C2'	6.65	114.25	107.60
1	AA	651	C	C5'-C4'-C3'	-6.65	106.03	116.00
26	BB	2106	U	C3'-C2'-O2'	6.65	120.68	110.70
26	BB	117	G	C4'-C3'-C2'	-6.65	95.95	102.60
26	BB	2602	A	P-O3'-C3'	6.65	130.17	120.20
1	AA	118	U	O3'-P-O5'	6.65	113.97	104.00
1	AA	932	C	C1'-O4'-C4'	-6.65	103.25	109.90
1	AA	1349	A	C4'-C3'-C2'	-6.65	95.95	102.60
10	AJ	94	ARG	NE-CZ-NH2	-6.65	113.22	119.20
26	BB	1100	C	C3'-C2'-C1'	6.65	107.95	101.30
26	BB	1865	U	O4'-C4'-C3'	6.65	112.75	106.10
47	BW	14	THR	CA-CB-OG1	6.65	119.57	109.60
52	B1	13	ILE	CA-C-O	-6.65	114.18	121.29
26	BB	1742	U	O4'-C4'-C3'	6.65	110.65	104.00
26	BB	1831	G	C5'-C4'-C3'	-6.65	106.03	116.00
1	AA	349	A	O4'-C4'-C3'	6.64	110.64	104.00
1	AA	857	C	O4'-C1'-C2'	-6.64	100.96	107.60
1	AA	1115	U	O4'-C4'-C3'	6.64	110.64	104.00
26	BB	2851	A	C2'-C3'-O3'	-6.64	103.73	113.70
26	BB	1701	A	C5'-C4'-C3'	-6.64	106.04	116.00
26	BB	2703	C	C1'-C2'-O2'	6.64	118.36	108.40
26	BB	2874	C	O3'-P-O5'	-6.64	94.04	104.00
37	BM	23	LYS	N-CA-CB	6.64	121.86	111.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1078	U	C3'-C2'-C1'	6.64	107.94	101.30
26	BB	884	U	N1-C1'-C2'	-6.64	102.04	112.00
1	AA	552	U	C1'-O4'-C4'	6.64	116.54	109.90
1	AA	1123	U	O4'-C4'-C3'	6.64	110.64	104.00
1	AA	1337	G	C4'-C3'-C2'	6.64	109.24	102.60
25	BA	57	A	C1'-C2'-O2'	-6.64	98.44	108.40
25	BA	66	A	P-O3'-C3'	6.64	130.16	120.20
26	BB	159	G	C1'-O4'-C4'	-6.64	103.26	109.90
31	BG	101	ARG	N-CA-C	-6.64	104.20	112.90
32	BH	19	ASN	O-C-N	-6.64	114.37	122.34
1	AA	33	A	C4'-C3'-O3'	-6.64	103.04	113.00
1	AA	859	G	N9-C1'-C2'	-6.64	102.04	112.00
26	BB	961	C	N1-C1'-C2'	6.64	123.96	114.00
26	BB	1142	A	C1'-O4'-C4'	6.64	116.34	109.70
26	BB	1645	G	O4'-C1'-N9	6.64	118.15	108.20
26	BB	2557	G	O4'-C4'-C3'	6.63	110.63	104.00
26	BB	2886	A	O4'-C4'-C3'	6.63	110.63	104.00
26	BB	1310	G	C4'-C3'-C2'	-6.63	95.97	102.60
26	BB	1580	A	C5'-C4'-C3'	-6.63	106.05	116.00
26	BB	1740	G	O3'-P-O5'	6.63	113.95	104.00
22	AV	61	VAL	O-C-N	6.63	130.51	122.95
26	BB	2033	A	C2'-C3'-O3'	6.63	119.44	109.50
26	BB	2450	A	C3'-C2'-C1'	6.63	107.93	101.30
26	BB	2586	U	C4'-C3'-O3'	6.63	119.34	109.40
26	BB	2805	C	C3'-C2'-O2'	6.63	120.64	110.70
42	BR	61	ARG	NE-CZ-NH2	6.63	125.17	119.20
5	AE	76	SER	CB-CA-C	6.63	121.28	110.88
27	BC	174	THR	CA-C-N	6.63	129.33	121.84
27	BC	174	THR	C-N-CA	6.63	129.33	121.84
56	B5	21	ARG	NE-CZ-NH2	6.63	125.16	119.20
30	BF	176	ASP	CA-C-N	6.62	126.33	119.64
30	BF	176	ASP	C-N-CA	6.62	126.33	119.64
26	BB	293	U	O4'-C1'-N1	6.62	118.43	108.50
26	BB	690	G	N9-C1'-C2'	-6.62	102.06	112.00
1	AA	162	A	C3'-C2'-O2'	6.62	120.63	110.70
1	AA	575	G	O4'-C1'-C2'	6.62	112.42	105.80
21	AU	58	ILE	N-CA-C	6.62	117.41	110.72
26	BB	1006	C	C5'-C4'-O4'	6.62	119.73	109.80
26	BB	1594	U	O4'-C1'-N1	6.62	118.43	108.50
26	BB	2150	C	C4'-C3'-C2'	-6.62	95.98	102.60
26	BB	759	G	O4'-C1'-C2'	-6.62	100.98	107.60
26	BB	2621	G	C3'-C2'-O2'	6.62	120.63	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	479	U	C4'-C3'-C2'	-6.62	95.98	102.60
1	AA	600	A	O4'-C4'-C3'	6.62	110.62	104.00
10	AJ	39	GLU	CA-C-O	-6.62	113.79	121.07
26	BB	264	C	C4'-C3'-C2'	-6.62	95.98	102.60
26	BB	2112	G	O4'-C1'-C2'	6.62	114.22	107.60
26	BB	2254	C	C4'-C3'-O3'	6.62	122.92	113.00
32	BH	82	PHE	CA-C-N	6.62	130.54	120.82
32	BH	82	PHE	C-N-CA	6.62	130.54	120.82
1	AA	982	U	C4'-C3'-O3'	6.61	119.32	109.40
5	AE	20	ARG	N-CA-CB	-6.61	100.88	110.47
6	AF	195	ILE	CA-CB-CG1	6.61	121.64	110.40
18	AR	78	THR	CA-CB-CG2	6.61	121.74	110.50
1	AA	1299	A	C1'-O4'-C4'	6.61	116.51	109.90
1	AA	1105	A	O4'-C4'-C3'	6.61	110.61	104.00
2	AB	25	C	C4'-C3'-C2'	-6.61	95.99	102.60
11	AK	55	LYS	O-C-N	-6.61	115.25	121.72
26	BB	1051	G	C4'-C3'-O3'	-6.61	103.09	113.00
26	BB	1782	U	C2'-C3'-O3'	6.61	119.41	109.50
26	BB	2715	C	C3'-C2'-C1'	6.61	107.91	101.30
32	BH	38	ASP	CA-CB-CG	6.61	119.21	112.60
1	AA	364	A	O5'-C5'-C4'	-6.61	101.59	111.50
1	AA	524	G	O4'-C1'-C2'	-6.61	101.00	107.60
7	AG	180	THR	CA-C-N	6.61	131.97	121.66
7	AG	180	THR	C-N-CA	6.61	131.97	121.66
26	BB	1505	A	C5'-C4'-C3'	-6.61	106.09	116.00
41	BQ	40	ILE	O-C-N	-6.61	116.40	123.14
51	B0	24	GLU	O-C-N	6.61	129.22	122.09
26	BB	2035	G	P-O3'-C3'	6.60	130.11	120.20
41	BQ	69	ASP	CA-C-N	6.60	130.34	120.31
41	BQ	69	ASP	C-N-CA	6.60	130.34	120.31
43	BS	97	ILE	CB-CA-C	6.60	122.12	111.29
44	BT	93	PHE	CA-CB-CG	6.60	120.40	113.80
1	AA	941	G	C5'-C4'-C3'	-6.60	106.10	116.00
26	BB	1473	G	P-O3'-C3'	6.60	130.10	120.20
26	BB	2354	C	C5'-C4'-C3'	-6.60	106.10	116.00
26	BB	2681	C	N1-C1'-C2'	6.60	123.90	114.00
26	BB	366	C	O4'-C4'-C3'	6.60	110.60	104.00
26	BB	1703	G	O4'-C4'-C3'	-6.60	97.40	104.00
1	AA	744	C	C3'-C2'-C1'	-6.60	94.70	101.30
1	AA	1191	A	C5'-C4'-C3'	-6.60	106.10	116.00
1	AA	1530	G	C5'-C4'-C3'	-6.60	106.11	116.00
26	BB	1012	U	C1'-O4'-C4'	-6.60	103.10	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1471	G	C1'-O4'-C4'	-6.60	103.30	109.90
36	BL	37	ARG	NE-CZ-NH1	6.60	128.10	121.50
26	BB	2517	C	O3'-P-O5'	-6.60	94.11	104.00
13	AM	47	GLU	N-CA-C	6.59	119.99	109.24
26	BB	812	C	N1-C1'-C2'	-6.59	102.11	112.00
26	BB	1120	G	C4'-C3'-C2'	-6.59	96.01	102.60
26	BB	1866	A	C3'-C2'-O2'	6.59	120.59	110.70
28	BD	45	ASN	OD1-CG-ND2	-6.59	116.00	122.60
17	AQ	27	LYS	CA-C-O	-6.59	113.85	120.90
26	BB	1637	A	O4'-C4'-C3'	6.59	110.59	104.00
1	AA	960	U	C2'-C3'-O3'	6.59	123.59	113.70
2	AB	70	C	N1-C1'-C2'	-6.59	102.11	112.00
1	AA	751	U	O3'-P-O5'	-6.59	94.12	104.00
3	AC	30	U	O4'-C4'-C3'	6.59	110.59	104.00
14	AN	106	ILE	CB-CA-C	6.59	122.09	111.29
26	BB	2049	G	C1'-O4'-C4'	-6.59	103.31	109.90
1	AA	176	C	C4'-C3'-C2'	-6.58	96.02	102.60
1	AA	1538	C	O4'-C4'-C3'	6.58	110.58	104.00
26	BB	346	A	C1'-O4'-C4'	6.58	116.48	109.90
26	BB	1035	U	O4'-C1'-C2'	-6.58	101.02	107.60
26	BB	2731	G	P-O5'-C5'	6.58	130.78	120.90
1	AA	279	A	C1'-C2'-O2'	-6.58	101.93	111.80
18	AR	46	LYS	N-CA-CB	-6.58	98.87	110.39
26	BB	1519	G	C3'-C2'-C1'	6.58	107.88	101.30
26	BB	1602	U	O4'-C4'-C3'	6.58	112.68	106.10
26	BB	1637	A	C4'-C3'-C2'	-6.58	96.02	102.60
1	AA	457	G	O3'-P-O5'	6.58	113.87	104.00
1	AA	1361	G	C4'-C3'-O3'	6.58	122.87	113.00
5	AE	78	ALA	CA-C-N	6.58	129.76	120.42
5	AE	78	ALA	C-N-CA	6.58	129.76	120.42
6	AF	120	THR	CA-C-N	6.58	129.10	120.28
6	AF	120	THR	C-N-CA	6.58	129.10	120.28
26	BB	1544	A	C1'-C2'-O2'	6.58	118.27	108.40
1	AA	1471	U	O4'-C1'-N1	6.58	118.37	108.50
26	BB	469	G	P-O3'-C3'	6.58	130.07	120.20
4	AD	76	C	C1'-O4'-C4'	-6.58	103.12	109.70
26	BB	248	G	C4'-C3'-C2'	-6.58	96.02	102.60
6	AF	10	ARG	NE-CZ-NH2	6.58	125.12	119.20
26	BB	613	A	C5'-C4'-O4'	6.57	119.66	109.80
26	BB	1128	G	P-O3'-C3'	6.57	130.06	120.20
1	AA	882	C	P-O5'-C5'	6.57	130.76	120.90
26	BB	343	C	C4'-C3'-C2'	-6.57	96.03	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1913	A	C5'-C4'-O4'	6.57	119.66	109.80
47	BW	34	ILE	CA-C-N	6.57	131.84	123.10
47	BW	34	ILE	C-N-CA	6.57	131.84	123.10
1	AA	788	U	C2'-C3'-O3'	6.57	123.55	113.70
30	BF	58	LYS	CA-C-O	-6.57	115.02	119.29
32	BH	17	LYS	CA-C-O	6.57	127.39	120.36
1	AA	114	U	C5'-C4'-O4'	6.57	119.65	109.80
26	BB	1045	C	C4'-C3'-C2'	-6.57	96.03	102.60
26	BB	1362	C	O4'-C1'-N1	6.57	118.35	108.50
26	BB	2368	C	O4'-C1'-N1	6.57	118.35	108.50
1	AA	935	A	C3'-C2'-O2'	-6.57	100.85	110.70
26	BB	60	G	O4'-C1'-C2'	6.57	112.37	105.80
26	BB	945	A	O4'-C4'-C3'	6.57	112.67	106.10
26	BB	2035	G	C1'-O4'-C4'	-6.57	103.13	109.70
12	AL	96	GLU	N-CA-CB	-6.56	100.44	110.16
19	AS	42	ILE	CB-CA-C	6.56	119.74	112.19
24	AX	64	ALA	CA-C-N	6.56	128.97	120.44
24	AX	64	ALA	C-N-CA	6.56	128.97	120.44
53	B2	56	ARG	CD-NE-CZ	6.56	133.59	124.40
1	AA	575	G	C3'-C2'-C1'	-6.56	94.94	101.50
26	BB	2637	U	O3'-P-O5'	6.56	113.84	104.00
41	BQ	31	THR	CA-C-N	6.56	127.08	119.47
41	BQ	31	THR	C-N-CA	6.56	127.08	119.47
52	B1	46	MET	CA-C-O	-6.56	113.46	120.42
5	AE	135	MET	N-CA-C	-6.56	104.21	111.82
26	BB	787	C	O4'-C1'-C2'	-6.56	101.04	107.60
26	BB	2726	A	C4'-C3'-C2'	6.56	109.16	102.60
1	AA	1219	A	C5'-C4'-C3'	-6.56	106.16	116.00
26	BB	365	U	O4'-C1'-C2'	-6.56	101.04	107.60
26	BB	694	U	C1'-O4'-C4'	6.56	116.46	109.90
26	BB	2874	C	C4'-C3'-C2'	-6.56	96.04	102.60
28	BD	139	THR	CA-C-N	6.56	133.77	121.97
28	BD	139	THR	C-N-CA	6.56	133.77	121.97
26	BB	826	U	O3'-P-O5'	-6.56	94.17	104.00
14	AN	122	PRO	N-CA-C	6.55	118.70	110.70
26	BB	509	C	N1-C1'-C2'	6.55	121.83	112.00
1	AA	1276	G	N9-C1'-C2'	-6.55	102.17	112.00
33	BI	133	GLN	N-CA-C	6.55	120.51	108.58
1	AA	1203	C	C4'-C3'-C2'	-6.55	96.05	102.60
26	BB	2434	A	C1'-O4'-C4'	-6.55	103.15	109.70
28	BD	138	SER	CA-C-N	6.55	131.78	120.58
28	BD	138	SER	C-N-CA	6.55	131.78	120.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	18	VAL	CA-C-O	-6.55	114.14	120.95
26	BB	574	A	C3'-C2'-C1'	-6.55	94.95	101.50
26	BB	2245	U	O4'-C4'-C3'	6.55	110.55	104.00
26	BB	2728	U	C3'-C2'-O2'	6.55	120.52	110.70
46	BV	77	ARG	NE-CZ-NH2	-6.55	113.31	119.20
1	AA	980	C	C3'-C2'-C1'	6.55	107.85	101.30
26	BB	357	C	O3'-P-O5'	-6.55	94.18	104.00
28	BD	142	ASN	OD1-CG-ND2	-6.55	116.05	122.60
31	BG	101	ARG	NE-CZ-NH1	-6.55	114.95	121.50
1	AA	28	A	O4'-C1'-N9	6.55	118.32	108.50
6	AF	221	ALA	CA-C-N	6.55	130.00	120.51
6	AF	221	ALA	C-N-CA	6.55	130.00	120.51
26	BB	2409	G	C4'-C3'-C2'	-6.55	96.05	102.60
43	BS	5	ARG	NE-CZ-NH2	6.55	125.09	119.20
26	BB	450	G	O4'-C1'-N9	6.54	118.32	108.50
26	BB	981	A	C2'-C3'-O3'	-6.54	103.88	113.70
1	AA	1265	C	O4'-C1'-C2'	-6.54	101.06	107.60
15	AO	95	HIS	CA-CB-CG	6.54	120.34	113.80
26	BB	2793	C	C4'-C3'-C2'	-6.54	96.06	102.60
42	BR	23	ASP	CA-C-O	-6.54	113.83	120.96
1	AA	251	G	C1'-O4'-C4'	-6.54	103.16	109.70
1	AA	364	A	C3'-C2'-C1'	6.54	107.84	101.30
26	BB	945	A	C4'-C3'-C2'	-6.54	96.06	102.60
26	BB	951	C	C4'-C3'-O3'	-6.54	103.19	113.00
26	BB	2215	C	O4'-C4'-C3'	6.54	110.54	104.00
26	BB	2584	U	N1-C1'-C2'	-6.54	102.19	112.00
29	BE	90	PHE	CA-CB-CG	6.54	120.34	113.80
17	AQ	84	ARG	N-CA-C	-6.54	104.15	111.28
1	AA	308	C	O4'-C1'-N1	6.54	118.31	108.50
1	AA	313	A	C4'-C3'-C2'	-6.54	96.06	102.60
1	AA	676	A	C4'-C3'-O3'	6.54	122.81	113.00
25	BA	34	A	C4'-C3'-C2'	-6.54	96.06	102.60
26	BB	861	A	O4'-C1'-N9	6.54	118.31	108.50
1	AA	320	A	O3'-P-O5'	6.54	113.80	104.00
1	AA	431	A	N9-C1'-C2'	-6.54	102.20	112.00
26	BB	397	U	O4'-C1'-N1	6.54	118.30	108.50
26	BB	476	G	C1'-C2'-O2'	6.54	118.20	108.40
26	BB	2282	G	P-O3'-C3'	6.54	130.00	120.20
26	BB	642	U	C2'-C3'-O3'	6.53	119.30	109.50
26	BB	2122	U	C2'-C3'-O3'	6.53	123.50	113.70
26	BB	1452	G	C4'-C3'-C2'	-6.53	96.07	102.60
26	BB	2855	C	C1'-O4'-C4'	6.53	116.43	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	405	U	C4'-C3'-C2'	-6.53	96.07	102.60
1	AA	771	G	O4'-C1'-C2'	6.53	114.13	107.60
1	AA	1358	U	C1'-O4'-C4'	6.53	116.43	109.90
26	BB	1751	U	O4'-C1'-N1	6.53	118.30	108.50
26	BB	1755	A	N9-C1'-C2'	-6.53	102.20	112.00
55	B4	50	GLU	CB-CA-C	6.53	120.61	111.86
3	AC	49	U	O4'-C1'-N1	6.53	118.29	108.50
17	AQ	46	LYS	N-CA-C	-6.53	105.19	113.02
1	AA	523	A	C4'-C3'-C2'	-6.53	96.07	102.60
11	AK	118	ALA	N-CA-C	6.53	119.39	111.82
26	BB	2757	A	C5'-C4'-C3'	-6.53	106.21	116.00
39	BO	78	LEU	CA-C-O	6.53	127.39	119.49
1	AA	1359	C	C4'-C3'-C2'	-6.52	96.08	102.60
26	BB	1568	G	C4'-C3'-C2'	-6.52	96.08	102.60
11	AK	26	MET	CA-C-N	6.52	126.55	119.90
11	AK	26	MET	C-N-CA	6.52	126.55	119.90
24	AX	46	ARG	NE-CZ-NH1	6.52	128.02	121.50
40	BP	31	HIS	CA-C-N	6.52	134.00	121.54
40	BP	31	HIS	C-N-CA	6.52	134.00	121.54
1	AA	355	C	C4'-C3'-C2'	-6.52	96.08	102.60
1	AA	356	A	C5'-C4'-O4'	6.52	119.58	109.80
26	BB	2076	U	C3'-C2'-O2'	-6.52	104.82	114.60
26	BB	2412	A	C1'-O4'-C4'	-6.52	103.38	109.90
1	AA	731	G	P-O3'-C3'	6.52	129.98	120.20
3	AC	57	C	O3'-P-O5'	6.52	113.78	104.00
5	AE	93	HIS	CA-CB-CG	6.52	120.32	113.80
26	BB	225	C	O4'-C1'-N1	6.52	118.28	108.50
26	BB	763	G	C3'-C2'-C1'	-6.52	94.78	101.30
26	BB	1841	U	C3'-C2'-O2'	6.52	120.48	110.70
16	AP	113	LYS	O-C-N	-6.52	116.47	121.55
24	AX	55	HIS	ND1-CG-CD2	6.52	112.62	106.10
26	BB	1399	C	O4'-C1'-N1	6.52	118.27	108.50
31	BG	154	THR	CA-C-N	6.52	129.97	120.91
31	BG	154	THR	C-N-CA	6.52	129.97	120.91
1	AA	63	C	C5'-C4'-C3'	-6.51	106.23	116.00
1	AA	1118	U	O5'-C5'-C4'	6.51	121.27	111.50
26	BB	1554	U	O4'-C1'-N1	6.51	117.97	108.20
26	BB	2525	G	C5'-C4'-C3'	-6.51	106.23	116.00
1	AA	633	G	C4'-C3'-C2'	-6.51	96.09	102.60
26	BB	2213	U	C5'-C4'-C3'	-6.51	106.23	116.00
1	AA	293	G	C3'-C2'-C1'	6.51	107.81	101.30
2	AB	9	A	O5'-C5'-C4'	-6.51	101.73	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	51	G	O4'-C1'-C2'	-6.51	101.09	107.60
20	AT	65	PRO	N-CA-CB	6.51	109.02	103.35
26	BB	338	G	C1'-O4'-C4'	-6.51	103.39	109.90
26	BB	924	G	O4'-C1'-C2'	-6.51	101.09	107.60
26	BB	2257	U	O4'-C4'-C3'	-6.51	97.49	104.00
26	BB	2764	A	O4'-C4'-C3'	6.51	110.51	104.00
4	AD	22	A	C1'-C2'-O2'	-6.51	102.04	111.80
1	AA	767	A	O3'-P-O5'	6.51	113.76	104.00
4	AD	12	G	O4'-C1'-N9	6.51	118.26	108.50
26	BB	42	A	P-O3'-C3'	6.51	129.96	120.20
26	BB	2004	G	C3'-C2'-O2'	6.51	120.46	110.70
52	B1	16	LEU	CA-C-N	6.51	126.27	119.05
52	B1	16	LEU	C-N-CA	6.51	126.27	119.05
26	BB	2332	C	O5'-C5'-C4'	-6.50	101.74	111.50
1	AA	805	C	C4'-C3'-C2'	-6.50	96.10	102.60
28	BD	88	ALA	CA-C-N	6.50	130.57	120.75
28	BD	88	ALA	C-N-CA	6.50	130.57	120.75
1	AA	840	C	C5'-C4'-C3'	-6.50	106.25	116.00
20	AT	11	VAL	CA-CB-CG2	-6.50	99.35	110.40
26	BB	1538	G	N9-C1'-C2'	-6.50	102.25	112.00
29	BE	42	ASN	CA-CB-CG	6.50	119.10	112.60
30	BF	163	ASN	CA-C-N	6.50	130.60	121.24
30	BF	163	ASN	C-N-CA	6.50	130.60	121.24
4	AD	28	U	C4'-C3'-C2'	-6.50	96.10	102.60
26	BB	659	G	C3'-C2'-O2'	6.50	120.45	110.70
26	BB	1747	U	N1-C1'-C2'	6.50	121.75	112.00
27	BC	184	LYS	N-CA-C	6.50	119.19	111.33
1	AA	17	U	O4'-C1'-C2'	-6.50	101.10	107.60
1	AA	284	C	O4'-C1'-C2'	-6.50	101.10	107.60
1	AA	1335	U	O4'-C1'-C2'	-6.50	99.30	105.80
26	BB	508	A	O4'-C1'-C2'	-6.50	101.10	107.60
26	BB	2799	A	N9-C1'-C2'	6.50	121.75	112.00
1	AA	1356	G	O4'-C4'-C3'	6.50	110.50	104.00
6	AF	105	VAL	N-CA-C	6.50	117.47	108.89
21	AU	47	ARG	O-C-N	6.50	130.63	123.22
26	BB	1489	C	C5'-C4'-O4'	6.50	119.54	109.80
40	BP	59	SER	CA-C-N	6.50	129.36	120.46
40	BP	59	SER	C-N-CA	6.50	129.36	120.46
1	AA	58	C	O5'-C5'-C4'	6.50	121.24	111.50
8	AH	153	ALA	CA-C-N	6.50	129.63	120.28
8	AH	153	ALA	C-N-CA	6.50	129.63	120.28
26	BB	785	G	C1'-O4'-C4'	6.50	116.39	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	963	U	O4'-C1'-C2'	-6.50	101.11	107.60
33	BI	69	ALA	CA-C-N	6.50	129.27	120.44
33	BI	69	ALA	C-N-CA	6.50	129.27	120.44
1	AA	94	G	P-O5'-C5'	6.49	130.64	120.90
1	AA	288	A	C5'-C4'-O4'	6.49	119.54	109.80
1	AA	448	A	C4'-C3'-C2'	-6.49	96.11	102.60
1	AA	1100	C	C1'-C2'-O2'	6.49	118.14	108.40
26	BB	1896	G	C5'-C4'-C3'	6.49	125.74	116.00
1	AA	598	U	P-O5'-C5'	6.49	130.64	120.90
26	BB	781	A	O4'-C4'-C3'	-6.49	97.51	104.00
39	BO	28	PHE	CA-C-N	6.49	128.21	122.43
39	BO	28	PHE	C-N-CA	6.49	128.21	122.43
1	AA	1335	U	C1'-O4'-C4'	-6.49	103.21	109.70
26	BB	1621	U	C1'-C2'-O2'	6.49	118.13	108.40
26	BB	1662	U	O4'-C1'-N1	6.49	118.23	108.50
26	BB	2108	A	O3'-P-O5'	-6.49	94.27	104.00
26	BB	2897	U	O3'-P-O5'	6.49	113.73	104.00
27	BC	148	ASN	CA-CB-CG	-6.49	106.11	112.60
1	AA	1254	A	P-O3'-C3'	6.49	129.93	120.20
14	AN	84	MET	CA-C-O	6.49	127.59	120.71
26	BB	120	U	O4'-C1'-N1	6.49	117.93	108.20
32	BH	83	THR	CA-CB-CG2	6.49	121.52	110.50
52	B1	42	ALA	N-CA-C	-6.49	104.14	111.14
1	AA	134	G	O3'-P-O5'	-6.48	94.27	104.00
1	AA	709	U	O4'-C1'-N1	6.48	118.22	108.50
26	BB	666	A	O5'-C5'-C4'	-6.48	101.78	111.50
26	BB	1334	G	C4'-C3'-C2'	-6.48	96.12	102.60
26	BB	2249	U	C1'-C2'-O2'	-6.48	102.08	111.80
26	BB	2501	C	O4'-C1'-C2'	-6.48	101.12	107.60
4	AD	54	G	N9-C1'-C2'	-6.48	102.28	112.00
26	BB	57	C	N1-C1'-C2'	-6.48	102.28	112.00
26	BB	740	C	N1-C1'-C2'	6.48	121.72	112.00
26	BB	1886	U	C4'-C3'-O3'	-6.48	103.28	113.00
7	AG	141	VAL	CB-CA-C	-6.48	101.57	110.77
47	BW	53	GLN	CB-CA-C	6.48	120.40	109.32
1	AA	1464	U	O4'-C1'-N1	6.48	118.22	108.50
10	AJ	129	ASN	OD1-CG-ND2	-6.48	116.12	122.60
41	BQ	108	ASP	CA-CB-CG	6.48	119.08	112.60
1	AA	181	A	C3'-C2'-C1'	-6.48	95.02	101.50
6	AF	226	GLN	CA-C-N	6.48	133.14	122.07
6	AF	226	GLN	C-N-CA	6.48	133.14	122.07
26	BB	402	A	C3'-C2'-C1'	-6.48	94.82	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BJ	157	VAL	N-CA-C	6.48	120.12	111.44
1	AA	421	U	N1-C1'-C2'	-6.47	104.29	114.00
1	AA	973	G	C4'-C3'-O3'	-6.47	103.29	113.00
1	AA	1368	A	O5'-C5'-C4'	6.47	121.21	111.50
8	AH	124	ALA	CA-C-O	6.47	128.72	121.40
40	BP	26	GLY	CA-C-N	6.47	128.96	120.28
40	BP	26	GLY	C-N-CA	6.47	128.96	120.28
1	AA	1069	C	O3'-P-O5'	6.47	113.71	104.00
1	AA	1316	G	O5'-C5'-C4'	6.47	121.21	111.50
8	AH	120	HIS	CE1-NE2-CD2	-6.47	102.53	109.00
26	BB	1647	U	N1-C1'-C2'	6.47	121.71	112.00
42	BR	16	VAL	N-CA-C	6.47	114.20	108.63
26	BB	1985	C	O5'-C5'-C4'	6.47	121.21	111.50
1	AA	1222	G	O5'-C5'-C4'	6.47	121.20	111.50
31	BG	98	PHE	N-CA-C	6.47	118.02	110.97
48	BX	59	GLU	CA-C-N	6.47	130.56	120.34
48	BX	59	GLU	C-N-CA	6.47	130.56	120.34
1	AA	530	G	O4'-C4'-C3'	6.47	110.47	104.00
8	AH	57	ALA	CA-C-N	6.47	128.85	120.44
8	AH	57	ALA	C-N-CA	6.47	128.85	120.44
1	AA	32	A	O3'-P-O5'	6.47	113.70	104.00
1	AA	563	A	C4'-C3'-O3'	-6.47	103.30	113.00
1	AA	1388	C	C3'-C2'-C1'	6.47	107.77	101.30
26	BB	545	U	C1'-C2'-O2'	6.47	121.50	111.80
1	AA	588	G	O4'-C4'-C3'	6.46	110.47	104.00
26	BB	172	A	C3'-C2'-O2'	6.46	120.40	110.70
26	BB	804	A	C4'-C3'-O3'	6.46	122.70	113.00
26	BB	1457	U	O4'-C1'-N1	6.46	118.20	108.50
26	BB	2303	G	O5'-C5'-C4'	6.46	121.20	111.50
1	AA	647	C	C3'-C2'-C1'	6.46	107.76	101.30
1	AA	960	U	P-O3'-C3'	6.46	129.90	120.20
26	BB	2453	A	C5'-C4'-O4'	6.46	119.49	109.80
5	AE	161	PHE	CA-CB-CG	6.46	120.26	113.80
25	BA	21	G	O3'-P-O5'	-6.46	94.31	104.00
26	BB	710	U	O4'-C1'-N1	6.46	118.19	108.50
26	BB	1210	G	C5'-C4'-C3'	-6.46	105.51	115.20
26	BB	1889	A	C3'-C2'-C1'	-6.46	94.84	101.30
27	BC	140	PRO	CA-C-N	6.46	129.46	120.29
27	BC	140	PRO	C-N-CA	6.46	129.46	120.29
1	AA	9	G	O4'-C1'-N9	6.46	118.19	108.50
3	AC	37	G	C4'-C3'-O3'	-6.46	103.31	113.00
26	BB	1756	G	O4'-C1'-C2'	-6.46	101.14	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1901	A	C4'-C3'-C2'	-6.46	96.14	102.60
1	AA	1527	U	C1'-O4'-C4'	6.46	116.36	109.90
26	BB	756	A	C1'-C2'-O2'	-6.46	98.72	108.40
26	BB	1066	U	C1'-O4'-C4'	6.46	116.36	109.90
26	BB	2181	U	O4'-C1'-N1	6.46	118.19	108.50
26	BB	804	A	C4'-C3'-C2'	-6.46	96.14	102.60
26	BB	1651	G	O5'-C5'-C4'	-6.46	101.82	111.50
43	BS	51	GLN	CA-C-N	6.46	128.93	120.28
43	BS	51	GLN	C-N-CA	6.46	128.93	120.28
1	AA	207	C	O4'-C4'-C3'	6.45	110.45	104.00
11	AK	74	ILE	CB-CA-C	6.45	119.13	110.42
22	AV	41	PRO	CA-C-N	6.45	129.80	120.38
22	AV	41	PRO	C-N-CA	6.45	129.80	120.38
26	BB	2086	U	O4'-C4'-C3'	6.45	110.45	104.00
26	BB	2388	A	O4'-C4'-C3'	-6.45	97.55	104.00
53	B2	41	HIS	CA-CB-CG	6.45	120.25	113.80
1	AA	488	C	O4'-C1'-C2'	-6.45	101.15	107.60
1	AA	719	C	C4'-C3'-C2'	6.45	109.05	102.60
1	AA	929	G	C4'-C3'-C2'	-6.45	96.15	102.60
5	AE	167	HIS	CB-CG-CD2	-6.45	122.81	131.20
12	AL	94	ARG	NH1-CZ-NH2	6.45	127.69	119.30
26	BB	1958	C	O4'-C1'-C2'	6.45	114.05	107.60
51	B0	10	SER	CA-C-N	6.45	130.71	121.55
51	B0	10	SER	C-N-CA	6.45	130.71	121.55
5	AE	177	ASN	CA-CB-CG	6.45	119.05	112.60
26	BB	2221	G	P-O5'-C5'	6.45	130.57	120.90
7	AG	53	GLN	OE1-CD-NE2	-6.45	116.15	122.60
15	AO	7	VAL	CA-CB-CG1	6.45	121.36	110.40
16	AP	59	VAL	CA-C-O	-6.45	114.25	120.95
26	BB	189	G	C1'-O4'-C4'	-6.45	103.45	109.90
30	BF	165	HIS	N-CA-C	6.45	117.97	111.07
44	BT	67	GLY	CA-C-N	6.45	132.61	122.94
44	BT	67	GLY	C-N-CA	6.45	132.61	122.94
26	BB	132	G	O4'-C1'-C2'	-6.44	101.16	107.60
1	AA	1031	C	C1'-O4'-C4'	6.44	116.14	109.70
1	AA	1098	C	O4'-C1'-C2'	-6.44	101.16	107.60
5	AE	188	THR	N-CA-C	6.44	118.38	111.36
26	BB	58	G	O4'-C4'-C3'	6.44	110.44	104.00
26	BB	407	G	C5'-C4'-C3'	6.44	125.66	116.00
26	BB	1746	A	O3'-P-O5'	-6.44	94.34	104.00
1	AA	857	C	C3'-C2'-C1'	6.44	107.74	101.30
7	AG	52	VAL	CA-C-O	-6.44	113.51	120.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2035	G	C2'-C3'-O3'	6.44	119.16	109.50
57	B6	19	GLY	CA-C-O	-6.44	111.65	119.06
28	BD	107	LYS	CA-C-N	6.44	126.46	120.34
28	BD	107	LYS	C-N-CA	6.44	126.46	120.34
1	AA	676	A	C3'-C2'-C1'	6.44	107.74	101.30
1	AA	819	A	O3'-P-O5'	-6.44	94.34	104.00
1	AA	1479	C	P-O5'-C5'	6.44	130.56	120.90
26	BB	2680	U	O4'-C1'-N1	6.44	118.16	108.50
15	AO	37	TYR	O-C-N	-6.44	115.74	123.27
1	AA	183	C	O4'-C1'-C2'	-6.43	101.17	107.60
5	AE	235	SER	N-CA-C	-6.43	104.12	112.23
11	AK	83	ARG	NE-CZ-NH2	-6.43	113.41	119.20
1	AA	164	G	O3'-P-O5'	-6.43	94.35	104.00
1	AA	1463	U	C3'-C2'-O2'	6.43	120.35	110.70
25	BA	18	G	C4'-C3'-C2'	-6.43	96.17	102.60
25	BA	116	G	N9-C1'-C2'	-6.43	102.35	112.00
26	BB	341	C	O4'-C4'-C3'	6.43	110.43	104.00
26	BB	1059	G	C1'-O4'-C4'	-6.43	103.47	109.90
26	BB	2865	U	C4'-C3'-C2'	-6.43	96.17	102.60
56	B5	3	ARG	NE-CZ-NH1	-6.43	115.07	121.50
1	AA	936	C	C5'-C4'-C3'	-6.43	106.35	116.00
1	AA	626	G	O4'-C1'-C2'	-6.43	101.17	107.60
31	BG	133	GLU	CA-C-N	6.43	130.50	121.24
31	BG	133	GLU	C-N-CA	6.43	130.50	121.24
1	AA	1441	A	O3'-P-O5'	-6.43	94.36	104.00
14	AN	104	PHE	CA-CB-CG	6.43	120.23	113.80
26	BB	1215	G	O4'-C1'-N9	6.43	118.14	108.50
26	BB	1877	A	O4'-C4'-C3'	6.43	110.43	104.00
1	AA	552	U	O5'-C5'-C4'	6.43	121.14	111.50
21	AU	73	HIS	CB-CG-CD2	-6.43	122.85	131.20
26	BB	1931	U	O4'-C1'-C2'	6.43	114.03	107.60
26	BB	2428	G	O5'-C5'-C4'	-6.43	101.86	111.50
1	AA	317	U	O5'-C5'-C4'	6.42	121.14	111.50
50	BZ	71	ARG	CD-NE-CZ	6.42	133.40	124.40
26	BB	2430	A	C1'-O4'-C4'	-6.42	103.48	109.90
26	BB	64	A	C4'-C3'-C2'	-6.42	96.18	102.60
26	BB	579	G	C5'-C4'-C3'	-6.42	106.37	116.00
26	BB	1566	A	C3'-C2'-C1'	6.42	107.72	101.30
26	BB	2630	G	C4'-C3'-C2'	-6.42	96.18	102.60
26	BB	2810	A	C4'-C3'-C2'	-6.42	96.18	102.60
37	BM	99	ILE	N-CA-C	6.42	118.63	108.87
1	AA	1461	G	C5'-C4'-C3'	-6.42	106.37	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2728	U	N1-C1'-C2'	-6.42	102.37	112.00
1	AA	778	G	C4'-C3'-C2'	-6.42	96.18	102.60
1	AA	1390	U	O3'-P-O5'	-6.42	94.38	104.00
26	BB	2785	C	C4'-C3'-C2'	-6.42	96.18	102.60
26	BB	2795	C	C3'-C2'-O2'	6.42	120.32	110.70
38	BN	78	ARG	CA-C-O	-6.42	113.97	121.16
41	BQ	14	ALA	CA-C-O	-6.42	114.09	120.70
1	AA	831	A	O4'-C1'-C2'	-6.42	101.19	107.60
1	AA	1374	A	O4'-C1'-N9	6.42	118.12	108.50
26	BB	704	G	P-O3'-C3'	6.42	129.82	120.20
26	BB	2245	U	O3'-P-O5'	-6.42	94.38	104.00
1	AA	1150	A	O4'-C4'-C3'	6.41	110.41	104.00
8	AH	70	MET	CA-C-N	6.41	130.12	120.75
8	AH	70	MET	C-N-CA	6.41	130.12	120.75
26	BB	219	A	C5'-C4'-C3'	-6.41	106.38	116.00
26	BB	556	A	C3'-C2'-O2'	6.41	120.32	110.70
26	BB	684	G	C3'-C2'-O2'	6.41	120.32	110.70
26	BB	925	A	C5'-C4'-C3'	-6.41	106.38	116.00
26	BB	938	G	C4'-C3'-C2'	6.41	109.01	102.60
26	BB	16	C	C5'-C4'-C3'	-6.41	106.38	116.00
26	BB	847	U	P-O5'-C5'	-6.41	111.28	120.90
1	AA	359	G	O4'-C1'-C2'	-6.41	101.19	107.60
7	AG	13	ARG	CD-NE-CZ	6.41	133.37	124.40
23	AW	82	ILE	N-CA-C	-6.41	103.63	110.36
26	BB	1645	G	N9-C1'-C2'	-6.41	104.39	114.00
41	BQ	48	LEU	CA-C-N	6.41	131.76	121.95
41	BQ	48	LEU	C-N-CA	6.41	131.76	121.95
1	AA	885	G	C3'-C2'-C1'	-6.41	94.89	101.30
1	AA	1264	U	O5'-C5'-C4'	6.41	121.11	111.50
26	BB	2649	C	C2'-C3'-O3'	-6.41	104.09	113.70
26	BB	2734	A	O4'-C1'-N9	6.41	118.11	108.50
38	BN	14	LYS	N-CA-C	6.41	118.35	111.36
8	AH	48	GLY	CA-C-N	6.41	131.17	122.84
8	AH	48	GLY	C-N-CA	6.41	131.17	122.84
26	BB	250	G	C1'-O4'-C4'	-6.41	103.49	109.90
1	AA	419	C	C3'-C2'-C1'	6.41	107.70	101.30
26	BB	63	A	C1'-O4'-C4'	-6.41	103.50	109.90
26	BB	202	U	O3'-P-O5'	-6.41	94.39	104.00
26	BB	491	G	C5'-C4'-O4'	6.41	119.41	109.80
26	BB	213	A	C1'-O4'-C4'	-6.40	103.50	109.90
1	AA	207	C	C4'-C3'-C2'	-6.40	96.20	102.60
1	AA	495	A	C3'-C2'-O2'	-6.40	105.00	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AF	122	GLN	OE1-CD-NE2	-6.40	116.20	122.60
21	AU	4	PHE	CA-CB-CG	6.40	120.20	113.80
26	BB	804	A	C2'-C3'-O3'	-6.40	104.10	113.70
26	BB	1985	C	N1-C1'-C2'	-6.40	102.40	112.00
26	BB	2567	G	O4'-C1'-N9	6.40	118.11	108.50
1	AA	194	C	O4'-C4'-C3'	-6.40	97.60	104.00
1	AA	555	U	C5'-C4'-C3'	-6.40	106.40	116.00
1	AA	698	G	O5'-C5'-C4'	-6.40	101.90	111.50
1	AA	1424	U	O5'-C5'-C4'	-6.40	101.90	111.50
6	AF	132	ALA	N-CA-C	6.40	118.79	111.11
26	BB	256	A	C4'-C3'-C2'	-6.40	96.20	102.60
1	AA	355	C	C1'-C2'-O2'	6.40	118.00	108.40
1	AA	850	U	C5'-C4'-C3'	-6.40	106.40	116.00
1	AA	1044	A	O3'-P-O5'	6.40	113.60	104.00
26	BB	1370	C	O5'-C5'-C4'	6.40	121.10	111.50
26	BB	629	G	N9-C1'-C2'	-6.40	102.40	112.00
26	BB	680	C	C5'-C4'-O4'	6.40	119.40	109.80
1	AA	1409	C	C3'-C2'-O2'	6.40	120.29	110.70
26	BB	2337	G	C5'-C4'-C3'	-6.40	106.41	116.00
1	AA	823	C	O4'-C4'-C3'	-6.39	97.61	104.00
26	BB	426	C	C5'-C4'-C3'	-6.39	106.41	116.00
26	BB	2306	C	N1-C1'-C2'	6.39	121.59	112.00
26	BB	2372	U	C5'-C4'-O4'	6.39	119.39	109.80
30	BF	193	VAL	O-C-N	6.39	128.07	121.87
35	BK	30	GLN	OE1-CD-NE2	-6.39	116.21	122.60
1	AA	491	G	C4'-C3'-C2'	-6.39	96.21	102.60
26	BB	337	C	C4'-C3'-O3'	-6.39	103.41	113.00
26	BB	1218	G	C4'-C3'-C2'	-6.39	96.21	102.60
26	BB	1753	G	O5'-C5'-C4'	-6.39	101.91	111.50
26	BB	2801	G	C4'-C3'-O3'	-6.39	103.41	113.00
1	AA	231	U	O4'-C1'-C2'	-6.39	101.21	107.60
1	AA	295	C	O5'-C5'-C4'	6.39	121.09	111.50
12	AL	26	LYS	CA-C-O	-6.39	114.18	121.72
26	BB	538	A	C4'-C3'-C2'	-6.39	96.21	102.60
1	AA	743	A	C5'-C4'-C3'	-6.39	106.42	116.00
10	AJ	42	VAL	CB-CA-C	6.39	120.39	112.02
30	BF	175	ILE	N-CA-C	6.39	117.67	109.30
51	B0	27	ASN	OD1-CG-ND2	-6.39	116.21	122.60
52	B1	44	ARG	N-CA-C	-6.39	104.36	111.71
1	AA	1269	A	O4'-C1'-N9	6.39	118.08	108.50
1	AA	185	U	O4'-C4'-C3'	6.39	110.39	104.00
27	BC	79	THR	N-CA-CB	-6.39	101.00	111.66

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BR	55	HIS	CB-CG-CD2	-6.39	122.90	131.20
1	AA	26	A	C4'-C3'-C2'	6.38	108.98	102.60
26	BB	1809	A	O4'-C4'-C3'	6.38	110.39	104.00
1	AA	412	A	P-O5'-C5'	6.38	130.47	120.90
1	AA	154	U	O4'-C1'-C2'	-6.38	101.22	107.60
3	AC	42	U	O4'-C1'-N1	6.38	118.07	108.50
26	BB	1949	G	C5'-C4'-O4'	6.38	119.37	109.80
51	B0	50	VAL	O-C-N	6.38	128.40	121.83
26	BB	844	A	C4'-C3'-C2'	-6.38	96.22	102.60
57	B6	31	ILE	CB-CG1-CD1	6.38	127.19	113.80
1	AA	612	C	C4'-C3'-O3'	6.38	122.56	113.00
26	BB	1393	A	C3'-C2'-C1'	-6.38	94.92	101.30
26	BB	1471	G	O4'-C4'-C3'	6.38	110.38	104.00
26	BB	1834	U	O4'-C4'-C3'	6.38	110.38	104.00
26	BB	2897	U	O4'-C1'-C2'	-6.38	101.22	107.60
1	AA	1138	G	C3'-C2'-O2'	6.38	120.26	110.70
26	BB	438	G	N9-C1'-C2'	-6.38	102.44	112.00
26	BB	774	G	C3'-C2'-C1'	-6.38	95.12	101.50
26	BB	1078	U	C3'-C2'-C1'	-6.38	95.12	101.50
26	BB	2627	G	O4'-C4'-C3'	6.38	110.38	104.00
54	B3	11	LYS	CA-C-N	6.38	129.46	120.28
54	B3	11	LYS	C-N-CA	6.38	129.46	120.28
1	AA	997	U	C4'-C3'-C2'	-6.37	96.23	102.60
2	AB	4	G	C4'-C3'-C2'	-6.37	96.23	102.60
9	AI	102	MET	CB-CA-C	6.37	121.28	111.02
26	BB	16	C	O5'-C5'-C4'	-6.37	101.94	111.50
26	BB	1356	G	O4'-C4'-C3'	-6.37	97.63	104.00
26	BB	1477	A	C4'-C3'-C2'	6.37	108.97	102.60
26	BB	1693	U	O4'-C1'-C2'	-6.37	99.43	105.80
26	BB	2775	G	O4'-C4'-C3'	6.37	110.37	104.00
41	BQ	29	HIS	O-C-N	6.37	131.04	123.33
1	AA	89	U	O4'-C1'-N1	6.37	118.06	108.50
22	AV	59	VAL	CA-CB-CG1	6.37	121.23	110.40
26	BB	346	A	C3'-C2'-C1'	6.37	107.67	101.30
26	BB	1125	G	C3'-C2'-O2'	6.37	120.26	110.70
34	BJ	33	THR	CA-C-N	6.37	129.19	120.46
34	BJ	33	THR	C-N-CA	6.37	129.19	120.46
26	BB	2814	A	C3'-C2'-O2'	6.37	120.25	110.70
1	AA	462	G	C3'-C2'-C1'	-6.37	95.13	101.50
11	AK	81	GLY	CA-C-N	6.37	133.17	123.04
11	AK	81	GLY	C-N-CA	6.37	133.17	123.04
22	AV	71	GLY	N-CA-C	6.37	121.68	114.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1766	G	O4'-C1'-N9	6.37	118.05	108.50
26	BB	2831	G	C5'-C4'-C3'	-6.37	106.45	116.00
1	AA	560	A	O5'-C5'-C4'	-6.37	101.95	111.50
35	BK	80	LYS	CA-C-N	6.37	128.72	120.44
35	BK	80	LYS	C-N-CA	6.37	128.72	120.44
13	AM	70	HIS	CB-CA-C	6.37	120.17	109.48
26	BB	1604	C	C5'-C4'-C3'	-6.37	106.45	116.00
26	BB	1945	G	O4'-C4'-C3'	6.37	110.36	104.00
1	AA	562	U	O4'-C1'-C2'	6.36	112.16	105.80
6	AF	70	ALA	N-CA-C	-6.36	104.21	112.23
8	AH	85	LYS	CA-C-N	6.36	127.17	120.43
8	AH	85	LYS	C-N-CA	6.36	127.17	120.43
22	AV	79	TYR	CA-C-N	6.36	131.59	121.66
22	AV	79	TYR	C-N-CA	6.36	131.59	121.66
26	BB	1393	A	C2'-C3'-O3'	-6.36	104.16	113.70
26	BB	2723	C	O4'-C1'-N1	6.36	118.05	108.50
26	BB	2842	G	C5'-C4'-C3'	-6.36	106.45	116.00
39	BO	14	LYS	CA-CB-CG	6.36	126.83	114.10
48	BX	60	VAL	CB-CA-C	6.36	118.58	111.45
1	AA	242	G	C3'-C2'-C1'	-6.36	94.94	101.30
19	AS	77	GLU	CA-C-N	6.36	130.73	120.30
19	AS	77	GLU	C-N-CA	6.36	130.73	120.30
26	BB	399	U	O5'-C5'-C4'	6.36	121.04	111.50
26	BB	2222	C	O4'-C1'-C2'	-6.36	101.24	107.60
29	BE	28	GLU	CA-C-N	6.36	130.72	121.18
29	BE	28	GLU	C-N-CA	6.36	130.72	121.18
36	BL	20	ALA	N-CA-CB	-6.36	101.32	110.80
1	AA	505	G	O4'-C4'-C3'	6.36	110.36	104.00
1	AA	1283	U	O4'-C4'-C3'	6.36	110.36	104.00
26	BB	377	G	C3'-C2'-C1'	6.36	107.66	101.30
26	BB	1073	A	O4'-C4'-C3'	6.36	110.36	104.00
37	BM	43	ILE	N-CA-CB	-6.36	104.01	111.39
1	AA	821	G	O5'-C5'-C4'	6.36	121.03	111.50
14	AN	69	CYS	N-CA-C	-6.36	104.27	111.14
26	BB	1771	C	C4'-C3'-C2'	-6.36	96.24	102.60
41	BQ	29	HIS	CB-CG-CD2	-6.36	122.94	131.20
1	AA	174	A	C4'-C3'-C2'	-6.36	96.25	102.60
1	AA	508	U	C3'-C2'-O2'	-6.36	105.07	114.60
1	AA	1064	G	C3'-C2'-C1'	6.36	107.86	101.50
1	AA	1356	G	O4'-C1'-N9	6.36	118.03	108.50
26	BB	68	G	C5'-C4'-C3'	-6.36	106.47	116.00
26	BB	1662	U	C4'-C3'-C2'	-6.36	96.24	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2532	G	C1'-O4'-C4'	6.36	116.26	109.90
45	BU	102	HIS	ND1-CG-CD2	6.36	112.46	106.10
26	BB	337	C	C2'-C3'-O3'	6.35	123.23	113.70
1	AA	80	A	O4'-C1'-C2'	-6.35	101.25	107.60
1	AA	1357	A	C1'-O4'-C4'	-6.35	103.55	109.90
26	BB	595	C	C4'-C3'-C2'	-6.35	96.25	102.60
26	BB	1855	U	C3'-C2'-C1'	6.35	107.65	101.30
26	BB	2132	U	O5'-C5'-C4'	6.35	121.03	111.50
32	BH	89	VAL	O-C-N	6.35	129.85	123.18
46	BV	14	PRO	N-CA-CB	6.35	109.22	103.19
46	BV	77	ARG	CA-C-N	6.35	129.86	120.90
46	BV	77	ARG	C-N-CA	6.35	129.86	120.90
1	AA	1294	G	N9-C1'-C2'	-6.35	102.47	112.00
26	BB	1566	A	O4'-C4'-C3'	6.35	110.35	104.00
1	AA	1306	A	C1'-O4'-C4'	-6.35	103.55	109.90
26	BB	430	A	C5'-C4'-C3'	-6.35	106.47	116.00
1	AA	909	A	O4'-C1'-C2'	-6.35	101.25	107.60
1	AA	1416	G	C4'-C3'-C2'	6.35	108.95	102.60
5	AE	216	VAL	N-CA-CB	6.35	117.98	110.55
9	AI	20	GLY	CA-C-N	6.35	131.44	120.58
9	AI	20	GLY	C-N-CA	6.35	131.44	120.58
26	BB	318	C	C4'-C3'-C2'	-6.35	96.25	102.60
26	BB	355	U	O4'-C1'-N1	6.35	118.02	108.50
26	BB	358	U	O4'-C4'-C3'	6.35	110.35	104.00
26	BB	734	A	O5'-C5'-C4'	6.35	121.02	111.50
26	BB	2016	U	C2'-C3'-O3'	-6.35	104.18	113.70
26	BB	2865	U	C1'-O4'-C4'	-6.35	103.55	109.90
1	AA	679	C	C4'-C3'-C2'	-6.35	96.25	102.60
26	BB	1638	C	C4'-C3'-C2'	-6.35	96.25	102.60
1	AA	1090	U	C4'-C3'-C2'	-6.34	96.25	102.60
26	BB	358	U	C5'-C4'-C3'	-6.34	106.48	116.00
38	BN	29	LYS	CA-C-N	6.34	133.66	121.54
38	BN	29	LYS	C-N-CA	6.34	133.66	121.54
10	AJ	163	HIS	CB-CG-CD2	-6.34	122.95	131.20
22	AV	68	HIS	CA-CB-CG	-6.34	107.46	113.80
26	BB	371	A	C5'-C4'-C3'	6.34	124.72	115.20
1	AA	172	A	C1'-O4'-C4'	6.34	116.24	109.90
26	BB	586	A	O5'-C5'-C4'	6.34	121.01	111.50
26	BB	2001	C	C4'-C3'-C2'	-6.34	96.26	102.60
37	BM	35	VAL	CA-C-N	6.34	133.84	121.41
37	BM	35	VAL	C-N-CA	6.34	133.84	121.41
25	BA	56	G	C1'-O4'-C4'	6.34	116.04	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	156	A	C4'-C3'-C2'	-6.34	96.26	102.60
26	BB	2130	U	O4'-C1'-N1	6.34	118.01	108.50
26	BB	2160	C	C1'-O4'-C4'	6.34	116.24	109.90
41	BQ	49	VAL	O-C-N	-6.34	117.11	123.19
42	BR	2	ASN	CA-CB-CG	6.34	118.94	112.60
1	AA	384	G	O3'-P-O5'	-6.34	94.49	104.00
20	AT	57	VAL	N-CA-C	6.34	116.99	107.80
26	BB	321	U	C3'-C2'-O2'	6.34	120.20	110.70
26	BB	811	U	N1-C1'-C2'	-6.34	104.50	114.00
26	BB	2149	U	C4'-C3'-O3'	6.34	122.50	113.00
55	B4	19	PHE	CA-CB-CG	6.34	120.14	113.80
1	AA	948	C	C4'-C3'-C2'	-6.33	96.27	102.60
1	AA	1403	C	C4'-C3'-C2'	-6.33	96.27	102.60
5	AE	111	LYS	CA-C-N	6.33	128.77	120.28
5	AE	111	LYS	C-N-CA	6.33	128.77	120.28
10	AJ	79	VAL	N-CA-CB	-6.33	104.99	112.40
26	BB	731	C	C3'-C2'-C1'	6.33	107.64	101.30
1	AA	1262	C	O5'-C5'-C4'	-6.33	102.00	111.50
36	BL	124	VAL	N-CA-C	-6.33	106.80	112.12
43	BS	47	ARG	NE-CZ-NH2	6.33	124.90	119.20
1	AA	167	A	C4'-C3'-C2'	-6.33	96.27	102.60
1	AA	350	G	P-O3'-C3'	6.33	129.70	120.20
1	AA	431	A	C3'-C2'-O2'	6.33	120.20	110.70
4	AD	37	U	P-O3'-C3'	6.33	129.70	120.20
5	AE	156	LEU	O-C-N	6.33	126.94	121.30
26	BB	1826	G	C5'-C4'-C3'	-6.33	106.50	116.00
26	BB	2131	U	O4'-C1'-N1	6.33	118.00	108.50
26	BB	2463	C	C3'-C2'-C1'	-6.33	94.97	101.30
47	BW	86	PHE	CA-CB-CG	6.33	120.13	113.80
4	AD	54	G	O4'-C4'-C3'	6.33	110.33	104.00
25	BA	39	A	O4'-C4'-C3'	6.33	110.33	104.00
1	AA	1513	A	O4'-C4'-C3'	-6.33	97.67	104.00
3	AC	27	A	P-O3'-C3'	6.33	129.69	120.20
26	BB	1283	G	N9-C1'-C2'	-6.33	102.51	112.00
54	B3	41	HIS	CB-CG-CD2	-6.33	122.97	131.20
26	BB	1092	C	O4'-C1'-N1	6.33	117.99	108.50
26	BB	2080	A	C3'-C2'-O2'	6.33	120.19	110.70
28	BD	143	VAL	CA-CB-CG1	-6.33	99.65	110.40
34	BJ	140	ALA	CA-C-O	-6.33	113.84	120.55
2	AB	40	C	O4'-C4'-C3'	6.32	110.32	104.00
25	BA	17	C	C2'-C3'-O3'	-6.32	104.22	113.70
1	AA	757	U	O4'-C1'-N1	6.32	117.98	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	867	G	C4'-C3'-C2'	-6.32	96.28	102.60
23	AW	17	ARG	O-C-N	6.32	128.58	122.07
1	AA	488	C	C4'-C3'-C2'	-6.32	96.28	102.60
1	AA	518	C	C4'-C3'-C2'	-6.32	96.28	102.60
1	AA	819	A	O4'-C1'-C2'	-6.32	99.48	105.80
3	AC	26	U	N1-C1'-C2'	6.32	121.48	112.00
22	AV	10	ILE	CA-C-N	6.32	133.61	121.54
22	AV	10	ILE	C-N-CA	6.32	133.61	121.54
25	BA	20	G	O4'-C4'-C3'	6.32	110.32	104.00
26	BB	2826	A	C3'-C2'-C1'	6.32	107.62	101.30
3	AC	13	A	O4'-C1'-N9	6.32	117.68	108.20
14	AN	83	VAL	CA-C-N	6.32	132.09	122.93
14	AN	83	VAL	C-N-CA	6.32	132.09	122.93
26	BB	1308	A	O4'-C1'-N9	6.32	117.98	108.50
38	BN	132	ARG	NE-CZ-NH1	-6.32	115.18	121.50
1	AA	1265	C	C5'-C4'-C3'	6.32	125.48	116.00
26	BB	451	U	C4'-C3'-C2'	-6.32	96.28	102.60
26	BB	1332	G	C3'-C2'-C1'	6.32	107.82	101.50
26	BB	1665	A	C2'-C3'-O3'	6.32	123.18	113.70
1	AA	201	G	C4'-C3'-C2'	-6.32	96.28	102.60
26	BB	2446	G	O5'-C5'-C4'	-6.32	102.03	111.50
42	BR	92	ARG	N-CA-C	6.32	120.24	111.90
26	BB	764	A	C1'-C2'-O2'	6.31	121.27	111.80
26	BB	869	G	C5'-C4'-C3'	-6.31	106.53	116.00
1	AA	99	C	C3'-C2'-C1'	6.31	107.61	101.30
1	AA	219	U	O4'-C1'-N1	6.31	117.97	108.50
2	AB	35	C	C1'-O4'-C4'	6.31	116.21	109.90
15	AO	60	PHE	O-C-N	6.31	130.13	122.68
26	BB	1203	U	O4'-C4'-C3'	6.31	110.31	104.00
35	BK	128	ILE	CA-C-N	6.31	131.23	121.19
35	BK	128	ILE	C-N-CA	6.31	131.23	121.19
1	AA	892	A	O4'-C1'-C2'	6.31	113.91	107.60
26	BB	71	A	O4'-C1'-N9	6.31	117.67	108.20
6	AF	150	VAL	O-C-N	6.31	130.07	123.26
26	BB	1355	G	N9-C1'-C2'	-6.31	102.54	112.00
26	BB	1584	U	O3'-P-O5'	6.31	113.47	104.00
26	BB	2725	A	C2'-C3'-O3'	6.31	118.96	109.50
26	BB	2852	G	O4'-C1'-C2'	-6.31	101.29	107.60
1	AA	693	G	C4'-C3'-C2'	-6.31	96.29	102.60
26	BB	1140	C	C2'-C3'-O3'	6.31	123.16	113.70
53	B2	44	PHE	CA-CB-CG	6.31	120.11	113.80
25	BA	61	G	O4'-C4'-C3'	-6.31	97.69	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	295	G	P-O5'-C5'	6.31	130.36	120.90
41	BQ	36	TYR	CD1-CG-CD2	6.31	127.56	118.10
1	AA	1358	U	C5'-C4'-C3'	6.30	125.46	116.00
5	AE	125	PHE	CA-C-O	6.30	126.62	119.18
26	BB	80	G	O4'-C4'-C3'	6.30	110.30	104.00
26	BB	2814	A	C3'-C2'-C1'	-6.30	95.00	101.30
1	AA	258	G	C3'-C2'-O2'	6.30	120.16	110.70
29	BE	124	ARG	NH1-CZ-NH2	-6.30	111.11	119.30
1	AA	1200	C	C4'-C3'-C2'	-6.30	96.30	102.60
26	BB	2049	G	O4'-C4'-C3'	6.30	110.30	104.00
33	BI	108	VAL	CA-C-N	6.30	129.66	120.71
33	BI	108	VAL	C-N-CA	6.30	129.66	120.71
50	BZ	15	ASN	CA-C-N	6.30	128.97	120.65
50	BZ	15	ASN	C-N-CA	6.30	128.97	120.65
1	AA	740	U	C3'-C2'-C1'	6.30	107.60	101.30
26	BB	100	U	C1'-O4'-C4'	-6.30	103.40	109.70
26	BB	2726	A	O4'-C1'-C2'	6.30	112.10	105.80
34	BJ	51	MET	O-C-N	6.30	131.05	123.36
16	AP	51	GLN	CA-C-N	6.30	129.09	120.46
16	AP	51	GLN	C-N-CA	6.30	129.09	120.46
26	BB	1234	U	N1-C1'-C2'	-6.30	102.55	112.00
20	AT	40	THR	N-CA-C	6.30	118.67	108.41
49	BY	7	GLY	CA-C-O	-6.30	114.92	121.28
1	AA	224	U	C1'-O4'-C4'	6.29	116.19	109.90
26	BB	318	C	O4'-C1'-N1	6.29	117.94	108.50
46	BV	52	GLU	CB-CA-C	6.29	120.19	111.63
1	AA	229	U	C4'-C3'-C2'	-6.29	96.31	102.60
1	AA	1243	C	C4'-C3'-C2'	-6.29	96.31	102.60
26	BB	1241	A	O4'-C4'-C3'	6.29	110.29	104.00
26	BB	2207	C	C5'-C4'-C3'	-6.29	106.56	116.00
30	BF	110	SER	CA-C-N	6.29	129.34	120.28
30	BF	110	SER	C-N-CA	6.29	129.34	120.28
48	BX	10	LYS	N-CA-C	-6.29	104.34	111.14
26	BB	584	C	C4'-C3'-C2'	-6.29	96.31	102.60
26	BB	1294	U	O4'-C1'-C2'	-6.29	101.31	107.60
26	BB	1805	A	O4'-C1'-N9	6.29	117.94	108.50
2	AB	33	U	C4'-C3'-O3'	-6.29	103.56	113.00
23	AW	29	THR	CA-C-N	6.29	128.62	120.44
23	AW	29	THR	C-N-CA	6.29	128.62	120.44
16	AP	106	ARG	CA-C-O	-6.29	114.22	120.70
20	AT	61	ARG	CA-C-O	-6.29	114.29	121.40
26	BB	698	C	O4'-C1'-N1	6.29	117.93	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2129	C	C3'-C2'-C1'	6.29	107.79	101.50
26	BB	2756	U	C1'-C2'-O2'	6.29	121.23	111.80
37	BM	3	GLN	N-CA-CB	-6.29	100.71	110.46
1	AA	426	U	C3'-C2'-C1'	6.29	107.59	101.30
1	AA	1191	A	O4'-C4'-C3'	6.29	110.29	104.00
13	AM	73	LEU	N-CA-CB	-6.29	101.93	110.67
24	AX	53	LYS	CA-C-O	-6.29	113.75	120.42
26	BB	1311	G	C3'-C2'-O2'	6.29	124.03	114.60
1	AA	850	U	O4'-C4'-C3'	6.29	110.28	104.00
28	BD	24	HIS	CB-CG-CD2	-6.29	123.03	131.20
1	AA	205	A	O3'-P-O5'	-6.28	94.58	104.00
5	AE	75	ALA	CA-C-N	6.28	128.61	120.44
5	AE	75	ALA	C-N-CA	6.28	128.61	120.44
26	BB	900	A	P-O3'-C3'	6.28	129.62	120.20
26	BB	1083	U	C4'-C3'-C2'	6.28	108.88	102.60
26	BB	2167	U	P-O5'-C5'	6.28	130.33	120.90
42	BR	88	ARG	NE-CZ-NH2	6.28	124.86	119.20
1	AA	366	A	C2'-C3'-O3'	6.28	123.12	113.70
26	BB	2118	U	O4'-C1'-N1	6.28	117.62	108.20
26	BB	229	C	C5'-C4'-C3'	6.28	125.42	116.00
13	AM	27	GLU	CB-CA-C	6.28	120.74	110.88
54	B3	3	GLN	OE1-CD-NE2	-6.28	116.32	122.60
1	AA	723	U	C4'-C3'-C2'	-6.28	96.32	102.60
1	AA	1517	G	O4'-C1'-C2'	-6.28	101.32	107.60
3	AC	22	G	C2'-C3'-O3'	6.28	118.92	109.50
3	AC	52	U	C3'-C2'-C1'	-6.28	95.22	101.50
26	BB	671	C	C1'-O4'-C4'	-6.28	103.62	109.90
26	BB	682	G	C1'-O4'-C4'	-6.28	103.62	109.90
45	BU	61	ASN	CA-CB-CG	6.28	118.88	112.60
2	AB	40	C	O5'-C5'-C4'	-6.28	102.09	111.50
26	BB	249	C	C5'-C4'-C3'	-6.28	105.79	115.20
26	BB	722	A	C5'-C4'-C3'	6.28	125.41	116.00
26	BB	1213	A	O4'-C1'-C2'	-6.28	101.33	107.60
34	BJ	41	ARG	CA-C-N	6.28	129.51	120.79
34	BJ	41	ARG	C-N-CA	6.28	129.51	120.79
26	BB	393	C	C1'-C2'-O2'	6.27	117.81	108.40
1	AA	233	C	O4'-C4'-C3'	6.27	110.27	104.00
1	AA	626	G	C4'-C3'-C2'	-6.27	96.33	102.60
1	AA	1148	U	P-O3'-C3'	6.27	129.61	120.20
1	AA	1502	A	O4'-C1'-N9	6.27	117.61	108.20
5	AE	49	PHE	CA-CB-CG	6.27	120.07	113.80
26	BB	290	U	C5'-C4'-C3'	-6.27	106.59	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	561	G	C2'-C3'-O3'	6.27	123.11	113.70
26	BB	1956	U	C5'-C4'-O4'	6.27	119.21	109.80
26	BB	2027	G	C1'-O4'-C4'	-6.27	103.63	109.90
26	BB	2610	C	O4'-C1'-N1	6.27	117.91	108.50
33	BI	57	LYS	CA-C-N	6.27	129.84	120.31
33	BI	57	LYS	C-N-CA	6.27	129.84	120.31
48	BX	93	ARG	NE-CZ-NH1	6.27	127.77	121.50
1	AA	309	A	O4'-C1'-N9	6.27	117.91	108.50
15	AO	105	GLY	CA-C-O	6.27	128.86	121.71
26	BB	717	C	O4'-C1'-N1	6.27	117.90	108.50
26	BB	1593	A	O4'-C1'-N9	6.27	117.90	108.50
26	BB	1822	C	O4'-C4'-C3'	6.27	110.27	104.00
40	BP	22	ARG	CD-NE-CZ	6.27	133.18	124.40
11	AK	114	ALA	CA-C-O	-6.27	113.28	120.24
26	BB	1411	U	O4'-C1'-C2'	-6.27	101.33	107.60
52	B1	34	THR	CA-C-N	6.27	129.14	120.49
52	B1	34	THR	C-N-CA	6.27	129.14	120.49
1	AA	147	G	O4'-C1'-C2'	-6.27	101.33	107.60
42	BR	4	ILE	CA-C-N	6.27	133.51	121.54
42	BR	4	ILE	C-N-CA	6.27	133.51	121.54
1	AA	107	G	O4'-C1'-N9	6.26	117.90	108.50
1	AA	204	G	C3'-C2'-O2'	6.26	120.10	110.70
1	AA	1026	G	O4'-C1'-C2'	-6.26	101.34	107.60
21	AU	64	LEU	CA-C-N	6.26	131.02	122.19
21	AU	64	LEU	C-N-CA	6.26	131.02	122.19
26	BB	1442	U	O4'-C4'-C3'	-6.26	97.74	104.00
26	BB	1757	A	C2'-C3'-O3'	6.26	123.10	113.70
38	BN	45	GLY	CA-C-N	6.26	129.14	120.49
38	BN	45	GLY	C-N-CA	6.26	129.14	120.49
8	AH	131	ASN	CB-CA-C	6.26	119.08	109.50
1	AA	1104	G	C1'-O4'-C4'	6.26	116.16	109.90
4	AD	2	G	C3'-C2'-C1'	6.26	107.56	101.30
26	BB	472	A	C5'-C4'-O4'	6.26	119.19	109.80
26	BB	1042	G	C3'-C2'-C1'	-6.26	95.04	101.30
26	BB	1823	G	O4'-C4'-C3'	6.26	110.26	104.00
26	BB	2699	C	O4'-C1'-C2'	-6.26	101.34	107.60
42	BR	92	ARG	NE-CZ-NH2	6.26	124.84	119.20
43	BS	110	GLU	CA-C-O	-6.26	113.91	120.55
46	BV	70	HIS	CE1-NE2-CD2	-6.26	102.74	109.00
50	BZ	17	ARG	CB-CA-C	6.26	121.25	112.11
1	AA	790	A	O4'-C1'-C2'	-6.26	99.54	105.80
1	AA	1075	U	C3'-C2'-C1'	6.26	107.56	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	70	C	C1'-O4'-C4'	-6.26	103.64	109.90
26	BB	1743	G	C4'-C3'-C2'	-6.26	96.34	102.60
35	BK	108	ILE	N-CA-C	-6.26	104.24	110.62
51	B0	38	GLN	N-CA-C	-6.26	105.30	113.12
1	AA	380	G	C3'-C2'-O2'	6.26	120.09	110.70
26	BB	523	C	O4'-C1'-N1	6.26	117.89	108.50
26	BB	1414	C	O4'-C1'-N1	6.26	117.89	108.50
26	BB	2309	A	O3'-P-O5'	6.26	113.39	104.00
26	BB	2814	A	O3'-P-O5'	6.26	113.38	104.00
30	BF	187	VAL	O-C-N	6.26	128.27	121.83
1	AA	974	A	O4'-C1'-N9	6.25	117.58	108.20
8	AH	82	HIS	CE1-NE2-CD2	-6.25	102.75	109.00
26	BB	1225	G	C2'-C3'-O3'	6.25	123.08	113.70
26	BB	1877	A	C4'-C3'-C2'	-6.25	96.34	102.60
26	BB	2814	A	O4'-C1'-N9	6.25	117.88	108.50
27	BC	170	ILE	CA-C-N	6.25	131.25	123.12
27	BC	170	ILE	C-N-CA	6.25	131.25	123.12
1	AA	340	U	C5'-C4'-O4'	6.25	119.18	109.80
3	AC	43	U	C3'-C2'-C1'	6.25	107.55	101.30
43	BS	1	ALA	CA-C-N	6.25	131.41	121.66
43	BS	1	ALA	C-N-CA	6.25	131.41	121.66
10	AJ	105	GLU	N-CA-C	-6.25	104.39	111.14
26	BB	1036	G	O3'-P-O5'	-6.25	94.63	104.00
26	BB	2141	G	N9-C1'-C2'	-6.25	102.63	112.00
26	BB	2554	U	O4'-C1'-N1	6.25	117.87	108.50
36	BL	58	ASN	CA-CB-CG	6.25	118.85	112.60
48	BX	19	ARG	NE-CZ-NH2	6.25	124.82	119.20
1	AA	439	U	O4'-C1'-C2'	6.25	113.85	107.60
26	BB	1752	C	O4'-C1'-C2'	-6.25	101.35	107.60
26	BB	1799	G	O3'-P-O5'	-6.25	94.63	104.00
26	BB	584	C	C3'-C2'-C1'	6.25	107.55	101.30
26	BB	883	G	O4'-C4'-C3'	6.25	110.25	104.00
29	BE	134	HIS	CB-CG-CD2	-6.25	123.08	131.20
1	AA	110	C	C5'-C4'-O4'	6.24	119.16	109.80
1	AA	426	U	O4'-C4'-C3'	6.24	110.24	104.00
5	AE	93	HIS	CA-C-N	6.24	133.46	121.54
5	AE	93	HIS	C-N-CA	6.24	133.46	121.54
26	BB	292	U	C4'-C3'-C2'	-6.24	96.36	102.60
29	BE	74	GLU	N-CA-CB	-6.24	104.30	111.79
44	BT	74	ILE	O-C-N	-6.24	116.58	123.20
1	AA	346	G	C5'-C4'-C3'	-6.24	106.64	116.00
5	AE	126	ASP	CA-CB-CG	6.24	118.84	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	627	A	O3'-P-O5'	-6.24	94.64	104.00
39	BO	75	GLU	CA-C-N	6.24	129.94	121.20
39	BO	75	GLU	C-N-CA	6.24	129.94	121.20
26	BB	2728	U	O4'-C1'-N1	6.24	117.86	108.50
25	BA	100	G	C4'-C3'-C2'	-6.24	96.36	102.60
26	BB	1493	C	O4'-C1'-N1	6.24	117.86	108.50
30	BF	170	ARG	NE-CZ-NH1	-6.24	115.26	121.50
1	AA	712	A	C4'-C3'-C2'	-6.24	96.36	102.60
26	BB	204	A	O4'-C1'-N9	6.24	117.56	108.20
31	BG	94	ARG	CA-C-O	-6.24	113.94	120.55
1	AA	293	G	O5'-C5'-C4'	6.24	120.85	111.50
8	AH	112	ALA	CA-C-N	6.24	128.42	120.56
8	AH	112	ALA	C-N-CA	6.24	128.42	120.56
26	BB	339	U	O4'-C1'-N1	6.24	117.85	108.50
26	BB	2586	U	O3'-P-O5'	-6.24	94.65	104.00
29	BE	31	ALA	N-CA-C	6.24	119.51	110.28
26	BB	796	C	O4'-C1'-N1	6.23	117.85	108.50
29	BE	194	PRO	N-CA-CB	6.23	109.25	103.39
1	AA	569	C	O4'-C1'-N1	6.23	117.85	108.50
1	AA	1073	U	C3'-C2'-C1'	6.23	107.53	101.30
9	AI	30	THR	CA-CB-OG1	6.23	118.95	109.60
23	AW	9	ARG	CA-C-N	6.23	128.92	120.38
23	AW	9	ARG	C-N-CA	6.23	128.92	120.38
25	BA	60	C	O4'-C1'-C2'	-6.23	101.37	107.60
32	BH	23	ILE	CA-C-N	6.23	131.79	123.00
32	BH	23	ILE	C-N-CA	6.23	131.79	123.00
46	BV	92	ASN	CA-CB-CG	6.23	118.83	112.60
1	AA	940	C	O4'-C1'-N1	6.23	117.84	108.50
26	BB	2890	G	C4'-C3'-C2'	-6.23	96.37	102.60
44	BT	74	ILE	CA-CB-CG1	6.23	120.99	110.40
44	BT	79	ARG	CA-C-N	6.23	133.44	121.54
44	BT	79	ARG	C-N-CA	6.23	133.44	121.54
25	BA	35	C	C3'-C2'-C1'	6.23	107.53	101.30
26	BB	1180	U	O4'-C1'-N1	6.23	117.84	108.50
46	BV	16	VAL	CB-CA-C	6.23	117.51	110.41
26	BB	224	U	C5'-C4'-C3'	-6.23	106.66	116.00
26	BB	1331	G	C4'-C3'-C2'	-6.23	96.37	102.60
26	BB	1628	G	C2'-C3'-O3'	6.23	123.04	113.70
32	BH	144	ALA	CA-C-O	-6.23	113.95	120.55
26	BB	188	G	O4'-C4'-C3'	6.23	110.23	104.00
34	BJ	42	LYS	CA-C-O	-6.23	114.22	121.07
1	AA	764	C	C4'-C3'-O3'	6.22	122.34	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AP	64	VAL	CA-C-O	-6.22	114.57	121.23
1	AA	1230	C	O4'-C1'-N1	6.22	117.83	108.50
26	BB	358	U	N1-C1'-C2'	-6.22	102.67	112.00
26	BB	2113	U	O4'-C1'-N1	6.22	117.83	108.50
26	BB	2549	G	C4'-C3'-C2'	-6.22	96.38	102.60
1	AA	348	G	O5'-C5'-C4'	6.22	120.83	111.50
1	AA	1364	U	C1'-O4'-C4'	6.22	116.12	109.90
26	BB	795	C	C3'-C2'-C1'	-6.22	95.08	101.30
1	AA	54	C	O3'-P-O5'	6.22	113.33	104.00
26	BB	2349	G	C4'-C3'-C2'	-6.22	96.38	102.60
26	BB	2873	A	O5'-C5'-C4'	6.22	121.03	111.70
34	BJ	87	HIS	CB-CG-CD2	-6.22	123.12	131.20
23	AW	24	ARG	O-C-N	6.22	128.47	122.07
26	BB	1213	A	P-O3'-C3'	6.22	129.53	120.20
26	BB	1523	U	C1'-O4'-C4'	6.22	116.12	109.90
26	BB	1613	G	O4'-C4'-C3'	6.22	110.22	104.00
26	BB	1824	G	C3'-C2'-C1'	6.22	107.52	101.30
6	AF	198	LYS	N-CA-CB	-6.22	100.79	110.55
21	AU	16	GLY	CA-C-O	6.22	125.46	120.30
26	BB	585	G	O4'-C4'-C3'	6.22	110.22	104.00
26	BB	780	G	C4'-C3'-C2'	-6.22	96.38	102.60
1	AA	514	C	C4'-C3'-C2'	-6.21	96.39	102.60
32	BH	36	LEU	CA-C-N	6.21	130.73	121.72
32	BH	36	LEU	C-N-CA	6.21	130.73	121.72
1	AA	822	U	O3'-P-O5'	-6.21	94.68	104.00
25	BA	43	C	C3'-C2'-C1'	6.21	107.51	101.30
26	BB	2767	C	C1'-O4'-C4'	6.21	116.11	109.90
26	BB	1038	G	C1'-O4'-C4'	6.21	116.11	109.90
26	BB	2459	A	C1'-O4'-C4'	6.21	116.11	109.90
29	BE	206	ALA	CA-C-N	6.21	130.97	120.29
29	BE	206	ALA	C-N-CA	6.21	130.97	120.29
33	BI	6	LEU	CA-C-O	-6.21	112.31	119.14
1	AA	900	A	P-O3'-C3'	6.21	129.51	120.20
3	AC	31	U	C3'-C2'-C1'	-6.21	95.09	101.30
4	AD	76	C	O4'-C4'-C3'	6.21	112.31	106.10
26	BB	1434	A	C4'-C3'-C2'	-6.21	96.39	102.60
26	BB	1538	G	O5'-C5'-C4'	-6.21	102.19	111.50
26	BB	1703	G	C1'-O4'-C4'	6.21	116.11	109.90
26	BB	2165	C	C3'-C2'-C1'	6.21	107.51	101.30
26	BB	2822	G	C5'-C4'-C3'	-6.21	106.69	116.00
40	BP	28	LEU	N-CA-C	6.21	117.71	111.07
1	AA	513	C	C1'-C2'-O2'	-6.21	99.09	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1520	U	C4'-C3'-C2'	-6.21	96.39	102.60
26	BB	2249	U	O3'-P-O5'	6.21	113.31	104.00
26	BB	2370	G	C4'-C3'-C2'	-6.21	96.39	102.60
48	BX	29	ILE	CA-CB-CG1	6.21	120.95	110.40
1	AA	641	U	N1-C1'-C2'	-6.21	104.69	114.00
15	AO	95	HIS	ND1-CE1-NE2	6.21	114.61	108.40
26	BB	278	A	C5'-C4'-O4'	6.21	119.11	109.80
9	AI	94	HIS	ND1-CE1-NE2	6.20	114.60	108.40
26	BB	2080	A	C4'-C3'-C2'	-6.20	96.40	102.60
37	BM	100	PHE	CA-CB-CG	-6.20	107.60	113.80
1	AA	257	G	C4'-C3'-C2'	-6.20	96.40	102.60
1	AA	717	U	C2'-C3'-O3'	6.20	123.00	113.70
26	BB	819	A	C5'-C4'-C3'	-6.20	106.70	116.00
26	BB	1416	G	C2'-C3'-O3'	6.20	118.80	109.50
34	BJ	129	PRO	CA-C-N	6.20	132.25	120.97
34	BJ	129	PRO	C-N-CA	6.20	132.25	120.97
1	AA	1267	C	O3'-P-O5'	6.20	113.30	104.00
22	AV	45	GLY	CA-C-O	6.20	126.19	119.06
26	BB	80	G	C4'-C3'-C2'	-6.20	96.40	102.60
26	BB	1572	A	C1'-O4'-C4'	6.20	116.10	109.90
26	BB	1925	C	C5'-C4'-C3'	-6.20	106.70	116.00
26	BB	2092	U	O4'-C1'-C2'	-6.20	99.60	105.80
26	BB	2548	U	O4'-C4'-C3'	6.20	110.20	104.00
55	B4	41	VAL	N-CA-C	6.20	118.15	111.58
1	AA	1223	C	O5'-C5'-C4'	6.20	120.80	111.50
26	BB	1532	A	C5'-C4'-O4'	6.20	119.09	109.80
22	AV	87	LYS	N-CA-C	6.20	121.02	112.90
23	AW	74	HIS	ND1-CG-CD2	6.20	112.30	106.10
26	BB	2694	G	O4'-C1'-N9	6.20	117.79	108.50
1	AA	243	A	C4'-C3'-O3'	6.19	118.69	109.40
1	AA	735	C	N1-C1'-C2'	-6.19	102.71	112.00
1	AA	856	C	C1'-O4'-C4'	-6.19	103.71	109.90
9	AI	58	HIS	CB-CG-CD2	-6.19	123.15	131.20
26	BB	872	U	C4'-C3'-C2'	-6.19	96.41	102.60
1	AA	1233	G	O4'-C4'-C3'	6.19	110.19	104.00
31	BG	41	GLU	CA-C-N	6.19	130.92	122.19
31	BG	41	GLU	C-N-CA	6.19	130.92	122.19
46	BV	60	THR	CA-CB-CG2	6.19	121.02	110.50
26	BB	48	G	C5'-C4'-O4'	6.19	119.08	109.80
26	BB	2749	A	O3'-P-O5'	-6.19	94.72	104.00
45	BU	66	ILE	CA-CB-CG1	6.19	120.92	110.40
26	BB	1644	C	O4'-C4'-C3'	6.19	110.19	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1851	U	O3'-P-O5'	-6.19	94.72	104.00
26	BB	2344	U	C4'-C3'-O3'	6.19	118.68	109.40
26	BB	2765	A	O5'-C5'-C4'	-6.19	102.22	111.50
12	AL	13	SER	CA-C-N	6.19	131.87	122.65
12	AL	13	SER	C-N-CA	6.19	131.87	122.65
27	BC	150	ALA	O-C-N	6.19	129.46	122.22
27	BC	165	ASN	O-C-N	6.19	129.87	122.94
1	AA	957	U	C2'-C3'-O3'	-6.18	104.42	113.70
1	AA	1028	C	P-O5'-C5'	6.18	130.18	120.90
4	AD	3	C	C3'-C2'-C1'	-6.18	95.12	101.30
40	BP	75	ILE	O-C-N	-6.18	115.46	121.83
41	BQ	7	ARG	NE-CZ-NH1	-6.18	115.31	121.50
44	BT	82	HIS	CA-C-O	6.18	128.89	121.65
1	AA	14	U	C4'-C3'-C2'	-6.18	96.42	102.60
26	BB	2901	C	O4'-C1'-N1	6.18	117.77	108.50
40	BP	4	ARG	N-CA-C	-6.18	104.33	112.24
23	AW	65	LEU	CA-C-N	6.18	130.18	121.53
23	AW	65	LEU	C-N-CA	6.18	130.18	121.53
26	BB	1698	A	C1'-O4'-C4'	6.18	115.88	109.70
33	BI	113	SER	CA-CB-OG	6.18	123.46	111.10
1	AA	205	A	C1'-O4'-C4'	6.18	116.08	109.90
1	AA	617	G	C5'-C4'-C3'	-6.18	106.73	116.00
1	AA	1271	A	C4'-C3'-C2'	-6.18	96.42	102.60
26	BB	270	A	C3'-C2'-C1'	6.18	107.48	101.30
35	BK	79	LEU	CA-C-O	-6.18	113.87	120.42
26	BB	682	G	C4'-C3'-C2'	-6.18	96.42	102.60
1	AA	1012	A	O4'-C1'-C2'	-6.18	101.42	107.60
1	AA	1054	C	O4'-C1'-N1	6.18	117.47	108.20
1	AA	1175	G	C5'-C4'-C3'	-6.18	106.74	116.00
26	BB	556	A	O5'-C5'-C4'	6.18	120.76	111.50
41	BQ	105	ALA	N-CA-CB	-6.18	101.02	110.16
1	AA	502	A	C3'-C2'-C1'	6.17	107.47	101.30
1	AA	1435	G	O4'-C1'-N9	6.17	117.76	108.50
26	BB	91	A	C3'-C2'-O2'	6.17	123.86	114.60
26	BB	1275	A	P-O3'-C3'	6.17	129.46	120.20
1	AA	485	U	P-O3'-C3'	6.17	129.46	120.20
53	B2	9	TYR	CA-C-N	6.17	128.87	120.54
53	B2	9	TYR	C-N-CA	6.17	128.87	120.54
1	AA	94	G	O3'-P-O5'	-6.17	94.74	104.00
1	AA	162	A	C5'-C4'-C3'	-6.17	106.74	116.00
1	AA	244	U	C1'-C2'-O2'	6.17	121.06	111.80
25	BA	84	G	C4'-C3'-C2'	-6.17	96.43	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	3	U	O4'-C1'-C2'	-6.17	101.43	107.60
26	BB	1661	G	C3'-C2'-C1'	6.17	107.47	101.30
28	BD	1	ALA	CB-CA-C	6.17	119.76	110.50
32	BH	77	GLY	O-C-N	6.17	128.10	122.18
1	AA	884	U	O4'-C4'-C3'	6.17	112.27	106.10
25	BA	24	G	C3'-C2'-C1'	6.17	107.67	101.50
26	BB	34	U	C1'-C2'-O2'	-6.17	102.55	111.80
26	BB	279	A	C4'-C3'-C2'	-6.17	96.43	102.60
26	BB	1137	G	C4'-C3'-C2'	-6.17	96.43	102.60
26	BB	2548	U	C1'-O4'-C4'	-6.17	103.73	109.90
42	BR	83	ILE	CA-CB-CG2	6.17	120.99	110.50
6	AF	181	ILE	CB-CA-C	6.17	120.03	110.28
8	AH	159	SER	O-C-N	6.17	128.66	122.12
26	BB	2649	C	C3'-C2'-O2'	6.17	119.95	110.70
26	BB	2721	A	O4'-C4'-C3'	6.17	110.17	104.00
38	BN	7	SER	CA-C-N	6.17	126.14	119.78
38	BN	7	SER	C-N-CA	6.17	126.14	119.78
26	BB	1683	U	O4'-C1'-N1	6.17	117.75	108.50
26	BB	2155	U	O4'-C1'-N1	6.17	117.75	108.50
26	BB	2613	U	O4'-C1'-N1	6.17	117.45	108.20
29	BE	65	ALA	N-CA-C	6.17	118.08	111.36
31	BG	56	LEU	CA-C-N	6.17	128.54	120.28
31	BG	56	LEU	C-N-CA	6.17	128.54	120.28
1	AA	547	A	C5'-C4'-C3'	-6.17	105.95	115.20
1	AA	1047	G	O4'-C4'-C3'	6.17	110.17	104.00
26	BB	293	U	P-O5'-C5'	6.17	130.15	120.90
26	BB	2902	C	C4'-C3'-C2'	-6.17	96.44	102.60
9	AI	37	HIS	CA-CB-CG	6.16	119.96	113.80
15	AO	34	THR	CA-CB-CG2	6.16	120.98	110.50
23	AW	23	ARG	NH1-CZ-NH2	-6.16	111.29	119.30
26	BB	47	C	C4'-C3'-C2'	-6.16	96.44	102.60
26	BB	2892	G	O4'-C4'-C3'	6.16	110.16	104.00
26	BB	233	A	O4'-C4'-C3'	6.16	110.16	104.00
26	BB	299	A	C2'-C3'-O3'	-6.16	104.46	113.70
26	BB	968	C	C4'-C3'-C2'	-6.16	96.44	102.60
26	BB	2550	G	C5'-C4'-O4'	6.16	119.04	109.80
27	BC	146	THR	CA-CB-CG2	6.16	120.97	110.50
16	AP	11	HIS	CA-CB-CG	6.16	119.96	113.80
26	BB	1189	A	O3'-P-O5'	6.16	113.24	104.00
26	BB	2091	C	C4'-C3'-O3'	6.16	122.24	113.00
28	BD	6	LYS	CA-C-N	6.16	131.48	120.88
28	BD	6	LYS	C-N-CA	6.16	131.48	120.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BP	108	ALA	O-C-N	6.16	126.43	121.38
26	BB	189	G	O4'-C4'-C3'	6.16	110.16	104.00
26	BB	2749	A	C5'-C4'-C3'	-6.16	106.76	116.00
29	BE	54	ALA	N-CA-C	6.16	119.07	109.52
31	BG	31	GLU	CB-CA-C	6.16	119.96	109.80
35	BK	124	MET	N-CA-C	6.16	117.66	111.07
38	BN	46	VAL	N-CA-C	6.16	118.32	109.51
24	AX	67	THR	N-CA-C	-6.16	105.25	112.89
1	AA	652	U	C1'-C2'-O2'	-6.16	102.56	111.80
1	AA	1371	G	O4'-C4'-C3'	-6.16	97.84	104.00
10	AJ	93	VAL	CA-C-O	-6.16	114.65	121.05
26	BB	7	G	C2'-C3'-O3'	-6.16	104.47	113.70
26	BB	572	A	O4'-C4'-C3'	6.16	110.16	104.00
26	BB	631	A	C2'-C3'-O3'	-6.16	104.47	113.70
26	BB	925	A	O4'-C4'-C3'	6.16	110.16	104.00
26	BB	2179	C	C5'-C4'-C3'	-6.16	106.77	116.00
26	BB	2874	C	C3'-C2'-C1'	6.16	107.46	101.30
48	BX	16	ALA	N-CA-C	6.16	118.50	111.11
1	AA	1083	U	O5'-C5'-C4'	-6.15	102.27	111.50
10	AJ	110	ARG	NE-CZ-NH2	-6.15	113.66	119.20
26	BB	137	U	O5'-C5'-C4'	6.15	120.73	111.50
26	BB	717	C	C2'-C3'-O3'	-6.15	104.47	113.70
37	BM	82	ASN	OD1-CG-ND2	-6.15	116.45	122.60
51	B0	20	ASN	CA-CB-CG	6.15	118.75	112.60
1	AA	171	A	C4'-C3'-O3'	-6.15	103.77	113.00
1	AA	382	A	C5'-C4'-C3'	6.15	125.23	116.00
1	AA	1113	C	C1'-O4'-C4'	6.15	116.05	109.90
26	BB	434	U	C2'-C3'-O3'	6.15	118.73	109.50
26	BB	580	U	C1'-C2'-O2'	-6.15	99.17	108.40
26	BB	2900	A	C2'-C3'-O3'	-6.15	104.47	113.70
26	BB	2626	C	O4'-C1'-C2'	-6.15	101.45	107.60
1	AA	325	A	N9-C1'-C2'	-6.15	102.78	112.00
3	AC	23	C	C3'-C2'-C1'	6.15	107.45	101.30
5	AE	45	THR	N-CA-C	6.15	120.85	113.23
26	BB	2162	G	C3'-C2'-C1'	6.15	107.45	101.30
26	BB	1688	U	C4'-C3'-O3'	-6.14	103.78	113.00
29	BE	3	GLY	O-C-N	6.14	128.63	123.29
38	BN	132	ARG	NE-CZ-NH2	6.14	124.73	119.20
3	AC	22	G	C3'-C2'-C1'	6.14	107.64	101.50
26	BB	869	G	C4'-C3'-C2'	-6.14	96.46	102.60
26	BB	2349	G	C2'-C3'-O3'	-6.14	104.48	113.70
29	BE	18	ASP	CA-C-O	-6.14	112.00	119.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	941	A	C1'-C2'-O2'	6.14	117.61	108.40
1	AA	558	G	C3'-C2'-O2'	6.14	119.91	110.70
1	AA	625	U	C1'-C2'-O2'	-6.14	99.19	108.40
5	AE	216	VAL	CA-C-N	6.14	129.01	120.29
5	AE	216	VAL	C-N-CA	6.14	129.01	120.29
16	AP	66	GLY	CA-C-O	-6.14	113.77	120.40
26	BB	2559	C	P-O3'-C3'	6.14	129.41	120.20
1	AA	588	G	C4'-C3'-C2'	-6.14	96.46	102.60
26	BB	2691	C	C1'-C2'-O2'	-6.14	99.19	108.40
28	BD	98	GLY	CA-C-O	-6.14	112.33	118.96
1	AA	1026	G	C3'-C2'-C1'	6.14	107.44	101.30
6	AF	54	ILE	O-C-N	-6.14	116.44	123.07
6	AF	138	GLN	O-C-N	6.14	128.39	122.07
7	AG	80	ARG	NE-CZ-NH2	6.14	124.72	119.20
17	AQ	84	ARG	CA-C-N	6.14	128.50	120.28
17	AQ	84	ARG	C-N-CA	6.14	128.50	120.28
26	BB	901	C	C5'-C4'-C3'	-6.14	106.80	116.00
26	BB	1565	C	C3'-C2'-C1'	-6.14	95.36	101.50
26	BB	2127	G	O5'-C5'-C4'	6.14	120.70	111.50
5	AE	20	ARG	N-CA-C	6.13	120.38	113.02
5	AE	87	ASP	CA-CB-CG	6.13	118.73	112.60
6	AF	116	ALA	CA-C-N	6.13	128.82	120.54
6	AF	116	ALA	C-N-CA	6.13	128.82	120.54
3	AC	27	A	O4'-C1'-N9	6.13	117.70	108.50
26	BB	502	A	P-O5'-C5'	6.13	130.10	120.90
1	AA	271	C	O3'-P-O5'	6.13	113.19	104.00
2	AB	72	U	N1-C1'-C2'	-6.13	104.81	114.00
9	AI	77	THR	CA-C-O	-6.13	114.06	120.55
26	BB	2475	C	C3'-C2'-C1'	6.13	107.43	101.30
51	B0	47	ARG	NE-CZ-NH1	-6.13	115.37	121.50
1	AA	1231	G	O4'-C1'-C2'	-6.13	101.47	107.60
30	BF	175	ILE	N-CA-CB	-6.13	101.96	110.05
32	BH	133	LYS	CA-C-N	6.13	130.22	120.97
32	BH	133	LYS	C-N-CA	6.13	130.22	120.97
35	BK	62	ALA	CA-C-O	-6.13	114.01	120.63
42	BR	77	SER	CA-C-N	6.13	125.75	119.56
42	BR	77	SER	C-N-CA	6.13	125.75	119.56
26	BB	2558	C	C5'-C4'-O4'	6.12	118.99	109.80
1	AA	569	C	C3'-C2'-C1'	-6.12	95.18	101.30
26	BB	179	C	O4'-C1'-N1	6.12	117.69	108.50
26	BB	1127	A	O4'-C4'-C3'	6.12	110.12	104.00
26	BB	1269	A	C5'-C4'-C3'	-6.12	106.81	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1275	A	O4'-C1'-N9	6.12	117.69	108.50
26	BB	2115	G	N9-C1'-C2'	-6.12	102.81	112.00
1	AA	1284	C	O4'-C1'-N1	6.12	117.68	108.50
7	AG	169	TRP	CD2-CE3-CZ3	6.12	126.56	118.60
26	BB	156	A	C1'-O4'-C4'	-6.12	103.78	109.90
26	BB	473	G	N9-C1'-C2'	6.12	121.18	112.00
26	BB	608	A	C4'-C3'-C2'	-6.12	96.48	102.60
26	BB	1837	C	C5'-C4'-C3'	-6.12	106.82	116.00
26	BB	2721	A	O4'-C1'-N9	6.12	117.68	108.50
40	BP	117	ASP	CA-C-N	6.12	130.06	121.24
40	BP	117	ASP	C-N-CA	6.12	130.06	121.24
1	AA	918	A	C3'-C2'-C1'	6.12	107.42	101.30
1	AA	1059	C	O4'-C4'-C3'	6.12	110.12	104.00
25	BA	91	C	O4'-C1'-N1	6.12	117.68	108.50
26	BB	1270	C	C2'-C3'-O3'	6.12	118.68	109.50
26	BB	2732	G	O3'-P-O5'	-6.12	94.82	104.00
1	AA	926	G	O3'-P-O5'	6.12	113.18	104.00
7	AG	46	ARG	CA-C-N	6.12	133.23	121.54
7	AG	46	ARG	C-N-CA	6.12	133.23	121.54
26	BB	334	C	O5'-C5'-C4'	-6.12	102.32	111.50
26	BB	799	G	O5'-C5'-C4'	-6.12	102.32	111.50
26	BB	1459	G	O3'-P-O5'	6.12	113.18	104.00
26	BB	2033	A	C4'-C3'-C2'	-6.12	96.48	102.60
26	BB	2405	G	O4'-C1'-C2'	-6.12	101.48	107.60
26	BB	2691	C	N1-C1'-C2'	-6.12	102.82	112.00
1	AA	941	G	O4'-C1'-N9	6.12	117.68	108.50
1	AA	1209	C	C5'-C4'-C3'	6.12	125.18	116.00
2	AB	31	U	C4'-C3'-C2'	-6.12	96.48	102.60
26	BB	2347	C	O4'-C1'-N1	6.12	117.68	108.50
1	AA	1098	C	O4'-C1'-N1	6.12	117.67	108.50
26	BB	869	G	C4'-C3'-O3'	6.12	122.17	113.00
26	BB	1023	U	O4'-C1'-N1	6.12	117.67	108.50
36	BL	93	ILE	CA-C-O	-6.12	113.67	120.46
26	BB	476	G	C3'-C2'-C1'	-6.11	95.19	101.30
26	BB	1209	U	O3'-P-O5'	-6.11	94.83	104.00
26	BB	2673	G	C3'-C2'-O2'	6.11	119.87	110.70
38	BN	101	ILE	N-CA-C	6.11	118.06	111.58
1	AA	466	A	C1'-O4'-C4'	-6.11	103.79	109.90
26	BB	392	U	C2'-C3'-O3'	6.11	122.87	113.70
26	BB	2525	G	C3'-C2'-C1'	6.11	107.41	101.30
1	AA	266	G	O3'-P-O5'	6.11	113.17	104.00
1	AA	484	G	N9-C1'-C2'	-6.11	104.83	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AF	175	HIS	CE1-NE2-CD2	-6.11	102.89	109.00
26	BB	963	U	O4'-C1'-N1	6.11	117.67	108.50
26	BB	1398	C	O4'-C4'-C3'	6.11	110.11	104.00
26	BB	1816	C	C5'-C4'-O4'	6.11	118.27	109.10
26	BB	1935	G	C4'-C3'-C2'	-6.11	96.49	102.60
26	BB	2882	A	C4'-C3'-C2'	-6.11	96.49	102.60
1	AA	600	A	C5'-C4'-C3'	-6.11	106.84	116.00
4	AD	60	A	O4'-C1'-N9	6.11	117.66	108.50
1	AA	1534	A	C4'-C3'-C2'	-6.11	96.49	102.60
26	BB	1428	C	O5'-C5'-C4'	-6.11	102.54	111.70
26	BB	2178	C	C4'-C3'-C2'	-6.11	96.49	102.60
47	BW	35	VAL	N-CA-C	-6.11	98.83	107.75
26	BB	1355	G	O4'-C1'-N9	6.11	117.66	108.50
44	BT	57	GLY	O-C-N	6.11	127.91	123.27
1	AA	259	G	C3'-C2'-O2'	6.10	119.86	110.70
22	AV	57	VAL	CB-CA-C	6.10	116.05	110.13
26	BB	674	G	N9-C1'-C2'	-6.10	102.84	112.00
26	BB	1650	A	C3'-C2'-C1'	6.10	107.40	101.30
26	BB	2708	G	N9-C1'-C2'	-6.10	102.84	112.00
26	BB	469	G	O3'-P-O5'	-6.10	94.85	104.00
26	BB	653	U	C2'-C3'-O3'	-6.10	104.55	113.70
26	BB	1136	G	P-O3'-C3'	6.10	129.35	120.20
26	BB	1155	A	C4'-C3'-C2'	-6.10	96.50	102.60
26	BB	2063	C	O4'-C4'-C3'	6.10	110.10	104.00
35	BK	32	VAL	CA-CB-CG1	6.10	120.78	110.40
1	AA	854	U	C5'-C4'-O4'	-6.10	100.65	109.80
1	AA	381	C	P-O3'-C3'	6.10	129.35	120.20
2	AB	13	C	C2'-C3'-O3'	-6.10	104.55	113.70
10	AJ	44	SER	CA-C-N	6.10	128.92	120.63
10	AJ	44	SER	C-N-CA	6.10	128.92	120.63
26	BB	895	U	C5'-C4'-C3'	-6.10	106.05	115.20
1	AA	1254	A	O4'-C4'-C3'	6.10	110.10	104.00
4	AD	47	A	C2'-C3'-O3'	6.10	118.65	109.50
7	AG	106	PHE	O-C-N	6.10	129.10	122.15
26	BB	1791	A	C2'-C3'-O3'	6.10	122.85	113.70
26	BB	2373	G	O4'-C4'-C3'	6.10	110.10	104.00
28	BD	27	LYS	CA-C-N	6.10	126.44	119.92
28	BD	27	LYS	C-N-CA	6.10	126.44	119.92
30	BF	186	VAL	CB-CA-C	6.10	119.67	111.19
35	BK	54	ILE	CA-C-N	6.10	126.30	119.90
35	BK	54	ILE	C-N-CA	6.10	126.30	119.90
53	B2	42	PRO	N-CA-CB	6.10	109.78	103.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	895	G	O4'-C1'-N9	6.10	117.64	108.50
9	AI	69	GLU	N-CA-C	6.10	118.43	111.11
26	BB	744	U	C2'-C3'-O3'	6.10	122.84	113.70
26	BB	1245	G	C5'-C4'-O4'	6.10	118.94	109.80
26	BB	2337	G	C1'-O4'-C4'	-6.10	103.80	109.90
1	AA	1405	G	C1'-O4'-C4'	-6.09	103.81	109.90
4	AD	43	G	O5'-C5'-C4'	-6.09	102.36	111.50
10	AJ	95	ARG	NE-CZ-NH1	-6.09	115.41	121.50
26	BB	1245	G	C5'-C4'-C3'	-6.09	106.86	116.00
26	BB	1953	A	C5'-C4'-O4'	6.09	118.94	109.80
29	BE	155	VAL	O-C-N	-6.09	115.97	123.10
1	AA	502	A	O5'-C5'-C4'	-6.09	102.36	111.50
1	AA	285	C	O3'-P-O5'	6.09	113.14	104.00
1	AA	1052	U	C5'-C4'-O4'	6.09	118.94	109.80
26	BB	1247	A	O4'-C1'-N9	6.09	117.34	108.20
26	BB	1490	A	C3'-C2'-O2'	6.09	119.84	110.70
26	BB	1514	G	C3'-C2'-C1'	6.09	107.39	101.30
39	BO	46	ILE	CA-C-N	6.09	128.69	120.65
39	BO	46	ILE	C-N-CA	6.09	128.69	120.65
45	BU	16	LYS	N-CA-C	-6.09	104.55	112.23
26	BB	211	C	O4'-C1'-N1	6.09	117.64	108.50
26	BB	383	C	C5'-C4'-C3'	-6.09	106.87	116.00
49	BY	56	HIS	CB-CA-C	6.09	122.54	110.42
1	AA	95	C	C1'-O4'-C4'	-6.09	103.81	109.90
26	BB	262	A	C3'-C2'-O2'	6.09	119.83	110.70
26	BB	422	A	C1'-C2'-O2'	-6.09	99.27	108.40
26	BB	1342	A	C1'-C2'-O2'	6.09	120.93	111.80
26	BB	1461	C	O4'-C4'-C3'	-6.09	97.91	104.00
1	AA	1119	C	O4'-C1'-N1	6.09	117.63	108.50
20	AT	69	THR	CA-C-N	6.09	131.50	122.86
20	AT	69	THR	C-N-CA	6.09	131.50	122.86
26	BB	37	C	C1'-O4'-C4'	6.09	115.99	109.90
42	BR	64	SER	O-C-N	6.09	129.56	122.25
44	BT	51	VAL	CA-C-O	6.09	122.74	119.15
1	AA	1212	U	C3'-C2'-C1'	-6.08	95.42	101.50
3	AC	17	U	O4'-C1'-N1	6.08	117.63	108.50
1	AA	4	U	P-O5'-C5'	6.08	130.02	120.90
1	AA	781	A	O4'-C1'-N9	6.08	117.62	108.50
1	AA	1050	G	C1'-C2'-O2'	-6.08	99.28	108.40
7	AG	128	VAL	N-CA-C	6.08	117.14	108.93
26	BB	771	G	O5'-C5'-C4'	6.08	120.63	111.50
26	BB	1858	A	C4'-C3'-C2'	6.08	108.68	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2168	G	O5'-C5'-C4'	6.08	120.63	111.50
1	AA	27	G	O4'-C1'-C2'	-6.08	101.52	107.60
1	AA	1222	G	N9-C1'-C2'	6.08	121.12	112.00
5	AE	24	PRO	N-CA-CB	6.08	110.11	103.30
24	AX	60	ALA	N-CA-C	6.08	118.70	111.71
26	BB	34	U	C3'-C2'-O2'	6.08	123.72	114.60
26	BB	162	U	C1'-O4'-C4'	-6.08	103.62	109.70
26	BB	1406	U	O3'-P-O5'	-6.08	94.88	104.00
26	BB	1549	A	N9-C1'-C2'	-6.08	102.88	112.00
26	BB	2323	G	O4'-C1'-C2'	-6.08	101.52	107.60
26	BB	2418	A	C4'-C3'-O3'	6.08	122.12	113.00
26	BB	2600	A	C4'-C3'-O3'	-6.08	103.88	113.00
1	AA	1046	A	C5'-C4'-C3'	-6.08	106.88	116.00
1	AA	1148	U	O4'-C1'-N1	6.08	117.62	108.50
10	AJ	174	LEU	CB-CA-C	6.08	119.81	109.72
26	BB	158	U	C3'-C2'-C1'	6.08	107.38	101.30
26	BB	974	G	O4'-C4'-C3'	6.08	112.18	106.10
26	BB	1412	U	O5'-C5'-C4'	6.08	120.62	111.50
26	BB	2610	C	C5'-C4'-O4'	6.08	118.92	109.80
35	BK	117	THR	CA-CB-OG1	6.08	118.72	109.60
26	BB	1510	G	N9-C1'-C2'	6.08	121.12	112.00
1	AA	816	A	C4'-C3'-O3'	-6.08	103.89	113.00
1	AA	1226	C	P-O3'-C3'	6.08	129.31	120.20
26	BB	304	U	C5'-C4'-C3'	-6.08	106.89	116.00
1	AA	203	G	C3'-C2'-C1'	-6.07	95.23	101.30
5	AE	136	ARG	NE-CZ-NH1	6.07	127.57	121.50
26	BB	202	U	C5'-C4'-O4'	6.07	118.91	109.80
26	BB	2386	A	O4'-C1'-N9	6.07	117.61	108.50
1	AA	1014	A	P-O3'-C3'	6.07	129.31	120.20
26	BB	1027	A	C1'-O4'-C4'	-6.07	103.83	109.90
26	BB	2606	C	P-O5'-C5'	6.07	130.01	120.90
30	BF	17	THR	O-C-N	6.07	128.56	122.12
1	AA	559	A	O4'-C1'-N9	6.07	117.31	108.20
1	AA	623	C	C4'-C3'-C2'	-6.07	96.53	102.60
2	AB	24	G	C5'-C4'-O4'	6.07	118.91	109.80
8	AH	120	HIS	ND1-CE1-NE2	6.07	114.47	108.40
10	AJ	58	LEU	N-CA-C	6.07	120.69	113.16
26	BB	106	C	C3'-C2'-O2'	6.07	119.81	110.70
26	BB	725	G	O4'-C1'-C2'	-6.07	101.53	107.60
30	BF	106	LYS	O-C-N	6.07	128.55	122.12
1	AA	198	G	C3'-C2'-C1'	-6.07	95.23	101.30
8	AH	60	GLN	CA-C-N	6.07	128.33	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AH	60	GLN	C-N-CA	6.07	128.33	120.44
26	BB	579	G	O4'-C4'-C3'	6.07	110.07	104.00
26	BB	823	C	C5'-C4'-O4'	6.07	118.90	109.80
51	B0	23	ARG	NE-CZ-NH2	6.07	124.66	119.20
1	AA	245	U	O4'-C1'-C2'	-6.07	101.53	107.60
1	AA	279	A	C4'-C3'-C2'	6.07	108.67	102.60
24	AX	39	LYS	CA-C-N	6.07	126.24	119.32
24	AX	39	LYS	C-N-CA	6.07	126.24	119.32
26	BB	661	A	O4'-C1'-N9	6.07	117.60	108.50
26	BB	1246	A	O4'-C4'-C3'	6.07	110.07	104.00
26	BB	2133	G	C3'-C2'-C1'	6.07	107.56	101.50
25	BA	36	C	C2'-C3'-O3'	6.06	122.80	113.70
26	BB	459	U	O5'-C5'-C4'	6.06	120.59	111.50
26	BB	991	C	C1'-O4'-C4'	6.06	115.96	109.90
26	BB	1860	G	O4'-C4'-C3'	-6.06	97.94	104.00
26	BB	2531	A	C3'-C2'-C1'	6.06	107.36	101.30
1	AA	561	U	C3'-C2'-C1'	6.06	107.36	101.30
1	AA	694	A	C4'-C3'-C2'	-6.06	96.54	102.60
27	BC	109	MET	N-CA-C	-6.06	98.64	108.52
1	AA	497	G	P-O3'-C3'	6.06	129.29	120.20
1	AA	1538	C	C1'-O4'-C4'	-6.06	103.84	109.90
10	AJ	30	MET	CB-CA-C	6.06	119.58	109.89
18	AR	27	GLN	N-CA-C	6.06	117.89	111.28
26	BB	648	G	O4'-C4'-C3'	6.06	110.06	104.00
26	BB	831	G	O4'-C1'-C2'	-6.06	101.54	107.60
28	BD	134	ILE	N-CA-CB	-6.06	105.13	111.61
1	AA	415	A	C1'-O4'-C4'	6.06	115.96	109.90
1	AA	573	A	C5'-C4'-C3'	-6.06	106.91	116.00
1	AA	1489	G	C4'-C3'-O3'	-6.06	103.92	113.00
26	BB	714	U	C1'-C2'-O2'	-6.06	99.31	108.40
26	BB	1232	G	O5'-C5'-C4'	-6.06	102.41	111.50
26	BB	1561	C	C2'-C3'-O3'	-6.06	104.61	113.70
26	BB	407	G	O4'-C1'-C2'	-6.06	101.54	107.60
33	BI	100	ALA	CA-C-O	-6.06	114.44	120.80
1	AA	587	G	O4'-C1'-C2'	6.05	111.85	105.80
1	AA	714	G	N9-C1'-C2'	-6.05	102.92	112.00
5	AE	226	GLN	CA-C-N	6.05	129.00	120.28
5	AE	226	GLN	C-N-CA	6.05	129.00	120.28
26	BB	90	U	C4'-C3'-C2'	-6.05	96.55	102.60
26	BB	1946	U	O4'-C4'-C3'	6.05	110.05	104.00
27	BC	69	THR	O-C-N	-6.05	115.89	122.79
42	BR	109	ILE	N-CA-C	6.05	118.17	109.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	B5	6	GLN	O-C-N	-6.05	117.23	121.65
26	BB	287	G	C1'-O4'-C4'	-6.05	103.85	109.90
26	BB	488	G	O4'-C1'-C2'	6.05	113.65	107.60
26	BB	1395	A	O4'-C1'-C2'	-6.05	99.75	105.80
26	BB	2450	A	O3'-P-O5'	-6.05	94.92	104.00
37	BM	98	ARG	CA-C-O	6.05	127.24	120.70
39	BO	8	LYS	N-CA-C	6.05	118.65	111.33
1	AA	3	A	C3'-C2'-C1'	6.05	107.55	101.50
26	BB	218	A	O5'-C5'-C4'	6.05	120.58	111.50
26	BB	1386	C	O4'-C1'-N1	6.05	117.58	108.50
26	BB	1439	A	O4'-C4'-C3'	6.05	110.05	104.00
29	BE	156	PHE	CA-CB-CG	6.05	119.85	113.80
50	BZ	41	SER	CA-C-O	6.05	126.93	119.79
1	AA	995	C	O4'-C4'-C3'	6.05	110.05	104.00
1	AA	1342	C	O4'-C1'-N1	6.05	117.58	108.50
15	AO	76	HIS	ND1-CG-CD2	6.05	112.15	106.10
18	AR	70	LYS	N-CA-CB	-6.05	100.90	110.28
26	BB	1532	A	C1'-O4'-C4'	6.05	115.95	109.90
26	BB	2232	C	C5'-C4'-C3'	-6.05	106.93	116.00
1	AA	326	G	P-O5'-C5'	6.05	129.97	120.90
1	AA	806	C	C3'-C2'-O2'	6.05	119.77	110.70
1	AA	980	C	O4'-C1'-C2'	-6.05	101.55	107.60
1	AA	1268	G	O4'-C4'-C3'	6.05	110.05	104.00
25	BA	84	G	C2'-C3'-O3'	6.05	122.77	113.70
43	BS	75	TYR	O-C-N	-6.05	115.71	122.12
1	AA	186	C	O4'-C1'-C2'	-6.04	101.56	107.60
6	AF	77	GLY	CA-C-N	6.04	130.87	121.26
6	AF	77	GLY	C-N-CA	6.04	130.87	121.26
34	BJ	67	PRO	N-CD-CG	6.04	112.27	103.20
41	BQ	106	LEU	CA-C-N	6.04	129.50	120.31
41	BQ	106	LEU	C-N-CA	6.04	129.50	120.31
3	AC	41	A	C2'-C3'-O3'	6.04	118.57	109.50
24	AX	8	ASN	O-C-N	6.04	130.36	122.93
26	BB	70	G	O4'-C1'-C2'	-6.04	99.76	105.80
26	BB	140	C	C1'-O4'-C4'	-6.04	103.66	109.70
26	BB	916	G	C5'-C4'-C3'	-6.04	106.94	116.00
26	BB	1623	G	O4'-C4'-C3'	6.04	110.04	104.00
26	BB	1816	C	C2'-C3'-O3'	6.04	118.56	109.50
26	BB	2891	U	C1'-O4'-C4'	6.04	115.94	109.90
28	BD	63	ILE	N-CA-C	6.04	116.78	110.62
50	BZ	63	ILE	CB-CA-C	6.04	119.62	111.88
1	AA	403	C	O4'-C1'-C2'	-6.04	101.56	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	657	U	O4'-C1'-N1	6.04	117.56	108.50
10	AJ	94	ARG	NE-CZ-NH1	6.04	127.54	121.50
13	AM	25	ILE	N-CA-C	-6.04	104.46	110.62
15	AO	26	CYS	CA-C-N	6.04	125.59	119.19
15	AO	26	CYS	C-N-CA	6.04	125.59	119.19
21	AU	51	GLN	CA-C-N	6.04	128.38	120.28
21	AU	51	GLN	C-N-CA	6.04	128.38	120.28
26	BB	1385	A	O4'-C1'-N9	6.04	117.26	108.20
26	BB	2397	G	C4'-C3'-C2'	-6.04	96.56	102.60
26	BB	2596	U	O4'-C1'-C2'	6.04	113.64	107.60
33	BI	90	LEU	CA-C-N	6.04	128.62	120.65
33	BI	90	LEU	C-N-CA	6.04	128.62	120.65
1	AA	1118	U	C5'-C4'-C3'	-6.04	106.94	116.00
26	BB	480	A	O5'-C5'-C4'	-6.04	102.44	111.50
1	AA	1108	G	P-O5'-C5'	-6.04	111.84	120.90
18	AR	16	ARG	N-CA-CB	-6.04	102.05	110.38
26	BB	2530	A	C3'-C2'-C1'	-6.04	95.26	101.30
54	B3	54	ILE	O-C-N	6.04	130.12	122.57
1	AA	393	A	C3'-C2'-C1'	6.04	107.34	101.30
2	AB	48	U	C5'-C4'-O4'	6.04	118.85	109.80
26	BB	199	A	O3'-P-O5'	-6.04	94.95	104.00
26	BB	550	C	O3'-P-O5'	-6.04	94.95	104.00
26	BB	864	G	C5'-C4'-O4'	6.04	118.85	109.80
26	BB	1554	U	N1-C1'-C2'	-6.04	104.95	114.00
26	BB	16	C	C1'-C2'-O2'	-6.03	99.35	108.40
26	BB	359	G	O4'-C1'-C2'	-6.03	101.57	107.60
26	BB	2732	G	P-O5'-C5'	6.03	129.95	120.90
30	BF	33	VAL	CA-CB-CG1	6.03	120.66	110.40
1	AA	1150	A	C5'-C4'-C3'	-6.03	106.95	116.00
34	BJ	61	ARG	NE-CZ-NH2	-6.03	113.77	119.20
20	AT	68	LYS	CA-C-N	6.03	130.96	122.46
20	AT	68	LYS	C-N-CA	6.03	130.96	122.46
21	AU	52	ARG	CA-C-N	6.03	130.93	120.68
21	AU	52	ARG	C-N-CA	6.03	130.93	120.68
26	BB	974	G	C3'-C2'-O2'	-6.03	105.56	114.60
26	BB	1436	G	C4'-C3'-O3'	-6.03	103.95	113.00
26	BB	2268	A	C5'-C4'-C3'	-6.03	106.95	116.00
26	BB	2745	C	O4'-C1'-N1	6.03	117.55	108.50
27	BC	80	GLN	O-C-N	-6.03	114.52	122.42
45	BU	68	ASP	N-CA-C	-6.03	105.68	113.16
1	AA	344	A	C4'-C3'-O3'	-6.03	100.36	109.40
1	AA	1397	C	C3'-C2'-C1'	-6.03	95.47	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1899	A	C1'-O4'-C4'	-6.03	103.67	109.70
1	AA	226	G	C3'-C2'-C1'	-6.03	95.27	101.30
3	AC	32	U	P-O3'-C3'	6.03	129.24	120.20
13	AM	20	GLN	OE1-CD-NE2	-6.03	116.57	122.60
25	BA	26	C	C4'-C3'-C2'	6.03	108.63	102.60
26	BB	490	C	C1'-O4'-C4'	-6.03	103.87	109.90
26	BB	1205	A	C3'-C2'-O2'	-6.03	105.56	114.60
1	AA	638	U	C4'-C3'-C2'	-6.03	96.58	102.60
1	AA	1374	A	C4'-C3'-C2'	-6.03	96.58	102.60
26	BB	2078	C	C5'-C4'-O4'	6.03	118.84	109.80
26	BB	2270	A	P-O5'-C5'	6.03	129.94	120.90
29	BE	204	LYS	CB-CA-C	6.03	117.02	108.76
26	BB	292	U	C2'-C3'-O3'	-6.02	104.66	113.70
1	AA	31	G	O4'-C1'-N9	6.02	117.23	108.20
1	AA	552	U	O3'-P-O5'	6.02	113.03	104.00
26	BB	1512	C	O4'-C1'-N1	6.02	117.53	108.50
26	BB	2403	C	N1-C1'-C2'	-6.02	102.97	112.00
26	BB	2860	A	O4'-C1'-C2'	-6.02	101.58	107.60
36	BL	90	GLU	N-CA-C	-6.02	104.83	111.82
26	BB	1576	U	O4'-C1'-C2'	6.02	113.62	107.60
26	BB	1888	G	O4'-C1'-C2'	-6.02	101.58	107.60
40	BP	48	VAL	CA-C-O	6.02	126.24	119.92
26	BB	2079	U	O4'-C4'-C3'	-6.02	97.98	104.00
26	BB	2570	G	C2'-C3'-O3'	6.02	122.73	113.70
1	AA	130	A	C2'-C3'-O3'	6.02	118.53	109.50
6	AF	31	ASN	CA-C-O	-6.02	113.56	120.24
11	AK	57	GLU	CA-C-N	6.02	131.30	123.00
11	AK	57	GLU	C-N-CA	6.02	131.30	123.00
26	BB	2582	G	O4'-C1'-C2'	-6.02	101.58	107.60
38	BN	56	PRO	N-CD-CG	6.02	112.23	103.20
48	BX	51	GLN	CB-CG-CD	6.02	122.83	112.60
26	BB	8	C	O4'-C4'-C3'	-6.02	97.98	104.00
26	BB	1674	G	C1'-C2'-O2'	6.02	120.82	111.80
36	BL	27	ARG	CA-C-O	-6.02	112.69	119.79
1	AA	556	C	O4'-C1'-N1	6.01	117.52	108.50
1	AA	1382	C	P-O3'-C3'	6.01	129.22	120.20
26	BB	794	A	C3'-C2'-O2'	6.01	119.72	110.70
26	BB	1765	U	N1-C1'-C2'	-6.01	102.98	112.00
26	BB	1998	A	C1'-C2'-O2'	6.01	117.42	108.40
1	AA	883	C	C4'-C3'-C2'	-6.01	96.59	102.60
26	BB	593	U	C4'-C3'-C2'	-6.01	96.59	102.60
51	B0	7	ARG	CA-C-N	6.01	129.66	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	B0	7	ARG	C-N-CA	6.01	129.66	120.82
1	AA	518	C	O3'-P-O5'	-6.01	94.98	104.00
14	AN	99	LEU	CA-C-N	6.01	130.90	120.68
14	AN	99	LEU	C-N-CA	6.01	130.90	120.68
26	BB	57	C	O4'-C1'-C2'	-6.01	101.59	107.60
26	BB	1151	A	C3'-C2'-C1'	6.01	107.31	101.30
26	BB	1518	C	C5'-C4'-C3'	-6.01	106.98	116.00
26	BB	2254	C	C5'-C4'-C3'	-6.01	106.98	116.00
14	AN	117	HIS	CA-CB-CG	-6.01	107.79	113.80
26	BB	2347	C	O3'-P-O5'	-6.01	94.99	104.00
26	BB	2543	G	O4'-C1'-C2'	-6.01	101.59	107.60
26	BB	2795	C	C3'-C2'-C1'	6.01	107.31	101.30
40	BP	61	ALA	N-CA-C	6.01	118.62	111.71
5	AE	145	ASN	CA-C-O	-6.01	114.51	120.82
8	AH	56	PRO	CA-N-CD	-6.01	103.59	112.00
19	AS	75	ILE	CA-C-N	6.01	129.44	120.31
19	AS	75	ILE	C-N-CA	6.01	129.44	120.31
26	BB	2703	C	C4'-C3'-O3'	6.01	122.01	113.00
1	AA	522	C	C5'-C4'-C3'	-6.01	106.99	116.00
1	AA	1399	C	O4'-C1'-C2'	-6.01	99.79	105.80
3	AC	42	U	N1-C1'-C2'	6.01	121.01	112.00
5	AE	5	MET	CA-C-N	6.01	128.82	120.29
5	AE	5	MET	C-N-CA	6.01	128.82	120.29
10	AJ	67	ASN	CA-C-O	-6.01	112.67	120.00
26	BB	33	C	C1'-C2'-O2'	6.01	120.81	111.80
26	BB	679	C	O4'-C4'-C3'	6.01	110.01	104.00
26	BB	1585	C	O5'-C5'-C4'	6.01	120.51	111.50
27	BC	68	GLY	CA-C-O	-6.01	115.41	121.90
1	AA	1410	A	C2'-C3'-O3'	-6.00	104.69	113.70
26	BB	265	A	C5'-C4'-O4'	6.00	118.81	109.80
26	BB	1273	U	C5'-C4'-C3'	-6.00	106.99	116.00
26	BB	2686	G	O4'-C1'-C2'	-6.00	101.59	107.60
43	BS	32	ARG	CD-NE-CZ	6.00	132.81	124.40
49	BY	73	PRO	N-CA-CB	6.00	108.58	103.35
1	AA	479	U	P-O3'-C3'	6.00	129.21	120.20
7	AG	130	ASN	CA-CB-CG	6.00	118.60	112.60
18	AR	43	ALA	CA-C-O	-6.00	113.07	119.97
26	BB	105	C	O4'-C1'-N1	6.00	117.50	108.50
26	BB	1905	C	O4'-C4'-C3'	6.00	110.00	104.00
42	BR	92	ARG	CA-C-N	6.00	132.20	122.29
42	BR	92	ARG	C-N-CA	6.00	132.20	122.29
1	AA	1286	U	O4'-C1'-N1	6.00	117.50	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AM	58	ASN	CA-C-N	6.00	128.32	120.28
13	AM	58	ASN	C-N-CA	6.00	128.32	120.28
26	BB	2430	A	N9-C1'-C2'	6.00	121.00	112.00
26	BB	2622	U	C4'-C3'-C2'	-6.00	96.60	102.60
1	AA	176	C	O4'-C4'-C3'	6.00	110.00	104.00
1	AA	562	U	C4'-C3'-O3'	6.00	118.40	109.40
26	BB	642	U	O4'-C1'-C2'	-6.00	99.80	105.80
26	BB	896	A	O4'-C1'-C2'	-6.00	99.80	105.80
26	BB	2168	G	O4'-C1'-C2'	-6.00	101.60	107.60
29	BE	123	LYS	N-CA-C	6.00	117.62	111.14
1	AA	1207	2MG	O3'-P-O5'	6.00	113.00	104.00
4	AD	59	A	O4'-C1'-C2'	-6.00	99.80	105.80
5	AE	34	ARG	CA-C-N	6.00	133.00	121.54
5	AE	34	ARG	C-N-CA	6.00	133.00	121.54
26	BB	726	G	C4'-C3'-O3'	6.00	122.00	113.00
26	BB	896	A	C2'-C3'-O3'	6.00	118.50	109.50
26	BB	1854	A	C4'-C3'-O3'	6.00	122.00	113.00
28	BD	261	ARG	N-CA-C	-6.00	107.78	114.62
1	AA	76	G	C5'-C4'-O4'	6.00	118.80	109.80
1	AA	606	G	C4'-C3'-C2'	-6.00	96.60	102.60
1	AA	1034	G	O4'-C1'-N9	6.00	117.50	108.50
7	AG	203	TYR	N-CA-C	6.00	120.29	113.15
11	AK	127	TYR	CB-CG-CD2	-6.00	111.80	120.80
26	BB	1752	C	C5'-C4'-C3'	-6.00	107.01	116.00
26	BB	2471	A	C2'-C3'-O3'	6.00	118.50	109.50
1	AA	224	U	C3'-C2'-O2'	6.00	119.69	110.70
19	AS	62	GLY	CA-C-O	-6.00	113.71	120.30
26	BB	1239	G	C1'-C2'-O2'	6.00	117.39	108.40
26	BB	2224	G	C3'-C2'-C1'	6.00	107.30	101.30
13	AM	87	LEU	N-CA-C	-5.99	104.44	110.97
26	BB	340	A	O4'-C1'-N9	5.99	117.49	108.50
26	BB	2400	G	O5'-C5'-C4'	-5.99	102.51	111.50
28	BD	47	ARG	CA-C-N	5.99	132.76	121.97
28	BD	47	ARG	C-N-CA	5.99	132.76	121.97
35	BK	78	LEU	O-C-N	5.99	128.98	122.15
56	B5	41	ARG	O-C-N	5.99	130.24	122.87
1	AA	754	C	O4'-C4'-C3'	5.99	109.99	104.00
1	AA	978	A	O4'-C1'-C2'	5.99	113.59	107.60
12	AL	94	ARG	NE-CZ-NH2	-5.99	113.81	119.20
26	BB	967	U	C4'-C3'-C2'	-5.99	96.61	102.60
26	BB	1888	G	O4'-C1'-N9	5.99	117.49	108.50
1	AA	429	U	N1-C1'-C2'	5.99	122.98	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1765	U	C3'-C2'-O2'	5.99	119.69	110.70
1	AA	758	C	C4'-C3'-C2'	-5.99	96.61	102.60
4	AD	51	U	O4'-C1'-N1	5.99	117.48	108.50
19	AS	72	ALA	O-C-N	-5.99	115.32	122.15
20	AT	66	LEU	CA-C-N	5.99	132.98	121.54
20	AT	66	LEU	C-N-CA	5.99	132.98	121.54
26	BB	642	U	N1-C1'-C2'	5.99	122.98	114.00
26	BB	771	G	C3'-C2'-O2'	5.99	119.68	110.70
44	BT	51	VAL	CB-CA-C	5.99	117.12	110.71
1	AA	287	U	O4'-C1'-N1	5.99	117.48	108.50
1	AA	1154	G	C1'-O4'-C4'	5.99	115.89	109.90
12	AL	54	VAL	CA-CB-CG2	5.99	120.58	110.40
26	BB	284	U	C4'-C3'-C2'	-5.99	96.61	102.60
26	BB	575	A	C1'-C2'-O2'	-5.99	99.42	108.40
26	BB	583	G	O4'-C4'-C3'	5.99	109.99	104.00
26	BB	594	U	C3'-C2'-O2'	5.99	119.68	110.70
26	BB	1401	G	O3'-P-O5'	5.99	112.98	104.00
32	BH	78	VAL	CA-C-N	5.99	129.87	120.89
32	BH	78	VAL	C-N-CA	5.99	129.87	120.89
1	AA	585	G	C4'-C3'-C2'	-5.98	96.62	102.60
10	AJ	47	GLU	CA-C-O	-5.98	114.08	120.42
34	BJ	87	HIS	CB-CG-ND1	5.98	131.68	122.70
46	BV	91	GLN	O-C-N	5.98	130.17	122.81
1	AA	1530	G	N9-C1'-C2'	-5.98	103.03	112.00
26	BB	262	A	O4'-C1'-N9	5.98	117.47	108.50
26	BB	638	G	C5'-C4'-C3'	-5.98	107.03	116.00
28	BD	188	ARG	CB-CA-C	5.98	119.74	109.51
50	BZ	53	LYS	CA-C-N	5.98	127.88	120.34
50	BZ	53	LYS	C-N-CA	5.98	127.88	120.34
25	BA	50	A	C4'-C3'-C2'	-5.98	96.62	102.60
26	BB	365	U	C5'-C4'-C3'	-5.98	107.03	116.00
26	BB	367	G	O3'-P-O5'	-5.98	95.03	104.00
26	BB	383	C	C4'-C3'-C2'	-5.98	96.62	102.60
26	BB	2415	G	C2'-C3'-O3'	5.98	122.67	113.70
26	BB	2634	A	C1'-O4'-C4'	5.98	115.88	109.90
36	BL	2	LYS	CA-C-O	-5.98	114.44	121.44
26	BB	2081	U	C2'-C3'-O3'	-5.98	104.73	113.70
26	BB	2786	U	C4'-C3'-C2'	-5.98	96.62	102.60
26	BB	2900	A	P-O5'-C5'	5.98	129.87	120.90
42	BR	88	ARG	NE-CZ-NH1	-5.98	115.52	121.50
1	AA	54	C	O4'-C1'-N1	5.98	117.47	108.50
1	AA	1499	A	C4'-C3'-C2'	5.98	108.58	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	300	A	N9-C1'-C2'	-5.98	103.03	112.00
26	BB	642	U	O5'-C5'-C4'	-5.98	102.73	111.70
26	BB	1748	C	C1'-C2'-O2'	5.98	117.37	108.40
1	AA	832	G	C3'-C2'-O2'	5.98	119.66	110.70
1	AA	1231	G	C1'-O4'-C4'	5.98	115.88	109.90
1	AA	1391	U	C4'-C3'-O3'	5.98	121.96	113.00
26	BB	1097	U	N1-C1'-C2'	5.98	120.97	112.00
8	AH	5	LYS	CA-C-N	5.97	131.05	122.21
8	AH	5	LYS	C-N-CA	5.97	131.05	122.21
23	AW	74	HIS	CB-CG-ND1	5.97	131.66	122.70
26	BB	1075	C	O3'-P-O5'	-5.97	95.04	104.00
26	BB	2058	A	P-O3'-C3'	5.97	129.16	120.20
1	AA	463	U	O3'-P-O5'	5.97	112.96	104.00
26	BB	735	A	O4'-C4'-C3'	5.97	109.97	104.00
42	BR	109	ILE	CA-C-N	5.97	130.32	120.94
42	BR	109	ILE	C-N-CA	5.97	130.32	120.94
1	AA	1123	U	C5'-C4'-C3'	-5.97	107.04	116.00
20	AT	46	HIS	ND1-CG-CD2	5.97	112.07	106.10
26	BB	1120	G	O4'-C1'-N9	5.97	117.46	108.50
1	AA	1299	A	C3'-C2'-C1'	-5.97	95.33	101.30
1	AA	1536	C	O4'-C1'-N1	5.97	117.45	108.50
13	AM	27	GLU	CA-C-N	5.97	128.28	120.28
13	AM	27	GLU	C-N-CA	5.97	128.28	120.28
26	BB	1142	A	O4'-C4'-C3'	-5.97	100.13	106.10
26	BB	1193	G	C5'-C4'-C3'	-5.97	107.05	116.00
1	AA	376	G	C3'-C2'-O2'	5.97	119.65	110.70
25	BA	28	C	C5'-C4'-C3'	-5.97	107.05	116.00
25	BA	51	G	C5'-C4'-C3'	-5.97	107.05	116.00
26	BB	440	C	C5'-C4'-O4'	5.97	118.75	109.80
43	BS	91	ARG	NE-CZ-NH1	5.97	127.47	121.50
1	AA	582	C	O4'-C1'-C2'	-5.97	101.63	107.60
1	AA	863	U	O4'-C1'-C2'	-5.97	101.63	107.60
24	AX	12	ASP	O-C-N	-5.97	115.24	122.22
25	BA	111	U	N1-C1'-C2'	-5.97	103.05	112.00
26	BB	2893	A	O5'-C5'-C4'	-5.97	102.75	111.70
1	AA	417	G	C2'-C3'-O3'	5.96	122.65	113.70
26	BB	487	C	O4'-C1'-N1	5.96	117.45	108.50
26	BB	572	A	C3'-C2'-C1'	5.96	107.27	101.30
26	BB	1774	C	C4'-C3'-O3'	-5.96	104.05	113.00
31	BG	72	SER	CA-C-N	5.96	129.28	122.36
31	BG	72	SER	C-N-CA	5.96	129.28	122.36
45	BU	88	ARG	NE-CZ-NH2	5.96	124.57	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1409	C	C5'-C4'-O4'	5.96	118.75	109.80
26	BB	831	G	O4'-C1'-N9	5.96	117.44	108.50
26	BB	950	G	C2'-C3'-O3'	-5.96	104.76	113.70
26	BB	1063	G	C3'-C2'-C1'	-5.96	95.34	101.30
32	BH	103	ASN	CB-CA-C	5.96	119.85	110.19
9	AI	94	HIS	CG-CD2-NE2	5.96	113.16	107.20
10	AJ	95	ARG	N-CA-C	-5.96	104.69	111.07
26	BB	1199	U	C5'-C4'-O4'	5.96	118.74	109.80
26	BB	2160	C	O4'-C1'-C2'	-5.96	101.64	107.60
47	BW	57	ILE	O-C-N	5.96	129.52	122.66
48	BX	12	GLN	CA-C-N	5.96	130.62	122.63
48	BX	12	GLN	C-N-CA	5.96	130.62	122.63
1	AA	520	A	C3'-C2'-O2'	5.96	119.64	110.70
8	AH	72	ASN	CA-C-O	5.96	127.83	121.16
14	AN	33	ILE	CB-CA-C	5.96	119.38	111.21
53	B2	56	ARG	CA-C-N	5.96	131.87	122.33
53	B2	56	ARG	C-N-CA	5.96	131.87	122.33
1	AA	870	U	C1'-O4'-C4'	-5.96	103.74	109.70
26	BB	2488	G	C4'-C3'-C2'	-5.96	96.64	102.60
28	BD	20	ASN	CA-C-O	-5.96	114.30	119.72
1	AA	187	G	O4'-C1'-C2'	-5.96	101.64	107.60
10	AJ	26	VAL	CA-C-N	5.96	128.54	120.44
10	AJ	26	VAL	C-N-CA	5.96	128.54	120.44
25	BA	84	G	C3'-C2'-C1'	5.96	107.26	101.30
26	BB	750	A	O5'-C5'-C4'	5.96	120.44	111.50
26	BB	1072	C	C2'-C3'-O3'	-5.96	104.77	113.70
26	BB	2613	U	C1'-C2'-O2'	5.96	120.74	111.80
1	AA	21	G	C1'-C2'-O2'	-5.96	99.47	108.40
41	BQ	24	THR	CA-CB-OG1	5.96	118.53	109.60
1	AA	242	G	O4'-C1'-N9	5.95	117.43	108.50
1	AA	374	A	N9-C1'-C2'	-5.95	103.07	112.00
7	AG	160	LEU	N-CA-C	5.95	117.77	111.28
13	AM	80	THR	CA-C-N	5.95	128.85	120.28
13	AM	80	THR	C-N-CA	5.95	128.85	120.28
25	BA	35	C	C5'-C4'-O4'	5.95	118.73	109.80
26	BB	718	A	O4'-C1'-N9	5.95	117.43	108.50
26	BB	989	G	O4'-C1'-N9	5.95	117.13	108.20
26	BB	1742	U	C3'-C2'-C1'	5.95	107.25	101.30
26	BB	2058	A	O4'-C1'-N9	-5.95	99.57	108.50
1	AA	758	C	O4'-C4'-C3'	5.95	109.95	104.00
26	BB	48	G	C4'-C3'-C2'	-5.95	96.65	102.60
1	AA	647	C	C2'-C3'-O3'	5.95	122.62	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	39	A	O4'-C1'-N9	5.95	117.43	108.50
6	AF	175	HIS	O-C-N	5.95	129.48	122.34
29	BE	156	PHE	CA-C-N	5.95	129.16	120.71
29	BE	156	PHE	C-N-CA	5.95	129.16	120.71
39	BO	50	ARG	CA-C-N	5.95	128.57	120.54
39	BO	50	ARG	C-N-CA	5.95	128.57	120.54
1	AA	667	G	O4'-C1'-C2'	-5.95	101.65	107.60
1	AA	847	G	C3'-C2'-O2'	5.95	119.62	110.70
1	AA	982	U	O4'-C1'-C2'	5.95	111.75	105.80
26	BB	147	C	O4'-C1'-C2'	5.95	113.55	107.60
26	BB	1548	A	O4'-C4'-C3'	5.95	109.95	104.00
26	BB	1904	G	N9-C1'-C2'	-5.95	103.08	112.00
29	BE	28	GLU	CA-C-O	-5.95	113.88	120.60
39	BO	114	ARG	NE-CZ-NH1	5.95	127.45	121.50
43	BS	71	ASN	OD1-CG-ND2	-5.95	116.65	122.60
2	AB	1	A	C2'-C3'-O3'	5.95	122.62	113.70
43	BS	8	ILE	CA-CB-CG1	5.95	120.51	110.40
14	AN	117	HIS	CB-CG-CD2	-5.95	123.47	131.20
26	BB	88	G	N9-C1'-C2'	-5.95	103.08	112.00
26	BB	443	A	C3'-C2'-C1'	5.94	107.44	101.50
26	BB	988	A	C4'-C3'-C2'	5.94	108.54	102.60
26	BB	1250	G	O4'-C1'-N9	5.94	117.12	108.20
1	AA	239	U	O4'-C1'-N1	5.94	117.41	108.50
26	BB	27	G	C1'-C2'-O2'	-5.94	99.49	108.40
26	BB	951	C	O4'-C1'-N1	5.94	117.41	108.50
26	BB	2439	A	C4'-C3'-C2'	-5.94	96.66	102.60
26	BB	2811	G	O3'-P-O5'	-5.94	95.09	104.00
29	BE	59	ARG	NE-CZ-NH2	5.94	124.55	119.20
38	BN	14	LYS	CA-C-N	5.94	132.89	121.54
38	BN	14	LYS	C-N-CA	5.94	132.89	121.54
1	AA	599	C	C4'-C3'-C2'	-5.94	96.66	102.60
26	BB	835	C	O4'-C1'-N1	5.94	117.41	108.50
26	BB	2063	C	O3'-P-O5'	-5.94	95.09	104.00
26	BB	2102	G	O3'-P-O5'	-5.94	95.09	104.00
50	BZ	30	PRO	N-CA-CB	5.94	108.48	103.25
26	BB	1177	G	O4'-C4'-C3'	5.94	109.94	104.00
1	AA	563	A	O3'-P-O5'	-5.94	95.09	104.00
9	AI	42	TRP	CG-CD2-CE3	-5.94	127.96	133.90
26	BB	1980	G	N9-C1'-C2'	-5.94	105.09	114.00
26	BB	2203	U	O4'-C1'-N1	5.94	117.41	108.50
1	AA	79	G	O5'-C5'-C4'	-5.94	102.60	111.50
26	BB	1814	G	O4'-C4'-C3'	5.94	109.94	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	BM	26	GLY	CA-C-N	5.94	129.93	120.97
37	BM	26	GLY	C-N-CA	5.94	129.93	120.97
1	AA	27	G	C3'-C2'-C1'	5.93	107.23	101.30
1	AA	1327	C	P-O3'-C3'	5.93	129.10	120.20
26	BB	601	C	O4'-C1'-C2'	-5.93	101.67	107.60
26	BB	949	G	O5'-C5'-C4'	-5.93	102.60	111.50
26	BB	1460	U	O4'-C1'-C2'	-5.93	101.67	107.60
26	BB	2194	U	C4'-C3'-C2'	-5.93	96.67	102.60
1	AA	812	G	C4'-C3'-O3'	-5.93	104.10	113.00
9	AI	3	HIS	CB-CG-CD2	-5.93	123.49	131.20
17	AQ	38	GLU	CA-C-O	-5.93	113.24	120.54
26	BB	2826	A	C4'-C3'-C2'	-5.93	96.67	102.60
43	BS	42	GLY	CA-C-O	-5.93	112.50	119.50
43	BS	76	SER	CA-C-N	5.93	129.33	120.31
43	BS	76	SER	C-N-CA	5.93	129.33	120.31
2	AB	35	C	O5'-C5'-C4'	5.93	120.40	111.50
26	BB	2122	U	C4'-C3'-O3'	-5.93	104.10	113.00
26	BB	2455	G	C2'-C3'-O3'	-5.93	104.80	113.70
37	BM	73	ASP	CA-CB-CG	5.93	118.53	112.60
1	AA	71	A	N9-C1'-C2'	-5.93	103.10	112.00
13	AM	3	ASN	CA-C-N	5.93	130.91	121.66
13	AM	3	ASN	C-N-CA	5.93	130.91	121.66
19	AS	68	SER	CA-C-O	5.93	127.80	121.16
1	AA	243	A	P-O3'-C3'	5.93	129.09	120.20
11	AK	73	SER	CB-CA-C	5.93	121.01	110.16
26	BB	1791	A	C4'-C3'-C2'	-5.93	96.67	102.60
1	AA	841	C	C4'-C3'-O3'	-5.93	104.11	113.00
5	AE	151	LYS	N-CA-C	5.93	118.52	111.71
9	AI	71	ILE	CA-CB-CG1	5.93	120.47	110.40
26	BB	114	U	P-O3'-C3'	5.93	129.09	120.20
26	BB	2394	C	C3'-C2'-O2'	5.93	119.59	110.70
35	BK	72	THR	CA-C-O	-5.93	113.99	120.69
1	AA	1206	G	C3'-C2'-O2'	5.92	119.58	110.70
26	BB	728	G	C5'-C4'-C3'	-5.92	106.31	115.20
26	BB	1662	U	O4'-C1'-C2'	-5.92	101.67	107.60
26	BB	2407	A	O3'-P-O5'	-5.92	95.11	104.00
26	BB	728	G	C3'-C2'-C1'	-5.92	95.58	101.50
58	B7	35	GLN	OE1-CD-NE2	-5.92	116.68	122.60
1	AA	538	G	O4'-C1'-N9	5.92	117.38	108.50
1	AA	1467	C	O5'-C5'-C4'	-5.92	102.62	111.50
1	AA	536	C	O3'-P-O5'	-5.92	95.12	104.00
5	AE	211	LEU	CA-C-N	5.92	128.53	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AE	211	LEU	C-N-CA	5.92	128.53	120.54
26	BB	2214	C	O4'-C4'-C3'	5.92	109.92	104.00
56	B5	30	VAL	N-CA-C	-5.92	104.97	110.53
1	AA	415	A	O4'-C4'-C3'	-5.92	98.08	104.00
1	AA	831	A	O4'-C1'-N9	5.92	117.38	108.50
20	AT	27	PHE	O-C-N	-5.92	116.03	123.01
25	BA	36	C	C4'-C3'-C2'	-5.92	96.68	102.60
26	BB	296	U	O5'-C5'-C4'	5.92	120.38	111.50
26	BB	2703	C	C4'-C3'-C2'	-5.92	96.68	102.60
43	BS	79	ILE	CB-CG1-CD1	5.92	126.23	113.80
1	AA	536	C	C1'-O4'-C4'	5.92	115.82	109.90
2	AB	9	A	O3'-P-O5'	-5.92	95.12	104.00
17	AQ	22	LYS	N-CA-C	5.92	119.76	112.54
23	AW	73	ARG	O-C-N	-5.92	115.85	122.12
26	BB	1380	G	O4'-C1'-C2'	-5.92	101.69	107.60
26	BB	2720	U	C5'-C4'-O4'	5.92	118.67	109.80
54	B3	40	HIS	CB-CG-CD2	-5.92	123.51	131.20
1	AA	980	C	C4'-C3'-C2'	-5.91	96.69	102.60
26	BB	1089	A	P-O3'-C3'	5.91	129.07	120.20
57	B6	48	MET	CA-C-N	5.91	128.57	120.35
57	B6	48	MET	C-N-CA	5.91	128.57	120.35
24	AX	46	ARG	CA-C-N	5.91	128.69	120.29
24	AX	46	ARG	C-N-CA	5.91	128.69	120.29
26	BB	1321	A	O4'-C1'-N9	5.91	117.37	108.50
1	AA	88	U	O4'-C1'-N1	5.91	117.36	108.50
1	AA	296	U	C4'-C3'-C2'	5.91	108.51	102.60
1	AA	1211	U	C1'-O4'-C4'	5.91	115.81	109.90
20	AT	15	LYS	N-CA-C	5.91	118.51	111.71
26	BB	347	A	C5'-C4'-O4'	5.91	118.66	109.80
26	BB	584	C	O5'-C5'-C4'	5.91	120.37	111.50
26	BB	1127	A	C3'-C2'-C1'	5.91	107.21	101.30
26	BB	1153	C	O4'-C4'-C3'	5.91	109.91	104.00
26	BB	2891	U	O4'-C1'-C2'	-5.91	101.69	107.60
29	BE	124	ARG	O-C-N	5.91	129.13	122.22
1	AA	1288	A	C4'-C3'-C2'	-5.91	96.69	102.60
10	AJ	29	LEU	CA-C-N	5.91	129.22	120.95
10	AJ	29	LEU	C-N-CA	5.91	129.22	120.95
14	AN	21	HIS	CB-CG-CD2	-5.91	123.52	131.20
1	AA	1331	G	C4'-C3'-C2'	-5.91	96.69	102.60
1	AA	1389	C	C1'-C2'-O2'	5.91	117.26	108.40
7	AG	186	GLU	CA-C-O	-5.91	114.53	121.44
24	AX	29	ALA	CA-C-N	5.91	130.94	122.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AX	29	ALA	C-N-CA	5.91	130.94	122.08
26	BB	804	A	O4'-C4'-C3'	5.91	109.91	104.00
26	BB	1904	G	C3'-C2'-O2'	5.91	119.56	110.70
1	AA	213	G	C5'-C4'-O4'	5.91	118.66	109.80
26	BB	68	G	C4'-C3'-C2'	-5.91	96.69	102.60
26	BB	1853	A	O4'-C1'-C2'	-5.91	101.69	107.60
26	BB	1904	G	O4'-C1'-C2'	5.91	113.51	107.60
32	BH	20	GLY	O-C-N	5.91	130.38	122.70
35	BK	44	LYS	CA-C-N	5.91	132.28	122.54
35	BK	44	LYS	C-N-CA	5.91	132.28	122.54
42	BR	99	LEU	CA-C-N	5.91	128.51	120.54
42	BR	99	LEU	C-N-CA	5.91	128.51	120.54
51	B0	27	ASN	CA-C-O	5.91	126.76	119.79
1	AA	155	A	O4'-C4'-C3'	5.90	109.90	104.00
1	AA	703	G	C1'-O4'-C4'	5.90	115.60	109.70
1	AA	43	C	C1'-O4'-C4'	5.90	115.80	109.90
11	AK	107	LYS	N-CA-C	5.90	120.17	113.15
26	BB	949	G	O3'-P-O5'	5.90	112.85	104.00
41	BQ	76	LYS	N-CA-C	-5.90	104.75	111.07
1	AA	1469	C	C5'-C4'-C3'	5.90	124.85	116.00
2	AB	4	G	O4'-C1'-N9	5.90	117.35	108.50
26	BB	13	A	O4'-C1'-C2'	-5.90	99.90	105.80
26	BB	1338	G	P-O3'-C3'	5.90	129.05	120.20
26	BB	2136	G	C1'-O4'-C4'	-5.90	104.00	109.90
26	BB	2291	U	C4'-C3'-O3'	-5.90	104.15	113.00
1	AA	860	A	O4'-C1'-N9	5.90	117.35	108.50
1	AA	279	A	P-O3'-C3'	5.90	129.05	120.20
1	AA	1318	A	C1'-O4'-C4'	5.90	115.80	109.90
1	AA	1364	U	O4'-C1'-C2'	-5.90	101.70	107.60
13	AM	99	GLN	CA-C-N	5.90	130.26	121.77
13	AM	99	GLN	C-N-CA	5.90	130.26	121.77
14	AN	18	GLY	O-C-N	-5.90	117.04	123.29
26	BB	1102	C	O4'-C4'-C3'	-5.90	98.10	104.00
26	BB	2313	C	C5'-C4'-C3'	-5.90	107.15	116.00
34	BJ	54	VAL	CA-C-N	5.90	130.20	120.94
34	BJ	54	VAL	C-N-CA	5.90	130.20	120.94
1	AA	646	G	C1'-O4'-C4'	5.89	115.80	109.90
9	AI	109	ARG	O-C-N	5.89	128.39	122.08
26	BB	732	C	C4'-C3'-C2'	-5.89	96.70	102.60
26	BB	2462	C	O5'-C5'-C4'	-5.89	102.66	111.50
26	BB	2591	C	C4'-C3'-C2'	-5.89	96.71	102.60
26	BB	2604	U	O4'-C1'-C2'	-5.89	101.71	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1039	G	C4'-C3'-C2'	-5.89	96.71	102.60
26	BB	39	G	O5'-C5'-C4'	-5.89	102.66	111.50
26	BB	472	A	C1'-C2'-O2'	-5.89	99.56	108.40
26	BB	637	A	P-O3'-C3'	5.89	129.04	120.20
26	BB	1065	U	C3'-C2'-O2'	5.89	119.54	110.70
26	BB	1478	G	C3'-C2'-C1'	5.89	107.19	101.30
26	BB	1674	G	C3'-C2'-O2'	-5.89	105.76	114.60
26	BB	2350	C	C5'-C4'-C3'	-5.89	107.16	116.00
31	BG	96	TRP	CA-C-N	5.89	128.10	120.44
31	BG	96	TRP	C-N-CA	5.89	128.10	120.44
1	AA	279	A	C2'-C3'-O3'	5.89	118.34	109.50
26	BB	2488	G	C5'-C4'-C3'	-5.89	107.16	116.00
1	AA	157	U	O4'-C4'-C3'	5.89	109.89	104.00
1	AA	464	U	C1'-O4'-C4'	-5.89	104.01	109.90
1	AA	855	U	C1'-O4'-C4'	-5.89	104.01	109.90
4	AD	9	G	O4'-C1'-C2'	-5.89	99.91	105.80
12	AL	110	VAL	CA-C-N	5.89	130.85	122.72
12	AL	110	VAL	C-N-CA	5.89	130.85	122.72
26	BB	629	G	C5'-C4'-O4'	5.89	118.63	109.80
26	BB	1199	U	C5'-C4'-C3'	-5.89	107.17	116.00
26	BB	1752	C	C1'-O4'-C4'	5.89	115.79	109.90
26	BB	2629	U	C5'-C4'-O4'	5.89	117.94	109.10
26	BB	2744	G	C3'-C2'-C1'	5.89	107.19	101.30
38	BN	72	ALA	CA-C-N	5.89	129.58	122.16
38	BN	72	ALA	C-N-CA	5.89	129.58	122.16
1	AA	413	G	O4'-C1'-N9	5.89	117.03	108.20
1	AA	918	A	O5'-C5'-C4'	-5.89	102.67	111.50
26	BB	497	A	C4'-C3'-C2'	-5.89	96.71	102.60
26	BB	1627	G	O4'-C4'-C3'	5.89	109.89	104.00
27	BC	97	MET	CA-C-N	5.89	128.45	120.44
27	BC	97	MET	C-N-CA	5.89	128.45	120.44
35	BK	84	GLY	CA-C-N	5.89	129.96	122.37
35	BK	84	GLY	C-N-CA	5.89	129.96	122.37
1	AA	780	A	C1'-O4'-C4'	5.88	115.78	109.90
1	AA	808	C	O4'-C1'-N1	5.88	117.33	108.50
4	AD	5	G	C5'-C4'-O4'	-5.88	100.97	109.80
26	BB	401	A	P-O3'-C3'	5.88	129.03	120.20
26	BB	578	G	O4'-C1'-N9	5.88	117.33	108.50
26	BB	1544	A	P-O5'-C5'	5.88	129.73	120.90
26	BB	1645	G	C3'-C2'-O2'	-5.88	105.77	114.60
26	BB	1843	C	P-O3'-C3'	5.88	129.03	120.20
40	BP	30	ARG	N-CA-C	5.88	119.65	112.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1393	U	C3'-C2'-O2'	-5.88	101.88	110.70
25	BA	10	G	C5'-C4'-C3'	-5.88	107.18	116.00
26	BB	1488	C	O3'-P-O5'	-5.88	95.18	104.00
34	BJ	81	ILE	CB-CA-C	5.88	117.73	110.73
1	AA	61	G	N9-C1'-C2'	-5.88	103.18	112.00
1	AA	443	C	O4'-C1'-N1	5.88	117.32	108.50
1	AA	561	U	C4'-C3'-C2'	-5.88	96.72	102.60
1	AA	1109	C	O4'-C1'-N1	5.88	117.32	108.50
1	AA	1426	G	C4'-C3'-C2'	-5.88	96.72	102.60
26	BB	454	A	C1'-O4'-C4'	5.88	115.58	109.70
26	BB	1390	U	C1'-C2'-O2'	5.88	117.22	108.40
26	BB	2117	A	C4'-C3'-O3'	5.88	121.82	113.00
26	BB	2346	A	N9-C1'-C2'	5.88	122.82	114.00
39	BO	107	GLY	N-CA-C	5.88	119.61	112.49
42	BR	14	GLN	CG-CD-NE2	5.88	125.22	116.40
1	AA	218	U	C4'-C3'-O3'	5.88	121.82	113.00
1	AA	1330	U	C3'-C2'-C1'	5.88	107.18	101.30
26	BB	1507	C	C3'-C2'-O2'	5.88	119.52	110.70
26	BB	1677	A	C4'-C3'-C2'	-5.88	96.72	102.60
26	BB	2611	C	C4'-C3'-C2'	-5.88	96.72	102.60
37	BM	45	GLU	CB-CG-CD	5.88	122.60	112.60
37	BM	62	VAL	N-CA-C	-5.88	101.21	109.21
4	AD	76	C	C2'-C3'-O3'	5.88	118.32	109.50
26	BB	1738	G	C2'-C3'-O3'	5.88	118.32	109.50
26	BB	2680	U	O4'-C4'-C3'	5.88	109.88	104.00
1	AA	861	G	C1'-O4'-C4'	5.88	115.78	109.90
26	BB	912	C	C4'-C3'-C2'	-5.88	96.72	102.60
26	BB	2067	G	N9-C1'-C2'	-5.88	105.19	114.00
36	BL	98	GLU	CA-C-N	5.88	129.24	120.31
36	BL	98	GLU	C-N-CA	5.88	129.24	120.31
48	BX	15	GLY	O-C-N	5.88	127.82	122.18
49	BY	50	VAL	N-CA-C	5.88	115.99	108.82
1	AA	454	G	N9-C1'-C2'	5.88	120.81	112.00
26	BB	1793	C	O4'-C1'-C2'	-5.88	101.72	107.60
1	AA	1174	G	O4'-C1'-C2'	-5.87	101.73	107.60
17	AQ	72	PHE	CA-C-N	5.87	130.96	122.44
17	AQ	72	PHE	C-N-CA	5.87	130.96	122.44
26	BB	213	A	O4'-C4'-C3'	5.87	109.87	104.00
26	BB	2823	A	C1'-O4'-C4'	-5.87	104.03	109.90
46	BV	70	HIS	O-C-N	-5.87	114.78	122.59
1	AA	529	G	C5'-C4'-C3'	-5.87	107.19	116.00
26	BB	1524	G	C5'-C4'-O4'	5.87	118.61	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1684	G	C4'-C3'-C2'	-5.87	96.73	102.60
26	BB	2597	G	O4'-C4'-C3'	5.87	109.87	104.00
45	BU	104	THR	CA-C-N	5.87	130.33	122.93
45	BU	104	THR	C-N-CA	5.87	130.33	122.93
26	BB	979	A	P-O3'-C3'	5.87	129.00	120.20
29	BE	149	ASN	CA-C-N	5.87	128.15	120.28
29	BE	149	ASN	C-N-CA	5.87	128.15	120.28
1	AA	1252	A	C3'-C2'-C1'	5.87	107.17	101.30
26	BB	26	G	C2'-C3'-O3'	5.87	122.50	113.70
1	AA	53	A	O5'-C5'-C4'	-5.87	102.70	111.50
7	AG	102	TYR	CA-C-O	-5.87	114.20	120.42
10	AJ	141	HIS	CA-C-O	5.87	126.60	119.38
1	AA	724	G	O4'-C4'-C3'	5.87	109.87	104.00
1	AA	972	C	O4'-C4'-C3'	5.87	109.86	104.00
1	AA	1239	A	C2'-C3'-O3'	5.87	118.30	109.50
8	AH	104	ILE	CA-CB-CG1	5.87	120.37	110.40
9	AI	123	ASP	N-CA-C	-5.87	104.48	111.69
26	BB	256	A	O4'-C1'-C2'	-5.87	101.73	107.60
26	BB	515	A	O4'-C1'-N9	5.87	117.30	108.50
26	BB	1164	C	C1'-O4'-C4'	-5.87	104.03	109.90
26	BB	1169	A	C4'-C3'-O3'	-5.87	104.20	113.00
26	BB	1782	U	O4'-C4'-C3'	5.87	111.97	106.10
26	BB	2182	U	O4'-C1'-N1	5.87	117.30	108.50
26	BB	2889	C	C4'-C3'-C2'	-5.87	96.73	102.60
28	BD	195	GLY	CA-C-N	5.87	130.91	122.35
28	BD	195	GLY	C-N-CA	5.87	130.91	122.35
1	AA	930	C	O4'-C1'-N1	5.86	117.30	108.50
1	AA	995	C	C1'-O4'-C4'	-5.86	104.04	109.90
26	BB	9	G	O4'-C4'-C3'	5.86	109.86	104.00
26	BB	334	C	C3'-C2'-C1'	5.86	107.16	101.30
26	BB	643	A	O4'-C4'-C3'	5.86	109.86	104.00
26	BB	912	C	O4'-C1'-N1	5.86	117.30	108.50
26	BB	984	A	O4'-C1'-C2'	5.86	113.46	107.60
26	BB	1000	A	C2'-C3'-O3'	-5.86	104.91	113.70
26	BB	1102	C	P-O3'-C3'	5.86	128.99	120.20
26	BB	2482	A	O4'-C1'-C2'	-5.86	101.74	107.60
1	AA	465	A	C3'-C2'-O2'	-5.86	105.81	114.60
1	AA	1054	C	C1'-C2'-O2'	-5.86	103.01	111.80
1	AA	1280	A	C3'-C2'-O2'	-5.86	105.81	114.60
1	AA	1288	A	O4'-C1'-C2'	-5.86	101.74	107.60
14	AN	51	PHE	CA-C-N	5.86	132.74	121.54
14	AN	51	PHE	C-N-CA	5.86	132.74	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AO	1	ALA	CB-CA-C	5.86	119.29	110.50
26	BB	1738	G	C3'-C2'-C1'	5.86	107.36	101.50
26	BB	2189	U	C4'-C3'-C2'	-5.86	96.74	102.60
30	BF	121	VAL	CA-CB-CG1	-5.86	100.44	110.40
47	BW	49	PRO	N-CA-C	5.86	120.41	111.15
47	BW	101	THR	CA-C-N	5.86	130.82	123.14
47	BW	101	THR	C-N-CA	5.86	130.82	123.14
49	BY	19	ARG	NE-CZ-NH2	5.86	124.48	119.20
1	AA	898	G	C3'-C2'-O2'	5.86	119.49	110.70
1	AA	1140	C	O4'-C4'-C3'	5.86	109.86	104.00
26	BB	470	A	C5'-C4'-C3'	-5.86	107.21	116.00
26	BB	991	C	O4'-C1'-C2'	-5.86	101.74	107.60
26	BB	1501	G	N9-C1'-C2'	-5.86	103.21	112.00
26	BB	2385	C	C1'-O4'-C4'	-5.86	104.04	109.90
43	BS	74	SER	CB-CA-C	5.86	119.53	109.51
47	BW	1	ALA	CB-CA-C	-5.86	101.71	110.50
1	AA	680	C	O4'-C1'-C2'	-5.86	101.74	107.60
1	AA	1001	C	C5'-C4'-C3'	-5.86	107.21	116.00
1	AA	1396	A	O3'-P-O5'	-5.86	95.21	104.00
22	AV	14	LEU	CA-C-N	5.86	128.61	120.29
22	AV	14	LEU	C-N-CA	5.86	128.61	120.29
26	BB	2220	U	O3'-P-O5'	5.86	112.79	104.00
42	BR	67	GLU	CA-C-N	5.86	126.29	120.31
42	BR	67	GLU	C-N-CA	5.86	126.29	120.31
1	AA	181	A	C1'-C2'-O2'	5.86	120.59	111.80
15	AO	88	ASP	O-C-N	-5.86	115.47	122.15
37	BM	59	LYS	N-CA-CB	-5.86	100.86	110.41
1	AA	312	C	O4'-C4'-C3'	5.86	109.86	104.00
4	AD	40	C	C2'-C3'-O3'	-5.86	104.92	113.70
26	BB	269	C	O3'-P-O5'	5.86	112.78	104.00
26	BB	1055	G	C5'-C4'-C3'	-5.86	107.22	116.00
26	BB	1436	G	O4'-C1'-N9	5.86	117.28	108.50
26	BB	1559	U	O4'-C4'-C3'	5.86	111.96	106.10
26	BB	2360	G	O5'-C5'-C4'	5.86	120.28	111.50
35	BK	109	ALA	CA-C-N	5.86	129.21	120.31
35	BK	109	ALA	C-N-CA	5.86	129.21	120.31
1	AA	158	G	O3'-P-O5'	-5.85	95.22	104.00
1	AA	715	A	C5'-C4'-C3'	-5.85	107.22	116.00
1	AA	1165	U	O4'-C1'-N1	5.85	117.28	108.50
3	AC	15	G	P-O5'-C5'	5.85	129.68	120.90
1	AA	1525	G	C1'-O4'-C4'	5.85	115.75	109.90
26	BB	984	A	C2'-C3'-O3'	-5.85	104.92	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1043	C	C2'-C3'-O3'	5.85	122.48	113.70
26	BB	1121	C	P-O3'-C3'	5.85	128.98	120.20
26	BB	1933	G	C5'-C4'-C3'	5.85	124.78	116.00
47	BW	26	ASN	CA-CB-CG	5.85	118.45	112.60
1	AA	73	C	C3'-C2'-O2'	5.85	119.48	110.70
2	AB	12	U	O4'-C4'-C3'	5.85	109.85	104.00
12	AL	57	VAL	CA-CB-CG1	5.85	120.35	110.40
26	BB	2522	U	O4'-C4'-C3'	5.85	109.85	104.00
1	AA	599	C	O4'-C1'-N1	5.85	117.27	108.50
4	AD	50	G	C3'-C2'-O2'	5.85	119.47	110.70
22	AV	1	PRO	N-CD-CG	5.85	111.97	103.20
26	BB	322	A	C3'-C2'-O2'	-5.85	105.83	114.60
26	BB	867	C	O4'-C4'-C3'	-5.85	98.15	104.00
26	BB	1052	C	C1'-C2'-O2'	-5.85	99.63	108.40
26	BB	2388	A	O3'-P-O5'	5.85	112.77	104.00
37	BM	63	VAL	N-CA-C	-5.85	107.80	113.53
1	AA	1362	A	C3'-C2'-C1'	5.85	107.15	101.30
26	BB	753	A	C5'-C4'-C3'	-5.85	107.23	116.00
26	BB	1144	A	C3'-C2'-C1'	5.85	107.15	101.30
26	BB	1651	G	O3'-P-O5'	5.85	112.77	104.00
1	AA	406	G	O4'-C4'-C3'	5.85	109.85	104.00
1	AA	1201	A	O4'-C1'-C2'	5.85	111.65	105.80
26	BB	47	C	C2'-C3'-O3'	5.85	122.47	113.70
26	BB	1732	C	C1'-C2'-O2'	-5.84	103.03	111.80
26	BB	1971	U	O4'-C1'-N1	5.84	117.27	108.50
26	BB	2310	C	N1-C1'-C2'	5.84	120.77	112.00
26	BB	2366	A	C4'-C3'-C2'	-5.84	96.76	102.60
26	BB	2534	A	O4'-C1'-N9	5.84	117.27	108.50
26	BB	2727	A	C3'-C2'-C1'	-5.84	95.45	101.30
31	BG	70	ARG	NE-CZ-NH2	5.84	124.46	119.20
26	BB	2805	C	C5'-C4'-O4'	5.84	118.56	109.80
49	BY	22	VAL	CA-C-O	-5.84	115.91	121.64
1	AA	146	G	O4'-C1'-N9	5.84	117.26	108.50
1	AA	945	G	C5'-C4'-O4'	5.84	118.56	109.80
1	AA	1388	C	O4'-C1'-C2'	-5.84	101.76	107.60
1	AA	1403	C	O4'-C4'-C3'	5.84	109.84	104.00
22	AV	15	LEU	CA-C-O	-5.84	114.23	120.42
26	BB	629	G	O4'-C4'-C3'	5.84	109.84	104.00
26	BB	1061	U	C3'-C2'-C1'	5.84	107.34	101.50
27	BC	146	THR	CA-C-O	5.84	125.87	119.91
2	AB	61	C	P-O3'-C3'	5.84	128.96	120.20
3	AC	36	U	C3'-C2'-O2'	5.84	119.46	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	80	G	C5'-C4'-C3'	-5.84	107.24	116.00
26	BB	482	A	C3'-C2'-O2'	5.84	119.46	110.70
26	BB	760	G	C3'-C2'-C1'	-5.84	95.46	101.30
26	BB	1311	G	O3'-P-O5'	-5.84	95.24	104.00
26	BB	2042	A	O3'-P-O5'	5.84	112.76	104.00
26	BB	2203	U	C4'-C3'-C2'	-5.84	96.76	102.60
27	BC	165	ASN	CA-C-O	-5.84	114.83	121.72
41	BQ	73	ALA	CA-C-N	5.84	128.71	120.42
41	BQ	73	ALA	C-N-CA	5.84	128.71	120.42
6	AF	49	ALA	CA-C-N	5.84	131.70	122.94
6	AF	49	ALA	C-N-CA	5.84	131.70	122.94
26	BB	498	G	C3'-C2'-O2'	5.84	119.46	110.70
26	BB	2266	A	C3'-C2'-C1'	5.84	107.34	101.50
1	AA	353	A	P-O3'-C3'	-5.84	111.45	120.20
12	AL	108	ARG	NE-CZ-NH2	-5.84	113.95	119.20
23	AW	51	ASN	CA-C-N	5.84	128.58	120.29
23	AW	51	ASN	C-N-CA	5.84	128.58	120.29
26	BB	125	A	C2'-C3'-O3'	-5.84	104.95	113.70
26	BB	151	C	O4'-C4'-C3'	5.84	109.84	104.00
35	BK	3	LYS	CA-C-N	5.84	129.90	122.37
35	BK	3	LYS	C-N-CA	5.84	129.90	122.37
55	B4	39	ASP	CA-C-O	5.84	125.86	119.32
4	AD	58	A	P-O3'-C3'	5.83	128.95	120.20
26	BB	1701	A	C4'-C3'-C2'	-5.83	96.77	102.60
26	BB	1787	A	C3'-C2'-O2'	5.83	119.45	110.70
26	BB	2339	C	O4'-C1'-N1	5.83	117.25	108.50
26	BB	2739	U	O4'-C4'-C3'	-5.83	98.17	104.00
26	BB	1018	U	C4'-C3'-C2'	-5.83	96.77	102.60
26	BB	1954	G	C1'-C2'-O2'	5.83	120.55	111.80
1	AA	231	U	O4'-C4'-C3'	5.83	109.83	104.00
9	AI	72	ASP	CA-CB-CG	5.83	118.43	112.60
26	BB	266	G	O4'-C4'-C3'	5.83	109.83	104.00
26	BB	1292	G	O4'-C1'-N9	5.83	117.25	108.50
26	BB	1598	A	O4'-C4'-C3'	5.83	109.83	104.00
26	BB	2143	C	C4'-C3'-O3'	-5.83	104.25	113.00
27	BC	77	VAL	CA-C-O	5.83	126.90	120.48
29	BE	4	LEU	CA-C-O	-5.83	113.90	120.32
57	B6	57	VAL	CA-C-O	-5.83	114.17	120.47
7	AG	146	GLU	CA-C-N	5.83	130.59	120.68
7	AG	146	GLU	C-N-CA	5.83	130.59	120.68
26	BB	2207	C	C5'-C4'-O4'	5.83	118.55	109.80
26	BB	2798	U	O4'-C1'-N1	5.83	116.95	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	650	G	C1'-C2'-O2'	5.83	117.14	108.40
1	AA	1167	A	C4'-C3'-O3'	5.83	121.74	113.00
1	AA	1542	A	N9-C1'-C2'	5.83	120.74	112.00
5	AE	184	ALA	CB-CA-C	5.83	120.04	109.37
10	AJ	137	ARG	NH1-CZ-NH2	-5.83	111.72	119.30
25	BA	57	A	C2'-C3'-O3'	5.83	122.44	113.70
26	BB	343	C	O4'-C1'-C2'	-5.83	101.77	107.60
26	BB	1006	C	C5'-C4'-C3'	-5.83	107.26	116.00
26	BB	1113	U	C4'-C3'-C2'	-5.83	96.77	102.60
26	BB	2645	G	C4'-C3'-O3'	5.83	118.14	109.40
1	AA	1492	A	C1'-C2'-O2'	-5.83	99.66	108.40
26	BB	1607	C	C5'-C4'-O4'	5.83	117.84	109.10
4	AD	42	C	C1'-C2'-O2'	-5.83	99.66	108.40
26	BB	761	A	C1'-O4'-C4'	5.83	115.72	109.90
26	BB	1386	C	C1'-O4'-C4'	-5.83	104.07	109.90
26	BB	1399	C	O4'-C1'-C2'	-5.83	101.77	107.60
26	BB	2275	C	O4'-C4'-C3'	5.83	109.83	104.00
32	BH	2	ARG	CB-CG-CD	5.83	124.70	111.30
36	BL	137	PRO	N-CA-CB	5.83	108.76	103.34
47	BW	26	ASN	N-CA-C	5.83	116.25	108.38
1	AA	360	G	C5'-C4'-O4'	5.82	118.54	109.80
1	AA	794	A	N9-C1'-C2'	5.82	120.73	112.00
17	AQ	40	ARG	N-CA-C	5.82	119.59	111.90
26	BB	1056	G	C1'-O4'-C4'	5.82	115.72	109.90
26	BB	1319	C	C5'-C4'-C3'	-5.82	107.27	116.00
29	BE	80	TRP	NE1-CE2-CZ2	5.82	138.84	130.10
1	AA	344	A	O3'-P-O5'	5.82	112.73	104.00
26	BB	492	A	O4'-C1'-C2'	-5.82	101.78	107.60
1	AA	133	U	O5'-C5'-C4'	-5.82	102.77	111.50
1	AA	1037	C	C3'-C2'-C1'	5.82	107.12	101.30
10	AJ	124	SER	N-CA-C	5.82	118.37	111.33
26	BB	177	G	O4'-C1'-N9	5.82	116.93	108.20
26	BB	1264	A	C4'-C3'-C2'	-5.82	96.78	102.60
26	BB	1597	A	O4'-C4'-C3'	5.82	109.82	104.00
26	BB	1822	C	C1'-O4'-C4'	-5.82	104.08	109.90
26	BB	1868	C	C3'-C2'-C1'	5.82	107.12	101.30
26	BB	2062	A	O4'-C1'-C2'	5.82	111.62	105.80
26	BB	2489	U	C3'-C2'-C1'	5.82	107.12	101.30
32	BH	139	VAL	N-CA-C	5.82	116.60	110.72
45	BU	22	ASP	CA-C-N	5.82	128.36	120.44
45	BU	22	ASP	C-N-CA	5.82	128.36	120.44
2	AB	70	C	C2'-C3'-O3'	5.82	122.43	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1503	A	O4'-C4'-C3'	5.82	109.82	104.00
32	BH	74	MET	CA-C-N	5.82	127.89	120.56
32	BH	74	MET	C-N-CA	5.82	127.89	120.56
1	AA	13	U	N1-C1'-C2'	5.82	122.72	114.00
4	AD	77	A	O4'-C1'-N9	5.82	117.22	108.50
26	BB	2089	C	O4'-C1'-N1	5.82	117.23	108.50
31	BG	93	GLU	O-C-N	5.82	128.29	122.12
36	BL	34	ARG	NE-CZ-NH1	-5.82	115.68	121.50
41	BQ	51	ALA	CA-C-N	5.82	133.72	122.03
41	BQ	51	ALA	C-N-CA	5.82	133.72	122.03
1	AA	1072	G	C2'-C3'-O3'	-5.82	104.97	113.70
1	AA	1295	U	C4'-C3'-C2'	-5.82	96.78	102.60
1	AA	1324	A	C3'-C2'-C1'	-5.82	95.48	101.30
25	BA	92	C	C5'-C4'-O4'	5.82	118.52	109.80
26	BB	174	U	C4'-C3'-C2'	-5.82	96.78	102.60
26	BB	1181	U	C4'-C3'-O3'	5.82	121.72	113.00
26	BB	1364	G	O3'-P-O5'	5.82	112.72	104.00
26	BB	1998	A	C4'-C3'-C2'	-5.82	96.78	102.60
26	BB	2390	U	O4'-C1'-C2'	-5.82	101.78	107.60
26	BB	2485	G	C4'-C3'-C2'	-5.82	96.78	102.60
1	AA	1261	A	O4'-C4'-C3'	5.81	109.81	104.00
1	AA	1348	U	C5'-C4'-C3'	-5.81	107.28	116.00
25	BA	47	C	C5'-C4'-C3'	-5.81	107.28	116.00
50	BZ	30	PRO	CA-C-N	5.81	128.65	120.28
50	BZ	30	PRO	C-N-CA	5.81	128.65	120.28
20	AT	44	HIS	CA-C-N	5.81	130.75	123.14
20	AT	44	HIS	C-N-CA	5.81	130.75	123.14
26	BB	261	G	N9-C1'-C2'	-5.81	103.28	112.00
26	BB	1840	G	C5'-C4'-C3'	-5.81	107.28	116.00
26	BB	2198	A	O3'-P-O5'	-5.81	95.28	104.00
26	BB	2268	A	P-O3'-C3'	5.81	128.92	120.20
26	BB	2440	C	C2'-C3'-O3'	5.81	122.42	113.70
55	B4	37	LYS	O-C-N	-5.81	117.16	123.26
1	AA	1461	G	C5'-C4'-O4'	5.81	118.52	109.80
1	AA	1461	G	O5'-C5'-C4'	5.81	120.22	111.50
1	AA	308	C	C4'-C3'-C2'	-5.81	96.79	102.60
1	AA	1300	G	O4'-C4'-C3'	5.81	111.91	106.10
25	BA	34	A	C3'-C2'-C1'	5.81	107.31	101.50
26	BB	61	C	O4'-C4'-C3'	-5.81	98.19	104.00
26	BB	420	C	O4'-C1'-C2'	-5.81	101.79	107.60
26	BB	2068	U	C1'-O4'-C4'	-5.81	104.09	109.90
26	BB	2163	A	P-O3'-C3'	5.81	128.92	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	B6	39	ARG	NE-CZ-NH2	5.81	124.43	119.20
1	AA	1270	G	O4'-C1'-C2'	-5.81	101.79	107.60
26	BB	910	A	C5'-C4'-C3'	-5.81	107.29	116.00
26	BB	1830	C	C1'-C2'-O2'	5.81	117.11	108.40
26	BB	2276	G	O4'-C1'-C2'	-5.81	101.79	107.60
26	BB	2374	C	C2'-C3'-O3'	5.81	122.41	113.70
26	BB	2777	G	O4'-C1'-C2'	-5.81	101.79	107.60
29	BE	134	HIS	CB-CG-ND1	5.81	131.41	122.70
38	BN	8	PRO	CA-C-N	5.81	129.36	120.82
38	BN	8	PRO	C-N-CA	5.81	129.36	120.82
26	BB	528	A	C4'-C3'-C2'	-5.81	96.79	102.60
26	BB	957	C	C3'-C2'-O2'	5.81	119.41	110.70
26	BB	2102	G	C4'-C3'-C2'	-5.81	96.79	102.60
26	BB	2325	G	C5'-C4'-O4'	5.81	118.51	109.80
44	BT	72	VAL	CG1-CB-CG2	5.81	123.57	110.80
26	BB	958	U	C3'-C2'-C1'	5.80	107.10	101.30
26	BB	1251	C	P-O3'-C3'	5.80	128.91	120.20
48	BX	7	GLU	CA-C-O	-5.80	114.60	121.16
51	B0	20	ASN	CB-CA-C	5.80	121.50	109.95
52	B1	49	ALA	CA-C-O	-5.80	113.30	119.97
1	AA	1051	C	C3'-C2'-O2'	5.80	119.40	110.70
1	AA	268	U	C5'-C4'-C3'	-5.80	107.30	116.00
1	AA	721	G	O5'-C5'-C4'	-5.80	103.00	111.70
1	AA	775	G	C1'-O4'-C4'	-5.80	104.10	109.90
1	AA	1226	C	C3'-C2'-C1'	5.80	107.30	101.50
24	AX	16	ARG	N-CA-CB	-5.80	101.28	110.22
26	BB	617	G	O4'-C1'-C2'	-5.80	101.80	107.60
26	BB	1111	A	P-O3'-C3'	5.80	128.90	120.20
26	BB	1736	U	O4'-C1'-C2'	-5.80	101.80	107.60
37	BM	35	VAL	CA-C-O	-5.80	114.50	120.71
42	BR	7	LEU	CA-C-N	5.80	128.33	120.44
42	BR	7	LEU	C-N-CA	5.80	128.33	120.44
1	AA	1354	U	C1'-C2'-O2'	-5.80	99.70	108.40
17	AQ	43	ALA	CA-C-N	5.80	129.47	122.16
17	AQ	43	ALA	C-N-CA	5.80	129.47	122.16
26	BB	625	G	C1'-O4'-C4'	-5.80	104.10	109.90
26	BB	1423	G	C3'-C2'-C1'	5.80	107.10	101.30
26	BB	2397	G	C3'-C2'-C1'	5.80	107.10	101.30
26	BB	2787	C	C1'-O4'-C4'	-5.80	104.10	109.90
31	BG	111	ARG	N-CA-C	-5.80	106.83	114.31
46	BV	70	HIS	CB-CG-CD2	-5.80	123.66	131.20
49	BY	7	GLY	N-CA-C	-5.80	104.36	112.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	AR	36	ASN	OD1-CG-ND2	5.80	128.40	122.60
26	BB	607	U	O5'-C5'-C4'	-5.80	102.80	111.50
1	AA	835	U	O4'-C1'-C2'	-5.80	101.80	107.60
1	AA	1286	U	P-O5'-C5'	5.80	129.60	120.90
26	BB	437	U	O5'-C5'-C4'	-5.80	102.81	111.50
26	BB	999	U	O4'-C4'-C3'	5.80	109.80	104.00
31	BG	128	SER	CA-C-N	5.80	130.93	122.41
31	BG	128	SER	C-N-CA	5.80	130.93	122.41
35	BK	125	THR	OG1-CB-CG2	-5.80	97.71	109.30
43	BS	14	LYS	CA-C-N	5.80	128.05	120.28
43	BS	14	LYS	C-N-CA	5.80	128.05	120.28
55	B4	30	PRO	CA-C-O	-5.80	111.91	118.98
1	AA	91	U	C2'-C3'-O3'	5.79	122.39	113.70
1	AA	396	C	O4'-C1'-N1	5.79	117.19	108.50
2	AB	74	C	O4'-C1'-N1	5.79	116.89	108.20
1	AA	29	U	C3'-C2'-C1'	5.79	107.09	101.30
1	AA	584	G	O4'-C4'-C3'	5.79	109.79	104.00
26	BB	416	U	C4'-C3'-O3'	5.79	121.69	113.00
26	BB	451	U	C2'-C3'-O3'	5.79	118.19	109.50
26	BB	623	C	N1-C1'-C2'	-5.79	103.31	112.00
26	BB	688	U	O5'-C5'-C4'	5.79	120.19	111.50
26	BB	940	G	C3'-C2'-C1'	5.79	107.09	101.30
26	BB	1949	G	O4'-C1'-C2'	5.79	113.39	107.60
26	BB	2764	A	C4'-C3'-C2'	-5.79	96.81	102.60
50	BZ	47	THR	CB-CA-C	5.79	119.78	110.16
1	AA	517	G	C5'-C4'-C3'	-5.79	106.51	115.20
1	AA	1012	A	C4'-C3'-O3'	5.79	121.69	113.00
10	AJ	3	ARG	NE-CZ-NH1	5.79	127.29	121.50
25	BA	69	G	C1'-C2'-O2'	-5.79	99.71	108.40
26	BB	310	A	C4'-C3'-C2'	5.79	108.39	102.60
26	BB	2076	U	C2'-C3'-O3'	5.79	118.19	109.50
26	BB	2121	G	C5'-C4'-C3'	5.79	124.69	116.00
26	BB	329	G	O5'-C5'-C4'	5.79	120.38	111.70
26	BB	1114	C	C5'-C4'-O4'	5.79	118.48	109.80
26	BB	1847	A	C5'-C4'-O4'	5.79	118.48	109.80
26	BB	2660	A	O3'-P-O5'	5.79	112.69	104.00
27	BC	182	ALA	CA-C-O	-5.79	114.74	120.82
1	AA	325	A	C1'-O4'-C4'	-5.79	104.11	109.90
1	AA	395	C	C5'-C4'-O4'	5.79	118.48	109.80
1	AA	1238	A	C5'-C4'-O4'	5.79	118.48	109.80
26	BB	289	G	N9-C1'-C2'	-5.79	103.32	112.00
26	BB	1113	U	O4'-C1'-N1	5.79	117.18	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1818	U	C5'-C4'-O4'	5.79	118.48	109.80
26	BB	2843	G	C1'-C2'-O2'	-5.79	99.72	108.40
38	BN	15	ALA	CA-C-N	5.79	132.76	121.41
38	BN	15	ALA	C-N-CA	5.79	132.76	121.41
39	BO	92	TRP	CD2-CE2-CZ2	-5.79	116.61	122.40
1	AA	655	A	C4'-C3'-C2'	-5.79	96.81	102.60
7	AG	32	LYS	CA-C-N	5.79	129.86	121.18
7	AG	32	LYS	C-N-CA	5.79	129.86	121.18
18	AR	58	MET	CA-C-N	5.79	127.97	120.56
18	AR	58	MET	C-N-CA	5.79	127.97	120.56
26	BB	162	U	C4'-C3'-C2'	-5.79	96.81	102.60
26	BB	1197	G	O4'-C1'-C2'	-5.79	101.81	107.60
26	BB	2903	U	C1'-O4'-C4'	5.79	115.69	109.90
7	AG	24	VAL	CB-CA-C	5.78	116.85	111.30
26	BB	495	G	C1'-C2'-O2'	5.78	117.08	108.40
26	BB	1062	G	O3'-P-O5'	-5.78	95.33	104.00
26	BB	1922	G	N9-C1'-C2'	-5.78	103.32	112.00
26	BB	1981	A	O4'-C4'-C3'	5.78	109.78	104.00
26	BB	2216	G	C1'-C2'-O2'	5.78	117.08	108.40
26	BB	2855	C	O4'-C1'-C2'	-5.78	101.82	107.60
27	BC	218	MET	CA-C-N	5.78	129.81	121.54
27	BC	218	MET	C-N-CA	5.78	129.81	121.54
1	AA	1046	A	C4'-C3'-C2'	-5.78	96.82	102.60
1	AA	531	U	C2'-C3'-O3'	5.78	118.17	109.50
1	AA	1042	A	C5'-C4'-O4'	5.78	118.47	109.80
7	AG	41	GLY	O-C-N	5.78	129.55	122.84
11	AK	17	GLN	CA-C-O	-5.78	114.75	120.70
15	AO	60	PHE	CA-C-O	-5.78	115.50	122.03
26	BB	1018	U	O4'-C4'-C3'	5.78	109.78	104.00
26	BB	1128	G	C4'-C3'-C2'	-5.78	96.82	102.60
26	BB	1943	U	O4'-C4'-C3'	-5.78	100.32	106.10
26	BB	2350	C	O4'-C4'-C3'	-5.78	98.22	104.00
32	BH	62	ALA	CA-C-O	-5.78	114.75	120.82
38	BN	37	GLY	CA-C-N	5.78	128.82	120.38
38	BN	37	GLY	C-N-CA	5.78	128.82	120.38
2	AB	30	G	N9-C1'-C2'	-5.78	103.33	112.00
16	AP	86	ARG	NE-CZ-NH1	5.78	127.28	121.50
24	AX	23	GLU	N-CA-C	5.78	117.78	110.33
26	BB	225	C	C3'-C2'-C1'	5.78	107.08	101.30
26	BB	2859	G	O4'-C1'-C2'	-5.78	101.82	107.60
1	AA	750	C	C5'-C4'-O4'	5.78	118.47	109.80
4	AD	63	C	O4'-C1'-N1	5.78	117.17	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	30	LEU	O-C-N	5.78	130.33	122.82
26	BB	488	G	O3'-P-O5'	5.78	112.67	104.00
26	BB	553	G	O4'-C1'-N9	5.78	117.17	108.50
26	BB	983	A	O4'-C1'-N9	5.78	117.17	108.50
26	BB	1573	G	O4'-C1'-C2'	5.78	113.38	107.60
26	BB	2010	G	C5'-C4'-C3'	-5.78	107.33	116.00
26	BB	2650	U	O5'-C5'-C4'	5.78	120.17	111.50
29	BE	101	PHE	CA-C-N	5.78	128.49	120.29
29	BE	101	PHE	C-N-CA	5.78	128.49	120.29
48	BX	13	GLY	CA-C-N	5.78	128.02	120.28
48	BX	13	GLY	C-N-CA	5.78	128.02	120.28
1	AA	43	C	O4'-C1'-N1	5.78	117.16	108.50
10	AJ	50	ALA	CA-C-N	5.78	130.46	120.58
10	AJ	50	ALA	C-N-CA	5.78	130.46	120.58
12	AL	123	ARG	O-C-N	-5.78	115.18	121.53
26	BB	90	U	O4'-C1'-N1	5.78	117.16	108.50
26	BB	541	A	C3'-C2'-C1'	-5.78	95.52	101.30
26	BB	1313	U	C1'-O4'-C4'	5.78	115.67	109.90
26	BB	1644	C	O4'-C1'-N1	5.78	117.16	108.50
26	BB	1789	A	C5'-C4'-C3'	-5.78	107.34	116.00
29	BE	109	VAL	N-CA-CB	5.78	120.76	111.23
30	BF	115	GLN	CA-C-N	5.78	130.78	122.35
30	BF	115	GLN	C-N-CA	5.78	130.78	122.35
1	AA	686	U	C4'-C3'-C2'	-5.77	96.83	102.60
1	AA	1213	A	O4'-C4'-C3'	-5.77	98.23	104.00
6	AF	96	VAL	N-CA-CB	-5.77	105.52	111.87
26	BB	2383	G	O3'-P-O5'	5.77	112.66	104.00
1	AA	442	G	C5'-C4'-C3'	-5.77	107.34	116.00
1	AA	1026	G	C5'-C4'-C3'	-5.77	107.34	116.00
26	BB	1641	A	C4'-C3'-C2'	-5.77	96.83	102.60
26	BB	2007	U	C4'-C3'-C2'	-5.77	96.83	102.60
26	BB	2262	U	O5'-C5'-C4'	5.77	120.16	111.50
26	BB	2559	C	C1'-O4'-C4'	-5.77	104.13	109.90
40	BP	31	HIS	CA-CB-CG	5.77	119.57	113.80
26	BB	22	C	C3'-C2'-C1'	5.77	107.07	101.30
26	BB	454	A	O4'-C4'-C3'	-5.77	100.33	106.10
34	BJ	52	ARG	CD-NE-CZ	5.77	132.48	124.40
36	BL	80	HIS	CA-CB-CG	-5.77	108.03	113.80
1	AA	197	A	O3'-P-O5'	-5.77	95.34	104.00
2	AB	11	U	C1'-O4'-C4'	-5.77	104.13	109.90
5	AE	134	LEU	N-CA-C	-5.77	105.07	111.36
26	BB	2617	U	C4'-C3'-O3'	5.77	121.65	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BK	117	THR	CA-C-N	5.77	125.46	119.92
35	BK	117	THR	C-N-CA	5.77	125.46	119.92
40	BP	110	MET	CA-C-N	5.77	132.08	122.73
40	BP	110	MET	C-N-CA	5.77	132.08	122.73
58	B7	35	GLN	CA-C-N	5.77	130.44	120.58
58	B7	35	GLN	C-N-CA	5.77	130.44	120.58
16	AP	66	GLY	O-C-N	5.77	128.35	122.24
26	BB	1686	C	C3'-C2'-C1'	5.77	107.07	101.30
26	BB	1873	G	O3'-P-O5'	-5.77	95.35	104.00
26	BB	2525	G	O4'-C1'-C2'	-5.77	101.83	107.60
45	BU	57	ASN	CA-C-O	-5.77	112.16	119.31
8	AH	93	VAL	CA-CB-CG2	5.77	120.20	110.40
26	BB	1983	G	O5'-C5'-C4'	5.77	120.15	111.50
36	BL	31	GLU	O-C-N	5.77	128.72	122.15
1	AA	1094	G	C5'-C4'-C3'	-5.76	106.55	115.20
1	AA	1244	G	C1'-O4'-C4'	-5.76	104.14	109.90
1	AA	1520	C	C5'-C4'-O4'	5.76	118.45	109.80
4	AD	22	A	C2'-C3'-O3'	5.76	118.15	109.50
6	AF	35	ASP	CA-C-N	5.76	127.94	120.44
6	AF	35	ASP	C-N-CA	5.76	127.94	120.44
8	AH	82	HIS	CA-C-O	-5.76	114.94	121.28
14	AN	102	ALA	CA-C-N	5.76	130.27	121.51
14	AN	102	ALA	C-N-CA	5.76	130.27	121.51
26	BB	67	U	C5'-C4'-C3'	5.76	124.65	116.00
26	BB	257	C	O4'-C1'-N1	5.76	117.15	108.50
26	BB	1598	A	C5'-C4'-C3'	-5.76	107.35	116.00
26	BB	1660	G	O4'-C1'-N9	5.76	117.15	108.50
26	BB	1865	U	C1'-C2'-O2'	5.76	120.45	111.80
52	B1	29	ARG	NE-CZ-NH2	5.76	124.39	119.20
1	AA	1102	A	O4'-C1'-N9	5.76	117.14	108.50
1	AA	1137	C	O3'-P-O5'	5.76	112.64	104.00
26	BB	1072	C	C5'-C4'-O4'	5.76	118.44	109.80
1	AA	114	U	C1'-O4'-C4'	5.76	115.66	109.90
1	AA	124	C	C5'-C4'-O4'	5.76	118.44	109.80
26	BB	885	C	N1-C1'-C2'	5.76	120.64	112.00
26	BB	1146	C	C3'-C2'-C1'	-5.76	95.54	101.30
26	BB	2441	U	O5'-C5'-C4'	-5.76	102.86	111.50
31	BG	162	ASP	CA-C-N	5.76	128.47	120.29
31	BG	162	ASP	C-N-CA	5.76	128.47	120.29
7	AG	140	ASP	CA-C-N	5.76	130.76	123.10
7	AG	140	ASP	C-N-CA	5.76	130.76	123.10
26	BB	400	G	C1'-O4'-C4'	5.76	115.66	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	668	A	C3'-C2'-C1'	5.76	107.06	101.30
26	BB	1631	G	O4'-C4'-C3'	5.76	109.76	104.00
26	BB	1648	U	C4'-C3'-C2'	-5.76	96.84	102.60
26	BB	1761	C	O4'-C4'-C3'	5.76	109.76	104.00
26	BB	1829	A	C4'-C3'-C2'	-5.76	96.84	102.60
26	BB	1977	A	O4'-C1'-N9	5.76	117.14	108.50
41	BQ	7	ARG	CA-C-O	-5.76	114.41	120.63
41	BQ	75	GLY	CA-C-O	-5.76	114.45	120.90
1	AA	78	A	O4'-C1'-C2'	-5.76	101.84	107.60
1	AA	281	G	N9-C1'-C2'	-5.76	105.36	114.00
26	BB	1455	G	P-O5'-C5'	5.76	129.54	120.90
26	BB	2355	G	O4'-C4'-C3'	5.76	109.76	104.00
26	BB	2731	G	C3'-C2'-C1'	-5.76	95.54	101.30
1	AA	382	A	O4'-C1'-C2'	-5.76	101.84	107.60
1	AA	1007	U	C3'-C2'-O2'	5.76	119.33	110.70
26	BB	414	C	C1'-C2'-O2'	-5.76	99.76	108.40
36	BL	140	LEU	CA-C-O	5.76	127.98	120.21
49	BY	2	HIS	CA-C-O	-5.76	115.54	121.87
1	AA	150	U	C4'-C3'-C2'	-5.75	96.84	102.60
1	AA	262	A	C3'-C2'-C1'	5.75	107.06	101.30
1	AA	1521	C	C2'-C3'-O3'	5.75	122.33	113.70
1	AA	508	U	O4'-C1'-C2'	-5.75	100.05	105.80
18	AR	34	GLN	OE1-CD-NE2	-5.75	116.85	122.60
19	AS	14	ARG	CB-CA-C	5.75	119.35	111.41
26	BB	1093	G	C2'-C3'-O3'	-5.75	105.07	113.70
26	BB	1201	U	C5'-C4'-C3'	-5.75	107.37	116.00
26	BB	1655	A	C3'-C2'-O2'	5.75	119.33	110.70
26	BB	1778	U	O4'-C1'-N1	5.75	117.13	108.50
26	BB	2225	A	C5'-C4'-C3'	-5.75	106.57	115.20
26	BB	2314	A	C5'-C4'-C3'	-5.75	107.37	116.00
1	AA	61	G	C1'-C2'-O2'	5.75	117.03	108.40
1	AA	318	G	C4'-C3'-C2'	-5.75	96.85	102.60
1	AA	1066	C	O4'-C4'-C3'	5.75	109.75	104.00
1	AA	1068	G	O4'-C4'-C3'	5.75	109.75	104.00
1	AA	1499	A	C3'-C2'-C1'	-5.75	95.55	101.30
26	BB	61	C	C1'-C2'-O2'	5.75	117.03	108.40
26	BB	824	U	C5'-C4'-C3'	-5.75	107.37	116.00
26	BB	1083	U	C3'-C2'-O2'	5.75	119.33	110.70
28	BD	225	ASN	CB-CA-C	5.75	117.74	109.11
44	BT	41	ILE	N-CA-C	-5.75	100.12	108.17
26	BB	2794	C	N1-C1'-C2'	-5.75	103.38	112.00
42	BR	52	ARG	CB-CG-CD	5.75	124.53	111.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1511	G	C3'-C2'-O2'	5.75	119.32	110.70
2	AB	41	C	O4'-C1'-N1	5.75	117.12	108.50
26	BB	1312	U	O4'-C4'-C3'	5.75	111.85	106.10
26	BB	2609	U	C4'-C3'-O3'	5.75	118.02	109.40
26	BB	2883	A	O4'-C4'-C3'	5.75	109.75	104.00
1	AA	105	G	P-O5'-C5'	5.75	129.52	120.90
1	AA	239	U	O4'-C4'-C3'	-5.75	98.25	104.00
25	BA	83	G	O5'-C5'-C4'	5.75	120.12	111.50
26	BB	306	U	O3'-P-O5'	5.75	112.62	104.00
26	BB	1512	C	O5'-C5'-C4'	5.75	120.12	111.50
26	BB	2144	G	N9-C1'-C2'	5.75	120.62	112.00
10	AJ	8	GLN	OE1-CD-NE2	-5.75	116.86	122.60
1	AA	804	U	C5'-C4'-C3'	-5.74	107.38	116.00
26	BB	317	G	C1'-O4'-C4'	-5.74	104.16	109.90
26	BB	349	U	O4'-C1'-N1	5.74	117.11	108.50
1	AA	1164	G	O4'-C1'-N9	5.74	117.11	108.50
26	BB	1155	A	C3'-C2'-C1'	5.74	107.04	101.30
26	BB	2479	U	O3'-P-O5'	-5.74	95.39	104.00
34	BJ	55	ARG	NH1-CZ-NH2	5.74	126.77	119.30
1	AA	631	C	C4'-C3'-C2'	5.74	108.34	102.60
2	AB	47	U	C4'-C3'-C2'	-5.74	96.86	102.60
4	AD	24	C	C1'-O4'-C4'	-5.74	104.16	109.90
25	BA	20	G	C1'-O4'-C4'	-5.74	104.16	109.90
26	BB	904	G	C1'-O4'-C4'	-5.74	104.16	109.90
31	BG	15	LEU	CA-C-N	5.74	127.97	120.28
31	BG	15	LEU	C-N-CA	5.74	127.97	120.28
34	BJ	73	ASP	CA-CB-CG	5.74	118.34	112.60
1	AA	212	G	C1'-C2'-O2'	5.74	117.01	108.40
1	AA	1318	A	C5'-C4'-C3'	-5.74	107.39	116.00
4	AD	74	A	C2'-C3'-O3'	5.74	118.11	109.50
26	BB	326	G	C4'-C3'-C2'	-5.74	96.86	102.60
26	BB	740	C	O4'-C4'-C3'	5.74	109.74	104.00
58	B7	31	PRO	CB-CA-C	5.74	120.11	111.44
1	AA	632	U	C3'-C2'-C1'	5.74	107.04	101.30
26	BB	733	G	C1'-C2'-O2'	5.74	117.00	108.40
26	BB	2331	G	C2'-C3'-O3'	-5.74	105.09	113.70
1	AA	513	C	C3'-C2'-C1'	5.74	107.03	101.30
1	AA	990	C	O4'-C1'-C2'	-5.74	101.86	107.60
1	AA	1035	A	C4'-C3'-C2'	-5.74	96.86	102.60
1	AA	1080	A	O4'-C1'-N9	5.74	117.10	108.50
26	BB	351	C	C1'-O4'-C4'	-5.74	104.17	109.90
26	BB	690	G	C4'-C3'-C2'	-5.74	96.86	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1115	G	C3'-C2'-O2'	5.74	119.30	110.70
26	BB	1162	G	O4'-C1'-N9	5.74	117.11	108.50
26	BB	1664	A	C4'-C3'-C2'	5.74	108.33	102.60
26	BB	1821	A	P-O3'-C3'	5.74	128.80	120.20
26	BB	2888	C	C4'-C3'-C2'	-5.74	96.86	102.60
30	BF	23	PHE	O-C-N	5.74	129.93	122.87
30	BF	41	GLN	OE1-CD-NE2	5.74	128.34	122.60
26	BB	2485	G	C1'-C2'-O2'	5.73	117.00	108.40
1	AA	380	G	C4'-C3'-C2'	-5.73	96.87	102.60
1	AA	1021	A	O4'-C4'-C3'	5.73	109.73	104.00
16	AP	76	ILE	N-CA-C	-5.73	105.26	110.82
26	BB	100	U	C2'-C3'-O3'	5.73	118.10	109.50
26	BB	1053	C	O5'-C5'-C4'	-5.73	102.90	111.50
26	BB	2041	U	N1-C1'-C2'	-5.73	103.40	112.00
26	BB	2096	C	O4'-C1'-N1	5.73	117.10	108.50
26	BB	2571	U	C4'-C3'-O3'	5.73	121.60	113.00
33	BI	142	VAL	CA-C-O	-5.73	115.51	121.93
1	AA	288	A	O4'-C1'-C2'	5.73	113.33	107.60
1	AA	322	C	O4'-C1'-N1	5.73	117.10	108.50
26	BB	215	G	C4'-C3'-C2'	-5.73	96.87	102.60
26	BB	314	C	C3'-C2'-O2'	5.73	119.30	110.70
26	BB	324	A	O4'-C1'-C2'	-5.73	101.87	107.60
26	BB	659	G	C1'-O4'-C4'	-5.73	104.17	109.90
26	BB	838	C	C5'-C4'-C3'	-5.73	107.40	116.00
26	BB	1573	G	C1'-C2'-O2'	5.73	117.00	108.40
26	BB	2368	C	C5'-C4'-C3'	-5.73	107.41	116.00
26	BB	2644	G	N9-C1'-C2'	-5.73	103.41	112.00
39	BO	22	GLN	CB-CA-C	5.73	118.69	109.07
41	BQ	34	HIS	CB-CG-ND1	5.73	131.29	122.70
1	AA	3	A	C4'-C3'-O3'	5.73	117.99	109.40
1	AA	254	G	O5'-C5'-C4'	-5.73	102.91	111.50
1	AA	531	U	O5'-C5'-C4'	-5.73	103.11	111.70
1	AA	715	A	C3'-C2'-O2'	5.73	119.29	110.70
1	AA	760	G	N9-C1'-C2'	-5.73	103.41	112.00
1	AA	1040	U	C1'-O4'-C4'	-5.73	104.17	109.90
20	AT	82	VAL	CB-CA-C	5.73	119.11	110.63
26	BB	380	G	O4'-C1'-C2'	-5.73	101.87	107.60
27	BC	168	ASN	N-CA-CB	-5.73	102.34	111.62
28	BD	55	GLY	N-CA-C	5.73	121.33	112.45
39	BO	90	GLU	N-CA-C	-5.73	104.45	112.12
2	AB	34	C	C5'-C4'-C3'	-5.73	107.41	116.00
26	BB	42	A	C4'-C3'-O3'	5.73	121.59	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2543	G	C5'-C4'-C3'	-5.73	107.41	116.00
50	BZ	19	HIS	CB-CG-CD2	-5.73	123.76	131.20
1	AA	122	G	O4'-C1'-C2'	-5.72	101.88	107.60
6	AF	200	TRP	CA-CB-CG	5.72	124.48	113.60
8	AH	82	HIS	CB-CG-CD2	-5.72	123.76	131.20
11	AK	113	ARG	CA-C-O	-5.72	114.48	120.55
26	BB	78	U	O4'-C1'-N1	5.72	117.09	108.50
26	BB	143	C	C3'-C2'-O2'	5.72	119.29	110.70
26	BB	352	A	C1'-O4'-C4'	-5.72	104.18	109.90
26	BB	690	G	O4'-C4'-C3'	5.72	109.72	104.00
26	BB	1411	U	C4'-C3'-C2'	-5.72	96.88	102.60
26	BB	1664	A	C5'-C4'-C3'	-5.72	107.41	116.00
28	BD	180	MET	CA-C-O	5.72	127.32	120.28
29	BE	142	VAL	CA-C-N	5.72	125.26	119.19
29	BE	142	VAL	C-N-CA	5.72	125.26	119.19
1	AA	178	C	C4'-C3'-C2'	-5.72	96.88	102.60
1	AA	1126	U	O5'-C5'-C4'	-5.72	103.12	111.70
4	AD	2	G	O4'-C1'-C2'	-5.72	101.88	107.60
34	BJ	60	ARG	NE-CZ-NH2	5.72	124.35	119.20
43	BS	65	ASN	CA-CB-CG	5.72	118.32	112.60
5	AE	154	GLY	N-CA-C	5.72	120.96	114.67
26	BB	1283	G	P-O3'-C3'	5.72	128.78	120.20
26	BB	1401	G	C5'-C4'-O4'	5.72	118.38	109.80
1	AA	481	G	C1'-O4'-C4'	-5.72	103.98	109.70
1	AA	582	C	C2'-C3'-O3'	5.72	122.28	113.70
1	AA	1318	A	C4'-C3'-C2'	5.72	108.32	102.60
5	AE	30	ILE	N-CA-C	5.72	116.09	107.80
7	AG	96	ARG	NE-CZ-NH2	5.72	124.35	119.20
8	AH	165	GLY	CA-C-N	5.72	132.00	121.70
8	AH	165	GLY	C-N-CA	5.72	132.00	121.70
24	AX	55	HIS	CG-ND1-CE1	-5.72	99.58	109.30
26	BB	1564	C	C4'-C3'-O3'	5.72	121.58	113.00
26	BB	1705	A	C1'-O4'-C4'	-5.72	104.18	109.90
26	BB	1924	C	O3'-P-O5'	5.72	112.58	104.00
26	BB	2013	A	C5'-C4'-C3'	-5.72	107.42	116.00
26	BB	2679	A	C1'-C2'-O2'	5.72	116.98	108.40
27	BC	65	LEU	CA-C-O	-5.72	114.22	120.17
15	AO	57	THR	N-CA-CB	-5.72	101.42	110.28
19	AS	13	LYS	O-C-N	5.72	130.05	122.04
25	BA	9	G	C5'-C4'-O4'	5.72	118.38	109.80
26	BB	1548	A	P-O5'-C5'	5.72	129.48	120.90
26	BB	1726	C	C3'-C2'-O2'	5.72	119.28	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	BD	76	VAL	CA-C-N	5.72	132.26	121.97
28	BD	76	VAL	C-N-CA	5.72	132.26	121.97
41	BQ	4	LYS	CA-C-N	5.72	128.22	120.44
41	BQ	4	LYS	C-N-CA	5.72	128.22	120.44
1	AA	1321	U	P-O3'-C3'	5.72	128.77	120.20
5	AE	43	GLU	CA-C-O	-5.72	114.82	120.82
26	BB	76	C	C5'-C4'-O4'	5.72	118.38	109.80
26	BB	99	U	O4'-C1'-N1	5.72	117.08	108.50
26	BB	402	A	C2'-C3'-O3'	-5.72	105.13	113.70
26	BB	849	A	C1'-O4'-C4'	-5.72	104.18	109.90
26	BB	1225	G	O5'-C5'-C4'	-5.72	102.93	111.50
26	BB	1297	C	O4'-C1'-C2'	-5.72	101.88	107.60
26	BB	2079	U	C1'-O4'-C4'	5.72	115.62	109.90
40	BP	69	ARG	CA-C-O	-5.72	114.43	120.55
41	BQ	15	ARG	CA-C-N	5.72	128.21	120.38
41	BQ	15	ARG	C-N-CA	5.72	128.21	120.38
42	BR	11	GLN	CA-C-O	-5.72	114.49	120.55
1	AA	152	A	C3'-C2'-C1'	5.71	107.01	101.30
1	AA	436	C	O4'-C1'-C2'	-5.71	101.89	107.60
1	AA	846	G	O4'-C4'-C3'	5.71	109.71	104.00
16	AP	11	HIS	CA-C-N	5.71	131.78	122.81
16	AP	11	HIS	C-N-CA	5.71	131.78	122.81
24	AX	63	ASN	CA-C-O	-5.71	113.40	119.97
26	BB	243	U	N1-C1'-C2'	-5.71	103.43	112.00
26	BB	1687	G	O3'-P-O5'	5.71	112.57	104.00
28	BD	181	ARG	NH1-CZ-NH2	-5.71	111.87	119.30
1	AA	763	G	P-O3'-C3'	5.71	128.77	120.20
1	AA	1239	A	N9-C1'-C2'	-5.71	105.43	114.00
26	BB	2008	C	C3'-C2'-O2'	5.71	119.27	110.70
26	BB	2450	A	C2'-C3'-O3'	5.71	122.27	113.70
41	BQ	16	ARG	CA-C-O	-5.71	114.46	120.63
1	AA	321	A	O4'-C1'-C2'	-5.71	101.89	107.60
1	AA	825	A	C4'-C3'-C2'	-5.71	96.89	102.60
3	AC	32	U	C3'-C2'-C1'	5.71	107.01	101.30
26	BB	1181	U	N1-C1'-C2'	-5.71	103.43	112.00
26	BB	1354	A	O4'-C1'-C2'	-5.71	101.89	107.60
26	BB	1874	C	C2'-C3'-O3'	-5.71	105.13	113.70
30	BF	93	SER	CA-C-N	5.71	133.84	123.27
30	BF	93	SER	C-N-CA	5.71	133.84	123.27
48	BX	22	ALA	O-C-N	5.71	128.90	122.22
1	AA	517	G	O4'-C4'-C3'	5.71	111.81	106.10
4	AD	64	G	C5'-C4'-O4'	5.71	118.36	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	AI	53	LYS	CA-C-N	5.71	132.44	121.54
9	AI	53	LYS	C-N-CA	5.71	132.44	121.54
26	BB	241	A	C4'-C3'-O3'	5.71	117.97	109.40
26	BB	305	C	C3'-C2'-C1'	5.71	107.01	101.30
37	BM	105	ARG	NE-CZ-NH2	-5.71	114.06	119.20
1	AA	247	G	C1'-C2'-O2'	5.71	116.96	108.40
1	AA	1079	G	C3'-C2'-C1'	5.71	107.01	101.30
26	BB	148	U	C3'-C2'-O2'	5.71	119.26	110.70
26	BB	1963	U	C4'-C3'-O3'	-5.71	104.44	113.00
1	AA	1449	C	N1-C1'-C2'	-5.71	103.44	112.00
5	AE	1	ALA	CA-C-N	5.71	131.60	120.99
5	AE	1	ALA	C-N-CA	5.71	131.60	120.99
9	AI	97	THR	CA-CB-OG1	-5.71	101.04	109.60
10	AJ	108	ARG	NE-CZ-NH1	-5.71	115.79	121.50
26	BB	1507	C	O4'-C4'-C3'	5.71	109.71	104.00
26	BB	1581	G	O4'-C1'-C2'	-5.71	101.89	107.60
26	BB	2576	G	O4'-C4'-C3'	-5.71	98.29	104.00
50	BZ	63	ILE	CA-C-O	-5.71	115.33	121.27
1	AA	31	G	C4'-C3'-C2'	5.71	108.31	102.60
2	AB	13	C	O4'-C1'-N1	5.71	117.06	108.50
1	AA	687	A	O3'-P-O5'	-5.70	95.45	104.00
1	AA	1355	G	C5'-C4'-O4'	5.70	118.36	109.80
26	BB	383	C	C3'-C2'-C1'	5.70	107.00	101.30
26	BB	469	G	C3'-C2'-O2'	5.70	119.25	110.70
26	BB	1823	G	O3'-P-O5'	-5.70	95.44	104.00
26	BB	2052	A	C4'-C3'-C2'	-5.70	96.90	102.60
42	BR	90	ALA	N-CA-CB	-5.70	101.72	110.85
44	BT	28	ALA	CA-C-N	5.70	128.19	120.38
44	BT	28	ALA	C-N-CA	5.70	128.19	120.38
49	BY	21	GLY	CA-C-O	-5.70	116.35	122.05
26	BB	1967	C	C4'-C3'-O3'	-5.70	104.45	113.00
26	BB	2252	G	C4'-C3'-C2'	-5.70	96.90	102.60
1	AA	74	A	O4'-C1'-C2'	5.70	113.30	107.60
1	AA	138	G	O3'-P-O5'	-5.70	95.45	104.00
1	AA	298	A	O4'-C1'-N9	5.70	117.05	108.50
26	BB	455	C	O3'-P-O5'	5.70	112.55	104.00
26	BB	483	A	O4'-C1'-C2'	5.70	113.30	107.60
26	BB	1642	G	C5'-C4'-O4'	5.70	118.35	109.80
26	BB	1942	C	C5'-C4'-C3'	-5.70	107.45	116.00
26	BB	2142	A	O3'-P-O5'	5.70	112.55	104.00
26	BB	2897	U	C3'-C2'-C1'	5.70	107.00	101.30
1	AA	176	C	C1'-C2'-O2'	5.70	116.95	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AQ	44	VAL	CG1-CB-CG2	-5.70	98.26	110.80
26	BB	323	C	O4'-C1'-N1	5.70	116.75	108.20
26	BB	553	G	N9-C1'-C2'	-5.70	103.45	112.00
26	BB	1421	G	C2'-C3'-O3'	5.70	122.25	113.70
26	BB	1830	C	C3'-C2'-C1'	5.70	107.00	101.30
37	BM	16	ALA	N-CA-C	5.70	118.06	109.23
22	AV	54	ARG	N-CA-CB	-5.70	101.77	110.26
26	BB	2489	U	C5'-C4'-C3'	-5.70	107.45	116.00
41	BQ	8	ILE	CA-CB-CG1	5.70	120.08	110.40
1	AA	302	G	C1'-O4'-C4'	-5.70	104.20	109.90
1	AA	749	A	C4'-C3'-C2'	-5.70	96.91	102.60
1	AA	1261	A	C1'-O4'-C4'	-5.70	104.20	109.90
26	BB	1498	C	C5'-C4'-C3'	-5.70	107.46	116.00
26	BB	2028	U	P-O3'-C3'	5.70	128.74	120.20
26	BB	2342	C	O4'-C1'-C2'	5.70	113.30	107.60
2	AB	59	G	C3'-C2'-C1'	5.69	107.19	101.50
4	AD	69	C	O4'-C1'-N1	5.69	117.04	108.50
26	BB	246	C	C1'-O4'-C4'	5.69	115.59	109.90
26	BB	932	U	O3'-P-O5'	-5.69	95.46	104.00
40	BP	89	SER	CB-CA-C	5.69	120.26	110.01
1	AA	711	G	C3'-C2'-C1'	-5.69	95.61	101.30
1	AA	1284	C	C5'-C4'-C3'	-5.69	107.46	116.00
8	AH	71	ILE	N-CA-C	5.69	117.37	109.80
18	AR	51	SER	CA-C-N	5.69	127.91	120.28
18	AR	51	SER	C-N-CA	5.69	127.91	120.28
25	BA	96	G	C4'-C3'-C2'	-5.69	96.91	102.60
26	BB	187	G	C4'-C3'-C2'	-5.69	96.91	102.60
26	BB	279	A	O4'-C4'-C3'	5.69	109.69	104.00
26	BB	761	A	O4'-C4'-C3'	-5.69	98.31	104.00
26	BB	898	C	C1'-O4'-C4'	-5.69	104.21	109.90
26	BB	2211	A	C5'-C4'-C3'	-5.69	107.46	116.00
28	BD	43	ASN	CA-CB-CG	5.69	118.29	112.60
31	BG	33	ILE	CA-C-O	5.69	126.74	120.48
1	AA	125	U	P-O5'-C5'	5.69	129.44	120.90
26	BB	295	G	N9-C1'-C2'	-5.69	103.47	112.00
26	BB	311	A	O4'-C1'-C2'	-5.69	100.11	105.80
26	BB	1988	G	C1'-C2'-O2'	5.69	116.94	108.40
26	BB	2521	C	O4'-C1'-N1	5.69	117.04	108.50
1	AA	1083	U	O4'-C1'-N1	5.69	117.03	108.50
26	BB	95	A	C5'-C4'-C3'	-5.69	107.47	116.00
26	BB	772	C	P-O3'-C3'	5.69	128.73	120.20
33	BI	128	HIS	CA-CB-CG	5.69	119.49	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1475	G	C1'-O4'-C4'	-5.69	104.21	109.90
22	AV	59	VAL	CA-CB-CG2	-5.69	100.73	110.40
26	BB	613	A	O4'-C1'-N9	5.69	117.03	108.50
41	BQ	102	ARG	CA-C-N	5.69	128.50	120.42
41	BQ	102	ARG	C-N-CA	5.69	128.50	120.42
26	BB	1320	C	C3'-C2'-O2'	-5.69	106.07	114.60
26	BB	1631	G	O5'-C5'-C4'	-5.69	102.97	111.50
38	BN	89	VAL	CA-CB-CG1	5.69	120.07	110.40
1	AA	83	C	C3'-C2'-C1'	5.68	106.98	101.30
1	AA	221	C	O5'-C5'-C4'	5.68	120.03	111.50
1	AA	677	U	P-O3'-C3'	5.68	128.73	120.20
3	AC	20	G	O3'-P-O5'	5.68	112.53	104.00
25	BA	26	C	C3'-C2'-C1'	-5.68	95.61	101.30
26	BB	2342	C	O3'-P-O5'	5.68	112.53	104.00
27	BC	23	ILE	O-C-N	-5.68	116.36	121.87
33	BI	19	VAL	CB-CA-C	5.68	117.85	110.12
1	AA	533	A	O4'-C4'-C3'	-5.68	100.42	106.10
1	AA	984	C	C5'-C4'-C3'	5.68	124.52	116.00
26	BB	277	G	C3'-C2'-C1'	5.68	106.98	101.30
26	BB	2280	G	C3'-C2'-O2'	5.68	119.22	110.70
1	AA	450	G	C1'-O4'-C4'	-5.68	104.22	109.90
40	BP	69	ARG	CA-C-N	5.68	132.65	123.33
40	BP	69	ARG	C-N-CA	5.68	132.65	123.33
1	AA	1456	A	C5'-C4'-C3'	5.68	124.52	116.00
26	BB	1163	G	C4'-C3'-C2'	-5.68	96.92	102.60
26	BB	1332	G	C2'-C3'-O3'	5.68	118.02	109.50
1	AA	1016	A	C3'-C2'-O2'	5.68	119.22	110.70
40	BP	44	LEU	CB-CA-C	5.68	120.50	110.85
1	AA	170	U	O4'-C4'-C3'	5.68	109.68	104.00
1	AA	713	G	C2'-C3'-O3'	-5.68	105.19	113.70
5	AE	136	ARG	NH1-CZ-NH2	-5.68	111.92	119.30
6	AF	22	PHE	CB-CA-C	5.68	119.45	109.80
12	AL	53	LEU	N-CA-C	5.68	117.55	111.36
26	BB	2072	C	C1'-O4'-C4'	-5.68	104.22	109.90
36	BL	100	VAL	N-CA-CB	-5.68	103.91	110.55
18	AR	59	VAL	N-CA-CB	-5.67	103.31	110.57
26	BB	581	C	C4'-C3'-C2'	-5.67	96.93	102.60
26	BB	1069	A	O3'-P-O5'	-5.67	95.49	104.00
26	BB	2815	C	O4'-C1'-N1	5.67	117.01	108.50
34	BJ	28	ASP	N-CA-CB	-5.67	100.95	110.83
35	BK	123	ALA	O-C-N	5.67	127.99	122.09
1	AA	637	C	O4'-C4'-C3'	5.67	109.67	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	767	A	O4'-C1'-C2'	-5.67	101.93	107.60
1	AA	1491	G	C3'-C2'-C1'	5.67	106.97	101.30
9	AI	21	MET	N-CA-C	-5.67	104.71	111.69
26	BB	713	G	C4'-C3'-C2'	5.67	108.27	102.60
1	AA	148	G	C5'-C4'-C3'	-5.67	107.49	116.00
1	AA	933	G	C5'-C4'-C3'	-5.67	107.49	116.00
1	AA	1511	G	C5'-C4'-O4'	5.67	118.31	109.80
26	BB	813	U	O4'-C1'-N1	5.67	117.01	108.50
26	BB	874	G	C3'-C2'-O2'	5.67	119.21	110.70
1	AA	203	G	C2'-C3'-O3'	-5.67	105.19	113.70
1	AA	1235	U	N1-C1'-C2'	-5.67	103.50	112.00
13	AM	75	ASP	CA-CB-CG	5.67	118.27	112.60
26	BB	399	U	C1'-C2'-O2'	-5.67	99.89	108.40
26	BB	1154	G	C4'-C3'-O3'	5.67	121.50	113.00
1	AA	929	G	O4'-C1'-N9	5.67	117.00	108.50
26	BB	510	C	C4'-C3'-O3'	-5.67	104.50	113.00
26	BB	1722	A	C4'-C3'-O3'	-5.67	104.50	113.00
26	BB	2370	G	O4'-C1'-C2'	-5.67	101.93	107.60
26	BB	2385	C	C4'-C3'-O3'	5.67	121.50	113.00
28	BD	245	THR	CA-CB-CG2	5.67	120.14	110.50
43	BS	8	ILE	CA-C-N	5.67	128.44	120.28
43	BS	8	ILE	C-N-CA	5.67	128.44	120.28
1	AA	224	U	P-O3'-C3'	5.67	128.70	120.20
1	AA	451	A	O4'-C4'-C3'	-5.67	100.43	106.10
6	AF	198	LYS	CA-C-O	-5.67	114.09	120.32
26	BB	199	A	C4'-C3'-O3'	5.67	117.90	109.40
26	BB	244	A	N9-C1'-C2'	-5.67	103.50	112.00
26	BB	571	U	C4'-C3'-O3'	5.67	117.90	109.40
26	BB	2423	U	C1'-O4'-C4'	-5.67	104.03	109.70
26	BB	2545	G	O3'-P-O5'	5.67	112.50	104.00
26	BB	2593	U	C3'-C2'-O2'	5.67	119.20	110.70
27	BC	9	ARG	CA-C-N	5.67	128.22	120.46
27	BC	9	ARG	C-N-CA	5.67	128.22	120.46
26	BB	2165	C	O5'-C5'-C4'	5.67	120.00	111.50
26	BB	2295	C	C4'-C3'-C2'	-5.67	96.94	102.60
28	BD	219	VAL	CB-CA-C	5.67	119.10	111.28
55	B4	38	PHE	CA-CB-CG	5.67	119.47	113.80
3	AC	54	U	C3'-C2'-C1'	5.66	106.96	101.30
5	AE	80	LYS	CA-CB-CG	-5.66	102.77	114.10
8	AH	158	LYS	CA-C-N	5.66	127.87	120.28
8	AH	158	LYS	C-N-CA	5.66	127.87	120.28
26	BB	979	A	C3'-C2'-C1'	5.66	106.96	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1190	G	O4'-C4'-C3'	5.66	109.66	104.00
26	BB	1786	A	N9-C1'-C2'	5.66	120.49	112.00
26	BB	2377	A	O4'-C4'-C3'	5.66	109.66	104.00
26	BB	2561	U	O4'-C1'-N1	5.66	117.00	108.50
26	BB	2888	C	O4'-C4'-C3'	5.66	109.66	104.00
33	BI	114	GLU	CA-C-O	-5.66	114.59	121.05
48	BX	37	PRO	N-CA-CB	5.66	108.34	103.36
1	AA	1234	C	O4'-C4'-C3'	5.66	109.66	104.00
32	BH	15	ASP	CA-CB-CG	-5.66	106.94	112.60
43	BS	66	ALA	CA-C-N	5.66	128.18	120.54
43	BS	66	ALA	C-N-CA	5.66	128.18	120.54
1	AA	646	G	O5'-C5'-C4'	-5.66	103.01	111.50
5	AE	214	GLY	CA-C-N	5.66	130.26	120.58
5	AE	214	GLY	C-N-CA	5.66	130.26	120.58
26	BB	345	A	C4'-C3'-O3'	-5.66	100.91	109.40
26	BB	552	U	C4'-C3'-C2'	-5.66	96.94	102.60
26	BB	741	U	O4'-C1'-N1	5.66	116.99	108.50
26	BB	1460	U	C2'-C3'-O3'	-5.66	105.21	113.70
1	AA	358	U	C1'-C2'-O2'	5.66	116.89	108.40
1	AA	444	G	O4'-C1'-N9	5.66	116.99	108.50
22	AV	18	VAL	O-C-N	5.66	127.36	121.87
22	AV	26	ASP	CA-C-N	5.66	131.64	122.53
22	AV	26	ASP	C-N-CA	5.66	131.64	122.53
25	BA	100	G	O4'-C4'-C3'	5.66	109.66	104.00
36	BL	97	PRO	CA-C-N	5.66	128.64	120.38
36	BL	97	PRO	C-N-CA	5.66	128.64	120.38
41	BQ	1	MET	CA-C-N	5.66	129.39	121.24
41	BQ	1	MET	C-N-CA	5.66	129.39	121.24
41	BQ	24	THR	CA-C-N	5.66	130.97	123.05
41	BQ	24	THR	C-N-CA	5.66	130.97	123.05
1	AA	1238	A	P-O3'-C3'	5.66	128.69	120.20
24	AX	44	ARG	CA-C-N	5.66	132.34	121.54
24	AX	44	ARG	C-N-CA	5.66	132.34	121.54
26	BB	151	C	C4'-C3'-C2'	-5.66	96.94	102.60
26	BB	789	A	C5'-C4'-O4'	5.66	117.59	109.10
1	AA	1216	A	O5'-C5'-C4'	-5.66	103.02	111.50
9	AI	53	LYS	O-C-N	-5.66	115.07	122.59
26	BB	1153	C	O4'-C1'-C2'	5.66	113.25	107.60
26	BB	2193	G	C1'-C2'-O2'	5.66	116.88	108.40
26	BB	2560	A	O3'-P-O5'	5.66	112.48	104.00
31	BG	58	ALA	N-CA-C	5.66	118.99	111.75
45	BU	75	PHE	CA-CB-CG	5.66	119.46	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	295	C	C4'-C3'-C2'	-5.65	96.95	102.60
5	AE	10	LYS	N-CA-CB	-5.65	101.81	110.12
26	BB	70	G	O5'-C5'-C4'	5.65	120.18	111.70
26	BB	2539	C	O4'-C1'-C2'	-5.65	101.95	107.60
27	BC	219	GLY	O-C-N	5.65	128.41	122.59
56	B5	34	ARG	CA-C-O	-5.65	114.56	120.55
6	AF	7	ASN	CA-CB-CG	5.65	118.25	112.60
6	AF	119	ILE	O-C-N	-5.65	116.01	121.83
17	AQ	68	ARG	CA-C-N	5.65	126.91	119.84
17	AQ	68	ARG	C-N-CA	5.65	126.91	119.84
26	BB	925	A	O4'-C1'-N9	5.65	116.98	108.50
26	BB	2761	A	C3'-C2'-O2'	5.65	119.18	110.70
33	BI	120	GLY	O-C-N	5.65	128.99	122.60
1	AA	1507	A	C5'-C4'-C3'	-5.65	107.53	116.00
26	BB	161	A	C5'-C4'-O4'	5.65	118.28	109.80
26	BB	1550	C	O4'-C1'-N1	5.65	116.98	108.50
26	BB	2653	U	C5'-C4'-O4'	-5.65	101.33	109.80
34	BJ	83	TYR	CA-CB-CG	5.65	124.07	113.90
1	AA	372	C	C2'-C3'-O3'	5.65	117.97	109.50
25	BA	57	A	C3'-C2'-O2'	5.65	119.17	110.70
1	AA	149	A	C2'-C3'-O3'	-5.65	105.23	113.70
1	AA	709	U	C3'-C2'-C1'	5.65	106.95	101.30
1	AA	1382	C	O5'-C5'-C4'	-5.65	103.03	111.50
3	AC	21	U	N1-C1'-C2'	5.65	120.47	112.00
7	AG	62	ARG	NE-CZ-NH1	-5.65	115.85	121.50
26	BB	458	G	O3'-P-O5'	-5.65	95.53	104.00
26	BB	687	C	O4'-C1'-N1	5.65	116.97	108.50
26	BB	906	U	C5'-C4'-C3'	-5.65	107.53	116.00
26	BB	1899	A	C4'-C3'-C2'	-5.65	96.95	102.60
29	BE	24	VAL	CA-C-N	5.65	130.79	123.00
29	BE	24	VAL	C-N-CA	5.65	130.79	123.00
51	B0	56	LEU	CA-C-O	-5.65	114.83	121.16
15	AO	29	LYS	CA-C-O	5.65	127.09	120.43
18	AR	28	VAL	O-C-N	-5.65	116.38	121.91
26	BB	1080	A	O3'-P-O5'	-5.65	95.53	104.00
39	BO	122	ALA	CA-C-N	5.65	132.36	121.18
39	BO	122	ALA	C-N-CA	5.65	132.36	121.18
1	AA	618	C	C1'-O4'-C4'	-5.64	104.25	109.90
1	AA	759	A	O3'-P-O5'	5.64	112.47	104.00
4	AD	20	G	C1'-O4'-C4'	-5.64	104.06	109.70
4	AD	45	A	C2'-C3'-O3'	-5.64	105.23	113.70
26	BB	158	U	C1'-C2'-O2'	-5.64	99.93	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	224	U	C5'-C4'-O4'	5.64	118.27	109.80
26	BB	999	U	C1'-C2'-O2'	-5.64	99.93	108.40
26	BB	2140	G	O4'-C4'-C3'	5.64	109.64	104.00
26	BB	2685	G	C3'-C2'-C1'	-5.64	95.66	101.30
58	B7	5	ALA	CA-C-N	5.64	132.32	121.54
58	B7	5	ALA	C-N-CA	5.64	132.32	121.54
1	AA	937	A	O4'-C4'-C3'	5.64	109.64	104.00
5	AE	145	ASN	N-CA-C	-5.64	105.03	111.07
17	AQ	67	GLY	CA-C-N	5.64	130.31	121.17
17	AQ	67	GLY	C-N-CA	5.64	130.31	121.17
26	BB	1828	G	C3'-C2'-O2'	5.64	123.06	114.60
26	BB	1847	A	O4'-C4'-C3'	-5.64	98.36	104.00
29	BE	107	VAL	CA-C-O	-5.64	115.09	121.75
14	AN	52	ARG	CB-CA-C	5.64	121.64	110.42
25	BA	5	U	C1'-O4'-C4'	-5.64	104.26	109.90
26	BB	1252	G	O4'-C1'-C2'	5.64	111.44	105.80
26	BB	2795	C	O4'-C1'-N1	5.64	116.96	108.50
1	AA	902	G	P-O5'-C5'	5.64	129.36	120.90
1	AA	998	C	O4'-C1'-N1	5.64	116.96	108.50
6	AF	119	ILE	CA-CB-CG1	5.64	119.99	110.40
26	BB	1270	C	C3'-C2'-C1'	5.64	107.14	101.50
50	BZ	13	THR	CA-CB-OG1	5.64	118.06	109.60
10	AJ	116	ALA	N-CA-CB	-5.64	101.83	110.01
26	BB	591	U	P-O3'-C3'	5.64	128.66	120.20
26	BB	757	G	O4'-C1'-N9	5.64	116.96	108.50
36	BL	17	VAL	N-CA-CB	5.64	118.56	111.46
1	AA	346	G	C4'-C3'-C2'	-5.64	96.96	102.60
2	AB	52	A	C5'-C4'-C3'	-5.64	107.54	116.00
26	BB	1740	G	C1'-C2'-O2'	-5.64	99.94	108.40
26	BB	2794	C	O4'-C1'-N1	5.64	116.95	108.50
52	B1	15	ARG	CA-C-N	5.64	129.22	120.60
52	B1	15	ARG	C-N-CA	5.64	129.22	120.60
1	AA	408	A	O5'-C5'-C4'	5.63	119.95	111.50
1	AA	829	G	C4'-C3'-C2'	-5.63	96.97	102.60
1	AA	1457	G	O5'-C5'-C4'	5.63	119.95	111.50
17	AQ	24	ALA	N-CA-C	5.63	117.89	111.02
26	BB	350	G	C4'-C3'-O3'	5.63	121.45	113.00
26	BB	691	C	O4'-C4'-C3'	5.63	109.64	104.00
26	BB	1747	U	O5'-C5'-C4'	5.63	119.95	111.50
26	BB	1755	A	O4'-C1'-C2'	5.63	113.23	107.60
26	BB	2861	U	O3'-P-O5'	-5.63	95.55	104.00
26	BB	2231	U	O4'-C1'-N1	5.63	116.95	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	B0	31	GLN	N-CA-C	-5.63	105.06	111.14
1	AA	947	G	O3'-P-O5'	5.63	112.45	104.00
26	BB	858	G	C4'-C3'-C2'	-5.63	96.97	102.60
26	BB	2353	G	C3'-C2'-C1'	-5.63	95.67	101.30
28	BD	188	ARG	N-CA-C	-5.63	101.36	110.32
42	BR	93	LYS	CA-C-O	-5.63	114.53	121.06
57	B6	58	ILE	CB-CA-C	5.63	119.99	112.22
1	AA	509	A	C3'-C2'-C1'	5.63	106.93	101.30
1	AA	628	G	O4'-C4'-C3'	5.63	109.63	104.00
1	AA	1358	U	O4'-C1'-N1	5.63	116.94	108.50
1	AA	1490	U	C1'-O4'-C4'	-5.63	104.27	109.90
3	AC	15	G	C5'-C4'-O4'	5.63	118.25	109.80
3	AC	58	C	C3'-C2'-C1'	5.63	106.93	101.30
14	AN	120	CYS	N-CA-C	5.63	118.18	110.24
26	BB	760	G	C4'-C3'-C2'	5.63	108.23	102.60
26	BB	1067	A	P-O3'-C3'	5.63	128.65	120.20
1	AA	978	A	C5'-C4'-O4'	5.63	118.24	109.80
2	AB	48	U	C1'-O4'-C4'	-5.63	104.27	109.90
12	AL	93	LEU	N-CA-C	5.63	117.09	111.07
26	BB	785	G	C4'-C3'-O3'	-5.63	104.56	113.00
26	BB	1578	U	C4'-C3'-C2'	-5.63	96.97	102.60
26	BB	1979	U	C4'-C3'-C2'	-5.63	96.97	102.60
26	BB	2173	A	C1'-O4'-C4'	-5.63	104.27	109.90
26	BB	2506	U	O4'-C1'-N1	5.63	116.94	108.50
26	BB	2681	C	C5'-C4'-C3'	-5.63	106.76	115.20
26	BB	2715	C	O4'-C1'-C2'	-5.63	101.97	107.60
1	AA	142	G	C5'-C4'-C3'	-5.63	107.56	116.00
1	AA	531	U	O4'-C1'-C2'	5.63	111.43	105.80
1	AA	663	A	C1'-O4'-C4'	-5.63	104.27	109.90
1	AA	705	G	C2'-C3'-O3'	-5.63	105.26	113.70
1	AA	931	C	O3'-P-O5'	5.63	112.44	104.00
1	AA	1056	U	O5'-C5'-C4'	-5.63	103.06	111.50
26	BB	107	G	C3'-C2'-O2'	5.63	119.14	110.70
26	BB	741	U	C5'-C4'-C3'	-5.63	107.56	116.00
26	BB	1697	G	C2'-C3'-O3'	5.63	122.14	113.70
26	BB	2265	U	C3'-C2'-O2'	5.63	119.14	110.70
38	BN	74	THR	N-CA-C	5.63	118.80	109.46
1	AA	1229	A	N9-C1'-C2'	-5.62	103.56	112.00
26	BB	625	G	O3'-P-O5'	-5.62	95.56	104.00
26	BB	1029	A	O4'-C1'-N9	5.62	116.94	108.50
32	BH	41	GLU	N-CA-C	5.62	118.41	109.24
1	AA	526	C	O4'-C1'-C2'	-5.62	101.98	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1016	A	N9-C1'-C2'	-5.62	103.56	112.00
1	AA	1541	U	O4'-C1'-N1	5.62	116.94	108.50
5	AE	111	LYS	N-CA-C	5.62	117.41	111.28
26	BB	233	A	O4'-C1'-C2'	-5.62	101.98	107.60
26	BB	267	C	C1'-O4'-C4'	5.62	115.52	109.90
26	BB	1546	G	N9-C1'-C2'	-5.62	103.56	112.00
26	BB	1580	A	C4'-C3'-C2'	-5.62	96.98	102.60
26	BB	2225	A	O4'-C4'-C3'	-5.62	100.48	106.10
26	BB	2417	C	C4'-C3'-C2'	-5.62	96.98	102.60
26	BB	2486	C	O5'-C5'-C4'	5.62	119.93	111.50
26	BB	2595	G	O4'-C1'-N9	5.62	116.93	108.50
1	AA	168	G	C5'-C4'-C3'	-5.62	107.57	116.00
23	AW	62	ALA	N-CA-C	5.62	117.41	111.28
26	BB	251	A	P-O5'-C5'	5.62	129.33	120.90
26	BB	1040	A	C1'-O4'-C4'	-5.62	104.28	109.90
43	BS	106	THR	CA-CB-CG2	5.62	120.06	110.50
1	AA	1352	C	O4'-C1'-N1	5.62	116.93	108.50
26	BB	242	G	C4'-C3'-O3'	5.62	117.83	109.40
26	BB	2731	G	O4'-C1'-C2'	5.62	113.22	107.60
26	BB	2804	U	O5'-C5'-C4'	5.62	119.93	111.50
1	AA	647	C	C4'-C3'-C2'	-5.62	96.98	102.60
25	BA	111	U	C3'-C2'-C1'	5.62	106.92	101.30
26	BB	705	A	O5'-C5'-C4'	5.62	119.93	111.50
26	BB	810	U	C3'-C2'-C1'	5.62	106.92	101.30
26	BB	1170	C	C5'-C4'-C3'	-5.62	107.57	116.00
26	BB	1210	G	O4'-C1'-C2'	5.62	111.42	105.80
26	BB	1451	C	O4'-C4'-C3'	5.62	111.72	106.10
26	BB	2690	U	O4'-C1'-N1	5.62	116.63	108.20
26	BB	2722	G	C1'-O4'-C4'	5.62	115.52	109.90
26	BB	2739	U	C3'-C2'-O2'	5.62	119.13	110.70
31	BG	109	ARG	CD-NE-CZ	5.62	132.26	124.40
32	BH	77	GLY	CA-C-O	-5.62	114.93	121.00
41	BQ	55	GLU	N-CA-C	-5.62	102.16	110.48
1	AA	1350	A	C3'-C2'-C1'	-5.62	95.68	101.30
7	AG	96	ARG	NE-CZ-NH1	-5.62	115.88	121.50
13	AM	5	ARG	O-C-N	5.62	128.10	122.03
26	BB	1519	G	C5'-C4'-C3'	-5.62	107.58	116.00
1	AA	324	G	C3'-C2'-O2'	5.62	119.12	110.70
1	AA	1266	G	N9-C1'-C2'	-5.62	103.58	112.00
1	AA	1307	U	C2'-C3'-O3'	-5.62	105.28	113.70
1	AA	1410	A	C5'-C4'-C3'	-5.62	107.58	116.00
4	AD	26	C	C4'-C3'-C2'	-5.62	96.98	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AE	12	GLY	N-CA-C	5.62	121.62	114.66
6	AF	13	ILE	O-C-N	5.62	129.49	123.03
26	BB	299	A	O5'-C5'-C4'	-5.62	103.08	111.50
26	BB	525	U	C4'-C3'-O3'	-5.62	104.58	113.00
26	BB	834	G	C1'-O4'-C4'	5.62	115.52	109.90
26	BB	1147	A	C5'-C4'-C3'	-5.62	107.58	116.00
26	BB	1694	C	O4'-C1'-N1	5.62	116.62	108.20
26	BB	1825	U	C2'-C3'-O3'	-5.62	105.28	113.70
26	BB	2068	U	C4'-C3'-O3'	5.62	121.42	113.00
26	BB	2374	C	C5'-C4'-C3'	-5.62	107.58	116.00
26	BB	2841	C	O4'-C4'-C3'	5.62	109.61	104.00
26	BB	2894	G	O4'-C4'-C3'	5.62	109.61	104.00
27	BC	172	HIS	CB-CG-CD2	-5.62	123.90	131.20
1	AA	499	A	O4'-C1'-N9	5.61	116.62	108.20
1	AA	1062	U	C1'-O4'-C4'	-5.61	104.29	109.90
9	AI	79	ARG	CB-CA-C	5.61	120.11	110.79
26	BB	450	G	N9-C1'-C2'	-5.61	103.58	112.00
26	BB	770	G	C5'-C4'-C3'	-5.61	107.58	116.00
26	BB	1544	A	C5'-C4'-C3'	-5.61	107.58	116.00
26	BB	1729	U	O4'-C4'-C3'	5.61	109.61	104.00
26	BB	2289	G	C5'-C4'-O4'	5.61	118.22	109.80
26	BB	2744	G	O5'-C5'-C4'	-5.61	103.08	111.50
26	BB	2812	G	C3'-C2'-C1'	-5.61	95.69	101.30
45	BU	95	ARG	CA-C-O	-5.61	114.87	121.16
1	AA	250	A	C4'-C3'-C2'	-5.61	96.99	102.60
26	BB	1993	U	C4'-C3'-C2'	-5.61	96.99	102.60
1	AA	1185	G	C3'-C2'-O2'	5.61	119.11	110.70
26	BB	127	A	O3'-P-O5'	-5.61	95.58	104.00
26	BB	1080	A	C4'-C3'-C2'	-5.61	96.99	102.60
26	BB	1339	G	O3'-P-O5'	5.61	112.42	104.00
26	BB	2453	A	O3'-P-O5'	5.61	112.42	104.00
26	BB	2480	C	O4'-C1'-N1	5.61	116.92	108.50
26	BB	2581	G	C4'-C3'-O3'	5.61	117.82	109.40
27	BC	105	LYS	N-CA-C	5.61	117.20	111.14
1	AA	1045	C	C3'-C2'-C1'	-5.61	95.69	101.30
13	AM	85	ASP	CA-C-N	5.61	128.25	120.29
13	AM	85	ASP	C-N-CA	5.61	128.25	120.29
53	B2	44	PHE	CA-C-N	5.61	130.39	122.09
53	B2	44	PHE	C-N-CA	5.61	130.39	122.09
26	BB	114	U	O4'-C1'-C2'	-5.61	101.99	107.60
26	BB	156	A	C3'-C2'-O2'	5.61	119.11	110.70
26	BB	1115	G	C4'-C3'-C2'	-5.61	96.99	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2426	A	N9-C1'-C2'	-5.61	105.59	114.00
43	BS	67	ALA	O-C-N	-5.61	116.26	122.09
49	BY	67	LYS	CA-C-O	-5.61	114.47	120.42
1	AA	852	G	O3'-P-O5'	-5.61	95.59	104.00
26	BB	1480	C	C3'-C2'-C1'	5.61	106.91	101.30
26	BB	2267	A	N9-C1'-C2'	5.61	120.41	112.00
1	AA	386	C	C1'-O4'-C4'	5.60	115.50	109.90
9	AI	107	ASP	CA-C-N	5.60	127.72	120.44
9	AI	107	ASP	C-N-CA	5.60	127.72	120.44
26	BB	1249	U	O4'-C4'-C3'	5.60	109.60	104.00
1	AA	1252	A	O4'-C1'-N9	5.60	116.91	108.50
25	BA	35	C	O4'-C1'-N1	5.60	116.90	108.50
25	BA	118	C	C1'-O4'-C4'	-5.60	104.30	109.90
26	BB	353	C	C4'-C3'-C2'	-5.60	97.00	102.60
26	BB	429	A	C1'-O4'-C4'	5.60	115.50	109.90
26	BB	584	C	C5'-C4'-C3'	-5.60	107.60	116.00
26	BB	1723	G	P-O3'-C3'	5.60	128.60	120.20
27	BC	207	VAL	N-CA-C	5.60	116.83	108.54
28	BD	52	HIS	CB-CG-CD2	-5.60	123.92	131.20
28	BD	113	ASP	CA-CB-CG	5.60	118.20	112.60
30	BF	26	ALA	CA-C-N	5.60	128.06	120.44
30	BF	26	ALA	C-N-CA	5.60	128.06	120.44
44	BT	18	GLN	OE1-CD-NE2	-5.60	117.00	122.60
47	BW	11	ILE	CA-C-N	5.60	129.60	122.37
47	BW	11	ILE	C-N-CA	5.60	129.60	122.37
1	AA	420	U	O4'-C4'-C3'	5.60	109.60	104.00
1	AA	801	U	C2'-C3'-O3'	-5.60	105.30	113.70
10	AJ	150	PHE	CA-CB-CG	-5.60	108.20	113.80
26	BB	450	G	C2'-C3'-O3'	-5.60	105.30	113.70
26	BB	2232	C	O5'-C5'-C4'	5.60	119.90	111.50
31	BG	112	ASP	CA-CB-CG	5.60	118.20	112.60
53	B2	22	MET	O-C-N	5.60	128.04	122.10
1	AA	182	A	C3'-C2'-C1'	-5.60	95.90	101.50
1	AA	1197	A	C3'-C2'-O2'	5.60	119.10	110.70
12	AL	30	ASN	CB-CA-C	5.60	119.84	111.89
26	BB	648	G	O4'-C1'-N9	5.60	116.90	108.50
26	BB	1144	A	O4'-C1'-C2'	-5.60	102.00	107.60
26	BB	1997	C	O4'-C1'-N1	5.60	116.90	108.50
26	BB	2323	G	C4'-C3'-C2'	-5.60	97.00	102.60
27	BC	171	ILE	CA-C-O	-5.60	114.54	120.53
31	BG	126	ASN	OD1-CG-ND2	-5.60	117.00	122.60
36	BL	139	VAL	CB-CA-C	5.60	119.31	111.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1260	G	C2'-C3'-O3'	5.60	122.10	113.70
17	AQ	8	ARG	NE-CZ-NH2	-5.60	114.16	119.20
23	AW	25	SER	CA-C-O	-5.60	114.94	120.82
26	BB	94	A	O3'-P-O5'	5.60	112.40	104.00
48	BX	87	GLN	N-CA-C	-5.60	105.18	112.23
11	AK	26	MET	CB-CA-C	-5.60	103.93	110.76
24	AX	38	GLU	CA-C-N	5.60	127.97	120.58
24	AX	38	GLU	C-N-CA	5.60	127.97	120.58
26	BB	346	A	O4'-C1'-N9	5.60	116.89	108.50
26	BB	908	C	C3'-C2'-C1'	5.60	106.90	101.30
26	BB	2215	C	C5'-C4'-C3'	-5.60	107.61	116.00
26	BB	2302	U	C4'-C3'-C2'	-5.60	97.00	102.60
29	BE	80	TRP	NE1-CE2-CD2	-5.60	100.12	107.40
1	AA	703	G	O4'-C1'-C2'	-5.59	100.20	105.80
1	AA	878	A	C1'-O4'-C4'	-5.59	104.31	109.90
26	BB	435	C	C1'-O4'-C4'	5.59	115.50	109.90
26	BB	835	C	C5'-C4'-O4'	5.59	118.19	109.80
26	BB	2301	C	C2'-C3'-O3'	5.59	122.09	113.70
26	BB	418	C	O3'-P-O5'	5.59	112.39	104.00
26	BB	1415	U	C3'-C2'-C1'	-5.59	95.71	101.30
1	AA	444	G	C3'-C2'-O2'	5.59	119.09	110.70
1	AA	1179	A	C3'-C2'-O2'	5.59	119.09	110.70
26	BB	92	U	C4'-C3'-C2'	-5.59	97.01	102.60
26	BB	476	G	O4'-C1'-N9	5.59	116.89	108.50
26	BB	645	C	C3'-C2'-C1'	-5.59	95.71	101.30
36	BL	123	LYS	CA-C-O	-5.59	114.57	121.06
1	AA	506	G	O4'-C1'-C2'	5.59	113.19	107.60
26	BB	116	C	N1-C1'-C2'	-5.59	103.61	112.00
26	BB	412	A	O4'-C1'-N9	5.59	116.89	108.50
26	BB	1472	C	C2'-C3'-O3'	-5.59	105.31	113.70
26	BB	1904	G	C1'-O4'-C4'	-5.59	104.31	109.90
26	BB	2707	U	C4'-C3'-C2'	-5.59	97.01	102.60
39	BO	85	GLY	CA-C-N	5.59	129.71	120.94
39	BO	85	GLY	C-N-CA	5.59	129.71	120.94
1	AA	831	A	O4'-C4'-C3'	5.59	109.59	104.00
26	BB	1716	U	C1'-C2'-O2'	5.59	116.78	108.40
26	BB	1850	G	O4'-C4'-C3'	5.59	109.59	104.00
26	BB	2073	C	P-O5'-C5'	-5.59	112.52	120.90
26	BB	2426	A	O4'-C1'-C2'	5.59	111.39	105.80
26	BB	2721	A	C4'-C3'-O3'	5.59	121.38	113.00
33	BI	97	ARG	CA-C-O	-5.59	112.38	119.31
44	BT	66	HIS	CB-CG-CD2	-5.59	123.94	131.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	988	G	C4'-C3'-C2'	-5.59	97.01	102.60
1	AA	1213	A	O4'-C1'-C2'	-5.59	102.01	107.60
26	BB	274	C	C5'-C4'-O4'	5.59	118.18	109.80
26	BB	358	U	C4'-C3'-C2'	-5.59	97.01	102.60
26	BB	723	C	N1-C1'-C2'	-5.59	103.62	112.00
26	BB	1331	G	O4'-C1'-C2'	-5.59	102.01	107.60
29	BE	203	VAL	N-CA-CB	5.59	118.71	111.67
26	BB	2006	C	O4'-C1'-N1	5.58	116.88	108.50
31	BG	104	THR	CA-CB-CG2	5.58	119.99	110.50
1	AA	117	G	C4'-C3'-O3'	5.58	121.37	113.00
1	AA	997	U	C5'-C4'-C3'	-5.58	107.62	116.00
25	BA	109	A	C1'-O4'-C4'	5.58	115.48	109.90
26	BB	776	G	C3'-C2'-C1'	5.58	107.08	101.50
26	BB	780	G	P-O3'-C3'	5.58	128.57	120.20
26	BB	2826	A	O4'-C4'-C3'	5.58	109.58	104.00
22	AV	52	ASN	CB-CA-C	5.58	120.15	110.72
26	BB	414	C	C4'-C3'-C2'	-5.58	97.02	102.60
26	BB	1666	G	C3'-C2'-C1'	5.58	106.88	101.30
26	BB	1924	C	O4'-C1'-N1	5.58	116.87	108.50
26	BB	2435	A	C4'-C3'-C2'	-5.58	97.02	102.60
31	BG	104	THR	N-CA-C	5.58	118.08	111.33
1	AA	128	G	C2'-C3'-O3'	5.58	122.07	113.70
1	AA	640	A	C4'-C3'-C2'	-5.58	97.02	102.60
1	AA	1093	A	C2'-C3'-O3'	-5.58	105.33	113.70
26	BB	1301	A	O4'-C1'-C2'	-5.58	100.22	105.80
26	BB	2130	U	C5'-C4'-C3'	-5.58	107.63	116.00
50	BZ	7	THR	CB-CA-C	5.58	118.92	109.55
1	AA	1293	C	C1'-C2'-O2'	5.58	116.77	108.40
1	AA	1364	U	C3'-C2'-C1'	5.58	106.88	101.30
4	AD	2	G	C5'-C4'-O4'	5.58	118.17	109.80
30	BF	35	TYR	CD1-CG-CD2	5.58	126.47	118.10
30	BF	129	PRO	N-CD-CG	5.58	111.56	103.20
1	AA	1429	A	C3'-C2'-C1'	-5.58	95.72	101.30
15	AO	94	TYR	CG-CD2-CE2	-5.58	112.84	121.20
16	AP	56	ARG	O-C-N	-5.58	116.21	122.12
26	BB	751	A	O5'-C5'-C4'	-5.58	103.14	111.50
26	BB	894	U	C1'-O4'-C4'	-5.58	104.32	109.90
26	BB	1006	C	C3'-C2'-C1'	-5.58	95.72	101.30
26	BB	1085	A	C1'-O4'-C4'	-5.58	104.33	109.90
26	BB	1328	A	O4'-C4'-C3'	5.58	109.58	104.00
26	BB	1364	G	P-O3'-C3'	5.58	128.56	120.20
26	BB	1745	A	N9-C1'-C2'	-5.58	103.64	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2501	C	O5'-C5'-C4'	5.58	119.86	111.50
30	BF	88	ARG	NH1-CZ-NH2	5.58	126.55	119.30
26	BB	776	G	O4'-C1'-N9	5.57	116.56	108.20
26	BB	909	A	O5'-C5'-C4'	5.57	119.86	111.50
26	BB	1405	U	O4'-C4'-C3'	5.57	109.57	104.00
26	BB	1626	A	O4'-C4'-C3'	5.57	111.67	106.10
26	BB	2099	U	C3'-C2'-O2'	5.57	119.06	110.70
29	BE	208	LYS	CB-CA-C	5.57	118.72	109.53
31	BG	54	ALA	CA-C-N	5.57	130.02	120.71
31	BG	54	ALA	C-N-CA	5.57	130.02	120.71
50	BZ	50	VAL	CA-C-O	-5.57	114.32	121.40
20	AT	44	HIS	ND1-CE1-NE2	5.57	113.97	108.40
26	BB	1266	G	C2'-C3'-O3'	5.57	117.86	109.50
26	BB	1292	G	C4'-C3'-C2'	-5.57	97.03	102.60
26	BB	1471	G	P-O5'-C5'	5.57	129.26	120.90
26	BB	1730	C	C3'-C2'-C1'	-5.57	95.73	101.30
34	BJ	119	ALA	CA-C-N	5.57	130.11	120.58
34	BJ	119	ALA	C-N-CA	5.57	130.11	120.58
45	BU	12	SER	O-C-N	-5.57	116.89	123.41
48	BX	51	GLN	CA-C-N	5.57	130.15	120.68
48	BX	51	GLN	C-N-CA	5.57	130.15	120.68
1	AA	1290	G	O4'-C4'-C3'	-5.57	98.43	104.00
3	AC	47	C	C3'-C2'-C1'	5.57	107.07	101.50
6	AF	218	LYS	O-C-N	5.57	125.95	120.71
26	BB	100	U	O4'-C1'-C2'	5.57	111.37	105.80
26	BB	1673	G	P-O3'-C3'	5.57	128.56	120.20
26	BB	2488	G	N9-C1'-C2'	5.57	120.36	112.00
26	BB	2816	G	C3'-C2'-O2'	-5.57	102.34	110.70
32	BH	96	ALA	O-C-N	5.57	129.98	122.96
43	BS	102	LYS	CA-C-N	5.57	128.38	120.53
43	BS	102	LYS	C-N-CA	5.57	128.38	120.53
57	B6	20	GLY	N-CA-C	-5.57	104.57	112.37
9	AI	26	THR	CA-CB-CG2	5.57	119.97	110.50
26	BB	2428	G	C4'-C3'-O3'	5.57	121.35	113.00
1	AA	558	G	C5'-C4'-C3'	-5.57	107.65	116.00
1	AA	835	U	C5'-C4'-O4'	-5.57	101.45	109.80
5	AE	109	SER	CB-CA-C	5.57	121.74	110.38
12	AL	3	ASN	CA-CB-CG	-5.57	107.03	112.60
25	BA	65	U	O4'-C4'-C3'	5.57	109.57	104.00
26	BB	224	U	C4'-C3'-O3'	-5.57	104.65	113.00
26	BB	341	C	N1-C1'-C2'	-5.57	103.65	112.00
26	BB	965	C	C4'-C3'-C2'	-5.57	97.03	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	BC	98	GLU	CA-C-N	5.57	128.77	120.31
27	BC	98	GLU	C-N-CA	5.57	128.77	120.31
28	BD	43	ASN	CA-C-N	5.57	128.51	120.38
28	BD	43	ASN	C-N-CA	5.57	128.51	120.38
31	BG	10	GLU	N-CA-C	5.57	119.76	112.13
33	BI	26	ALA	N-CA-C	5.57	118.09	110.24
34	BJ	45	ARG	NE-CZ-NH2	-5.57	114.19	119.20
34	BJ	135	ILE	CA-C-N	5.57	128.20	120.29
34	BJ	135	ILE	C-N-CA	5.57	128.20	120.29
1	AA	52	C	O4'-C4'-C3'	-5.57	98.43	104.00
1	AA	83	C	C4'-C3'-C2'	-5.57	97.03	102.60
1	AA	1502	A	C4'-C3'-C2'	-5.57	97.03	102.60
3	AC	57	C	C4'-C3'-C2'	-5.57	97.03	102.60
5	AE	164	ASP	CA-CB-CG	5.57	118.17	112.60
25	BA	48	U	C5'-C4'-C3'	-5.57	107.65	116.00
26	BB	198	C	O4'-C1'-N1	5.57	116.85	108.50
26	BB	301	G	C2'-C3'-O3'	5.57	117.85	109.50
26	BB	872	U	O4'-C4'-C3'	5.57	109.56	104.00
26	BB	1382	G	C4'-C3'-C2'	-5.57	97.03	102.60
26	BB	2299	U	C4'-C3'-C2'	-5.57	97.03	102.60
28	BD	179	GLU	O-C-N	5.57	129.66	122.81
37	BM	68	GLY	CA-C-N	5.57	130.74	123.06
37	BM	68	GLY	C-N-CA	5.57	130.74	123.06
1	AA	195	A	C4'-C3'-C2'	-5.56	97.04	102.60
26	BB	192	C	C3'-C2'-O2'	5.56	119.05	110.70
26	BB	1048	A	C4'-C3'-O3'	-5.56	104.65	113.00
1	AA	29	U	C4'-C3'-C2'	-5.56	97.04	102.60
1	AA	391	G	C2'-C3'-O3'	-5.56	105.36	113.70
1	AA	475	C	O4'-C1'-N1	5.56	116.84	108.50
1	AA	507	C	P-O5'-C5'	5.56	129.24	120.90
1	AA	720	C	C1'-O4'-C4'	-5.56	104.34	109.90
1	AA	1251	A	C4'-C3'-O3'	-5.56	104.66	113.00
14	AN	117	HIS	CA-C-O	-5.56	112.55	120.51
26	BB	435	C	O4'-C4'-C3'	-5.56	98.44	104.00
26	BB	1237	A	O4'-C1'-N9	5.56	116.54	108.20
26	BB	1816	C	P-O5'-C5'	5.56	129.25	120.90
26	BB	2152	G	C5'-C4'-C3'	-5.56	107.66	116.00
26	BB	2201	G	N9-C1'-C2'	-5.56	103.66	112.00
26	BB	2464	G	O4'-C1'-C2'	-5.56	102.04	107.60
44	BT	26	ASP	O-C-N	5.56	128.49	122.15
45	BU	62	ASP	CA-CB-CG	5.56	118.16	112.60
1	AA	167	A	O4'-C1'-N9	5.56	116.84	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	175	C	C4'-C3'-O3'	5.56	121.34	113.00
1	AA	1507	A	C3'-C2'-O2'	5.56	119.04	110.70
1	AA	1517	G	C3'-C2'-C1'	5.56	106.86	101.30
26	BB	929	U	C4'-C3'-C2'	-5.56	97.04	102.60
35	BK	9	LYS	CB-CA-C	5.56	118.71	109.53
41	BQ	47	VAL	CB-CA-C	5.56	117.24	111.23
53	B2	26	SER	CA-C-O	5.56	127.38	120.54
1	AA	441	A	O4'-C1'-N9	5.56	116.84	108.50
1	AA	1246	A	O4'-C1'-C2'	-5.56	102.04	107.60
1	AA	1390	U	C5'-C4'-C3'	-5.56	107.66	116.00
20	AT	72	TRP	O-C-N	5.56	129.67	122.89
26	BB	668	A	O3'-P-O5'	-5.56	95.66	104.00
26	BB	1682	G	N9-C1'-C2'	-5.56	103.66	112.00
26	BB	2099	U	O4'-C1'-N1	5.56	116.84	108.50
26	BB	2627	G	C3'-C2'-C1'	-5.56	95.74	101.30
37	BM	49	ARG	O-C-N	-5.56	115.67	122.34
37	BM	88	ASN	CA-CB-CG	5.56	118.16	112.60
45	BU	110	ARG	N-CA-CB	5.56	119.95	110.50
1	AA	822	U	O4'-C1'-N1	5.56	116.84	108.50
1	AA	1100	C	N1-C1'-C2'	5.56	120.34	112.00
10	AJ	52	ARG	NE-CZ-NH1	5.56	127.06	121.50
26	BB	269	C	N1-C1'-C2'	-5.56	103.67	112.00
26	BB	544	C	C4'-C3'-O3'	-5.56	104.66	113.00
26	BB	577	G	O4'-C1'-N9	5.56	116.84	108.50
26	BB	1685	C	O4'-C1'-N1	5.56	116.84	108.50
26	BB	2091	C	C2'-C3'-O3'	-5.56	105.36	113.70
26	BB	2287	A	O4'-C1'-N9	5.56	116.54	108.20
26	BB	2837	A	C4'-C3'-C2'	-5.56	97.04	102.60
27	BC	103	GLN	O-C-N	5.56	127.87	122.09
33	BI	50	ARG	NE-CZ-NH1	5.56	127.06	121.50
5	AE	40	ILE	CB-CA-C	5.56	117.67	111.45
26	BB	200	U	C5'-C4'-C3'	-5.56	107.67	116.00
26	BB	797	G	O4'-C1'-C2'	-5.56	102.04	107.60
26	BB	1102	C	C5'-C4'-O4'	5.56	118.13	109.80
26	BB	1388	G	C3'-C2'-C1'	-5.56	95.74	101.30
26	BB	2358	A	C5'-C4'-C3'	-5.56	107.67	116.00
26	BB	2459	A	O4'-C1'-C2'	-5.56	102.04	107.60
1	AA	67	C	C3'-C2'-C1'	5.55	106.86	101.30
1	AA	1012	A	C3'-C2'-C1'	5.55	106.86	101.30
1	AA	1287	A	C4'-C3'-C2'	-5.55	97.05	102.60
1	AA	1388	C	N1-C1'-C2'	5.55	120.33	112.00
26	BB	278	A	C4'-C3'-C2'	5.55	108.15	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	609	A	C2'-C3'-O3'	-5.55	105.37	113.70
26	BB	1068	G	N9-C1'-C2'	-5.55	103.67	112.00
26	BB	2289	G	C1'-O4'-C4'	-5.55	104.34	109.90
36	BL	33	ALA	CA-C-N	5.55	127.66	120.44
36	BL	33	ALA	C-N-CA	5.55	127.66	120.44
14	AN	126	ARG	CA-C-O	-5.55	115.66	121.55
26	BB	1541	C	O4'-C1'-N1	5.55	116.83	108.50
26	BB	2250	G	C3'-C2'-C1'	5.55	107.05	101.50
9	AI	33	GLU	CA-C-N	5.55	129.61	121.67
9	AI	33	GLU	C-N-CA	5.55	129.61	121.67
14	AN	37	GLN	CA-C-N	5.55	132.29	121.41
14	AN	37	GLN	C-N-CA	5.55	132.29	121.41
26	BB	1744	A	N9-C1'-C2'	-5.55	103.67	112.00
29	BE	2	ILE	CA-CB-CG1	5.55	119.84	110.40
31	BG	94	ARG	O-C-N	5.55	128.00	122.12
34	BJ	44	GLY	CA-C-O	-5.55	115.03	120.75
35	BK	73	PRO	CA-C-N	5.55	125.55	119.89
35	BK	73	PRO	C-N-CA	5.55	125.55	119.89
1	AA	937	A	C4'-C3'-C2'	-5.55	97.05	102.60
2	AB	29	G	N9-C1'-C2'	-5.55	103.68	112.00
25	BA	119	A	C4'-C3'-C2'	-5.55	97.05	102.60
26	BB	986	C	O4'-C1'-N1	5.55	116.83	108.50
26	BB	1502	A	O4'-C4'-C3'	5.55	109.55	104.00
26	BB	1664	A	C5'-C4'-O4'	5.55	118.12	109.80
26	BB	2174	C	C4'-C3'-C2'	-5.55	97.05	102.60
26	BB	2554	U	C4'-C3'-C2'	-5.55	97.05	102.60
27	BC	162	ARG	NE-CZ-NH2	5.55	124.19	119.20
25	BA	115	A	O4'-C4'-C3'	5.55	109.55	104.00
26	BB	2056	G	O5'-C5'-C4'	5.55	119.82	111.50
1	AA	1294	G	C1'-C2'-O2'	5.55	116.72	108.40
1	AA	1331	G	N9-C1'-C2'	5.55	120.32	112.00
1	AA	1511	G	N9-C1'-C2'	5.55	120.32	112.00
8	AH	129	SER	CB-CA-C	5.55	118.55	109.90
17	AQ	60	ARG	CA-C-N	5.55	132.13	121.54
17	AQ	60	ARG	C-N-CA	5.55	132.13	121.54
24	AX	11	PHE	CA-C-N	5.55	128.27	120.28
24	AX	11	PHE	C-N-CA	5.55	128.27	120.28
26	BB	304	U	O4'-C1'-N1	5.55	116.82	108.50
26	BB	559	G	O4'-C4'-C3'	5.55	109.55	104.00
26	BB	618	G	C5'-C4'-O4'	5.55	118.12	109.80
30	BF	166	LYS	CB-CA-C	5.55	119.95	111.02
1	AA	303	A	C5'-C4'-O4'	5.54	118.12	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	623	C	C3'-C2'-O2'	5.54	119.02	110.70
23	AW	52	GLU	CA-C-N	5.54	128.16	120.29
23	AW	52	GLU	C-N-CA	5.54	128.16	120.29
26	BB	2397	G	O4'-C1'-C2'	-5.54	102.06	107.60
40	BP	73	ASN	CA-C-N	5.54	128.16	120.29
40	BP	73	ASN	C-N-CA	5.54	128.16	120.29
1	AA	305	G	P-O5'-C5'	5.54	129.21	120.90
1	AA	995	C	C1'-C2'-O2'	-5.54	100.08	108.40
1	AA	1029	U	N1-C1'-C2'	-5.54	105.69	114.00
1	AA	1236	A	C4'-C3'-O3'	-5.54	104.69	113.00
26	BB	122	G	P-O5'-C5'	5.54	129.21	120.90
26	BB	524	G	C4'-C3'-O3'	-5.54	104.69	113.00
26	BB	1610	A	N9-C1'-C2'	-5.54	105.69	114.00
26	BB	2124	G	C4'-C3'-C2'	-5.54	97.06	102.60
28	BD	244	VAL	CA-CB-CG2	5.54	119.82	110.40
50	BZ	15	ASN	CA-CB-CG	5.54	118.14	112.60
1	AA	10	A	C1'-O4'-C4'	-5.54	104.36	109.90
1	AA	1110	A	N9-C1'-C2'	-5.54	103.69	112.00
9	AI	46	GLN	OE1-CD-NE2	-5.54	117.06	122.60
17	AQ	65	GLN	N-CA-CB	5.54	118.36	110.16
25	BA	109	A	P-O3'-C3'	5.54	128.51	120.20
26	BB	448	U	C3'-C2'-O2'	-5.54	106.29	114.60
26	BB	2636	C	O4'-C1'-N1	5.54	116.81	108.50
48	BX	76	ASP	CA-C-O	5.54	127.42	121.44
55	B4	39	ASP	N-CA-C	5.54	117.46	109.04
56	B5	34	ARG	N-CA-C	5.54	117.32	111.28
1	AA	226	G	C4'-C3'-C2'	5.54	108.14	102.60
1	AA	527	7MG	P-O3'-C3'	5.54	128.51	120.20
11	AK	55	LYS	CB-CA-C	5.54	118.01	109.15
1	AA	342	C	C2'-C3'-O3'	-5.54	105.39	113.70
1	AA	548	G	O5'-C5'-C4'	-5.54	103.19	111.50
2	AB	49	G	C4'-C3'-C2'	-5.54	97.06	102.60
26	BB	141	G	C5'-C4'-C3'	-5.54	107.69	116.00
26	BB	407	G	C1'-O4'-C4'	5.54	115.44	109.90
26	BB	1195	G	C4'-C3'-C2'	-5.54	97.06	102.60
26	BB	1236	G	O3'-P-O5'	5.54	112.31	104.00
26	BB	1614	A	O4'-C1'-C2'	5.54	113.14	107.60
26	BB	2291	U	C2'-C3'-O3'	5.54	122.01	113.70
26	BB	2762	C	C1'-O4'-C4'	-5.54	104.36	109.90
38	BN	4	ASN	CA-C-N	5.54	130.26	121.18
38	BN	4	ASN	C-N-CA	5.54	130.26	121.18
39	BO	92	TRP	CG-CD2-CE3	-5.54	128.36	133.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	413	G	C3'-C2'-C1'	5.54	107.04	101.50
5	AE	23	ASN	CA-C-N	5.54	125.89	119.47
5	AE	23	ASN	C-N-CA	5.54	125.89	119.47
26	BB	2608	G	C4'-C3'-C2'	-5.54	97.06	102.60
28	BD	89	ASN	OD1-CG-ND2	5.54	128.14	122.60
28	BD	152	GLN	CA-C-O	5.54	126.20	119.11
1	AA	561	U	C5'-C4'-C3'	-5.54	107.70	116.00
8	AH	19	ARG	CD-NE-CZ	5.54	132.15	124.40
26	BB	90	U	C5'-C4'-C3'	-5.54	107.70	116.00
26	BB	282	A	O5'-C5'-C4'	5.54	119.80	111.50
26	BB	359	G	C3'-C2'-O2'	5.54	119.00	110.70
29	BE	19	GLY	CA-C-N	5.54	130.24	123.10
29	BE	19	GLY	C-N-CA	5.54	130.24	123.10
35	BK	92	PRO	CB-CA-C	-5.54	103.73	110.98
47	BW	35	VAL	CA-C-O	-5.54	114.63	120.39
53	B2	51	VAL	CA-CB-CG1	5.54	119.81	110.40
55	B4	44	GLN	CA-C-O	-5.54	115.31	121.51
6	AF	106	ARG	CA-C-O	5.53	127.09	120.28
16	AP	8	ILE	O-C-N	5.53	127.41	121.10
26	BB	139	U	C1'-O4'-C4'	-5.53	104.17	109.70
26	BB	1638	C	C3'-C2'-C1'	5.53	106.83	101.30
26	BB	2644	G	C2'-C3'-O3'	-5.53	105.40	113.70
35	BK	8	VAL	O-C-N	-5.53	116.19	122.72
25	BA	42	C	C5'-C4'-O4'	5.53	118.10	109.80
26	BB	2064	C	O5'-C5'-C4'	5.53	119.80	111.50
26	BB	2528	U	C2'-C3'-O3'	-5.53	105.40	113.70
1	AA	204	G	O5'-C5'-C4'	5.53	119.80	111.50
1	AA	528	C	C5'-C4'-O4'	5.53	118.10	109.80
1	AA	1348	U	C1'-C2'-O2'	-5.53	100.10	108.40
5	AE	207	ARG	CA-C-O	-5.53	113.61	119.97
6	AF	210	MET	CA-CB-CG	-5.53	103.04	114.10
26	BB	1217	U	C1'-C2'-O2'	-5.53	100.11	108.40
26	BB	1413	A	C5'-C4'-O4'	-5.53	101.50	109.80
26	BB	1563	U	C4'-C3'-C2'	-5.53	97.07	102.60
26	BB	2459	A	C2'-C3'-O3'	-5.53	105.40	113.70
45	BU	29	VAL	O-C-N	-5.53	116.51	121.87
2	AB	48	U	C5'-C4'-C3'	-5.53	107.71	116.00
26	BB	1620	G	C5'-C4'-C3'	-5.53	107.71	116.00
1	AA	942	G	C1'-C2'-O2'	5.53	116.69	108.40
1	AA	944	G	C1'-O4'-C4'	-5.53	104.37	109.90
1	AA	1387	G	C1'-O4'-C4'	-5.53	104.37	109.90
4	AD	26	C	O4'-C4'-C3'	5.53	109.53	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	AJ	138	GLU	CA-C-N	5.53	127.69	120.28
10	AJ	138	GLU	C-N-CA	5.53	127.69	120.28
26	BB	436	C	N1-C1'-C2'	-5.53	103.71	112.00
26	BB	438	G	O4'-C1'-N9	5.53	116.79	108.50
26	BB	1333	G	C1'-O4'-C4'	5.53	115.43	109.90
26	BB	1889	A	C3'-C2'-O2'	5.53	118.99	110.70
11	AK	10	LEU	CA-C-N	5.53	128.13	120.29
11	AK	10	LEU	C-N-CA	5.53	128.13	120.29
15	AO	16	ALA	O-C-N	5.53	129.20	122.68
15	AO	52	CYS	O-C-N	-5.53	116.19	123.21
26	BB	909	A	N9-C1'-C2'	-5.53	103.71	112.00
26	BB	2266	A	C4'-C3'-C2'	-5.53	97.08	102.60
1	AA	207	C	C1'-O4'-C4'	-5.52	104.38	109.90
6	AF	26	LYS	CA-CB-CG	5.52	125.15	114.10
26	BB	67	U	O4'-C1'-N1	5.52	116.79	108.50
26	BB	2045	C	O5'-C5'-C4'	5.52	119.79	111.50
1	AA	735	C	O4'-C4'-C3'	5.52	109.52	104.00
1	AA	1041	G	N9-C1'-C2'	-5.52	103.72	112.00
1	AA	1436	U	P-O3'-C3'	5.52	128.48	120.20
3	AC	39	U	O3'-P-O5'	-5.52	95.72	104.00
20	AT	45	VAL	N-CA-C	5.52	115.84	108.11
25	BA	114	C	O3'-P-O5'	-5.52	95.72	104.00
26	BB	1207	C	O4'-C1'-C2'	-5.52	102.08	107.60
26	BB	2470	G	C1'-O4'-C4'	-5.52	104.38	109.90
53	B2	55	GLY	CA-C-N	5.52	129.76	122.42
53	B2	55	GLY	C-N-CA	5.52	129.76	122.42
1	AA	505	G	C5'-C4'-C3'	-5.52	107.72	116.00
1	AA	1031	C	O4'-C1'-C2'	-5.52	100.28	105.80
26	BB	628	G	C1'-O4'-C4'	-5.52	104.38	109.90
46	BV	68	LYS	CA-C-N	5.52	132.09	121.54
46	BV	68	LYS	C-N-CA	5.52	132.09	121.54
1	AA	22	G	O4'-C4'-C3'	5.52	109.52	104.00
1	AA	481	G	O5'-C5'-C4'	-5.52	103.42	111.70
1	AA	929	G	O4'-C1'-C2'	-5.52	102.08	107.60
1	AA	1123	U	C3'-C2'-C1'	5.52	106.82	101.30
16	AP	12	LYS	CA-C-O	-5.52	114.87	121.11
26	BB	798	G	O5'-C5'-C4'	-5.52	103.22	111.50
26	BB	1511	G	O4'-C1'-N9	5.52	116.78	108.50
1	AA	166	U	C2'-C3'-O3'	-5.52	105.42	113.70
1	AA	760	G	O5'-C5'-C4'	5.52	119.78	111.50
1	AA	994	A	N9-C1'-C2'	5.52	120.28	112.00
1	AA	1127	G	N9-C1'-C2'	-5.52	103.72	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	25	C	C2'-C3'-O3'	5.52	121.98	113.70
11	AK	12	ARG	NE-CZ-NH1	5.52	127.02	121.50
26	BB	1192	G	C4'-C3'-C2'	-5.52	97.08	102.60
26	BB	1568	G	C5'-C4'-C3'	-5.52	107.72	116.00
26	BB	2415	G	C3'-C2'-C1'	5.52	106.82	101.30
26	BB	2889	C	O4'-C4'-C3'	5.52	109.52	104.00
1	AA	1234	C	C4'-C3'-C2'	-5.52	97.08	102.60
1	AA	1291	U	O4'-C4'-C3'	5.52	109.52	104.00
26	BB	897	C	C1'-O4'-C4'	-5.52	104.38	109.90
26	BB	900	A	C5'-C4'-O4'	5.52	118.07	109.80
38	BN	80	SER	CA-C-O	-5.52	115.03	120.82
1	AA	179	A	C3'-C2'-C1'	-5.51	95.79	101.30
1	AA	189	A	C3'-C2'-O2'	5.51	118.97	110.70
1	AA	396	C	P-O5'-C5'	5.51	129.17	120.90
1	AA	576	C	C5'-C4'-C3'	-5.51	106.93	115.20
1	AA	952	U	C4'-C3'-O3'	5.51	121.27	113.00
16	AP	56	ARG	CA-C-N	5.51	128.12	120.29
16	AP	56	ARG	C-N-CA	5.51	128.12	120.29
26	BB	1394	U	O3'-P-O5'	-5.51	95.73	104.00
26	BB	1443	U	O4'-C4'-C3'	-5.51	98.48	104.00
26	BB	1597	A	C5'-C4'-C3'	-5.51	107.73	116.00
26	BB	2497	A	O4'-C1'-N9	5.51	116.47	108.20
42	BR	24	THR	CA-C-N	5.51	131.90	121.97
42	BR	24	THR	C-N-CA	5.51	131.90	121.97
7	AG	48	SER	CA-C-O	-5.51	115.65	121.88
26	BB	242	G	P-O3'-C3'	5.51	128.47	120.20
26	BB	1135	C	N1-C1'-C2'	5.51	120.27	112.00
26	BB	2019	A	O3'-P-O5'	5.51	112.27	104.00
28	BD	45	ASN	CA-CB-CG	5.51	118.11	112.60
46	BV	73	ARG	O-C-N	5.51	124.91	120.83
1	AA	128	G	P-O3'-C3'	5.51	128.47	120.20
4	AD	53	G	C4'-C3'-C2'	-5.51	97.09	102.60
12	AL	33	SER	CA-C-N	5.51	127.93	120.38
12	AL	33	SER	C-N-CA	5.51	127.93	120.38
12	AL	62	LEU	CD1-CG-CD2	-5.51	98.68	110.80
26	BB	1786	A	O5'-C5'-C4'	5.51	119.77	111.50
26	BB	2571	U	O4'-C1'-N1	5.51	116.77	108.50
26	BB	2657	A	O5'-C5'-C4'	-5.51	103.23	111.50
29	BE	87	GLY	O-C-N	-5.51	116.28	122.78
56	B5	3	ARG	NE-CZ-NH2	5.51	124.16	119.20
1	AA	665	A	C4'-C3'-C2'	-5.51	97.09	102.60
3	AC	23	C	O4'-C1'-C2'	-5.51	102.09	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	455	C	O4'-C1'-N1	-5.51	100.23	108.50
26	BB	1888	G	O3'-P-O5'	5.51	112.26	104.00
26	BB	1996	C	O4'-C1'-N1	5.51	116.46	108.20
45	BU	19	LEU	CA-C-N	5.51	128.24	120.42
45	BU	19	LEU	C-N-CA	5.51	128.24	120.42
1	AA	1044	A	O5'-C5'-C4'	-5.51	103.24	111.50
23	AW	71	ALA	N-CA-C	5.51	117.74	111.02
1	AA	358	U	C5'-C4'-C3'	-5.51	107.74	116.00
1	AA	1443	C	O4'-C1'-N1	5.51	116.76	108.50
1	AA	1447	A	C5'-C4'-C3'	-5.51	106.94	115.20
23	AW	29	THR	N-CA-C	5.51	117.28	111.28
26	BB	267	C	O4'-C1'-C2'	-5.51	102.09	107.60
26	BB	668	A	C4'-C3'-C2'	-5.51	97.09	102.60
26	BB	768	G	C1'-O4'-C4'	5.51	115.41	109.90
26	BB	1512	C	C1'-C2'-O2'	-5.51	100.14	108.40
26	BB	1670	C	C4'-C3'-O3'	5.51	121.26	113.00
26	BB	2544	G	O3'-P-O5'	5.51	112.26	104.00
27	BC	146	THR	CB-CA-C	5.51	118.19	109.55
27	BC	149	VAL	CA-C-O	-5.51	115.33	121.17
47	BW	102	ILE	CA-CB-CG2	5.51	119.86	110.50
9	AI	103	VAL	N-CA-CB	5.50	117.62	110.57
26	BB	1079	C	C4'-C3'-C2'	-5.50	97.09	102.60
26	BB	2338	C	C4'-C3'-C2'	-5.50	97.09	102.60
29	BE	121	THR	O-C-N	5.50	129.67	123.06
1	AA	325	A	O4'-C1'-N9	5.50	116.75	108.50
1	AA	487	A	O4'-C1'-N9	5.50	116.75	108.50
1	AA	1104	G	O4'-C4'-C3'	-5.50	98.50	104.00
1	AA	1106	G	O4'-C1'-N9	5.50	116.76	108.50
26	BB	45	G	C3'-C2'-C1'	5.50	106.80	101.30
26	BB	817	C	C3'-C2'-C1'	5.50	106.80	101.30
26	BB	1950	G	C3'-C2'-C1'	5.50	106.80	101.30
26	BB	2447	G	C4'-C3'-C2'	-5.50	97.10	102.60
26	BB	2825	G	C4'-C3'-C2'	-5.50	97.10	102.60
1	AA	706	A	C2'-C3'-O3'	5.50	121.95	113.70
1	AA	740	U	C4'-C3'-C2'	-5.50	97.10	102.60
2	AB	1	A	O5'-C5'-C4'	-5.50	103.25	111.50
2	AB	10	G	P-O5'-C5'	5.50	129.15	120.90
2	AB	76	A	C5'-C4'-O4'	5.50	118.05	109.80
8	AH	17	VAL	N-CA-C	-5.50	101.09	108.35
26	BB	1197	G	O4'-C1'-N9	5.50	116.75	108.50
26	BB	1663	G	C4'-C3'-O3'	-5.50	104.75	113.00
26	BB	2694	G	C1'-O4'-C4'	5.50	115.40	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	BD	79	ARG	N-CA-CB	-5.50	101.76	111.39
31	BG	33	ILE	O-C-N	-5.50	117.10	122.99
52	B1	51	SER	CA-C-N	5.50	130.77	121.14
52	B1	51	SER	C-N-CA	5.50	130.77	121.14
58	B7	18	LYS	CA-C-N	5.50	130.09	122.77
58	B7	18	LYS	C-N-CA	5.50	130.09	122.77
1	AA	1199	U	C3'-C2'-O2'	5.50	118.95	110.70
13	AM	31	ARG	NE-CZ-NH1	5.50	127.00	121.50
26	BB	1170	C	O4'-C1'-N1	5.50	116.75	108.50
26	BB	2148	G	C4'-C3'-C2'	-5.50	97.10	102.60
1	AA	867	G	O4'-C1'-C2'	-5.50	102.10	107.60
4	AD	16	C	C4'-C3'-C2'	-5.50	97.10	102.60
12	AL	81	GLY	CA-C-N	5.50	128.23	120.42
12	AL	81	GLY	C-N-CA	5.50	128.23	120.42
26	BB	570	G	C1'-O4'-C4'	-5.50	104.20	109.70
26	BB	676	A	C2'-C3'-O3'	-5.50	105.45	113.70
26	BB	1136	G	O3'-P-O5'	-5.50	95.75	104.00
26	BB	2028	U	O4'-C4'-C3'	-5.50	98.50	104.00
26	BB	2885	G	P-O3'-C3'	5.50	128.45	120.20
28	BD	259	ASN	CA-C-N	5.50	130.37	122.40
28	BD	259	ASN	C-N-CA	5.50	130.37	122.40
37	BM	45	GLU	CA-C-O	-5.50	112.65	120.51
41	BQ	36	TYR	CG-CD1-CE1	-5.50	112.95	121.20
1	AA	197	A	C2'-C3'-O3'	5.50	117.75	109.50
1	AA	643	C	P-O3'-C3'	5.50	128.44	120.20
1	AA	790	A	O5'-C5'-C4'	-5.50	103.46	111.70
16	AP	26	LYS	CA-C-N	5.50	127.59	120.44
16	AP	26	LYS	C-N-CA	5.50	127.59	120.44
23	AW	66	ILE	CA-C-N	5.50	132.04	121.54
23	AW	66	ILE	C-N-CA	5.50	132.04	121.54
26	BB	1225	G	P-O5'-C5'	5.50	129.15	120.90
26	BB	2845	U	O3'-P-O5'	-5.50	95.75	104.00
35	BK	102	ARG	CA-C-N	5.50	128.09	120.29
35	BK	102	ARG	C-N-CA	5.50	128.09	120.29
40	BP	68	ALA	N-CA-C	5.50	118.45	111.69
42	BR	2	ASN	CA-C-N	5.50	129.31	120.30
42	BR	2	ASN	C-N-CA	5.50	129.31	120.30
1	AA	1506	U	O4'-C1'-C2'	-5.50	100.31	105.80
26	BB	781	A	C5'-C4'-O4'	5.50	118.04	109.80
26	BB	885	C	C3'-C2'-O2'	5.50	118.94	110.70
26	BB	1984	G	O4'-C1'-N9	5.50	116.74	108.50
1	AA	963	G	N9-C1'-C2'	-5.49	103.76	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1606	C	C3'-C2'-O2'	5.49	118.94	110.70
26	BB	1934	C	O4'-C1'-N1	5.49	116.74	108.50
26	BB	2243	U	O4'-C1'-C2'	-5.49	102.11	107.60
26	BB	2390	U	O4'-C1'-N1	5.49	116.74	108.50
1	AA	963	G	O4'-C4'-C3'	5.49	109.49	104.00
1	AA	1116	U	O4'-C1'-N1	5.49	116.74	108.50
4	AD	74	A	C1'-C2'-O2'	-5.49	103.56	111.80
26	BB	2603	G	P-O3'-C3'	5.49	128.44	120.20
39	BO	110	GLU	CA-CB-CG	5.49	125.08	114.10
12	AL	127	SER	CA-C-N	5.49	132.03	121.54
12	AL	127	SER	C-N-CA	5.49	132.03	121.54
14	AN	11	VAL	CB-CA-C	5.49	119.28	110.82
15	AO	77	SER	N-CA-C	5.49	118.93	110.42
26	BB	119	A	C4'-C3'-O3'	5.49	117.64	109.40
26	BB	561	G	C1'-O4'-C4'	5.49	115.39	109.90
26	BB	875	G	N9-C1'-C2'	-5.49	103.76	112.00
26	BB	976	G	O5'-C5'-C4'	5.49	119.73	111.50
26	BB	2333	A	P-O3'-C3'	5.49	128.44	120.20
1	AA	245	U	C4'-C3'-C2'	-5.49	97.11	102.60
1	AA	1373	G	O4'-C4'-C3'	5.49	109.49	104.00
8	AH	102	THR	CA-C-N	5.49	129.90	121.45
8	AH	102	THR	C-N-CA	5.49	129.90	121.45
10	AJ	118	ARG	CA-C-O	-5.49	115.06	120.82
26	BB	528	A	C3'-C2'-O2'	5.49	118.93	110.70
26	BB	627	A	O4'-C4'-C3'	5.49	111.59	106.10
26	BB	734	A	C5'-C4'-O4'	5.49	118.03	109.80
26	BB	1655	A	C2'-C3'-O3'	-5.49	105.47	113.70
27	BC	106	LYS	O-C-N	5.49	127.94	122.12
49	BY	24	ARG	N-CA-CB	-5.49	102.07	110.85
26	BB	786	C	O3'-P-O5'	-5.49	95.77	104.00
26	BB	1153	C	C5'-C4'-C3'	-5.49	107.77	116.00
26	BB	1865	U	C1'-O4'-C4'	-5.49	104.21	109.70
26	BB	2147	A	C5'-C4'-O4'	5.49	118.03	109.80
30	BF	128	ALA	O-C-N	-5.49	116.72	121.71
1	AA	1239	A	C4'-C3'-O3'	-5.49	101.17	109.40
26	BB	823	C	C5'-C4'-C3'	-5.49	107.77	116.00
26	BB	1179	G	C3'-C2'-O2'	5.49	118.93	110.70
26	BB	1764	C	C3'-C2'-C1'	-5.49	95.81	101.30
26	BB	2543	G	P-O5'-C5'	5.49	129.13	120.90
26	BB	2598	A	O4'-C4'-C3'	5.49	109.48	104.00
26	BB	2847	U	C5'-C4'-C3'	-5.49	107.77	116.00
27	BC	2	ALA	N-CA-CB	-5.49	103.85	112.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	212	G	O3'-P-O5'	5.48	112.23	104.00
1	AA	296	U	C3'-C2'-C1'	-5.48	95.82	101.30
2	AB	67	G	C5'-C4'-C3'	-5.48	107.77	116.00
23	AW	69	ASN	CA-C-N	5.48	127.94	120.54
23	AW	69	ASN	C-N-CA	5.48	127.94	120.54
26	BB	351	C	O4'-C1'-C2'	5.48	113.08	107.60
39	BO	10	ARG	NE-CZ-NH2	5.48	124.14	119.20
47	BW	90	LYS	CA-C-O	-5.48	115.58	121.56
1	AA	170	U	O4'-C1'-C2'	5.48	113.08	107.60
1	AA	378	G	O4'-C1'-N9	5.48	116.72	108.50
1	AA	442	G	C4'-C3'-C2'	-5.48	97.12	102.60
1	AA	920	U	C4'-C3'-C2'	-5.48	97.12	102.60
1	AA	1024	G	O4'-C1'-N9	5.48	116.72	108.50
1	AA	1318	A	C1'-C2'-O2'	5.48	116.62	108.40
1	AA	1470	U	O4'-C4'-C3'	5.48	109.48	104.00
26	BB	144	A	C4'-C3'-C2'	-5.48	97.12	102.60
26	BB	311	A	C4'-C3'-C2'	-5.48	97.12	102.60
26	BB	1056	G	C2'-C3'-O3'	-5.48	105.48	113.70
26	BB	2366	A	C3'-C2'-C1'	5.48	106.78	101.30
26	BB	2660	A	C5'-C4'-C3'	5.48	124.22	116.00
28	BD	43	ASN	OD1-CG-ND2	-5.48	117.12	122.60
34	BJ	47	ALA	CA-C-N	5.48	131.02	120.66
34	BJ	47	ALA	C-N-CA	5.48	131.02	120.66
1	AA	58	C	O4'-C4'-C3'	5.48	109.48	104.00
1	AA	575	G	C3'-C2'-O2'	-5.48	106.38	114.60
1	AA	757	U	C5'-C4'-C3'	-5.48	107.78	116.00
1	AA	1031	C	O3'-P-O5'	-5.48	95.78	104.00
26	BB	2186	G	C4'-C3'-C2'	-5.48	97.12	102.60
26	BB	2317	A	C5'-C4'-C3'	-5.48	107.78	116.00
37	BM	9	ASN	CA-C-N	5.48	127.84	120.50
37	BM	9	ASN	C-N-CA	5.48	127.84	120.50
42	BR	81	ASP	CA-C-O	-5.48	113.31	120.00
42	BR	97	TYR	CB-CG-CD1	-5.48	112.58	120.80
1	AA	5	U	O4'-C1'-C2'	-5.48	100.32	105.80
1	AA	285	C	C2'-C3'-O3'	5.48	121.92	113.70
1	AA	420	U	O5'-C5'-C4'	5.48	119.72	111.50
1	AA	1506	U	C4'-C3'-O3'	-5.48	101.19	109.40
15	AO	118	VAL	N-CA-CB	-5.48	104.80	111.21
25	BA	18	G	O4'-C1'-C2'	-5.48	102.12	107.60
26	BB	1233	C	C1'-C2'-O2'	5.48	116.61	108.40
26	BB	1545	A	C1'-C2'-O2'	5.48	116.62	108.40
26	BB	1811	G	P-O3'-C3'	5.48	128.42	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2455	G	O5'-C5'-C4'	5.48	119.72	111.50
26	BB	2670	A	N9-C1'-C2'	-5.48	103.78	112.00
26	BB	2814	A	C2'-C3'-O3'	-5.48	105.48	113.70
36	BL	28	LEU	CA-C-O	-5.48	115.06	120.70
1	AA	927	G	O5'-C5'-C4'	-5.48	103.28	111.50
1	AA	1270	G	C5'-C4'-O4'	5.48	118.02	109.80
1	AA	1333	A	C4'-C3'-C2'	-5.48	97.12	102.60
3	AC	54	U	O3'-P-O5'	5.48	112.21	104.00
1	AA	170	U	C1'-O4'-C4'	-5.47	104.42	109.90
1	AA	1162	C	C5'-C4'-C3'	-5.47	107.79	116.00
1	AA	1391	U	N1-C1'-C2'	5.47	120.21	112.00
1	AA	1535	C	C3'-C2'-C1'	5.47	106.77	101.30
26	BB	1642	G	C4'-C3'-C2'	5.47	108.07	102.60
27	BC	147	PRO	CA-C-N	5.47	132.00	121.54
27	BC	147	PRO	C-N-CA	5.47	132.00	121.54
1	AA	372	C	C5'-C4'-O4'	-5.47	100.89	109.10
1	AA	1529	G	O4'-C1'-N9	5.47	116.71	108.50
16	AP	105	ALA	N-CA-CB	-5.47	102.39	110.49
26	BB	1059	G	O4'-C1'-C2'	5.47	113.07	107.60
26	BB	1520	U	C5'-C4'-C3'	-5.47	107.79	116.00
26	BB	1734	G	O4'-C1'-N9	5.47	116.71	108.50
26	BB	2040	G	O4'-C1'-C2'	-5.47	102.13	107.60
26	BB	151	C	C2'-C3'-O3'	5.47	121.91	113.70
26	BB	462	C	O4'-C1'-N1	5.47	116.71	108.50
30	BF	187	VAL	CA-C-O	-5.47	115.05	120.85
1	AA	1024	G	C4'-C3'-C2'	-5.47	97.13	102.60
1	AA	1079	G	O4'-C1'-C2'	-5.47	102.13	107.60
1	AA	1310	G	C4'-C3'-C2'	-5.47	97.13	102.60
1	AA	1534	A	O4'-C4'-C3'	5.47	111.57	106.10
10	AJ	95	ARG	CA-C-O	-5.47	115.08	120.82
26	BB	273	G	C4'-C3'-C2'	-5.47	97.13	102.60
26	BB	753	A	C5'-C4'-O4'	5.47	118.00	109.80
26	BB	1287	A	C5'-C4'-C3'	-5.47	107.80	116.00
26	BB	2450	A	P-O5'-C5'	5.47	129.10	120.90
26	BB	2508	G	C4'-C3'-O3'	-5.47	104.80	113.00
46	BV	46	ALA	CA-C-N	5.47	129.93	121.34
46	BV	46	ALA	C-N-CA	5.47	129.93	121.34
14	AN	124	LYS	N-CA-C	5.47	118.00	111.71
26	BB	244	A	C4'-C3'-O3'	5.47	121.20	113.00
26	BB	1093	G	P-O5'-C5'	5.47	129.10	120.90
35	BK	70	THR	CA-C-N	5.47	131.40	122.81
35	BK	70	THR	C-N-CA	5.47	131.40	122.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	965	U	C4'-C3'-O3'	-5.47	101.20	109.40
10	AJ	69	ARG	O-C-N	5.47	125.96	121.31
13	AM	74	VAL	CA-C-N	5.47	131.98	121.54
13	AM	74	VAL	C-N-CA	5.47	131.98	121.54
26	BB	1370	C	C1'-O4'-C4'	5.47	115.37	109.90
26	BB	1461	C	O4'-C1'-N1	5.47	116.70	108.50
26	BB	2363	G	C3'-C2'-C1'	-5.47	95.83	101.30
26	BB	2793	C	C5'-C4'-O4'	-5.47	101.60	109.80
28	BD	152	GLN	N-CA-C	5.47	119.79	113.18
28	BD	242	HIS	CA-C-N	5.47	125.23	119.76
28	BD	242	HIS	C-N-CA	5.47	125.23	119.76
41	BQ	62	LEU	CA-C-O	-5.47	114.82	121.05
41	BQ	79	ALA	O-C-N	-5.47	116.44	122.07
42	BR	20	ARG	CD-NE-CZ	5.47	132.05	124.40
1	AA	424	G	C5'-C4'-C3'	5.46	124.20	116.00
1	AA	466	A	C3'-C2'-O2'	5.46	118.90	110.70
1	AA	522	C	C4'-C3'-C2'	-5.46	97.14	102.60
25	BA	110	C	C3'-C2'-O2'	5.46	118.90	110.70
26	BB	1035	U	C1'-O4'-C4'	5.46	115.36	109.90
26	BB	1043	C	O4'-C4'-C3'	5.46	109.47	104.00
26	BB	1583	A	C3'-C2'-O2'	5.46	122.80	114.60
26	BB	2200	C	O4'-C1'-N1	5.46	116.70	108.50
26	BB	2482	A	C4'-C3'-C2'	-5.46	97.14	102.60
1	AA	195	A	N9-C1'-C2'	5.46	120.19	112.00
4	AD	25	U	C4'-C3'-C2'	-5.46	97.14	102.60
34	BJ	74	ALA	N-CA-C	5.46	119.93	113.16
26	BB	1790	C	P-O3'-C3'	5.46	128.39	120.20
54	B3	14	MET	CA-C-N	5.46	128.61	120.31
54	B3	14	MET	C-N-CA	5.46	128.61	120.31
1	AA	275	G	O4'-C1'-N9	5.46	116.69	108.50
1	AA	943	U	O4'-C1'-N1	5.46	116.69	108.50
1	AA	993	G	O4'-C4'-C3'	5.46	111.56	106.10
26	BB	120	U	C3'-C2'-C1'	5.46	106.96	101.50
26	BB	974	G	C4'-C3'-C2'	-5.46	97.14	102.60
26	BB	1378	A	C3'-C2'-O2'	-5.46	106.41	114.60
26	BB	2171	A	O5'-C5'-C4'	-5.46	103.51	111.70
28	BD	261	ARG	CA-C-O	-5.46	111.66	118.54
39	BO	82	MET	O-C-N	-5.46	116.42	122.86
46	BV	77	ARG	O-C-N	5.46	129.84	122.96
1	AA	1058	G	C1'-O4'-C4'	5.46	115.36	109.90
1	AA	1181	G	O4'-C4'-C3'	5.46	111.56	106.10
23	AW	74	HIS	CE1-NE2-CD2	-5.46	103.54	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	233	A	C3'-C2'-C1'	5.46	106.76	101.30
26	BB	236	C	O4'-C1'-N1	5.46	116.69	108.50
26	BB	568	U	C3'-C2'-C1'	5.46	106.76	101.30
26	BB	1556	C	O4'-C1'-N1	5.46	116.68	108.50
26	BB	2432	A	C4'-C3'-O3'	5.46	121.19	113.00
39	BO	71	LYS	CA-C-N	5.46	125.36	119.85
39	BO	71	LYS	C-N-CA	5.46	125.36	119.85
48	BX	90	ASP	CA-CB-CG	5.46	118.06	112.60
50	BZ	31	ASN	CA-C-N	5.46	131.96	121.54
50	BZ	31	ASN	C-N-CA	5.46	131.96	121.54
51	B0	8	GLU	CA-C-N	5.46	128.99	120.75
51	B0	8	GLU	C-N-CA	5.46	128.99	120.75
1	AA	700	G	O3'-P-O5'	-5.46	95.82	104.00
2	AB	51	G	O4'-C1'-N9	5.46	116.68	108.50
22	AV	22	VAL	CA-C-N	5.46	128.13	120.28
22	AV	22	VAL	C-N-CA	5.46	128.13	120.28
22	AV	70	LEU	N-CA-CB	-5.46	102.10	110.12
26	BB	1902	C	C5'-C4'-O4'	-5.46	101.62	109.80
26	BB	2872	A	N9-C1'-C2'	5.46	120.18	112.00
40	BP	9	GLN	CA-C-N	5.46	131.96	121.54
40	BP	9	GLN	C-N-CA	5.46	131.96	121.54
56	B5	16	HIS	CA-CB-CG	5.46	119.25	113.80
1	AA	333	U	C2'-C3'-O3'	5.45	121.88	113.70
24	AX	58	LYS	CA-C-N	5.45	127.86	120.44
24	AX	58	LYS	C-N-CA	5.45	127.86	120.44
26	BB	2066	C	C3'-C2'-O2'	5.45	118.88	110.70
26	BB	2121	G	O4'-C1'-C2'	-5.45	102.15	107.60
26	BB	2648	G	C4'-C3'-C2'	-5.45	97.15	102.60
28	BD	47	ARG	NE-CZ-NH2	-5.45	114.29	119.20
35	BK	120	ASP	CA-C-O	5.45	127.14	120.60
36	BL	85	LYS	CA-C-N	5.45	130.81	121.87
36	BL	85	LYS	C-N-CA	5.45	130.81	121.87
40	BP	112	TYR	CB-CG-CD2	-5.45	112.62	120.80
43	BS	27	ARG	N-CA-C	5.45	118.73	111.75
47	BW	35	VAL	CA-C-N	5.45	128.61	120.87
47	BW	35	VAL	C-N-CA	5.45	128.61	120.87
26	BB	704	G	P-O5'-C5'	-5.45	112.72	120.90
26	BB	1222	U	C4'-C3'-C2'	-5.45	97.15	102.60
4	AD	48	U	O4'-C1'-N1	5.45	116.68	108.50
9	AI	25	TYR	CA-C-N	5.45	128.59	120.31
9	AI	25	TYR	C-N-CA	5.45	128.59	120.31
18	AR	60	SER	N-CA-CB	5.45	118.13	110.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2210	U	C3'-C2'-O2'	-5.45	106.42	114.60
26	BB	2557	G	C1'-O4'-C4'	-5.45	104.45	109.90
29	BE	114	LYS	N-CA-CB	-5.45	103.65	110.90
30	BF	129	PRO	CA-N-CD	-5.45	104.37	112.00
32	BH	139	VAL	CA-C-N	5.45	128.16	120.42
32	BH	139	VAL	C-N-CA	5.45	128.16	120.42
38	BN	23	ILE	N-CA-CB	-5.45	104.83	112.35
44	BT	43	ASN	O-C-N	-5.45	115.34	122.59
26	BB	72	U	C1'-O4'-C4'	5.45	115.15	109.70
26	BB	1142	A	O5'-C5'-C4'	5.45	119.87	111.70
26	BB	1281	G	C4'-C3'-C2'	-5.45	97.15	102.60
26	BB	1309	G	P-O3'-C3'	5.45	128.37	120.20
26	BB	1321	A	O3'-P-O5'	-5.45	95.83	104.00
26	BB	2027	G	O4'-C4'-C3'	5.45	109.45	104.00
26	BB	2262	U	C5'-C4'-O4'	5.45	117.97	109.80
26	BB	2612	C	C4'-C3'-C2'	-5.45	97.15	102.60
26	BB	2636	C	O4'-C1'-C2'	-5.45	102.15	107.60
8	AH	28	ARG	CA-C-N	5.45	128.39	120.98
8	AH	28	ARG	C-N-CA	5.45	128.39	120.98
1	AA	224	U	C4'-C3'-O3'	-5.45	104.83	113.00
1	AA	505	G	C1'-O4'-C4'	-5.45	104.45	109.90
1	AA	694	A	O4'-C1'-C2'	-5.45	102.16	107.60
1	AA	892	A	N9-C1'-C2'	-5.45	103.83	112.00
7	AG	60	VAL	CA-C-N	5.45	127.84	120.38
7	AG	60	VAL	C-N-CA	5.45	127.84	120.38
26	BB	653	U	P-O5'-C5'	5.45	129.07	120.90
26	BB	1149	G	N9-C1'-C2'	-5.45	103.83	112.00
26	BB	1595	C	O4'-C1'-N1	5.45	116.67	108.50
28	BD	86	ARG	N-CA-C	5.45	117.25	109.14
52	B1	56	VAL	CA-CB-CG1	5.45	119.66	110.40
56	B5	7	PRO	CA-N-CD	-5.45	104.38	112.00
57	B6	53	ASP	CA-CB-CG	-5.45	107.16	112.60
18	AR	56	LEU	CA-C-N	5.44	127.84	120.65
18	AR	56	LEU	C-N-CA	5.44	127.84	120.65
26	BB	154	U	O4'-C1'-C2'	-5.44	102.16	107.60
26	BB	374	A	P-O3'-C3'	5.44	128.37	120.20
26	BB	629	G	C4'-C3'-C2'	-5.44	97.16	102.60
26	BB	1753	G	P-O5'-C5'	5.44	129.07	120.90
31	BG	19	PHE	CA-C-N	5.44	130.08	122.08
31	BG	19	PHE	C-N-CA	5.44	130.08	122.08
1	AA	31	G	O4'-C4'-C3'	-5.44	100.66	106.10
1	AA	355	C	C3'-C2'-C1'	5.44	106.74	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	818	G	C5'-C4'-O4'	5.44	117.26	109.10
1	AA	1047	G	O3'-P-O5'	-5.44	95.84	104.00
1	AA	1063	C	O4'-C4'-C3'	5.44	109.44	104.00
25	BA	12	C	C4'-C3'-C2'	-5.44	97.16	102.60
25	BA	33	G	C4'-C3'-C2'	-5.44	97.16	102.60
25	BA	69	G	C2'-C3'-O3'	-5.44	105.54	113.70
26	BB	250	G	O4'-C1'-C2'	5.44	113.04	107.60
26	BB	1055	G	C4'-C3'-O3'	5.44	121.16	113.00
26	BB	1874	C	C4'-C3'-C2'	-5.44	97.16	102.60
26	BB	2086	U	C1'-O4'-C4'	-5.44	104.46	109.90
38	BN	104	GLN	N-CA-C	-5.44	106.64	113.28
52	B1	49	ALA	O-C-N	5.44	128.96	122.27
1	AA	1246	A	O5'-C5'-C4'	5.44	119.66	111.50
23	AW	28	ARG	NE-CZ-NH2	5.44	124.10	119.20
25	BA	112	G	C3'-C2'-C1'	5.44	106.74	101.30
26	BB	149	A	C5'-C4'-C3'	5.44	124.16	116.00
26	BB	296	U	C3'-C2'-O2'	5.44	118.86	110.70
26	BB	1044	C	C3'-C2'-C1'	-5.44	95.86	101.30
26	BB	2510	C	C1'-O4'-C4'	-5.44	104.46	109.90
26	BB	2822	G	O4'-C4'-C3'	5.44	109.44	104.00
1	AA	474	G	C2'-C3'-O3'	-5.44	105.54	113.70
18	AR	79	ARG	NE-CZ-NH2	5.44	124.09	119.20
26	BB	2667	C	C5'-C4'-C3'	-5.44	107.84	116.00
1	AA	74	A	C5'-C4'-O4'	5.44	117.96	109.80
1	AA	1111	A	O5'-C5'-C4'	-5.44	103.34	111.50
1	AA	1292	G	O4'-C1'-N9	5.44	116.66	108.50
1	AA	1328	C	C5'-C4'-C3'	-5.44	107.84	116.00
12	AL	91	GLU	N-CA-C	5.44	118.13	111.82
12	AL	114	LYS	CA-C-N	5.44	127.79	120.50
12	AL	114	LYS	C-N-CA	5.44	127.79	120.50
26	BB	226	A	C3'-C2'-C1'	5.44	106.74	101.30
26	BB	502	A	O4'-C1'-N9	5.44	116.66	108.50
26	BB	811	U	C1'-C2'-O2'	5.44	119.96	111.80
26	BB	1781	U	C1'-C2'-O2'	5.44	119.95	111.80
26	BB	1886	U	C1'-O4'-C4'	5.44	115.34	109.90
26	BB	2661	G	O4'-C1'-N9	5.44	116.66	108.50
26	BB	2808	G	C3'-C2'-O2'	5.44	118.86	110.70
26	BB	2839	G	C5'-C4'-C3'	-5.44	107.84	116.00
26	BB	2894	G	C4'-C3'-C2'	-5.44	97.16	102.60
28	BD	60	ALA	O-C-N	5.44	128.99	122.79
30	BF	22	ASP	CA-C-O	-5.44	114.83	121.36
1	AA	874	G	C3'-C2'-O2'	5.44	118.85	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1527	G	O4'-C4'-C3'	5.44	109.44	104.00
36	BL	4	PHE	CA-CB-CG	5.44	119.24	113.80
37	BM	107	LEU	CB-CA-C	5.44	119.75	110.56
1	AA	740	U	O4'-C1'-C2'	-5.43	102.17	107.60
26	BB	309	A	P-O3'-C3'	5.43	128.35	120.20
37	BM	72	PRO	N-CD-CG	5.43	111.35	103.20
43	BS	27	ARG	CD-NE-CZ	5.43	132.01	124.40
47	BW	81	ARG	NE-CZ-NH2	-5.43	114.31	119.20
48	BX	75	GLN	CA-C-N	5.43	128.81	120.82
48	BX	75	GLN	C-N-CA	5.43	128.81	120.82
1	AA	671	G	C4'-C3'-C2'	-5.43	97.17	102.60
16	AP	33	LEU	CA-C-N	5.43	127.82	120.38
16	AP	33	LEU	C-N-CA	5.43	127.82	120.38
18	AR	68	TYR	CA-C-N	5.43	127.56	120.28
18	AR	68	TYR	C-N-CA	5.43	127.56	120.28
26	BB	1256	G	C3'-C2'-C1'	-5.43	95.87	101.30
26	BB	1465	G	P-O5'-C5'	5.43	129.05	120.90
26	BB	1722	A	C4'-C3'-C2'	-5.43	97.17	102.60
34	BJ	130	THR	CA-C-N	5.43	127.82	120.38
34	BJ	130	THR	C-N-CA	5.43	127.82	120.38
35	BK	113	ALA	N-CA-C	5.43	117.90	111.33
1	AA	1184	G	C1'-O4'-C4'	5.43	115.33	109.90
1	AA	447	G	C5'-C4'-C3'	-5.43	107.86	116.00
1	AA	717	U	C5'-C4'-C3'	-5.43	107.86	116.00
1	AA	1227	A	C1'-C2'-O2'	5.43	119.94	111.80
4	AD	60	A	O4'-C4'-C3'	5.43	109.43	104.00
5	AE	218	ALA	CA-C-O	-5.43	115.12	120.82
26	BB	429	A	C5'-C4'-C3'	5.43	124.14	116.00
26	BB	483	A	N9-C1'-C2'	5.43	120.14	112.00
26	BB	1200	C	C5'-C4'-O4'	5.43	117.94	109.80
26	BB	2315	G	C4'-C3'-C2'	-5.43	97.17	102.60
26	BB	2537	U	O4'-C1'-N1	5.43	116.64	108.50
26	BB	2574	G	C2'-C3'-O3'	-5.43	105.56	113.70
29	BE	81	GLU	CB-CA-C	5.43	120.73	109.38
43	BS	65	ASN	CB-CA-C	5.43	119.40	110.88
1	AA	650	G	O3'-P-O5'	5.43	112.14	104.00
26	BB	779	U	C4'-C3'-C2'	-5.43	97.17	102.60
26	BB	2363	G	C4'-C3'-O3'	5.43	121.14	113.00
1	AA	1225	A	P-O3'-C3'	5.43	128.34	120.20
1	AA	1325	C	O4'-C1'-N1	5.43	116.64	108.50
26	BB	109	C	O5'-C5'-C4'	5.43	119.64	111.50
26	BB	810	U	O4'-C1'-N1	5.43	116.64	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1364	G	O4'-C4'-C3'	5.43	109.43	104.00
26	BB	2009	A	C2'-C3'-O3'	-5.43	105.56	113.70
26	BB	2190	G	C4'-C3'-O3'	5.43	121.14	113.00
29	BE	152	PRO	CA-C-N	5.43	130.21	120.77
29	BE	152	PRO	C-N-CA	5.43	130.21	120.77
1	AA	50	A	C4'-C3'-C2'	-5.42	97.18	102.60
1	AA	57	G	P-O3'-C3'	5.42	128.34	120.20
1	AA	75	G	O3'-P-O5'	5.42	112.14	104.00
1	AA	92	U	O4'-C4'-C3'	5.42	109.42	104.00
5	AE	233	GLU	CA-C-N	5.42	127.99	120.29
5	AE	233	GLU	C-N-CA	5.42	127.99	120.29
10	AJ	112	ASP	N-CA-CB	5.42	118.02	110.04
25	BA	44	G	C4'-C3'-O3'	-5.42	101.26	109.40
26	BB	1035	U	O4'-C4'-C3'	-5.42	98.58	104.00
26	BB	1044	C	C3'-C2'-O2'	5.42	118.84	110.70
26	BB	1176	U	O4'-C1'-N1	5.42	116.64	108.50
26	BB	2032	G	O4'-C1'-C2'	5.42	111.22	105.80
26	BB	2357	G	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	2426	A	C3'-C2'-O2'	-5.42	106.46	114.60
29	BE	182	ALA	N-CA-C	5.42	117.08	110.41
38	BN	62	PRO	N-CA-C	5.42	120.00	111.38
44	BT	60	LYS	CA-C-N	5.42	131.26	122.53
44	BT	60	LYS	C-N-CA	5.42	131.26	122.53
46	BV	38	ALA	CA-C-N	5.42	131.90	121.54
46	BV	38	ALA	C-N-CA	5.42	131.90	121.54
1	AA	17	U	C4'-C3'-C2'	-5.42	97.18	102.60
8	AH	51	LYS	O-C-N	-5.42	117.06	123.41
8	AH	134	ASN	CB-CA-C	5.42	118.18	109.07
16	AP	9	PRO	N-CA-CB	5.42	107.86	103.36
54	B3	14	MET	N-CA-C	-5.42	105.45	111.36
1	AA	503	C	O5'-C5'-C4'	-5.42	103.37	111.50
2	AB	67	G	C4'-C3'-C2'	-5.42	97.18	102.60
5	AE	106	VAL	CA-C-N	5.42	128.09	120.28
5	AE	106	VAL	C-N-CA	5.42	128.09	120.28
5	AE	143	LEU	N-CA-C	5.42	117.19	111.28
6	AF	133	MET	CA-C-N	5.42	127.99	120.29
6	AF	133	MET	C-N-CA	5.42	127.99	120.29
26	BB	289	G	C4'-C3'-O3'	-5.42	104.87	113.00
26	BB	496	G	C3'-C2'-C1'	5.42	106.72	101.30
26	BB	933	A	N9-C1'-C2'	5.42	120.13	112.00
26	BB	1648	U	O4'-C1'-C2'	-5.42	102.18	107.60
26	BB	2271	G	O4'-C1'-N9	5.42	116.33	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2297	A	O4'-C4'-C3'	5.42	109.42	104.00
35	BK	95	ASP	CA-C-O	5.42	126.34	120.43
53	B2	31	ASP	N-CA-C	-5.42	101.88	109.96
56	B5	4	THR	N-CA-C	5.42	119.61	112.89
26	BB	1966	A	O4'-C1'-N9	5.42	116.33	108.20
1	AA	650	G	C1'-O4'-C4'	-5.42	104.48	109.90
1	AA	1504	G	C3'-C2'-C1'	-5.42	96.08	101.50
26	BB	238	C	O4'-C1'-N1	5.42	116.63	108.50
26	BB	1089	A	O5'-C5'-C4'	5.42	119.83	111.70
26	BB	1459	G	O4'-C4'-C3'	5.42	109.42	104.00
26	BB	1466	U	C3'-C2'-C1'	-5.42	95.88	101.30
26	BB	2084	C	C1'-O4'-C4'	-5.42	104.48	109.90
26	BB	2185	U	P-O5'-C5'	5.42	129.03	120.90
32	BH	166	GLU	CA-C-N	5.42	129.20	121.02
32	BH	166	GLU	C-N-CA	5.42	129.20	121.02
38	BN	50	PHE	CA-C-O	5.42	126.87	120.69
55	B4	16	THR	CA-C-O	5.42	127.06	120.99
1	AA	67	C	C4'-C3'-C2'	-5.42	97.18	102.60
1	AA	412	A	C2'-C3'-O3'	5.42	121.82	113.70
1	AA	1094	G	C2'-C3'-O3'	5.42	117.62	109.50
1	AA	1248	A	O4'-C1'-N9	5.42	116.62	108.50
6	AF	21	TRP	N-CA-C	5.42	116.21	108.74
25	BA	72	G	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	2871	U	P-O3'-C3'	5.42	128.33	120.20
1	AA	1026	G	O4'-C4'-C3'	5.42	109.42	104.00
15	AO	94	TYR	N-CA-C	5.42	117.30	109.07
15	AO	101	LEU	N-CA-C	5.42	116.54	108.31
26	BB	277	G	C5'-C4'-C3'	-5.42	107.88	116.00
26	BB	620	G	C1'-O4'-C4'	-5.42	104.28	109.70
26	BB	1660	G	O4'-C1'-C2'	-5.42	102.19	107.60
50	BZ	27	ARG	CB-CA-C	5.42	121.20	110.42
52	B1	2	LYS	CA-C-O	-5.42	115.91	122.03
1	AA	509	A	C2'-C3'-O3'	-5.41	105.58	113.70
1	AA	572	A	C3'-C2'-C1'	5.41	106.71	101.30
1	AA	1152	A	O4'-C1'-N9	5.41	116.62	108.50
1	AA	1281	C	O4'-C4'-C3'	5.41	111.51	106.10
1	AA	1497	G	O4'-C4'-C3'	5.41	109.41	104.00
6	AF	197	VAL	CA-C-N	5.41	130.63	123.05
6	AF	197	VAL	C-N-CA	5.41	130.63	123.05
19	AS	82	ALA	CB-CA-C	5.41	118.62	110.50
26	BB	29	U	P-O3'-C3'	5.41	128.32	120.20
26	BB	1468	U	O4'-C1'-N1	5.41	116.62	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2222	C	O5'-C5'-C4'	5.41	119.62	111.50
26	BB	2284	A	O4'-C1'-C2'	-5.41	102.19	107.60
40	BP	23	ASN	CA-C-N	5.41	127.98	120.29
40	BP	23	ASN	C-N-CA	5.41	127.98	120.29
51	B0	21	LEU	N-CA-CB	-5.41	102.50	111.49
10	AJ	17	PHE	CA-CB-CG	5.41	119.21	113.80
26	BB	1353	A	C5'-C4'-C3'	-5.41	107.88	116.00
26	BB	2234	G	O4'-C1'-N9	5.41	116.62	108.50
43	BS	78	PHE	N-CA-C	-5.41	105.46	111.36
1	AA	1202	U	O4'-C4'-C3'	5.41	109.41	104.00
26	BB	2464	G	C3'-C2'-C1'	5.41	106.71	101.30
33	BI	50	ARG	NE-CZ-NH2	-5.41	114.33	119.20
1	AA	635	A	C2'-C3'-O3'	-5.41	105.59	113.70
1	AA	642	A	O4'-C1'-N9	-5.41	100.39	108.50
1	AA	1314	C	C5'-C4'-O4'	5.41	117.91	109.80
26	BB	186	G	C5'-C4'-C3'	-5.41	107.89	116.00
26	BB	221	A	C1'-O4'-C4'	5.41	115.11	109.70
26	BB	2010	G	C5'-C4'-O4'	5.41	117.91	109.80
26	BB	2523	G	O3'-P-O5'	-5.41	95.89	104.00
26	BB	2863	C	O4'-C1'-N1	5.41	116.61	108.50
28	BD	119	VAL	CB-CA-C	-5.41	104.93	112.02
38	BN	23	ILE	CA-CB-CG1	5.41	119.59	110.40
42	BR	24	THR	CA-C-O	-5.41	113.55	120.31
1	AA	326	G	C5'-C4'-C3'	-5.41	107.89	116.00
1	AA	604	G	O4'-C1'-C2'	-5.41	102.19	107.60
1	AA	831	A	C3'-C2'-C1'	5.41	106.71	101.30
1	AA	1142	G	C5'-C4'-C3'	-5.41	107.89	116.00
18	AR	31	LEU	N-CA-C	5.41	116.86	111.07
18	AR	79	ARG	CA-C-O	-5.41	115.33	120.90
19	AS	4	ILE	N-CA-CB	5.41	118.71	111.90
26	BB	314	C	C4'-C3'-C2'	5.41	108.01	102.60
26	BB	1574	C	O4'-C1'-N1	5.41	116.61	108.50
1	AA	99	C	O4'-C1'-C2'	-5.41	102.19	107.60
1	AA	199	A	O4'-C4'-C3'	5.41	109.41	104.00
1	AA	450	G	C3'-C2'-O2'	5.41	118.81	110.70
1	AA	859	G	C5'-C4'-C3'	-5.41	107.89	116.00
18	AR	53	ARG	CA-C-N	5.41	125.95	120.00
18	AR	53	ARG	C-N-CA	5.41	125.95	120.00
20	AT	30	HIS	ND1-CE1-NE2	5.41	113.81	108.40
26	BB	450	G	O4'-C4'-C3'	5.41	109.41	104.00
26	BB	2134	A	C1'-C2'-O2'	5.41	116.51	108.40
26	BB	2218	G	O4'-C1'-C2'	-5.41	102.19	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2324	U	P-O5'-C5'	5.41	129.01	120.90
28	BD	105	ALA	CA-C-N	5.41	126.60	119.84
28	BD	105	ALA	C-N-CA	5.41	126.60	119.84
28	BD	211	ARG	NE-CZ-NH2	-5.41	114.34	119.20
30	BF	14	VAL	CA-C-N	5.41	129.02	121.02
30	BF	14	VAL	C-N-CA	5.41	129.02	121.02
39	BO	47	GLU	CA-C-N	5.41	127.78	120.38
39	BO	47	GLU	C-N-CA	5.41	127.78	120.38
1	AA	206	C	C1'-O4'-C4'	5.40	115.30	109.90
1	AA	268	U	C4'-C3'-C2'	-5.40	97.20	102.60
1	AA	602	A	C5'-C4'-C3'	-5.40	107.89	116.00
7	AG	106	PHE	CA-C-O	-5.40	114.69	120.42
26	BB	1352	U	O4'-C4'-C3'	5.40	109.40	104.00
26	BB	2032	G	C5'-C4'-C3'	-5.40	107.09	115.20
26	BB	2292	U	O4'-C1'-N1	5.40	116.61	108.50
26	BB	2581	G	C4'-C3'-C2'	-5.40	97.20	102.60
36	BL	14	ASP	CA-CB-CG	-5.40	107.20	112.60
1	AA	60	A	P-O3'-C3'	5.40	128.30	120.20
1	AA	1145	A	C3'-C2'-O2'	5.40	122.70	114.60
26	BB	437	U	O4'-C1'-N1	5.40	116.60	108.50
26	BB	1191	G	C3'-C2'-O2'	5.40	118.81	110.70
27	BC	178	VAL	CA-C-N	5.40	128.06	120.28
27	BC	178	VAL	C-N-CA	5.40	128.06	120.28
43	BS	34	ALA	CA-C-N	5.40	127.46	120.44
43	BS	34	ALA	C-N-CA	5.40	127.46	120.44
50	BZ	5	GLN	O-C-N	-5.40	115.90	122.22
56	B5	28	ARG	CA-C-O	-5.40	114.00	120.10
1	AA	1529	G	P-O3'-C3'	5.40	128.30	120.20
26	BB	523	C	N1-C1'-C2'	-5.40	103.90	112.00
26	BB	1136	G	C4'-C3'-C2'	-5.40	97.20	102.60
26	BB	2765	A	C4'-C3'-C2'	-5.40	97.20	102.60
28	BD	124	LYS	CA-C-N	5.40	125.66	119.83
28	BD	124	LYS	C-N-CA	5.40	125.66	119.83
55	B4	51	ALA	CA-C-N	5.40	131.85	121.54
55	B4	51	ALA	C-N-CA	5.40	131.85	121.54
1	AA	1491	G	C4'-C3'-C2'	-5.40	97.20	102.60
14	AN	116	PRO	N-CA-CB	5.40	108.05	103.35
26	BB	470	A	C4'-C3'-C2'	-5.40	97.20	102.60
26	BB	624	C	O5'-C5'-C4'	-5.40	103.40	111.50
26	BB	883	G	C1'-O4'-C4'	-5.40	104.50	109.90
26	BB	2094	A	O4'-C1'-N9	5.40	116.30	108.20
26	BB	2788	C	C3'-C2'-C1'	5.40	106.70	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	BW	35	VAL	CA-CB-CG1	-5.40	101.22	110.40
51	B0	45	GLN	O-C-N	5.40	129.00	122.85
1	AA	235	C	O4'-C1'-N1	5.40	116.60	108.50
1	AA	446	G	C1'-O4'-C4'	-5.40	104.50	109.90
1	AA	1199	U	O4'-C4'-C3'	5.40	109.40	104.00
1	AA	1218	C	C3'-C2'-O2'	5.40	118.80	110.70
1	AA	1319	A	O4'-C1'-N9	5.40	116.30	108.20
13	AM	55	PRO	CA-C-N	5.40	131.04	122.62
13	AM	55	PRO	C-N-CA	5.40	131.04	122.62
18	AR	11	VAL	CA-CB-CG1	5.40	119.58	110.40
24	AX	54	ARG	CA-C-N	5.40	127.78	120.44
24	AX	54	ARG	C-N-CA	5.40	127.78	120.44
26	BB	46	G	N9-C1'-C2'	-5.40	103.90	112.00
26	BB	539	G	N9-C1'-C2'	-5.40	103.90	112.00
26	BB	663	G	O4'-C1'-N9	5.40	116.60	108.50
30	BF	115	GLN	CB-CG-CD	5.40	121.78	112.60
40	BP	4	ARG	NE-CZ-NH2	-5.40	114.34	119.20
46	BV	34	VAL	N-CA-C	5.40	117.38	111.77
6	AF	161	ILE	CA-C-N	5.40	127.78	120.44
6	AF	161	ILE	C-N-CA	5.40	127.78	120.44
26	BB	86	G	O5'-C5'-C4'	-5.40	103.41	111.50
26	BB	1000	A	C5'-C4'-C3'	-5.40	107.91	116.00
26	BB	1339	G	C5'-C4'-O4'	5.40	117.89	109.80
26	BB	2596	U	C1'-O4'-C4'	-5.40	104.50	109.90
43	BS	116	LEU	O-C-N	5.40	129.23	122.86
1	AA	470	C	O4'-C1'-C2'	5.39	112.99	107.60
1	AA	1103	C	C4'-C3'-O3'	-5.39	104.91	113.00
7	AG	89	LEU	O-C-N	5.39	127.63	122.07
25	BA	10	G	C4'-C3'-C2'	-5.39	97.20	102.60
26	BB	1056	G	O4'-C1'-C2'	-5.39	102.21	107.60
26	BB	2227	A	C1'-O4'-C4'	-5.39	104.50	109.90
26	BB	2412	A	O4'-C4'-C3'	5.39	109.39	104.00
27	BC	105	LYS	CA-C-N	5.39	127.51	120.28
27	BC	105	LYS	C-N-CA	5.39	127.51	120.28
29	BE	182	ALA	CA-C-N	5.39	131.84	121.54
29	BE	182	ALA	C-N-CA	5.39	131.84	121.54
36	BL	125	TYR	O-C-N	-5.39	115.42	122.59
1	AA	798	U	O3'-P-O5'	-5.39	95.91	104.00
2	AB	26	A	C5'-C4'-C3'	5.39	124.09	116.00
4	AD	74	A	O4'-C1'-N9	5.39	116.29	108.20
5	AE	223	GLY	O-C-N	-5.39	117.01	122.19
8	AH	27	GLY	O-C-N	5.39	128.45	122.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	141	G	P-O5'-C5'	5.39	128.99	120.90
26	BB	518	G	O4'-C1'-N9	5.39	116.59	108.50
26	BB	820	A	C5'-C4'-O4'	5.39	117.89	109.80
26	BB	1370	C	O4'-C1'-N1	5.39	116.59	108.50
26	BB	2866	U	C5'-C4'-O4'	5.39	117.19	109.10
53	B2	4	ASP	N-CA-C	5.39	117.16	111.28
1	AA	797	C	O4'-C1'-N1	5.39	116.59	108.50
26	BB	553	G	C5'-C4'-C3'	-5.39	107.91	116.00
1	AA	188	C	N1-C1'-C2'	-5.39	103.92	112.00
1	AA	451	A	C4'-C3'-C2'	5.39	107.99	102.60
26	BB	30	G	C4'-C3'-C2'	-5.39	97.21	102.60
26	BB	1122	G	O4'-C1'-N9	5.39	116.58	108.50
26	BB	1186	G	O4'-C1'-C2'	-5.39	102.21	107.60
38	BN	48	ARG	CD-NE-CZ	5.39	131.94	124.40
3	AC	27	A	O4'-C1'-C2'	-5.39	102.21	107.60
26	BB	895	U	O4'-C1'-C2'	-5.39	100.41	105.80
1	AA	598	U	C1'-C2'-O2'	-5.39	100.32	108.40
5	AE	224	ARG	CA-C-N	5.39	127.81	120.54
5	AE	224	ARG	C-N-CA	5.39	127.81	120.54
9	AI	17	GLN	CA-C-O	-5.39	113.78	119.97
26	BB	453	A	C3'-C2'-C1'	-5.39	95.91	101.30
34	BJ	13	GLU	CA-C-O	-5.39	115.16	120.82
46	BV	80	TRP	CE2-CD2-CE3	-5.39	113.41	118.80
1	AA	501	C	O4'-C4'-C3'	-5.38	98.61	104.00
5	AE	46	VAL	CA-C-O	-5.38	112.73	119.95
7	AG	13	ARG	NE-CZ-NH2	5.38	124.05	119.20
16	AP	59	VAL	O-C-N	5.38	127.09	121.87
18	AR	46	LYS	CA-C-N	5.38	131.26	122.65
18	AR	46	LYS	C-N-CA	5.38	131.26	122.65
26	BB	240	C	C4'-C3'-C2'	-5.38	97.22	102.60
40	BP	52	ILE	CB-CA-C	5.38	119.41	112.14
46	BV	36	LYS	CA-C-N	5.38	127.49	120.28
46	BV	36	LYS	C-N-CA	5.38	127.49	120.28
50	BZ	13	THR	N-CA-C	5.38	118.25	110.28
26	BB	481	G	O4'-C4'-C3'	5.38	111.48	106.10
26	BB	2378	A	O4'-C4'-C3'	5.38	109.38	104.00
28	BD	25	LYS	CA-C-N	5.38	129.37	121.67
28	BD	25	LYS	C-N-CA	5.38	129.37	121.67
1	AA	166	U	C1'-O4'-C4'	-5.38	104.52	109.90
1	AA	878	A	O4'-C4'-C3'	5.38	109.38	104.00
1	AA	949	A	O5'-C5'-C4'	-5.38	103.43	111.50
1	AA	1070	U	C4'-C3'-O3'	-5.38	104.93	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	62	U	O3'-P-O5'	-5.38	95.93	104.00
5	AE	109	SER	CA-C-N	5.38	127.83	120.46
5	AE	109	SER	C-N-CA	5.38	127.83	120.46
26	BB	1389	G	O5'-C5'-C4'	5.38	119.57	111.50
26	BB	1707	G	C2'-C3'-O3'	-5.38	105.63	113.70
26	BB	1783	A	O3'-P-O5'	5.38	112.07	104.00
26	BB	2430	A	O4'-C4'-C3'	5.38	109.38	104.00
26	BB	2584	U	O4'-C1'-N1	5.38	116.57	108.50
37	BM	65	THR	CA-CB-OG1	5.38	117.67	109.60
40	BP	65	LEU	O-C-N	5.38	127.61	122.07
1	AA	370	C	O4'-C1'-N1	5.38	116.57	108.50
1	AA	944	G	C4'-C3'-C2'	-5.38	97.22	102.60
26	BB	67	U	O3'-P-O5'	-5.38	95.93	104.00
26	BB	1693	U	C2'-C3'-O3'	5.38	117.57	109.50
26	BB	2121	G	C3'-C2'-C1'	5.38	106.68	101.30
26	BB	2806	C	O4'-C1'-N1	5.38	116.57	108.50
31	BG	148	VAL	CA-C-N	5.38	129.82	122.34
31	BG	148	VAL	C-N-CA	5.38	129.82	122.34
34	BJ	10	ILE	CA-C-N	5.38	127.34	120.56
34	BJ	10	ILE	C-N-CA	5.38	127.34	120.56
44	BT	72	VAL	O-C-N	5.38	129.34	122.61
1	AA	429	U	C4'-C3'-C2'	-5.38	97.22	102.60
1	AA	1007	U	O5'-C5'-C4'	5.38	119.57	111.50
6	AF	201	ILE	N-CA-C	5.38	116.47	108.46
26	BB	750	A	C4'-C3'-C2'	5.38	107.98	102.60
26	BB	1089	A	C1'-O4'-C4'	5.38	115.08	109.70
26	BB	1769	U	N1-C1'-C2'	-5.38	103.93	112.00
26	BB	1857	G	C4'-C3'-O3'	5.38	117.47	109.40
26	BB	2041	U	C5'-C4'-O4'	5.38	117.87	109.80
26	BB	2404	U	O4'-C1'-N1	5.38	116.57	108.50
26	BB	2795	C	C1'-C2'-O2'	-5.38	100.33	108.40
40	BP	16	HIS	CE1-NE2-CD2	-5.38	103.62	109.00
56	B5	1	MET	CB-CA-C	5.38	120.32	110.10
1	AA	1022	A	C4'-C3'-C2'	-5.38	97.22	102.60
1	AA	1487	G	C4'-C3'-C2'	-5.38	97.22	102.60
8	AH	100	GLU	CA-C-N	5.38	129.99	120.74
8	AH	100	GLU	C-N-CA	5.38	129.99	120.74
24	AX	11	PHE	CA-CB-CG	5.38	119.18	113.80
26	BB	281	C	C3'-C2'-C1'	-5.38	95.92	101.30
26	BB	712	G	C1'-C2'-O2'	-5.38	100.34	108.40
26	BB	1013	C	O4'-C1'-N1	5.38	116.56	108.50
26	BB	1626	A	O4'-C1'-C2'	5.38	111.18	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2422	C	O3'-P-O5'	-5.38	95.94	104.00
47	BW	10	VAL	CA-C-N	5.38	131.24	122.69
47	BW	10	VAL	C-N-CA	5.38	131.24	122.69
1	AA	1395	C	N1-C1'-C2'	-5.38	103.94	112.00
26	BB	611	C	C3'-C2'-C1'	-5.38	95.92	101.30
26	BB	1132	U	C5'-C4'-O4'	-5.38	101.04	109.10
26	BB	2315	G	O4'-C4'-C3'	5.38	109.38	104.00
28	BD	83	ASP	CB-CA-C	5.38	116.33	110.15
1	AA	291	U	C4'-C3'-C2'	-5.37	97.23	102.60
17	AQ	55	SER	CA-C-N	5.37	126.56	119.84
17	AQ	55	SER	C-N-CA	5.37	126.56	119.84
26	BB	131	A	C5'-C4'-O4'	5.37	117.86	109.80
26	BB	296	U	N1-C1'-C2'	5.37	120.06	112.00
26	BB	805	G	O4'-C4'-C3'	5.37	109.37	104.00
26	BB	1733	G	C1'-O4'-C4'	-5.37	104.53	109.90
26	BB	2272	U	C5'-C4'-C3'	-5.37	107.94	116.00
51	B0	27	ASN	N-CA-C	5.37	119.00	112.23
1	AA	5	U	O4'-C1'-N1	5.37	116.26	108.20
1	AA	443	C	O3'-P-O5'	-5.37	95.94	104.00
1	AA	721	G	O4'-C1'-C2'	5.37	111.17	105.80
24	AX	65	ARG	NE-CZ-NH2	-5.37	114.37	119.20
26	BB	30	G	O4'-C1'-N9	5.37	116.56	108.50
26	BB	504	A	O4'-C4'-C3'	5.37	109.37	104.00
26	BB	610	C	O4'-C1'-N1	5.37	116.56	108.50
26	BB	1760	C	C4'-C3'-C2'	-5.37	97.23	102.60
28	BD	14	HIS	CB-CG-CD2	-5.37	124.22	131.20
28	BD	124	LYS	N-CA-CB	5.37	117.29	110.04
53	B2	42	PRO	N-CA-C	5.37	119.47	111.41
1	AA	781	A	N9-C1'-C2'	-5.37	103.95	112.00
26	BB	1998	A	O4'-C1'-N9	5.37	116.55	108.50
30	BF	176	ASP	CA-CB-CG	5.37	117.97	112.60
45	BU	102	HIS	CB-CG-CD2	-5.37	124.22	131.20
53	B2	62	LYS	CA-C-N	5.37	128.47	120.90
53	B2	62	LYS	C-N-CA	5.37	128.47	120.90
26	BB	200	U	O4'-C1'-N1	5.37	116.55	108.50
26	BB	715	A	C3'-C2'-C1'	5.37	106.67	101.30
26	BB	937	C	C3'-C2'-O2'	5.37	118.75	110.70
26	BB	1976	U	C3'-C2'-C1'	5.37	106.67	101.30
26	BB	2165	C	C3'-C2'-O2'	5.37	118.75	110.70
26	BB	2860	A	C5'-C4'-C3'	5.37	124.05	116.00
48	BX	89	ILE	CB-CA-C	5.37	119.09	110.82
5	AE	110	ILE	CA-C-N	5.37	127.47	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AE	110	ILE	C-N-CA	5.37	127.47	120.28
26	BB	714	U	C5'-C4'-C3'	-5.37	107.95	116.00
35	BK	55	PRO	N-CA-C	5.37	118.91	110.80
1	AA	509	A	C4'-C3'-C2'	-5.37	97.23	102.60
1	AA	944	G	C2'-C3'-O3'	5.37	121.75	113.70
1	AA	1375	A	C1'-C2'-O2'	5.37	116.45	108.40
1	AA	1394	A	O5'-C5'-C4'	5.37	119.75	111.70
26	BB	1028	A	C4'-C3'-C2'	-5.37	97.23	102.60
26	BB	1347	A	C4'-C3'-C2'	-5.37	97.23	102.60
27	BC	132	GLY	CA-C-N	5.37	126.55	119.84
27	BC	132	GLY	C-N-CA	5.37	126.55	119.84
27	BC	193	LEU	CA-C-O	-5.37	114.86	120.55
28	BD	16	VAL	CB-CA-C	5.37	118.76	110.50
28	BD	18	VAL	CA-C-N	5.37	130.44	122.71
28	BD	18	VAL	C-N-CA	5.37	130.44	122.71
53	B2	43	PHE	CA-C-O	-5.37	112.84	120.51
1	AA	657	U	C4'-C3'-C2'	-5.36	97.24	102.60
1	AA	1263	C	O5'-C5'-C4'	-5.36	103.45	111.50
6	AF	19	SER	O-C-N	-5.36	117.05	123.27
9	AI	3	HIS	CB-CG-ND1	5.36	130.75	122.70
9	AI	43	GLY	O-C-N	-5.36	116.94	122.68
26	BB	325	G	O4'-C4'-C3'	5.36	109.36	104.00
26	BB	1018	U	O5'-C5'-C4'	-5.36	103.45	111.50
26	BB	1293	C	C4'-C3'-O3'	-5.36	104.95	113.00
26	BB	1427	A	N9-C1'-C2'	5.36	122.05	114.00
26	BB	2515	C	P-O5'-C5'	5.36	128.94	120.90
29	BE	5	VAL	N-CA-CB	-5.36	105.17	111.39
34	BJ	55	ARG	NE-CZ-NH2	-5.36	114.37	119.20
1	AA	225	C	O4'-C1'-N1	5.36	116.54	108.50
1	AA	1230	C	C5'-C4'-C3'	-5.36	107.96	116.00
26	BB	1392	A	C5'-C4'-C3'	-5.36	107.96	116.00
26	BB	1626	A	C1'-O4'-C4'	-5.36	104.34	109.70
1	AA	102	G	C4'-C3'-O3'	-5.36	104.96	113.00
1	AA	1375	A	C4'-C3'-C2'	-5.36	97.24	102.60
5	AE	62	ARG	NE-CZ-NH2	5.36	124.03	119.20
9	AI	64	VAL	CA-CB-CG1	5.36	119.51	110.40
26	BB	169	G	C2'-C3'-O3'	5.36	121.74	113.70
26	BB	826	U	C3'-C2'-C1'	5.36	106.66	101.30
26	BB	875	G	C4'-C3'-O3'	5.36	121.04	113.00
26	BB	1299	G	C2'-C3'-O3'	-5.36	105.66	113.70
26	BB	1524	G	C5'-C4'-C3'	-5.36	107.96	116.00
26	BB	1779	U	P-O5'-C5'	5.36	128.94	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1844	C	C1'-O4'-C4'	5.36	115.26	109.90
26	BB	2378	A	O5'-C5'-C4'	5.36	119.54	111.50
43	BS	43	GLN	N-CA-C	5.36	116.93	111.14
43	BS	101	ASP	CB-CA-C	5.36	119.50	111.89
45	BU	56	ALA	N-CA-C	5.36	117.20	111.36
26	BB	265	A	C3'-C2'-O2'	5.36	118.74	110.70
26	BB	662	G	O4'-C1'-N9	5.36	116.54	108.50
26	BB	1096	A	C2'-C3'-O3'	-5.36	105.66	113.70
26	BB	1845	G	C4'-C3'-C2'	-5.36	97.24	102.60
37	BM	31	ARG	O-C-N	5.36	129.54	122.36
1	AA	154	U	O4'-C1'-N1	5.36	116.54	108.50
1	AA	685	G	C1'-O4'-C4'	5.36	115.26	109.90
1	AA	1456	A	P-O3'-C3'	5.36	128.24	120.20
1	AA	1471	U	C1'-O4'-C4'	-5.36	104.54	109.90
11	AK	44	PHE	CA-CB-CG	-5.36	108.44	113.80
19	AS	63	GLN	OE1-CD-NE2	5.36	127.96	122.60
26	BB	609	A	C3'-C2'-O2'	5.36	118.74	110.70
26	BB	2123	G	C5'-C4'-C3'	5.36	124.04	116.00
26	BB	2209	G	C3'-C2'-O2'	5.36	118.74	110.70
26	BB	2393	U	C2'-C3'-O3'	5.36	121.74	113.70
26	BB	2593	U	C4'-C3'-C2'	-5.36	97.24	102.60
27	BC	9	ARG	NH1-CZ-NH2	-5.36	112.33	119.30
37	BM	119	ALA	CA-C-O	-5.36	112.82	120.16
1	AA	724	G	C3'-C2'-C1'	5.36	106.66	101.30
5	AE	137	THR	CA-C-N	5.36	127.89	120.29
5	AE	137	THR	C-N-CA	5.36	127.89	120.29
7	AG	10	LEU	CA-C-N	5.36	128.45	120.31
7	AG	10	LEU	C-N-CA	5.36	128.45	120.31
7	AG	87	GLU	CA-C-N	5.36	127.40	120.44
7	AG	87	GLU	C-N-CA	5.36	127.40	120.44
26	BB	510	C	P-O3'-C3'	5.36	128.23	120.20
26	BB	884	U	C5'-C4'-C3'	-5.36	107.97	116.00
26	BB	1123	C	C4'-C3'-O3'	-5.36	104.97	113.00
26	BB	1179	G	O4'-C1'-C2'	-5.36	102.25	107.60
26	BB	1207	C	O4'-C1'-N1	5.36	116.53	108.50
26	BB	1279	G	N9-C1'-C2'	-5.36	103.97	112.00
26	BB	1613	G	C4'-C3'-O3'	-5.36	104.97	113.00
26	BB	1676	A	O4'-C1'-C2'	5.36	112.95	107.60
29	BE	15	PHE	CA-C-N	5.36	131.00	122.59
29	BE	15	PHE	C-N-CA	5.36	131.00	122.59
37	BM	71	ARG	NE-CZ-NH2	-5.36	114.38	119.20
1	AA	86	G	O4'-C1'-C2'	5.35	111.15	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	980	A	C4'-C3'-C2'	-5.35	97.25	102.60
26	BB	2061	G	O4'-C1'-C2'	5.35	111.15	105.80
26	BB	2706	A	O4'-C1'-N9	5.35	116.53	108.50
1	AA	630	A	C3'-C2'-O2'	5.35	118.73	110.70
1	AA	1171	A	C1'-C2'-O2'	5.35	116.43	108.40
1	AA	1198	G	O3'-P-O5'	-5.35	95.97	104.00
2	AB	9	A	O4'-C4'-C3'	5.35	109.35	104.00
10	AJ	97	ALA	N-CA-C	5.35	117.11	111.28
26	BB	430	A	P-O3'-C3'	5.35	128.23	120.20
26	BB	2302	U	P-O5'-C5'	5.35	128.93	120.90
37	BM	79	PHE	N-CA-C	5.35	118.38	110.46
26	BB	154	U	O4'-C1'-N1	5.35	116.53	108.50
26	BB	734	A	C3'-C2'-O2'	5.35	118.73	110.70
26	BB	2038	G	O4'-C1'-C2'	5.35	112.95	107.60
1	AA	211	G	O3'-P-O5'	5.35	112.02	104.00
1	AA	575	G	C5'-C4'-C3'	-5.35	107.17	115.20
6	AF	81	GLU	O-C-N	5.35	127.79	122.12
25	BA	25	U	C5'-C4'-O4'	5.35	117.12	109.10
26	BB	1275	A	C4'-C3'-C2'	-5.35	97.25	102.60
26	BB	1275	A	O4'-C1'-C2'	-5.35	102.25	107.60
26	BB	1396	U	C5'-C4'-C3'	5.35	123.22	115.20
26	BB	1672	A	C3'-C2'-O2'	5.35	118.72	110.70
26	BB	1822	C	O4'-C1'-N1	5.35	116.52	108.50
26	BB	2143	C	P-O3'-C3'	5.35	128.23	120.20
1	AA	271	C	C3'-C2'-C1'	5.35	106.65	101.30
1	AA	1229	A	O3'-P-O5'	-5.35	95.98	104.00
1	AA	1300	G	C3'-C2'-C1'	5.35	106.85	101.50
6	AF	190	THR	CA-CB-OG1	-5.35	101.58	109.60
25	BA	78	A	O4'-C1'-N9	5.35	116.52	108.50
26	BB	643	A	C1'-C2'-O2'	-5.35	100.38	108.40
26	BB	1259	G	C5'-C4'-O4'	5.35	117.82	109.80
26	BB	1675	C	O4'-C1'-N1	5.35	116.22	108.20
26	BB	2419	U	C4'-C3'-C2'	-5.35	97.25	102.60
28	BD	220	ARG	CA-C-N	5.35	125.92	119.98
28	BD	220	ARG	C-N-CA	5.35	125.92	119.98
45	BU	71	VAL	CB-CA-C	5.35	120.06	111.29
1	AA	676	A	C4'-C3'-C2'	-5.35	97.25	102.60
25	BA	119	A	C1'-O4'-C4'	-5.35	104.55	109.90
26	BB	119	A	C3'-C2'-C1'	-5.35	96.15	101.50
26	BB	2394	C	P-O5'-C5'	5.35	128.92	120.90
26	BB	2783	U	C5'-C4'-O4'	5.35	117.82	109.80
46	BV	70	HIS	ND1-CE1-NE2	5.35	113.75	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	B0	22	LEU	CD1-CG-CD2	-5.35	99.04	110.80
1	AA	694	A	C3'-C2'-C1'	5.34	106.64	101.30
1	AA	978	A	O4'-C4'-C3'	5.34	109.34	104.00
4	AD	14	A	C3'-C2'-O2'	5.34	118.72	110.70
10	AJ	122	GLU	N-CA-C	-5.34	105.50	112.23
21	AU	45	GLY	CA-C-O	5.34	126.27	119.80
23	AW	72	ALA	CA-C-O	-5.34	115.18	120.90
26	BB	60	G	C3'-C2'-C1'	-5.34	96.16	101.50
26	BB	1200	C	O4'-C1'-N1	5.34	116.52	108.50
26	BB	1841	U	O3'-P-O5'	5.34	112.02	104.00
26	BB	2848	G	C4'-C3'-C2'	-5.34	97.25	102.60
28	BD	80	LEU	CA-C-O	-5.34	114.44	120.32
30	BF	118	LEU	CA-C-N	5.34	127.40	120.56
30	BF	118	LEU	C-N-CA	5.34	127.40	120.56
39	BO	80	VAL	N-CA-C	5.34	115.59	108.11
1	AA	557	G	N9-C1'-C2'	-5.34	103.99	112.00
1	AA	1072	G	O3'-P-O5'	-5.34	95.98	104.00
26	BB	1032	A	O3'-P-O5'	-5.34	95.99	104.00
26	BB	1724	G	O4'-C1'-N9	5.34	116.51	108.50
26	BB	2073	C	N1-C1'-C2'	-5.34	103.98	112.00
26	BB	2533	U	C5'-C4'-C3'	-5.34	107.99	116.00
37	BM	71	ARG	CA-C-N	5.34	124.53	118.97
37	BM	71	ARG	C-N-CA	5.34	124.53	118.97
1	AA	1070	U	O4'-C4'-C3'	5.34	109.34	104.00
4	AD	49	C	P-O5'-C5'	5.34	128.91	120.90
26	BB	6	A	O3'-P-O5'	-5.34	95.99	104.00
26	BB	1100	C	C4'-C3'-C2'	-5.34	97.26	102.60
26	BB	1535	A	O4'-C1'-N9	5.34	116.21	108.20
26	BB	2611	C	C5'-C4'-C3'	-5.34	107.99	116.00
39	BO	22	GLN	N-CA-C	-5.34	107.13	113.97
1	AA	372	C	P-O3'-C3'	5.34	128.21	120.20
1	AA	1286	U	C5'-C4'-C3'	-5.34	107.99	116.00
2	AB	25	C	C3'-C2'-C1'	5.34	106.64	101.30
10	AJ	63	VAL	CA-C-O	-5.34	114.48	120.25
26	BB	653	U	C1'-O4'-C4'	-5.34	104.56	109.90
26	BB	2635	A	C5'-C4'-C3'	5.34	124.01	116.00
42	BR	62	LYS	CA-C-O	-5.34	114.84	120.55
46	BV	58	VAL	CA-C-N	5.34	129.72	122.19
46	BV	58	VAL	C-N-CA	5.34	129.72	122.19
1	AA	1441	A	C5'-C4'-C3'	-5.34	107.99	116.00
26	BB	31	C	C5'-C4'-O4'	5.34	117.81	109.80
26	BB	1514	G	C5'-C4'-O4'	5.34	117.81	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	BT	23	GLU	CA-C-N	5.34	128.43	120.90
44	BT	23	GLU	C-N-CA	5.34	128.43	120.90
1	AA	1160	G	N9-C1'-C2'	5.34	120.00	112.00
1	AA	1192	C	C4'-C3'-O3'	5.34	121.00	113.00
1	AA	1311	A	O5'-C5'-C4'	-5.34	103.49	111.50
25	BA	8	C	C1'-C2'-O2'	-5.34	100.39	108.40
26	BB	1145	C	O4'-C1'-N1	5.34	116.50	108.50
26	BB	1243	C	C1'-O4'-C4'	-5.34	104.56	109.90
26	BB	1404	C	C4'-C3'-C2'	-5.34	97.26	102.60
26	BB	1442	U	O4'-C1'-C2'	-5.34	102.26	107.60
26	BB	1634	A	C5'-C4'-C3'	-5.34	107.19	115.20
26	BB	1642	G	C1'-O4'-C4'	5.34	115.24	109.90
26	BB	2786	U	O4'-C1'-N1	5.34	116.50	108.50
26	BB	2834	G	C4'-C3'-O3'	-5.34	105.00	113.00
26	BB	2880	C	O4'-C4'-C3'	5.34	109.34	104.00
1	AA	632	U	O3'-P-O5'	-5.33	96.00	104.00
1	AA	970	C	C4'-C3'-C2'	-5.33	97.27	102.60
2	AB	23	A	C4'-C3'-C2'	-5.33	97.27	102.60
6	AF	200	TRP	CA-C-N	5.33	130.35	122.94
6	AF	200	TRP	C-N-CA	5.33	130.35	122.94
26	BB	84	A	C5'-C4'-O4'	5.33	117.10	109.10
26	BB	350	G	C1'-O4'-C4'	-5.33	104.56	109.90
1	AA	55	A	O4'-C4'-C3'	5.33	109.33	104.00
1	AA	886	G	O4'-C1'-C2'	-5.33	102.27	107.60
9	AI	97	THR	CA-C-O	-5.33	113.59	119.78
9	AI	115	ASP	N-CA-C	5.33	116.78	111.07
26	BB	123	G	C1'-O4'-C4'	-5.33	104.57	109.90
26	BB	1388	G	O3'-P-O5'	5.33	112.00	104.00
26	BB	2631	G	C5'-C4'-O4'	5.33	117.80	109.80
26	BB	2811	G	C1'-C2'-O2'	-5.33	100.40	108.40
31	BG	88	VAL	CB-CA-C	5.33	120.04	111.29
37	BM	48	PRO	N-CD-CG	5.33	111.20	103.20
39	BO	90	GLU	CB-CA-C	5.33	120.11	111.26
1	AA	522	C	P-O5'-C5'	5.33	128.90	120.90
1	AA	1161	C	O4'-C1'-C2'	-5.33	102.27	107.60
1	AA	1319	A	C4'-C3'-C2'	-5.33	97.27	102.60
20	AT	21	VAL	N-CA-C	5.33	116.05	107.73
28	BD	161	VAL	CA-C-N	5.33	128.41	120.95
28	BD	161	VAL	C-N-CA	5.33	128.41	120.95
29	BE	16	THR	CB-CA-C	5.33	120.72	109.79
4	AD	25	U	C4'-C3'-O3'	-5.33	105.00	113.00
19	AS	4	ILE	CA-CB-CG2	-5.33	101.44	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1583	A	C2'-C3'-O3'	5.33	117.50	109.50
26	BB	1753	G	C3'-C2'-C1'	-5.33	95.97	101.30
30	BF	171	ASP	CB-CA-C	5.33	118.62	109.51
45	BU	25	ARG	NE-CZ-NH1	5.33	126.83	121.50
1	AA	12	U	O3'-P-O5'	-5.33	96.01	104.00
1	AA	410	G	C2'-C3'-O3'	5.33	121.69	113.70
1	AA	1063	C	C4'-C3'-C2'	-5.33	97.27	102.60
1	AA	1222	G	C1'-O4'-C4'	5.33	115.23	109.90
18	AR	45	HIS	CG-CD2-NE2	5.33	112.53	107.20
26	BB	36	G	O4'-C4'-C3'	-5.33	98.67	104.00
26	BB	971	G	N9-C1'-C2'	-5.33	104.01	112.00
26	BB	1257	C	O4'-C1'-N1	5.33	116.49	108.50
26	BB	1346	G	O4'-C1'-N9	5.33	116.49	108.50
26	BB	1735	A	C5'-C4'-C3'	-5.33	108.01	116.00
26	BB	2260	C	C4'-C3'-C2'	-5.33	97.27	102.60
26	BB	2377	A	C4'-C3'-C2'	-5.33	97.27	102.60
26	BB	2676	C	C5'-C4'-O4'	5.33	117.79	109.80
1	AA	150	U	O4'-C1'-N1	5.33	116.49	108.50
1	AA	565	U	C3'-C2'-O2'	5.33	118.69	110.70
4	AD	30	G	C3'-C2'-C1'	-5.33	95.97	101.30
20	AT	34	GLY	N-CA-C	5.33	125.81	113.18
26	BB	292	U	C5'-C4'-O4'	5.33	117.79	109.80
26	BB	1941	C	C4'-C3'-C2'	5.33	107.93	102.60
29	BE	150	GLN	CA-C-N	5.33	129.98	121.62
29	BE	150	GLN	C-N-CA	5.33	129.98	121.62
1	AA	559	A	N9-C1'-C2'	-5.33	106.01	114.00
1	AA	1151	A	P-O5'-C5'	5.33	128.89	120.90
15	AO	72	ASN	CB-CA-C	5.33	116.03	109.16
26	BB	361	G	N9-C1'-C2'	5.33	119.99	112.00
26	BB	1322	A	O4'-C1'-N9	5.33	116.49	108.50
29	BE	185	ASN	CB-CA-C	5.33	118.87	111.63
40	BP	17	ARG	NE-CZ-NH1	5.33	126.83	121.50
1	AA	696	A	O4'-C1'-C2'	-5.32	102.28	107.60
17	AQ	4	SER	N-CA-C	-5.32	105.56	111.36
26	BB	54	G	O4'-C1'-C2'	-5.32	102.28	107.60
26	BB	784	G	O4'-C1'-C2'	-5.32	102.28	107.60
26	BB	1103	A	P-O5'-C5'	5.32	128.88	120.90
26	BB	2026	U	O4'-C1'-N1	5.32	116.48	108.50
27	BC	163	TYR	N-CA-C	5.32	118.11	109.06
31	BG	69	ALA	N-CA-CB	5.32	117.80	109.97
32	BH	162	ARG	CA-CB-CG	-5.32	103.45	114.10
6	AF	150	VAL	CA-C-O	-5.32	114.80	120.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AN	126	ARG	CD-NE-CZ	5.32	131.85	124.40
26	BB	127	A	C5'-C4'-O4'	-5.32	101.82	109.80
26	BB	1573	G	C1'-O4'-C4'	-5.32	104.58	109.90
26	BB	2561	U	C5'-C4'-O4'	5.32	117.78	109.80
1	AA	357	G	C4'-C3'-O3'	-5.32	105.02	113.00
1	AA	1334	G	C5'-C4'-O4'	5.32	117.78	109.80
26	BB	68	G	P-O3'-C3'	5.32	128.18	120.20
26	BB	1257	C	O4'-C1'-C2'	-5.32	102.28	107.60
26	BB	2287	A	C4'-C3'-O3'	5.32	117.38	109.40
26	BB	2784	U	O4'-C1'-N1	5.32	116.48	108.50
26	BB	2790	U	O4'-C4'-C3'	5.32	109.32	104.00
27	BC	3	LYS	CA-C-O	-5.32	115.16	120.96
27	BC	120	ALA	CA-C-N	5.32	127.67	120.38
27	BC	120	ALA	C-N-CA	5.32	127.67	120.38
28	BD	20	ASN	CA-C-N	5.32	125.64	119.47
28	BD	20	ASN	C-N-CA	5.32	125.64	119.47
1	AA	105	G	C3'-C2'-C1'	5.32	106.62	101.30
1	AA	1088	G	C1'-O4'-C4'	-5.32	104.58	109.90
14	AN	91	GLY	N-CA-C	-5.32	106.36	115.08
26	BB	765	C	P-O5'-C5'	5.32	128.88	120.90
1	AA	340	U	O4'-C1'-N1	5.32	116.48	108.50
1	AA	547	A	O4'-C4'-C3'	-5.32	100.78	106.10
1	AA	1383	C	P-O5'-C5'	5.32	128.88	120.90
1	AA	1440	U	C2'-C3'-O3'	5.32	121.67	113.70
2	AB	40	C	O4'-C1'-N1	5.32	116.48	108.50
3	AC	24	A	C5'-C4'-C3'	5.32	123.98	116.00
9	AI	7	VAL	N-CA-C	5.32	116.14	108.48
26	BB	1036	G	P-O3'-C3'	5.32	128.18	120.20
26	BB	1691	C	O3'-P-O5'	5.32	111.97	104.00
26	BB	2336	A	O4'-C1'-N9	5.32	116.18	108.20
26	BB	2525	G	O4'-C4'-C3'	5.32	109.32	104.00
1	AA	452	A	O4'-C1'-N9	5.32	116.47	108.50
1	AA	771	G	N9-C1'-C2'	-5.32	104.03	112.00
25	BA	70	C	C1'-C2'-O2'	5.32	116.37	108.40
26	BB	91	A	C1'-O4'-C4'	-5.32	104.39	109.70
26	BB	205	G	N9-C1'-C2'	5.32	121.97	114.00
26	BB	765	C	C3'-C2'-C1'	5.32	106.62	101.30
26	BB	859	G	P-O3'-C3'	5.32	128.17	120.20
26	BB	1071	G	N9-C1'-C2'	-5.32	104.03	112.00
26	BB	1393	A	C3'-C2'-O2'	5.32	118.67	110.70
26	BB	1514	G	O5'-C5'-C4'	-5.32	103.53	111.50
26	BB	2306	C	O4'-C1'-C2'	-5.32	102.28	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	B0	52	ARG	NE-CZ-NH2	5.32	123.98	119.20
1	AA	818	G	C3'-C2'-C1'	-5.31	96.19	101.50
26	BB	1407	G	C1'-O4'-C4'	-5.31	104.59	109.90
1	AA	123	U	O4'-C4'-C3'	5.31	109.31	104.00
1	AA	277	C	C2'-C3'-O3'	-5.31	105.73	113.70
2	AB	30	G	C1'-C2'-O2'	-5.31	100.43	108.40
26	BB	1359	A	O4'-C1'-C2'	-5.31	102.29	107.60
34	BJ	99	ALA	CA-C-N	5.31	128.38	120.31
34	BJ	99	ALA	C-N-CA	5.31	128.38	120.31
52	B1	46	MET	CB-CA-C	-5.31	101.82	110.85
4	AD	4	G	O4'-C1'-C2'	-5.31	102.29	107.60
26	BB	804	A	P-O3'-C3'	5.31	128.17	120.20
26	BB	1248	G	O3'-P-O5'	-5.31	96.03	104.00
26	BB	1534	U	O5'-C5'-C4'	-5.31	103.53	111.50
26	BB	2034	U	C1'-O4'-C4'	-5.31	104.59	109.90
26	BB	2750	A	C5'-C4'-O4'	5.31	117.07	109.10
49	BY	32	ALA	O-C-N	5.31	127.83	122.09
1	AA	91	U	C1'-O4'-C4'	-5.31	104.59	109.90
1	AA	185	U	O4'-C1'-C2'	5.31	112.91	107.60
1	AA	721	G	C1'-C2'-O2'	5.31	119.77	111.80
8	AH	21	SER	CA-C-O	5.31	126.69	120.43
26	BB	948	C	C4'-C3'-C2'	-5.31	97.29	102.60
26	BB	1563	U	O4'-C1'-C2'	-5.31	102.29	107.60
26	BB	1642	G	N9-C1'-C2'	-5.31	104.03	112.00
26	BB	2118	U	O5'-C5'-C4'	5.31	119.67	111.70
30	BF	192	ALA	CA-C-N	5.31	127.73	120.46
30	BF	192	ALA	C-N-CA	5.31	127.73	120.46
42	BR	15	ASP	CA-C-N	5.31	128.56	121.23
42	BR	15	ASP	C-N-CA	5.31	128.56	121.23
1	AA	800	G	C4'-C3'-C2'	-5.31	97.29	102.60
1	AA	1325	C	O3'-P-O5'	-5.31	96.04	104.00
5	AE	8	MET	CA-C-N	5.31	127.83	120.29
5	AE	8	MET	C-N-CA	5.31	127.83	120.29
7	AG	65	GLY	N-CA-C	5.31	123.31	113.76
25	BA	32	U	O4'-C1'-C2'	5.31	112.91	107.60
26	BB	1306	C	O4'-C1'-N1	5.31	116.46	108.50
26	BB	1451	C	C5'-C4'-C3'	-5.31	107.24	115.20
26	BB	1972	G	C4'-C3'-O3'	-5.31	105.04	113.00
27	BC	5	THR	CA-C-N	5.31	127.34	120.44
27	BC	5	THR	C-N-CA	5.31	127.34	120.44
1	AA	415	A	O4'-C1'-C2'	-5.31	102.29	107.60
1	AA	951	G	O4'-C1'-C2'	-5.31	102.29	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	72	C	C1'-O4'-C4'	5.31	115.21	109.90
26	BB	800	A	P-O3'-C3'	5.31	128.16	120.20
1	AA	142	G	C4'-C3'-C2'	-5.30	97.30	102.60
1	AA	1202	U	C4'-C3'-C2'	-5.30	97.30	102.60
1	AA	1223	C	C5'-C4'-O4'	5.30	117.76	109.80
2	AB	12	U	P-O3'-C3'	5.30	128.16	120.20
6	AF	128	MET	O-C-N	-5.30	116.15	122.20
8	AH	18	ASN	O-C-N	-5.30	117.00	123.10
25	BA	86	G	O4'-C1'-C2'	5.30	112.90	107.60
26	BB	395	U	O4'-C1'-N1	5.30	116.16	108.20
26	BB	744	U	C3'-C2'-C1'	5.30	106.61	101.30
26	BB	2104	C	O4'-C1'-C2'	-5.30	102.30	107.60
26	BB	2821	A	C4'-C3'-C2'	-5.30	97.30	102.60
28	BD	12	ARG	NE-CZ-NH2	5.30	123.97	119.20
29	BE	38	LYS	O-C-N	-5.30	116.31	122.89
35	BK	33	ASN	CA-C-O	-5.30	114.60	120.70
55	B4	16	THR	CA-C-N	5.30	130.07	120.79
55	B4	16	THR	C-N-CA	5.30	130.07	120.79
4	AD	17	C	C4'-C3'-O3'	5.30	120.95	113.00
18	AR	50	HIS	CB-CG-CD2	-5.30	124.31	131.20
26	BB	253	C	C4'-C3'-C2'	-5.30	97.30	102.60
26	BB	1856	U	C4'-C3'-C2'	-5.30	97.30	102.60
26	BB	2653	U	C4'-C3'-C2'	-5.30	97.30	102.60
27	BC	113	VAL	CA-C-O	5.30	126.87	120.67
28	BD	1	ALA	N-CA-CB	-5.30	102.44	110.40
1	AA	129	A	C2'-C3'-O3'	5.30	117.45	109.50
1	AA	161	A	C5'-C4'-O4'	5.30	117.75	109.80
1	AA	183	C	C1'-O4'-C4'	-5.30	104.60	109.90
1	AA	916	U	O4'-C1'-N1	5.30	116.45	108.50
1	AA	1198	G	C4'-C3'-C2'	-5.30	97.30	102.60
1	AA	1446	A	C1'-O4'-C4'	-5.30	104.60	109.90
6	AF	5	HIS	ND1-CE1-NE2	5.30	113.70	108.40
10	AJ	167	ALA	N-CA-C	5.30	116.93	110.41
14	AN	28	ASN	CA-CB-CG	5.30	117.90	112.60
24	AX	57	LYS	CA-CB-CG	5.30	124.70	114.10
27	BC	146	THR	O-C-N	-5.30	118.14	121.85
57	B6	45	PRO	CA-C-N	5.30	129.83	120.87
57	B6	45	PRO	C-N-CA	5.30	129.83	120.87
2	AB	34	C	N1-C1'-C2'	5.30	119.95	112.00
18	AR	87	ARG	NE-CZ-NH1	5.30	126.80	121.50
26	BB	1020	A	O5'-C5'-C4'	5.30	119.65	111.70
26	BB	1328	A	C4'-C3'-O3'	-5.30	105.05	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1521	G	C1'-O4'-C4'	5.30	115.20	109.90
26	BB	2104	C	O4'-C1'-N1	5.30	116.45	108.50
41	BQ	58	ILE	CA-C-N	5.30	128.37	120.31
41	BQ	58	ILE	C-N-CA	5.30	128.37	120.31
10	AJ	134	VAL	CA-C-O	-5.30	115.55	121.17
27	BC	226	GLN	CA-C-N	5.30	127.81	120.29
27	BC	226	GLN	C-N-CA	5.30	127.81	120.29
1	AA	991	U	N1-C1'-C2'	-5.30	106.06	114.00
26	BB	496	G	C2'-C3'-O3'	5.30	121.64	113.70
26	BB	940	G	O3'-P-O5'	5.30	111.94	104.00
26	BB	1481	U	C3'-C2'-O2'	5.30	118.65	110.70
26	BB	2040	G	C3'-C2'-C1'	5.30	106.60	101.30
26	BB	2077	A	C4'-C3'-C2'	-5.30	97.30	102.60
26	BB	2713	U	O4'-C1'-N1	5.30	116.15	108.20
28	BD	64	VAL	CA-CB-CG1	5.30	119.41	110.40
1	AA	440	C	O3'-P-O5'	5.29	111.94	104.00
1	AA	1113	C	O5'-C5'-C4'	-5.29	103.56	111.50
1	AA	1366	C	O4'-C1'-C2'	-5.29	102.31	107.60
1	AA	1479	C	O4'-C4'-C3'	5.29	109.30	104.00
7	AG	52	VAL	CA-C-N	5.29	127.32	120.44
7	AG	52	VAL	C-N-CA	5.29	127.32	120.44
26	BB	2885	G	O4'-C1'-N9	5.29	116.44	108.50
39	BO	110	GLU	O-C-N	5.29	127.60	122.09
44	BT	58	VAL	CA-CB-CG1	5.29	119.40	110.40
1	AA	330	C	P-O3'-C3'	5.29	128.14	120.20
22	AV	60	PHE	CA-C-N	5.29	129.20	122.37
22	AV	60	PHE	C-N-CA	5.29	129.20	122.37
23	AW	60	GLN	N-CA-C	5.29	117.05	111.28
25	BA	23	G	C5'-C4'-C3'	-5.29	108.06	116.00
26	BB	898	C	O4'-C4'-C3'	5.29	109.29	104.00
26	BB	992	C	O4'-C4'-C3'	5.29	109.29	104.00
26	BB	1385	A	P-O3'-C3'	5.29	128.14	120.20
26	BB	1549	A	C5'-C4'-C3'	-5.29	108.06	116.00
26	BB	2047	C	C1'-O4'-C4'	5.29	115.19	109.90
26	BB	2082	A	N9-C1'-C2'	-5.29	104.06	112.00
27	BC	22	ASP	CB-CA-C	5.29	118.70	109.65
38	BN	43	GLY	CA-C-O	-5.29	115.91	120.30
40	BP	16	HIS	CG-CD2-NE2	5.29	112.49	107.20
1	AA	1422	G	O4'-C1'-N9	5.29	116.44	108.50
1	AA	1496	C	O4'-C4'-C3'	-5.29	98.71	104.00
6	AF	54	ILE	CA-C-N	5.29	130.49	122.98
6	AF	54	ILE	C-N-CA	5.29	130.49	122.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AH	27	GLY	CA-C-O	-5.29	115.88	122.65
15	AO	30	ARG	O-C-N	-5.29	117.01	123.10
26	BB	242	G	C5'-C4'-C3'	-5.29	107.26	115.20
26	BB	371	A	C3'-C2'-C1'	5.29	106.79	101.50
26	BB	1217	U	O4'-C1'-C2'	-5.29	102.31	107.60
26	BB	1678	A	C5'-C4'-C3'	-5.29	108.06	116.00
26	BB	1720	U	P-O3'-C3'	5.29	128.14	120.20
26	BB	2166	U	C4'-C3'-C2'	-5.29	97.31	102.60
26	BB	2215	C	N1-C1'-C2'	-5.29	104.06	112.00
34	BJ	106	GLU	CA-C-O	-5.29	112.34	119.11
38	BN	4	ASN	CB-CA-C	5.29	118.83	111.63
1	AA	504	C	C5'-C4'-C3'	-5.29	108.06	116.00
26	BB	549	G	O4'-C1'-N9	5.29	116.14	108.20
26	BB	820	A	O3'-P-O5'	-5.29	96.07	104.00
28	BD	154	ALA	CA-C-O	5.29	128.07	120.51
1	AA	322	C	O3'-P-O5'	5.29	111.93	104.00
1	AA	586	C	O5'-C5'-C4'	5.29	119.43	111.50
1	AA	992	U	C1'-O4'-C4'	-5.29	104.41	109.70
1	AA	1133	G	C5'-C4'-O4'	5.29	117.73	109.80
8	AH	100	GLU	N-CA-C	5.29	119.73	113.28
26	BB	585	G	C4'-C3'-O3'	5.29	120.93	113.00
26	BB	1552	A	O4'-C1'-N9	5.29	116.43	108.50
26	BB	2747	G	C4'-C3'-C2'	-5.29	97.31	102.60
28	BD	246	PRO	O-C-N	5.29	129.75	122.35
31	BG	52	ALA	O-C-N	-5.29	116.12	122.15
1	AA	107	G	N9-C1'-C2'	-5.29	104.07	112.00
1	AA	1368	A	O3'-P-O5'	5.29	111.93	104.00
3	AC	18	A	C1'-C2'-O2'	5.29	119.73	111.80
11	AK	55	LYS	CA-C-O	5.29	126.63	120.23
26	BB	1704	C	C5'-C4'-C3'	-5.29	108.07	116.00
26	BB	1934	C	O4'-C4'-C3'	-5.29	98.71	104.00
26	BB	2834	G	C1'-O4'-C4'	-5.29	104.61	109.90
31	BG	101	ARG	CD-NE-CZ	5.29	131.80	124.40
1	AA	14	U	O4'-C4'-C3'	5.29	109.29	104.00
1	AA	382	A	C3'-C2'-O2'	5.29	118.63	110.70
1	AA	545	C	O4'-C1'-C2'	-5.29	102.31	107.60
1	AA	804	U	C3'-C2'-C1'	5.29	106.58	101.30
1	AA	980	C	P-O3'-C3'	5.29	128.13	120.20
1	AA	1187	G	O4'-C1'-N9	5.29	116.43	108.50
25	BA	113	C	N1-C1'-C2'	-5.29	104.07	112.00
26	BB	44	A	O5'-C5'-C4'	5.29	119.43	111.50
26	BB	580	U	P-O3'-C3'	5.29	128.13	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1026	G	C3'-C2'-O2'	5.29	118.63	110.70
26	BB	1415	U	C4'-C3'-O3'	-5.29	105.07	113.00
26	BB	2386	A	O3'-P-O5'	-5.29	96.07	104.00
30	BF	157	LEU	CB-CA-C	5.29	118.28	109.56
1	AA	1542	A	C4'-C3'-C2'	-5.28	97.32	102.60
4	AD	38	A	O3'-P-O5'	-5.28	96.08	104.00
6	AF	41	TYR	CA-C-N	5.28	127.63	120.44
6	AF	41	TYR	C-N-CA	5.28	127.63	120.44
26	BB	595	C	O4'-C4'-C3'	5.28	109.28	104.00
26	BB	736	C	C2'-C3'-O3'	-5.28	105.77	113.70
26	BB	1106	G	O3'-P-O5'	-5.28	96.08	104.00
26	BB	2134	A	O4'-C1'-C2'	-5.28	102.32	107.60
26	BB	2164	C	O4'-C1'-N1	5.28	116.43	108.50
26	BB	2174	C	O4'-C1'-C2'	-5.28	102.32	107.60
26	BB	2524	G	C1'-O4'-C4'	-5.28	104.62	109.90
33	BI	75	LEU	CB-CA-C	5.28	118.55	109.51
53	B2	55	GLY	CA-C-O	5.28	125.84	119.82
2	AB	45	U	C4'-C3'-O3'	-5.28	105.08	113.00
26	BB	1403	A	O4'-C4'-C3'	-5.28	98.72	104.00
26	BB	2638	G	P-O3'-C3'	5.28	128.12	120.20
1	AA	404	G	O4'-C1'-N9	5.28	116.42	108.50
1	AA	591	U	C3'-C2'-C1'	-5.28	96.02	101.30
1	AA	859	G	O3'-P-O5'	5.28	111.92	104.00
1	AA	1344	C	O4'-C4'-C3'	5.28	109.28	104.00
26	BB	1361	G	O4'-C1'-N9	5.28	116.42	108.50
26	BB	1397	U	C3'-C2'-C1'	5.28	106.78	101.50
26	BB	1708	C	O4'-C4'-C3'	5.28	109.28	104.00
26	BB	2257	U	O4'-C1'-C2'	5.28	112.88	107.60
26	BB	2882	A	C5'-C4'-C3'	-5.28	108.08	116.00
32	BH	131	VAL	CB-CA-C	5.28	118.53	111.19
1	AA	1043	G	N9-C1'-C2'	5.28	119.92	112.00
6	AF	185	THR	CA-CB-CG2	5.28	119.47	110.50
11	AK	88	LYS	CA-C-N	5.28	130.38	121.14
11	AK	88	LYS	C-N-CA	5.28	130.38	121.14
26	BB	2099	U	C3'-C2'-C1'	-5.28	96.02	101.30
28	BD	8	THR	CA-C-N	5.28	130.71	122.26
28	BD	8	THR	C-N-CA	5.28	130.71	122.26
30	BF	43	THR	CB-CA-C	5.28	119.24	110.90
1	AA	1385	G	N9-C1'-C2'	-5.28	104.08	112.00
18	AR	81	ILE	O-C-N	5.28	127.20	121.87
20	AT	48	GLU	N-CA-C	-5.28	106.23	113.30
26	BB	1213	A	O4'-C4'-C3'	5.28	109.28	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1631	G	C2'-C3'-O3'	5.28	121.62	113.70
32	BH	146	ASP	CA-C-O	-5.28	113.90	119.97
50	BZ	51	SER	N-CA-CB	-5.28	102.58	110.60
54	B3	40	HIS	ND1-CG-CD2	5.28	111.38	106.10
1	AA	481	G	O4'-C4'-C3'	5.28	111.38	106.10
1	AA	738	C	O4'-C1'-N1	5.28	116.41	108.50
1	AA	1016	A	C1'-C2'-O2'	-5.28	100.49	108.40
1	AA	1494	G	C3'-C2'-C1'	5.28	106.58	101.30
3	AC	44	U	O4'-C1'-N1	5.28	116.11	108.20
11	AK	35	ILE	CA-C-O	-5.28	115.19	121.05
22	AV	38	THR	CA-C-N	5.28	130.45	122.91
22	AV	38	THR	C-N-CA	5.28	130.45	122.91
26	BB	137	U	C1'-O4'-C4'	5.28	115.17	109.90
26	BB	2639	A	O4'-C4'-C3'	5.28	109.28	104.00
1	AA	253	A	C5'-C4'-O4'	5.27	117.71	109.80
1	AA	724	G	C1'-C2'-O2'	-5.27	100.49	108.40
26	BB	1943	U	O4'-C1'-N1	5.27	116.11	108.20
26	BB	2891	U	C3'-C2'-C1'	5.27	106.57	101.30
35	BK	71	LYS	N-CA-C	5.27	118.16	109.72
47	BW	74	ALA	CA-C-O	-5.27	112.97	120.51
57	B6	26	ALA	CA-C-N	5.27	129.63	122.19
57	B6	26	ALA	C-N-CA	5.27	129.63	122.19
1	AA	383	A	C4'-C3'-C2'	-5.27	97.33	102.60
1	AA	1336	C	N1-C1'-C2'	-5.27	106.09	114.00
16	AP	90	HIS	CG-ND1-CE1	-5.27	100.34	109.30
26	BB	421	C	O4'-C1'-N1	5.27	116.11	108.20
26	BB	1814	G	C2'-C3'-O3'	-5.27	105.79	113.70
26	BB	1844	C	O4'-C4'-C3'	-5.27	98.73	104.00
26	BB	1920	C	O4'-C1'-N1	5.27	116.41	108.50
26	BB	1925	C	O3'-P-O5'	-5.27	96.09	104.00
26	BB	2341	G	C4'-C3'-O3'	5.27	120.91	113.00
34	BJ	6	ASP	CA-CB-CG	5.27	117.87	112.60
40	BP	122	ALA	CB-CA-C	5.27	118.97	109.64
43	BS	49	ARG	NE-CZ-NH1	5.27	126.77	121.50
6	AF	53	ARG	NE-CZ-NH2	5.27	123.94	119.20
26	BB	993	G	C4'-C3'-C2'	-5.27	97.33	102.60
26	BB	1274	A	C4'-C3'-C2'	-5.27	97.33	102.60
26	BB	1789	A	C5'-C4'-O4'	5.27	117.71	109.80
1	AA	338	A	C3'-C2'-O2'	5.27	118.60	110.70
1	AA	1120	C	C1'-C2'-O2'	-5.27	100.50	108.40
12	AL	123	ARG	CD-NE-CZ	5.27	131.78	124.40
18	AR	2	LEU	CA-C-O	5.27	127.17	121.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	469	G	O5'-C5'-C4'	-5.27	103.59	111.50
26	BB	804	A	O4'-C1'-C2'	5.27	112.87	107.60
26	BB	2429	G	C2'-C3'-O3'	-5.27	105.80	113.70
27	BC	108	GLU	CB-CA-C	5.27	118.87	109.65
38	BN	100	ILE	CA-CB-CG1	5.27	119.36	110.40
1	AA	44	A	C1'-C2'-O2'	5.27	116.30	108.40
1	AA	864	A	C4'-C3'-O3'	-5.27	105.10	113.00
1	AA	872	A	C2'-C3'-O3'	5.27	117.40	109.50
1	AA	995	C	O4'-C1'-N1	5.27	116.40	108.50
2	AB	5	G	C4'-C3'-C2'	-5.27	97.33	102.60
3	AC	57	C	O4'-C1'-C2'	-5.27	102.33	107.60
4	AD	11	A	C3'-C2'-O2'	5.27	118.60	110.70
5	AE	40	ILE	N-CA-C	5.27	116.16	110.21
26	BB	716	A	C1'-O4'-C4'	-5.27	104.63	109.90
26	BB	1374	G	O3'-P-O5'	-5.27	96.10	104.00
26	BB	2242	G	C4'-C3'-C2'	-5.27	97.33	102.60
26	BB	2338	C	O4'-C1'-N1	5.27	116.40	108.50
42	BR	41	ALA	N-CA-CB	-5.27	102.67	111.20
25	BA	112	G	C4'-C3'-C2'	-5.27	97.33	102.60
26	BB	1856	U	C5'-C4'-C3'	-5.27	108.10	116.00
1	AA	1072	G	C3'-C2'-C1'	5.26	106.56	101.30
2	AB	5	G	C5'-C4'-C3'	5.26	123.89	116.00
7	AG	68	GLU	CB-CG-CD	5.26	121.55	112.60
26	BB	1039	A	C5'-C4'-O4'	5.26	117.70	109.80
26	BB	1104	C	C3'-C2'-C1'	5.26	106.56	101.30
1	AA	680	C	C3'-C2'-C1'	5.26	106.56	101.30
1	AA	1251	A	C4'-C3'-C2'	-5.26	97.34	102.60
1	AA	1361	G	P-O5'-C5'	5.26	128.79	120.90
26	BB	994	C	C3'-C2'-C1'	5.26	106.56	101.30
26	BB	1187	G	C3'-C2'-C1'	-5.26	96.04	101.30
26	BB	2406	A	C5'-C4'-C3'	-5.26	108.11	116.00
28	BD	10	PRO	CA-C-N	5.26	130.12	122.28
28	BD	10	PRO	C-N-CA	5.26	130.12	122.28
47	BW	95	PHE	CA-CB-CG	5.26	119.06	113.80
1	AA	284	C	C3'-C2'-C1'	5.26	106.56	101.30
1	AA	329	A	O4'-C4'-C3'	-5.26	100.84	106.10
1	AA	1420	U	O4'-C1'-N1	5.26	116.39	108.50
1	AA	1513	A	C1'-C2'-O2'	-5.26	100.51	108.40
26	BB	129	C	C5'-C4'-O4'	5.26	117.69	109.80
26	BB	1370	C	O4'-C1'-C2'	-5.26	102.34	107.60
26	BB	1432	G	C3'-C2'-C1'	-5.26	96.04	101.30
26	BB	2208	C	P-O5'-C5'	5.26	128.79	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2609	U	C3'-C2'-O2'	-5.26	106.71	114.60
29	BE	184	ARG	CA-C-N	5.26	130.03	122.35
29	BE	184	ARG	C-N-CA	5.26	130.03	122.35
33	BI	31	VAL	CA-C-N	5.26	124.98	119.82
33	BI	31	VAL	C-N-CA	5.26	124.98	119.82
1	AA	548	G	O4'-C1'-N9	5.26	116.39	108.50
1	AA	644	U	O4'-C1'-C2'	-5.26	102.34	107.60
1	AA	962	C	O3'-P-O5'	5.26	111.89	104.00
1	AA	1477	U	O4'-C1'-N1	5.26	116.39	108.50
26	BB	103	A	O4'-C1'-C2'	-5.26	102.34	107.60
26	BB	644	A	C5'-C4'-O4'	5.26	117.69	109.80
26	BB	808	G	C1'-C2'-O2'	5.26	116.29	108.40
26	BB	885	C	C2'-C3'-O3'	-5.26	105.81	113.70
26	BB	906	U	C5'-C4'-O4'	5.26	117.69	109.80
26	BB	1155	A	O4'-C1'-C2'	-5.26	102.34	107.60
26	BB	1745	A	O4'-C1'-N9	5.26	116.39	108.50
26	BB	2062	A	O5'-C5'-C4'	-5.26	103.81	111.70
33	BI	132	PHE	CA-C-N	5.26	130.89	122.32
33	BI	132	PHE	C-N-CA	5.26	130.89	122.32
1	AA	1521	C	C5'-C4'-O4'	5.26	117.69	109.80
26	BB	680	C	C2'-C3'-O3'	5.26	121.59	113.70
26	BB	2083	G	C5'-C4'-C3'	-5.26	108.11	116.00
26	BB	2274	A	C1'-O4'-C4'	-5.26	104.64	109.90
42	BR	90	ALA	CB-CA-C	5.26	118.99	109.37
1	AA	192	A	C4'-C3'-O3'	-5.26	105.11	113.00
1	AA	368	U	C5'-C4'-O4'	5.26	117.69	109.80
1	AA	769	G	C5'-C4'-C3'	-5.26	108.12	116.00
26	BB	1640	A	N9-C1'-C2'	-5.26	104.11	112.00
26	BB	1651	G	C4'-C3'-C2'	-5.26	97.34	102.60
26	BB	1820	U	C4'-C3'-C2'	-5.26	97.34	102.60
26	BB	2786	U	O4'-C1'-C2'	-5.26	102.34	107.60
26	BB	2830	C	C3'-C2'-C1'	-5.26	96.04	101.30
31	BG	20	ASN	CA-CB-CG	5.26	117.86	112.60
39	BO	89	VAL	N-CA-CB	5.26	116.26	110.53
1	AA	127	G	C3'-C2'-O2'	5.25	118.58	110.70
1	AA	461	A	O5'-C5'-C4'	-5.25	103.62	111.50
1	AA	582	C	C4'-C3'-O3'	-5.25	105.12	113.00
1	AA	823	C	C3'-C2'-C1'	-5.25	96.05	101.30
27	BC	63	THR	CA-CB-CG2	5.25	119.43	110.50
35	BK	54	ILE	CB-CA-C	5.25	116.82	110.78
50	BZ	28	PHE	CA-C-N	5.25	131.58	122.28
50	BZ	28	PHE	C-N-CA	5.25	131.58	122.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	173	U	P-O3'-C3'	5.25	128.08	120.20
1	AA	775	G	C4'-C3'-C2'	-5.25	97.35	102.60
5	AE	118	THR	CA-C-N	5.25	127.58	120.44
5	AE	118	THR	C-N-CA	5.25	127.58	120.44
7	AG	87	GLU	CA-C-O	-5.25	115.30	120.82
13	AM	40	ILE	CA-CB-CG2	-5.25	101.57	110.50
23	AW	7	LYS	N-CA-C	-5.25	105.15	112.03
26	BB	1174	U	C1'-C2'-O2'	5.25	116.28	108.40
26	BB	1725	U	C5'-C4'-C3'	-5.25	108.12	116.00
26	BB	1752	C	C4'-C3'-O3'	-5.25	105.12	113.00
31	BG	104	THR	CA-C-N	5.25	128.01	121.71
31	BG	104	THR	C-N-CA	5.25	128.01	121.71
33	BI	3	VAL	CA-C-O	5.25	127.35	120.78
1	AA	190	A	C4'-C3'-C2'	-5.25	97.35	102.60
1	AA	1185	G	C4'-C3'-C2'	5.25	107.85	102.60
7	AG	24	VAL	CA-CB-CG1	-5.25	101.47	110.40
8	AH	3	ILE	CA-CB-CG1	5.25	119.33	110.40
26	BB	641	U	O4'-C4'-C3'	5.25	109.25	104.00
26	BB	1827	U	O4'-C1'-N1	5.25	116.38	108.50
26	BB	2475	C	P-O5'-C5'	5.25	128.78	120.90
41	BQ	42	PRO	O-C-N	5.25	129.28	122.24
1	AA	597	G	O5'-C5'-C4'	5.25	119.37	111.50
1	AA	1472	U	O4'-C1'-N1	5.25	116.38	108.50
5	AE	38	HIS	CB-CG-CD2	-5.25	124.38	131.20
25	BA	28	C	C1'-O4'-C4'	-5.25	104.65	109.90
26	BB	1803	A	O4'-C4'-C3'	5.25	109.25	104.00
26	BB	2815	C	O3'-P-O5'	-5.25	96.12	104.00
1	AA	199	A	C2'-C3'-O3'	5.25	121.57	113.70
1	AA	1461	G	P-O3'-C3'	5.25	128.07	120.20
4	AD	70	C	O4'-C4'-C3'	5.25	109.25	104.00
20	AT	6	THR	CA-CB-CG2	5.25	119.42	110.50
26	BB	718	A	O3'-P-O5'	-5.25	96.13	104.00
26	BB	1098	A	C2'-C3'-O3'	5.25	121.57	113.70
26	BB	1436	G	C2'-C3'-O3'	5.25	121.57	113.70
26	BB	1441	G	C5'-C4'-C3'	-5.25	108.13	116.00
26	BB	1928	A	O3'-P-O5'	5.25	111.87	104.00
26	BB	2723	C	C1'-O4'-C4'	5.25	115.15	109.90
31	BG	110	ILE	N-CA-CB	5.25	116.25	110.53
56	B5	7	PRO	N-CD-CG	5.25	111.07	103.20
1	AA	623	C	C3'-C2'-C1'	5.25	106.55	101.30
1	AA	825	A	O4'-C4'-C3'	5.25	109.25	104.00
1	AA	841	C	N1-C1'-C2'	5.25	119.87	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	856	C	O4'-C4'-C3'	5.25	109.25	104.00
5	AE	8	MET	CA-C-O	-5.25	115.31	120.82
5	AE	47	PRO	CA-C-N	5.25	127.26	120.44
5	AE	47	PRO	C-N-CA	5.25	127.26	120.44
26	BB	37	C	O4'-C4'-C3'	-5.25	98.75	104.00
26	BB	103	A	C1'-C2'-O2'	-5.25	100.53	108.40
26	BB	127	A	C3'-C2'-O2'	5.25	118.57	110.70
26	BB	985	C	C5'-C4'-C3'	-5.25	108.13	116.00
26	BB	1237	A	C3'-C2'-C1'	5.25	106.75	101.50
26	BB	2447	G	O4'-C1'-N9	5.25	116.07	108.20
36	BL	124	VAL	CA-C-N	5.25	131.56	121.54
36	BL	124	VAL	C-N-CA	5.25	131.56	121.54
10	AJ	142	ARG	CA-C-N	5.25	127.31	120.28
10	AJ	142	ARG	C-N-CA	5.25	127.31	120.28
26	BB	1305	C	N1-C1'-C2'	-5.25	104.13	112.00
1	AA	176	C	C1'-O4'-C4'	-5.24	104.66	109.90
1	AA	286	C	C5'-C4'-C3'	-5.24	108.14	116.00
1	AA	361	G	C2'-C3'-O3'	-5.24	105.83	113.70
1	AA	396	C	C4'-C3'-O3'	5.24	120.87	113.00
1	AA	577	G	O4'-C4'-C3'	5.24	109.24	104.00
1	AA	819	A	O5'-C5'-C4'	5.24	119.57	111.70
1	AA	871	U	C2'-C3'-O3'	5.24	117.37	109.50
1	AA	1116	U	C3'-C2'-C1'	5.24	106.54	101.30
4	AD	30	G	C4'-C3'-C2'	-5.24	97.36	102.60
13	AM	54	SER	CA-C-O	-5.24	115.01	120.88
14	AN	114	PRO	N-CA-CB	5.24	107.71	103.36
26	BB	385	C	C4'-C3'-O3'	5.24	120.87	113.00
26	BB	531	C	O4'-C1'-C2'	-5.24	100.56	105.80
26	BB	768	G	O4'-C1'-C2'	-5.24	102.36	107.60
26	BB	1070	A	O4'-C4'-C3'	5.24	111.34	106.10
26	BB	1352	U	N1-C1'-C2'	-5.24	104.14	112.00
26	BB	2217	G	O4'-C1'-C2'	5.24	112.84	107.60
26	BB	2859	G	O4'-C1'-N9	5.24	116.36	108.50
27	BC	176	GLY	O-C-N	-5.24	119.45	123.80
33	BI	7	ASP	O-C-N	5.24	128.77	122.79
26	BB	1758	U	C4'-C3'-C2'	5.24	107.84	102.60
26	BB	1789	A	C2'-C3'-O3'	-5.24	105.84	113.70
26	BB	1955	U	C1'-O4'-C4'	-5.24	104.46	109.70
36	BL	47	HIS	CB-CG-CD2	-5.24	124.39	131.20
1	AA	1161	C	C4'-C3'-O3'	5.24	120.86	113.00
26	BB	59	U	O3'-P-O5'	-5.24	96.14	104.00
26	BB	480	A	C3'-C2'-C1'	5.24	106.54	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1242	U	C1'-O4'-C4'	5.24	115.14	109.90
26	BB	2211	A	O4'-C1'-C2'	-5.24	102.36	107.60
29	BE	13	ARG	CA-C-O	-5.24	115.32	120.98
30	BF	106	LYS	CB-CA-C	-5.24	102.09	110.79
33	BI	4	ILE	CA-C-N	5.24	128.29	120.95
33	BI	4	ILE	C-N-CA	5.24	128.29	120.95
33	BI	78	VAL	CB-CA-C	5.24	117.21	111.08
1	AA	811	C	C3'-C2'-C1'	5.24	106.54	101.30
1	AA	1283	U	O5'-C5'-C4'	5.24	119.36	111.50
8	AH	33	THR	CA-CB-OG1	5.24	117.46	109.60
19	AS	53	ASP	CA-C-N	5.24	127.61	120.54
19	AS	53	ASP	C-N-CA	5.24	127.61	120.54
21	AU	17	VAL	N-CA-C	-5.24	100.10	107.75
26	BB	1461	C	C1'-O4'-C4'	5.24	115.14	109.90
26	BB	1847	A	O4'-C1'-N9	5.24	116.36	108.50
37	BM	8	LEU	N-CA-C	5.24	116.95	109.14
41	BQ	95	SER	N-CA-C	5.24	118.82	111.90
1	AA	382	A	N9-C1'-C2'	5.24	119.86	112.00
9	AI	133	GLU	N-CA-CB	-5.24	102.63	110.17
17	AQ	86	ALA	CA-C-N	5.24	127.30	120.28
17	AQ	86	ALA	C-N-CA	5.24	127.30	120.28
23	AW	16	ALA	CA-C-N	5.24	127.25	120.44
23	AW	16	ALA	C-N-CA	5.24	127.25	120.44
26	BB	492	A	C3'-C2'-C1'	5.24	106.54	101.30
26	BB	1395	A	C4'-C3'-O3'	-5.24	101.54	109.40
26	BB	2358	A	O4'-C4'-C3'	5.24	109.24	104.00
34	BJ	131	TYR	CA-CB-CG	5.24	123.33	113.90
35	BK	14	ALA	N-CA-C	5.24	117.73	111.71
52	B1	29	ARG	O-C-N	5.24	128.43	122.25
1	AA	501	C	C2'-C3'-O3'	-5.24	105.85	113.70
1	AA	1213	A	C3'-C2'-O2'	5.24	118.55	110.70
5	AE	148	GLY	CA-C-O	-5.24	115.11	120.45
22	AV	33	TRP	CE2-CD2-CE3	-5.24	113.56	118.80
22	AV	73	PHE	CA-C-O	5.24	125.97	120.42
26	BB	719	C	O4'-C1'-N1	5.24	116.35	108.50
26	BB	1826	G	C1'-O4'-C4'	-5.24	104.66	109.90
26	BB	2319	G	C4'-C3'-C2'	5.24	107.84	102.60
26	BB	2407	A	C5'-C4'-C3'	5.24	123.85	116.00
26	BB	2654	A	C5'-C4'-O4'	5.24	116.95	109.10
1	AA	526	C	O4'-C1'-N1	5.23	116.35	108.50
1	AA	1333	A	O5'-C5'-C4'	5.23	119.35	111.50
26	BB	1023	U	C2'-C3'-O3'	-5.23	105.85	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1869	G	O5'-C5'-C4'	-5.23	103.65	111.50
26	BB	2210	U	O4'-C4'-C3'	5.23	111.33	106.10
26	BB	2515	C	C5'-C4'-O4'	5.23	117.65	109.80
1	AA	1162	C	N1-C1'-C2'	-5.23	104.15	112.00
11	AK	54	THR	O-C-N	5.23	129.55	122.59
15	AO	40	THR	CA-C-O	-5.23	115.24	120.63
22	AV	28	LYS	CA-C-N	5.23	126.38	119.84
22	AV	28	LYS	C-N-CA	5.23	126.38	119.84
26	BB	372	G	C5'-C4'-O4'	5.23	116.95	109.10
26	BB	2393	U	O4'-C1'-N1	5.23	116.35	108.50
28	BD	21	PRO	N-CA-CB	5.23	109.16	103.30
36	BL	49	ASP	CA-C-O	-5.23	114.42	120.49
37	BM	34	GLY	O-C-N	-5.23	118.31	122.81
46	BV	58	VAL	CB-CA-C	5.23	116.96	110.73
10	AJ	5	VAL	CA-CB-CG1	5.23	119.29	110.40
26	BB	333	G	C1'-C2'-O2'	-5.23	100.55	108.40
26	BB	526	A	O3'-P-O5'	-5.23	96.16	104.00
26	BB	792	A	C5'-C4'-C3'	-5.23	108.15	116.00
26	BB	1332	G	O4'-C1'-N9	5.23	116.05	108.20
26	BB	2490	G	O4'-C1'-N9	-5.23	100.35	108.20
1	AA	674	G	O4'-C1'-N9	5.23	116.34	108.50
1	AA	756	C	C4'-C3'-C2'	-5.23	97.37	102.60
22	AV	82	HIS	N-CA-CB	-5.23	101.19	111.60
26	BB	1399	C	C1'-O4'-C4'	5.23	115.13	109.90
29	BE	67	HIS	CA-C-O	-5.23	115.33	120.82
1	AA	601	G	O4'-C1'-N9	5.23	116.34	108.50
4	AD	41	C	O4'-C1'-N1	5.23	116.34	108.50
26	BB	435	C	O4'-C1'-C2'	-5.23	102.37	107.60
26	BB	1164	C	C5'-C4'-C3'	-5.23	108.16	116.00
26	BB	1505	A	O4'-C4'-C3'	5.23	109.23	104.00
26	BB	1822	C	C1'-C2'-O2'	5.23	116.24	108.40
26	BB	2270	A	C4'-C3'-O3'	-5.23	105.16	113.00
26	BB	2306	C	P-O3'-C3'	5.23	128.04	120.20
28	BD	57	HIS	CE1-NE2-CD2	-5.23	103.77	109.00
1	AA	183	C	C4'-C3'-O3'	5.23	120.84	113.00
1	AA	1430	A	P-O3'-C3'	5.23	128.04	120.20
25	BA	87	U	C1'-C2'-O2'	-5.23	100.56	108.40
26	BB	1137	G	C4'-C3'-O3'	-5.23	105.16	113.00
26	BB	2430	A	O4'-C1'-N9	-5.23	100.66	108.50
26	BB	2525	G	O4'-C1'-N9	5.23	116.34	108.50
47	BW	46	LYS	CG-CD-CE	-5.23	99.28	111.30
48	BX	5	ASN	CA-C-N	5.23	130.79	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	BX	5	ASN	C-N-CA	5.23	130.79	121.75
1	AA	39	G	O4'-C4'-C3'	-5.22	98.78	104.00
1	AA	78	A	O4'-C1'-N9	5.22	116.34	108.50
1	AA	1003	G	C3'-C2'-C1'	5.22	106.52	101.30
1	AA	1070	U	C2'-C3'-O3'	5.22	121.54	113.70
1	AA	1195	C	C5'-C4'-O4'	5.22	117.64	109.80
26	BB	455	C	P-O3'-C3'	5.22	128.04	120.20
26	BB	794	A	C5'-C4'-O4'	5.22	117.64	109.80
26	BB	883	G	C5'-C4'-C3'	5.22	123.84	116.00
26	BB	1263	U	O4'-C4'-C3'	5.22	109.22	104.00
26	BB	1299	G	O3'-P-O5'	-5.22	96.16	104.00
26	BB	2371	G	C3'-C2'-O2'	-5.22	102.86	110.70
27	BC	184	LYS	O-C-N	-5.22	116.58	122.12
35	BK	124	MET	CA-C-N	5.22	127.59	120.54
35	BK	124	MET	C-N-CA	5.22	127.59	120.54
44	BT	98	ILE	CB-CG1-CD1	5.22	124.77	113.80
54	B3	43	THR	CA-C-N	5.22	128.96	120.60
54	B3	43	THR	C-N-CA	5.22	128.96	120.60
57	B6	25	HIS	ND1-CG-CD2	5.22	111.33	106.10
1	AA	1012	A	O4'-C1'-N9	5.22	116.33	108.50
1	AA	1049	U	P-O3'-C3'	5.22	128.03	120.20
26	BB	610	C	C5'-C4'-O4'	5.22	117.64	109.80
26	BB	807	U	C4'-C3'-O3'	-5.22	105.17	113.00
28	BD	14	HIS	ND1-CG-CD2	5.22	111.32	106.10
30	BF	57	LYS	O-C-N	-5.22	116.45	122.87
32	BH	145	ALA	N-CA-C	-5.22	105.67	111.36
38	BN	114	GLY	CA-C-O	5.22	124.85	119.00
42	BR	14	GLN	OE1-CD-NE2	-5.22	117.38	122.60
1	AA	433	G	O3'-P-O5'	-5.22	96.17	104.00
1	AA	1475	G	O4'-C1'-C2'	5.22	112.82	107.60
9	AI	76	THR	CA-C-N	5.22	127.28	120.28
9	AI	76	THR	C-N-CA	5.22	127.28	120.28
10	AJ	145	GLU	O-C-N	-5.22	116.20	122.15
22	AV	5	LYS	N-CA-CB	-5.22	101.67	110.49
26	BB	1163	G	O5'-C5'-C4'	5.22	119.33	111.50
28	BD	34	GLU	CA-C-O	-5.22	114.23	120.65
1	AA	1136	C	O5'-C5'-C4'	5.22	119.33	111.50
26	BB	271	G	O4'-C1'-N9	5.22	116.03	108.20
26	BB	436	C	O4'-C1'-C2'	5.22	112.82	107.60
26	BB	751	A	C5'-C4'-C3'	-5.22	108.17	116.00
26	BB	1861	G	O4'-C1'-C2'	-5.22	102.38	107.60
26	BB	1948	G	C4'-C3'-O3'	5.22	120.83	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	BE	112	THR	N-CA-C	-5.22	105.37	112.26
30	BF	141	MET	CA-C-N	5.22	129.77	122.36
30	BF	141	MET	C-N-CA	5.22	129.77	122.36
37	BM	26	GLY	N-CA-C	-5.22	107.60	115.32
26	BB	81	G	O4'-C1'-C2'	-5.22	102.38	107.60
42	BR	33	GLU	CA-C-O	5.22	127.97	120.51
1	AA	6	G	O4'-C4'-C3'	5.22	111.32	106.10
1	AA	253	A	C1'-C2'-O2'	5.22	116.22	108.40
1	AA	334	C	N1-C1'-C2'	-5.22	104.17	112.00
1	AA	353	A	O4'-C1'-C2'	-5.22	102.38	107.60
1	AA	559	A	C5'-C4'-C3'	-5.22	107.38	115.20
1	AA	1208	C	C1'-C2'-O2'	5.22	116.22	108.40
4	AD	31	G	C5'-C4'-C3'	5.22	123.83	116.00
8	AH	70	MET	N-CA-C	5.22	116.89	108.34
21	AU	38	ILE	CB-CA-C	5.22	120.12	111.51
26	BB	106	C	C5'-C4'-C3'	-5.22	108.18	116.00
26	BB	558	U	O4'-C1'-C2'	-5.22	102.38	107.60
26	BB	894	U	N1-C1'-C2'	-5.22	104.18	112.00
26	BB	1004	U	O4'-C1'-N1	5.22	116.32	108.50
26	BB	1500	G	O5'-C5'-C4'	-5.22	103.68	111.50
26	BB	1504	A	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	2438	U	C4'-C3'-C2'	-5.22	97.38	102.60
1	AA	920	U	O5'-C5'-C4'	-5.21	103.68	111.50
1	AA	1049	U	C3'-C2'-C1'	-5.21	96.29	101.50
1	AA	1090	U	N1-C1'-C2'	-5.21	104.18	112.00
1	AA	1167	A	O5'-C5'-C4'	5.21	119.32	111.50
1	AA	1397	C	C1'-O4'-C4'	-5.21	104.49	109.70
22	AV	11	ASP	CA-C-N	5.21	127.79	120.28
22	AV	11	ASP	C-N-CA	5.21	127.79	120.28
25	BA	68	C	O4'-C1'-N1	5.21	116.32	108.50
26	BB	1952	A	C3'-C2'-C1'	-5.21	96.28	101.50
26	BB	2085	U	O4'-C4'-C3'	-5.21	98.78	104.00
26	BB	2223	G	C3'-C2'-O2'	5.21	118.52	110.70
26	BB	2803	G	O4'-C1'-N9	5.21	116.32	108.50
1	AA	812	G	O4'-C1'-C2'	-5.21	102.39	107.60
25	BA	90	C	C1'-O4'-C4'	5.21	115.11	109.90
26	BB	820	A	C5'-C4'-C3'	-5.21	108.18	116.00
26	BB	2323	G	C5'-C4'-C3'	-5.21	108.18	116.00
1	AA	1046	A	O4'-C1'-N9	5.21	116.32	108.50
1	AA	1357	A	O4'-C4'-C3'	5.21	109.21	104.00
10	AJ	135	LYS	N-CA-C	-5.21	105.60	111.28
26	BB	992	C	C1'-O4'-C4'	-5.21	104.69	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2143	C	O3'-P-O5'	-5.21	96.18	104.00
26	BB	2788	C	C4'-C3'-O3'	5.21	120.82	113.00
26	BB	2805	C	C1'-O4'-C4'	5.21	115.11	109.90
26	BB	2835	A	O5'-C5'-C4'	-5.21	103.88	111.70
51	B0	48	ARG	NE-CZ-NH2	5.21	123.89	119.20
57	B6	36	ALA	CA-C-N	5.21	127.26	120.28
57	B6	36	ALA	C-N-CA	5.21	127.26	120.28
1	AA	1401	G	O4'-C1'-C2'	-5.21	102.39	107.60
24	AX	66	ARG	CD-NE-CZ	5.21	131.69	124.40
25	BA	8	C	O4'-C1'-C2'	-5.21	102.39	107.60
26	BB	2261	C	O5'-C5'-C4'	5.21	119.31	111.50
1	AA	544	G	C3'-C2'-O2'	5.21	118.51	110.70
1	AA	1062	U	C4'-C3'-C2'	-5.21	97.39	102.60
2	AB	34	C	O4'-C1'-C2'	-5.21	102.39	107.60
20	AT	47	ASP	CA-CB-CG	5.21	117.81	112.60
23	AW	24	ARG	CA-C-O	-5.21	115.35	120.82
26	BB	2622	U	O5'-C5'-C4'	5.21	119.31	111.50
27	BC	123	VAL	N-CA-CB	5.21	118.39	110.58
30	BF	106	LYS	N-CA-CB	5.21	117.78	110.12
36	BL	98	GLU	O-C-N	-5.21	116.26	122.20
1	AA	179	A	O4'-C1'-C2'	5.21	112.81	107.60
1	AA	487	A	C4'-C3'-C2'	-5.21	97.39	102.60
26	BB	502	A	C3'-C2'-O2'	5.21	118.51	110.70
26	BB	1696	G	O4'-C1'-N9	5.21	116.31	108.50
26	BB	2657	A	C4'-C3'-C2'	-5.21	97.39	102.60
28	BD	179	GLU	CA-C-O	-5.21	116.03	121.55
36	BL	130	HIS	CA-C-O	5.21	127.07	121.55
37	BM	90	ASN	CB-CA-C	5.21	116.20	109.28
42	BR	69	VAL	CA-CB-CG1	5.21	119.25	110.40
1	AA	183	C	C3'-C2'-C1'	5.21	106.50	101.30
1	AA	1317	C	C3'-C2'-O2'	5.21	118.51	110.70
1	AA	1491	G	P-O3'-C3'	5.21	128.01	120.20
8	AH	150	GLU	CA-C-N	5.21	128.26	120.87
8	AH	150	GLU	C-N-CA	5.21	128.26	120.87
16	AP	50	GLY	CA-C-N	5.21	127.68	120.29
16	AP	50	GLY	C-N-CA	5.21	127.68	120.29
25	BA	83	G	C5'-C4'-O4'	5.21	117.61	109.80
26	BB	1119	U	O4'-C1'-N1	5.21	116.31	108.50
26	BB	2020	A	O3'-P-O5'	-5.21	96.19	104.00
1	AA	454	G	O4'-C4'-C3'	5.20	109.20	104.00
6	AF	140	ALA	CB-CA-C	5.20	119.05	110.88
21	AU	15	GLU	N-CA-CB	5.20	117.62	109.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1085	A	O4'-C1'-C2'	5.20	112.80	107.60
26	BB	1128	G	O4'-C4'-C3'	5.20	111.30	106.10
26	BB	1528	A	O4'-C4'-C3'	5.20	109.20	104.00
26	BB	2598	A	C4'-C3'-C2'	-5.20	97.40	102.60
12	AL	47	VAL	CA-C-O	5.20	126.09	120.47
26	BB	1450	G	O3'-P-O5'	5.20	111.80	104.00
26	BB	1646	C	O3'-P-O5'	-5.20	96.20	104.00
26	BB	1746	A	O4'-C4'-C3'	5.20	109.20	104.00
31	BG	158	THR	CA-C-N	5.20	128.10	120.71
31	BG	158	THR	C-N-CA	5.20	128.10	120.71
38	BN	28	GLY	CA-C-N	5.20	128.47	120.82
38	BN	28	GLY	C-N-CA	5.20	128.47	120.82
44	BT	79	ARG	N-CA-C	5.20	117.25	110.43
47	BW	63	ALA	CB-CA-C	5.20	120.77	110.42
1	AA	326	G	C3'-C2'-C1'	-5.20	96.10	101.30
1	AA	608	A	O4'-C1'-N9	5.20	116.30	108.50
1	AA	1419	G	P-O3'-C3'	5.20	128.00	120.20
4	AD	2	G	C5'-C4'-C3'	-5.20	108.20	116.00
15	AO	35	ARG	NE-CZ-NH2	-5.20	114.52	119.20
26	BB	446	G	N9-C1'-C2'	-5.20	106.20	114.00
26	BB	832	U	C5'-C4'-O4'	5.20	117.60	109.80
26	BB	1187	G	P-O3'-C3'	5.20	128.00	120.20
26	BB	1328	A	C4'-C3'-C2'	-5.20	97.40	102.60
26	BB	1409	U	N1-C1'-C2'	-5.20	104.20	112.00
26	BB	2561	U	O4'-C4'-C3'	-5.20	98.80	104.00
26	BB	2837	A	C3'-C2'-O2'	5.20	118.50	110.70
26	BB	2883	A	C3'-C2'-C1'	5.20	106.50	101.30
39	BO	25	ASP	CB-CA-C	5.20	118.40	109.51
41	BQ	81	ARG	CA-C-N	5.20	129.47	120.58
41	BQ	81	ARG	C-N-CA	5.20	129.47	120.58
1	AA	1440	U	O3'-P-O5'	-5.20	96.20	104.00
16	AP	79	LEU	CA-C-N	5.20	127.76	120.28
16	AP	79	LEU	C-N-CA	5.20	127.76	120.28
26	BB	245	G	C4'-C3'-O3'	5.20	120.80	113.00
26	BB	535	G	N9-C1'-C2'	-5.20	104.20	112.00
26	BB	582	A	O4'-C4'-C3'	5.20	109.20	104.00
26	BB	876	C	C4'-C3'-C2'	-5.20	97.40	102.60
26	BB	1056	G	C4'-C3'-O3'	5.20	120.80	113.00
26	BB	1157	G	N9-C1'-C2'	5.20	119.80	112.00
26	BB	1294	U	O4'-C4'-C3'	-5.20	98.80	104.00
26	BB	2509	G	C1'-O4'-C4'	5.20	115.10	109.90
38	BN	85	VAL	N-CA-CB	-5.20	103.92	110.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	281	G	P-O5'-C5'	5.20	128.70	120.90
1	AA	570	G	P-O5'-C5'	5.20	128.70	120.90
1	AA	1491	G	C2'-C3'-O3'	-5.20	105.91	113.70
26	BB	669	G	O4'-C4'-C3'	-5.20	98.80	104.00
1	AA	1	A	C1'-O4'-C4'	-5.20	104.70	109.90
1	AA	103	U	C1'-C2'-O2'	5.20	116.19	108.40
2	AB	4	G	C2'-C3'-O3'	-5.20	105.91	113.70
6	AF	156	LEU	N-CA-C	5.20	117.57	110.24
11	AK	60	LEU	N-CA-C	5.20	117.57	109.52
16	AP	65	GLU	CA-C-O	-5.20	115.04	120.55
17	AQ	71	GLY	CA-C-N	5.20	129.65	120.87
17	AQ	71	GLY	C-N-CA	5.20	129.65	120.87
19	AS	60	TRP	CA-C-N	5.20	128.82	120.30
19	AS	60	TRP	C-N-CA	5.20	128.82	120.30
26	BB	1018	U	C3'-C2'-O2'	5.20	118.49	110.70
31	BG	114	ARG	N-CA-C	-5.20	106.86	114.39
36	BL	1	MET	CG-SD-CE	-5.20	89.47	100.90
51	B0	61	ALA	CA-C-N	5.20	131.77	121.53
51	B0	61	ALA	C-N-CA	5.20	131.77	121.53
1	AA	705	G	C3'-C2'-O2'	5.19	118.49	110.70
3	AC	30	U	C1'-O4'-C4'	-5.19	104.71	109.90
9	AI	91	ARG	CA-C-N	5.19	127.24	120.28
9	AI	91	ARG	C-N-CA	5.19	127.24	120.28
25	BA	45	A	C1'-C2'-O2'	5.19	116.19	108.40
26	BB	762	U	C3'-C2'-C1'	5.19	106.69	101.50
26	BB	2283	C	O4'-C1'-C2'	-5.19	102.41	107.60
26	BB	2467	C	O4'-C1'-N1	5.19	116.29	108.50
52	B1	51	SER	N-CA-C	5.19	118.72	112.38
1	AA	462	G	P-O5'-C5'	5.19	128.69	120.90
1	AA	782	A	C2'-C3'-O3'	5.19	121.49	113.70
25	BA	43	C	C4'-C3'-O3'	5.19	120.79	113.00
26	BB	1719	G	C4'-C3'-C2'	-5.19	97.41	102.60
30	BF	85	PHE	CA-CB-CG	5.19	118.99	113.80
1	AA	781	A	O4'-C4'-C3'	-5.19	98.81	104.00
19	AS	65	ALA	O-C-N	5.19	128.99	122.86
26	BB	920	A	O4'-C1'-C2'	-5.19	102.41	107.60
26	BB	1162	G	O4'-C4'-C3'	-5.19	98.81	104.00
26	BB	1384	A	C5'-C4'-O4'	5.19	117.58	109.80
26	BB	1483	G	C3'-C2'-C1'	5.19	106.49	101.30
26	BB	1964	G	O5'-C5'-C4'	5.19	119.48	111.70
26	BB	2362	C	O4'-C4'-C3'	5.19	109.19	104.00
26	BB	2688	G	O4'-C1'-C2'	-5.19	102.41	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	BO	44	ARG	CA-C-N	5.19	127.66	120.29
39	BO	44	ARG	C-N-CA	5.19	127.66	120.29
1	AA	533	A	C5'-C4'-C3'	5.19	122.98	115.20
1	AA	1521	C	O3'-P-O5'	-5.19	96.22	104.00
26	BB	178	G	N9-C1'-C2'	-5.19	104.22	112.00
26	BB	1073	A	N9-C1'-C2'	-5.19	104.22	112.00
26	BB	1773	A	C4'-C3'-O3'	5.19	120.78	113.00
50	BZ	28	PHE	N-CA-C	5.19	117.70	109.24
1	AA	818	G	O3'-P-O5'	-5.19	96.22	104.00
1	AA	1253	G	C3'-C2'-O2'	5.19	118.48	110.70
15	AO	27	PRO	N-CA-CB	5.19	109.02	103.52
19	AS	56	ARG	NE-CZ-NH1	5.19	126.69	121.50
26	BB	77	G	C4'-C3'-O3'	-5.19	105.22	113.00
26	BB	130	C	C4'-C3'-C2'	-5.19	97.41	102.60
26	BB	683	U	O4'-C1'-C2'	-5.19	102.41	107.60
26	BB	1507	C	C1'-O4'-C4'	-5.19	104.71	109.90
26	BB	2429	G	C3'-C2'-C1'	-5.19	96.11	101.30
26	BB	2456	C	C1'-O4'-C4'	-5.19	104.71	109.90
26	BB	2819	G	O3'-P-O5'	5.19	111.78	104.00
26	BB	2849	U	O4'-C1'-N1	5.19	115.98	108.20
29	BE	73	VAL	CA-CB-CG1	5.19	119.22	110.40
40	BP	57	THR	CA-CB-CG2	5.19	119.32	110.50
1	AA	880	C	C4'-C3'-C2'	-5.19	97.41	102.60
1	AA	1093	A	C3'-C2'-O2'	5.19	118.48	110.70
1	AA	1473	G	C5'-C4'-O4'	5.19	117.58	109.80
6	AF	76	ILE	CA-C-O	5.19	126.67	121.17
26	BB	1555	G	C3'-C2'-O2'	5.19	118.48	110.70
1	AA	127	G	C5'-C4'-C3'	5.18	123.78	116.00
1	AA	1359	C	O4'-C1'-N1	5.18	116.28	108.50
1	AA	1451	U	C5'-C4'-O4'	5.18	116.88	109.10
26	BB	413	C	O4'-C1'-N1	5.18	116.28	108.50
26	BB	486	C	C1'-C2'-O2'	-5.18	100.62	108.40
26	BB	853	C	C4'-C3'-C2'	-5.18	97.42	102.60
26	BB	1164	C	C3'-C2'-C1'	5.18	106.48	101.30
26	BB	2113	U	C5'-C4'-O4'	5.18	117.58	109.80
26	BB	2237	G	O4'-C1'-N9	5.18	116.28	108.50
26	BB	2501	C	P-O3'-C3'	5.18	127.98	120.20
26	BB	2518	A	P-O3'-C3'	5.18	127.98	120.20
26	BB	2720	U	O4'-C1'-N1	5.18	116.28	108.50
29	BE	17	GLU	CB-CG-CD	5.18	121.42	112.60
1	AA	509	A	O5'-C5'-C4'	-5.18	103.72	111.50
1	AA	724	G	O5'-C5'-C4'	-5.18	103.72	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	844	G	C3'-C2'-C1'	5.18	106.68	101.50
1	AA	1004	A	C5'-C4'-O4'	5.18	117.57	109.80
1	AA	1066	C	C3'-C2'-C1'	5.18	106.48	101.30
4	AD	45	A	C3'-C2'-O2'	5.18	118.47	110.70
12	AL	123	ARG	CA-CB-CG	5.18	124.47	114.10
16	AP	86	ARG	CA-C-N	5.18	125.73	119.98
16	AP	86	ARG	C-N-CA	5.18	125.73	119.98
19	AS	62	GLY	O-C-N	5.18	127.93	122.28
22	AV	51	HIS	CA-CB-CG	-5.18	108.62	113.80
26	BB	102	U	C5'-C4'-C3'	-5.18	107.43	115.20
26	BB	347	A	O4'-C4'-C3'	5.18	109.18	104.00
26	BB	913	U	C4'-C3'-O3'	-5.18	101.63	109.40
26	BB	1500	G	C3'-C2'-C1'	-5.18	96.12	101.30
26	BB	2480	C	C4'-C3'-C2'	-5.18	97.42	102.60
55	B4	29	LYS	CA-C-N	5.18	126.20	120.45
55	B4	29	LYS	C-N-CA	5.18	126.20	120.45
26	BB	550	C	C2'-C3'-O3'	-5.18	105.93	113.70
26	BB	552	U	O4'-C1'-N1	5.18	116.27	108.50
39	BO	121	ALA	CA-C-N	5.18	128.19	120.31
39	BO	121	ALA	C-N-CA	5.18	128.19	120.31
48	BX	68	LYS	CB-CA-C	5.18	118.08	109.53
1	AA	875	U	O4'-C4'-C3'	5.18	109.18	104.00
1	AA	1177	G	O4'-C1'-N9	5.18	116.27	108.50
1	AA	1367	C	C4'-C3'-O3'	-5.18	105.23	113.00
15	AO	58	ASN	CA-CB-CG	5.18	117.78	112.60
25	BA	50	A	C5'-C4'-O4'	-5.18	102.03	109.80
26	BB	176	A	O4'-C1'-N9	5.18	116.27	108.50
26	BB	332	A	O4'-C1'-C2'	-5.18	100.62	105.80
26	BB	983	A	C3'-C2'-C1'	5.18	106.48	101.30
26	BB	1475	G	P-O3'-C3'	5.18	127.97	120.20
26	BB	2525	G	O5'-C5'-C4'	5.18	119.27	111.50
45	BU	11	ARG	NE-CZ-NH2	-5.18	114.54	119.20
51	B0	29	ARG	NE-CZ-NH1	-5.18	116.32	121.50
4	AD	47	A	O4'-C4'-C3'	5.18	111.28	106.10
26	BB	886	A	C4'-C3'-O3'	-5.18	105.23	113.00
26	BB	1549	A	C1'-C2'-O2'	-5.18	100.63	108.40
1	AA	1301	U	O4'-C1'-N1	5.18	115.97	108.20
1	AA	1470	U	C4'-C3'-C2'	-5.18	97.42	102.60
6	AF	97	PRO	N-CA-CB	5.18	107.85	103.35
16	AP	69	ARG	NE-CZ-NH2	5.18	123.86	119.20
25	BA	11	C	C5'-C4'-O4'	5.18	116.86	109.10
26	BB	996	A	N9-C1'-C2'	-5.18	104.23	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1051	G	C5'-C4'-C3'	5.18	123.77	116.00
26	BB	1583	A	O4'-C1'-N9	5.18	115.97	108.20
26	BB	1659	G	C4'-C3'-O3'	-5.18	105.23	113.00
26	BB	2272	U	C5'-C4'-O4'	5.18	117.57	109.80
31	BG	99	PHE	N-CA-C	5.18	121.83	110.80
40	BP	116	VAL	N-CA-C	5.18	116.52	110.62
50	BZ	51	SER	CB-CA-C	5.18	121.37	111.48
58	B7	11	CYS	O-C-N	-5.18	117.88	123.42
58	B7	22	VAL	CA-CB-CG1	5.18	119.20	110.40
1	AA	196	A	C3'-C2'-C1'	5.17	106.47	101.30
1	AA	736	C	C1'-C2'-O2'	5.17	116.16	108.40
26	BB	294	A	C5'-C4'-O4'	5.17	117.56	109.80
26	BB	627	A	C1'-O4'-C4'	-5.17	104.53	109.70
26	BB	996	A	C5'-C4'-C3'	-5.17	108.24	116.00
26	BB	2534	A	P-O3'-C3'	5.17	127.96	120.20
28	BD	89	ASN	CA-CB-CG	5.17	117.78	112.60
50	BZ	26	ARG	CD-NE-CZ	5.17	131.64	124.40
58	B7	37	GLN	O-C-N	-5.17	116.88	123.24
8	AH	31	SER	O-C-N	5.17	129.17	122.81
13	AM	80	THR	O-C-N	-5.17	117.11	122.96
26	BB	405	U	O4'-C1'-C2'	-5.17	102.43	107.60
26	BB	2556	C	C1'-C2'-O2'	5.17	116.16	108.40
35	BK	53	PRO	CA-C-N	5.17	128.40	123.02
35	BK	53	PRO	C-N-CA	5.17	128.40	123.02
1	AA	114	U	O4'-C1'-N1	5.17	116.26	108.50
1	AA	1175	G	O4'-C1'-N9	5.17	116.26	108.50
1	AA	1307	U	C5'-C4'-O4'	5.17	117.56	109.80
5	AE	173	LYS	O-C-N	5.17	127.47	122.09
14	AN	16	SER	N-CA-C	5.17	121.82	110.80
26	BB	208	C	C1'-C2'-O2'	5.17	116.16	108.40
26	BB	859	G	O4'-C4'-C3'	5.17	111.27	106.10
26	BB	994	C	C4'-C3'-C2'	-5.17	97.43	102.60
26	BB	1050	A	C3'-C2'-O2'	5.17	118.46	110.70
26	BB	1056	G	O4'-C1'-N9	5.17	116.26	108.50
26	BB	1657	U	C4'-C3'-C2'	-5.17	97.43	102.60
26	BB	1824	G	O4'-C4'-C3'	5.17	109.17	104.00
26	BB	2016	U	C3'-C2'-O2'	5.17	118.46	110.70
26	BB	2670	A	P-O3'-C3'	5.17	127.96	120.20
37	BM	43	ILE	CA-C-O	-5.17	114.40	120.76
42	BR	114	ASN	CA-CB-CG	5.17	117.77	112.60
1	AA	80	A	C3'-C2'-C1'	5.17	106.47	101.30
1	AA	624	C	C4'-C3'-C2'	-5.17	97.43	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AN	96	ILE	N-CA-C	-5.17	105.50	110.72
24	AX	2	VAL	N-CA-C	5.17	119.28	112.04
26	BB	702	U	P-O3'-C3'	5.17	127.95	120.20
26	BB	2669	G	C2'-C3'-O3'	-5.17	105.95	113.70
30	BF	16	GLU	CA-CB-CG	5.17	124.44	114.10
41	BQ	9	ARG	O-C-N	5.17	127.67	122.09
42	BR	95	LYS	O-C-N	5.17	129.27	123.27
1	AA	732	C	C1'-C2'-O2'	5.17	116.15	108.40
1	AA	750	C	C4'-C3'-C2'	-5.17	97.43	102.60
1	AA	978	A	C1'-O4'-C4'	-5.17	104.73	109.90
1	AA	1269	A	C2'-C3'-O3'	5.17	121.45	113.70
22	AV	83	ALA	CA-C-O	-5.17	115.57	121.00
26	BB	458	G	C3'-C2'-C1'	-5.17	96.33	101.50
26	BB	829	A	O4'-C1'-N9	5.17	115.95	108.20
26	BB	1218	G	O4'-C1'-C2'	-5.17	102.43	107.60
26	BB	1420	A	N9-C1'-C2'	-5.17	104.25	112.00
26	BB	1636	U	C1'-C2'-O2'	-5.17	100.65	108.40
40	BP	47	VAL	CA-CB-CG1	5.17	119.19	110.40
1	AA	986	U	C3'-C2'-O2'	-5.17	102.95	110.70
1	AA	1196	A	O3'-P-O5'	-5.17	96.25	104.00
6	AF	11	LEU	O-C-N	5.17	129.35	122.43
10	AJ	63	VAL	CA-CB-CG1	5.17	119.18	110.40
12	AL	125	GLN	CA-C-O	-5.17	115.05	120.58
26	BB	878	A	N9-C1'-C2'	5.17	119.75	112.00
26	BB	1552	A	C4'-C3'-O3'	-5.17	105.25	113.00
26	BB	1554	U	C3'-C2'-C1'	-5.17	96.33	101.50
26	BB	2197	U	C1'-C2'-O2'	-5.17	104.05	111.80
26	BB	2348	U	O4'-C4'-C3'	-5.17	98.83	104.00
1	AA	862	C	O4'-C4'-C3'	-5.17	98.83	104.00
25	BA	109	A	C5'-C4'-O4'	5.17	117.55	109.80
26	BB	1260	A	P-O3'-C3'	5.17	127.95	120.20
26	BB	1922	G	O5'-C5'-C4'	-5.17	103.75	111.50
1	AA	476	U	C3'-C2'-C1'	5.16	106.46	101.30
1	AA	1337	G	O5'-C5'-C4'	-5.16	103.75	111.50
4	AD	14	A	C1'-C2'-O2'	5.16	116.15	108.40
25	BA	6	G	O5'-C5'-C4'	5.16	119.24	111.50
26	BB	93	G	C3'-C2'-C1'	-5.16	96.14	101.30
26	BB	1183	U	C4'-C3'-O3'	5.16	120.75	113.00
26	BB	2802	G	O3'-P-O5'	-5.16	96.26	104.00
32	BH	62	ALA	N-CA-C	5.16	116.59	111.07
39	BO	10	ARG	CA-CB-CG	5.16	124.43	114.10
51	B0	41	HIS	CE1-NE2-CD2	-5.16	103.84	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	263	G	O3'-P-O5'	5.16	111.74	104.00
26	BB	642	U	O4'-C1'-N1	5.16	115.94	108.20
26	BB	1666	G	O4'-C1'-N9	5.16	116.24	108.50
26	BB	1801	A	C3'-C2'-C1'	-5.16	96.34	101.50
26	BB	2243	U	O4'-C1'-N1	5.16	116.24	108.50
26	BB	2458	G	C1'-O4'-C4'	-5.16	104.54	109.70
1	AA	132	C	C2'-C3'-O3'	5.16	121.44	113.70
1	AA	359	G	C4'-C3'-C2'	-5.16	97.44	102.60
1	AA	1517	G	O5'-C5'-C4'	-5.16	103.76	111.50
26	BB	487	C	C4'-C3'-O3'	-5.16	105.26	113.00
26	BB	841	G	O3'-P-O5'	5.16	111.74	104.00
26	BB	2557	G	O3'-P-O5'	5.16	111.74	104.00
35	BK	19	PRO	CA-N-CD	-5.16	104.77	112.00
35	BK	21	PRO	N-CA-C	5.16	117.00	110.70
39	BO	4	PRO	CA-C-N	5.16	127.46	120.65
39	BO	4	PRO	C-N-CA	5.16	127.46	120.65
1	AA	99	C	C4'-C3'-C2'	-5.16	97.44	102.60
6	AF	16	PRO	N-CA-CB	5.16	108.80	103.38
23	AW	55	PRO	CB-CA-C	-5.16	104.11	112.62
26	BB	235	U	O3'-P-O5'	-5.16	96.26	104.00
26	BB	871	U	C4'-C3'-C2'	-5.16	97.44	102.60
26	BB	1146	C	O4'-C1'-N1	5.16	116.24	108.50
26	BB	1976	U	O4'-C1'-C2'	-5.16	102.44	107.60
26	BB	2316	G	C4'-C3'-O3'	5.16	120.74	113.00
28	BD	52	HIS	CB-CA-C	5.16	119.76	111.66
41	BQ	9	ARG	CA-C-O	-5.16	115.39	120.70
1	AA	76	G	C5'-C4'-C3'	-5.16	108.26	116.00
1	AA	372	C	C1'-C2'-O2'	-5.16	104.06	111.80
25	BA	92	C	C5'-C4'-C3'	-5.16	108.27	116.00
26	BB	166	U	C4'-C3'-O3'	5.16	120.73	113.00
26	BB	860	U	N1-C1'-C2'	5.16	119.73	112.00
26	BB	1118	C	C5'-C4'-C3'	-5.16	108.26	116.00
26	BB	1759	A	O4'-C1'-N9	5.16	116.24	108.50
26	BB	1874	C	O4'-C4'-C3'	5.16	109.16	104.00
26	BB	2845	U	C1'-O4'-C4'	5.16	115.06	109.90
30	BF	85	PHE	CA-C-O	-5.16	113.80	119.78
1	AA	31	G	C1'-O4'-C4'	5.16	114.86	109.70
1	AA	411	A	C3'-C2'-C1'	5.16	106.66	101.50
1	AA	634	C	O5'-C5'-C4'	5.16	119.23	111.50
1	AA	886	G	C2'-C3'-O3'	-5.16	105.97	113.70
26	BB	597	G	C5'-C4'-O4'	5.16	117.53	109.80
26	BB	1251	C	C5'-C4'-C3'	5.16	122.93	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1441	G	C5'-C4'-O4'	5.16	117.53	109.80
26	BB	2839	G	O4'-C1'-C2'	-5.16	102.44	107.60
3	AC	22	G	P-O3'-C3'	5.15	127.93	120.20
10	AJ	1	PRO	CA-C-N	5.15	131.38	121.54
10	AJ	1	PRO	C-N-CA	5.15	131.38	121.54
22	AV	52	ASN	OD1-CG-ND2	-5.15	117.45	122.60
26	BB	78	U	O4'-C4'-C3'	-5.15	98.85	104.00
26	BB	710	U	N1-C1'-C2'	-5.15	104.27	112.00
26	BB	1990	C	C5'-C4'-C3'	-5.15	108.27	116.00
26	BB	2418	A	C3'-C2'-C1'	5.15	106.45	101.30
26	BB	2543	G	C4'-C3'-C2'	-5.15	97.45	102.60
30	BF	58	LYS	N-CA-CB	5.15	116.72	110.17
1	AA	106	C	O3'-P-O5'	5.15	111.73	104.00
1	AA	412	A	C1'-O4'-C4'	-5.15	104.75	109.90
1	AA	819	A	O4'-C1'-N9	5.15	115.93	108.20
1	AA	1468	A	O4'-C1'-C2'	-5.15	102.45	107.60
26	BB	340	A	C5'-C4'-O4'	5.15	117.53	109.80
26	BB	495	G	C2'-C3'-O3'	5.15	121.43	113.70
26	BB	632	A	C1'-O4'-C4'	-5.15	104.75	109.90
26	BB	1236	G	C5'-C4'-O4'	5.15	116.83	109.10
26	BB	2257	U	C4'-C3'-C2'	5.15	107.75	102.60
26	BB	2661	G	C4'-C3'-C2'	-5.15	97.45	102.60
1	AA	87	C	C3'-C2'-O2'	5.15	118.43	110.70
1	AA	1169	A	O4'-C1'-C2'	5.15	112.75	107.60
1	AA	1307	U	C5'-C4'-C3'	-5.15	108.27	116.00
7	AG	197	HIS	CB-CG-CD2	-5.15	124.50	131.20
8	AH	81	GLN	CA-C-N	-5.15	117.18	122.85
8	AH	81	GLN	C-N-CA	-5.15	117.18	122.85
12	AL	100	ALA	N-CA-C	-5.15	106.95	113.18
26	BB	143	C	C5'-C4'-O4'	5.15	117.53	109.80
26	BB	904	G	C4'-C3'-O3'	5.15	120.72	113.00
26	BB	1375	U	O4'-C1'-N1	5.15	116.22	108.50
26	BB	2076	U	O5'-C5'-C4'	-5.15	103.97	111.70
26	BB	2501	C	C3'-C2'-C1'	5.15	106.45	101.30
26	BB	2594	C	C1'-O4'-C4'	-5.15	104.75	109.90
30	BF	29	HIS	CB-CG-CD2	-5.15	124.50	131.20
32	BH	168	VAL	N-CA-C	5.15	116.32	109.37
36	BL	100	VAL	N-CA-C	5.15	115.36	110.42
43	BS	65	ASN	O-C-N	5.15	127.38	122.07
48	BX	16	ALA	CA-C-N	5.15	127.18	120.28
48	BX	16	ALA	C-N-CA	5.15	127.18	120.28
1	AA	657	U	C5'-C4'-C3'	-5.15	108.28	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	163	C	O3'-P-O5'	-5.15	96.28	104.00
26	BB	1379	U	O3'-P-O5'	-5.15	96.28	104.00
26	BB	2339	C	C3'-C2'-C1'	-5.15	96.15	101.30
26	BB	2707	U	O4'-C1'-N1	5.15	116.22	108.50
47	BW	8	ASP	CA-C-N	5.15	128.16	120.95
47	BW	8	ASP	C-N-CA	5.15	128.16	120.95
57	B6	21	PHE	O-C-N	-5.15	115.74	122.43
1	AA	337	G	C4'-C3'-O3'	5.15	120.72	113.00
1	AA	765	G	O4'-C1'-C2'	-5.15	100.65	105.80
1	AA	1100	C	C5'-C4'-C3'	-5.15	108.28	116.00
1	AA	1217	C	C3'-C2'-O2'	5.15	118.42	110.70
3	AC	35	G	C1'-C2'-O2'	-5.15	100.68	108.40
4	AD	28	U	C4'-C3'-O3'	5.15	120.72	113.00
5	AE	133	ALA	N-CA-C	-5.15	105.36	111.69
14	AN	15	VAL	O-C-N	-5.15	115.98	121.80
16	AP	116	LYS	O-C-N	-5.15	116.48	122.81
18	AR	41	HIS	CB-CG-CD2	-5.15	124.51	131.20
20	AT	30	HIS	CA-C-N	5.15	124.94	119.28
20	AT	30	HIS	C-N-CA	5.15	124.94	119.28
26	BB	1922	G	C1'-C2'-O2'	5.15	116.12	108.40
26	BB	2522	U	C1'-O4'-C4'	-5.15	104.75	109.90
26	BB	2670	A	C5'-C4'-C3'	-5.15	108.28	116.00
26	BB	2872	A	P-O3'-C3'	5.15	127.92	120.20
1	AA	1287	A	O4'-C1'-N9	5.15	116.22	108.50
26	BB	2523	G	C4'-C3'-O3'	-5.15	105.28	113.00
1	AA	259	G	N9-C1'-C2'	-5.14	104.28	112.00
1	AA	709	U	O4'-C1'-C2'	-5.14	102.46	107.60
1	AA	755	G	C3'-C2'-C1'	-5.14	96.16	101.30
1	AA	1273	C	C1'-O4'-C4'	-5.14	104.76	109.90
2	AB	22	G	C3'-C2'-O2'	5.14	118.42	110.70
26	BB	212	G	C3'-C2'-C1'	-5.14	96.16	101.30
26	BB	513	A	C4'-C3'-O3'	-5.14	105.28	113.00
26	BB	1718	G	C1'-C2'-O2'	5.14	116.12	108.40
26	BB	1926	U	C5'-C4'-C3'	5.14	123.72	116.00
26	BB	2202	U	O4'-C4'-C3'	5.14	109.14	104.00
26	BB	2208	C	O4'-C4'-C3'	-5.14	98.86	104.00
26	BB	2336	A	C4'-C3'-O3'	5.14	117.12	109.40
26	BB	2373	G	O4'-C1'-N9	5.14	116.22	108.50
30	BF	119	ILE	N-CA-C	5.14	115.37	110.53
47	BW	71	ILE	CA-CB-CG1	5.14	119.15	110.40
1	AA	1464	U	O4'-C4'-C3'	5.14	109.14	104.00
25	BA	42	C	C4'-C3'-O3'	-5.14	105.29	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1498	C	O4'-C4'-C3'	5.14	109.14	104.00
26	BB	1598	A	C5'-C4'-O4'	5.14	117.51	109.80
26	BB	1823	G	C4'-C3'-C2'	-5.14	97.46	102.60
30	BF	8	ALA	CA-C-N	5.14	130.70	122.93
30	BF	8	ALA	C-N-CA	5.14	130.70	122.93
10	AJ	165	ALA	CA-C-N	5.14	128.97	121.05
10	AJ	165	ALA	C-N-CA	5.14	128.97	121.05
18	AR	54	GLY	O-C-N	5.14	127.18	122.19
26	BB	1620	G	O4'-C4'-C3'	5.14	109.14	104.00
26	BB	1690	A	C4'-C3'-C2'	-5.14	97.46	102.60
28	BD	241	LYS	CA-C-O	-5.14	116.03	121.94
1	AA	914	A	C3'-C2'-C1'	5.14	106.44	101.30
13	AM	58	ASN	N-CA-CB	5.14	119.17	110.49
25	BA	9	G	C5'-C4'-C3'	-5.14	108.29	116.00
26	BB	9	G	C1'-O4'-C4'	-5.14	104.76	109.90
26	BB	526	A	O4'-C1'-C2'	5.14	112.74	107.60
26	BB	1456	G	O4'-C4'-C3'	5.14	109.14	104.00
26	BB	2012	G	C1'-O4'-C4'	-5.14	104.76	109.90
26	BB	2193	G	O4'-C1'-C2'	-5.14	102.46	107.60
26	BB	2775	G	C2'-C3'-O3'	5.14	121.41	113.70
42	BR	72	VAL	CA-C-N	-5.14	115.91	123.00
42	BR	72	VAL	C-N-CA	-5.14	115.91	123.00
49	BY	57	THR	CA-CB-CG2	5.14	119.24	110.50
1	AA	120	A	C3'-C2'-C1'	5.14	106.64	101.50
23	AW	52	GLU	CA-C-O	-5.14	114.97	120.42
26	BB	2753	A	O4'-C1'-N9	5.14	116.21	108.50
33	BI	116	ARG	O-C-N	5.14	129.08	123.22
1	AA	452	A	C4'-C3'-C2'	-5.14	97.46	102.60
1	AA	793	U	O4'-C4'-C3'	5.14	109.14	104.00
1	AA	890	G	C1'-C2'-O2'	5.14	119.50	111.80
6	AF	223	PRO	N-CD-CG	5.14	110.90	103.20
14	AN	26	PHE	CA-C-N	5.14	130.53	122.11
14	AN	26	PHE	C-N-CA	5.14	130.53	122.11
24	AX	57	LYS	CA-C-O	-5.14	115.43	120.82
26	BB	315	G	C1'-C2'-O2'	5.14	116.11	108.40
26	BB	811	U	C5'-C4'-C3'	-5.14	107.50	115.20
26	BB	1940	U	C2'-C3'-O3'	5.14	117.21	109.50
30	BF	89	PRO	N-CA-C	-5.14	103.12	111.03
35	BK	121	ILE	CA-C-O	5.14	126.25	120.03
1	AA	579	A	C4'-C3'-C2'	-5.13	97.47	102.60
1	AA	1119	C	C4'-C3'-C2'	-5.13	97.47	102.60
1	AA	1214	C	O4'-C1'-N1	-5.13	100.50	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1225	A	C3'-C2'-O2'	5.13	122.30	114.60
2	AB	28	C	O4'-C1'-N1	5.13	116.20	108.50
5	AE	31	PHE	CA-C-N	5.13	125.22	120.34
5	AE	31	PHE	C-N-CA	5.13	125.22	120.34
9	AI	94	HIS	CA-CB-CG	5.13	118.93	113.80
10	AJ	108	ARG	CA-C-N	5.13	131.01	122.54
10	AJ	108	ARG	C-N-CA	5.13	131.01	122.54
25	BA	84	G	N9-C1'-C2'	-5.13	104.30	112.00
26	BB	967	U	O4'-C1'-C2'	-5.13	102.47	107.60
26	BB	1282	U	O4'-C4'-C3'	5.13	109.13	104.00
26	BB	1505	A	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	1698	A	C4'-C3'-O3'	5.13	117.10	109.40
26	BB	2612	C	O5'-C5'-C4'	5.13	119.20	111.50
33	BI	106	ALA	CA-C-O	5.13	124.83	119.03
49	BY	73	PRO	CA-N-CD	-5.13	104.81	112.00
1	AA	1241	G	C2'-C3'-O3'	-5.13	106.00	113.70
26	BB	325	G	C1'-O4'-C4'	-5.13	104.77	109.90
26	BB	2138	G	C5'-C4'-O4'	5.13	117.50	109.80
1	AA	423	G	C2'-C3'-O3'	-5.13	106.00	113.70
1	AA	432	A	C4'-C3'-O3'	-5.13	105.30	113.00
1	AA	526	C	C3'-C2'-O2'	5.13	118.40	110.70
1	AA	975	A	C2'-C3'-O3'	5.13	121.40	113.70
3	AC	26	U	O4'-C1'-C2'	-5.13	102.47	107.60
9	AI	18	VAL	CA-C-N	5.13	124.79	119.56
9	AI	18	VAL	C-N-CA	5.13	124.79	119.56
18	AR	49	HIS	CA-CB-CG	5.13	118.93	113.80
25	BA	111	U	C2'-C3'-O3'	5.13	121.40	113.70
25	BA	114	C	O4'-C1'-N1	5.13	116.20	108.50
26	BB	155	A	O4'-C4'-C3'	5.13	109.13	104.00
26	BB	1404	C	C2'-C3'-O3'	-5.13	106.00	113.70
26	BB	1437	C	C3'-C2'-C1'	5.13	106.43	101.30
30	BF	13	THR	CB-CA-C	5.13	119.60	112.11
37	BM	29	HIS	CB-CG-ND1	5.13	130.40	122.70
1	AA	513	C	O4'-C4'-C3'	5.13	109.13	104.00
22	AV	62	THR	N-CA-C	-5.13	100.52	108.42
26	BB	184	C	P-O3'-C3'	5.13	127.89	120.20
26	BB	2115	G	C5'-C4'-O4'	5.13	117.49	109.80
26	BB	2204	G	C1'-O4'-C4'	-5.13	104.77	109.90
26	BB	2840	C	C4'-C3'-C2'	-5.13	97.47	102.60
29	BE	207	VAL	O-C-N	5.13	128.85	121.82
1	AA	739	C	O4'-C1'-N1	5.13	116.19	108.50
1	AA	1072	G	C4'-C3'-C2'	-5.13	97.47	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1469	C	C3'-C2'-O2'	5.13	118.39	110.70
12	AL	97	LEU	CA-C-O	-5.13	115.11	120.55
26	BB	138	U	C3'-C2'-C1'	5.13	106.43	101.30
26	BB	705	A	C1'-O4'-C4'	-5.13	104.77	109.90
26	BB	1549	A	O4'-C1'-C2'	-5.13	102.47	107.60
26	BB	1713	A	O4'-C1'-C2'	5.13	110.93	105.80
26	BB	1716	U	C5'-C4'-C3'	-5.13	108.31	116.00
26	BB	2380	C	P-O3'-C3'	5.13	127.89	120.20
26	BB	2399	G	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	2473	U	C5'-C4'-O4'	5.13	116.79	109.10
26	BB	2649	C	O4'-C1'-C2'	-5.13	102.47	107.60
55	B4	45	HIS	CB-CG-CD2	-5.13	124.53	131.20
6	AF	16	PRO	CA-C-N	5.13	130.30	120.97
6	AF	16	PRO	C-N-CA	5.13	130.30	120.97
7	AG	103	ARG	N-CA-C	5.13	116.87	111.28
26	BB	835	C	C4'-C3'-C2'	-5.13	97.47	102.60
26	BB	2024	G	C1'-O4'-C4'	-5.13	104.77	109.90
26	BB	2839	G	C2'-C3'-O3'	5.13	121.39	113.70
1	AA	1534	A	O4'-C1'-C2'	-5.12	100.67	105.80
5	AE	231	GLN	N-CA-C	5.12	116.95	111.36
26	BB	166	U	C1'-C2'-O2'	5.12	116.09	108.40
26	BB	260	G	C3'-C2'-C1'	-5.12	96.17	101.30
26	BB	971	G	O4'-C4'-C3'	5.12	109.12	104.00
26	BB	1415	U	O4'-C4'-C3'	-5.12	98.88	104.00
26	BB	1516	G	O4'-C4'-C3'	5.12	109.12	104.00
33	BI	45	GLU	CA-C-N	5.12	127.15	120.28
33	BI	45	GLU	C-N-CA	5.12	127.15	120.28
51	B0	23	ARG	NH1-CZ-NH2	-5.12	112.64	119.30
1	AA	153	C	C4'-C3'-C2'	-5.12	97.48	102.60
1	AA	376	G	C1'-O4'-C4'	-5.12	104.78	109.90
1	AA	449	G	O4'-C4'-C3'	5.12	109.12	104.00
1	AA	651	C	C5'-C4'-O4'	5.12	117.48	109.80
1	AA	959	A	C1'-O4'-C4'	-5.12	104.78	109.90
1	AA	1048	G	C4'-C3'-C2'	-5.12	97.48	102.60
6	AF	148	ILE	CA-C-N	5.12	130.21	122.99
6	AF	148	ILE	C-N-CA	5.12	130.21	122.99
16	AP	90	HIS	ND1-CG-CD2	5.12	111.22	106.10
22	AV	49	ALA	CB-CA-C	5.12	119.27	110.81
26	BB	470	A	C1'-O4'-C4'	-5.12	104.78	109.90
26	BB	893	C	C3'-C2'-O2'	5.12	118.39	110.70
26	BB	2294	G	O4'-C1'-N9	5.12	116.18	108.50
28	BD	141	HIS	CG-CD2-NE2	5.12	112.32	107.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BV	91	GLN	CB-CG-CD	-5.12	103.89	112.60
50	BZ	73	ARG	NE-CZ-NH2	5.12	123.81	119.20
1	AA	601	G	C3'-C2'-C1'	5.12	106.42	101.30
1	AA	707	U	O4'-C4'-C3'	5.12	109.12	104.00
1	AA	1048	G	C1'-O4'-C4'	-5.12	104.78	109.90
1	AA	1465	A	O4'-C4'-C3'	5.12	109.12	104.00
1	AA	1497	G	C3'-C2'-C1'	5.12	106.42	101.30
4	AD	66	C	C3'-C2'-C1'	5.12	106.42	101.30
15	AO	81	ILE	CB-CA-C	5.12	118.71	110.82
21	AU	19	GLU	N-CA-CB	-5.12	101.83	110.49
47	BW	6	ARG	NE-CZ-NH1	5.12	126.62	121.50
1	AA	545	C	O4'-C1'-N1	5.12	116.18	108.50
5	AE	223	GLY	CA-C-N	5.12	127.40	120.44
5	AE	223	GLY	C-N-CA	5.12	127.40	120.44
9	AI	118	ASN	CA-CB-CG	-5.12	107.48	112.60
12	AL	4	GLN	CA-C-N	5.12	128.48	120.75
12	AL	4	GLN	C-N-CA	5.12	128.48	120.75
26	BB	452	G	P-O3'-C3'	5.12	127.88	120.20
26	BB	1190	G	C3'-C2'-C1'	5.12	106.42	101.30
35	BK	39	LYS	N-CA-C	5.12	116.94	111.36
38	BN	61	LEU	O-C-N	5.12	126.20	121.80
1	AA	247	G	C1'-O4'-C4'	-5.12	104.78	109.90
1	AA	727	G	C4'-C3'-O3'	5.12	120.68	113.00
15	AO	109	ARG	NE-CZ-NH2	5.12	123.81	119.20
26	BB	372	G	N9-C1'-C2'	5.12	121.68	114.00
26	BB	679	C	C4'-C3'-C2'	-5.12	97.48	102.60
26	BB	1026	G	O4'-C4'-C3'	-5.12	98.88	104.00
26	BB	1622	G	O4'-C4'-C3'	5.12	109.12	104.00
26	BB	1870	C	P-O3'-C3'	5.12	127.88	120.20
26	BB	1934	C	N1-C1'-C2'	-5.12	104.32	112.00
26	BB	2247	A	O4'-C1'-N9	5.12	116.18	108.50
29	BE	175	LEU	CA-C-N	5.12	128.12	120.95
29	BE	175	LEU	C-N-CA	5.12	128.12	120.95
47	BW	10	VAL	CA-CB-CG2	5.12	119.10	110.40
1	AA	168	G	C1'-O4'-C4'	-5.12	104.78	109.90
18	AR	49	HIS	N-CA-C	5.12	118.68	112.23
25	BA	35	C	O4'-C1'-C2'	-5.12	102.48	107.60
26	BB	2145	C	C1'-O4'-C4'	-5.12	104.78	109.90
26	BB	2877	G	C5'-C4'-O4'	5.12	117.48	109.80
33	BI	101	ASP	N-CA-C	5.12	119.79	113.50
51	B0	52	ARG	N-CA-C	5.12	116.55	111.07
1	AA	1111	A	N9-C1'-C2'	-5.12	104.33	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1413	A	P-O3'-C3'	5.12	127.87	120.20
1	AA	1462	C	C4'-C3'-C2'	-5.12	97.48	102.60
12	AL	56	MET	CA-C-N	5.12	127.01	120.56
12	AL	56	MET	C-N-CA	5.12	127.01	120.56
14	AN	97	ARG	CA-C-N	5.12	127.55	120.29
14	AN	97	ARG	C-N-CA	5.12	127.55	120.29
22	AV	39	ILE	CB-CG1-CD1	5.12	124.54	113.80
26	BB	1324	G	O5'-C5'-C4'	-5.12	104.03	111.70
26	BB	2867	G	O4'-C1'-C2'	5.12	110.92	105.80
32	BH	165	ASP	CA-CB-CG	-5.12	107.48	112.60
35	BK	6	ALA	CA-C-O	-5.12	115.59	121.47
36	BL	56	VAL	CA-C-N	5.12	127.55	120.29
36	BL	56	VAL	C-N-CA	5.12	127.55	120.29
1	AA	777	A	O4'-C4'-C3'	5.11	109.11	104.00
1	AA	815	A	O5'-C5'-C4'	5.11	119.37	111.70
26	BB	454	A	C5'-C4'-C3'	5.11	122.87	115.20
26	BB	775	G	C4'-C3'-O3'	5.11	117.07	109.40
26	BB	1008	A	O4'-C1'-N9	5.11	115.87	108.20
26	BB	1583	A	O3'-P-O5'	-5.11	96.33	104.00
26	BB	1700	A	O4'-C1'-C2'	-5.11	102.49	107.60
26	BB	1721	G	O5'-C5'-C4'	-5.11	104.03	111.70
26	BB	2131	U	O4'-C1'-C2'	-5.11	102.49	107.60
26	BB	2265	U	C4'-C3'-C2'	5.11	107.71	102.60
26	BB	2533	U	C1'-C2'-O2'	5.11	116.07	108.40
26	BB	2618	G	O3'-P-O5'	-5.11	96.33	104.00
26	BB	2743	U	C4'-C3'-C2'	-5.11	97.49	102.60
35	BK	68	PHE	CA-C-N	5.11	129.53	123.19
35	BK	68	PHE	C-N-CA	5.11	129.53	123.19
37	BM	112	PHE	N-CA-CB	-5.11	102.76	111.20
26	BB	1242	U	O4'-C1'-N1	5.11	116.17	108.50
26	BB	1957	C	O4'-C1'-N1	5.11	116.17	108.50
31	BG	108	PRO	CA-C-N	5.11	127.55	120.29
31	BG	108	PRO	C-N-CA	5.11	127.55	120.29
41	BQ	36	TYR	CB-CG-CD1	-5.11	113.13	120.80
1	AA	363	A	C5'-C4'-O4'	5.11	117.47	109.80
1	AA	507	C	C4'-C3'-C2'	-5.11	97.49	102.60
7	AG	150	LYS	N-CA-C	5.11	119.23	112.89
25	BA	104	A	C1'-O4'-C4'	-5.11	104.79	109.90
26	BB	731	C	C4'-C3'-C2'	-5.11	97.49	102.60
26	BB	756	A	O5'-C5'-C4'	5.11	119.17	111.50
26	BB	2221	G	C1'-C2'-O2'	5.11	116.07	108.40
26	BB	2292	U	C1'-C2'-O2'	-5.11	100.73	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BJ	124	ARG	CD-NE-CZ	5.11	131.55	124.40
1	AA	1151	A	P-O3'-C3'	5.11	127.86	120.20
2	AB	15	A	C2'-C3'-O3'	5.11	121.36	113.70
10	AJ	95	ARG	O-C-N	5.11	127.33	122.07
26	BB	995	C	O4'-C1'-N1	5.11	115.86	108.20
26	BB	1414	C	N1-C1'-C2'	-5.11	104.34	112.00
31	BG	22	ASN	CA-CB-CG	5.11	117.71	112.60
41	BQ	16	ARG	O-C-N	5.11	127.53	122.12
1	AA	351	G	O5'-C5'-C4'	-5.11	104.04	111.70
1	AA	774	G	C3'-C2'-O2'	5.11	118.36	110.70
1	AA	854	U	O5'-C5'-C4'	-5.11	103.84	111.50
6	AF	100	ILE	CB-CA-C	5.11	118.35	110.28
14	AN	30	ILE	O-C-N	-5.11	117.12	123.10
48	BX	28	ALA	N-CA-C	5.11	115.28	108.38
50	BZ	36	ARG	CA-C-N	5.11	130.53	122.36
50	BZ	36	ARG	C-N-CA	5.11	130.53	122.36
1	AA	832	G	O4'-C1'-N9	5.11	116.16	108.50
1	AA	1054	C	C2'-C3'-O3'	5.11	117.16	109.50
6	AF	209	GLY	N-CA-C	-5.11	109.05	114.67
7	AG	164	ARG	CD-NE-CZ	5.11	131.55	124.40
25	BA	82	U	O5'-C5'-C4'	5.11	119.16	111.50
26	BB	1322	A	O4'-C1'-C2'	-5.11	102.50	107.60
26	BB	1470	A	C4'-C3'-C2'	-5.11	97.50	102.60
26	BB	2584	U	C3'-C2'-C1'	5.11	106.41	101.30
26	BB	2586	U	C1'-O4'-C4'	-5.11	104.59	109.70
42	BR	92	ARG	NH1-CZ-NH2	-5.11	112.66	119.30
43	BS	63	ARG	NE-CZ-NH1	5.11	126.61	121.50
1	AA	229	U	C5'-C4'-O4'	5.10	117.46	109.80
1	AA	255	G	O5'-C5'-C4'	5.10	119.16	111.50
1	AA	326	G	O3'-P-O5'	-5.10	96.34	104.00
1	AA	573	A	C5'-C4'-O4'	5.10	117.46	109.80
6	AF	40	GLN	N-CA-CB	-5.10	102.61	110.16
13	AM	35	GLN	N-CA-CB	-5.10	103.23	112.27
26	BB	986	C	C4'-C3'-C2'	-5.10	97.50	102.60
26	BB	1310	G	C3'-C2'-C1'	5.10	106.40	101.30
26	BB	1839	G	O3'-P-O5'	-5.10	96.34	104.00
26	BB	1847	A	C5'-C4'-C3'	-5.10	108.34	116.00
26	BB	2531	A	O4'-C4'-C3'	5.10	109.10	104.00
1	AA	352	C	C1'-C2'-O2'	5.10	116.05	108.40
1	AA	704	A	P-O5'-C5'	5.10	128.56	120.90
7	AG	84	ASN	CA-C-O	-5.10	115.40	120.96
16	AP	57	ASP	N-CA-CB	-5.10	102.61	110.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	93	C	O4'-C4'-C3'	5.10	109.10	104.00
26	BB	36	G	C3'-C2'-C1'	-5.10	96.20	101.30
26	BB	106	C	C4'-C3'-C2'	-5.10	97.50	102.60
26	BB	112	U	O4'-C1'-N1	5.10	116.16	108.50
26	BB	264	C	O4'-C4'-C3'	5.10	109.10	104.00
26	BB	441	U	C2'-C3'-O3'	5.10	121.35	113.70
26	BB	881	G	C5'-C4'-C3'	5.10	123.66	116.00
26	BB	882	G	C3'-C2'-O2'	5.10	118.35	110.70
26	BB	2082	A	O4'-C1'-N9	5.10	116.15	108.50
26	BB	2261	C	C4'-C3'-O3'	-5.10	105.35	113.00
26	BB	2901	C	C5'-C4'-O4'	5.10	117.45	109.80
30	BF	102	ARG	NE-CZ-NH1	-5.10	116.40	121.50
40	BP	96	ARG	CB-CA-C	5.10	120.04	109.38
25	BA	26	C	O4'-C1'-N1	5.10	116.15	108.50
26	BB	261	G	C3'-C2'-C1'	5.10	106.40	101.30
26	BB	322	A	C3'-C2'-C1'	-5.10	96.40	101.50
26	BB	510	C	C1'-C2'-O2'	5.10	116.05	108.40
26	BB	1038	G	C3'-C2'-C1'	5.10	106.40	101.30
26	BB	2322	A	O4'-C1'-C2'	-5.10	102.50	107.60
26	BB	2606	C	C5'-C4'-C3'	-5.10	108.35	116.00
30	BF	135	ALA	N-CA-C	5.10	117.58	111.71
57	B6	40	LYS	CA-CB-CG	-5.10	103.90	114.10
1	AA	206	C	C5'-C4'-C3'	-5.10	108.35	116.00
1	AA	825	A	O4'-C1'-N9	5.10	116.15	108.50
1	AA	877	G	O5'-C5'-C4'	5.10	119.15	111.50
26	BB	355	U	C1'-C2'-O2'	5.10	116.05	108.40
26	BB	977	G	O4'-C1'-C2'	-5.10	102.50	107.60
26	BB	2054	A	C2'-C3'-O3'	5.10	121.35	113.70
26	BB	2443	C	O3'-P-O5'	5.10	111.65	104.00
34	BJ	6	ASP	CA-C-N	5.10	128.06	120.31
34	BJ	6	ASP	C-N-CA	5.10	128.06	120.31
37	BM	2	ILE	N-CA-C	-5.10	107.17	111.56
54	B3	49	ARG	CA-C-O	-5.10	115.90	121.20
1	AA	95	C	O4'-C4'-C3'	5.10	109.10	104.00
1	AA	272	C	C4'-C3'-C2'	-5.10	97.50	102.60
1	AA	874	G	C1'-C2'-O2'	-5.10	100.75	108.40
1	AA	1372	U	O4'-C1'-N1	5.10	116.15	108.50
16	AP	51	GLN	O-C-N	-5.10	116.34	122.15
21	AU	38	ILE	CA-CB-CG1	5.10	119.07	110.40
26	BB	922	C	O4'-C1'-N1	5.10	116.14	108.50
26	BB	967	U	C3'-C2'-C1'	5.10	106.40	101.30
26	BB	1114	C	C3'-C2'-C1'	5.10	106.40	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1736	U	P-O3'-C3'	5.10	127.85	120.20
26	BB	2111	U	P-O5'-C5'	5.10	128.55	120.90
26	BB	2143	C	C2'-C3'-O3'	5.10	121.34	113.70
26	BB	2507	C	O4'-C1'-N1	5.10	116.14	108.50
26	BB	2792	A	O4'-C4'-C3'	5.10	109.10	104.00
27	BC	37	LYS	CA-CB-CG	5.10	124.29	114.10
49	BY	2	HIS	CE1-NE2-CD2	-5.10	103.90	109.00
1	AA	497	G	C2'-C3'-O3'	5.10	121.34	113.70
1	AA	711	G	O5'-C5'-C4'	-5.10	103.86	111.50
1	AA	1125	U	O5'-C5'-C4'	-5.10	104.06	111.70
26	BB	238	C	N1-C1'-C2'	-5.10	104.36	112.00
26	BB	1406	U	C4'-C3'-C2'	-5.10	97.50	102.60
26	BB	1521	G	O4'-C1'-C2'	-5.10	102.50	107.60
26	BB	2474	U	C1'-C2'-O2'	-5.10	100.76	108.40
26	BB	2756	U	P-O3'-C3'	5.10	127.84	120.20
36	BL	92	MET	N-CA-C	5.10	118.27	111.75
1	AA	23	C	C1'-O4'-C4'	5.09	114.99	109.90
1	AA	452	A	C2'-C3'-O3'	-5.09	106.06	113.70
1	AA	778	G	O4'-C4'-C3'	5.09	109.09	104.00
1	AA	948	C	C3'-C2'-C1'	5.09	106.39	101.30
1	AA	1126	U	C4'-C3'-C2'	5.09	107.69	102.60
1	AA	1533	C	C1'-C2'-O2'	5.09	119.44	111.80
6	AF	224	LYS	CB-CG-CD	5.09	123.02	111.30
11	AK	103	VAL	CA-C-O	-5.09	115.12	120.27
21	AU	48	ALA	N-CA-C	5.09	117.50	111.33
26	BB	454	A	C3'-C2'-O2'	-5.09	106.96	114.60
26	BB	600	G	C1'-C2'-O2'	5.09	116.04	108.40
26	BB	974	G	O5'-C5'-C4'	-5.09	104.06	111.70
26	BB	2305	U	C5'-C4'-C3'	5.09	123.64	116.00
31	BG	27	VAL	CA-C-N	5.09	125.00	119.85
31	BG	27	VAL	C-N-CA	5.09	125.00	119.85
33	BI	27	ARG	NE-CZ-NH1	-5.09	116.41	121.50
36	BL	5	THR	N-CA-C	5.09	116.81	109.07
42	BR	102	ARG	O-C-N	-5.09	116.75	123.02
46	BV	29	THR	CA-CB-OG1	5.09	117.24	109.60
55	B4	8	ILE	CA-CB-CG2	-5.09	101.84	110.50
4	AD	48	U	C2'-C3'-O3'	-5.09	106.06	113.70
26	BB	146	A	O4'-C1'-N9	5.09	116.14	108.50
26	BB	1974	C	C5'-C4'-O4'	5.09	117.44	109.80
26	BB	2683	C	C5'-C4'-C3'	-5.09	108.36	116.00
26	BB	2850	A	P-O5'-C5'	5.09	128.54	120.90
29	BE	18	ASP	O-C-N	5.09	128.96	122.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	BF	66	GLY	CA-C-N	5.09	130.56	121.75
30	BF	66	GLY	C-N-CA	5.09	130.56	121.75
52	B1	28	LEU	CA-C-O	-5.09	115.25	121.05
1	AA	769	G	O5'-C5'-C4'	5.09	119.14	111.50
7	AG	145	ARG	CA-C-O	-5.09	116.15	121.55
25	BA	96	G	C1'-O4'-C4'	5.09	114.99	109.90
26	BB	627	A	O4'-C1'-N9	5.09	115.84	108.20
26	BB	1132	U	C3'-C2'-O2'	-5.09	106.96	114.60
26	BB	1338	G	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	1400	U	C2'-C3'-O3'	5.09	121.34	113.70
26	BB	2308	G	C3'-C2'-C1'	5.09	106.59	101.50
26	BB	2594	C	C4'-C3'-C2'	-5.09	97.51	102.60
34	BJ	119	ALA	CA-C-O	-5.09	115.15	120.55
1	AA	610	U	O4'-C4'-C3'	-5.09	98.91	104.00
1	AA	1125	U	C4'-C3'-C2'	-5.09	97.51	102.60
5	AE	160	LEU	CA-C-N	5.09	129.93	122.85
5	AE	160	LEU	C-N-CA	5.09	129.93	122.85
26	BB	25	U	O4'-C1'-N1	5.09	116.13	108.50
26	BB	375	G	C3'-C2'-O2'	5.09	118.33	110.70
26	BB	601	C	O3'-P-O5'	5.09	111.64	104.00
26	BB	822	G	C3'-C2'-O2'	5.09	118.33	110.70
26	BB	1188	U	O3'-P-O5'	5.09	111.64	104.00
36	BL	93	ILE	N-CA-C	5.09	116.97	111.58
49	BY	51	GLY	CA-C-N	5.09	131.26	121.54
49	BY	51	GLY	C-N-CA	5.09	131.26	121.54
52	B1	49	ALA	N-CA-C	5.09	117.72	111.82
58	B7	7	VAL	CA-CB-CG1	5.09	119.05	110.40
26	BB	694	U	O4'-C1'-C2'	-5.09	102.51	107.60
26	BB	696	G	C4'-C3'-O3'	-5.09	105.37	113.00
26	BB	1171	G	O4'-C1'-N9	5.09	116.13	108.50
26	BB	1953	A	O4'-C4'-C3'	-5.09	98.91	104.00
26	BB	2278	A	C1'-O4'-C4'	-5.09	104.81	109.90
26	BB	2500	U	O5'-C5'-C4'	5.09	119.13	111.50
26	BB	2696	U	C2'-C3'-O3'	5.09	121.33	113.70
26	BB	2788	C	O4'-C1'-C2'	-5.09	102.51	107.60
1	AA	12	U	P-O3'-C3'	5.09	127.83	120.20
1	AA	34	C	O3'-P-O5'	-5.09	96.37	104.00
1	AA	105	G	P-O3'-C3'	5.09	127.83	120.20
1	AA	1015	G	O3'-P-O5'	5.09	111.63	104.00
1	AA	1509	C	C3'-C2'-C1'	5.09	106.39	101.30
4	AD	70	C	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	1067	A	C3'-C2'-O2'	-5.09	106.97	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1125	G	C5'-C4'-O4'	5.09	117.43	109.80
26	BB	1341	G	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	1625	C	O4'-C4'-C3'	5.09	109.09	104.00
26	BB	1780	A	O3'-P-O5'	-5.09	96.37	104.00
26	BB	1836	C	P-O5'-C5'	5.09	128.53	120.90
26	BB	2185	U	O4'-C1'-N1	5.09	116.13	108.50
26	BB	2499	C	C4'-C3'-O3'	5.09	120.63	113.00
26	BB	2512	C	O4'-C1'-N1	5.09	116.13	108.50
26	BB	2766	A	C5'-C4'-C3'	-5.09	108.37	116.00
35	BK	104	GLN	CA-C-N	5.09	127.09	120.28
35	BK	104	GLN	C-N-CA	5.09	127.09	120.28
48	BX	57	TYR	CB-CA-C	-5.09	100.34	109.24
10	AJ	156	LEU	CA-C-N	5.08	127.09	120.28
10	AJ	156	LEU	C-N-CA	5.08	127.09	120.28
11	AK	71	VAL	CA-C-N	5.08	129.20	120.71
11	AK	71	VAL	C-N-CA	5.08	129.20	120.71
26	BB	310	A	O4'-C1'-N9	5.08	115.83	108.20
41	BQ	10	ARG	CA-C-N	5.08	127.36	120.65
41	BQ	10	ARG	C-N-CA	5.08	127.36	120.65
52	B1	50	VAL	CA-CB-CG2	5.08	119.05	110.40
1	AA	737	C	P-O5'-C5'	5.08	128.52	120.90
1	AA	1376	U	O4'-C1'-N1	5.08	116.12	108.50
7	AG	115	GLN	N-CA-C	5.08	116.82	111.28
15	AO	119	LYS	CB-CG-CD	5.08	122.99	111.30
26	BB	2173	A	C2'-C3'-O3'	-5.08	106.07	113.70
26	BB	2193	G	C4'-C3'-O3'	-5.08	105.37	113.00
45	BU	80	PRO	N-CA-C	5.08	118.48	110.50
1	AA	32	A	O4'-C4'-C3'	5.08	109.08	104.00
1	AA	655	A	O4'-C4'-C3'	5.08	109.08	104.00
17	AQ	20	PHE	N-CA-C	5.08	118.63	112.23
26	BB	208	C	O4'-C4'-C3'	-5.08	98.92	104.00
26	BB	2263	C	P-O5'-C5'	5.08	128.52	120.90
26	BB	2832	U	C2'-C3'-O3'	5.08	117.12	109.50
27	BC	67	HIS	CB-CG-CD2	-5.08	124.59	131.20
32	BH	82	PHE	CB-CG-CD1	-5.08	112.06	120.70
44	BT	22	LEU	O-C-N	-5.08	117.25	123.10
50	BZ	27	ARG	NE-CZ-NH2	5.08	123.77	119.20
58	B7	17	VAL	O-C-N	5.08	128.56	123.07
1	AA	623	C	O4'-C1'-C2'	-5.08	102.52	107.60
1	AA	1239	A	P-O5'-C5'	5.08	128.52	120.90
5	AE	19	THR	CA-CB-CG2	5.08	119.14	110.50
9	AI	76	THR	CA-C-O	-5.08	115.03	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	AR	40	GLY	CA-C-N	5.08	127.04	120.44
18	AR	40	GLY	C-N-CA	5.08	127.04	120.44
26	BB	1250	G	O3'-P-O5'	-5.08	96.38	104.00
26	BB	2070	A	C2'-C3'-O3'	-5.08	106.08	113.70
43	BS	2	ARG	CB-CG-CD	5.08	122.98	111.30
1	AA	778	G	C5'-C4'-C3'	-5.08	108.38	116.00
1	AA	810	C	O4'-C1'-N1	5.08	116.12	108.50
1	AA	1177	G	C5'-C4'-C3'	-5.08	108.38	116.00
2	AB	4	G	O4'-C1'-C2'	-5.08	102.52	107.60
4	AD	43	G	C5'-C4'-C3'	-5.08	108.38	116.00
23	AW	58	ASP	N-CA-CB	-5.08	102.48	110.30
26	BB	168	G	O3'-P-O5'	-5.08	96.38	104.00
26	BB	261	G	O4'-C1'-C2'	-5.08	102.52	107.60
26	BB	1082	U	O4'-C1'-C2'	5.08	112.68	107.60
26	BB	1478	G	C5'-C4'-O4'	5.08	117.42	109.80
26	BB	2252	G	O5'-C5'-C4'	-5.08	103.88	111.50
26	BB	2759	G	C2'-C3'-O3'	-5.08	106.08	113.70
26	BB	2843	G	C5'-C4'-C3'	-5.08	108.38	116.00
41	BQ	114	GLY	CA-C-N	5.08	129.78	122.16
41	BQ	114	GLY	C-N-CA	5.08	129.78	122.16
1	AA	370	C	C5'-C4'-C3'	-5.08	108.39	116.00
1	AA	453	G	O4'-C1'-C2'	-5.08	102.52	107.60
1	AA	652	U	P-O5'-C5'	5.08	128.51	120.90
1	AA	1121	U	C5'-C4'-O4'	5.08	117.42	109.80
1	AA	1418	A	O5'-C5'-C4'	-5.08	103.88	111.50
1	AA	1442	G	C3'-C2'-C1'	-5.08	96.22	101.30
26	BB	552	U	C3'-C2'-C1'	5.08	106.38	101.30
26	BB	707	G	O4'-C1'-N9	5.08	116.12	108.50
49	BY	57	THR	N-CA-C	-5.08	100.24	108.41
1	AA	315	A	N9-C1'-C2'	-5.08	106.39	114.00
1	AA	631	C	C1'-C2'-O2'	5.08	116.01	108.40
1	AA	1273	C	C5'-C4'-C3'	-5.08	108.39	116.00
5	AE	152	ASP	CA-CB-CG	5.08	117.68	112.60
10	AJ	52	ARG	NE-CZ-NH2	-5.08	114.63	119.20
26	BB	704	G	C4'-C3'-O3'	-5.08	105.39	113.00
26	BB	2158	A	N9-C1'-C2'	-5.08	106.39	114.00
26	BB	2689	U	O4'-C1'-C2'	5.08	110.88	105.80
27	BC	3	LYS	O-C-N	5.08	129.15	123.06
30	BF	76	PRO	N-CD-CG	5.08	110.81	103.20
35	BK	53	PRO	N-CA-CB	5.08	107.36	103.30
49	BY	56	HIS	CA-CB-CG	5.08	118.88	113.80
54	B3	38	LEU	O-C-N	-5.08	117.33	123.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	722	G	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	1044	A	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	1082	A	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	1413	A	C4'-C3'-O3'	5.07	120.61	113.00
1	AA	1473	G	O3'-P-O5'	-5.07	96.39	104.00
13	AM	56	HIS	CA-CB-CG	5.07	118.87	113.80
14	AN	31	VAL	CB-CA-C	5.07	117.97	110.77
26	BB	374	A	O4'-C1'-C2'	-5.07	102.53	107.60
26	BB	1442	U	C1'-O4'-C4'	5.07	114.97	109.90
26	BB	1847	A	O4'-C1'-C2'	-5.07	102.53	107.60
26	BB	2135	A	C4'-C3'-C2'	-5.07	97.53	102.60
26	BB	2790	U	C5'-C4'-C3'	-5.07	108.39	116.00
31	BG	164	GLU	CA-C-N	5.07	125.61	119.98
31	BG	164	GLU	C-N-CA	5.07	125.61	119.98
36	BL	18	VAL	N-CA-C	5.07	115.07	107.51
1	AA	220	G	O4'-C4'-C3'	5.07	109.07	104.00
1	AA	275	G	O4'-C1'-C2'	-5.07	102.53	107.60
6	AF	5	HIS	CA-C-N	5.07	124.57	119.19
6	AF	5	HIS	C-N-CA	5.07	124.57	119.19
12	AL	49	GLN	CA-C-O	-5.07	113.42	118.34
26	BB	180	G	P-O3'-C3'	5.07	127.81	120.20
26	BB	832	U	C5'-C4'-C3'	-5.07	108.39	116.00
26	BB	1135	C	C4'-C3'-C2'	-5.07	97.53	102.60
26	BB	1186	G	P-O5'-C5'	5.07	128.51	120.90
26	BB	1237	A	C5'-C4'-O4'	5.07	116.71	109.10
26	BB	2450	A	P-O3'-C3'	5.07	127.81	120.20
37	BM	92	GLU	CA-C-N	5.07	134.18	121.80
37	BM	92	GLU	C-N-CA	5.07	134.18	121.80
1	AA	284	C	O4'-C1'-N1	5.07	116.10	108.50
5	AE	172	ILE	CB-CA-C	-5.07	105.38	112.02
5	AE	190	SER	CB-CA-C	5.07	120.15	109.65
13	AM	81	GLU	CA-C-N	5.07	127.58	120.28
13	AM	81	GLU	C-N-CA	5.07	127.58	120.28
16	AP	5	GLY	CA-C-N	5.07	131.10	121.97
16	AP	5	GLY	C-N-CA	5.07	131.10	121.97
26	BB	799	G	O3'-P-O5'	5.07	111.61	104.00
26	BB	2259	U	C5'-C4'-C3'	-5.07	108.39	116.00
53	B2	52	ALA	N-CA-C	5.07	119.16	112.92
1	AA	278	G	C4'-C3'-O3'	5.07	120.60	113.00
1	AA	902	G	O4'-C1'-N9	-5.07	100.90	108.50
1	AA	1078	U	O4'-C4'-C3'	5.07	109.07	104.00
5	AE	191	ASP	CA-C-N	5.07	124.68	119.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AE	191	ASP	C-N-CA	5.07	124.68	119.56
26	BB	1346	G	N9-C1'-C2'	-5.07	104.40	112.00
47	BW	44	HIS	CE1-NE2-CD2	-5.07	103.93	109.00
1	AA	208	U	O5'-C5'-C4'	5.07	119.10	111.50
3	AC	19	A	C5'-C4'-C3'	-5.07	108.40	116.00
7	AG	66	VAL	CA-CB-CG2	5.07	119.01	110.40
8	AH	136	VAL	CA-CB-CG2	5.07	119.01	110.40
10	AJ	95	ARG	NH1-CZ-NH2	5.07	125.89	119.30
13	AM	70	HIS	CB-CG-CD2	-5.07	124.61	131.20
21	AU	41	SER	CA-C-N	5.07	127.07	120.28
21	AU	41	SER	C-N-CA	5.07	127.07	120.28
26	BB	12	U	O4'-C1'-C2'	-5.07	102.53	107.60
26	BB	233	A	C4'-C3'-C2'	-5.07	97.53	102.60
26	BB	2863	C	C2'-C3'-O3'	-5.07	106.10	113.70
40	BP	64	ARG	CA-C-N	5.07	127.03	120.44
40	BP	64	ARG	C-N-CA	5.07	127.03	120.44
1	AA	268	U	O4'-C1'-N1	5.07	116.10	108.50
1	AA	377	G	O3'-P-O5'	-5.07	96.40	104.00
1	AA	597	G	C5'-C4'-C3'	-5.07	108.40	116.00
1	AA	1167	A	C1'-O4'-C4'	5.07	114.97	109.90
7	AG	119	HIS	CE1-NE2-CD2	-5.07	103.93	109.00
25	BA	111	U	C4'-C3'-O3'	-5.07	105.40	113.00
26	BB	151	C	O4'-C1'-N1	5.07	116.10	108.50
26	BB	463	G	C2'-C3'-O3'	5.07	121.30	113.70
26	BB	705	A	O3'-P-O5'	5.07	111.60	104.00
26	BB	1662	U	N1-C1'-C2'	-5.07	104.40	112.00
26	BB	1786	A	P-O3'-C3'	5.07	127.80	120.20
26	BB	2076	U	O4'-C1'-N1	5.07	115.80	108.20
26	BB	2136	G	O3'-P-O5'	5.07	111.60	104.00
26	BB	2460	U	C2'-C3'-O3'	-5.07	106.10	113.70
26	BB	2787	C	O4'-C1'-C2'	5.07	112.67	107.60
32	BH	176	LYS	CA-CB-CG	-5.07	103.97	114.10
1	AA	1379	G	C4'-C3'-C2'	-5.06	97.54	102.60
25	BA	33	G	C3'-C2'-C1'	5.06	106.36	101.30
26	BB	793	A	O4'-C4'-C3'	5.06	111.16	106.10
40	BP	96	ARG	CD-NE-CZ	5.06	131.49	124.40
58	B7	10	LEU	CA-C-N	5.06	130.89	121.62
58	B7	10	LEU	C-N-CA	5.06	130.89	121.62
4	AD	46	G	O4'-C4'-C3'	5.06	109.06	104.00
11	AK	14	ARG	O-C-N	-5.06	116.86	122.07
26	BB	455	C	C4'-C3'-O3'	-5.06	105.41	113.00
26	BB	461	C	C5'-C4'-O4'	5.06	117.39	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	662	G	C2'-C3'-O3'	-5.06	106.11	113.70
26	BB	909	A	P-O3'-C3'	5.06	127.80	120.20
26	BB	982	C	C4'-C3'-C2'	5.06	107.66	102.60
26	BB	1400	U	C1'-C2'-O2'	5.06	115.99	108.40
26	BB	1517	G	C4'-C3'-C2'	-5.06	97.54	102.60
26	BB	1873	G	C5'-C4'-O4'	5.06	117.39	109.80
26	BB	2640	G	O3'-P-O5'	-5.06	96.41	104.00
31	BG	71	LYS	CB-CG-CD	5.06	122.94	111.30
41	BQ	102	ARG	N-CA-CB	-5.06	102.67	110.16
52	B1	4	ILE	CA-C-N	5.06	130.13	122.99
52	B1	4	ILE	C-N-CA	5.06	130.13	122.99
56	B5	34	ARG	O-C-N	5.06	127.49	122.12
1	AA	286	C	O4'-C1'-N1	5.06	116.09	108.50
1	AA	590	U	C4'-C3'-C2'	-5.06	97.54	102.60
1	AA	1433	A	O4'-C1'-N9	5.06	116.09	108.50
26	BB	365	U	C3'-C2'-C1'	5.06	106.36	101.30
26	BB	420	C	C1'-O4'-C4'	5.06	114.96	109.90
26	BB	429	A	P-O5'-C5'	5.06	128.49	120.90
26	BB	2556	C	O4'-C1'-N1	5.06	116.09	108.50
44	BT	83	TYR	CA-C-O	-5.06	114.88	120.24
1	AA	226	G	P-O3'-C3'	5.06	127.79	120.20
1	AA	640	A	C5'-C4'-C3'	-5.06	108.41	116.00
2	AB	13	C	C5'-C4'-O4'	5.06	117.39	109.80
17	AQ	10	VAL	CA-C-O	-5.06	115.69	120.95
26	BB	798	G	C5'-C4'-C3'	-5.06	108.41	116.00
26	BB	1140	C	C5'-C4'-C3'	-5.06	108.41	116.00
26	BB	1292	G	O4'-C4'-C3'	5.06	109.06	104.00
26	BB	2352	A	O3'-P-O5'	5.06	111.59	104.00
26	BB	2530	A	N9-C1'-C2'	-5.06	104.41	112.00
26	BB	2742	G	O4'-C1'-N9	5.06	116.09	108.50
27	BC	201	PRO	CB-CA-C	5.06	117.65	111.12
37	BM	95	ILE	CA-C-N	5.06	125.15	120.34
37	BM	95	ILE	C-N-CA	5.06	125.15	120.34
39	BO	5	LYS	CA-C-N	5.06	130.41	122.21
39	BO	5	LYS	C-N-CA	5.06	130.41	122.21
43	BS	110	GLU	CA-C-N	5.06	127.02	120.44
43	BS	110	GLU	C-N-CA	5.06	127.02	120.44
49	BY	54	ARG	CD-NE-CZ	5.06	131.48	124.40
1	AA	1062	U	C5'-C4'-C3'	-5.06	108.42	116.00
12	AL	42	THR	CA-C-N	5.06	128.69	120.60
12	AL	42	THR	C-N-CA	5.06	128.69	120.60
14	AN	68	ARG	CA-C-N	5.06	127.32	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AN	68	ARG	C-N-CA	5.06	127.32	120.44
17	AQ	59	GLN	CA-C-N	5.06	131.44	121.58
17	AQ	59	GLN	C-N-CA	5.06	131.44	121.58
26	BB	20	C	C2'-C3'-O3'	-5.06	106.11	113.70
26	BB	307	G	C3'-C2'-C1'	5.06	106.36	101.30
26	BB	1125	G	O5'-C5'-C4'	5.06	119.08	111.50
26	BB	1838	C	O5'-C5'-C4'	5.06	119.29	111.70
40	BP	12	ARG	N-CA-C	5.06	115.01	107.88
41	BQ	3	LYS	CA-C-N	5.06	129.28	120.68
41	BQ	3	LYS	C-N-CA	5.06	129.28	120.68
47	BW	44	HIS	CB-CG-CD2	-5.06	124.63	131.20
1	AA	824	G	C5'-C4'-C3'	-5.06	108.42	116.00
1	AA	866	C	C4'-C3'-C2'	-5.06	97.54	102.60
26	BB	1926	U	O4'-C1'-N1	5.06	116.08	108.50
26	BB	2145	C	C4'-C3'-C2'	5.06	107.66	102.60
26	BB	2577	A	C1'-O4'-C4'	5.06	114.96	109.90
1	AA	720	C	O3'-P-O5'	-5.05	96.42	104.00
1	AA	739	C	N1-C1'-C2'	-5.05	104.42	112.00
15	AO	47	ALA	O-C-N	-5.05	117.95	123.26
16	AP	40	GLU	CA-C-O	-5.05	115.51	120.82
17	AQ	28	ALA	CA-C-N	5.05	127.60	120.42
17	AQ	28	ALA	C-N-CA	5.05	127.60	120.42
24	AX	37	TYR	CA-C-N	5.05	130.30	122.26
24	AX	37	TYR	C-N-CA	5.05	130.30	122.26
26	BB	832	U	C3'-C2'-C1'	-5.05	96.25	101.30
29	BE	62	LYS	CA-C-N	5.05	124.84	119.28
29	BE	62	LYS	C-N-CA	5.05	124.84	119.28
30	BF	159	LEU	CA-C-N	5.05	131.57	122.02
30	BF	159	LEU	C-N-CA	5.05	131.57	122.02
30	BF	178	VAL	O-C-N	-5.05	115.17	121.84
41	BQ	43	ASN	OD1-CG-ND2	-5.05	117.55	122.60
43	BS	7	VAL	CA-C-N	5.05	129.53	121.34
43	BS	7	VAL	C-N-CA	5.05	129.53	121.34
45	BU	82	MET	CB-CA-C	5.05	118.09	109.75
45	BU	110	ARG	NE-CZ-NH2	5.05	123.75	119.20
1	AA	315	A	C2'-C3'-O3'	5.05	117.08	109.50
1	AA	745	G	O3'-P-O5'	-5.05	96.42	104.00
1	AA	1121	U	C3'-C2'-O2'	5.05	118.28	110.70
14	AN	35	ASP	CA-C-O	-5.05	116.05	121.56
26	BB	211	C	O5'-C5'-C4'	-5.05	103.92	111.50
26	BB	237	C	O4'-C1'-N1	5.05	116.08	108.50
26	BB	1435	G	C4'-C3'-O3'	-5.05	105.42	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2002	G	O3'-P-O5'	-5.05	96.42	104.00
26	BB	2284	A	C4'-C3'-C2'	-5.05	97.55	102.60
26	BB	2615	U	O4'-C1'-N1	5.05	116.08	108.50
26	BB	2831	G	C4'-C3'-C2'	-5.05	97.55	102.60
1	AA	269	C	C1'-O4'-C4'	5.05	114.95	109.90
1	AA	925	G	C3'-C2'-C1'	-5.05	96.25	101.30
1	AA	944	G	C5'-C4'-C3'	-5.05	108.42	116.00
1	AA	1140	C	C3'-C2'-C1'	5.05	106.35	101.30
1	AA	1152	A	C4'-C3'-C2'	-5.05	97.55	102.60
6	AF	218	LYS	CA-C-N	5.05	126.16	119.84
6	AF	218	LYS	C-N-CA	5.05	126.16	119.84
22	AV	80	ARG	N-CA-C	5.05	116.42	109.15
26	BB	446	G	C1'-O4'-C4'	-5.05	104.65	109.70
26	BB	496	G	O4'-C4'-C3'	5.05	109.05	104.00
26	BB	635	C	P-O3'-C3'	5.05	127.78	120.20
26	BB	1019	U	C4'-C3'-O3'	-5.05	105.42	113.00
26	BB	1208	C	C3'-C2'-C1'	-5.05	96.25	101.30
26	BB	1326	U	P-O3'-C3'	5.05	127.78	120.20
33	BI	134	VAL	O-C-N	5.05	126.97	121.87
12	AL	21	LYS	CA-C-N	5.05	124.81	119.76
12	AL	21	LYS	C-N-CA	5.05	124.81	119.76
16	AP	81	ASP	CA-C-N	5.05	129.21	120.58
16	AP	81	ASP	C-N-CA	5.05	129.21	120.58
19	AS	78	VAL	CB-CA-C	5.05	120.44	112.26
26	BB	218	A	C3'-C2'-C1'	5.05	106.35	101.30
26	BB	239	C	C1'-C2'-O2'	-5.05	100.83	108.40
26	BB	522	A	O4'-C1'-C2'	-5.05	102.55	107.60
26	BB	1363	C	C4'-C3'-O3'	5.05	120.57	113.00
26	BB	1826	G	C2'-C3'-O3'	-5.05	106.12	113.70
26	BB	1998	A	P-O5'-C5'	5.05	128.48	120.90
26	BB	2101	A	C4'-C3'-C2'	-5.05	97.55	102.60
26	BB	2358	A	C1'-C2'-O2'	5.05	115.97	108.40
26	BB	2534	A	C1'-C2'-O2'	5.05	115.97	108.40
26	BB	2729	G	O4'-C1'-C2'	-5.05	102.55	107.60
26	BB	2819	G	C4'-C3'-C2'	-5.05	97.55	102.60
33	BI	107	GLY	N-CA-C	-5.05	108.03	115.30
1	AA	289	G	O4'-C1'-C2'	-5.05	102.55	107.60
17	AQ	69	PRO	CA-C-N	5.05	131.18	121.54
17	AQ	69	PRO	C-N-CA	5.05	131.18	121.54
26	BB	945	A	C3'-C2'-C1'	5.05	106.55	101.50
26	BB	1425	G	C5'-C4'-C3'	-5.05	108.43	116.00
26	BB	2465	C	N1-C1'-C2'	-5.05	104.43	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2643	G	C4'-C3'-C2'	-5.05	97.55	102.60
1	AA	9	G	N9-C1'-C2'	-5.05	104.43	112.00
1	AA	247	G	O4'-C1'-C2'	5.05	112.65	107.60
1	AA	262	A	N9-C1'-C2'	-5.05	104.43	112.00
1	AA	1109	C	C3'-C2'-O2'	5.05	118.27	110.70
9	AI	133	GLU	CB-CA-C	5.05	118.83	109.54
26	BB	159	G	O4'-C4'-C3'	5.05	109.05	104.00
26	BB	813	U	C4'-C3'-C2'	-5.05	97.55	102.60
26	BB	1468	U	O3'-P-O5'	-5.05	96.43	104.00
26	BB	1943	U	C4'-C3'-O3'	5.05	116.97	109.40
54	B3	49	ARG	CA-C-N	5.05	128.22	120.00
54	B3	49	ARG	C-N-CA	5.05	128.22	120.00
1	AA	12	U	C4'-C3'-C2'	5.04	107.64	102.60
5	AE	212	TYR	CA-C-O	-5.04	115.50	120.90
9	AI	133	GLU	CA-C-O	-5.04	116.06	121.56
26	BB	39	G	C3'-C2'-C1'	-5.04	96.25	101.30
26	BB	1300	G	C3'-C2'-C1'	5.04	106.55	101.50
26	BB	1402	U	O4'-C1'-N1	5.04	116.07	108.50
26	BB	2757	A	C1'-O4'-C4'	-5.04	104.86	109.90
1	AA	385	C	C4'-C3'-C2'	-5.04	97.56	102.60
1	AA	994	A	O4'-C4'-C3'	5.04	109.04	104.00
1	AA	1221	G	C1'-C2'-O2'	-5.04	100.84	108.40
1	AA	1501	C	C5'-C4'-C3'	-5.04	108.44	116.00
3	AC	52	U	C5'-C4'-O4'	5.04	116.67	109.10
5	AE	22	TRP	CD2-CE2-CZ2	-5.04	117.36	122.40
10	AJ	91	ARG	CA-C-N	5.04	125.07	119.32
10	AJ	91	ARG	C-N-CA	5.04	125.07	119.32
26	BB	384	A	C3'-C2'-C1'	-5.04	96.26	101.30
26	BB	793	A	C4'-C3'-C2'	-5.04	97.56	102.60
26	BB	1784	A	O4'-C4'-C3'	5.04	109.04	104.00
26	BB	2226	C	C4'-C3'-C2'	-5.04	97.56	102.60
26	BB	2341	G	C5'-C4'-C3'	-5.04	108.44	116.00
26	BB	2452	C	O3'-P-O5'	-5.04	96.44	104.00
45	BU	6	LYS	N-CA-CB	-5.04	102.78	110.85
1	AA	709	U	O3'-P-O5'	-5.04	96.44	104.00
1	AA	1181	G	O4'-C1'-N9	5.04	115.76	108.20
4	AD	28	U	C5'-C4'-C3'	-5.04	108.44	116.00
26	BB	296	U	C4'-C3'-O3'	-5.04	105.44	113.00
26	BB	1546	G	C3'-C2'-C1'	5.04	106.34	101.30
26	BB	2631	G	O4'-C1'-C2'	-5.04	102.56	107.60
34	BJ	68	PHE	CA-C-O	-5.04	115.41	121.11
40	BP	57	THR	CA-C-O	5.04	127.01	121.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1115	U	C5'-C4'-C3'	-5.04	108.44	116.00
17	AQ	79	SER	CA-C-N	5.04	131.17	121.54
17	AQ	79	SER	C-N-CA	5.04	131.17	121.54
26	BB	981	A	O4'-C1'-N9	5.04	116.06	108.50
26	BB	1575	C	C4'-C3'-C2'	-5.04	97.56	102.60
26	BB	1804	C	C4'-C3'-O3'	-5.04	105.44	113.00
1	AA	858	G	O4'-C1'-N9	5.04	116.06	108.50
15	AO	120	ARG	CA-C-N	5.04	126.14	119.84
15	AO	120	ARG	C-N-CA	5.04	126.14	119.84
26	BB	714	U	C3'-C2'-O2'	5.04	118.26	110.70
26	BB	1958	C	O4'-C4'-C3'	5.04	109.04	104.00
26	BB	2835	A	C1'-O4'-C4'	-5.04	104.66	109.70
40	BP	71	ARG	CB-CA-C	5.04	120.11	112.00
1	AA	6	G	C3'-C2'-C1'	-5.04	96.46	101.50
19	AS	72	ALA	CA-C-O	5.04	125.76	120.42
26	BB	732	C	O4'-C1'-N1	5.04	116.06	108.50
26	BB	1840	G	C3'-C2'-O2'	5.04	118.26	110.70
26	BB	2878	U	O4'-C4'-C3'	5.04	109.04	104.00
48	BX	67	GLY	CA-C-N	5.04	129.54	122.09
48	BX	67	GLY	C-N-CA	5.04	129.54	122.09
1	AA	694	A	C2'-C3'-O3'	-5.04	106.15	113.70
1	AA	1410	A	C4'-C3'-O3'	5.04	120.55	113.00
17	AQ	48	GLN	CA-C-N	5.04	127.44	120.29
17	AQ	48	GLN	C-N-CA	5.04	127.44	120.29
26	BB	154	U	P-O5'-C5'	5.04	128.45	120.90
26	BB	231	A	P-O3'-C3'	5.04	127.75	120.20
26	BB	274	C	C5'-C4'-C3'	-5.04	108.45	116.00
26	BB	1372	U	C5'-C4'-O4'	5.04	117.35	109.80
26	BB	2175	C	C3'-C2'-O2'	5.04	118.25	110.70
26	BB	2241	A	C4'-C3'-O3'	5.04	120.55	113.00
34	BJ	56	ASN	N-CA-C	-5.04	106.65	112.89
35	BK	118	GLY	CA-C-N	5.04	131.43	122.06
35	BK	118	GLY	C-N-CA	5.04	131.43	122.06
36	BL	69	ARG	CD-NE-CZ	5.04	131.45	124.40
1	AA	422	C	C3'-C2'-C1'	-5.03	96.47	101.50
1	AA	685	G	C2'-C3'-O3'	5.03	121.25	113.70
1	AA	747	A	O4'-C1'-C2'	-5.03	102.57	107.60
4	AD	42	C	C5'-C4'-C3'	5.03	123.55	116.00
26	BB	53	A	O4'-C1'-C2'	-5.03	102.57	107.60
26	BB	1848	A	O4'-C4'-C3'	5.03	109.03	104.00
26	BB	2831	G	C5'-C4'-O4'	5.03	117.35	109.80
26	BB	2901	C	O5'-C5'-C4'	5.03	119.05	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	BD	229	HIS	CA-C-N	5.03	124.69	119.56
28	BD	229	HIS	C-N-CA	5.03	124.69	119.56
28	BD	232	GLY	CA-C-O	-5.03	111.81	120.57
30	BF	195	GLN	CB-CA-C	5.03	120.51	109.99
56	B5	35	ARG	CA-C-N	5.03	127.53	120.28
56	B5	35	ARG	C-N-CA	5.03	127.53	120.28
12	AL	62	LEU	CA-C-N	5.03	130.78	122.33
12	AL	62	LEU	C-N-CA	5.03	130.78	122.33
26	BB	1863	G	C4'-C3'-O3'	-5.03	105.45	113.00
40	BP	23	ASN	OD1-CG-ND2	-5.03	117.57	122.60
1	AA	1037	C	O4'-C1'-C2'	-5.03	102.57	107.60
1	AA	1112	C	O4'-C4'-C3'	-5.03	98.97	104.00
9	AI	42	TRP	NE1-CE2-CZ2	5.03	137.65	130.10
16	AP	69	ARG	CA-C-O	-5.03	113.19	119.38
16	AP	104	ASN	CB-CA-C	5.03	119.84	112.09
17	AQ	97	LYS	CB-CA-C	5.03	118.07	109.72
26	BB	23	G	C5'-C4'-O4'	5.03	117.35	109.80
26	BB	529	A	O3'-P-O5'	-5.03	96.45	104.00
26	BB	929	U	O5'-C5'-C4'	5.03	119.05	111.50
26	BB	1478	G	O4'-C1'-N9	5.03	116.05	108.50
26	BB	2631	G	C5'-C4'-C3'	-5.03	108.45	116.00
29	BE	154	LYS	O-C-N	-5.03	117.03	122.92
31	BG	39	VAL	N-CA-CB	-5.03	104.13	110.57
38	BN	11	GLY	N-CA-C	5.03	122.05	115.36
2	AB	41	C	C4'-C3'-O3'	5.03	120.54	113.00
3	AC	50	U	N1-C1'-C2'	5.03	121.54	114.00
15	AO	76	HIS	CB-CG-CD2	-5.03	124.66	131.20
24	AX	65	ARG	CD-NE-CZ	5.03	131.44	124.40
26	BB	1584	U	O5'-C5'-C4'	-5.03	104.16	111.70
26	BB	2898	U	C3'-C2'-C1'	5.03	106.33	101.30
36	BL	131	ASN	N-CA-C	5.03	119.37	112.88
1	AA	217	C	C5'-C4'-C3'	5.03	123.54	116.00
1	AA	297	G	C4'-C3'-O3'	-5.03	105.46	113.00
1	AA	948	C	C2'-C3'-O3'	-5.03	106.16	113.70
1	AA	1286	U	C5'-C4'-O4'	5.03	117.34	109.80
19	AS	66	THR	CA-C-O	-5.03	114.75	120.58
26	BB	183	C	C1'-C2'-O2'	5.03	115.94	108.40
26	BB	1263	U	P-O3'-C3'	5.03	127.74	120.20
26	BB	1476	U	O4'-C1'-C2'	-5.03	102.57	107.60
26	BB	1977	A	O4'-C1'-C2'	-5.03	102.57	107.60
26	BB	2031	A	O4'-C1'-N9	5.03	115.74	108.20
26	BB	2864	G	C5'-C4'-C3'	-5.03	108.46	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	BE	108	ASP	O-C-N	-5.03	116.28	122.11
44	BT	82	HIS	O-C-N	-5.03	116.55	122.58
55	B4	24	LYS	O-C-N	5.03	129.29	123.41
1	AA	180	U	O4'-C4'-C3'	5.03	109.03	104.00
1	AA	312	C	O5'-C5'-C4'	5.03	119.04	111.50
1	AA	870	U	C5'-C4'-C3'	-5.03	107.66	115.20
1	AA	1011	C	O4'-C4'-C3'	5.03	109.03	104.00
18	AR	35	ILE	CA-C-N	5.03	127.27	120.44
18	AR	35	ILE	C-N-CA	5.03	127.27	120.44
23	AW	74	HIS	CG-ND1-CE1	-5.03	100.76	109.30
26	BB	1031	G	O3'-P-O5'	-5.03	96.46	104.00
29	BE	130	GLN	OE1-CD-NE2	-5.03	117.58	122.60
37	BM	17	ARG	NE-CZ-NH2	-5.03	114.68	119.20
41	BQ	53	THR	CA-CB-CG2	5.03	119.04	110.50
1	AA	71	A	C4'-C3'-C2'	-5.02	97.58	102.60
7	AG	20	LEU	CB-CA-C	5.02	118.09	109.80
7	AG	58	GLN	CA-C-O	-5.02	115.55	120.82
10	AJ	142	ARG	CB-CA-C	5.02	119.39	110.85
26	BB	504	A	C1'-C2'-O2'	5.02	115.94	108.40
26	BB	707	G	C1'-C2'-O2'	-5.02	100.86	108.40
28	BD	32	LEU	CA-C-N	5.02	129.45	122.77
28	BD	32	LEU	C-N-CA	5.02	129.45	122.77
56	B5	5	PHE	CA-C-N	5.02	131.07	122.38
56	B5	5	PHE	C-N-CA	5.02	131.07	122.38
1	AA	27	G	C1'-O4'-C4'	5.02	114.92	109.90
1	AA	1073	U	C4'-C3'-C2'	-5.02	97.58	102.60
2	AB	68	C	C1'-C2'-O2'	5.02	115.93	108.40
6	AF	129	PHE	CA-C-N	5.02	127.94	120.31
6	AF	129	PHE	C-N-CA	5.02	127.94	120.31
26	BB	1089	A	N9-C1'-C2'	-5.02	106.47	114.00
26	BB	1270	C	C4'-C3'-C2'	-5.02	97.58	102.60
26	BB	1949	G	C1'-O4'-C4'	-5.02	104.88	109.90
26	BB	2161	C	C1'-O4'-C4'	-5.02	104.88	109.90
26	BB	2816	G	O4'-C1'-N9	5.02	116.03	108.50
32	BH	8	VAL	CA-C-N	5.02	131.01	121.97
32	BH	8	VAL	C-N-CA	5.02	131.01	121.97
33	BI	92	GLY	O-C-N	5.02	127.01	122.19
1	AA	156	C	C3'-C2'-C1'	-5.02	96.28	101.30
1	AA	1414	U	C3'-C2'-O2'	-5.02	103.17	110.70
26	BB	85	G	C5'-C4'-O4'	5.02	117.33	109.80
26	BB	1774	C	O3'-P-O5'	-5.02	96.47	104.00
26	BB	2122	U	C3'-C2'-C1'	5.02	106.32	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2354	C	O5'-C5'-C4'	-5.02	103.97	111.50
4	AD	23	G	O4'-C1'-N9	5.02	116.03	108.50
15	AO	53	ARG	NE-CZ-NH1	5.02	126.52	121.50
18	AR	8	ALA	N-CA-C	5.02	116.83	111.36
23	AW	25	SER	O-C-N	5.02	127.24	122.07
26	BB	710	U	C1'-C2'-O2'	5.02	115.93	108.40
26	BB	1171	G	C5'-C4'-C3'	5.02	123.53	116.00
26	BB	2523	G	P-O3'-C3'	5.02	127.73	120.20
26	BB	2573	C	O4'-C4'-C3'	5.02	111.12	106.10
26	BB	2765	A	C5'-C4'-O4'	5.02	117.33	109.80
27	BC	176	GLY	CA-C-O	5.02	125.00	121.04
35	BK	1	ALA	CA-C-N	5.02	127.94	120.31
35	BK	1	ALA	C-N-CA	5.02	127.94	120.31
46	BV	81	LYS	CB-CA-C	5.02	118.96	109.37
1	AA	92	U	C3'-C2'-O2'	5.02	118.23	110.70
1	AA	684	U	C1'-C2'-O2'	5.02	115.93	108.40
1	AA	720	C	C4'-C3'-O3'	5.02	120.53	113.00
1	AA	1319	A	C5'-C4'-C3'	-5.02	107.67	115.20
1	AA	1482	G	C5'-C4'-C3'	-5.02	108.47	116.00
9	AI	27	ALA	O-C-N	5.02	129.38	122.46
10	AJ	70	PRO	CA-C-N	5.02	130.60	121.92
10	AJ	70	PRO	C-N-CA	5.02	130.60	121.92
26	BB	92	U	O4'-C1'-N1	5.02	116.03	108.50
26	BB	635	C	C5'-C4'-O4'	5.02	117.33	109.80
26	BB	637	A	C4'-C3'-C2'	-5.02	97.58	102.60
26	BB	948	C	C1'-C2'-O2'	5.02	115.93	108.40
26	BB	1446	C	C3'-C2'-C1'	-5.02	96.28	101.30
26	BB	1715	G	C1'-O4'-C4'	-5.02	104.68	109.70
26	BB	1748	C	C4'-C3'-C2'	-5.02	97.58	102.60
26	BB	2001	C	C1'-O4'-C4'	5.02	114.92	109.90
30	BF	10	SER	CA-C-N	5.02	131.12	121.54
30	BF	10	SER	C-N-CA	5.02	131.12	121.54
31	BG	177	ARG	CA-CB-CG	5.02	124.14	114.10
32	BH	53	PRO	N-CD-CG	5.02	110.72	103.20
32	BH	73	SER	CA-C-O	5.02	126.27	120.90
2	AB	10	G	O5'-C5'-C4'	5.02	119.03	111.50
26	BB	821	A	C5'-C4'-C3'	-5.02	108.48	116.00
26	BB	2734	A	C3'-C2'-O2'	5.02	118.22	110.70
30	BF	9	GLN	CB-CA-C	5.02	121.05	112.27
32	BH	17	LYS	O-C-N	-5.02	117.50	123.22
1	AA	91	U	O4'-C4'-C3'	5.01	109.02	104.00
1	AA	117	G	C5'-C4'-C3'	-5.01	108.48	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	791	G	C3'-C2'-O2'	5.01	118.22	110.70
1	AA	1351	U	C3'-C2'-O2'	5.01	118.22	110.70
1	AA	1366	C	C3'-C2'-C1'	5.01	106.31	101.30
1	AA	1411	C	C5'-C4'-O4'	5.01	117.32	109.80
3	AC	50	U	O5'-C5'-C4'	5.01	119.22	111.70
8	AH	73	VAL	CB-CA-C	5.01	118.05	110.63
26	BB	320	A	C2'-C3'-O3'	-5.01	106.18	113.70
26	BB	714	U	C5'-C4'-O4'	5.01	117.32	109.80
26	BB	945	A	O5'-C5'-C4'	-5.01	104.18	111.70
26	BB	1309	G	C3'-C2'-O2'	5.01	118.22	110.70
26	BB	1936	A	O3'-P-O5'	5.01	111.52	104.00
32	BH	78	VAL	CA-C-O	-5.01	113.51	119.58
1	AA	45	G	C3'-C2'-O2'	5.01	118.22	110.70
1	AA	252	U	C4'-C3'-O3'	-5.01	105.48	113.00
1	AA	531	U	O4'-C1'-N1	5.01	115.72	108.20
4	AD	62	C	O5'-C5'-C4'	5.01	119.02	111.50
26	BB	1354	A	C4'-C3'-C2'	-5.01	97.59	102.60
26	BB	1443	U	C1'-O4'-C4'	5.01	114.91	109.90
8	AH	159	SER	CA-C-O	-5.01	115.24	120.55
10	AJ	162	SER	N-CA-CB	-5.01	102.50	110.22
15	AO	88	ASP	CA-CB-CG	5.01	117.61	112.60
25	BA	77	U	O3'-P-O5'	-5.01	96.48	104.00
26	BB	1037	G	C2'-C3'-O3'	5.01	121.22	113.70
26	BB	1492	G	C1'-C2'-O2'	-5.01	100.88	108.40
26	BB	2269	G	C3'-C2'-O2'	5.01	118.22	110.70
28	BD	149	LYS	CA-CB-CG	5.01	124.12	114.10
1	AA	53	A	O4'-C1'-N9	5.01	116.02	108.50
1	AA	650	G	C3'-C2'-C1'	-5.01	96.29	101.30
1	AA	668	G	C2'-C3'-O3'	-5.01	106.18	113.70
7	AG	155	LYS	O-C-N	5.01	127.43	122.12
10	AJ	135	LYS	CA-C-N	5.01	127.40	120.29
10	AJ	135	LYS	C-N-CA	5.01	127.40	120.29
12	AL	115	VAL	CB-CA-C	5.01	119.48	111.32
25	BA	47	C	O4'-C1'-N1	5.01	116.02	108.50
26	BB	788	A	C1'-O4'-C4'	-5.01	104.69	109.70
26	BB	1217	U	C5'-C4'-C3'	-5.01	108.49	116.00
26	BB	1408	G	C4'-C3'-C2'	-5.01	97.59	102.60
26	BB	1496	A	P-O5'-C5'	5.01	128.41	120.90
26	BB	1909	C	C2'-C3'-O3'	5.01	121.21	113.70
34	BJ	33	THR	CA-CB-OG1	5.01	117.11	109.60
55	B4	18	HIS	CA-C-O	5.01	127.23	121.47
1	AA	240	G	O4'-C1'-C2'	-5.01	102.59	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	382	A	O4'-C1'-N9	5.01	116.01	108.50
1	AA	412	A	C4'-C3'-O3'	-5.01	105.49	113.00
1	AA	743	A	C4'-C3'-C2'	-5.01	97.59	102.60
7	AG	187	ARG	CA-C-O	-5.01	113.22	119.38
26	BB	199	A	O4'-C1'-N9	5.01	115.71	108.20
26	BB	1731	G	O3'-P-O5'	-5.01	96.49	104.00
1	AA	337	G	N9-C1'-C2'	-5.01	104.49	112.00
1	AA	552	U	O4'-C1'-N1	5.01	116.01	108.50
1	AA	627	G	C1'-C2'-O2'	-5.01	100.89	108.40
6	AF	124	GLU	N-CA-C	-5.01	105.10	111.11
7	AG	167	PRO	N-CA-C	5.01	119.07	111.11
25	BA	34	A	C1'-O4'-C4'	-5.01	104.69	109.70
26	BB	103	A	C1'-O4'-C4'	5.01	114.91	109.90
26	BB	413	C	C4'-C3'-C2'	-5.01	97.59	102.60
26	BB	1378	A	C3'-C2'-C1'	-5.01	96.49	101.50
26	BB	1453	A	C2'-C3'-O3'	5.01	117.01	109.50
26	BB	2012	G	P-O3'-C3'	5.01	127.71	120.20
26	BB	2728	U	C4'-C3'-C2'	-5.01	97.59	102.60
27	BC	152	ALA	CA-C-O	-5.01	115.24	120.55
42	BR	37	LYS	CA-C-N	5.01	131.22	122.81
42	BR	37	LYS	C-N-CA	5.01	131.22	122.81
1	AA	1241	G	C3'-C2'-O2'	5.00	118.21	110.70
26	BB	131	A	O4'-C1'-C2'	-5.00	102.59	107.60
26	BB	145	C	O5'-C5'-C4'	-5.00	103.99	111.50
26	BB	1994	C	O4'-C1'-N1	5.00	116.01	108.50
51	B0	23	ARG	O-C-N	-5.00	115.93	122.59
1	AA	750	C	O4'-C4'-C3'	5.00	109.00	104.00
1	AA	1477	U	C1'-O4'-C4'	5.00	114.90	109.90
1	AA	1503	A	P-O3'-C3'	5.00	127.71	120.20
4	AD	52	C	O4'-C1'-N1	5.00	116.00	108.50
7	AG	125	ASN	CA-CB-CG	-5.00	107.60	112.60
14	AN	15	VAL	CA-C-N	5.00	131.10	121.54
14	AN	15	VAL	C-N-CA	5.00	131.10	121.54
25	BA	31	C	C5'-C4'-C3'	-5.00	108.49	116.00
25	BA	90	C	O5'-C5'-C4'	-5.00	104.00	111.50
26	BB	114	U	C5'-C4'-C3'	-5.00	108.50	116.00
26	BB	322	A	C4'-C3'-C2'	5.00	107.60	102.60
26	BB	1215	G	C5'-C4'-O4'	5.00	117.31	109.80
26	BB	1757	A	O4'-C1'-N9	5.00	116.00	108.50
26	BB	1815	A	C1'-O4'-C4'	5.00	114.70	109.70
26	BB	1992	G	C2'-C3'-O3'	5.00	117.01	109.50
26	BB	2353	G	O5'-C5'-C4'	5.00	119.00	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	2366	A	C5'-C4'-O4'	-5.00	102.29	109.80
26	BB	2747	G	O5'-C5'-C4'	5.00	119.01	111.50
29	BE	189	VAL	CA-CB-CG1	5.00	118.91	110.40
32	BH	125	PRO	N-CA-CB	5.00	108.50	103.25
41	BQ	4	LYS	N-CA-C	-5.00	105.93	112.23
1	AA	514	C	C3'-C2'-C1'	5.00	106.30	101.30
1	AA	1137	C	O4'-C1'-N1	5.00	115.70	108.20
1	AA	1246	A	O4'-C1'-N9	5.00	116.00	108.50
1	AA	1356	G	O5'-C5'-C4'	5.00	119.00	111.50
1	AA	1400	C	C4'-C3'-O3'	5.00	116.90	109.40
3	AC	26	U	C3'-C2'-C1'	5.00	106.30	101.30
4	AD	16	C	O4'-C1'-N1	5.00	115.70	108.20
17	AQ	100	TRP	NE1-CE2-CZ2	5.00	137.60	130.10
25	BA	90	C	C3'-C2'-C1'	5.00	106.30	101.30
26	BB	14	A	C1'-C2'-O2'	5.00	115.90	108.40
26	BB	1300	G	O5'-C5'-C4'	-5.00	104.20	111.70
26	BB	1718	G	C3'-C2'-C1'	-5.00	96.30	101.30
26	BB	1844	C	N1-C1'-C2'	-5.00	104.50	112.00
29	BE	125	TRP	CE2-CD2-CE3	-5.00	113.80	118.80
30	BF	61	ARG	CA-C-N	5.00	131.09	121.54
30	BF	61	ARG	C-N-CA	5.00	131.09	121.54
55	B4	5	ARG	NE-CZ-NH2	5.00	123.70	119.20

There are no chirality outliers.

All (2959) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1	A	Sidechain
1	AA	10	A	Sidechain
1	AA	100	G	Sidechain
1	AA	1000	A	Sidechain
1	AA	1001	C	Sidechain
1	AA	1002	G	Sidechain
1	AA	1003	G	Sidechain
1	AA	1004	A	Sidechain
1	AA	1007	U	Sidechain
1	AA	1008	U	Sidechain
1	AA	1010	U	Sidechain
1	AA	1011	C	Sidechain
1	AA	1014	A	Sidechain
1	AA	102	G	Sidechain
1	AA	1021	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1022	A	Sidechain
1	AA	1023	U	Sidechain
1	AA	1024	G	Sidechain
1	AA	1025	U	Sidechain
1	AA	1026	G	Sidechain
1	AA	1030	U	Sidechain
1	AA	1033	G	Sidechain
1	AA	1035	A	Sidechain
1	AA	1036	A	Sidechain
1	AA	1037	C	Sidechain
1	AA	1039	G	Sidechain
1	AA	104	G	Sidechain
1	AA	1040	U	Sidechain
1	AA	1042	A	Sidechain
1	AA	1043	G	Sidechain
1	AA	1044	A	Sidechain
1	AA	1046	A	Sidechain
1	AA	1047	G	Sidechain
1	AA	105	G	Sidechain
1	AA	1050	G	Sidechain
1	AA	1051	C	Sidechain
1	AA	1053	G	Sidechain
1	AA	1055	A	Sidechain
1	AA	1056	U	Sidechain
1	AA	1057	G	Sidechain
1	AA	106	C	Sidechain
1	AA	1060	U	Sidechain
1	AA	1061	G	Sidechain
1	AA	1063	C	Sidechain
1	AA	1064	G	Sidechain
1	AA	1065	U	Sidechain
1	AA	1066	C	Sidechain
1	AA	1067	A	Sidechain
1	AA	1069	C	Sidechain
1	AA	107	G	Sidechain
1	AA	1070	U	Sidechain
1	AA	1071	C	Sidechain
1	AA	1072	G	Sidechain
1	AA	1073	U	Sidechain
1	AA	1074	G	Sidechain
1	AA	1076	U	Sidechain
1	AA	1077	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	108	G	Sidechain
1	AA	1082	A	Sidechain
1	AA	1083	U	Sidechain
1	AA	1084	G	Sidechain
1	AA	1087	G	Sidechain
1	AA	1089	G	Sidechain
1	AA	109	A	Sidechain
1	AA	1092	A	Sidechain
1	AA	1093	A	Sidechain
1	AA	1094	G	Sidechain
1	AA	1096	C	Sidechain
1	AA	1099	G	Sidechain
1	AA	1100	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	111	G	Sidechain
1	AA	1114	C	Sidechain
1	AA	1115	U	Sidechain
1	AA	1116	U	Sidechain
1	AA	1119	C	Sidechain
1	AA	1120	C	Sidechain
1	AA	1121	U	Sidechain
1	AA	1124	G	Sidechain
1	AA	1125	U	Sidechain
1	AA	1126	U	Sidechain
1	AA	113	G	Sidechain
1	AA	1130	A	Sidechain
1	AA	1132	C	Sidechain
1	AA	1133	G	Sidechain
1	AA	1134	G	Sidechain
1	AA	1137	C	Sidechain
1	AA	1138	G	Sidechain
1	AA	1139	G	Sidechain
1	AA	114	U	Sidechain
1	AA	1141	C	Sidechain
1	AA	1143	G	Sidechain
1	AA	1145	A	Sidechain
1	AA	1148	U	Sidechain
1	AA	115	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1158	C	Sidechain
1	AA	1159	U	Sidechain
1	AA	116	A	Sidechain
1	AA	1163	A	Sidechain
1	AA	1166	G	Sidechain
1	AA	1167	A	Sidechain
1	AA	1168	U	Sidechain
1	AA	1170	A	Sidechain
1	AA	1171	A	Sidechain
1	AA	1172	C	Sidechain
1	AA	1174	G	Sidechain
1	AA	1175	G	Sidechain
1	AA	1177	G	Sidechain
1	AA	1178	G	Sidechain
1	AA	1179	A	Sidechain
1	AA	118	U	Sidechain
1	AA	1180	A	Sidechain
1	AA	1181	G	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	119	A	Sidechain
1	AA	1190	G	Sidechain
1	AA	1192	C	Sidechain
1	AA	1198	G	Sidechain
1	AA	1199	U	Sidechain
1	AA	120	A	Sidechain
1	AA	1200	C	Sidechain
1	AA	1201	A	Sidechain
1	AA	1204	A	Sidechain
1	AA	1208	C	Sidechain
1	AA	121	U	Sidechain
1	AA	1210	C	Sidechain
1	AA	1214	C	Sidechain
1	AA	1216	A	Sidechain
1	AA	1217	C	Sidechain
1	AA	1219	A	Sidechain
1	AA	122	G	Sidechain
1	AA	1221	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1222	G	Sidechain
1	AA	1223	C	Sidechain
1	AA	1224	U	Sidechain
1	AA	1225	A	Sidechain
1	AA	1227	A	Sidechain
1	AA	123	U	Sidechain
1	AA	1230	C	Sidechain
1	AA	1232	U	Sidechain
1	AA	1233	G	Sidechain
1	AA	1235	U	Sidechain
1	AA	1236	A	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	1245	C	Sidechain
1	AA	1246	A	Sidechain
1	AA	1248	A	Sidechain
1	AA	1249	C	Sidechain
1	AA	1250	A	Sidechain
1	AA	1253	G	Sidechain
1	AA	1255	G	Sidechain
1	AA	1256	A	Sidechain
1	AA	1257	A	Sidechain
1	AA	1258	G	Sidechain
1	AA	1261	A	Sidechain
1	AA	1266	G	Sidechain
1	AA	1267	C	Sidechain
1	AA	1268	G	Sidechain
1	AA	1269	A	Sidechain
1	AA	1270	G	Sidechain
1	AA	1271	A	Sidechain
1	AA	1272	G	Sidechain
1	AA	1273	C	Sidechain
1	AA	1277	C	Sidechain
1	AA	1278	G	Sidechain
1	AA	1279	G	Sidechain
1	AA	128	G	Sidechain
1	AA	1284	C	Sidechain
1	AA	1285	A	Sidechain
1	AA	1286	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1287	A	Sidechain
1	AA	1288	A	Sidechain
1	AA	1290	G	Sidechain
1	AA	1291	U	Sidechain
1	AA	1294	G	Sidechain
1	AA	1297	G	Sidechain
1	AA	1298	U	Sidechain
1	AA	1300	G	Sidechain
1	AA	1302	C	Sidechain
1	AA	1303	C	Sidechain
1	AA	1304	G	Sidechain
1	AA	1305	G	Sidechain
1	AA	1306	A	Sidechain
1	AA	1308	U	Sidechain
1	AA	1309	G	Sidechain
1	AA	1312	G	Sidechain
1	AA	1313	U	Sidechain
1	AA	1314	C	Sidechain
1	AA	1316	G	Sidechain
1	AA	1319	A	Sidechain
1	AA	132	C	Sidechain
1	AA	1321	U	Sidechain
1	AA	1322	C	Sidechain
1	AA	1323	G	Sidechain
1	AA	1326	U	Sidechain
1	AA	1327	C	Sidechain
1	AA	1328	C	Sidechain
1	AA	133	U	Sidechain
1	AA	1331	G	Sidechain
1	AA	1333	A	Sidechain
1	AA	1335	U	Sidechain
1	AA	1338	G	Sidechain
1	AA	1339	A	Sidechain
1	AA	134	G	Sidechain
1	AA	1345	U	Sidechain
1	AA	1346	A	Sidechain
1	AA	1348	U	Sidechain
1	AA	1349	A	Sidechain
1	AA	1350	A	Sidechain
1	AA	1351	U	Sidechain
1	AA	1353	G	Sidechain
1	AA	1355	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1357	A	Sidechain
1	AA	1358	U	Sidechain
1	AA	1360	A	Sidechain
1	AA	1361	G	Sidechain
1	AA	1362	A	Sidechain
1	AA	1364	U	Sidechain
1	AA	1365	G	Sidechain
1	AA	1366	C	Sidechain
1	AA	1367	C	Sidechain
1	AA	1368	A	Sidechain
1	AA	1369	C	Sidechain
1	AA	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	138	G	Sidechain
1	AA	1383	C	Sidechain
1	AA	1385	G	Sidechain
1	AA	1387	G	Sidechain
1	AA	1388	C	Sidechain
1	AA	1389	C	Sidechain
1	AA	139	A	Sidechain
1	AA	1390	U	Sidechain
1	AA	1391	U	Sidechain
1	AA	1392	G	Sidechain
1	AA	1393	U	Sidechain
1	AA	1395	C	Sidechain
1	AA	1396	A	Sidechain
1	AA	1399	C	Sidechain
1	AA	14	U	Sidechain
1	AA	1400	C	Sidechain
1	AA	1403	C	Sidechain
1	AA	1405	G	Sidechain
1	AA	141	G	Sidechain
1	AA	1410	A	Sidechain
1	AA	1411	C	Sidechain
1	AA	1412	C	Sidechain
1	AA	1415	G	Sidechain
1	AA	1416	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1417	G	Sidechain
1	AA	1418	A	Sidechain
1	AA	1419	G	Sidechain
1	AA	142	G	Sidechain
1	AA	1420	U	Sidechain
1	AA	1421	G	Sidechain
1	AA	1423	G	Sidechain
1	AA	1424	U	Sidechain
1	AA	1425	U	Sidechain
1	AA	1427	C	Sidechain
1	AA	1429	A	Sidechain
1	AA	1430	A	Sidechain
1	AA	1431	A	Sidechain
1	AA	1435	G	Sidechain
1	AA	1436	U	Sidechain
1	AA	1438	G	Sidechain
1	AA	1439	G	Sidechain
1	AA	1440	U	Sidechain
1	AA	1442	G	Sidechain
1	AA	1445	U	Sidechain
1	AA	1446	A	Sidechain
1	AA	1447	A	Sidechain
1	AA	1449	C	Sidechain
1	AA	1450	U	Sidechain
1	AA	1452	C	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	1459	G	Sidechain
1	AA	146	G	Sidechain
1	AA	1461	G	Sidechain
1	AA	1463	U	Sidechain
1	AA	1464	U	Sidechain
1	AA	1468	A	Sidechain
1	AA	1471	U	Sidechain
1	AA	1474	U	Sidechain
1	AA	1478	U	Sidechain
1	AA	1482	G	Sidechain
1	AA	1484	C	Sidechain
1	AA	1486	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1487	G	Sidechain
1	AA	1489	G	Sidechain
1	AA	1490	U	Sidechain
1	AA	1491	G	Sidechain
1	AA	1493	A	Sidechain
1	AA	1494	G	Sidechain
1	AA	1495	U	Sidechain
1	AA	1496	C	Sidechain
1	AA	1497	G	Sidechain
1	AA	1499	A	Sidechain
1	AA	15	G	Sidechain
1	AA	1502	A	Sidechain
1	AA	1504	G	Sidechain
1	AA	1506	U	Sidechain
1	AA	1507	A	Sidechain
1	AA	1508	A	Sidechain
1	AA	1509	C	Sidechain
1	AA	1511	G	Sidechain
1	AA	1512	U	Sidechain
1	AA	1513	A	Sidechain
1	AA	1514	G	Sidechain
1	AA	1517	G	Sidechain
1	AA	152	A	Sidechain
1	AA	1520	C	Sidechain
1	AA	1523	G	Sidechain
1	AA	1524	C	Sidechain
1	AA	1525	G	Sidechain
1	AA	1526	G	Sidechain
1	AA	1528	U	Sidechain
1	AA	1529	G	Sidechain
1	AA	1530	G	Sidechain
1	AA	1531	A	Sidechain
1	AA	1532	U	Sidechain
1	AA	1533	C	Sidechain
1	AA	1535	C	Sidechain
1	AA	1537	U	Sidechain
1	AA	1539	C	Sidechain
1	AA	158	G	Sidechain
1	AA	16	A	Sidechain
1	AA	163	C	Sidechain
1	AA	164	G	Sidechain
1	AA	165	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	168	G	Sidechain
1	AA	169	C	Sidechain
1	AA	172	A	Sidechain
1	AA	176	C	Sidechain
1	AA	177	G	Sidechain
1	AA	178	C	Sidechain
1	AA	179	A	Sidechain
1	AA	182	A	Sidechain
1	AA	183	C	Sidechain
1	AA	184	G	Sidechain
1	AA	185	U	Sidechain
1	AA	186	C	Sidechain
1	AA	187	G	Sidechain
1	AA	188	C	Sidechain
1	AA	191	G	Sidechain
1	AA	193	C	Sidechain
1	AA	195	A	Sidechain
1	AA	196	A	Sidechain
1	AA	197	A	Sidechain
1	AA	198	G	Sidechain
1	AA	2	A	Sidechain
1	AA	200	G	Sidechain
1	AA	202	G	Sidechain
1	AA	203	G	Sidechain
1	AA	204	G	Sidechain
1	AA	205	A	Sidechain
1	AA	207	C	Sidechain
1	AA	208	U	Sidechain
1	AA	21	G	Sidechain
1	AA	211	G	Sidechain
1	AA	212	G	Sidechain
1	AA	215	C	Sidechain
1	AA	216	U	Sidechain
1	AA	218	U	Sidechain
1	AA	219	U	Sidechain
1	AA	22	G	Sidechain
1	AA	220	G	Sidechain
1	AA	222	C	Sidechain
1	AA	223	A	Sidechain
1	AA	224	U	Sidechain
1	AA	225	C	Sidechain
1	AA	226	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	227	G	Sidechain
1	AA	228	A	Sidechain
1	AA	229	U	Sidechain
1	AA	230	G	Sidechain
1	AA	231	U	Sidechain
1	AA	232	G	Sidechain
1	AA	233	C	Sidechain
1	AA	238	A	Sidechain
1	AA	239	U	Sidechain
1	AA	24	U	Sidechain
1	AA	240	G	Sidechain
1	AA	243	A	Sidechain
1	AA	244	U	Sidechain
1	AA	246	A	Sidechain
1	AA	249	U	Sidechain
1	AA	250	A	Sidechain
1	AA	251	G	Sidechain
1	AA	254	G	Sidechain
1	AA	257	G	Sidechain
1	AA	258	G	Sidechain
1	AA	259	G	Sidechain
1	AA	26	A	Sidechain
1	AA	260	G	Sidechain
1	AA	261	U	Sidechain
1	AA	263	A	Sidechain
1	AA	264	C	Sidechain
1	AA	265	G	Sidechain
1	AA	266	G	Sidechain
1	AA	269	C	Sidechain
1	AA	271	C	Sidechain
1	AA	272	C	Sidechain
1	AA	274	A	Sidechain
1	AA	278	G	Sidechain
1	AA	279	A	Sidechain
1	AA	283	U	Sidechain
1	AA	285	C	Sidechain
1	AA	287	U	Sidechain
1	AA	288	A	Sidechain
1	AA	289	G	Sidechain
1	AA	290	C	Sidechain
1	AA	292	G	Sidechain
1	AA	295	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	296	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	302	G	Sidechain
1	AA	303	A	Sidechain
1	AA	304	U	Sidechain
1	AA	305	G	Sidechain
1	AA	307	C	Sidechain
1	AA	310	G	Sidechain
1	AA	316	C	Sidechain
1	AA	317	U	Sidechain
1	AA	318	G	Sidechain
1	AA	319	G	Sidechain
1	AA	321	A	Sidechain
1	AA	322	C	Sidechain
1	AA	323	U	Sidechain
1	AA	326	G	Sidechain
1	AA	327	A	Sidechain
1	AA	328	C	Sidechain
1	AA	33	A	Sidechain
1	AA	330	C	Sidechain
1	AA	331	G	Sidechain
1	AA	335	C	Sidechain
1	AA	336	A	Sidechain
1	AA	337	G	Sidechain
1	AA	34	C	Sidechain
1	AA	345	C	Sidechain
1	AA	348	G	Sidechain
1	AA	35	G	Sidechain
1	AA	350	G	Sidechain
1	AA	351	G	Sidechain
1	AA	352	C	Sidechain
1	AA	353	A	Sidechain
1	AA	354	G	Sidechain
1	AA	355	C	Sidechain
1	AA	356	A	Sidechain
1	AA	358	U	Sidechain
1	AA	359	G	Sidechain
1	AA	361	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	364	A	Sidechain
1	AA	365	U	Sidechain
1	AA	368	U	Sidechain
1	AA	369	G	Sidechain
1	AA	372	C	Sidechain
1	AA	373	A	Sidechain
1	AA	374	A	Sidechain
1	AA	375	U	Sidechain
1	AA	377	G	Sidechain
1	AA	379	C	Sidechain
1	AA	38	G	Sidechain
1	AA	381	C	Sidechain
1	AA	382	A	Sidechain
1	AA	384	G	Sidechain
1	AA	385	C	Sidechain
1	AA	387	U	Sidechain
1	AA	388	G	Sidechain
1	AA	389	A	Sidechain
1	AA	390	U	Sidechain
1	AA	391	G	Sidechain
1	AA	392	C	Sidechain
1	AA	393	A	Sidechain
1	AA	394	G	Sidechain
1	AA	395	C	Sidechain
1	AA	396	C	Sidechain
1	AA	403	C	Sidechain
1	AA	404	G	Sidechain
1	AA	405	U	Sidechain
1	AA	406	G	Sidechain
1	AA	41	G	Sidechain
1	AA	410	G	Sidechain
1	AA	411	A	Sidechain
1	AA	413	G	Sidechain
1	AA	414	A	Sidechain
1	AA	416	G	Sidechain
1	AA	417	G	Sidechain
1	AA	418	C	Sidechain
1	AA	419	C	Sidechain
1	AA	421	U	Sidechain
1	AA	422	C	Sidechain
1	AA	423	G	Sidechain
1	AA	425	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	426	U	Sidechain
1	AA	429	U	Sidechain
1	AA	430	A	Sidechain
1	AA	431	A	Sidechain
1	AA	433	G	Sidechain
1	AA	434	U	Sidechain
1	AA	437	U	Sidechain
1	AA	438	U	Sidechain
1	AA	439	U	Sidechain
1	AA	440	C	Sidechain
1	AA	444	G	Sidechain
1	AA	445	G	Sidechain
1	AA	447	G	Sidechain
1	AA	448	A	Sidechain
1	AA	450	G	Sidechain
1	AA	452	A	Sidechain
1	AA	453	G	Sidechain
1	AA	454	G	Sidechain
1	AA	455	G	Sidechain
1	AA	457	G	Sidechain
1	AA	461	A	Sidechain
1	AA	462	G	Sidechain
1	AA	465	A	Sidechain
1	AA	466	A	Sidechain
1	AA	47	C	Sidechain
1	AA	471	U	Sidechain
1	AA	472	U	Sidechain
1	AA	473	U	Sidechain
1	AA	474	G	Sidechain
1	AA	476	U	Sidechain
1	AA	478	A	Sidechain
1	AA	48	C	Sidechain
1	AA	480	U	Sidechain
1	AA	481	G	Sidechain
1	AA	482	A	Sidechain
1	AA	488	C	Sidechain
1	AA	489	C	Sidechain
1	AA	49	U	Sidechain
1	AA	490	C	Sidechain
1	AA	495	A	Sidechain
1	AA	497	G	Sidechain
1	AA	498	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5	U	Sidechain
1	AA	50	A	Sidechain
1	AA	500	G	Sidechain
1	AA	501	C	Sidechain
1	AA	502	A	Sidechain
1	AA	503	C	Sidechain
1	AA	504	C	Sidechain
1	AA	505	G	Sidechain
1	AA	506	G	Sidechain
1	AA	508	U	Sidechain
1	AA	509	A	Sidechain
1	AA	510	A	Sidechain
1	AA	511	C	Sidechain
1	AA	512	U	Sidechain
1	AA	515	G	Sidechain
1	AA	517	G	Sidechain
1	AA	518	C	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	525	C	Sidechain
1	AA	529	G	Sidechain
1	AA	53	A	Sidechain
1	AA	530	G	Sidechain
1	AA	531	U	Sidechain
1	AA	532	A	Sidechain
1	AA	534	U	Sidechain
1	AA	538	G	Sidechain
1	AA	539	A	Sidechain
1	AA	54	C	Sidechain
1	AA	541	G	Sidechain
1	AA	542	G	Sidechain
1	AA	544	G	Sidechain
1	AA	545	C	Sidechain
1	AA	546	A	Sidechain
1	AA	547	A	Sidechain
1	AA	55	A	Sidechain
1	AA	550	G	Sidechain
1	AA	551	U	Sidechain
1	AA	554	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	556	C	Sidechain
1	AA	561	U	Sidechain
1	AA	562	U	Sidechain
1	AA	563	A	Sidechain
1	AA	564	C	Sidechain
1	AA	565	U	Sidechain
1	AA	566	G	Sidechain
1	AA	567	G	Sidechain
1	AA	569	C	Sidechain
1	AA	57	G	Sidechain
1	AA	570	G	Sidechain
1	AA	571	U	Sidechain
1	AA	572	A	Sidechain
1	AA	573	A	Sidechain
1	AA	574	A	Sidechain
1	AA	576	C	Sidechain
1	AA	577	G	Sidechain
1	AA	579	A	Sidechain
1	AA	580	C	Sidechain
1	AA	582	C	Sidechain
1	AA	583	A	Sidechain
1	AA	584	G	Sidechain
1	AA	585	G	Sidechain
1	AA	587	G	Sidechain
1	AA	588	G	Sidechain
1	AA	59	A	Sidechain
1	AA	590	U	Sidechain
1	AA	592	G	Sidechain
1	AA	593	U	Sidechain
1	AA	594	U	Sidechain
1	AA	595	A	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	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	615	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	616	G	Sidechain
1	AA	617	G	Sidechain
1	AA	618	C	Sidechain
1	AA	619	U	Sidechain
1	AA	62	U	Sidechain
1	AA	622	A	Sidechain
1	AA	623	C	Sidechain
1	AA	625	U	Sidechain
1	AA	626	G	Sidechain
1	AA	627	G	Sidechain
1	AA	628	G	Sidechain
1	AA	629	A	Sidechain
1	AA	630	A	Sidechain
1	AA	633	G	Sidechain
1	AA	634	C	Sidechain
1	AA	636	U	Sidechain
1	AA	637	C	Sidechain
1	AA	639	G	Sidechain
1	AA	640	A	Sidechain
1	AA	641	U	Sidechain
1	AA	642	A	Sidechain
1	AA	644	U	Sidechain
1	AA	645	G	Sidechain
1	AA	646	G	Sidechain
1	AA	647	C	Sidechain
1	AA	65	A	Sidechain
1	AA	650	G	Sidechain
1	AA	652	U	Sidechain
1	AA	653	U	Sidechain
1	AA	656	G	Sidechain
1	AA	66	A	Sidechain
1	AA	660	C	Sidechain
1	AA	661	G	Sidechain
1	AA	662	U	Sidechain
1	AA	664	G	Sidechain
1	AA	665	A	Sidechain
1	AA	666	G	Sidechain
1	AA	667	G	Sidechain
1	AA	668	G	Sidechain
1	AA	669	G	Sidechain
1	AA	670	G	Sidechain
1	AA	671	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	672	U	Sidechain
1	AA	673	A	Sidechain
1	AA	674	G	Sidechain
1	AA	676	A	Sidechain
1	AA	677	U	Sidechain
1	AA	678	U	Sidechain
1	AA	68	G	Sidechain
1	AA	681	A	Sidechain
1	AA	682	G	Sidechain
1	AA	684	U	Sidechain
1	AA	685	G	Sidechain
1	AA	686	U	Sidechain
1	AA	687	A	Sidechain
1	AA	688	G	Sidechain
1	AA	689	C	Sidechain
1	AA	690	G	Sidechain
1	AA	691	G	Sidechain
1	AA	693	G	Sidechain
1	AA	695	A	Sidechain
1	AA	696	A	Sidechain
1	AA	697	U	Sidechain
1	AA	7	A	Sidechain
1	AA	700	G	Sidechain
1	AA	703	G	Sidechain
1	AA	704	A	Sidechain
1	AA	705	G	Sidechain
1	AA	707	U	Sidechain
1	AA	709	U	Sidechain
1	AA	710	G	Sidechain
1	AA	712	A	Sidechain
1	AA	717	U	Sidechain
1	AA	718	A	Sidechain
1	AA	719	C	Sidechain
1	AA	72	A	Sidechain
1	AA	721	G	Sidechain
1	AA	722	G	Sidechain
1	AA	723	U	Sidechain
1	AA	725	G	Sidechain
1	AA	726	C	Sidechain
1	AA	727	G	Sidechain
1	AA	728	A	Sidechain
1	AA	729	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	73	C	Sidechain
1	AA	730	G	Sidechain
1	AA	731	G	Sidechain
1	AA	732	C	Sidechain
1	AA	733	G	Sidechain
1	AA	734	G	Sidechain
1	AA	736	C	Sidechain
1	AA	737	C	Sidechain
1	AA	738	C	Sidechain
1	AA	74	A	Sidechain
1	AA	740	U	Sidechain
1	AA	742	G	Sidechain
1	AA	744	C	Sidechain
1	AA	748	G	Sidechain
1	AA	75	G	Sidechain
1	AA	750	C	Sidechain
1	AA	751	U	Sidechain
1	AA	752	G	Sidechain
1	AA	755	G	Sidechain
1	AA	758	C	Sidechain
1	AA	76	G	Sidechain
1	AA	761	G	Sidechain
1	AA	762	U	Sidechain
1	AA	763	G	Sidechain
1	AA	764	C	Sidechain
1	AA	765	G	Sidechain
1	AA	767	A	Sidechain
1	AA	769	G	Sidechain
1	AA	770	C	Sidechain
1	AA	771	G	Sidechain
1	AA	772	U	Sidechain
1	AA	773	G	Sidechain
1	AA	775	G	Sidechain
1	AA	776	G	Sidechain
1	AA	778	G	Sidechain
1	AA	779	C	Sidechain
1	AA	78	A	Sidechain
1	AA	780	A	Sidechain
1	AA	785	G	Sidechain
1	AA	786	G	Sidechain
1	AA	787	A	Sidechain
1	AA	788	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	789	U	Sidechain
1	AA	79	G	Sidechain
1	AA	790	A	Sidechain
1	AA	791	G	Sidechain
1	AA	793	U	Sidechain
1	AA	794	A	Sidechain
1	AA	796	C	Sidechain
1	AA	798	U	Sidechain
1	AA	8	A	Sidechain
1	AA	800	G	Sidechain
1	AA	801	U	Sidechain
1	AA	803	G	Sidechain
1	AA	81	A	Sidechain
1	AA	810	C	Sidechain
1	AA	811	C	Sidechain
1	AA	812	G	Sidechain
1	AA	814	A	Sidechain
1	AA	815	A	Sidechain
1	AA	817	C	Sidechain
1	AA	818	G	Sidechain
1	AA	82	G	Sidechain
1	AA	821	G	Sidechain
1	AA	825	A	Sidechain
1	AA	827	U	Sidechain
1	AA	828	U	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	836	G	Sidechain
1	AA	838	G	Sidechain
1	AA	84	U	Sidechain
1	AA	840	C	Sidechain
1	AA	841	C	Sidechain
1	AA	842	U	Sidechain
1	AA	844	G	Sidechain
1	AA	846	G	Sidechain
1	AA	849	G	Sidechain
1	AA	850	U	Sidechain
1	AA	851	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	852	G	Sidechain
1	AA	853	C	Sidechain
1	AA	854	U	Sidechain
1	AA	855	U	Sidechain
1	AA	856	C	Sidechain
1	AA	857	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	864	A	Sidechain
1	AA	865	A	Sidechain
1	AA	869	G	Sidechain
1	AA	87	C	Sidechain
1	AA	871	U	Sidechain
1	AA	873	A	Sidechain
1	AA	874	G	Sidechain
1	AA	876	C	Sidechain
1	AA	878	A	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	890	G	Sidechain
1	AA	891	U	Sidechain
1	AA	892	A	Sidechain
1	AA	894	G	Sidechain
1	AA	895	G	Sidechain
1	AA	896	C	Sidechain
1	AA	897	C	Sidechain
1	AA	9	G	Sidechain
1	AA	900	A	Sidechain
1	AA	902	G	Sidechain
1	AA	903	G	Sidechain
1	AA	908	A	Sidechain
1	AA	91	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	912	C	Sidechain
1	AA	914	A	Sidechain
1	AA	915	A	Sidechain
1	AA	916	U	Sidechain
1	AA	917	G	Sidechain
1	AA	919	A	Sidechain
1	AA	921	U	Sidechain
1	AA	922	G	Sidechain
1	AA	923	A	Sidechain
1	AA	924	C	Sidechain
1	AA	927	G	Sidechain
1	AA	928	G	Sidechain
1	AA	929	G	Sidechain
1	AA	93	U	Sidechain
1	AA	930	C	Sidechain
1	AA	932	C	Sidechain
1	AA	934	C	Sidechain
1	AA	937	A	Sidechain
1	AA	938	A	Sidechain
1	AA	94	G	Sidechain
1	AA	941	G	Sidechain
1	AA	942	G	Sidechain
1	AA	944	G	Sidechain
1	AA	945	G	Sidechain
1	AA	947	G	Sidechain
1	AA	950	U	Sidechain
1	AA	951	G	Sidechain
1	AA	952	U	Sidechain
1	AA	953	G	Sidechain
1	AA	958	A	Sidechain
1	AA	959	A	Sidechain
1	AA	961	U	Sidechain
1	AA	968	A	Sidechain
1	AA	969	A	Sidechain
1	AA	97	G	Sidechain
1	AA	970	C	Sidechain
1	AA	971	G	Sidechain
1	AA	972	C	Sidechain
1	AA	974	A	Sidechain
1	AA	975	A	Sidechain
1	AA	978	A	Sidechain
1	AA	979	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	980	C	Sidechain
1	AA	981	U	Sidechain
1	AA	983	A	Sidechain
1	AA	984	C	Sidechain
1	AA	987	G	Sidechain
1	AA	988	G	Sidechain
1	AA	989	U	Sidechain
1	AA	99	C	Sidechain
1	AA	990	C	Sidechain
1	AA	992	U	Sidechain
1	AA	993	G	Sidechain
1	AA	995	C	Sidechain
1	AA	997	U	Sidechain
2	AB	1	A	Sidechain
2	AB	12	U	Sidechain
2	AB	18	G	Sidechain
2	AB	19	G	Sidechain
2	AB	21	A	Sidechain
2	AB	22	G	Sidechain
2	AB	24	G	Sidechain
2	AB	26	A	Sidechain
2	AB	27	C	Sidechain
2	AB	29	G	Sidechain
2	AB	30	G	Sidechain
2	AB	34	C	Sidechain
2	AB	35	C	Sidechain
2	AB	36	A	Sidechain
2	AB	38	A	Sidechain
2	AB	39	A	Sidechain
2	AB	4	G	Sidechain
2	AB	40	C	Sidechain
2	AB	42	G	Sidechain
2	AB	43	G	Sidechain
2	AB	44	G	Sidechain
2	AB	45	U	Sidechain
2	AB	47	U	Sidechain
2	AB	48	U	Sidechain
2	AB	49	G	Sidechain
2	AB	5	G	Sidechain
2	AB	51	G	Sidechain
2	AB	52	A	Sidechain
2	AB	53	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	57	G	Sidechain
2	AB	58	A	Sidechain
2	AB	59	G	Sidechain
2	AB	61	C	Sidechain
2	AB	62	U	Sidechain
2	AB	64	U	Sidechain
2	AB	66	C	Sidechain
2	AB	67	G	Sidechain
2	AB	7	G	Sidechain
2	AB	70	C	Sidechain
2	AB	72	U	Sidechain
2	AB	73	G	Sidechain
2	AB	74	C	Sidechain
2	AB	76	A	Sidechain
3	AC	14	G	Sidechain
3	AC	15	G	Sidechain
3	AC	16	A	Sidechain
3	AC	17	U	Sidechain
3	AC	18	A	Sidechain
3	AC	20	G	Sidechain
3	AC	22	G	Sidechain
3	AC	23	C	Sidechain
3	AC	24	A	Sidechain
3	AC	25	U	Sidechain
3	AC	28	U	Sidechain
3	AC	29	G	Sidechain
3	AC	32	U	Sidechain
3	AC	33	A	Sidechain
3	AC	34	U	Sidechain
3	AC	35	G	Sidechain
3	AC	37	G	Sidechain
3	AC	38	G	Sidechain
3	AC	39	U	Sidechain
3	AC	40	G	Sidechain
3	AC	41	A	Sidechain
3	AC	44	U	Sidechain
3	AC	47	C	Sidechain
3	AC	48	C	Sidechain
3	AC	49	U	Sidechain
3	AC	51	C	Sidechain
3	AC	53	G	Sidechain
3	AC	55	A	Sidechain

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Mol	Chain	Res	Type	Group
3	AC	56	G	Sidechain
3	AC	58	C	Sidechain
4	AD	1	C	Sidechain
4	AD	10	G	Sidechain
4	AD	11	A	Sidechain
4	AD	12	G	Sidechain
4	AD	13	C	Sidechain
4	AD	14	A	Sidechain
4	AD	16	C	Sidechain
4	AD	19	G	Sidechain
4	AD	2	G	Sidechain
4	AD	22	A	Sidechain
4	AD	23	G	Sidechain
4	AD	24	C	Sidechain
4	AD	27	G	Sidechain
4	AD	35	C	Sidechain
4	AD	39	A	Sidechain
4	AD	4	G	Sidechain
4	AD	43	G	Sidechain
4	AD	47	A	Sidechain
4	AD	49	C	Sidechain
4	AD	5	G	Sidechain
4	AD	51	U	Sidechain
4	AD	53	G	Sidechain
4	AD	58	A	Sidechain
4	AD	59	A	Sidechain
4	AD	6	G	Sidechain
4	AD	60	A	Sidechain
4	AD	63	C	Sidechain
4	AD	64	G	Sidechain
4	AD	67	C	Sidechain
4	AD	69	C	Sidechain
4	AD	7	G	Sidechain
4	AD	70	C	Sidechain
4	AD	71	G	Sidechain
4	AD	72	C	Sidechain
4	AD	74	A	Sidechain
4	AD	77	A	Sidechain
4	AD	9	G	Sidechain
5	AE	15	PHE	Sidechain
6	AF	178	ARG	Sidechain
6	AF	28	PHE	Sidechain

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Mol	Chain	Res	Type	Group
6	AF	71	ARG	Sidechain
7	AG	103	ARG	Sidechain
7	AG	119	HIS	Mainchain
7	AG	12	ARG	Sidechain
7	AG	134	TYR	Sidechain
7	AG	163	GLN	Peptide
7	AG	202	LEU	Mainchain
7	AG	203	TYR	Sidechain
7	AG	74	TYR	Sidechain
7	AG	75	TYR	Sidechain
8	AH	123	LEU	Mainchain
8	AH	49	TYR	Sidechain
9	AI	101	PRO	Mainchain
9	AI	111	GLU	Peptide
9	AI	116	PHE	Sidechain
9	AI	64	VAL	Peptide
9	AI	8	PHE	Sidechain
10	AJ	153	TYR	Sidechain
10	AJ	175	GLY	Peptide
10	AJ	3	ARG	Sidechain
10	AJ	52	ARG	Sidechain
10	AJ	69	ARG	Sidechain
10	AJ	95	ARG	Sidechain
11	AK	44	PHE	Peptide
11	AK	64	TYR	Sidechain
12	AL	121	ARG	Sidechain
12	AL	123	ARG	Sidechain
12	AL	129	ARG	Sidechain
13	AM	15	HIS	Sidechain
13	AM	65	TYR	Sidechain
14	AN	26	PHE	Sidechain
14	AN	36	ARG	Sidechain
14	AN	6	ARG	Sidechain
14	AN	97	ARG	Sidechain
15	AO	116	TYR	Sidechain,Peptide
15	AO	14	LYS	Peptide
15	AO	37	TYR	Peptide
15	AO	49	ARG	Sidechain
15	AO	53	ARG	Sidechain
15	AO	55	ARG	Sidechain
15	AO	65	TYR	Sidechain
15	AO	82	ARG	Sidechain

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Mol	Chain	Res	Type	Group
16	AP	101	THR	Mainchain
16	AP	7	ASN	Peptide
16	AP	85	TYR	Sidechain
16	AP	89	ARG	Sidechain
17	AQ	89	ARG	Sidechain
18	AR	42	PHE	Peptide
18	AR	57	ARG	Sidechain
18	AR	79	ARG	Sidechain
19	AS	16	PHE	Sidechain
19	AS	32	PHE	Sidechain
19	AS	56	ARG	Sidechain
20	AT	33	TYR	Sidechain
20	AT	39	ARG	Sidechain
21	AU	10	CYS	Peptide
21	AU	5	ARG	Sidechain
21	AU	56	ARG	Sidechain
21	AU	69	TYR	Sidechain,Peptide
22	AV	36	ARG	Sidechain
22	AV	77	ARG	Sidechain
22	AV	87	LYS	Peptide
23	AW	35	TYR	Sidechain
23	AW	9	ARG	Sidechain
24	AX	11	PHE	Sidechain
24	AX	17	ARG	Sidechain
24	AX	33	ARG	Sidechain
24	AX	69	LEU	Peptide
51	B0	41	HIS	Sidechain
53	B2	32	LEU	Mainchain
53	B2	43	PHE	Peptide
53	B2	44	PHE	Sidechain
53	B2	56	ARG	Sidechain
53	B2	9	TYR	Sidechain
54	B3	16	ARG	Sidechain
54	B3	18	HIS	Sidechain
54	B3	39	ARG	Sidechain
54	B3	47	TYR	Sidechain
55	B4	43	ARG	Sidechain
55	B4	48	TYR	Sidechain
55	B4	5	ARG	Sidechain
56	B5	15	SER	Peptide
56	B5	41	ARG	Sidechain
57	B6	1	PRO	Peptide

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Mol	Chain	Res	Type	Group
25	BA	1	U	Sidechain
25	BA	103	U	Sidechain
25	BA	106	G	Sidechain
25	BA	108	A	Sidechain
25	BA	109	A	Sidechain
25	BA	110	C	Sidechain
25	BA	112	G	Sidechain
25	BA	113	C	Sidechain
25	BA	115	A	Sidechain
25	BA	117	G	Sidechain
25	BA	12	C	Sidechain
25	BA	13	G	Sidechain
25	BA	14	U	Sidechain
25	BA	15	A	Sidechain
25	BA	17	C	Sidechain
25	BA	19	C	Sidechain
25	BA	21	G	Sidechain
25	BA	24	G	Sidechain
25	BA	25	U	Sidechain
25	BA	26	C	Sidechain
25	BA	27	C	Sidechain
25	BA	29	A	Sidechain
25	BA	30	C	Sidechain
25	BA	32	U	Sidechain
25	BA	33	G	Sidechain
25	BA	34	A	Sidechain
25	BA	38	C	Sidechain
25	BA	4	C	Sidechain
25	BA	41	G	Sidechain
25	BA	43	C	Sidechain
25	BA	44	G	Sidechain
25	BA	45	A	Sidechain
25	BA	46	A	Sidechain
25	BA	48	U	Sidechain
25	BA	51	G	Sidechain
25	BA	52	A	Sidechain
25	BA	54	G	Sidechain
25	BA	60	C	Sidechain
25	BA	61	G	Sidechain
25	BA	64	G	Sidechain
25	BA	65	U	Sidechain
25	BA	66	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BA	67	G	Sidechain
25	BA	68	C	Sidechain
25	BA	69	G	Sidechain
25	BA	71	C	Sidechain
25	BA	75	G	Sidechain
25	BA	76	G	Sidechain
25	BA	77	U	Sidechain
25	BA	78	A	Sidechain
25	BA	8	C	Sidechain
25	BA	80	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	89	U	Sidechain
25	BA	90	C	Sidechain
25	BA	91	C	Sidechain
25	BA	93	C	Sidechain
25	BA	94	A	Sidechain
25	BA	95	U	Sidechain
25	BA	98	G	Sidechain
25	BA	99	A	Sidechain
26	BB	1	G	Sidechain
26	BB	10	A	Sidechain
26	BB	1000	A	Sidechain
26	BB	1003	G	Sidechain
26	BB	1004	U	Sidechain
26	BB	1010	A	Sidechain
26	BB	1011	G	Sidechain
26	BB	1019	U	Sidechain
26	BB	102	U	Sidechain
26	BB	1020	A	Sidechain
26	BB	1022	G	Sidechain
26	BB	1024	G	Sidechain
26	BB	1025	G	Sidechain
26	BB	1029	A	Sidechain
26	BB	103	A	Sidechain
26	BB	1031	G	Sidechain
26	BB	1032	A	Sidechain
26	BB	1034	G	Sidechain
26	BB	1035	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1036	G	Sidechain
26	BB	1037	G	Sidechain
26	BB	1038	G	Sidechain
26	BB	1041	G	Sidechain
26	BB	1042	G	Sidechain
26	BB	1043	C	Sidechain
26	BB	1045	C	Sidechain
26	BB	1046	A	Sidechain
26	BB	1047	G	Sidechain
26	BB	1048	A	Sidechain
26	BB	1050	A	Sidechain
26	BB	1051	G	Sidechain
26	BB	1053	C	Sidechain
26	BB	1055	G	Sidechain
26	BB	1056	G	Sidechain
26	BB	1057	A	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	1067	A	Sidechain
26	BB	1068	G	Sidechain
26	BB	1069	A	Sidechain
26	BB	107	G	Sidechain
26	BB	1070	A	Sidechain
26	BB	1072	C	Sidechain
26	BB	1074	G	Sidechain
26	BB	1075	C	Sidechain
26	BB	1078	U	Sidechain
26	BB	1081	U	Sidechain
26	BB	1083	U	Sidechain
26	BB	1087	G	Sidechain
26	BB	1088	A	Sidechain
26	BB	1089	A	Sidechain
26	BB	1090	A	Sidechain
26	BB	1091	G	Sidechain
26	BB	1092	C	Sidechain
26	BB	1093	G	Sidechain
26	BB	1096	A	Sidechain
26	BB	1099	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	110	G	Sidechain
26	BB	1100	C	Sidechain
26	BB	1101	U	Sidechain
26	BB	1102	C	Sidechain
26	BB	1104	C	Sidechain
26	BB	1105	U	Sidechain
26	BB	1106	G	Sidechain
26	BB	1109	C	Sidechain
26	BB	1110	G	Sidechain
26	BB	1111	A	Sidechain
26	BB	1114	C	Sidechain
26	BB	1115	G	Sidechain
26	BB	1116	G	Sidechain
26	BB	1117	C	Sidechain
26	BB	1118	C	Sidechain
26	BB	1119	U	Sidechain
26	BB	112	U	Sidechain
26	BB	1120	G	Sidechain
26	BB	1121	C	Sidechain
26	BB	1122	G	Sidechain
26	BB	1124	G	Sidechain
26	BB	1125	G	Sidechain
26	BB	1127	A	Sidechain
26	BB	1128	G	Sidechain
26	BB	1134	A	Sidechain
26	BB	1135	C	Sidechain
26	BB	1136	G	Sidechain
26	BB	1137	G	Sidechain
26	BB	1139	G	Sidechain
26	BB	114	U	Sidechain
26	BB	1141	U	Sidechain
26	BB	1147	A	Sidechain
26	BB	1149	G	Sidechain
26	BB	115	C	Sidechain
26	BB	1150	C	Sidechain
26	BB	1151	A	Sidechain
26	BB	1155	A	Sidechain
26	BB	1157	G	Sidechain
26	BB	116	C	Sidechain
26	BB	1163	G	Sidechain
26	BB	1164	C	Sidechain
26	BB	1165	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1166	G	Sidechain
26	BB	1169	A	Sidechain
26	BB	1171	G	Sidechain
26	BB	1173	U	Sidechain
26	BB	1174	U	Sidechain
26	BB	1176	U	Sidechain
26	BB	1177	G	Sidechain
26	BB	1178	C	Sidechain
26	BB	118	A	Sidechain
26	BB	1182	G	Sidechain
26	BB	1187	G	Sidechain
26	BB	119	A	Sidechain
26	BB	1190	G	Sidechain
26	BB	1192	G	Sidechain
26	BB	1197	G	Sidechain
26	BB	1199	U	Sidechain
26	BB	120	U	Sidechain
26	BB	1200	C	Sidechain
26	BB	1202	G	Sidechain
26	BB	1203	U	Sidechain
26	BB	1206	G	Sidechain
26	BB	1207	C	Sidechain
26	BB	1208	C	Sidechain
26	BB	1209	U	Sidechain
26	BB	1211	C	Sidechain
26	BB	1214	A	Sidechain
26	BB	1215	G	Sidechain
26	BB	1216	G	Sidechain
26	BB	1218	G	Sidechain
26	BB	122	G	Sidechain
26	BB	1220	G	Sidechain
26	BB	1223	G	Sidechain
26	BB	1224	U	Sidechain
26	BB	1225	G	Sidechain
26	BB	1226	A	Sidechain
26	BB	1227	G	Sidechain
26	BB	1228	G	Sidechain
26	BB	1229	C	Sidechain
26	BB	1231	U	Sidechain
26	BB	1232	G	Sidechain
26	BB	1237	A	Sidechain
26	BB	1238	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1239	G	Sidechain
26	BB	124	G	Sidechain
26	BB	1241	A	Sidechain
26	BB	1243	C	Sidechain
26	BB	1245	G	Sidechain
26	BB	1246	A	Sidechain
26	BB	1248	G	Sidechain
26	BB	125	A	Sidechain
26	BB	1251	C	Sidechain
26	BB	1253	A	Sidechain
26	BB	1255	U	Sidechain
26	BB	1257	C	Sidechain
26	BB	1258	U	Sidechain
26	BB	1259	G	Sidechain
26	BB	126	A	Sidechain
26	BB	1260	A	Sidechain
26	BB	1261	C	Sidechain
26	BB	1263	U	Sidechain
26	BB	1265	A	Sidechain
26	BB	1266	G	Sidechain
26	BB	1268	A	Sidechain
26	BB	127	A	Sidechain
26	BB	1271	G	Sidechain
26	BB	1274	A	Sidechain
26	BB	1276	A	Sidechain
26	BB	1284	A	Sidechain
26	BB	1286	A	Sidechain
26	BB	1287	A	Sidechain
26	BB	1288	G	Sidechain
26	BB	129	C	Sidechain
26	BB	1292	G	Sidechain
26	BB	1295	C	Sidechain
26	BB	1296	G	Sidechain
26	BB	1297	C	Sidechain
26	BB	130	C	Sidechain
26	BB	1300	G	Sidechain
26	BB	1301	A	Sidechain
26	BB	1302	A	Sidechain
26	BB	1303	G	Sidechain
26	BB	1306	C	Sidechain
26	BB	1310	G	Sidechain
26	BB	1313	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1314	C	Sidechain
26	BB	1315	C	Sidechain
26	BB	1316	U	Sidechain
26	BB	132	G	Sidechain
26	BB	1321	A	Sidechain
26	BB	1322	A	Sidechain
26	BB	1323	C	Sidechain
26	BB	1324	G	Sidechain
26	BB	1325	U	Sidechain
26	BB	1326	U	Sidechain
26	BB	133	U	Sidechain
26	BB	1330	C	Sidechain
26	BB	1331	G	Sidechain
26	BB	1332	G	Sidechain
26	BB	1333	G	Sidechain
26	BB	1334	G	Sidechain
26	BB	1335	C	Sidechain
26	BB	1336	A	Sidechain
26	BB	1337	G	Sidechain
26	BB	1338	G	Sidechain
26	BB	1339	G	Sidechain
26	BB	134	G	Sidechain
26	BB	1340	U	Sidechain
26	BB	1341	G	Sidechain
26	BB	1342	A	Sidechain
26	BB	1343	G	Sidechain
26	BB	1344	U	Sidechain
26	BB	1351	C	Sidechain
26	BB	1357	C	Sidechain
26	BB	1359	A	Sidechain
26	BB	136	G	Sidechain
26	BB	1360	G	Sidechain
26	BB	1361	G	Sidechain
26	BB	1363	C	Sidechain
26	BB	1364	G	Sidechain
26	BB	1367	A	Sidechain
26	BB	1370	C	Sidechain
26	BB	1371	G	Sidechain
26	BB	1374	G	Sidechain
26	BB	1376	C	Sidechain
26	BB	1377	G	Sidechain
26	BB	1378	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1379	U	Sidechain
26	BB	138	U	Sidechain
26	BB	1381	G	Sidechain
26	BB	1384	A	Sidechain
26	BB	1385	A	Sidechain
26	BB	1386	C	Sidechain
26	BB	1387	A	Sidechain
26	BB	1388	G	Sidechain
26	BB	1389	G	Sidechain
26	BB	1390	U	Sidechain
26	BB	1393	A	Sidechain
26	BB	1396	U	Sidechain
26	BB	1398	C	Sidechain
26	BB	14	A	Sidechain
26	BB	140	C	Sidechain
26	BB	1400	U	Sidechain
26	BB	1401	G	Sidechain
26	BB	1402	U	Sidechain
26	BB	1403	A	Sidechain
26	BB	1405	U	Sidechain
26	BB	1406	U	Sidechain
26	BB	141	G	Sidechain
26	BB	1410	G	Sidechain
26	BB	1413	A	Sidechain
26	BB	1414	C	Sidechain
26	BB	1416	G	Sidechain
26	BB	1418	G	Sidechain
26	BB	1419	A	Sidechain
26	BB	142	A	Sidechain
26	BB	1421	G	Sidechain
26	BB	1423	G	Sidechain
26	BB	1424	G	Sidechain
26	BB	1425	G	Sidechain
26	BB	1429	G	Sidechain
26	BB	143	C	Sidechain
26	BB	1430	G	Sidechain
26	BB	1432	G	Sidechain
26	BB	1434	A	Sidechain
26	BB	1435	G	Sidechain
26	BB	1436	G	Sidechain
26	BB	1437	C	Sidechain
26	BB	144	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1442	U	Sidechain
26	BB	1444	G	Sidechain
26	BB	1446	C	Sidechain
26	BB	1447	C	Sidechain
26	BB	1448	G	Sidechain
26	BB	145	C	Sidechain
26	BB	1450	G	Sidechain
26	BB	1451	C	Sidechain
26	BB	1452	G	Sidechain
26	BB	1453	A	Sidechain
26	BB	1454	C	Sidechain
26	BB	1455	G	Sidechain
26	BB	1456	G	Sidechain
26	BB	1459	G	Sidechain
26	BB	1460	U	Sidechain
26	BB	1461	C	Sidechain
26	BB	1463	C	Sidechain
26	BB	1464	G	Sidechain
26	BB	1465	G	Sidechain
26	BB	1466	U	Sidechain
26	BB	1468	U	Sidechain
26	BB	147	C	Sidechain
26	BB	1470	A	Sidechain
26	BB	1471	G	Sidechain
26	BB	1473	G	Sidechain
26	BB	1477	A	Sidechain
26	BB	1478	G	Sidechain
26	BB	1480	C	Sidechain
26	BB	1481	U	Sidechain
26	BB	1482	G	Sidechain
26	BB	1483	G	Sidechain
26	BB	1486	U	Sidechain
26	BB	1487	U	Sidechain
26	BB	149	A	Sidechain
26	BB	1491	G	Sidechain
26	BB	1492	G	Sidechain
26	BB	1493	C	Sidechain
26	BB	15	G	Sidechain
26	BB	150	U	Sidechain
26	BB	1501	G	Sidechain
26	BB	1503	A	Sidechain
26	BB	1504	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1508	A	Sidechain
26	BB	1510	G	Sidechain
26	BB	1511	G	Sidechain
26	BB	1512	C	Sidechain
26	BB	1513	U	Sidechain
26	BB	1515	A	Sidechain
26	BB	1516	G	Sidechain
26	BB	1517	G	Sidechain
26	BB	1518	C	Sidechain
26	BB	1519	G	Sidechain
26	BB	1520	U	Sidechain
26	BB	1521	G	Sidechain
26	BB	1522	A	Sidechain
26	BB	1524	G	Sidechain
26	BB	1525	A	Sidechain
26	BB	1527	G	Sidechain
26	BB	1529	G	Sidechain
26	BB	1530	G	Sidechain
26	BB	1532	A	Sidechain
26	BB	1535	A	Sidechain
26	BB	1536	C	Sidechain
26	BB	1537	G	Sidechain
26	BB	1538	G	Sidechain
26	BB	1541	C	Sidechain
26	BB	1543	G	Sidechain
26	BB	1546	G	Sidechain
26	BB	1548	A	Sidechain
26	BB	1549	A	Sidechain
26	BB	1551	A	Sidechain
26	BB	1552	A	Sidechain
26	BB	1553	A	Sidechain
26	BB	1554	U	Sidechain
26	BB	1557	C	Sidechain
26	BB	1558	C	Sidechain
26	BB	156	A	Sidechain
26	BB	1560	G	Sidechain
26	BB	1561	C	Sidechain
26	BB	1562	U	Sidechain
26	BB	1565	C	Sidechain
26	BB	1568	G	Sidechain
26	BB	157	C	Sidechain
26	BB	1572	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1573	G	Sidechain
26	BB	1575	C	Sidechain
26	BB	1576	U	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	1585	C	Sidechain
26	BB	1588	G	Sidechain
26	BB	1589	U	Sidechain
26	BB	159	G	Sidechain
26	BB	1590	A	Sidechain
26	BB	1591	A	Sidechain
26	BB	1594	U	Sidechain
26	BB	1595	C	Sidechain
26	BB	1596	A	Sidechain
26	BB	1599	U	Sidechain
26	BB	1600	C	Sidechain
26	BB	1601	G	Sidechain
26	BB	1603	A	Sidechain
26	BB	1604	C	Sidechain
26	BB	1606	C	Sidechain
26	BB	1607	C	Sidechain
26	BB	1608	A	Sidechain
26	BB	1610	A	Sidechain
26	BB	1612	C	Sidechain
26	BB	1613	G	Sidechain
26	BB	1615	C	Sidechain
26	BB	1616	A	Sidechain
26	BB	162	U	Sidechain
26	BB	1620	G	Sidechain
26	BB	1621	U	Sidechain
26	BB	1624	U	Sidechain
26	BB	1625	C	Sidechain
26	BB	1626	A	Sidechain
26	BB	1627	G	Sidechain
26	BB	1629	U	Sidechain
26	BB	163	C	Sidechain
26	BB	1630	A	Sidechain
26	BB	1632	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1633	G	Sidechain
26	BB	1636	U	Sidechain
26	BB	1638	C	Sidechain
26	BB	164	C	Sidechain
26	BB	1642	G	Sidechain
26	BB	1643	G	Sidechain
26	BB	1644	C	Sidechain
26	BB	1645	G	Sidechain
26	BB	1647	U	Sidechain
26	BB	1650	A	Sidechain
26	BB	1652	A	Sidechain
26	BB	1653	G	Sidechain
26	BB	1655	A	Sidechain
26	BB	1656	C	Sidechain
26	BB	1657	U	Sidechain
26	BB	1659	G	Sidechain
26	BB	1660	G	Sidechain
26	BB	1661	G	Sidechain
26	BB	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	1673	G	Sidechain
26	BB	1676	A	Sidechain
26	BB	1677	A	Sidechain
26	BB	1678	A	Sidechain
26	BB	1679	A	Sidechain
26	BB	168	G	Sidechain
26	BB	1680	U	Sidechain
26	BB	1684	G	Sidechain
26	BB	1685	C	Sidechain
26	BB	1686	C	Sidechain
26	BB	1687	G	Sidechain
26	BB	1688	U	Sidechain
26	BB	1690	A	Sidechain
26	BB	1693	U	Sidechain
26	BB	1695	G	Sidechain
26	BB	1696	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1697	G	Sidechain
26	BB	1698	A	Sidechain
26	BB	17	G	Sidechain
26	BB	170	U	Sidechain
26	BB	1701	A	Sidechain
26	BB	1702	G	Sidechain
26	BB	1703	G	Sidechain
26	BB	1704	C	Sidechain
26	BB	1706	C	Sidechain
26	BB	1709	U	Sidechain
26	BB	1710	G	Sidechain
26	BB	1714	U	Sidechain
26	BB	1715	G	Sidechain
26	BB	1716	U	Sidechain
26	BB	1717	A	Sidechain
26	BB	1718	G	Sidechain
26	BB	1719	G	Sidechain
26	BB	1720	U	Sidechain
26	BB	1721	G	Sidechain
26	BB	1722	A	Sidechain
26	BB	1724	G	Sidechain
26	BB	1729	U	Sidechain
26	BB	1731	G	Sidechain
26	BB	1734	G	Sidechain
26	BB	1737	G	Sidechain
26	BB	1738	G	Sidechain
26	BB	1741	C	Sidechain
26	BB	1742	U	Sidechain
26	BB	1743	G	Sidechain
26	BB	1745	A	Sidechain
26	BB	1748	C	Sidechain
26	BB	175	G	Sidechain
26	BB	1750	G	Sidechain
26	BB	1751	U	Sidechain
26	BB	1753	G	Sidechain
26	BB	1754	A	Sidechain
26	BB	1755	A	Sidechain
26	BB	1756	G	Sidechain
26	BB	1757	A	Sidechain
26	BB	176	A	Sidechain
26	BB	1763	G	Sidechain
26	BB	1764	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1769	U	Sidechain
26	BB	177	G	Sidechain
26	BB	1771	C	Sidechain
26	BB	1772	A	Sidechain
26	BB	1775	U	Sidechain
26	BB	1777	U	Sidechain
26	BB	1779	U	Sidechain
26	BB	178	G	Sidechain
26	BB	1780	A	Sidechain
26	BB	1781	U	Sidechain
26	BB	1782	U	Sidechain
26	BB	1783	A	Sidechain
26	BB	1784	A	Sidechain
26	BB	1785	A	Sidechain
26	BB	1786	A	Sidechain
26	BB	1789	A	Sidechain
26	BB	179	C	Sidechain
26	BB	1791	A	Sidechain
26	BB	1792	G	Sidechain
26	BB	1793	C	Sidechain
26	BB	1797	G	Sidechain
26	BB	1799	G	Sidechain
26	BB	18	U	Sidechain
26	BB	1801	A	Sidechain
26	BB	1804	C	Sidechain
26	BB	1805	A	Sidechain
26	BB	1807	G	Sidechain
26	BB	1808	A	Sidechain
26	BB	1809	A	Sidechain
26	BB	181	A	Sidechain
26	BB	1810	A	Sidechain
26	BB	1811	G	Sidechain
26	BB	1816	C	Sidechain
26	BB	1817	G	Sidechain
26	BB	1818	U	Sidechain
26	BB	1821	A	Sidechain
26	BB	1822	C	Sidechain
26	BB	1826	G	Sidechain
26	BB	1828	G	Sidechain
26	BB	1830	C	Sidechain
26	BB	1831	G	Sidechain
26	BB	1833	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1834	U	Sidechain
26	BB	1836	C	Sidechain
26	BB	1839	G	Sidechain
26	BB	1840	G	Sidechain
26	BB	1841	U	Sidechain
26	BB	1842	G	Sidechain
26	BB	1843	C	Sidechain
26	BB	1845	G	Sidechain
26	BB	1848	A	Sidechain
26	BB	1850	G	Sidechain
26	BB	1851	U	Sidechain
26	BB	1852	U	Sidechain
26	BB	1853	A	Sidechain
26	BB	1855	U	Sidechain
26	BB	1856	U	Sidechain
26	BB	1857	G	Sidechain
26	BB	186	G	Sidechain
26	BB	1860	G	Sidechain
26	BB	1862	G	Sidechain
26	BB	1864	U	Sidechain
26	BB	1865	U	Sidechain
26	BB	1866	A	Sidechain
26	BB	1867	G	Sidechain
26	BB	1871	A	Sidechain
26	BB	1873	G	Sidechain
26	BB	1876	A	Sidechain
26	BB	1883	U	Sidechain
26	BB	1885	A	Sidechain
26	BB	1886	U	Sidechain
26	BB	189	G	Sidechain
26	BB	1891	G	Sidechain
26	BB	1893	C	Sidechain
26	BB	1896	G	Sidechain
26	BB	1897	G	Sidechain
26	BB	1899	A	Sidechain
26	BB	190	A	Sidechain
26	BB	1900	A	Sidechain
26	BB	1902	C	Sidechain
26	BB	1904	G	Sidechain
26	BB	1906	G	Sidechain
26	BB	1907	G	Sidechain
26	BB	1908	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1909	C	Sidechain
26	BB	191	A	Sidechain
26	BB	1912	A	Sidechain
26	BB	1913	A	Sidechain
26	BB	1914	C	Sidechain
26	BB	1919	A	Sidechain
26	BB	1921	G	Sidechain
26	BB	1923	U	Sidechain
26	BB	1926	U	Sidechain
26	BB	1927	A	Sidechain
26	BB	1929	G	Sidechain
26	BB	193	U	Sidechain
26	BB	1930	G	Sidechain
26	BB	1932	A	Sidechain
26	BB	1933	G	Sidechain
26	BB	1938	A	Sidechain
26	BB	1940	U	Sidechain
26	BB	1945	G	Sidechain
26	BB	1946	U	Sidechain
26	BB	1947	C	Sidechain
26	BB	1949	G	Sidechain
26	BB	195	A	Sidechain
26	BB	1950	G	Sidechain
26	BB	1951	U	Sidechain
26	BB	1952	A	Sidechain
26	BB	1953	A	Sidechain
26	BB	1954	G	Sidechain
26	BB	1955	U	Sidechain
26	BB	1958	C	Sidechain
26	BB	1959	G	Sidechain
26	BB	1960	A	Sidechain
26	BB	1964	G	Sidechain
26	BB	1966	A	Sidechain
26	BB	1968	G	Sidechain
26	BB	1969	A	Sidechain
26	BB	197	A	Sidechain
26	BB	1970	A	Sidechain
26	BB	1971	U	Sidechain
26	BB	1973	G	Sidechain
26	BB	1975	G	Sidechain
26	BB	1976	U	Sidechain
26	BB	1977	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1978	A	Sidechain
26	BB	1979	U	Sidechain
26	BB	198	C	Sidechain
26	BB	1981	A	Sidechain
26	BB	1982	U	Sidechain
26	BB	1983	G	Sidechain
26	BB	1984	G	Sidechain
26	BB	1986	C	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	1993	U	Sidechain
26	BB	1994	C	Sidechain
26	BB	1995	U	Sidechain
26	BB	1996	C	Sidechain
26	BB	1999	C	Sidechain
26	BB	2	G	Sidechain
26	BB	200	U	Sidechain
26	BB	2002	G	Sidechain
26	BB	2003	A	Sidechain
26	BB	2004	G	Sidechain
26	BB	2005	A	Sidechain
26	BB	2006	C	Sidechain
26	BB	2008	C	Sidechain
26	BB	201	C	Sidechain
26	BB	2010	G	Sidechain
26	BB	2014	A	Sidechain
26	BB	2015	A	Sidechain
26	BB	2016	U	Sidechain
26	BB	2023	C	Sidechain
26	BB	2025	C	Sidechain
26	BB	2027	G	Sidechain
26	BB	2029	G	Sidechain
26	BB	2031	A	Sidechain
26	BB	2032	G	Sidechain
26	BB	2035	G	Sidechain
26	BB	2038	G	Sidechain
26	BB	2039	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	204	A	Sidechain
26	BB	2040	G	Sidechain
26	BB	2041	U	Sidechain
26	BB	2042	A	Sidechain
26	BB	2044	C	Sidechain
26	BB	2045	C	Sidechain
26	BB	2046	G	Sidechain
26	BB	2047	C	Sidechain
26	BB	2048	G	Sidechain
26	BB	2049	G	Sidechain
26	BB	205	G	Sidechain
26	BB	2051	A	Sidechain
26	BB	2054	A	Sidechain
26	BB	2058	A	Sidechain
26	BB	206	U	Sidechain
26	BB	2060	A	Sidechain
26	BB	2061	G	Sidechain
26	BB	2062	A	Sidechain
26	BB	2063	C	Sidechain
26	BB	2067	G	Sidechain
26	BB	2068	U	Sidechain
26	BB	207	A	Sidechain
26	BB	2070	A	Sidechain
26	BB	2073	C	Sidechain
26	BB	2074	U	Sidechain
26	BB	2076	U	Sidechain
26	BB	2077	A	Sidechain
26	BB	2078	C	Sidechain
26	BB	2081	U	Sidechain
26	BB	2082	A	Sidechain
26	BB	2083	G	Sidechain
26	BB	2085	U	Sidechain
26	BB	2087	G	Sidechain
26	BB	2088	A	Sidechain
26	BB	2089	C	Sidechain
26	BB	2090	A	Sidechain
26	BB	2091	C	Sidechain
26	BB	2093	G	Sidechain
26	BB	2094	A	Sidechain
26	BB	2095	A	Sidechain
26	BB	2098	U	Sidechain
26	BB	210	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2100	G	Sidechain
26	BB	2101	A	Sidechain
26	BB	2102	G	Sidechain
26	BB	2103	C	Sidechain
26	BB	2105	U	Sidechain
26	BB	2106	U	Sidechain
26	BB	2107	G	Sidechain
26	BB	2108	A	Sidechain
26	BB	2109	U	Sidechain
26	BB	211	C	Sidechain
26	BB	2110	G	Sidechain
26	BB	2115	G	Sidechain
26	BB	2116	G	Sidechain
26	BB	2117	A	Sidechain
26	BB	2119	A	Sidechain
26	BB	212	G	Sidechain
26	BB	2120	G	Sidechain
26	BB	2121	G	Sidechain
26	BB	2122	U	Sidechain
26	BB	2123	G	Sidechain
26	BB	2124	G	Sidechain
26	BB	2125	G	Sidechain
26	BB	2126	A	Sidechain
26	BB	2127	G	Sidechain
26	BB	2130	U	Sidechain
26	BB	2132	U	Sidechain
26	BB	2135	A	Sidechain
26	BB	2136	G	Sidechain
26	BB	2138	G	Sidechain
26	BB	214	G	Sidechain
26	BB	2140	G	Sidechain
26	BB	2142	A	Sidechain
26	BB	2143	C	Sidechain
26	BB	2146	C	Sidechain
26	BB	2148	G	Sidechain
26	BB	2149	U	Sidechain
26	BB	215	G	Sidechain
26	BB	2150	C	Sidechain
26	BB	2151	U	Sidechain
26	BB	2152	G	Sidechain
26	BB	2153	C	Sidechain
26	BB	2155	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2156	G	Sidechain
26	BB	2158	A	Sidechain
26	BB	2159	G	Sidechain
26	BB	216	A	Sidechain
26	BB	2160	C	Sidechain
26	BB	2161	C	Sidechain
26	BB	2163	A	Sidechain
26	BB	2166	U	Sidechain
26	BB	2168	G	Sidechain
26	BB	2169	A	Sidechain
26	BB	2170	A	Sidechain
26	BB	2171	A	Sidechain
26	BB	2172	U	Sidechain
26	BB	2173	A	Sidechain
26	BB	2174	C	Sidechain
26	BB	2175	C	Sidechain
26	BB	2179	C	Sidechain
26	BB	2181	U	Sidechain
26	BB	2182	U	Sidechain
26	BB	2183	A	Sidechain
26	BB	2184	A	Sidechain
26	BB	2186	G	Sidechain
26	BB	2187	U	Sidechain
26	BB	2188	U	Sidechain
26	BB	2189	U	Sidechain
26	BB	219	A	Sidechain
26	BB	2190	G	Sidechain
26	BB	2192	U	Sidechain
26	BB	2194	U	Sidechain
26	BB	2197	U	Sidechain
26	BB	2198	A	Sidechain
26	BB	220	G	Sidechain
26	BB	2201	G	Sidechain
26	BB	2203	U	Sidechain
26	BB	2204	G	Sidechain
26	BB	2205	A	Sidechain
26	BB	2208	C	Sidechain
26	BB	2209	G	Sidechain
26	BB	221	A	Sidechain
26	BB	2210	U	Sidechain
26	BB	2211	A	Sidechain
26	BB	2213	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2214	C	Sidechain
26	BB	2215	C	Sidechain
26	BB	2216	G	Sidechain
26	BB	2217	G	Sidechain
26	BB	2218	G	Sidechain
26	BB	222	A	Sidechain
26	BB	2220	U	Sidechain
26	BB	2221	G	Sidechain
26	BB	2222	C	Sidechain
26	BB	2224	G	Sidechain
26	BB	2225	A	Sidechain
26	BB	223	A	Sidechain
26	BB	2230	G	Sidechain
26	BB	2231	U	Sidechain
26	BB	2233	U	Sidechain
26	BB	2239	G	Sidechain
26	BB	2242	G	Sidechain
26	BB	2243	U	Sidechain
26	BB	2244	U	Sidechain
26	BB	2245	U	Sidechain
26	BB	2247	A	Sidechain
26	BB	2248	C	Sidechain
26	BB	2249	U	Sidechain
26	BB	2250	G	Sidechain
26	BB	2252	G	Sidechain
26	BB	2254	C	Sidechain
26	BB	2256	G	Sidechain
26	BB	2259	U	Sidechain
26	BB	2261	C	Sidechain
26	BB	2264	C	Sidechain
26	BB	2265	U	Sidechain
26	BB	2266	A	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	2272	U	Sidechain
26	BB	2273	A	Sidechain
26	BB	2274	A	Sidechain
26	BB	2276	G	Sidechain
26	BB	2277	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	228	C	Sidechain
26	BB	2281	A	Sidechain
26	BB	2283	C	Sidechain
26	BB	2284	A	Sidechain
26	BB	2286	G	Sidechain
26	BB	2287	A	Sidechain
26	BB	2288	A	Sidechain
26	BB	2292	U	Sidechain
26	BB	2293	G	Sidechain
26	BB	2295	C	Sidechain
26	BB	2296	U	Sidechain
26	BB	2297	A	Sidechain
26	BB	2298	A	Sidechain
26	BB	23	G	Sidechain
26	BB	230	G	Sidechain
26	BB	2302	U	Sidechain
26	BB	2303	G	Sidechain
26	BB	2304	G	Sidechain
26	BB	2306	C	Sidechain
26	BB	2307	G	Sidechain
26	BB	2308	G	Sidechain
26	BB	231	A	Sidechain
26	BB	2311	A	Sidechain
26	BB	2312	U	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	2322	A	Sidechain
26	BB	2323	G	Sidechain
26	BB	2324	U	Sidechain
26	BB	2325	G	Sidechain
26	BB	2327	A	Sidechain
26	BB	2329	U	Sidechain
26	BB	233	A	Sidechain
26	BB	2331	G	Sidechain
26	BB	2332	C	Sidechain
26	BB	2335	A	Sidechain
26	BB	2337	G	Sidechain
26	BB	234	U	Sidechain
26	BB	2341	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2342	C	Sidechain
26	BB	2345	G	Sidechain
26	BB	2348	U	Sidechain
26	BB	2349	G	Sidechain
26	BB	2350	C	Sidechain
26	BB	2351	G	Sidechain
26	BB	2353	G	Sidechain
26	BB	2354	C	Sidechain
26	BB	2355	G	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	2367	G	Sidechain
26	BB	2368	C	Sidechain
26	BB	2369	A	Sidechain
26	BB	2370	G	Sidechain
26	BB	2372	U	Sidechain
26	BB	2375	G	Sidechain
26	BB	2376	A	Sidechain
26	BB	2377	A	Sidechain
26	BB	2379	G	Sidechain
26	BB	2386	A	Sidechain
26	BB	2387	U	Sidechain
26	BB	2389	G	Sidechain
26	BB	2390	U	Sidechain
26	BB	2391	G	Sidechain
26	BB	2392	A	Sidechain
26	BB	2393	U	Sidechain
26	BB	2396	G	Sidechain
26	BB	2397	G	Sidechain
26	BB	2399	G	Sidechain
26	BB	2400	G	Sidechain
26	BB	2401	U	Sidechain
26	BB	2402	U	Sidechain
26	BB	2406	A	Sidechain
26	BB	2407	A	Sidechain
26	BB	2409	G	Sidechain
26	BB	2411	A	Sidechain
26	BB	2412	A	Sidechain
26	BB	2413	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2414	G	Sidechain
26	BB	2415	G	Sidechain
26	BB	2419	U	Sidechain
26	BB	2421	G	Sidechain
26	BB	2423	U	Sidechain
26	BB	2424	C	Sidechain
26	BB	2428	G	Sidechain
26	BB	2429	G	Sidechain
26	BB	243	U	Sidechain
26	BB	2432	A	Sidechain
26	BB	2434	A	Sidechain
26	BB	2437	G	Sidechain
26	BB	2442	C	Sidechain
26	BB	2444	G	Sidechain
26	BB	2446	G	Sidechain
26	BB	2447	G	Sidechain
26	BB	2455	G	Sidechain
26	BB	2458	G	Sidechain
26	BB	2461	A	Sidechain
26	BB	2464	G	Sidechain
26	BB	2466	C	Sidechain
26	BB	2467	C	Sidechain
26	BB	247	G	Sidechain
26	BB	2471	A	Sidechain
26	BB	2472	G	Sidechain
26	BB	2474	U	Sidechain
26	BB	2475	C	Sidechain
26	BB	2477	U	Sidechain
26	BB	2479	U	Sidechain
26	BB	248	G	Sidechain
26	BB	2481	G	Sidechain
26	BB	2482	A	Sidechain
26	BB	2483	C	Sidechain
26	BB	2484	G	Sidechain
26	BB	2488	G	Sidechain
26	BB	2489	U	Sidechain
26	BB	249	C	Sidechain
26	BB	2492	U	Sidechain
26	BB	2493	U	Sidechain
26	BB	2494	G	Sidechain
26	BB	2495	G	Sidechain
26	BB	2497	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	25	U	Sidechain
26	BB	250	G	Sidechain
26	BB	2500	U	Sidechain
26	BB	2501	C	Sidechain
26	BB	2502	G	Sidechain
26	BB	2506	U	Sidechain
26	BB	2507	C	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	2515	C	Sidechain
26	BB	2517	C	Sidechain
26	BB	2519	U	Sidechain
26	BB	252	G	Sidechain
26	BB	2520	C	Sidechain
26	BB	2521	C	Sidechain
26	BB	2522	U	Sidechain
26	BB	2524	G	Sidechain
26	BB	2525	G	Sidechain
26	BB	2527	C	Sidechain
26	BB	2528	U	Sidechain
26	BB	2529	G	Sidechain
26	BB	2531	A	Sidechain
26	BB	2532	G	Sidechain
26	BB	2534	A	Sidechain
26	BB	2535	G	Sidechain
26	BB	2536	G	Sidechain
26	BB	2537	U	Sidechain
26	BB	2538	C	Sidechain
26	BB	254	G	Sidechain
26	BB	2542	A	Sidechain
26	BB	2543	G	Sidechain
26	BB	2545	G	Sidechain
26	BB	2546	U	Sidechain
26	BB	2548	U	Sidechain
26	BB	2549	G	Sidechain
26	BB	255	A	Sidechain
26	BB	2550	G	Sidechain
26	BB	2553	G	Sidechain
26	BB	2554	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2555	U	Sidechain
26	BB	2557	G	Sidechain
26	BB	2558	C	Sidechain
26	BB	2559	C	Sidechain
26	BB	256	A	Sidechain
26	BB	2561	U	Sidechain
26	BB	2562	U	Sidechain
26	BB	2563	U	Sidechain
26	BB	2564	A	Sidechain
26	BB	2566	A	Sidechain
26	BB	2567	G	Sidechain
26	BB	2568	U	Sidechain
26	BB	2569	G	Sidechain
26	BB	2570	G	Sidechain
26	BB	2571	U	Sidechain
26	BB	2574	G	Sidechain
26	BB	2576	G	Sidechain
26	BB	258	G	Sidechain
26	BB	2581	G	Sidechain
26	BB	2582	G	Sidechain
26	BB	2583	G	Sidechain
26	BB	2584	U	Sidechain
26	BB	2585	U	Sidechain
26	BB	2587	A	Sidechain
26	BB	2588	G	Sidechain
26	BB	2589	A	Sidechain
26	BB	259	G	Sidechain
26	BB	2590	A	Sidechain
26	BB	2591	C	Sidechain
26	BB	2593	U	Sidechain
26	BB	2597	G	Sidechain
26	BB	2598	A	Sidechain
26	BB	2599	G	Sidechain
26	BB	26	G	Sidechain
26	BB	260	G	Sidechain
26	BB	2601	C	Sidechain
26	BB	2602	A	Sidechain
26	BB	2606	C	Sidechain
26	BB	2607	G	Sidechain
26	BB	2608	G	Sidechain
26	BB	2609	U	Sidechain
26	BB	261	G	Sidechain

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Mol	Chain	Res	Type	Group
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	2617	U	Sidechain
26	BB	2618	G	Sidechain
26	BB	262	A	Sidechain
26	BB	2621	G	Sidechain
26	BB	2624	G	Sidechain
26	BB	2627	G	Sidechain
26	BB	2628	C	Sidechain
26	BB	263	G	Sidechain
26	BB	2630	G	Sidechain
26	BB	2633	G	Sidechain
26	BB	2636	C	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	2646	C	Sidechain
26	BB	2647	U	Sidechain
26	BB	2648	G	Sidechain
26	BB	265	A	Sidechain
26	BB	2651	C	Sidechain
26	BB	2653	U	Sidechain
26	BB	2654	A	Sidechain
26	BB	2655	G	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	2667	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	267	C	Sidechain
26	BB	2671	G	Sidechain
26	BB	2673	G	Sidechain
26	BB	2674	G	Sidechain
26	BB	2675	A	Sidechain
26	BB	2677	G	Sidechain
26	BB	2679	A	Sidechain
26	BB	268	C	Sidechain
26	BB	2680	U	Sidechain
26	BB	2681	C	Sidechain
26	BB	2682	A	Sidechain
26	BB	2685	G	Sidechain
26	BB	2687	U	Sidechain
26	BB	2688	G	Sidechain
26	BB	2689	U	Sidechain
26	BB	2690	U	Sidechain
26	BB	2691	C	Sidechain
26	BB	2692	G	Sidechain
26	BB	2694	G	Sidechain
26	BB	2695	U	Sidechain
26	BB	2697	G	Sidechain
26	BB	27	G	Sidechain
26	BB	2701	U	Sidechain
26	BB	2703	C	Sidechain
26	BB	2704	C	Sidechain
26	BB	2705	A	Sidechain
26	BB	2706	A	Sidechain
26	BB	2708	G	Sidechain
26	BB	2709	G	Sidechain
26	BB	271	G	Sidechain
26	BB	2712	C	Sidechain
26	BB	2713	U	Sidechain
26	BB	2715	C	Sidechain
26	BB	2716	C	Sidechain
26	BB	2717	C	Sidechain
26	BB	2718	G	Sidechain
26	BB	2720	U	Sidechain
26	BB	2724	U	Sidechain
26	BB	2725	A	Sidechain
26	BB	2726	A	Sidechain
26	BB	2728	U	Sidechain
26	BB	273	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2730	C	Sidechain
26	BB	2731	G	Sidechain
26	BB	2732	G	Sidechain
26	BB	2735	G	Sidechain
26	BB	2736	A	Sidechain
26	BB	2739	U	Sidechain
26	BB	274	C	Sidechain
26	BB	2741	A	Sidechain
26	BB	2742	G	Sidechain
26	BB	2743	U	Sidechain
26	BB	2744	G	Sidechain
26	BB	2745	C	Sidechain
26	BB	2746	U	Sidechain
26	BB	275	C	Sidechain
26	BB	2750	A	Sidechain
26	BB	2751	G	Sidechain
26	BB	2752	C	Sidechain
26	BB	2753	A	Sidechain
26	BB	2755	C	Sidechain
26	BB	2757	A	Sidechain
26	BB	2758	A	Sidechain
26	BB	276	U	Sidechain
26	BB	2760	C	Sidechain
26	BB	2761	A	Sidechain
26	BB	2763	G	Sidechain
26	BB	2765	A	Sidechain
26	BB	2766	A	Sidechain
26	BB	2767	C	Sidechain
26	BB	2769	U	Sidechain
26	BB	277	G	Sidechain
26	BB	2774	C	Sidechain
26	BB	2775	G	Sidechain
26	BB	2777	G	Sidechain
26	BB	2779	U	Sidechain
26	BB	2780	G	Sidechain
26	BB	2782	G	Sidechain
26	BB	2784	U	Sidechain
26	BB	2785	C	Sidechain
26	BB	2786	U	Sidechain
26	BB	279	A	Sidechain
26	BB	2790	U	Sidechain
26	BB	2791	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2792	A	Sidechain
26	BB	2793	C	Sidechain
26	BB	2794	C	Sidechain
26	BB	2795	C	Sidechain
26	BB	2796	U	Sidechain
26	BB	2797	U	Sidechain
26	BB	2798	U	Sidechain
26	BB	28	A	Sidechain
26	BB	2801	G	Sidechain
26	BB	2803	G	Sidechain
26	BB	2805	C	Sidechain
26	BB	2806	C	Sidechain
26	BB	2807	U	Sidechain
26	BB	2808	G	Sidechain
26	BB	281	C	Sidechain
26	BB	2810	A	Sidechain
26	BB	2812	G	Sidechain
26	BB	2815	C	Sidechain
26	BB	2816	G	Sidechain
26	BB	2818	U	Sidechain
26	BB	2819	G	Sidechain
26	BB	2820	A	Sidechain
26	BB	2824	C	Sidechain
26	BB	2829	A	Sidechain
26	BB	2830	C	Sidechain
26	BB	2831	G	Sidechain
26	BB	2832	U	Sidechain
26	BB	2835	A	Sidechain
26	BB	2836	U	Sidechain
26	BB	2837	A	Sidechain
26	BB	284	U	Sidechain
26	BB	2840	C	Sidechain
26	BB	2841	C	Sidechain
26	BB	2845	U	Sidechain
26	BB	2847	U	Sidechain
26	BB	2848	G	Sidechain
26	BB	285	G	Sidechain
26	BB	2850	A	Sidechain
26	BB	2852	G	Sidechain
26	BB	2854	G	Sidechain
26	BB	2856	A	Sidechain
26	BB	2857	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2859	G	Sidechain
26	BB	2860	A	Sidechain
26	BB	2861	U	Sidechain
26	BB	2862	G	Sidechain
26	BB	2864	G	Sidechain
26	BB	2866	U	Sidechain
26	BB	287	G	Sidechain
26	BB	2870	C	Sidechain
26	BB	2872	A	Sidechain
26	BB	2873	A	Sidechain
26	BB	2874	C	Sidechain
26	BB	2877	G	Sidechain
26	BB	2879	A	Sidechain
26	BB	288	U	Sidechain
26	BB	2882	A	Sidechain
26	BB	2884	U	Sidechain
26	BB	2885	G	Sidechain
26	BB	2886	A	Sidechain
26	BB	2890	G	Sidechain
26	BB	2893	A	Sidechain
26	BB	2894	G	Sidechain
26	BB	2896	C	Sidechain
26	BB	2899	A	Sidechain
26	BB	29	U	Sidechain
26	BB	290	U	Sidechain
26	BB	2900	A	Sidechain
26	BB	2902	C	Sidechain
26	BB	2903	U	Sidechain
26	BB	291	G	Sidechain
26	BB	293	U	Sidechain
26	BB	294	A	Sidechain
26	BB	295	G	Sidechain
26	BB	296	U	Sidechain
26	BB	297	G	Sidechain
26	BB	298	G	Sidechain
26	BB	299	A	Sidechain
26	BB	3	U	Sidechain
26	BB	30	G	Sidechain
26	BB	300	A	Sidechain
26	BB	301	G	Sidechain
26	BB	302	C	Sidechain
26	BB	303	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	308	G	Sidechain
26	BB	309	A	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	315	G	Sidechain
26	BB	316	C	Sidechain
26	BB	317	G	Sidechain
26	BB	318	C	Sidechain
26	BB	319	G	Sidechain
26	BB	321	U	Sidechain
26	BB	322	A	Sidechain
26	BB	327	G	Sidechain
26	BB	328	U	Sidechain
26	BB	329	G	Sidechain
26	BB	331	C	Sidechain
26	BB	333	G	Sidechain
26	BB	336	C	Sidechain
26	BB	338	G	Sidechain
26	BB	339	U	Sidechain
26	BB	342	A	Sidechain
26	BB	343	C	Sidechain
26	BB	347	A	Sidechain
26	BB	35	G	Sidechain
26	BB	350	G	Sidechain
26	BB	358	U	Sidechain
26	BB	359	G	Sidechain
26	BB	36	G	Sidechain
26	BB	361	G	Sidechain
26	BB	365	U	Sidechain
26	BB	366	C	Sidechain
26	BB	367	G	Sidechain
26	BB	368	A	Sidechain
26	BB	369	U	Sidechain
26	BB	370	G	Sidechain
26	BB	371	A	Sidechain
26	BB	372	G	Sidechain
26	BB	373	U	Sidechain
26	BB	374	A	Sidechain
26	BB	375	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	377	G	Sidechain
26	BB	378	C	Sidechain
26	BB	380	G	Sidechain
26	BB	384	A	Sidechain
26	BB	386	G	Sidechain
26	BB	387	U	Sidechain
26	BB	388	G	Sidechain
26	BB	389	G	Sidechain
26	BB	390	U	Sidechain
26	BB	391	A	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	4	U	Sidechain
26	BB	40	U	Sidechain
26	BB	401	A	Sidechain
26	BB	403	U	Sidechain
26	BB	406	G	Sidechain
26	BB	407	G	Sidechain
26	BB	409	G	Sidechain
26	BB	411	G	Sidechain
26	BB	415	A	Sidechain
26	BB	417	C	Sidechain
26	BB	421	C	Sidechain
26	BB	422	A	Sidechain
26	BB	426	C	Sidechain
26	BB	427	U	Sidechain
26	BB	428	A	Sidechain
26	BB	430	A	Sidechain
26	BB	432	A	Sidechain
26	BB	434	U	Sidechain
26	BB	435	C	Sidechain
26	BB	436	C	Sidechain
26	BB	437	U	Sidechain
26	BB	441	U	Sidechain
26	BB	443	A	Sidechain
26	BB	446	G	Sidechain
26	BB	447	A	Sidechain
26	BB	448	U	Sidechain
26	BB	45	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	451	U	Sidechain
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	46	G	Sidechain
26	BB	461	C	Sidechain
26	BB	462	C	Sidechain
26	BB	463	G	Sidechain
26	BB	464	U	Sidechain
26	BB	465	G	Sidechain
26	BB	466	A	Sidechain
26	BB	467	G	Sidechain
26	BB	468	G	Sidechain
26	BB	47	C	Sidechain
26	BB	470	A	Sidechain
26	BB	472	A	Sidechain
26	BB	473	G	Sidechain
26	BB	474	G	Sidechain
26	BB	475	C	Sidechain
26	BB	476	G	Sidechain
26	BB	477	A	Sidechain
26	BB	480	A	Sidechain
26	BB	481	G	Sidechain
26	BB	483	A	Sidechain
26	BB	484	C	Sidechain
26	BB	485	C	Sidechain
26	BB	488	G	Sidechain
26	BB	490	C	Sidechain
26	BB	493	G	Sidechain
26	BB	496	G	Sidechain
26	BB	497	A	Sidechain
26	BB	498	G	Sidechain
26	BB	50	U	Sidechain
26	BB	500	G	Sidechain
26	BB	501	A	Sidechain
26	BB	502	A	Sidechain
26	BB	506	G	Sidechain
26	BB	508	A	Sidechain
26	BB	513	A	Sidechain
26	BB	514	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	515	A	Sidechain
26	BB	516	C	Sidechain
26	BB	518	G	Sidechain
26	BB	519	U	Sidechain
26	BB	521	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	527	C	Sidechain
26	BB	528	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	538	A	Sidechain
26	BB	539	G	Sidechain
26	BB	54	G	Sidechain
26	BB	540	C	Sidechain
26	BB	543	G	Sidechain
26	BB	544	C	Sidechain
26	BB	545	U	Sidechain
26	BB	546	U	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	552	U	Sidechain
26	BB	553	G	Sidechain
26	BB	554	U	Sidechain
26	BB	555	G	Sidechain
26	BB	556	A	Sidechain
26	BB	557	C	Sidechain
26	BB	558	U	Sidechain
26	BB	559	G	Sidechain
26	BB	56	A	Sidechain
26	BB	563	A	Sidechain
26	BB	565	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	566	U	Sidechain
26	BB	567	U	Sidechain
26	BB	569	U	Sidechain
26	BB	572	A	Sidechain
26	BB	576	U	Sidechain
26	BB	577	G	Sidechain
26	BB	579	G	Sidechain
26	BB	583	G	Sidechain
26	BB	584	C	Sidechain
26	BB	587	C	Sidechain
26	BB	588	U	Sidechain
26	BB	591	U	Sidechain
26	BB	592	A	Sidechain
26	BB	593	U	Sidechain
26	BB	599	A	Sidechain
26	BB	60	G	Sidechain
26	BB	600	G	Sidechain
26	BB	601	C	Sidechain
26	BB	604	G	Sidechain
26	BB	605	G	Sidechain
26	BB	606	U	Sidechain
26	BB	608	A	Sidechain
26	BB	609	A	Sidechain
26	BB	61	C	Sidechain
26	BB	611	C	Sidechain
26	BB	612	G	Sidechain
26	BB	614	A	Sidechain
26	BB	616	A	Sidechain
26	BB	62	U	Sidechain
26	BB	621	A	Sidechain
26	BB	623	C	Sidechain
26	BB	624	C	Sidechain
26	BB	627	A	Sidechain
26	BB	628	G	Sidechain
26	BB	629	G	Sidechain
26	BB	63	A	Sidechain
26	BB	630	G	Sidechain
26	BB	631	A	Sidechain
26	BB	634	C	Sidechain
26	BB	636	G	Sidechain
26	BB	637	A	Sidechain
26	BB	638	G	Sidechain

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Mol	Chain	Res	Type	Group
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	646	U	Sidechain
26	BB	647	G	Sidechain
26	BB	65	U	Sidechain
26	BB	651	G	Sidechain
26	BB	653	U	Sidechain
26	BB	654	A	Sidechain
26	BB	656	G	Sidechain
26	BB	658	U	Sidechain
26	BB	659	G	Sidechain
26	BB	66	C	Sidechain
26	BB	663	G	Sidechain
26	BB	664	G	Sidechain
26	BB	666	A	Sidechain
26	BB	667	U	Sidechain
26	BB	672	C	Sidechain
26	BB	673	C	Sidechain
26	BB	674	G	Sidechain
26	BB	676	A	Sidechain
26	BB	677	A	Sidechain
26	BB	679	C	Sidechain
26	BB	68	G	Sidechain
26	BB	680	C	Sidechain
26	BB	681	G	Sidechain
26	BB	682	G	Sidechain
26	BB	683	U	Sidechain
26	BB	684	G	Sidechain
26	BB	685	A	Sidechain
26	BB	686	U	Sidechain
26	BB	688	U	Sidechain
26	BB	693	A	Sidechain
26	BB	695	G	Sidechain
26	BB	696	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

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Mol	Chain	Res	Type	Group
26	BB	705	A	Sidechain
26	BB	706	A	Sidechain
26	BB	707	G	Sidechain
26	BB	708	G	Sidechain
26	BB	710	U	Sidechain
26	BB	711	G	Sidechain
26	BB	713	G	Sidechain
26	BB	715	A	Sidechain
26	BB	717	C	Sidechain
26	BB	719	C	Sidechain
26	BB	720	U	Sidechain
26	BB	721	A	Sidechain
26	BB	725	G	Sidechain
26	BB	726	G	Sidechain
26	BB	729	G	Sidechain
26	BB	734	A	Sidechain
26	BB	738	G	Sidechain
26	BB	739	A	Sidechain
26	BB	74	A	Sidechain
26	BB	740	C	Sidechain
26	BB	743	A	Sidechain
26	BB	744	U	Sidechain
26	BB	748	G	Sidechain
26	BB	749	A	Sidechain
26	BB	750	A	Sidechain
26	BB	751	A	Sidechain
26	BB	752	A	Sidechain
26	BB	755	U	Sidechain
26	BB	756	A	Sidechain
26	BB	758	C	Sidechain
26	BB	759	G	Sidechain
26	BB	76	C	Sidechain
26	BB	761	A	Sidechain
26	BB	762	U	Sidechain
26	BB	763	G	Sidechain
26	BB	765	C	Sidechain
26	BB	767	U	Sidechain
26	BB	768	G	Sidechain
26	BB	77	G	Sidechain
26	BB	770	G	Sidechain
26	BB	771	G	Sidechain
26	BB	772	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	774	G	Sidechain
26	BB	775	G	Sidechain
26	BB	777	G	Sidechain
26	BB	778	G	Sidechain
26	BB	779	U	Sidechain
26	BB	78	U	Sidechain
26	BB	780	G	Sidechain
26	BB	781	A	Sidechain
26	BB	783	A	Sidechain
26	BB	784	G	Sidechain
26	BB	785	G	Sidechain
26	BB	787	C	Sidechain
26	BB	788	A	Sidechain
26	BB	789	A	Sidechain
26	BB	79	C	Sidechain
26	BB	790	U	Sidechain
26	BB	794	A	Sidechain
26	BB	797	G	Sidechain
26	BB	8	C	Sidechain
26	BB	800	A	Sidechain
26	BB	801	G	Sidechain
26	BB	802	A	Sidechain
26	BB	803	U	Sidechain
26	BB	804	A	Sidechain
26	BB	805	G	Sidechain
26	BB	806	C	Sidechain
26	BB	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	813	U	Sidechain
26	BB	814	C	Sidechain
26	BB	815	C	Sidechain
26	BB	816	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	822	G	Sidechain
26	BB	823	C	Sidechain

Continued on next page...

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Mol	Chain	Res	Type	Group
26	BB	825	A	Sidechain
26	BB	827	U	Sidechain
26	BB	828	U	Sidechain
26	BB	829	A	Sidechain
26	BB	83	A	Sidechain
26	BB	831	G	Sidechain
26	BB	834	G	Sidechain
26	BB	835	C	Sidechain
26	BB	836	G	Sidechain
26	BB	837	C	Sidechain
26	BB	838	C	Sidechain
26	BB	839	U	Sidechain
26	BB	841	G	Sidechain
26	BB	842	U	Sidechain
26	BB	844	A	Sidechain
26	BB	846	U	Sidechain
26	BB	849	A	Sidechain
26	BB	85	G	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	858	G	Sidechain
26	BB	859	G	Sidechain
26	BB	86	G	Sidechain
26	BB	864	G	Sidechain
26	BB	865	C	Sidechain
26	BB	867	C	Sidechain
26	BB	868	U	Sidechain
26	BB	870	U	Sidechain
26	BB	872	U	Sidechain
26	BB	874	G	Sidechain
26	BB	875	G	Sidechain
26	BB	877	A	Sidechain
26	BB	881	G	Sidechain
26	BB	882	G	Sidechain
26	BB	884	U	Sidechain
26	BB	885	C	Sidechain
26	BB	887	U	Sidechain
26	BB	888	C	Sidechain
26	BB	889	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	890	C	Sidechain
26	BB	891	G	Sidechain
26	BB	892	A	Sidechain
26	BB	894	U	Sidechain
26	BB	896	A	Sidechain
26	BB	898	C	Sidechain
26	BB	9	G	Sidechain
26	BB	90	U	Sidechain
26	BB	900	A	Sidechain
26	BB	901	C	Sidechain
26	BB	903	C	Sidechain
26	BB	904	G	Sidechain
26	BB	906	U	Sidechain
26	BB	907	G	Sidechain
26	BB	909	A	Sidechain
26	BB	91	A	Sidechain
26	BB	910	A	Sidechain
26	BB	913	U	Sidechain
26	BB	914	G	Sidechain
26	BB	915	C	Sidechain
26	BB	916	G	Sidechain
26	BB	917	A	Sidechain
26	BB	919	U	Sidechain
26	BB	921	C	Sidechain
26	BB	922	C	Sidechain
26	BB	923	G	Sidechain
26	BB	924	G	Sidechain
26	BB	925	A	Sidechain
26	BB	929	U	Sidechain
26	BB	93	G	Sidechain
26	BB	930	G	Sidechain
26	BB	931	U	Sidechain
26	BB	934	U	Sidechain
26	BB	935	C	Sidechain
26	BB	936	A	Sidechain
26	BB	938	G	Sidechain
26	BB	939	G	Sidechain
26	BB	940	G	Sidechain
26	BB	942	G	Sidechain
26	BB	943	A	Sidechain
26	BB	944	C	Sidechain
26	BB	948	C	Sidechain

Continued on next page...

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Mol	Chain	Res	Type	Group
26	BB	949	G	Sidechain
26	BB	954	G	Sidechain
26	BB	956	G	Sidechain
26	BB	957	C	Sidechain
26	BB	958	U	Sidechain
26	BB	959	A	Sidechain
26	BB	96	C	Sidechain
26	BB	966	G	Sidechain
26	BB	968	C	Sidechain
26	BB	969	G	Sidechain
26	BB	970	U	Sidechain
26	BB	971	G	Sidechain
26	BB	973	A	Sidechain
26	BB	975	A	Sidechain
26	BB	976	G	Sidechain
26	BB	978	G	Sidechain
26	BB	979	A	Sidechain
26	BB	980	A	Sidechain
26	BB	982	C	Sidechain
26	BB	983	A	Sidechain
26	BB	985	C	Sidechain
26	BB	989	G	Sidechain
26	BB	991	C	Sidechain
26	BB	993	G	Sidechain
26	BB	995	C	Sidechain
26	BB	996	A	Sidechain
26	BB	997	G	Sidechain
26	BB	998	C	Sidechain
27	BC	71	ARG	Sidechain
28	BD	101	ARG	Sidechain,Peptide
28	BD	102	TYR	Sidechain
28	BD	166	ARG	Sidechain
28	BD	216	ARG	Sidechain
28	BD	237	ARG	Sidechain
28	BD	24	HIS	Sidechain
28	BD	242	HIS	Sidechain
28	BD	38	LYS	Mainchain
28	BD	95	TYR	Sidechain
29	BE	113	SER	Peptide
29	BE	176	ASP	Peptide
29	BE	45	TYR	Sidechain
29	BE	46	ARG	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
29	BE	59	ARG	Sidechain
29	BE	67	HIS	Sidechain
29	BE	75	ALA	Peptide
29	BE	90	PHE	Peptide
30	BF	101	TYR	Sidechain
30	BF	22	ASP	Mainchain
30	BF	35	TYR	Sidechain
30	BF	40	ARG	Sidechain
30	BF	67	ARG	Sidechain
30	BF	85	PHE	Sidechain
31	BG	102	LEU	Peptide
31	BG	116	LEU	Peptide
31	BG	124	ARG	Peptide
31	BG	149	ARG	Peptide
31	BG	6	TYR	Sidechain
31	BG	76	PHE	Sidechain
31	BG	82	TYR	Sidechain
32	BH	150	TYR	Sidechain
32	BH	164	ALA	Mainchain
32	BH	2	ARG	Sidechain
32	BH	54	ARG	Sidechain
32	BH	68	ARG	Sidechain
32	BH	83	THR	Peptide
33	BI	109	GLU	Peptide,Mainchain
33	BI	25	TYR	Sidechain
34	BJ	127	THR	Peptide
34	BJ	129	PRO	Mainchain
34	BJ	68	PHE	Sidechain
34	BJ	79	THR	Peptide
35	BK	37	PHE	Sidechain
35	BK	4	VAL	Mainchain
35	BK	41	PHE	Sidechain
35	BK	61	TYR	Sidechain
35	BK	74	PRO	Mainchain
36	BL	119	PHE	Sidechain
36	BL	125	TYR	Sidechain
36	BL	13	ARG	Sidechain
36	BL	16	TYR	Sidechain
36	BL	75	TYR	Sidechain
36	BL	77	HIS	Sidechain
36	BL	83	GLY	Peptide
36	BL	98	GLU	Peptide

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
37	BM	30	ARG	Sidechain
37	BM	31	ARG	Sidechain
37	BM	38	ILE	Mainchain
37	BM	98	ARG	Sidechain
38	BN	100	ILE	Mainchain
38	BN	2	ARG	Sidechain
39	BO	18	ARG	Sidechain
39	BO	44	ARG	Sidechain
39	BO	68	PHE	Sidechain
39	BO	81	ARG	Sidechain
40	BP	112	TYR	Sidechain
40	BP	46	ARG	Sidechain
41	BQ	64	TYR	Sidechain
41	BQ	94	ARG	Sidechain
42	BR	100	ARG	Sidechain
42	BR	108	ARG	Sidechain
42	BR	55	HIS	Sidechain
42	BR	88	ARG	Sidechain
42	BR	97	TYR	Sidechain
43	BS	47	ARG	Sidechain
43	BS	5	ARG	Sidechain
43	BS	63	ARG	Sidechain
43	BS	75	TYR	Sidechain
43	BS	78	PHE	Sidechain
43	BS	95	ALA	Peptide
44	BT	13	ARG	Sidechain
44	BT	79	ARG	Sidechain
44	BT	83	TYR	Sidechain
45	BU	60	HIS	Sidechain
46	BV	13	ALA	Peptide
46	BV	49	LYS	Peptide
47	BW	21	ARG	Sidechain
48	BX	31	TYR	Sidechain
48	BX	52	ALA	Mainchain
48	BX	82	TYR	Sidechain
48	BX	91	PHE	Sidechain
48	BX	93	ARG	Sidechain
49	BY	13	ARG	Peptide
49	BY	14	ASP	Peptide
49	BY	16	GLU	Peptide
49	BY	81	ILE	Peptide
50	BZ	73	ARG	Sidechain

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	33089	0	16599	0	0
2	AB	1627	0	841	0	0
3	AC	993	0	498	0	0
4	AD	1641	0	839	0	0
5	AE	1872	0	1885	0	0
6	AF	1822	0	1913	0	0
7	AG	1643	0	1710	0	0
8	AH	1225	0	1273	0	0
9	AI	1101	0	1050	0	0
10	AJ	1400	0	1449	0	0
11	AK	979	0	1034	0	0
12	AL	1036	0	1084	0	0
13	AM	825	0	865	0	0
14	AN	965	0	997	0	0
15	AO	955	0	1019	0	0
16	AP	910	0	981	0	0
17	AQ	805	0	847	0	0
18	AR	716	0	742	0	0
19	AS	649	0	666	0	0
20	AT	672	0	716	0	0
21	AU	626	0	651	0	0
22	AV	727	0	769	0	0
23	AW	670	0	722	0	0
24	AX	590	0	631	0	0
25	BA	2566	0	1294	0	0
26	BB	62351	0	31277	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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
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	103803	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](#)

There are no protein backbone outliers to report in this entry.

5.3.2 Protein sidechains [i](#)

There are no protein residues with a non-rotameric sidechain to report in this entry.

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1541/1542 (99%)	307 (19%)	100 (6%)
2	AB	75/76 (98%)	24 (32%)	7 (9%)
25	BA	119/120 (99%)	20 (16%)	0
26	BB	2901/2904 (99%)	553 (19%)	145 (4%)
3	AC	46/47 (97%)	25 (54%)	12 (26%)
4	AD	76/77 (98%)	10 (13%)	5 (6%)
All	All	4758/4766 (99%)	939 (19%)	269 (5%)

All (939) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	3	A
1	AA	4	U
1	AA	5	U
1	AA	6	G
1	AA	7	A
1	AA	8	A
1	AA	9	G
1	AA	32	A
1	AA	36	C
1	AA	48	C
1	AA	51	A
1	AA	52	C
1	AA	53	A
1	AA	54	C
1	AA	61	G
1	AA	83	C
1	AA	87	C
1	AA	98	A
1	AA	108	G
1	AA	109	A
1	AA	121	U
1	AA	123	U
1	AA	129	A
1	AA	131	A
1	AA	153	C
1	AA	164	G
1	AA	166	U
1	AA	171	A
1	AA	174	A
1	AA	182	A

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Mol	Chain	Res	Type
1	AA	184	G
1	AA	188	C
1	AA	197	A
1	AA	204	G
1	AA	209	U
1	AA	210	C
1	AA	212	G
1	AA	225	C
1	AA	228	A
1	AA	229	U
1	AA	239	U
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	273	U
1	AA	280	C
1	AA	281	G
1	AA	282	A
1	AA	289	G
1	AA	293	G
1	AA	306	A
1	AA	307	C
1	AA	316	C
1	AA	317	U
1	AA	319	G
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	344	A
1	AA	345	C
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	360	G
1	AA	367	U

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Mol	Chain	Res	Type
1	AA	372	C
1	AA	373	A
1	AA	374	A
1	AA	381	C
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	412	A
1	AA	413	G
1	AA	415	A
1	AA	421	U
1	AA	422	C
1	AA	429	U
1	AA	430	A
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	482	A
1	AA	485	U
1	AA	486	U
1	AA	496	A
1	AA	497	G
1	AA	498	A
1	AA	505	G
1	AA	508	U
1	AA	510	A
1	AA	518	C
1	AA	528	C
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	535	A

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Mol	Chain	Res	Type
1	AA	547	A
1	AA	552	U
1	AA	553	A
1	AA	560	A
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	642	A
1	AA	650	G
1	AA	653	U
1	AA	682	G
1	AA	687	A
1	AA	688	G
1	AA	702	A
1	AA	718	A
1	AA	719	C
1	AA	724	G
1	AA	729	A
1	AA	755	G
1	AA	760	G
1	AA	765	G
1	AA	766	A
1	AA	783	C
1	AA	791	G
1	AA	793	U
1	AA	805	C
1	AA	810	C
1	AA	812	G
1	AA	815	A
1	AA	816	A
1	AA	817	C

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Mol	Chain	Res	Type
1	AA	820	U
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	844	G
1	AA	845	A
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	966	2MG
1	AA	968	A
1	AA	969	A
1	AA	973	G
1	AA	974	A
1	AA	975	A
1	AA	977	A
1	AA	978	A
1	AA	981	U
1	AA	984	C
1	AA	992	U

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Mol	Chain	Res	Type
1	AA	993	G
1	AA	994	A
1	AA	995	C
1	AA	1004	A
1	AA	1006	G
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	1055	A
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	1109	C
1	AA	1118	U
1	AA	1130	A
1	AA	1135	U
1	AA	1137	C
1	AA	1139	G
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	1190	G
1	AA	1191	A
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	1213	A
1	AA	1214	C

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Mol	Chain	Res	Type
1	AA	1215	G
1	AA	1223	C
1	AA	1224	U
1	AA	1226	C
1	AA	1227	A
1	AA	1228	C
1	AA	1238	A
1	AA	1240	U
1	AA	1250	A
1	AA	1254	A
1	AA	1256	A
1	AA	1258	G
1	AA	1264	U
1	AA	1267	C
1	AA	1270	G
1	AA	1278	G
1	AA	1280	A
1	AA	1286	U
1	AA	1290	G
1	AA	1297	G
1	AA	1300	G
1	AA	1301	U
1	AA	1303	C
1	AA	1305	G
1	AA	1315	U
1	AA	1317	C
1	AA	1318	A
1	AA	1319	A
1	AA	1322	C
1	AA	1335	U
1	AA	1336	C
1	AA	1340	A
1	AA	1345	U
1	AA	1346	A
1	AA	1347	G
1	AA	1348	U
1	AA	1360	A
1	AA	1362	A
1	AA	1364	U
1	AA	1368	A
1	AA	1378	C
1	AA	1397	C

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Mol	Chain	Res	Type
1	AA	1401	G
1	AA	1431	A
1	AA	1432	G
1	AA	1437	A
1	AA	1446	A
1	AA	1448	C
1	AA	1452	C
1	AA	1453	G
1	AA	1454	G
1	AA	1457	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	1529	G
1	AA	1530	G
1	AA	1534	A
1	AA	1535	C
1	AA	1537	U
1	AA	1539	C
1	AA	1540	U
2	AB	8	4SU
2	AB	9	A
2	AB	10	G
2	AB	11	U
2	AB	17	H2U
2	AB	20	H2U
2	AB	21	A
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

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Mol	Chain	Res	Type
2	AB	59	G
2	AB	60	U
2	AB	61	C
2	AB	73	G
2	AB	74	C
2	AB	75	C
2	AB	76	A
3	AC	14	G
3	AC	15	G
3	AC	16	A
3	AC	17	U
3	AC	20	G
3	AC	21	U
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	33	A
3	AC	34	U
3	AC	40	G
3	AC	42	U
3	AC	43	U
3	AC	45	G
3	AC	46	C
3	AC	47	C
3	AC	48	C
3	AC	50	U
3	AC	51	C
3	AC	53	G
4	AD	8	4SU
4	AD	18	U
4	AD	20	G
4	AD	22	A
4	AD	38	A
4	AD	49	C
4	AD	50	G
4	AD	75	C
4	AD	76	C
4	AD	77	A

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Mol	Chain	Res	Type
25	BA	9	G
25	BA	13	G
25	BA	14	U
25	BA	25	U
25	BA	26	C
25	BA	35	C
25	BA	41	G
25	BA	42	C
25	BA	44	G
25	BA	45	A
25	BA	51	G
25	BA	58	A
25	BA	66	A
25	BA	67	G
25	BA	73	A
25	BA	88	C
25	BA	99	A
25	BA	106	G
25	BA	107	G
25	BA	120	U
26	BB	13	A
26	BB	14	A
26	BB	18	U
26	BB	30	G
26	BB	34	U
26	BB	35	G
26	BB	42	A
26	BB	43	G
26	BB	45	G
26	BB	46	G
26	BB	49	A
26	BB	50	U
26	BB	71	A
26	BB	72	U
26	BB	75	G
26	BB	85	G
26	BB	91	A
26	BB	92	U
26	BB	95	A
26	BB	98	G
26	BB	100	U
26	BB	101	A

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Mol	Chain	Res	Type
26	BB	102	U
26	BB	103	A
26	BB	113	U
26	BB	115	C
26	BB	119	A
26	BB	120	U
26	BB	128	C
26	BB	155	A
26	BB	181	A
26	BB	182	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	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	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	330	A
26	BB	332	A
26	BB	333	G
26	BB	338	G

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Mol	Chain	Res	Type
26	BB	369	U
26	BB	370	G
26	BB	371	A
26	BB	372	G
26	BB	386	G
26	BB	391	A
26	BB	396	G
26	BB	403	U
26	BB	405	U
26	BB	406	G
26	BB	411	G
26	BB	418	C
26	BB	424	G
26	BB	428	A
26	BB	429	A
26	BB	431	U
26	BB	436	C
26	BB	443	A
26	BB	444	C
26	BB	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	504	A
26	BB	505	A
26	BB	508	A
26	BB	509	C
26	BB	527	C
26	BB	530	G
26	BB	531	C
26	BB	532	A
26	BB	546	U
26	BB	547	A
26	BB	548	G
26	BB	550	C
26	BB	562	U
26	BB	563	A

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Mol	Chain	Res	Type
26	BB	571	U
26	BB	573	U
26	BB	574	A
26	BB	575	A
26	BB	603	A
26	BB	604	G
26	BB	612	G
26	BB	613	A
26	BB	615	U
26	BB	620	G
26	BB	621	A
26	BB	635	C
26	BB	637	A
26	BB	642	U
26	BB	643	A
26	BB	644	A
26	BB	645	C
26	BB	646	U
26	BB	654	A
26	BB	655	A
26	BB	671	C
26	BB	675	A
26	BB	686	U
26	BB	696	G
26	BB	718	A
26	BB	719	C
26	BB	728	G
26	BB	730	A
26	BB	732	C
26	BB	736	C
26	BB	746	PSU
26	BB	747	5MU
26	BB	748	G
26	BB	749	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	776	G
26	BB	777	G

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Mol	Chain	Res	Type
26	BB	782	A
26	BB	784	G
26	BB	786	C
26	BB	789	A
26	BB	793	A
26	BB	802	A
26	BB	805	G
26	BB	806	C
26	BB	812	C
26	BB	846	U
26	BB	847	U
26	BB	848	C
26	BB	859	G
26	BB	870	U
26	BB	871	U
26	BB	888	C
26	BB	889	C
26	BB	894	U
26	BB	896	A
26	BB	897	C
26	BB	901	C
26	BB	910	A
26	BB	915	C
26	BB	925	A
26	BB	932	U
26	BB	933	A
26	BB	938	G
26	BB	941	A
26	BB	945	A
26	BB	946	C
26	BB	958	U
26	BB	959	A
26	BB	961	C
26	BB	973	A
26	BB	974	G
26	BB	981	A
26	BB	982	C
26	BB	984	A
26	BB	985	C
26	BB	986	C
26	BB	990	A
26	BB	991	C

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Mol	Chain	Res	Type
26	BB	995	C
26	BB	996	A
26	BB	1002	G
26	BB	1005	C
26	BB	1008	A
26	BB	1010	A
26	BB	1012	U
26	BB	1013	C
26	BB	1022	G
26	BB	1025	G
26	BB	1026	G
26	BB	1044	C
26	BB	1045	C
26	BB	1048	A
26	BB	1060	U
26	BB	1061	U
26	BB	1062	G
26	BB	1070	A
26	BB	1073	A
26	BB	1079	C
26	BB	1081	U
26	BB	1083	U
26	BB	1084	A
26	BB	1087	G
26	BB	1094	U
26	BB	1095	A
26	BB	1098	A
26	BB	1104	C
26	BB	1109	C
26	BB	1110	G
26	BB	1112	G
26	BB	1123	C
26	BB	1128	G
26	BB	1129	A
26	BB	1130	U
26	BB	1132	U
26	BB	1134	A
26	BB	1135	C
26	BB	1143	A
26	BB	1157	G
26	BB	1158	C
26	BB	1173	U

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Mol	Chain	Res	Type
26	BB	1177	G
26	BB	1184	U
26	BB	1204	A
26	BB	1211	C
26	BB	1236	G
26	BB	1237	A
26	BB	1238	G
26	BB	1239	G
26	BB	1241	A
26	BB	1253	A
26	BB	1254	A
26	BB	1255	U
26	BB	1256	G
26	BB	1266	G
26	BB	1272	A
26	BB	1274	A
26	BB	1275	A
26	BB	1283	G
26	BB	1284	A
26	BB	1300	G
26	BB	1301	A
26	BB	1302	A
26	BB	1303	G
26	BB	1307	A
26	BB	1308	A
26	BB	1318	U
26	BB	1323	C
26	BB	1329	U
26	BB	1341	G
26	BB	1349	C
26	BB	1362	C
26	BB	1363	C
26	BB	1365	A
26	BB	1368	G
26	BB	1378	A
26	BB	1379	U
26	BB	1383	A
26	BB	1385	A
26	BB	1386	C
26	BB	1387	A
26	BB	1392	A
26	BB	1395	A

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Mol	Chain	Res	Type
26	BB	1396	U
26	BB	1416	G
26	BB	1417	C
26	BB	1420	A
26	BB	1421	G
26	BB	1452	G
26	BB	1453	A
26	BB	1454	C
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	1514	G
26	BB	1522	A
26	BB	1523	U
26	BB	1524	G
26	BB	1552	A
26	BB	1558	C
26	BB	1565	C
26	BB	1566	A
26	BB	1567	G
26	BB	1568	G
26	BB	1578	U
26	BB	1584	U
26	BB	1585	C
26	BB	1608	A
26	BB	1609	A
26	BB	1610	A
26	BB	1612	C
26	BB	1614	A
26	BB	1616	A
26	BB	1617	C
26	BB	1634	A
26	BB	1635	A
26	BB	1636	U
26	BB	1646	C
26	BB	1648	U
26	BB	1649	G
26	BB	1653	G
26	BB	1654	A

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Mol	Chain	Res	Type
26	BB	1669	A
26	BB	1674	G
26	BB	1675	C
26	BB	1693	U
26	BB	1694	C
26	BB	1713	A
26	BB	1715	G
26	BB	1724	G
26	BB	1730	C
26	BB	1737	G
26	BB	1753	G
26	BB	1758	U
26	BB	1759	A
26	BB	1760	C
26	BB	1762	A
26	BB	1763	G
26	BB	1764	C
26	BB	1773	A
26	BB	1778	U
26	BB	1779	U
26	BB	1780	A
26	BB	1782	U
26	BB	1799	G
26	BB	1800	C
26	BB	1801	A
26	BB	1808	A
26	BB	1809	A
26	BB	1815	A
26	BB	1825	U
26	BB	1830	C
26	BB	1831	G
26	BB	1833	C
26	BB	1838	C
26	BB	1851	U
26	BB	1873	G
26	BB	1899	A
26	BB	1912	A
26	BB	1913	A
26	BB	1914	C
26	BB	1915	3TD
26	BB	1928	A
26	BB	1930	G

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Mol	Chain	Res	Type
26	BB	1937	A
26	BB	1938	A
26	BB	1941	C
26	BB	1944	U
26	BB	1945	G
26	BB	1952	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	2023	C
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	2062	A
26	BB	2069	7MG
26	BB	2077	A
26	BB	2084	C
26	BB	2095	A
26	BB	2106	U
26	BB	2107	G
26	BB	2111	U
26	BB	2112	G
26	BB	2118	U

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Mol	Chain	Res	Type
26	BB	2119	A
26	BB	2127	G
26	BB	2128	G
26	BB	2129	C
26	BB	2130	U
26	BB	2134	A
26	BB	2137	U
26	BB	2143	C
26	BB	2145	C
26	BB	2148	G
26	BB	2154	A
26	BB	2158	A
26	BB	2163	A
26	BB	2164	C
26	BB	2165	C
26	BB	2198	A
26	BB	2199	A
26	BB	2203	U
26	BB	2204	G
26	BB	2211	A
26	BB	2212	A
26	BB	2213	U
26	BB	2214	C
26	BB	2215	C
26	BB	2224	G
26	BB	2225	A
26	BB	2237	G
26	BB	2238	G
26	BB	2239	G
26	BB	2246	G
26	BB	2249	U
26	BB	2250	G
26	BB	2254	C
26	BB	2266	A
26	BB	2282	G
26	BB	2283	C
26	BB	2287	A
26	BB	2288	A
26	BB	2306	C
26	BB	2307	G
26	BB	2308	G
26	BB	2312	U

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Mol	Chain	Res	Type
26	BB	2321	U
26	BB	2322	A
26	BB	2325	G
26	BB	2334	U
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	2390	U
26	BB	2402	U
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	2433	A
26	BB	2435	A
26	BB	2441	U
26	BB	2447	G
26	BB	2448	A
26	BB	2449	H2U
26	BB	2450	A
26	BB	2472	G
26	BB	2473	U
26	BB	2476	A
26	BB	2478	A
26	BB	2486	C
26	BB	2491	U
26	BB	2493	U
26	BB	2494	G
26	BB	2502	G
26	BB	2503	2MA

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Mol	Chain	Res	Type
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	2566	A
26	BB	2567	G
26	BB	2572	A
26	BB	2573	C
26	BB	2574	G
26	BB	2581	G
26	BB	2585	U
26	BB	2587	A
26	BB	2599	G
26	BB	2603	G
26	BB	2610	C
26	BB	2613	U
26	BB	2614	A
26	BB	2616	C
26	BB	2629	U
26	BB	2639	A
26	BB	2654	A
26	BB	2655	G
26	BB	2656	U
26	BB	2664	G
26	BB	2665	A
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	2756	U
26	BB	2757	A
26	BB	2765	A
26	BB	2766	A
26	BB	2769	U
26	BB	2771	C

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Mol	Chain	Res	Type
26	BB	2774	C
26	BB	2777	G
26	BB	2778	A
26	BB	2779	U
26	BB	2782	G
26	BB	2791	G
26	BB	2797	U
26	BB	2800	A
26	BB	2807	U
26	BB	2823	A
26	BB	2825	G
26	BB	2832	U
26	BB	2833	U
26	BB	2842	G
26	BB	2858	C
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	2885	G
26	BB	2889	C
26	BB	2893	A
26	BB	2895	G
26	BB	2903	U

All (269) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	4	U
1	AA	5	U
1	AA	39	G
1	AA	50	A
1	AA	51	A
1	AA	84	U
1	AA	101	A
1	AA	110	C
1	AA	128	G
1	AA	129	A
1	AA	173	U

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Mol	Chain	Res	Type
1	AA	178	C
1	AA	181	A
1	AA	187	G
1	AA	206	C
1	AA	224	U
1	AA	243	A
1	AA	244	U
1	AA	249	U
1	AA	251	G
1	AA	272	C
1	AA	279	A
1	AA	280	C
1	AA	281	G
1	AA	290	C
1	AA	328	C
1	AA	337	G
1	AA	366	A
1	AA	372	C
1	AA	410	G
1	AA	421	U
1	AA	429	U
1	AA	481	G
1	AA	485	U
1	AA	497	G
1	AA	509	A
1	AA	533	A
1	AA	534	U
1	AA	548	G
1	AA	552	U
1	AA	560	A
1	AA	582	C
1	AA	631	C
1	AA	653	U
1	AA	681	A
1	AA	682	G
1	AA	700	G
1	AA	717	U
1	AA	744	C
1	AA	764	C
1	AA	765	G
1	AA	782	A
1	AA	803	G

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Mol	Chain	Res	Type
1	AA	815	A
1	AA	816	A
1	AA	840	C
1	AA	842	U
1	AA	845	A
1	AA	870	U
1	AA	897	C
1	AA	899	C
1	AA	926	G
1	AA	931	C
1	AA	937	A
1	AA	944	G
1	AA	960	U
1	AA	968	A
1	AA	974	A
1	AA	977	A
1	AA	987	G
1	AA	992	U
1	AA	993	G
1	AA	1014	A
1	AA	1029	U
1	AA	1030	U
1	AA	1042	A
1	AA	1054	C
1	AA	1126	U
1	AA	1129	C
1	AA	1167	A
1	AA	1190	G
1	AA	1201	A
1	AA	1213	A
1	AA	1214	C
1	AA	1226	C
1	AA	1227	A
1	AA	1253	G
1	AA	1278	G
1	AA	1289	A
1	AA	1302	C
1	AA	1310	G
1	AA	1329	A
1	AA	1335	U
1	AA	1346	A
1	AA	1347	G

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Mol	Chain	Res	Type
1	AA	1364	U
1	AA	1451	U
1	AA	1491	G
1	AA	1502	A
1	AA	1536	C
2	AB	8	4SU
2	AB	9	A
2	AB	15	A
2	AB	34	C
2	AB	58	A
2	AB	59	G
2	AB	74	C
3	AC	14	G
3	AC	15	G
3	AC	16	A
3	AC	20	G
3	AC	22	G
3	AC	26	U
3	AC	27	A
3	AC	39	U
3	AC	41	A
3	AC	45	G
3	AC	47	C
3	AC	50	U
4	AD	9	G
4	AD	22	A
4	AD	74	A
4	AD	75	C
4	AD	76	C
26	BB	57	C
26	BB	71	A
26	BB	91	A
26	BB	94	A
26	BB	100	U
26	BB	114	U
26	BB	125	A
26	BB	140	C
26	BB	180	G
26	BB	181	A
26	BB	196	A
26	BB	199	A
26	BB	228	C

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Mol	Chain	Res	Type
26	BB	231	A
26	BB	241	A
26	BB	242	G
26	BB	253	C
26	BB	265	A
26	BB	311	A
26	BB	332	A
26	BB	374	A
26	BB	428	A
26	BB	574	A
26	BB	575	A
26	BB	603	A
26	BB	611	C
26	BB	620	G
26	BB	628	G
26	BB	635	C
26	BB	642	U
26	BB	671	C
26	BB	680	C
26	BB	743	A
26	BB	748	G
26	BB	776	G
26	BB	787	C
26	BB	788	A
26	BB	847	U
26	BB	870	U
26	BB	888	C
26	BB	900	A
26	BB	940	G
26	BB	945	A
26	BB	981	A
26	BB	984	A
26	BB	990	A
26	BB	1012	U
26	BB	1020	A
26	BB	1035	U
26	BB	1043	C
26	BB	1045	C
26	BB	1056	G
26	BB	1061	U
26	BB	1067	A
26	BB	1069	A

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Mol	Chain	Res	Type
26	BB	1070	A
26	BB	1083	U
26	BB	1133	A
26	BB	1134	A
26	BB	1142	A
26	BB	1157	G
26	BB	1210	G
26	BB	1239	G
26	BB	1254	A
26	BB	1288	G
26	BB	1300	G
26	BB	1323	C
26	BB	1329	U
26	BB	1339	G
26	BB	1349	C
26	BB	1355	G
26	BB	1386	C
26	BB	1391	U
26	BB	1395	A
26	BB	1416	G
26	BB	1451	C
26	BB	1452	G
26	BB	1460	U
26	BB	1476	U
26	BB	1566	A
26	BB	1567	G
26	BB	1608	A
26	BB	1616	A
26	BB	1634	A
26	BB	1648	U
26	BB	1653	G
26	BB	1693	U
26	BB	1697	G
26	BB	1699	G
26	BB	1714	U
26	BB	1715	G
26	BB	1723	G
26	BB	1753	G
26	BB	1758	U
26	BB	1778	U
26	BB	1799	G
26	BB	1807	G

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Mol	Chain	Res	Type
26	BB	1828	G
26	BB	1888	G
26	BB	2019	A
26	BB	2033	A
26	BB	2055	C
26	BB	2068	U
26	BB	2079	U
26	BB	2106	U
26	BB	2111	U
26	BB	2112	G
26	BB	2118	U
26	BB	2129	C
26	BB	2198	A
26	BB	2223	G
26	BB	2236	U
26	BB	2238	G
26	BB	2249	U
26	BB	2282	G
26	BB	2287	A
26	BB	2307	G
26	BB	2370	G
26	BB	2374	C
26	BB	2384	U
26	BB	2385	C
26	BB	2388	A
26	BB	2395	C
26	BB	2406	A
26	BB	2411	A
26	BB	2425	A
26	BB	2427	C
26	BB	2432	A
26	BB	2434	A
26	BB	2440	C
26	BB	2447	G
26	BB	2515	C
26	BB	2651	C
26	BB	2756	U
26	BB	2765	A
26	BB	2771	C
26	BB	2791	G
26	BB	2802	G
26	BB	2806	C

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Mol	Chain	Res	Type
26	BB	2833	U
26	BB	2835	A
26	BB	2842	G
26	BB	2867	G
26	BB	2879	A
26	BB	2893	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$
26	2MG	BB	2445	26	23,26,27	1.12	3 (13%)	33,38,41	1.03	0
2	H2U	AB	17	2	18,21,22	1.38	1 (5%)	19,30,33	1.62	3 (15%)
26	1MG	BB	745	26	23,26,27	1.48	4 (17%)	33,39,42	2.11	6 (18%)
26	6MZ	BB	1618	26	22,25,26	1.61	6 (27%)	29,36,39	1.70	7 (24%)
1	4OC	AA	1402	1	20,23,24	1.58	6 (30%)	25,32,35	1.86	9 (36%)
1	7MG	AA	527	1	23,26,27	5.44	6 (26%)	27,39,42	1.93	6 (22%)
26	PSU	BB	1911	26	18,21,22	1.95	5 (27%)	21,30,33	1.31	3 (14%)
26	7MG	BB	2069	26	23,26,27	3.56	4 (17%)	27,39,42	1.78	5 (18%)
1	2MG	AA	1207	1	23,26,27	1.48	5 (21%)	33,38,41	1.78	7 (21%)
1	PSU	AA	516	1	18,21,22	1.97	4 (22%)	21,30,33	1.40	4 (19%)
1	UR3	AA	1498	1	19,22,23	1.02	1 (5%)	26,32,35	1.46	5 (19%)
26	OMC	BB	2498	26	19,22,23	1.32	3 (15%)	25,31,34	1.12	2 (8%)
1	MA6	AA	1518	1	23,26,27	1.49	6 (26%)	33,38,41	2.01	8 (24%)
1	5MC	AA	967	1	19,22,23	1.53	3 (15%)	26,32,35	2.12	10 (38%)
2	5MU	AB	54	2	19,22,23	1.69	5 (26%)	27,32,35	1.86	7 (25%)
1	2MG	AA	1516	1	23,26,27	1.01	0	33,38,41	1.33	2 (6%)
2	OMC	AB	32	2	19,22,23	1.25	2 (10%)	25,31,34	1.97	7 (28%)
4	PSU	AD	56	4	18,21,22	1.92	3 (16%)	21,30,33	2.30	6 (28%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
26	5MC	BB	1962	26	19,22,23	1.54	4 (21%)	26,32,35	2.04	6 (23%)
26	CH	BB	2575	26	16,21,22	1.56	3 (18%)	19,30,33	1.53	4 (21%)
2	7MG	AB	46	2	23,26,27	4.80	7 (30%)	27,39,42	1.87	2 (7%)
2	4SU	AB	8	2	18,21,22	1.74	3 (16%)	25,30,33	1.59	5 (20%)
26	PSU	BB	1917	26	18,21,22	2.05	8 (44%)	21,30,33	2.68	9 (42%)
1	2MG	AA	966	1	23,26,27	1.30	4 (17%)	33,38,41	1.64	8 (24%)
2	PSU	AB	55	2	18,21,22	1.33	1 (5%)	21,30,33	1.84	7 (33%)
2	H2U	AB	16	2	18,21,22	1.57	4 (22%)	19,30,33	1.28	3 (15%)
2	H2U	AB	20	2	18,21,22	1.23	2 (11%)	19,30,33	1.37	3 (15%)
26	PSU	BB	746	26	18,21,22	1.80	5 (27%)	21,30,33	1.67	5 (23%)
4	H2U	AD	21	4	18,21,22	1.77	4 (22%)	19,30,33	1.90	5 (26%)
26	3TD	BB	1915	26	19,22,23	1.50	2 (10%)	23,32,35	1.95	5 (21%)
26	H2U	BB	2449	26	18,21,22	1.33	2 (11%)	19,30,33	1.61	3 (15%)
26	OMU	BB	2552	26	19,22,23	1.23	1 (5%)	25,31,34	2.14	11 (44%)
26	2MG	BB	1835	26	23,26,27	1.41	6 (26%)	33,38,41	1.42	4 (12%)
26	OMG	BB	2251	26	23,26,27	1.20	2 (8%)	32,38,41	1.51	8 (25%)
26	2MA	BB	2503	26	22,25,26	1.41	5 (22%)	32,37,40	1.33	5 (15%)
26	PSU	BB	2457	26	18,21,22	1.55	5 (27%)	21,30,33	2.18	7 (33%)
26	5MU	BB	747	26	19,22,23	1.92	6 (31%)	27,32,35	2.00	6 (22%)
26	PSU	BB	2504	26	18,21,22	1.99	6 (33%)	21,30,33	2.12	7 (33%)
1	MA6	AA	1519	1	23,26,27	1.82	8 (34%)	33,38,41	1.71	8 (24%)
26	PSU	BB	2580	26	18,21,22	1.46	3 (16%)	21,30,33	1.44	4 (19%)
4	5MU	AD	55	4	19,22,23	1.61	5 (26%)	27,32,35	1.50	4 (14%)
4	OMC	AD	33	4	19,22,23	1.02	0	25,31,34	1.85	9 (36%)
2	MIA	AB	37	2	28,31,32	1.98	8 (28%)	38,44,47	2.44	7 (18%)
26	5MU	BB	1939	26	19,22,23	1.74	3 (15%)	27,32,35	1.79	4 (14%)
26	PSU	BB	2605	26	18,21,22	1.57	3 (16%)	21,30,33	1.38	2 (9%)
1	5MC	AA	1407	1	19,22,23	1.36	2 (10%)	26,32,35	2.12	8 (30%)
4	4SU	AD	8	4	18,21,22	2.05	3 (16%)	25,30,33	2.40	9 (36%)
26	PSU	BB	955	26	18,21,22	1.37	2 (11%)	21,30,33	2.02	6 (28%)
26	6MZ	BB	2030	26	22,25,26	1.57	3 (13%)	29,36,39	2.03	7 (24%)

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
26	2MG	BB	2445	26	-	0/9/27/28	0/3/3/3
2	H2U	AB	17	2	-	0/7/38/39	0/2/2/2
26	1MG	BB	745	26	-	0/7/25/26	0/3/3/3
26	6MZ	BB	1618	26	-	0/9/27/28	0/3/3/3
1	4OC	AA	1402	1	-	0/9/29/30	0/2/2/2
1	7MG	AA	527	1	-	1/7/37/38	0/3/3/3
26	PSU	BB	1911	26	-	1/7/25/26	0/2/2/2
26	7MG	BB	2069	26	-	0/7/37/38	0/3/3/3
1	2MG	AA	1207	1	-	0/9/27/28	0/3/3/3
1	PSU	AA	516	1	-	0/7/25/26	0/2/2/2
1	UR3	AA	1498	1	-	0/7/25/26	0/2/2/2
26	OMC	BB	2498	26	-	0/9/27/28	0/2/2/2
1	MA6	AA	1518	1	-	0/11/29/30	0/3/3/3
1	5MC	AA	967	1	-	3/7/25/26	0/2/2/2
2	5MU	AB	54	2	-	0/7/25/26	0/2/2/2
1	2MG	AA	1516	1	-	0/9/27/28	0/3/3/3
2	OMC	AB	32	2	-	2/9/27/28	0/2/2/2
4	PSU	AD	56	4	-	1/7/25/26	0/2/2/2
26	5MC	BB	1962	26	-	2/7/25/26	0/2/2/2
26	CH	BB	2575	26	-	0/5/25/26	0/2/2/2
2	7MG	AB	46	2	-	1/7/37/38	0/3/3/3
2	4SU	AB	8	2	-	5/7/25/26	0/2/2/2
26	PSU	BB	1917	26	-	2/7/25/26	0/2/2/2
1	2MG	AA	966	1	-	0/9/27/28	0/3/3/3
2	PSU	AB	55	2	-	2/7/25/26	0/2/2/2
2	H2U	AB	16	2	-	0/7/38/39	0/2/2/2
2	H2U	AB	20	2	-	0/7/38/39	0/2/2/2
26	PSU	BB	746	26	-	3/7/25/26	0/2/2/2
4	H2U	AD	21	4	-	2/7/38/39	0/2/2/2
26	3TD	BB	1915	26	-	1/7/25/26	0/2/2/2
26	H2U	BB	2449	26	-	0/7/38/39	0/2/2/2
26	OMU	BB	2552	26	-	1/9/27/28	0/2/2/2
26	2MG	BB	1835	26	-	1/9/27/28	0/3/3/3
26	OMG	BB	2251	26	-	0/9/27/28	0/3/3/3
26	2MA	BB	2503	26	-	2/7/25/26	0/3/3/3
26	PSU	BB	2457	26	-	0/7/25/26	0/2/2/2
26	5MU	BB	747	26	-	0/7/25/26	0/2/2/2
26	PSU	BB	2504	26	-	0/7/25/26	0/2/2/2
1	MA6	AA	1519	1	-	0/11/29/30	0/3/3/3
26	PSU	BB	2580	26	-	1/7/25/26	0/2/2/2
4	5MU	AD	55	4	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	OMC	AD	33	4	-	0/9/27/28	0/2/2/2
2	MIA	AB	37	2	-	1/15/33/34	0/3/3/3
26	5MU	BB	1939	26	-	0/7/25/26	0/2/2/2
26	PSU	BB	2605	26	-	1/7/25/26	0/2/2/2
1	5MC	AA	1407	1	-	0/7/25/26	0/2/2/2
4	4SU	AD	8	4	-	0/7/25/26	0/2/2/2
26	PSU	BB	955	26	-	0/7/25/26	0/2/2/2
26	6MZ	BB	2030	26	-	0/9/27/28	0/3/3/3

All (187) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	527	7MG	C8-N9	-25.10	1.29	1.45
2	AB	46	7MG	C8-N9	-21.49	1.31	1.45
26	BB	2069	7MG	C8-N9	-15.89	1.35	1.45
4	AD	8	4SU	C5-C4	-7.18	1.33	1.42
2	AB	8	4SU	C5-C4	-5.85	1.35	1.42
2	AB	37	MIA	C2-S10	5.77	1.80	1.75
26	BB	1917	PSU	C2'-C1'	5.20	1.60	1.53
26	BB	1939	5MU	C6-C5	5.10	1.42	1.34
4	AD	56	PSU	C2-N1	4.89	1.43	1.36
26	BB	1911	PSU	C2-N1	4.49	1.42	1.36
26	BB	745	1MG	O4'-C4'	-4.40	1.35	1.45
2	AB	46	7MG	C5-N7	4.29	1.41	1.35
4	AD	21	H2U	C1'-N1	4.18	1.54	1.46
26	BB	746	PSU	C1'-C5	4.11	1.59	1.50
1	AA	516	PSU	C6-C5	4.09	1.39	1.35
26	BB	747	5MU	C2-N3	4.09	1.45	1.38
26	BB	2504	PSU	O4'-C1'	-3.92	1.38	1.43
2	AB	17	H2U	C4-N3	-3.89	1.31	1.37
26	BB	2504	PSU	C2'-C1'	-3.87	1.48	1.53
26	BB	1618	6MZ	C9-N6	3.81	1.51	1.45
26	BB	747	5MU	C6-C5	3.77	1.40	1.34
1	AA	1519	MA6	C4-N3	3.76	1.41	1.34
26	BB	2069	7MG	C4-N9	-3.69	1.33	1.37
2	AB	16	H2U	O2-C2	3.67	1.29	1.23
1	AA	516	PSU	C2-N3	3.66	1.43	1.37
26	BB	1962	5MC	C6-C5	3.54	1.40	1.34
26	BB	1911	PSU	C6-C5	3.53	1.39	1.35
26	BB	2575	CH	O4'-C4'	-3.47	1.37	1.45
26	BB	955	PSU	C1'-C5	3.46	1.58	1.50
2	AB	37	MIA	C6-N6	-3.46	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	2605	PSU	C1'-C5	3.41	1.58	1.50
26	BB	2552	OMU	C5-C4	3.41	1.51	1.43
1	AA	967	5MC	C5-C4	3.37	1.46	1.44
1	AA	1407	5MC	C1'-N1	3.34	1.57	1.47
26	BB	1917	PSU	C1'-C5	3.33	1.57	1.50
2	AB	55	PSU	C1'-C5	3.32	1.57	1.50
1	AA	527	7MG	C5-N7	3.31	1.39	1.35
4	AD	21	H2U	C2-N3	-3.30	1.32	1.38
26	BB	1915	3TD	C5'-C4'	3.29	1.61	1.51
26	BB	2580	PSU	C6-N1	3.28	1.41	1.36
26	BB	2030	6MZ	C6-N6	3.27	1.38	1.34
1	AA	1519	MA6	C10-N6	3.27	1.52	1.45
2	AB	54	5MU	C2-N1	3.23	1.43	1.38
26	BB	746	PSU	C6-C5	-3.22	1.31	1.35
26	BB	746	PSU	C6-N1	3.18	1.41	1.36
26	BB	2503	2MA	C4-N3	3.17	1.38	1.34
1	AA	516	PSU	C2'-C1'	-3.16	1.49	1.53
26	BB	1939	5MU	C4-C5	3.15	1.49	1.44
26	BB	2457	PSU	C6-C5	3.13	1.38	1.35
26	BB	2504	PSU	C4-N3	-3.12	1.33	1.38
26	BB	2504	PSU	C3'-C4'	3.10	1.60	1.53
4	AD	21	H2U	C6-N1	3.09	1.52	1.47
26	BB	1962	5MC	O4'-C4'	-3.07	1.38	1.45
26	BB	1911	PSU	O4'-C4'	-3.05	1.38	1.45
1	AA	527	7MG	C8-N7	-3.05	1.27	1.42
4	AD	55	5MU	O4'-C4'	-3.05	1.38	1.45
1	AA	1518	MA6	C6-N1	3.03	1.40	1.34
2	AB	20	H2U	O2'-C2'	-3.01	1.35	1.43
26	BB	2605	PSU	O4'-C4'	-3.01	1.38	1.45
26	BB	2498	OMC	C5'-C4'	3.00	1.60	1.51
26	BB	2504	PSU	O4'-C4'	-2.99	1.38	1.45
26	BB	1835	2MG	C5'-C4'	2.97	1.60	1.51
2	AB	37	MIA	C2-N3	2.97	1.38	1.34
26	BB	2575	CH	C5-C4	2.90	1.44	1.39
1	AA	1207	2MG	O4'-C1'	-2.89	1.35	1.42
4	AD	21	H2U	C5-C4	2.87	1.56	1.50
26	BB	2498	OMC	O2'-C2'	-2.87	1.35	1.42
26	BB	1911	PSU	C4-N3	2.86	1.44	1.38
1	AA	1519	MA6	C4-N9	-2.86	1.31	1.37
26	BB	1618	6MZ	O4'-C4'	-2.84	1.38	1.45
26	BB	747	5MU	C2-N1	2.82	1.42	1.38
26	BB	2457	PSU	C2'-C1'	-2.82	1.49	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1618	6MZ	O4'-C1'	2.82	1.48	1.42
26	BB	1835	2MG	C2-N1	2.78	1.41	1.36
2	AB	37	MIA	C8-N9	2.76	1.42	1.37
26	BB	746	PSU	C2-N3	2.75	1.42	1.37
1	AA	1207	2MG	CM2-N2	2.71	1.50	1.45
2	AB	16	H2U	C5-C4	2.70	1.55	1.50
26	BB	2030	6MZ	C2-N1	-2.69	1.29	1.33
26	BB	2498	OMC	C1'-N1	2.65	1.55	1.47
26	BB	2030	6MZ	C4-N9	2.64	1.43	1.37
2	AB	20	H2U	C4-N3	-2.64	1.33	1.37
2	AB	16	H2U	C2-N3	-2.63	1.33	1.38
26	BB	2504	PSU	C2-N3	2.62	1.41	1.37
2	AB	46	7MG	C8-N7	-2.62	1.29	1.42
2	AB	54	5MU	C6-C5	2.60	1.38	1.34
2	AB	46	7MG	O4'-C4'	-2.59	1.39	1.45
1	AA	1519	MA6	C9-N6	2.59	1.51	1.45
26	BB	1915	3TD	C6-C5	2.58	1.38	1.35
4	AD	56	PSU	O4-C4	-2.58	1.18	1.23
1	AA	1207	2MG	C4-N3	2.58	1.40	1.34
1	AA	967	5MC	C5'-C4'	-2.57	1.43	1.51
1	AA	1518	MA6	C5-N7	2.56	1.43	1.39
1	AA	1519	MA6	C5'-C4'	2.56	1.59	1.51
26	BB	1835	2MG	C6-N1	2.55	1.43	1.38
26	BB	2503	2MA	C4-N9	2.55	1.43	1.37
26	BB	1917	PSU	O4'-C4'	-2.55	1.39	1.45
26	BB	2575	CH	C4-N3	2.54	1.40	1.37
26	BB	2069	7MG	C5'-C4'	2.50	1.59	1.51
26	BB	745	1MG	C4-N3	2.49	1.39	1.34
2	AB	32	OMC	C5'-C4'	2.46	1.58	1.51
2	AB	37	MIA	C5-N7	2.44	1.43	1.39
2	AB	54	5MU	C5'-C4'	2.43	1.58	1.51
26	BB	1917	PSU	C3'-C4'	2.41	1.59	1.53
1	AA	966	2MG	C3'-C4'	-2.40	1.46	1.53
26	BB	2457	PSU	C5'-C4'	2.40	1.58	1.51
26	BB	2503	2MA	C5-N7	-2.39	1.34	1.39
26	BB	746	PSU	C2'-C1'	-2.38	1.50	1.53
4	AD	55	5MU	O5'-C5'	-2.36	1.37	1.44
26	BB	2605	PSU	C4-C5	2.35	1.50	1.44
2	AB	46	7MG	C6-N1	2.34	1.43	1.38
26	BB	2580	PSU	C2-N3	2.34	1.41	1.37
1	AA	966	2MG	C5'-C4'	2.34	1.58	1.51
2	AB	8	4SU	O2'-C2'	2.33	1.48	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1402	4OC	O4'-C4'	-2.30	1.39	1.45
2	AB	37	MIA	C13-C14	2.30	1.39	1.32
1	AA	1518	MA6	O4'-C4'	-2.30	1.39	1.45
2	AB	32	OMC	O5'-C5'	-2.30	1.37	1.44
26	BB	2503	2MA	C6-N1	2.30	1.38	1.35
26	BB	745	1MG	C5-N7	2.30	1.43	1.39
4	AD	55	5MU	C2-N1	2.29	1.42	1.38
4	AD	8	4SU	C2-N1	-2.29	1.34	1.38
26	BB	1618	6MZ	C5'-C4'	2.29	1.58	1.51
1	AA	967	5MC	O2'-C2'	-2.28	1.37	1.43
26	BB	1939	5MU	C2-N3	2.27	1.41	1.38
26	BB	1917	PSU	C5'-C4'	2.26	1.58	1.51
26	BB	2445	2MG	O4'-C4'	-2.25	1.40	1.45
26	BB	955	PSU	C6-N1	2.25	1.40	1.36
26	BB	747	5MU	O2-C2	2.25	1.27	1.23
26	BB	2449	H2U	O2-C2	2.24	1.27	1.23
1	AA	966	2MG	O2'-C2'	-2.24	1.37	1.43
2	AB	16	H2U	C2-N1	-2.24	1.32	1.35
1	AA	1518	MA6	O2'-C2'	-2.23	1.37	1.43
4	AD	56	PSU	C5'-C4'	2.23	1.58	1.51
26	BB	745	1MG	C5-C6	-2.23	1.40	1.45
4	AD	8	4SU	C4-N3	2.22	1.39	1.37
26	BB	2445	2MG	C4-N9	2.22	1.43	1.38
4	AD	55	5MU	C3'-C4'	-2.21	1.47	1.53
26	BB	2251	OMG	O3'-C3'	-2.21	1.37	1.43
1	AA	1518	MA6	C2-N3	-2.21	1.30	1.33
26	BB	2580	PSU	O4'-C1'	-2.21	1.40	1.43
26	BB	1917	PSU	C2-N1	2.20	1.39	1.36
26	BB	1917	PSU	C6-N1	2.18	1.39	1.36
26	BB	2445	2MG	C2-N1	2.18	1.40	1.36
1	AA	1498	UR3	C1'-N1	2.18	1.53	1.47
4	AD	55	5MU	C4-N3	2.17	1.42	1.38
1	AA	527	7MG	C5'-C4'	2.15	1.58	1.51
26	BB	2503	2MA	O2'-C2'	-2.14	1.37	1.43
1	AA	1402	4OC	C4-N4	-2.14	1.32	1.36
1	AA	1519	MA6	C6-N1	2.14	1.38	1.34
2	AB	46	7MG	CM7-N7	2.13	1.53	1.45
26	BB	2251	OMG	O6-C6	2.13	1.27	1.23
1	AA	1402	4OC	O2'-C2'	2.12	1.47	1.42
2	AB	54	5MU	O3'-C3'	-2.12	1.37	1.43
26	BB	1917	PSU	O2-C2	-2.11	1.18	1.23
2	AB	8	4SU	O4'-C1'	2.11	1.46	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BB	1835	2MG	O2'-C2'	-2.10	1.37	1.43
2	AB	37	MIA	C12-N6	2.10	1.50	1.45
26	BB	1835	2MG	O3'-C3'	-2.10	1.37	1.43
2	AB	37	MIA	C5'-C4'	2.09	1.57	1.51
26	BB	2457	PSU	O4'-C4'	-2.08	1.40	1.45
26	BB	1962	5MC	C4-N4	-2.08	1.28	1.34
1	AA	527	7MG	C4-N3	2.08	1.39	1.34
1	AA	966	2MG	C5-N7	2.08	1.43	1.39
26	BB	2449	H2U	C6-C5	-2.08	1.47	1.52
1	AA	1402	4OC	O2'-CM2	-2.08	1.35	1.42
1	AA	1407	5MC	O4'-C4'	-2.08	1.40	1.45
1	AA	1402	4OC	O4'-C1'	2.07	1.46	1.42
26	BB	1618	6MZ	O2'-C2'	-2.07	1.37	1.43
2	AB	54	5MU	O2'-C2'	-2.07	1.37	1.43
1	AA	1518	MA6	C5-C6	2.07	1.46	1.41
1	AA	1519	MA6	O2'-C2'	2.07	1.48	1.43
1	AA	527	7MG	C2'-C1'	-2.06	1.47	1.53
26	BB	747	5MU	O4'-C1'	-2.06	1.37	1.42
26	BB	2069	7MG	C8-N7	-2.06	1.32	1.42
2	AB	46	7MG	C2-N3	2.05	1.38	1.33
1	AA	1519	MA6	O4'-C4'	-2.05	1.40	1.45
26	BB	747	5MU	O4'-C4'	-2.05	1.40	1.45
1	AA	1402	4OC	C2-N1	-2.04	1.35	1.40
1	AA	516	PSU	O4'-C1'	2.03	1.46	1.43
1	AA	1207	2MG	C2-N3	2.03	1.35	1.32
26	BB	1962	5MC	C1'-N1	2.01	1.53	1.47
1	AA	1207	2MG	C1'-N9	2.01	1.53	1.47
26	BB	2457	PSU	C2-N3	2.01	1.40	1.37
26	BB	1618	6MZ	C5-N7	-2.00	1.35	1.39
26	BB	1835	2MG	O4'-C4'	-2.00	1.40	1.45
26	BB	1911	PSU	O4'-C1'	-2.00	1.41	1.43

All (278) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AB	37	MIA	C11-S10-C2	11.74	111.06	102.25
26	BB	745	1MG	C2-N1-C6	7.91	127.59	120.99
2	AB	46	7MG	N9-C8-N7	7.72	114.30	103.37
1	AA	527	7MG	N9-C8-N7	7.14	113.48	103.37
26	BB	1917	PSU	C6-C5-C4	7.05	122.93	118.17
4	AD	56	PSU	C6-C5-C4	7.04	122.92	118.17
1	AA	1518	MA6	N1-C6-N6	6.91	125.28	116.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	8	4SU	C4-N3-C2	-6.43	121.15	127.31
26	BB	2457	PSU	C3'-C2'-C1'	5.56	108.25	101.69
26	BB	1939	5MU	C5-C4-N3	-5.50	110.54	115.32
26	BB	2030	6MZ	C9-N6-C6	5.46	127.91	122.85
26	BB	1917	PSU	O2-C2-N1	-5.40	117.22	122.79
1	AA	967	5MC	CM5-C5-C4	5.37	129.33	120.51
26	BB	1962	5MC	C5-C4-N4	-5.16	114.12	121.39
26	BB	745	1MG	O4'-C1'-N9	5.11	119.93	108.36
26	BB	1915	3TD	C4-N3-C2	-5.09	119.22	124.61
26	BB	2504	PSU	C3'-C2'-C1'	5.05	107.65	101.69
26	BB	1962	5MC	O2-C2-N3	-4.97	114.49	122.33
2	AB	32	OMC	O2-C2-N3	-4.77	114.82	122.33
26	BB	2069	7MG	N9-C8-N7	4.71	110.04	103.37
26	BB	2030	6MZ	O4'-C1'-N9	4.64	117.01	108.09
26	BB	1618	6MZ	C4-N9-C8	-4.60	100.91	105.74
26	BB	2504	PSU	N1-C2-N3	-4.58	110.33	115.17
26	BB	747	5MU	O4'-C1'-N1	4.52	118.60	108.36
1	AA	1407	5MC	C5-C6-N1	-4.52	118.41	123.31
1	AA	966	2MG	C4'-O4'-C1'	-4.51	99.51	109.47
1	AA	1207	2MG	C6-C5-C4	4.38	125.42	118.83
26	BB	745	1MG	CM1-N1-C6	-4.38	110.87	117.64
2	AB	54	5MU	C4-N3-C2	-4.29	121.71	127.34
2	AB	37	MIA	O4'-C4'-C5'	4.27	123.03	109.33
26	BB	747	5MU	C6-N1-C2	-4.27	117.05	121.30
1	AA	1498	UR3	O4-C4-N3	4.25	124.83	119.66
4	AD	21	H2U	O2-C2-N1	-4.13	118.14	123.10
4	AD	33	OMC	O2-C2-N3	-4.10	115.87	122.33
2	AB	32	OMC	O4'-C1'-N1	4.08	117.61	108.36
26	BB	2575	CH	C5-C4-N3	-4.06	115.73	118.04
4	AD	8	4SU	S4-C4-N3	-3.98	116.04	120.20
26	BB	1917	PSU	C5-C6-N1	-3.94	116.67	122.14
26	BB	747	5MU	C2'-C3'-C4'	-3.94	95.00	102.61
1	AA	1402	4OC	C5-C4-N3	-3.90	116.49	122.60
26	BB	2449	H2U	O2-C2-N1	-3.90	118.42	123.10
1	AA	1519	MA6	O4'-C1'-N9	3.89	115.56	108.09
2	AB	55	PSU	C6-C5-C4	3.89	120.80	118.17
1	AA	1407	5MC	C5-C4-N4	-3.88	115.92	121.39
1	AA	1518	MA6	C2-N1-C6	3.87	121.29	111.83
26	BB	2552	OMU	C6-C5-C4	3.84	124.44	119.53
1	AA	1516	2MG	O3'-C3'-C2'	3.84	124.11	111.82
4	AD	21	H2U	O4-C4-N3	3.82	126.18	120.30
26	BB	2552	OMU	N3-C2-N1	3.79	119.83	114.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1407	5MC	N4-C4-N3	3.77	125.34	118.51
4	AD	56	PSU	O2-C2-N1	3.75	126.66	122.79
26	BB	2580	PSU	O3'-C3'-C4'	3.75	121.85	111.08
26	BB	746	PSU	O2-C2-N1	-3.75	118.92	122.79
4	AD	8	4SU	C5-C4-N3	3.74	118.23	114.75
1	AA	1518	MA6	C9-N6-C6	3.74	130.04	120.52
4	AD	8	4SU	C6-C5-C4	-3.74	116.72	119.95
1	AA	1207	2MG	N1-C2-N2	-3.73	112.75	116.56
1	AA	1207	2MG	C5-C4-N3	-3.73	122.45	128.39
1	AA	967	5MC	CM5-C5-C6	-3.72	117.82	122.85
4	AD	55	5MU	C1'-N1-C6	-3.71	115.05	121.15
26	BB	955	PSU	C3'-C2'-C1'	-3.68	97.34	101.69
26	BB	1962	5MC	C5-C6-N1	-3.67	119.33	123.31
2	AB	8	4SU	C2'-C3'-C4'	-3.66	95.54	102.61
1	AA	1519	MA6	C2-N1-C6	3.65	120.75	111.83
26	BB	1835	2MG	C2-N1-C6	-3.65	120.14	124.55
26	BB	1917	PSU	O4'-C1'-C2'	3.64	110.19	105.15
26	BB	1939	5MU	C5M-C5-C6	-3.62	117.95	122.85
2	AB	37	MIA	C4-C5-C6	-3.61	113.78	116.78
26	BB	2030	6MZ	C3'-C2'-C1'	-3.60	94.64	101.46
1	AA	1519	MA6	N1-C6-N6	3.60	121.25	116.86
1	AA	527	7MG	C5-C4-N3	-3.60	121.38	128.13
1	AA	1516	2MG	O4'-C1'-N9	3.56	116.42	108.36
26	BB	1835	2MG	C2-N3-C4	3.54	116.43	112.00
4	AD	8	4SU	C6-N1-C2	-3.54	116.69	121.00
26	BB	1915	3TD	N1-C2-N3	3.53	118.70	116.13
4	AD	21	H2U	C5-C4-N3	-3.52	112.94	116.69
4	AD	33	OMC	N4-C4-N3	3.52	124.20	117.91
1	AA	1407	5MC	CM5-C5-C6	-3.51	118.10	122.85
26	BB	955	PSU	N1-C2-N3	-3.51	111.46	115.17
2	AB	54	5MU	O2-C2-N1	3.49	127.34	122.80
26	BB	2552	OMU	O2'-C2'-C1'	3.49	115.61	108.99
2	AB	55	PSU	C3'-C2'-C1'	3.47	105.79	101.69
26	BB	955	PSU	O4'-C1'-C2'	3.45	109.92	105.15
26	BB	2503	2MA	O4'-C1'-N9	3.38	114.59	108.09
26	BB	955	PSU	C4-N3-C2	3.38	131.02	126.37
26	BB	2580	PSU	O2'-C2'-C1'	-3.35	103.25	111.21
26	BB	2457	PSU	N1-C2-N3	-3.33	111.65	115.17
2	AB	37	MIA	C12-C13-C14	-3.31	121.07	127.01
26	BB	1962	5MC	O2-C2-N1	3.28	125.33	118.90
26	BB	2251	OMG	C2'-C1'-N9	-3.27	108.03	114.24
26	BB	747	5MU	O2-C2-N3	-3.24	115.50	121.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1402	4OC	C3'-C2'-C1'	-3.24	96.59	102.81
26	BB	1915	3TD	C5-C6-N1	-3.24	117.64	122.14
4	AD	55	5MU	C1'-N1-C2	3.24	123.41	117.59
2	AB	37	MIA	O4'-C1'-N9	3.23	114.30	108.09
1	AA	966	2MG	C2'-C3'-C4'	-3.22	96.38	102.61
1	AA	1407	5MC	C2'-C3'-C4'	-3.22	96.39	102.61
26	BB	2457	PSU	O4'-C1'-C2'	-3.21	100.71	105.15
2	AB	55	PSU	C5-C4-N3	-3.18	109.55	116.55
26	BB	2449	H2U	O4-C4-N3	3.18	125.20	120.30
2	AB	17	H2U	C4'-O4'-C1'	-3.18	102.45	109.47
2	AB	32	OMC	C6-N1-C2	-3.17	115.11	120.46
1	AA	966	2MG	O6-C6-N1	3.17	126.07	120.11
2	AB	55	PSU	C6-N1-C2	-3.16	119.76	122.69
2	AB	54	5MU	C5-C4-N3	3.15	118.06	115.32
2	AB	32	OMC	C1'-N1-C2	3.14	125.38	118.44
26	BB	2552	OMU	O4'-C1'-N1	3.13	115.46	108.36
26	BB	1917	PSU	O2'-C2'-C1'	-3.11	103.82	111.21
2	AB	32	OMC	C2'-C1'-N1	-3.10	108.35	114.24
1	AA	966	2MG	O4'-C4'-C3'	3.08	111.27	105.15
2	AB	17	H2U	C2'-C3'-C4'	-3.07	96.68	102.61
26	BB	2030	6MZ	O2'-C2'-C1'	3.04	120.59	110.10
26	BB	2069	7MG	C2-N3-C4	3.04	117.53	112.30
1	AA	1518	MA6	C2'-C3'-C4'	-3.04	96.74	102.61
26	BB	2552	OMU	O4'-C1'-C2'	3.03	111.80	106.59
1	AA	1407	5MC	C5-C4-N3	-3.02	118.66	121.75
26	BB	2605	PSU	C6-N1-C2	3.02	125.50	122.69
4	AD	56	PSU	C5-C6-N1	-3.02	117.95	122.14
1	AA	1207	2MG	C6-C5-N7	-3.00	124.82	130.29
26	BB	2457	PSU	C2'-C3'-C4'	-2.95	96.90	102.61
26	BB	2030	6MZ	C5-N7-C8	2.94	108.06	103.45
26	BB	1917	PSU	O4'-C4'-C3'	2.92	110.95	105.15
4	AD	33	OMC	C6-C5-C4	2.87	122.23	117.53
2	AB	8	4SU	C5-C4-N3	2.87	117.42	114.75
2	AB	54	5MU	O2-C2-N3	-2.86	116.21	121.49
2	AB	54	5MU	C5-C6-N1	-2.85	120.22	123.31
2	AB	16	H2U	N3-C2-N1	2.85	119.51	116.65
26	BB	2552	OMU	C5-C4-N3	-2.84	110.82	114.80
26	BB	2069	7MG	O3'-C3'-C4'	2.82	119.18	111.08
26	BB	1618	6MZ	C2'-C1'-N9	-2.81	106.33	113.30
26	BB	1939	5MU	C5M-C5-C4	2.80	121.77	118.78
26	BB	746	PSU	O2'-C2'-C1'	-2.80	104.56	111.21
2	AB	16	H2U	C3'-C2'-C1'	-2.79	96.18	101.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1498	UR3	O4'-C1'-N1	2.79	114.68	108.36
26	BB	2605	PSU	O2'-C2'-C1'	2.79	117.83	111.21
26	BB	2552	OMU	C5-C6-N1	-2.77	117.33	121.84
26	BB	2457	PSU	C4-N3-C2	2.77	130.18	126.37
1	AA	1518	MA6	C5-C6-N1	-2.75	112.84	118.55
1	AA	967	5MC	N4-C4-N3	-2.75	113.53	118.51
1	AA	967	5MC	C6-N1-C2	-2.74	117.30	120.95
26	BB	1939	5MU	C6-C5-C4	2.74	120.28	118.02
1	AA	967	5MC	C2'-C3'-C4'	-2.73	97.33	102.61
1	AA	1207	2MG	O3'-C3'-C4'	2.72	118.90	111.08
26	BB	955	PSU	O4-C4-C5	2.72	130.75	124.01
1	AA	1207	2MG	N2-C2-N3	2.70	123.95	120.51
26	BB	1917	PSU	O2-C2-N3	2.70	126.67	121.86
1	AA	1402	4OC	C2'-C1'-N1	-2.70	109.12	114.24
26	BB	746	PSU	N1-C2-N3	-2.69	112.32	115.17
1	AA	967	5MC	C5-C6-N1	2.69	126.24	123.31
26	BB	2457	PSU	O4'-C4'-C5'	2.68	117.92	109.33
1	AA	967	5MC	C3'-C2'-C1'	2.68	106.53	101.46
26	BB	1618	6MZ	C4-N9-C1'	2.67	132.88	126.63
26	BB	2504	PSU	C6-N1-C2	2.67	125.17	122.69
1	AA	1407	5MC	O2-C2-N1	2.67	124.12	118.90
26	BB	1911	PSU	C4-N3-C2	-2.66	122.70	126.37
26	BB	745	1MG	N2-C2-N1	2.66	120.93	118.79
26	BB	2552	OMU	C2'-C1'-N1	-2.66	109.19	114.24
26	BB	2575	CH	O2'-C2'-C1'	-2.64	100.61	110.61
26	BB	2504	PSU	O2-C2-N1	2.64	125.51	122.79
26	BB	747	5MU	N3-C2-N1	2.64	118.33	114.89
26	BB	2457	PSU	O2-C2-N3	2.63	126.53	121.86
4	AD	8	4SU	O2-C2-N3	-2.62	116.65	121.49
4	AD	56	PSU	O4'-C1'-C2'	2.62	108.78	105.15
4	AD	33	OMC	C2'-C1'-N1	-2.61	109.29	114.24
26	BB	1835	2MG	C8-N9-C4	-2.60	101.14	106.03
26	BB	2503	2MA	O4'-C1'-C2'	-2.60	101.05	106.62
26	BB	1618	6MZ	C9-N6-C6	2.59	125.25	122.85
1	AA	1498	UR3	O2'-C2'-C1'	2.58	118.98	110.10
26	BB	2030	6MZ	C6-C5-N7	2.58	135.24	132.43
26	BB	2251	OMG	O4'-C4'-C5'	2.57	117.56	109.33
1	AA	1402	4OC	C4-N3-C2	2.56	123.49	120.11
26	BB	2251	OMG	C2-N1-C6	-2.56	120.47	125.11
1	AA	527	7MG	C5-C4-N9	2.56	109.61	106.33
1	AA	1519	MA6	C5-C6-N6	-2.56	121.29	125.33
2	AB	32	OMC	N1-C2-N3	2.54	123.22	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	966	2MG	N1-C2-N2	-2.54	113.97	116.56
2	AB	20	H2U	O4'-C1'-N1	2.53	112.74	109.30
26	BB	2552	OMU	C2'-C3'-C4'	2.52	107.42	101.99
26	BB	746	PSU	C3'-C2'-C1'	2.51	104.65	101.69
2	AB	37	MIA	N3-C2-N1	-2.50	122.43	127.00
26	BB	1911	PSU	C6-C5-C4	2.50	119.86	118.17
26	BB	2251	OMG	O2'-C2'-C1'	2.50	113.73	108.99
4	AD	33	OMC	C1'-N1-C6	2.50	126.12	120.78
26	BB	1911	PSU	O3'-C3'-C4'	2.49	118.22	111.08
26	BB	2069	7MG	O6-C6-N1	-2.48	115.44	120.11
26	BB	1962	5MC	N4-C4-N3	2.48	123.00	118.51
26	BB	747	5MU	C4-N3-C2	-2.48	124.08	127.34
26	BB	2498	OMC	C2'-C3'-C4'	-2.47	96.68	101.99
26	BB	2552	OMU	C4-N3-C2	-2.47	123.55	126.61
4	AD	8	4SU	N3-C2-N1	2.47	118.10	114.89
1	AA	967	5MC	O4'-C4'-C3'	2.45	110.02	105.15
4	AD	55	5MU	C4-N3-C2	-2.45	124.13	127.34
26	BB	2504	PSU	O3'-C3'-C2'	2.44	119.65	111.82
1	AA	1402	4OC	O4'-C1'-N1	2.44	113.89	108.36
2	AB	54	5MU	C5M-C5-C6	-2.44	119.55	122.85
26	BB	1618	6MZ	C5-C4-N9	2.44	108.47	105.81
2	AB	46	7MG	O4'-C1'-N9	2.43	112.61	109.30
1	AA	1518	MA6	C10-N6-C6	-2.42	114.35	120.52
2	AB	8	4SU	O4'-C4'-C5'	2.41	117.07	109.33
26	BB	2575	CH	C4'-O4'-C1'	-2.41	107.28	109.74
1	AA	1402	4OC	O2-C2-N3	-2.41	118.53	122.33
1	AA	966	2MG	O4'-C1'-C2'	2.40	111.76	106.62
26	BB	1835	2MG	C5-C4-N9	2.40	109.95	105.66
26	BB	2552	OMU	O4-C4-N3	2.40	122.75	119.27
1	AA	527	7MG	N9-C4-N3	2.40	128.97	125.46
26	BB	955	PSU	C6-C5-C4	2.39	119.79	118.17
26	BB	2030	6MZ	C4'-O4'-C1'	-2.39	104.20	109.47
1	AA	516	PSU	O3'-C3'-C2'	2.38	119.46	111.82
26	BB	1915	3TD	O4'-C1'-C2'	-2.38	101.86	105.15
1	AA	516	PSU	N1-C2-N3	-2.38	112.66	115.17
26	BB	2069	7MG	C5-C4-N9	2.38	109.38	106.33
2	AB	8	4SU	S4-C4-N3	-2.36	117.74	120.20
26	BB	2251	OMG	O4'-C1'-C2'	2.35	110.63	106.59
1	AA	1519	MA6	C4-C5-N7	-2.33	107.92	110.58
4	AD	56	PSU	C2'-C3'-C4'	-2.33	98.12	102.61
1	AA	1518	MA6	C2'-C1'-N9	-2.31	107.58	113.30
26	BB	2580	PSU	C3'-C2'-C1'	2.29	104.39	101.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AD	56	PSU	C3'-C2'-C1'	-2.28	99.00	101.69
1	AA	967	5MC	C1'-N1-C2	2.28	123.47	118.44
4	AD	33	OMC	N1-C2-N3	2.28	122.75	118.80
26	BB	1618	6MZ	C5-C6-N1	-2.27	115.71	118.15
26	BB	1915	3TD	O4-C4-N3	-2.27	116.21	120.36
26	BB	2449	H2U	O3'-C3'-C4'	2.26	117.59	111.08
1	AA	1402	4OC	C6-C5-C4	2.26	119.73	117.00
2	AB	55	PSU	C4-N3-C2	2.26	129.49	126.37
26	BB	745	1MG	C5-C6-N1	-2.25	110.85	115.02
1	AA	1518	MA6	C5-C6-N6	-2.25	121.77	125.33
2	AB	20	H2U	C4'-O4'-C1'	-2.25	104.49	109.47
26	BB	1962	5MC	O4'-C1'-C2'	-2.25	101.80	106.62
1	AA	967	5MC	C1'-N1-C6	-2.25	117.45	121.15
26	BB	2504	PSU	O4'-C4'-C3'	-2.24	100.71	105.15
1	AA	1402	4OC	O4'-C4'-C5'	-2.23	102.20	109.33
1	AA	516	PSU	O4'-C1'-C2'	2.23	108.23	105.15
26	BB	746	PSU	O2-C2-N3	2.21	125.80	121.86
4	AD	21	H2U	O2-C2-N3	2.21	125.56	121.49
1	AA	527	7MG	C4-C5-N7	-2.20	102.77	105.38
2	AB	8	4SU	C4-N3-C2	-2.20	125.20	127.31
26	BB	2504	PSU	C2'-C3'-C4'	-2.20	98.36	102.61
26	BB	2498	OMC	O2-C2-N3	-2.20	118.87	122.33
2	AB	55	PSU	O4-C4-C5	2.20	129.46	124.01
26	BB	2575	CH	C6-N1-C2	-2.19	116.80	121.03
26	BB	745	1MG	O4'-C4'-C3'	2.19	109.51	105.15
26	BB	1917	PSU	C2'-C3'-C4'	-2.19	98.37	102.61
4	AD	8	4SU	C2'-C1'-N1	-2.19	107.15	113.25
4	AD	55	5MU	C4'-O4'-C1'	2.19	114.31	109.47
4	AD	33	OMC	O4'-C4'-C5'	2.19	116.35	109.33
26	BB	2503	2MA	C5'-C4'-C3'	-2.18	107.36	115.21
1	AA	1402	4OC	CM4-N4-C4	-2.17	118.22	122.45
4	AD	33	OMC	C6-N1-C2	-2.16	116.82	120.46
1	AA	966	2MG	C2'-C1'-N9	-2.13	107.31	113.25
1	AA	1498	UR3	O3'-C3'-C2'	-2.13	105.00	111.82
2	AB	54	5MU	C3'-C2'-C1'	-2.13	97.44	101.46
26	BB	2503	2MA	C1'-N9-C8	2.12	131.80	127.09
1	AA	516	PSU	O2-C2-N1	2.12	124.97	122.79
1	AA	1519	MA6	C3'-C2'-C1'	2.11	105.45	101.46
1	AA	527	7MG	O6-C6-N1	2.10	124.06	120.11
1	AA	1407	5MC	C1'-N1-C6	-2.09	117.72	121.15
26	BB	2251	OMG	O4'-C4'-C3'	-2.08	101.02	105.15
1	AA	1519	MA6	C4'-O4'-C1'	2.08	114.05	109.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BB	1917	PSU	C4-N3-C2	-2.07	123.51	126.37
2	AB	55	PSU	O2'-C2'-C1'	-2.07	106.29	111.21
1	AA	1519	MA6	O4'-C1'-C2'	-2.07	102.18	106.62
26	BB	2503	2MA	O4'-C4'-C5'	2.07	115.96	109.33
2	AB	37	MIA	C2-N1-C6	2.07	121.46	117.54
26	BB	2251	OMG	C5-C4-N3	-2.06	125.11	128.39
2	AB	17	H2U	O2-C2-N3	-2.06	117.68	121.49
2	AB	20	H2U	C5-C4-N3	2.06	118.88	116.69
1	AA	1498	UR3	C4-N3-C2	-2.06	122.92	124.58
26	BB	2251	OMG	C2-N3-C4	2.05	115.84	112.30
4	AD	8	4SU	C5-C6-N1	2.05	125.17	121.84
2	AB	32	OMC	O2'-C2'-C1'	2.04	112.87	108.99
4	AD	33	OMC	C5-C4-N3	-2.04	117.89	121.32
2	AB	16	H2U	O4'-C1'-N1	2.02	112.05	109.30
4	AD	21	H2U	O2'-C2'-C3'	2.01	118.27	111.82
1	AA	1207	2MG	O4'-C4'-C5'	2.01	115.76	109.33
26	BB	1618	6MZ	O4'-C1'-N9	2.01	111.94	108.09
1	AA	966	2MG	O2'-C2'-C3'	2.00	118.24	111.82
26	BB	2580	PSU	O2'-C2'-C3'	2.00	118.23	111.82

There are no chirality outliers.

All (33) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	AB	8	4SU	C2'-C1'-N1-C6
2	AB	32	OMC	O4'-C1'-N1-C2
2	AB	32	OMC	O4'-C1'-N1-C6
2	AB	37	MIA	C12-C13-C14-C16
2	AB	55	PSU	C2'-C1'-C5-C4
26	BB	746	PSU	C2'-C1'-C5-C4
26	BB	1835	2MG	N3-C2-N2-CM2
26	BB	2552	OMU	C1'-C2'-O2'-CM2
2	AB	8	4SU	C2'-C1'-N1-C2
1	AA	967	5MC	O4'-C1'-N1-C6
2	AB	46	7MG	C4'-C5'-O5'-P
26	BB	746	PSU	O4'-C4'-C5'-O5'
1	AA	527	7MG	C4'-C5'-O5'-P
26	BB	2503	2MA	O4'-C1'-N9-C8
4	AD	21	H2U	O4'-C1'-N1-C2
4	AD	21	H2U	C2'-C1'-N1-C2
2	AB	8	4SU	C4'-C5'-O5'-P
2	AB	8	4SU	O4'-C1'-N1-C2

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Mol	Chain	Res	Type	Atoms
2	AB	8	4SU	O4'-C1'-N1-C6
26	BB	1962	5MC	C2'-C1'-N1-C6
2	AB	55	PSU	O4'-C1'-C5-C4
26	BB	746	PSU	O4'-C1'-C5-C4
26	BB	1911	PSU	O4'-C1'-C5-C4
26	BB	1917	PSU	O4'-C1'-C5-C4
26	BB	2580	PSU	O4'-C1'-C5-C4
26	BB	2605	PSU	O4'-C1'-C5-C4
26	BB	2503	2MA	O4'-C1'-N9-C4
1	AA	967	5MC	O4'-C1'-N1-C2
4	AD	56	PSU	O4'-C1'-C5-C6
26	BB	1915	3TD	O4'-C1'-C5-C6
26	BB	1917	PSU	O4'-C1'-C5-C6
26	BB	1962	5MC	O4'-C1'-N1-C6
1	AA	967	5MC	C2'-C1'-N1-C2

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

2 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
60	FME	BB	3001	59	8,9,10	0.98	0	8,9,11	2.38	4 (50%)
59	TRP	AB	101	2,60	15,15,16	1.70	2 (13%)	17,20,22	2.29	6 (35%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral

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

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

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	AB	101	TRP	OXT-C	-4.76	1.22	1.42
59	AB	101	TRP	CD2-CE2	2.26	1.44	1.41

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	AB	101	TRP	CE2-NE1-CD1	5.23	113.73	109.08
59	AB	101	TRP	CD2-CE2-NE1	-5.20	103.18	107.52
60	BB	3001	FME	CA-N-CN	4.83	130.26	122.82
59	AB	101	TRP	CZ2-CE2-NE1	2.75	135.15	130.74
59	AB	101	TRP	CZ3-CH2-CZ2	-2.53	117.12	120.24
60	BB	3001	FME	O1-CN-N	-2.41	119.08	125.32
59	AB	101	TRP	OXT-C-CA	2.28	120.29	111.52
60	BB	3001	FME	CB-CA-N	-2.05	106.79	110.52
59	AB	101	TRP	CG-CD1-NE1	-2.04	108.07	110.31
60	BB	3001	FME	O-C-CA	-2.01	119.61	124.77

There are no chirality outliers.

All (4) torsion outliers are listed below:

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

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
1	AA	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AA	1457:G	O3'	1458:G	P	1.77

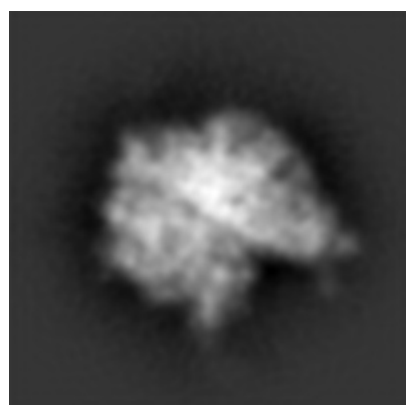
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-5362. These allow visual inspection of the internal detail of the map and identification of artifacts.

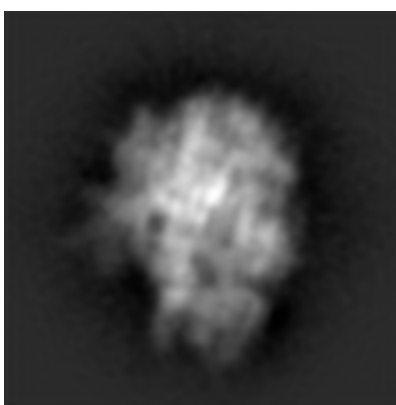
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

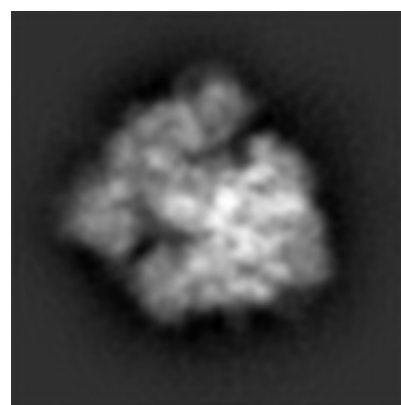
6.1.1 Primary map



X



Y

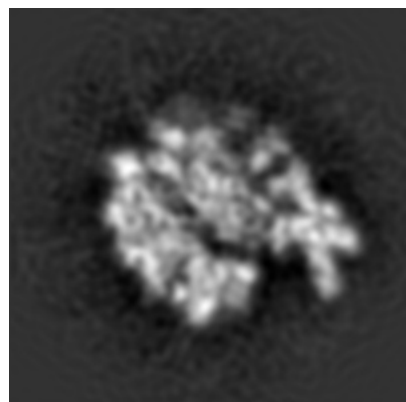


Z

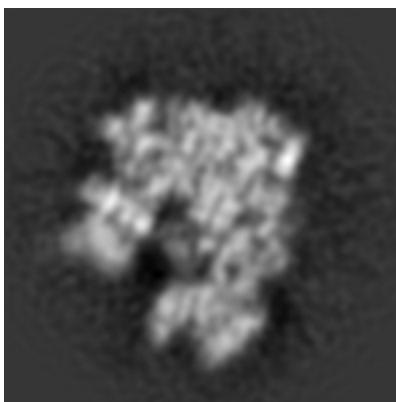
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

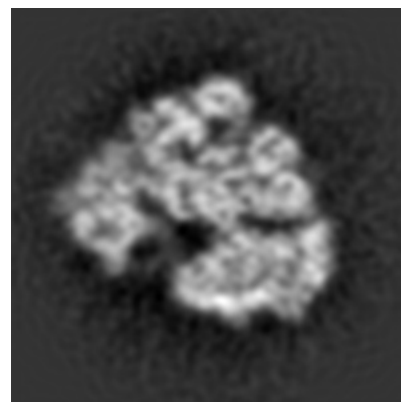
6.2.1 Primary map



X Index: 125



Y Index: 125

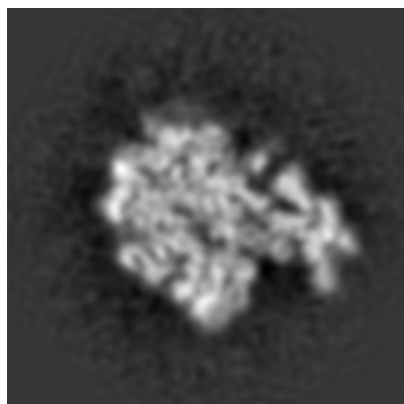


Z Index: 125

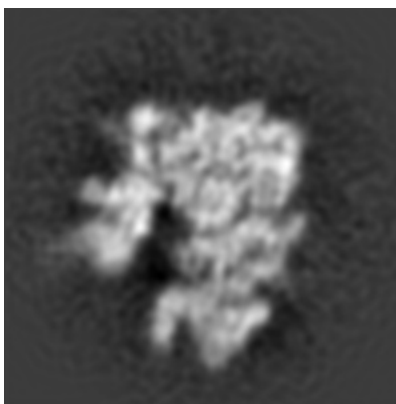
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

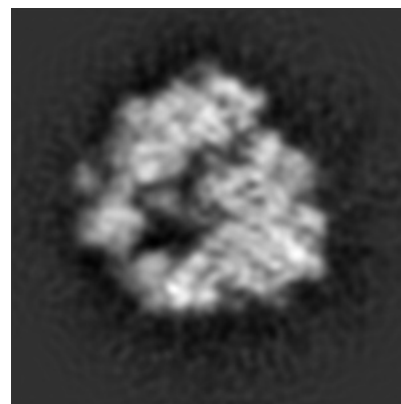
6.3.1 Primary map



X Index: 130



Y Index: 130

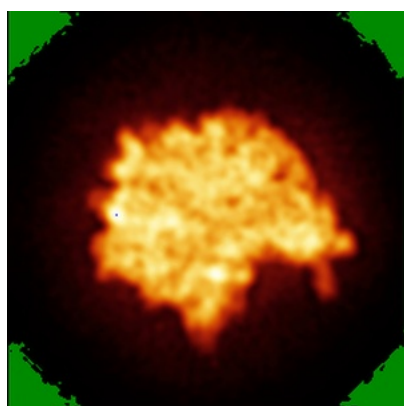


Z Index: 114

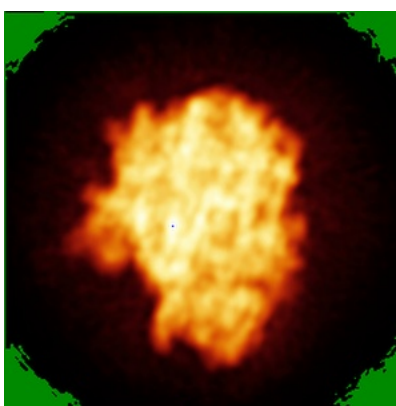
The images above show the largest variance slices of the map in three orthogonal directions.

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

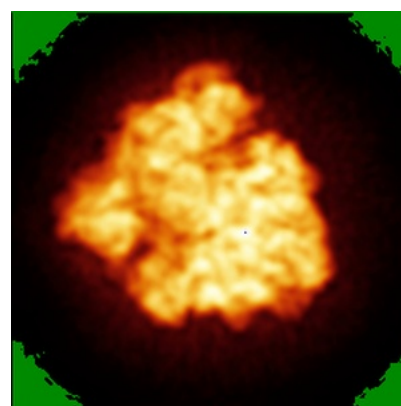
6.4.1 Primary map



X



Y



Z

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

6.5 Orthogonal surface views

This section was not generated.

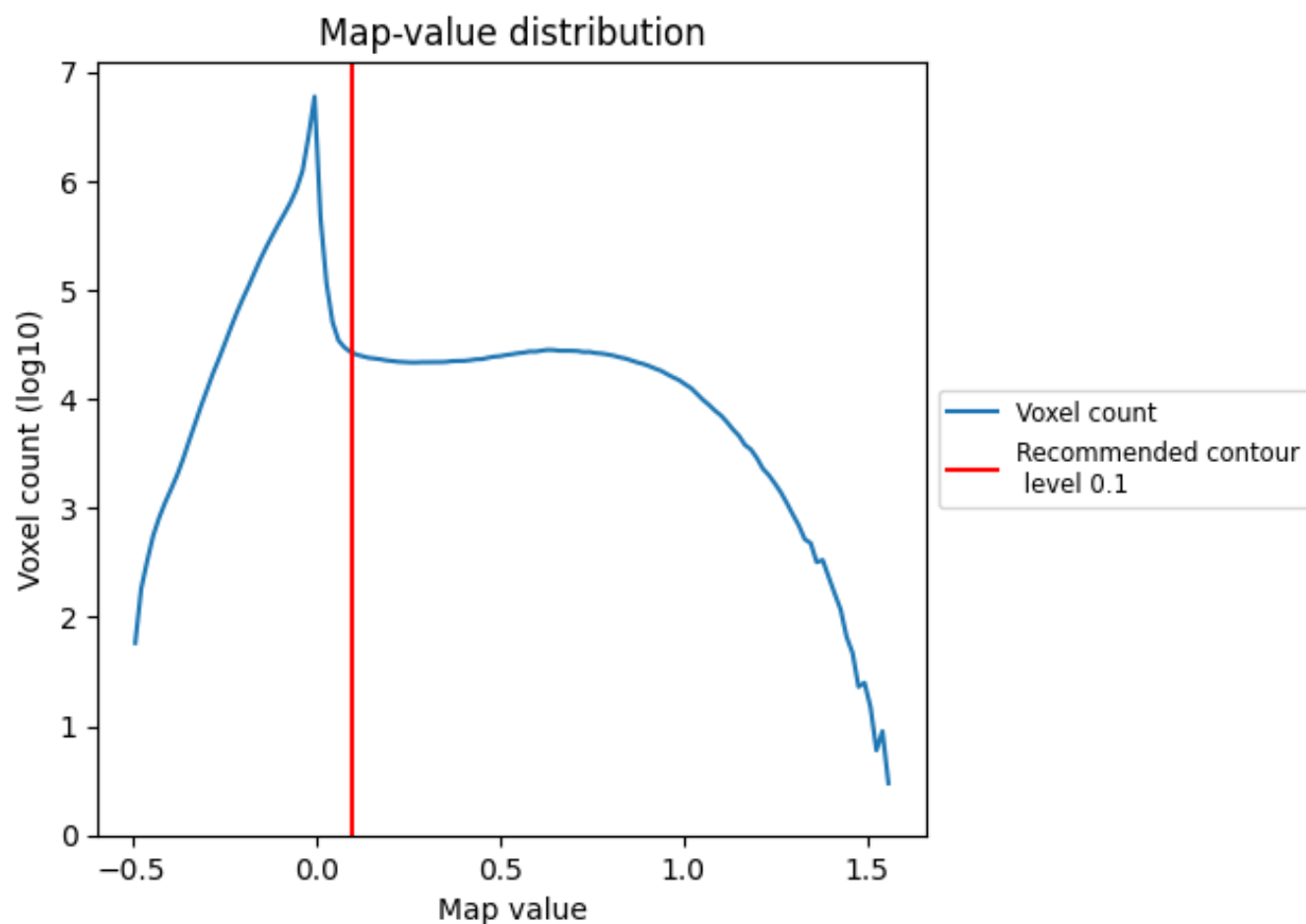
6.6 Mask visualisation

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

7 Map analysis [i](#)

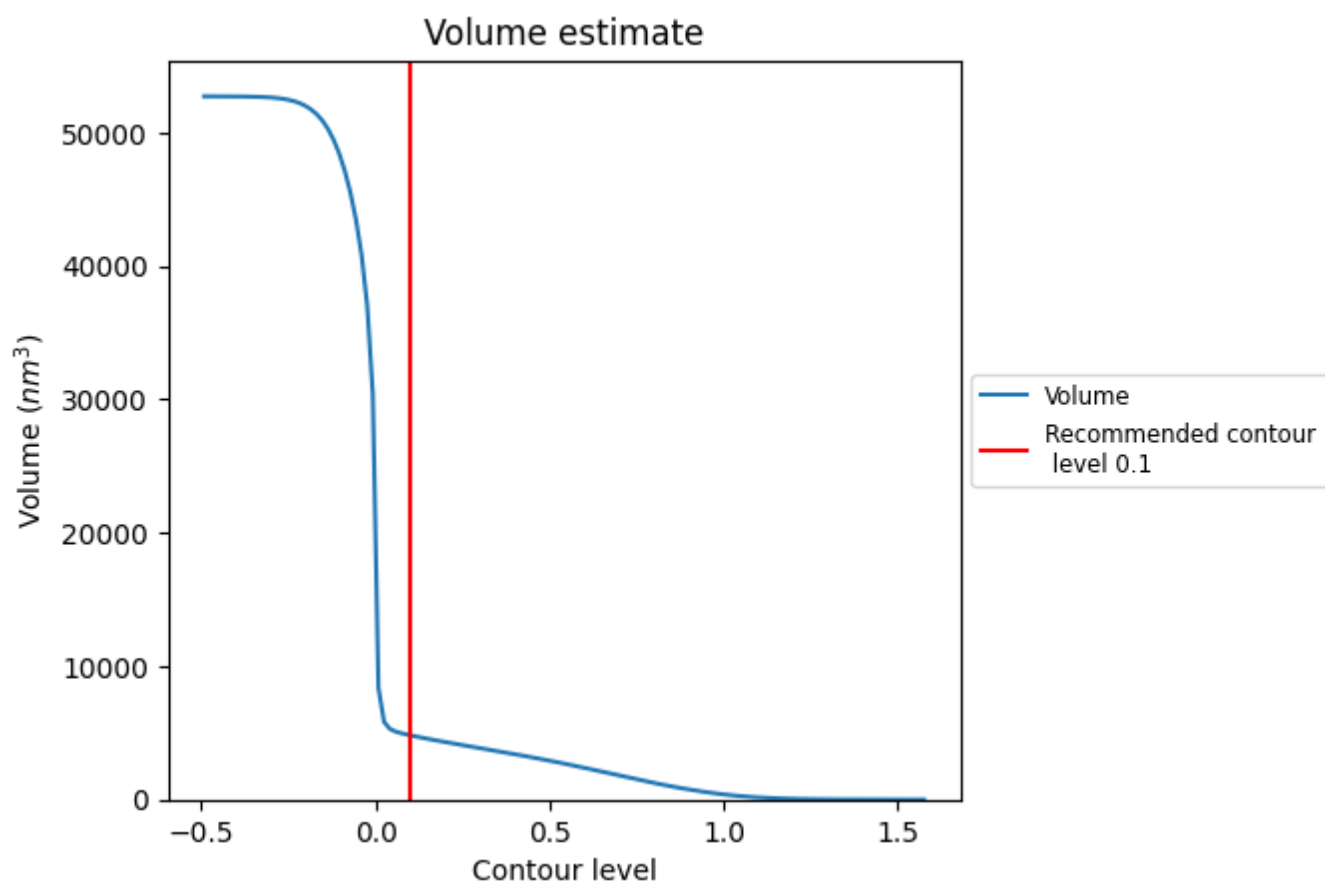
This section contains the results of statistical analysis of the map.

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.

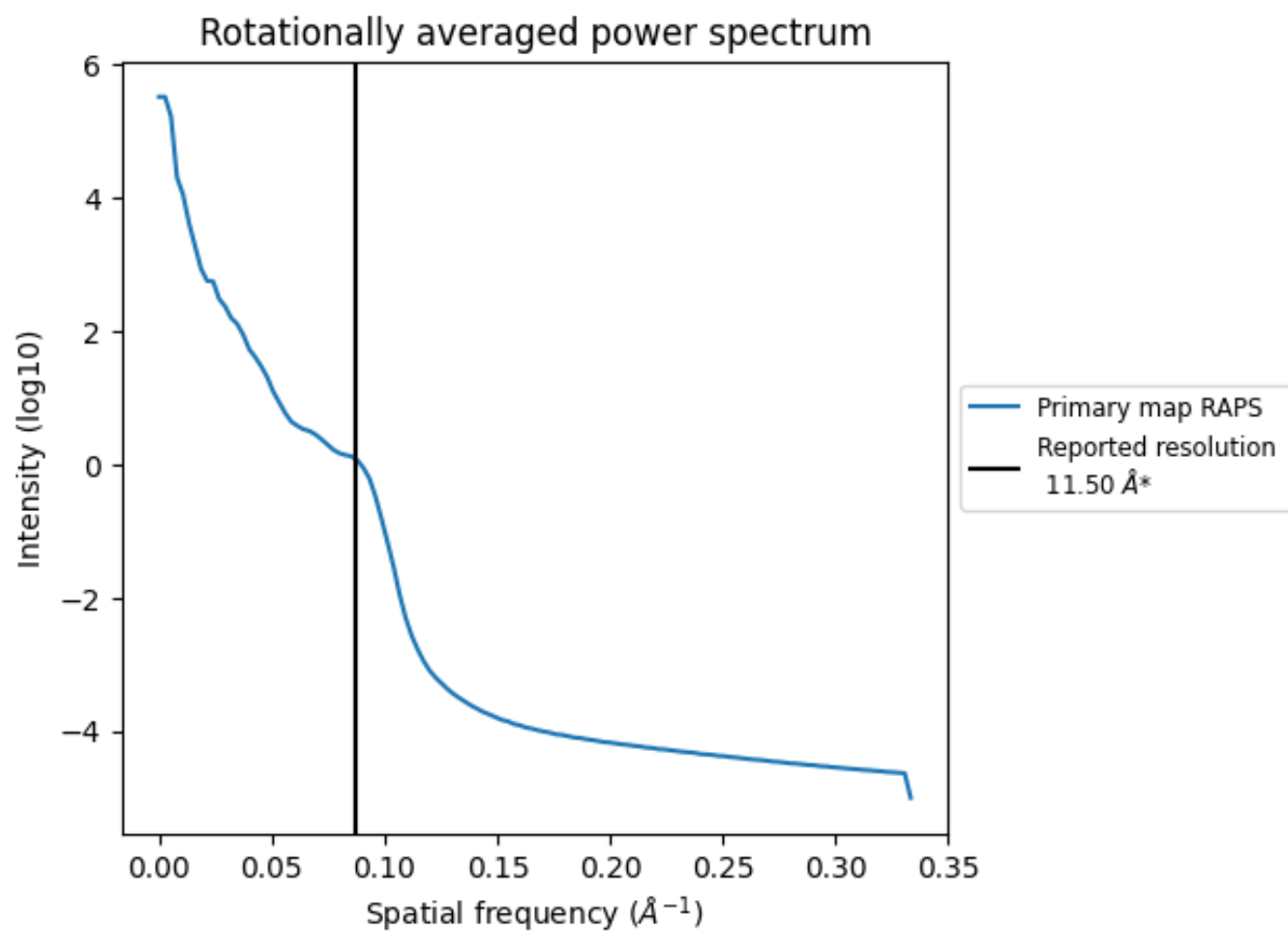
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 4817 nm³; this corresponds to an approximate mass of 4352 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 0.087 Å⁻¹

8 Fourier-Shell correlation

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

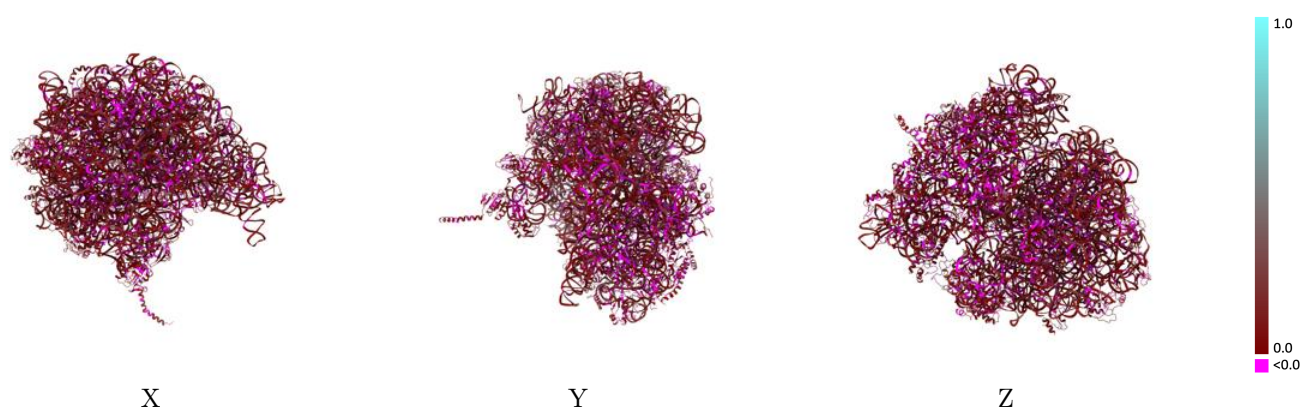
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-5362 and PDB model 4V6R. Per-residue inclusion information can be found in section 3 on page 16.

9.1 Map-model overlay [i](#)

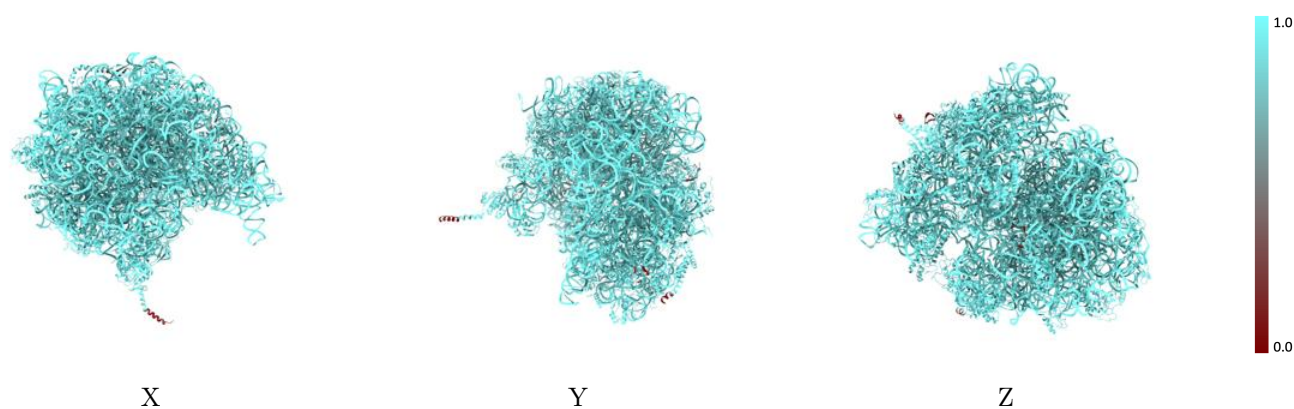
This section was not generated.

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



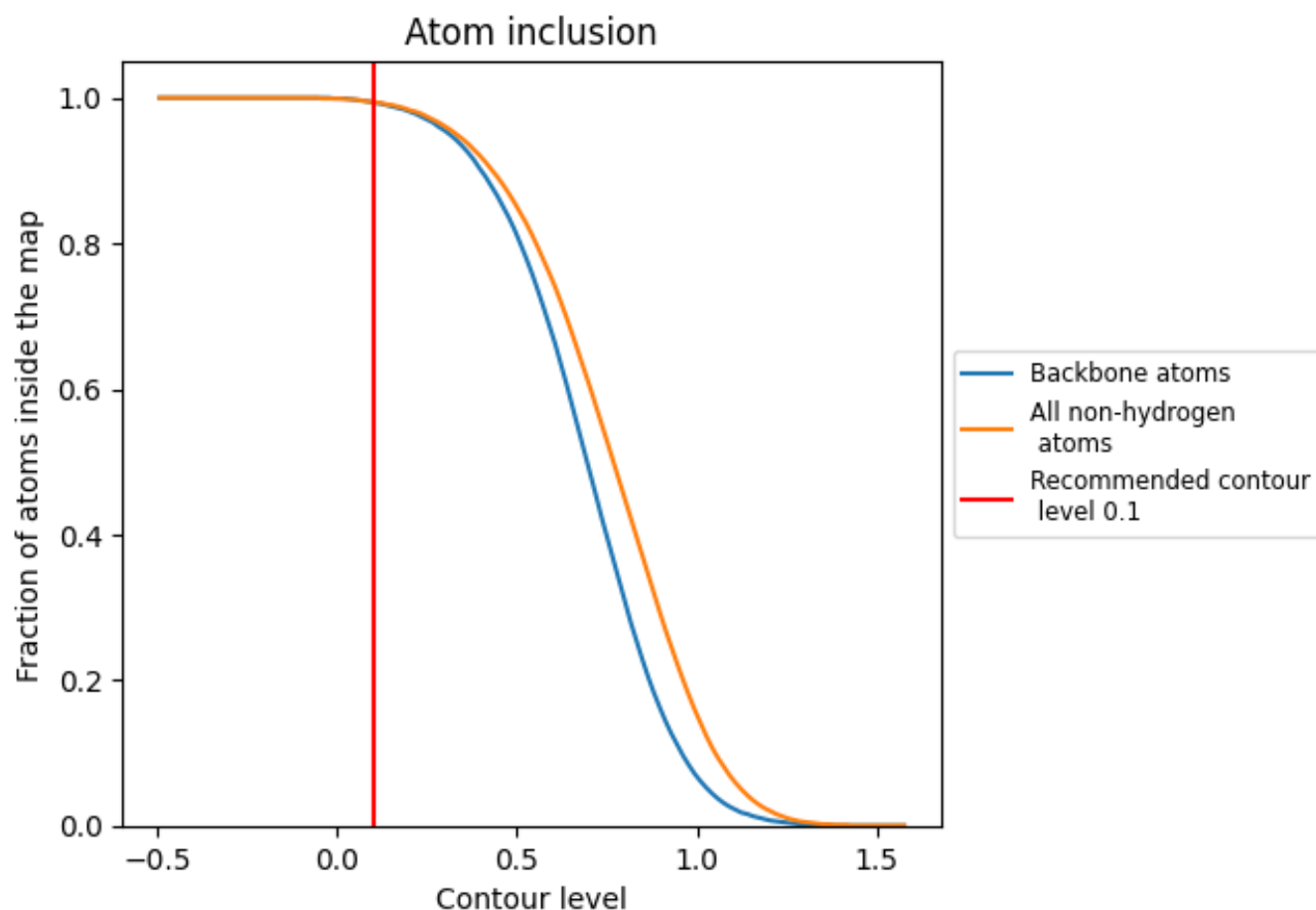
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 [i](#)



At the recommended contour level, 99% of all backbone atoms, 99% 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	 0.9940	 0.0730
AA	 0.9990	 0.0890
AB	 0.9640	 0.0680
AC	 0.8950	 0.0140
AD	 0.9890	 0.0900
AE	 0.9460	 0.0440
AF	 0.9980	 0.0620
AG	 1.0000	 0.0410
AH	 0.9790	 0.0420
AI	 0.9770	 0.0440
AJ	 0.9930	 0.0580
AK	 0.9960	 0.0360
AL	 0.9840	 0.0480
AM	 1.0000	 0.0190
AN	 0.9960	 0.0410
AO	 0.9850	 0.0310
AP	 0.9850	 0.0460
AQ	 0.9960	 0.0380
AR	 1.0000	 0.0560
AS	 1.0000	 0.0230
AT	 1.0000	 0.0420
AU	 1.0000	 0.0380
AV	 0.9610	 0.0280
AW	 1.0000	 0.0430
AX	 1.0000	 0.0360
B0	 1.0000	 0.0200
B1	 0.9980	 0.0540
B2	 0.9670	 0.0250
B3	 1.0000	 0.0320
B4	 1.0000	 0.0530
B5	 1.0000	 -0.0070
B6	 1.0000	 -0.0070
B7	 1.0000	 0.0400
BA	 1.0000	 0.0990
BB	 1.0000	 0.0910



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Chain	Atom inclusion	Q-score
BC	 0.9690	 0.0360
BD	 1.0000	 0.0220
BE	 0.9970	 0.0200
BF	 0.9990	 0.0620
BG	 0.9950	 0.0600
BH	 0.9950	 0.0250
BI	 0.9100	 0.0260
BJ	 0.8810	 0.0570
BK	 0.9750	 0.0420
BL	 1.0000	 0.0300
BM	 0.9910	 0.0580
BN	 1.0000	 0.0250
BO	 1.0000	 0.0430
BP	 1.0000	 0.0240
BQ	 0.9930	 0.0530
BR	 0.9900	 0.0190
BS	 0.9950	 0.0210
BT	 1.0000	 0.0630
BU	 0.9990	 0.0110
BV	 0.9960	 0.0250
BW	 0.9990	 0.0530
BX	 0.9990	 0.0620
BY	 0.9950	 0.0290
BZ	 1.0000	 0.0290